

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 228 DEVICE NAME: KILN NO. 2

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

5. Type: FUEL

6. Description: COAL/SPIKED METALS (PB)  
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	228C1R1	3.01e+3	ug/g	1.20e+1 lbs/hr	CC
Chlorine	228C1R2	9.94e+2	ug/g	3.99e+0 lbs/hr	CC
Chlorine	228C1R3	1.00e+3	ug/g	3.99e+0 lbs/hr	CC
Chlorine	228C2R1	6.65e+2	ug/g	3.99e+0 lbs/hr	CC
Chlorine	228C2R2	1.00e+3	ug/g	4.41e+0 lbs/hr	CC
Chlorine	228C2R3	1.00e+3	ug/g	3.99e+0 lbs/hr	CC
Chlorine	228C3R1	1.01e+3	ug/g	4.89e+0 lbs/hr	CC
Chlorine	228C3R2	1.00e+3	ug/g	4.41e+0 lbs/hr	CC
Chlorine	228C3R3	1.00e+3	ug/g	3.99e+0 lbs/hr	CC
Chlorine	228C4R1	2.65e+2	ug/g	2.00e+0 lbs/hr	CC
Chlorine	228C4R2	4.21e+2	ug/g	3.00e+0 lbs/hr	CC
Chlorine	228C4R3	4.74e+2	ug/g	3.00e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Arsenic	228C2R1	1.53e+1	ug/g	9.19e-2 lbs/hr	CC
Arsenic	228C2R2	1.79e+1	ug/g	7.89e-2 lbs/hr	CC
Arsenic	228C2R3	1.91e+1	ug/g	7.61e-2 lbs/hr	CC
Beryllium	228C2R1	5.33e+0	ug/g	3.20e-2 lbs/hr	CC
Beryllium	228C2R2	7.95e+0	ug/g	3.51e-2 lbs/hr	CC
Beryllium	228C2R3	8.01e+0	ug/g	3.20e-2 lbs/hr	CC
Cadmium	228C2R1	4.85e+0	ug/g	2.91e-2 lbs/hr	CC
Cadmium	228C2R2	3.17e+0	ug/g	1.40e-2 lbs/hr	CC
Cadmium	228C2R3	5.01e+0	ug/g	2.00e-2 lbs/hr	CC
Chromium	228C2R1	1.33e+0	ug/g	8.00e-3 lbs/hr	CC
Chromium	228C2R2	2.95e+0	ug/g	1.30e-2 lbs/hr	CC
Chromium	228C2R3	2.01e+0	ug/g	8.00e-3 lbs/hr	CC
Lead	228C2R1	1.33e+1	ug/g	8.00e-2 lbs/hr	CC
Lead	228C2R2	3.49e+1	ug/g	1.54e-1 lbs/hr	CC
Lead	228C2R3	3.51e+1	ug/g	1.40e-1 lbs/hr	CC

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	228C1R1	1.00e+3	ug/g	1.17e+2 lbs/hr	CC
Chlorine	228C1R2	1.00e+3	ug/g	1.14e+2 lbs/hr	CC
Chlorine	228C1R3	1.01e+3	ug/g	1.17e+2 lbs/hr	CC
Chlorine	228C2R1	9.97e+2	ug/g	1.29e+2 lbs/hr	CC
Chlorine	228C2R2	9.98e+2	ug/g	1.19e+2 lbs/hr	CC
Chlorine	228C2R3	1.01e+3	ug/g	1.22e+2 lbs/hr	CC
Chlorine	228C3R1	9.57e+2	ug/g	1.07e+2 lbs/hr	CC
Chlorine	228C3R2	1.00e+3	ug/g	1.05e+2 lbs/hr	CC
Chlorine	228C3R3	1.34e+3	ug/g	1.42e+2 lbs/hr	CC
Chlorine	228C4R1	8.78e+1	ug/g	9.99e+0 lbs/hr	CC
Chlorine	228C4R2	5.32e+1	ug/g	6.00e+0 lbs/hr	CC
Chlorine	228C4R3	7.98e+1	ug/g	8.99e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Arsenic	228C2R1	1.39e+0	ug/g	1.80e-1 lbs/hr	CC
Arsenic	228C2R2	1.17e+0	ug/g	1.40e-1 lbs/hr	CC
Arsenic	228C2R3	1.33e+0	ug/g	1.60e-1 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

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EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP  
 REGION: 6

Beryllium	228C2R1	7.04e-1	ug/g	9.10e-2	lbs/hr	CC
Beryllium	228C2R2	6.41e-1	ug/g	7.67e-2	lbs/hr	CC
Beryllium	228C2R3	6.56e-1	ug/g	7.89e-2	lbs/hr	CC
Cadmium	228C2R1	2.01e-1	ug/g	2.60e-2	lbs/hr	CC
Cadmium	228C2R2	2.01e-1	ug/g	2.40e-2	lbs/hr	CC
Cadmium	228C2R3	2.00e-1	ug/g	2.40e-2	lbs/hr	CC
Chromium	228C2R1	6.03e+0	ug/g	7.80e-1	lbs/hr	CC
Chromium	228C2R2	6.02e+0	ug/g	7.21e-1	lbs/hr	CC
Chromium	228C2R3	6.06e+0	ug/g	7.30e-1	lbs/hr	CC
Lead	228C2R1	4.99e+1	ug/g	6.46e+0	lbs/hr	CC
Lead	228C2R2	4.49e+1	ug/g	5.38e+0	lbs/hr	CC
Lead	228C2R3	4.05e+1	ug/g	4.87e+0	lbs/hr	CC

5. Type: TIER I

6. Description: METALS FEED LIMIT

Group: WET KILN

Location: KILN

Phase: SLURRY

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Mercury	228C1R1	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C1R2	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C1R3	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C1R4	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C2R1	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C2R2	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C2R3	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C2R4	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C3R1	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C3R2	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C3R3	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C3R4	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C4R1	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C4R2	0.00e+0	8.77e+0 lbs/hr	
Mercury	228C4R3	0.00e+0	8.77e+0 lbs/hr	

5. Type: WASTE

6. Description: SPIKED ORGANICS/METALS (AS,BE,CD,CR)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	228C1R1	1.30e+4 ug/g	1.90e+2 lbs/hr	CC
Chlorine	228C1R2	1.40e+4 ug/g	2.18e+2 lbs/hr	CC
Chlorine	228C1R3	2.01e+4 ug/g	2.69e+2 lbs/hr	CC
Chlorine	228C2R1	2.10e+4 ug/g	3.28e+2 lbs/hr	CC
Chlorine	228C2R2	2.20e+4 ug/g	3.40e+2 lbs/hr	CC
Chlorine	228C2R3	2.22e+4 ug/g	3.42e+2 lbs/hr	CC
Chlorine	228C3R1	2.78e+4 ug/g	4.45e+2 lbs/hr	CC
Chlorine	228C3R2	3.40e+4 ug/g	5.45e+2 lbs/hr	CC
Chlorine	228C3R3	3.84e+4 ug/g	6.22e+2 lbs/hr	CC
Chlorine	228C4R1	2.55e+4 ug/g	3.15e+2 lbs/hr	CC
Chlorine	228C4R2	2.41e+4 ug/g	2.95e+2 lbs/hr	CC
Chlorine	228C4R3	9.05e+3 ug/g	1.13e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Arsenic	228C2R1	1.28e+2 ug/g	2.00e+0 lbs/hr	CC
Arsenic	228C2R2	1.17e+2 ug/g	1.80e+0 lbs/hr	CC
Arsenic	228C2R3	6.04e+0 ug/g	9.30e-2 lbs/hr	CC
Beryllium	228C2R1	3.97e+0 ug/g	6.19e-2 lbs/hr	CC
Beryllium	228C2R2	9.73e+0 ug/g	1.50e-1 lbs/hr	CC
Beryllium	228C2R3	7.78e+0 ug/g	1.20e-1 lbs/hr	CC
Cadmium	228C2R1	7.05e+1 ug/g	1.10e+0 lbs/hr	CC

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EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 6

Cadmium	228C2R2	1.17e+1	ug/g	1.80e-1	lbs/hr	CC
Cadmium	228C2R3	1.49e+1	ug/g	2.29e-1	lbs/hr	CC
Chromium	228C2R1	3.33e+2	ug/g	5.20e+0	lbs/hr	CC
Chromium	228C2R2	3.63e+2	ug/g	5.60e+0	lbs/hr	CC
Chromium	228C2R3	3.71e+2	ug/g	5.71e+0	lbs/hr	CC
Lead	228C2R1	2.63e+2	ug/g	4.10e+0	lbs/hr	CC
Lead	228C2R2	2.15e+2	ug/g	3.31e+0	lbs/hr	CC
Lead	228C2R3	2.45e+2	ug/g	3.77e+0	lbs/hr	CC

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,1,1-Trichloroethane	228C1R1	3.64e+3	ug/g	5.31e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C1R2	5.18e+3	ug/g	8.09e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C1R3	6.50e+3	ug/g	8.71e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C4R1	4.89e+3	ug/g	6.04e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C4R2	4.92e+3	ug/g	6.04e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C4R3	4.81e+3	ug/g	6.02e+1	lbs/hr	CC
Tetrachloroethane	228C1R1	7.13e+3	ug/g	1.04e+2	lbs/hr	CC
Tetrachloroethane	228C1R2	1.12e+4	ug/g	1.75e+2	lbs/hr	CC
Tetrachloroethane	228C1R3	1.49e+4	ug/g	2.00e+2	lbs/hr	CC

6. Description: SPIKED ORGANICS/METALS (AS,CR)

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	228C1R1	3.69e+3	ug/g	1.70e+1	lbs/hr	CC
Chlorine	228C1R2	2.62e+3	ug/g	1.20e+1	lbs/hr	CC
Chlorine	228C1R3	4.50e+3	ug/g	2.10e+1	lbs/hr	CC
Chlorine	228C2R1	3.40e+3	ug/g	1.70e+1	lbs/hr	CC
Chlorine	228C2R2	3.23e+3	ug/g	1.62e+1	lbs/hr	CC
Chlorine	228C2R3	4.07e+3	ug/g	2.20e+1	lbs/hr	CC
Chlorine	228C3R1	1.93e+3	ug/g	1.08e+1	lbs/hr	CC
Chlorine	228C3R2	1.96e+3	ug/g	1.06e+1	lbs/hr	CC
Chlorine	228C3R3	1.90e+3	ug/g	7.21e+0	lbs/hr	CC
Chlorine	228C4R1	4.06e+4	ug/g	1.44e+2	lbs/hr	CC
Chlorine	228C4R2	5.93e+4	ug/g	2.38e+2	lbs/hr	CC
Chlorine	228C4R3	7.32e+4	ug/g	2.54e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Arsenic	228C2R1	2.54e+3	ug/g	1.27e+1	lbs/hr	CC
Arsenic	228C2R2	1.98e+3	ug/g	9.90e+0	lbs/hr	CC
Arsenic	228C2R3	4.07e+3	ug/g	2.20e+1	lbs/hr	CC
Beryllium	228C2R1	4.00e-1	ug/g	2.00e-3	lbs/hr	CC
Beryllium	228C2R2	4.00e-1	ug/g	2.00e-3	lbs/hr	CC
Beryllium	228C2R3	3.70e-1	ug/g	2.00e-3	lbs/hr	CC
Cadmium	228C2R1	2.20e+0	ug/g	1.10e-2	lbs/hr	CC
Cadmium	228C2R2	2.20e+0	ug/g	1.10e-2	lbs/hr	CC
Cadmium	228C2R3	2.22e-1	ug/g	1.20e-3	lbs/hr	CC
Chromium	228C2R1	6.78e+3	ug/g	3.40e+1	lbs/hr	CC
Chromium	228C2R2	6.70e+3	ug/g	3.35e+1	lbs/hr	CC
Chromium	228C2R3	6.12e-1	ug/g	3.31e-3	lbs/hr	CC
Lead	228C2R1	4.32e+2	ug/g	2.16e+0	lbs/hr	CC
Lead	228C2R2	3.67e+2	ug/g	1.84e+0	lbs/hr	CC
Lead	228C2R3	3.46e+2	ug/g	1.87e+0	lbs/hr	CC

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,2,4-Trichlorobenzene	228C1R1	4.93e+4	ug/g	2.27e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	228C1R2	4.79e+4	ug/g	2.20e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	228C1R3	4.43e+4	ug/g	2.07e+2	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY

2. STATE: AR

3. CITY: FOREMAN

EPA ID: ARD981512270

REGION: 6

4. EP ID: 228 DEVICE NAME: KILN NO. 2

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

1,2,4-Trichlorobenzene	228C4R1	2.96e+4	ug/g	1.05e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	228C4R2	2.65e+4	ug/g	1.06e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	228C4R3	3.03e+4	ug/g	1.05e+2	lbs/hr	CC

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,1,1-Trichloroethane	228C1R1	5.93e+3	ug/g	2.73e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C1R2	5.34e+3	ug/g	2.45e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C1R3	6.18e+3	ug/g	2.89e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C4R1	2.40e+4	ug/g	8.51e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C4R2	2.21e+4	ug/g	8.88e+1	lbs/hr	CC
1,1,1-Trichloroethane	228C4R3	1.69e+4	ug/g	5.84e+1	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

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	403C1R1	1.00e+3	ug/g	7.30e+1 lbs/hr	CE
Chlorine	403C1R2	1.00e+3	ug/g	7.30e+1 lbs/hr	CE
Chlorine	403C1R3	9.94e+2	ug/g	6.80e+1 lbs/hr	CE
Chlorine	403C1R4	9.94e+2	ug/g	6.80e+1 lbs/hr	CE
Chlorine	403C2R1	9.98e+2	ug/g	7.10e+1 lbs/hr	CE
Chlorine	403C2R2	9.98e+2	ug/g	7.10e+1 lbs/hr	CE
Chlorine	403C2R3	1.00e+3	ug/g	7.00e+1 lbs/hr	CE
Chlorine	403C2R4	1.00e+3	ug/g	7.00e+1 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	403C1R1	5.00e+0	ug/g	3.63e-1 lbs/hr	CE
Antimony	403C1R2	ND 3.00e+0	ug/g	2.18e-1 lbs/hr	CE
Antimony	403C1R3	8.00e+0	ug/g	5.47e-1 lbs/hr	CE
Antimony	403C1R4	1.00e+1	ug/g	6.84e-1 lbs/hr	CE
Arsenic	403C1R1	1.10e+2	ug/g	7.99e+0 lbs/hr	CE
Arsenic	403C1R2	1.20e+2	ug/g	8.72e+0 lbs/hr	CE
Arsenic	403C1R3	1.00e+2	ug/g	6.84e+0 lbs/hr	CE
Arsenic	403C1R4	1.10e+2	ug/g	7.52e+0 lbs/hr	CE
Barium	403C1R1	2.60e+2	ug/g	1.89e+1 lbs/hr	CE
Barium	403C1R2	4.10e+2	ug/g	2.98e+1 lbs/hr	CE
Barium	403C1R3	2.40e+2	ug/g	1.64e+1 lbs/hr	CE
Barium	403C1R4	2.20e+2	ug/g	1.50e+1 lbs/hr	CE
Beryllium	403C1R1	1.40e+0	ug/g	1.02e-1 lbs/hr	CE
Beryllium	403C1R2	1.30e+0	ug/g	9.45e-2 lbs/hr	CE
Beryllium	403C1R3	1.40e+0	ug/g	9.58e-2 lbs/hr	CE
Beryllium	403C1R4	1.30e+0	ug/g	8.89e-2 lbs/hr	CE
Cadmium	403C1R1	ND 4.00e-1	ug/g	2.91e-2 lbs/hr	CE
Cadmium	403C1R2	ND 4.00e-1	ug/g	2.91e-2 lbs/hr	CE
Cadmium	403C1R3	ND 4.00e-1	ug/g	2.74e-2 lbs/hr	CE
Cadmium	403C1R4	ND 4.00e-1	ug/g	2.74e-2 lbs/hr	CE
Chromium	403C1R1	2.70e+2	ug/g	1.96e+1 lbs/hr	CE
Chromium	403C1R2	3.00e+2	ug/g	2.18e+1 lbs/hr	CE
Chromium	403C1R3	3.10e+2	ug/g	2.12e+1 lbs/hr	CE
Chromium	403C1R4	3.30e+2	ug/g	2.26e+1 lbs/hr	CE
Lead	403C1R1	ND 1.00e+1	ug/g	7.27e-1 lbs/hr	CE
Lead	403C1R2	ND 1.00e+1	ug/g	7.27e-1 lbs/hr	CE
Lead	403C1R3	ND 1.00e+1	ug/g	6.84e-1 lbs/hr	CE
Lead	403C1R4	ND 1.00e+1	ug/g	6.84e-1 lbs/hr	CE
Mercury	403C1R1	ND 2.00e-2	ug/g	1.45e-3 lbs/hr	CE
Mercury	403C1R2	ND 2.00e-2	ug/g	1.45e-3 lbs/hr	CE
Mercury	403C1R3	ND 2.00e-2	ug/g	1.37e-3 lbs/hr	CE
Mercury	403C1R4	ND 2.00e-2	ug/g	1.37e-3 lbs/hr	CE
Silver	403C1R1	ND 1.00e+1	ug/g	7.27e-1 lbs/hr	CE
Silver	403C1R2	ND 1.00e+1	ug/g	7.27e-1 lbs/hr	CE
Silver	403C1R3	ND 1.00e+1	ug/g	6.84e-1 lbs/hr	CE
Silver	403C1R4	ND 1.00e+1	ug/g	6.84e-1 lbs/hr	CE
Thallium	403C1R1	ND 2.00e-1	ug/g	1.45e-2 lbs/hr	CE
Thallium	403C1R2	ND 2.00e-1	ug/g	1.45e-2 lbs/hr	CE
Thallium	403C1R3	ND 2.00e-1	ug/g	1.37e-2 lbs/hr	CE
Thallium	403C1R4	ND 2.00e-1	ug/g	1.37e-2 lbs/hr	CE

5. Type: ESP ASH

6. Description: NONRECYCLE  
 Group: WET KILN

Location: ESP

Phase: SOLID

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1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	403C1R1	3.25e+4	ug/g	3.23e+2 lbs/hr	CC
Chlorine	403C1R2	2.70e+4	ug/g	2.69e+2 lbs/hr	CC
Chlorine	403C1R3	2.60e+4	ug/g	2.59e+2 lbs/hr	CC
Chlorine	403C1R4	3.20e+4	ug/g	3.19e+2 lbs/hr	CC
Chlorine	403C2R1	1.00e+3	ug/g	9.90e+0 lbs/hr	CC
Chlorine	403C2R2	2.91e+3	ug/g	2.90e+1 lbs/hr	CC
Chlorine	403C2R3	1.00e+3	ug/g	1.00e+1 lbs/hr	CC
Chlorine	403C2R4	3.99e+3	ug/g	4.00e+1 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	403C1R1	ND	1.00e+1 ug/g	9.94e-2 lbs/hr	CE
Antimony	403C1R2		2.90e+1 ug/g	2.89e-1 lbs/hr	CE
Antimony	403C1R3	ND	1.00e+1 ug/g	9.96e-2 lbs/hr	CE
Antimony	403C1R4		1.50e+1 ug/g	1.49e-1 lbs/hr	CE
Arsenic	403C1R1		1.70e+2 ug/g	1.69e+0 lbs/hr	CE
Arsenic	403C1R2		1.50e+2 ug/g	1.49e+0 lbs/hr	CE
Arsenic	403C1R3		1.60e+2 ug/g	1.59e+0 lbs/hr	CE
Arsenic	403C1R4		1.70e+2 ug/g	1.69e+0 lbs/hr	CE
Barium	403C1R1		5.60e+2 ug/g	5.57e+0 lbs/hr	CE
Barium	403C1R2		5.60e+2 ug/g	5.58e+0 lbs/hr	CE
Barium	403C1R3		3.40e+2 ug/g	3.39e+0 lbs/hr	CE
Barium	403C1R4		3.80e+2 ug/g	3.78e+0 lbs/hr	CE
Beryllium	403C1R1		4.30e+0 ug/g	4.27e-2 lbs/hr	CE
Beryllium	403C1R2		3.00e+0 ug/g	2.99e-2 lbs/hr	CE
Beryllium	403C1R3		3.50e+0 ug/g	3.49e-2 lbs/hr	CE
Beryllium	403C1R4		4.10e+0 ug/g	4.08e-2 lbs/hr	CE
Cadmium	403C1R1		5.50e+1 ug/g	5.47e-1 lbs/hr	CE
Cadmium	403C1R2		4.40e+1 ug/g	4.38e-1 lbs/hr	CE
Cadmium	403C1R3		4.60e+1 ug/g	4.58e-1 lbs/hr	CE
Cadmium	403C1R4		5.60e+1 ug/g	5.58e-1 lbs/hr	CE
Chromium	403C1R1		8.30e+1 ug/g	8.25e-1 lbs/hr	CE
Chromium	403C1R2		1.20e+2 ug/g	1.20e+0 lbs/hr	CE
Chromium	403C1R3		1.20e+2 ug/g	1.20e+0 lbs/hr	CE
Chromium	403C1R4		1.20e+2 ug/g	1.20e+0 lbs/hr	CE
Lead	403C1R1		1.80e+3 ug/g	1.79e+1 lbs/hr	CE
Lead	403C1R2		1.90e+3 ug/g	1.89e+1 lbs/hr	CE
Lead	403C1R3		1.70e+3 ug/g	1.69e+1 lbs/hr	CE
Lead	403C1R4		2.90e+3 ug/g	2.89e+1 lbs/hr	CE
Mercury	403C1R1	ND	2.00e-2 ug/g	1.99e-4 lbs/hr	CE
Mercury	403C1R2	ND	2.00e-2 ug/g	1.99e-4 lbs/hr	CE
Mercury	403C1R3	ND	2.00e-2 ug/g	1.99e-4 lbs/hr	CE
Mercury	403C1R4	ND	2.00e-2 ug/g	1.99e-4 lbs/hr	CE
Silver	403C1R1	ND	6.00e+0 ug/g	5.96e-2 lbs/hr	CE
Silver	403C1R2	ND	6.00e+0 ug/g	5.98e-2 lbs/hr	CE
Silver	403C1R3	ND	6.00e+0 ug/g	5.98e-2 lbs/hr	CE
Silver	403C1R4	ND	6.00e+0 ug/g	5.98e-2 lbs/hr	CE
Thallium	403C1R1	ND	2.00e+1 ug/g	1.99e-1 lbs/hr	CE
Thallium	403C1R2	ND	2.00e+1 ug/g	1.99e-1 lbs/hr	CE
Thallium	403C1R3	ND	2.00e+1 ug/g	1.99e-1 lbs/hr	CE
Thallium	403C1R4	ND	2.00e+1 ug/g	1.99e-1 lbs/hr	CE

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	403C1R1	1.04e+3	ug/g	9.00e+0 lbs/hr	CC
Chlorine	403C1R2	9.66e+2	ug/g	8.00e+0 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Chlorine	403C1R3	1.03e+3	ug/g	8.00e+0	lbs/hr	CC	
Chlorine	403C1R4	1.05e+3	ug/g	7.00e+0	lbs/hr	CC	
Chlorine	403C2R1	ND	1.01e+3	ug/g	1.60e+1	lbs/hr	CC
Chlorine	403C2R2	ND	1.01e+3	ug/g	1.00e+1	lbs/hr	CC
Chlorine	403C2R3	ND	1.05e+3	ug/g	9.00e+0	lbs/hr	CC
Chlorine	403C2R4	ND	1.01e+3	ug/g	8.00e+0	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	403C1R1	ND	6.00e+0	ug/g	5.21e-2	lbs/hr	CE
Antimony	403C1R2	ND	6.00e+0	ug/g	4.97e-2	lbs/hr	CE
Antimony	403C1R3	ND	6.00e+0	ug/g	4.67e-2	lbs/hr	CE
Antimony	403C1R4	ND	6.00e+0	ug/g	3.98e-2	lbs/hr	CE
Arsenic	403C1R1		7.40e+1	ug/g	6.42e-1	lbs/hr	CE
Arsenic	403C1R2		4.80e+1	ug/g	3.97e-1	lbs/hr	CE
Arsenic	403C1R3		5.00e+1	ug/g	3.89e-1	lbs/hr	CE
Arsenic	403C1R4		6.80e+1	ug/g	4.52e-1	lbs/hr	CE
Barium	403C1R1		3.60e+1	ug/g	3.12e-1	lbs/hr	CE
Barium	403C1R2		3.60e+1	ug/g	2.98e-1	lbs/hr	CE
Barium	403C1R3		3.20e+1	ug/g	2.49e-1	lbs/hr	CE
Barium	403C1R4		3.80e+1	ug/g	2.52e-1	lbs/hr	CE
Beryllium	403C1R1		4.00e-1	ug/g	3.47e-3	lbs/hr	CE
Beryllium	403C1R2		5.00e-1	ug/g	4.14e-3	lbs/hr	CE
Beryllium	403C1R3		3.00e-1	ug/g	2.33e-3	lbs/hr	CE
Beryllium	403C1R4		4.00e-1	ug/g	2.66e-3	lbs/hr	CE
Cadmium	403C1R1	ND	4.00e-1	ug/g	3.47e-3	lbs/hr	CE
Cadmium	403C1R2	ND	4.00e-1	ug/g	3.31e-3	lbs/hr	CE
Cadmium	403C1R3	ND	4.00e-1	ug/g	3.11e-3	lbs/hr	CE
Cadmium	403C1R4	ND	4.00e-1	ug/g	2.66e-3	lbs/hr	CE
Chromium	403C1R1		2.30e+0	ug/g	2.00e-2	lbs/hr	CE
Chromium	403C1R2		4.60e+0	ug/g	3.81e-2	lbs/hr	CE
Chromium	403C1R3		2.10e+0	ug/g	1.63e-2	lbs/hr	CE
Chromium	403C1R4		1.70e+0	ug/g	1.13e-2	lbs/hr	CE
Lead	403C1R1		6.00e+0	ug/g	5.21e-2	lbs/hr	CE
Lead	403C1R2		4.00e+0	ug/g	3.31e-2	lbs/hr	CE
Lead	403C1R3		4.00e+0	ug/g	3.11e-2	lbs/hr	CE
Lead	403C1R4		6.00e+0	ug/g	3.98e-2	lbs/hr	CE
Mercury	403C1R1		1.90e-1	ug/g	1.65e-3	lbs/hr	CE
Mercury	403C1R2		1.60e-1	ug/g	1.32e-3	lbs/hr	CE
Mercury	403C1R3		1.80e-1	ug/g	1.40e-3	lbs/hr	CE
Mercury	403C1R4		1.90e-1	ug/g	1.26e-3	lbs/hr	CE
Silver	403C1R1	ND	6.00e-1	ug/g	5.21e-3	lbs/hr	CE
Silver	403C1R2	ND	6.00e-1	ug/g	4.97e-3	lbs/hr	CE
Silver	403C1R3	ND	6.00e-1	ug/g	4.67e-3	lbs/hr	CE
Silver	403C1R4	ND	6.00e-1	ug/g	3.98e-3	lbs/hr	CE
Thallium	403C1R1	ND	1.50e+1	ug/g	1.30e-1	lbs/hr	CE
Thallium	403C1R2	ND	1.50e+1	ug/g	1.24e-1	lbs/hr	CE
Thallium	403C1R3	ND	1.50e+1	ug/g	1.17e-1	lbs/hr	CE
Thallium	403C1R4	ND	1.50e+1	ug/g	9.96e-2	lbs/hr	CE

