



CERTIFICATE OF ANALYSIS

Date: August 19, 2008

CPA #: 66038

Reported To:

Randy Fletcher
 Jewell Smokeless Coal Corp.
 P.O. Box 70
 Vansant, VA 24656

Sample Identification:

1x3/8 Stoker Coal @ 1.45 Gravity (Washed in Plant)
Description: ~4-lbs., -8m (wet)
Date Rec'd: August 14, 2008

Total Moisture, % 2.88

Free Swelling Index 8½

Proximate Analysis (% dry)

Volatile Matter 21.37
 Ash 8.72
 Fixed Carbon 69.91

Ash Fusion Temperatures

	<i>Reducing</i>
Initial Deformation, ° F	2540
Softening Temp., ° F	2600
Hemispherical Temp., ° F	2630
Fluid Temp., ° F	2670

Sulfur Content, (% dry) 0.88

Calorific Value (Btu, dry) 14,436

Ash Composition (% in ash)

SiO ₂	50.81
Al ₂ O ₃	26.60
Fe ₂ O ₃	14.36
TiO ₂	1.47
CaO	1.36
MgO	1.22
Na ₂ O	0.55
K ₂ O	1.57
P ₂ O ₅	0.46
SO ₃	1.09
Undetermined	0.51

Ultimate Analysis (% dry) *

Carbon	81.23
Hydrogen	4.89
Nitrogen	1.70
Oxygen (diff.)	2.58
Sulfur	0.88
Ash	8.72

* Subcontracted to Other Lab	
** Tested by Supplier	
P.O. No.:	103783
Req. No.:	486045

Emailed To: W. Pruitt, S. Williams, R. Fletcher

Reported by: Kevin DeVanney

J. Richardson, N. Osborne, M. Ball, G. Martin