Newsletter

From Mines to Mindfulness

Green Revolution with Singhali

What's New Inside

This month, we spotlight Singhali - our newly implemented paste filling technology, a first-of-its-kind step toward sustainable green underground mining in India. Featured in a newspaper article this April, Singhali reflects TMC's commitment to innovation and environmental care.

This exclusive edition answers key questions around paste filling technology, with expert insights shared by our Business Development Team

We're proud to lead the way in green mining, where progress meets responsibility.

SECL, TMC Mineral Resources ink ₹7,040-cr pact

Press Trust of India
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NEW DELHI: Coal India arm SECL on Friday said it has entered into a ₹7,040-crore pact with TMC Mineral Resources for undertaking large-scale coal production using paste filling technology.

Paste filling is a modern underground mining method that eliminates the need to acquire surface land. After coal extraction, the mined-out voids are filled with a specially prepared paste made from fly ash, crushed overburden from opencast mines, cement, water, and binding chemicals. This process prevents land subsidence and ensures the structural stability of the mine.

"South Eastern Coalfields Ltd (SECL) is set to become the first coal PSU in India to adopt paste fill technology for coal mining... To implement this innovative underground mining technology, SECL has signed a Rs 7,040 crore agreement with TMC Mineral Resources Pvt Ltd," the public sector unit said in a statement. Under this agreement, large-scale coal production will be undertaken using paste filling technology in the Singhali underground coal mine located in SECL's Korba area.

Over a period of 25 years, the project is expected to produce approximately 8.4 million tonnes of coal.

The Singhali underground mine was approved in 1989 for a production capacity of 0.24 million tonnes per year and commenced operations in 1993. Presently, the mine has 8.45 million tonnes of extractable reserves of non-coking coal. It was developed using the Bord and Pillar method, employing load haul dumpers and universal drilling machines for underground operations. However, the surface area above the mine is densely occupied -- with villages, high-tension electricity lines, and a public works department road -- rendering the traditional caving methods unfeasible due to safety and environmental concerns.

Over a period of 25 years, the project is expected to produce approximately 8.4 million tonnes of coal. REUTERS

Coal production: SECL inks ₹7,040 cr pact with TMC Mineral Resources

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Coal India arm inks ₹7,040-cr pact for new mining tech

COAL INDIA ARM SECL on Friday said it has entered into a ₹7,040-crore pact with TMC Mineral Resources for undertaking large-scale coal production using paste filling technology. Paste filling is a modern underground mining method that eliminates the need to acquire surface land. SECL is set to become the first coal PSU in India to adopt paste fill technology for coal mining. The mining will be undertaken in Singhali mine in the Korba area.

Proud Announcement of the Month

We are proud to announce that TMC has signed a 13-year Contract Agreement as the Mine Developer & Operator for Bikram OC Mine of Birla Corporation Limited. The project will deploy Continuous Miner technology for coal production of 0.36 MTPA at Sohagpur Coalfield, Shahdol, Madhya Pradesh.

TMC — TheHitavada — TMC

Chhattisgarh Line | 2025-04-19 | Page- 1
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SECL to become first coal PSU to use paste fill technology for mining

Rs 7040 cr agreement signed between SECL, TMC Mineral Resources

■ Our Correspondent
KORBA, Apr 18

SOUTH Eastern Coalfields Limited (SECL) is set to become the first coal PSU in India to adopt paste fill technology for coal mining -- marking a major step toward sustainable and environmentally friendly mining practices. To implement this innovative underground mining technology, SECL has signed a Rs 7040 crore agreement with TMC Mineral Resources Private Limited.

Under this agreement, large-scale coal production will be undertaken using paste fill technology in the Singhali underground coal mine located in SECL's Korba area. Over a period of 25 years, the project is expected to produce approximately 8.4 million tonnes (84.5 lakh tonnes) of coal.

Paste filling is a modern underground mining method that eliminates the need to acquire surface land.

After coal extraction, the mined-out voids are filled with a specially prepared paste made from fly ash, crushed overburden from opencast mines, cement, water, and binding chemicals. This process prevents land subsidence and ensures the structural stability of the mine. Importantly, the paste utilizes industrial waste materials, making the process environmentally sustainable and promoting waste recycling.

The Singhali underground mine was approved in 1989 for a production capacity of 0.24 million tonnes per year and commenced operations in 1993. Presently, the mine has 8.45 million tonnes of extractable reserves of G-7 grade non-coking coal. It was developed using the Bord and Pillar method, employing Load Haul Dumpers (LHDs) and Universal Drilling Machines (UDMs) for underground operations. However, the surface area above the mine is densely occupied—with villages, high-tension electricity lines, and a Public Works Department

(Contd on page 3)

Officials posing for a photograph after the agreement.