5. Type: RAW MATERIAL

6. Description: CHALK/SAND/IRON  
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Chlorine	403C1R1	ND	1.00e+3	ug/g	1.18e+2	lbs/hr	CC
Chlorine	403C1R2	ND	1.00e+3	ug/g	1.18e+2	lbs/hr	CC
Chlorine	403C1R3	ND	9.99e+2	ug/g	1.17e+2	lbs/hr	CC
Chlorine	403C1R4	ND	9.96e+2	ug/g	1.17e+2	lbs/hr	CC
Chlorine	403C2R1	ND	9.99e+2	ug/g	1.18e+2	lbs/hr	CC
Chlorine	403C2R2	ND	9.99e+2	ug/g	1.18e+2	lbs/hr	CC
Chlorine	403C2R3	ND	1.00e+3	ug/g	1.18e+2	lbs/hr	CC
Chlorine	403C2R4	ND	1.00e+3	ug/g	1.18e+2	lbs/hr	CC



SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	403C1R1	ND	6.00e+0 ug/g	7.08e-1	lbs/hr	CE
Antimony	403C1R2	ND	6.00e+0 ug/g	7.07e-1	lbs/hr	CE
Antimony	403C1R3	ND	6.00e+0 ug/g	7.03e-1	lbs/hr	CE
Antimony	403C1R4	ND	6.00e+0 ug/g	7.05e-1	lbs/hr	CE
Arsenic	403C1R1	ND	3.00e+0 ug/g	3.54e-1	lbs/hr	CE
Arsenic	403C1R2	ND	3.00e+0 ug/g	3.54e-1	lbs/hr	CE
Arsenic	403C1R3	ND	3.00e+0 ug/g	3.51e-1	lbs/hr	CE
Arsenic	403C1R4	ND	3.00e+0 ug/g	3.52e-1	lbs/hr	CE
Barium	403C1R1		2.90e+1 ug/g	3.42e+0	lbs/hr	CE
Barium	403C1R2		2.20e+1 ug/g	2.59e+0	lbs/hr	CE
Barium	403C1R3		2.60e+1 ug/g	3.05e+0	lbs/hr	CE
Barium	403C1R4		2.50e+1 ug/g	2.94e+0	lbs/hr	CE
Beryllium	403C1R1		2.00e-1 ug/g	2.36e-2	lbs/hr	CE
Beryllium	403C1R2		1.00e-1 ug/g	1.18e-2	lbs/hr	CE
Beryllium	403C1R3		2.00e-1 ug/g	2.34e-2	lbs/hr	CE
Beryllium	403C1R4		2.00e-1 ug/g	2.35e-2	lbs/hr	CE
Cadmium	403C1R1	ND	4.00e-1 ug/g	4.72e-2	lbs/hr	CE
Cadmium	403C1R2	ND	4.00e-1 ug/g	4.72e-2	lbs/hr	CE
Cadmium	403C1R3	ND	4.00e-1 ug/g	4.69e-2	lbs/hr	CE
Cadmium	403C1R4	ND	4.00e-1 ug/g	4.70e-2	lbs/hr	CE
Chromium	403C1R1		3.00e+0 ug/g	3.54e-1	lbs/hr	CE
Chromium	403C1R2		4.10e+0 ug/g	4.83e-1	lbs/hr	CE
Chromium	403C1R3		4.40e+0 ug/g	5.16e-1	lbs/hr	CE
Chromium	403C1R4		4.20e+0 ug/g	4.93e-1	lbs/hr	CE
Lead	403C1R1	ND	3.00e+0 ug/g	3.54e-1	lbs/hr	CE
Lead	403C1R2	ND	3.00e+0 ug/g	3.54e-1	lbs/hr	CE
Lead	403C1R3	ND	3.00e+0 ug/g	3.51e-1	lbs/hr	CE
Lead	403C1R4	ND	3.00e+0 ug/g	3.52e-1	lbs/hr	CE
Mercury	403C1R1	ND	2.00e-2 ug/g	2.36e-3	lbs/hr	CE
Mercury	403C1R2	ND	2.00e-2 ug/g	2.36e-3	lbs/hr	CE
Mercury	403C1R3	ND	2.00e-2 ug/g	2.34e-3	lbs/hr	CE
Mercury	403C1R4	ND	2.00e-2 ug/g	2.35e-3	lbs/hr	CE
Silver	403C1R1	ND	6.00e-1 ug/g	7.08e-2	lbs/hr	CE
Silver	403C1R2	ND	6.00e-1 ug/g	7.07e-2	lbs/hr	CE
Silver	403C1R3	ND	6.00e-1 ug/g	7.03e-2	lbs/hr	CE
Silver	403C1R4	ND	6.00e-1 ug/g	7.05e-2	lbs/hr	CE
Thallium	403C1R1	ND	4.00e+0 ug/g	4.72e-1	lbs/hr	CE
Thallium	403C1R2	ND	4.00e+0 ug/g	4.72e-1	lbs/hr	CE
Thallium	403C1R3	ND	4.00e+0 ug/g	4.69e-1	lbs/hr	CE
Thallium	403C1R4	ND	4.00e+0 ug/g	4.70e-1	lbs/hr	CE

5. Type: SPIKE

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

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	403C2R1		6.82e+5 ug/g	1.01e+2	lbs/hr	CC
Chlorine	403C2R2		6.82e+5 ug/g	1.18e+2	lbs/hr	CC
Chlorine	403C2R3		6.67e+5 ug/g	1.34e+2	lbs/hr	CC
Chlorine	403C2R4		6.76e+5 ug/g	1.90e+2	lbs/hr	CC

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,2,4-Trichlorobenzene	403C2R1		5.42e+5 ug/g	8.02e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	403C2R2		5.37e+5 ug/g	9.29e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	403C2R3		6.11e+5 ug/g	1.23e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	403C2R4		5.73e+5 ug/g	1.61e+2	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,1,1-Trichloroethane	403C2R1	4.60e+5 ug/g	6.81e+1 lbs/hr	CC
1,1,1-Trichloroethane	403C2R2	4.63e+5 ug/g	8.00e+1 lbs/hr	CC
1,1,1-Trichloroethane	403C2R3	3.88e+5 ug/g	7.79e+1 lbs/hr	CC
1,1,1-Trichloroethane	403C2R4	4.27e+5 ug/g	1.20e+2 lbs/hr	CC

5. Type: WASTE

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

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	403C1R1	1.20e+4 ug/g	4.10e+1 lbs/hr	CC
Chlorine	403C1R2	1.01e+4 ug/g	3.30e+1 lbs/hr	CC
Chlorine	403C1R3	3.33e+4 ug/g	1.10e+2 lbs/hr	CC
Chlorine	403C1R4	1.10e+4 ug/g	3.60e+1 lbs/hr	CC
Chlorine	403C2R1	ND 1.06e+3 ug/g	3.00e+0 lbs/hr	CC
Chlorine	403C2R2	9.09e+2 ug/g	3.00e+0 lbs/hr	CC
Chlorine	403C2R3	9.04e+2 ug/g	3.00e+0 lbs/hr	CC
Chlorine	403C2R4	9.04e+2 ug/g	3.00e+0 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	403C1R1	4.60e+3 ug/g	1.57e+1 lbs/hr	CE
Antimony	403C1R2	3.20e+3 ug/g	1.05e+1 lbs/hr	CE
Antimony	403C1R3	5.70e+1 ug/g	1.88e-1 lbs/hr	CE
Antimony	403C1R4	1.60e+2 ug/g	5.22e-1 lbs/hr	CE
Arsenic	403C1R1	ND 1.50e+0 ug/g	5.13e-3 lbs/hr	CE
Arsenic	403C1R2	3.70e+0 ug/g	1.21e-2 lbs/hr	CE
Arsenic	403C1R3	4.40e+0 ug/g	1.45e-2 lbs/hr	CE
Arsenic	403C1R4	5.80e+0 ug/g	1.89e-2 lbs/hr	CE
Barium	403C1R1	3.40e+3 ug/g	1.16e+1 lbs/hr	CE
Barium	403C1R2	8.00e+2 ug/g	2.62e+0 lbs/hr	CE
Barium	403C1R3	5.50e+2 ug/g	1.81e+0 lbs/hr	CE
Barium	403C1R4	5.60e+2 ug/g	1.83e+0 lbs/hr	CE
Beryllium	403C1R1	ND 5.00e-2 ug/g	1.71e-4 lbs/hr	CE
Beryllium	403C1R2	4.40e-1 ug/g	1.44e-3 lbs/hr	CE
Beryllium	403C1R3	8.00e-2 ug/g	2.64e-4 lbs/hr	CE
Beryllium	403C1R4	ND 5.00e-2 ug/g	1.63e-4 lbs/hr	CE
Cadmium	403C1R1	2.80e+0 ug/g	9.58e-3 lbs/hr	CE
Cadmium	403C1R2	1.40e+1 ug/g	4.59e-2 lbs/hr	CE
Cadmium	403C1R3	3.00e+0 ug/g	9.90e-3 lbs/hr	CE
Cadmium	403C1R4	1.50e+0 ug/g	4.89e-3 lbs/hr	CE
Chromium	403C1R1	6.30e+2 ug/g	2.15e+0 lbs/hr	CE
Chromium	403C1R2	2.30e+2 ug/g	7.54e-1 lbs/hr	CE
Chromium	403C1R3	3.90e+2 ug/g	1.29e+0 lbs/hr	CE
Chromium	403C1R4	5.80e+2 ug/g	1.89e+0 lbs/hr	CE
Lead	403C1R1	2.60e+3 ug/g	8.89e+0 lbs/hr	CE
Lead	403C1R2	8.20e+2 ug/g	2.69e+0 lbs/hr	CE
Lead	403C1R3	7.20e+3 ug/g	2.38e+1 lbs/hr	CE
Lead	403C1R4	3.40e+2 ug/g	1.11e+0 lbs/hr	CE
Mercury	403C1R1	5.00e-1 ug/g	1.71e-3 lbs/hr	CE
Mercury	403C1R2	6.20e+0 ug/g	2.03e-2 lbs/hr	CE
Mercury	403C1R3	5.00e-1 ug/g	1.65e-3 lbs/hr	CE
Mercury	403C1R4	5.00e-1 ug/g	1.63e-3 lbs/hr	CE
Silver	403C1R1	ND 3.00e+0 ug/g	1.03e-2 lbs/hr	CE
Silver	403C1R2	ND 3.00e+0 ug/g	9.84e-3 lbs/hr	CE
Silver	403C1R3	ND 3.00e+0 ug/g	9.90e-3 lbs/hr	CE
Silver	403C1R4	ND 3.00e+0 ug/g	9.78e-3 lbs/hr	CE
Thallium	403C1R1	9.00e+0 ug/g	3.08e-2 lbs/hr	CE
Thallium	403C1R2	2.00e+1 ug/g	6.56e-2 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 403 DEVICE NAME: KILN NO. 1

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Thallium	403C1R3	ND	2.00e+0	ug/g	6.60e-3	lbs/hr	CE
Thallium	403C1R4		1.20e+1	ug/g	3.91e-2	lbs/hr	CE

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

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	403C1R1	4.00e+4	ug/g	4.91e+2	lbs/hr	CC
Chlorine	403C1R2	3.20e+4	ug/g	3.93e+2	lbs/hr	CC
Chlorine	403C1R3	2.30e+4	ug/g	2.82e+2	lbs/hr	CC
Chlorine	403C1R4	3.00e+4	ug/g	3.69e+2	lbs/hr	CC
Chlorine	403C2R1	4.40e+4	ug/g	5.40e+2	lbs/hr	CC
Chlorine	403C2R2	2.70e+4	ug/g	3.30e+2	lbs/hr	CC
Chlorine	403C2R3	2.60e+4	ug/g	3.10e+2	lbs/hr	CC
Chlorine	403C2R4	2.20e+4	ug/g	2.69e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	403C1R1	8.00e+0	ug/g	9.82e-2	lbs/hr	CE	
Antimony	403C1R2	8.00e+0	ug/g	9.82e-2	lbs/hr	CE	
Antimony	403C1R3	6.00e+0	ug/g	7.37e-2	lbs/hr	CE	
Antimony	403C1R4	6.00e+0	ug/g	7.38e-2	lbs/hr	CE	
Arsenic	403C1R1	2.20e+2	ug/g	2.70e+0	lbs/hr	CE	
Arsenic	403C1R2	1.80e+2	ug/g	2.21e+0	lbs/hr	CE	
Arsenic	403C1R3	1.90e+2	ug/g	2.33e+0	lbs/hr	CE	
Arsenic	403C1R4	1.60e+2	ug/g	1.97e+0	lbs/hr	CE	
Barium	403C1R1	1.20e+3	ug/g	1.47e+1	lbs/hr	CE	
Barium	403C1R2	1.20e+3	ug/g	1.47e+1	lbs/hr	CE	
Barium	403C1R3	7.60e+2	ug/g	9.33e+0	lbs/hr	CE	
Barium	403C1R4	6.00e+2	ug/g	7.38e+0	lbs/hr	CE	
Beryllium	403C1R1	1.00e+1	ug/g	1.23e-1	lbs/hr	CE	
Beryllium	403C1R2	1.00e+1	ug/g	1.23e-1	lbs/hr	CE	
Beryllium	403C1R3	9.80e+0	ug/g	1.20e-1	lbs/hr	CE	
Beryllium	403C1R4	9.70e+0	ug/g	1.19e-1	lbs/hr	CE	
Cadmium	403C1R1	5.70e+1	ug/g	7.00e-1	lbs/hr	CE	
Cadmium	403C1R2	5.30e+1	ug/g	6.51e-1	lbs/hr	CE	
Cadmium	403C1R3	5.40e+1	ug/g	6.63e-1	lbs/hr	CE	
Cadmium	403C1R4	5.30e+1	ug/g	6.52e-1	lbs/hr	CE	
Chromium	403C1R1	3.50e+2	ug/g	4.30e+0	lbs/hr	CE	
Chromium	403C1R2	6.00e+2	ug/g	7.37e+0	lbs/hr	CE	
Chromium	403C1R3	7.60e+2	ug/g	9.33e+0	lbs/hr	CE	
Chromium	403C1R4	6.80e+2	ug/g	8.36e+0	lbs/hr	CE	
Lead	403C1R1	2.10e+3	ug/g	2.58e+1	lbs/hr	CE	
Lead	403C1R2	2.10e+3	ug/g	2.58e+1	lbs/hr	CE	
Lead	403C1R3	1.50e+3	ug/g	1.84e+1	lbs/hr	CE	
Lead	403C1R4	2.50e+3	ug/g	3.08e+1	lbs/hr	CE	
Mercury	403C1R1	1.50e+0	ug/g	1.84e-2	lbs/hr	CE	
Mercury	403C1R2	1.60e+0	ug/g	1.96e-2	lbs/hr	CE	
Mercury	403C1R3	2.00e-1	ug/g	2.46e-3	lbs/hr	CE	
Mercury	403C1R4	ND	2.00e-1	ug/g	2.46e-3	CE	
Silver	403C1R1	1.00e+0	ug/g	1.23e-2	lbs/hr	CE	
Silver	403C1R2	ND	6.00e-1	ug/g	7.37e-3	CE	
Silver	403C1R3	ND	6.00e-1	ug/g	7.37e-3	CE	
Silver	403C1R4	7.00e-1	ug/g	8.61e-3	lbs/hr	CE	
Thallium	403C1R1	ND	4.00e+0	ug/g	4.91e-2	lbs/hr	CE
Thallium	403C1R2	ND	4.00e+0	ug/g	4.91e-2	lbs/hr	CE
Thallium	403C1R3	ND	4.00e+0	ug/g	4.91e-2	lbs/hr	CE
Thallium	403C1R4	ND	4.00e+0	ug/g	4.92e-2	lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,1,1-Trichloroethane	403C2R1	2.89e+3	ug/g	3.55e+1	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY

2. STATE: AR

3. CITY: FOREMAN

EPA ID: ARD981512270

REGION: 6

4. EP ID: 403 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

1,1,1-Trichloroethane	403C2R2	2.98e+3	ug/g	3.65e+1	lbs/hr	CC
1,1,1-Trichloroethane	403C2R3	3.69e+3	ug/g	4.41e+1	lbs/hr	CC
1,1,1-Trichloroethane	403C2R4	3.45e+3	ug/g	4.22e+1	lbs/hr	CC
Tetrachloroethene	403C2R1	4.26e+4	ug/g	5.23e+2	lbs/hr	CC
Tetrachloroethene	403C2R2	1.73e+4	ug/g	2.12e+2	lbs/hr	CC
Tetrachloroethene	403C2R3	1.64e+4	ug/g	1.96e+2	lbs/hr	CC
Tetrachloroethene	403C2R4	1.56e+4	ug/g	1.91e+2	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

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	404C1R1	ND	1.00e+3 ug/g	1.04e+2 lbs/hr	CE
Chlorine	404C1R2	ND	1.00e+3 ug/g	1.04e+2 lbs/hr	CE
Chlorine	404C1R3	ND	1.00e+3 ug/g	9.60e+1 lbs/hr	CE
Chlorine	404C1R4	ND	1.00e+3 ug/g	9.40e+1 lbs/hr	CE
Chlorine	404C1R5	ND	1.00e+3 ug/g	9.40e+1 lbs/hr	CE
Chlorine	404C1R6	ND	1.00e+3 ug/g	9.40e+1 lbs/hr	CE
Chlorine	404C2R1	ND	1.00e+3 ug/g	1.02e+2 lbs/hr	CE
Chlorine	404C2R2	ND	1.00e+3 ug/g	1.06e+2 lbs/hr	CE
Chlorine	404C2R3	ND	1.00e+3 ug/g	1.06e+2 lbs/hr	CE
Chlorine	404C2R4	ND	1.00e+3 ug/g	1.06e+2 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	404C1R1	ND	3.00e+0 ug/g	3.12e-1 lbs/hr	CE
Antimony	404C1R2	ND	3.00e+0 ug/g	3.12e-1 lbs/hr	CE
Antimony	404C1R3	ND	3.00e+0 ug/g	2.88e-1 lbs/hr	CE
Antimony	404C1R4		8.00e+0 ug/g	7.52e-1 lbs/hr	CE
Antimony	404C1R5	ND	6.00e+0 ug/g	5.64e-1 lbs/hr	CE
Antimony	404C1R6		8.00e+0 ug/g	7.52e-1 lbs/hr	CE
Arsenic	404C1R1		4.00e+1 ug/g	4.16e+0 lbs/hr	CE
Arsenic	404C1R2		5.30e+1 ug/g	5.51e+0 lbs/hr	CE
Arsenic	404C1R3		5.40e+1 ug/g	5.18e+0 lbs/hr	CE
Arsenic	404C1R4		7.20e+1 ug/g	6.77e+0 lbs/hr	CE
Arsenic	404C1R5		8.10e+1 ug/g	7.61e+0 lbs/hr	CE
Arsenic	404C1R6		7.10e+1 ug/g	6.67e+0 lbs/hr	CE
Barium	404C1R1		2.20e+2 ug/g	2.29e+1 lbs/hr	CE
Barium	404C1R2		2.20e+2 ug/g	2.29e+1 lbs/hr	CE
Barium	404C1R3		2.40e+2 ug/g	2.30e+1 lbs/hr	CE
Barium	404C1R4		3.20e+2 ug/g	3.01e+1 lbs/hr	CE
Barium	404C1R5		3.10e+2 ug/g	2.91e+1 lbs/hr	CE
Barium	404C1R6		3.00e+2 ug/g	2.82e+1 lbs/hr	CE
Beryllium	404C1R1		9.00e-1 ug/g	9.36e-2 lbs/hr	CE
Beryllium	404C1R2		1.10e+0 ug/g	1.14e-1 lbs/hr	CE
Beryllium	404C1R3		1.80e+0 ug/g	1.73e-1 lbs/hr	CE
Beryllium	404C1R4		6.00e-1 ug/g	5.64e-2 lbs/hr	CE
Beryllium	404C1R5		7.00e-1 ug/g	6.58e-2 lbs/hr	CE
Beryllium	404C1R6		2.00e-1 ug/g	1.88e-2 lbs/hr	CE
Cadmium	404C1R1	ND	4.00e-1 ug/g	4.16e-2 lbs/hr	CE
Cadmium	404C1R2	ND	4.00e-1 ug/g	4.16e-2 lbs/hr	CE
Cadmium	404C1R3	ND	4.00e-1 ug/g	3.84e-2 lbs/hr	CE
Cadmium	404C1R4	ND	4.00e-1 ug/g	3.76e-2 lbs/hr	CE
Cadmium	404C1R5	ND	4.00e-1 ug/g	3.76e-2 lbs/hr	CE
Cadmium	404C1R6	ND	4.00e-1 ug/g	3.76e-2 lbs/hr	CE
Chromium	404C1R1		2.90e+2 ug/g	3.02e+1 lbs/hr	CE
Chromium	404C1R2		2.90e+2 ug/g	3.02e+1 lbs/hr	CE
Chromium	404C1R3		2.80e+2 ug/g	2.69e+1 lbs/hr	CE
Chromium	404C1R4		3.60e+2 ug/g	3.38e+1 lbs/hr	CE
Chromium	404C1R5		3.50e+2 ug/g	3.29e+1 lbs/hr	CE
Chromium	404C1R6		5.80e+2 ug/g	5.45e+1 lbs/hr	CE
Lead	404C1R1	ND	1.00e+1 ug/g	1.04e+0 lbs/hr	CE
Lead	404C1R2	ND	1.00e+1 ug/g	1.04e+0 lbs/hr	CE
Lead	404C1R3	ND	1.00e+1 ug/g	9.60e-1 lbs/hr	CE
Lead	404C1R4	ND	1.00e+1 ug/g	9.40e-1 lbs/hr	CE
Lead	404C1R5	ND	1.00e+1 ug/g	9.40e-1 lbs/hr	CE
Lead	404C1R6	ND	1.00e+1 ug/g	9.40e-1 lbs/hr	CE
Mercury	404C1R1	ND	2.00e-2 ug/g	2.08e-3 lbs/hr	CE
Mercury	404C1R2	ND	2.00e-2 ug/g	2.08e-3 lbs/hr	CE
Mercury	404C1R3	ND	2.00e-2 ug/g	1.92e-3 lbs/hr	CE
Mercury	404C1R4	ND	2.00e-2 ug/g	1.88e-3 lbs/hr	CE
Mercury	404C1R5	ND	2.00e-2 ug/g	1.88e-3 lbs/hr	CE
Mercury	404C1R6	ND	2.00e-2 ug/g	1.88e-3 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Silver	404C1R1	ND	1.00e+1	ug/g	1.04e+0	lbs/hr	CE
Silver	404C1R2	ND	1.00e+1	ug/g	1.04e+0	lbs/hr	CE
Silver	404C1R3	ND	1.00e+1	ug/g	9.60e-1	lbs/hr	CE
Silver	404C1R4	ND	1.00e+1	ug/g	9.40e-1	lbs/hr	CE
Silver	404C1R5	ND	1.00e+1	ug/g	9.40e-1	lbs/hr	CE
Silver	404C1R6	ND	1.00e+1	ug/g	9.40e-1	lbs/hr	CE
Thallium	404C1R1	ND	2.00e-1	ug/g	2.08e-2	lbs/hr	CE
Thallium	404C1R2	ND	2.00e-1	ug/g	2.08e-2	lbs/hr	CE
Thallium	404C1R3	ND	2.00e-1	ug/g	1.92e-2	lbs/hr	CE
Thallium	404C1R4	ND	2.00e-1	ug/g	1.88e-2	lbs/hr	CE
Thallium	404C1R5	ND	2.00e-1	ug/g	1.88e-2	lbs/hr	CE
Thallium	404C1R6	ND	2.00e-1	ug/g	1.88e-2	lbs/hr	CE

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	404C1R1	2.80e+4	ug/g	3.57e+2	lbs/hr	CE
Chlorine	404C1R2	3.20e+4	ug/g	4.11e+2	lbs/hr	CE
Chlorine	404C1R3	3.70e+4	ug/g	4.74e+2	lbs/hr	CE
Chlorine	404C1R4	2.50e+4	ug/g	2.88e+2	lbs/hr	CE
Chlorine	404C1R5	2.50e+4	ug/g	2.87e+2	lbs/hr	CE
Chlorine	404C1R6	3.50e+4	ug/g	4.05e+2	lbs/hr	CE
Chlorine	404C2R1	5.30e+4	ug/g	6.87e+2	lbs/hr	CC
Chlorine	404C2R2	2.70e+4	ug/g	3.40e+2	lbs/hr	CC
Chlorine	404C2R3	4.70e+4	ug/g	6.08e+2	lbs/hr	CC
Chlorine	404C2R4	5.40e+4	ug/g	6.60e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc		
Antimony	404C1R1	ND	1.00e+1	ug/g	1.28e-1	lbs/hr	CE
Antimony	404C1R2	ND	1.00e+1	ug/g	1.28e-1	lbs/hr	CE
Antimony	404C1R3	ND	1.00e+1	ug/g	1.28e-1	lbs/hr	CE
Antimony	404C1R4	ND	1.00e+1	ug/g	1.15e-1	lbs/hr	CE
Antimony	404C1R5	ND	1.00e+1	ug/g	1.15e-1	lbs/hr	CE
Antimony	404C1R6	ND	1.00e+1	ug/g	1.16e-1	lbs/hr	CE
Arsenic	404C1R1	5.00e+1	ug/g	6.38e-1	lbs/hr	CE	
Arsenic	404C1R2	1.00e+2	ug/g	1.28e+0	lbs/hr	CE	
Arsenic	404C1R3	1.00e+2	ug/g	1.28e+0	lbs/hr	CE	
Arsenic	404C1R4	1.40e+2	ug/g	1.61e+0	lbs/hr	CE	
Arsenic	404C1R5	1.30e+2	ug/g	1.49e+0	lbs/hr	CE	
Arsenic	404C1R6	1.50e+2	ug/g	1.73e+0	lbs/hr	CE	
Barium	404C1R1	1.60e+2	ug/g	2.04e+0	lbs/hr	CE	
Barium	404C1R2	5.40e+2	ug/g	6.93e+0	lbs/hr	CE	
Barium	404C1R3	4.90e+2	ug/g	6.28e+0	lbs/hr	CE	
Barium	404C1R4	3.70e+2	ug/g	4.25e+0	lbs/hr	CE	
Barium	404C1R5	3.60e+2	ug/g	4.13e+0	lbs/hr	CE	
Barium	404C1R6	3.60e+2	ug/g	4.16e+0	lbs/hr	CE	
Beryllium	404C1R1	1.20e+0	ug/g	1.53e-2	lbs/hr	CE	
Beryllium	404C1R2	3.40e+0	ug/g	4.37e-2	lbs/hr	CE	
Beryllium	404C1R3	4.60e+0	ug/g	5.90e-2	lbs/hr	CE	
Beryllium	404C1R4	8.00e-1	ug/g	9.20e-3	lbs/hr	CE	
Beryllium	404C1R5	4.00e-1	ug/g	4.59e-3	lbs/hr	CE	
Beryllium	404C1R6	4.00e-1	ug/g	4.62e-3	lbs/hr	CE	
Cadmium	404C1R1	8.00e+0	ug/g	1.02e-1	lbs/hr	CE	
Cadmium	404C1R2	1.80e+1	ug/g	2.31e-1	lbs/hr	CE	
Cadmium	404C1R3	2.60e+1	ug/g	3.33e-1	lbs/hr	CE	
Cadmium	404C1R4	7.80e+1	ug/g	8.97e-1	lbs/hr	CE	
Cadmium	404C1R5	8.30e+1	ug/g	9.53e-1	lbs/hr	CE	
Cadmium	404C1R6	9.80e+1	ug/g	1.13e+0	lbs/hr	CE	
Chromium	404C1R1	7.00e+1	ug/g	8.93e-1	lbs/hr	CE	
Chromium	404C1R2	1.40e+2	ug/g	1.80e+0	lbs/hr	CE	
Chromium	404C1R3	1.30e+2	ug/g	1.67e+0	lbs/hr	CE	
Chromium	404C1R4	2.10e+2	ug/g	2.42e+0	lbs/hr	CE	

