

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: MO
 3. CITY: CLARKSVILLE
 4. EP ID: 204 DEVICE NAME: KILN NO. 1 EPA ID: MOD029729688 REGION: 7
 SYSTEM TYPE: CEMENT KILN APC SYSTEM: ESP

5. Type: CLINKER
 6. Description: PRODUCT
 Group: WET KILN Location: KILN Phase: SOLID
 7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	204C1R1	1.60e+0	ug/g	0.00e+0	
Antimony	204C1R2	1.44e+0	ug/g	0.00e+0	
Antimony	204C1R3	ND	7.53e-1	ug/g	0.00e+0
Arsenic	204C1R1	2.26e+1	ug/g	0.00e+0	
Arsenic	204C1R2	2.16e+1	ug/g	0.00e+0	
Arsenic	204C1R3	1.94e+1	ug/g	0.00e+0	
Barium	204C1R1	1.35e+2	ug/g	0.00e+0	
Barium	204C1R2	1.77e+2	ug/g	0.00e+0	
Barium	204C1R3	1.34e+2	ug/g	0.00e+0	
Beryllium	204C1R1	9.14e+0	ug/g	0.00e+0	
Beryllium	204C1R2	1.45e+1	ug/g	0.00e+0	
Beryllium	204C1R3	8.89e+0	ug/g	0.00e+0	
Cadmium	204C1R1	ND	1.32e+0	ug/g	0.00e+0
Cadmium	204C1R2	ND	1.27e+0	ug/g	0.00e+0
Cadmium	204C1R3	ND	1.26e+0	ug/g	0.00e+0
Chromium	204C1R1	2.95e+2	ug/g	0.00e+0	
Chromium	204C1R2	2.56e+2	ug/g	0.00e+0	
Chromium	204C1R3	2.77e+2	ug/g	0.00e+0	
Lead	204C1R1	7.52e+0	ug/g	0.00e+0	
Lead	204C1R2	5.87e+0	ug/g	0.00e+0	
Lead	204C1R3	5.73e+0	ug/g	0.00e+0	
Mercury	204C1R1	ND	1.00e-1	ug/g	0.00e+0
Mercury	204C1R2	ND	1.00e-1	ug/g	0.00e+0
Mercury	204C1R3	ND	1.00e-1	ug/g	0.00e+0
Silver	204C1R1	ND	1.32e+0	ug/g	0.00e+0
Silver	204C1R2	ND	1.27e+0	ug/g	0.00e+0
Silver	204C1R3	ND	1.26e+0	ug/g	0.00e+0
Thallium	204C1R1	ND	1.63e+0	ug/g	0.00e+0
Thallium	204C1R2	ND	7.88e-1	ug/g	0.00e+0
Thallium	204C1R3	ND	7.62e-1	ug/g	0.00e+0

5. Type: FUEL
 6. Description: COAL/COKE
 Group: WET KILN Location: KILN Phase: SOLID
 7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	204C1R1	8.00e+2	ug/g	3.20e+1 lbs/hr	CE
Chlorine	204C1R2	6.06e+2	ug/g	2.42e+1 lbs/hr	CE
Chlorine	204C1R3	8.22e+2	ug/g	3.29e+1 lbs/hr	CE
Chlorine	204C2R1	1.29e+2	ug/g	5.16e+0 lbs/hr	CE
Chlorine	204C2R2	7.48e+2	ug/g	2.99e+1 lbs/hr	CE
Chlorine	204C2R3	7.82e+2	ug/g	3.13e+1 lbs/hr	CE

7. Category: Metals
 Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	204C1R1	ND	7.90e-1	ug/g	3.16e-2 lbs/hr
Antimony	204C1R2	ND	7.96e-1	ug/g	3.18e-2 lbs/hr
Antimony	204C1R3	ND	7.59e-1	ug/g	3.04e-2 lbs/hr
Arsenic	204C1R1	ND	8.00e-1	ug/g	3.20e-2 lbs/hr
Arsenic	204C1R2	ND	8.06e-1	ug/g	3.22e-2 lbs/hr
Arsenic	204C1R3	ND	7.68e+2	ug/g	3.07e+1 lbs/hr
Barium	204C1R1	1.19e+1	ug/g	4.76e-1 lbs/hr	CE
Barium	204C1R2	1.96e+1	ug/g	7.84e-1 lbs/hr	CE
Barium	204C1R3	1.37e+1	ug/g	5.48e-1 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: MO
 3. CITY: CLARKSVILLE
 4. EP ID: 204 DEVICE NAME: KILN NO. 1

EPA ID: MOD029729688
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Beryllium	204C1R1	5.55e+0	ug/g	2.22e-1	lbs/hr	CE
Beryllium	204C1R2	4.83e+0	ug/g	1.93e-1	lbs/hr	CE
Beryllium	204C1R3	4.83e+0	ug/g	1.93e-1	lbs/hr	CE
Cadmium	204C1R1	ND 2.50e-1	ug/g	1.00e-2	lbs/hr	CE
Cadmium	204C1R2	ND 2.50e-1	ug/g	1.00e-2	lbs/hr	CE
Cadmium	204C1R3	ND 2.50e-1	ug/g	1.00e-2	lbs/hr	CE
Chromium	204C1R1	9.24e+0	ug/g	3.70e-1	lbs/hr	CE
Chromium	204C1R2	9.17e+0	ug/g	3.67e-1	lbs/hr	CE
Chromium	204C1R3	8.03e+0	ug/g	3.21e-1	lbs/hr	CE
Lead	204C1R1	2.80e+0	ug/g	1.12e-1	lbs/hr	CE
Lead	204C1R2	1.91e+0	ug/g	7.64e-2	lbs/hr	CE
Lead	204C1R3	2.75e+0	ug/g	1.10e-1	lbs/hr	CE
Mercury	204C1R1	ND 1.00e-1	ug/g	4.00e-3	lbs/hr	CE
Mercury	204C1R2	ND 1.00e-1	ug/g	4.00e-3	lbs/hr	CE
Mercury	204C1R3	ND 1.00e-1	ug/g	4.00e-3	lbs/hr	CE
Silver	204C1R1	ND 2.50e-1	ug/g	1.00e-2	lbs/hr	CE
Silver	204C1R2	3.07e-1	ug/g	1.23e-2	lbs/hr	CE
Silver	204C1R3	ND 2.50e-1	ug/g	1.00e-2	lbs/hr	CE
Thallium	204C1R1	ND 8.00e-1	ug/g	3.20e-2	lbs/hr	CE
Thallium	204C1R2	ND 8.06e-1	ug/g	3.22e-2	lbs/hr	CE
Thallium	204C1R3	ND 7.68e-1	ug/g	3.07e-2	lbs/hr	CE

5. Type: RAW MATERIAL

6. Description: Group: WET KILN Location: KILN Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	204C1R1	1.30e+2 ug/g	1.14e+2 lbs/hr	CE
Chlorine	204C1R2	1.09e+2 ug/g	9.59e+1 lbs/hr	CE
Chlorine	204C1R3	1.29e+2 ug/g	1.14e+2 lbs/hr	CE
Chlorine	204C2R1	1.35e+2 ug/g	1.19e+2 lbs/hr	CE
Chlorine	204C2R2	1.27e+2 ug/g	1.12e+2 lbs/hr	CE
Chlorine	204C2R3	1.22e+2 ug/g	1.08e+2 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	204C1R1	ND 7.07e-1 ug/g	6.22e-1 lbs/hr	CE
Antimony	204C1R2	ND 8.21e-1 ug/g	7.22e-1 lbs/hr	CE
Antimony	204C1R3	ND 6.92e-1 ug/g	6.09e-1 lbs/hr	CE
Arsenic	204C1R1	ND 7.15e-1 ug/g	6.29e-1 lbs/hr	CE
Arsenic	204C1R2	ND 8.31e-1 ug/g	7.31e-1 lbs/hr	CE
Arsenic	204C1R3	ND 7.00e-1 ug/g	6.16e-1 lbs/hr	CE
Barium	204C1R1	4.80e+1 ug/g	4.22e+1 lbs/hr	CE
Barium	204C1R2	4.47e+1 ug/g	3.93e+1 lbs/hr	CE
Barium	204C1R3	4.91e+1 ug/g	4.32e+1 lbs/hr	CE
Beryllium	204C1R1	5.01e-1 ug/g	4.41e-1 lbs/hr	CE
Beryllium	204C1R2	4.68e-1 ug/g	4.12e-1 lbs/hr	CE
Beryllium	204C1R3	5.20e-1 ug/g	4.58e-1 lbs/hr	CE
Cadmium	204C1R1	ND 1.09e+0 ug/g	9.59e-1 lbs/hr	CE
Cadmium	204C1R2	ND 1.10e+0 ug/g	9.68e-1 lbs/hr	CE
Cadmium	204C1R3	ND 1.24e+0 ug/g	1.09e+0 lbs/hr	CE
Chromium	204C1R1	9.85e+0 ug/g	8.67e+0 lbs/hr	CE
Chromium	204C1R2	1.05e+1 ug/g	9.24e+0 lbs/hr	CE
Chromium	204C1R3	1.29e+1 ug/g	1.14e+1 lbs/hr	CE
Lead	204C1R1	3.36e+0 ug/g	2.96e+0 lbs/hr	CE
Lead	204C1R2	3.42e+0 ug/g	3.01e+0 lbs/hr	CE
Lead	204C1R3	3.31e+0 ug/g	2.91e+0 lbs/hr	CE
Mercury	204C1R1	ND 1.00e-1 ug/g	8.80e-2 lbs/hr	CE
Mercury	204C1R2	ND 1.00e-1 ug/g	8.80e-2 lbs/hr	CE
Mercury	204C1R3	ND 1.00e-1 ug/g	8.80e-2 lbs/hr	CE
Silver	204C1R1	ND 1.09e+0 ug/g	9.59e-1 lbs/hr	CE
Silver	204C1R2	ND 1.10e+0 ug/g	9.68e-1 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: MO
 3. CITY: CLARKSVILLE
 4. EP ID: 204 DEVICE NAME: KILN NO. 1

EPA ID: MOD029729688
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP
 REGION: 7

Silver	204C1R3	ND	1.24e+0	ug/g	1.09e+0	lbs/hr	CE
Thallium	204C1R1	ND	3.58e+0	ug/g	3.15e+0	lbs/hr	CE
Thallium	204C1R2	ND	4.15e+0	ug/g	3.65e+0	lbs/hr	CE
Thallium	204C1R3	ND	3.50e+0	ug/g	3.08e+0	lbs/hr	CE

5. Type: SPIKE

6. Description: METALS (AS,BE,CD,CR,PB)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Arsenic	204C1R1	8.58e+3	ug/g	8.60e+0	lbs/hr	CC
Arsenic	204C1R2	1.20e+4	ug/g	8.50e+0	lbs/hr	CC
Arsenic	204C1R3	1.12e+4	ug/g	8.40e+0	lbs/hr	CC
Beryllium	204C1R1	5.79e+3	ug/g	5.80e+0	lbs/hr	CC
Beryllium	204C1R2	8.05e+3	ug/g	5.70e+0	lbs/hr	CC
Beryllium	204C1R3	7.47e+3	ug/g	5.60e+0	lbs/hr	CC
Cadmium	204C1R1	1.44e+4	ug/g	1.44e+1	lbs/hr	CC
Cadmium	204C1R2	2.01e+4	ug/g	1.42e+1	lbs/hr	CC
Cadmium	204C1R3	1.88e+4	ug/g	1.41e+1	lbs/hr	CC
Chromium	204C1R1	1.40e+5	ug/g	1.40e+2	lbs/hr	CC
Chromium	204C1R2	1.31e+5	ug/g	9.31e+1	lbs/hr	CC
Chromium	204C1R3	1.33e+5	ug/g	9.98e+1	lbs/hr	CC
Chromium (Hex)	204C1R1	8.14e+4	ug/g	8.16e+1	lbs/hr	CC
Chromium (Hex)	204C1R2	1.20e+5	ug/g	8.48e+1	lbs/hr	CC
Chromium (Hex)	204C1R3	5.11e+4	ug/g	3.83e+1	lbs/hr	CC
Lead	204C1R1	2.07e+5	ug/g	2.07e+2	lbs/hr	CC
Lead	204C1R2	1.95e+5	ug/g	1.38e+2	lbs/hr	CC
Lead	204C1R3	1.97e+5	ug/g	1.48e+2	lbs/hr	CC

6. Description: ORGANICS (SF6,TCB)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
1,2,4-Trichlorobenzene	204C4R1	1.50e+5	ug/g	1.50e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	204C4R2	2.10e+5	ug/g	1.49e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	204C4R3	1.83e+5	ug/g	1.37e+2	lbs/hr	CC

5. Type: WASTE

6. Description:
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	204C1R1	4.90e+4	ug/g	2.10e+3	lbs/hr	CE
Chlorine	204C1R2	5.30e+4	ug/g	2.27e+3	lbs/hr	CE
Chlorine	204C1R3	5.10e+4	ug/g	2.18e+3	lbs/hr	CE
Chlorine	204C2R1	4.28e+4	ug/g	1.80e+3	lbs/hr	CE
Chlorine	204C2R2	4.34e+4	ug/g	1.82e+3	lbs/hr	CE
Chlorine	204C2R3	4.50e+4	ug/g	1.89e+3	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc		
Antimony	204C1R1	1.13e+1	ug/g	4.84e-1	lbs/hr	CE	
Antimony	204C1R2	1.60e+1	ug/g	6.85e-1	lbs/hr	CE	
Antimony	204C1R3	1.39e+1	ug/g	5.95e-1	lbs/hr	CE	
Arsenic	204C1R1	ND	6.52e-1	ug/g	2.79e-2	lbs/hr	CE
Arsenic	204C1R2	ND	7.64e-1	ug/g	3.27e-2	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.

2. STATE: MO

3. CITY: CLARKSVILLE

EPA ID: MOD029729688

REGION: 7

4. EP ID: 204 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Arsenic	204C1R3	ND	7.42e-1	ug/g	3.18e-2	lbs/hr	CE
Barium	204C1R1		7.57e+2	ug/g	3.24e+1	lbs/hr	CE
Barium	204C1R2		1.04e+3	ug/g	4.45e+1	lbs/hr	CE
Barium	204C1R3		7.64e+2	ug/g	3.27e+1	lbs/hr	CE
Beryllium	204C1R1		7.00e-1	ug/g	3.00e-2	lbs/hr	CE
Beryllium	204C1R2		8.66e-1	ug/g	3.71e-2	lbs/hr	CE
Beryllium	204C1R3		6.21e-1	ug/g	2.66e-2	lbs/hr	CE
Cadmium	204C1R1		4.44e+0	ug/g	1.90e-1	lbs/hr	CE
Cadmium	204C1R2		6.28e+0	ug/g	2.69e-1	lbs/hr	CE
Cadmium	204C1R3		4.59e+0	ug/g	1.96e-1	lbs/hr	CE
Chromium	204C1R1		1.34e+2	ug/g	5.74e+0	lbs/hr	CE
Chromium	204C1R2		2.25e+2	ug/g	9.63e+0	lbs/hr	CE
Chromium	204C1R3		1.60e+2	ug/g	6.85e+0	lbs/hr	CE
Lead	204C1R1		3.61e+2	ug/g	1.55e+1	lbs/hr	CE
Lead	204C1R2		5.00e+2	ug/g	2.14e+1	lbs/hr	CE
Lead	204C1R3		3.69e+2	ug/g	1.58e+1	lbs/hr	CE
Mercury	204C1R1	ND	1.00e-1	ug/g	4.28e-3	lbs/hr	CE
Mercury	204C1R2	ND	1.00e-1	ug/g	4.28e-3	lbs/hr	CE
Mercury	204C1R3	ND	1.00e-1	ug/g	4.28e-3	lbs/hr	CE
Silver	204C1R1		7.79e-1	ug/g	3.33e-2	lbs/hr	CE
Silver	204C1R2		1.81e+0	ug/g	7.75e-2	lbs/hr	CE
Silver	204C1R3	ND	2.50e-1	ug/g	1.07e-2	lbs/hr	CE
Thallium	204C1R1	ND	6.52e-1	ug/g	2.79e-2	lbs/hr	CE
Thallium	204C1R2	ND	7.64e-1	ug/g	3.27e-2	lbs/hr	CE
Thallium	204C1R3	ND	7.42e-1	ug/g	3.18e-2	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: MS
 3. CITY: ARTESIA
 4. EP ID: 203 DEVICE NAME: KILN NO. 1

EPA ID: MSD077655876
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 4

5. Type: FUEL

6. Description: COAL
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	203C1R1	ND	3.00e+2 ug/g	2.76e+0 lbs/hr	CE
Chlorine	203C1R2	ND	3.00e+2 ug/g	3.30e+0 lbs/hr	CE
Chlorine	203C1R3		3.30e+2 ug/g	2.41e+0 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	203C1R1	ND	3.00e+0 ug/g	2.76e-2 lbs/hr	CE
Antimony	203C1R2	ND	3.00e+0 ug/g	3.30e-2 lbs/hr	CE
Antimony	203C1R3	ND	3.00e+0 ug/g	2.19e-2 lbs/hr	CE
Arsenic	203C1R1		4.80e+0 ug/g	4.41e-2 lbs/hr	
Arsenic	203C1R2		1.34e+1 ug/g	1.47e-1 lbs/hr	
Arsenic	203C1R3		1.20e+1 ug/g	8.77e-2 lbs/hr	
Barium	203C1R1		7.90e+1 ug/g	7.28e-1 lbs/hr	
Barium	203C1R2		7.40e+1 ug/g	8.16e-1 lbs/hr	
Barium	203C1R3		2.90e+1 ug/g	2.12e-1 lbs/hr	
Beryllium	203C1R1		9.00e-1 ug/g	8.38e-3 lbs/hr	
Beryllium	203C1R2		8.00e-1 ug/g	8.82e-3 lbs/hr	
Beryllium	203C1R3		9.00e-1 ug/g	6.61e-3 lbs/hr	
Cadmium	203C1R1		7.00e-1 ug/g	6.39e-3 lbs/hr	
Cadmium	203C1R2		7.00e-1 ug/g	7.72e-3 lbs/hr	
Cadmium	203C1R3		5.00e-1 ug/g	3.75e-3 lbs/hr	
Chromium	203C1R1		6.40e+0 ug/g	5.89e-2 lbs/hr	
Chromium	203C1R2		6.00e+0 ug/g	6.61e-2 lbs/hr	
Chromium	203C1R3		6.50e+0 ug/g	4.74e-2 lbs/hr	
Lead	203C1R1		9.60e+0 ug/g	8.84e-2 lbs/hr	
Lead	203C1R2		8.10e+0 ug/g	8.93e-2 lbs/hr	
Lead	203C1R3		1.00e+1 ug/g	7.30e-2 lbs/hr	
Mercury	203C1R1		2.20e-1 ug/g	1.98e-3 lbs/hr	
Mercury	203C1R2		1.90e-1 ug/g	1.98e-3 lbs/hr	
Mercury	203C1R3		2.30e-1 ug/g	1.76e-3 lbs/hr	
Silver	203C1R1	ND	7.00e-1 ug/g	6.44e-3 lbs/hr	CE
Silver	203C1R2	ND	7.00e-1 ug/g	7.70e-3 lbs/hr	CE
Silver	203C1R3	ND	7.00e-1 ug/g	5.11e-3 lbs/hr	CE
Thallium	203C1R1	ND	5.00e-1 ug/g	4.60e-3 lbs/hr	CE
Thallium	203C1R2	ND	5.00e-1 ug/g	5.50e-3 lbs/hr	CE
Thallium	203C1R3	ND	5.00e-1 ug/g	3.65e-3 lbs/hr	CE

5. Type: RAW MATERIAL

6. Description:
 Group: WET KILN Location: KILN Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	203C1R1	ND	5.00e-1 ug/g	9.85e-2 lbs/hr	CE
Chlorine	203C1R2	ND	5.00e-1 ug/g	9.19e-2 lbs/hr	CE
Chlorine	203C1R3	ND	5.00e-1 ug/g	9.88e-2 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	203C1R1	ND	3.00e+0 ug/g	5.91e-1 lbs/hr	CE
Antimony	203C1R2	ND	3.00e+0 ug/g	5.51e-1 lbs/hr	CE
Antimony	203C1R3	ND	3.00e+0 ug/g	5.93e-1 lbs/hr	CE
Arsenic	203C1R1		1.60e+0 ug/g	3.15e-1 lbs/hr	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLLNAM INC.
 2. STATE: MS
 3. CITY: ARTESIA
 4. EP ID: 203 DEVICE NAME: KILN NO. 1

EPA ID: MSD077655876
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 4

Arsenic	203C1R2	2.30e+0	ug/g	4.23e-1	lbs/hr	
Arsenic	203C1R3	2.30e+0	ug/g	4.55e-1	lbs/hr	
Barium	203C1R1	2.10e+1	ug/g	4.14e+0	lbs/hr	
Barium	203C1R2	3.60e+1	ug/g	6.62e+0	lbs/hr	
Barium	203C1R3	3.70e+1	ug/g	7.32e+0	lbs/hr	
Beryllium	203C1R1	1.20e-1	ug/g	2.36e-2	lbs/hr	
Beryllium	203C1R2	1.20e-1	ug/g	2.20e-2	lbs/hr	
Beryllium	203C1R3	1.20e-1	ug/g	2.38e-2	lbs/hr	
Cadmium	203C1R1	4.00e-1	ug/g	7.89e-2	lbs/hr	
Cadmium	203C1R2	4.00e-1	ug/g	7.36e-2	lbs/hr	
Cadmium	203C1R3	7.00e-1	ug/g	1.38e-1	lbs/hr	
Chromium	203C1R1	3.60e+0	ug/g	7.10e-1	lbs/hr	
Chromium	203C1R2	3.40e+0	ug/g	6.25e-1	lbs/hr	
Chromium	203C1R3	8.40e+0	ug/g	1.66e+0	lbs/hr	
Lead	203C1R1	6.70e+0	ug/g	1.32e+0	lbs/hr	
Lead	203C1R2	4.50e+0	ug/g	8.27e-1	lbs/hr	
Lead	203C1R3	6.10e+0	ug/g	1.21e+0	lbs/hr	
Mercury	203C1R1	ND 5.00e-2	ug/g	9.85e-3	lbs/hr	CE
Mercury	203C1R2	ND 5.00e-2	ug/g	9.19e-3	lbs/hr	CE
Mercury	203C1R3	ND 5.00e-2	ug/g	9.88e-3	lbs/hr	CE
Silver	203C1R1	ND 7.00e-1	ug/g	1.38e-1	lbs/hr	CE
Silver	203C1R2	ND 7.00e-1	ug/g	1.29e-1	lbs/hr	CE
Silver	203C1R3	ND 7.00e-1	ug/g	1.38e-1	lbs/hr	CE
Thallium	203C1R1	ND 5.00e-1	ug/g	9.85e-2	lbs/hr	CE
Thallium	203C1R2	ND 5.00e-1	ug/g	9.19e-2	lbs/hr	CE
Thallium	203C1R3	ND 5.00e-1	ug/g	9.88e-2	lbs/hr	CE

5. Type: SPIKE

6. Description: METALS (AS,CD,CR,PB)
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Arsenic	203C1R1	0.00e+0	6.15e-1 lbs/hr	
Arsenic	203C1R2	0.00e+0	6.15e-1 lbs/hr	
Arsenic	203C1R3	0.00e+0	6.15e-1 lbs/hr	
Beryllium	203C1R1	0.00e+0	8.82e-2 lbs/hr	
Beryllium	203C1R2	0.00e+0	8.82e-2 lbs/hr	
Beryllium	203C1R3	0.00e+0	8.82e-2 lbs/hr	
Chromium	203C1R1	0.00e+0	3.40e+0 lbs/hr	
Chromium	203C1R2	0.00e+0	3.40e+0 lbs/hr	
Chromium	203C1R3	0.00e+0	3.40e+0 lbs/hr	

5. Type: WASTE

6. Description: SPIKED METALS (AS,BE,CR,CD,PB)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	203C1R1	3.97e+4 ug/g	5.56e+2 lbs/hr	
Chlorine	203C1R2	2.94e+4 ug/g	4.24e+2 lbs/hr	
Chlorine	203C1R3	3.50e+4 ug/g	4.90e+2 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	203C1R1	4.50e+1 ug/g	6.31e-1 lbs/hr	
Antimony	203C1R2	1.00e+2 ug/g	1.44e+0 lbs/hr	
Antimony	203C1R3	3.40e+0 ug/g	4.76e-2 lbs/hr	CE
Arsenic	203C1R1	2.40e+1 ug/g	3.36e-1 lbs/hr	
Arsenic	203C1R2	2.90e+1 ug/g	4.18e-1 lbs/hr	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.

