	B	C
1	**Source Description**	
2		
3	Phase I ID No.	491
4	EPA ID No.	IND005081542
5	Facility Name	ESSROC CORPORATION
6	Facility Location	
7	City	LOGANSPORT
8	State	IN
9	Unit ID Name/No.	Kiln No. 2
10	Other Sister Facilities	None (other unit # 300 Kiln No. 1 shares a stack)
11	Combustor Class	CEMENT KILN
12	Combustor Type	Wet, long
13	Combustor Characteristics	
14	Capacity (MMBtu/hr)	
15	APCS	
16	APCS Characteristics	ESP
17	Hazardous Wastes	Research Cottrell, 54,000 ft2 plate area
18	Haz Waste Description	HW SLD/LIQ
19	Supplemental Fuel	
20		COAL/COKE
21	Stack Characteristics	
22	Diameter (ft)	15.6
23	Height (ft)	204.0
24	Gas Velocity (ft/sec)	5.6
25	Gas Temperature (°F)	381.3

	B	C
1	**Condition Description**	
2		
3	**491C1**	
4		
5	Report Name/Date	1995 Recertification at Essroc Materials, Inc, Logansport, Indiana, APCC Project No. 95001, August 1995
6	Report Prepare	Air Pollution Characterization and Control, Ltd.
7	Testing Firm	
8	Cond Descr	CoC, MAX COMB TEMP, MAX METALS/CL FEED, MAX APCD TEMP
9	Test Dates	May 10-11, 1995
10	Cond Date	08/18/95
11		
12	**491C2**	
13		
14	Report Name/Date	1995 Recertification at Essroc Materials, Inc, Logansport, Indiana, APCC Project No. 95001, August 1995
15	Report Prepare	Air Pollution Characterization and Control, Ltd.
16	Testing Firm	
17	Cond Descr	CoC, MIN COMB TEMP, MAX CL FEED, MAX PROD RATE
18	Test Dates	May 11-12, 1995
19	Cond Date	08/18/95

	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**Stack Gas Emissions 2**													
2														
3	**491C1**					R1		R2		R3		R4		Cond Avg
4														
5	PM		gr/dscf			0.06000				0.06600		0.06200		0.06267
6	CO (RA)		ppmv			968.30		634.10		493.98		860.99		
7	HC (RA)		ppmv			22.55		13.66		12.47		18.75		
8	HCl		ppmv			1.45				1.45		1.73		
9	Cl2		ppmv			0.24				0.25		0.27		
10	Total Cl		ppmv			1.93				1.96		2.27		2.05
11	Antimony		ug/dscm			2.29		4.47		2.22				
12	Arsenic		ug/dscm			24.57		26.98		23.29				
13	Barium		ug/dscm			44.54		77.45		44.79				
14	Beryllium		ug/dscm			0.20		0.25		0.36				
15	Cadmium		ug/dscm			32.19		27.72		24.44				
16	Chromium		ug/dscm			43.93		27.89		78.04				
17	Lead		ug/dscm			921.49		983.94		853.76				
18	Mercury		ug/dscm			21.26		25.49		32.68				26.97
19	Silver		ug/dscm			1.62		0.99		2.01				
20	Thallium		ug/dscm			6.75		0.74		4.87				
21	SVM		ug/dscm			953.68		1011.66		878.19				947.84
22	LVM		ug/dscm			68.70		55.11		101.69				85.19
23														
24	Sampling Train	Metals												
25	Gas Flowrate					105162		84461		97528				
26	Moisture					31.09		30.52		29.95				
27	Oxygen					9.39		9.21		9.21				
28	Temperature					379		386		383				
29														
30	Sampling Train	Particulate												
31	Gas Flowrate					88709				97687		89263		
32	Moisture					31.09				29.95		29.88		
33	Oxygen					9.39				9.21		9.13		
34	Temperature					380				384		376		
35														
36	**491C2**					R1		R2		R3		R4		Cond Avg
37														
38	CO (RA)		ppmv			1553.81		1395.07		1447.95				
39	HC (RA)		ppmv			28.20		14.41		19.88				
40														
41	1,2,4-Trichlorobenzene	DRE	%			99.9999		99.9999		99.9999				
42	trichloroethene	DRE	%			99.9992		99.9992		99.9993				
43														
44	Sampling Train	Dioxin & Furan												
45	Gas Flowrate					83821		85632		82258				
46	Moisture					28.67		29.17		29.46				
47	Oxygen					11.17		9.63		9.03				
48	Temperature					370		360		357				