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 6

Chromium	404C1R5	2.20e+2	ug/g	2.53e+0	lbs/hr	CE	
Chromium	404C1R6	2.30e+2	ug/g	2.66e+0	lbs/hr	CE	
Lead	404C1R1	1.00e+3	ug/g	1.28e+1	lbs/hr	CE	
Lead	404C1R2	1.80e+3	ug/g	2.31e+1	lbs/hr	CE	
Lead	404C1R3	2.10e+3	ug/g	2.69e+1	lbs/hr	CE	
Lead	404C1R4	5.60e+2	ug/g	6.44e+0	lbs/hr	CE	
Lead	404C1R5	5.60e+2	ug/g	6.43e+0	lbs/hr	CE	
Lead	404C1R6	9.40e+2	ug/g	1.09e+1	lbs/hr	CE	
Mercury	404C1R1	ND	2.00e-2	ug/g	2.55e-4	lbs/hr	CE
Mercury	404C1R2	ND	2.00e-2	ug/g	2.57e-4	lbs/hr	CE
Mercury	404C1R3	ND	2.00e-2	ug/g	2.56e-4	lbs/hr	CE
Mercury	404C1R4	ND	2.00e-2	ug/g	2.30e-4	lbs/hr	CE
Mercury	404C1R5	ND	5.00e-2	ug/g	5.74e-4	lbs/hr	CE
Mercury	404C1R6	ND	3.00e-2	ug/g	3.47e-4	lbs/hr	CE
Silver	404C1R1	ND	6.00e+0	ug/g	7.66e-2	lbs/hr	CE
Silver	404C1R2	ND	6.00e+0	ug/g	7.70e-2	lbs/hr	CE
Silver	404C1R3	ND	6.00e+0	ug/g	7.69e-2	lbs/hr	CE
Silver	404C1R4	ND	9.00e+0	ug/g	1.03e-1	lbs/hr	CE
Silver	404C1R5	ND	4.00e+0	ug/g	4.59e-2	lbs/hr	CE
Silver	404C1R6	ND	1.20e+1	ug/g	1.39e-1	lbs/hr	CE
Thallium	404C1R1	ND	2.00e+1	ug/g	2.55e-1	lbs/hr	CE
Thallium	404C1R2	ND	2.00e+1	ug/g	2.57e-1	lbs/hr	CE
Thallium	404C1R3	ND	2.00e+1	ug/g	2.56e-1	lbs/hr	CE
Thallium	404C1R4	ND	2.00e+1	ug/g	2.30e-1	lbs/hr	CE
Thallium	404C1R5	ND	2.00e+1	ug/g	2.30e-1	lbs/hr	CE
Thallium	404C1R6	ND	2.00e+1	ug/g	2.31e-1	lbs/hr	CE

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	404C1R1	ND 9.93e+2 ug/g	1.20e+1 lbs/hr	CC
Chlorine	404C1R2	ND 9.80e+2 ug/g	1.30e+1 lbs/hr	CC
Chlorine	404C1R3	ND 9.91e+2 ug/g	1.50e+1 lbs/hr	CC
Chlorine	404C1R4	ND 9.95e+2 ug/g	1.50e+1 lbs/hr	CC
Chlorine	404C1R5	ND 1.01e+3 ug/g	1.50e+1 lbs/hr	CC
Chlorine	404C1R6	ND 1.03e+3 ug/g	1.50e+1 lbs/hr	CC
Chlorine	404C2R1	ND 1.00e+3 ug/g	1.43e+1 lbs/hr	CE
Chlorine	404C2R2	ND 1.00e+3 ug/g	2.12e+1 lbs/hr	CE
Chlorine	404C2R3	ND 1.00e+3 ug/g	1.11e+1 lbs/hr	CE
Chlorine	404C2R4	ND 1.00e+3 ug/g	1.90e+1 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	404C1R1	ND 6.00e+0 ug/g	7.25e-2 lbs/hr	CE
Antimony	404C1R2	ND 6.00e+0 ug/g	7.96e-2 lbs/hr	CE
Antimony	404C1R3	ND 6.00e+0 ug/g	9.08e-2 lbs/hr	CE
Antimony	404C1R4	ND 8.00e+0 ug/g	1.21e-1 lbs/hr	CE
Antimony	404C1R5	ND 6.00e+0 ug/g	8.90e-2 lbs/hr	CE
Antimony	404C1R6	ND 1.10e+1 ug/g	1.61e-1 lbs/hr	CE
Arsenic	404C1R1	6.00e+1 ug/g	7.25e-1 lbs/hr	CE
Arsenic	404C1R2	9.00e+1 ug/g	1.19e+0 lbs/hr	CE
Arsenic	404C1R3	7.40e+1 ug/g	1.12e+0 lbs/hr	CE
Arsenic	404C1R4	8.80e+1 ug/g	1.33e+0 lbs/hr	CE
Arsenic	404C1R5	7.30e+1 ug/g	1.08e+0 lbs/hr	CE
Arsenic	404C1R6	1.20e+2 ug/g	1.75e+0 lbs/hr	CE
Barium	404C1R1	3.30e+1 ug/g	3.99e-1 lbs/hr	CE
Barium	404C1R2	3.40e+1 ug/g	4.51e-1 lbs/hr	CE
Barium	404C1R3	3.60e+1 ug/g	5.45e-1 lbs/hr	CE
Barium	404C1R4	3.80e+1 ug/g	5.73e-1 lbs/hr	CE
Barium	404C1R5	6.20e+1 ug/g	9.20e-1 lbs/hr	CE
Barium	404C1R6	5.40e+1 ug/g	7.89e-1 lbs/hr	CE
Beryllium	404C1R1	4.00e-1 ug/g	4.83e-3 lbs/hr	CE
Beryllium	404C1R2	4.00e-1 ug/g	5.30e-3 lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP  
 REGION: 6

Beryllium	404C1R3	4.00e-1	ug/g	6.06e-3	lbs/hr	CE
Beryllium	404C1R4	4.00e-1	ug/g	6.03e-3	lbs/hr	CE
Beryllium	404C1R5	8.00e-1	ug/g	1.19e-2	lbs/hr	CE
Beryllium	404C1R6	5.00e-1	ug/g	7.31e-3	lbs/hr	CE
Cadmium	404C1R1	ND	4.00e-1	4.83e-3	lbs/hr	CE
Cadmium	404C1R2	ND	4.00e-1	5.30e-3	lbs/hr	CE
Cadmium	404C1R3	ND	4.00e-1	6.06e-3	lbs/hr	CE
Cadmium	404C1R4	ND	4.00e-1	6.03e-3	lbs/hr	CE
Cadmium	404C1R5	ND	4.00e-1	5.94e-3	lbs/hr	CE
Cadmium	404C1R6	ND	4.00e-1	5.85e-3	lbs/hr	CE
Chromium	404C1R1	3.60e+0	ug/g	4.35e-2	lbs/hr	CE
Chromium	404C1R2	2.60e+0	ug/g	3.45e-2	lbs/hr	CE
Chromium	404C1R3	1.40e+0	ug/g	2.12e-2	lbs/hr	CE
Chromium	404C1R4	5.20e+0	ug/g	7.84e-2	lbs/hr	CE
Chromium	404C1R5	9.00e+0	ug/g	1.34e-1	lbs/hr	CE
Chromium	404C1R6	8.00e+0	ug/g	1.17e-1	lbs/hr	CE
Lead	404C1R1	4.00e+0	ug/g	4.83e-2	lbs/hr	CE
Lead	404C1R2	8.00e+0	ug/g	1.06e-1	lbs/hr	CE
Lead	404C1R3	6.00e+0	ug/g	9.08e-2	lbs/hr	CE
Lead	404C1R4	4.00e+0	ug/g	6.03e-2	lbs/hr	CE
Lead	404C1R5	6.00e+0	ug/g	8.90e-2	lbs/hr	CE
Lead	404C1R6	5.00e+0	ug/g	7.31e-2	lbs/hr	CE
Mercury	404C1R1	1.60e-1	ug/g	1.93e-3	lbs/hr	CE
Mercury	404C1R2	2.20e-1	ug/g	2.92e-3	lbs/hr	CE
Mercury	404C1R3	1.80e-1	ug/g	2.73e-3	lbs/hr	CE
Mercury	404C1R4	1.30e-1	ug/g	1.96e-3	lbs/hr	CE
Mercury	404C1R5	1.30e-1	ug/g	1.93e-3	lbs/hr	CE
Mercury	404C1R6	1.40e-1	ug/g	2.05e-3	lbs/hr	CE
Silver	404C1R1	ND	6.00e-1	7.25e-3	lbs/hr	CE
Silver	404C1R2	ND	6.00e-1	7.96e-3	lbs/hr	CE
Silver	404C1R3	ND	6.00e-1	9.08e-3	lbs/hr	CE
Silver	404C1R4	ND	6.00e-1	9.05e-3	lbs/hr	CE
Silver	404C1R5	ND	6.00e-1	8.90e-3	lbs/hr	CE
Silver	404C1R6	ND	6.00e-1	8.77e-3	lbs/hr	CE
Thallium	404C1R1	ND	1.50e+1	1.81e-1	lbs/hr	CE
Thallium	404C1R2	ND	1.50e+1	1.99e-1	lbs/hr	CE
Thallium	404C1R3	ND	1.50e+1	2.27e-1	lbs/hr	CE
Thallium	404C1R4	ND	2.00e+1	3.02e-1	lbs/hr	CE
Thallium	404C1R5	ND	2.00e+1	2.97e-1	lbs/hr	CE
Thallium	404C1R6	ND	2.00e+1	2.92e-1	lbs/hr	CE

5. Type: RAW MATERIAL

6. Description: CHALK/SAND/IRON

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Chlorine	404C1R1	ND	9.98e+2 ug/g	1.78e+2	lbs/hr	CC
Chlorine	404C1R2	ND	9.99e+2 ug/g	1.77e+2	lbs/hr	CC
Chlorine	404C1R3	ND	1.00e+3 ug/g	1.77e+2	lbs/hr	CC
Chlorine	404C1R4	ND	1.00e+3 ug/g	1.59e+2	lbs/hr	CC
Chlorine	404C1R5	ND	9.98e+2 ug/g	1.58e+2	lbs/hr	CC
Chlorine	404C1R6	ND	9.98e+2 ug/g	1.59e+2	lbs/hr	CC
Chlorine	404C2R1	ND	1.00e+3 ug/g	1.79e+2	lbs/hr	CE
Chlorine	404C2R2	ND	1.00e+3 ug/g	1.79e+2	lbs/hr	CE
Chlorine	404C2R3	ND	1.00e+3 ug/g	1.78e+2	lbs/hr	CE
Chlorine	404C2R4	ND	1.00e+3 ug/g	1.79e+2	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	404C1R1	ND	6.00e+0 ug/g	1.07e+0	lbs/hr	CE
Antimony	404C1R2	ND	6.00e+0 ug/g	1.06e+0	lbs/hr	CE
Antimony	404C1R3	ND	6.00e+0 ug/g	1.06e+0	lbs/hr	CE
Antimony	404C1R4	ND	3.00e+0 ug/g	4.75e-1	lbs/hr	CE
Antimony	404C1R5	ND	3.00e+0 ug/g	4.75e-1	lbs/hr	CE
Antimony	404C1R6	ND	3.00e+0 ug/g	4.78e-1	lbs/hr	CE



SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP  
 REGION: 6

Arsenic	404C1R1	ND	3.00e+0	ug/g	5.35e-1	lbs/hr	CE
Arsenic	404C1R2	ND	3.00e+0	ug/g	5.32e-1	lbs/hr	CE
Arsenic	404C1R3	ND	3.00e+0	ug/g	5.30e-1	lbs/hr	CE
Arsenic	404C1R4	ND	3.00e+0	ug/g	4.75e-1	lbs/hr	CE
Arsenic	404C1R5	ND	3.00e+0	ug/g	4.75e-1	lbs/hr	CE
Arsenic	404C1R6	ND	3.00e+0	ug/g	4.78e-1	lbs/hr	CE
Barium	404C1R1		2.80e+1	ug/g	4.99e+0	lbs/hr	CE
Barium	404C1R2		2.10e+1	ug/g	3.72e+0	lbs/hr	CE
Barium	404C1R3		2.80e+1	ug/g	4.95e+0	lbs/hr	CE
Barium	404C1R4		2.40e+1	ug/g	3.80e+0	lbs/hr	CE
Barium	404C1R5		2.30e+1	ug/g	3.64e+0	lbs/hr	CE
Barium	404C1R6		3.30e+1	ug/g	5.26e+0	lbs/hr	CE
Beryllium	404C1R1		2.00e-1	ug/g	3.57e-2	lbs/hr	CE
Beryllium	404C1R2		2.00e-1	ug/g	3.54e-2	lbs/hr	CE
Beryllium	404C1R3		2.00e-1	ug/g	3.53e-2	lbs/hr	CE
Beryllium	404C1R4		2.00e-1	ug/g	3.17e-2	lbs/hr	CE
Beryllium	404C1R5		2.00e-1	ug/g	3.17e-2	lbs/hr	CE
Beryllium	404C1R6		2.00e-1	ug/g	3.19e-2	lbs/hr	CE
Cadmium	404C1R1	ND	4.00e-1	ug/g	7.13e-2	lbs/hr	CE
Cadmium	404C1R2	ND	4.00e-1	ug/g	7.09e-2	lbs/hr	CE
Cadmium	404C1R3	ND	4.00e-1	ug/g	7.07e-2	lbs/hr	CE
Cadmium	404C1R4	ND	4.00e-1	ug/g	6.34e-2	lbs/hr	CE
Cadmium	404C1R5	ND	4.00e-1	ug/g	6.33e-2	lbs/hr	CE
Cadmium	404C1R6	ND	4.00e-1	ug/g	6.38e-2	lbs/hr	CE
Chromium	404C1R1		4.40e+0	ug/g	7.84e-1	lbs/hr	CE
Chromium	404C1R2		3.90e+0	ug/g	6.91e-1	lbs/hr	CE
Chromium	404C1R3		4.20e+0	ug/g	7.42e-1	lbs/hr	CE
Chromium	404C1R4		2.00e+0	ug/g	3.17e-1	lbs/hr	CE
Chromium	404C1R5		1.60e+0	ug/g	2.53e-1	lbs/hr	CE
Chromium	404C1R6		3.30e+0	ug/g	5.26e-1	lbs/hr	CE
Lead	404C1R1	ND	3.00e+0	ug/g	5.35e-1	lbs/hr	CE
Lead	404C1R2	ND	3.00e+0	ug/g	5.32e-1	lbs/hr	CE
Lead	404C1R3	ND	3.00e+0	ug/g	5.30e-1	lbs/hr	CE
Lead	404C1R4	ND	5.00e+0	ug/g	7.92e-1	lbs/hr	CE
Lead	404C1R5	ND	5.00e+0	ug/g	7.91e-1	lbs/hr	CE
Lead	404C1R6	ND	5.00e+0	ug/g	7.97e-1	lbs/hr	CE
Mercury	404C1R1	ND	2.00e-2	ug/g	3.57e-3	lbs/hr	CE
Mercury	404C1R2	ND	2.00e-2	ug/g	3.54e-3	lbs/hr	CE
Mercury	404C1R3	ND	2.00e-2	ug/g	3.53e-3	lbs/hr	CE
Mercury	404C1R4	ND	2.00e-2	ug/g	3.17e-3	lbs/hr	CE
Mercury	404C1R5	ND	2.00e-2	ug/g	3.17e-3	lbs/hr	CE
Mercury	404C1R6	ND	2.00e-2	ug/g	3.19e-3	lbs/hr	CE
Silver	404C1R1	ND	6.00e-1	ug/g	1.07e-1	lbs/hr	CE
Silver	404C1R2	ND	6.00e-1	ug/g	1.06e-1	lbs/hr	CE
Silver	404C1R3	ND	6.00e-1	ug/g	1.06e-1	lbs/hr	CE
Silver	404C1R4	ND	6.00e-1	ug/g	9.51e-2	lbs/hr	CE
Silver	404C1R5	ND	6.00e-1	ug/g	9.50e-2	lbs/hr	CE
Silver	404C1R6	ND	6.00e-1	ug/g	9.56e-2	lbs/hr	CE
Thallium	404C1R1	ND	4.00e+0	ug/g	7.13e-1	lbs/hr	CE
Thallium	404C1R2	ND	4.00e+0	ug/g	7.09e-1	lbs/hr	CE
Thallium	404C1R3	ND	4.00e+0	ug/g	7.07e-1	lbs/hr	CE
Thallium	404C1R4	ND	4.00e+0	ug/g	6.34e-1	lbs/hr	CE
Thallium	404C1R5	ND	4.00e+0	ug/g	6.33e-1	lbs/hr	CE
Thallium	404C1R6	ND	4.00e+0	ug/g	6.38e-1	lbs/hr	CE

5. Type: SPIKE

6. Description: ORGANICS (1,1,1-TCE)  
 Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	404C2R1	7.97e+5 ug/g	7.65e+1 lbs/hr	CE
Chlorine	404C2R2	7.97e+5 ug/g	9.01e+1 lbs/hr	CE
Chlorine	404C2R3	7.97e+5 ug/g	8.69e+1 lbs/hr	CE
Chlorine	404C2R4	7.97e+5 ug/g	8.05e+1 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY

2. STATE: AR

3. CITY: FOREMAN

EPA ARD981512270

REGION: 6

4. EP ID: 404 DEVICE NAME: KILN NO. 3

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

6. Description: ORGANICS (1,2,4-TCB)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	404C2R1	5.86e+5 ug/g	7.85e+1 lbs/hr	CE
Chlorine	404C2R2	5.86e+5 ug/g	7.44e+1 lbs/hr	CE
Chlorine	404C2R3	5.86e+5 ug/g	8.61e+1 lbs/hr	CE
Chlorine	404C2R4	5.86e+5 ug/g	7.97e+1 lbs/hr	CE

6. Description: METALS (AS,CD,CR)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Arsenic	404C1R1	0.00e+0	7.40e+0 lbs/hr	
Arsenic	404C1R2	0.00e+0	7.40e+0 lbs/hr	
Arsenic	404C1R3	0.00e+0	7.50e+0 lbs/hr	
Arsenic	404C1R4	0.00e+0	1.33e+1 lbs/hr	
Arsenic	404C1R5	0.00e+0	8.21e+0 lbs/hr	
Arsenic	404C1R6	0.00e+0	1.44e+1 lbs/hr	
Cadmium	404C1R4	0.00e+0	1.40e+0 lbs/hr	
Cadmium	404C1R5	0.00e+0	8.99e-1 lbs/hr	
Cadmium	404C1R6	0.00e+0	1.57e+0 lbs/hr	
Chromium	404C1R1	0.00e+0	3.77e+1 lbs/hr	
Chromium	404C1R2	0.00e+0	3.76e+1 lbs/hr	
Chromium	404C1R3	0.00e+0	3.86e+1 lbs/hr	
Chromium	404C1R4	0.00e+0	3.65e+1 lbs/hr	
Chromium	404C1R5	0.00e+0	2.18e+1 lbs/hr	
Chromium	404C1R6	0.00e+0	3.82e+1 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	404C1R1	3.90e+4 ug/g	5.61e+2 lbs/hr	CC
Chlorine	404C1R2	4.50e+4 ug/g	6.48e+2 lbs/hr	CC
Chlorine	404C1R3	4.20e+4 ug/g	6.05e+2 lbs/hr	CC
Chlorine	404C1R4	3.90e+4 ug/g	5.70e+2 lbs/hr	CC
Chlorine	404C1R5	4.20e+4 ug/g	6.13e+2 lbs/hr	CC
Chlorine	404C1R6	3.80e+4 ug/g	5.56e+2 lbs/hr	CC
Chlorine	404C2R1	2.30e+4 ug/g	3.88e+2 lbs/hr	CC
Chlorine	404C2R2	2.10e+4 ug/g	4.02e+2 lbs/hr	CC
Chlorine	404C2R3	9.01e+3 ug/g	1.35e+2 lbs/hr	CC
Chlorine	404C2R4	3.70e+4 ug/g	5.34e+2 lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Antimony	404C1R1	6.00e+0 ug/g	8.63e-2 lbs/hr	CE
Antimony	404C1R2	6.00e+0 ug/g	8.64e-2 lbs/hr	CE
Antimony	404C1R3	6.00e+0 ug/g	8.64e-2 lbs/hr	CE
Antimony	404C1R4	3.00e+0 ug/g	4.39e-2 lbs/hr	CE
Antimony	404C1R5	4.00e+0 ug/g	5.84e-2 lbs/hr	CE
Antimony	404C1R6	ND 3.00e+0 ug/g	4.39e-2 lbs/hr	CE
Arsenic	404C1R1	1.20e+2 ug/g	1.73e+0 lbs/hr	CE
Arsenic	404C1R2	1.20e+2 ug/g	1.73e+0 lbs/hr	CE
Arsenic	404C1R3	1.20e+2 ug/g	1.73e+0 lbs/hr	CE
Arsenic	404C1R4	2.20e+2 ug/g	3.22e+0 lbs/hr	CE
Arsenic	404C1R5	1.50e+2 ug/g	2.19e+0 lbs/hr	CE
Arsenic	404C1R6	1.40e+2 ug/g	2.05e+0 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ID: ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 6

Barium	404C1R1	6.40e+2	ug/g	9.20e+0	lbs/hr	CE
Barium	404C1R2	9.60e+2	ug/g	1.38e+1	lbs/hr	CE
Barium	404C1R3	9.80e+2	ug/g	1.41e+1	lbs/hr	CE
Barium	404C1R4	2.10e+3	ug/g	3.07e+1	lbs/hr	CE
Barium	404C1R5	2.00e+3	ug/g	2.92e+1	lbs/hr	CE
Barium	404C1R6	2.20e+3	ug/g	3.22e+1	lbs/hr	CE
Beryllium	404C1R1	7.80e+0	ug/g	1.12e-1	lbs/hr	CE
Beryllium	404C1R2	9.40e+0	ug/g	1.35e-1	lbs/hr	CE
Beryllium	404C1R3	1.70e+1	ug/g	2.45e-1	lbs/hr	CE
Beryllium	404C1R4	ND 1.00e-1	ug/g	1.46e-3	lbs/hr	CE
Beryllium	404C1R5	ND 1.00e-1	ug/g	1.46e-3	lbs/hr	CE
Beryllium	404C1R6	ND 1.00e-1	ug/g	1.46e-3	lbs/hr	CE
Cadmium	404C1R1	1.20e+1	ug/g	1.73e-1	lbs/hr	CE
Cadmium	404C1R2	1.10e+1	ug/g	1.58e-1	lbs/hr	CE
Cadmium	404C1R3	1.60e+1	ug/g	2.30e-1	lbs/hr	CE
Cadmium	404C1R4	7.50e+1	ug/g	1.10e+0	lbs/hr	CE
Cadmium	404C1R5	8.00e+1	ug/g	1.17e+0	lbs/hr	CE
Cadmium	404C1R6	8.80e+1	ug/g	1.29e+0	lbs/hr	CE
Chromium	404C1R1	3.20e+2	ug/g	4.60e+0	lbs/hr	CE
Chromium	404C1R2	5.20e+2	ug/g	7.49e+0	lbs/hr	CE
Chromium	404C1R3	4.60e+2	ug/g	6.62e+0	lbs/hr	CE
Chromium	404C1R4	1.60e+3	ug/g	2.34e+1	lbs/hr	CE
Chromium	404C1R5	1.50e+3	ug/g	2.19e+1	lbs/hr	CE
Chromium	404C1R6	1.60e+3	ug/g	2.34e+1	lbs/hr	CE
Lead	404C1R1	2.00e+3	ug/g	2.88e+1	lbs/hr	CE
Lead	404C1R2	1.70e+3	ug/g	2.45e+1	lbs/hr	CE
Lead	404C1R3	2.20e+3	ug/g	3.17e+1	lbs/hr	CE
Lead	404C1R4	6.60e+2	ug/g	9.65e+0	lbs/hr	CE
Lead	404C1R5	6.20e+2	ug/g	9.05e+0	lbs/hr	CE
Lead	404C1R6	6.30e+2	ug/g	9.21e+0	lbs/hr	CE
Mercury	404C1R1	6.00e-1	ug/g	8.63e-3	lbs/hr	CE
Mercury	404C1R2	7.00e-1	ug/g	1.01e-2	lbs/hr	CE
Mercury	404C1R3	9.00e-1	ug/g	1.30e-2	lbs/hr	CE
Mercury	404C1R4	2.00e-1	ug/g	2.92e-3	lbs/hr	CE
Mercury	404C1R5	3.00e-1	ug/g	4.38e-3	lbs/hr	CE
Mercury	404C1R6	2.00e-1	ug/g	2.92e-3	lbs/hr	CE
Silver	404C1R1	ND 6.00e-1	ug/g	8.63e-3	lbs/hr	CE
Silver	404C1R2	ND 6.00e-1	ug/g	8.64e-3	lbs/hr	CE
Silver	404C1R3	ND 6.00e-1	ug/g	8.64e-3	lbs/hr	CE
Silver	404C1R4	ND 6.00e-1	ug/g	8.77e-3	lbs/hr	CE
Silver	404C1R5	ND 6.00e-1	ug/g	8.76e-3	lbs/hr	CE
Silver	404C1R6	ND 6.00e-1	ug/g	8.77e-3	lbs/hr	CE
Thallium	404C1R1	ND 4.00e+0	ug/g	5.75e-2	lbs/hr	CE
Thallium	404C1R2	ND 4.00e+0	ug/g	5.76e-2	lbs/hr	CE
Thallium	404C1R3	ND 4.00e+0	ug/g	5.76e-2	lbs/hr	CE
Thallium	404C1R4	ND 4.00e+0	ug/g	5.85e-2	lbs/hr	CE
Thallium	404C1R5	ND 4.00e+0	ug/g	5.84e-2	lbs/hr	CE
Thallium	404C1R6	ND 4.00e+0	ug/g	5.85e-2	lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,1,1-Trichloroethane	404C2R1	9.16e+3 ug/g	1.55e+2 lbs/hr	CC
1,1,1-Trichloroethane	404C2R2	7.03e+3 ug/g	1.35e+2 lbs/hr	CC
1,1,1-Trichloroethane	404C2R3	1.06e+3 ug/g	1.59e+1 lbs/hr	CC
1,1,1-Trichloroethane	404C2R4	1.24e+4 ug/g	1.79e+2 lbs/hr	CC
Tetrachloroethene	404C2R1	1.58e+4 ug/g	2.66e+2 lbs/hr	CC
Tetrachloroethene	404C2R2	1.49e+4 ug/g	2.85e+2 lbs/hr	CC
Tetrachloroethene	404C2R3	1.44e+3 ug/g	2.16e+1 lbs/hr	CC
Tetrachloroethene	404C2R4	2.61e+4 ug/g	3.77e+2 lbs/hr	CC