2. STATE: MS

3. CITY: ARTESIA

4. EP ID: 203 DEVICE NAME: KILN NO. 1

EPA ID: MSD077655876

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 4

Arsenic	203C1R3	2.20e+1	ug/g	3.08e-1	lbs/hr	
Barium	203C1R1	2.90e+1	ug/g	4.06e-1	lbs/hr	
Barium	203C1R2	5.30e+1	ug/g	7.63e-1	lbs/hr	
Barium	203C1R3	4.50e+1	ug/g	6.31e-1	lbs/hr	
Beryllium	203C1R1	1.60e+0	ug/g	2.25e-2	lbs/hr	
Beryllium	203C1R2	1.10e+0	ug/g	1.59e-2	lbs/hr	
Beryllium	203C1R3	1.40e+0	ug/g	1.96e-2	lbs/hr	
Cadmium	203C1R1	2.99e+2	ug/g	4.19e+0	lbs/hr	
Cadmium	203C1R2	2.98e+2	ug/g	4.29e+0	lbs/hr	
Cadmium	203C1R3	2.76e+2	ug/g	3.87e+0	lbs/hr	
Chromium	203C1R1	9.31e+2	ug/g	1.30e+1	lbs/hr	
Chromium	203C1R2	9.08e+2	ug/g	1.31e+1	lbs/hr	
Chromium	203C1R3	7.93e+2	ug/g	1.11e+1	lbs/hr	
Lead	203C1R1	4.06e+3	ug/g	5.68e+1	lbs/hr	
Lead	203C1R2	3.96e+3	ug/g	5.71e+1	lbs/hr	
Lead	203C1R3	3.52e+3	ug/g	4.93e+1	lbs/hr	
Mercury	203C1R1	4.70e-1	ug/g	6.61e-3	lbs/hr	
Mercury	203C1R2	1.10e-1	ug/g	1.54e-3	lbs/hr	
Mercury	203C1R3	2.40e-1	ug/g	3.31e-3	lbs/hr	
Silver	203C1R1	ND 3.00e+0	ug/g	4.20e-2	lbs/hr	CE
Silver	203C1R2	ND 3.00e+0	ug/g	4.32e-2	lbs/hr	CE
Silver	203C1R3	ND 3.00e+0	ug/g	4.20e-2	lbs/hr	CE
Thallium	203C1R1	ND 5.00e-1	ug/g	7.00e-3	lbs/hr	CE
Thallium	203C1R2	ND 5.00e-1	ug/g	7.20e-3	lbs/hr	CE
Thallium	203C1R3	ND 5.00e-1	ug/g	7.00e-3	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL EPA SCD003368891 REGION: 4
 4. EP ID: 205 DEVICE NAME: KILN NO. 1 SYSTEM TYPE: CEMENT KILN APC SYSTEM: ESP

5. Type: CLINKER

6. Description: PRODUCT
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	205C1R1	1.52e+2	ug/g	0.00e+0	
Antimony	205C1R2	1.62e+2	ug/g	0.00e+0	
Antimony	205C1R3	1.65e+2	ug/g	0.00e+0	
Arsenic	205C1R1	2.44e+1	ug/g	0.00e+0	
Arsenic	205C1R2	4.62e+1	ug/g	0.00e+0	
Arsenic	205C1R3	5.61e+1	ug/g	0.00e+0	
Barium	205C1R1	2.16e+2	ug/g	0.00e+0	
Barium	205C1R2	1.95e+2	ug/g	0.00e+0	
Barium	205C1R3	2.16e+2	ug/g	0.00e+0	
Beryllium	205C1R1	1.36e+1	ug/g	0.00e+0	
Beryllium	205C1R2	1.18e+1	ug/g	0.00e+0	
Beryllium	205C1R3	1.30e+1	ug/g	0.00e+0	
Cadmium	205C1R1	1.57e+0	ug/g	0.00e+0	
Cadmium	205C1R2	ND 1.32e+0	ug/g	0.00e+0	
Cadmium	205C1R3	1.71e+0	ug/g	0.00e+0	
Chromium	205C1R1	4.05e+2	ug/g	0.00e+0	
Chromium	205C1R2	3.68e+2	ug/g	0.00e+0	
Chromium	205C1R3	4.39e+2	ug/g	0.00e+0	
Lead	205C1R1	3.25e+0	ug/g	0.00e+0	
Lead	205C1R2	3.01e+0	ug/g	0.00e+0	
Lead	205C1R3	2.18e+0	ug/g	0.00e+0	
Mercury	205C1R1	ND 1.00e-1	ug/g	0.00e+0	
Mercury	205C1R2	ND 1.00e-1	ug/g	0.00e+0	
Mercury	205C1R3	ND 1.00e-1	ug/g	0.00e+0	
Nickel	205C1R1	3.99e+1	ug/g	0.00e+0	
Nickel	205C1R2	3.68e+1	ug/g	0.00e+0	
Nickel	205C1R3	3.78e+1	ug/g	0.00e+0	
Selenium	205C1R1	ND 8.20e-1	ug/g	0.00e+0	
Selenium	205C1R2	ND 7.48e-1	ug/g	0.00e+0	
Selenium	205C1R3	ND 6.92e-1	ug/g	0.00e+0	
Silver	205C1R1	1.72e+0	ug/g	0.00e+0	
Silver	205C1R2	ND 1.32e+0	ug/g	0.00e+0	
Silver	205C1R3	ND 1.22e+0	ug/g	0.00e+0	
Thallium	205C1R1	ND 8.20e-1	ug/g	0.00e+0	
Thallium	205C1R2	ND 7.48e-1	ug/g	0.00e+0	
Thallium	205C1R3	ND 6.92e-1	ug/g	0.00e+0	

5. Type: ESP ASH

6. Description: NONRECYCLE
 Group: WET KILN Location: ESP Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	205C3R1	1.58e+3	ug/g	0.00e+0	
Chlorine	205C3R2	1.22e+3	ug/g	0.00e+0	
Chlorine	205C3R3	6.60e+2	ug/g	0.00e+0	
Chlorine	205C4R1	5.92e+3	ug/g	0.00e+0	
Chlorine	205C4R2	6.68e+3	ug/g	0.00e+0	
Chlorine	205C4R3	7.30e+3	ug/g	0.00e+0	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	205C1R1	1.48e+2	ug/g	0.00e+0	
Antimony	205C1R2	1.57e+2	ug/g	0.00e+0	
Antimony	205C1R3	1.75e+2	ug/g	0.00e+0	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 205 DEVICE NAME: KILN NO. 1

EPA ID: SCD003368891
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 4

Arsenic	205C1R1	2.24e+1	ug/g	0.00e+0	
Arsenic	205C1R2	4.65e+1	ug/g	0.00e+0	
Arsenic	205C1R3	4.82e+1	ug/g	0.00e+0	
Barium	205C1R1	2.59e+2	ug/g	0.00e+0	
Barium	205C1R2	2.81e+2	ug/g	0.00e+0	
Barium	205C1R3	2.64e+2	ug/g	0.00e+0	
Beryllium	205C1R1	1.21e+1	ug/g	0.00e+0	
Beryllium	205C1R2	1.23e+1	ug/g	0.00e+0	
Beryllium	205C1R3	1.17e+1	ug/g	0.00e+0	
Cadmium	205C1R1	1.71e+2	ug/g	0.00e+0	
Cadmium	205C1R2	1.51e+2	ug/g	0.00e+0	
Cadmium	205C1R3	1.49e+2	ug/g	0.00e+0	
Chromium	205C1R1	3.24e+2	ug/g	0.00e+0	
Chromium	205C1R2	3.74e+2	ug/g	0.00e+0	
Chromium	205C1R3	3.82e+2	ug/g	0.00e+0	
Lead	205C1R1	1.42e+3	ug/g	0.00e+0	
Lead	205C1R2	1.61e+3	ug/g	0.00e+0	
Lead	205C1R3	1.65e+3	ug/g	0.00e+0	
Mercury	205C1R1	ND 1.00e-1	ug/g	0.00e+0	
Mercury	205C1R2	ND 1.00e-1	ug/g	0.00e+0	
Mercury	205C1R3	ND 1.00e-1	ug/g	0.00e+0	
Nickel	205C1R1	3.47e+1	ug/g	0.00e+0	
Nickel	205C1R2	3.53e+1	ug/g	0.00e+0	
Nickel	205C1R3	3.38e+1	ug/g	0.00e+0	
Selenium	205C1R1	9.05e+0	ug/g	0.00e+0	
Selenium	205C1R2	8.23e+0	ug/g	0.00e+0	
Selenium	205C1R3	7.62e+0	ug/g	0.00e+0	
Silver	205C1R1	3.04e+0	ug/g	0.00e+0	
Silver	205C1R2	2.87e+0	ug/g	0.00e+0	
Silver	205C1R3	3.19e+0	ug/g	0.00e+0	
Thallium	205C1R1	1.61e+0	ug/g	0.00e+0	
Thallium	205C1R2	1.52e+0	ug/g	0.00e+0	
Thallium	205C1R3	1.71e+0	ug/g	0.00e+0	

5. Type: FUEL

6. Description: COAL/COKE
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	205C1R1	1.07e+3	ug/g	6.42e+0 lbs/hr	CE
Chlorine	205C1R2	9.24e+2	ug/g	5.54e+0 lbs/hr	CE
Chlorine	205C1R3	1.08e+3	ug/g	6.48e+0 lbs/hr	CE
Chlorine	205C3R1	6.00e+2	ug/g	1.20e+1 lbs/hr	CE
Chlorine	205C3R2	4.75e+2	ug/g	9.50e+0 lbs/hr	CE
Chlorine	205C3R3	6.60e+2	ug/g	1.32e+1 lbs/hr	CE
Chlorine	205C4R1	7.10e+2	ug/g	7.10e+0 lbs/hr	CE
Chlorine	205C4R2	5.15e+2	ug/g	5.15e+0 lbs/hr	CE
Chlorine	205C4R3	4.10e+2	ug/g	4.10e+0 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	205C1R1	ND 7.59e-1	ug/g	4.55e-3 lbs/hr	CE
Antimony	205C1R2	ND 8.05e-1	ug/g	4.83e-3 lbs/hr	CE
Antimony	205C1R3	8.12e-1	ug/g	4.87e-3 lbs/hr	CE
Arsenic	205C1R1	7.60e+0	ug/g	4.56e-2 lbs/hr	CE
Arsenic	205C1R2	ND 8.15e-1	ug/g	4.89e-3 lbs/hr	CE
Arsenic	205C1R3	5.70e+0	ug/g	3.42e-2 lbs/hr	CE
Barium	205C1R1	1.07e+2	ug/g	6.42e-1 lbs/hr	CE
Barium	205C1R2	2.57e+1	ug/g	1.54e-1 lbs/hr	CE
Barium	205C1R3	7.80e+1	ug/g	4.68e-1 lbs/hr	CE
Beryllium	205C1R1	4.39e+0	ug/g	2.63e-2 lbs/hr	CE
Beryllium	205C1R2	5.71e-1	ug/g	3.43e-3 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 205 DEVICE NAME: KILN NO. 1

EPA SCD003368891
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 4

Beryllium	205C1R3		5.18e+0	ug/g	3.11e-2	lbs/hr	CE
Cadmium	205C1R1		4.25e-1	ug/g	2.55e-3	lbs/hr	CE
Cadmium	205C1R2	ND	2.50e-1	ug/g	1.50e-3	lbs/hr	CE
Cadmium	205C1R3		3.50e-1	ug/g	2.10e-3	lbs/hr	CE
Chromium	205C1R1		2.21e+1	ug/g	1.33e-1	lbs/hr	CE
Chromium	205C1R2		1.02e+0	ug/g	6.12e-3	lbs/hr	CE
Chromium	205C1R3		1.35e+1	ug/g	8.10e-2	lbs/hr	CE
Lead	205C1R1		1.52e+1	ug/g	9.12e-2	lbs/hr	CE
Lead	205C1R2		2.16e+0	ug/g	1.30e-2	lbs/hr	CE
Lead	205C1R3		1.61e+1	ug/g	9.66e-2	lbs/hr	CE
Mercury	205C1R1	ND	1.00e-1	ug/g	6.00e-4	lbs/hr	CE
Mercury	205C1R2	ND	1.00e-1	ug/g	6.00e-4	lbs/hr	CE
Mercury	205C1R3	ND	1.00e-1	ug/g	6.00e-4	lbs/hr	CE
Nickel	205C1R1		1.24e+2	ug/g	7.44e-1	lbs/hr	CE
Nickel	205C1R2		1.60e+1	ug/g	9.60e-2	lbs/hr	CE
Nickel	205C1R3		1.64e+2	ug/g	9.84e-1	lbs/hr	CE
Selenium	205C1R1		1.42e+0	ug/g	8.52e-3	lbs/hr	CE
Selenium	205C1R2	ND	8.15e-1	ug/g	4.89e-3	lbs/hr	CE
Selenium	205C1R3		1.06e+0	ug/g	6.36e-3	lbs/hr	CE
Silver	205C1R1		3.05e-1	ug/g	1.83e-3	lbs/hr	CE
Silver	205C1R2	ND	2.50e-1	ug/g	1.50e-3	lbs/hr	CE
Silver	205C1R3	ND	2.50e-1	ug/g	1.50e-3	lbs/hr	CE
Thallium	205C1R1	ND	7.69e-1	ug/g	4.61e-3	lbs/hr	CE
Thallium	205C1R2	ND	8.15e-1	ug/g	4.89e-3	lbs/hr	CE
Thallium	205C1R3	ND	6.77e+2	ug/g	4.06e+0	lbs/hr	CE

5. Type: RAW MATERIAL

6. Description:

Group: WET KILN

Location: KILN

Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
Chlorine	205C1R1	ND	1.00e+2	ug/g	1.66e+1	lbs/hr	CE
Chlorine	205C1R2	ND	1.00e+2	ug/g	1.66e+1	lbs/hr	CE
Chlorine	205C1R3	ND	1.00e+2	ug/g	1.66e+1	lbs/hr	CE
Chlorine	205C3R1	ND	1.00e+2	ug/g	1.58e+1	lbs/hr	CE
Chlorine	205C3R2	ND	1.00e+2	ug/g	1.58e+1	lbs/hr	CE
Chlorine	205C3R3	ND	1.00e+2	ug/g	1.58e+1	lbs/hr	CE
Chlorine	205C4R1	ND	1.00e+2	ug/g	1.62e+1	lbs/hr	CE
Chlorine	205C4R2	ND	1.00e+2	ug/g	1.62e+1	lbs/hr	CE
Chlorine	205C4R3	ND	1.00e+2	ug/g	1.62e+1	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
Antimony	205C1R1		9.20e-1	ug/g	1.53e-1	lbs/hr	CE
Antimony	205C1R2		1.27e+0	ug/g	2.11e-1	lbs/hr	CE
Antimony	205C1R3	ND	6.30e-1	ug/g	1.05e-1	lbs/hr	CE
Arsenic	205C1R1		5.16e+0	ug/g	8.57e-1	lbs/hr	CE
Arsenic	205C1R2		5.40e+0	ug/g	8.96e-1	lbs/hr	CE
Arsenic	205C1R3		6.33e+0	ug/g	1.05e+0	lbs/hr	CE
Barium	205C1R1		8.79e+1	ug/g	1.46e+1	lbs/hr	CE
Barium	205C1R2		8.67e+1	ug/g	1.44e+1	lbs/hr	CE
Barium	205C1R3		8.15e+1	ug/g	1.35e+1	lbs/hr	CE
Beryllium	205C1R1		1.36e+0	ug/g	2.26e-1	lbs/hr	CE
Beryllium	205C1R2		1.38e+0	ug/g	2.29e-1	lbs/hr	CE
Beryllium	205C1R3		1.32e+0	ug/g	2.19e-1	lbs/hr	CE
Cadmium	205C1R1	ND	1.06e+0	ug/g	1.76e-1	lbs/hr	CE
Cadmium	205C1R2	ND	1.12e+0	ug/g	1.86e-1	lbs/hr	CE
Cadmium	205C1R3		1.83e+0	ug/g	3.04e-1	lbs/hr	CE
Chromium	205C1R1		3.74e+1	ug/g	6.21e+0	lbs/hr	CE
Chromium	205C1R2		3.66e+1	ug/g	6.08e+0	lbs/hr	CE
Chromium	205C1R3		3.54e+1	ug/g	5.88e+0	lbs/hr	CE
Lead	205C1R1		6.55e+0	ug/g	1.09e+0	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 205 DEVICE NAME: KILN NO. 1

EPA ID: SCD003368891
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP
 REGION: 4

Lead	205C1R2	6.92e+0	ug/g	1.15e+0	lbs/hr	CE	
Lead	205C1R3	6.58e+0	ug/g	1.09e+0	lbs/hr	CE	
Mercury	205C1R1	ND	1.00e-1	ug/g	1.66e-2	lbs/hr	CE
Mercury	205C1R2	ND	1.00e-1	ug/g	1.66e-2	lbs/hr	CE
Mercury	205C1R3	ND	1.00e-1	ug/g	1.66e-2	lbs/hr	CE
Nickel	205C1R1	1.93e+1	ug/g	3.20e+0	lbs/hr	CE	
Nickel	205C1R2	2.33e+1	ug/g	3.87e+0	lbs/hr	CE	
Nickel	205C1R3	2.15e+1	ug/g	3.57e+0	lbs/hr	CE	
Selenium	205C1R1	ND	5.99e-1	ug/g	9.94e-2	lbs/hr	CE
Selenium	205C1R2	ND	6.34e-1	ug/g	1.05e-1	lbs/hr	CE
Selenium	205C1R3	ND	6.37e-1	ug/g	1.06e-1	lbs/hr	CE
Silver	205C1R1	1.00e+0	ug/g	1.66e-1	lbs/hr	CE	
Silver	205C1R2	ND	1.12e+0	ug/g	1.86e-1	lbs/hr	CE
Silver	205C1R3	ND	1.12e+0	ug/g	1.86e-1	lbs/hr	CE
Thallium	205C1R1	ND	5.99e-1	ug/g	9.94e-2	lbs/hr	CE
Thallium	205C1R2	ND	6.34e-1	ug/g	1.05e-1	lbs/hr	CE
Thallium	205C1R3	ND	6.37e-1	ug/g	1.06e-1	lbs/hr	CE

5. Type: SPIKE

6. Description: METALS (AS,BE,CR,CR,SB,PB,CR6)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	205C1R1	1.52e+4	ug/g	1.28e+1	lbs/hr	CC
Antimony	205C1R2	1.54e+4	ug/g	1.36e+1	lbs/hr	CC
Antimony	205C1R3	1.55e+4	ug/g	1.49e+1	lbs/hr	CC
Arsenic	205C1R1	3.20e+3	ug/g	2.69e+0	lbs/hr	CC
Arsenic	205C1R2	2.76e+3	ug/g	2.43e+0	lbs/hr	CC
Arsenic	205C1R3	2.67e+3	ug/g	2.56e+0	lbs/hr	CC
Beryllium	205C1R1	1.51e+3	ug/g	1.27e+0	lbs/hr	CC
Beryllium	205C1R2	1.32e+3	ug/g	1.16e+0	lbs/hr	CC
Beryllium	205C1R3	1.27e+3	ug/g	1.22e+0	lbs/hr	CC
Cadmium	205C1R1	5.74e+3	ug/g	4.82e+0	lbs/hr	CC
Cadmium	205C1R2	4.93e+3	ug/g	4.35e+0	lbs/hr	CC
Cadmium	205C1R3	4.79e+3	ug/g	4.60e+0	lbs/hr	CC
Chromium	205C1R1	4.58e+4	ug/g	3.85e+1	lbs/hr	CC
Chromium	205C1R2	4.64e+4	ug/g	4.09e+1	lbs/hr	CC
Chromium	205C1R3	4.68e+4	ug/g	4.49e+1	lbs/hr	CC
Lead	205C1R1	4.39e+4	ug/g	3.69e+1	lbs/hr	CC
Lead	205C1R2	4.43e+4	ug/g	3.91e+1	lbs/hr	CC
Lead	205C1R3	4.49e+4	ug/g	4.31e+1	lbs/hr	CC

6. Description: ORGANICS (TCB)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,2,4-Trichlorobenzene	205C2R1	1.64e+5	ug/g	1.37e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	205C2R2	1.51e+5	ug/g	1.33e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	205C2R3	1.49e+5	ug/g	1.43e+2	lbs/hr	CC

5. Type: WASTE

6. Description:
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	205C1R1	1.85e+4	ug/g	2.85e+2	lbs/hr	CE
Chlorine	205C1R2	1.93e+4	ug/g	2.97e+2	lbs/hr	CE
Chlorine	205C1R3	2.05e+0	ug/g	3.16e-2	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 205 DEVICE NAME: KILN NO. 1

EPA ID: SCD003368891
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 4

Chlorine	205C4R1	2.08e+4	ug/g	2.50e+2	lbs/hr	CE
Chlorine	205C4R2	1.82e+4	ug/g	2.18e+2	lbs/hr	CE
Chlorine	205C4R3	1.63e+4	ug/g	1.96e+2	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	205C1R1	2.55e+1	ug/g	3.93e-1	lbs/hr	CE	
Antimony	205C1R2	3.11e+1	ug/g	4.79e-1	lbs/hr	CE	
Antimony	205C1R3	2.29e+1	ug/g	3.53e-1	lbs/hr	CE	
Arsenic	205C1R1	ND	7.56e-1	ug/g	1.16e-2	lbs/hr	CE
Arsenic	205C1R2	ND	6.44e-1	ug/g	9.92e-3	lbs/hr	CE
Arsenic	205C1R3	ND	3.82e-1	ug/g	5.88e-3	lbs/hr	CE
Barium	205C1R1	5.09e+2	ug/g	7.84e+0	lbs/hr	CE	
Barium	205C1R2	5.79e+2	ug/g	8.92e+0	lbs/hr	CE	
Barium	205C1R3	5.54e+2	ug/g	8.53e+0	lbs/hr	CE	
Beryllium	205C1R1	5.66e-1	ug/g	8.72e-3	lbs/hr	CE	
Beryllium	205C1R2	9.28e-1	ug/g	1.43e-2	lbs/hr	CE	
Beryllium	205C1R3	8.42e-1	ug/g	1.30e-2	lbs/hr	CE	
Cadmium	205C1R1	7.77e+0	ug/g	1.20e-1	lbs/hr	CE	
Cadmium	205C1R2	8.03e-1	ug/g	1.24e-2	lbs/hr	CE	
Cadmium	205C1R3	7.11e+0	ug/g	1.09e-1	lbs/hr	CE	
Chromium	205C1R1	1.06e+2	ug/g	1.63e+0	lbs/hr	CE	
Chromium	205C1R2	1.14e+2	ug/g	1.76e+0	lbs/hr	CE	
Chromium	205C1R3	1.04e+2	ug/g	1.60e+0	lbs/hr	CE	
Lead	205C1R1	3.19e+2	ug/g	4.91e+0	lbs/hr	CE	
Lead	205C1R2	4.00e+2	ug/g	6.16e+0	lbs/hr	CE	
Lead	205C1R3	3.41e+2	ug/g	5.25e+0	lbs/hr	CE	
Mercury	205C1R1	1.90e-1	ug/g	2.93e-3	lbs/hr	CE	
Mercury	205C1R2	2.50e-1	ug/g	3.85e-3	lbs/hr	CE	
Mercury	205C1R3	2.50e-1	ug/g	3.85e-3	lbs/hr	CE	
Nickel	205C1R1	2.26e+1	ug/g	3.48e-1	lbs/hr	CE	
Nickel	205C1R2	2.54e+1	ug/g	3.91e-1	lbs/hr	CE	
Nickel	205C1R3	2.13e+1	ug/g	3.28e-1	lbs/hr	CE	
Selenium	205C1R1	1.75e+0	ug/g	2.70e-2	lbs/hr	CE	
Selenium	205C1R2	1.91e+0	ug/g	2.94e-2	lbs/hr	CE	
Selenium	205C1R3	5.79e-1	ug/g	8.92e-3	lbs/hr	CE	
Silver	205C1R1	3.05e+0	ug/g	4.70e-2	lbs/hr	CE	
Silver	205C1R2	3.11e+0	ug/g	4.79e-2	lbs/hr	CE	
Silver	205C1R3	2.52e+0	ug/g	3.88e-2	lbs/hr	CE	
Thallium	205C1R1	ND	7.58e-1	ug/g	1.17e-2	lbs/hr	CE
Thallium	205C1R2	ND	6.44e-1	ug/g	9.92e-3	lbs/hr	CE
Thallium	205C1R3	ND	3.92e-1	ug/g	6.04e-3	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 206 DEVICE NAME: KILN NO. 2
 EPA ID: SCD003368891
 SYSTEM TYPE: CEMENT KILN
 APC SYSTEM: ESP
 REGION: 4

