

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	307
4	EPA ID No.	NYD080469935
5	Facility Name	Norlite Corp.
6	Facility Location	
7	City	Cohoes
8	State	NY
9	Unit ID Name/No.	Kiln # 1
10	Other Sister Facilities	Kiln # 2 (ID No. 479)
11	Number of Sister Facilities	1
12	Combustor Class	Lightweight Aggregate Kiln (LWAK)
13	Combustor Type	
	Combustor Characteristics	Kiln #1 manufactured by Traylor is 175 ft long, Kiln #2 manufactured by Allis Chalmers is 180 ft long. Both kilns have an OD of 11 ft, and consist of steel shell lined with a 6" refractory brick giving an ID of 10 ft. The flame zone extends 30 ft from burner end of the kiln. The flame zone gas temperatures are maintained at 2000-3500°F.
14		
15	Capacity (MMBtu/hr)	62.5
16	Soot Blowing	
17	APCS Detailed Acronym	HE/MC/FF/VS/ME
18	APCS General Class	HE, C, FF, HEWS
	APCS Characteristics	Heat exchanger, Multiclone, fabric filter, venturi scrubber (fixed throat), mist eliminator
19		
20	Hazardous Wastes	Liq, solid
21	Haz Waste Description	Liquid low grade fuels (LLGF), Solid low grade fuel (SLGF). SLGF was not fed for Risk burn phase II. The raw material was shale
22	Supplemental Fuel	Oil, natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	4.0
26	Height (ft)	120
27	Gas Velocity (ft/sec)	19.9
28	Gas Temperature (°F)	138
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	307C10	
4		
5	Report Name/Date	RCRA Trial Burn Report for Light-Weight Aggregate Kilns 1 and 2, Aug 1999
6	Report Preparation	ENSR
7	Testing Firm	ENSR/Blue Ridge
8	Testing Dates	April 28, 1999
9	Cond Dates	Apr-99
10	Condition Descr	Trial Burn, Minimum operating temperature
11	Content	PM, HCl/Cl ₂ , CO, HC, SVOC, VOC, D/F
12		
13	307C11	
14		
15	Report Name/Date	RCRA Trial Burn Report for Light-Weight Aggregate Kilns 1 and 2, Aug 1999
16	Report Preparation	ENSR
17	Testing Firm	ENSR/Blue Ridge
18	Testing Dates	April 29-30, 1999
19	Cond Dates	Apr-99
20	Condition Descr	Trial Burn, elevated operating temperature, metals spiking
21	Content	PM, HCl/Cl ₂ , CO, HC, SVOC, VOC, D/F, Metals
22		
23	307C12	
24		
25	Report Name/Date	Risk Burn Final Report for Light-Weight Aggregate Kilns 1 and 2, Aug 2000
26	Report Preparation	ENSR
27	Testing Firm	ENSR/Blue Ridge
28	Testing Dates	May 22-26, 2000
29	Cond Dates	May-00
30	Condition Descr	Risk Burn, elevated waste feed rates, maximum temperature, minimum scrubber pH
31	Content	CO, HC, D/F, Metals
32		
33	307C13	
34		
35	Report Name/Date	Risk Burn-Phase 2 Final Report for Light-Weight Aggregate Kilns 1 and 2, Sept 2001
36	Report Preparation	ENSR
37	Testing Firm	ENSR/Blue Ridge
38	Testing Dates	July 24-25, 2001
39	Cond Dates	Jul-01
40	Condition Descr	Risk Burn, metal feeds equiv. to Jan '97 permit
41	Content	D/F, Metals
42		
43	307C14	
44		
45	Report Name/Date	Risk Burn-Phase 2 Final Report for Light-Weight Aggregate Kilns 1 and 2, Sept 2001
46	Report Preparation	ENSR
47	Testing Firm	ENSR/Blue Ridge
48	Testing Dates	July 26, 2001
49	Cond Dates	Jul-01
50	Condition Descr	Risk Burn, metal feeds equiv. to June '01 permit
51	Content	D/F, Metals
52		
53	307C15	
54		
55	Report Name/Date	Risk Burn-Phase 2 Final Report for Light-Weight Aggregate Kilns 1 and 2, Sept 2001
56	Report Preparation	ENSR
57	Testing Firm	ENSR/Blue Ridge
58	Testing Dates	July 23-24, 2001
59	Cond Dates	Jul-01
60	Condition Descr	Risk Burn, lower FF temp
61	Content	D/F, Metals
62		
63	307C1	
64		
65	Report Name/Date	Final Trial Burn Report for Light Weight Aggregate Kiln Process Utilizing Low Grade Fuels, Norlite Corporation, Cohoes, New York, Prepared by ENSR, Document Number 9514-016-500, December 1992

	B	C
66	Report Prepare	ENSR
67	Testing Firm	ENSR
68	Cond Descr	CoC, LOW COMB TEMP, LOW HALOGEN FEED
69	Testing Dates	
70	Cond Dates	Dec-92
71		
72	307C2	
73		
	Report Name/Date	Final Trial Burn Report for Light Weight Aggregate Kiln Process Utilizing Low Grade Fuels, Norlite Corporation, Cohoes, New York, Prepared by ENSR, Document Number 9514-016-500, December 1992
74		
75	Report Prepare	ENSR
76	Testing Firm	ENSR
77	Cond Descr	CoC, HIGH COMB TEMP, HIGH HALOGEN FEED
78	Testing Dates	
79	Cond Dates	Dec-92
80		
81	307C3	
82		
	Report Name/Date	Final Trial Burn Report for Light Weight Aggregate Kiln Process Utilizing Low Grade Fuels, Norlite Corporation, Cohoes, New York, Prepared by ENSR, Document Number 9514-016-500, December 1992
83		
84	Report Prepare	ENSR
85	Testing Firm	ENSR
86	Cond Descr	CoC, LOW COMB TEMP, HIGH HALOGEN FEED, HIGH SHW FEED
87	Testing Dates	
88	Cond Dates	Dec-92
89		
90	307C4	
91		
	Report Name/Date	Final Trial Burn Report for Light Weight Aggregate Kiln Process Utilizing Low Grade Fuels, Norlite Corporation, Cohoes, New York, Prepared by ENSR, Document Number 9514-016-500, December 1992
92		
93	Report Prepare	ENSR
94	Testing Firm	ENSR
95	Cond Descr	CoC, HIGH COMB TEMP, HIGH HALOGEN FEED, HIGH SHW FEED
96	Testing Dates	
97	Cond Dates	Dec-92

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 1											
2												
3												
4	307C10	Trial Burn				R1		R2		R3		Cond Avg
5												
6												
7	PM	E1	gr/dscf	y		0.0111		0.0031		0.0082		0.0075
8	CO (RA)	E1	ppmv	y		36.8		38.3		40.8		39
9	HC (RA)	E1	ppmv	y		1.4		0.8		1.1		1.1
10	HCl	E1	ppmv	y		90.2		144.3		112.9		116
11	Cl2	E1	ppmv	y		0.35		0.36		0.33		0.35
12	Total Chlorine	E1	ppmv	y		90.9		145.0		113.6		116.5
13												
14												
15	POHC DRE		Carbon tetrachloride									
16	POHC Feedrate		lb/hr			117.4		117.4		117.4		117
17	Emission Rate	E2	lb/hr		nd	1.2E-04	nd	1.8E-04	nd	1.7E-04		1.550E-04
18	DRE	E2	%			99.999899		99.999847		99.999858		
19												
20	POHC DRE		Tetrachloroethane									
21	POHC Feedrate		lb/hr			117.4		117.4		117.4		117
22	Emission Rate	E2	lb/hr		nd	1.8E-04	nd	1.8E-04	nd	1.5E-04		1.715E-04
23	DRE	E2	%			99.999846		99.999843		99.999872		
24												
25	POHC DRE		Chlorobenzene									
26	POHC Feedrate		lb/hr			117.4		117.4		117.4		117
27	Emission Rate		lb/hr			6.6E-04		7.6E-04		6.6E-04		6.920E-04
28	DRE		%			99.999441		99.999352		99.999439		
29												
30												
31												
32	Sampling Train		PM, IE1									
33	Stack Gas Flowrate		dscfm			29612		28575		29102		29096
34	O2		%			14.2		14.3		14.4		14.3
35	Moisture		%			18.0		19.0		18.1		18.4
36	Temperature		°F			138.0		140.0		138.0		138.7
37												
38	Sampling Train		D/F E2									
39	Stack Gas Flowrate		dscfm			31310		31177		30480		30989
40	O2		%			14.2		14.3		14.4		14.3
41	Moisture		%			16.4		16.1		16.4		16.3
42	Temperature		°F									
43												
44	307C11	Trial Burn				R1		R2		R3		Cond Avg
45												
46												
47	PM	E1	gr/dscf	y		0.0077		0.0131		0.0135		0.0114
48	CO (RA)	E1	ppmv	y		42.5		41.8		42.9		42
49	HC (RA)	E1	ppmv	y								
50	HCl	E1	ppmv	y		29.3		39.0		35.8		35
51	Cl2	E1	ppmv	y		0.10		0.08		0.10		0.09
52	Total Chlorine	E1	ppmv	y		29.5		39.2		36.0		34.9
53												
54												
55	Arsenic		lb/hr			5.86E-05		1.03E-04		8.06E-05		
56	Antimony		lb/hr			4.69E-05		3.08E-05		2.00E-05		
57	Barium		lb/hr			3.59E-04		3.12E-04		1.50E-04		
58	Beryllium		lb/hr		nd	3.91E-06	nd	3.80E-06	nd	3.84E-06		
59	Cadmium		lb/hr			3.63E-04		1.33E-04		1.19E-04		
60	Chromium		lb/hr			4.24E-03		1.77E-03		6.37E-04		
61	Chromium (Hex)		lb/hr		nd	1.60E-04	nd	1.60E-04	nd	1.70E-04		
62	Copper		lb/hr			1.02E-03		6.16E-04		3.53E-04		
63	Lead		lb/hr			3.40E-04		1.37E-04		1.19E-04		
64	Mercury		lb/hr			5.19E-02		7.50E-02		4.33E-02		
65	Nickel		lb/hr			3.86E-03		1.78E-03		6.07E-04		
66	Selenium		lb/hr			7.03E-05		1.83E-04		3.46E-05		
67	Silver		lb/hr			4.69E-05		1.71E-05		1.27E-05		
68	Thallium		lb/hr			1.95E-05		1.90E-05		1.92E-05		
69	Zinc		lb/hr			4.66E-02		6.06E-02		7.27E-02		
70												
71	Sampling Train		PM, IE1									

	B	C	D	E	F	G	H	I	J	K	L	M
72	Stack Gas Flowrate		dscfm			35625		35020		34309		34985
73	O2		%			15.2		15.1		15.1		15.2
74	Moisture		%			16.3		16.4		17.1		16.6
75	Temperature		°F			134		134		135		134
76												
77	Sampling Train	D/F	E2									
78	Stack Gas Flowrate		dscfm			34464		33956		33847		34089
79	O2		%			15.2		15.1		15.1		15.2
80	Moisture		%			17		17.5		17.4		17.3
81	Temperature		°F									
82												
83	Sampling Train		Meta E3									
84	Stack Gas Flowrate		dscfm			35870		33752		33665		34429
85	O2		%			15.2		15.1		15.1		15.2
86	Moisture		%			15.8		16.8		16.7		16.4
87	Temperature		°F									
88												
89	Arsenic	E3	ug/dscm	y		1.05		1.95		1.53		1.5
90	Antimony	E3	ug/dscm	y		0.84		0.58		0.38		0.6
91	Barium	E3	ug/dscm	y		6.46		5.90		2.84		5.1
92	Beryllium	E3	ug/dscm	y	nd	0.07	nd	0.07	nd	0.07	100	0.1
93	Cadmium	E3	ug/dscm	y		6.53		2.52		2.25		3.8
94	Chromium	E3	ug/dscm	y		76.29		33.50		12.07		40.6
95	Chromium (Hex)	E3	ug/dscm	y	nd	2.88	nd	3.03	nd	3.22	100	3.0
96	Copper	E3	ug/dscm	y		18.352		11.658		6.687		12.2
97	Lead	E3	ug/dscm	y		6.12		2.59		2.25		3.7
98	Mercury	E3	ug/dscm	y		934		1419		820		1057.8
99	Nickel	E3	ug/dscm	y		69.5		33.7		11.5		38.2
100	Selenium	E3	ug/dscm	y		1.265		3.463		0.655		1.8
101	Silver	E3	ug/dscm	y		0.84		0.32		0.24		0.5
102	Thallium	E3	ug/dscm	y	nd	0.35	nd	0.36	nd	0.36	100	0.4
103	Zinc	E3	ug/dscm	y		838		1147		1377		1120.8
104												
105	SVM	E3	ug/dscm	y		12.65		5.11		4.51		7.4
106	LVM	E3	ug/dscm	y		77.41		35.52		13.67		42.2
107												
108												
109	307C12		Risk Burn			R1		R2		R3		Cond Avg
110												
111												
112	CO (RA)		ppmv	y		46.9		42.8		48.8		46
113	HC (RA)		ppmv	y		2.33		0.57		1.12		1.3
114												
115	Arsenic		lb/hr			3.03E-05		1.37E-05		3.18E-05		
116	Antimony		lb/hr			2.16E-05	nd	2.04E-05	nd	1.99E-05		
117	Barium		lb/hr			1.01E-04		6.57E-05		9.24E-05		
118	Beryllium		lb/hr		nd	5.13E-06	nd	5.09E-06	nd	4.97E-06		
119	Cadmium		lb/hr			1.46E-04		1.55E-04		1.13E-04		
120	Chromium		lb/hr			1.51E-04		1.88E-04		7.65E-05		
121	Copper		lb/hr			6.57E-04		6.31E-04		3.42E-04		
122	Lead		lb/hr			8.22E-05		7.08E-05		5.71E-05		
123	Mercury		lb/hr			1.83E-03		1.77E-03		1.67E-03		
124	Nickel		lb/hr			4.71E-03	nd	5.04E-04		1.54E-04		
125	Selenium		lb/hr			1.26E-04		3.32E-04		1.38E-04		
126	Silver		lb/hr			3.25E-04	nd	1.71E-04	nd	1.47E-04		
127	Thallium		lb/hr		nd	2.57E-05	nd	2.55E-05	nd	2.48E-05		
128	Zinc		lb/hr			5.09E-03		2.21E-03		3.41E-03		
129												
130	Mercury-Particle bound (O/H)		lb/hr			5.72E-04		4.62E-04		5.51E-04		
131	Mercury-Oxidized (O/H)		lb/hr			1.25E-03		9.45E-04		7.79E-04		
132	Mercury-Elemental (O/H)		lb/hr			7.80E-04		6.93E-04		5.51E-04		
133	Mercury-Total (O/H)		lb/hr			2.60E-03		2.10E-03		1.90E-03		
134												
135	Sampling Train	D/F	E1									
136	Stack Gas Flowrate		dscfm			32788		33027		31447		32421
137	O2		%			14.5		14.0		14.0		14.2
138	Moisture		%			18.5		18.5		21		19.3
139	Temperature		°F									
140												
141	Sampling Train		Meta E2									
142	Stack Gas Flowrate		dscfm			32681		32015		29193		31296

	B	C	D	E	F	G	H	I	J	K	L	M
143	O2		%			14.5		14.0		14.0		14.2
144	Moisture		%			17.7		18.2		20.4		18.8
145	Temperature		°F			137		139		145		140.3
146												
147												
148	Arsenic	E2	ug/dscm	y		0.53		0.23		0.58		0.4
149	Antimony	E2	ug/dscm	y		0.38	nd	0.34	nd	0.36	100	0.4
150	Barium	E2	ug/dscm	y		1.78		1.10		1.69		1.5
151	Beryllium	E2	ug/dscm	y	nd	0.09	nd	0.09	nd	0.09	100	0.1
152	Cadmium	E2	ug/dscm	y		2.57		2.59		2.07		2.4
153	Chromium	E2	ug/dscm	y		2.66		3.14		1.40		2.4
154	Copper	E2	ug/dscm	y		11.58		10.54		6.26		9.5
155	Lead	E2	ug/dscm	y		1.45		1.18		1.05		1.2
156	Mercury	E2	ug/dscm	y		32.25		29.56		30.59		30.8
157	Nickel	E2	ug/dscm	y		83.00	nd	8.42		2.82		31.4
158	Selenium	E2	ug/dscm	y		2.22		5.55		2.53		3.4
159	Silver	E2	ug/dscm	y		5.73	nd	2.86	nd	2.69		3.8
160	Thallium	E2	ug/dscm	y	nd	0.45	nd	0.43	nd	0.45	100	0.4
161	Zinc	E2	ug/dscm	y		89.7		36.9		62.5		63.0
162												
163	SVM	E2	ug/dscm	y		4.02		3.77		3.12		3.6
164	LVM	E2	ug/dscm	y		3.29		3.45		2.07		2.9
165												
166	Mercury-Particle bound (O/H)		ug/dscm			10.1		7.7		10.1		
167	Mercury-Oxidized (O/H)		ug/dscm			22.0		15.8		14.3		
168	Mercury-Elemental (O/H)		ug/dscm			13.7		11.6		10.1		
169	Mercury-Total (O/H)		ug/dscm			45.8		35.1		34.8		38.6
170												
171												
172	307C13		Risk Burn			R1		R2		R3		Cond Avg
173												
174												
175												
176	Arsenic		lb/hr			3.60E-05		5.55E-05		5.55E-05		
177	Antimony		lb/hr		nd	1.92E-05	nd	1.93E-05	nd	1.93E-05		
178	Barium		lb/hr			5.76E-05		4.83E-05		5.79E-05		
179	Beryllium		lb/hr		nd	4.80E-06	nd	4.83E-06	nd	4.83E-06		
180	Cadmium		lb/hr			1.87E-05		2.51E-05		1.40E-05		
181	Chromium		lb/hr			7.20E-05		3.38E-05		6.28E-05		
182	Copper		lb/hr			2.45E-04		1.45E-04		1.93E-04		
183	Lead		lb/hr			3.55E-05		2.70E-05		3.57E-05		
184	Mercury		lb/hr			1.35E-03		8.46E-04		1.03E-03		
185	Nickel		lb/hr			5.31E-04		2.35E-04		1.26E-03		
186	Selenium		lb/hr		nd	2.40E-05	nd	2.41E-05	nd	2.41E-05		
187	Silver		lb/hr			1.15E-05	nd	9.66E-06	nd	9.65E-06		
188	Thallium		lb/hr		nd	2.40E-05	nd	2.41E-05	nd	2.41E-05		
189	Zinc		lb/hr			1.54E-03		1.07E-03		8.25E-04		
190												
191												
192	Sampling Train	D/F	E1									
193	Stack Gas Flowrate		dscfm			34493		35272		35685		35150
194	O2		%			15.3		15.0		14.4		14.9
195	Moisture		%			16.5		15.9		15.6		16.0
196	Temperature		°F									
197												
198	Sampling Train		Meta E2									
199	Stack Gas Flowrate		dscfm			33199		33716		34483		33799
200	O2		%			15.3		15.0		14.4		14.9
201	Moisture		%			17.4		17		16.6		17.0
202	Temperature		°F			138		137		136		137.0
203												
204												
205	Arsenic	E2	ug/dscm	y		0.71		1.03		0.91		0.9
206	Antimony	E2	ug/dscm	y	nd	0.09	nd	0.09	nd	0.08	100	0.1
207	Barium	E2	ug/dscm	y		1.14		0.89		0.95		1.0
208	Beryllium	E2	ug/dscm	y	nd	0.09	nd	0.09	nd	0.08	100	0.1
209	Cadmium	E2	ug/dscm	y		0.37		0.46		0.23		0.4
210	Chromium	E2	ug/dscm	y		1.42		0.63		1.03		1.0
211	Copper	E2	ug/dscm	y		4.85		2.68		3.17		3.6
212	Lead	E2	ug/dscm	y		0.70		0.50		0.59		0.6
213	Mercury	E2	ug/dscm	y		26.70		15.65		16.94		19.8