6. Description:

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	404C1R1	2.07e+3 ug/g	1.10e+1 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: AR  
 3. CITY: FOREMAN  
 4. EP ID: 404 DEVICE NAME: KILN NO. 3

EPA ARD981512270  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 6

Chlorine	404C1R2	4.98e+3	ug/g	2.60e+1	lbs/hr	CC
Chlorine	404C1R3	3.01e+3	ug/g	1.50e+1	lbs/hr	CC
Chlorine	404C1R4	2.59e+4	ug/g	1.24e+2	lbs/hr	CC
Chlorine	404C1R5	4.06e+3	ug/g	1.90e+1	lbs/hr	CC
Chlorine	404C1R6	4.91e+3	ug/g	2.30e+1	lbs/hr	CC
Chlorine	404C2R1	2.39e+4	ug/g	1.14e+2	lbs/hr	CC
Chlorine	404C2R2	5.51e+4	ug/g	2.83e+2	lbs/hr	CC
Chlorine	404C2R3	2.40e+4	ug/g	1.04e+2	lbs/hr	CC
Chlorine	404C2R4	6.21e+4	ug/g	2.67e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	404C1R1	1.80e+1	ug/g	9.58e-2	lbs/hr	CE	
Antimony	404C1R2	7.60e+1	ug/g	3.97e-1	lbs/hr	CE	
Antimony	404C1R3	2.30e+1	ug/g	1.15e-1	lbs/hr	CE	
Antimony	404C1R4	4.00e+0	ug/g	1.91e-2	lbs/hr	CE	
Antimony	404C1R5	ND	3.00e+0	ug/g	1.40e-2	CE	
Antimony	404C1R6	ND	3.00e+0	ug/g	1.40e-2	CE	
Arsenic	404C1R1	5.00e+0	ug/g	2.66e-2	lbs/hr	CE	
Arsenic	404C1R2	5.20e+0	ug/g	2.71e-2	lbs/hr	CE	
Arsenic	404C1R3	7.00e+0	ug/g	3.49e-2	lbs/hr	CE	
Arsenic	404C1R4	1.80e+1	ug/g	8.60e-2	lbs/hr	CE	
Arsenic	404C1R5	1.50e+1	ug/g	7.02e-2	lbs/hr	CE	
Arsenic	404C1R6	1.40e+1	ug/g	6.55e-2	lbs/hr	CE	
Barium	404C1R1	2.30e+2	ug/g	1.22e+0	lbs/hr	CE	
Barium	404C1R2	2.20e+3	ug/g	1.15e+1	lbs/hr	CE	
Barium	404C1R3	1.10e+3	ug/g	5.48e+0	lbs/hr	CE	
Barium	404C1R4	5.00e+2	ug/g	2.39e+0	lbs/hr	CE	
Barium	404C1R5	5.20e+2	ug/g	2.43e+0	lbs/hr	CE	
Barium	404C1R6	1.25e+3	ug/g	5.85e+0	lbs/hr	CE	
Beryllium	404C1R1	ND	5.00e-2	ug/g	2.66e-4	lbs/hr	CE
Beryllium	404C1R2	ND	5.00e-2	ug/g	2.61e-4	lbs/hr	CE
Beryllium	404C1R3	ND	5.00e-2	ug/g	2.49e-4	lbs/hr	CE
Beryllium	404C1R4	ND	1.00e-1	ug/g	4.78e-4	lbs/hr	CE
Beryllium	404C1R5	3.00e-1	ug/g	1.40e-3	lbs/hr	CE	
Beryllium	404C1R6	ND	1.00e-1	ug/g	4.68e-4	lbs/hr	CE
Cadmium	404C1R1	9.60e+0	ug/g	5.11e-2	lbs/hr	CE	
Cadmium	404C1R2	8.20e+1	ug/g	4.28e-1	lbs/hr	CE	
Cadmium	404C1R3	2.50e+0	ug/g	1.24e-2	lbs/hr	CE	
Cadmium	404C1R4	3.40e+0	ug/g	1.63e-2	lbs/hr	CE	
Cadmium	404C1R5	3.30e+1	ug/g	1.54e-1	lbs/hr	CE	
Cadmium	404C1R6	3.10e+0	ug/g	1.45e-2	lbs/hr	CE	
Chromium	404C1R1	4.80e+2	ug/g	2.55e+0	lbs/hr	CE	
Chromium	404C1R2	6.90e+2	ug/g	3.60e+0	lbs/hr	CE	
Chromium	404C1R3	2.10e+2	ug/g	1.05e+0	lbs/hr	CE	
Chromium	404C1R4	2.00e+2	ug/g	9.56e-1	lbs/hr	CE	
Chromium	404C1R5	6.80e+2	ug/g	3.18e+0	lbs/hr	CE	
Chromium	404C1R6	7.70e+2	ug/g	3.60e+0	lbs/hr	CE	
Lead	404C1R1	1.60e+2	ug/g	8.51e-1	lbs/hr	CE	
Lead	404C1R2	8.40e+2	ug/g	4.38e+0	lbs/hr	CE	
Lead	404C1R3	5.80e+2	ug/g	2.89e+0	lbs/hr	CE	
Lead	404C1R4	4.40e+2	ug/g	2.10e+0	lbs/hr	CE	
Lead	404C1R5	3.40e+2	ug/g	1.59e+0	lbs/hr	CE	
Lead	404C1R6	9.10e+2	ug/g	4.26e+0	lbs/hr	CE	
Mercury	404C1R1	ND	2.00e-1	ug/g	1.06e-3	lbs/hr	CE
Mercury	404C1R2	5.00e-1	ug/g	2.61e-3	lbs/hr	CE	
Mercury	404C1R3	ND	2.00e-1	ug/g	9.96e-4	lbs/hr	CE
Mercury	404C1R4	1.80e+0	ug/g	8.60e-3	lbs/hr	CE	
Mercury	404C1R5	8.00e-1	ug/g	3.74e-3	lbs/hr	CE	
Mercury	404C1R6	9.00e-1	ug/g	4.21e-3	lbs/hr	CE	
Silver	404C1R1	ND	3.00e+0	ug/g	1.60e-2	lbs/hr	CE
Silver	404C1R2	3.90e+1	ug/g	2.04e-1	lbs/hr	CE	
Silver	404C1R3	2.00e+1	ug/g	9.96e-2	lbs/hr	CE	
Silver	404C1R4	7.40e+0	ug/g	3.54e-2	lbs/hr	CE	
Silver	404C1R5	ND	6.00e-1	ug/g	2.81e-3	lbs/hr	CE
Silver	404C1R6	2.20e+0	ug/g	1.03e-2	lbs/hr	CE	
Thallium	404C1R1	ND	5.00e+1	ug/g	2.66e-1	lbs/hr	CE
Thallium	404C1R2	ND	5.00e+1	ug/g	2.61e-1	lbs/hr	CE
Thallium	404C1R3	ND	5.00e+1	ug/g	2.49e-1	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY

2. STATE: AR

3. CITY: FOREMAN

EPA ARD981512270

REGION: 6

4. EP ID: 404 DEVICE NAME: KILN NO. 3

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Thallium	404C1R4	ND	2.00e+1	ug/g	9.56e-2	lbs/hr	CE
Thallium	404C1R5	ND	2.00e+1	ug/g	9.36e-2	lbs/hr	CE
Thallium	404C1R6	ND	2.00e+1	ug/g	9.36e-2	lbs/hr	CE

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
1,2,4-Trichlorobenzene	404C2R1	2.82e+4	ug/g	1.34e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	404C2R2	2.48e+4	ug/g	1.27e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	404C2R3	3.38e+4	ug/g	1.47e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	404C2R4	3.18e+4	ug/g	1.37e+2	lbs/hr	CC

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
1,1,1-Trichloroethane	404C2R1	2.02e+4	ug/g	9.60e+1	lbs/hr	CC
1,1,1-Trichloroethane	404C2R2	2.20e+4	ug/g	1.13e+2	lbs/hr	CC
1,1,1-Trichloroethane	404C2R3	2.51e+4	ug/g	1.09e+2	lbs/hr	CC
1,1,1-Trichloroethane	404C2R4	2.34e+4	ug/g	1.01e+2	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 7

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	401C1R1	ND	1.00e+3 ug/g	6.82e+1 lbs/hr	CC
Chlorine	401C1R2	ND	1.00e+3 ug/g	6.82e+1 lbs/hr	CC
Chlorine	401C1R3	ND	1.00e+3 ug/g	6.40e+1 lbs/hr	CC
Chlorine	401C1R4	ND	1.00e+3 ug/g	6.40e+1 lbs/hr	CC
Chlorine	401C2R1	ND	1.00e+3 ug/g	6.34e+1 lbs/hr	CC
Chlorine	401C2R2	ND	1.00e+3 ug/g	6.34e+1 lbs/hr	CC
Chlorine	401C2R3	ND	1.00e+3 ug/g	7.34e+1 lbs/hr	CC
Chlorine	401C2R4	ND	1.00e+3 ug/g	7.34e+1 lbs/hr	CC
Chlorine	401C3R1	ND	1.00e+3 ug/g	7.72e+1 lbs/hr	CE
Chlorine	401C3R2	ND	1.00e+3 ug/g	7.72e+1 lbs/hr	CE
Chlorine	401C3R3	ND	1.00e+3 ug/g	7.72e+1 lbs/hr	CE
Chlorine	401C4R1	ND	1.00e+3 ug/g	5.80e+1 lbs/hr	CE
Chlorine	401C4R2	ND	1.00e+3 ug/g	5.80e+1 lbs/hr	CE
Chlorine	401C4R3	ND	1.00e+3 ug/g	5.80e+1 lbs/hr	CE
Chlorine	401C4R4	ND	1.00e+3 ug/g	5.80e+1 lbs/hr	CE
Chlorine	401C5R1	ND	1.00e+3 ug/g	7.21e+1 lbs/hr	CE
Chlorine	401C5R2	ND	1.00e+3 ug/g	7.21e+1 lbs/hr	CE
Chlorine	401C5R3	ND	1.00e+3 ug/g	7.21e+1 lbs/hr	CE
Chlorine	401C5R4	ND	1.00e+3 ug/g	7.21e+1 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	401C1R1		7.00e+0 ug/g	4.77e-1 lbs/hr	CE
Antimony	401C1R2		1.00e+1 ug/g	6.82e-1 lbs/hr	CE
Antimony	401C1R3		1.10e+1 ug/g	7.04e-1 lbs/hr	CE
Antimony	401C1R4		1.20e+1 ug/g	7.68e-1 lbs/hr	CE
Antimony	401C5R1	ND	2.00e+0 ug/g	1.44e-1 lbs/hr	CE
Antimony	401C5R2	ND	2.00e+0 ug/g	1.44e-1 lbs/hr	CE
Antimony	401C5R3	ND	2.00e+0 ug/g	1.44e-1 lbs/hr	CE
Antimony	401C5R4	ND	2.00e+0 ug/g	1.44e-1 lbs/hr	CE
Arsenic	401C1R1	ND	1.10e+1 ug/g	7.50e-1 lbs/hr	CE
Arsenic	401C1R2	ND	1.10e+1 ug/g	7.50e-1 lbs/hr	CE
Arsenic	401C1R3	ND	1.10e+1 ug/g	7.04e-1 lbs/hr	CE
Arsenic	401C1R4	ND	1.10e+1 ug/g	7.04e-1 lbs/hr	CE
Arsenic	401C5R1		6.40e+0 ug/g	4.61e-1 lbs/hr	CE
Arsenic	401C5R2		6.80e+0 ug/g	4.90e-1 lbs/hr	CE
Arsenic	401C5R3		4.30e+0 ug/g	3.10e-1 lbs/hr	CE
Arsenic	401C5R4		5.70e+0 ug/g	4.11e-1 lbs/hr	CE
Barium	401C1R1		6.10e+2 ug/g	4.16e+1 lbs/hr	CE
Barium	401C1R2		7.50e+2 ug/g	5.11e+1 lbs/hr	CE
Barium	401C1R3		3.60e+2 ug/g	2.30e+1 lbs/hr	CE
Barium	401C1R4		3.50e+2 ug/g	2.24e+1 lbs/hr	CE
Barium	401C5R1		6.70e+2 ug/g	4.83e+1 lbs/hr	CE
Barium	401C5R2		7.70e+2 ug/g	5.55e+1 lbs/hr	CE
Barium	401C5R3		7.70e+2 ug/g	5.55e+1 lbs/hr	CE
Barium	401C5R4		6.50e+2 ug/g	4.69e+1 lbs/hr	CE
Beryllium	401C1R1		7.00e-1 ug/g	4.77e-2 lbs/hr	CE
Beryllium	401C1R2		6.00e-1 ug/g	4.09e-2 lbs/hr	CE
Beryllium	401C1R3		6.00e-1 ug/g	3.84e-2 lbs/hr	CE
Beryllium	401C1R4		6.00e-1 ug/g	3.84e-2 lbs/hr	CE
Beryllium	401C5R1	ND	1.00e+0 ug/g	7.21e-2 lbs/hr	CE
Beryllium	401C5R2	ND	1.00e+0 ug/g	7.21e-2 lbs/hr	CE
Beryllium	401C5R3	ND	1.00e+0 ug/g	7.21e-2 lbs/hr	CE
Beryllium	401C5R4	ND	1.00e+0 ug/g	7.21e-2 lbs/hr	CE
Cadmium	401C1R1	ND	4.00e-1 ug/g	2.73e-2 lbs/hr	CE
Cadmium	401C1R2	ND	4.00e-1 ug/g	2.73e-2 lbs/hr	CE
Cadmium	401C1R3	ND	4.00e-1 ug/g	2.56e-2 lbs/hr	CE
Cadmium	401C1R4	ND	4.00e-1 ug/g	2.56e-2 lbs/hr	CE
Cadmium	401C5R1	ND	8.00e-2 ug/g	5.77e-3 lbs/hr	CE
Cadmium	401C5R2	ND	8.00e-2 ug/g	5.77e-3 lbs/hr	CE
Cadmium	401C5R3	ND	8.00e-2 ug/g	5.77e-3 lbs/hr	CE
Cadmium	401C5R4	ND	8.00e-2 ug/g	5.77e-3 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chromium	401C1R1		1.40e+2	ug/g	9.55e+0	lbs/hr	CE
Chromium	401C1R2		1.60e+2	ug/g	1.09e+1	lbs/hr	CE
Chromium	401C1R3		2.50e+2	ug/g	1.60e+1	lbs/hr	CE
Chromium	401C1R4		2.50e+2	ug/g	1.60e+1	lbs/hr	CE
Chromium	401C5R1		7.20e+1	ug/g	5.19e+0	lbs/hr	CE
Chromium	401C5R2		8.40e+1	ug/g	6.06e+0	lbs/hr	CE
Chromium	401C5R3		7.20e+1	ug/g	5.19e+0	lbs/hr	CE
Chromium	401C5R4		6.90e+1	ug/g	4.97e+0	lbs/hr	CE
Lead	401C1R1		2.80e+1	ug/g	1.91e+0	lbs/hr	CE
Lead	401C1R2		2.70e+1	ug/g	1.84e+0	lbs/hr	CE
Lead	401C1R3		2.80e+1	ug/g	1.79e+0	lbs/hr	CE
Lead	401C1R4		3.10e+1	ug/g	1.98e+0	lbs/hr	CE
Lead	401C5R1	ND	8.00e-2	ug/g	5.77e-3	lbs/hr	CE
Lead	401C5R2		9.00e-1	ug/g	6.49e-2	lbs/hr	CE
Lead	401C5R3		1.80e+0	ug/g	1.30e-1	lbs/hr	CE
Lead	401C5R4		1.70e+0	ug/g	1.23e-1	lbs/hr	CE
Mercury	401C1R1		4.00e-2	ug/g	2.73e-3	lbs/hr	CE
Mercury	401C1R2	ND	2.00e-2	ug/g	1.36e-3	lbs/hr	CE
Mercury	401C1R3	ND	2.00e-2	ug/g	1.28e-3	lbs/hr	CE
Mercury	401C1R4	ND	2.00e-2	ug/g	1.28e-3	lbs/hr	CE
Mercury	401C5R1	ND	2.00e-2	ug/g	1.44e-3	lbs/hr	CE
Mercury	401C5R2	ND	2.00e-2	ug/g	1.44e-3	lbs/hr	CE
Mercury	401C5R3	ND	2.00e-2	ug/g	1.44e-3	lbs/hr	CE
Mercury	401C5R4	ND	2.00e-2	ug/g	1.44e-3	lbs/hr	CE
Silver	401C1R1		1.00e+1	ug/g	6.82e-1	lbs/hr	CE
Silver	401C1R2		1.30e+1	ug/g	8.87e-1	lbs/hr	CE
Silver	401C1R3		1.20e+1	ug/g	7.68e-1	lbs/hr	CE
Silver	401C1R4		9.00e+0	ug/g	5.76e-1	lbs/hr	CE
Silver	401C5R1	ND	8.00e-2	ug/g	5.77e-3	lbs/hr	CE
Silver	401C5R2	ND	8.00e-2	ug/g	5.77e-3	lbs/hr	CE
Silver	401C5R3	ND	8.00e-2	ug/g	5.77e-3	lbs/hr	CE
Silver	401C5R4	ND	8.00e-2	ug/g	5.77e-3	lbs/hr	CE
Thallium	401C1R1	ND	2.00e-1	ug/g	1.36e-2	lbs/hr	CE
Thallium	401C1R2	ND	2.00e-1	ug/g	1.36e-2	lbs/hr	CE
Thallium	401C1R3	ND	2.00e-1	ug/g	1.28e-2	lbs/hr	CE
Thallium	401C1R4	ND	2.00e-1	ug/g	1.28e-2	lbs/hr	CE
Thallium	401C5R1	ND	8.00e-1	ug/g	5.77e-2	lbs/hr	CE
Thallium	401C5R2	ND	8.00e-1	ug/g	5.77e-2	lbs/hr	CE
Thallium	401C5R3	ND	8.00e-1	ug/g	5.77e-2	lbs/hr	CE
Thallium	401C5R4	ND	8.00e-1	ug/g	5.77e-2	lbs/hr	CE

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	401C1R1	2.90e+4	ug/g	5.28e+2	lbs/hr	CC
Chlorine	401C1R2	3.00e+4	ug/g	5.46e+2	lbs/hr	CC
Chlorine	401C1R3	2.80e+4	ug/g	5.73e+2	lbs/hr	CC
Chlorine	401C1R4	2.90e+4	ug/g	5.93e+2	lbs/hr	CC
Chlorine	401C2R1	3.10e+4	ug/g	5.66e+2	lbs/hr	CC
Chlorine	401C2R2	4.00e+4	ug/g	7.30e+2	lbs/hr	CC
Chlorine	401C2R3	2.80e+4	ug/g	5.42e+2	lbs/hr	CC
Chlorine	401C2R4	2.80e+4	ug/g	5.42e+2	lbs/hr	CC
Chlorine	401C3R1	2.10e+4	ug/g	2.72e+2	lbs/hr	CE
Chlorine	401C3R2	3.20e+4	ug/g	4.14e+2	lbs/hr	CE
Chlorine	401C3R3	2.30e+4	ug/g	2.98e+2	lbs/hr	CE
Chlorine	401C4R1	8.60e+4	ug/g	6.04e+2	lbs/hr	CE
Chlorine	401C4R2	8.00e+4	ug/g	5.62e+2	lbs/hr	CE
Chlorine	401C4R3	9.10e+4	ug/g	6.39e+2	lbs/hr	CE
Chlorine	401C4R4	1.08e+5	ug/g	7.58e+2	lbs/hr	CE
Chlorine	401C5R1	3.80e+4	ug/g	5.65e+2	lbs/hr	CE
Chlorine	401C5R2	3.00e+4	ug/g	4.46e+2	lbs/hr	CE
Chlorine	401C5R3	3.10e+4	ug/g	4.61e+2	lbs/hr	CE
Chlorine	401C5R4	4.00e+4	ug/g	5.95e+2	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 7

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	401C1R1	ND	2.00e+1 ug/g	3.64e-1 lbs/hr	CE
Antimony	401C1R2	ND	2.00e+1 ug/g	3.64e-1 lbs/hr	CE
Antimony	401C1R3		2.30e+1 ug/g	4.71e-1 lbs/hr	CE
Antimony	401C1R4	ND	2.00e+1 ug/g	4.09e-1 lbs/hr	CE
Antimony	401C5R1	ND	2.00e+0 ug/g	2.97e-2 lbs/hr	CE
Antimony	401C5R2	ND	2.00e+0 ug/g	2.97e-2 lbs/hr	CE
Antimony	401C5R3	ND	2.00e+0 ug/g	2.97e-2 lbs/hr	CE
Antimony	401C5R4	ND	2.00e+0 ug/g	2.97e-2 lbs/hr	CE
Arsenic	401C1R1	ND	3.00e+0 ug/g	5.46e-2 lbs/hr	CE
Arsenic	401C1R2	ND	3.00e+0 ug/g	5.46e-2 lbs/hr	CE
Arsenic	401C1R3	ND	3.00e+0 ug/g	6.14e-2 lbs/hr	CE
Arsenic	401C1R4	ND	3.00e+0 ug/g	6.14e-2 lbs/hr	CE
Arsenic	401C5R1		6.40e+0 ug/g	9.52e-2 lbs/hr	CE
Arsenic	401C5R2		6.70e+0 ug/g	9.96e-2 lbs/hr	CE
Arsenic	401C5R3		6.60e+0 ug/g	9.81e-2 lbs/hr	CE
Arsenic	401C5R4		7.00e+0 ug/g	1.04e-1 lbs/hr	CE
Barium	401C1R1		3.50e+2 ug/g	6.37e+0 lbs/hr	CE
Barium	401C1R2		3.40e+2 ug/g	6.19e+0 lbs/hr	CE
Barium	401C1R3		1.31e+2 ug/g	2.68e+0 lbs/hr	CE
Barium	401C1R4		2.30e+2 ug/g	4.71e+0 lbs/hr	CE
Barium	401C5R1		4.00e+2 ug/g	5.95e+0 lbs/hr	CE
Barium	401C5R2		4.10e+2 ug/g	6.10e+0 lbs/hr	CE
Barium	401C5R3		4.30e+2 ug/g	6.39e+0 lbs/hr	CE
Barium	401C5R4		4.70e+2 ug/g	6.99e+0 lbs/hr	CE
Beryllium	401C1R1		5.00e-1 ug/g	9.10e-3 lbs/hr	CE
Beryllium	401C1R2		5.00e-1 ug/g	9.10e-3 lbs/hr	CE
Beryllium	401C1R3		5.00e-1 ug/g	1.02e-2 lbs/hr	CE
Beryllium	401C1R4		6.00e-1 ug/g	1.23e-2 lbs/hr	CE
Beryllium	401C5R1	ND	8.00e-1 ug/g	1.19e-2 lbs/hr	CE
Beryllium	401C5R2	ND	8.00e-1 ug/g	1.19e-2 lbs/hr	CE
Beryllium	401C5R3	ND	8.00e-1 ug/g	1.19e-2 lbs/hr	CE
Beryllium	401C5R4	ND	8.00e-1 ug/g	1.19e-2 lbs/hr	CE
Cadmium	401C1R1		3.40e+1 ug/g	6.19e-1 lbs/hr	CE
Cadmium	401C1R2		2.80e+1 ug/g	5.10e-1 lbs/hr	CE
Cadmium	401C1R3		5.80e+1 ug/g	1.19e+0 lbs/hr	CE
Cadmium	401C1R4		8.80e+0 ug/g	1.80e-1 lbs/hr	CE
Cadmium	401C5R1		1.10e+1 ug/g	1.64e-1 lbs/hr	CE
Cadmium	401C5R2		1.50e+1 ug/g	2.23e-1 lbs/hr	CE
Cadmium	401C5R3		2.00e+0 ug/g	2.97e-2 lbs/hr	CE
Cadmium	401C5R4		3.40e+1 ug/g	5.06e-1 lbs/hr	CE
Chromium	401C1R1		4.40e+1 ug/g	8.01e-1 lbs/hr	CE
Chromium	401C1R2		4.80e+1 ug/g	8.74e-1 lbs/hr	CE
Chromium	401C1R3		1.31e+2 ug/g	2.68e+0 lbs/hr	CE
Chromium	401C1R4		9.80e+1 ug/g	2.01e+0 lbs/hr	CE
Chromium	401C5R1		2.00e+1 ug/g	2.97e-1 lbs/hr	CE
Chromium	401C5R2		3.10e+1 ug/g	4.61e-1 lbs/hr	CE
Chromium	401C5R3		3.20e+1 ug/g	4.76e-1 lbs/hr	CE
Chromium	401C5R4		3.20e+1 ug/g	4.76e-1 lbs/hr	CE
Lead	401C1R1		5.00e+2 ug/g	9.10e+0 lbs/hr	CE
Lead	401C1R2		4.50e+2 ug/g	8.19e+0 lbs/hr	CE
Lead	401C1R3		8.20e+2 ug/g	1.68e+1 lbs/hr	CE
Lead	401C1R4		2.40e+2 ug/g	4.91e+0 lbs/hr	CE
Lead	401C5R1		5.10e+2 ug/g	7.58e+0 lbs/hr	CE
Lead	401C5R2		1.30e+3 ug/g	1.93e+1 lbs/hr	CE
Lead	401C5R3		2.10e+3 ug/g	3.12e+1 lbs/hr	CE
Lead	401C5R4		1.10e+3 ug/g	1.64e+1 lbs/hr	CE
Mercury	401C1R1		4.70e-1 ug/g	8.55e-3 lbs/hr	CE
Mercury	401C1R2		1.10e+0 ug/g	2.00e-2 lbs/hr	CE
Mercury	401C1R3		4.60e-1 ug/g	9.41e-3 lbs/hr	CE
Mercury	401C1R4		1.50e-1 ug/g	3.07e-3 lbs/hr	CE
Mercury	401C5R1		1.00e-1 ug/g	1.49e-3 lbs/hr	CE
Mercury	401C5R2		1.00e-1 ug/g	1.49e-3 lbs/hr	CE
Mercury	401C5R3		1.10e-1 ug/g	1.64e-3 lbs/hr	CE
Mercury	401C5R4		2.10e-1 ug/g	3.12e-3 lbs/hr	CE
Silver	401C1R1	ND	4.00e+0 ug/g	7.28e-2 lbs/hr	CE
Silver	401C1R2	ND	4.00e+0 ug/g	7.28e-2 lbs/hr	CE
Silver	401C1R3		9.00e+0 ug/g	1.84e-1 lbs/hr	CE

