

## TRADE AND INSPECTION FOR IRON ORE

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The transportation of iron ore by any means introduces commercial risks to all parties involved. The quality and quantity of the cargo must be accurately determined to know the grade of iron ore being transported. Often specialized services and expertise are needed. SGS provides inspection and supervision services including weight certification, sampling, chemical and quality analysis globally. Whether you are selling, buying or transporting iron ore, SGS is ready to independently verify your shipment weight and quality parameters.



SGS' iron ore trade and inspection services include:

- Umpire and settlement trade analysis
- Proficiency testing programs
- Marine services
- Collateral management agreements
- E-reporting and E-certificates

### UMPIRE AND SETTLEMENT TRADE ANALYSIS

SGS Minerals Services laboratories have been performing analytical determinations and assays of pay and penalty metals for over 20 years, resulting in strong, long-term laboratory-client relationships. Our party umpire facilities have highly trained and professional staff with many years of experience in handling samples of iron ore.

These designated facilities employ uniform analytical and operational methodologies, follow industry-leading quality assurance and quality control practices, and use standardized templates for the presentation of their results. Professional staff from our laboratories collaborate closely to share best practices and expertise, ensuring all remain at the leading edge of technical developments. Quality Assurance/Quality Control practices, including internal round robin programs, rank with the best anywhere our party/umpire labs are accredited to ISO/IEC17025 or are in the process of obtaining that accreditation.

Our party and umpire laboratories have evolved into first-rate facilities staffed by experienced technical professionals including a team of research chemists with the expertise to solve the most daunting sampling and analytical problems. Commercial transactions are settled on SGS results, proving our results are timely and accurate. Having specialized laboratories strategically located around the world allows us to provide the rapid turnaround necessary to facilitate international trade in high-value materials.



### PROFICIENCY TESTING PROGRAMS

Laboratory Quality Services International (LQSi) programs provide a quality-monitoring tool for SGS' global network of analytical laboratories as well as for numerous client laboratories. LQSi's proprietary statistical software may be used to evaluate data from proficiency tests where sample preparation, distribution and data compilation is conducted by organizations other than LQSi. LQSi offers the following laboratory quality services:

- Proficiency (round robin) testing
- Proficiency test reporting services
- Quality control samples.



## MARINE SERVICES

With decades of experience, SGS' marine services are known to be industry leading. The SGS team approach effectively puts the resources of our entire organization at your disposal. SGS' experts minimize your commercial and contractual risks by ensuring that the quality of the iron ore actually shipped is the product that arrives. SGS' marine services include:

- Bunker and conditional surveys
- Visual inspection
- Draft surveys
- Weight and quantity verification
- On- and off-hires.



## BUNKER AND CONDITIONAL SURVEY

Bunker surveys establish the amount of bunker and lube oil onboard a vessel at any given time. A bunker survey or condition survey is done to document the condition of the vessel prior to change of ownership. As well, proper documentation of bunker operations is required if a dispute or claim is anticipated. Bunker surveys are also used as a loss-prevention measure. The improper collection and distribution of bunker samples can result in subsequent claims in the event of a dispute.

Conditional surveys are usually done in association with a bunker survey. In this case, SGS inspects and records the condition of the loading gear, cargo holds and hatches of the vessel. With the assurance of SGS personnel, the findings and report will allow you, the owner or operator of the vessel, to file claim for any potential damages caused during change of ownership.

## CARGO VISUAL INSPECTION BEFORE AND DURING LOADING /DISCHARGE

The objective of a visual inspection of iron ore is to provide additional reassurance that the iron ore being shipped is the same as that described on the order form. Buyers and/or vendors are offered the opportunity to have a visual cargo inspection after close of the sale to get confidence that the cargo presented for inspection is the same or substantially similar to that was purchased.



## DRAFT SURVEY

Draft surveys are used to determine the weight of cargo loaded onto, or discharged from, a vessel. In principle, draft surveys require only the measurement of the water displaced by the vessel before and after the cargo is transferred, along with a measurement of the water's density. In actuality, draft surveys are non-trivial operations due to variable sea conditions, salinity and concurrent ship servicing activities.

Water displacement is measured through draft marks on the ship and converted to volume using draft tables. The difference between the weights of water displaced before and after the cargo transfer equals the weight of the iron ore within measurement accuracy limits. Draft surveys are complicated procedures that require a highly qualified draft surveyor.