	B	C	D	E	F	G	H	I	J	K	L	M
214	Nickel	E2	ug/dscm	y		10.50		4.35		20.72		11.9
215	Selenium	E2	ug/dscm	y	nd	0.47	nd	0.45	nd	0.40	100	0.4
216	Silver	E2	ug/dscm	y		0.23	nd	0.18	nd	0.16		0.2
217	Thallium	E2	ug/dscm	y	nd	0.47	nd	0.45	nd	0.40	100	0.4
218	Zinc	E2	ug/dscm	y		30.46		19.80		13.57		21.3
219												
220	SVM	E2	ug/dscm	y		1.07		0.96		0.82		0.95
221	LVM	E2	ug/dscm	y		2.23		1.74		2.03		2.00
222												
223												
224	307C14		Risk Burn			R1		R2		R3		Cond Avg
225												
226												
227												
228	Arsenic		lb/hr			8.99E-05		6.54E-05		5.11E-05		
229	Antimony		lb/hr		nd	1.94E-05	nd	1.94E-05	nd	1.95E-05		
230	Barium		lb/hr			7.78E-05		5.33E-05		3.40E-05		
231	Beryllium		lb/hr		nd	4.86E-06	nd	4.85E-06	nd	4.86E-06		
232	Cadmium		lb/hr			1.85E-05		2.23E-05		1.95E-05		
233	Chromium		lb/hr			7.29E-05		5.33E-05		1.46E-05		
234	Copper		lb/hr			2.04E-04		1.21E-04		4.38E-05		
235	Lead		lb/hr			3.11E-05		4.56E-05		1.85E-05		
236	Mercury		lb/hr			6.85E-04		6.33E-04		6.37E-04		
237	Nickel		lb/hr			2.19E-03		1.65E-03		3.54E-04		
238	Selenium		lb/hr		nd	2.43E-05	nd	2.42E-05	nd	2.43E-05		
239	Silver		lb/hr		nd	9.72E-06	nd	9.69E-06	nd	9.73E-06		
240	Thallium		lb/hr		nd	2.43E-05	nd	2.42E-05	nd	2.43E-05		
241	Zinc		lb/hr			9.77E-04		6.83E-04		1.66E-03		
242												
243												
244	Sampling Train	D/F	E1									
245	Stack Gas Flowrate		dscfm			36193		36459		36754		36469
246	O2		%			14.6		14.3		14.3		14.4
247	Moisture		%			14.7		14.7		14.7		14.7
248	Temperature		°F									
249												
250	Sampling Train		Meta E2									
251	Stack Gas Flowrate		dscfm			34535		34721		34540		34599
252	O2		%			14.6		14.3		14.4		14.4
253	Moisture		%			16.2		16.2		15.8		16.1
254	Temperature		°F			135		134		133		134.0
255												
256												
257	Arsenic	E2	ug/dscm	y		1.52		1.05		0.84		1.1
258	Antimony	E2	ug/dscm	y	nd	0.33	nd	0.31	nd	0.32	100	0.3
259	Barium	E2	ug/dscm	y		1.32		0.86		0.56		0.9
260	Beryllium	E2	ug/dscm	y	nd	0.08	nd	0.08	nd	0.08	100	0.1
261	Cadmium	E2	ug/dscm	y		0.31		0.36		0.32		0.3
262	Chromium	E2	ug/dscm	y		1.23		0.86		0.24		0.8
263	Copper	E2	ug/dscm	y		3.45		1.95		0.72		2.0
264	Lead	E2	ug/dscm	y		0.53		0.73		0.30		0.5
265	Mercury	E2	ug/dscm	y		11.60		10.19		10.46		10.7
266	Nickel	E2	ug/dscm	y		37.09		26.55		5.81		23.2
267	Selenium	E2	ug/dscm	y	nd	0.41	nd	0.39	nd	0.40	100	0.4
268	Silver	E2	ug/dscm	y	nd	0.16	nd	0.16	nd	0.16	100	0.2
269	Thallium	E2	ug/dscm	y	nd	0.41	nd	0.39	nd	0.40	100	0.4
270	Zinc	E2	ug/dscm	y		16.55		10.99		27.26		18.3
271												
272	SVM	E2	ug/dscm	y		0.84		1.09		0.62		0.85
273	LVM	E2	ug/dscm	y		2.84		1.99		1.16		2.00
274												
275												
276	307C15		Risk Burn			R1		R2		R3		Cond Avg
277												
278												
279												
280	Arsenic		lb/hr			6.04E-05		5.08E-05		5.58E-05		
281	Antimony		lb/hr		nd	1.93E-05		2.81E-05	nd	1.94E-05		
282	Barium		lb/hr			7.72E-05		1.16E-04		1.16E-04		
283	Beryllium		lb/hr		nd	4.83E-06	nd	4.84E-06	nd	4.85E-06		
284	Cadmium		lb/hr			3.38E-05		3.97E-05		1.26E-04		

	B	C	D	E	F	G	H	I	J	K	L	M
285	Chromium		lb/hr			3.38E-05		1.31E-04		8.25E-05		
286	Copper		lb/hr			2.90E-04		2.66E-04		3.25E-04		
287	Lead		lb/hr			8.40E-05		6.97E-05		6.02E-05		
288	Mercury		lb/hr			5.04E-04		9.83E-04		1.09E-03		
289	Nickel		lb/hr			2.30E-04		4.88E-04		6.83E-04		
290	Selenium		lb/hr		nd	2.41E-05	nd	2.42E-05	nd	2.43E-05		
291	Silver		lb/hr		nd	9.66E-06	nd	9.68E-06	nd	9.71E-06		
292	Thallium		lb/hr		nd	2.41E-05	nd	2.42E-05	nd	2.43E-05		
293	Zinc		lb/hr			1.69E-03		1.41E-03		1.12E-03		
294												
295												
296	Sampling Train	D/F	E1									
297	Stack Gas Flowrate		dscfm			35259		34982		36106		35449
298	O2		%			15.2		14.9		15.2		15.1
299	Moisture		%			15.1		15.1		15.4		15.2
300	Temperature		°F									
301												
302	Sampling Train		Meta E2									
303	Stack Gas Flowrate		dscfm			34840		34814		34525		34726
304	O2		%			15.20		14.90		15.20		15.1
305	Moisture		%			15.7		15.8		16.6		16.0
306	Temperature		°F			135		137		137		136.3
307												
308												
309	Arsenic	E2	ug/dscm	y		1.12		0.90		1.04		1.0
310	Antimony	E2	ug/dscm	y		0.36		0.50		0.36		0.4
311	Barium	E2	ug/dscm	y		1.43		2.04		2.17		1.9
312	Beryllium	E2	ug/dscm	y		0.09		0.09		0.09		0.1
313	Cadmium	E2	ug/dscm	y		0.63		0.70		2.36		1.2
314	Chromium	E2	ug/dscm	y		0.63		2.31		1.54		1.5
315	Copper	E2	ug/dscm	y		5.37		4.69		6.08		5.4
316	Lead	E2	ug/dscm	y		1.56		1.23		1.13		1.3
317	Mercury	E2	ug/dscm	y		9.34		17.33		20.38		15.7
318	Nickel	E2	ug/dscm	y		4.26		8.60		12.77		8.5
319	Selenium	E2	ug/dscm	y		0.45		0.43		0.45		0.4
320	Silver	E2	ug/dscm	y		0.18		0.17		0.18		0.2
321	Thallium	E2	ug/dscm	y		0.45		0.43		0.45		0.4
322	Zinc	E2	ug/dscm	y		31.31		24.85		20.94		25.7
323												
324	SVM	E2	ug/dscm	y		2.18		1.93		3.48		2.53
325	LVM	E2	ug/dscm	y		1.83		3.29		2.68		2.60

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1	Stack Gas Emissions 2															
2																
3																
4	307C1					R1	R2	R3	R4	Cond Avg						
5																
6	PM	E1	gr/dscf	y		0.0085	0.0076	0.0117	0.0060	0.00845						
7	CO (RA)	E1	ppmv	y		51.25	43.27	48.46	40.22	45.80						
8	HCl	E1	ppmv	y		26.83	18.97	97.48	17.73	40.25						
9	Cl2	E1	ppmv	y		0.35	1.63	0.31	2.34	1.16						
10	Total Chlorine	E1	ppmv	y		27.54	22.24	98.10	22.41	42.57						
11	Antimony	E2	ug/dscm	y		9.51	10.69	4.31	6.62	7.78						
12	Arsenic	E2	ug/dscm	y		2.11	nd	0.76	nd	0.54	nd	0.51	0.98			
13	Barium	E2	ug/dscm	y	nd	3.17	nd	3.05	nd	3.23	nd	3.05	100	3.13		
14	Beryllium	E2	ug/dscm	y	nd	0.26	nd	0.25	nd	0.27	nd	0.25	100	0.26		
15	Cadmium	E2	ug/dscm	y		11.62	5.60	5.65	6.87	7.44						
16	Chromium	E2	ug/dscm	y		20.60	162.15	26.12	22.15	57.75						
17	Chromium (Hex)	E3	ug/dscm	y		0.65	0.40	0.45	nd	0.15	0.41					
18	Lead	E2	ug/dscm	y		3.43	4.33	1.62	1.78	2.79						
19	Mercury	E2	ug/dscm	y		456.98	455.64	449.62	323.27	421.38						
20	Nickel	E2	ug/dscm	y		6.34	133.38	nd	3.23	nd	3.05	36.50				
21	Selenium	E2	ug/dscm	y	nd	0.53	nd	0.48	nd	0.54	nd	0.51	100	0.51		
22	Silver	E2	ug/dscm	y	nd	0.79	nd	0.76	nd	0.81	nd	0.76	100	0.78		
23	Thallium	E2	ug/dscm	y		0.79	nd	0.51	nd	0.54	nd	0.51	100	0.59		
24	SVM	E2	ug/dscm	y		15.06	9.93	7.27	8.65	10.23						
25	LVM	E2	ug/dscm	y		22.98	163.16	26.92	22.91	58.99						
26																
27	1,1,1-Trichloroethane	E1	%			100	100	100	100							
28	Carbontetrachloride	E1	%			99.9995	100	100	99.9999							
29	Chlorobenzene	E1	%			99.9986	99.9982	99.9979	99.9965							
30	Tetrachloroethene	E1	%			99.9982	99.9978	99.9978	99.9973							
31																
32	Sampling Train	Halogens	E1													
33	Stack Gas Flowrate	dscfm				35805	36484	35545	36245							
34	O2	%				15.7	15.5	15.8	15.5							
35	Moisture	%				15.2	14.1	15.5	16							
36	Temperature	°F				138	138	137	139							
37																
38	Sampling Train	Metals	E2													
39	Stack Gas Flowrate	dscfm				36865	36495	36488	36004							
40	O2	%				15.7	15.5	15.8	15.5							
41	Moisture	%														
42	Temperature	°F														
43																
44	Sampling Train	Cr Hex	E3													
45	Stack Gas Flowrate	dscfm				35389	34305	34302	34940							
46	O2	%				15.7	15.5	15.8	15.5							
47	Moisture	%				15.7	15.9	15.8	15.9							
48	Temperature	°F				136	136	137	137							
49																
50	307C2					R1	R2	R3	R4	Cond Avg						
51																
52	PM	E1	gr/dscf	y		0.0112	0.0082	0.0058	0.0157	0.0102						
53	CO (RA)	E1	ppmv	y		48.20	43.45	43.45	51.00	46.52						
54	HCl	E1	ppmv	y		21.23	32.87	28.20	20.29	25.65						
55	Cl2	E1	ppmv	y		0.84	0.21	0.40	0.24	0.42						
56	Total Chlorine	E1	ppmv	y		22.90	33.30	28.99	20.77	26.49						
57	Antimony	E2	ug/dscm	y		3.44	3.86	4.10	1.50	3.23						
58	Arsenic	E2	ug/dscm	y	nd	0.23	nd	0.24	nd	0.24	nd	0.25	100	0.24		
59	Barium	E2	ug/dscm	y		2.52	nd	1.45	2.90	1.75	2.15					
60	Beryllium	E2	ug/dscm	y	nd	0.23	nd	0.24	nd	0.24	nd	0.25	100	0.24		
61	Cadmium	E2	ug/dscm	y		4.13	8.45	2.90	4.50	4.99						
62	Chromium	E2	ug/dscm	y		8.95	738.62	27.28	35.75	202.65 R2 outlier						
63	Chromium (Hex)	E3	ug/dscm	y	nd	0.14			0.26	0.20						
64	Lead	E2	ug/dscm	y		3.90	3.14	1.69	1.25	2.49						
65	Mercury	E2	ug/dscm	y		415.41	403.10	666.21	760.00	561.18						
66	Nickel	E2	ug/dscm	y		43.15	497.24	68.31	81.00	172.42						
67	Selenium	E2	ug/dscm	y		8.26	0.12	nd	0.01	9.75	4.53					
68	Silver	E2	ug/dscm	y		0.92	nd	0.72	nd	0.72	nd	0.75	100	0.78		
69	Thallium	E2	ug/dscm	y		0.46	0.48	0.24	0.25	0.36						
70	SVM	E2	ug/dscm	y		8.03	11.59	4.59	5.75	7.49						
71	LVM	E2	ug/dscm	y		9.41	739.10	27.76	36.25	203.13						

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
72															
73	1,1,1-Trichloroethane	E1	%			100		100		100		100			
74	Carbontetrachloride	E1	%			100		99.9998		99.9999		99.9998			
75	Chlorobenzene	E1	%			99.9994		99.9996		99.9995		99.9994			
76	Tetrachloroethene	E1	%			99.9995		99.9995		99.9996		99.9994			
77															
78	Sampling Train	Halogens	E1												
79	Stack Gas Flowrate		dscfm			38554		37333		35815		36113			
80	O2		%			14.9		15.2		15.2		15.4			
81	Moisture		%			15		14.7		15.3		14			
82	Temperature		°F			133		132		131		129			
83															
84	Sampling Train	Metals	E2												
85	Stack Gas Flowrate		dscfm			37427		37404		37980		38032			
86	O2		%			14.9		15.2		15.2		15.4			
87	Moisture		%												
88	Temperature		°F												
89															
90	Sampling Train	Cr Hex	E3												
91	Stack Gas Flowrate		dscfm			35666						35666			
92	O2		%			14.9						15.4			
93	Moisture		%			14.4						14.7			
94	Temperature		°F			133						131			
95															
96	307C3					R1		R2		R3		R4		Cond Avg	
97															
98	PM	E1	gr/dscf	y		0.01420		0.01300		0.03710		0.02540		0.02243	
99	CO (RA)	E1	ppmv	y		37.33		39.70		41.55		45.07		40.91	
100	HCl	E1	ppmv	y		10.14		14.08		12.46		15.00		12.92	
101	Cl2	E1	ppmv	y		0.34		0.43		0.30		0.33		0.35	
102	Total Chlorine	E1	ppmv	y		10.82		14.95		13.06		15.66		13.62	
103	Antimony	E2	ug/dscm	y		8.17		10.10		11.29		6.37		8.98	
104	Arsenic	E2	ug/dscm	y	nd	0.47	nd	0.46		4.06		5.69		2.67	
105	Barium	E2	ug/dscm	y	nd	2.57	nd	2.75	nd	2.48	nd	2.28	100	2.52	
106	Beryllium	E2	ug/dscm	y	nd	0.23	nd	0.23	nd	0.23	nd	0.23	100	0.23	
107	Cadmium	E2	ug/dscm	y		5.83		1.38		3.39		1.82		3.10	
108	Chromium	E2	ug/dscm	y		154.70		104.89		65.03		111.77		109.10	
109	Chromium (Hex)	E3	ug/dscm	y		0.15		0.37		0.32		0.17		0.25	
110	Lead	E2	ug/dscm	y		1.17		0.92		1.13		1.14		1.09	
111	Mercury	E2	ug/dscm	y		431.67		461.31		483.23		498.54		468.69	
112	Nickel	E2	ug/dscm	y		64.87		51.18		34.77		49.40		50.05	
113	Selenium	E2	ug/dscm	y	nd	0.93	nd	0.44	nd	0.45		0.46	100	0.57	
114	Silver	E2	ug/dscm	y	nd	0.70	nd	0.69	nd	0.68	nd	0.68	100	0.69	
115	Thallium	E2	ug/dscm	y	nd	0.47	nd	0.46	nd	0.45	nd	0.46	100	0.46	
116	SVM	E2	ug/dscm	y		7.00		2.30		4.52		2.96		4.19	
117	LVM	E2	ug/dscm	y		155.40		105.57		69.32		117.69		112.00	
118															
119	1,1,1-Trichloroethane	E1	%			99.9975		99.9999		99.9999		99.9998			
120	Carbontetrachloride	E1	%			99.9993		99.9989		99.999		99.9992			
121	Chlorobenzene	E1	%			99.999		99.9985		99.9988		99.9989			
122	Tetrachloroethene	E1	%			99.9989		99.9986		99.9989		99.9992			
123															
124	Sampling Train	Halogens	E1												
125	Stack Gas Flowrate		dscfm			36795		37117		36145		36532			
126	O2		%			15		14.9		14.8		15			
127	Moisture		%			15.1		16		15.4		16.1			
128	Temperature		°F			135		137		145		136			
129															
130	Sampling Train	Metals	E2												
131	Stack Gas Flowrate		dscfm			37835		37326		37623		37183			
132	O2		%			15		14.9		14.8		14.85			
133	Moisture		%												
134	Temperature		°F												
135															
136	Sampling Train	Cr Hex	E3												
137	Stack Gas Flowrate		dscfm			36122		35959		35313		35352			
138	O2		%			15		14.9		14.8		14.7			
139	Moisture		%			15.6		16.2		15.8		16.5			
140	Temperature		°F			134		137		144		136			
141															
142	307C4					R1		R2		R3		R4		Cond Avg	