US EPA ARCHIVE DOCUMENT



SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Silver	401C1R4	ND	4.00e+0	ug/g	8.18e-2	lbs/hr	CE
Silver	401C5R1		8.00e-1	ug/g	1.19e-2	lbs/hr	CE
Silver	401C5R2	ND	3.00e+0	ug/g	4.46e-2	lbs/hr	CE
Silver	401C5R3		2.90e+0	ug/g	4.31e-2	lbs/hr	CE
Silver	401C5R4		1.30e+0	ug/g	1.93e-2	lbs/hr	CE
Thallium	401C1R1	ND	4.00e+0	ug/g	7.28e-2	lbs/hr	CE
Thallium	401C1R2	ND	4.00e+0	ug/g	7.28e-2	lbs/hr	CE
Thallium	401C1R3	ND	4.00e+0	ug/g	8.18e-2	lbs/hr	CE
Thallium	401C1R4	ND	4.00e+0	ug/g	8.18e-2	lbs/hr	CE
Thallium	401C5R1		1.80e+0	ug/g	2.68e-2	lbs/hr	CE
Thallium	401C5R2		1.80e+0	ug/g	2.68e-2	lbs/hr	CE
Thallium	401C5R3		1.80e+0	ug/g	2.68e-2	lbs/hr	CE
Thallium	401C5R4		1.80e+0	ug/g	2.68e-2	lbs/hr	CE

5. Type: FUEL

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

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	401C3R1	2.00e+3	ug/g	1.18e+1	lbs/hr	CE
Chlorine	401C3R2	2.00e+3	ug/g	1.08e+1	lbs/hr	CE
Chlorine	401C3R3	2.00e+3	ug/g	1.15e+1	lbs/hr	CE
Chlorine	401C4R1	2.00e+3	ug/g	1.50e+1	lbs/hr	CE
Chlorine	401C4R2	2.00e+3	ug/g	1.24e+1	lbs/hr	CE
Chlorine	401C4R3	2.00e+3	ug/g	1.23e+1	lbs/hr	CE
Chlorine	401C4R4	2.00e+3	ug/g	1.22e+1	lbs/hr	CE
Chlorine	401C5R1	2.00e+3	ug/g	1.19e+1	lbs/hr	CE
Chlorine	401C5R2	2.00e+3	ug/g	1.19e+1	lbs/hr	CE
Chlorine	401C5R3	2.00e+3	ug/g	1.38e+1	lbs/hr	CE
Chlorine	401C5R4	2.00e+3	ug/g	1.33e+1	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc		
Antimony	401C5R1	ND	4.01e+0	ug/g	2.38e-2	lbs/hr	CC
Antimony	401C5R2	ND	4.01e+0	ug/g	2.38e-2	lbs/hr	CC
Antimony	401C5R3	ND	4.00e+0	ug/g	2.76e-2	lbs/hr	CC
Antimony	401C5R4	ND	4.01e+0	ug/g	2.66e-2	lbs/hr	CC
Arsenic	401C5R1		1.00e+1	ug/g	5.94e-2	lbs/hr	CC
Arsenic	401C5R2		9.01e+1	ug/g	5.35e-1	lbs/hr	CC
Arsenic	401C5R3		9.00e+0	ug/g	6.21e-2	lbs/hr	CC
Arsenic	401C5R4		1.00e+1	ug/g	6.64e-2	lbs/hr	CC
Barium	401C5R1		2.31e+1	ug/g	1.37e-1	lbs/hr	CC
Barium	401C5R2		1.80e+1	ug/g	1.07e-1	lbs/hr	CC
Barium	401C5R3		1.90e+1	ug/g	1.31e-1	lbs/hr	CC
Barium	401C5R4		2.30e+1	ug/g	1.53e-1	lbs/hr	CC
Beryllium	401C5R1		9.01e-1	ug/g	5.35e-3	lbs/hr	CC
Beryllium	401C5R2		1.00e+0	ug/g	5.94e-3	lbs/hr	CC
Beryllium	401C5R3		9.00e-1	ug/g	6.21e-3	lbs/hr	CC
Beryllium	401C5R4		9.01e-1	ug/g	5.98e-3	lbs/hr	CC
Cadmium	401C5R1		3.00e+0	ug/g	1.78e-2	lbs/hr	CC
Cadmium	401C5R2	ND	2.00e+0	ug/g	1.19e-2	lbs/hr	CC
Cadmium	401C5R3	ND	2.00e+0	ug/g	1.38e-2	lbs/hr	CC
Cadmium	401C5R4		3.00e+0	ug/g	1.99e-2	lbs/hr	CC
Chromium	401C5R1		8.00e+0	ug/g	4.75e-2	lbs/hr	CC
Chromium	401C5R2		7.00e+0	ug/g	4.16e-2	lbs/hr	CC
Chromium	401C5R3		6.35e+0	ug/g	4.38e-2	lbs/hr	CC
Chromium	401C5R4		8.00e+0	ug/g	5.31e-2	lbs/hr	CC
Lead	401C5R1		4.70e+1	ug/g	2.79e-1	lbs/hr	CC
Lead	401C5R2		4.70e+1	ug/g	2.79e-1	lbs/hr	CC
Lead	401C5R3		4.00e+1	ug/g	2.76e-1	lbs/hr	CC
Lead	401C5R4		4.70e+1	ug/g	3.12e-1	lbs/hr	CC
Mercury	401C5R1		8.00e-2	ug/g	4.75e-4	lbs/hr	CC
Mercury	401C5R2		5.99e-2	ug/g	3.56e-4	lbs/hr	CC
Mercury	401C5R3		5.00e-2	ug/g	3.45e-4	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP  
 REGION: 7

Mercury	401C5R4		2.00e-2	ug/g	1.33e-4	lbs/hr	CC
Silver	401C5R1	ND	3.00e+0	ug/g	1.78e-2	lbs/hr	CC
Silver	401C5R2	ND	3.00e+0	ug/g	1.78e-2	lbs/hr	CC
Silver	401C5R3	ND	3.00e+0	ug/g	2.07e-2	lbs/hr	CC
Silver	401C5R4	ND	3.00e+0	ug/g	1.99e-2	lbs/hr	CC
Thallium	401C5R1	ND	8.00e+0	ug/g	4.75e-2	lbs/hr	CC
Thallium	401C5R2	ND	8.00e+0	ug/g	4.75e-2	lbs/hr	CC
Thallium	401C5R3	ND	8.00e+0	ug/g	5.52e-2	lbs/hr	CC
Thallium	401C5R4	ND	8.00e+0	ug/g	5.31e-2	lbs/hr	CC

5. Type: RAW MATERIAL

6. Description: LIME/SHALE/SAND/IRON  
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc		
Chlorine	401C1R1	1.00e+3	ug/g	1.24e+2	lbs/hr	CC	
Chlorine	401C1R2	1.00e+3	ug/g	1.24e+2	lbs/hr	CC	
Chlorine	401C1R3	1.00e+3	ug/g	1.19e+2	lbs/hr	CC	
Chlorine	401C1R4	1.00e+3	ug/g	1.19e+2	lbs/hr	CC	
Chlorine	401C2R1	ND	9.98e+2	ug/g	1.22e+2	lbs/hr	CC
Chlorine	401C2R2	ND	9.98e+2	ug/g	1.24e+2	lbs/hr	CC
Chlorine	401C2R3	ND	9.97e+2	ug/g	1.28e+2	lbs/hr	CC
Chlorine	401C2R4	ND	9.97e+2	ug/g	1.28e+2	lbs/hr	CC
Chlorine	401C3R1	ND	1.00e+3	ug/g	1.23e+2	lbs/hr	CE
Chlorine	401C3R2	ND	1.00e+3	ug/g	1.22e+2	lbs/hr	CE
Chlorine	401C3R3	ND	1.00e+3	ug/g	1.21e+2	lbs/hr	CE
Chlorine	401C4R1	ND	1.00e+3	ug/g	1.18e+2	lbs/hr	CE
Chlorine	401C4R2	ND	1.00e+3	ug/g	1.10e+2	lbs/hr	CE
Chlorine	401C4R3	ND	1.00e+3	ug/g	9.86e+1	lbs/hr	CE
Chlorine	401C4R4	ND	1.00e+3	ug/g	9.22e+1	lbs/hr	CE
Chlorine	401C5R1	ND	1.00e+3	ug/g	1.17e+2	lbs/hr	CE
Chlorine	401C5R2	ND	1.00e+3	ug/g	1.16e+2	lbs/hr	CE
Chlorine	401C5R3	ND	1.00e+3	ug/g	1.16e+2	lbs/hr	CE
Chlorine	401C5R4	ND	1.00e+3	ug/g	1.16e+2	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc		
Antimony	401C1R1	ND	3.00e+0	ug/g	3.71e-1	lbs/hr	CE
Antimony	401C1R2	ND	3.00e+0	ug/g	3.71e-1	lbs/hr	CE
Antimony	401C1R3	ND	3.00e+0	ug/g	3.56e-1	lbs/hr	CE
Antimony	401C1R4	ND	3.00e+0	ug/g	3.57e-1	lbs/hr	CE
Antimony	401C5R1	ND	8.01e-1	ug/g	9.39e-2	lbs/hr	CC
Antimony	401C5R2	ND	8.00e-1	ug/g	9.31e-2	lbs/hr	CC
Antimony	401C5R3	ND	8.00e-1	ug/g	9.30e-2	lbs/hr	CC
Antimony	401C5R4	ND	8.00e-1	ug/g	9.31e-2	lbs/hr	CC
Arsenic	401C1R1	ND	3.00e+0	ug/g	3.71e-1	lbs/hr	CE
Arsenic	401C1R2	ND	3.00e+0	ug/g	3.71e-1	lbs/hr	CE
Arsenic	401C1R3	ND	3.00e+0	ug/g	3.56e-1	lbs/hr	CE
Arsenic	401C1R4	ND	3.00e+0	ug/g	3.57e-1	lbs/hr	CE
Arsenic	401C5R1		3.21e+0	ug/g	3.76e-1	lbs/hr	CC
Arsenic	401C5R2		3.70e+0	ug/g	4.31e-1	lbs/hr	CC
Arsenic	401C5R3		2.60e+0	ug/g	3.02e-1	lbs/hr	CC
Arsenic	401C5R4		2.70e+0	ug/g	3.14e-1	lbs/hr	CC
Barium	401C1R1		8.20e+1	ug/g	1.01e+1	lbs/hr	CE
Barium	401C1R2		8.40e+1	ug/g	1.04e+1	lbs/hr	CE
Barium	401C1R3		8.20e+1	ug/g	9.74e+0	lbs/hr	CE
Barium	401C1R4		7.80e+1	ug/g	9.27e+0	lbs/hr	CE
Barium	401C5R1		1.30e+2	ug/g	1.53e+1	lbs/hr	CC
Barium	401C5R2		8.68e+1	ug/g	1.01e+1	lbs/hr	CC
Barium	401C5R3		6.90e+1	ug/g	8.02e+0	lbs/hr	CC
Barium	401C5R4		1.10e+2	ug/g	1.28e+1	lbs/hr	CC
Beryllium	401C1R1		2.00e-1	ug/g	2.47e-2	lbs/hr	CE
Beryllium	401C1R2		2.00e-1	ug/g	2.47e-2	lbs/hr	CE
Beryllium	401C1R3		2.00e-1	ug/g	2.38e-2	lbs/hr	CE
Beryllium	401C1R4		2.00e-1	ug/g	2.38e-2	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Beryllium	401C5R1	ND	4.01e-1	ug/g	4.70e-2	lbs/hr	CC
Beryllium	401C5R2	ND	4.00e-1	ug/g	4.66e-2	lbs/hr	CC
Beryllium	401C5R3	ND	4.00e-1	ug/g	4.65e-2	lbs/hr	CC
Beryllium	401C5R4	ND	4.00e-1	ug/g	4.66e-2	lbs/hr	CC
Cadmium	401C1R1	ND	4.00e-1	ug/g	4.94e-2	lbs/hr	CE
Cadmium	401C1R2	ND	4.00e-1	ug/g	4.94e-2	lbs/hr	CE
Cadmium	401C1R3	ND	4.00e-1	ug/g	4.75e-2	lbs/hr	CE
Cadmium	401C1R4	ND	4.00e-1	ug/g	4.75e-2	lbs/hr	CE
Cadmium	401C5R1		2.70e+0	ug/g	3.17e-1	lbs/hr	CC
Cadmium	401C5R2		3.00e+0	ug/g	3.49e-1	lbs/hr	CC
Cadmium	401C5R3	ND	9.04e-1	ug/g	1.05e-1	lbs/hr	CC
Cadmium	401C5R4		2.60e+0	ug/g	3.03e-1	lbs/hr	CC
Chromium	401C1R1		1.80e+1	ug/g	2.22e+0	lbs/hr	CE
Chromium	401C1R2		1.80e+1	ug/g	2.22e+0	lbs/hr	CE
Chromium	401C1R3		1.80e+1	ug/g	2.14e+0	lbs/hr	CE
Chromium	401C1R4		1.70e+1	ug/g	2.02e+0	lbs/hr	CE
Chromium	401C5R1		7.90e+0	ug/g	9.27e-1	lbs/hr	CC
Chromium	401C5R2		4.00e+0	ug/g	4.66e-1	lbs/hr	CC
Chromium	401C5R3		3.90e+0	ug/g	4.53e-1	lbs/hr	CC
Chromium	401C5R4		5.80e+0	ug/g	6.75e-1	lbs/hr	CC
Lead	401C1R1		3.20e+1	ug/g	3.95e+0	lbs/hr	CE
Lead	401C1R2		5.00e+0	ug/g	6.18e-1	lbs/hr	CE
Lead	401C1R3		5.00e+0	ug/g	5.94e-1	lbs/hr	CE
Lead	401C1R4		5.00e+0	ug/g	5.94e-1	lbs/hr	CE
Lead	401C5R1		3.00e+0	ug/g	3.52e-1	lbs/hr	CC
Lead	401C5R2		2.40e+0	ug/g	2.79e-1	lbs/hr	CC
Lead	401C5R3		2.10e+0	ug/g	2.44e-1	lbs/hr	CC
Lead	401C5R4		2.70e+0	ug/g	3.14e-1	lbs/hr	CC
Mercury	401C1R1	ND	2.00e-2	ug/g	2.47e-3	lbs/hr	CE
Mercury	401C1R2	ND	2.00e-2	ug/g	2.47e-3	lbs/hr	CE
Mercury	401C1R3	ND	2.00e-2	ug/g	2.38e-3	lbs/hr	CE
Mercury	401C1R4	ND	2.00e-2	ug/g	2.38e-3	lbs/hr	CE
Mercury	401C5R1	ND	2.00e-2	ug/g	2.35e-3	lbs/hr	CC
Mercury	401C5R2	ND	2.00e-2	ug/g	2.33e-3	lbs/hr	CC
Mercury	401C5R3	ND	2.00e-2	ug/g	2.32e-3	lbs/hr	CC
Mercury	401C5R4	ND	2.00e-2	ug/g	2.33e-3	lbs/hr	CC
Silver	401C1R1		6.00e-1	ug/g	7.41e-2	lbs/hr	CE
Silver	401C1R2		6.00e-1	ug/g	7.41e-2	lbs/hr	CE
Silver	401C1R3		6.00e-1	ug/g	7.13e-2	lbs/hr	CE
Silver	401C1R4		6.00e-1	ug/g	7.13e-2	lbs/hr	CE
Silver	401C5R1	ND	2.00e+0	ug/g	2.35e-1	lbs/hr	CC
Silver	401C5R2	ND	2.00e+0	ug/g	2.33e-1	lbs/hr	CC
Silver	401C5R3	ND	2.00e+0	ug/g	2.32e-1	lbs/hr	CC
Silver	401C5R4	ND	2.00e+0	ug/g	2.33e-1	lbs/hr	CC
Thallium	401C1R1	ND	4.00e+0	ug/g	4.94e-1	lbs/hr	CE
Thallium	401C1R2	ND	4.00e+0	ug/g	4.94e-1	lbs/hr	CE
Thallium	401C1R3	ND	4.00e+0	ug/g	4.75e-1	lbs/hr	CE
Thallium	401C1R4		6.00e+0	ug/g	7.13e-1	lbs/hr	CE
Thallium	401C5R1	ND	4.05e-1	ug/g	4.75e-2	lbs/hr	CC
Thallium	401C5R2	ND	4.08e-1	ug/g	4.75e-2	lbs/hr	CC
Thallium	401C5R3	ND	4.00e-1	ug/g	4.65e-2	lbs/hr	CC
Thallium	401C5R4	ND	4.00e-1	ug/g	4.66e-2	lbs/hr	CC

5. Type: SPIKE

6. Description: ORGANICS (TCE,TCB,TETRACHLOROETHENE)

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	401C2R1	7.24e+5	ug/g	1.23e+2	lbs/hr	CC
Chlorine	401C2R2	7.18e+5	ug/g	1.17e+2	lbs/hr	CC
Chlorine	401C2R3	7.27e+5	ug/g	1.25e+2	lbs/hr	CC
Chlorine	401C2R4	7.13e+5	ug/g	1.02e+2	lbs/hr	CC
Chlorine	401C3R1	7.14e+5	ug/g	2.67e+2	lbs/hr	CC
Chlorine	401C3R2	7.17e+5	ug/g	3.30e+2	lbs/hr	CC
Chlorine	401C3R3	7.16e+5	ug/g	3.32e+2	lbs/hr	CC
Chlorine	401C4R1	7.15e+5	ug/g	3.88e+2	lbs/hr	CC
Chlorine	401C4R2	7.04e+5	ug/g	3.81e+2	lbs/hr	CC
Chlorine	401C4R3	7.12e+5	ug/g	3.14e+2	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chlorine	401C4R4	7.12e+5	ug/g	3.48e+2	lbs/hr	CC
Chlorine	401C5R1	8.56e+5	ug/g	1.90e+2	lbs/hr	CC
Chlorine	401C5R2	8.55e+5	ug/g	9.40e+1	lbs/hr	CC
Chlorine	401C5R3	8.57e+5	ug/g	1.20e+2	lbs/hr	CC
Chlorine	401C5R4	8.52e+5	ug/g	1.50e+2	lbs/hr	CC

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,2,4-Trichlorobenzene	401C2R1	3.67e+5	ug/g	6.24e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C2R2	3.51e+5	ug/g	5.72e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C2R3	3.40e+5	ug/g	5.85e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C2R4	3.01e+5	ug/g	4.30e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C3R1	2.14e+5	ug/g	8.00e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C3R2	2.63e+5	ug/g	1.21e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	401C3R3	2.61e+5	ug/g	1.21e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	401C4R1	1.88e+5	ug/g	1.02e+2	lbs/hr	CC
1,2,4-Trichlorobenzene	401C4R2	1.74e+5	ug/g	9.40e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C4R3	2.13e+5	ug/g	9.40e+1	lbs/hr	CC
1,2,4-Trichlorobenzene	401C4R4	1.88e+5	ug/g	9.20e+1	lbs/hr	CC
1,2-Dichlorobenzene	401C3R1	1.82e+5	ug/g	6.80e+1	lbs/hr	CC
1,2-Dichlorobenzene	401C3R2	1.17e+5	ug/g	5.40e+1	lbs/hr	CC
1,2-Dichlorobenzene	401C3R3	1.23e+5	ug/g	5.70e+1	lbs/hr	CC
1,2-Dichlorobenzene	401C4R1	2.03e+5	ug/g	1.10e+2	lbs/hr	CC
1,2-Dichlorobenzene	401C4R2	2.38e+5	ug/g	1.29e+2	lbs/hr	CC
1,2-Dichlorobenzene	401C4R3	1.79e+5	ug/g	7.90e+1	lbs/hr	CC
1,2-Dichlorobenzene	401C4R4	2.11e+5	ug/g	1.03e+2	lbs/hr	CC

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,1,1-Trichloroethane	401C2R1	6.70e+5	ug/g	1.14e+2	lbs/hr	CC
1,1,1-Trichloroethane	401C2R2	6.52e+5	ug/g	1.06e+2	lbs/hr	CC
1,1,1-Trichloroethane	401C2R3	6.61e+5	ug/g	1.14e+2	lbs/hr	CC
1,1,1-Trichloroethane	401C2R4	6.74e+5	ug/g	9.63e+1	lbs/hr	CC
Tetrachloroethene	401C3R1	2.06e+5	ug/g	7.70e+1	lbs/hr	CC
Tetrachloroethene	401C3R2	1.33e+5	ug/g	6.10e+1	lbs/hr	CC
Tetrachloroethene	401C3R3	1.29e+5	ug/g	6.00e+1	lbs/hr	CC
Tetrachloroethene	401C4R1	2.56e+5	ug/g	1.39e+2	lbs/hr	CC
Tetrachloroethene	401C4R2	2.68e+5	ug/g	1.45e+2	lbs/hr	CC
Tetrachloroethene	401C4R3	2.13e+5	ug/g	9.40e+1	lbs/hr	CC
Tetrachloroethene	401C4R4	2.54e+5	ug/g	1.24e+2	lbs/hr	CC
Tetrachloroethene	401C5R1	1.00e+6	ug/g	2.22e+2	lbs/hr	CC
Tetrachloroethene	401C5R2	1.00e+6	ug/g	1.10e+2	lbs/hr	CC
Tetrachloroethene	401C5R3	1.00e+6	ug/g	1.40e+2	lbs/hr	CC
Tetrachloroethene	401C5R4	1.00e+6	ug/g	1.76e+2	lbs/hr	CC
Trichloroethene	401C3R1	3.98e+5	ug/g	1.49e+2	lbs/hr	CC
Trichloroethene	401C3R2	4.87e+5	ug/g	2.24e+2	lbs/hr	CC
Trichloroethene	401C3R3	4.87e+5	ug/g	2.26e+2	lbs/hr	CC
Trichloroethene	401C4R1	3.54e+5	ug/g	1.92e+2	lbs/hr	CC
Trichloroethene	401C4R2	3.20e+5	ug/g	1.73e+2	lbs/hr	CC
Trichloroethene	401C4R3	3.95e+5	ug/g	1.74e+2	lbs/hr	CC
Trichloroethene	401C4R4	3.48e+5	ug/g	1.70e+2	lbs/hr	CC

5. Type: WASTE

6. Description: SOLID WASTE-DERIVED FUEL  
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Chlorine	401C1R1	4.20e+4	ug/g	1.57e+2	lbs/hr	CC	
Chlorine	401C1R2	4.20e+4	ug/g	1.32e+2	lbs/hr	CC	
Chlorine	401C1R3	1.80e+4	ug/g	7.67e+1	lbs/hr	CC	
Chlorine	401C1R4	9.60e+4	ug/g	3.11e+2	lbs/hr	CC	
Chlorine	401C2R1	2.02e+3	ug/g	1.00e+1	lbs/hr	CC	
Chlorine	401C2R2	2.96e+3	ug/g	1.50e+1	lbs/hr	CC	
Chlorine	401C2R3	ND	1.04e+3	ug/g	4.00e+0	lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chlorine	401C2R4		1.93e+3	ug/g	7.00e+0	lbs/hr	CE
Chlorine	401C3R1		6.00e+3	ug/g	1.97e+1	lbs/hr	CE
Chlorine	401C3R2		1.00e+4	ug/g	3.40e+1	lbs/hr	CE
Chlorine	401C3R3		5.00e+3	ug/g	1.82e+1	lbs/hr	CE
Chlorine	401C4R1	ND	1.00e+3	ug/g	1.32e+0	lbs/hr	CE
Chlorine	401C4R2		5.00e+3	ug/g	5.90e+0	lbs/hr	CE
Chlorine	401C4R3		6.00e+3	ug/g	8.16e+0	lbs/hr	CE
Chlorine	401C4R4		5.00e+3	ug/g	6.90e+0	lbs/hr	CE
Chlorine	401C5R1		1.20e+4	ug/g	5.47e+1	lbs/hr	CE
Chlorine	401C5R2	ND	1.00e+3	ug/g	4.34e+0	lbs/hr	CE
Chlorine	401C5R3		1.50e+4	ug/g	8.13e+1	lbs/hr	CE
Chlorine	401C5R4		2.00e+4	ug/g	7.72e+1	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
Antimony	401C1R1	ND	3.00e+0	ug/g	1.12e-2	lbs/hr	CE
Antimony	401C1R2	ND	3.00e+0	ug/g	9.42e-3	lbs/hr	CE
Antimony	401C1R3	ND	3.00e+0	ug/g	1.28e-2	lbs/hr	CE
Antimony	401C1R4	ND	3.00e+0	ug/g	9.72e-3	lbs/hr	CE
Antimony	401C5R1		8.93e+0	ug/g	4.07e-2	lbs/hr	CC
Antimony	401C5R2		3.00e+1	ug/g	1.30e-1	lbs/hr	CC
Antimony	401C5R3		1.42e+2	ug/g	7.70e-1	lbs/hr	CC
Antimony	401C5R4		2.69e+1	ug/g	1.04e-1	lbs/hr	CC
Arsenic	401C1R1		2.70e+1	ug/g	1.01e-1	lbs/hr	CE
Arsenic	401C1R2		2.20e+1	ug/g	6.91e-2	lbs/hr	CE
Arsenic	401C1R3	ND	3.00e+0	ug/g	1.28e-2	lbs/hr	CE
Arsenic	401C1R4		1.00e+1	ug/g	3.24e-2	lbs/hr	CE
Arsenic	401C5R1		2.76e+0	ug/g	1.26e-2	lbs/hr	CC
Arsenic	401C5R2		5.39e+1	ug/g	2.34e-1	lbs/hr	CC
Arsenic	401C5R3		5.00e+1	ug/g	2.71e-1	lbs/hr	CC
Arsenic	401C5R4		1.14e+2	ug/g	4.40e-1	lbs/hr	CC
Barium	401C1R1		2.10e+3	ug/g	7.83e+0	lbs/hr	CE
Barium	401C1R2		3.30e+3	ug/g	1.04e+1	lbs/hr	CE
Barium	401C1R3		9.20e+1	ug/g	3.92e-1	lbs/hr	CE
Barium	401C1R4		2.20e+2	ug/g	7.13e-1	lbs/hr	CE
Barium	401C5R1		1.50e+3	ug/g	6.83e+0	lbs/hr	CC
Barium	401C5R2		3.57e+3	ug/g	1.55e+1	lbs/hr	CC
Barium	401C5R3		1.01e+3	ug/g	5.47e+0	lbs/hr	CC
Barium	401C5R4		3.47e+2	ug/g	1.34e+0	lbs/hr	CC
Beryllium	401C1R1		2.00e-1	ug/g	7.46e-4	lbs/hr	CE
Beryllium	401C1R2		1.00e-1	ug/g	3.14e-4	lbs/hr	CE
Beryllium	401C1R3	ND	1.00e-1	ug/g	4.26e-4	lbs/hr	CE
Beryllium	401C1R4		1.40e+0	ug/g	4.54e-3	lbs/hr	CE
Beryllium	401C5R1	ND	9.91e-1	ug/g	4.52e-3	lbs/hr	CC
Beryllium	401C5R2	ND	1.00e+0	ug/g	4.34e-3	lbs/hr	CC
Beryllium	401C5R3	ND	1.00e+0	ug/g	5.42e-3	lbs/hr	CC
Beryllium	401C5R4	ND	1.00e+0	ug/g	3.86e-3	lbs/hr	CC
Cadmium	401C1R1		1.70e+1	ug/g	6.34e-2	lbs/hr	CE
Cadmium	401C1R2		4.60e+0	ug/g	1.44e-2	lbs/hr	CE
Cadmium	401C1R3		3.70e+1	ug/g	1.58e-1	lbs/hr	CE
Cadmium	401C1R4		1.10e+0	ug/g	3.56e-3	lbs/hr	CE
Cadmium	401C5R1		4.96e+0	ug/g	2.26e-2	lbs/hr	CC
Cadmium	401C5R2		8.00e+0	ug/g	3.47e-2	lbs/hr	CC
Cadmium	401C5R3		4.21e+1	ug/g	2.28e-1	lbs/hr	CC
Cadmium	401C5R4		6.40e+1	ug/g	2.47e-1	lbs/hr	CC
Chromium	401C1R1		7.60e+1	ug/g	2.83e-1	lbs/hr	CE
Chromium	401C1R2		8.60e+2	ug/g	2.70e+0	lbs/hr	CE
Chromium	401C1R3		8.95e+2	ug/g	3.81e+0	lbs/hr	CE
Chromium	401C1R4		1.20e+2	ug/g	3.89e-1	lbs/hr	CE
Chromium	401C5R1		3.33e+2	ug/g	1.52e+0	lbs/hr	CC
Chromium	401C5R2		7.70e+1	ug/g	3.34e-1	lbs/hr	CC
Chromium	401C5R3		1.97e+2	ug/g	1.07e+0	lbs/hr	CC
Chromium	401C5R4		4.77e+2	ug/g	1.84e+0	lbs/hr	CC
Lead	401C1R1		1.10e+2	ug/g	4.10e-1	lbs/hr	CE
Lead	401C1R2		7.00e+1	ug/g	2.20e-1	lbs/hr	CE
Lead	401C1R3		8.90e+3	ug/g	3.79e+1	lbs/hr	CE
Lead	401C1R4		3.50e+2	ug/g	1.13e+0	lbs/hr	CE
Lead	401C5R1		1.39e+3	ug/g	6.33e+0	lbs/hr	CC
Lead	401C5R2		5.09e+3	ug/g	2.21e+1	lbs/hr	CC
Lead	401C5R3		1.30e+4	ug/g	7.05e+1	lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Lead	401C5R4		2.30e+3	ug/g	8.88e+0	lbs/hr	CC
Mercury	401C1R1		7.00e-1	ug/g	2.61e-3	lbs/hr	CE
Mercury	401C1R2		3.60e+1	ug/g	1.13e-1	lbs/hr	CE
Mercury	401C1R3		6.70e+1	ug/g	2.85e-1	lbs/hr	CE
Mercury	401C1R4		8.00e-1	ug/g	2.59e-3	lbs/hr	CE
Mercury	401C5R1		4.96e-1	ug/g	2.26e-3	lbs/hr	CC
Mercury	401C5R2		3.00e-1	ug/g	1.30e-3	lbs/hr	CC
Mercury	401C5R3		1.99e+0	ug/g	1.08e-2	lbs/hr	CC
Mercury	401C5R4		3.01e-1	ug/g	1.16e-3	lbs/hr	CC
Silver	401C1R1	ND	1.00e+0	ug/g	3.73e-3	lbs/hr	CE
Silver	401C1R2	ND	1.00e+0	ug/g	3.14e-3	lbs/hr	CE
Silver	401C1R3	ND	1.00e+0	ug/g	4.26e-3	lbs/hr	CE
Silver	401C1R4		4.00e+0	ug/g	1.30e-2	lbs/hr	CE
Silver	401C5R1		7.94e-1	ug/g	3.62e-3	lbs/hr	CC
Silver	401C5R2		2.00e+1	ug/g	8.68e-2	lbs/hr	CC
Silver	401C5R3		8.01e-1	ug/g	4.34e-3	lbs/hr	CC
Silver	401C5R4		8.99e+0	ug/g	3.47e-2	lbs/hr	CC
Thallium	401C1R1	ND	4.00e+0	ug/g	1.49e-2	lbs/hr	CE
Thallium	401C1R2	ND	4.00e+0	ug/g	1.26e-2	lbs/hr	CE
Thallium	401C1R3	ND	4.00e+0	ug/g	1.70e-2	lbs/hr	CE
Thallium	401C1R4	ND	4.00e+0	ug/g	1.30e-2	lbs/hr	CE
Thallium	401C5R1	ND	7.94e-1	ug/g	3.62e-3	lbs/hr	CC
Thallium	401C5R2	ND	8.00e-1	ug/g	3.47e-3	lbs/hr	CC
Thallium	401C5R3	ND	8.01e-1	ug/g	4.34e-3	lbs/hr	CC
Thallium	401C5R4	ND	8.01e-1	ug/g	3.09e-3	lbs/hr	CC

