



तकनीकी पत्रिका विषय-सूची

CURRENT CONTENT

(Technical Journals)

(A Monthly Current Awareness Service from Technical Journals)

Vol.3 No.7, July, 2019

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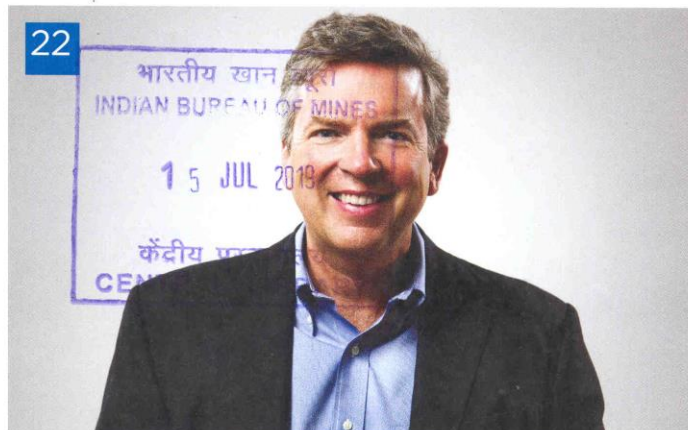
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In the first of our monthly cover series, Jo Isenberg speaks candidly to Dave Keselica, CEO of ArrMaz about the lithium market, the effects of vehicle electrification on the company's processing capabilities and what it means for them in future.

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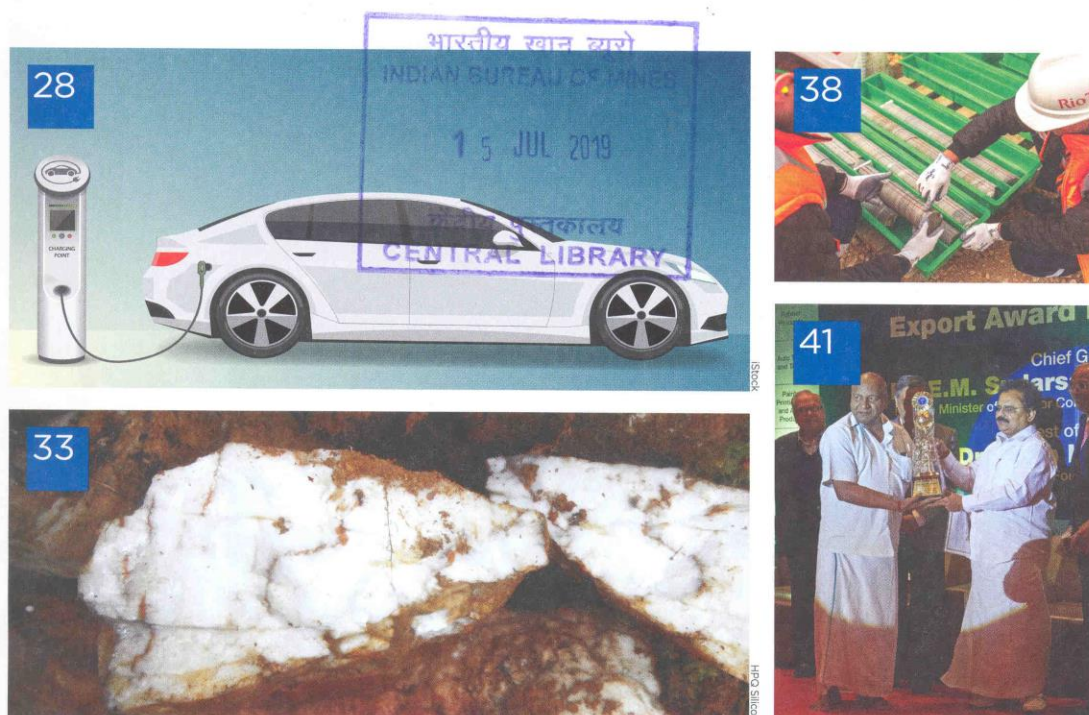
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28 Charging up: Lithium market outlook

Fastmarkets Research presents its White Paper on the lithium industry. Our researchers forecast that a demand shock will revisit the lithium market, with a price of \$25 per kg expected by 2025.