5. Type: CLINKER

6. Description: PRODUCT
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	206C1R1	ND	1.00e+2 ug/g	0.00e+0	
Chlorine	206C1R2	ND	1.00e+2 ug/g	0.00e+0	
Chlorine	206C1R3	ND	1.00e+2 ug/g	0.00e+0	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	206C1R1	9.40e+1	ug/g	0.00e+0	
Antimony	206C1R2	9.32e+1	ug/g	0.00e+0	
Antimony	206C1R3	1.26e+2	ug/g	0.00e+0	
Arsenic	206C1R1	2.25e+1	ug/g	0.00e+0	
Arsenic	206C1R2	2.34e+1	ug/g	0.00e+0	
Arsenic	206C1R3	3.37e+1	ug/g	0.00e+0	
Barium	206C1R1	2.25e+2	ug/g	0.00e+0	
Barium	206C1R2	2.02e+2	ug/g	0.00e+0	
Barium	206C1R3	2.91e+2	ug/g	0.00e+0	
Beryllium	206C1R1	1.35e+1	ug/g	0.00e+0	
Beryllium	206C1R2	1.15e+1	ug/g	0.00e+0	
Beryllium	206C1R3	1.63e+1	ug/g	0.00e+0	
Cadmium	206C1R1	ND	1.39e+0 ug/g	0.00e+0	
Cadmium	206C1R2	ND	1.24e+0 ug/g	0.00e+0	
Cadmium	206C1R3	ND	2.05e+0 ug/g	0.00e+0	
Chromium	206C1R1	5.51e+2	ug/g	0.00e+0	
Chromium	206C1R2	3.95e+2	ug/g	0.00e+0	
Chromium	206C1R3	4.89e+2	ug/g	0.00e+0	
Lead	206C1R1	4.19e+0	ug/g	0.00e+0	
Lead	206C1R2	7.17e+0	ug/g	0.00e+0	
Lead	206C1R3	6.28e+0	ug/g	0.00e+0	
Mercury	206C1R1	ND	1.00e-1 ug/g	0.00e+0	
Mercury	206C1R2	ND	1.00e-1 ug/g	0.00e+0	
Mercury	206C1R3	ND	1.00e-1 ug/g	0.00e+0	
Nickel	206C1R1	8.44e+1	ug/g	0.00e+0	
Nickel	206C1R2	5.39e+1	ug/g	0.00e+0	
Nickel	206C1R3	5.98e+1	ug/g	0.00e+0	
Selenium	206C1R1	ND	7.85e-1 ug/g	0.00e+0	
Selenium	206C1R2	ND	7.04e-1 ug/g	0.00e+0	
Selenium	206C1R3	ND	5.80e-1 ug/g	0.00e+0	
Silver	206C1R1	ND	1.39e+0 ug/g	0.00e+0	
Silver	206C1R2	ND	1.24e+0 ug/g	0.00e+0	
Silver	206C1R3	ND	2.05e+0 ug/g	0.00e+0	
Thallium	206C1R1	ND	7.85e-1 ug/g	0.00e+0	
Thallium	206C1R2	8.08e-1	ug/g	0.00e+0	
Thallium	206C1R3	ND	5.80e-1 ug/g	0.00e+0	

5. Type: ESP ASH

6. Description: NONRECYCLE
 Group: WET KILN Location: ESP Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	206C1R1	2.24e+4	ug/g	0.00e+0	
Chlorine	206C1R2	1.11e+4	ug/g	0.00e+0	
Chlorine	206C1R3	1.04e+4	ug/g	0.00e+0	
Chlorine	206C3R1	5.48e+3	ug/g	0.00e+0	
Chlorine	206C3R2	6.86e+3	ug/g	0.00e+0	
Chlorine	206C3R3	1.04e+4	ug/g	0.00e+0	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.

2. STATE: SC

3. CITY: HOLLY HILL

EPA ID: SCD003368891

REGION: 4

4. EP ID: 206 DEVICE NAME: KILN NO. 2

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	206C1R1	1.35e+2	ug/g	0.00e+0	
Antimony	206C1R2	2.57e+1	ug/g	0.00e+0	
Antimony	206C1R3	1.51e+2	ug/g	0.00e+0	
Arsenic	206C1R1	3.55e+1	ug/g	0.00e+0	
Arsenic	206C1R2	3.15e+1	ug/g	0.00e+0	
Arsenic	206C1R3	4.86e+1	ug/g	0.00e+0	
Barium	206C1R1	2.14e+2	ug/g	0.00e+0	
Barium	206C1R2	2.14e+2	ug/g	0.00e+0	
Barium	206C1R3	2.12e+2	ug/g	0.00e+0	
Beryllium	206C1R1	1.21e+1	ug/g	1.36e+2 lbs/hr	
Beryllium	206C1R2	1.25e+1	ug/g	0.00e+0	
Beryllium	206C1R3	1.25e+1	ug/g	0.00e+0	
Cadmium	206C1R1	1.36e+2	ug/g	0.00e+0	
Cadmium	206C1R2	1.30e+2	ug/g	0.00e+0	
Cadmium	206C1R3	1.35e+2	ug/g	0.00e+0	
Chromium	206C1R1	3.25e+2	ug/g	0.00e+0	
Chromium	206C1R2	3.32e+2	ug/g	0.00e+0	
Chromium	206C1R3	3.41e+2	ug/g	0.00e+0	
Lead	206C1R1	1.40e+3	ug/g	0.00e+0	
Lead	206C1R2	1.42e+3	ug/g	0.00e+0	
Lead	206C1R3	1.49e+3	ug/g	0.00e+0	
Mercury	206C1R1	ND	1.00e-1 ug/g	0.00e+0	
Mercury	206C1R2	ND	1.00e-1 ug/g	0.00e+0	
Mercury	206C1R3	ND	1.00e-1 ug/g	0.00e+0	
Nickel	206C1R1	3.06e+1	ug/g	0.00e+0	
Nickel	206C1R2	3.89e+1	ug/g	0.00e+0	
Nickel	206C1R3	3.21e+1	ug/g	0.00e+0	
Selenium	206C1R1	6.57e+0	ug/g	0.00e+0	
Selenium	206C1R2	6.26e+0	ug/g	0.00e+0	
Selenium	206C1R3	8.27e+0	ug/g	0.00e+0	
Silver	206C1R1	2.94e+0	ug/g	0.00e+0	
Silver	206C1R2	ND	1.26e+0 ug/g	0.00e+0	
Silver	206C1R3	ND	1.43e+0 ug/g	0.00e+0	
Thallium	206C1R1	1.06e+0	ug/g	0.00e+0	
Thallium	206C1R2	9.62e-1	ug/g	0.00e+0	
Thallium	206C1R3	8.94e-1	ug/g	0.00e+0	

6. Description: RECYCLE

Group: WET KILN

Location: ESP

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	206C1R1	1.26e+4	ug/g	0.00e+0	
Chlorine	206C1R2	1.14e+4	ug/g	0.00e+0	
Chlorine	206C1R3	1.06e+4	ug/g	0.00e+0	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	206C1R1	1.17e+2	ug/g	0.00e+0	
Antimony	206C1R2	1.31e+2	ug/g	0.00e+0	
Antimony	206C1R3	1.33e+2	ug/g	0.00e+0	
Arsenic	206C1R1	2.66e+1	ug/g	0.00e+0	
Arsenic	206C1R2	3.88e+1	ug/g	0.00e+0	
Arsenic	206C1R3	3.95e+1	ug/g	0.00e+0	
Barium	206C1R1	2.50e+2	ug/g	0.00e+0	
Barium	206C1R2	2.27e+2	ug/g	0.00e+0	
Barium	206C1R3	2.21e+2	ug/g	0.00e+0	
Beryllium	206C1R1	1.16e+1	ug/g	0.00e+0	
Beryllium	206C1R2	1.23e+1	ug/g	0.00e+0	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 206 DEVICE NAME: KILN NO. 2

EPA ID: SCD003368891
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 4

Beryllium	206C1R3		1.28e+1	ug/g	0.00e+0	
Cadmium	206C1R1		1.18e+2	ug/g	0.00e+0	
Cadmium	206C1R2		1.27e+2	ug/g	0.00e+0	
Cadmium	206C1R3		1.37e+2	ug/g	0.00e+0	
Chromium	206C1R1		2.86e+2	ug/g	0.00e+0	
Chromium	206C1R2		3.39e+2	ug/g	0.00e+0	
Chromium	206C1R3		3.48e+2	ug/g	0.00e+0	
Lead	206C1R1		1.23e+3	ug/g	0.00e+0	
Lead	206C1R2		1.34e+3	ug/g	0.00e+0	
Lead	206C1R3		1.49e+3	ug/g	0.00e+0	
Mercury	206C1R1	ND	1.00e-1	ug/g	0.00e+0	
Mercury	206C1R2	ND	1.00e-1	ug/g	0.00e+0	
Mercury	206C1R3	ND	1.00e-1	ug/g	0.00e+0	
Nickel	206C1R1		4.08e+1	ug/g	0.00e+0	
Nickel	206C1R2		3.90e+1	ug/g	0.00e+0	
Nickel	206C1R3		3.37e+1	ug/g	0.00e+0	
Selenium	206C1R1		7.94e+0	ug/g	0.00e+0	
Selenium	206C1R2		6.60e+0	ug/g	0.00e+0	
Selenium	206C1R3		7.13e+0	ug/g	0.00e+0	
Silver	206C1R1		1.63e+0	ug/g	0.00e+0	
Silver	206C1R2	ND	1.45e+0	ug/g	0.00e+0	
Silver	206C1R3		1.79e+0	ug/g	0.00e+0	
Thallium	206C1R1		1.25e+0	ug/g	0.00e+0	
Thallium	206C1R2		1.30e+0	ug/g	0.00e+0	
Thallium	206C1R3		8.27e-1	ug/g	0.00e+0	

5. Type: FUEL

6. Description: COAL/COKE

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	206C1R1	1.73e+3	ug/g	2.91e+1	lbs/hr	CE
Chlorine	206C1R2	1.05e+3	ug/g	1.76e+1	lbs/hr	CE
Chlorine	206C1R3	7.85e+2	ug/g	1.32e+1	lbs/hr	CE
Chlorine	206C3R1	6.90e+2	ug/g	1.38e+1	lbs/hr	CE
Chlorine	206C3R2	5.50e+2	ug/g	1.10e+1	lbs/hr	CE
Chlorine	206C3R3	4.20e+2	ug/g	8.40e+0	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	206C1R1	1.06e+0	ug/g	1.78e-2	lbs/hr	CE	
Antimony	206C1R2	1.21e+0	ug/g	2.03e-2	lbs/hr	CE	
Antimony	206C1R3	8.06e-1	ug/g	1.35e-2	lbs/hr	CE	
Arsenic	206C1R1	4.43e+0	ug/g	7.44e-2	lbs/hr	CE	
Arsenic	206C1R2	4.91e+0	ug/g	8.25e-2	lbs/hr	CE	
Arsenic	206C1R3	1.05e+1	ug/g	1.76e-1	lbs/hr	CE	
Barium	206C1R1	4.15e+1	ug/g	6.97e-1	lbs/hr	CE	
Barium	206C1R2	5.84e+1	ug/g	9.81e-1	lbs/hr	CE	
Barium	206C1R3	7.88e+1	ug/g	1.32e+0	lbs/hr	CE	
Beryllium	206C1R1	6.17e+0	ug/g	1.04e-1	lbs/hr	CE	
Beryllium	206C1R2	6.28e+0	ug/g	1.06e-1	lbs/hr	CE	
Beryllium	206C1R3	6.04e+0	ug/g	1.01e-1	lbs/hr	CE	
Cadmium	206C1R1	ND	2.50e-1	ug/g	4.20e-3	lbs/hr	CE
Cadmium	206C1R2	ND	2.50e-1	ug/g	4.20e-3	lbs/hr	CE
Cadmium	206C1R3	ND	2.50e-1	ug/g	4.20e-3	lbs/hr	CE
Chromium	206C1R1	7.17e+0	ug/g	1.20e-1	lbs/hr	CE	
Chromium	206C1R2	9.98e+0	ug/g	1.68e-1	lbs/hr	CE	
Chromium	206C1R3	1.19e+1	ug/g	2.00e-1	lbs/hr	CE	
Lead	206C1R1	4.12e+0	ug/g	6.92e-2	lbs/hr	CE	
Lead	206C1R2	5.24e+0	ug/g	8.80e-2	lbs/hr	CE	
Lead	206C1R3	6.69e+0	ug/g	1.12e-1	lbs/hr	CE	
Mercury	206C1R1	ND	1.00e-1	ug/g	1.68e-3	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.
 2. STATE: SC
 3. CITY: HOLLY HILL
 4. EP ID: 206 DEVICE NAME: KILN NO. 2

EPA SCD003368891
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 4

Mercury	206C1R2	ND	1.00e-1	ug/g	1.68e-3	lbs/hr	CE
Mercury	206C1R3	ND	1.00e-1	ug/g	1.68e-3	lbs/hr	CE
Nickel	206C1R1		2.31e-1	ug/g	3.88e-3	lbs/hr	CE
Nickel	206C1R2		1.78e+2	ug/g	2.99e+0	lbs/hr	CE
Nickel	206C1R3		1.50e+2	ug/g	2.52e+0	lbs/hr	CE
Selenium	206C1R1		1.80e+0	ug/g	3.02e-2	lbs/hr	CE
Selenium	206C1R2		2.33e+0	ug/g	3.91e-2	lbs/hr	CE
Selenium	206C1R3		2.35e+0	ug/g	3.95e-2	lbs/hr	CE
Silver	206C1R1	ND	2.50e-1	ug/g	4.20e-3	lbs/hr	CE
Silver	206C1R2	ND	2.50e-1	ug/g	4.20e-3	lbs/hr	CE
Silver	206C1R3	ND	2.50e-1	ug/g	4.20e-3	lbs/hr	CE
Thallium	206C1R1	ND	8.18e-1	ug/g	1.37e-2	lbs/hr	CE
Thallium	206C1R2	ND	7.71e-1	ug/g	1.30e-2	lbs/hr	CE
Thallium	206C1R3	ND	6.73e-1	ug/g	1.13e-2	lbs/hr	CE

5. Type: RAW MATERIAL

6. Description:

Group: WET KILN

Location: KILN

Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	206C1R1	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Chlorine	206C1R2	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Chlorine	206C1R3	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Chlorine	206C3R1	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Chlorine	206C3R2	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Chlorine	206C3R3	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Chlorine	206C4R1	ND	1.00e+2	ug/g	3.34e+1 lbs/hr	CE
Chlorine	206C4R2	ND	1.00e+2	ug/g	3.34e+1 lbs/hr	CE
Chlorine	206C4R3	ND	1.00e+2	ug/g	3.34e+1 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Antimony	206C1R1		1.37e+0	ug/g	4.49e-1 lbs/hr	CE
Antimony	206C1R2		1.24e+0	ug/g	4.07e-1 lbs/hr	CE
Antimony	206C1R3		9.45e-1	ug/g	3.10e-1 lbs/hr	CE
Arsenic	206C1R1		3.02e+0	ug/g	9.91e-1 lbs/hr	CE
Arsenic	206C1R2		3.18e+0	ug/g	1.04e+0 lbs/hr	CE
Arsenic	206C1R3		2.88e+0	ug/g	9.45e-1 lbs/hr	CE
Barium	206C1R1		6.06e+1	ug/g	1.99e+1 lbs/hr	CE
Barium	206C1R2		6.17e+1	ug/g	2.02e+1 lbs/hr	CE
Barium	206C1R3		5.67e+1	ug/g	1.86e+1 lbs/hr	CE
Beryllium	206C1R1		1.27e+0	ug/g	4.17e-1 lbs/hr	CE
Beryllium	206C1R2		1.26e+0	ug/g	4.13e-1 lbs/hr	CE
Beryllium	206C1R3		1.22e+0	ug/g	4.00e-1 lbs/hr	CE
Cadmium	206C1R1		1.51e+0	ug/g	4.95e-1 lbs/hr	CE
Cadmium	206C1R2	ND	1.03e+0	ug/g	3.38e-1 lbs/hr	CE
Cadmium	206C1R3	ND	1.18e+0	ug/g	3.87e-1 lbs/hr	CE
Chromium	206C1R1		3.63e+1	ug/g	1.19e+1 lbs/hr	CE
Chromium	206C1R2		3.36e+1	ug/g	1.10e+1 lbs/hr	CE
Chromium	206C1R3		3.22e+1	ug/g	1.06e+1 lbs/hr	CE
Lead	206C1R1		7.49e+0	ug/g	2.46e+0 lbs/hr	CE
Lead	206C1R2		7.80e+0	ug/g	2.56e+0 lbs/hr	CE
Lead	206C1R3		7.19e+0	ug/g	2.36e+0 lbs/hr	CE
Mercury	206C1R1	ND	1.00e-1	ug/g	3.28e-2 lbs/hr	CE
Mercury	206C1R2	ND	1.00e-1	ug/g	3.28e-2 lbs/hr	CE
Mercury	206C1R3	ND	1.00e+2	ug/g	3.28e+1 lbs/hr	CE
Nickel	206C1R1		2.09e+1	ug/g	6.86e+0 lbs/hr	CE
Nickel	206C1R2		1.03e+1	ug/g	3.38e+0 lbs/hr	CE
Nickel	206C1R3		1.62e+1	ug/g	5.31e+0 lbs/hr	CE
Selenium	206C1R1	ND	7.35e-1	ug/g	2.41e-1 lbs/hr	CE
Selenium	206C1R2		8.93e-1	ug/g	2.93e-1 lbs/hr	CE
Selenium	206C1R3	ND	6.69e-1	ug/g	2.19e-1 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.

2. STATE: SC

3. CITY: HOLLY HILL

EPA SCD003368891

REGION: 4

4. EP ID: 206 DEVICE NAME: KILN NO. 2

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Silver	206C1R1	ND	1.30e+0	ug/g	4.26e-1	lbs/hr	CE
Silver	206C1R2	ND	1.03e+0	ug/g	3.38e-1	lbs/hr	CE
Silver	206C1R3	ND	1.18e+0	ug/g	3.87e-1	lbs/hr	CE
Thallium	206C1R1		9.72e-1	ug/g	3.19e-1	lbs/hr	CE
Thallium	206C1R2	ND	5.86e-1	ug/g	1.92e-1	lbs/hr	CE
Thallium	206C1R3	ND	6.69e-1	ug/g	2.19e-1	lbs/hr	CE

5. Type: SPIKE

6. Description: METALS (AS,BE,CD,CR,SB,PB)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	206C1R1	0.00e+0		2.38e+1 lbs/hr	
Antimony	206C1R2	0.00e+0		2.49e+1 lbs/hr	
Antimony	206C1R3	0.00e+0		2.39e+1 lbs/hr	
Arsenic	206C1R1	0.00e+0		3.92e+0 lbs/hr	
Arsenic	206C1R2	0.00e+0		3.72e+0 lbs/hr	
Arsenic	206C1R3	0.00e+0		3.74e+0 lbs/hr	
Beryllium	206C1R1	0.00e+0		2.31e+0 lbs/hr	
Beryllium	206C1R2	0.00e+0		2.30e+0 lbs/hr	
Beryllium	206C1R3	0.00e+0		2.22e+0 lbs/hr	
Cadmium	206C1R1	0.00e+0		8.43e+0 lbs/hr	
Cadmium	206C1R2	0.00e+0		8.02e+0 lbs/hr	
Cadmium	206C1R3	0.00e+0		8.05e+0 lbs/hr	
Chromium	206C1R1	0.00e+0		7.42e+1 lbs/hr	
Chromium	206C1R2	0.00e+0		7.76e+1 lbs/hr	
Chromium	206C1R3	0.00e+0		7.47e+1 lbs/hr	
Lead	206C1R1	0.00e+0		7.00e+1 lbs/hr	
Lead	206C1R2	0.00e+0		7.32e+1 lbs/hr	
Lead	206C1R3	0.00e+0		7.04e+1 lbs/hr	

6. Description: ORGANICS (TCB)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
1,2,4-Trichlorobenzene	206C2R1	0.00e+0		1.27e+2 lbs/hr	
1,2,4-Trichlorobenzene	206C2R2	0.00e+0		1.21e+2 lbs/hr	
1,2,4-Trichlorobenzene	206C2R3	0.00e+0		1.27e+2 lbs/hr	

5. Type: WASTE

6. Description:

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	206C1R1	2.44e+4	ug/g	5.66e+2 lbs/hr	CE
Chlorine	206C1R2	2.30e+4	ug/g	5.34e+2 lbs/hr	CE
Chlorine	206C1R3	1.96e+4	ug/g	4.55e+2 lbs/hr	CE
Chlorine	206C3R1	1.84e+4	ug/g	4.23e+2 lbs/hr	CE
Chlorine	206C3R2	1.97e+4	ug/g	4.53e+2 lbs/hr	CE
Chlorine	206C3R3	2.18e+4	ug/g	5.01e+2 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	206C1R1	2.68e+1	ug/g	6.22e-1 lbs/hr	CE
Antimony	206C1R2	2.51e+1	ug/g	5.82e-1 lbs/hr	CE
Antimony	206C1R3	2.60e+1	ug/g	6.03e-1 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: HOLNAM INC.