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
143															
144	PM	E1	gr/dscf	y		0.0081		0.0059		0.0056				0.00653	
145	CO (RA)	E1	ppmv	y		49.00		48.43		50.75				49.39	
146	HCl	E1	ppmv	y		37.50		29.44		25.70				30.88	
147	Cl2	E1	ppmv	y		0.99		0.26		0.78				0.67	
148	Total Chlorine	E1	ppmv	y		39.48		29.95		27.25				32.23	
149	Antimony	E2	ug/dscm	y		12.97		14.46		6.00				11.14	
150	Arsenic	E2	ug/dscm	y		0.62		0.69		1.50				0.94	
151	Barium	E2	ug/dscm	y	nd	2.47	nd	2.75		0.50				1.91	
152	Beryllium	E2	ug/dscm	y	nd	0.21	nd	0.23	nd	0.25			100	0.23	
153	Cadmium	E2	ug/dscm	y		1.24		1.38		4.25				2.29	
154	Chromium	E2	ug/dscm	y		46.74		52.10		300.00				132.94	run 3 outlier
155	Chromium (Hex)	E3	ug/dscm	y		0.19	nd	0.14		0.23				0.19	
156	Lead	E2	ug/dscm	y		1.44		1.61		1.75				1.60	
157	Mercury	E2	ug/dscm	y		471.47		498.03		510.00				493.17	
158	Nickel	E2	ug/dscm	y		17.71		39.02		128.00				61.57	
159	Selenium	E2	ug/dscm	y	nd	0.41	nd	0.44	nd	0.50			100	0.45	
160	Silver	E2	ug/dscm	y	nd	0.62	nd	0.69	nd	0.75			100	0.69	
161	Thallium	E2	ug/dscm	y	nd	0.41	nd	0.46	nd	0.50			100	0.46	
162	SVM	E2	ug/dscm	y		2.68		2.98		6.00				3.89	
163	LVM	E2	ug/dscm	y		47.56		53.02		301.75				134.11	run 3 outlier
164															
165	Sampling Train	Halogens	E1												
166	Stack Gas Flowrate		dscfm			34212		34135		34178					
167	O2		%			14.2		14.9		15.4					
168	Moisture		%			15.1		14.9		14.5					
169	Temperature		°F			136		135		132					
170															
171	Sampling Train	Metals	E2												
172	Stack Gas Flowrate		dscfm			35170		35535		36136					
173	O2		%			14.2		14.9		15.4					
174	Moisture		%												
175	Temperature		°F												
176															
177	Sampling Train	Cr Hex	E3												
178	Stack Gas Flowrate		dscfm			33693		34315		34784					
179	O2		%			14.2		14.9		15.4					
180	Moisture		%			15.1		14.8		14.6					
181	Temperature		°F			136		135		132					

	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
1	Feedrate 1																									
2																										
3																										
4	307C10	Trial burn		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		
5																										
6	Feedstream Number			F1		F1		F1		F2		F2		F2								F3		F3		
7	Feed Class			Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW								Raw Material		Raw Material		
8	Feed Class 2															HW		HW		HW		RM		RM		
9	Feedstream Description			LLGF		LLGF		LLGF		SLGF		SLGF		SLGF								Shale		Shale		
10	Feed Rate		gph	794.4		796.8		796.2		97.4		115.1		106.5												
11	Density		g/cc	0.883		0.888		0.912		0.87		0.9		0.9												
12	Feed Rate		lb/hr	5836		5887		6041		705		862		797								44000		44000		
13	Heating Value		Btu/lb	3310		3190		4160		3610		4110		4860												
14																										
15	Ash		%	0.75		0.69		0.68		54.1		54.9		52.1												
16	Chlorine		lb/hr	8.2		8.3		4.2		1.2		1.4		0.6								17.60		17.60		
17																										
18	Stack Gas Flowrate		dscfm	29612		28575		29102		29612		28575		29102								29612		28575		
19	Oxygen		%	14.2		14.3		14.4		14.3		0.0		0.0								14.2		14.3		
20																										
21	Thermal Feedrate		MMBtu/hr	19.3		18.8		25.1		2.5		3.5		3.9		21.9		22.3		29.0						
22	Estimated Firing Rate		MMBtu/hr																							
23																										
24																										
25	<i>Feedrate MTEC Calculations</i>																									
26	Ash		mg/dscm	817		791		798		7189		2952		2545		8006		3742		3343						
27	Chlorine		ug/dscm	153110		161556		81605		22618		8733		3675		175728		170289		85280		328626		342576		
28																										
29																										
30																										
31	307C11	Trial burn		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		
32																										
33	Feedstream Number			F1		F1		F1		F2		F2		F2								F3		F3		
34	Feed Class			Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW								Raw Material		Raw Material		
35	Feed Class 2															HW		HW		HW		RM		RM		
36	Feedstream Description			LLGF		LLGF		LLGF		SLGF		SLGF		SLGF								Shale		Shale		
37	Feed Rate		gph	791.4		795.6		793.8		96.7		96.7		96.7												
38	Density		g/cc	0.901		0.902		0.93		0.886		0.887		0.892												
39	Feed Rate		lb/hr	5933		5971		6142		713		714		718								44000		44000		
40	Heating Value		Btu/lb	5480		5560		5810		4260		3200		4980												
41																										
42	Ash		%	0.76		0.8		0.74		52.9		55.5		47.8												
43	Chlorine		lb/hr	2.4		7.8		6.2		0.5		0.5		0.5								22.00		17.60		
44																										
45	Arsenic		lb/hr	0.001		0.003		0.002		0.004		0.004		0.004								0.29		0.54		
46	Antimony		lb/hr	0.008		0.010		0.007		4.28E-04		3.57E-04		3.59E-04								0.004		0.004		
47	Barium		lb/hr	0.237		0.201		0.186		0.09		0.09		0.08								12.54		8.93		
48	Beryllium		lb/hr	0.001		0.001		0.001		3.56E-04		2.85E-04		3.59E-04								0.04		0.04		
49	Cadmium		lb/hr	0.004		0.004		0.003		0.0010		0.0009		0.0010								0.01		0.04		
50	Chromium		lb/hr	0.048		0.070		0.044		0.023		0.016		0.016								1.12		1.11		
51	Copper		lb/hr	0.765		0.770		0.606		0.110		0.099		0.110								3.09		2.42		
52	Lead		lb/hr	0.489		0.396		0.384		0.114		0.075		0.070								0.88		1.23		
53	Mercury		lb/hr	0.789		5.804		0.651		1.07E-04		8.56E-05		6.46E-05								8.80E-04		8.80E-04		
54	Nickel		lb/hr	0.117		0.158		0.114		0.028		0.025		0.029								1.39		1.71		
55	Selenium		lb/hr	0.003		0.003		0.003		3.56E-04		3.57E-04		3.59E-04								0.022		0.022		
56	Silver		lb/hr	0.135		0.118		0.104		1.05E-03		7.64E-04		8.97E-04								0.002		0.002		
57	Thallium		lb/hr	0.001		0.001		0.001		7.13E-05		7.14E-05		7.18E-05								0.004		0.004		
58	Zinc		lb/hr	1.050		0.967		0.915		0.216		0.177		0.192								6.34		22.53		
59	SVM		lb/hr	0.492		0.400		0.388		0.12		0.08		0.07								0.89		1.26		
60	LVM		lb/hr	0.050		0.074		0.046		0.03		0.02		0.02								1.45		1.69		

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Feedrate 1															
2																
3																
4	307C10	R3	R1	R2	R3	R1	R2	R3	Cond Avg							
5																
6	Feedstream Number	F3	F4	F4	F4	F5	F5	F5	F5							
7	Feed Class	Raw Material	Spike	Spike	Spike	Total	Total	Total	Total							
8	Feed Class 2	RM	Spike	Spike	Spike	Total	Total	Total	Total							
9	Feedstream Description	Shale	Spike	Spike	Spike	Total	Total	Total	Total							
10	Feed Rate															
11	Density															
12	Feed Rate	44000				50541	50749	50839								
13	Heating Value															
14																
15	Ash															
16	Chlorine	13.20	245.6	245.6	245.6	272.6	272.9	263.6								
17																
18	Stack Gas Flowrate	29102	29612	28575	29102	29612	28575	29102	29096							
19	Oxygen	14.4	14.2	14.3	14.4	14.2	14.3	14.4	14.3							
20																
21	Thermal Feedrate					21.9	22.3	29.0	24.4							
22	Estimated Firing Rate					64	61	61	62.0							
23																
24																
25	<i>Feedrate MTEC Calculations</i>															
26	Ash					8006	3742	3343	5031							
27	Chlorine	256472	4585832	4780499	4771926	5090187	5293365	5113678	5165743							
28																
29																
30																
31	307C11	R3	R1	R2	R3	R1	R2	R3	Cond Avg							
32																
33	Feedstream Number	F3	F4	F4	F4	F5	F5	F5	F5							
34	Feed Class	Raw Material	Spike	Spike	Spike	Total	Total	Total	Total							
35	Feed Class 2	RM	Spike	Spike	Spike	Total	Total	Total	Total							
36	Feedstream Description	Shale	Spike	Spike	Spike	Total	Total	Total	Total							
37	Feed Rate															
38	Density															
39	Feed Rate	44000				50645	50684	50860								
40	Heating Value															
41																
42	Ash															
43	Chlorine	17.60	226.5	245.6	245.6	251.4	271.5	269.9								
44																
45	Arsenic	0.36	0.035	0.086	0.059	0.33	0.63	0.43								
46	Antimony	0.004	0.334	0.239	0.285	0.35	0.25	0.30								
47	Barium	12.80	16	16	16	28.86	25.22	29.07								
48	Beryllium	0.04	0.0057	0.0057	0.0066	0.05	0.05	0.05								
49	Cadmium	0.01	0.144	0.144	0.144	0.16	0.18	0.16								
50	Chromium	1.17	2.76	2.75	1.75	3.95	3.95	2.98								
51	Copper	2.46	1.39	3.66	2.51	5.35	6.95	5.69								
52	Lead	1.43	1.1	2.11	1.54	2.59	3.81	3.42								
53	Mercury	8.80E-04	0.108	0.103	0.107	0.90	5.91	0.76	2.52							
54	Nickel	1.50	0.81	2.12	1.49	2.35	4.01	3.14								
55	Selenium	0.022	0.12	0.12	0.077	0.15	0.15	0.10								
56	Silver	0.002	0.096	0.096	0.096	0.23	0.22	0.20								
57	Thallium	0.004	0.24	0.24	0.24	0.25	0.25	0.25								
58	Zinc	7.39	31.9	33	33	39.50	56.67	41.50								
59	SVM	1.43	1.24	2.25	1.68	2.74	3.99	3.58								
60	LVM	1.58	2.80	2.84	1.82	4.33	4.62	3.46								

	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		
61																												
62																												
63																												
64	Stack Gas Flowrate	dscfm			35870		33752		33665		35870		33752		33665								35870		33752			
65	Oxygen	%			15.2		15.1		15.1		15.2		15.14		15.13								15.2		15.14			
66																												
67	Thermal Feedrate	MMBtu/hr			32.5		33.2		35.7		3.0		2.3		3.6		35.5		35.5		39.3		0.0					
68	Estimated Firing Rate	MMBtu/hr																										
69																												
70																												
71	Feedrate MTEC Calculations																											
72	Ash	mg/dscm			811		904		861		6785		7496		6498		7596		8400		7359							
73	Chlorine	ug/dscm			43182		147619		117441		8996		9463		9471		52178		157082		126912		395831		333090			
74																												
75	Arsenic	ug/dscm			27		56		29		71		78		77		97		135		107		5225		10159			
76	Antimony	ug/dscm			149		192		140		8		7		7		157		199		146		79		83			
77	Barium	ug/dscm			4259		3797		3525		1552		1675		1523		5811		5471		5048		225624		169043			
78	Beryllium	ug/dscm			11		11		12		6		5		7		17		17		18		792		749			
79	Cadmium	ug/dscm			64		79		58		18		16		19		82		95		77		158		666			
80	Chromium	ug/dscm			865		1333		826		414		301		295		1279		1635		1121		20108		20985			
81	Copper	ug/dscm			13770		14577		11472		1975		1877		2080		15745		16454		13551		55575		45883			
82	Lead	ug/dscm			8795		7492		7283		2052		1418		1331		10848		8910		8614		15912		23233			
83	Mercury	ug/dscm			14197		109835		12333		2		2		1		14198		109836		12334		16		17			
84	Nickel	ug/dscm			2113		2994		2164		510		481		551		2624		3475		2715		25096		32310			
85	Selenium	ug/dscm			53		56		58		6		7		7		60		63		65		396		416			
86	Silver	ug/dscm			2434		2237		1978		19		14		17		2453		2252		1995		40		42			
87	Thallium	ug/dscm			11		11		12		1		1		1		12		13		13		79		83			
88	Zinc	ug/dscm			18893		18306		17335		3886		3349		3643		22779		21655		20979		113999		426355			
89	SVM	ug/dscm			8859		7571		7341		2070		1434		1350		10930		9005		8691		16071		23899			
90	LVM	ug/dscm			902		1401		867		491		385		379		1393		1786		1246		26125		31893			
91																												
92																												
93	307C12	Risk Burn			R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2			
94																												
95	Feedstream Number				F1		F1		F1		F2		F2		F2								F3		F3			
96	Feed Class				Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW								Raw Material		Raw Material			
97	Feed Class 2																						RM		RM			
98	Feedstream Description				LLGF		LLGF		LLGF		SLGF		SLGF		SLGF								Shale		Shale			
99	Feed Rate	gph			827.4		791.4		820.2		114.6		90.6		111.6													
100	Density	g/cc			0.917		0.922		0.93		0.779		0.729		0.806													
101	Feed Rate	lb/hr			6313		6071		6346		743		550		748								43840		43980			
102	Heating Value	Btu/lb			7940		7560		6890		5840		5650		5400													
103																												
104	Ash	%			1.62		2.04		1.03		41.4		42.9		40.7													
105	Chlorine	lb/hr			91.8		94.9		126.6		0.25		0.12		0.18								22.80		5.30			
106																												
107	Arsenic	lb/hr			0.004		0.004		0.003		0.002		0.001		0.002								0.548		0.550			
108	Antimony	lb/hr			0.011		0.009		0.015		0.001		0.001		0.001								0.219		0.220			
109	Barium	lb/hr			0.41		0.35		0.31		0.02		0.02		0.02								13.81		13.59			
110	Beryllium	lb/hr			0.0006		0.0006		0.0007		0.0007		0.0005		0.0007								0.2192		0.2199			
111	Cadmium	lb/hr			0.01		0.01		0.01		0.0004		0.0003		0.0004								0.1096		0.1100			
112	Chromium	lb/hr			0.10		0.08		0.06		0.004		0.003		0.002								1.245		1.165			
113	Copper	lb/hr			1.50		1.24		1.05		0.15		0.10		0.10								4.38		3.54			
114	Lead	lb/hr			0.27		0.22		0.20		0.01		0.00		0.01								1.14		1.13			
115	Mercury	lb/hr			1.26E-04		1.21E-04		1.27E-04		1.49E-05		1.10E-05		1.50E-05								8.77E-04		1.76E-03			
116	Nickel	lb/hr			0.32		0.30		0.22		0.02		0.01		0.01								1.81		1.89			
117	Selenium	lb/hr			0.003		0.003		0.003		0.004		0.003		0.004								1.096		1.100			
118	Silver	lb/hr			0.003		0.003		0.003		3.71E-04		2.75E-04		3.74E-04								0.11		0.11			
119	Thallium	lb/hr			0.001		0.001		0.001		0.001		0.001		0.001								0.219		0.220			
120	Zinc	lb/hr			2.28		1.90		1.71		0.09		0.07		0.06								15.65		7.43			

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
61																
62																
63																
64	Stack Gas Flowrate	33665		35870		33752		33665		35870		33752		33665		34429
65	Oxygen	15.13		15.2		15.14		15.13		15.2		15.14		15.13		15.2
66																
67	Thermal Feedrate									35.55		35.48		39.26		36.8
68	Estimated Firing Rate									66		63		63		63.9
69																
70																
71	<i>Feedrate MTEC Calculations</i>															
72	Ash									7596		8400		7359		7785
73	Chlorine	333382		4075257		4648121		4652194		4523266		5138294		5112489		4924683
74																
75	Arsenic	6834		630		1628		1118		5952		11922		8058		8644
76	Antimony	83		6009		4523		5399		6246		4805		5628		5560
77	Barium	242535		287877		302809		303075		519311		477324		550658		515764
78	Beryllium	750		103		108		125		911		874		894		893
79	Cadmium	167		2591		2725		2728		2831		3487		2972		3097
80	Chromium	22253		49659		52045		33149		71046		74665		56523		67411
81	Copper	46673		25009		69268		47545		96329		131605		107770		111901
82	Lead	27004		19792		39933		29171		46551		72076		64789		61139
83	Mercury	17		1943		1949		2027		16157		111802		14377		47446
84	Nickel	28504		14574		40122		28224		42293		75907		59443		59214
85	Selenium	417		2159		2271		1459		2615		2751		1940		2435
86	Silver	42		1727		1817		1818		4220		4110		3855		4062
87	Thallium	83		4318		4542		4546		4409		4638		4642		4563
88	Zinc	140020		573955		624544		625091		710733		1072555		786090		856459
89	SVM	27171		22382		42658		31899		49383		75563		67760		64235
90	LVM	29838		50391		53781		34391		77909		87460		65475		76948
91																
92																
93	307C12	R3		R1		R2		R3		R1		R2		R3		Cond Avg
94																
95	Feedstream Number	F3		F4		F4		F4		F5		F5		F5		F5
96	Feed Class	Raw Material		Spike		Spike		Spike		Total		Total		Total		Total
97	Feed Class 2	RM		Spike		Spike		Spike		Total		Total		Total		Total
98	Feedstream Description	Shale		Spike		Spike		Spike		Total		Total		Total		Total
99	Feed Rate															
100	Density															
101	Feed Rate	43380								50895		50600		50475		
102	Heating Value															
103																
104	Ash															
105	Chlorine	2.20								114.9		100.3		129.0		
106																
107	Arsenic	0.542		0.068		0.063		0.067		0.62		0.62		0.61		
108	Antimony	0.217		0.305		0.205		0.196		0.54		0.43		0.43		
109	Barium	11.32		16.1		16.1		16		30.35		30.06		27.65		
110	Beryllium	0.2169		0.0087		0.0052		0.0057		0.23		0.23		0.22		
111	Cadmium	0.1085		0.165		0.132		0.144		0.29		0.25		0.26		
112	Chromium	1.154		2.47		2.26		2.47		3.82		3.51		3.69		
113	Copper	2.87		5.61		4.47		4.8		11.64		9.36		8.83		
114	Lead	1.16		3.84		3.57		3.87		5.26		4.93		5.23		
115	Mercury	1.74E-03		0.0078		0.0078		0.0078		0.0088		0.0097		0.0097		
116	Nickel	1.92		2.88		2.68		2.88		5.03		4.88		5.03		
117	Selenium	1.085		0.12		0.11		0.12		1.22		1.22		1.21		
118	Silver	0.11		0.096		0.096		0.096		0.21		0.21		0.21		
119	Thallium	0.217		0.24		0.24		0.24		0.46		0.46		0.46		
120	Zinc	7.29		33		29.6		33		51.02		39.00		42.06		