SGS uses only SGS-trained draft surveyors. These personnel follow the approved SGS Standard Operational Procedures for the determination of weight by draft survey. This will provide you with trusted draft weights at any port in the world.

## WEIGHT AND QUANTITY VERIFICATION

SGS provides bankable weight and quantity verification services at any port or major inland trans-shipment point. SGS is ready to independently verify your shipment to ensure compliance with contractual documents. SGS monitors the performance of the weighing system and checks it with both items of known weights and recent calibration data. Detailed field records are kept of the data used to determine the final declared weight. We also supply a certificate of weight to you after a complete and successful weighing program is completed.

### ON-HIRES AND OFF-HIRES

On-hires and off-hires determine a vessel's structural condition at beginning and conclusion of a charter agreement. When a charter agreement commences, SGS will inspect the condition of the vessel as well as the maintenance of all equipment on board. This data is then used to determine any discrepancies at the end of the charter agreement. At the conclusion of the charter agreement, the vessel used for shipment is then re-examined for its overall condition and the maintenance state of the equipment. Our experienced staff will provide detailed reports to all parties involved. These reports, filled out by reliable SGS staff, can then be used to settle any potential disputes concerning the condition of the vessel.

### COLLATERAL MANAGEMENT

SGS provides you with the collateral management solutions you need to reduce your operating risk and improve profitability. SGS ensures that the quantity and/or quality of goods you store or ship comply with your contractual requirements. SGS certificates are recognized in the international financial community and throughout the iron ore industry. SGS' services are available globally to producers or shippers of iron ore and steel.

As your partner in iron ore trade financing, SGS ensures our services meet the specific requirements of the credit institution(s) you deal with. If you require traceability of iron ore cargo along the supply chain, our technical expertise can assist you. SGS has a global network of trusted stock-monitoring services to reduce your shipping and storage risks.

### COLLATERAL MANAGEMENT AGREEMENTS (CMA)

A CMA allows you to secure a loan using physical commodities as collateral. It is a three-party agreement among you (the product owner/borrowing party), SGS (the collateral manager) and your credit institution. Under a CMA, SGS acts as the custodian of your commodities until you meet the requirements of the financial institution. SGS controls the delivery of your goods to their site and the final sale/export according to the contract terms and instructions.

SGS takes continuous possession and responsibility for your iron ore cargo while it is in storage. They guarantee the cargo's weight upon delivery, eliminating your risk of shrinkage and financial loss. If there is shrinkage, there is no financial responsibility on your behalf. In the case of war or political unrest, your iron ore cargo is guaranteed.

SGS CMA provides you with additional financial advantages by:

- Facilitating access to structured trade finance
- Making trade finance more economical
- Allowing longer-term revolving financing.

### E-REPORTING AND E-CERTIFICATES

Having the right documentation and certificates is vital for international transportation. If there is a delay in generating or receiving these reports, expenses mount. SGS has a unique e-Certificate platform which can dramatically improve the speed at which documents are issued. Digitalized certificates are sent via email, thus avoiding the costs and delay associated with hard copies, faxing and courier transportation.

Upon completion of inspection, certificates are generated through SGS' unique onSITE system. These documents can be sent electronically for instant verification by any involved party. SGS will validate the certificate on-line to ensure increased security. Discretion, speed and security are assured.



SGS provides you with your reports and certificates quickly and securely via the SGS onSITE website. SGS onSITE is a website designed to store all reports and certificates. You can quickly download your certificate anywhere in the world rather than waiting for the certificate to arrive. The SGS onSITE website contains:

e-Report – access your personal online repository of SGS e-Reports using your secure personal account anywhere in the world at any time. Receive optional email notifications when a new e-Report is available.

e-Certificate – receive your SGS e-Certificates by email and authenticate your e-Certificates through the SGS onSITE authentication page. SGS e-Certificates fully comply with Uniform Customs and Practice for Documentary Credits for Electronic Presentation (eUCP) rules.

## SUMMARY

With over 1000 locations globally, we are well represented in the major metals-producing and consuming regions of the world. Inspection, sampling, tallying or weight determinations are activities that may be performed at a producer's facility, trans-shipment points, in-storage or receiving premises. We have people on the ground wherever and whenever you need a partner familiar with local regulations and trade practices.

## CONTACT INFORMATION

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