Strengthening Safety Culture

A focused Safety Awareness Workshop was conducted by DDMS Mechanical (Nagpur) at Gare Palma IV/7, emphasizing critical safety practices and reinforcing a culture of operational excellence and risk prevention.

What's New Here

Singhali: Pioneering Paste-filling Technology in Coal Mining in India

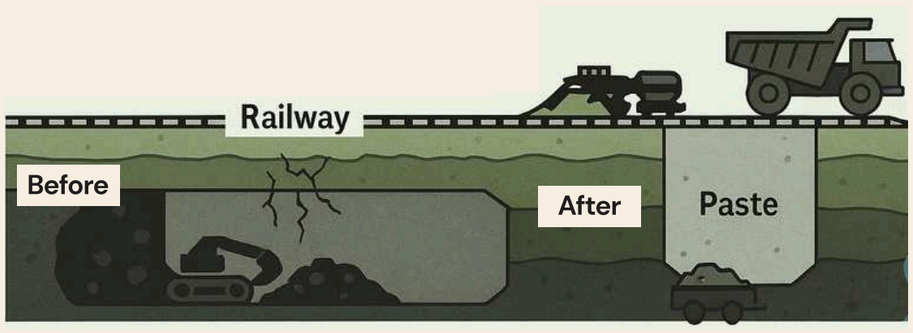
We are thrilled to introduce Singhali, the first-ever paste filling technology to be implemented in underground coal mining in India supporting green mining. This cutting-edge solution not only ensures safer and more efficient mining but also reduces environmental impact by repurposing industrial waste. As it's a new innovation, we've answered some key questions to help you understand how it works and why it's a game-changer for the industry.

- **What is Paste Filling Technology?**

Imagine mixing waste materials like fly ash (produced by power plants) and overburden (waste rock from mining) with cement, additives, and just a bit of water - enough to make a thick, mud-like paste. This mixture is then pushed through pipelines deep into the mine. Once it's in place, the paste hardens like concrete, giving strong support to the roof and walls of the mine. This means more coal extraction with safer conditions for all.