33 A closed shop? Examining the HPQ supply chain

The global high purity quartz market remains as closely held as ever, despite efforts by China, junior companies and synthetic material producers to open up the supply chain, *correspondent Rose Pengelly* writes.

38 Hole in the ground: Is the lack of exploration storing up trouble for the future?

An uptick in mineral exploration financing since 2017 is welcome but may not be enough to undo years of under-investment in identifying new economic deposits, *correspondent Rose Pengelly* finds.

41 VV Minerals boss says canalization will hurt mineral sand miners

The chief executive of VV Minerals tells *William Clarke* and *Sunder Singh* that restrictions on private exports of mineral sands will be bad for production.

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Kaolin
Calcium Carbonate
Iodine
Ceramics

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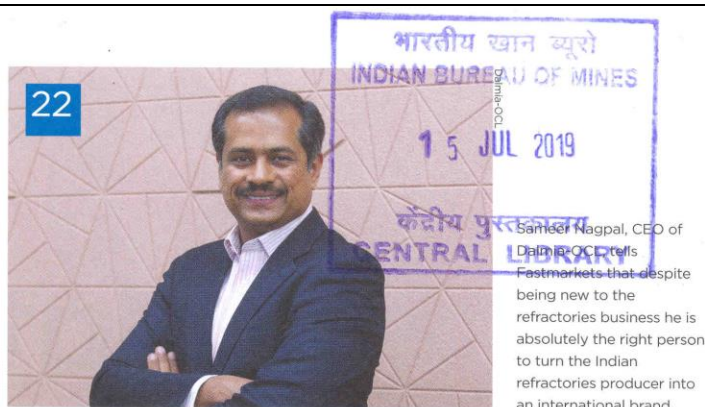
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Samir Nagpal, CEO of Dalmia-OC, tells Fastmarkets that despite being new to the refractories business he is absolutely the right person to turn the Indian refractories producer into an international brand.

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| <p>8 Lithium producer share prices still under pressure</p> <p>9 British importers stockpiling graphite ahead of Brexit</p> <p>10 Solvay to add 500,000 tpy to soda ash output</p> <p>11 Ciner eyes soda ash leader status with 4-mln-tpy upgrade plan</p> <p>12 China leads offshore drilling boom
US frackers optimistic for 2019 after ExxonMobil pledge
Eureka, MGX sign JV to extract lithium from waste water</p> | <p>13 Inner Mongolia mining accident causes shutdown in fluorspar production
US acidspar imports climb for third straight year</p> <p>14 Radioactive waste dispute threatens rare earth producer Lynas' future
SQM will stockpile one sixth of 2019 lithium output</p> <p>15 Armadale signs graphite MoU with Chinese importer</p> |
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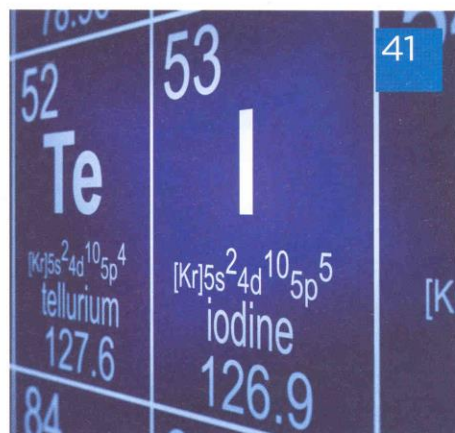
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Industrial Minerals Magazine, No.609, April 2019



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- 22 The 'odd man out' turning round Dalmia-OCL's fortunes**
Sameer Nagpal has been charged with turning Indian refractories producer Dalmia-OCL into an international brand and he is convinced he can do it.