2. STATE: SC

3. CITY: HOLLY HILL

EPA SCD003368891

REGION: 4

4. EP ID: 206 DEVICE NAME: KILN NO. 2

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Arsenic	206C1R1	ND	7.12e-1	ug/g	1.65e-2	lbs/hr	CE
Arsenic	206C1R2	ND	7.49e-1	ug/g	1.74e-2	lbs/hr	CE
Arsenic	206C1R3	ND	7.65e-1	ug/g	1.77e-2	lbs/hr	CE
Barium	206C1R1		6.75e+2	ug/g	1.57e+1	lbs/hr	CE
Barium	206C1R2		5.27e+2	ug/g	1.22e+1	lbs/hr	CE
Barium	206C1R3		6.63e+2	ug/g	1.54e+1	lbs/hr	CE
Beryllium	206C1R1		4.82e-1	ug/g	1.12e-2	lbs/hr	CE
Beryllium	206C1R2		3.24e-1	ug/g	7.52e-3	lbs/hr	CE
Beryllium	206C1R3		3.90e-1	ug/g	9.05e-3	lbs/hr	CE
Cadmium	206C1R1		1.12e+1	ug/g	2.60e-1	lbs/hr	CE
Cadmium	206C1R2		9.47e+0	ug/g	2.20e-1	lbs/hr	CE
Cadmium	206C1R3		1.14e+1	ug/g	2.64e-1	lbs/hr	CE
Chromium	206C1R1		9.44e+1	ug/g	2.19e+0	lbs/hr	CE
Chromium	206C1R2		7.39e+1	ug/g	1.71e+0	lbs/hr	CE
Chromium	206C1R3		9.17e+1	ug/g	2.13e+0	lbs/hr	CE
Lead	206C1R1		3.25e+2	ug/g	7.54e+0	lbs/hr	CE
Lead	206C1R2		2.57e+2	ug/g	5.96e+0	lbs/hr	CE
Lead	206C1R3		3.21e+2	ug/g	7.45e+0	lbs/hr	CE
Mercury	206C1R1		5.30e-1	ug/g	1.23e-2	lbs/hr	CE
Mercury	206C1R2		4.67e-1	ug/g	1.08e-2	lbs/hr	CE
Mercury	206C1R3		3.26e-1	ug/g	7.56e-3	lbs/hr	CE
Nickel	206C1R1		4.31e+1	ug/g	1.00e+0	lbs/hr	CE
Nickel	206C1R2		3.72e+1	ug/g	8.63e-1	lbs/hr	CE
Nickel	206C1R3		4.18e+1	ug/g	9.70e-1	lbs/hr	CE
Selenium	206C1R1		1.36e+0	ug/g	3.16e-2	lbs/hr	CE
Selenium	206C1R2		8.59e-1	ug/g	1.99e-2	lbs/hr	CE
Selenium	206C1R3		8.24e-1	ug/g	1.91e-2	lbs/hr	CE
Silver	206C1R1		1.77e+0	ug/g	4.11e-2	lbs/hr	CE
Silver	206C1R2		1.04e+0	ug/g	2.41e-2	lbs/hr	CE
Silver	206C1R3		1.11e+0	ug/g	2.58e-2	lbs/hr	CE
Thallium	206C1R1	ND	7.12e-1	ug/g	1.65e-2	lbs/hr	CE
Thallium	206C1R2	ND	7.49e-1	ug/g	1.74e-2	lbs/hr	CE
Thallium	206C1R3	ND	7.65e-1	ug/g	1.77e-2	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

REGION: 3
 APC SYSTEM: MC/ESP

5. Type: FUEL

6. Description: COAL
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	207C1R1	1.30e+3	ug/g	4.04e+0 lbs/hr	
Chlorine	207C1R2	1.50e+3	ug/g	6.71e+0 lbs/hr	
Chlorine	207C1R3	1.40e+3	ug/g	4.79e+0 lbs/hr	
Chlorine	207C1R4	1.70e+3	ug/g	8.93e+0 lbs/hr	
Chlorine	207C2R1	1.40e+3	ug/g	7.07e+0 lbs/hr	
Chlorine	207C2R2	1.70e+3	ug/g	1.09e+1 lbs/hr	
Chlorine	207C2R3	1.60e+3	ug/g	8.16e+0 lbs/hr	
Chlorine	207C2R4	1.60e+3	ug/g	8.40e+0 lbs/hr	
Chlorine	207C2R5	1.80e+3	ug/g	1.72e+1 lbs/hr	
Chlorine	207C2R6	1.70e+3	ug/g	1.43e+1 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	207C1R1	ND	1.00e+1 ug/g	3.11e-2 lbs/hr	
Antimony	207C1R2	ND	8.00e+0 ug/g	3.57e-2 lbs/hr	
Antimony	207C1R3	ND	7.00e+0 ug/g	2.84e-2 lbs/hr	
Antimony	207C1R4	ND	7.00e+0 ug/g	3.68e-2 lbs/hr	
Antimony	207C2R1	ND	6.00e+0 ug/g	3.02e-2 lbs/hr	
Antimony	207C2R2	ND	8.00e+0 ug/g	5.11e-2 lbs/hr	
Antimony	207C2R3	ND	1.00e+1 ug/g	5.09e-2 lbs/hr	
Antimony	207C2R4	ND	8.00e-1 ug/g	4.21e-2 lbs/hr	
Antimony	207C2R5	ND	9.00e+0 ug/g	8.60e-2 lbs/hr	
Antimony	207C2R6	ND	9.00e+0 ug/g	7.58e-2 lbs/hr	
Arsenic	207C1R1		2.30e+1 ug/g	7.14e-2 lbs/hr	
Arsenic	207C1R2		2.10e+1 ug/g	9.39e-2 lbs/hr	
Arsenic	207C1R3		2.20e+1 ug/g	8.91e-2 lbs/hr	
Arsenic	207C1R4		2.40e+1 ug/g	1.26e-1 lbs/hr	
Arsenic	207C2R1		2.10e+1 ug/g	1.06e-1 lbs/hr	
Arsenic	207C2R2		1.80e+1 ug/g	1.15e-1 lbs/hr	
Arsenic	207C2R3		2.10e+1 ug/g	1.07e-1 lbs/hr	
Arsenic	207C2R4		2.20e+1 ug/g	1.16e-1 lbs/hr	
Arsenic	207C2R5		1.80e+1 ug/g	1.72e-1 lbs/hr	
Arsenic	207C2R6		1.90e+1 ug/g	1.60e-1 lbs/hr	
Barium	207C1R1		4.30e+1 ug/g	1.34e-1 lbs/hr	
Barium	207C1R2		4.80e+1 ug/g	2.15e-1 lbs/hr	
Barium	207C1R3		5.00e+1 ug/g	2.03e-1 lbs/hr	
Barium	207C1R4		4.60e+1 ug/g	2.41e-1 lbs/hr	
Barium	207C2R1		4.60e+1 ug/g	2.32e-1 lbs/hr	
Barium	207C2R2		4.60e+1 ug/g	2.94e-1 lbs/hr	
Barium	207C2R3		4.60e+1 ug/g	2.35e-1 lbs/hr	
Barium	207C2R4		4.00e+1 ug/g	2.10e-1 lbs/hr	
Barium	207C2R5		4.70e+1 ug/g	4.49e-1 lbs/hr	
Barium	207C2R6		4.70e+1 ug/g	3.96e-1 lbs/hr	
Beryllium	207C1R1		2.90e+0 ug/g	9.04e-3 lbs/hr	
Beryllium	207C1R2		2.90e+0 ug/g	1.30e-2 lbs/hr	
Beryllium	207C1R3		3.00e+0 ug/g	1.21e-2 lbs/hr	
Beryllium	207C1R4		2.09e+2 ug/g	1.52e-2 lbs/hr	
Beryllium	207C2R1		2.80e+0 ug/g	1.41e-2 lbs/hr	
Beryllium	207C2R2		3.20e+0 ug/g	2.05e-2 lbs/hr	
Beryllium	207C2R3		2.50e+0 ug/g	1.28e-2 lbs/hr	
Beryllium	207C2R4		2.70e+0 ug/g	1.41e-2 lbs/hr	
Beryllium	207C2R5		3.00e+0 ug/g	2.87e-2 lbs/hr	
Beryllium	207C2R6		3.00e+0 ug/g	2.54e-2 lbs/hr	
Cadmium	207C1R1		1.30e+0 ug/g	3.97e-3 lbs/hr	
Cadmium	207C1R2	ND	4.00e-1 ug/g	1.76e-3 lbs/hr	
Cadmium	207C1R3		7.00e-1 ug/g	2.87e-3 lbs/hr	
Cadmium	207C1R4		4.00e-1 ug/g	2.20e-3 lbs/hr	
Cadmium	207C2R1		5.00e-1 ug/g	2.43e-3 lbs/hr	
Cadmium	207C2R2		2.60e+0 ug/g	1.65e-2 lbs/hr	
Cadmium	207C2R3		4.20e+0 ug/g	2.14e-2 lbs/hr	
Cadmium	207C2R4		1.00e+0 ug/g	5.29e-3 lbs/hr	
Cadmium	207C2R5	ND	4.00e-1 ug/g	3.75e-3 lbs/hr	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP

REGION: 3

Cadmium	207C2R6	6.00e-1	ug/g	5.07e-3	lbs/hr
Chromium	207C1R1	1.50e+1	ug/g	4.65e-2	lbs/hr
Chromium	207C1R2	1.40e+1	ug/g	6.26e-2	lbs/hr
Chromium	207C1R3	1.40e+1	ug/g	5.67e-2	lbs/hr
Chromium	207C1R4	1.30e+1	ug/g	6.83e-2	lbs/hr
Chromium	207C2R1	1.90e+1	ug/g	9.59e-2	lbs/hr
Chromium	207C2R2	2.20e+1	ug/g	1.41e-1	lbs/hr
Chromium	207C2R3	1.40e+1	ug/g	7.14e-2	lbs/hr
Chromium	207C2R4	1.30e+1	ug/g	6.83e-2	lbs/hr
Chromium	207C2R5	1.40e+1	ug/g	1.34e-1	lbs/hr
Chromium	207C2R6	1.40e+1	ug/g	1.18e-1	lbs/hr
Lead	207C1R1	1.60e+1	ug/g	4.98e-2	lbs/hr
Lead	207C1R2	8.00e+0	ug/g	3.57e-2	lbs/hr
Lead	207C1R3	7.00e+0	ug/g	2.84e-2	lbs/hr
Lead	207C1R4	9.00e+0	ug/g	4.72e-2	lbs/hr
Lead	207C2R1	7.00e+0	ug/g	3.53e-2	lbs/hr
Lead	207C2R2	1.10e+1	ug/g	7.03e-2	lbs/hr
Lead	207C2R3	1.20e+1	ug/g	6.13e-2	lbs/hr
Lead	207C2R4	1.30e+1	ug/g	6.83e-2	lbs/hr
Lead	207C2R5	1.40e+1	ug/g	1.34e-1	lbs/hr
Lead	207C2R6	1.20e+1	ug/g	1.01e-1	lbs/hr
Mercury	207C1R1	4.00e-1	ug/g	1.32e-3	lbs/hr
Mercury	207C1R2	4.00e-1	ug/g	1.76e-3	lbs/hr
Mercury	207C1R3	4.00e-1	ug/g	1.54e-3	lbs/hr
Mercury	207C1R4	4.00e-1	ug/g	2.20e-3	lbs/hr
Mercury	207C2R1	3.00e-1	ug/g	1.54e-3	lbs/hr
Mercury	207C2R2	3.00e-1	ug/g	1.98e-3	lbs/hr
Mercury	207C2R3	3.00e-1	ug/g	1.54e-3	lbs/hr
Mercury	207C2R4	4.00e-1	ug/g	2.20e-3	lbs/hr
Mercury	207C2R5	4.00e-1	ug/g	3.75e-3	lbs/hr
Mercury	207C2R6	4.00e-1	ug/g	3.31e-3	lbs/hr
Nickel	207C1R1	ND 1.50e+1	ug/g	4.65e-2	lbs/hr
Nickel	207C1R2	1.30e+1	ug/g	5.82e-2	lbs/hr
Nickel	207C1R3	1.20e+1	ug/g	4.85e-2	lbs/hr
Nickel	207C1R4	1.20e+1	ug/g	6.31e-2	lbs/hr
Nickel	207C2R1	2.20e+1	ug/g	1.11e-1	lbs/hr
Nickel	207C2R2	1.70e+1	ug/g	1.09e-1	lbs/hr
Nickel	207C2R3	1.20e+1	ug/g	6.13e-2	lbs/hr
Nickel	207C2R4	1.10e+1	ug/g	5.78e-2	lbs/hr
Nickel	207C2R5	1.30e+1	ug/g	1.24e-1	lbs/hr
Nickel	207C2R6	1.40e+1	ug/g	1.18e-1	lbs/hr
Silver	207C1R1	ND 1.00e+0	ug/g	3.09e-3	lbs/hr
Silver	207C1R2	ND 8.00e-1	ug/g	3.53e-3	lbs/hr
Silver	207C1R3	ND 7.00e-1	ug/g	2.87e-3	lbs/hr
Silver	207C1R4	ND 7.00e-1	ug/g	3.75e-3	lbs/hr
Silver	207C2R1	ND 6.00e-1	ug/g	3.09e-3	lbs/hr
Silver	207C2R2	ND 8.00e-1	ug/g	5.07e-3	lbs/hr
Silver	207C2R3	ND 1.00e+0	ug/g	5.07e-3	lbs/hr
Silver	207C2R4	ND 8.00e-1	ug/g	4.19e-3	lbs/hr
Silver	207C2R5	ND 7.00e-1	ug/g	6.61e-3	lbs/hr
Silver	207C2R6	ND 9.00e-1	ug/g	7.50e-3	lbs/hr
Thallium	207C1R1	ND 9.00e-1	ug/g	2.87e-3	lbs/hr
Thallium	207C1R2	ND 9.00e-1	ug/g	3.97e-3	lbs/hr
Thallium	207C1R3	ND 9.00e-1	ug/g	3.75e-3	lbs/hr
Thallium	207C1R4	ND 9.00e-1	ug/g	4.63e-3	lbs/hr
Thallium	207C2R1	ND 8.00e-1	ug/g	3.97e-3	lbs/hr
Thallium	207C2R2	ND 6.00e-1	ug/g	3.75e-3	lbs/hr
Thallium	207C2R3	ND 8.00e-1	ug/g	4.19e-3	lbs/hr
Thallium	207C2R4	ND 9.00e-1	ug/g	4.63e-3	lbs/hr
Thallium	207C2R5	ND 8.00e-1	ug/g	7.72e-3	lbs/hr
Thallium	207C2R6	ND 9.00e-1	ug/g	7.50e-3	lbs/hr

5. Type: MC ASH

6. Description: RECYCLE
 Group: WET KILN

Location: MC

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Arsenic	207C1R1	1.30e+0 ug/g	0.00e+0	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP
 REGION: 3

Arsenic	207C1R2	1.50e+0	ug/g	0.00e+0
Arsenic	207C1R3	1.40e+0	ug/g	0.00e+0
Arsenic	207C1R4	1.20e+0	ug/g	0.00e+0
Arsenic	207C2R1	1.70e+0	ug/g	0.00e+0
Arsenic	207C2R2	1.00e+0	ug/g	0.00e+0
Arsenic	207C2R3	1.60e+0	ug/g	0.00e+0
Arsenic	207C2R4	9.00e-1	ug/g	0.00e+0
Arsenic	207C2R5	1.30e+0	ug/g	0.00e+0
Arsenic	207C2R6	1.00e+0	ug/g	0.00e+0
Beryllium	207C1R1	9.00e-1	ug/g	0.00e+0
Beryllium	207C1R2	8.00e-1	ug/g	0.00e+0
Beryllium	207C1R3	8.00e-1	ug/g	0.00e+0
Beryllium	207C1R4	8.00e-1	ug/g	0.00e+0
Beryllium	207C2R1	9.00e-1	ug/g	0.00e+0
Beryllium	207C2R2	8.00e-1	ug/g	0.00e+0
Beryllium	207C2R3	8.00e-1	ug/g	0.00e+0
Beryllium	207C2R4	7.00e-1	ug/g	0.00e+0
Beryllium	207C2R5	8.00e-1	ug/g	0.00e+0
Beryllium	207C2R6	7.00e-1	ug/g	0.00e+0
Cadmium	207C1R1	1.50e+3	ug/g	0.00e+0
Cadmium	207C1R2	9.50e+2	ug/g	0.00e+0
Cadmium	207C1R3	8.30e+2	ug/g	0.00e+0
Cadmium	207C1R4	5.90e+2	ug/g	0.00e+0
Cadmium	207C2R1	1.70e+3	ug/g	0.00e+0
Cadmium	207C2R2	7.40e+2	ug/g	0.00e+0
Cadmium	207C2R3	3.60e+2	ug/g	0.00e+0
Cadmium	207C2R4	4.00e+2	ug/g	0.00e+0
Cadmium	207C2R5	6.80e+2	ug/g	0.00e+0
Cadmium	207C2R6	6.50e+2	ug/g	0.00e+0
Chromium	207C1R1	1.90e+1	ug/g	0.00e+0
Chromium	207C1R2	2.30e+1	ug/g	0.00e+0
Chromium	207C1R3	2.50e+1	ug/g	0.00e+0
Chromium	207C1R4	2.00e+1	ug/g	0.00e+0
Chromium	207C2R1	2.20e+1	ug/g	0.00e+0
Chromium	207C2R2	1.80e+1	ug/g	0.00e+0
Chromium	207C2R3	1.80e+1	ug/g	0.00e+0
Chromium	207C2R4	1.70e+1	ug/g	0.00e+0
Chromium	207C2R5	1.60e+1	ug/g	0.00e+0
Chromium	207C2R6	1.60e+1	ug/g	0.00e+0
Lead	207C1R1	1.50e+3	ug/g	0.00e+0
Lead	207C1R2	1.80e+3	ug/g	0.00e+0
Lead	207C1R3	1.70e+3	ug/g	0.00e+0
Lead	207C1R4	9.70e+2	ug/g	0.00e+0
Lead	207C2R1	1.60e+3	ug/g	0.00e+0
Lead	207C2R2	9.00e+2	ug/g	0.00e+0
Lead	207C2R3	4.00e+2	ug/g	0.00e+0
Lead	207C2R4	4.00e+2	ug/g	0.00e+0
Lead	207C2R5	1.10e+4	ug/g	0.00e+0
Lead	207C2R6	1.40e+3	ug/g	0.00e+0

5. Type: RAW MATERIAL

6. Description: Group: WET KILN Location: KILN Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	207C1R1	ND 2.00e+2 ug/g	1.78e+1 lbs/hr	
Chlorine	207C1R2	ND 2.00e+2 ug/g	1.78e+1 lbs/hr	
Chlorine	207C1R3	ND 2.00e+2 ug/g	1.78e+1 lbs/hr	
Chlorine	207C1R4	ND 2.00e+2 ug/g	1.77e+1 lbs/hr	
Chlorine	207C2R1	ND 2.00e+2 ug/g	1.78e+1 lbs/hr	
Chlorine	207C2R2	ND 2.00e+2 ug/g	1.77e+1 lbs/hr	
Chlorine	207C2R3	ND 2.00e+2 ug/g	1.78e+1 lbs/hr	
Chlorine	207C2R4	ND 2.00e+2 ug/g	1.78e+1 lbs/hr	
Chlorine	207C2R5	ND 2.00e+2 ug/g	1.77e+1 lbs/hr	
Chlorine	207C2R6	ND 2.00e+2 ug/g	1.77e+1 lbs/hr	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP

REGION: 3

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	207C1R1	ND	1.00e+1 ug/g	8.90e-1 lbs/hr	
Antimony	207C1R2	ND	9.00e+0 ug/g	8.00e-1 lbs/hr	
Antimony	207C1R3	ND	1.00e+1 ug/g	8.89e-1 lbs/hr	
Antimony	207C1R4	ND	1.00e+1 ug/g	8.87e-1 lbs/hr	
Antimony	207C2R1	ND	9.00e+0 ug/g	8.00e-1 lbs/hr	
Antimony	207C2R2	ND	1.00e+1 ug/g	8.87e-1 lbs/hr	
Antimony	207C2R3	ND	8.00e+0 ug/g	7.11e-1 lbs/hr	
Antimony	207C2R4	ND	1.00e+1 ug/g	8.89e-1 lbs/hr	
Antimony	207C2R5	ND	9.00e+0 ug/g	7.95e-1 lbs/hr	
Antimony	207C2R6	ND	9.00e+0 ug/g	7.95e-1 lbs/hr	
Arsenic	207C1R1	ND	1.00e+0 ug/g	8.91e-2 lbs/hr	
Arsenic	207C1R2	ND	1.00e+0 ug/g	8.88e-2 lbs/hr	
Arsenic	207C1R3	ND	1.00e+0 ug/g	8.88e-2 lbs/hr	
Arsenic	207C1R4	ND	1.00e+0 ug/g	8.86e-2 lbs/hr	
Arsenic	207C2R1	ND	9.00e-1 ug/g	8.00e-2 lbs/hr	
Arsenic	207C2R2	ND	1.00e+0 ug/g	8.86e-2 lbs/hr	
Arsenic	207C2R3	ND	1.00e+0 ug/g	8.88e-2 lbs/hr	
Arsenic	207C2R4	ND	1.00e+0 ug/g	8.88e-2 lbs/hr	
Arsenic	207C2R5	ND	1.00e+0 ug/g	8.84e-2 lbs/hr	
Arsenic	207C2R6	ND	1.00e+0 ug/g	8.84e-2 lbs/hr	
Barium	207C1R1	ND	2.00e+1 ug/g	1.78e+0 lbs/hr	
Barium	207C1R2	ND	2.00e+1 ug/g	1.78e+0 lbs/hr	
Barium	207C1R3	ND	2.00e+1 ug/g	1.78e+0 lbs/hr	
Barium	207C1R4	ND	2.00e+1 ug/g	1.77e+0 lbs/hr	
Barium	207C2R1	ND	2.00e+1 ug/g	1.78e+0 lbs/hr	
Barium	207C2R2	ND	2.00e+1 ug/g	1.77e+0 lbs/hr	
Barium	207C2R3	ND	2.00e+1 ug/g	1.78e+0 lbs/hr	
Barium	207C2R4	ND	2.00e+1 ug/g	1.78e+0 lbs/hr	
Barium	207C2R5	ND	2.00e+1 ug/g	1.77e+0 lbs/hr	
Barium	207C2R6	ND	2.00e+1 ug/g	1.77e+0 lbs/hr	
Beryllium	207C1R1	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Beryllium	207C1R2	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Beryllium	207C1R3	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Beryllium	207C1R4	ND	5.00e-1 ug/g	4.43e-2 lbs/hr	
Beryllium	207C2R1	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Beryllium	207C2R2	ND	5.00e-1 ug/g	4.43e-2 lbs/hr	
Beryllium	207C2R3	ND	4.00e-1 ug/g	3.55e-2 lbs/hr	
Beryllium	207C2R4	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Beryllium	207C2R5	ND	5.00e-1 ug/g	4.41e-2 lbs/hr	
Beryllium	207C2R6	ND	5.00e-1 ug/g	4.41e-2 lbs/hr	
Cadmium	207C1R1	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Cadmium	207C1R2	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Cadmium	207C1R3	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Cadmium	207C1R4	ND	1.40e+1 ug/g	1.24e+0 lbs/hr	
Cadmium	207C2R1	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Cadmium	207C2R2	ND	5.00e-1 ug/g	4.43e-2 lbs/hr	
Cadmium	207C2R3	ND	4.00e-1 ug/g	3.55e-2 lbs/hr	
Cadmium	207C2R4	ND	5.00e-1 ug/g	4.45e-2 lbs/hr	
Cadmium	207C2R5	ND	5.00e-1 ug/g	4.41e-2 lbs/hr	
Cadmium	207C2R6	ND	5.00e-1 ug/g	4.41e-2 lbs/hr	
Chromium	207C1R1		3.00e+0 ug/g	2.67e-1 lbs/hr	
Chromium	207C1R2		3.00e+0 ug/g	2.67e-1 lbs/hr	
Chromium	207C1R3		4.00e+0 ug/g	3.56e-1 lbs/hr	
Chromium	207C1R4		4.00e+0 ug/g	3.55e-1 lbs/hr	
Chromium	207C2R1		2.70e+0 ug/g	2.40e-1 lbs/hr	
Chromium	207C2R2		5.00e+0 ug/g	4.44e-1 lbs/hr	
Chromium	207C2R3		4.10e+0 ug/g	3.64e-1 lbs/hr	
Chromium	207C2R4		5.00e+0 ug/g	4.44e-1 lbs/hr	
Chromium	207C2R5		4.00e+0 ug/g	3.53e-1 lbs/hr	
Chromium	207C2R6		3.80e+0 ug/g	3.36e-1 lbs/hr	
Lead	207C1R1		4.00e+0 ug/g	3.56e-1 lbs/hr	
Lead	207C1R2		5.00e+0 ug/g	4.44e-1 lbs/hr	
Lead	207C1R3		5.00e+0 ug/g	4.44e-1 lbs/hr	
Lead	207C1R4		7.00e+0 ug/g	6.21e-1 lbs/hr	
Lead	207C2R1		3.70e+0 ug/g	3.29e-1 lbs/hr	
Lead	207C2R2		5.00e+0 ug/g	4.44e-1 lbs/hr	
Lead	207C2R3		5.00e+0 ug/g	4.44e-1 lbs/hr	
Lead	207C2R4		5.00e+0 ug/g	4.44e-1 lbs/hr	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP