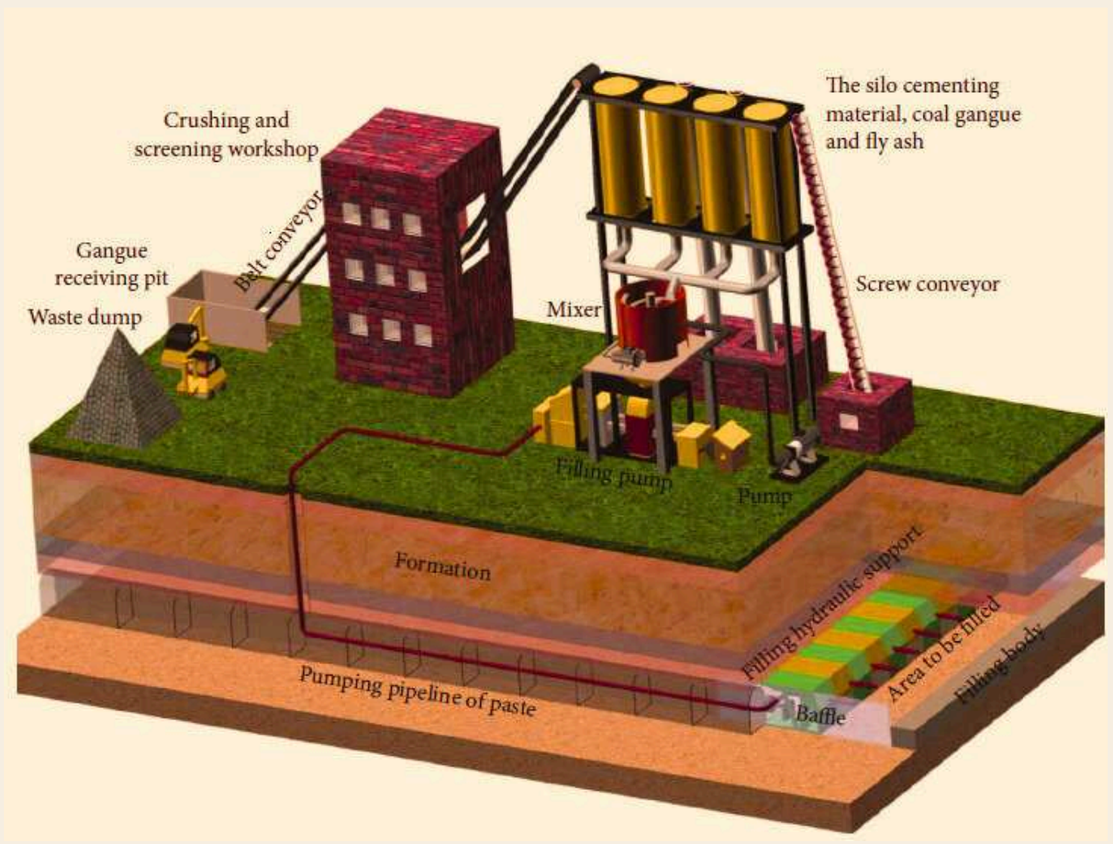
- **Why Paste Filling Matters**

In India, over 3 billion tonne of high-grade coal remain trapped in underground because traditional mining methods can't safely extract them. Old techniques often cause the land to sink, harm water supplies, and destroy surface structures. Additionally, they leave behind huge waste dumps on the surface. Paste filling changes that. It allows safe mining under villages, railways, and rivers (known as the "Three Unders"), by reinforcing the ground from within. It also helps reuse mining waste like overburden - so we mine smarter, not messier.



- **How Does It Work?**

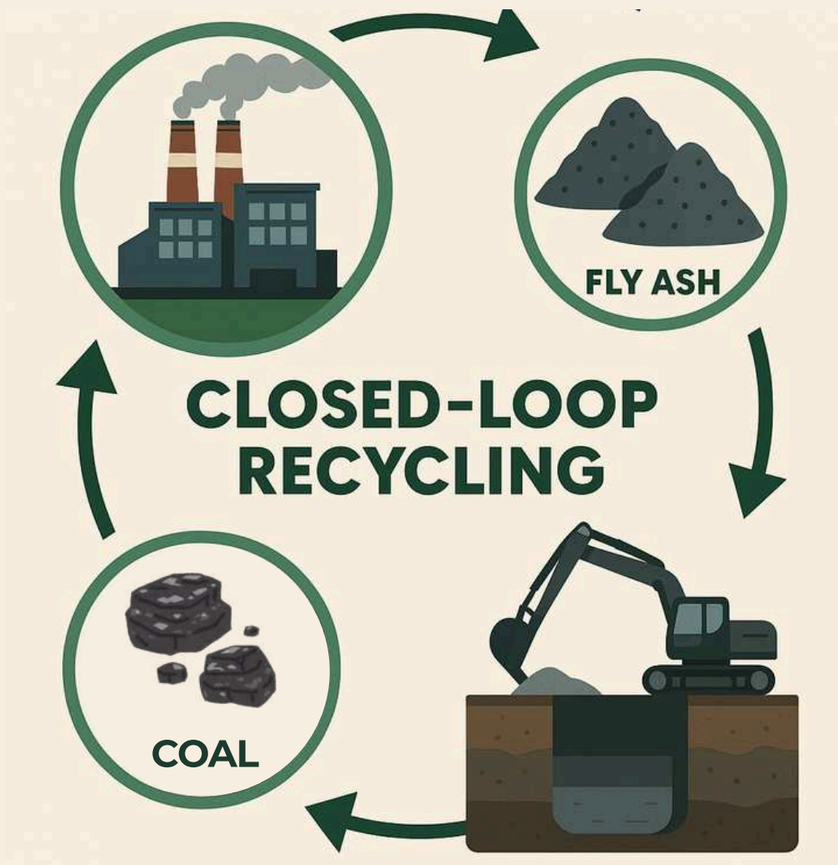
The process begins above ground, where a specially designed paste is created by blending fly ash, overburden, and cement. This mixture is then transported through underground pipelines, using pumps or gravity, to reach the mined-out areas deep within the earth. The paste fills these empty spaces and, over time, solidifies into a strong, cohesive material. This process helps prevent ground subsidence, a phenomenon where the land above the mine sinks or collapses. By stabilizing the mine voids, this method not only protects the mine's integrity but also safeguards surrounding homes, roads, and water bodies from potential damage.



What's New Here

- **How it supports Green Mining?**

Paste filling isn't just about mining smarter—it's about mining greener. The key ingredient, fly ash, is a major waste product from coal-fired power plants. Instead of dumping it in landfills, we now use it to strengthen our mines. This creates a closed loop where the waste from one part of the coal industry is reused in another. It's innovation in action - supporting the environment while advancing technology.



- **Why it is termed as India's First**

TMC's achievement at the Singhali Underground Coal Mine marks a turning point in India's mining history. While the pastefilling technique has found use in **underground metal mining**, this is the first time ever it is being introduced in an **underground coal mining** project in the country. This milestone sets TMC apart as a pioneer, bringing advanced, eco-conscious mining technology from the metal sector into the coal industry - ushering in a new era of sustainable underground coal mining in India.

