

## ***From R&D to commercial plant - Scale-up challenges of the ATP technology***

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The Alberta Taciuk Process (ATP) has been successfully scaled-up to a commercially viable size. A further increase in ATP Processor capacity is planned and demanded in order to improve economies of scale. This presentation will describe the ATP scale-up from testing and piloting in the UMATAC Oil Shale/Oil Sands Research and Development Centre, to demonstration in the 211 t/h Australian Demonstration Plant, followed by commercial installation of the 230 t/h Fushun Mining Group plant in China. Challenges, solutions, and prospects for the next generation of 500+ t/h ATP Processors are discussed. Numerous ores and feed materials from around the world have been tested by UMATAC at its R&D Centre, forming an extensive knowledge base. Mass and energy balances models are used to develop the ATP plant process design, and proven scale-up methodologies are followed to determine the size and configuration of the ATP Processor. ATP System development is steadily being advanced and confirmed by work in the UMATAC and Polysius engineering offices, R&D Centre, and via feedback from the large-scale installations. The oil shale technology and expertise of UMATAC combined with the machine design, fabrication capabilities, and project delivery expertise of ThyssenKrupp POLYSIUS AG positions Polysius as the leading provider of services and equipment to the oil shale industry – from the mine to upgraded oil products.