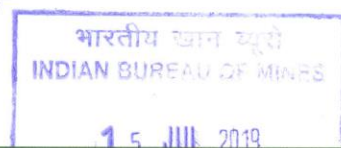
- 25 India banks on ceramics**
The Indian ceramics industry has made steady progress in the past few years on the back of a growing middle class and several governmental schemes to boost the industry, as *correspondent Sunder Singh* discovered at India's recent Ceramics Asia event.

- 28 Positive outlook for kaolin in ceramics**
The mineral kaolinite was named after a hillside near the village of Gaoling in Jiangxi province, China, where the clay was traditionally mined to supply the nearby famous porcelain factories in Jingdezhen. Today, as *Ian Wilson* and *Frank Hart* discover, China is just as important in the kaolin - and indeed the ceramics - industry.

- 33 Paper thin markets? A look at PCC in paper**
Paper markets may be changing but the minerals used within them are still being used in the same way. *Ian Wilson* takes a look at PCC - precipitated calcium carbonate - and discusses producer developments in 2019.

- 38 Clay time: Should pharmaceuticals take a closer look at bentonite?**
Widely used in industrial applications, pharmaceuticals make up a relatively modest proportion of bentonite's end markets - a situation which could change with more research and advances in technology, *Rose Pengelly*, *correspondent*, reports.

- 41 Squeezed margins: how are derivatives producers making cheap products despite iodine price increases?**
Steep increases in price of the raw material have squeezed margins for iodine derivatives producers, while some companies are reported to be producing very cheap derivatives in a bid to gain market share, *Michael Greenfield*, *market reporter*, finds out.



Next issue

Lithium
Glass
Eurasia
Graphite

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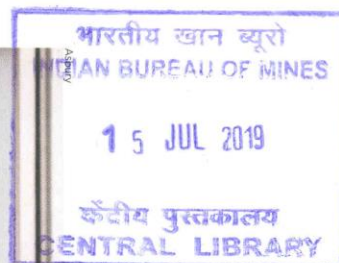
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Stephen Riddle, CEO of Asbury Carbon, is not a man who minces his words. Read how he became the graphite expert who now packs rooms when he speaks and discover what excites him when it comes to graphite.

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Industrial Minerals Magazine, No.610, May-June 2019

Features

22 King Carbon

"I've always enjoyed brainstorming ideas with engineers, asking what else we can develop using graphite." Stephen Riddle, chief executive officer of Asbury Carbons, speaks to *Rose Pengelly* about his passion for carbon, and why even four decades of experience does not mean you have seen everything in graphite.

26 Evolving global lithium supply

Demand for battery raw materials has led lithium producers to increase their total production volumes while looking to diversify their investments in different lithium operations to ramp production up faster and diminish asset risk. *William Adams* and *Martim Facada* look at the development within some of the world's top producers.

34 The peaks and troughs of Eurasian mining

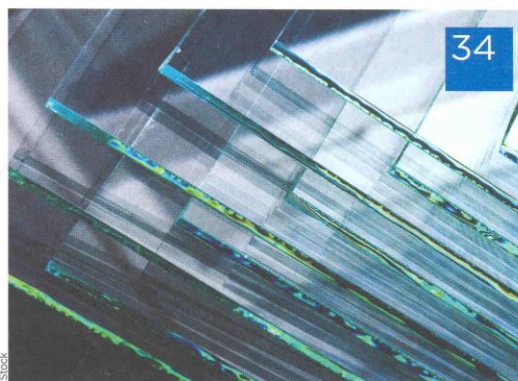
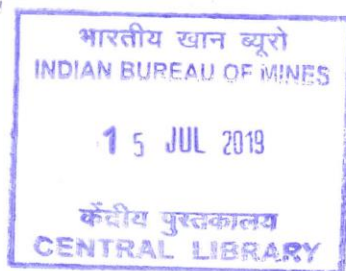
Turkey is the standout performer in Eurasia's industrial minerals industry but its economic recession is affecting the wider region. *Rose Pengelly* looks at what neighboring countries are doing to boost their domestic mining sectors.

