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Isabel Muller

Corporate permitting in landfolio®

In the past the focus was on

- Management of
 - Mineral Rights
 - Land
 - Environmental Licenses
- Looking at
 - Conditions
 - Stakeholders
 - Processes/Workflow
 - Reporting
 - Maps





Compliance is more than that

- Management of permits
 - Mineral Rights
 - Land
 - Environmental Licenses
 - Blasting and explosives
 - Communication
 - Engineering
 - Transportation
 - Etc.





Why should I care about permitting?







Ramp-up for Anglo American's Minas Rio mine likely delayed to 2021

16th October 2018 BY: REUTERS



Minnesota Court Rejects Major <u>Permits</u> for PolyMet Mine

By The Associated Press

Jan. 13, 2020

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ST. PAUL, Minn. — The Minnesota Court of Appeals on Monday rejected some of the most important permits for the planned PolyMet copper-nickel mine in northeastern Minnesota, giving a major victory to environmentalists.



In this file photo from June 25, 2019, Judy Cavanaugh stands with others at a rally against the Pebble Mine in front of U.S. Sen. Lisa Murkowski's Juneau office. (Michael Penn | Juneau Empire File)

Final impact statement for Pebble Mine <u>delayed for three</u> <u>months</u>

Army Corps of Engineers says it will take the time to review public comments



Non-compliance

Tegeta's mines riddled with non-compliance, MPs told

May 30 2018 11:23 Khulekani Magubane

fin24

Cape Town - Optimum Coal Mine and the Shiva Uranium Mine, once owned by the Gupta family's Tegeta, were guilty of operational non-compliance breaking mining regulations and posing risks to workers.

This is according to a submission from the Department of Mineral Resources to Parliament's portfolio committee on mineral resources on Wednesday.

Optimum's operations have been under business rescue and the National Union of Mineworkers has cast doubt on the business' ability to pay salaries. The Bank of Baroda on Tuesday gave the South African Reserve Bank formal notice of its intention to ovit SA. Its earlier attempts to exit left Optimum a

companies with no banking facilities, resultir Gupta-owned businesses seeking an urgent prevent the bank from leaving the country.

Ahead of his recent budget vote, Minister of Enterprises Pravin Gordhan told reporters th site visit to Optimum Coal Mine, he learned

"Tower cranes used on plants were not main the cranes. Pressure vessels were not routir of equipment until non-compliance was fixed





Illegal runoff still a problem at Rhode Island quarry

By Frank Carini ecoRl News 5 hrs ago 🔍 0



Environmentalists allege De Beers failed to report on mercury in water



By Tanya Talaga Global Economics Reporter ▲ Tues., Dec. 6, 2016 0 5 min. read



Cheers

Thursday, F 5:30pr Grev Sail Tax

Fines, complaints, damaged reputation

Acacia Mining fined for breaching environmental regulations

INTERNATIONAL / 10 JANUARY 2019, 6:30PM / REUTERS

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Anglo fined \$6.2m for environmental breaches at Los Bronces mine in Chile

Cecilia Jamasmie | May 5, 2015 | 10:45 am Base Metals Top Companies Europe Latin America Copper

New Hope fined for breach at Acland coal mine



Lumina Copper faces charges, up to \$55m <u>fine</u> for <u>environmental breaches</u> in Chile

cilia Jamasmie | February 19, 2019 | 9:55 am Base Metals Precious Metals Suppliers & Equipment Asia Canada Latin America Copper Cold

Steven Trask

31 Jul 2019, 9:04 a.m.

Mining directors face R10m fine, jail time for pollution

COMPANIES / 11 MARCH 2017, 2:41PM / SHEREE BEGA



Work carried out at the New Acland mine site on Queensland'

TRANSFORMING THE WAY THE WORLD WORKS



The No 6 tailings pile at the Blyvooruitzicht Gold Mine. Picture

Johannesburg - The Green Scorpions have haule and Village Main Reef gold mining companies to (and environmental degradation.

NEW ZEALAND / LOCAL DEMOCRACY REPORTING

Water quality complaints on the rise on West Coast

6:50 pm on 10 January 2020



Lois Williams, Local Democracy Reporter @loiswilliamsrnz Clois.williams@rnz.co.nz

Complaints about water pollution on the West Coast are on the rise and a good number involve small gold mining operations.



Closures/Down-time



23 JANUARY 2020 NEWS

Centerra receives permits to restart open-pit mining at Kumtor

SHARE

Canadian firm Centerra Gold has received all the necessary permits and approvals to restart open-pit mining at the Kumtor mine in the Kyrgyz Republic.

Kerr to <u>restart</u> Arizona's Copperstone <u>`in near term</u>'

24TH JANUARY 2020

BY: CREAMER MEDIA REPORTER

ARTICLE ENQUIRY SAVE THIS ARTICLE EMAIL THIS ARTICLE

FONT SIZE: - +

The US Bureau of Land Management (BLM) has formally approved TSX-listed Kerr Mines' mining plan of operation (MPO) at the Copperstone gold project, in Arizona.

State <u>closes four mines</u> in Pike and Perry, citing <u>permit</u> violations

: issued a decision of record (DoR) based ignificant impact, marking the conclusion <u>fication effort</u> that started in 2018.

By Nicole Ziege @NicoleZiege Jan 25, 2020 🔍 0

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Four coal mines in Pike County and Perry County, all owned by American Resources Corporation, have been ordered to close after the Kentucky Division of Mine Safety removed the company's mining permits, citing permit violations.



To summarise - Why should I care?

Non-compliance

Jail time

Damaged reputation



Delays Fines Complaints

Down-time

Loss of income



Why do I need a permitting system?







Permitting is complex!



- Many different permit types governed by many different laws
- Many conditions and commitments to track for each permit
- Many stakeholders
- Different levels to cater for from the permit owner all the way to the global manager



TRANSFORMING THE WAY THE WORLD WORK

Different stakeholders, different questions





Why landfolio[®] for permitting?

- Leverage existing landfolio[®] functionality
- Extend landfolio[®] to include wider permitting
- Add more license type groups e.g.
 - Blasting & Explosives
 - Communication
 - Engineering
 - Health & Safety
 - Transportation











The Project Manager

landfolio[®] Licenses

- Linked to a project group
- Automated Reports per project
- Generic workflow
 - Acquisition
 - Maintenance
- Project permitting map









Trimble landfolio



- landfolio[®] licenses
 - Automated Reports per site
 - Exceptions
 - Compliance
 - Site dashboard
 - Site permitting map



The Regional Manager

landfolio[®] licenses

Trimble landfolio

- Automated Reports per region
 - Exceptions
 - Compliance
- Regional dashboard
 - Site comparisons
- Regional permitting map







Trimble landfolio



Permitting is complex!



BUT landfolio[®] can help you manage



TRANSFORMING THE WAY THE WORLD WORKS



