

Resource Materials Testing, Inc.  
"Specialists in Fly Ash Testing"

24 Fine Drive Murphy, NC 28906 828.506.7636

**REPORT OF STABILIZER ANALYSIS**

TO: Ash Grove Resources, LLC  
Attn: Mr. Brady Pryor  
5375 SW 7<sup>th</sup> Street, Suite 400  
Topeka, KS 66606-2552

PROJECT NO. RMT-467  
SAMPLE NO. 21622  
DATE REC.: 01-18-16  
DATE REP.: 02-24-16

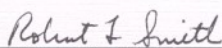
PROJECT NAME: Cement Kiln Dust (CKD) Quality Assurance Program  
SAMPLE ID: Foreman Cement Kiln Dust (CKD)

**CHEMICAL ANALYSIS, ignited basis, wt%: RESULTS:**

Silicon Dioxide, SiO <sub>2</sub>	16.58
Aluminum Oxide, Al <sub>2</sub> O <sub>3</sub>	5.05
Iron Oxide, Fe <sub>2</sub> O <sub>3</sub>	2.65
Sum of SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> & Fe <sub>2</sub> O <sub>3</sub>	24.28
Calcium Oxide, CaO	54.81
Magnesium Oxide, MgO	0.87
Sodium Oxide, Na <sub>2</sub> O	1.12
Potassium Oxide, K <sub>2</sub> O	8.78
Sulfur Trioxide, SO <sub>3</sub>	3.07
Moisture Content	0.00
Loss on Ignition	4.13
Available Lime Index, %CaO	20.00

**PHYSICAL TESTING:**

Amount Retained on A No. 325 Sieve,%	25.4
C 109 Cubes w/o cement, psi	
3-day	255
7-day	388
28-day	525
Water Requirement, ml	400
Density	2.69

By   
Robert L. Smith, Ph.D.