Employees Of The Month

Praveen Kumar - Senior Technician (E&M) - Churcha

Recognized for strong commitment to production, a positive attitude, and successfully growing into the role of Shift Incharge.

Ram Naresh - Technician (E&M) - Churcha

Acknowledged for maintaining the RAMCAR efficiently and achieving over 90% attendance this month.

Rahul Kumar - Asst.Engineer (Mining) - Sial Ghogri

Appreciated for his commitment to safety—for both himself and his co-workers—and for being fully dedicated to his role.

Sohan Kuttey - Bolter Operator (Mining) - Sial Ghogri

Acknowledged for strong job knowledge, being a great listener to superiors, and full dedication to assigned tasks.

Guddu Prajapati - Grader Operator (Mining) - GP IV/7

Commended for dedication and accuracy, especially during heavy rain. Stepped up in the absence of the grader operator to keep shift operations running smoothly.

Tejram Chouhan - Asst. Engineer (Mining) - GP IV/7

Recognized for his dedication and hard work in overcoming daily challenges. punctuality, and commitment to safety.

Rubal Patel - Asst Electrician (Mining) - Jhilimili

Honored for consistent performance, safety focus in electrical work, and readiness to handle underground breakdowns in any shift or timing.

Satish Gupta - Bolter Operator (Mining) - Jhilimili

Recognized for consistent performance and safety focus during bolting operations, along with a positive mindset.

Ram Suryawanshi - RB Operator (Mining) - Haldibari

Recognized for strong work performance, dedication, and eagerness to learn. Achieved 6100 production in his relay last month, including 2500 from belt drive.

Deepak Kumar Pal - Senior Electrician (E&M) - Haldibari

Honored for sincerity, hard work, and responsibly handling tasks both underground and on the surface, including timely completion of all electrical work.

Top Trainers & L&D Centre

Mr. Sujeet Singh - 5 Training Sessions

Top Trainer of the Month

Kudos to our top trainer of the month! Your passion for training and commitment to uplifting others has made a lasting impact. You're not just teaching skills—you're building futures. Keep inspiring!

Mr. Abhishek Shrivastav - 5 Training Sessions

L&D Centre: Building a Safer, Smarter Workforce

Our L&D Centre continues to drive skill enhancement through hands-on training. This month, sessions focused on key topics such as fuse types, support systems, safety with productivity, , feeder breaker basics, roof bolter hydraulics, CM water and power circuits, pilot core protection, fire extinguishers types, CM cutting sequences, and root cause analysis.

Knowledge was shared, skills were sharpened, and safety remained the top priority—each session taking us one step closer to operational excellence.

Jhilimili
Total Man Hour - 402

Churcha
Total Man Hour - 491

Gare Palma IV/7
Total Man Hour - 417

Haldibari
Total Man Hour - 286

Sial Ghogri
Total Man Hour - 421

Kachche
Total Man Hour - 101

People, Progress & Performance

Celebrating Excellence!

We are delighted to announce that **Mr. Neeraj Kumar Singh** and **Mr. Ramesh Kumar Sahu** from **Churcha RO Mine** have been honored with their **first cheque of ₹1 Lakh** each for their remarkable accomplishment in clearing the **First Class Mine Manager's Certificate of Competency.**

Their dedication, perseverance, and commitment to professional growth set an inspiring example for all. Congratulations on this well-deserved milestone!

Crash Course for 1st & 2nd Class Aspirants

To support our employees in their career advancement, we have organized a crash course for those preparing for the First Class and Second Class Mine Manager's Certificate of Competency. A total of 8 employees attended the training, which was conducted from 28/04/2025 to 01/05/2025.

This initiative aims to provide focused guidance, expert instruction, and valuable study resources to help our team members succeed and grow within the mining industry.

Kaizen Spotlight: 10-Ton Manual Hydraulic Press

Designed by **Mr. Indrajeet Kumar Singh** from Kachche site using scrap material, this manual press handles V-stay bushes, reaction rod bushes, and small bearings with ease. With 10-ton capacity, it reduces downtime, cuts outsourcing costs, and boosts in-house efficiency - all while keeping energy use low. **A smart, self-made solution driving real workshop impact!**

Birthdays & Moment Corner

Birthday Celebration - Jhilimili

Birthday Celebration - Sial Ghogri


Birthday Celebration - Haldibari

Birthday Celebration - Headoffice

Birthday Celebration - Gare Palma IV/7


Kali Poojan at Sial Ghogri

Appreciation Letter to Savita Pawar from Sial Ghogri


Site Visit at Shahpur

Production Planning Gathering at Sial Ghogri

Farewell to Shyamal Maity at Sial Ghogri

Internal Auditor's Visit at Sial Ghogri


Govt. Welfare Department Visit at GP IV/7


Health Awareness program at GP IV/7