

# COAL

[WWW.SGS.COM/COAL](http://WWW.SGS.COM/COAL)

MINERALS SERVICES

WHEN YOU NEED TO BE SURE





# GLOBAL TECHNICAL EXPERTISE

## COAL

Consistently knowing your coal quality is essential to eliminate penalties and maximize profits. SGS works hand-in-hand with your operations to provide cost effective solutions for quality and operational challenges. SGS is synonymous with the highest levels of integrity, independence, impartiality and accuracy. With our core services and industrial expertise to help you improve your operational efficiencies, our global technical leadership helps minimize operational and financial risk. Whether you need sampling, inspection or laboratory services, mechanical sampling systems, on-line analysis for blending and sorting support, our staff provide the unrivalled experience and value to help you maximize your potential.

### LABORATORY TESTING

- Proximate, ultimate and the full range of coal, ash and mineral analysis
- Sink-float/washability testing
- Mineralogy testing
- Physical and particle size analysis
- Toxicity and TCLP testing.
- Coke strength and stability testing
- Rheology testing
- Analysis of met, steam coal, pet coke and ash
- Operating on-site and near-site laboratories
- Proficiency test programs
- Customized quality assurance programs, audits and training

### SHIPMENT SERVICES

- Inspection
- Load and discharge supervision
- Rail, vessel and barge assessment
- Vessel and barge gauging
- Draft surveys
- Quality and quantity evaluations

### INVENTORY SERVICES

- Stockpile management services
- Volume computation
- Density determination
- Tonnage calculation

### SAMPLING SERVICES

- Design, construction and operation of mechanical sampling systems
- Manual and auger sampling
- Channel sampling
- Sampling system audits, bias testing, operation and preventative maintenance

### COAL PREPARATION PLANT SERVICES

- Plant audit/efficiency tests and plant sampling
- Optimization and troubleshooting consulting
- Process simulations

### REAL TIME ANALYSIS

- Design, commission, install, operate, calibrate and support of on-line analysis systems
- Real time control of quality using sorting and blending systems
- Engineering services to develop capital justifications for these systems

### RESERVE EVALUATION

- Design of drilling program
- Logging and core sampling
- Core analysis
- Geostatistics and reserve calculations
- Conditional simulation and evaluation
- Moisture-holding capacity and rank determination
- Rock mechanics and geotechnical testing
- Coal bed methane gas content

### ENVIRONMENTAL SERVICES

- Air, water and soil hazard analysis
- Silica, dust and workplace air quality analysis
- Noise abatement audits and strategies
- Independent data hosting
- Environmental impact studies

### AUDITING AND CERTIFICATION

- ISO 9001:2008 (Quality)
- ISO 14000:2004 (Environmental)
- BS EN 16001:2009 (Energy)
- OHSAS 18001 (Health and Safety)
- SA 8000 (Social Accountability)



### SGS AS A PARTNER

SGS provides independent, technical advice and a strategic partnership to companies across the minerals sector. We offer:

- A vast global network of laboratory services
- Presence in all of the world's transportation hubs for trade service
- Technology expertise and project development support

Our range of value-added solutions contains costs, reduces risk and enhances value.

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