	B	C
1	**Source Description**	
2		
3	Phase I ID No.	806
4	EPA ID No.	IND000810861
5	Facility Name	Amoco Oil Co.
6	Facility Location	
7	City	Whiting
8	State	IN
9	Unit ID Name/No.	FBI
10	Other Sister Facilities	None
11	Number of Sister Facilities	0
12	Combustor Class	Onsite incinerator
13	Combustor Type	Fluidized bed
14	Combustor Characteristics	Dorr Oliver unit, 82 MMbtu/hr, constructed in 1972, 22' diameter, 40' height
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	C/VS
18	APCS General Class	C, HEWS
19	APCS Characteristics	Cyclone, venturi scrubber
20	Hazardous Wastes	Liq, solid, sludge
21	Haz Waste Description	API and oily refinery separator sludge, dissolved air flotation unit sludge (biosolids), caustic solutions
22	Supplemental Fuel	Oil
23		Fuel oil
24	Stack Characteristics	
25	Diameter (ft)	5.0
26	Height (ft)	62.0
27	Gas Velocity (ft/sec)	7.9
28	Gas Temperature (°F)	155.0
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	**Condition Description**	
2		
3	**806C1**	
4		
5	Report Name/Date	Report of RCRA Trial Burn Results for a Fluidized Bed Incinerator, Prepared for Amoco Oil Company, Whiting, Indiana, Prepared by Scott Environmental Technology Inc. June 1989
6	Report Prepare	Scott Environmental Technology, Inc.
7	Testing Firm	Scott Environmental Technology, Inc.
8	Cond Descr	Trial burn, HIGH WASTE FEED/HIGH COMB TEMP
9	Testing Dates	April 12, 1989
10	Cond Dates	Apr-89
11		
12	**806C2**	
13		
14	Report Name/Date	Report of RCRA Trial Burn Results for a Fluidized Bed Incinerator, Prepared for Amoco Oil Company, Whiting, Indiana, Prepared by Scott Environmental Technology Inc. June 1989
15	Report Prepare	Scott Environmental Technology, Inc.
16	Testing Firm	Scott Environmental Technology, Inc.
17	Cond Descr	Trial burn, LOW WASTE FEED/LOW COMB TEMP
18	Testing Dates	April 13, 1989
19	Cond Dates	Apr-89

	B	C	D	E	F	G	H	I	J	K	L	M
1	**Stack Gas Emissions 2**											
2												
3												
4	**806C1**					R1		R2		R3		Cond Avg
5												
6	PM	E1	gr/dscf	y		0.0444		0.0644		0.0591		0.0560
7	CO (RA)	E1	ppmv	y		73.1		60.0		72.1		68.4
8	HC (RA)	E1	ppmv	y		10.1		12.1		9.5		10.6
9	HCl	E1	ppmv	y		33.7		40.4		43.3		39.1
10	Total Chlorine	E1	ppmv	y		33.7		40.4		43.3		39.1
11												
12	Antimony	E1	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3	100	0.3
13	Arsenic	E1	ug/dscm	y		0.6		0.6		0.7		0.6
14	Barium	E1	ug/dscm	y		428.2		458.8		374.8		420.6
15	Beryllium	E1	ug/dscm	y	nd	0.2	nd	0.2	nd	0.1	100	0.1
16	Cadmium	E1	ug/dscm	y		0.9		0.8		2.7		1.5
17	Chromium	E1	ug/dscm	y		6.0		9.5		7.4		7.6
18	Lead	E1	ug/dscm	y		443.8		602.3		724.8		590.3
19	Mercury	E1	ug/dscm	y		192.6		129.3		195.8		172.6
20	Silver	E1	ug/dscm	y		0.3		0.5		0.1		0.3
21	Thallium	E1	ug/dscm	y	nd	0.2	nd	0.2	nd	0.1	100	0.1
22												
23	SVM	E1	ug/dscm	y		444.7		603.1		727.5		591.8
24	LVM	E1	ug/dscm	y		6.7		10.3		8.2		8.4
25												
26	Sampling Train	PM/HCl	E1									
27	Stack Gas Flowrate		dscfm			19682.0		17890.0		18220.0		
28	O2		%			14.0		13.2		13.7		
29	Moisture		%			29.2		29.1		29.1		
30	Temperature		°F			155.0		155.0		155.0		
31												
32	1,1,1-Trichloroethane	E1	%			99.9997		99.9997		99.9997		
33	Toluene	E1	%			99.9992		99.9998		99.9999		
34												
35	**806C2**					R1		R2		R3		Cond Avg
36												
37	PM	E1	gr/dscf	y		0.0304		0.0301		0.0314		0.0307