7. Category: SVOC

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
1,2,4-Trichlorobenzene	401C3R1		1.40e+1	ug/g	4.59e-2	lbs/hr	CE
1,2,4-Trichlorobenzene	401C3R2	ND	3.00e+1	ug/g	1.02e-1	lbs/hr	CE
1,2,4-Trichlorobenzene	401C3R3	ND	3.00e+1	ug/g	1.09e-1	lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
Trichloroethene	401C3R1	ND	6.70e+1	ug/g	2.20e-1	lbs/hr	CE
Trichloroethene	401C3R2		1.00e+1	ug/g	3.40e-2	lbs/hr	CE
Trichloroethene	401C3R3		2.00e+1	ug/g	7.28e-2	lbs/hr	CE

6. Description: SPIKED METALS (CR6)

Group: WET KILN

Location: KILN

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
Chlorine	401C1R1		6.40e+4	ug/g	9.60e+2	lbs/hr	CC
Chlorine	401C1R2		3.60e+4	ug/g	5.15e+2	lbs/hr	CC
Chlorine	401C1R3		2.80e+4	ug/g	4.09e+2	lbs/hr	CC
Chlorine	401C1R4		4.40e+4	ug/g	6.22e+2	lbs/hr	CC
Chlorine	401C2R1		4.30e+4	ug/g	6.26e+2	lbs/hr	CC
Chlorine	401C2R2		4.60e+4	ug/g	6.66e+2	lbs/hr	CC
Chlorine	401C2R3		4.20e+4	ug/g	6.88e+2	lbs/hr	CC
Chlorine	401C2R4		5.20e+4	ug/g	8.40e+2	lbs/hr	CC

7. Category: Metals

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate		Calc
Antimony	401C1R1		1.40e+1	ug/g	2.10e-1	lbs/hr	CE
Antimony	401C1R2		1.10e+1	ug/g	1.57e-1	lbs/hr	CE
Antimony	401C1R3		4.00e+0	ug/g	5.85e-2	lbs/hr	CE
Antimony	401C1R4		5.00e+0	ug/g	7.07e-2	lbs/hr	CE
Arsenic	401C1R1		1.80e+1	ug/g	2.70e-1	lbs/hr	CE
Arsenic	401C1R2		2.00e+1	ug/g	2.86e-1	lbs/hr	CE
Arsenic	401C1R3		1.00e+1	ug/g	1.46e-1	lbs/hr	CE
Arsenic	401C1R4		1.40e+1	ug/g	1.98e-1	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Barium	401C1R1	7.40e+2	ug/g	1.11e+1	lbs/hr	CE	
Barium	401C1R2	7.00e+2	ug/g	1.00e+1	lbs/hr	CE	
Barium	401C1R3	3.90e+2	ug/g	5.70e+0	lbs/hr	CE	
Barium	401C1R4	2.65e+2	ug/g	3.75e+0	lbs/hr	CE	
Beryllium	401C1R1	ND	1.00e-1	ug/g	1.50e-3	lbs/hr	CE
Beryllium	401C1R2	ND	1.00e-1	ug/g	1.43e-3	lbs/hr	CE
Beryllium	401C1R3	ND	1.00e-1	ug/g	1.46e-3	lbs/hr	CE
Beryllium	401C1R4	ND	1.00e-1	ug/g	1.41e-3	lbs/hr	CE
Cadmium	401C1R1	2.20e+1	ug/g	3.30e-1	lbs/hr	CE	
Cadmium	401C1R2	2.00e+1	ug/g	2.86e-1	lbs/hr	CE	
Cadmium	401C1R3	5.40e+0	ug/g	7.89e-2	lbs/hr	CE	
Cadmium	401C1R4	3.80e+0	ug/g	5.37e-2	lbs/hr	CE	
Chromium	401C1R1	1.20e+2	ug/g	1.80e+0	lbs/hr	CE	
Chromium	401C1R2	1.10e+2	ug/g	1.57e+0	lbs/hr	CE	
Chromium	401C1R3	9.00e+2	ug/g	1.32e+1	lbs/hr	CE	
Chromium	401C1R4	5.40e+1	ug/g	7.64e-1	lbs/hr	CE	
Lead	401C1R1	5.20e+2	ug/g	7.80e+0	lbs/hr	CE	
Lead	401C1R2	5.00e+2	ug/g	7.15e+0	lbs/hr	CE	
Lead	401C1R3	2.80e+2	ug/g	4.09e+0	lbs/hr	CE	
Lead	401C1R4	2.20e+2	ug/g	3.11e+0	lbs/hr	CE	
Mercury	401C1R1	1.70e+0	ug/g	2.55e-2	lbs/hr	CE	
Mercury	401C1R2	6.00e-1	ug/g	8.58e-3	lbs/hr	CE	
Mercury	401C1R3	9.00e-1	ug/g	1.32e-2	lbs/hr	CE	
Mercury	401C1R4	1.00e+0	ug/g	1.41e-2	lbs/hr	CE	
Silver	401C1R1	ND	1.00e+0	ug/g	1.50e-2	lbs/hr	CE
Silver	401C1R2	ND	1.00e+0	ug/g	1.43e-2	lbs/hr	CE
Silver	401C1R3	2.00e+0	ug/g	2.92e-2	lbs/hr	CE	
Silver	401C1R4	1.00e+0	ug/g	1.41e-2	lbs/hr	CE	
Thallium	401C1R1	ND	4.00e+0	ug/g	6.00e-2	lbs/hr	CE
Thallium	401C1R2	ND	4.00e+0	ug/g	5.72e-2	lbs/hr	CE
Thallium	401C1R3	ND	4.00e+0	ug/g	5.85e-2	lbs/hr	CE
Thallium	401C1R4	ND	4.00e+0	ug/g	5.66e-2	lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
1,1,1-Trichloroethane	401C2R1	8.60e+3	ug/g	1.25e+2	lbs/hr	CC
1,1,1-Trichloroethane	401C2R2	8.88e+3	ug/g	1.29e+2	lbs/hr	CC
1,1,1-Trichloroethane	401C2R3	9.72e+3	ug/g	1.59e+2	lbs/hr	CC
1,1,1-Trichloroethane	401C2R4	9.13e+3	ug/g	1.48e+2	lbs/hr	CC
Tetrachloroethene	401C2R1	1.91e+4	ug/g	2.78e+2	lbs/hr	CC
Tetrachloroethene	401C2R2	1.18e+4	ug/g	1.71e+2	lbs/hr	CC
Tetrachloroethene	401C2R3	1.27e+4	ug/g	2.08e+2	lbs/hr	CC
Tetrachloroethene	401C2R4	1.14e+4	ug/g	1.84e+2	lbs/hr	CC

6. Description: LIQUID WASTE-DERIVED

Group: WET KILN

Location: PRIMARY CHAMBER

Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Chlorine	401C3R1	9.00e+3	ug/g	8.86e+1	lbs/hr	CE	
Chlorine	401C3R2	1.00e+4	ug/g	9.60e+1	lbs/hr	CE	
Chlorine	401C3R3	1.00e+4	ug/g	1.00e+2	lbs/hr	CE	
Chlorine	401C4R1	ND	9.00e+3	ug/g	7.15e+1	lbs/hr	CE
Chlorine	401C4R2	2.10e+4	ug/g	1.67e+2	lbs/hr	CE	
Chlorine	401C4R3	1.30e+4	ug/g	1.03e+2	lbs/hr	CE	
Chlorine	401C4R4	1.20e+4	ug/g	9.53e+1	lbs/hr	CE	
Chlorine	401C5R1	1.80e+4	ug/g	1.79e+2	lbs/hr	CE	
Chlorine	401C5R2	2.80e+4	ug/g	2.78e+2	lbs/hr	CE	
Chlorine	401C5R3	3.00e+4	ug/g	2.99e+2	lbs/hr	CE	
Chlorine	401C5R4	2.40e+4	ug/g	2.37e+2	lbs/hr	CE	

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc
Antimony	401C5R1	4.30e+1	ug/g	4.27e-1	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 401 DEVICE NAME: KILN NO. 1

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Antimony	401C5R2	2.30e+1	ug/g	2.29e-1	lbs/hr	CE
Antimony	401C5R3	1.60e+1	ug/g	1.59e-1	lbs/hr	CE
Antimony	401C5R4	7.90e+1	ug/g	7.79e-1	lbs/hr	CE
Arsenic	401C5R1	ND 6.00e-1	ug/g	5.96e-3	lbs/hr	CE
Arsenic	401C5R2	8.00e-1	ug/g	7.95e-3	lbs/hr	CE
Arsenic	401C5R3	8.00e-1	ug/g	7.97e-3	lbs/hr	CE
Arsenic	401C5R4	1.80e+0	ug/g	1.77e-2	lbs/hr	CE
Barium	401C5R1	1.60e+3	ug/g	1.59e+1	lbs/hr	CE
Barium	401C5R2	1.30e+3	ug/g	1.29e+1	lbs/hr	CE
Barium	401C5R3	1.50e+3	ug/g	1.49e+1	lbs/hr	CE
Barium	401C5R4	2.40e+3	ug/g	2.37e+1	lbs/hr	CE
Beryllium	401C5R1	ND 2.00e+0	ug/g	1.99e-2	lbs/hr	CE
Beryllium	401C5R2	ND 2.00e+0	ug/g	1.99e-2	lbs/hr	CE
Beryllium	401C5R3	ND 2.00e+0	ug/g	1.99e-2	lbs/hr	CE
Beryllium	401C5R4	ND 2.00e+0	ug/g	1.97e-2	lbs/hr	CE
Cadmium	401C5R1	ND 3.00e+0	ug/g	2.98e-2	lbs/hr	CE
Cadmium	401C5R2	8.00e+0	ug/g	7.95e-2	lbs/hr	CE
Cadmium	401C5R3	6.00e+0	ug/g	5.98e-2	lbs/hr	CE
Cadmium	401C5R4	5.00e+0	ug/g	4.93e-2	lbs/hr	CE
Chromium	401C5R1	5.60e+1	ug/g	5.57e-1	lbs/hr	CE
Chromium	401C5R2	1.60e+2	ug/g	1.59e+0	lbs/hr	CE
Chromium	401C5R3	1.70e+2	ug/g	1.69e+0	lbs/hr	CE
Chromium	401C5R4	2.00e+2	ug/g	1.97e+0	lbs/hr	CE
Lead	401C5R1	1.80e+2	ug/g	1.79e+0	lbs/hr	CE
Lead	401C5R2	8.80e+2	ug/g	8.75e+0	lbs/hr	CE
Lead	401C5R3	9.50e+2	ug/g	9.46e+0	lbs/hr	CE
Lead	401C5R4	9.10e+2	ug/g	8.97e+0	lbs/hr	CE
Mercury	401C5R1	1.10e+0	ug/g	1.09e-2	lbs/hr	CE
Mercury	401C5R2	4.00e-1	ug/g	3.98e-3	lbs/hr	CE
Mercury	401C5R3	6.00e-1	ug/g	5.98e-3	lbs/hr	CE
Mercury	401C5R4	8.00e-1	ug/g	7.89e-3	lbs/hr	CE
Silver	401C5R1	ND 3.00e+0	ug/g	2.98e-2	lbs/hr	CE
Silver	401C5R2	ND 3.00e+0	ug/g	2.98e-2	lbs/hr	CE
Silver	401C5R3	ND 3.00e+0	ug/g	2.99e-2	lbs/hr	CE
Silver	401C5R4	ND 3.00e+0	ug/g	2.96e-2	lbs/hr	CE
Thallium	401C5R1	ND 2.00e+0	ug/g	1.99e-2	lbs/hr	CE
Thallium	401C5R2	ND 2.00e+0	ug/g	1.99e-2	lbs/hr	CE
Thallium	401C5R3	ND 2.00e+0	ug/g	1.99e-2	lbs/hr	CE
Thallium	401C5R4	ND 2.00e+0	ug/g	1.97e-2	lbs/hr	CE

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
1,2,4-Trichlorobenzene	401C3R1	2	3.00e+1 ug/g	2.95e-1 lbs/hr	CE
1,2,4-Trichlorobenzene	401C3R2	2	3.00e+1 ug/g	2.88e-1 lbs/hr	CE
1,2,4-Trichlorobenzene	401C3R3	2	3.00e+1 ug/g	3.01e-1 lbs/hr	CE
1,2,4-Trichlorobenzene	401C4R1	2	2.00e+1 ug/g	1.59e-1 lbs/hr	CE
1,2,4-Trichlorobenzene	401C4R2	2	3.00e+1 ug/g	2.38e-1 lbs/hr	CE
1,2,4-Trichlorobenzene	401C4R3	2	3.00e+1 ug/g	2.38e-1 lbs/hr	CE
1,2,4-Trichlorobenzene	401C4R4	2	3.00e+1 ug/g	2.38e-1 lbs/hr	CE
1,2-Dichlorobenzene	401C3R1	2	1.20e+2 ug/g	1.18e+0 lbs/hr	CE
1,2-Dichlorobenzene	401C3R2	ND	3.00e+1 ug/g	2.88e-1 lbs/hr	CE
1,2-Dichlorobenzene	401C3R3	ND	3.00e+1 ug/g	3.01e-1 lbs/hr	CE
1,2-Dichlorobenzene	401C4R1		4.20e+2 ug/g	3.33e+0 lbs/hr	CE
1,2-Dichlorobenzene	401C4R2		3.72e+3 ug/g	2.95e+1 lbs/hr	CE
1,2-Dichlorobenzene	401C4R3	2	2.10e+2 ug/g	1.67e+0 lbs/hr	CE
1,2-Dichlorobenzene	401C4R4	2	1.70e+2 ug/g	1.35e+0 lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Tetrachloroethene	401C3R1		4.19e+3 ug/g	4.12e+1 lbs/hr	CE
Tetrachloroethene	401C3R2		4.25e+3 ug/g	4.08e+1 lbs/hr	CE
Tetrachloroethene	401C3R3		3.66e+3 ug/g	3.67e+1 lbs/hr	CE
Tetrachloroethene	401C4R1		3.94e+3 ug/g	3.13e+1 lbs/hr	CE
Tetrachloroethene	401C4R2		6.13e+3 ug/g	4.87e+1 lbs/hr	CE
Tetrachloroethene	401C4R3		3.24e+3 ug/g	2.57e+1 lbs/hr	CE
Tetrachloroethene	401C4R4		3.36e+3 ug/g	2.67e+1 lbs/hr	CE

US EPA ARCHIVE DOCUMENT



SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY

2. STATE: KS

3. CITY: CHANUTE

EPA KSD031203318

REGION: 7

4. EP ID: 401 DEVICE NAME: KILN NO. 1

SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

Trichloroethene	401C3R1	1.20e+3	ug/g	1.18e+1	lbs/hr	CE
Trichloroethene	401C3R2	1.09e+3	ug/g	1.05e+1	lbs/hr	CE
Trichloroethene	401C3R3	1.21e+3	ug/g	1.21e+1	lbs/hr	CE
Trichloroethene	401C4R1	1.32e+3	ug/g	1.05e+1	lbs/hr	CE
Trichloroethene	401C4R2	7.10e+2	ug/g	5.64e+0	lbs/hr	CE
Trichloroethene	401C4R3	7.40e+2	ug/g	5.88e+0	lbs/hr	CE
Trichloroethene	401C4R4	7.60e+2	ug/g	6.03e+0	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 7

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	402C1R1	ND	1.00e+3	ug/g	6.82e+1 lbs/hr	CC
Chlorine	402C1R2	ND	1.00e+3	ug/g	6.82e+1 lbs/hr	CC
Chlorine	402C1R3	ND	1.00e+3	ug/g	6.04e+1 lbs/hr	CC
Chlorine	402C1R4	ND	1.00e+3	ug/g	6.96e+1 lbs/hr	CC
Chlorine	402C2R1	ND	1.00e+3	ug/g	7.10e+1 lbs/hr	CC
Chlorine	402C2R2	ND	1.00e+3	ug/g	7.10e+1 lbs/hr	CC
Chlorine	402C2R3	ND	1.01e+3	ug/g	6.70e+1 lbs/hr	CC
Chlorine	402C2R4	ND	9.97e+2	ug/g	6.20e+1 lbs/hr	CC
Chlorine	402C3R1		1.00e+3	ug/g	6.68e+1 lbs/hr	CE
Chlorine	402C3R2		1.00e+3	ug/g	6.68e+1 lbs/hr	CE
Chlorine	402C3R3		1.00e+3	ug/g	6.68e+1 lbs/hr	CE
Chlorine	402C3R4		1.00e+3	ug/g	6.68e+1 lbs/hr	CE
Chlorine	402C4R1		1.00e+3	ug/g	7.92e+1 lbs/hr	CE
Chlorine	402C4R2		1.00e+3	ug/g	7.92e+1 lbs/hr	CE
Chlorine	402C4R3		1.00e+3	ug/g	7.92e+1 lbs/hr	CE
Chlorine	402C4R4		1.00e+3	ug/g	7.92e+1 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate	Calc
Antimony	402C1R1	ND	6.00e+0	ug/g	4.09e-1 lbs/hr	CE
Antimony	402C1R2	ND	6.00e+0	ug/g	4.09e-1 lbs/hr	CE
Antimony	402C1R3		1.30e+1	ug/g	7.85e-1 lbs/hr	CE
Antimony	402C1R4	ND	6.00e+0	ug/g	4.18e-1 lbs/hr	CE
Antimony	402C4R1		2.00e+0	ug/g	1.58e-1 lbs/hr	CE
Antimony	402C4R2		3.00e+0	ug/g	2.38e-1 lbs/hr	CE
Antimony	402C4R3		4.00e+0	ug/g	3.17e-1 lbs/hr	CE
Antimony	402C4R4		5.00e+0	ug/g	3.96e-1 lbs/hr	CE
Arsenic	402C1R1		1.60e+2	ug/g	1.09e+1 lbs/hr	CE
Arsenic	402C1R2		2.50e+2	ug/g	1.71e+1 lbs/hr	CE
Arsenic	402C1R3		1.50e+2	ug/g	9.06e+0 lbs/hr	CE
Arsenic	402C1R4		1.90e+2	ug/g	1.32e+1 lbs/hr	CE
Arsenic	402C4R1		1.70e+2	ug/g	1.35e+1 lbs/hr	CE
Arsenic	402C4R2		1.60e+2	ug/g	1.27e+1 lbs/hr	CE
Arsenic	402C4R3		1.40e+2	ug/g	1.11e+1 lbs/hr	CE
Arsenic	402C4R4		2.00e+2	ug/g	1.58e+1 lbs/hr	CE
Barium	402C1R1		4.30e+2	ug/g	2.93e+1 lbs/hr	CE
Barium	402C1R2		5.30e+2	ug/g	3.61e+1 lbs/hr	CE
Barium	402C1R3		4.60e+2	ug/g	2.78e+1 lbs/hr	CE
Barium	402C1R4		5.60e+2	ug/g	3.90e+1 lbs/hr	CE
Barium	402C4R1		4.60e+2	ug/g	3.64e+1 lbs/hr	CE
Barium	402C4R2		5.10e+2	ug/g	4.04e+1 lbs/hr	CE
Barium	402C4R3		5.10e+2	ug/g	4.04e+1 lbs/hr	CE
Barium	402C4R4		5.00e+2	ug/g	3.96e+1 lbs/hr	CE
Beryllium	402C1R1		6.00e-1	ug/g	4.09e-2 lbs/hr	CE
Beryllium	402C1R2		6.00e-1	ug/g	4.09e-2 lbs/hr	CE
Beryllium	402C1R3		7.00e-1	ug/g	4.23e-2 lbs/hr	CE
Beryllium	402C1R4		6.00e-1	ug/g	4.18e-2 lbs/hr	CE
Beryllium	402C4R1		5.00e-1	ug/g	3.96e-2 lbs/hr	CE
Beryllium	402C4R2		5.00e-1	ug/g	3.96e-2 lbs/hr	CE
Beryllium	402C4R3		5.00e-1	ug/g	3.96e-2 lbs/hr	CE
Beryllium	402C4R4		5.00e-1	ug/g	3.96e-2 lbs/hr	CE
Cadmium	402C1R1	ND	4.00e-1	ug/g	2.73e-2 lbs/hr	CE
Cadmium	402C1R2	ND	4.00e-1	ug/g	2.73e-2 lbs/hr	CE
Cadmium	402C1R3	ND	4.00e-1	ug/g	2.42e-2 lbs/hr	CE
Cadmium	402C1R4	ND	4.00e-1	ug/g	2.78e-2 lbs/hr	CE
Cadmium	402C4R1		2.60e-1	ug/g	2.06e-2 lbs/hr	CE
Cadmium	402C4R2		1.00e-1	ug/g	7.92e-3 lbs/hr	CE
Cadmium	402C4R3		9.00e-2	ug/g	7.13e-3 lbs/hr	CE
Cadmium	402C4R4		9.00e-2	ug/g	7.13e-3 lbs/hr	CE
Chromium	402C1R1		3.60e+2	ug/g	2.46e+1 lbs/hr	CE
Chromium	402C1R2		4.50e+2	ug/g	3.07e+1 lbs/hr	CE
Chromium	402C1R3		3.80e+2	ug/g	2.30e+1 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chromium	402C1R4		3.90e+2	ug/g	2.71e+1	lbs/hr	CE
Chromium	402C4R1		3.90e+2	ug/g	3.09e+1	lbs/hr	CE
Chromium	402C4R2		1.80e+2	ug/g	1.43e+1	lbs/hr	CE
Chromium	402C4R3		2.50e+2	ug/g	1.98e+1	lbs/hr	CE
Chromium	402C4R4		3.20e+2	ug/g	2.53e+1	lbs/hr	CE
Lead	402C1R1		1.70e+1	ug/g	1.16e+0	lbs/hr	CE
Lead	402C1R2		2.80e+1	ug/g	1.91e+0	lbs/hr	CE
Lead	402C1R3		2.80e+1	ug/g	1.69e+0	lbs/hr	CE
Lead	402C1R4		3.40e+1	ug/g	2.37e+0	lbs/hr	CE
Lead	402C4R1		3.40e+1	ug/g	2.69e+0	lbs/hr	CE
Lead	402C4R2		1.20e+1	ug/g	9.50e-1	lbs/hr	CE
Lead	402C4R3		8.00e+0	ug/g	6.34e-1	lbs/hr	CE
Lead	402C4R4		1.40e+1	ug/g	1.11e+0	lbs/hr	CE
Mercury	402C1R1		4.00e+1	ug/g	2.73e+0	lbs/hr	CE
Mercury	402C1R2	ND	2.00e+1	ug/g	1.36e+0	lbs/hr	CE
Mercury	402C1R3	ND	2.00e+1	ug/g	1.21e+0	lbs/hr	CE
Mercury	402C1R4	ND	2.00e+1	ug/g	1.39e+0	lbs/hr	CE
Mercury	402C4R1		2.00e-2	ug/g	1.58e-3	lbs/hr	CE
Mercury	402C4R2		2.00e-2	ug/g	1.58e-3	lbs/hr	CE
Mercury	402C4R3		2.00e-2	ug/g	1.58e-3	lbs/hr	CE
Mercury	402C4R4		2.00e-2	ug/g	1.58e-3	lbs/hr	CE
Silver	402C1R1		1.10e+1	ug/g	7.50e-1	lbs/hr	CE
Silver	402C1R2		6.00e+0	ug/g	4.09e-1	lbs/hr	CE
Silver	402C1R3		9.00e+0	ug/g	5.44e-1	lbs/hr	CE
Silver	402C1R4		8.00e+0	ug/g	5.57e-1	lbs/hr	CE
Silver	402C4R1		9.00e-2	ug/g	7.13e-3	lbs/hr	CE
Silver	402C4R2		3.40e-1	ug/g	2.69e-2	lbs/hr	CE
Silver	402C4R3		1.00e+0	ug/g	7.92e-2	lbs/hr	CE
Silver	402C4R4		6.10e-1	ug/g	4.83e-2	lbs/hr	CE
Thallium	402C1R1	ND	2.00e-1	ug/g	1.36e-2	lbs/hr	CE
Thallium	402C1R2	ND	2.00e-1	ug/g	1.36e-2	lbs/hr	CE
Thallium	402C1R3	ND	2.00e-1	ug/g	1.21e-2	lbs/hr	CE
Thallium	402C1R4	ND	2.00e-1	ug/g	1.39e-2	lbs/hr	CE
Thallium	402C4R1		9.00e-1	ug/g	7.13e-2	lbs/hr	CE
Thallium	402C4R2		9.00e-1	ug/g	7.13e-2	lbs/hr	CE
Thallium	402C4R3		9.00e-1	ug/g	7.13e-2	lbs/hr	CE
Thallium	402C4R4		9.00e-1	ug/g	7.13e-2	lbs/hr	CE