38 A clear uptrend

Led by a revival in North American sales, the outlook for the global flat glass market remains positive – as it does for the container sector. Manufacturers will need to fork out more for raw materials, though, *Ross Davies* finds.

Next issue

Oilfield minerals
Vermiculite
Wollastonite
Agri-minerals



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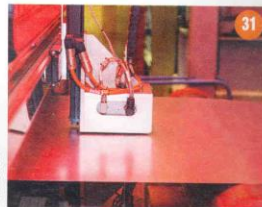
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ANDRITZ introduces its new range of Aqua-Screen fine screens for environment sector's customers



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Dalmia Bharat Group inaugurates a new production line to manufacture a wide range of advanced monolithic refractories

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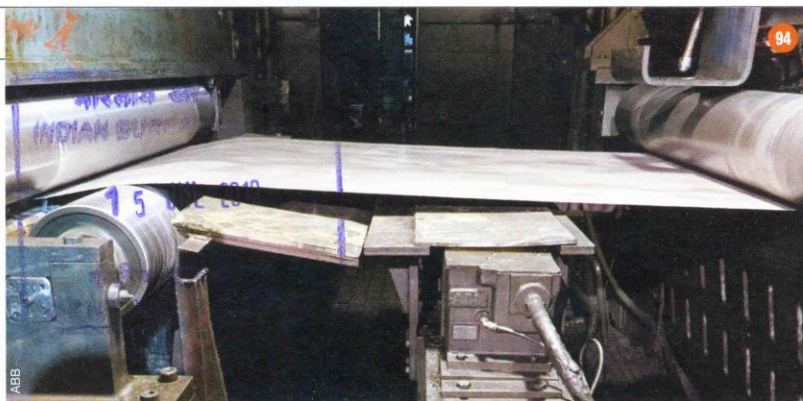
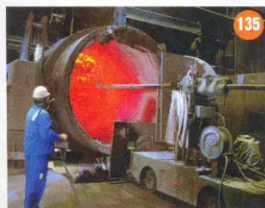
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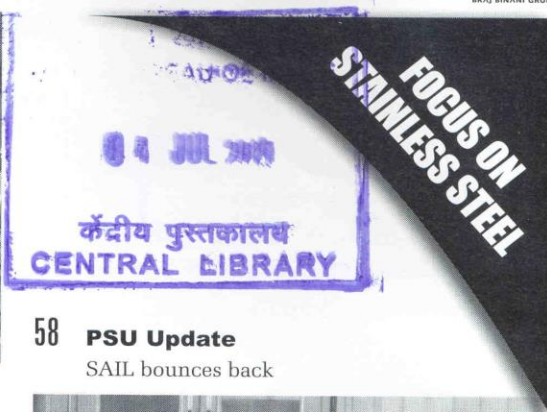
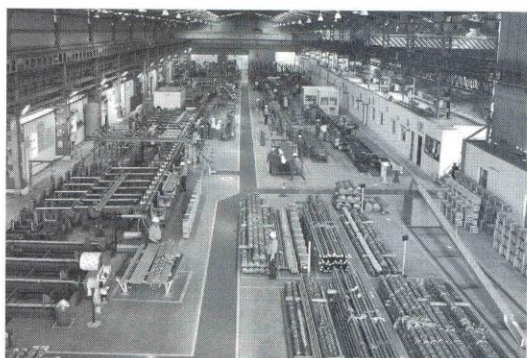
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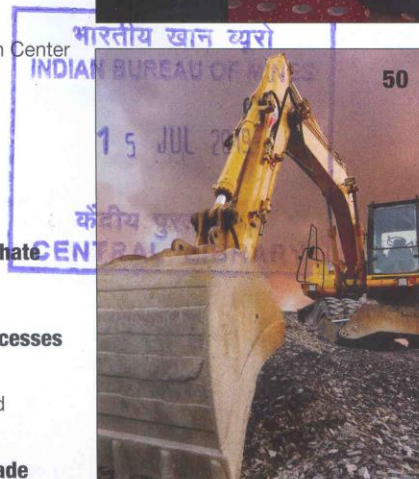