38	CO (RA)	E1	ppmv	y		301.0		321.0		337.0		319.7
39	HC (RA)	E1	ppmv	y		68.3		18.8		20.4		35.8
40	HCl	E1	ppmv	y		46.6		31.1		64.8		47.5
41	Total Chlorine	E1	ppmv	y		46.6		31.1		64.8		47.5
42												
43	Antimony	E1	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3	100	0.3
44	Arsenic	E1	ug/dscm	y		0.9		0.3		0.3		0.5
45	Barium	E1	ug/dscm	y		509.9		468.6		461.9		480.2
46	Beryllium	E1	ug/dscm	y		0.2		0.2		0.2		0.2
47	Cadmium	E1	ug/dscm	y		1.4		0.6		0.8		0.9
48	Chromium	E1	ug/dscm	y		8.3		5.0		4.8		6.0
49	Lead	E1	ug/dscm	y		493.3		390.4		495.3		459.7
50	Mercury	E1	ug/dscm	y		84.6		146.5		122.9		118.0
51	Silver	E1	ug/dscm	y		1.7		0.3		2.5		1.5
52	Thallium	E1	ug/dscm	y	nd	0.2	nd	0.2	nd	0.2	100	0.2
53												
54	SVM	E1	ug/dscm	y		494.7		391.0		496.1		460.6
55	LVM	E1	ug/dscm	y		9.3		5.4		5.2		6.6
56												
57	Sampling Train	PM/HCl	E1									
58	Stack Gas Flowrate		dscfm			17800.0		16094.0		16713.0		
59	O2		%			14.6		13.8		14.5		
60	Moisture		%			22.7		24.4		23.4		
61	Temperature		°F			153.0		148.0		150.0		
62												
63	1,1,1-Trichloroethane	E1	%			99.999		99.999		99.9995		
64	Toluene	E1	%			99.99915		99.99941		99.9999		

	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	**Feedstream 2**																									
2																										
3																										
4	**806C1**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2	
5																										
6	Feedstream Number				F1		F1		F1		F2		F2		F2		F3		F3		F3					
7	Feed Class				Oil		Oil		Oil		Solid HW		Solid HW		Solid HW		Sludge HW		Sludge HW		Sludge HW					
8	Feed Class 2				MF		MF		MF														HW		HW	
9	Feedstream Description				Fuel oil		Fuel oil		Fuel oil		DAF cake		DAF cake		DAF cake		API sludge		API sludge		API sludge					
10	Feed Rate		lb/hr								60569		32757		50553		1466		1237		1477.7					
11	Heating value		Btu/lb								3490		3410		3280		3120		3350		3280					
12	Ash		wt %								7.6		7.95		7.87		31.78		29.89		29.88					
13	Chlorine		mg/kg																							
14																										
15																										
16	Stack gas flowrate		dscfm		19682		17890		18220		19682		17890		18220		19682		17890		18220					
17	Oxygen		%		14.0		13.2		13.7		14.0		13.2		13.7		14.0		13.2		13.7					
18																										
19	Estimated Firing Rate		MMBtu/hr																							
20																										
21	*Feedrate MTEC Calculations*																									
22	Ash		mg/dscm								125068		69858		111968		12656		9921		12426		137723		79780	
23	Chlorine		ug/dscm																							
24																										
25																										
26																										
27	**806C2**				R1		R2		R3		R1		R2		R3		R1		R2		R3		R1		R2	
28																										
29	Feedstream Number				F1		F1		F1		F2		F2		F2		F3		F3		F3					
30	Feed Class				Oil		Oil		Oil		Solid HW		Solid HW		Solid HW		Sludge HW		Sludge HW		Sludge HW					
31	Feed Class 2				MF		MF		MF														HW		HW	
32	Feedstream Description				Fuel oil		Fuel oil		Fuel oil		DAF cake		DAF cake		DAF cake		API sludge		API sludge		API sludge					
33	Feed Rate		lb/hr		387.4		384.4		431.7		16431		28026		37243		2643		2885		2841					
34	Heating value		Btu/lb		19911		19200		19000		3380		2900		3380		3390		3350		3280					
35	Ash		wt %		0.003		0.008		0.016		7.31		8.09		7.79		29.38		29.78		29.69					
36	Chlorine		ppmw		113.8		50.8		15.2		3.52															