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	402C1R1		2.90e+4	ug/g	7.56e+2	lbs/hr	CC
Chlorine	402C1R2		2.60e+4	ug/g	6.78e+2	lbs/hr	CC
Chlorine	402C1R3		1.60e+4	ug/g	3.81e+2	lbs/hr	CC
Chlorine	402C1R4		1.70e+4	ug/g	5.67e+2	lbs/hr	CC
Chlorine	402C2R1		2.00e+4	ug/g	4.94e+2	lbs/hr	CC
Chlorine	402C2R2		2.90e+4	ug/g	7.17e+2	lbs/hr	CC
Chlorine	402C2R3		2.80e+4	ug/g	5.52e+2	lbs/hr	CC
Chlorine	402C2R4		2.80e+4	ug/g	5.26e+2	lbs/hr	CC
Chlorine	402C3R1		1.20e+5	ug/g	4.75e+2	lbs/hr	CE
Chlorine	402C3R2		9.40e+4	ug/g	3.72e+2	lbs/hr	CE
Chlorine	402C3R3		1.10e+5	ug/g	4.36e+2	lbs/hr	CE
Chlorine	402C3R4	11	0.00e+0		0.00e+0		
Chlorine	402C4R1		4.00e+4	ug/g	2.95e+2	lbs/hr	CE
Chlorine	402C4R2		3.90e+4	ug/g	2.88e+2	lbs/hr	CE
Chlorine	402C4R3		1.10e+5	ug/g	8.12e+2	lbs/hr	CE
Chlorine	402C4R4		4.70e+4	ug/g	3.47e+2	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID		Concentration		Mass Rate	Calc	
Antimony	402C1R1	ND	2.00e+1	ug/g	5.22e-1	lbs/hr	CE
Antimony	402C1R2	ND	2.00e+1	ug/g	5.22e-1	lbs/hr	CE
Antimony	402C1R3	ND	2.00e+1	ug/g	4.77e-1	lbs/hr	CE
Antimony	402C1R4	ND	2.00e+1	ug/g	6.67e-1	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Antimony	402C4R1		2.00e+0	ug/g	1.48e-2	lbs/hr	CE
Antimony	402C4R2		3.00e+0	ug/g	2.21e-2	lbs/hr	CE
Antimony	402C4R3		2.00e+0	ug/g	1.48e-2	lbs/hr	CE
Antimony	402C4R4		2.00e+0	ug/g	1.48e-2	lbs/hr	CE
Arsenic	402C1R1		1.50e+2	ug/g	3.91e+0	lbs/hr	CE
Arsenic	402C1R2		1.60e+2	ug/g	4.17e+0	lbs/hr	CE
Arsenic	402C1R3		1.50e+2	ug/g	3.58e+0	lbs/hr	CE
Arsenic	402C1R4		1.40e+2	ug/g	4.67e+0	lbs/hr	CE
Arsenic	402C4R1		1.60e+2	ug/g	1.18e+0	lbs/hr	CE
Arsenic	402C4R2		1.70e+2	ug/g	1.25e+0	lbs/hr	CE
Arsenic	402C4R3		1.60e+2	ug/g	1.18e+0	lbs/hr	CE
Arsenic	402C4R4		1.70e+2	ug/g	1.25e+0	lbs/hr	CE
Barium	402C1R1		3.70e+2	ug/g	9.65e+0	lbs/hr	CE
Barium	402C1R2		3.60e+2	ug/g	9.39e+0	lbs/hr	CE
Barium	402C1R3		2.70e+2	ug/g	6.44e+0	lbs/hr	CE
Barium	402C1R4		3.40e+2	ug/g	1.13e+1	lbs/hr	CE
Barium	402C4R1		3.20e+2	ug/g	2.36e+0	lbs/hr	CE
Barium	402C4R2		3.40e+2	ug/g	2.51e+0	lbs/hr	CE
Barium	402C4R3		3.70e+2	ug/g	2.73e+0	lbs/hr	CE
Barium	402C4R4		4.10e+2	ug/g	3.03e+0	lbs/hr	CE
Beryllium	402C1R1		1.00e+0	ug/g	2.61e-2	lbs/hr	CE
Beryllium	402C1R2		6.00e-1	ug/g	1.56e-2	lbs/hr	CE
Beryllium	402C1R3		5.00e-1	ug/g	1.19e-2	lbs/hr	CE
Beryllium	402C1R4		5.00e-1	ug/g	1.67e-2	lbs/hr	CE
Beryllium	402C4R1		5.00e-1	ug/g	3.69e-3	lbs/hr	CE
Beryllium	402C4R2		5.00e-1	ug/g	3.69e-3	lbs/hr	CE
Beryllium	402C4R3		5.00e-1	ug/g	3.69e-3	lbs/hr	CE
Beryllium	402C4R4		8.00e-2	ug/g	5.90e-4	lbs/hr	CE
Cadmium	402C1R1		6.40e+1	ug/g	1.67e+0	lbs/hr	CE
Cadmium	402C1R2		6.50e+1	ug/g	1.70e+0	lbs/hr	CE
Cadmium	402C1R3		4.90e+1	ug/g	1.17e+0	lbs/hr	CE
Cadmium	402C1R4		8.00e+1	ug/g	2.67e+0	lbs/hr	CE
Cadmium	402C4R1		8.90e+1	ug/g	6.57e-1	lbs/hr	CE
Cadmium	402C4R2		1.00e+2	ug/g	7.38e-1	lbs/hr	CE
Cadmium	402C4R3		9.90e+1	ug/g	7.31e-1	lbs/hr	CE
Cadmium	402C4R4		1.10e+2	ug/g	8.12e-1	lbs/hr	CE
Chromium	402C1R1		1.90e+2	ug/g	4.96e+0	lbs/hr	CE
Chromium	402C1R2		2.40e+2	ug/g	6.26e+0	lbs/hr	CE
Chromium	402C1R3		2.00e+2	ug/g	4.77e+0	lbs/hr	CE
Chromium	402C1R4		2.00e+2	ug/g	6.67e+0	lbs/hr	CE
Chromium	402C4R1		1.80e+2	ug/g	1.33e+0	lbs/hr	CE
Chromium	402C4R2		6.20e+1	ug/g	4.58e-1	lbs/hr	CE
Chromium	402C4R3		1.90e+2	ug/g	1.40e+0	lbs/hr	CE
Chromium	402C4R4		1.80e+2	ug/g	1.33e+0	lbs/hr	CE
Lead	402C1R1		2.20e+3	ug/g	5.74e+1	lbs/hr	CE
Lead	402C1R2		1.80e+3	ug/g	4.69e+1	lbs/hr	CE
Lead	402C1R3		1.10e+3	ug/g	2.62e+1	lbs/hr	CE
Lead	402C1R4		2.00e+3	ug/g	6.67e+1	lbs/hr	CE
Lead	402C4R1		3.10e+3	ug/g	2.29e+1	lbs/hr	CE
Lead	402C4R2		2.80e+3	ug/g	2.07e+1	lbs/hr	CE
Lead	402C4R3		3.40e+3	ug/g	2.51e+1	lbs/hr	CE
Lead	402C4R4		4.10e+3	ug/g	3.03e+1	lbs/hr	CE
Mercury	402C1R1		2.20e-1	ug/g	5.74e-3	lbs/hr	CE
Mercury	402C1R2		8.00e-2	ug/g	2.09e-3	lbs/hr	CE
Mercury	402C1R3		9.00e-2	ug/g	2.15e-3	lbs/hr	CE
Mercury	402C1R4		1.00e-1	ug/g	3.33e-3	lbs/hr	CE
Mercury	402C4R1		1.80e-1	ug/g	1.33e-3	lbs/hr	CE
Mercury	402C4R2		1.40e-1	ug/g	1.03e-3	lbs/hr	CE
Mercury	402C4R3		2.10e-1	ug/g	1.55e-3	lbs/hr	CE
Mercury	402C4R4		1.60e-1	ug/g	1.18e-3	lbs/hr	CE
Silver	402C1R1		4.00e+0	ug/g	1.04e-1	lbs/hr	CE
Silver	402C1R2	ND	4.00e+0	ug/g	1.04e-1	lbs/hr	CE
Silver	402C1R3		1.20e+1	ug/g	2.86e-1	lbs/hr	CE
Silver	402C1R4	ND	4.00e+0	ug/g	1.33e-1	lbs/hr	CE
Silver	402C4R1		3.00e-2	ug/g	2.21e-4	lbs/hr	CE
Silver	402C4R2		5.00e+0	ug/g	3.69e-2	lbs/hr	CE
Silver	402C4R3		8.00e+0	ug/g	5.90e-2	lbs/hr	CE
Silver	402C4R4		4.00e+0	ug/g	2.95e-2	lbs/hr	CE
Thallium	402C1R1	ND	4.00e+0	ug/g	1.04e-1	lbs/hr	CE
Thallium	402C1R2	ND	4.00e+0	ug/g	1.04e-1	lbs/hr	CE
Thallium	402C1R3	ND	4.00e+0	ug/g	9.54e-2	lbs/hr	CE

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Thallium	402C1R4	ND	4.00e+0	ug/g	1.33e-1	lbs/hr	CE
Thallium	402C4R1		9.00e-1	ug/g	6.64e-3	lbs/hr	CE
Thallium	402C4R2		9.00e-1	ug/g	6.64e-3	lbs/hr	CE
Thallium	402C4R3		1.00e+0	ug/g	7.38e-3	lbs/hr	CE
Thallium	402C4R4		1.20e+0	ug/g	8.86e-3	lbs/hr	CE

5. Type: FUEL

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

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Chlorine	402C3R1	2.00e+3	ug/g	1.00e+1	lbs/hr	CE
Chlorine	402C3R2	1.70e+3	ug/g	1.11e+1	lbs/hr	CE
Chlorine	402C3R3	1.80e+3	ug/g	3.89e+0	lbs/hr	CE
Chlorine	402C3R4	2.00e+3	ug/g	1.30e+1	lbs/hr	CE
Chlorine	402C4R1	1.80e+3	ug/g	9.00e+0	lbs/hr	CE
Chlorine	402C4R2	1.80e+3	ug/g	8.68e+0	lbs/hr	CE
Chlorine	402C4R3	1.40e+3	ug/g	5.40e+0	lbs/hr	CE
Chlorine	402C4R4	1.50e+3	ug/g	6.00e+0	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc	
Antimony	402C4R1	2.00e+0	ug/g	1.00e-2	lbs/hr	CE
Antimony	402C4R2	2.00e+0	ug/g	9.64e-3	lbs/hr	CE
Antimony	402C4R3	2.00e+0	ug/g	7.72e-3	lbs/hr	CE
Antimony	402C4R4	2.00e+0	ug/g	8.00e-3	lbs/hr	CE
Arsenic	402C4R1	5.00e+0	ug/g	2.50e-2	lbs/hr	CE
Arsenic	402C4R2	5.10e+1	ug/g	2.46e-1	lbs/hr	CE
Arsenic	402C4R3	5.80e+0	ug/g	2.24e-2	lbs/hr	CE
Arsenic	402C4R4	7.10e+0	ug/g	2.84e-2	lbs/hr	CE
Barium	402C4R1	2.50e+1	ug/g	1.25e-1	lbs/hr	CE
Barium	402C4R2	2.40e+1	ug/g	1.16e-1	lbs/hr	CE
Barium	402C4R3	2.10e+1	ug/g	8.11e-2	lbs/hr	CE
Barium	402C4R4	4.10e+1	ug/g	1.64e-1	lbs/hr	CE
Beryllium	402C4R1	1.30e+0	ug/g	6.50e-3	lbs/hr	CE
Beryllium	402C4R2	1.10e+0	ug/g	5.30e-3	lbs/hr	CE
Beryllium	402C4R3	1.10e+0	ug/g	4.25e-3	lbs/hr	CE
Beryllium	402C4R4	1.20e+0	ug/g	4.80e-3	lbs/hr	CE
Cadmium	402C4R1	2.00e+0	ug/g	1.00e-2	lbs/hr	CE
Cadmium	402C4R2	2.00e+0	ug/g	9.64e-3	lbs/hr	CE
Cadmium	402C4R3	2.00e+0	ug/g	7.72e-3	lbs/hr	CE
Cadmium	402C4R4	2.00e+0	ug/g	8.00e-3	lbs/hr	CE
Chromium	402C4R1	8.00e+0	ug/g	4.00e-2	lbs/hr	CE
Chromium	402C4R2	8.00e+0	ug/g	3.86e-2	lbs/hr	CE
Chromium	402C4R3	8.00e+0	ug/g	3.09e-2	lbs/hr	CE
Chromium	402C4R4	1.10e+1	ug/g	4.40e-2	lbs/hr	CE
Lead	402C4R1	5.30e+1	ug/g	2.65e-1	lbs/hr	CE
Lead	402C4R2	4.90e+1	ug/g	2.36e-1	lbs/hr	CE
Lead	402C4R3	4.00e+1	ug/g	1.54e-1	lbs/hr	CE
Lead	402C4R4	3.60e+1	ug/g	1.44e-1	lbs/hr	CE
Mercury	402C4R1	8.00e-2	ug/g	4.00e-4	lbs/hr	CE
Mercury	402C4R2	8.00e-2	ug/g	3.86e-4	lbs/hr	CE
Mercury	402C4R3	7.00e-2	ug/g	2.70e-4	lbs/hr	CE
Mercury	402C4R4	8.00e-2	ug/g	3.20e-4	lbs/hr	CE
Silver	402C4R1	3.00e+0	ug/g	1.50e-2	lbs/hr	CE
Silver	402C4R2	3.00e+0	ug/g	1.45e-2	lbs/hr	CE
Silver	402C4R3	3.00e+0	ug/g	1.16e-2	lbs/hr	CE
Silver	402C4R4	3.00e+0	ug/g	1.20e-2	lbs/hr	CE
Thallium	402C4R1	9.00e-1	ug/g	4.50e-3	lbs/hr	CE
Thallium	402C4R2	9.00e-1	ug/g	4.34e-3	lbs/hr	CE
Thallium	402C4R3	9.00e-1	ug/g	3.47e-3	lbs/hr	CE
Thallium	402C4R4	9.00e-1	ug/g	3.60e-3	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 7

5. Type: RAW MATERIAL

6. Description: LIME/SHALE/SAND/IRON  
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Chlorine	402C1R1		1.00e+3 ug/g	1.25e+2 lbs/hr	CC
Chlorine	402C1R2	ND	9.99e+2 ug/g	1.28e+2 lbs/hr	CC
Chlorine	402C1R3	ND	1.00e+3 ug/g	1.25e+2 lbs/hr	CC
Chlorine	402C1R4	ND	1.00e+3 ug/g	1.24e+2 lbs/hr	CC
Chlorine	402C2R1	ND	9.97e+2 ug/g	1.28e+2 lbs/hr	CC
Chlorine	402C2R2	ND	1.00e+3 ug/g	1.29e+2 lbs/hr	CC
Chlorine	402C2R3	ND	9.97e+2 ug/g	1.28e+2 lbs/hr	CC
Chlorine	402C2R4	ND	9.98e+2 ug/g	1.26e+2 lbs/hr	CC
Chlorine	402C3R1		1.00e+3 ug/g	1.04e+2 lbs/hr	CE
Chlorine	402C3R2		1.00e+3 ug/g	1.10e+2 lbs/hr	CE
Chlorine	402C3R3		1.00e+3 ug/g	1.07e+2 lbs/hr	CE
Chlorine	402C3R4		1.00e+3 ug/g	9.80e+1 lbs/hr	CE
Chlorine	402C4R1		1.00e+3 ug/g	1.24e+2 lbs/hr	CE
Chlorine	402C4R2		1.00e+3 ug/g	2.50e+2 lbs/hr	CE
Chlorine	402C4R3		1.00e+3 ug/g	1.26e+2 lbs/hr	CE
Chlorine	402C4R4		1.00e+3 ug/g	1.26e+2 lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate	Calc
Antimony	402C1R1	ND	3.00e+1 ug/g	3.74e+0 lbs/hr	CE
Antimony	402C1R2	ND	3.00e+1 ug/g	3.84e+0 lbs/hr	CE
Antimony	402C1R3	ND	3.00e+1 ug/g	3.75e+0 lbs/hr	CE
Antimony	402C1R4	ND	3.00e+1 ug/g	3.71e+0 lbs/hr	CE
Antimony	402C4R1		2.00e+0 ug/g	2.48e-1 lbs/hr	CE
Antimony	402C4R2		2.00e+0 ug/g	5.00e-1 lbs/hr	CE
Antimony	402C4R3		2.00e+0 ug/g	2.52e-1 lbs/hr	CE
Antimony	402C4R4		2.00e+0 ug/g	2.52e-1 lbs/hr	CE
Arsenic	402C1R1	ND	3.00e+0 ug/g	3.74e-1 lbs/hr	CE
Arsenic	402C1R2		3.00e+0 ug/g	3.84e-1 lbs/hr	CE
Arsenic	402C1R3	ND	3.00e+0 ug/g	3.75e-1 lbs/hr	CE
Arsenic	402C1R4	ND	3.00e+0 ug/g	3.71e-1 lbs/hr	CE
Arsenic	402C4R1		5.00e+0 ug/g	6.19e-1 lbs/hr	CE
Arsenic	402C4R2		7.00e+0 ug/g	1.75e+0 lbs/hr	CE
Arsenic	402C4R3		5.00e+0 ug/g	6.30e-1 lbs/hr	CE
Arsenic	402C4R4		4.00e+0 ug/g	5.03e-1 lbs/hr	CE
Barium	402C1R1		1.40e+2 ug/g	1.75e+1 lbs/hr	CE
Barium	402C1R2		1.20e+2 ug/g	1.54e+1 lbs/hr	CE
Barium	402C1R3		1.10e+2 ug/g	1.37e+1 lbs/hr	CE
Barium	402C1R4		1.10e+2 ug/g	1.36e+1 lbs/hr	CE
Barium	402C4R1		9.50e+1 ug/g	1.18e+1 lbs/hr	CE
Barium	402C4R2		9.20e+1 ug/g	2.30e+1 lbs/hr	CE
Barium	402C4R3		1.00e+2 ug/g	1.26e+1 lbs/hr	CE
Barium	402C4R4		7.90e+1 ug/g	9.94e+0 lbs/hr	CE
Beryllium	402C1R1		2.00e-1 ug/g	2.49e-2 lbs/hr	CE
Beryllium	402C1R2		2.00e-1 ug/g	2.56e-2 lbs/hr	CE
Beryllium	402C1R3		2.00e-1 ug/g	2.50e-2 lbs/hr	CE
Beryllium	402C1R4		2.00e-1 ug/g	2.47e-2 lbs/hr	CE
Beryllium	402C4R1		5.00e-1 ug/g	6.19e-2 lbs/hr	CE
Beryllium	402C4R2		5.00e-1 ug/g	1.25e-1 lbs/hr	CE
Beryllium	402C4R3		5.00e-1 ug/g	6.30e-2 lbs/hr	CE
Beryllium	402C4R4		5.00e-1 ug/g	6.29e-2 lbs/hr	CE
Cadmium	402C1R1	ND	4.00e-1 ug/g	4.99e-2 lbs/hr	CE
Cadmium	402C1R2	ND	4.00e-1 ug/g	5.13e-2 lbs/hr	CE
Cadmium	402C1R3	ND	4.00e-1 ug/g	5.00e-2 lbs/hr	CE
Cadmium	402C1R4	ND	4.00e-1 ug/g	4.94e-2 lbs/hr	CE
Cadmium	402C4R1		5.00e+0 ug/g	6.19e-1 lbs/hr	CE
Cadmium	402C4R2		5.00e+0 ug/g	1.25e+0 lbs/hr	CE
Cadmium	402C4R3		5.00e+0 ug/g	6.30e-1 lbs/hr	CE
Cadmium	402C4R4		5.00e+0 ug/g	6.29e-1 lbs/hr	CE
Chromium	402C1R1		1.90e+1 ug/g	2.37e+0 lbs/hr	CE
Chromium	402C1R2		1.80e+1 ug/g	2.31e+0 lbs/hr	CE
Chromium	402C1R3		1.80e+1 ug/g	2.25e+0 lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chromium	402C1R4		4.50e+0	ug/g	5.56e-1	lbs/hr	CE
Chromium	402C4R1		6.00e+0	ug/g	7.43e-1	lbs/hr	CE
Chromium	402C4R2		8.00e+0	ug/g	2.00e+0	lbs/hr	CE
Chromium	402C4R3		7.00e+0	ug/g	8.82e-1	lbs/hr	CE
Chromium	402C4R4		6.00e+0	ug/g	7.55e-1	lbs/hr	CE
Lead	402C1R1		5.00e+0	ug/g	6.24e-1	lbs/hr	CE
Lead	402C1R2		5.00e+0	ug/g	6.41e-1	lbs/hr	CE
Lead	402C1R3		4.00e+0	ug/g	5.00e-1	lbs/hr	CE
Lead	402C1R4		6.00e+0	ug/g	7.41e-1	lbs/hr	CE
Lead	402C4R1		2.50e+0	ug/g	3.10e-1	lbs/hr	CE
Lead	402C4R2		3.30e+0	ug/g	8.25e-1	lbs/hr	CE
Lead	402C4R3		3.00e+0	ug/g	3.78e-1	lbs/hr	CE
Lead	402C4R4		3.00e+0	ug/g	3.77e-1	lbs/hr	CE
Mercury	402C1R1	ND	2.00e+1	ug/g	2.49e+0	lbs/hr	CE
Mercury	402C1R2	ND	2.00e+1	ug/g	2.56e+0	lbs/hr	CE
Mercury	402C1R3	ND	2.00e+1	ug/g	2.50e+0	lbs/hr	CE
Mercury	402C1R4	ND	2.00e+1	ug/g	2.47e+0	lbs/hr	CE
Mercury	402C4R1		2.00e-2	ug/g	2.48e-3	lbs/hr	CE
Mercury	402C4R2		2.00e-2	ug/g	5.00e-3	lbs/hr	CE
Mercury	402C4R3		2.00e-2	ug/g	2.52e-3	lbs/hr	CE
Mercury	402C4R4		2.00e-2	ug/g	2.52e-3	lbs/hr	CE
Silver	402C1R1	ND	6.00e-1	ug/g	7.48e-2	lbs/hr	CE
Silver	402C1R2	ND	6.00e-1	ug/g	7.69e-2	lbs/hr	CE
Silver	402C1R3	ND	6.00e-1	ug/g	7.49e-2	lbs/hr	CE
Silver	402C1R4	ND	6.00e-1	ug/g	7.41e-2	lbs/hr	CE
Silver	402C4R1		2.00e+0	ug/g	2.48e-1	lbs/hr	CE
Silver	402C4R2		2.00e+0	ug/g	5.00e-1	lbs/hr	CE
Silver	402C4R3		2.00e+0	ug/g	2.52e-1	lbs/hr	CE
Silver	402C4R4		2.00e+0	ug/g	2.52e-1	lbs/hr	CE
Thallium	402C1R1		7.00e+0	ug/g	8.73e-1	lbs/hr	CE
Thallium	402C1R2	ND	4.00e+0	ug/g	5.13e-1	lbs/hr	CE
Thallium	402C1R3		7.00e+0	ug/g	8.74e-1	lbs/hr	CE
Thallium	402C1R4		6.00e+0	ug/g	7.41e-1	lbs/hr	CE
Thallium	402C4R1		5.00e-1	ug/g	6.19e-2	lbs/hr	CE
Thallium	402C4R2		5.00e-1	ug/g	1.25e-1	lbs/hr	CE
Thallium	402C4R3		5.00e-1	ug/g	6.30e-2	lbs/hr	CE
Thallium	402C4R4		5.00e-1	ug/g	6.29e-2	lbs/hr	CE

5. Type: SPIKE

6. Description: ORGANICS (TCE,TCB)/METALS (CD,CR,PB)  
 Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	402C2R1	6.96e+5 ug/g	1.12e+2 lbs/hr	CC
Chlorine	402C2R2	6.99e+5 ug/g	1.00e+2 lbs/hr	CC
Chlorine	402C2R3	6.99e+5 ug/g	1.00e+2 lbs/hr	CC
Chlorine	402C2R4	6.92e+5 ug/g	9.90e+1 lbs/hr	CC

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,2,4-Trichlorobenzene	402C2R1	3.39e+5 ug/g	5.45e+1 lbs/hr	CC
1,2,4-Trichlorobenzene	402C2R2	3.12e+5 ug/g	4.46e+1 lbs/hr	CC
1,2,4-Trichlorobenzene	402C2R3	3.14e+5 ug/g	4.48e+1 lbs/hr	CC
1,2,4-Trichlorobenzene	402C2R4	3.50e+5 ug/g	5.00e+1 lbs/hr	CC

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,1,1-Trichloroethane	402C2R1	6.64e+5 ug/g	1.07e+2 lbs/hr	CC
1,1,1-Trichloroethane	402C2R2	6.87e+5 ug/g	9.83e+1 lbs/hr	CC
1,1,1-Trichloroethane	402C2R3	6.84e+5 ug/g	9.78e+1 lbs/hr	CC
1,1,1-Trichloroethane	402C2R4	6.48e+5 ug/g	9.26e+1 lbs/hr	CC