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Last year, the estimated value of nonfuel mineral production in the United States increased by 3 percent from 2017. Meanwhile, the estimated value of industrial minerals produced increased by 7 percent. The total value of metals and minerals produced in 2018 was about \$82.2 billion, according to the U.S. Geological Survey. The agency's annual review of mining activity in the United States during 2018 begins on page 50. Dilution remains a cost impairment in the mining process. A six-month trial established the cost-benefit of new technology as it applies to the alignment accuracy of production drilling rigs, page 18. And the SME Annual Conference & Expo was held in Denver, CO in February. Coverage begins on page 39.

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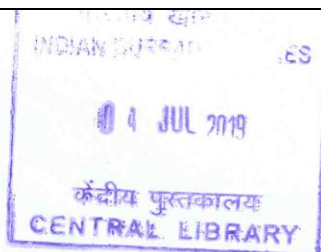


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Mining Magazine, May 2019

Out of the shadows

It has been an eventful year in mining thus far, with mergers and acquisitions, controversy at events, calls for industry reinvention and one of the worst mining disasters in recent history. Some of it is par for the course – protesters camping outside of mining conferences and big merger deals are nothing new – but the magnitude of the Brazilian dam collapse and the shadow it has cast have forced some industry players to re-evaluate their practices.

"Following the dam failures, we saw solidarity, more open communication and adoption of practices in common," Stantec's mining vice president Andrew Watson tells our senior reporter Donna Schmidt in this month's consultants feature.

"If we can do the same in other parts of our business, without waiting for some catastrophic catalyst, we'll be in good shape."

It has also brought many other issues to the fore that mining simply can't afford to ignore.

Fluor mining and metals president Tony Morgan echoes a similar sentiment in our EPCM piece: "Today there is a greater focus on tailings, as a result of the recent Brazilian dam failures, and the use of water and energy consumption – all so the overall environmental impact ... is minimised."

Whether it is a sense of increased collaboration, a second look at environmental impact or a stronger focus on best practice, it does seem like some lessons have been learned.

How far this cautiousness and newly invigorated sustainability kick will reach, however, remains to be seen.

In many ways mining's reputation has already been tarnished – not just by recent events. As the companies sit at the top of the value chain, far removed from the end consumer, it's no wonder people are also ignorant of the sector's (or more accurately its products') importance in their everyday lives.

Mining-reliant communities are often an exception, as miners have to target them with CSR and PR initiatives to gain a social licence to operate in the region. For example, BHP recently brought in Australian research group CSIRO's engagement platform Local Voices to give communities close to some of its operations a better chance of being heard.

Yet, locals getting to terms with a miner moving in next door are in a very different situation to the mining-unaware masses, who usually only hear about the industry when something goes horribly wrong. Naturally miners' wrongdoings and neglect should be highlighted by the press; although no amount of fearmongering will make the sector disappear.

With miners' fresh focus on safety, sustainability and co-operation, perhaps the industry will change to something more palatable to the general public.

At events like the recent Future of Mining Australia, the picture many companies are trying to paint is of a more diverse industry eagerly playing in the AI, automation and electrification sandboxes. As highlighted by the keynote speaker, Resolute Mining managing director John Welborn: "We can't keep doing the things we've always done."

The industry needs to find new ways of solving problems – and new ways of communicating its successes.

NIA KAJASTIE, EDITOR

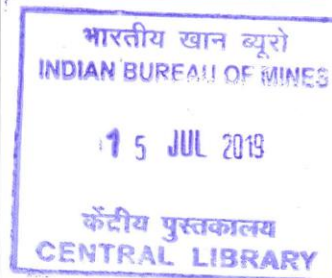
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"Following the dam failures, we saw solidarity, more open communication and adoption of practices in common"



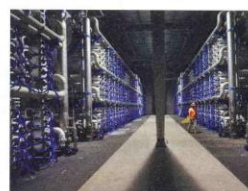
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Mining Magazine, June 2019

Hands clean

It doesn't always seem like there is a huge amount of pressure on mining companies to act quickly when it comes to environmental issues or sustainability goals – until they're faced with catastrophic events on their own turf.