	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	
121	SVM		lb/hr		0.28		0.23		0.20		0.01		0.01		0.01								1.25		1.24		
122	LVM		lb/hr		0.10		0.09		0.07		0.01		0.00		0.00								2.01		1.94		
123																											
124																											
125																											
126	Stack Gas Flowrate		dscfm		32681		32015		29193		32681		32015		29193								32681		32015		
127	Oxygen		%		14.5		14.0		14.0		14.5		14		14								14.5		14		
128																											
129	Thermal Feedrate		MMBtu/hr		50.1		45.9		43.7		4.3		3.1		4.0												
130	Estimated Firing Rate		MMBtu/hr																								
131																											
132																											
133	<i>Feedrate MTEC Calculations</i>																										
134	Ash		mg/dscm		1802		2069		1197		5419		3938		5579		7221		6006		6777						
135	Chlorine		ug/dscm		1,617,634		1,847,188		2,459,796		4,712		749		1,102		1622346		1847937		2460898		425,721		103,162		
136																											
137	Arsenic		ug/dscm		78		71		58		33		23		34		111		94		92		9656		9182		
138	Antimony		ug/dscm		189		152		279		13		9		14		202		161		293		3863		3673		
139	Barium		ug/dscm		7275		5851		5650		432		354		354		7707		6205		6003		243343		226991		
140	Beryllium		ug/dscm		11		10		12		13		9		14		24		19		25		3863		3673		
141	Cadmium		ug/dscm		178		142		128		7		5		7		185		147		135		1931		1836		
142	Chromium		ug/dscm		1746		1409		1186		65		46		34		1812		1455		1220		21939		19467		
143	Copper		ug/dscm		26474		20787		19298		2605		1744		1919		29079		22531		21217		77252		59135		
144	Lead		ug/dscm		4783		3691		3581		107		80		101		4890		3771		3682		20085		18953		
145	Mercury		ug/dscm		2		2		2		0		0		0		2		2		3		15		29		
146	Nickel		ug/dscm		5706		5009		4057		343		247		263		6049		5256		4320		31905		31514		
147	Selenium		ug/dscm		56		51		58		65		46		69		121		97		127		19313		18365		
148	Silver		ug/dscm		56		51		58		7		5		7		62		55		65		1931		1836		
149	Thallium		ug/dscm		11		10		12		13		9		14		24		19		25		3863		3673		
150	Zinc		ug/dscm		40156		31739		31271		1505		1101		1189		41661		32840		32460		275789		124147		
151	SVM		ug/dscm		4961		3833		3708		114		84		108		5075		3917		3817		22017		20789		
152	LVM		ug/dscm		1835		1491		1256		111		78		82		1947		1569		1338		35459		32322		
153																											
154																											
155	307C13		Risk Burn		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2		
156																											
157	Feedstream Number				F1		F1		F1		F2		F2		F2							F3		F3			
158	Feed Class				Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW							Raw Material		Raw Material			
159	Feed Class 2																HW		HW		HW		RM		RM		
160	Feedstream Description				LLGF		LLGF		LLGF		SLGF		SLGF		SLGF							Shale		Shale			
161	Feed Rate		gph		612		613.2		612																		
162	Density		g/cc		0.911		0.923		0.923																		
163	Feed Rate		lb/hr		4639		4709		4700														42700		43960		
164	Heating Value		Btu/lb		4500		10000		11000																		
165																											
166	Ash		%		1.50		1.9		1.9																		
167	Chlorine		lb/hr		120.9		80.3		84.8														1.30		2.20		
168																											
169	Arsenic		lb/hr		0.130		0.090		0.094														0.560		0.260		
170	Antimony		lb/hr		0.112		0.099		0.123														0.040		0.040		
171	Barium		lb/hr		0.51		0.43		0.52														7.69		7.03		
172	Beryllium		lb/hr		0.0070		0.0050		0.0060														0.040		0.040		
173	Cadmium		lb/hr		0.163		0.146		0.170														0.0200		0.0200		
174	Chromium		lb/hr		0.20		0.18		0.20														1.240		1.270		
175	Copper		lb/hr		4.65		4.39		5.18														2.35		2.42		
176	Lead		lb/hr		2.28		1.79		1.98														1.07		1.10		
177	Mercury		lb/hr		3.30E-03		3.00E-03		3.30E-03														2.00E-03		1.80E-03		
178	Nickel		lb/hr		3.26		2.83		3.16														1.79		1.89		
179	Selenium		lb/hr		0.090		0.090		0.090														0.210		0.220		
180	Silver		lb/hr		0.074		0.061		0.066														0.02		0.02		

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
121	SVM	1.27		4.01		3.70		4.01		5.54		5.18		5.49		
122	LVM	1.91		2.55		2.33		2.54		4.67		4.36		4.53		
123																
124																
125																
126	Stack Gas Flowrate	29193		32681		32015		29193		32681		32015		29193		31296
127	Oxygen	14		14.5		14		14		14.5		14		14		14.2
128																
129	Thermal Feedrate									54.46		49.00		47.77		58.80
130	Estimated Firing Rate									67		71		65		67.8
131																
132																
133	<i>Feedrate MTEC Calculations</i>															
134	Ash									7.22E+03		6.01E+03		6.78E+03		6668
135	Chlorine	42,745		0		0		0		2.05E+06		1.95E+06		2.50E+06		2167603
136																
137	Arsenic	9933		1198		1052		1227		10965		10329		11252		10849
138	Antimony	3973		5374		3424		3590		9439		7258		7856		8185
139	Barium	207396		283703		268918		293082		534752		502114		506481		514449
140	Beryllium	3973		153		87		104		4040		3779		4103		3974
141	Cadmium	1987		2908		2205		2638		5023		4188		4759		4657
142	Chromium	21137		43525		37749		45245		67276		58671		67601		64516
143	Copper	52524		98855		74662		87925		205186		156329		161666		174393
144	Lead	21216		67666		59630		70889		92642		82353		95788		90261
145	Mercury	32		137		130		143		155		162		177		165
146	Nickel	35122		50749		44764		52755		88704		81534		92197		87478
147	Selenium	19865		2115		1837		2198		21549		20299		22190		21346
148	Silver	1987		1692		1603		1758		3685		3495		3810		3663
149	Thallium	3973		4229		4009		4396		8116		7701		8395		8071
150	Zinc	133496		581502		494409		604482		898952		651396		770438		773595
151	SVM	23203		70573		61835		73527		97665		86541		100547		94918
152	LVM	35043		44876		38888		46576		82281		72779		82957		79339
153																
154																
155	307C13	R3		R1		R2		R3		R1		R2		R3		Cond Avg
156																
157	Feedstream Number	F3		F4		F4		F4		F5		F5		F5		F5
158	Feed Class	Raw Material		Spike		Spike		Spike		Total		Total		Total		Total
159	Feed Class 2	RM		Spike		Spike		Spike		Total		Total		Total		Total
160	Feedstream Description	Shale		Spike		Spike		Spike		Total		Total		Total		Total
161	Feed Rate															
162	Density															
163	Feed Rate	44020								47339		48669		48720		
164	Heating Value															
165																
166	Ash															
167	Chlorine	1.40								122.2		82.5		86.2		97.0
168																
169	Arsenic	0.480								0.69		0.35		0.57		
170	Antimony	0.040								0.15		0.14		0.16		
171	Barium	6.60								8.20		7.46		7.12		
172	Beryllium	0.040								0.05		0.05		0.05		
173	Cadmium	0.0200								0.18		0.17		0.19		
174	Chromium	1.100		2.8		2.8		2.81		4.24		4.25		4.11		
175	Copper	2.99								7.00		6.81		8.17		
176	Lead	1.32								3.35		2.89		3.30		
177	Mercury	2.60E-03								0.0053		0.0048		0.0059		
178	Nickel	1.85								5.05		4.72		5.01		
179	Selenium	0.220								0.30		0.31		0.31		
180	Silver	0.02								0.09		0.08		0.09		

	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
181	Thallium		lb/hr		0.163		0.113		0.118														0.040		0.040	
182	Zinc		lb/hr		5.58		4.72		5.18														12.81		5.28	
183	SVM		lb/hr		2.44		1.94		2.15														1.09		1.12	
184	LVM		lb/hr		0.34		0.27		0.30														1.84		1.57	
185																										
186																										
187																										
188	Stack Gas Flowrate		dscfm		33199		33716		34483		33199		33716		34483								33199		33716	
189	Oxygen		%		15.3		15.0		14.4		15.3		15		14.4								15.3		15	
190																										
191	Thermal Feedrate		MMBtu/hr		20.9		47.1		51.7																	
192	Estimated Firing Rate		MMBtu/hr																							
193																										
194																										
195	<i>Feedrate MTEC Calculations</i>																									
196	Ash		mg/dscm		1376		1656		1469								1376		1656		1469					
197	Chlorine		ug/dscm		2,391,512		1,485,848		1,394,739								2391512		1485848		1394739		24,274		42,822	
198																										
199	Arsenic		ug/dscm		2572		1665		1546								2572		1665		1546		11077		4811	
200	Antimony		ug/dscm		2215		1832		2023								2215		1832		2023		791		740	
201	Barium		ug/dscm		10088		7957		8553								10088		7957		8553		152115		130081	
202	Beryllium		ug/dscm		138		93		99								138		93		99		791		740	
203	Cadmium		ug/dscm		3224		2702		2796								3224		2702		2796		396		370	
204	Chromium		ug/dscm		3956		3238		3339								3956		3238		3339		24528		23500	
205	Copper		ug/dscm		91981		81231		85198								91981		81231		85198		46485		44779	
206	Lead		ug/dscm		45100		33122		32566								45100		33122		32566		21166		20354	
207	Mercury		ug/dscm		65		56		54								65		56		54		40		33	
208	Nickel		ug/dscm		64486		52366		51974								64486		52366		51974		35408		34972	
209	Selenium		ug/dscm		1780		1665		1480								1780		1665		1480		4154		4071	
210	Silver		ug/dscm		1464		1129		1086								1464		1129		1086		396		370	
211	Thallium		ug/dscm		3224		2091		1941								3224		2091		1941		791		740	
212	Zinc		ug/dscm		110377		87338		85198								110377		87338		85198		253394		97700	
213	SVM		ug/dscm		48325		35823		35362								48325		35823		35362		21561		20724	
214	LVM		ug/dscm		6666		4996		4984								6666		4996		4984		36397		29051	
215																										
216																										
217	307C14		Risk Burn		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2	
218																										
219	Feedstream Number				F1		F1		F1		F2		F2		F2								F3		F3	
220	Feed Class				Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW								Raw Material		Raw Material	
221	Feed Class 2																HW		HW		HW		RM		RM	
222	Feedstream Description				LLGF		LLGF		LLGF		SLGF		SLGF		SLGF								Shale		Shale	
223	Feed Rate		gph		612		571.8		616.2																	
224	Density		g/cc		0.899		0.911		0.911																	
225	Feed Rate		lb/hr		4578		4334		4671														43960		44040	
226	Heating Value		Btu/lb		11000		11000		11000																	
227																										
228	Ash		%		1.20		0.54		1.6																	
229	Chlorine		lb/hr		68.9		47.8		74.9														0.70		0.20	
230																										
231	Arsenic		lb/hr		0.055		0.043		0.047														0.615		0.528	
232	Antimony		lb/hr		0.138		0.139		0.150														0.040		0.040	
233	Barium		lb/hr		0.60		0.56		0.66														15.83		14.09	
234	Beryllium		lb/hr		0.006		0.004		0.005														0.053		0.048	
235	Cadmium		lb/hr		0.110		0.096		0.098														0.02		0.02	
236	Chromium		lb/hr		0.22		0.21		0.24														1.140		1.190	
237	Copper		lb/hr		1.88		1.91		2.01														2.68		2.99	
238	Lead		lb/hr		2.34		2.22		2.44														1.06		1.1	
239	Mercury		lb/hr		2.40E-03		1.70E-03		1.80E-03														2.20E-03		1.80E-03	
240	Nickel		lb/hr		0.64		1.00		1.03														1.85		1.85	

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
181	Thallium	0.040								0.20		0.15		0.16		
182	Zinc	4.84								18.39		10.00		10.02		
183	SVM	1.34		0.00		0.00		0.00		3.53		3.06		3.49		
184	LVM	1.62		2.80		2.80		2.81		4.98		4.64		4.73		
185																
186																
187																
188	Stack Gas Flowrate	34483		33199		33716		34483		33199		33716		34483		33799
189	Oxygen	14.4		15.3		15		14.4		15.3		15		14.4		14.9
190																
191	Thermal Feedrate									21		47		52		39.9
192	Estimated Firing Rate									60		64		72		65.5
193																
194																
195	<i>Feedrate MTEC Calculations</i>															
196	Ash									1376		1656		1469		1500
197	Chlorine	27,202		0		0		0		2415786		1528670		1421941		1788799
198																
199	Arsenic	7895		0		0		0		13649		6476		9441		9855
200	Antimony	658		0		0		0		3007		2572		2681		2753
201	Barium	108553		0		0		0		162203		138038		117105		139116
202	Beryllium	658		0		0		0		930		833		757		840
203	Cadmium	329		0		0		0		3620		3072		3125		3272
204	Chromium	18092		55387		51810		46217		83871		78548		67648		76689
205	Copper	49178		0		0		0		138466		126010		134375		132951
206	Lead	21711		0		0		0		66266		53476		54276		58006
207	Mercury	43		0		0		0		105		89		97		97
208	Nickel	30428		0		0		0		99894		87338		82401		89878
209	Selenium	3618		0		0		0		5934		5736		5099		5590
210	Silver	329		0		0		0		1859		1499		1414		1591
211	Thallium	658		0		0		0		4016		2831		2599		3148
212	Zinc	79605		0		0		0		363771		185037		164803		237870
213	SVM	22040		0		0		0		69886		56547		57401		61278
214	LVM	26645		55387		51810		46217		98450		85857		77846		87384
215																
216																
217	307C14	R3		R1		R2		R3		R1		R2		R3		Cond Avg
218																
219	Feedstream Number	F3		F4		F4		F4		F5		F5		F5		F5
220	Feed Class	Raw Material		Spike		Spike		Spike		Total		Total		Total		Total
221	Feed Class 2	RM		Spike		Spike		Spike		Total		Total		Total		Total
222	Feedstream Description	Shale		Spike		Spike		Spike		Total		Total		Total		Total
223	Feed Rate															
224	Density															
225	Feed Rate	43140								48538		48374		47811		
226	Heating Value															
227																
228	Ash															
229	Chlorine	2.30								69.6		48.0		77.2		64.9
230																
231	Arsenic	0.302								0.67		0.57		0.35		
232	Antimony	0.040								0.18		0.18		0.19		
233	Barium	12.08								16.43		14.65		12.74		
234	Beryllium	0.043								0.06		0.05		0.05		
235	Cadmium	0.02								0.13		0.12		0.12		
236	Chromium	1.250		2.77		2.93		2.8		4.13		4.33		4.29		
237	Copper	2.50								4.56		4.90		4.51		
238	Lead	1.25								3.40		3.32		3.69		
239	Mercury	1.70E-03								0.0046		0.0035		0.0035		
240	Nickel	1.90								2.49		2.85		2.93		

	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
241	Selenium		lb/hr		0.090		0.090		0.090														0.220		0.220	
242	Silver		lb/hr		0.078		0.070		0.080														0.02		0.02	
243	Thallium		lb/hr		0.170		0.156		0.169														0.040		0.040	
244	Zinc		lb/hr		3.26		2.87		3.04														5.71		5.28	
245	SVM		lb/hr		2.45		2.32		2.54														1.08		1.12	
246	LVM		lb/hr		0.28		0.26		0.30														1.81		1.77	
247																										
248																										
249																										
250	Stack Gas Flowrate		dscfm		34535		34721		34540		34535		34721		34540								34535		34721	
251	Oxygen		%		14.6		14.3		14.4		14.6		14.3		14.4								14.6		14.3	
252																										
253	Thermal Feedrate		MMBtu/hr		50.4		47.7		51.4																	
254	Estimated Firing Rate		MMBtu/hr																							
255																										
256																										
257	<i>Feedrate MTEC Calculations</i>																									
258	Ash		mg/dscm		930		377		1227							930		377		1227						
259	Chlorine		ug/dscm		1166879		769143		1229877							1166879		769143		1229877			13070		3893	
260																0		0		0						
261	Arsenic		ug/dscm		931		692		772							931		692		772			10416		8496	
262	Antimony		ug/dscm		2337		2237		2463							2337		2237		2463			677		644	
263	Barium		ug/dscm		10162		9011		10837							10162		9011		10837			268094		226720	
264	Beryllium		ug/dscm		102		64		82							102		64		82			898		772	
265	Cadmium		ug/dscm		1863		1545		1609							1863		1545		1609			339		322	
266	Chromium		ug/dscm		3726		3427		4007							3726		3427		4007			19307		19148	
267	Copper		ug/dscm		31839		30734		33005							31839		30734		33005			45388		48112	
268	Lead		ug/dscm		39630		35722		40065							39630		35722		40065			17952		17700	
269	Mercury		ug/dscm		41		27		30							41		27		30			37		29	
270	Nickel		ug/dscm		10839		16091		16913							10839		16091		16913			31331		29768	
271	Selenium		ug/dscm		1524		1448		1478							1524		1448		1478			3726		3540	
272	Silver		ug/dscm		1321		1118		1307							1321		1118		1307			339		322	
273	Thallium		ug/dscm		2879		2510		2775							2879		2510		2775			677		644	
274	Zinc		ug/dscm		55211		46181		49918							55211		46181		49918			96704		84960	
275	SVM		ug/dscm		41493		37266		41675							41493		37266		41675			18291		18022	
276	LVM		ug/dscm		4759		4184		4860							4759		4184		4860			30620		28416	
277																										
278	307C15		Risk Burn		R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2	
279																										
280	Feedstream Number				F1		F1		F1		F2		F2		F2								F3		F3	
281	Feed Class				Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW								Raw Material		Raw Material	
282	Feed Class 2																						RM		RM	
283	Feedstream Description				LLGF		LLGF		LLGF		SLGF		SLGF		SLGF		HW		HW		HW		Shale		Shale	
284	Feed Rate		gph		440.4		615		612.6																	
285	Density		g/cc		0.923		0.899		0.935																	
286	Feed Rate		lb/hr		3382		4600		4766														44040		44040	
287	Heating Value		Btu/lb		8900		11000		11000																	
288																										
289	Ash		%		2.00		1.6		2.1																	
290	Chlorine		lb/hr		61		83		109.9														1.50		3.10	
291																										
292	Arsenic		lb/hr		0.085		0.101		0.110														0.570		0.410	
293	Antimony		lb/hr		0.071		0.088		0.134														0.040		0.040	
294	Barium		lb/hr		0.37		0.39		0.48														12.33		10.13	
295	Beryllium		lb/hr		0.004		0.006		0.006														0.062		0.048	
296	Cadmium		lb/hr		0.112		0.134		0.158														0.02		0.02	
297	Chromium		lb/hr		0.13		0.16		0.20														1.190		1.370	
298	Copper		lb/hr		3.39		4.29		4.68														2.82		2.60	
299	Lead		lb/hr		1.39		1.71		2.20														1.01		0.7	
300	Mercury		lb/hr		1.60E-03		2.20E-03		3.30E-03														1.80E-03		1.80E-03	