37																										
38	Stack gas flowrate		dscfm		17800		16094		16713		17800		16094		16713		17800		16094		16713					
39	Oxygen		%		14.6		13.8		14.5		14.6		13.8		14.5		14.6		13.8		14.5					
40																										
41	Estimated Firing Rate		MMBtu/hr																							
42																										
43	*Feedrate MTEC Calculations*																									
44	Ash		mg/dscm		0.38		0.99		2.38		39467		73243		99969		25515		27755		29068		64982		100998	
45	Chlorine		ug/dscm		1448		631		227		1900		0		0								1900.47		0.00	

	B	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV
1	**Feedstream 2**																					
2																						
3																						
4	**806C1**	R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg
5																						
6	Feedstream Number			F4		F4		F4		F5		F5		F5		F6		F6		F6		F6
7	Feed Class			Raw Material		Raw Material		Raw Material		Spike		Spike		Spike		Total		Total		Total		Total
8	Feed Class 2	HW		RM		RM		RM		Spike		Spike		Spike		Total		Total		Total		Total
9	Feedstream Descriptic			Caustic (gpm)		Caustic (gpm)		Caustic (gpm)		POHC Spike		POHC Spike		POHC Spike		Total		Total		Total		Total
10	Feed Rate			3.0		3.0		3.0		108.1		109.43		98.2								
11	Heating value																					
12	Ash																					
13	Chlorine									372666		347449		346013								
14																						
15																						
16	Stack gas flowrate			19682		17890		18220		19682		17890		18220		19682		17890		18220		18597
17	Oxygen			14.0		13.2		13.7		14.0		13.2		13.7		14.0		13.2		13.7		13.6
18																						
19	Estimated Firing Rate																					43.5
20																						
21	*Feedrate MTEC Calcu*																					
22	Ash	124394														137723		79780		124394		113966
23	Chlorine									1094522		1019926		956266		1094522		1019926		956266		1023571
24																						
25																						
26																						
27	**806C2**	R3		R1		R2		R3		R1		R2		R3		R1		R2		R3		Cond Avg
28																						
29	Feedstream Number			F4		F4		F4		F5		F5		F5		F6		F6		F6		F6
30	Feed Class			Raw Material		Raw Material		Raw Material		Spike		Spike		Spike		Total		Total		Total		Total
31	Feed Class 2	HW		RM		RM		RM		Spike		Spike		Spike		Total		Total		Total		Total
32	Feedstream Descriptic			Caustic (gpm)		Caustic (gpm)		Caustic (gpm)		POHC Spike		POHC Spike		POHC Spike		Total		Total		Total		Total
33	Feed Rate			3.3		2.3		2.3		111.75		106.12		111.51								
34	Heating value																					
35	Ash																					
36	Chlorine									341637		356628		333737								
37																						
38	Stack gas flowrate			17800		16094		16713		17800		16094		16713		17800		16094		16713		16869
39	Oxygen			14.6		13.8		14.5		14.6		13.8		14.5		14.6		13.8		14.5		14.3
40																						
41	Estimated Firing Rate																					35.9
42																						
43	*Feedrate MTEC Calcu*																					
44	Ash	129037														64983		100999		129040		98340
45	Chlorine	0.00								1254465		1222538		1282321		1257814		1223169		1282547		1254510

	C	D	E	F	G
1	**Process Information 2**				
2					
3	**806C1**		R1	R2	R3
4					
5	Combustion Temperature	F	1437	1460	1444
6	VS Pressure Drop	in H2O	21	21	21
7					
8	**806C2**		R1	R2	R3
9					
10	Combustion Temperature	F	1252	1342	1342
11	VS Pressure Drop	in H2O	17	16	16