To give credit where credit is due, however, some miners have publicly acknowledged climate change as a real threat and said they're working on decarbonisation. Some are investing in building modern, all-electric mines (see Goldcorp's Borden and Nouveau Monde Graphite's Matawinie), while some have launched pilot projects to test new carbon-neutral methods and technologies (see De Beers' work in mineral carbonation).

Nonetheless, mining houses are not known as the fastest-moving enterprises. Perhaps, again, companies will act out of necessity rather than choice.

A special report released by the Intergovernmental Panel on Climate Change (IPCC), a UN body assessing climate-change science, called for a decrease in coal's share of primary energy to 1-7% by 2050, while recommending a share of 52-67% for renewables, to help limit global warming to 1.5°C and avoid an irreversible impact.

Unsurprisingly, not everyone seemed convinced, including the Australian government and some mining industry groups. In October of last year, around the time of the report's release, Michael McCormack, Australia's deputy prime minister, reportedly said his government wouldn't change policy "just because somebody might suggest that some sort of report is the way we need to follow and everything that we should do".

The challenges that miners might face due to a changing climate, as outlined in an ICM report from 2013, include "physical risks to assets and infrastructure arising from flood or storm damage, supply-chain risks arising from disruption to transport networks and increased competition for climate-sensitive resources such as water and energy". While reports can be brushed aside, direct effects to operations might not be so easy to ignore.

The most recent initiative to promote more sustainable mining practices is the World Bank's Climate-Smart Mining Facility. Prompted by the growing demand for minerals and metals needed for the clean energy transition, the facility aims to tackle the challenges related to mining activities in resource-rich developing countries and emerging economies. It's targeting an investment of US\$50 million in sustainability projects, including supporting renewables uptake, better land-use practices and recycling of minerals.

Riccardo Puliti, senior director and head of the World Bank's Energy and Extractives Global Practice, said the World Bank wants the low-carbon transition to include climate-smart mining practices and greener value chains.

"Developing countries can play a leading role in this transition: developing strategic minerals in a way that respects communities, ecosystems and the environment. Countries with strategic minerals have a real opportunity to benefit from the global shift to clean energy," he added.

Partners for the initiative currently include the German government, as well as Rio Tinto and Anglo American.

Rio Tinto chief executive Jean-Sébastien Jacques stressed that the transition to clean energy presents the mining industry with a significant opportunity – as well as a responsibility.

NIA KAJASTIE, EDITOR

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"While reports can be brushed aside, direct effects to operations might not be so easy to ignore"



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COVER

When it comes to underground mining, safety and productivity are the two major areas that technology companies focus on because they have a lot of potential for improvement. However, these two words can mean different things to different people, and at Newtrax we tend to address them from the point of view of mobile equipment. Making sustainable changes with an impact on safety and productivity is a big challenge, especially for underground mixed-equipment mining fleets. Newtrax Mobile Equipment Telemetry (MET) solutions provide mine operators with essential information and indisputable data that is pulled directly from any brand and model of mining equipment. The ability to access this data empowers mining companies to understand the precise manner in which their machines are being used, how well each individual machine is functioning, and can offer predictive suggestions to increase both productivity and profit
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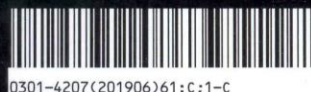
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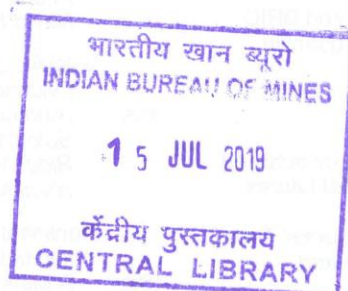
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