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
241	Selenium	0.220								0.31		0.31		0.31		
242	Silver	0.02								0.10		0.09		0.10		
243	Thallium	0.040								0.21		0.20		0.21		
244	Zinc	6.04								8.97		8.15		9.08		
245	SVM	1.27		0.00		0.00		0.00		3.53		3.44		3.81		
246	LVM	1.60		2.77		2.93		2.80		4.86		4.96		4.69		
247																
248																
249																
250	Stack Gas Flowrate	34540		34535		34721		34540		34535		34721		34540		34599
251	Oxygen	14.4		14.6		14.3		14.4		14.6		14.3		14.4		14.4
252																
253	Thermal Feedrate									50		48		51		49.8
254	Estimated Firing Rate									70		74		72		72.1
255																
256																
257	<i>Feedrate MTEC Calculations</i>															
258	Ash									930		377		1227		845
259	Chlorine	44688		0		0		0		1179950		773036		1274565		1075850
260																
261	Arsenic	4959		0		0		0		11347		9188		5731		8755
262	Antimony	657		0		0		0		3015		2880		3120		3005
263	Barium	198357		0		0		0		278256		235731		209194		241060
264	Beryllium	706		0		0		0		999		837		788		875
265	Cadmium	328		0		0		0		2202		1867		1938		2002
266	Chromium	20525		46912		47146		45977		69945		69722		70509		70058
267	Copper	41051		0		0		0		77227		78845		74055		76709
268	Lead	20525		0		0		0		57582		53422		60591		57198
269	Mercury	28		0		0		0		78		56		57		64
270	Nickel	31198		0		0		0		42170		45859		48111		45380
271	Selenium	3612		0		0		0		5250		4988		5090		5110
272	Silver	328		0		0		0		1660		1440		1635		1578
273	Thallium	657		0		0		0		3557		3154		3432		3381
274	Zinc	99178		0		0		0		151914		131140		149096		144050
275	SVM	20854		0		0		0		59784		55288		62528		59200
276	LVM	26190		46912		47146		45977		82291		79746		77027		79688
277																
278	307C15	R3		R1		R2		R3		R1		R2		R3		Cond Avg
279																
280	Feedstream Number	F3		F4		F4		F4		F5		F5		F5		F5
281	Feed Class	Raw Material		Spike		Spike		Spike		Total		Total		Total		Total
282	Feed Class 2	RM		Spike		Spike		Spike		Total		Total		Total		Total
283	Feedstream Description	Shale		Spike		Spike		Spike		Total		Total		Total		Total
284	Feed Rate															
285	Density															
286	Feed Rate	44020								47422		48640		48786		
287	Heating Value															
288																
289	Ash															
290	Chlorine	1.40								62.5		86.1		111.3		86.6
291																
292	Arsenic	0.410								0.66		0.51		0.52		
293	Antimony	0.040								0.11		0.13		0.17		
294	Barium	5.72								12.70		10.52		6.20		
295	Beryllium	0.044								0.07		0.05		0.05		
296	Cadmium	0.02								0.13		0.15		0.18		
297	Chromium	1.230		2.92		2.77		2.77		4.24		4.30		4.20		
298	Copper	2.60								6.21		6.89		7.28		
299	Lead	0.7								2.40		2.41		2.90		
300	Mercury	1.80E-03								0.0034		0.0040		0.0051		

	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	
301	Nickel		lb/hr		2.20		2.72		3.11														1.76		1.89		
302	Selenium		lb/hr		0.070		0.090		0.100														0.220		0.220		
303	Silver		lb/hr		0.044		0.060		0.076														0.02		0.02		
304	Thallium		lb/hr		0.088		0.120		0.134														0.040		0.040		
305	Zinc		lb/hr		3.73		4.52		5.26														5.28		4.01		
306	SVM		lb/hr		1.50		1.84		2.36														1.03		0.72		
307	LVM		lb/hr		0.21		0.26		0.31														1.82		1.83		
308																											
309																											
310																											
311	Stack Gas Flowrate		dscfm		34840		34814		34525		34840		34814		34525								34840		34814		
312	Oxygen		%		15.2		14.9		15.2		15.2		14.9		15.2								15.2		14.9		
313																											
314	Thermal Feedrate		MMBtu/hr		30.1		50.6		52.4																		
315	Estimated Firing Rate		MMBtu/hr																								
316																											
317																											
318	<i>Feedrate MTEC Calculations</i>																										
319	Ash		mg/dscm		1253		1297		1871						1253.0		1297.3		1870.7				0		0		
320	Chlorine		ug/dscm		1,129,978		1,462,987		2,054,387						1129977.8		1462987.2		2054386.8				27,786		54,642		
321																											
322	Arsenic		ug/dscm		1575		1780		2056						1574.6		1780.3		2056.3				10559		7227		
323	Antimony		ug/dscm		1315		1551		2505						1315.2		1551.1		2504.9				741		705		
324	Barium		ug/dscm		6854		6874		8973						6854.0		6874.3		8972.8				228404		178555		
325	Beryllium		ug/dscm		74		106		112						74.1		105.8		112.2				1149		846		
326	Cadmium		ug/dscm		2075		2362		2954						2074.7		2361.9		2953.5				370		353		
327	Chromium		ug/dscm		2316		2767		3664						2315.5		2767.3		3663.9				22044		24148		
328	Copper		ug/dscm		62797		75617		87484						62797.1		75617.1		87484.4				52238		45829		
329	Lead		ug/dscm		25749		30141		41125						25748.7		30141.1		41125.1				18709		12338		
330	Mercury		ug/dscm		30		39		62						29.6		38.8		61.7				33		32		
331	Nickel		ug/dscm		40753		47944		58136						40753.3		47943.7		58136.0				32603		33314		
332	Selenium		ug/dscm		1297		1586		1869						1296.7		1586.4		1869.3				4075		3878		
333	Silver		ug/dscm		815		1058		1421						815.1		1057.6		1420.7				370		353		
334	Thallium		ug/dscm		1630		2115		2505						1630.1		2115.2		2504.9				741		705		
335	Zinc		ug/dscm		69095		79671		98326						69095.4		79671.1		98326.4				97808		70682		
336	SVM		ug/dscm		27823		32503		44079						27823.4		32503.0		44078.7				19080		12691		
337	LVM		ug/dscm		3964		4653		5832						3964.2		4653.4		5832.3				33751		32221		

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
301	Nickel	1.76								3.96		4.61		4.87		
302	Selenium	0.220								0.29		0.31		0.32		
303	Silver	0.02								0.06		0.08		0.10		
304	Thallium	0.040								0.13		0.16		0.17		
305	Zinc	3.79								9.01		8.53		9.05		
306	SVM	0.72		0.00		0.00		0.00		2.53		2.56		3.08		
307	LVM	1.68		2.92		2.77		2.77		4.96		4.86		4.77		
308																
309																
310																
311	Stack Gas Flowrate	34525		34840		34814		34525		34840		34814		34525		34726
312	Oxygen	15.2		15.2		14.9		15.2		15.2		14.9		15.2		15.1
313																
314	Thermal Feedrate									30		51		52		44.4
315	Estimated Firing Rate									64		67		64		65.0
316																
317																
318	<i>Feedrate MTEC Calculations</i>															
319	Ash	0		0		0		0		1253		1297		1871		1474
320	Chlorine	26,171		0		0		0		1157764		1517629		2080557		1585317
321																
322	Arsenic	7664		0		0		0		12133		9007		9720		10287
323	Antimony	748		0		0		0		2056		2256		3253		2522
324	Barium	106925		0		0		0		235258		185429		115898		178862
325	Beryllium	823		0		0		0		1223		952		935		1036
326	Cadmium	374		0		0		0		2445		2714		3327		2829
327	Chromium	22993		54091		48825		51780		78450		75740		78437		77542
328	Copper	48602		0		0		0		115035		121446		136087		124189
329	Lead	13085		0		0		0		44458		42480		54210		47049
330	Mercury	34		0		0		0		63		71		95		76
331	Nickel	32900		0		0		0		73356		81257		91036		81883
332	Selenium	4113		0		0		0		5372		5464		5982		5606
333	Silver	374		0		0		0		1186		1410		1795		1463
334	Thallium	748		0		0		0		2371		2820		3253		2815
335	Zinc	70847		0		0		0		166903		150353		169174		162143
336	SVM	13459		0		0		0		46903		45194		57538		49878
337	LVM	31479		54091		48825		51780		91806		85699		89092		88866

	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	Feedrates 2																												
2																													
3																													
4	307C1		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4				
5																													
6	Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3				
7	Feed Class		Liq HW		Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW		Solid HW		Raw Material		Raw Material		Raw Material		Raw Material				
8	Feed Class 2		HW		HW		HW		HW										RM		RM		RM		RM				
9	Feedstream Description		Liquid waste		Liquid waste		Liquid waste		Liquid waste		Solid waste		Solid waste		Solid waste		Solid waste		Raw material		Raw material		Raw material		Raw material				
10	Feed Rate	lb/hr	5359		5359		5306		5307										52000		54000		54000						
11	Heating Value	Btu/lb	9400		9700		8300		9000																				
12	Thermal Feedrate	MMBtu/hr	50.37		51.98		44.04		47.76																				
13	Chlorine	lb/hr	175		165		173		179																				
14	Antimony	lb/hr	0.0309		0.0309		0.0306		0.0306										0.0744		0.0772		0.0772		0.0744				
15	Arsenic	lb/hr	0.0052		0.0052		0.0051		0.0051										0.619		0.643		0.643		0.619				
16	Barium	lb/hr	0.0067		0.0062		0.0061		0.0102										1.87		1.94		1.94		1.87				
17	Beryllium	lb/hr	0.0026		0.0026		0.0026		0.0026										0.0409		0.0424		0.0424		0.0409				
18	Cadmium	lb/hr	0.0052		0.0052		0.0051		0.0051										0.198		0.206		0.206		0.198				
19	Chromium	lb/hr	0.0258		0.0258		0.0255		0.0255										2.95		3.07		3.07		2.95				
20	Lead	lb/hr	0.0515		0.0515		0.051		0.051										0.707		0.734		0.734		0.707				
21	Mercury	lb/hr	0.001		0.001		0.001		0.0006										0.0047		0.0049		0.0049		0.0047				
22	Nickel	lb/hr	0.0206		0.0206		0.0204		0.0204										2.79		2.9		2.9		2.79				
23	Selenium	lb/hr	0.0026		0.0026		0.0026		0.0026										0.0409		0.0424		0.0424		0.0409				
24	Silver	lb/hr	0.0026		0.0026		0.0026		0.0026										0.0718		0.0745		0.0745		0.0718				
25	Thallium	lb/hr	0.0052		0.0052		0.0051		0.0051										0.0409		0.0424		0.0424		0.0409				
26																													
27	Stack Gas Flowrate	dscfm	37835		37326		37623		37183		37835		37326		37623		37183		37835		37326		37623		37183				
28	Oxygen	%	15		14.9		14.8		14.85		15		14.9		14.8		14.85		15		14.9		14.8		14.85				
29																													
30	<i>Feedrate MTEC Calculations</i>																												
31	Chlorine	ug/dscm	2885621		2712619		2776177		2930081		0		0		0		0		0		0		0		0				
32	Antimony	ug/dscm	510		508		491		501		0		0		0		0		1227		1269		1239		1218				
33	Arsenic	ug/dscm	86		85		82		83		0		0		0		0		10207		10571		10318		10133				
34	Barium	ug/dscm	110		102		98		167		0		0		0		0		30835		31894		31132		30610				
35	Beryllium	ug/dscm	43		43		42		43		0		0		0		0		674		697		680		669				
36	Cadmium	ug/dscm	86		85		82		83		0		0		0		0		3265		3387		3306		3241				
37	Chromium	ug/dscm	425		424		409		417		0		0		0		0		48643		50471		49265		48289				
38	Lead	ug/dscm	849		847		818		835		0		0		0		0		11658		12067		11779		11573				
39	Mercury	ug/dscm	16		16		16		10		0		0		0		0		77		81		79		77				
40	Nickel	ug/dscm	340		339		327		334		0		0		0		0		46005		47676		46537		45670				
41	Selenium	ug/dscm	43		43		42		43		0		0		0		0		674		697		680		669				
42	Silver	ug/dscm	43		43		42		43		0		0		0		0		1184		1225		1196		1175				
43	Thallium	ug/dscm	86		85		82		83		0		0		0		0		674		697		680		669				
44	SVM	ug/dscm	935		932		900		918		0		0		0		0		14923		15454		15084		14814				
45	LVM	ug/dscm	554		552		533		543		0		0		0		0		59525		61739		60264		59091				
46																													
47	307C2		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4				
48																													
49	Feedstream Number		F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3				
50	Feed Class		Liq HW		Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW		Solid HW		Raw Material		Raw Material		Raw Material		Raw Material				
51	Feed Class 2		HW		HW		HW		HW										RM		RM		RM		RM				
52	Feedstream Description		Liquid waste		Liquid waste		Liquid waste		Liquid waste		Solid waste		Solid waste		Solid waste		Solid waste		Raw material		Raw material		Raw material		Raw material				
53	Feed Rate	lb/hr	5306		5306		5358		5358										50000		48000		48000		50000				
54	Heating Value	Btu/lb	10000		10000		11000		9800																				
55	Thermal Feedrate	MMBtu/hr	53.06		53.06		58.938		52.5084																				
56	Chlorine	lb/hr	423		439		422		428																				
57	Antimony	lb/hr	0.0306		0.0306		0.0309		0.0309										0.0835		0.0782		0.0619		0.0805				
58	Arsenic	lb/hr	0.0051		0.0051		0.0052		0.0052										0.272		0.191		0.302		0.289				
59	Barium	lb/hr	0.0097		0.0097		0.0093		0.0088										2.86		4.99		4.38		3.35				
60	Beryllium	lb/hr	0.0026		0.0026		0.0026		0.0026										0.0384		0.0351		0.0358		0.0366				

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AN	AO	AP	AC	AR	AS	AT	AU	AV	AV	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
1	Feedrates 2																													
2																														
3																														
4	307C1	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	Cond Avg																
5																														
6	Feedstream Number	F4	F4	F4	F4	F5	F5	F5	F5	F6	F6	F6	F6	F6																
7	Feed Class	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total																
8	Feed Class 2	Spike	Spike	Spike	Spike					Total	Total	Total	Total	Total																
9	Feedstream Description	Spike metals	Spike metals	Spike metals	Spike metals	Spike organ	Spike organ	Spike organ	Spike organ	Total	Total	Total	Total	Total																
10	Feed Rate	105	100	99	98	199	196	201	201																					
11	Heating Value																													
12	Thermal Feedrate									50.4	52.0	44.0	47.8	48.5																
13	Chlorine																													
14	Antimony	0.253	0.239	0.239	0.236																									
15	Arsenic	0.126	0.12	0.119	0.118																									
16	Barium	0.759	0.718	0.716	0.708																									
17	Beryllium	0.0061	0.0058	0.0058	0.0057																									
18	Cadmium	0.152	0.144	0.143	0.142																									
19	Chromium	2.53	2.39	2.39	2.36																									
20	Lead	2.83	2.68	2.68	2.64																									
21	Mercury	0.126	0.12	0.119	0.118																									
22	Nickel	3.03	2.87	2.87	2.83																									
23	Selenium	0.126	0.12	0.119	0.118																									
24	Silver	0.101	0.0957	0.0955	0.0944																									
25	Thallium	0.253	0.239	0.239	0.236																									
26																														
27	Stack Gas Flowrate	37835	37326	37623	37183	37835	37326	37623	37183																					
28	Oxygen	15	14.9	14.8	14.85	15	14.9	14.8	14.85																					
29																														
30	<i>Feedrate MTEC Calcula</i>																													
31	Chlorine	0	0	0	0	0	0	0	0	2885621	2712619	2776177	2930081	2826125																
32	Antimony	4172	3929	3835	3863	0	0	0	0	5908	5706	5565	5582	5690																
33	Arsenic	2078	1973	1910	1932	0	0	0	0	12370	12629	12310	12148	12364																
34	Barium	12515	11804	11490	11589	0	0	0	0	43461	43800	42719	42367	43087																
35	Beryllium	101	95	93	93	0	0	0	0	818	835	815	805	818																
36	Cadmium	2506	2367	2295	2324	0	0	0	0	5857	5840	5682	5649	5757																
37	Chromium	41718	39292	38353	38631	0	0	0	0	90787	90187	88027	87338	89085																
38	Lead	46665	44060	43007	43215	0	0	0	0	59172	56973	55604	55622	56843																
39	Mercury	2078	1973	1910	1932	0	0	0	0	2172	2070	2004	2018	2066																
40	Nickel	49962	47183	46056	46325	0	0	0	0	96307	95198	92920	92329	94189																
41	Selenium	2078	1973	1910	1932	0	0	0	0	2795	2713	2632	2644	2696																
42	Silver	1665	1573	1533	1545	0	0	0	0	2892	2841	2770	2763	2816																
43	Thallium	4172	3929	3835	3863	0	0	0	0	4932	4712	4598	4616	4714																
44	SVM	49171	46427	45301	45539	0	0	0	0	65029	62813	61286	61271	62600																
45	LVM	43896	41360	40356	40656	0	0	0	0	103975	103652	101152	100291	102267																
46																														
47	307C2	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	Cond Avg																
48																														
49	Feedstream Number	F4	F4	F4	F4	F5	F5	F5	F5	F6	F6	F6	F6	F6																
50	Feed Class	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total																
51	Feed Class 2	Spike	Spike	Spike	Spike					Total	Total	Total	Total	Total																
52	Feedstream Description	Spike metals	Spike metals	Spike metals	Spike metals	Spike organ	Spike organ	Spike organ	Spike organ	Total	Total	Total	Total	Total																
53	Feed Rate	104	101	105	104	529	538	554	543																					
54	Heating Value	0	0	0	0	0	0	0	0																					
55	Thermal Feedrate									53.1	53.1	58.9	52.5	54.4																
56	Chlorine					379	385	396	388																					
57	Antimony	0.25	0.243	0.251	0.25																									
58	Arsenic	0.125	0.122	0.126	0.125																									
59	Barium	0.749	0.73	0.753	0.75																									
60	Beryllium	0.006	0.0059	0.0061	0.006																									

	B	BH	BI	BJ	BK	BL	BN	BP	BC	BR
1	Feedrates 2									
2										
3										
4	307C1									
5										
6	Feedstream Number									
7	Feed Class									
8	Feed Class 2									
9	Feedstream Description									
10	Feed Rate									
11	Heating Value									
12	Thermal Feedrate									
13	Chlorine									
14	Antimony									
15	Arsenic									
16	Barium									
17	Beryllium									
18	Cadmium									
19	Chromium									
20	Lead									
21	Mercury									
22	Nickel									
23	Selenium									
24	Silver									
25	Thallium									
26										
27	Stack Gas Flowrate									
28	Oxygen									
29										
30	<i>Feedrate MTEC Calcula</i>									
31	Chlorine									
32	Antimony									
33	Arsenic									
34	Barium									
35	Beryllium									
36	Cadmium									
37	Chromium									
38	Lead									
39	Mercury									
40	Nickel									
41	Selenium									
42	Silver									
43	Thallium									
44	SVM									
45	LVM									
46										
47	307C2									
48										
49	Feedstream Number									
50	Feed Class									
51	Feed Class 2									
52	Feedstream Description									
53	Feed Rate									
54	Heating Value									
55	Thermal Feedrate									
56	Chlorine									
57	Antimony									
58	Arsenic									
59	Barium									
60	Beryllium									