REGION: 3

Lead	207C2R5		7.40e+0	ug/g	6.54e-1	lbs/hr	
Lead	207C2R6		5.00e+0	ug/g	4.42e-1	lbs/hr	
Mercury	207C1R1	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C1R2	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C1R3	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C1R4	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C2R1	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C2R2	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C2R3	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C2R4	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C2R5	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Mercury	207C2R6	ND	1.00e-1	ug/g	8.82e-3	lbs/hr	
Nickel	207C1R1	ND	4.00e+0	ug/g	3.56e-1	lbs/hr	
Nickel	207C1R2		5.00e+0	ug/g	4.44e-1	lbs/hr	
Nickel	207C1R3		5.00e+0	ug/g	4.44e-1	lbs/hr	
Nickel	207C1R4		7.00e+0	ug/g	6.21e-1	lbs/hr	
Nickel	207C2R1		4.00e+0	ug/g	3.56e-1	lbs/hr	
Nickel	207C2R2		5.00e+0	ug/g	4.44e-1	lbs/hr	
Nickel	207C2R3		6.00e+0	ug/g	5.34e-1	lbs/hr	
Nickel	207C2R4		6.00e+0	ug/g	5.34e-1	lbs/hr	
Nickel	207C2R5		5.00e+0	ug/g	4.42e-1	lbs/hr	
Nickel	207C2R6		5.00e+0	ug/g	4.42e-1	lbs/hr	
Silver	207C1R1	ND	1.00e+0	ug/g	8.91e-2	lbs/hr	
Silver	207C1R2	ND	9.00e-1	ug/g	8.00e-2	lbs/hr	
Silver	207C1R3	ND	1.00e+0	ug/g	8.88e-2	lbs/hr	
Silver	207C1R4	ND	1.00e+0	ug/g	8.86e-2	lbs/hr	
Silver	207C2R1	ND	9.00e-1	ug/g	8.00e-2	lbs/hr	
Silver	207C2R2	ND	1.00e+0	ug/g	8.86e-2	lbs/hr	
Silver	207C2R3	ND	8.00e-1	ug/g	7.12e-2	lbs/hr	
Silver	207C2R4	ND	1.00e+0	ug/g	8.88e-2	lbs/hr	
Silver	207C2R5	ND	9.00e-1	ug/g	7.96e-2	lbs/hr	
Silver	207C2R6	ND	9.00e-1	ug/g	7.96e-2	lbs/hr	
Thallium	207C1R1	ND	1.00e+0	ug/g	8.91e-2	lbs/hr	
Thallium	207C1R2	ND	1.00e+0	ug/g	8.88e-2	lbs/hr	
Thallium	207C1R3	ND	1.00e+0	ug/g	8.88e-2	lbs/hr	
Thallium	207C1R4	ND	1.00e+0	ug/g	8.86e-2	lbs/hr	
Thallium	207C2R1	ND	9.00e-1	ug/g	8.00e-2	lbs/hr	
Thallium	207C2R2	ND	1.00e+0	ug/g	8.86e-2	lbs/hr	
Thallium	207C2R3	ND	1.00e+0	ug/g	8.88e-2	lbs/hr	
Thallium	207C2R4	ND	1.00e+0	ug/g	8.88e-2	lbs/hr	
Thallium	207C2R5	ND	1.00e+0	ug/g	8.84e-2	lbs/hr	
Thallium	207C2R6	ND	1.00e+0	ug/g	8.84e-2	lbs/hr	

5. Type: SPIKE

6. Description: METALS (AS,CD)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	207C1R2	5.29e-1	ug/g	8.82e-5	CC
Antimony	207C1R3	4.93e+0	ug/g	8.82e-4	CC
Antimony	207C1R4	7.45e+0	ug/g	1.32e-3	CC
Antimony	207C2R2	1.24e+1	ug/g	8.38e-4	CC
Antimony	207C2R3	1.12e+1	ug/g	1.30e-3	CC
Antimony	207C2R4	7.53e+0	ug/g	1.32e-3	CC
Antimony	207C2R5	7.88e+0	ug/g	5.73e-4	CC
Antimony	207C2R6	7.34e+0	ug/g	1.10e-3	CC
Arsenic	207C1R1	3.87e+2	ug/g	8.06e-2	CC
Arsenic	207C1R2	4.45e+2	ug/g	7.42e-2	CC
Arsenic	207C1R3	6.92e+2	ug/g	1.24e-1	CC
Arsenic	207C1R4	5.85e+2	ug/g	1.04e-1	CC
Arsenic	207C2R1	7.74e+2	ug/g	8.77e-2	CC
Arsenic	207C2R2	1.82e+3	ug/g	1.23e-1	CC
Arsenic	207C2R3	1.44e+3	ug/g	1.68e-1	CC
Arsenic	207C2R4	1.39e+3	ug/g	2.44e-1	CC
Arsenic	207C2R5	1.57e+3	ug/g	1.14e-1	CC
Arsenic	207C2R6	1.47e+3	ug/g	2.21e-1	CC
Barium	207C1R4	1.25e+1	ug/g	2.23e-3	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP REGION: 3

Beryllium	207C1R4	3.72e-1	ug/g	6.61e-5	lbs/hr	CC
Cadmium	207C1R1	1.94e+4	ug/g	4.03e+0	lbs/hr	CC
Cadmium	207C1R2	2.07e+4	ug/g	3.45e+0	lbs/hr	CC
Cadmium	207C1R3	2.03e+4	ug/g	3.64e+0	lbs/hr	CC
Cadmium	207C1R4	1.82e+4	ug/g	3.24e+0	lbs/hr	CC
Cadmium	207C2R1	3.87e+4	ug/g	4.39e+0	lbs/hr	CC
Cadmium	207C2R2	4.14e+4	ug/g	2.81e+0	lbs/hr	CC
Cadmium	207C2R3	3.00e+4	ug/g	3.50e+0	lbs/hr	CC
Cadmium	207C2R4	1.76e+4	ug/g	3.08e+0	lbs/hr	CC
Cadmium	207C2R5	1.74e+4	ug/g	1.26e+0	lbs/hr	CC
Cadmium	207C2R6	1.63e+4	ug/g	2.44e+0	lbs/hr	CC
Chromium	207C1R1	9.68e+1	ug/g	2.02e-2	lbs/hr	CC
Chromium	207C1R2	1.05e+2	ug/g	1.75e-2	lbs/hr	CC
Chromium	207C1R3	1.14e+2	ug/g	2.04e-2	lbs/hr	CC
Chromium	207C1R4	9.46e+1	ug/g	1.68e-2	lbs/hr	CC
Chromium	207C2R1	1.94e+2	ug/g	2.19e-2	lbs/hr	CC
Chromium	207C2R2	2.48e+2	ug/g	1.68e-2	lbs/hr	CC
Chromium	207C2R3	2.10e+2	ug/g	2.45e-2	lbs/hr	CC
Chromium	207C2R4	1.34e+2	ug/g	2.35e-2	lbs/hr	CC
Chromium	207C2R5	1.36e+2	ug/g	9.92e-3	lbs/hr	CC
Chromium	207C2R6	1.28e+2	ug/g	1.92e-2	lbs/hr	CC
Chromium (Hex)	207C1R1	1.06e-1	ug/g	2.20e-5	lbs/hr	CC
Chromium (Hex)	207C1R2	1.32e-1	ug/g	2.20e-5	lbs/hr	CC
Chromium (Hex)	207C1R3	2.46e-1	ug/g	4.41e-5	lbs/hr	CC
Chromium (Hex)	207C1R4	1.24e-1	ug/g	2.20e-5	lbs/hr	CC
Chromium (Hex)	207C2R1	1.95e-1	ug/g	2.20e-5	lbs/hr	CC
Lead	207C1R1	7.74e+1	ug/g	1.61e-2	lbs/hr	CC
Lead	207C1R2	7.78e+1	ug/g	1.30e-2	lbs/hr	CC
Lead	207C1R3	3.66e+1	ug/g	6.55e-3	lbs/hr	CC
Lead	207C1R4	1.56e+2	ug/g	2.77e-2	lbs/hr	CC
Lead	207C2R1	1.55e+2	ug/g	1.75e-2	lbs/hr	CC
Lead	207C2R2	3.85e+2	ug/g	2.61e-2	lbs/hr	CC
Lead	207C2R3	9.00e+1	ug/g	1.05e-2	lbs/hr	CC
Lead	207C2R4	1.36e+2	ug/g	2.40e-2	lbs/hr	CC
Lead	207C2R5	1.66e+2	ug/g	1.20e-2	lbs/hr	CC
Lead	207C2R6	1.55e+2	ug/g	2.33e-2	lbs/hr	CC
Mercury	207C1R4	1.24e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	207C2R4	1.26e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	207C2R6	1.47e-1	ug/g	2.20e-5	lbs/hr	CC
Nickel	207C1R1	2.13e+1	ug/g	4.43e-3	lbs/hr	CC
Nickel	207C1R2	2.27e+1	ug/g	3.79e-3	lbs/hr	CC
Nickel	207C1R3	2.24e+1	ug/g	4.01e-3	lbs/hr	CC
Nickel	207C1R4	2.40e+1	ug/g	4.25e-3	lbs/hr	CC
Nickel	207C2R1	4.26e+1	ug/g	4.83e-3	lbs/hr	CC
Nickel	207C2R2	5.37e+1	ug/g	3.64e-3	lbs/hr	CC
Nickel	207C2R3	3.89e+1	ug/g	4.54e-3	lbs/hr	CC
Nickel	207C2R4	2.54e+1	ug/g	4.45e-3	lbs/hr	CC
Nickel	207C2R5	2.61e+1	ug/g	1.90e-3	lbs/hr	CC
Nickel	207C2R6	2.44e+1	ug/g	3.66e-3	lbs/hr	CC
Silver	207C1R4	2.48e-1	ug/g	4.41e-5	lbs/hr	CC

6. Description: METALS (CR)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	207C1R1	3.48e+1 ug/g	8.58e-3 lbs/hr	CC
Antimony	207C1R2	4.92e+1 ug/g	1.49e-2 lbs/hr	CC
Antimony	207C1R3	6.83e+1 ug/g	1.96e-2 lbs/hr	CC
Antimony	207C1R4	5.67e+1 ug/g	1.38e-2 lbs/hr	CC
Antimony	207C2R1	1.31e+2 ug/g	1.92e-2 lbs/hr	CC
Antimony	207C2R2	1.32e+2 ug/g	8.53e-3 lbs/hr	CC
Antimony	207C2R3	9.61e+1 ug/g	9.26e-3 lbs/hr	CC
Antimony	207C2R4	1.13e+2 ug/g	1.30e-2 lbs/hr	CC
Antimony	207C2R5	1.03e+2 ug/g	1.17e-2 lbs/hr	CC
Antimony	207C2R6	9.68e+1 ug/g	1.06e-2 lbs/hr	CC
Arsenic	207C1R1	1.20e+2 ug/g	2.95e-2 lbs/hr	CC
Arsenic	207C1R2	8.94e+1 ug/g	2.71e-2 lbs/hr	CC
Arsenic	207C1R3	1.68e+1 ug/g	4.83e-3 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP REGION: 3

Arsenic	207C1R4	8.71e+0	ug/g	2.12e-3	lbs/hr	CC
Arsenic	207C2R1	1.06e+2	ug/g	1.56e-2	lbs/hr	CC
Arsenic	207C2R2	9.93e+1	ug/g	6.42e-3	lbs/hr	CC
Arsenic	207C2R3	7.20e+1	ug/g	6.94e-3	lbs/hr	CC
Arsenic	207C2R4	8.47e+1	ug/g	9.72e-3	lbs/hr	CC
Arsenic	207C2R5	4.14e+1	ug/g	4.67e-3	lbs/hr	CC
Arsenic	207C2R6	3.88e+1	ug/g	4.23e-3	lbs/hr	CC
Barium	207C1R1	3.87e+1	ug/g	9.52e-3	lbs/hr	CC
Barium	207C1R2	2.09e+1	ug/g	6.35e-3	lbs/hr	CC
Barium	207C1R3	8.53e+0	ug/g	2.45e-3	lbs/hr	CC
Barium	207C1R4	1.09e+1	ug/g	2.65e-3	lbs/hr	CC
Barium	207C2R1	4.52e+0	ug/g	6.61e-4	lbs/hr	CC
Barium	207C2R2	1.37e+1	ug/g	8.82e-4	lbs/hr	CC
Barium	207C2R3	9.83e+0	ug/g	9.48e-4	lbs/hr	CC
Barium	207C2R4	1.17e+1	ug/g	1.34e-3	lbs/hr	CC
Barium	207C2R5	9.56e+0	ug/g	1.08e-3	lbs/hr	CC
Barium	207C2R6	8.89e+0	ug/g	9.70e-4	lbs/hr	CC
Cadmium	207C1R1	1.70e+3	ug/g	4.19e-1	lbs/hr	CC
Cadmium	207C1R2	1.48e+3	ug/g	4.48e-1	lbs/hr	CC
Cadmium	207C1R3	2.33e+2	ug/g	6.69e-2	lbs/hr	CC
Cadmium	207C1R4	5.06e+1	ug/g	1.23e-2	lbs/hr	CC
Cadmium	207C2R1	1.65e+3	ug/g	2.42e-1	lbs/hr	CC
Cadmium	207C2R2	1.66e+3	ug/g	1.07e-1	lbs/hr	CC
Cadmium	207C2R3	1.20e+3	ug/g	1.16e-1	lbs/hr	CC
Cadmium	207C2R4	1.41e+3	ug/g	1.62e-1	lbs/hr	CC
Cadmium	207C2R5	4.97e+2	ug/g	5.61e-2	lbs/hr	CC
Cadmium	207C2R6	4.64e+2	ug/g	5.07e-2	lbs/hr	CC
Chromium	207C1R1	3.48e+3	ug/g	8.57e-1	lbs/hr	CC
Chromium	207C1R2	5.13e+3	ug/g	1.55e+0	lbs/hr	CC
Chromium	207C1R3	7.03e+3	ug/g	2.02e+0	lbs/hr	CC
Chromium	207C1R4	6.01e+3	ug/g	1.46e+0	lbs/hr	CC
Chromium	207C2R1	1.25e+4	ug/g	1.83e+0	lbs/hr	CC
Chromium	207C2R2	1.37e+4	ug/g	8.82e-1	lbs/hr	CC
Chromium	207C2R3	9.90e+3	ug/g	9.54e-1	lbs/hr	CC
Chromium	207C2R4	1.16e+4	ug/g	1.34e+0	lbs/hr	CC
Chromium	207C2R5	1.08e+4	ug/g	1.22e+0	lbs/hr	CC
Chromium	207C2R6	1.01e+4	ug/g	1.10e+0	lbs/hr	CC
Chromium (Hex)	207C1R1	1.39e+3	ug/g	3.43e-1	lbs/hr	CC
Chromium (Hex)	207C1R2	3.36e+3	ug/g	1.02e+0	lbs/hr	CC
Chromium (Hex)	207C1R3	5.86e+3	ug/g	1.68e+0	lbs/hr	CC
Chromium (Hex)	207C1R4	4.87e+3	ug/g	1.18e+0	lbs/hr	CC
Chromium (Hex)	207C2R1	1.06e+4	ug/g	1.55e+0	lbs/hr	CC
Chromium (Hex)	207C2R2	1.12e+4	ug/g	7.22e-1	lbs/hr	CC
Chromium (Hex)	207C2R3	8.10e+3	ug/g	7.81e-1	lbs/hr	CC
Chromium (Hex)	207C2R4	9.53e+3	ug/g	1.09e+0	lbs/hr	CC
Chromium (Hex)	207C2R5	9.52e+3	ug/g	1.08e+0	lbs/hr	CC
Chromium (Hex)	207C2R6	8.90e+3	ug/g	9.71e-1	lbs/hr	CC
Lead	207C1R1	7.35e+2	ug/g	1.81e-1	lbs/hr	CC
Lead	207C1R2	4.79e+2	ug/g	1.45e-1	lbs/hr	CC
Lead	207C1R3	1.40e+2	ug/g	4.02e-2	lbs/hr	CC
Lead	207C1R4	1.43e+2	ug/g	3.47e-2	lbs/hr	CC
Lead	207C2R1	2.01e+3	ug/g	2.95e-1	lbs/hr	CC
Lead	207C2R2	1.57e+3	ug/g	1.02e-1	lbs/hr	CC
Lead	207C2R3	1.14e+3	ug/g	1.10e-1	lbs/hr	CC
Lead	207C2R4	1.34e+3	ug/g	1.54e-1	lbs/hr	CC
Lead	207C2R5	1.16e+3	ug/g	1.31e-1	lbs/hr	CC
Lead	207C2R6	1.08e+3	ug/g	1.18e-1	lbs/hr	CC
Mercury	207C1R1	5.37e-1	ug/g	1.32e-4	lbs/hr	CC
Mercury	207C1R2	4.36e-1	ug/g	1.32e-4	lbs/hr	CC
Mercury	207C1R3	3.84e-1	ug/g	1.10e-4	lbs/hr	CC
Mercury	207C1R4	3.63e-1	ug/g	8.82e-5	lbs/hr	CC
Mercury	207C2R1	1.05e+0	ug/g	1.54e-4	lbs/hr	CC
Mercury	207C2R2	1.02e+0	ug/g	6.61e-5	lbs/hr	CC
Mercury	207C2R3	6.86e-1	ug/g	6.61e-5	lbs/hr	CC
Mercury	207C2R4	7.68e-1	ug/g	8.82e-5	lbs/hr	CC
Mercury	207C2R5	5.85e-1	ug/g	6.61e-5	lbs/hr	CC
Mercury	207C2R6	6.06e-1	ug/g	6.61e-5	lbs/hr	CC
Nickel	207C1R1	2.71e+2	ug/g	6.67e-2	lbs/hr	CC
Nickel	207C1R2	6.30e+2	ug/g	1.91e-1	lbs/hr	CC
Nickel	207C1R3	9.04e+2	ug/g	2.60e-1	lbs/hr	CC
Nickel	207C1R4	1.34e+2	ug/g	3.26e-2	lbs/hr	CC
Nickel	207C2R1	3.51e+2	ug/g	5.14e-2	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP REGION: 3

Nickel	207C2R2	3.48e+2	ug/g	2.25e-2	lbs/hr	CC
Nickel	207C2R3	2.52e+2	ug/g	2.43e-2	lbs/hr	CC
Nickel	207C2R4	2.97e+2	ug/g	3.40e-2	lbs/hr	CC
Nickel	207C2R5	2.65e+2	ug/g	2.99e-2	lbs/hr	CC
Nickel	207C2R6	2.48e+2	ug/g	2.70e-2	lbs/hr	CC
Silver	207C1R1	1.16e+0	ug/g	2.87e-4	lbs/hr	CC
Silver	207C1R2	5.09e-1	ug/g	1.54e-4	lbs/hr	CC
Silver	207C1R3	7.68e-2	ug/g	2.20e-5	lbs/hr	CC
Silver	207C1R4	9.07e-2	ug/g	2.20e-5	lbs/hr	CC

6. Description: METALS (PB)
 Group: WET KILN Location: KILN Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	207C1R1	2.67e+1	ug/g	1.54e-2	lbs/hr	CC
Antimony	207C1R2	3.70e+1	ug/g	1.61e-2	lbs/hr	CC
Antimony	207C1R3	3.49e+1	ug/g	1.71e-2	lbs/hr	CC
Antimony	207C1R4	3.86e+1	ug/g	1.13e-2	lbs/hr	CC
Antimony	207C2R1	2.84e+1	ug/g	6.99e-3	lbs/hr	CC
Antimony	207C2R2	8.27e+1	ug/g	3.17e-3	lbs/hr	CC
Antimony	207C2R3	6.34e+1	ug/g	1.27e-2	lbs/hr	CC
Antimony	207C2R4	3.67e+1	ug/g	6.50e-3	lbs/hr	CC
Antimony	207C2R5	4.55e+1	ug/g	3.84e-3	lbs/hr	CC
Antimony	207C2R6	4.26e+1	ug/g	4.78e-3	lbs/hr	CC
Arsenic	207C1R1	4.37e+1	ug/g	2.52e-2	lbs/hr	CC
Arsenic	207C1R2	1.09e+1	ug/g	4.74e-3	lbs/hr	CC
Arsenic	207C1R3	1.38e+1	ug/g	6.79e-3	lbs/hr	CC
Arsenic	207C1R4	1.20e+1	ug/g	3.53e-3	lbs/hr	CC
Arsenic	207C2R1	1.70e+2	ug/g	4.20e-2	lbs/hr	CC
Arsenic	207C2R2	5.80e+1	ug/g	2.23e-3	lbs/hr	CC
Arsenic	207C2R3	5.09e+1	ug/g	1.02e-2	lbs/hr	CC
Arsenic	207C2R4	2.95e+1	ug/g	5.22e-3	lbs/hr	CC
Arsenic	207C2R5	4.55e+1	ug/g	3.84e-3	lbs/hr	CC
Arsenic	207C2R6	4.26e+1	ug/g	4.78e-3	lbs/hr	CC
Cadmium	207C1R1	6.68e+2	ug/g	3.86e-1	lbs/hr	CC
Cadmium	207C1R2	3.47e+2	ug/g	1.50e-1	lbs/hr	CC
Cadmium	207C1R3	2.33e+2	ug/g	1.14e-1	lbs/hr	CC
Cadmium	207C1R4	2.04e+2	ug/g	5.98e-2	lbs/hr	CC
Cadmium	207C2R1	1.96e+3	ug/g	4.84e-1	lbs/hr	CC
Cadmium	207C2R2	8.69e+2	ug/g	3.34e-2	lbs/hr	CC
Cadmium	207C2R3	7.86e+2	ug/g	1.57e-1	lbs/hr	CC
Cadmium	207C2R4	6.40e+2	ug/g	1.13e-1	lbs/hr	CC
Cadmium	207C2R5	9.52e+2	ug/g	8.03e-2	lbs/hr	CC
Cadmium	207C2R6	8.90e+2	ug/g	1.00e-1	lbs/hr	CC
Chromium	207C1R1	8.57e+1	ug/g	4.95e-2	lbs/hr	CC
Chromium	207C1R2	5.78e+1	ug/g	2.51e-2	lbs/hr	CC
Chromium	207C1R3	2.41e+1	ug/g	1.18e-2	lbs/hr	CC
Chromium	207C1R4	1.61e+1	ug/g	4.72e-3	lbs/hr	CC
Chromium	207C2R1	2.68e+2	ug/g	6.62e-2	lbs/hr	CC
Chromium	207C2R2	3.44e+1	ug/g	1.32e-3	lbs/hr	CC
Chromium	207C2R3	7.57e+1	ug/g	1.52e-2	lbs/hr	CC
Chromium	207C2R4	9.74e+1	ug/g	1.73e-2	lbs/hr	CC
Chromium	207C2R5	1.32e+2	ug/g	1.12e-2	lbs/hr	CC
Chromium	207C2R6	1.24e+2	ug/g	1.39e-2	lbs/hr	CC
Chromium (Hex)	207C1R1	1.72e+0	ug/g	9.92e-4	lbs/hr	CC
Chromium (Hex)	207C1R2	6.30e+0	ug/g	2.73e-3	lbs/hr	CC
Chromium (Hex)	207C1R3	4.14e+0	ug/g	2.03e-3	lbs/hr	CC
Chromium (Hex)	207C1R4	1.36e+0	ug/g	3.97e-4	lbs/hr	CC
Chromium (Hex)	207C2R1	3.49e+0	ug/g	8.60e-4	lbs/hr	CC
Chromium (Hex)	207C2R2	8.04e+0	ug/g	3.09e-4	lbs/hr	CC
Chromium (Hex)	207C2R3	4.73e+0	ug/g	9.48e-4	lbs/hr	CC
Chromium (Hex)	207C2R4	1.12e+0	ug/g	1.98e-4	lbs/hr	CC
Chromium (Hex)	207C2R5	3.92e+0	ug/g	3.31e-4	lbs/hr	CC
Chromium (Hex)	207C2R6	3.53e+0	ug/g	3.97e-4	lbs/hr	CC
Lead	207C1R1	6.26e+3	ug/g	3.62e+0	lbs/hr	CC
Lead	207C1R2	9.20e+3	ug/g	4.00e+0	lbs/hr	CC
Lead	207C1R3	1.21e+4	ug/g	5.96e+0	lbs/hr	CC
Lead	207C1R4	9.44e+3	ug/g	2.76e+0	lbs/hr	CC
Lead	207C2R1	1.59e+4	ug/g	3.92e+0	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP REGION: 3

