



# REALIZING THE VISION OF CHIEF MINISTER PUNJAB “FROM IRON ORE TO STEEL”



## PAKISTAN’S FIRST INTEGRATED IRON ORE MINING, PROCESSING AND STEEL MILLS COMPLEX AT CHINIOT

### PROJECT BACKGROUND

To realize the vision Chief Minister Punjab for the exploration, development and exploitation of mineral resources of the province for industrial growth, Punjab Mineral Company (PMC) has been working to shape up Pakistan’s first integrated iron ore mining, processing and steel mills complex at Chiniot which has been included into CPEC portfolio as new additional provincial project in the 6<sup>th</sup> JCC meeting.

### PROJECT PROGRESS

The integrated project components include Iron Ore Deposit Estimation along with business case for its processing and steel making. Top international consulting firms have been engaged through international competitive bidding to complete the tasks on international best practices to facilitate investors’ due diligence. Project has two major components: Exploration Work (to provide quality raw material) and business case feasibility to establish steel mills complex. Following is the progress review snapshot.

PHASE-I EXPLORATION (2014-2016) (COMPLETED)	PHASE-II DEVELOPMENT (2017-2018) (ONGOING)
<ul style="list-style-type: none"><li>• Estimated Cost: US\$ 25 million</li><li>• Consultant: GEOS (Germany)</li><li>• Contractor: Metallurgical Corporation of China (MCC)</li><li>• Report sign off: BAW (Canada)</li><li>• International standard: NI 43-101 reporting, Canada</li></ul>	<ul style="list-style-type: none"><li>• Estimated Cost: US\$ 40 million</li><li>• Consultant: Fugro (Germany)</li><li>• Contractor: Ortadogu Drilling Company (Turkey) led consortium</li><li>• Fugro and Ortadogu Consortium already mobilized at site.</li></ul>



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<ul style="list-style-type: none"><li>• +62,000 meters drilling through 71 boreholes completed with 95% core recovery</li><li>• +10,000 core samples analyses at SGS Labs (Switzerland) and ACME Labs (Canada)</li><li>• Approximately 149.8 Mt of iron resource at an average grade of 30.79% TFe estimated with advanced 3-D modelling (on NI 43-101 Canadian Standards)</li><li>• Approximately 190.2 Mt of iron resource at an average grade of 30.48% TFe estimated on Chinese Standards with geological sections</li></ul>	<ul style="list-style-type: none"><li>• Phase-II inclined drilling commenced by January 2018</li><li>• Phase-II will focus on infill and extension drilling at Chiniot and adjoining areas including Kalabagh and rest of Punjab</li><li>• Inclined drilling will help in estimation of the width of underground deposit.</li></ul>

### TRANSACTION ADVISORY FOR BUSINESS CASE FEASIBILITY FOR STEEL MILLS

- Estimated Transaction Advisory (TA) Project Cost: US\$ 5 million
- TA Team: DMT (Germany), Mines & Metal (Germany), Endeavour Financial (UK)
- Phase I defined 149.8 Mt iron ore sufficient for 33 years operations of steel mill
- The current market value of this indigenous raw material is more than US\$ 4 billion
- The initial Project Cost has been estimated at US\$ 1,176.57 million



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- 1 Mt per year capacity steel mill planned for Hot Roll Coil (HRC). Presently Pakistan is importing 2 million tons of HRC per year
- Sub-level stopping method of mining, conventional processing and steel making on COREX® technology
- 1,000 acres site identified for industrial development
- Environmental baseline assessment and social risk mitigation strategy completed
- Inception Report and Need Analysis Report completed
- Base Business Case finalized after extensive market survey regarding demand and supply, product, pricing and logistics
- Bench scale Metallurgical tests under process at SGA Lab, Germany for advance comfort on metallurgical processing route
- The Transaction Advisor’s Strategic Options Analysis Report demonstrates potential for a viable, indigenous and integrated mining and steel production business with Investor IRR of over 20% and employment generation (direct and indirect) of over 20,000
- Comprehensive data and technical reports available for investors’ due diligence
- Business case feasibility study along with detailed financial model in last stage of due diligence by the client

### NEXT PLANS OF PUNJAB MINERAL COMPANY

- International/Local Investors’ Consultation on Project through Road Shows at Lahore, Beijing and Dubai
- Finalization of concession package by Government of Punjab including mineral lease for 30 years (further extendable for 20 years) option for equity participation up to 30% for mining, processing and steel mills components (In process)
- Preparation of case for special economic zone for integrated steel mills at Chiniot (in process)