	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	Cadmium		lb/hr		0.0051		0.0051		0.0052		0.0052										0.171		0.257		0.18		0.168		
62	Chromium		lb/hr		0.0255		0.0255		0.0258		0.0258										2.67		4.99		2.79		1.8		
63	Lead		lb/hr		0.051		0.051		0.0515		0.0515										0.705		1.28		0.442		0.7		
64	Mercury		lb/hr		0.001		0.001		0.001		0.001										0.0049		0.0046		0.0042		0.0039		
65	Nickel		lb/hr		0.0204		0.0204		0.0206		0.0206										1.72		2.99		1.73		1.52		
66	Selenium		lb/hr		0.0026		0.0026		0.0026		0.0026										0.0384		0.0351		0.0358		0.0366		
67	Silver		lb/hr		0.0026		0.0026		0.0026		0.0026										0.067		0.0614		0.0629		0.064		
68	Thallium		lb/hr		0.0051		0.0051		0.0052		0.0052										0.048		0.0439		0.0448		0.0457		
69																													
70	Stack Gas Flowrate		dscfm		37427		37404		37980		38032		37427		37404		37980		38032		37427		37404		37980		38032		
71	Oxygen		%		14.9		15.2		15.2		15.4		14.9		15.2		15.2		15.4		14.9		15.2		15.2		15.4		
72																													
73	<i>Feedrate MTEC Calculations</i>																												
74	Chlorine		ug/dscm		6935403		7574687		7170934		7522337		0		0		0		0		0		0		0		0		0
75	Antimony		ug/dscm		502		528		525		543		0		0		0		0		1369		1349		1052		1415		
76	Arsenic		ug/dscm		84		88		88		91		0		0		0		0		4460		3296		5132		5079		
77	Barium		ug/dscm		159		167		158		155		0		0		0		0		46892		86100		74428		58878		
78	Beryllium		ug/dscm		43		45		44		46		0		0		0		0		630		606		608		643		
79	Cadmium		ug/dscm		84		88		88		91		0		0		0		0		2804		4434		3059		2953		
80	Chromium		ug/dscm		418		440		438		453		0		0		0		0		43777		86100		47410		31636		
81	Lead		ug/dscm		836		880		875		905		0		0		0		0		11559		22086		7511		12303		
82	Mercury		ug/dscm		16		17		17		18		0		0		0		0		80		79		71		69		
83	Nickel		ug/dscm		334		352		350		362		0		0		0		0		28201		51591		29397		26715		
84	Selenium		ug/dscm		43		45		44		46		0		0		0		0		630		606		608		643		
85	Silver		ug/dscm		43		45		44		46		0		0		0		0		1099		1059		1069		1125		
86	Thallium		ug/dscm		84		88		88		91		0		0		0		0		787		757		761		803		
87	SVM		ug/dscm		920		968		963		997		0		0		0		0		14363		26520		10569		15256		
88	LVM		ug/dscm		544		573		571		591		0		0		0		0		48866		90001		53150		37359		
89																													
90	307C3				R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		
91																													
92	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3		
93	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW		Solid HW		Raw Material		Raw Material		Raw Material		Raw Material		
94	Feed Class 2																				RM		RM		RM		RM		
95	Feedstream Description				Liquid waste		Liquid waste		Liquid waste		Liquid waste		Solid waste		Solid waste		Solid waste		Solid waste		Raw material		Raw material		Raw material		Raw material		
96	Feed Rate		lb/hr		5306		5306		5358		5358		1142		1037		978		1038		50000		54000		52000		52000		
97	Heating Value		Btu/lb		8200		8200		8600		8600		0		0		0		0										
98	Thermal Feedrate		MMBtu/hr		43.51		43.51		46.08		46.08																		
99	Chlorine		lb/hr		211		175		134		175		159		163		183		195										
100	Antimony		lb/hr		0.0309		0.0309		0.0309		0.0309		0.0068		0.0059		0.0061		0.0347		0.0925		0.0527		0.053		0.0471		
101	Arsenic		lb/hr		0.0031		0.0052		0.0052		0.0052		0.0011		0.0013		0.0027		0.002		0.66		0.166		0.499		0.374		
102	Barium		lb/hr		0.0422		0.0113		0.0057		0.0072		0.0148		0.0752		0.0804		1.52		7.95		4.33		6.29		6.71		
103	Beryllium		lb/hr		0.0026		0.0026		0.0026		0.0026		0.0006		0.0005		0.0005		0.0005		0.0393		0.0421		0.0408		0.0377		
104	Cadmium		lb/hr		0.0052		0.0052		0.0052		0.0052		0.0011		0.0032		0.0034		0.0521		0.155		0.131		0.202		0.156		
105	Chromium		lb/hr		0.0263		0.0258		0.0258		0.0258		0.0057		0.0336		0.0468		0.575		2.47		2.28		3.1		2.97		
106	Lead		lb/hr		0.206		0.0515		0.0515		0.0515		0.0295		0.093		0.102		1.85		1.65		0.291		1.01		0.822		
107	Mercury		lb/hr		0.001		0.001		0.001		0.001		0.0002		0.0004		0.0006		0.0002		0.0046		0.0042		0.0041		0.0051		
108	Nickel		lb/hr		0.0567		0.0206		0.0206		0.0206		0.0045		0.0415		0.054		0.499		2.46		1.32		2.19		2.18		
109	Selenium		lb/hr		0.0026		0.0026		0.0026		0.0026		0.0006		0.0005		0.002		0.0109		0.0433		0.0421		0.0446		0.0377		
110	Silver		lb/hr		0.0026		0.0026		0.0026		0.0026		0.0006		0.0021		0.0042		0.0966		0.069		0.0734		0.0712		0.066		
111	Thallium		lb/hr		0.0052		0.0052		0.0052		0.0052		0.0011		0.001		0.001		0.0011		0.0393		0.0421		0.0408		0.0377		
112																													
113	Stack Gas Flowrate		dscfm		37835		37326		37623		37183		37835		37326		37623		37183		37835		37326		37623		37183		
114	Oxygen		%		15		14.9		14.8		14.85		15		14.9		14.8		14.85		15		14.9		14.8		14.85		
115																													
116	<i>Feedrate MTEC Calculations</i>																												
117	Chlorine		ug/dscm		3479234		2877021		2150334		2864605		2621793		2679739		2936650		3191988		0		0		0		0		
118	Antimony		ug/dscm		510		508		496		506		112		97		98		568		1525		866		851		771		
119	Arsenic		ug/dscm		51		85		83		85		18		21		43		33		10883		2729		8008		6122		
120	Barium		ug/dscm		696		186		91		118		244		1236		1290		24881		131090		71186		100937		109837		

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AV	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	
61	Cadmium	0.15	0.146	0.151	0.15																										
62	Chromium	2.5	2.43	2.51	2.5																										
63	Lead	2.8	2.73	2.81	2.8																										
64	Mercury	0.125	0.122	0.126	0.125																										
65	Nickel	3	2.92	3.01	3																										
66	Selenium	0.125	0.122	0.126	0.125																										
67	Silver	0.0999	0.0973	0.101	0.1																										
68	Thallium	0.25	0.243	0.251	0.25																										
69																															
70	Stack Gas Flowrate	37427	37404	37980	38032	37427	37404	37980	38032																						
71	Oxygen	14.9	15.2	15.2	15.4	14.9	15.2	15.2	15.4																						
72																															
73	<i>Feedrate MTEC Calcula</i>																														
74	Chlorine	0	0	0	0	6213990	6642949	6729123	6819315	13149393	14217635	13900056	14341652	13902184																	
75	Antimony	4099	4193	4265	4394	0	0	0	0	5970	6070	5842	6352	6058																	
76	Arsenic	2049	2105	2141	2197	0	0	0	0	6593	5489	7361	7368	6703																	
77	Barium	12280	12596	12796	13182	0	0	0	0	59331	98863	87382	72214	79448																	
78	Beryllium	98	102	104	105	0	0	0	0	771	752	756	794	768																	
79	Cadmium	2459	2519	2566	2636	0	0	0	0	5347	7042	5713	5680	5945																	
80	Chromium	40989	41928	42652	43939	0	0	0	0	85184	128468	90500	76028	95045																	
81	Lead	45908	47105	47750	49212	0	0	0	0	58303	70070	56135	62420	61732																	
82	Mercury	2049	2105	2141	2197	0	0	0	0	2146	2202	2229	2283	2215																	
83	Nickel	49187	50383	51148	52727	0	0	0	0	77722	102326	80896	79804	85187																	
84	Selenium	2049	2105	2141	2197	0	0	0	0	2722	2756	2794	2886	2789																	
85	Silver	1638	1679	1716	1758	0	0	0	0	2779	2783	2829	2928	2830																	
86	Thallium	4099	4193	4265	4394	0	0	0	0	4970	5038	5115	5288	5103																	
87	SVM	48367	49624	50315	51848	0	0	0	0	63650	77112	61848	68100	67678																	
88	LVM	43137	44135	44897	46241	0	0	0	0	92547	134709	98617	84190	102516																	
89																															
90	307C3	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	Cond Avg	R1	R2															
91																															
92	Feedstream Number	F4	F4	F4	F4	F5	F5	F5	F5	F6	F6	F6	F6	F6																	
93	Feed Class	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total																	
94	Feed Class 2									Total	Total	Total	Total	Total	HW	HW															
95	Feedstream Description	Spike metals	Spike metals	Spike metals	Spike metals	Spike organ	Spike organ	Spike organ	Spike organ	Total	Total	Total	Total	Total																	
96	Feed Rate	98.8571	99.6571	99.7565	100.6909	189.94	167.71	152.87	152.34																						
97	Heating Value																														
98	Thermal Feedrate									43.51	43.51	46.08	46.08	44.79	43.51	43.51															
99	Chlorine					136	120	109	109																						
00	Antimony	0.237	0.239	0.239	0.242																										
01	Arsenic	0.119	0.12	0.12	0.121																										
02	Barium	0.712	0.718	0.718	0.725																										
03	Beryllium	0.0057	0.0058	0.0058	0.0058																										
04	Cadmium	0.142	0.144	0.144	0.145																										
05	Chromium	2.37	2.39	2.39	2.42																										
06	Lead	2.66	2.68	2.68	2.71																										
07	Mercury	0.119	0.12	0.12	0.121																										
08	Nickel	2.85	2.87	2.87	2.9																										
09	Selenium	0.119	0.12	0.12	0.121																										
10	Silver	0.0949	0.0957	0.0958	0.0967																										
11	Thallium	0.237	0.239	0.239	0.242																										
12																															
13	Stack Gas Flowrate	37835	37326	37623	37183	37835	37326	37623	37183																						
14	Oxygen	15	14.9	14.8	14.85	15	14.9	14.8	14.85																						
15																															
16	<i>Feedrate MTEC Calcula</i>																														
17	Chlorine	0	0	0	0	2242540	1972814	1749152	1784240	8343566	7529574	6836136	7840832	7637527	6101027	5556760															
18	Antimony	3908	3929	3835	3961	0	0	0	0	6055	5401	5280	5806	5635	622	605															
19	Arsenic	1962	1973	1926	1981	0	0	0	0	12914	4809	10060	8221	9001	69	107				</											

	B	BH	BI	BJ	BK	BL	BN	BP	BC	BR		
61	Cadmium											
62	Chromium											
63	Lead											
64	Mercury											
65	Nickel											
66	Selenium											
67	Silver											
68	Thallium											
69												
70	Stack Gas Flowrate											
71	Oxygen											
72												
73	<i>Feedrate MTEC Calcula</i>											
74	Chlorine											
75	Antimony											
76	Arsenic											
77	Barium											
78	Beryllium											
79	Cadmium											
80	Chromium											
81	Lead											
82	Mercury											
83	Nickel											
84	Selenium											
85	Silver											
86	Thallium											
87	SVM											
88	LVM											
89												
90	307C3	R3		R4		R1		R2		R3		R4
91												
92	Feedstream Number											
93	Feed Class											
94	Feed Class 2	HW		HW		Spike		Spike		Spike		Spike
95	Feedstream Description											
96	Feed Rate											
97	Heating Value											
98	Thermal Feedrate	46.08		46.08								
99	Chlorine											
100	Antimony											
101	Arsenic											
102	Barium											
103	Beryllium											
104	Cadmium											
105	Chromium											
106	Lead											
107	Mercury											
108	Nickel											
109	Selenium											
110	Silver											
111	Thallium											
112												
113	Stack Gas Flowrate											
114	Oxygen											
115												
116	<i>Feedrate MTEC Calcula</i>											
117	Chlorine	5086984		6056593		2242540		1972814		1749152		1784240
118	Antimony	594		1074		3908		3929		3835		3961
119	Arsenic	127		118		1962		1973		1926		1981
120	Barium	1382		24999		11740		11804		11522		11868

	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
121	Beryllium		ug/dscm		43		43		42		43		10		8		8		8		648		692		655		617	
122	Cadmium		ug/dscm		86		85		83		85		18		53		55		853		2556		2154		3242		2554	
123	Chromium		ug/dscm		434		424		414		422		94		552		751		9412		40728		37483		49747		48616	
124	Lead		ug/dscm		3397		847		826		843		486		1529		1637		30283		27207		4784		16208		13455	
125	Mercury		ug/dscm		16		16		16		16		3		7		10		3		76		69		66		83	
126	Nickel		ug/dscm		935		339		331		337		74		682		867		8168		40564		21701		35144		35685	
127	Selenium		ug/dscm		43		43		42		43		10		8		32		178		714		692		716		617	
128	Silver		ug/dscm		43		43		42		43		10		35		67		1581		1138		1207		1143		1080	
129	Thallium		ug/dscm		86		85		83		85		18		16		16		18		648		692		655		617	
130	SVM		ug/dscm		3483		932		910		928		505		1582		1691		31136		29763		6938		19449		16009	
131	LVM		ug/dscm		528		552		539		550		122		582		802		9453		52259		40905		58409		55356	
132																												
133																												
134	307C4				R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4	
135																												
136	Feedstream Number				F1		F1		F1		F1		F2		F2		F2		F2		F3		F3		F3		F3	
137	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Solid HW		Solid HW		Solid HW		Solid HW		Raw Material		Raw Material		Raw Material		Raw Material	
138	Feed Class 2																				RM		RM		RM		RM	
139	Feedstream Description				Liquid waste		Liquid waste		Liquid waste		Liquid waste		Solid waste		Solid waste		Solid waste		Solid waste		Raw material		Raw material		Raw material		Raw material	
140	Feed Rate		lb/hr		5306		5306		5358				1136		842						52000		52000		54000			
141	Heating Value		Btu/lb		9500		11000		11000				0		0													
142	Thermal Feedrate		MMBtu/hr		50.407		58.366		58.938				0		0													
143	Chlorine		lb/hr		193		278		438				197		166													
144	Antimony		lb/hr		0.0306		0.0309		0.0309				0.0074		0.0059						0.0946		0.0614		0.068			
145	Arsenic		lb/hr		0.0051		0.0052		0.0052				0.0012		0.0003						0.31		0.17		0.298			
146	Barium		lb/hr		0.0092		0.0067		0.0077				0.16		0.043						3.58		3.16		3.56			
147	Beryllium		lb/hr		0.0026		0.0026		0.0026				0.0006		0.0005						0.0588		0.0198		0.0197			
148	Cadmium		lb/hr		0.0051		0.0052		0.0052				0.0068		0.0018						0.25		0.172		0.164			
149	Chromium		lb/hr		0.0255		0.0258		0.0258				0.0811		0.0186						2.89		2.68		2.8			
150	Lead		lb/hr		0.051		0.0515		0.0515				0.209		0.0064						0.723		0.796		0.864			
151	Mercury		lb/hr		0.001		0.001		0.0009				0.0008		0.0002						0.0046		0.005		0.005			
152	Nickel		lb/hr		0.0204		0.0206		0.0206				0.0946		0.0234						1.99		1.9		1.96			
153	Selenium		lb/hr		0.0026		0.0026		0.0026				0.0007		0.0012						0.039		0.0395		0.0394			
154	Silver		lb/hr		0.0026		0.0026		0.0026				0.0053		0.0005						0.0681		0.0692		0.0691			
155	Thallium		lb/hr		0.0051		0.0052		0.0052				0.0012		0.001						0.287		0.0395		0.0394			
156																												
157	Stack Gas Flowrate		dscfm		35170		35535		36136				35170		35535		36136				35170		35535		36136			
158	Oxygen		%		14.2		14.9		15.4				14.2		14.9		15.4				14.2		14.9		15.4			
159																												
160	<i>Feedrate MTEC Calculations</i>																											
161	Chlorine		ug/dscm		3020802		4800703		8101999				3083409		2866607		0				0		0		0			
162	Antimony		ug/dscm		479		534		572				116		102		0				1481		1060		1258			
163	Arsenic		ug/dscm		80		90		96				19		5		0				4852		2936		5512			
164	Barium		ug/dscm		144		116		142				2504		743		0				56034		54569		65852			
165	Beryllium		ug/dscm		41		45		48				9		9		0				920		342		364			
166	Cadmium		ug/dscm		80		90		96				106		31		0				3913		2970		3034			
167	Chromium		ug/dscm		399		446		477				1269		321		0				45234		46280		51794			
168	Lead		ug/dscm		798		889		953				3271		111		0				11316		13746		15982			
169	Mercury		ug/dscm		16		17		17				13		3		0				72		86		92			
170	Nickel		ug/dscm		319		356		381				1481		404		0				31147		32811		36256			
171	Selenium		ug/dscm		41		45		48				11		21		0				610		682		729			
172	Silver		ug/dscm		41		45		48				83		9		0				1066		1195		1278			
173	Thallium		ug/dscm		80		90		96				19		17		0				4492		682		729			
174	SVM		ug/dscm		878		979		1049				3378		142		0				15229		16716		19016			
175	LVM		ug/dscm		520		580		622				1298		335		0				51006		49558		57670			

