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PRESS RELEASE

Inglett & Stubbs International (ISI), a global, turnkey EPC solutions provider based in Atlanta, Georgia, USA, has been selected via a competitive tender process to provide a turnkey Power Station solution for the New Luika Gold Mine for Shanta Goldⁱ in Tanzania.

Development of underground operations at New Luika Mine will commence in 2016 and power demand will increase by over 150% compared the present overall operating power demand for the existing open cast mining and process plant operations. Presently power is supplied from a rented 400V, 50Hz high speed generator plant burning Heavy Fuel Oil (HFO) with diesel fuel oil (DFO) standby generators. A 400,000 liter HFO fuel storage facility at the mine site, operated and maintained by Oryx Energies, provides the fuel on a consignment stock basis sufficient to provide up to three weeks of power production capacity. This HFO fuel must be maintained at a minimum of 30°C for storage, and heated to over 100°C for usage. The 200kW heaters used to continuously heat the HFO operate as a parasitic load on the generators, consuming around 8% of the energy produced.

In order to meet the future increased energy demand and improve the impact on the environment, Shanta Gold engaged in a competitive tender process to evaluate different technologies and select an option that would provide the increased capacity and reduce fossil fuel consumption and greenhouse gas emissions.

New Luika Power Station

OWNER: Shanta Gold LOCATION: Western Tanzania OVERVIEW: Shanta Gold has contracted Inglett & Stubbs International, a global engineering, procurement, and construction (EPC) contractor to supply, operate & maintain a new power station at the New Luika Mine site in Tanzania. This plant will use heavy fuel oil (HFO) to produce power using custom 750-RPM reciprocating engine generators. The contract was signed in December of 2015, and power production will be online in February of 2017.



Multiple feasibility studies and design evaluations were carried out by Shanta and ISI to select the most cost effective, energy efficient solution and a contract was executed for the Power Station Supply in December of 2015, with an anticipated site commissioning date of February 2017.

The Power Station will incorporate six, 1.25MW generating sets, to provide a total installed capacity of 7,500kWe, and will be operated at an anticipated demand of approximately 5,300 kWe. The plant is designed for an N+1 operating configuration using five (5) engines and allowing one (1) engine to act as stand-by. This allows the selected operating engines to operate at 85% capacity, which is a very fuel efficient range.

The modular, customized package from ISI and Intertechⁱⁱ incorporates medium speed reciprocating engines manufactured by Anglo Belgian Corporationⁱⁱⁱ, alternators from Stamford-AvK^{iv} and custom controls from Elmon Electrical^v. Together with Stanley Consultants^{vi}, ISI have engineered the power station to meet the unique

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5500 South Cobb Drive SE | Suite 300E | Atlanta, GA 30339 Main: +1 404.591.2100 | Fax: +1 404.591.2118 | www.isiprime.com operational load profile at New Luika Mine, avoid plant downtime during switchover from the rented to the new power station and cater for future optional in-feeds from the national grid and/or Solar PV energy.

By eliminating the reliance on diesel fueled standby generators, providing a generator heat recovery system for pre-heating of the HFO and incorporating the much more efficient medium speed HFO engines, ISI were able to provide the required power capacity at a projected reduction of ~40% in the energy cost per MWh, whilst additionally reducing unit emissions. This power plant will power Shanta Gold's New Luika Mine Site into the



Figure 1 - Power Station Conceptual Arrangement

future as a highly reliable, smart solution. Shanta Gold has a long term partner in ISI's local branch office, 'ISI Tanzania', who will provide ongoing Operations & Maintenance of the power station following commissioning.

Brent Harrison, Senior Technical Development Manager for Inglett & Stubbs International, states, "Shanta Gold has made a wise decision by investing in medium

speed reciprocating generator technology for their power station. The customized power station will serve Shanta's needs for reliable and efficient power generation for many years to come". Shanta's Project Director, Ian Fielding, commented, "we have thoroughly reviewed the market offerings and, based upon a careful evaluation of the overall life-cycle costs, we have selected a solution with an attractive net present value and internal rate of return that will provide a long and reliable operating life whilst allowing Shanta to benefit from a short term payback of the capital investment."

To find out more about this project please contact:

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Or go to http://www.isiprime.com/new-luika-gold-mine

ⁱ Shanta Gold is a publically traded gold producer, trading on the London Stock Exchange's Alternative Investment Market since 2005, <u>www.shantagold.com</u>

ⁱⁱ Intertech Mechanical B.V. is located in Groot-Ammers, Netherlands and has been a strong partner and vendor for ISI for over eight years. <u>www.intertechbv.com</u>

ⁱⁱⁱ Anglo Belgian Corporation is a 100 year old manufacturer of medium speed reciprocating engines located in Gent, Belgium. <u>www.abcdiesel.be</u>

^{iv} Stamford-AvK is an Alternator Manufacturer with multiple international locations

^v Elmon Electrical and Control Engineering is located in Groot-Ammers, Netherlands, located nearby Intertech, they provide the custom controls and electrical wiring for all of the packages <u>www.elmon.nl</u>

^{vi} Stanley Consultants Inc., of Muscatine, Iowa, USA is a Global Engineering firm specializing in Energy, Water and Transportation. This project is being supported by their Denver, Colorado Office. <u>www.stanleyconsultants.com</u>