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP  
 REGION: 7

6. Description: ORGANIC(TCE,TeCE,DCB,TCB)  
 Group: WET KILN Location: PRIMARY CHAMBER Phase: LIQUID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	402C3R1	7.26e+5 ug/g	5.25e+2 lbs/hr	CC
Chlorine	402C3R2	7.23e+5 ug/g	4.85e+2 lbs/hr	CC
Chlorine	402C3R3	7.28e+5 ug/g	5.19e+2 lbs/hr	CC
Chlorine	402C3R4	7.20e+5 ug/g	5.11e+2 lbs/hr	CC
Chlorine	402C4R1	7.19e+5 ug/g	5.10e+2 lbs/hr	CC
Chlorine	402C4R2	7.32e+5 ug/g	5.36e+2 lbs/hr	CC
Chlorine	402C4R3	7.30e+5 ug/g	5.60e+2 lbs/hr	CC
Chlorine	402C4R4	7.22e+5 ug/g	5.05e+2 lbs/hr	CC
Chlorine	402C5R1	0.00e+0 ug/g	2.52e+2 lbs/hr	CC
Chlorine	402C5R2	1.00e+6 ug/g	2.59e+2 lbs/hr	CC
Chlorine	402C5R3	1.00e+6 ug/g	2.69e+2 lbs/hr	CC
Chlorine	402C5R4	1.00e+6 ug/g	3.10e+2 lbs/hr	CC

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Dichlorobenzene	402C3R1	1.76e+5 ug/g	1.27e+2 lbs/hr	CC
Dichlorobenzene	402C3R2	2.03e+5 ug/g	1.36e+2 lbs/hr	CC
Dichlorobenzene	402C3R3	1.71e+5 ug/g	1.22e+2 lbs/hr	CC
Dichlorobenzene	402C3R4	1.94e+5 ug/g	1.38e+2 lbs/hr	CC
Dichlorobenzene	402C4R1	2.12e+5 ug/g	1.50e+2 lbs/hr	CC
Dichlorobenzene	402C4R2	1.67e+5 ug/g	1.22e+2 lbs/hr	CC
Dichlorobenzene	402C4R3	1.81e+5 ug/g	1.39e+2 lbs/hr	CC
Dichlorobenzene	402C4R4	1.90e+5 ug/g	1.33e+2 lbs/hr	CC
Trichlorobenzene	402C3R1	1.80e+5 ug/g	1.30e+2 lbs/hr	CC
Trichlorobenzene	402C3R2	1.62e+5 ug/g	1.09e+2 lbs/hr	CC
Trichlorobenzene	402C3R3	1.78e+5 ug/g	1.27e+2 lbs/hr	CC
Trichlorobenzene	402C3R4	1.80e+5 ug/g	1.28e+2 lbs/hr	CC
Trichlorobenzene	402C4R1	1.68e+5 ug/g	1.19e+2 lbs/hr	CC
Trichlorobenzene	402C4R2	1.73e+5 ug/g	1.27e+2 lbs/hr	CC
Trichlorobenzene	402C4R3	1.63e+5 ug/g	1.25e+2 lbs/hr	CC
Trichlorobenzene	402C4R4	1.77e+5 ug/g	1.24e+2 lbs/hr	CC

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Tetrachloroethene	402C3R1	3.15e+5 ug/g	2.28e+2 lbs/hr	CC
Tetrachloroethene	402C3R2	3.37e+5 ug/g	2.26e+2 lbs/hr	CC
Tetrachloroethene	402C3R3	3.27e+5 ug/g	2.33e+2 lbs/hr	CC
Tetrachloroethene	402C3R4	2.99e+5 ug/g	2.12e+2 lbs/hr	CC
Tetrachloroethene	402C4R1	3.17e+5 ug/g	2.25e+2 lbs/hr	CC
Tetrachloroethene	402C4R2	3.46e+5 ug/g	2.53e+2 lbs/hr	CC
Tetrachloroethene	402C4R3	3.60e+5 ug/g	2.76e+2 lbs/hr	CC
Tetrachloroethene	402C4R4	3.09e+5 ug/g	2.16e+2 lbs/hr	CC
Trichloroethene	402C3R1	3.15e+5 ug/g	2.28e+2 lbs/hr	CC
Trichloroethene	402C3R2	2.98e+5 ug/g	2.00e+2 lbs/hr	CC
Trichloroethene	402C3R3	3.24e+5 ug/g	2.31e+2 lbs/hr	CC
Trichloroethene	402C3R4	3.27e+5 ug/g	2.32e+2 lbs/hr	CC
Trichloroethene	402C4R1	3.03e+5 ug/g	2.15e+2 lbs/hr	CC
Trichloroethene	402C4R2	3.14e+5 ug/g	2.30e+2 lbs/hr	CC
Trichloroethene	402C4R3	2.96e+5 ug/g	2.27e+2 lbs/hr	CC
Trichloroethene	402C4R4	3.23e+5 ug/g	2.26e+2 lbs/hr	CC

5. Type: WASTE

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

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	402C1R1	5.00e+4 ug/g	7.08e+2 lbs/hr	CC

US EPA ARCHIVE DOCUMENT



SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chlorine	402C1R2	3.60e+4	ug/g	5.10e+2	lbs/hr	CC
Chlorine	402C1R3	4.60e+4	ug/g	6.19e+2	lbs/hr	CC
Chlorine	402C1R4	3.60e+4	ug/g	4.80e+2	lbs/hr	CC
Chlorine	402C2R1	4.60e+4	ug/g	5.99e+2	lbs/hr	CC
Chlorine	402C2R2	5.70e+4	ug/g	6.83e+2	lbs/hr	CC
Chlorine	402C2R3	3.60e+4	ug/g	4.32e+2	lbs/hr	CC
Chlorine	402C2R4	5.30e+4	ug/g	6.76e+2	lbs/hr	CC
Chlorine	402C3R1	1.20e+4	ug/g	9.55e+1	lbs/hr	CE
Chlorine	402C3R2	1.30e+4	ug/g	9.23e+1	lbs/hr	CE
Chlorine	402C3R3	2.90e+4	ug/g	2.27e+2	lbs/hr	CE
Chlorine	402C3R4	3.80e+4	ug/g	2.15e+2	lbs/hr	CE
Chlorine	402C4R1	5.10e+4	ug/g	4.76e+2	lbs/hr	CE
Chlorine	402C4R2	1.50e+4	ug/g	1.45e+2	lbs/hr	CE
Chlorine	402C4R3	1.40e+4	ug/g	1.50e+2	lbs/hr	CE
Chlorine	402C4R4	8.40e+3	ug/g	8.55e+1	lbs/hr	CE
Chlorine	402C5R1	2.90e+4	ug/g	2.31e+2	lbs/hr	CE
Chlorine	402C5R2	2.60e+4	ug/g	2.07e+2	lbs/hr	CE
Chlorine	402C5R3	2.60e+4	ug/g	2.07e+2	lbs/hr	CE
Chlorine	402C5R4	6.40e+4	ug/g	5.11e+2	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	402C1R1	3.40e+1	ug/g	4.81e-1	lbs/hr	CE	
Antimony	402C1R2	2.80e+1	ug/g	3.96e-1	lbs/hr	CE	
Antimony	402C1R3	3.50e+1	ug/g	4.71e-1	lbs/hr	CE	
Antimony	402C1R4	2.60e+1	ug/g	3.47e-1	lbs/hr	CE	
Antimony	402C4R1	2.70e+1	ug/g	2.52e-1	lbs/hr	CE	
Antimony	402C4R2	4.10e+1	ug/g	3.95e-1	lbs/hr	CE	
Antimony	402C4R3	3.50e+1	ug/g	3.74e-1	lbs/hr	CE	
Antimony	402C4R4	2.90e+1	ug/g	2.95e-1	lbs/hr	CE	
Arsenic	402C1R1	1.20e+3	ug/g	1.70e+1	lbs/hr	CE	
Arsenic	402C1R2	1.10e+3	ug/g	1.56e+1	lbs/hr	CE	
Arsenic	402C1R3	1.40e+3	ug/g	1.88e+1	lbs/hr	CE	
Arsenic	402C1R4	1.40e+3	ug/g	1.87e+1	lbs/hr	CE	
Arsenic	402C4R1	1.30e+1	ug/g	1.21e-1	lbs/hr	CE	
Arsenic	402C4R2	3.00e+0	ug/g	2.89e-2	lbs/hr	CE	
Arsenic	402C4R3	9.60e+1	ug/g	1.03e+0	lbs/hr	CE	
Arsenic	402C4R4	7.60e+1	ug/g	7.74e-1	lbs/hr	CE	
Barium	402C1R1	6.30e+2	ug/g	8.92e+0	lbs/hr	CE	
Barium	402C1R2	6.80e+2	ug/g	9.63e+0	lbs/hr	CE	
Barium	402C1R3	6.20e+2	ug/g	8.35e+0	lbs/hr	CE	
Barium	402C1R4	7.20e+2	ug/g	9.60e+0	lbs/hr	CE	
Barium	402C4R1	7.80e+2	ug/g	7.29e+0	lbs/hr	CE	
Barium	402C4R2	1.10e+3	ug/g	1.06e+1	lbs/hr	CE	
Barium	402C4R3	7.00e+2	ug/g	7.49e+0	lbs/hr	CE	
Barium	402C4R4	6.70e+2	ug/g	6.82e+0	lbs/hr	CE	
Beryllium	402C1R1	ND	1.00e-1	ug/g	1.42e-3	lbs/hr	CE
Beryllium	402C1R2	ND	1.00e-1	ug/g	1.42e-3	lbs/hr	CE
Beryllium	402C1R3	ND	1.00e-1	ug/g	1.35e-3	lbs/hr	CE
Beryllium	402C1R4	ND	1.00e-1	ug/g	1.33e-3	lbs/hr	CE
Beryllium	402C4R1		5.00e-1	ug/g	4.67e-3	lbs/hr	CE
Beryllium	402C4R2		5.00e-1	ug/g	4.82e-3	lbs/hr	CE
Beryllium	402C4R3		5.00e-1	ug/g	5.35e-3	lbs/hr	CE
Beryllium	402C4R4		5.00e-1	ug/g	5.09e-3	lbs/hr	CE
Cadmium	402C1R1		1.00e+2	ug/g	1.42e+0	lbs/hr	CE
Cadmium	402C1R2		1.00e+2	ug/g	1.42e+0	lbs/hr	CE
Cadmium	402C1R3		1.20e+2	ug/g	1.62e+0	lbs/hr	CE
Cadmium	402C1R4		1.60e+2	ug/g	2.13e+0	lbs/hr	CE
Cadmium	402C4R1		1.70e+1	ug/g	1.59e-1	lbs/hr	CE
Cadmium	402C4R2		1.40e+1	ug/g	1.35e-1	lbs/hr	CE
Cadmium	402C4R3		1.30e+1	ug/g	1.39e-1	lbs/hr	CE
Cadmium	402C4R4		2.00e+1	ug/g	2.04e-1	lbs/hr	CE
Chromium	402C1R1		2.10e+3	ug/g	2.97e+1	lbs/hr	CE
Chromium	402C1R2		2.00e+3	ug/g	2.83e+1	lbs/hr	CE
Chromium	402C1R3		2.20e+3	ug/g	2.96e+1	lbs/hr	CE
Chromium	402C1R4		1.70e+3	ug/g	2.27e+1	lbs/hr	CE
Chromium	402C4R1		6.40e+1	ug/g	5.98e-1	lbs/hr	CE
Chromium	402C4R2		8.00e+1	ug/g	7.71e-1	lbs/hr	CE
Chromium	402C4R3		5.10e+1	ug/g	5.46e-1	lbs/hr	CE
Chromium	402C4R4		4.90e+1	ug/g	4.99e-1	lbs/hr	CE

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Lead	402C1R1		3.80e+3	ug/g	5.38e+1	lbs/hr	CE
Lead	402C1R2		3.30e+3	ug/g	4.67e+1	lbs/hr	CE
Lead	402C1R3		2.80e+3	ug/g	3.77e+1	lbs/hr	CE
Lead	402C1R4		3.60e+3	ug/g	4.80e+1	lbs/hr	CE
Lead	402C4R1		3.30e+2	ug/g	3.08e+0	lbs/hr	CE
Lead	402C4R2		4.00e+2	ug/g	3.86e+0	lbs/hr	CE
Lead	402C4R3		3.00e+2	ug/g	3.21e+0	lbs/hr	CE
Lead	402C4R4		2.90e+2	ug/g	2.95e+0	lbs/hr	CE
Mercury	402C1R1		1.70e+0	ug/g	2.41e-2	lbs/hr	CE
Mercury	402C1R2		6.00e-1	ug/g	8.50e-3	lbs/hr	CE
Mercury	402C1R3		9.00e-1	ug/g	1.21e-2	lbs/hr	CE
Mercury	402C1R4		1.00e+0	ug/g	1.33e-2	lbs/hr	CE
Mercury	402C4R1		8.60e-1	ug/g	8.03e-3	lbs/hr	CE
Mercury	402C4R2		8.40e-1	ug/g	8.10e-3	lbs/hr	CE
Mercury	402C4R3		5.10e-1	ug/g	5.46e-3	lbs/hr	CE
Mercury	402C4R4		6.50e-1	ug/g	6.62e-3	lbs/hr	CE
Silver	402C1R1	ND	1.00e+0	ug/g	1.42e-2	lbs/hr	CE
Silver	402C1R2	ND	1.00e+0	ug/g	1.42e-2	lbs/hr	CE
Silver	402C1R3	ND	1.00e+0	ug/g	1.35e-2	lbs/hr	CE
Silver	402C1R4	ND	6.00e+0	ug/g	8.00e-2	lbs/hr	CE
Silver	402C4R1		3.00e+0	ug/g	2.80e-2	lbs/hr	CE
Silver	402C4R2		3.30e+1	ug/g	3.18e-1	lbs/hr	CE
Silver	402C4R3		2.80e+1	ug/g	3.00e-1	lbs/hr	CE
Silver	402C4R4		2.10e+1	ug/g	2.14e-1	lbs/hr	CE
Thallium	402C1R1	ND	4.00e+0	ug/g	5.66e-2	lbs/hr	CE
Thallium	402C1R2	ND	4.00e+0	ug/g	5.66e-2	lbs/hr	CE
Thallium	402C1R3	ND	4.00e+0	ug/g	5.38e-2	lbs/hr	CE
Thallium	402C1R4	ND	4.00e+0	ug/g	5.34e-2	lbs/hr	CE
Thallium	402C4R1		1.00e+0	ug/g	9.34e-3	lbs/hr	CE
Thallium	402C4R2		1.00e+0	ug/g	9.64e-3	lbs/hr	CE
Thallium	402C4R3		1.00e+0	ug/g	1.07e-2	lbs/hr	CE
Thallium	402C4R4		1.00e+0	ug/g	1.02e-2	lbs/hr	CE

7. Category: SVOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,2,4-Trichlorobenzene	402C3R1	2.72e+2 ug/g	2.17e+0 lbs/hr	CE
1,2,4-Trichlorobenzene	402C3R2	2.40e+2 ug/g	1.70e+0 lbs/hr	CE
1,2,4-Trichlorobenzene	402C3R3	1.39e+2 ug/g	1.09e+0 lbs/hr	CE
1,2,4-Trichlorobenzene	402C3R4	2 1.81e+2 ug/g	1.02e+0 lbs/hr	CE
1,2-Dichlorobenzene	402C3R1	4.99e+2 ug/g	3.97e+0 lbs/hr	CE
1,2-Dichlorobenzene	402C3R2	8.33e+2 ug/g	5.91e+0 lbs/hr	CE
1,2-Dichlorobenzene	402C3R3	4.07e+3 ug/g	3.19e+1 lbs/hr	CE
1,2-Dichlorobenzene	402C3R4	6.87e+3 ug/g	3.89e+1 lbs/hr	CE

7. Category: VOC

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
1,1,1-Trichloroethane	402C2R1	7.53e+3 ug/g	9.80e+1 lbs/hr	CC
1,1,1-Trichloroethane	402C2R2	1.17e+4 ug/g	1.40e+2 lbs/hr	CC
1,1,1-Trichloroethane	402C2R3	1.36e+4 ug/g	1.63e+2 lbs/hr	CC
1,1,1-Trichloroethane	402C2R4	9.35e+3 ug/g	1.19e+2 lbs/hr	CC
Tetrachloroethene	402C2R1	2.54e+4 ug/g	3.31e+2 lbs/hr	CC
Tetrachloroethene	402C2R2	1.46e+4 ug/g	1.75e+2 lbs/hr	CC
Tetrachloroethene	402C2R3	1.94e+4 ug/g	2.33e+2 lbs/hr	CC
Tetrachloroethene	402C2R4	1.40e+4 ug/g	1.79e+2 lbs/hr	CC

6. Description: WASTE-DERIVED FUEL

Group: WET KILN

Location: KILN

Phase: SOLID

7. Category: Halogens

Analysis:

8. Substance	9. Run ID	Concentration	Mass Rate	Calc
Chlorine	402C1R1	3.00e+3 ug/g	1.30e+1 lbs/hr	CC
Chlorine	402C1R2	2.04e+3 ug/g	1.20e+1 lbs/hr	CC
Chlorine	402C1R3	6.40e+4 ug/g	2.52e+2 lbs/hr	CC
Chlorine	402C1R4	3.10e+4 ug/g	1.53e+2 lbs/hr	CC
Chlorine	402C2R1	2.98e+3 ug/g	1.70e+1 lbs/hr	CC

US EPA ARCHIVE DOCUMENT

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP REGION: 7

Chlorine	402C2R2	1.96e+3	ug/g	1.00e+1	lbs/hr	CC
Chlorine	402C2R3	2.05e+3	ug/g	9.00e+0	lbs/hr	CC
Chlorine	402C2R4	4.06e+3	ug/g	1.90e+1	lbs/hr	CC
Chlorine	402C3R1	7.20e+3	ug/g	1.34e+1	lbs/hr	CE
Chlorine	402C3R2	8.60e+3	ug/g	1.46e+1	lbs/hr	CE
Chlorine	402C3R3	4.20e+3	ug/g	9.07e+0	lbs/hr	CE
Chlorine	402C3R4	4.70e+3	ug/g	8.08e+0	lbs/hr	CE
Chlorine	402C4R1	4.40e+3	ug/g	1.45e+1	lbs/hr	CE
Chlorine	402C4R2	1.50e+4	ug/g	5.67e+1	lbs/hr	CE
Chlorine	402C4R3	5.00e+3	ug/g	1.58e+1	lbs/hr	CE
Chlorine	402C4R4	8.40e+3	ug/g	2.47e+1	lbs/hr	CE
Chlorine	402C5R1	1.70e+3	ug/g	3.88e+0	lbs/hr	CE
Chlorine	402C5R2	1.00e+3	ug/g	2.98e+0	lbs/hr	CE
Chlorine	402C5R3	6.40e+3	ug/g	1.96e+1	lbs/hr	CE
Chlorine	402C5R4	1.10e+3	ug/g	4.25e+0	lbs/hr	CE

7. Category: Metals

Analysis:

8. Substance	9. Run ID	Concentration		Mass Rate		Calc	
Antimony	402C1R1	4.36e+2	ug/g	1.89e+0	lbs/hr	CE	
Antimony	402C1R2	1.17e+2	ug/g	6.88e-1	lbs/hr	CE	
Antimony	402C1R3	4.00e+0	ug/g	1.58e-2	lbs/hr	CE	
Antimony	402C1R4	5.00e+0	ug/g	2.47e-2	lbs/hr	CE	
Antimony	402C4R1	1.90e+1	ug/g	6.27e-2	lbs/hr	CE	
Antimony	402C4R2	9.00e+0	ug/g	3.40e-2	lbs/hr	CE	
Antimony	402C4R3	4.00e+0	ug/g	1.26e-2	lbs/hr	CE	
Antimony	402C4R4	6.00e+0	ug/g	1.76e-2	lbs/hr	CE	
Arsenic	402C1R1	6.66e+2	ug/g	2.89e+0	lbs/hr	CE	
Arsenic	402C1R2	4.21e+2	ug/g	2.48e+0	lbs/hr	CE	
Arsenic	402C1R3	1.60e+1	ug/g	6.30e-2	lbs/hr	CE	
Arsenic	402C1R4	1.10e+1	ug/g	5.43e-2	lbs/hr	CE	
Arsenic	402C4R1	4.00e+0	ug/g	1.32e-2	lbs/hr	CE	
Arsenic	402C4R2	2.00e+0	ug/g	7.56e-3	lbs/hr	CE	
Arsenic	402C4R3	5.00e+0	ug/g	1.58e-2	lbs/hr	CE	
Arsenic	402C4R4	3.00e+0	ug/g	8.82e-3	lbs/hr	CE	
Barium	402C1R1	1.60e+2	ug/g	6.94e-1	lbs/hr	CE	
Barium	402C1R2	7.80e+1	ug/g	4.59e-1	lbs/hr	CE	
Barium	402C1R3	2.00e+2	ug/g	7.88e-1	lbs/hr	CE	
Barium	402C1R4	1.90e+3	ug/g	9.39e+0	lbs/hr	CE	
Barium	402C4R1	2.20e+3	ug/g	7.26e+0	lbs/hr	CE	
Barium	402C4R2	7.50e+2	ug/g	2.83e+0	lbs/hr	CE	
Barium	402C4R3	2.20e+3	ug/g	6.95e+0	lbs/hr	CE	
Barium	402C4R4	1.50e+3	ug/g	4.41e+0	lbs/hr	CE	
Beryllium	402C1R1	1.00e-1	ug/g	4.34e-4	lbs/hr	CE	
Beryllium	402C1R2	1.00e-1	ug/g	5.88e-4	lbs/hr	CE	
Beryllium	402C1R3	2.00e-1	ug/g	7.88e-4	lbs/hr	CE	
Beryllium	402C1R4	ND	1.00e-1	ug/g	4.94e-4	lbs/hr	CE
Beryllium	402C4R1	5.00e-1	ug/g	1.65e-3	lbs/hr	CE	
Beryllium	402C4R2	5.00e-1	ug/g	1.89e-3	lbs/hr	CE	
Beryllium	402C4R3	5.00e-1	ug/g	1.58e-3	lbs/hr	CE	
Beryllium	402C4R4	5.00e-1	ug/g	1.47e-3	lbs/hr	CE	
Cadmium	402C1R1	2.40e+0	ug/g	1.04e-2	lbs/hr	CE	
Cadmium	402C1R2	1.20e+0	ug/g	7.06e-3	lbs/hr	CE	
Cadmium	402C1R3	1.10e+0	ug/g	4.33e-3	lbs/hr	CE	
Cadmium	402C1R4	2.80e+0	ug/g	1.38e-2	lbs/hr	CE	
Cadmium	402C4R1	6.90e+0	ug/g	2.28e-2	lbs/hr	CE	
Cadmium	402C4R2	1.50e+1	ug/g	5.67e-2	lbs/hr	CE	
Cadmium	402C4R3	5.30e+1	ug/g	1.67e-1	lbs/hr	CE	
Cadmium	402C4R4	7.10e+1	ug/g	2.09e-1	lbs/hr	CE	
Chromium	402C1R1	7.60e+2	ug/g	3.30e+0	lbs/hr	CE	
Chromium	402C1R2	3.90e+2	ug/g	2.29e+0	lbs/hr	CE	
Chromium	402C1R3	2.10e+2	ug/g	8.27e-1	lbs/hr	CE	
Chromium	402C1R4	1.50e+2	ug/g	7.41e-1	lbs/hr	CE	
Chromium	402C4R1	7.10e+2	ug/g	2.34e+0	lbs/hr	CE	
Chromium	402C4R2	9.60e+2	ug/g	3.63e+0	lbs/hr	CE	
Chromium	402C4R3	5.00e+2	ug/g	1.58e+0	lbs/hr	CE	
Chromium	402C4R4	1.30e+3	ug/g	3.82e+0	lbs/hr	CE	
Lead	402C1R1	2.80e+2	ug/g	1.22e+0	lbs/hr	CE	
Lead	402C1R2	1.60e+2	ug/g	9.41e-1	lbs/hr	CE	
Lead	402C1R3	7.30e+2	ug/g	2.88e+0	lbs/hr	CE	
Lead	402C1R4	1.60e+3	ug/g	7.90e+0	lbs/hr	CE	

SECTION 8: OTHER STREAM ANALYSES

1. COMPANY: ASH GROVE CEMENT COMPANY  
 2. STATE: KS  
 3. CITY: CHANUTE  
 4. EP ID: 402 DEVICE NAME: KILN NO. 2

EPA ID: KSD031203318  
 SYSTEM TYPE: CEMENT KILN

APC SYSTEM: ESP

REGION: 7

Lead	402C4R1		5.90e+2	ug/g	1.95e+0	lbs/hr	CE
Lead	402C4R2		3.20e+3	ug/g	1.21e+1	lbs/hr	CE
Lead	402C4R3		1.70e+3	ug/g	5.37e+0	lbs/hr	CE
Lead	402C4R4		4.80e+3	ug/g	1.41e+1	lbs/hr	CE
Mercury	402C1R1		5.20e+0	ug/g	2.26e-2	lbs/hr	CE
Mercury	402C1R2		3.60e+0	ug/g	2.12e-2	lbs/hr	CE
Mercury	402C1R3	ND	2.00e-1	ug/g	7.88e-4	lbs/hr	CE
Mercury	402C1R4		3.10e+0	ug/g	1.53e-2	lbs/hr	CE
Mercury	402C4R1		3.50e-1	ug/g	1.15e-3	lbs/hr	CE
Mercury	402C4R2		9.80e-1	ug/g	3.70e-3	lbs/hr	CE
Mercury	402C4R3		3.20e-1	ug/g	1.01e-3	lbs/hr	CE
Mercury	402C4R4		4.80e-1	ug/g	1.41e-3	lbs/hr	CE
Silver	402C1R1		7.00e+0	ug/g	3.04e-2	lbs/hr	CE
Silver	402C1R2		5.00e+0	ug/g	2.94e-2	lbs/hr	CE
Silver	402C1R3	ND	1.00e+0	ug/g	3.94e-3	lbs/hr	CE
Silver	402C1R4	ND	1.00e+0	ug/g	4.94e-3	lbs/hr	CE
Silver	402C4R1		3.00e+0	ug/g	9.90e-3	lbs/hr	CE
Silver	402C4R2		3.00e+0	ug/g	1.13e-2	lbs/hr	CE
Silver	402C4R3		5.00e+0	ug/g	1.58e-2	lbs/hr	CE
Silver	402C4R4		3.00e+0	ug/g	8.82e-3	lbs/hr	CE
Thallium	402C1R1	ND	4.00e+0	ug/g	1.74e-2	lbs/hr	CE
Thallium	402C1R2	ND	4.00e+0	ug/g	2.35e-2	lbs/hr	CE
Thallium	402C1R3	ND	4.00e+0	ug/g	1.58e-2	lbs/hr	CE
Thallium	402C1R4	ND	4.00e+0	ug/g	1.98e-2	lbs/hr	CE
Thallium	402C4R1		9.00e-1	ug/g	2.97e-3	lbs/hr	CE
Thallium	402C4R2		9.00e-1	ug/g	3.40e-3	lbs/hr	CE
Thallium	402C4R3		9.00e-1	ug/g	2.84e-3	lbs/hr	CE
Thallium	402C4R4		9.00e-1	ug/g	2.65e-3	lbs/hr	CE

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