

WCF Fly ash



# COMMERCIAL TESTING & ENGINEERING CO.

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Member of the SGS Group (Société Générale de Surveillance)

May 30, 2002

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Chattanooga TN 37402  
RENEE B. MERRELL

SAMPLE No.: 257766  
SAMPLE TYPE: PONDED FLY ASH  
REMARKS: FLY

Date Received March 5, 2002  
Analysis report no. 72-470163

### PROXIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	0.22	xxxxxx
% Ash	88.91	89.11
% Volatile	< 0.01	< 0.01
% Fixed Carbon	<u>10.86</u>	<u>10.88</u>
	100.00	100.00
Btu/lb	1292	1295
% Sulfur	0.02	0.02
MAF Btu/lb	11892	

### ULTIMATE ANALYSIS

	As Received	Dry Basis
% Moisture	0.22	xxxxxx
% Carbon	10.30	10.32
% Hydrogen	0.16	0.16
% Nitrogen	0.38	0.38
% Sulfur	0.02	0.02
% Ash	88.91	89.11
% Oxygen	<u>0.01</u>	<u>0.01</u>
	100.00	100.00

### ANALYSIS OF ASH

### % Weight Ignited Basis

Silica, SiO <sub>2</sub>	58.97
Alumina, Al <sub>2</sub> O <sub>3</sub>	29.11
Titania, TiO <sub>2</sub>	1.44
Ferric Oxide, Fe <sub>2</sub> O <sub>3</sub>	5.25
Lime, CaO	0.92
Magnesia, MgO	0.87
Potassium Oxide, K <sub>2</sub> O	2.65
Sodium Oxide, Na <sub>2</sub> O	0.30
Sulfur Trioxide, SO <sub>3</sub>	0.06
Phosphorous Pentoxide, P <sub>2</sub> O <sub>5</sub>	0.14
Strontium Oxide, SrO	0.07
Barium Oxide, BaO	0.16
Manganese Oxide, Mn <sub>3</sub> O <sub>4</sub>	0.06
Undetermined	0.00
Alks. as Na <sub>2</sub> O, Dry Coal Basis	1.82
Base:Acid Ratio	0.11
T250 Temperature	2900+

### Silica Value

89.33

### Type of Ash

BITUMINOUS

### Fouling Index

0.03

### Slagging Index

0.00

### % MAF Fixed Carbon

99.91

### % MAF Volatile

0.09

### lb SO<sub>2</sub>/mm Btu

0.31

### lb Sulfur/mm Btu

0.15



Certificate No. 7061/1

Respectfully submitted,  
COMMERCIAL TESTING & ENGINEERING CO.

Denver Laboratory

