

FRAC SAND (SAND PROPPANT) & RESIN COATED SAND

INVESTMENT OPPORTUNITY SCORECARD

MINING & METALS



FRAC SAND (SAND PROPPANT) & RESIN COATED SAND

Opportunity Description: Opportunity to develop a 250 ktpa Frac Sand & Resin coated sand to supply mainly the KSA & the region.

INVESTMENT OVERVIEW

INVESTMENT HIGHLIGHTS

- Expected investment size of USD 40Mn
- Plant capacity: 250 KTPA
- Sand Proppants play a vital role in hydraulic fracturing by keeping fractures open & permeable for reservoir fluid to flow through to the wellbore.

VALUE PROPOSITION

- The KSA promotes local production of Frac Sand & Resin Coated sand by utilizing locally available raw material of Silica Sand.
- Ceramic proppant, sand proppant and resin coated (sand/ceramic) proppant are the major types of proppant used in hydraulic fracturing process.
- Proppants are solid materials pumped into the well along with fracturing fluids that facilitate uniform distribution and placement of the Proppants in the open fracture.
- Frac sand is under product trials in the KSA for deep exploration in Oil & Gas sector

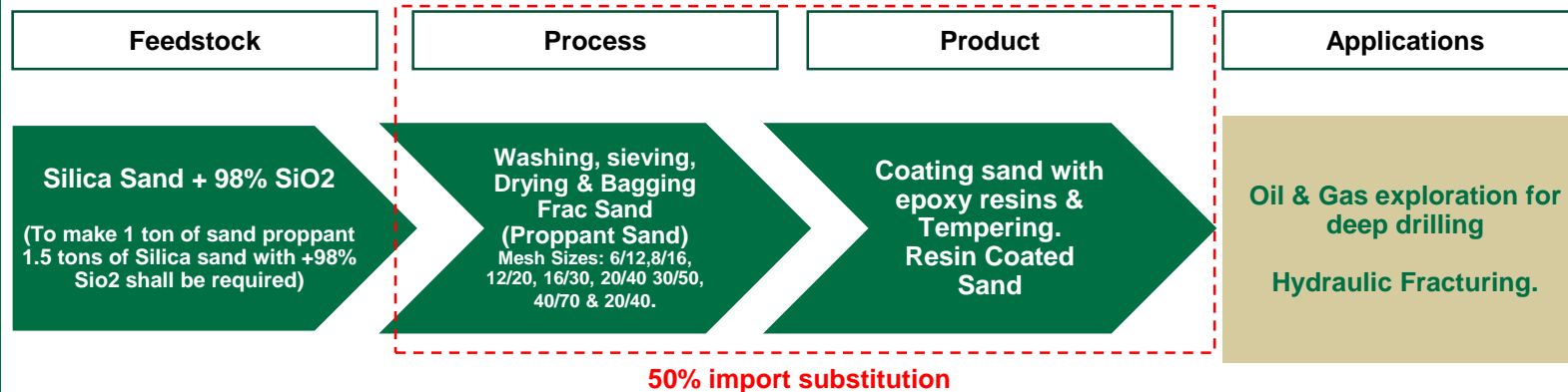
MARKET OVERVIEW

GLOBAL TREND

- The Global Frac Sand market is expected to reach USD 14 Bn by 2027
- Sand Proppant specifications are set by the International Standard Organization - ISO 13503-2 and American Petroleum Institute (API). Proppants are sand or other granular substances injected into the formation to hold or "prop" open rock formation fractures created by hydraulic fracturing which is the global mainstream process.
- High silica content sand, sphericity, roundness & crush resistance are the key factors in seeking commercial acceptance for frac sand.

VALUE CHAIN ANALYSIS

Opportunity Focus



KEY DEMAND DRIVERS

- The GCC Sand proppant market is estimated at 700 KTPA with a YoY growth of 5-6%.
- The KSA, UAE and Oman are the largest users
- In the KSA, Saudi Aramco has embarked a US\$10bn shale gas programme and is focusing on developing Qusaibia Hot Shale, Tuwaiq Mountain, Ghawar, and Jafurah Basin's unconventional gas reserves.
- Unconventional shale and tight gas reserve expansion projects require extensive multistage fracturing for commercial production and will create sizeable demand for Frac Sand.

DEFINITIONS

#	SCORECARD SECTION	DEFINITIONS
1	Market size	Size of market in value/volume in KSA and/or Region (MENA/GCC) covering future projections based on available estimates from published /government sources
2	Business drivers	A select number of factors that will influence future demand for the related product/service
3	Investment highlights	An overview of key financial metrics summarizing the investment opportunity along with the expected return based on the suggested investment size
4	Value proposition	Summary of key differentiators that position KSA as a strategic choice over other regional/global peers
5	Market readiness	An overview of KSA market structure, market maturity and level of participation by local and global players
6	Competitor analysis	List of the local & international players manufacturing the underlying product in Saudi Arabia and their market share
7	Global trends	Latest business developments within the sector/product category
8	Scalability and localization	Ease of scaling the business across the value chain or into new adjacent products or geographies that would maximize the opportunity's investment returns and the ability and potential to locally manufacture the product and its components
9	Import dependency	An overview of the countries from which Saudi Arabia is importing the product and their value/volume and share in total imports
10	Value chain analysis	The process or activities that would potentially need to be carried out to deliver the underlying product or service
11	Key stakeholders	Government institutions, organizations, and/or authorities that participate or influence the market for the underlying product/service
12	Enablers	Factors that enable investment in the underlying opportunity
13	Cost of doing business in KSA	Key factors that position KSA as a competitive destination for investment in the region. Productivity adjusted wages do not include cost of \$1.23/hour towards annual recurring charges including work permit, resident identity (iqama) and health insurance

DISCLAIMER

- This report must be used only to access information, and the information must not be construed, under any circumstances, explicitly or implicitly, as an offer to sell or a solicitation to buy or sell or trade in any opportunity herein mentioned.
- Ministry of Investment (MISA) has no undertaking to update these materials after the date, with the understanding that such information may become outdated or inaccurate.
- Mentioned information in this report is obtained from reliable sources but its accuracy and reliability are in no way guaranteed. No guarantee of any kind is tacit or explicit when projections of future conditions are attempted. MISA has used public/or confidential data and assumptions and has not independently verified the data and assumptions used in the analyses. Changes in underlying data or operating assumptions will clearly impact the analyses and conclusions.
- The financial evaluations, projected market and financial information, and conclusions contained in these materials are based upon standard methodologies, are not definitive projections, and are not guaranteed by MISA
- The content of this report must not be construed as an implied promise or guarantee for profit or limited loss express or implied by or from MISA or any of its officers, directors, employees and affiliates. All mentioned investments in this report are subject to risk, which should be considered prior to making any investment decisions
- MISA shall have no liability whatsoever to any third party, and hereby any third party waives any rights and claims it may have at any time against MISA with regard to this report, any services or other materials, including the accuracy or completeness thereof.

CONNECT WITH US FOR MORE DETAILS:

Metals@misa.gov.sa

investsaudi.sa



@investsaudi

**INVEST
SAUDI** 

The logo icon for Invest Saudi, featuring a stylized green graphic of a building or structure with a vertical line and a cross-like element at the bottom.