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
1	**Feedstream 2**																																
2																																	
3	**491C1**			R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3	
4																																	
5	Feedstream			Liquid waste								Solid waste								Raw material								Coke					
6	Feedrate	lb/hr		16854		16848		16836		16800		936		1458		1488		1038		129200		126000		127800		132600		0		0		0	
7	Heating value	Btu/lb																0															
8	Chlorine	ppmw		38200		40000		40300		33900		0.36		0.3		0.31		0.26		58		56		79		60	1	77	1	77			1
9	Antimony	ppmw	1	34	1	34	1	34	1	34	1	34	1	34	1	34	1	34	1	6	1	6	1	6	1	6	1	10	1	10			1
10	Arsenic	ppmw		17.4		14.9		19.3		16	1	7	1	7	1	7	1	7	1	7	1	7	1	7	1	7	1	11	1	11			1
11	Barium	ppmw		1544		1655		1644		1752		68		119		111		98	1	12	1	12	1	12	1	12	1	10	1	10			1
12	Beryllium	ppmw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.12	1	0.12	1	0.12	1	0.19	1	0.44	1	0.44			1
13	Cadmium	ppmw		88.2		93.51		88.56		66.9		2		2.5		3.3		2.27	1	0.5	1	0.5	1	0.5	1	0.5	1	0.6	1	0.6			1
14	Chromium	ppmw		510		542		506		444		135		159		212		135		10		6.5	1	6		10	1	2		2.2			
15	Lead	ppmw		1420		1485		1371		1238		59.5		77.7		98.3	1	72.3	1	6	1	6	1	6	1	6	1	10	1	10			1
16	Mercury	ppmw		4		8.4		5.6		9.7	1	2	1	2	1	2	1	2	1	3	1	3	1	3	1	3	1	4	1	4			1
17	Silver	ppmw	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3		1.6		1.9		1.2		2	1	0.6	1	0.6			1
18	Thallium	ppmw	1	21	1	21	1	21	1	21	1	21	1	21	1	21	1	21	1	11	1	11	1	11	1	11	1	18	1	18			1
19																																	
20	Gas flowrate			105162		84461		97528		89263		105162		84461		97528		89263		105162		84461		97528		89263		105162		84461		97528	
21	Oxygen			9.39		9.21		9.21		9.13		9.39		9.21		9.21		9.13		9.39		9.21		9.21		9.13		9.39		9.21		9.21	
22																																	
23	Chlorine	ug/dscm		1973883		2533288		2208752		2012023		1		2		2		1		22974		26524		32867		28107	1	0	1	0		0	1
24	Antimony	ug/dscm	1	1757	1	2153	1	1863	1	2018	1	98	1	186	1	165	1	125	1	2377	1	2842	1	2496	1	2811	1	0	1	0		0	1
25	Arsenic	ug/dscm		899		944		1058		950	1	20	1	38	1	34	1	26	1	2773	1	3315	1	2912	1	3279	1	0	1	0		0	1
26	Barium	ug/dscm		79782		104815		90104		103984		195		652		538		359	1	4753	1	5684	1	4992	1	5621	1	0	1	0		0	1
27	Beryllium	ug/dscm	1	52	1	63	1	55	1	59	1	3	1	5	1	5	1	4	1	48	1	57	1	50	1	89	1	0	1	0		0	1
28	Cadmium	ug/dscm		4558		5922		4854		3971		6		14		16		8	1	198	1	237	1	208	1	234	1	0	1	0		0	1
29	Chromium	ug/dscm		26353		34326		27733		26352		387		871		1027		495		3961		3079	1	2496		4685	1	0		0		0	
30	Lead	ug/dscm		73375		94048		75141		73477		171		426		476	1	265	1	2377	1	2842	1	2496	1	2811	1	0	1	0		0	1
31	Mercury	ug/dscm		207		532		307		576	1	6	1	11	1	10	1	7	1	1188	1	1421	1	1248	1	1405	1	0	1	0		0	1
32	Silver	ug/dscm	1	155	1	190	1	164	1	178	1	9	1	16	1	15	1	11		634		900		499		937	1	0	1	0		0	1
33	Thallium	ug/dscm	1	1085	1	1330	1	1151	1	1246	1	60	1	115	1	102	1	77	1	4357	1	5210	1	4576	1	5153	1	0	1	0		0	1
34	SVM	ug/dscm		77932		99971		79995		77448		176		440		492		273		2575		3079		2704		3045		0		0		0	
35	LVM	ug/dscm		27304		35333		28845		27361		410		915		1066		524		6781		6451		5458		8053		0		0		0	
36																																	
37	**491C2**			R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3	
38																																	
39	Feedstream			Liquid waste								Solid waste								Raw material								Coke					
40	Feedrate	lb/hr		16374		16044		14424				1638		1524		1254												4200		1000		3200	
41	Heating value	lb/hr		0		0		0				0		0		0												0		0		0	
42	Chlorine	lb/hr		25000		26800		24200				0.3602		0.35		0.31				67		66		68				102	1	77	1	77	
43	Antimony	lb/hr	1	34	1	34	1	34			1	34	1	34	1	34			1	6	1	6	1	6			1	10	1	10	1	10	
44	Arsenic	Btu/lb	1	7	1	7		12.7			1	7	1	7	1	7			1	7	1	7	1	7				11		11		11	
45	Barium	lb/hr		3073		2330		2216				94		110		126			1	12	1	12	1	12			1	10	1	10	1	10	
46	Beryllium	lb/hr	1	1	1	1	1	1			1	1	1	1	1	1			1	0.12	1	0.12	1	0.12			1	0.44	1	0.44	1	0.44	
47	Cadmium	lb/hr		12.25		21.73		25.94				3.33		1.14		4.38			1	0.5	1	0.5	1	0.5			1	0.6	1	0.6	1	0.6	
48	Chromium	lb/hr		244		245		260				205		255		302				10		10		10			1	2	1	2		2.4	
49	Lead	lb/hr		864		868		862				93.6		113.5		137.8			1	6	1	6	1	6			1	10	1	10	1	10	
50	Mercury	lb/hr		8.6		3.3		5.3			1	2	1	2	1	2			1	3	1	3	1	3			1	4	1	4	1	4	
51	Silver	lb/hr	1	3	1	3	1	3			1	3	1	3	1	3				1.6		1.7		1.7			1	0.6	1	0.6	1	0.6	
52	Thallium	lb/hr	1	21	1	21	1	21			1	21	1	21	1	21			1	11	1	11	1	11			1	18	1	18	1	18	