	B	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
21	Beryllium	94	95	93	95	0	0	0	0	795	838	798	763	798	53	51														
22	Cadmium	2341	2367	2311	2374	0	0	0	0	5001	4659	5690	5865	5304	104	138														
23	Chromium	39080	39292	38353	39613	0	0	0	0	80336	77752	89265	98064	86354	528	977														
24	Lead	43861	44060	43007	44360	0	0	0	0	74952	51219	61678	88942	69198	3883	2376														
25	Mercury	1962	1973	1926	1981	0	0	0	0	2058	2065	2017	2084	2056	20	23														
26	Nickel	46994	47183	46056	47471	0	0	0	0	88567	69905	82396	91661	83132	1009	1021														
27	Selenium	1962	1973	1926	1981	0	0	0	0	2729	2716	2715	2819	2745	53	51														
28	Silver	1565	1573	1537	1583	0	0	0	0	2755	2857	2789	4287	3172	53	77														
29	Thallium	3908	3929	3835	3961	0	0	0	0	4660	4723	4590	4682	4664	104	102														
30	SVM	46203	46427	45317	46734	0	0	0	0	79953	55878	67368	94807	74502	3987	2514														
31	LVM	41136	41360	40372	41689	0	0	0	0	94045	83399	100122	107048	96153	650	1134														
32																														
33																														
34	307C4	R1	R2	R3	R4	R1	R2	R3	R4	R1	R2	R3	R4	Cond Avg	R1	R2														
35																														
36	Feedstream Number	F4	F4	F4	F4	F5	F5	F5	F5	F6	F6	F6	F6	F6																
37	Feed Class	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Spike	Total	Total	Total	Total	Total																
38	Feed Class 2									Total	Total	Total	Total	Total	HW	HW														
39	Feedstream Description	Spike metals	Spike metals	Spike metals	Spike metals	Spike organ	Spike organix	Spike organi	Spike organi	Total	Total	Total	Total	Total																
40	Feed Rate	104.76	108.72	105.6		265.8	389.16	512.76																						
41	Heating Value	0	0	0		0	0	0																						
42	Thermal Feedrate									50.407	58.366	58.938		55.904	50.407	58.366														
43	Chlorine					190	278	367																						
44	Antimony	0.251	0.261	0.253																										
45	Arsenic	0.126	0.131	0.127																										
46	Barium	0.754	0.783	0.76																										
47	Beryllium	0.0061	0.0063	0.0061																										
48	Cadmium	0.151	0.157	0.152																										
49	Chromium	2.51	2.61	2.53																										
50	Lead	2.82	2.92	2.84																										
51	Mercury	0.126	0.131	0.127																										
52	Nickel	3.02	3.13	3.04																										
53	Selenium	0.126	0.131	0.127																										
54	Silver	0.101	0.104	0.101																										
55	Thallium	0.251	0.261	0.253																										
56																														
57	Stack Gas Flowrate	35170	35535	36136		35170	35535	36136																						
58	Oxygen	14.2	14.9	15.4		14.2	14.9	15.4																						
59																														
60	<i>Feedrate MTEC Calcula</i>																													
61	Chlorine	0	0	0		2973846	4800703	6788662		9078057	12468013	14890661		12145577	6104211	7667310														
62	Antimony	3929	4507	4680		0	0	0		6004	6203	6509		6239	595	635														
63	Arsenic	1972	2262	2349		0	0	0		6923	5293	7958		6724	99	95														
64	Barium	11801	13521	14058		0	0	0		70483	68949	80053		73162	2648	858														
65	Beryllium	95	109	113		0	0	0		1066	504	525		698	50	54														
66	Cadmium	2363	2711	2812		0	0	0		6463	5802	5941		6069	186	121														
67	Chromium	39286	45071	46799		0	0	0		86188	92118	99070		92459	1668	767														
68	Lead	44138	50425	52534		0	0	0		59524	65170	69468		64721	4069	1000														
69	Mercury	1972	2262	2349		0	0	0		2072	2369	2458		2300	28	21														
70	Nickel	47269	54051	56233		0	0	0		80216	87621	92870		86902	1800	760														
71	Selenium	1972	2262	2349		0	0	0		2634	3010	3126		2923	52	66														
72	Silver	1581	1796	1868		0	0	0		2770	3044	3195		3003	124	54														
73	Thallium	3929	4507	4680		0	0	0		8519	5296	5505		6440	99	107														
74	SVM	46502	53136	55345		0	0	0		65987	70973	75410		70790	4256	1121														
75	LVM	41354	47442	49261		0	0	0		94177	97915	107553		99882	1817	915														

	B	BH	BI	BJ	BK	BL	BN	BP	BC	BR
121	Beryllium	50		51		94	95	93		95
122	Cadmium	138		938		2341	2367	2311		2374
123	Chromium	1165		9835		39080	39292	38353		39613
124	Lead	2463		31126		43861	44060	43007		44360
125	Mercury	26		20		1962	1973	1926		1981
126	Nickel	1197		8505		46994	47183	46056		47471
127	Selenium	74		221		1962	1973	1926		1981
128	Silver	109		1624		1565	1573	1537		1583
129	Thallium	99		103		3908	3929	3835		3961
130	SVM	2601		32064		46203	46427	45317		46734
131	LVM	1342		10003		41136	41360	40372		41689
132										
133										
134	307C4	R3		R4		R1	R2	R3		R4
135										
136	Feedstream Number									
137	Feed Class									
138	Feed Class 2	HW		HW		Spike	Spike	Spike		Spike
139	Feedstream Description									
140	Feed Rate									
141	Heating Value									
142	Thermal Feedrate	58.938								
143	Chlorine									
144	Antimony									
145	Arsenic									
146	Barium									
147	Beryllium									
148	Cadmium									
149	Chromium									
150	Lead									
151	Mercury									
152	Nickel									
153	Selenium									
154	Silver									
155	Thallium									
156										
157	Stack Gas Flowrate									
158	Oxygen									
159										
160	<i>Feedrate MTEC Calcula</i>									
161	Chlorine	8101999				2973846	4800703	6788662		
162	Antimony	572				3929	4507	4680		
163	Arsenic	96				1972	2262	2349		
164	Barium	142				11801	13521	14058		
165	Beryllium	48				95	109	113		
166	Cadmium	96				2363	2711	2812		
167	Chromium	477				39286	45071	46799		
168	Lead	953				44138	50425	52534		
169	Mercury	17				1972	2262	2349		
170	Nickel	381				47269	54051	56233		
171	Selenium	48				1972	2262	2349		
172	Silver	48				1581	1796	1868		
173	Thallium	96				3929	4507	4680		
174	SVM	1049				46502	53136	55345		
175	LVM	622				41354	47442	49261		

	B	C	D	E	F	G	H
1	Process Information 1						
2		Units		R1	R2	R3	Cond Avg
3							
4	307C10	Trial burn					
5							
6	Back end temperature	°F		865	866	866	866
7	Kiln pressure	in. w.c.					-1.16
8	Baghouse inlet temperature	°F		425	425	425	425
9	Baghouse pressure drop	in. w.c.					3.75
10	Scrubber recirculation flow	gpm					179
11	Recirculation tank pH						7.95
12							
13	307C11	Trial burn					
14							
15	Back end temperature	°F		1064	1054	1057	1058
16	Baghouse inlet temperature	°F		439	441	443	441
17	Baghouse pressure drop	in. w.c.					4.4
18	Scrubber recirculation flow	gpm					180
19	Recirculation tank pH						7.95
20							
21	307C12	Risk Burn					
22							
23	Back end temperature	°F		1056	1069	1052	1059
24	Baghouse inlet temperature	°F		400	400	400	400
25	Baghouse pressure drop	in. w.c.					4.36
26	Scrubber recirculation flow	gpm					174
27	Recirculation tank pH						8.05
28							
29	307C13	Risk Burn					
30							
31	Back end temperature	°F		1030	1032	1027	1032
32	Baghouse inlet temperature	°F		400	400	399	400
33	Baghouse pressure drop	in. w.c.					5.12
34	Scrubber recirculation flow	gpm					177
35	Recirculation tank pH						7.99
36							
37	307C14	Risk Burn					
38							
39	Back end temperature	°F		1032	1029	1032	1035
40	Baghouse inlet temperature	°F		398	400	400	399
41	Baghouse pressure drop	in. w.c.					5.17
42	Scrubber recirculation flow	gpm					179
43	Recirculation tank pH						7.99
44							
45							
46	307C15	Risk Burn					
47							
48	Back end temperature	°F		1023	1021	1011	1018
49	Baghouse inlet temperature	°F		375	375	375	375
50	Baghouse pressure drop	in. w.c.					5.17
51	Scrubber recirculation flow	gpm					177
52	Recirculation tank pH						7.99

	C	D	E	F	G	H
1	Process Information 2					
2						
3	307C1					
4						
5	Combustion Temperature	F	905	880	907	893
6	FF Temperature	F	437	442	440	441
7	WS Pressure Drop	in H2O	5.1	5	5	5
8	FF Pressure Drop	in H2O	5.5	5.3	5.5	5.4
9	WS pH		9.2	9.1	9.2	9.2
10						
11	307C2					
12						
13	Combustion Temperature	F	1071	1136	1121	1121
14	FF Temperature	F	443	443	442	442
15	WS Pressure Drop	in H2O	5	5	4.9	4.9
16	FF Pressure Drop	in H2O	5.5	5.7	5.9	6.1
17	WS pH		9.2	8.6	8.7	9.3
18						
19	307C3					
20						
21	Combustion Temperature	F	954	961	977	966
22	FF Temperature	F	417	428	431	432
23	WS Pressure Drop	in H2O	5.4	5.3	5.3	5.3
24	FF Pressure Drop	in H2O	5.5	5.5	5.4	5.5
25	WS pH		9.3	9.2	9.3	9.2
26						
27	307C4					
28						
29	Combustion Temperature	F	1083	1018	1119	
30	FF Temperature	F	438	438	436	
31	WS Pressure Drop	in H2O	4.3	4.3	4.5	
32	FF Pressure Drop	in H2O	10.3	10.3	9.7	
33	WS pH		9.3	9.4	9	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	PCDD/PCDF																		
2	N																		
3	Facility Name and ID: Norlite Corp, Lightweight Aggregate Kiln #1																		
4	Condition ID: 307C10 Trial Burn																		
5	Condition/Test Date: 28-Apr-99																		
6																			
7	I-TEF																		
8	Wght Fact																		
9																			
10	Detected in sample volume (ng)																		
11	2,3,7,8-TCDD 1 0.0220 0.0220 0.0220 0.0220 0.0510 0.0510 0.0510 0.0510 0.0560 0.0560 0.0560 0.0560																		
12	1,2,3,7,8-PCDD 0.5 nd 0.0130 0.0065 0.0065 0.0033 0.0390 0.0195 0.0390 0.0195 0.0440 0.0220 0.0440 0.0220																		
13	1,2,3,4,7,8-HxCDD 0.1 nd 0.0100 0.0010 0.0050 0.0005 nd 0.0140 0.0014 0.0070 0.0007 nd 0.0190 0.0019 0.0095 0.0010																		
14	1,2,3,6,7,8-HxCDD 0.1 nd 0.0096 0.0010 0.0048 0.0005 nd 0.0130 0.0013 0.0065 0.0007 nd 0.0180 0.0018 0.0090 0.0009																		
15	1,2,3,7,8,9-HxCDD 0.1 nd 0.0095 0.0010 0.0048 0.0005 nd 0.0130 0.0013 0.0065 0.0007 nd 0.0170 0.0017 0.0085 0.0009																		
16	1,2,3,4,6,7,8-HpCDD 0.01 0.0260 0.0003 0.0260 0.0003 0.0380 0.0004 0.0380 0.0004 0.0400 0.0004 0.0400 0.0004																		
17	OCDD 0.001 0.0700 0.0001 0.0700 0.0001 0.0860 0.0001 0.0860 0.0001 0.0640 0.0001 0.0640 0.0001																		
18	2,3,7,8-TCDF 0.1 0.3200 0.0320 0.3200 0.0320 0.9800 0.0980 0.9800 0.0980 1.2000 0.1200 1.2000 0.1200																		
19	1,2,3,7,8-PCDF 0.05 0.1300 0.0065 0.1300 0.0065 0.4400 0.0220 0.4400 0.0220 0.5600 0.0280 0.5600 0.0280																		
20	2,3,4,7,8-PCDF 0.5 0.2000 0.1000 0.2000 0.1000 0.7800 0.3900 0.7800 0.3900 1.1000 0.5500 1.1000 0.5500																		
21	1,2,3,4,7,8-HxCDF 0.1 0.0510 0.0051 0.0510 0.0051 0.2200 0.0220 0.2200 0.0220 0.3300 0.0330 0.3300 0.0330																		
22	1,2,3,6,7,8-HxCDF 0.1 0.0470 0.0047 0.0470 0.0047 0.2000 0.0200 0.2000 0.0200 0.3000 0.0300 0.3000 0.0300																		
23	2,3,4,6,7,8-HxCDF 0.1 0.0360 0.0036 0.0360 0.0036 0.1600 0.0160 0.1600 0.0160 0.2500 0.0250 0.2500 0.0250																		
24	1,2,3,7,8,9-HxCDF 0.1 0.0160 0.0016 0.0160 0.0016 0.0540 0.0054 0.0540 0.0054 0.0930 0.0093 0.0930 0.0093																		
25	1,2,3,4,6,7,8-HpCDF 0.01 0.0830 0.0008 0.0830 0.0008 0.2100 0.0021 0.2100 0.0021 0.2500 0.0025 0.2500 0.0025																		
26	1,2,3,4,7,8,9-HpCDF 0.01 nd 0.0160 0.0002 0.0080 0.0001 nd 0.0220 0.0002 0.0110 0.0001 nd 0.0390 0.0004 0.0195 0.0002																		
27	OCDF 0.001 0.0300 0.0000 0.0300 0.0000 0.0400 0.0000 0.0400 0.0000 0.0380 0.0000 0.0380 0.0000																		
28	Total TCDD 0 0.6100 0.0000 0.6100 0.0000 1.4000 0.0000 1.4000 0.0000 1.7000 0.0000 1.7000 0.0000																		
29	Total PCDD 0 0.1300 0.0000 0.1300 0.0000 0.4700 0.0000 0.4700 0.0000 0.5700 0.0000 0.5700 0.0000																		
30	Total HxCDD 0 0.0890 0.0000 0.0890 0.0000 0.1300 0.0000 0.1300 0.0000 0.1400 0.0000 0.1400 0.0000																		
31	Total HpCDD 0 0.0530 0.0000 0.0530 0.0000 0.0700 0.0000 0.0700 0.0000 0.0760 0.0000 0.0760 0.0000																		
32	Total TCDF 0 18.0000 0.0000 18.0000 0.0000 49.0000 0.0000 49.0000 0.0000 59.0000 0.0000 59.0000 0.0000																		
33	Total PCDF 0 2.6000 0.0000 2.6000 0.0000 12.0000 0.0000 12.0000 0.0000 17.0000 0.0000 17.0000 0.0000																		
34	Total HxCDF 0 0.3800 0.0000 0.3800 0.0000 1.9000 0.0000 1.9000 0.0000 2.8000 0.0000 2.8000 0.0000																		
35	Total HpCDF 0 0.0830 0.0000 0.0830 0.0000 0.3200 0.0000 0.3200 0.0000 0.4000 0.0000 0.4000 0.0000																		
36																			
37	Gas sample volume (dscf) 148.27 148.27 148.27 148.20 148.20 148.20																		
38	O2 (%) 14.23 14.23 14.23 14.3 14.3 14.3 14.38 14.38 14.38																		
39																			
40	PCDD/PCDF (ng in sample) 0.186 22.0 0.181 0.651 65.4 0.649 0.882 81.8 0.879																		
41	PCDD/PCDF (ng/dscm @ 7% O2) 5.1 0.092 10.86 0.089 0.6 0.323 32.45 0.322 0.7 0.460 42.61 0.458																		
42																			
43	TEQ Cond Avg 0.290																		
44	Total Cond Avg 28.64																		

	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:		Norlite Corp, Lightweight Aggregate Kiln #1															
4	Condition ID:		307C11 Trial Burn															
5	Condition/Test Date:		April 29-30, 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	2.60	2.60	2.60	2.60	3.30	3.30	3.30	3.30	3.20	3.20	3.20	3.20	3.20	3.20	3.20
12	1,2,3,7,8-PCDD		0.5	6.00	3.00	6.00	3.00	8.20	4.10	8.20	4.10	7.60	3.80	7.60	3.80	7.60	3.80	3.80
13	1,2,3,4,7,8-HxCDD		0.1	3.60	0.36	3.60	0.36	5.90	0.59	5.90	0.59	5.40	0.54	5.40	0.54	5.40	0.54	0.54
14	1,2,3,6,7,8-HxCDD		0.1	3.80	0.38	3.80	0.38	6.30	0.63	6.30	0.63	5.30	0.53	5.30	0.53	5.30	0.53	0.53
15	1,2,3,7,8,9-HxCDD		0.1	2.80	0.28	2.80	0.28	4.10	0.41	4.10	0.41	4.10	0.41	4.10	0.41	4.10	0.41	0.41
16	1,2,3,4,6,7,8-HpCDD		0.01	9.60	0.10	9.60	0.10	21.00	0.21	21.00	0.21	17.00	0.17	17.00	0.17	17.00	0.17	0.17
17	OCDD		0.001	4.80	0.00	4.80	0.00	17.00	0.02	17.00	0.02	11.00	0.01	11.00	0.01	11.00	0.01	0.01
18	2,3,7,8-TCDF		0.1	33.00	3.30	33.00	3.30	41.00	4.10	41.00	4.10	40.00	4.00	40.00	4.00	40.00	4.00	4.00
19	1,2,3,7,8-PCDF		0.05	46.00	2.30	46.00	2.30	67.00	3.35	67.00	3.35	61.00	3.05	61.00	3.05	61.00	3.05	3.05
20	2,3,4,7,8-PCDF		0.5	88.00	44.00	88.00	44.00	130.00	65.00	130.00	65.00	120.00	60.00	120.00	60.00	120.00	60.00	60.00
21	1,2,3,4,7,8-HxCDF		0.1	79.00	7.90	79.00	7.90	140.00	14.00	140.00	14.00	120.00	12.00	120.00	12.00	120.00	12.00	12.00
22	1,2,3,6,7,8-HxCDF		0.1	69.00	6.90	69.00	6.90	120.00	12.00	120.00	12.00	98.00	9.80	98.00	9.80	98.00	9.80	9.80
23	2,3,4,6,7,8-HxCDF		0.1	85.00	8.50	85.00	8.50	160.00	16.00	160.00	16.00	130.00	13.00	130.00	13.00	130.00	13.00	13.00
24	1,2,3,7,8,9-HxCDF		0.1	16.00	1.60	16.00	1.60	31.00	3.10	31.00	3.10	26.00	2.60	26.00	2.60	26.00	2.60	2.60
25	1,2,3,4,6,7,8-HpCDF		0.01	200.00	2.00	200.00	2.00	510.00	5.10	510.00	5.10	370.00	3.70	370.00	3.70	370.00	3.70	3.70
26	1,2,3,4,7,8,9-HpCDF		0.01	18.00	0.18	18.00	0.18	42.00	0.42	42.00	0.42	34.00	0.34	34.00	0.34	34.00	0.34	0.34
27	OCDF		0.001	77.00	0.08	77.00	0.08	30.00	0.03	30.00	0.03	18.00	0.02	18.00	0.02	18.00	0.02	0.02
28	Total TCDD		0	46.00	0.00	46.00	0.00	55.00	0.00	55.00	0.00	53.00	0.00	53.00	0.00	53.00	0.00	0.00
29	Total PCDD		0	46.00	0.00	46.00	0.00	64.00	0.00	64.00	0.00	60.00	0.00	60.00	0.00	60.00	0.00	0.00
30	Total HxCDD		0	40.00	0.00	40.00	0.00	58.00	0.00	58.00	0.00	58.00	0.00	58.00	0.00	58.00	0.00	0.00
31	Total HpCDD		0	20.00	0.00	20.00	0.00	44.00	0.00	44.00	0.00	34.00	0.00	34.00	0.00	34.00	0.00	0.00
32	Total TCDF		0	1100.00	0.00	1100.00	0.00	1300.00	0.00	1300.00	0.00	1200.00	0.00	1200.00	0.00	1200.00	0.00	0.00
33	Total PCDF		0	1100.00	0.00	1100.00	0.00	1500.00	0.00	1500.00	0.00	1300.00	0.00	1300.00	0.00	1300.00	0.00	0.00
34	Total HxCDF		0	720.00	0.00	720.00	0.00	1300.00	0.00	1300.00	0.00	1000.00	0.00	1000.00	0.00	1000.00	0.00	0.00
35	Total HpCDF		0	290.00	0.00	290.00	0.00	720.00	0.00	720.00	0.00	530.00	0.00	530.00	0.00	530.00	0.00	0.00
36																		
37	Gas sample volume (dscf)				163.9	163.9	163.9	161.6	161.6	161.6	161.3	161.3	161.3					
38	O2 (%)				15.2	15.2	15.2	15.1	15.1	15.1	15.1	15.1						
39																		
40	PCDD/PCDF (ng in sample)				83.5	3443.8	83.5	132.4	5088.0	132.4	117.2	4264.0	117.2					
41	PCDD/PCDF (ng/dscm @ 7% O2)				0.0	43.5	1792.7	43.5	0.0	69.1	2657.5	69.1	0.0	61.2	2228.5	61.2		
42																		
43	TEQ Cond Avg		57.94															
44	Total Cond Avg		2226.24															