Lead	207C2R2	2.44e+4	ug/g	9.38e-1	lbs/hr	CC
Lead	207C2R3	1.41e+4	ug/g	2.83e+0	lbs/hr	CC
Lead	207C2R4	7.46e+3	ug/g	1.32e+0	lbs/hr	CC
Lead	207C2R5	1.08e+4	ug/g	9.08e-1	lbs/hr	CC
Lead	207C2R6	1.01e+4	ug/g	1.13e+0	lbs/hr	CC
Mercury	207C1R1	9.93e-1	ug/g	5.73e-4	lbs/hr	CC
Mercury	207C1R2	1.22e+0	ug/g	5.29e-4	lbs/hr	CC
Mercury	207C1R3	1.21e+0	ug/g	5.95e-4	lbs/hr	CC
Mercury	207C1R4	1.05e+0	ug/g	3.09e-4	lbs/hr	CC
Mercury	207C2R1	2.06e+0	ug/g	5.07e-4	lbs/hr	CC
Mercury	207C2R2	2.87e+0	ug/g	1.10e-4	lbs/hr	CC
Mercury	207C2R3	1.98e+0	ug/g	3.97e-4	lbs/hr	CC
Mercury	207C2R4	9.95e-1	ug/g	1.76e-4	lbs/hr	CC
Mercury	207C2R5	2.35e+0	ug/g	1.98e-4	lbs/hr	CC
Mercury	207C2R6	2.16e+0	ug/g	2.43e-4	lbs/hr	CC
Nickel	207C1R1	2.59e+2	ug/g	1.50e-1	lbs/hr	CC
Nickel	207C1R2	2.12e+2	ug/g	9.22e-2	lbs/hr	CC
Nickel	207C1R3	2.36e+2	ug/g	1.16e-1	lbs/hr	CC
Nickel	207C1R4	2.27e+2	ug/g	6.63e-2	lbs/hr	CC
Nickel	207C2R1	3.93e+2	ug/g	9.68e-2	lbs/hr	CC
Nickel	207C2R2	4.97e+2	ug/g	1.91e-2	lbs/hr	CC
Nickel	207C2R3	3.49e+2	ug/g	6.99e-2	lbs/hr	CC
Nickel	207C2R4	2.02e+2	ug/g	3.58e-2	lbs/hr	CC
Nickel	207C2R5	3.97e+2	ug/g	3.35e-2	lbs/hr	CC
Nickel	207C2R6	3.71e+2	ug/g	4.18e-2	lbs/hr	CC
Silver	207C1R2	1.52e-1	ug/g	6.61e-5	lbs/hr	CC
Silver	207C1R3	2.70e-1	ug/g	1.32e-4	lbs/hr	CC
Silver	207C1R4	1.51e-1	ug/g	4.41e-5	lbs/hr	CC

6. Description: METALS (BE) Group: WET KILN Location: KILN Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Beryllium	207C1R1	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C1R2	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C1R3	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C1R4	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C2R1	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C2R2	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C2R3	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C2R4	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C2R5	1.76e+4 ug/g	4.41e-3 lbs/hr	CC
Beryllium	207C2R6	1.76e+4 ug/g	4.41e-3 lbs/hr	CC

5. Type: WASTE

6. Description: Group: WET KILN Location: KILN Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	207C1R1	1.60e+4 ug/g	7.33e+1 lbs/hr	
Chlorine	207C1R2	1.80e+4 ug/g	8.03e+1 lbs/hr	
Chlorine	207C1R3	1.70e+4 ug/g	7.66e+1 lbs/hr	
Chlorine	207C1R4	1.60e+4 ug/g	7.64e+1 lbs/hr	
Chlorine	207C2R1	2.60e+4 ug/g	1.19e+2 lbs/hr	
Chlorine	207C2R2	1.20e+4 ug/g	3.97e+1 lbs/hr	
Chlorine	207C2R3	9.50e+3 ug/g	3.59e+1 lbs/hr	
Chlorine	207C2R4	1.10e+4 ug/g	4.05e+1 lbs/hr	
Chlorine	207C2R5	1.20e+4 ug/g	2.23e+1 lbs/hr	
Chlorine	207C2R6	9.60e+3 ug/g	2.54e+1 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 207 DEVICE NAME: KILN NO. 1

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: MC/ESP REGION: 3

Antimony	207C2R5	2.40e+2	ug/g	4.46e-1	lbs/hr
Antimony	207C2R6	1.80e+2	ug/g	4.76e-1	lbs/hr
Arsenic	207C1R3	9.00e-1	ug/g	3.97e-3	lbs/hr
Arsenic	207C2R2	1.20e+0	ug/g	3.97e-3	lbs/hr
Arsenic	207C2R3	1.00e+0	ug/g	3.75e-3	lbs/hr
Arsenic	207C2R4	8.00e-1	ug/g	2.87e-3	lbs/hr
Barium	207C1R2	1.70e+2	ug/g	7.58e-1	lbs/hr
Barium	207C1R3	2.40e+1	ug/g	1.08e-1	lbs/hr
Barium	207C2R1	4.50e+2	ug/g	2.06e+0	lbs/hr
Barium	207C2R3	2.40e+2	ug/g	9.07e-1	lbs/hr
Barium	207C2R4	2.00e+2	ug/g	7.37e-1	lbs/hr
Barium	207C2R5	1.10e+2	ug/g	2.04e-1	lbs/hr
Barium	207C2R6	6.30e+1	ug/g	1.67e-1	lbs/hr
Cadmium	207C1R1	1.50e+0	ug/g	6.83e-3	lbs/hr
Cadmium	207C1R2	1.30e+1	ug/g	5.80e-2	lbs/hr
Cadmium	207C1R3	1.50e+0	ug/g	6.83e-3	lbs/hr
Cadmium	207C1R4	3.30e+0	ug/g	1.57e-2	lbs/hr
Cadmium	207C2R1	2.60e+1	ug/g	1.19e-1	lbs/hr
Cadmium	207C2R2	1.40e+0	ug/g	4.63e-3	lbs/hr
Cadmium	207C2R3	1.20e+1	ug/g	4.54e-2	lbs/hr
Cadmium	207C2R4	1.50e+1	ug/g	5.53e-2	lbs/hr
Cadmium	207C2R5	1.50e+1	ug/g	2.78e-2	lbs/hr
Cadmium	207C2R6	9.40e+0	ug/g	2.49e-2	lbs/hr
Chromium	207C1R1	9.30e+0	ug/g	4.25e-2	lbs/hr
Chromium	207C1R2	4.40e+1	ug/g	1.96e-1	lbs/hr
Chromium	207C1R3	4.20e+0	ug/g	1.90e-2	lbs/hr
Chromium	207C1R4	5.60e+0	ug/g	2.67e-2	lbs/hr
Chromium	207C2R1	5.40e+1	ug/g	2.48e-1	lbs/hr
Chromium	207C2R2	1.00e+1	ug/g	3.31e-2	lbs/hr
Chromium	207C2R3	4.80e+1	ug/g	1.81e-1	lbs/hr
Chromium	207C2R4	5.40e+1	ug/g	1.99e-1	lbs/hr
Chromium	207C2R5	3.40e+1	ug/g	6.31e-2	lbs/hr
Chromium	207C2R6	1.80e+1	ug/g	4.76e-2	lbs/hr
Lead	207C1R1	1.00e+1	ug/g	4.59e-2	lbs/hr
Lead	207C1R2	1.80e+2	ug/g	8.03e-1	lbs/hr
Lead	207C1R3	2.50e+1	ug/g	1.13e-1	lbs/hr
Lead	207C1R4	9.60e+1	ug/g	4.59e-1	lbs/hr
Lead	207C2R1	6.00e+1	ug/g	2.75e-1	lbs/hr
Lead	207C2R2	1.00e+1	ug/g	3.31e-2	lbs/hr
Lead	207C2R3	1.10e+2	ug/g	4.16e-1	lbs/hr
Lead	207C2R4	1.20e+2	ug/g	4.42e-1	lbs/hr
Lead	207C2R5	1.90e+2	ug/g	3.53e-1	lbs/hr
Lead	207C2R6	1.20e+2	ug/g	3.18e-1	lbs/hr
Mercury	207C2R3	1.00e-1	ug/g	4.41e-4	lbs/hr
Mercury	207C2R4	1.00e-1	ug/g	4.41e-4	lbs/hr
Mercury	207C2R5	1.00e-1	ug/g	2.20e-4	lbs/hr
Nickel	207C1R2	9.00e+0	ug/g	4.01e-2	lbs/hr
Nickel	207C2R1	7.00e+0	ug/g	3.22e-2	lbs/hr
Nickel	207C2R2	6.00e+0	ug/g	1.98e-2	lbs/hr
Nickel	207C2R3	1.70e+1	ug/g	6.42e-2	lbs/hr
Nickel	207C2R4	2.00e+1	ug/g	7.36e-2	lbs/hr
Nickel	207C2R5	5.00e+0	ug/g	9.26e-3	lbs/hr
Silver	207C2R4	1.20e+0	ug/g	4.41e-3	lbs/hr
Thallium	207C2R6	9.00e-1	ug/g	2.43e-3	lbs/hr

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY

2. STATE: PA

3. CITY: BATH

4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA PAD002389559

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 3

5. Type: ESP ASH

6. Description: RECYCLE

Group: WET KILN

Location: ESP

Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Arsenic	208C1R1	1.80e+0	ug/g	0.00e+0	
Arsenic	208C1R2	3.60e+0	ug/g	0.00e+0	
Arsenic	208C1R3	3.20e+0	ug/g	0.00e+0	
Arsenic	208C1R4	1.60e+0	ug/g	0.00e+0	
Arsenic	208C2R1	3.00e+0	ug/g	0.00e+0	
Arsenic	208C2R2	4.70e+0	ug/g	0.00e+0	
Arsenic	208C2R3	1.70e+0	ug/g	0.00e+0	
Arsenic	208C2R4	2.20e+0	ug/g	0.00e+0	
Arsenic	208C2R5	2.30e+0	ug/g	0.00e+0	
Beryllium	208C1R1	5.00e-1	ug/g	0.00e+0	
Beryllium	208C1R2	6.00e-1	ug/g	0.00e+0	
Beryllium	208C1R3	4.00e-1	ug/g	0.00e+0	
Beryllium	208C1R4	6.00e-1	ug/g	0.00e+0	
Beryllium	208C2R1	7.00e-1	ug/g	0.00e+0	
Beryllium	208C2R2	6.00e-1	ug/g	0.00e+0	
Beryllium	208C2R3	6.00e-1	ug/g	0.00e+0	
Beryllium	208C2R4	6.00e-1	ug/g	0.00e+0	
Beryllium	208C2R5	6.00e-1	ug/g	0.00e+0	
Beryllium	208C2R6	ND	5.00e-1	ug/g	0.00e+0
Cadmium	208C1R1	1.00e+2	ug/g	0.00e+0	
Cadmium	208C1R2	2.20e+2	ug/g	0.00e+0	
Cadmium	208C1R3	1.50e+2	ug/g	0.00e+0	
Cadmium	208C1R4	1.50e+2	ug/g	0.00e+0	
Cadmium	208C2R1	1.10e+2	ug/g	0.00e+0	
Cadmium	208C2R2	6.40e+1	ug/g	0.00e+0	
Cadmium	208C2R3	6.80e+1	ug/g	0.00e+0	
Cadmium	208C2R4	6.00e+1	ug/g	0.00e+0	
Cadmium	208C2R5	5.40e+1	ug/g	0.00e+0	
Cadmium	208C2R6	5.28e+1	ug/g	0.00e+0	
Chromium	208C1R1	2.60e+1	ug/g	0.00e+0	
Chromium	208C1R2	4.30e+1	ug/g	0.00e+0	
Chromium	208C1R3	3.30e+1	ug/g	0.00e+0	
Chromium	208C1R4	3.20e+1	ug/g	0.00e+0	
Chromium	208C2R1	2.70e+1	ug/g	0.00e+0	
Chromium	208C2R2	2.50e+1	ug/g	0.00e+0	
Chromium	208C2R3	2.20e+1	ug/g	0.00e+0	
Chromium	208C2R4	2.10e+1	ug/g	0.00e+0	
Chromium	208C2R5	2.10e+1	ug/g	0.00e+0	
Chromium	208C2R6	2.11e+1	ug/g	0.00e+0	
Lead	208C1R1	2.60e+2	ug/g	0.00e+0	
Lead	208C1R2	2.80e+2	ug/g	0.00e+0	
Lead	208C1R3	2.90e+2	ug/g	0.00e+0	
Lead	208C1R4	3.80e+2	ug/g	0.00e+0	
Lead	208C2R1	4.00e+2	ug/g	0.00e+0	
Lead	208C2R2	2.60e+2	ug/g	0.00e+0	
Lead	208C2R3	2.50e+2	ug/g	0.00e+0	
Lead	208C2R4	2.40e+2	ug/g	0.00e+0	
Lead	208C2R5	2.20e+2	ug/g	0.00e+0	
Lead	208C2R6	1.89e+2	ug/g	0.00e+0	

5. Type: FUEL

6. Description: COAL

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	208C1R1	1.80e+3	ug/g	1.65e+1	lbs/hr
Chlorine	208C1R2	1.30e+3	ug/g	1.09e+1	lbs/hr
Chlorine	208C1R3	1.40e+3	ug/g	1.42e+1	lbs/hr
Chlorine	208C1R4	1.30e+3	ug/g	1.43e+1	lbs/hr
Chlorine	208C2R1	1.30e+3	ug/g	2.38e+1	lbs/hr

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 3

Chlorine	208C2R2	1.40e+3	ug/g	2.00e+1	lbs/hr
Chlorine	208C2R3	1.50e+3	ug/g	2.17e+1	lbs/hr
Chlorine	208C2R4	1.70e+3	ug/g	2.43e+1	lbs/hr
Chlorine	208C2R5	1.70e+3	ug/g	2.66e+1	lbs/hr

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	208C1R1	ND	8.00e+0	ug/g	7.32e-2	lbs/hr
Antimony	208C1R2	ND	8.00e+0	ug/g	6.70e-2	lbs/hr
Antimony	208C1R3		1.10e+1	ug/g	1.12e-1	lbs/hr
Antimony	208C1R4	ND	6.00e+0	ug/g	6.59e-2	lbs/hr
Antimony	208C2R1	ND	8.00e+0	ug/g	1.46e-1	lbs/hr
Antimony	208C2R2	ND	7.00e+0	ug/g	1.00e-1	lbs/hr
Antimony	208C2R3	ND	1.00e+1	ug/g	1.45e-1	lbs/hr
Antimony	208C2R4	ND	8.00e+0	ug/g	1.14e-1	lbs/hr
Antimony	208C2R5	ND	8.00e+0	ug/g	1.25e-1	lbs/hr
Antimony	208C2R6	ND	2.00e+1	ug/g	2.57e-1	lbs/hr
Arsenic	208C1R1		2.40e+1	ug/g	2.19e-1	lbs/hr
Arsenic	208C1R2		2.10e+1	ug/g	1.76e-1	lbs/hr
Arsenic	208C1R3		2.10e+1	ug/g	2.14e-1	lbs/hr
Arsenic	208C1R4		1.90e+1	ug/g	2.09e-1	lbs/hr
Arsenic	208C2R1		2.20e+1	ug/g	4.02e-1	lbs/hr
Arsenic	208C2R2		2.60e+1	ug/g	3.71e-1	lbs/hr
Arsenic	208C2R3		2.40e+1	ug/g	3.48e-1	lbs/hr
Arsenic	208C2R4		2.50e+1	ug/g	3.57e-1	lbs/hr
Arsenic	208C2R5		2.00e+1	ug/g	3.12e-1	lbs/hr
Arsenic	208C2R6	ND	2.00e+2	ug/g	2.57e+0	lbs/hr
Barium	208C1R1		5.00e+1	ug/g	4.57e-1	lbs/hr
Barium	208C1R2		6.00e+0	ug/g	5.03e-2	lbs/hr
Barium	208C1R3		4.10e+1	ug/g	4.17e-1	lbs/hr
Barium	208C1R4		5.00e+1	ug/g	5.50e-1	lbs/hr
Barium	208C2R1		4.20e+1	ug/g	7.68e-1	lbs/hr
Barium	208C2R2		3.90e+1	ug/g	5.57e-1	lbs/hr
Barium	208C2R3		4.30e+1	ug/g	6.23e-1	lbs/hr
Barium	208C2R4		4.90e+1	ug/g	7.00e-1	lbs/hr
Barium	208C2R5		4.70e+1	ug/g	7.34e-1	lbs/hr
Barium	208C2R6	ND	1.00e+2	ug/g	1.29e+0	lbs/hr
Beryllium	208C1R1		3.10e+0	ug/g	2.84e-2	lbs/hr
Beryllium	208C1R2		3.30e+0	ug/g	2.76e-2	lbs/hr
Beryllium	208C1R3		2.30e+0	ug/g	2.34e-2	lbs/hr
Beryllium	208C1R4		3.40e+0	ug/g	3.75e-2	lbs/hr
Beryllium	208C2R1		2.80e+0	ug/g	5.11e-2	lbs/hr
Beryllium	208C2R2		2.90e+0	ug/g	4.14e-2	lbs/hr
Beryllium	208C2R3		2.90e+0	ug/g	4.21e-2	lbs/hr
Beryllium	208C2R4		2.80e+0	ug/g	4.01e-2	lbs/hr
Beryllium	208C2R5		3.00e+0	ug/g	4.70e-2	lbs/hr
Beryllium	208C2R6	ND	2.00e+1	ug/g	2.57e-1	lbs/hr
Cadmium	208C1R1		6.00e-1	ug/g	5.51e-3	lbs/hr
Cadmium	208C1R2		5.00e-1	ug/g	4.19e-3	lbs/hr
Cadmium	208C1R3		2.10e+0	ug/g	2.14e-2	lbs/hr
Cadmium	208C1R4		1.50e+0	ug/g	1.65e-2	lbs/hr
Cadmium	208C2R1		2.40e+0	ug/g	4.39e-2	lbs/hr
Cadmium	208C2R2		1.50e+0	ug/g	2.14e-2	lbs/hr
Cadmium	208C2R3		1.90e+0	ug/g	2.76e-2	lbs/hr
Cadmium	208C2R4		1.40e+0	ug/g	2.01e-2	lbs/hr
Cadmium	208C2R5		1.50e+0	ug/g	2.34e-2	lbs/hr
Cadmium	208C2R6		4.10e+1	ug/g	5.28e-1	lbs/hr
Chromium	208C1R1		1.60e+1	ug/g	1.46e-1	lbs/hr
Chromium	208C1R2		1.60e+1	ug/g	1.34e-1	lbs/hr
Chromium	208C1R3		1.80e+1	ug/g	1.83e-1	lbs/hr
Chromium	208C1R4		1.70e+1	ug/g	1.87e-1	lbs/hr
Chromium	208C2R1		1.60e+1	ug/g	2.93e-1	lbs/hr
Chromium	208C2R2		1.50e+1	ug/g	2.14e-1	lbs/hr
Chromium	208C2R3		1.60e+1	ug/g	2.32e-1	lbs/hr
Chromium	208C2R4		1.04e+2	ug/g	3.53e-2	lbs/hr
Chromium	208C2R5		1.60e+1	ug/g	2.50e-1	lbs/hr
Chromium	208C2R6	ND	4.00e+1	ug/g	5.15e-1	lbs/hr
Lead	208C1R1		1.20e+1	ug/g	1.10e-1	lbs/hr
Lead	208C1R2		1.10e+1	ug/g	9.22e-2	lbs/hr
Lead	208C1R3		2.30e+1	ug/g	2.34e-1	lbs/hr

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 3

Lead	208C1R4		2.00e+1	ug/g	2.20e-1	lbs/hr	
Lead	208C2R1		2.10e+1	ug/g	3.84e-1	lbs/hr	
Lead	208C2R2		2.00e+1	ug/g	2.86e-1	lbs/hr	
Lead	208C2R3		1.70e+1	ug/g	2.46e-1	lbs/hr	
Lead	208C2R4		1.50e+1	ug/g	2.14e-1	lbs/hr	
Lead	208C2R5		1.60e+1	ug/g	2.50e-1	lbs/hr	
Lead	208C2R6	ND	2.00e+2	ug/g	2.57e+0	lbs/hr	
Mercury	208C1R1		5.00e-1	ug/g	4.63e-3	lbs/hr	
Mercury	208C1R2		6.00e-1	ug/g	5.07e-3	lbs/hr	
Mercury	208C1R3		5.00e-1	ug/g	5.07e-3	lbs/hr	
Mercury	208C1R4		5.00e-1	ug/g	5.51e-3	lbs/hr	
Mercury	208C2R1		5.00e-1	ug/g	9.04e-3	lbs/hr	
Mercury	208C2R2		5.00e-1	ug/g	7.05e-3	lbs/hr	
Mercury	208C2R3		6.00e-1	ug/g	8.60e-3	lbs/hr	
Mercury	208C2R4		6.00e-1	ug/g	8.60e-3	lbs/hr	
Mercury	208C2R5		5.00e-1	ug/g	7.72e-3	lbs/hr	
Mercury	208C2R6		2.00e-1	ug/g	2.65e-3	lbs/hr	
Nickel	208C1R1		1.70e+1	ug/g	1.55e-1	lbs/hr	
Nickel	208C1R2		1.70e+1	ug/g	1.42e-1	lbs/hr	
Nickel	208C1R3		1.40e+1	ug/g	1.42e-1	lbs/hr	
Nickel	208C1R4		1.70e+1	ug/g	1.87e-1	lbs/hr	
Nickel	208C2R1		1.50e+1	ug/g	2.74e-1	lbs/hr	
Nickel	208C2R2		1.70e+1	ug/g	2.43e-1	lbs/hr	
Nickel	208C2R3		1.70e+1	ug/g	2.46e-1	lbs/hr	
Nickel	208C2R4		1.60e+1	ug/g	2.29e-1	lbs/hr	
Nickel	208C2R5		1.70e+1	ug/g	2.65e-1	lbs/hr	
Nickel	208C2R6	ND	1.00e+2	ug/g	1.29e+0	lbs/hr	
Silver	208C1R1	ND	9.00e-1	ug/g	8.16e-3	lbs/hr	
Silver	208C1R2	ND	8.00e-1	ug/g	6.61e-3	lbs/hr	
Silver	208C1R3	ND	1.00e+0	ug/g	1.01e-2	lbs/hr	
Silver	208C1R4	ND	6.00e-1	ug/g	6.61e-3	lbs/hr	
Silver	208C2R1	ND	8.00e-1	ug/g	1.46e-2	lbs/hr	
Silver	208C2R2	ND	7.00e-1	ug/g	9.92e-3	lbs/hr	
Silver	208C2R3	ND	1.00e+0	ug/g	1.46e-2	lbs/hr	
Silver	208C2R4	ND	8.00e-1	ug/g	1.15e-2	lbs/hr	
Silver	208C2R5	ND	8.00e-1	ug/g	1.26e-2	lbs/hr	
Silver	208C2R6	ND	4.00e+1	ug/g	5.15e-1	lbs/hr	
Thallium	208C1R1	ND	1.00e+0	ug/g	9.04e-3	lbs/hr	
Thallium	208C1R2	ND	9.00e-1	ug/g	7.50e-3	lbs/hr	
Thallium	208C1R3	ND	7.00e-1	ug/g	7.05e-3	lbs/hr	
Thallium	208C1R4	ND	9.00e-1	ug/g	9.92e-3	lbs/hr	
Thallium	208C2R1	ND	7.00e-1	ug/g	1.28e-2	lbs/hr	
Thallium	208C2R2	ND	8.00e-1	ug/g	1.15e-2	lbs/hr	
Thallium	208C2R3	ND	9.00e-1	ug/g	1.30e-2	lbs/hr	
Thallium	208C2R4	ND	8.00e-1	ug/g	1.15e-2	lbs/hr	
Thallium	208C2R5	ND	7.00e-1	ug/g	1.10e-2	lbs/hr	
Thallium	208C2R6	ND	5.00e-1	ug/g	6.39e-3	lbs/hr	

5. Type: RAW MATERIAL

6. Description:

Group: WET KILN

Location: KILN

Phase: SLURRY

7. Category: Halogens

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate	Calc
Chlorine	208C1R1	ND	2.00e+2	ug/g	6.45e+1	lbs/hr
Chlorine	208C1R2	ND	2.00e+2	ug/g	6.50e+1	lbs/hr
Chlorine	208C1R3	ND	2.00e+2	ug/g	6.50e+1	lbs/hr
Chlorine	208C1R4	ND	2.00e+2	ug/g	6.56e+1	lbs/hr
Chlorine	208C2R1	ND	2.00e+2	ug/g	6.56e+1	lbs/hr
Chlorine	208C2R2	ND	2.00e+2	ug/g	6.23e+1	lbs/hr
Chlorine	208C2R3	ND	2.00e+2	ug/g	6.48e+1	lbs/hr
Chlorine	208C2R4	ND	2.00e+2	ug/g	6.48e+1	lbs/hr
Chlorine	208C2R5	ND	2.00e+2	ug/g	4.28e+1	lbs/hr

7. Category: Metals

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate	Calc
Antimony	208C1R1	ND	9.00e+0	ug/g	2.90e+0	lbs/hr