	B	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI
1	**Feedstream 2**																											
2																												
3	**491C1**	R4		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		Cond Avg
4				g/hr																								
5	Feedstream			Liquid waste spike								Solid waste spike								Total								
6	Feedrate	1800																										
7	Heating value																											
8	Chlorine	77																										
9	Antimony	10																										
10	Arsenic	11		1043.3		1134		1179				4418		4830		4840												
11	Barium	10																										
12	Beryllium	0.44		99.8		149.7		113.4				44.9		48.5		49												
13	Cadmium	0.6		0		0		0				295		331		322												
14	Chromium	2		2676		3084		3492				18021		19854		19890												
15	Lead	10						3221				15826		17436		17436												
16	Mercury	4																										
17	Silver	0.6																										
18	Thallium	18																										
19																												
20	Gas flowrate	89263		105162		84461		97528		89263		105162		84461		97528		89263										
21	Oxygen	9.13		9.39		9.21		9.21		9.13		9.39		9.21		9.21		9.13										
22																												
23	Chlorine	490		0		0		0		0		0		0		0		0		1996859		2559813		2241621		2040621		2209729
24	Antimony	64		0		0		0		0		0		0		0		0		4231		5181		4524		5017		4646
25	Arsenic	70		7045		9389		8454		0		29835		39991		34705		0		40572		53678		47163		4324		47138
26	Barium	64		0		0		0		0		0		0		0		0		84731		111151		95634		110029		97172
27	Beryllium	3		674		1239		813		0		303		402		351		0		1079		1767		1274		155		1373
28	Cadmium	4		0		0		0		0		1992		2741		2309		0		6753		8913		7387		4217		7684
29	Chromium	13		18071		25535		25039		0		121697		164387		142621		0		170469		228198		198916		31544		199194
30	Lead	64		0		0		23096		0		106874		144367		125024		0		182796		241683		226234		76617		216904
31	Mercury	25		0		0		0		0		0		0		0		0		804		1248		936		1307		996
32	Silver	4		0		0		0		0		0		0		0		0		797		1106		678		1130		861
33	Thallium	114		0		0		0		694608		0		0		0		694608		5503		6655		5829		1395806		5996
34	SVM	67		0		0		23096		0		108866		147107		127333		0		189549		250596		233621		80834		224589
35	LVM	85		25791		36164		34306		0		151835		204780		177677		0		212121		283643		247353		36024		247706
36																												
37	**491C2**	R4		R1		R2		R3		R4		R1		R2		R3		R4		R1		R2		R3		R4		Cond Avg
38																												
39	Feedstream			Liquid waste spike								Solid waste spike								Total								
40	Feedrate																											
41	Heating value																											
42	Chlorine																											
43	Antimony																											
44	Arsenic																											
45	Barium																											
46	Beryllium																											
47	Cadmium																											
48	Chromium																											
49	Lead																											
50	Mercury																											
51	Silver																											
52	Thallium																											

	C	D	E	F	G	H
1	**Process Information 2**					
2						
3	**491C1**					
4						
5	Combustion Temperature Back End	F	596	600	596	606
6						
7	**491C2**					
8						
9	Combustion Temperature Back End	F	460	456	448	

	C	D	E	F	G	H	I
1	**491C2**		R1		R2		R3
2							
3	ng/dscm						
4							
5	Total PCDD/PCDF		34.15		14.59		18.99
6	TEQ		2.18		1.32		1.36