	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:		Norlite Corp, Lightweight Aggregate Kiln #1															
4	Condition ID:		307C12 Risk Burn															
5	Condition/Test Date:		May 23-24, 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 (ng)																	
11	2,3,7,8-TCDD		1	0.16	0.16	0.16	0.16	0.49	0.49	0.49	0.49	0.34	0.34	0.34	0.34	0.34	0.34	0.34
12	1,2,3,7,8-PCDD		0.5	0.14	0.07	0.14	0.07	0.59	0.29	0.59	0.29	0.31	0.16	0.31	0.16	0.31	0.16	0.16
13	1,2,3,4,7,8-HxCDD		0.1	0.03	0.00	0.03	0.00	0.17	0.02	0.17	0.02	0.06	0.01	0.06	0.01	0.06	0.01	0.01
14	1,2,3,6,7,8-HxCDD		0.1	0.03	0.00	0.03	0.00	0.17	0.02	0.17	0.02	0.07	0.01	0.07	0.01	0.07	0.01	0.01
15	1,2,3,7,8,9-HxCDD		0.1	0.02	0.00	0.02	0.00	0.09	0.01	0.09	0.01	0.04	0.00	0.04	0.00	0.04	0.00	0.00
16	1,2,3,4,6,7,8-HpCDD		0.01	0.03	0.00	0.03	0.00	0.17	0.00	0.17	0.00	0.08	0.00	0.08	0.00	0.08	0.00	0.00
17	OCDD		0.001	0.05	0.00	0.05	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.10	0.00	0.00
18	2,3,7,8-TCDF		0.1	2.57	0.26	2.57	0.26	7.11	0.71	7.11	0.71	5.41	0.54	5.41	0.54	5.41	0.54	0.54
19	1,2,3,7,8-PCDF		0.05	1.52	0.08	1.52	0.08	5.51	0.28	5.51	0.28	2.96	0.15	2.96	0.15	2.96	0.15	0.15
20	2,3,4,7,8-PCDF		0.5	2.70	1.35	2.70	1.35	10.10	5.05	10.10	5.05	4.98	2.49	4.98	2.49	4.98	2.49	2.49
21	1,2,3,4,7,8-HxCDF		0.1	0.65	0.06	0.65	0.06	3.40	0.34	3.40	0.34	1.27	0.13	1.27	0.13	1.27	0.13	0.13
22	1,2,3,6,7,8-HxCDF		0.1	0.56	0.06	0.56	0.06	2.94	0.29	2.94	0.29	1.14	0.11	1.14	0.11	1.14	0.11	0.11
23	2,3,4,6,7,8-HxCDF		0.1	0.35	0.04	0.35	0.04	2.07	0.21	2.07	0.21	0.73	0.07	0.73	0.07	0.73	0.07	0.07
24	1,2,3,7,8,9-HxCDF		0.1	0.12	0.01	0.12	0.01	0.67	0.07	0.67	0.07	0.24	0.02	0.24	0.02	0.24	0.02	0.02
25	1,2,3,4,6,7,8-HpCDF		0.01	0.28	0.00	0.28	0.00	2.12	0.02	2.12	0.02	0.55	0.01	0.55	0.01	0.55	0.01	0.01
26	1,2,3,4,7,8,9-HpCDF		0.01	0.03	0.00	0.03	0.00	3.11	0.03	3.11	0.03	0.05	0.00	0.05	0.00	0.05	0.00	0.00
27	OCDF		0.001	0.03	0.00	0.03	0.00	0.14	0.00	0.14	0.00	0.04	0.00	0.04	0.00	0.04	0.00	0.00
28	Total TCDD		0	3.56	0.00	3.56	0.00	9.27	0.00	9.27	0.00	6.85	0.00	6.85	0.00	6.85	0.00	0.00
29	Total PCDD		0	1.48	0.00	1.48	0.00	5.62	0.00	5.62	0.00	2.83	0.00	2.83	0.00	2.83	0.00	0.00
30	Total HxCDD		0	0.40	0.00	0.40	0.00	1.95	0.00	1.95	0.00	0.84	0.00	0.84	0.00	0.84	0.00	0.00
31	Total HpCDD		0	0.08	0.00	0.08	0.00	0.34	0.00	0.34	0.00	0.17	0.00	0.17	0.00	0.17	0.00	0.00
32	Total TCDF		0	115.00	0.00	115.00	0.00	272.00	0.00	272.00	0.00	206.00	0.00	206.00	0.00	206.00	0.00	0.00
33	Total PCDF		0	35.70	0.00	35.70	0.00	125.00	0.00	125.00	0.00	63.30	0.00	63.30	0.00	63.30	0.00	0.00
34	Total HxCDF		0	5.37	0.00	5.37	0.00	28.80	0.00	28.80	0.00	10.10	0.00	10.10	0.00	10.10	0.00	0.00
35	Total HpCDF		0	0.41	0.00	0.41	0.00	3.11	0.00	3.11	0.00	0.79	0.00	0.79	0.00	0.79	0.00	0.00
36																		
37	Gas sample volume (dscf)			120.3	120.3	120.3	120.3	121.2	121.2	121.2	121.2	118.5	118.5	118.5	118.5	118.5	118.5	118.5
38	O2 (%)			14.5	14.5	14.5	14.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
39																		
40	PCDD/PCDF (ng in sample)			2.1	162.1	2.1	162.1	7.8	446.3	7.8	446.3	4.0	291.0	4.0	291.0	4.0	291.0	4.0
41	PCDD/PCDF (ng/dscm @ 7% O2)			0.0	1.33	102.5	1.33	0.0	4.56	260.2	4.56	0.0	2.41	173.6	2.41	173.6	2.41	2.41
42																		
43	TEQ Cond Avg		2.77															
44	Total Cond Avg		178.76															

	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:	Norlite Corp, Lightweight Aggregate Kiln #1																
4		Condition ID:	307C13 Risk Burn																
5		Condition/Test Date:	July 24-25, 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	Total	TEQ	
9					Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND
10		Detected in sample volume (ng)																	
11		2,3,7,8-TCDD	1		0.047	0.047	0.047	0.047	0.017	0.017	0.017	0.017	0.025	0.025	0.025	0.025	0.025	0.025	
12		1,2,3,7,8-PCDD	0.5		0.036	0.018	0.036	0.018	0.009	0.005	0.009	0.005	0.016	0.008	0.016	0.008	0.016	0.008	
13		1,2,3,4,7,8-HxCDD	0.1		0.010	0.001	0.010	0.001 nd	0.006	0.001	0.003	0.000 nd	0.007	0.001	0.003	0.000	0.007	0.001	
14		1,2,3,6,7,8-HxCDD	0.1		0.011	0.001	0.011	0.001 nd	0.005	0.001	0.003	0.000 nd	0.006	0.001	0.003	0.000	0.006	0.001	
15		1,2,3,7,8,9-HxCDD	0.1	nd	0.006	0.001	0.003	0.000 nd	0.005	0.000	0.002	0.000 nd	0.006	0.001	0.003	0.000	0.006	0.001	
16		1,2,3,4,6,7,8-HpCDD	0.01		0.026	0.000	0.026	0.000	0.014	0.000	0.014	0.000	0.020	0.000	0.020	0.000	0.020	0.000	
17		OCDD	0.001		0.038	0.000	0.038	0.000	0.028	0.000	0.028	0.000	0.035	0.000	0.035	0.000	0.035	0.000	
18		2,3,7,8-TCDF	0.1		1.200	0.120	1.200	0.120	0.395	0.040	0.395	0.040	0.585	0.059	0.585	0.059	0.585	0.059	
19		1,2,3,7,8-PCDF	0.05		0.501	0.025	0.501	0.025	0.121	0.006	0.121	0.006	0.219	0.011	0.219	0.011	0.219	0.011	
20		2,3,4,7,8-PCDF	0.5		1.040	0.520	1.040	0.520	0.237	0.119	0.237	0.119	0.422	0.211	0.422	0.211	0.422	0.211	
21		1,2,3,4,7,8-HxCDF	0.1		0.218	0.022	0.218	0.022	0.042	0.004	0.042	0.004	0.086	0.009	0.086	0.009	0.086	0.009	
22		1,2,3,6,7,8-HxCDF	0.1		0.189	0.019	0.189	0.019	0.035	0.004	0.035	0.004	0.066	0.007	0.066	0.007	0.066	0.007	
23		2,3,4,6,7,8-HxCDF	0.1		0.178	0.018	0.178	0.018	0.033	0.003	0.033	0.003	0.063	0.006	0.063	0.006	0.063	0.006	
24		1,2,3,7,8,9-HxCDF	0.1		0.061	0.006	0.061	0.006	0.011	0.001	0.011	0.001	0.022	0.002	0.022	0.002	0.022	0.002	
25		1,2,3,4,6,7,8-HpCDF	0.01		0.105	0.0011	0.105	0.0011	0.026	0.0003	0.026	0.0003	0.046	0.0005	0.046	0.0005	0.046	0.0005	
26		1,2,3,4,7,8,9-HpCDF	0.01		0.014	0.0001	0.014	0.0001 nd	0.003	0.0000	0.001	0.0000	0.006	0.0001	0.006	0.0001	0.006	0.0001	
27		OCDF	0.001		0.037	0.000	0.037	0.000	0.013	0.00	0.013	0.00	0.025	0.00	0.025	0.00	0.025	0.00	
28		Total TCDD	0		0.94	0.00	0.939	0.00	0.366	0.00	0.366	0.00	0.506	0.00	0.506	0.00	0.506	0.00	
29		Total PCDD	0		0.38	0.00	0.381	0.00	0.127	0.00	0.127	0.00	0.196	0.00	0.196	0.00	0.196	0.00	
30		Total HxCDD	0		0.18	0.00	0.181	0.00	0.073	0.00	0.073	0.00	0.093	0.00	0.093	0.00	0.093	0.00	
31		Total HpCDD	0		0.07	0.00	0.071	0.00	0.040	0.00	0.040	0.00	0.056	0.00	0.056	0.00	0.056	0.00	
32		Total TCDF	0		47.20	0.00	47.200	0.00	18.300	0.00	18.300	0.00	25.400	0.00	25.400	0.00	25.400	0.00	
33		Total PCDF	0		11.60	0.00	11.600	0.00	2.940	0.00	2.940	0.00	5.000	0.00	5.000	0.00	5.000	0.00	
34		Total HxCDF	0		1.87	0.00	1.870	0.00	0.338	0.00	0.338	0.00	0.668	0.00	0.668	0.00	0.668	0.00	
35		Total HpCDF	0		0.17	0.00	0.168	0.00	0.037	0.00	0.037	0.00	0.071	0.00	0.071	0.00	0.071	0.00	
36																			
37		Gas sample volume (dscf)				127.3	127.3	127.3		130.4	130.4	130.4		131.3	131.3	131.3			
38		O2 (%)				15.3	15.3	15.3		15.0	15.0	15.0		14.4	14.4	14.4			
39																			
40		PCDD/PCDF (ng in sample)				0.8	62.5	0.8		0.2	22.3	0.2		0.3	32.1	0.3			
41		PCDD/PCDF (ng/dscm @ 7% O2)	0.1			0.544	42.6	0.544 0.8		0.126	14.1	0.126 0.6		0.194	18.3	0.193			
42																			
43		TEQ Cond Avg			0.29														
44		Total Cond Avg			24.98														

	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:		Norlite Corp, Lightweight Aggregate Kiln #1															
4	Condition ID:		307C14 Risk Burn															
5	Condition/Test Date:		26-Jul-01															
6																		
7	I-TEF																	
8	Wght Fact																	
9	Run 1																	
10	Run 2																	
11	Run 3																	
12	Total																	
13	TEQ																	
14	Full ND																	
15	1/2 ND																	
16	Total																	
17	TEQ																	
18	Full ND																	
19	1/2 ND																	
20	Total																	
21	TEQ																	
22	Full ND																	
23	1/2 ND																	
24	Detected in sample volume (ng)																	
25	2,3,7,8-TCDD																	
26	1,2,3,7,8-PCDD																	
27	1,2,3,4,7,8-HxCDD																	
28	1,2,3,6,7,8-HxCDD																	
29	1,2,3,7,8,9-HxCDD																	
30	1,2,3,4,6,7,8-HpCDD																	
31	OCDD																	
32	2,3,7,8-TCDF																	
33	1,2,3,7,8-PCDF																	
34	2,3,4,7,8-PCDF																	
35	1,2,3,4,7,8-HxCDF																	
36	1,2,3,6,7,8-HxCDF																	
37	2,3,4,6,7,8-HxCDF																	
38	1,2,3,7,8,9-HxCDF																	
39	1,2,3,4,6,7,8-HpCDF																	
40	1,2,3,4,7,8,9-HpCDF																	
41	OCDF																	
42	Total TCDD																	
43	Total PCDD																	
44	Total HxCDD																	
45	Total HpCDD																	
46	Total TCDF																	
47	Total PCDF																	
48	Total HxCDF																	
49	Total HpCDF																	
50																		
51	Gas sample volume (dscf)																	
52	O2 (%)																	
53																		
54	PCDD/PCDF (ng in sample)																	
55	PCDD/PCDF (ng/dscm @ 7% O2)																	
56																		
57	TEQ Cond Avg																	
58	Total Cond Avg																	

	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:		Norlite Corp, Lightweight Aggregate Kiln #1															
4	Condition ID:		307C15 Risk Burn															
5	Condition/Test Date:		July 23-24, 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	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	0.0000	0.0000			0.0116	0.0116	0.0116	0.0116	0.0186	0.0186	0.0186	0.0186	0.0186	0.0186	0.0186
12	1,2,3,7,8-PCDD		0.5	nd	0.0041	0.0020	0.0020	0.0010	0.0092	0.0046	0.0092	0.0046	0.0095	0.0047	0.0095	0.0047	0.0095	0.0047
13	1,2,3,4,7,8-HxCDD		0.1	nd	0.0075	0.0007	0.0037	0.0004	nd	0.0077	0.0008	0.0038	0.0004	nd	0.0068	0.0007	0.0034	0.0003
14	1,2,3,6,7,8-HxCDD		0.1	nd	0.0070	0.0007	0.0035	0.0003	nd	0.0072	0.0007	0.0036	0.0004	nd	0.0064	0.0006	0.0032	0.0003
15	1,2,3,7,8,9-HxCDD		0.1	nd	0.0066	0.0007	0.0033	0.0003	nd	0.0067	0.0007	0.0034	0.0003	nd	0.0060	0.0006	0.0030	0.0003
16	1,2,3,4,6,7,8-HpCDD		0.01		0.0209	0.0002	0.0209	0.0002		0.0177	0.0002	0.0177	0.0002		0.0148	0.0001	0.0148	0.0001
17	OCDD		0.001		0.0430	0.0000	0.0430	0.0000		0.0330	0.0000	0.0330	0.0000		0.0314	0.0000	0.0314	0.0000
18	2,3,7,8-TCDF		0.1		0.1130	0.0113	0.1130	0.0113		0.2580	0.0258	0.2580	0.0258		0.4040	0.0404	0.4040	0.0404
19	1,2,3,7,8-PCDF		0.05		0.0349	0.0017	0.0349	0.0017		0.0999	0.0050	0.0999	0.0050		0.1220	0.0061	0.1220	0.0061
20	2,3,4,7,8-PCDF		0.5		0.0587	0.0294	0.0587	0.0294		0.1800	0.0900	0.1800	0.0900		0.2130	0.1065	0.2130	0.1065
21	1,2,3,4,7,8-HxCDF		0.1		0.0181	0.0018	0.0181	0.0018		0.0593	0.0059	0.0593	0.0059		0.0391	0.0039	0.0391	0.0039
22	1,2,3,6,7,8-HxCDF		0.1		0.0137	0.0014	0.0137	0.0014		0.0378	0.0038	0.0378	0.0038		0.0331	0.0033	0.0331	0.0033
23	2,3,4,6,7,8-HxCDF		0.1		0.0118	0.0012	0.0118	0.0012		0.0296	0.0030	0.0296	0.0030		0.0272	0.0027	0.0272	0.0027
24	1,2,3,7,8,9-HxCDF		0.1	nd	0.0030	0.0003	0.0015	0.0001		0.0103	0.0010	0.0103	0.0010		0.0099	0.0010	0.0099	0.0010
25	1,2,3,4,6,7,8-HpCDF		0.01		0.0304	0.0003	0.0304	0.0003		0.0506	0.0005	0.0506	0.0005		0.0314	0.0003	0.0314	0.0003
26	1,2,3,4,7,8,9-HpCDF		0.01	nd	0.0027	0.0000	0.0013	0.0000		0.0061	0.0001	0.0061	0.0001	nd	0.0068	0.0001	0.0034	0.0000
27	OCDF		0.001		0.0251	0.0000	0.0251	0.0000		0.0105	0.0000	0.0105	0.0000		0.0246	0.0000	0.0246	0.0000
28	Total TCDD		0		0.1560	0.0000	0.1560	0.0000		0.2770	0.0000	0.2770	0.0000		0.3940	0.0000	0.3940	0.0000
29	Total PCDD		0		0.0899	0.0000	0.0899	0.0000		0.1260	0.0000	0.1260	0.0000		0.1320	0.0000	0.1320	0.0000
30	Total HxCDD		0		0.1060	0.0000	0.1060	0.0000		0.0932	0.0000	0.0932	0.0000		0.0760	0.0000	0.0760	0.0000
31	Total HpCDD		0		0.0593	0.0000	0.0593	0.0000		0.0532	0.0000	0.0532	0.0000		0.0479	0.0000	0.0479	0.0000
32	Total TCDF		0		6.0500	0.0000	6.0500	0.0000		11.3000	0.0000	11.3000	0.0000		20.2000	0.0000	20.2000	0.0000
33	Total PCDF		0		0.8730	0.0000	0.8730	0.0000		2.2500	0.0000	2.2500	0.0000		2.9600	0.0000	2.9600	0.0000
34	Total HxCDF		0		0.1170	0.0000	0.1170	0.0000		0.3730	0.0000	0.3730	0.0000		0.3140	0.0000	0.3140	0.0000
35	Total HpCDF		0		0.0304	0.0000	0.0304	0.0000		0.0730	0.0000	0.0730	0.0000		0.0324	0.0000	0.0324	0.0000
36																		
37	Gas sample volume (dscf)				128.0000	128.0000	128.0000			126.7380	126.7380	126.7380			131.8680	131.8680	131.8680	
38	O2 (%)				15.2000	15.2000	15.2000			14.9000	14.9000	14.9000			15.2000	15.2000	15.2000	
39																		
40	PCDD/PCDF (ng in sample)				0.0518	7.5497	0.0496			0.1537	14.5889	0.1526			0.1898	24.2123	0.1888	
41	PCDD/PCDF (ng/dscm @ 7% O2)			8.6	0.0345	5.0308	0.0330	1.4		0.0983	9.3353	0.0976	1.0		0.1227	15.6607	0.1221	
42																		
43	TEQ Cond Avg		0.084															
44	Total Cond Avg		10.01															