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 3

Antimony	208C1R2	ND	1.00e+1	ug/g	3.25e+0	lbs/hr
Antimony	208C1R3	ND	1.00e+1	ug/g	3.25e+0	lbs/hr
Antimony	208C1R4	ND	9.00e+0	ug/g	2.95e+0	lbs/hr
Antimony	208C2R1	ND	1.00e+1	ug/g	3.28e+0	lbs/hr
Antimony	208C2R2	ND	1.00e+1	ug/g	3.11e+0	lbs/hr
Antimony	208C2R3	ND	1.00e+1	ug/g	3.24e+0	lbs/hr
Antimony	208C2R4	ND	1.00e+1	ug/g	3.24e+0	lbs/hr
Antimony	208C2R5	ND	1.00e+1	ug/g	3.24e+0	lbs/hr
Antimony	208C2R6	ND	1.00e-1	ug/g	3.24e-2	lbs/hr
Arsenic	208C1R1	ND	1.00e+0	ug/g	3.23e-1	lbs/hr
Arsenic	208C1R2	ND	1.00e+0	ug/g	3.25e-1	lbs/hr
Arsenic	208C1R3	ND	1.00e+0	ug/g	3.25e-1	lbs/hr
Arsenic	208C1R4	ND	1.00e+0	ug/g	3.28e-1	lbs/hr
Arsenic	208C2R1	ND	1.00e+0	ug/g	3.28e-1	lbs/hr
Arsenic	208C2R2	ND	1.00e+0	ug/g	3.12e-1	lbs/hr
Arsenic	208C2R3	ND	1.00e+0	ug/g	3.24e-1	lbs/hr
Arsenic	208C2R4	ND	1.00e+0	ug/g	3.24e-1	lbs/hr
Arsenic	208C2R5	ND	1.00e+0	ug/g	3.24e-1	lbs/hr
Arsenic	208C2R6	ND	5.00e+1	ug/g	1.62e+0	lbs/hr
Barium	208C1R1	ND	2.00e+1	ug/g	6.45e+0	lbs/hr
Barium	208C1R2	ND	2.00e+1	ug/g	6.50e+0	lbs/hr
Barium	208C1R3	ND	2.00e+1	ug/g	6.50e+0	lbs/hr
Barium	208C1R4	ND	2.00e+1	ug/g	6.56e+0	lbs/hr
Barium	208C2R1	ND	2.00e+1	ug/g	6.56e+0	lbs/hr
Barium	208C2R2	ND	2.00e+1	ug/g	6.23e+0	lbs/hr
Barium	208C2R3	ND	2.00e+1	ug/g	6.48e+0	lbs/hr
Barium	208C2R4	ND	2.00e+1	ug/g	6.48e+0	lbs/hr
Barium	208C2R5	ND	2.00e+1	ug/g	6.48e+0	lbs/hr
Barium	208C2R6	ND	2.07e+1	ug/g	6.71e+0	lbs/hr
Beryllium	208C1R1	ND	5.00e-1	ug/g	1.61e-1	lbs/hr
Beryllium	208C1R2	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Beryllium	208C1R3	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Beryllium	208C1R4	ND	5.00e-1	ug/g	1.64e-1	lbs/hr
Beryllium	208C2R1	ND	5.00e-1	ug/g	1.64e-1	lbs/hr
Beryllium	208C2R2	ND	5.00e-1	ug/g	1.56e-1	lbs/hr
Beryllium	208C2R3	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Beryllium	208C2R4	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Beryllium	208C2R5	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Beryllium	208C2R6	ND	6.00e-1	ug/g	1.94e-1	lbs/hr
Cadmium	208C1R1	ND	5.00e-1	ug/g	1.61e-1	lbs/hr
Cadmium	208C1R2	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Cadmium	208C1R3	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Cadmium	208C1R4	ND	5.00e-1	ug/g	1.64e-1	lbs/hr
Cadmium	208C2R1	ND	5.00e-1	ug/g	1.64e-1	lbs/hr
Cadmium	208C2R2	ND	5.00e-1	ug/g	1.56e-1	lbs/hr
Cadmium	208C2R3	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Cadmium	208C2R4	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Cadmium	208C2R5	ND	5.00e-1	ug/g	1.62e-1	lbs/hr
Cadmium	208C2R6	ND	3.40e+0	ug/g	1.10e+0	lbs/hr
Chromium	208C1R1	ND	2.00e+0	ug/g	6.45e-1	lbs/hr
Chromium	208C1R2	ND	2.00e+0	ug/g	6.50e-1	lbs/hr
Chromium	208C1R3	ND	5.00e+0	ug/g	1.63e+0	lbs/hr
Chromium	208C1R4	ND	3.00e+0	ug/g	9.84e-1	lbs/hr
Chromium	208C2R1	ND	5.00e+0	ug/g	1.64e+0	lbs/hr
Chromium	208C2R2	ND	5.00e+0	ug/g	1.56e+0	lbs/hr
Chromium	208C2R3	ND	5.00e+0	ug/g	1.62e+0	lbs/hr
Chromium	208C2R4	ND	6.00e+0	ug/g	1.94e+0	lbs/hr
Chromium	208C2R5	ND	5.00e+0	ug/g	1.62e+0	lbs/hr
Chromium	208C2R6	ND	7.40e+0	ug/g	2.40e+0	lbs/hr
Lead	208C1R1	ND	4.00e+0	ug/g	1.29e+0	lbs/hr
Lead	208C1R2	ND	3.00e+0	ug/g	9.75e-1	lbs/hr
Lead	208C1R3	ND	5.00e+0	ug/g	1.63e+0	lbs/hr
Lead	208C1R4	ND	6.00e+0	ug/g	1.97e+0	lbs/hr
Lead	208C2R1	ND	5.00e+0	ug/g	1.64e+0	lbs/hr
Lead	208C2R2	ND	4.00e+0	ug/g	1.25e+0	lbs/hr
Lead	208C2R3	ND	5.00e+0	ug/g	1.62e+0	lbs/hr
Lead	208C2R4	ND	3.00e+0	ug/g	9.72e-1	lbs/hr
Lead	208C2R5	ND	4.00e+0	ug/g	1.30e+0	lbs/hr
Lead	208C2R6	ND	6.40e+0	ug/g	2.07e+0	lbs/hr
Mercury	208C1R1	ND	1.00e-1	ug/g	3.22e-2	lbs/hr
Mercury	208C1R2	ND	1.00e-1	ug/g	3.24e-2	lbs/hr
Mercury	208C1R3	ND	1.00e-1	ug/g	3.24e-2	lbs/hr

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 3

Mercury	208C1R4	ND	1.00e-1	ug/g	3.28e-2	lbs/hr	
Mercury	208C2R1	ND	1.00e-1	ug/g	3.28e-2	lbs/hr	
Mercury	208C2R2	ND	1.00e-1	ug/g	3.11e-2	lbs/hr	
Mercury	208C2R3	ND	1.00e-1	ug/g	3.24e-2	lbs/hr	
Mercury	208C2R4	ND	1.00e-1	ug/g	3.24e-2	lbs/hr	
Mercury	208C2R5	ND	1.00e-1	ug/g	3.24e-2	lbs/hr	
Mercury	208C2R6	ND	1.00e-1	ug/g	3.24e-2	lbs/hr	
Nickel	208C1R1	ND	4.00e+0	ug/g	1.29e+0	lbs/hr	
Nickel	208C1R2	ND	4.00e+0	ug/g	1.30e+0	lbs/hr	
Nickel	208C1R3		6.00e+0	ug/g	1.95e+0	lbs/hr	
Nickel	208C1R4	ND	4.00e+0	ug/g	1.31e+0	lbs/hr	
Nickel	208C2R1		5.00e+0	ug/g	1.64e+0	lbs/hr	
Nickel	208C2R2		5.00e+0	ug/g	1.56e+0	lbs/hr	
Nickel	208C2R3		8.00e+0	ug/g	2.59e+0	lbs/hr	
Nickel	208C2R4		7.00e+0	ug/g	2.27e+0	lbs/hr	
Nickel	208C2R5		6.00e+0	ug/g	1.94e+0	lbs/hr	
Nickel	208C2R6	ND	2.60e+0	ug/g	8.43e-1	lbs/hr	
Silver	208C1R1	ND	9.00e-1	ug/g	2.90e-1	lbs/hr	
Silver	208C1R2	ND	1.00e+0	ug/g	3.25e-1	lbs/hr	
Silver	208C1R3	ND	1.00e+0	ug/g	3.25e-1	lbs/hr	
Silver	208C1R4	ND	9.00e-1	ug/g	2.95e-1	lbs/hr	
Silver	208C2R1	ND	1.00e+0	ug/g	3.28e-1	lbs/hr	
Silver	208C2R2		1.00e+0	ug/g	3.12e-1	lbs/hr	
Silver	208C2R3	ND	1.00e+0	ug/g	3.24e-1	lbs/hr	
Silver	208C2R4	ND	1.00e+0	ug/g	3.24e-1	lbs/hr	
Silver	208C2R5	ND	1.00e+0	ug/g	3.24e-1	lbs/hr	
Silver	208C2R6	ND	1.00e-1	ug/g	3.24e-2	lbs/hr	
Thallium	208C1R1	ND	1.00e+0	ug/g	3.23e-1	lbs/hr	
Thallium	208C1R2	ND	1.00e+0	ug/g	3.25e-1	lbs/hr	
Thallium	208C1R3	ND	1.00e+0	ug/g	3.25e-1	lbs/hr	
Thallium	208C1R4	ND	1.00e+0	ug/g	3.28e-1	lbs/hr	
Thallium	208C2R1	ND	1.00e+0	ug/g	3.28e-1	lbs/hr	
Thallium	208C2R2	ND	1.00e+0	ug/g	3.12e-1	lbs/hr	
Thallium	208C2R3	ND	1.00e+0	ug/g	3.24e-1	lbs/hr	
Thallium	208C2R4	ND	1.00e+0	ug/g	3.24e-1	lbs/hr	
Thallium	208C2R5	ND	1.00e+0	ug/g	3.24e-1	lbs/hr	
Thallium	208C2R6	ND	3.00e-1	ug/g	9.72e-2	lbs/hr	

5. Type: SPIKE

6. Description: METALS (CR)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Antimony	208C1R1	2.36e+0	ug/g	1.12e-3	lbs/hr	CC
Antimony	208C1R2	1.93e+0	ug/g	1.52e-3	lbs/hr	CC
Antimony	208C1R3	7.29e+1	ug/g	3.04e-2	lbs/hr	CC
Antimony	208C1R4	4.47e-1	ug/g	1.76e-4	lbs/hr	CC
Antimony	208C2R1	7.72e-1	ug/g	8.82e-5	lbs/hr	CC
Antimony	208C2R2	9.54e-1	ug/g	1.10e-4	lbs/hr	CC
Antimony	208C2R3	1.30e+0	ug/g	1.32e-4	lbs/hr	CC
Antimony	208C2R4	9.57e-1	ug/g	8.82e-5	lbs/hr	CC
Antimony	208C2R5	1.14e+0	ug/g	1.32e-4	lbs/hr	CC
Antimony	208C2R6	1.71e+0	ug/g	1.54e-4	lbs/hr	CC
Arsenic	208C1R1	1.85e+0	ug/g	8.82e-4	lbs/hr	CC
Arsenic	208C1R2	2.68e+1	ug/g	2.11e-2	lbs/hr	CC
Arsenic	208C1R3	5.23e+0	ug/g	2.18e-3	lbs/hr	CC
Arsenic	208C1R4	8.61e+0	ug/g	3.40e-3	lbs/hr	CC
Arsenic	208C2R1	1.20e+1	ug/g	1.37e-3	lbs/hr	CC
Arsenic	208C2R2	3.34e+1	ug/g	3.86e-3	lbs/hr	CC
Arsenic	208C2R3	5.07e+1	ug/g	5.16e-3	lbs/hr	CC
Arsenic	208C2R4	2.06e+1	ug/g	1.90e-3	lbs/hr	CC
Arsenic	208C2R5	1.77e+1	ug/g	2.05e-3	lbs/hr	CC
Arsenic	208C2R6	2.41e+1	ug/g	2.18e-3	lbs/hr	CC
Cadmium	208C1R1	5.74e+1	ug/g	2.73e-2	lbs/hr	CC
Cadmium	208C1R2	4.14e+2	ug/g	3.26e-1	lbs/hr	CC
Cadmium	208C1R3	9.98e+1	ug/g	4.17e-2	lbs/hr	CC
Cadmium	208C1R4	1.39e+2	ug/g	5.50e-2	lbs/hr	CC
Cadmium	208C2R1	2.01e+2	ug/g	2.29e-2	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 3

Cadmium	208C2R2	3.34e+2	ug/g	3.86e-2	lbs/hr	CC
Cadmium	208C2R3	5.00e+2	ug/g	5.09e-2	lbs/hr	CC
Cadmium	208C2R4	2.20e+2	ug/g	2.03e-2	lbs/hr	CC
Cadmium	208C2R5	1.82e+2	ug/g	2.11e-2	lbs/hr	CC
Cadmium	208C2R6	2.28e+2	ug/g	2.06e-2	lbs/hr	CC
Chromium	208C1R1	7.12e+3	ug/g	3.39e+0	lbs/hr	CC
Chromium	208C1R2	7.88e+3	ug/g	6.21e+0	lbs/hr	CC
Chromium	208C1R3	1.40e+4	ug/g	5.84e+0	lbs/hr	CC
Chromium	208C1R4	1.36e+4	ug/g	5.35e+0	lbs/hr	CC
Chromium	208C2R1	2.51e+4	ug/g	2.86e+0	lbs/hr	CC
Chromium	208C2R2	1.82e+4	ug/g	2.10e+0	lbs/hr	CC
Chromium	208C2R3	2.43e+4	ug/g	2.47e+0	lbs/hr	CC
Chromium	208C2R4	2.51e+4	ug/g	2.31e+0	lbs/hr	CC
Chromium	208C2R5	2.00e+4	ug/g	2.33e+0	lbs/hr	CC
Chromium	208C2R6	2.30e+4	ug/g	2.09e+0	lbs/hr	CC
Chromium (Hex)	208C1R1	5.72e+3	ug/g	2.72e+0	lbs/hr	CC
Chromium (Hex)	208C1R2	6.87e+3	ug/g	5.42e+0	lbs/hr	CC
Chromium (Hex)	208C1R3	1.12e+4	ug/g	4.67e+0	lbs/hr	CC
Chromium (Hex)	208C1R4	9.48e+3	ug/g	3.74e+0	lbs/hr	CC
Chromium (Hex)	208C2R1	1.89e+4	ug/g	2.16e+0	lbs/hr	CC
Chromium (Hex)	208C2R2	1.41e+4	ug/g	1.63e+0	lbs/hr	CC
Chromium (Hex)	208C2R3	2.02e+4	ug/g	2.05e+0	lbs/hr	CC
Chromium (Hex)	208C2R4	2.01e+4	ug/g	1.85e+0	lbs/hr	CC
Chromium (Hex)	208C2R5	1.59e+4	ug/g	1.85e+0	lbs/hr	CC
Chromium (Hex)	208C2R6	1.80e+4	ug/g	1.63e+0	lbs/hr	CC
Lead	208C1R1	3.96e+1	ug/g	1.88e-2	lbs/hr	CC
Lead	208C1R2	4.43e+2	ug/g	3.50e-1	lbs/hr	CC
Lead	208C1R3	1.74e+2	ug/g	7.28e-2	lbs/hr	CC
Lead	208C1R4	1.54e+2	ug/g	6.09e-2	lbs/hr	CC
Lead	208C2R1	4.14e+2	ug/g	4.73e-2	lbs/hr	CC
Lead	208C2R2	5.25e+2	ug/g	6.06e-2	lbs/hr	CC
Lead	208C2R3	7.76e+2	ug/g	7.89e-2	lbs/hr	CC
Lead	208C2R4	3.94e+2	ug/g	3.63e-2	lbs/hr	CC
Lead	208C2R5	4.70e+2	ug/g	5.45e-2	lbs/hr	CC
Lead	208C2R6	9.71e+2	ug/g	8.78e-2	lbs/hr	CC
Mercury	208C1R1	9.27e-2	ug/g	4.41e-5	lbs/hr	CC
Mercury	208C1R2	1.68e-1	ug/g	1.32e-4	lbs/hr	CC
Mercury	208C1R3	2.11e-1	ug/g	8.82e-5	lbs/hr	CC
Mercury	208C1R4	1.68e-1	ug/g	6.61e-5	lbs/hr	CC
Mercury	208C2R1	1.93e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R2	1.91e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R3	2.17e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R4	2.39e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R5	1.90e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R6	2.44e-1	ug/g	2.20e-5	lbs/hr	CC
Nickel	208C1R1	4.50e+1	ug/g	2.14e-2	lbs/hr	CC
Nickel	208C1R2	4.73e+1	ug/g	3.73e-2	lbs/hr	CC
Nickel	208C1R3	7.32e+1	ug/g	3.06e-2	lbs/hr	CC
Nickel	208C1R4	7.07e+1	ug/g	2.79e-2	lbs/hr	CC
Nickel	208C2R1	1.31e+2	ug/g	1.50e-2	lbs/hr	CC
Nickel	208C2R2	9.45e+1	ug/g	1.09e-2	lbs/hr	CC
Nickel	208C2R3	1.35e+2	ug/g	1.37e-2	lbs/hr	CC
Nickel	208C2R4	1.28e+2	ug/g	1.18e-2	lbs/hr	CC
Nickel	208C2R5	1.03e+2	ug/g	1.19e-2	lbs/hr	CC
Nickel	208C2R6	1.19e+2	ug/g	1.08e-2	lbs/hr	CC

6. Description: METALS (PB)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	208C1R1	2.41e+1 ug/g	2.61e-2 lbs/hr	CC
Antimony	208C1R2	3.89e+1 ug/g	4.91e-2 lbs/hr	CC
Antimony	208C1R3	6.93e+1 ug/g	6.05e-2 lbs/hr	CC
Antimony	208C2R3	1.90e-1 ug/g	2.20e-5 lbs/hr	CC
Arsenic	208C1R1	8.10e+0 ug/g	8.77e-3 lbs/hr	CC
Arsenic	208C1R2	2.02e+1 ug/g	2.55e-2 lbs/hr	CC
Arsenic	208C2R1	6.77e+0 ug/g	8.82e-4 lbs/hr	CC
Arsenic	208C2R2	9.84e+0 ug/g	1.59e-3 lbs/hr	CC
Arsenic	208C2R3	1.31e+1 ug/g	1.52e-3 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 3

Arsenic	208C2R4	2.92e+1	ug/g	3.48e-3	lbs/hr	CC
Arsenic	208C2R5	2.36e+1	ug/g	3.66e-3	lbs/hr	CC
Arsenic	208C2R6	2.63e+1	ug/g	3.46e-3	lbs/hr	CC
Cadmium	208C1R1	1.92e+2	ug/g	2.08e-1	lbs/hr	CC
Cadmium	208C1R2	1.83e+2	ug/g	2.31e-1	lbs/hr	CC
Cadmium	208C1R3	5.63e+1	ug/g	4.91e-2	lbs/hr	CC
Cadmium	208C1R4	1.99e+1	ug/g	1.05e-2	lbs/hr	CC
Cadmium	208C2R1	4.35e+1	ug/g	5.67e-3	lbs/hr	CC
Cadmium	208C2R2	8.71e+1	ug/g	1.40e-2	lbs/hr	CC
Cadmium	208C2R3	1.15e+2	ug/g	1.33e-2	lbs/hr	CC
Cadmium	208C2R4	1.41e+2	ug/g	1.68e-2	lbs/hr	CC
Cadmium	208C2R5	1.12e+2	ug/g	1.74e-2	lbs/hr	CC
Cadmium	208C2R6	1.26e+2	ug/g	1.66e-2	lbs/hr	CC
Chromium	208C1R1	1.93e+1	ug/g	2.09e-2	lbs/hr	CC
Chromium	208C1R2	4.98e+1	ug/g	6.27e-2	lbs/hr	CC
Chromium	208C1R3	2.05e+1	ug/g	1.79e-2	lbs/hr	CC
Chromium	208C1R4	4.66e+1	ug/g	2.46e-2	lbs/hr	CC
Chromium	208C2R2	2.61e+1	ug/g	4.21e-3	lbs/hr	CC
Chromium	208C2R3	3.24e+1	ug/g	3.77e-3	lbs/hr	CC
Chromium	208C2R4	5.97e+1	ug/g	7.12e-3	lbs/hr	CC
Chromium	208C2R5	4.80e+1	ug/g	7.43e-3	lbs/hr	CC
Chromium	208C2R6	5.36e+1	ug/g	7.05e-3	lbs/hr	CC
Chromium (Hex)	208C1R1	2.21e+1	ug/g	2.40e-2	lbs/hr	CC
Chromium (Hex)	208C1R2	7.87e+0	ug/g	9.92e-3	lbs/hr	CC
Chromium (Hex)	208C1R3	2.86e+1	ug/g	2.49e-2	lbs/hr	CC
Lead	208C1R1	4.11e+3	ug/g	4.45e+0	lbs/hr	CC
Lead	208C1R2	1.12e+4	ug/g	1.41e+1	lbs/hr	CC
Lead	208C1R3	7.00e+3	ug/g	6.10e+0	lbs/hr	CC
Lead	208C1R4	1.00e+2	ug/g	5.30e-2	lbs/hr	CC
Lead	208C2R1	1.95e+4	ug/g	2.55e+0	lbs/hr	CC
Lead	208C2R2	8.09e+3	ug/g	1.31e+0	lbs/hr	CC
Lead	208C2R3	1.41e+4	ug/g	1.64e+0	lbs/hr	CC
Lead	208C2R4	3.03e+4	ug/g	3.61e+0	lbs/hr	CC
Lead	208C2R5	2.43e+4	ug/g	3.76e+0	lbs/hr	CC
Lead	208C2R6	2.71e+4	ug/g	3.57e+0	lbs/hr	CC
Mercury	208C1R1	4.68e-1	ug/g	5.07e-4	lbs/hr	CC
Mercury	208C1R2	4.72e-1	ug/g	5.95e-4	lbs/hr	CC
Mercury	208C1R3	1.49e+0	ug/g	1.30e-3	lbs/hr	CC
Nickel	208C1R1	1.40e+2	ug/g	1.51e-1	lbs/hr	CC
Nickel	208C1R2	1.54e+2	ug/g	1.94e-1	lbs/hr	CC
Nickel	208C1R3	2.39e+2	ug/g	2.08e-1	lbs/hr	CC
Silver	208C1R1	2.03e-2	ug/g	2.20e-5	lbs/hr	CC
Silver	208C1R2	3.50e-2	ug/g	4.41e-5	lbs/hr	CC
Silver	208C1R3	5.05e-2	ug/g	4.41e-5	lbs/hr	CC

6. Description: METALS (AS,CD)
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	208C1R1	3.39e-1	ug/g	1.98e-4	lbs/hr	CC
Antimony	208C1R2	1.59e+0	ug/g	1.21e-3	lbs/hr	CC
Antimony	208C1R3	1.88e+0	ug/g	5.73e-4	lbs/hr	CC
Antimony	208C1R4	1.16e+0	ug/g	3.97e-4	lbs/hr	CC
Antimony	208C2R1	2.20e+0	ug/g	1.76e-4	lbs/hr	CC
Antimony	208C2R2	1.64e+0	ug/g	1.76e-4	lbs/hr	CC
Antimony	208C2R3	2.43e+0	ug/g	1.98e-4	lbs/hr	CC
Antimony	208C2R4	2.38e+0	ug/g	1.76e-4	lbs/hr	CC
Antimony	208C2R5	1.91e+0	ug/g	1.76e-4	lbs/hr	CC
Antimony	208C2R6	1.96e+0	ug/g	1.76e-4	lbs/hr	CC
Arsenic	208C1R1	3.81e+2	ug/g	2.23e-1	lbs/hr	CC
Arsenic	208C1R2	6.07e+2	ug/g	4.62e-1	lbs/hr	CC
Arsenic	208C1R3	1.13e+3	ug/g	3.44e-1	lbs/hr	CC
Arsenic	208C1R4	1.16e+3	ug/g	3.96e-1	lbs/hr	CC
Arsenic	208C2R1	2.15e+3	ug/g	1.72e-1	lbs/hr	CC
Arsenic	208C2R2	1.65e+3	ug/g	1.77e-1	lbs/hr	CC
Arsenic	208C2R3	2.36e+3	ug/g	1.92e-1	lbs/hr	CC
Arsenic	208C2R4	2.36e+3	ug/g	1.75e-1	lbs/hr	CC
Arsenic	208C2R5	1.86e+3	ug/g	1.72e-1	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA ID: PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 3

