



# **KBR-PGMT Platinum Recovery Solution**

# Bi-Annual Platinum Recovery & Refining

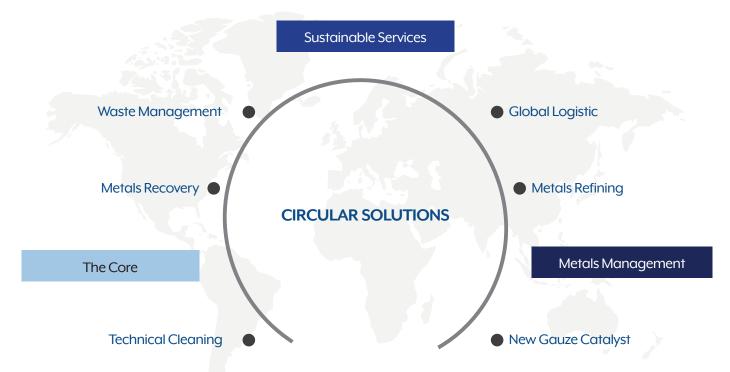
Our team of experts from KBR and PGM Technologies provides precious metals management and reclamation services to various customers in the nitric acid and caprolactam industries.

Since 1954, KBR Weatherly® has licensed 76 grassroot nitric acid plants globally and is the No. 1 technology in the demanding US market, with around 80% market share. KBR monopressure and dual-pressure technologies provide superior energy efficiency, reliability and environmental performance through low capital cost, high energy efficiency and ammonia conversion at reduced catalyst and maintenance cost, and minimal site footprint requirements. The unique feature of tail gas heat recovery results in high energy efficiency.

PGM Technologies was established to provide cleaning and recovery services, where they are needed the most. Over time the cleaning service portfolio of PGM Technologies evolved to cover the global demand and further reduce complexities that come with new regulations and international challenges.

Our team of experts offers to leverage KBR and PGMT's vast experience and operations knowledge base for recovering platinum deposits through nondestructive cleaning.

PGMT's unique Circular Solutions approach provides clients the entire service portfolio for successful precious metal recovery projects.



### NON-DESTRUCTIVE CLEANING

# **Project starts** Technical assessment and site visit 2 Weeks Commercial offer + Metal forecast Site safety induction Set up of Equipment Cleaning boiler Cleaning exchanger 1-2 Weeks (Depending on project size) Collection of wash water and PGM Filter pressing Packing of sludge in suitable drums Sealed drums ready for shipping to refinery Incineration Min 10 Weeks Sampling & Assaying (Depending on capacities) Metals transfer or sale







## Project finished after 10 – 14 weeks

Reduced Pressure Drop		increased Steam Production	
	Additional Benefits		•
Higher Acid Production		Increase in process efficiency	

# **PGMT** record from over 300 projects

- Zero Damages & Accidents
- Zero Environmental Incidents
- 100% Successful Performance

## **DESTRUCTIVE CLEANING**

Once a nitric acid production line or exchangers in the production line reach their end of life or get replaced because of failure, PGMT offers to process the obsolete plant equipment destructively in one of our 3 facilities. This treatment process recovers >99% of the PGM deposits. Size reduction prior to high impact chemical treatment guarantees the optimized recovery of the PGM deposits.

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