

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 7th Street, Suite 400
Topeka, KS 66606-2552

PROJECT NO. RMT-467
SAMPLE NO. 21609
DATE REC.: 01-08-16
DATE REP.: 02-24-16

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

CHEMICAL ANALYSIS, ignited basis, wt%:	RESULTS:
Silicon Dioxide, SiO ₂	16.94
Aluminum Oxide, Al ₂ O ₃	4.23
Iron Oxide, Fe ₂ O ₃	2.16
Sum of SiO ₂ , Al ₂ O ₃ & Fe ₂ O ₃	23.33
Calcium Oxide, CaO	63.60
Magnesium Oxide, MgO	0.81
Sodium Oxide, Na ₂ O	0.34
Potassium Oxide, K ₂ O	3.31
Sulfur Trioxide, SO ₃	6.08
Moisture Content	0.08
Loss on Ignition	13.76
Available Lime Index, %CaO	13.00

PHYSICAL TESTING:

Amount Retained on A No. 325 Sieve, %	30.8
C 109 Cubes w/o cement, psi	
3-day	125
7-day	256
28-day	288
Water Requirement, ml	316
Density	2.85

By Robert L. Smith
Robert L. Smith, Ph.D.