Arsenic	208C2R6	2.09e+3	ug/g	1.89e-1	lbs/hr	CC
Barium	208C1R1	2.26e-1	ug/g	1.32e-4	lbs/hr	CC
Barium	208C1R2	4.05e-1	ug/g	3.09e-4	lbs/hr	CC
Barium	208C1R3	6.51e-1	ug/g	1.98e-4	lbs/hr	CC
Barium	208C1R4	9.05e-1	ug/g	3.09e-4	lbs/hr	CC
Barium	208C2R1	1.65e+0	ug/g	1.32e-4	lbs/hr	CC
Barium	208C2R2	1.23e+0	ug/g	1.32e-4	lbs/hr	CC
Barium	208C2R3	1.89e+0	ug/g	1.54e-4	lbs/hr	CC
Barium	208C2R4	1.79e+0	ug/g	1.32e-4	lbs/hr	CC
Barium	208C2R5	1.43e+0	ug/g	1.32e-4	lbs/hr	CC
Barium	208C2R6	1.71e+0	ug/g	1.54e-4	lbs/hr	CC
Cadmium	208C1R1	8.01e+3	ug/g	4.69e+0	lbs/hr	CC
Cadmium	208C1R2	5.88e+3	ug/g	4.48e+0	lbs/hr	CC
Cadmium	208C1R3	1.34e+4	ug/g	4.10e+0	lbs/hr	CC
Cadmium	208C1R4	1.66e+4	ug/g	5.68e+0	lbs/hr	CC
Cadmium	208C2R1	3.08e+4	ug/g	2.46e+0	lbs/hr	CC
Cadmium	208C2R2	2.36e+4	ug/g	2.54e+0	lbs/hr	CC
Cadmium	208C2R3	3.38e+4	ug/g	2.76e+0	lbs/hr	CC
Cadmium	208C2R4	3.38e+4	ug/g	2.50e+0	lbs/hr	CC
Cadmium	208C2R5	2.67e+4	ug/g	2.47e+0	lbs/hr	CC
Cadmium	208C2R6	2.99e+4	ug/g	2.69e+0	lbs/hr	CC
Chromium	208C1R1	4.11e+2	ug/g	2.41e-1	lbs/hr	CC
Chromium	208C1R2	8.30e+1	ug/g	6.33e-2	lbs/hr	CC
Chromium	208C1R3	1.29e+2	ug/g	3.93e-2	lbs/hr	CC
Chromium	208C1R4	2.44e+2	ug/g	8.32e-2	lbs/hr	CC
Chromium	208C2R1	4.51e+2	ug/g	3.61e-2	lbs/hr	CC
Chromium	208C2R2	3.46e+2	ug/g	3.72e-2	lbs/hr	CC
Chromium	208C2R3	4.96e+2	ug/g	4.04e-2	lbs/hr	CC
Chromium	208C2R4	4.96e+2	ug/g	3.67e-2	lbs/hr	CC
Chromium	208C2R5	3.92e+2	ug/g	3.62e-2	lbs/hr	CC
Chromium	208C2R6	4.38e+2	ug/g	3.94e-2	lbs/hr	CC
Chromium (Hex)	208C1R1	9.21e+1	ug/g	5.39e-2	lbs/hr	CC
Chromium (Hex)	208C1R4	1.62e+0	ug/g	5.51e-4	lbs/hr	CC
Chromium (Hex)	208C2R1	3.03e+0	ug/g	2.43e-4	lbs/hr	CC
Chromium (Hex)	208C2R2	2.26e+0	ug/g	2.43e-4	lbs/hr	CC
Chromium (Hex)	208C2R3	3.25e+0	ug/g	2.65e-4	lbs/hr	CC
Chromium (Hex)	208C2R4	3.28e+0	ug/g	2.43e-4	lbs/hr	CC
Chromium (Hex)	208C2R5	2.62e+0	ug/g	2.43e-4	lbs/hr	CC
Chromium (Hex)	208C2R6	2.94e+0	ug/g	2.65e-4	lbs/hr	CC
Lead	208C1R1	1.39e+2	ug/g	8.13e-2	lbs/hr	CC
Lead	208C1R2	8.33e+1	ug/g	6.35e-2	lbs/hr	CC
Lead	208C1R3	5.78e+1	ug/g	1.76e-2	lbs/hr	CC
Lead	208C1R4	4.82e+2	ug/g	1.64e-1	lbs/hr	CC
Lead	208C2R1	8.91e+2	ug/g	7.13e-2	lbs/hr	CC
Lead	208C2R2	6.82e+2	ug/g	7.33e-2	lbs/hr	CC
Lead	208C2R3	9.80e+2	ug/g	7.99e-2	lbs/hr	CC
Lead	208C2R4	9.80e+2	ug/g	7.25e-2	lbs/hr	CC
Lead	208C2R5	7.74e+2	ug/g	7.16e-2	lbs/hr	CC
Lead	208C2R6	8.65e+2	ug/g	7.78e-2	lbs/hr	CC
Mercury	208C1R1	3.77e-2	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C1R2	2.89e-2	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C1R3	7.23e-2	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C1R4	6.46e-2	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R1	2.76e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R2	2.05e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R3	2.71e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R4	2.98e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R5	2.38e-1	ug/g	2.20e-5	lbs/hr	CC
Mercury	208C2R6	2.45e-1	ug/g	2.20e-5	lbs/hr	CC
Nickel	208C1R1	1.74e+1	ug/g	1.02e-2	lbs/hr	CC
Nickel	208C1R2	1.57e+1	ug/g	1.19e-2	lbs/hr	CC
Nickel	208C1R3	2.56e+1	ug/g	7.80e-3	lbs/hr	CC
Nickel	208C1R4	2.85e+1	ug/g	9.72e-3	lbs/hr	CC
Nickel	208C2R1	5.26e+1	ug/g	4.21e-3	lbs/hr	CC
Nickel	208C2R2	4.04e+1	ug/g	4.34e-3	lbs/hr	CC
Nickel	208C2R3	5.79e+1	ug/g	4.72e-3	lbs/hr	CC
Nickel	208C2R4	5.81e+1	ug/g	4.30e-3	lbs/hr	CC
Nickel	208C2R5	4.58e+1	ug/g	4.23e-3	lbs/hr	CC
Nickel	208C2R6	5.12e+1	ug/g	4.61e-3	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY
 2. STATE: PA
 3. CITY: BATH
 4. EP ID: 208 DEVICE NAME: KILN NO. 2

EPA PAD002389559
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 3

6. Description: METALS (BE)
 Group: WET KILN Location: KILN Phase: SOLID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Beryllium	208C1R1	1.75e+4	ug/g	1.31e-2 lbs/hr	CC
Beryllium	208C1R2	1.75e+4	ug/g	1.31e-2 lbs/hr	CC
Beryllium	208C1R3	1.75e+4	ug/g	1.31e-2 lbs/hr	CC
Beryllium	208C1R4	1.75e+4	ug/g	1.31e-2 lbs/hr	CC
Beryllium	208C2R1	2.35e+4	ug/g	4.41e-3 lbs/hr	CC
Beryllium	208C2R2	2.35e+4	ug/g	4.41e-3 lbs/hr	CC
Beryllium	208C2R3	2.35e+4	ug/g	4.41e-3 lbs/hr	CC
Beryllium	208C2R4	2.35e+4	ug/g	4.41e-3 lbs/hr	CC
Beryllium	208C2R5	1.86e+4	ug/g	4.41e-3 lbs/hr	CC
Beryllium	208C2R6	1.86e+4	ug/g	4.41e-3 lbs/hr	CC

5. Type: WASTE

6. Description: WASTE 1
 Group: WET KILN Location: KILN Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	208C1R1	1.30e+4	ug/g	7.93e+0 lbs/hr	
Chlorine	208C1R2	1.70e+4	ug/g	1.16e+2 lbs/hr	
Chlorine	208C1R3	6.90e+3	ug/g	4.10e+1 lbs/hr	
Chlorine	208C1R4	1.40e+4	ug/g	7.67e+1 lbs/hr	
Chlorine	208C2R1	1.90e+4	ug/g	1.04e+2 lbs/hr	
Chlorine	208C2R5	3.30e+3	ug/g	3.00e+1 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Arsenic	208C1R2	1.20e+0	ug/g	8.16e-3 lbs/hr	
Arsenic	208C1R3	1.00e+0	ug/g	5.95e-3 lbs/hr	
Barium	208C1R3	2.00e+1	ug/g	1.19e-1 lbs/hr	
Barium	208C2R5	2.20e+1	ug/g	2.00e-1 lbs/hr	
Cadmium	208C1R1	2.00e+0	ug/g	1.21e-2 lbs/hr	CE
Cadmium	208C1R2	1.10e+0	ug/g	7.48e-3 lbs/hr	
Cadmium	208C1R3	3.60e+0	ug/g	2.14e-2 lbs/hr	
Cadmium	208C1R4	1.00e+0	ug/g	5.51e-3 lbs/hr	
Cadmium	208C2R1	1.50e+0	ug/g	8.16e-3 lbs/hr	
Cadmium	208C2R5	9.00e-1	ug/g	8.16e-3 lbs/hr	
Chromium	208C1R1	5.60e+0	ug/g	3.42e-2 lbs/hr	
Chromium	208C1R2	5.80e+0	ug/g	3.95e-2 lbs/hr	
Chromium	208C1R3	5.70e+0	ug/g	3.37e-2 lbs/hr	
Chromium	208C1R4	3.00e+0	ug/g	1.65e-2 lbs/hr	
Chromium	208C2R1	3.90e+0	ug/g	2.14e-2 lbs/hr	
Chromium	208C2R5	1.00e+1	ug/g	9.08e-2 lbs/hr	
Lead	208C1R1	3.80e+1	ug/g	2.32e-1 lbs/hr	
Lead	208C1R2	2.00e+1	ug/g	1.36e-1 lbs/hr	
Lead	208C1R3	4.40e+1	ug/g	2.61e-1 lbs/hr	
Lead	208C1R4	4.40e+1	ug/g	2.41e-1 lbs/hr	
Lead	208C2R1	4.70e+1	ug/g	2.57e-1 lbs/hr	
Lead	208C2R5	4.30e+1	ug/g	3.91e-1 lbs/hr	
Mercury	208C1R1	2.00e-1	ug/g	1.32e-3 lbs/hr	
Mercury	208C1R2	2.00e-1	ug/g	1.32e-3 lbs/hr	
Mercury	208C1R3	4.00e-1	ug/g	2.43e-3 lbs/hr	
Mercury	208C2R1	2.00e-1	ug/g	1.10e-3 lbs/hr	
Nickel	208C1R1	3.00e+0	ug/g	1.83e-2 lbs/hr	
Nickel	208C1R3	4.00e+0	ug/g	2.38e-2 lbs/hr	
Silver	208C1R3	9.00e-1	ug/g	5.29e-3 lbs/hr	
Silver	208C2R1	1.00e+0	ug/g	5.51e-3 lbs/hr	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: KEYSTONE CEMENT COMPANY

2. STATE: PA

3. CITY: BATH

EPA PAD002389559

REGION: 3

4. EP ID: 208 DEVICE NAME: KILN NO. 2

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

6. Description: WASTE 2

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	208C1R1	1.90e+4 ug/g	1.45e+2 lbs/hr	
Chlorine	208C1R2	8.90e+3 ug/g	6.14e+1 lbs/hr	
Chlorine	208C1R3	1.50e+4 ug/g	1.15e+2 lbs/hr	
Chlorine	208C1R4	9.80e+3 ug/g	8.33e+1 lbs/hr	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Arsenic	208C1R2	9.00e-1 ug/g	6.17e-3 lbs/hr	
Arsenic	208C1R3	1.60e+0 ug/g	1.23e-2 lbs/hr	
Arsenic	208C1R4	1.10e+0 ug/g	9.26e-3 lbs/hr	
Cadmium	208C1R1	3.10e+0 ug/g	2.38e-2 lbs/hr	
Cadmium	208C1R2	2.30e+0 ug/g	1.59e-2 lbs/hr	
Cadmium	208C1R3	1.20e+0 ug/g	9.26e-3 lbs/hr	
Cadmium	208C1R4	6.00e-1 ug/g	5.07e-3 lbs/hr	
Chromium	208C1R1	6.30e+0 ug/g	4.83e-2 lbs/hr	
Chromium	208C1R2	4.40e+0 ug/g	3.04e-2 lbs/hr	
Chromium	208C1R3	7.20e+0 ug/g	5.51e-2 lbs/hr	
Chromium	208C1R4	2.30e+0 ug/g	1.96e-2 lbs/hr	
Lead	208C1R1	3.00e+1 ug/g	2.30e-1 lbs/hr	
Lead	208C1R2	7.51e+1 ug/g	5.29e-2 lbs/hr	
Lead	208C1R3	2.80e+1 ug/g	2.15e-1 lbs/hr	
Lead	208C1R4	2.10e+1 ug/g	1.79e-1 lbs/hr	
Mercury	208C1R3	1.00e-1 ug/g	6.61e-4 lbs/hr	
Silver	208C1R3	1.20e+0 ug/g	9.26e-3 lbs/hr	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: LAFARGE
 2. STATE: AL
 3. CITY: DEMOPOLIS
 4. EP ID: 321 DEVICE NAME: KILN NO. 1
 EPA ID: ALD067119966
 SYSTEM TYPE: CEMENT KILN
 APC SYSTEM: ESP
 REGION: 4

5. Type: FUEL

6. Description: COAL
 Group: DRY KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	321C1R1	3.02e+2 ug/g	4.19e+0 lbs/hr	CC
Chlorine	321C1R2	1.97e+2 ug/g	2.87e+0 lbs/hr	CC
Chlorine	321C1R3	1.97e+2 ug/g	2.87e+0 lbs/hr	CC
Chlorine	321C1R4	9.72e+1 ug/g	1.54e+0 lbs/hr	CC
Chlorine	321C1R5	2.00e+2 ug/g	3.09e+0 lbs/hr	CC
Chlorine	321C1R6	1.01e+2 ug/g	1.54e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	321C1R4	ND 9.72e+1 ug/g	1.54e+0 lbs/hr	CC
Antimony	321C1R5	ND 1.00e+2 ug/g	1.54e+0 lbs/hr	CC
Antimony	321C1R6	ND 1.01e+2 ug/g	1.54e+0 lbs/hr	CC
Arsenic	321C1R5	4.29e+1 ug/g	6.61e-1 lbs/hr	CC
Arsenic	321C1R6	2.90e+1 ug/g	4.41e-1 lbs/hr	CC
Barium	321C1R4	5.28e+2 ug/g	8.38e+0 lbs/hr	CC
Barium	321C1R5	4.86e+2 ug/g	7.50e+0 lbs/hr	CC
Barium	321C1R6	5.36e+2 ug/g	8.16e+0 lbs/hr	CC
Beryllium	321C1R4	1.39e+0 ug/g	2.20e-2 lbs/hr	CC
Beryllium	321C1R5	1.43e+0 ug/g	2.20e-2 lbs/hr	CC
Beryllium	321C1R6	1.45e+0 ug/g	2.20e-2 lbs/hr	CC
Cadmium	321C1R4	1.39e+0 ug/g	2.20e-2 lbs/hr	CC
Cadmium	321C1R5	4.29e-1 ug/g	6.61e-3 lbs/hr	CC
Cadmium	321C1R6	1.45e+0 ug/g	2.20e-2 lbs/hr	CC
Chromium	321C1R4	2.78e+1 ug/g	4.41e-1 lbs/hr	CC
Chromium	321C1R5	2.86e+1 ug/g	4.41e-1 lbs/hr	CC
Chromium	321C1R6	1.45e+1 ug/g	2.20e-1 lbs/hr	CC
Lead	321C1R4	8.33e+0 ug/g	1.32e-1 lbs/hr	CC
Lead	321C1R5	2.86e+0 ug/g	4.41e-2 lbs/hr	CC
Lead	321C1R6	1.45e+0 ug/g	2.20e-2 lbs/hr	CC
Mercury	321C1R4	9.31e-2 ug/g	1.48e-3 lbs/hr	CC
Mercury	321C1R5	7.43e-2 ug/g	1.15e-3 lbs/hr	CC
Mercury	321C1R6	ND 4.49e-2 ug/g	6.83e-4 lbs/hr	CC
Silver	321C1R4	ND 1.67e+1 ug/g	2.65e-1 lbs/hr	CC
Silver	321C1R5	ND 1.71e+1 ug/g	2.65e-1 lbs/hr	CC
Silver	321C1R6	ND 1.74e+1 ug/g	2.65e-1 lbs/hr	CC
Thallium	321C1R4	ND 9.72e+1 ug/g	1.54e+0 lbs/hr	CC
Thallium	321C1R5	ND 1.00e+2 ug/g	1.54e+0 lbs/hr	CC
Thallium	321C1R6	ND 1.01e+2 ug/g	1.54e+0 lbs/hr	CC

5. Type: RAW MATERIAL

6. Description:
 Group: DRY KILN Location: KILN Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	321C1R1	3.17e+2 ug/g	1.26e+2 lbs/hr	CC
Chlorine	321C1R2	2.06e+2 ug/g	8.16e+1 lbs/hr	CC
Chlorine	321C1R3	2.47e+2 ug/g	9.26e+1 lbs/hr	CC
Chlorine	321C1R4	3.68e+2 ug/g	1.54e+2 lbs/hr	CC
Chlorine	321C1R5	3.83e+2 ug/g	1.52e+2 lbs/hr	CC
Chlorine	321C1R6	3.47e+2 ug/g	1.46e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
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US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: LAFARGE

2. STATE: AL

3. CITY: DEMOPOLIS

4. EP ID: 321 DEVICE NAME: KILN NO. 1

EPA ID: ALD067119966

REGION: 4

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Antimony	321C1R4	ND	1.00e+2	ug/g	4.19e+1	lbs/hr	CC
Antimony	321C1R5	ND	1.00e+2	ug/g	3.97e+1	lbs/hr	CC
Antimony	321C1R6	ND	1.00e+2	ug/g	4.19e+1	lbs/hr	CC
Arsenic	321C1R4		8.95e+0	ug/g	3.75e+0	lbs/hr	CC
Arsenic	321C1R5		1.33e+1	ug/g	5.29e+0	lbs/hr	CC
Arsenic	321C1R6		1.11e+1	ug/g	4.63e+0	lbs/hr	CC
Barium	321C1R4		8.95e+1	ug/g	3.75e+1	lbs/hr	CC
Barium	321C1R5		8.89e+1	ug/g	3.53e+1	lbs/hr	CC
Barium	321C1R6		8.95e+1	ug/g	3.75e+1	lbs/hr	CC
Beryllium	321C1R4		5.26e-1	ug/g	2.20e-1	lbs/hr	CC
Beryllium	321C1R5		1.67e-1	ug/g	6.61e-2	lbs/hr	CC
Beryllium	321C1R6		5.26e-1	ug/g	2.20e-1	lbs/hr	CC
Cadmium	321C1R4		1.58e+0	ug/g	6.61e-1	lbs/hr	CC
Cadmium	321C1R5		2.78e+0	ug/g	1.10e+0	lbs/hr	CC
Cadmium	321C1R6		1.58e+0	ug/g	6.61e-1	lbs/hr	CC
Chromium	321C1R4		6.84e+1	ug/g	2.87e+1	lbs/hr	CC
Chromium	321C1R5		6.67e+1	ug/g	2.65e+1	lbs/hr	CC
Chromium	321C1R6		6.32e+1	ug/g	2.65e+1	lbs/hr	CC
Lead	321C1R4		9.47e+0	ug/g	3.97e+0	lbs/hr	CC
Lead	321C1R5		1.11e+1	ug/g	4.41e+0	lbs/hr	CC
Lead	321C1R6		1.11e+1	ug/g	4.63e+0	lbs/hr	CC
Mercury	321C1R4		4.74e-1	ug/g	1.98e-1	lbs/hr	CC
Mercury	321C1R5		5.00e-1	ug/g	1.98e-1	lbs/hr	CC
Mercury	321C1R6		5.26e-1	ug/g	2.20e-1	lbs/hr	CC
Silver	321C1R4	ND	1.79e+1	ug/g	7.50e+0	lbs/hr	CC
Silver	321C1R5	ND	1.83e+1	ug/g	7.28e+0	lbs/hr	CC
Silver	321C1R6	ND	1.79e+1	ug/g	7.50e+0	lbs/hr	CC
Thallium	321C1R4	ND	9.47e+1	ug/g	3.97e+1	lbs/hr	CC
Thallium	321C1R5	ND	9.44e+1	ug/g	3.75e+1	lbs/hr	CC
Thallium	321C1R6	ND	1.05e+2	ug/g	4.41e+1	lbs/hr	CC

5. Type: WASTE

6. Description:

Group: DRY KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	321C1R1	1.83e+4 ug/g	2.43e+2 lbs/hr	CC
Chlorine	321C1R2	2.22e+4 ug/g	3.09e+2 lbs/hr	CC
Chlorine	321C1R3	2.13e+4 ug/g	2.87e+2 lbs/hr	CC
Chlorine	321C1R4	2.12e+4 ug/g	3.09e+2 lbs/hr	CC
Chlorine	321C1R5	2.12e+4 ug/g	3.09e+2 lbs/hr	CC
Chlorine	321C1R6	2.12e+4 ug/g	3.09e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	321C1R4	5.15e+1 ug/g	7.50e-1 lbs/hr	CC
Antimony	321C1R5	5.30e+1 ug/g	7.72e-1 lbs/hr	CC
Antimony	321C1R6	5.00e+1 ug/g	7.28e-1 lbs/hr	CC
Arsenic	321C1R4	3.94e+2 ug/g	5.73e+0 lbs/hr	CC
Arsenic	321C1R5	4.09e+2 ug/g	5.95e+0 lbs/hr	CC
Arsenic	321C1R6	4.24e+2 ug/g	6.17e+0 lbs/hr	CC
Barium	321C1R4	1.21e+3 ug/g	1.76e+1 lbs/hr	CC
Barium	321C1R5	1.09e+3 ug/g	1.59e+1 lbs/hr	CC
Barium	321C1R6	1.15e+3 ug/g	1.68e+1 lbs/hr	CC
Beryllium	321C1R4	9.09e+1 ug/g	1.32e+0 lbs/hr	CC
Beryllium	321C1R5	9.09e+1 ug/g	1.32e+0 lbs/hr	CC
Beryllium	321C1R6	1.06e+2 ug/g	1.54e+0 lbs/hr	CC
Cadmium	321C1R4	1.21e+2 ug/g	1.76e+0 lbs/hr	CC
Cadmium	321C1R5	1.06e+2 ug/g	1.54e+0 lbs/hr	CC
Cadmium	321C1R6	1.06e+2 ug/g	1.54e+0 lbs/hr	CC
Chromium	321C1R4	9.55e+2 ug/g	1.39e+1 lbs/hr	CC
Chromium	321C1R5	9.24e+2 ug/g	1.34e+1 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: LAFARGE
 2. STATE: AL
 3. CITY: DEMOPOLIS
 4. EP ID: 321 DEVICE NAME: KILN NO. 1

EPA ID: ALD067119966
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 4

Chromium	321C1R6	9.39e+2	ug/g	1.37e+1	lbs/hr	CC	
Lead	321C1R4	3.64e+3	ug/g	5.29e+1	lbs/hr	CC	
Lead	321C1R5	3.48e+3	ug/g	5.07e+1	lbs/hr	CC	
Lead	321C1R6	3.64e+3	ug/g	5.29e+1	lbs/hr	CC	
Mercury	321C1R4	5.30e-1	ug/g	7.72e-3	lbs/hr	CC	
Mercury	321C1R5	6.21e-1	ug/g	9.04e-3	lbs/hr	CC	
Mercury	321C1R6	5.30e-1	ug/g	7.72e-3	lbs/hr	CC	
Silver	321C1R4	ND	3.03e+0	ug/g	4.41e-2	lbs/hr	CC
Silver	321C1R5	ND	3.03e+0	ug/g	4.41e-2	lbs/hr	CC
Silver	321C1R6	ND	3.03e+0	ug/g	4.41e-2	lbs/hr	CC
Thallium	321C1R4	ND	1.97e+1	ug/g	2.87e-1	lbs/hr	CC
Thallium	321C1R5	ND	1.97e+1	ug/g	2.87e-1	lbs/hr	CC
Thallium	321C1R6	ND	1.97e+1	ug/g	2.87e-1	lbs/hr	CC

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