

# RELIABLE CONTROLS

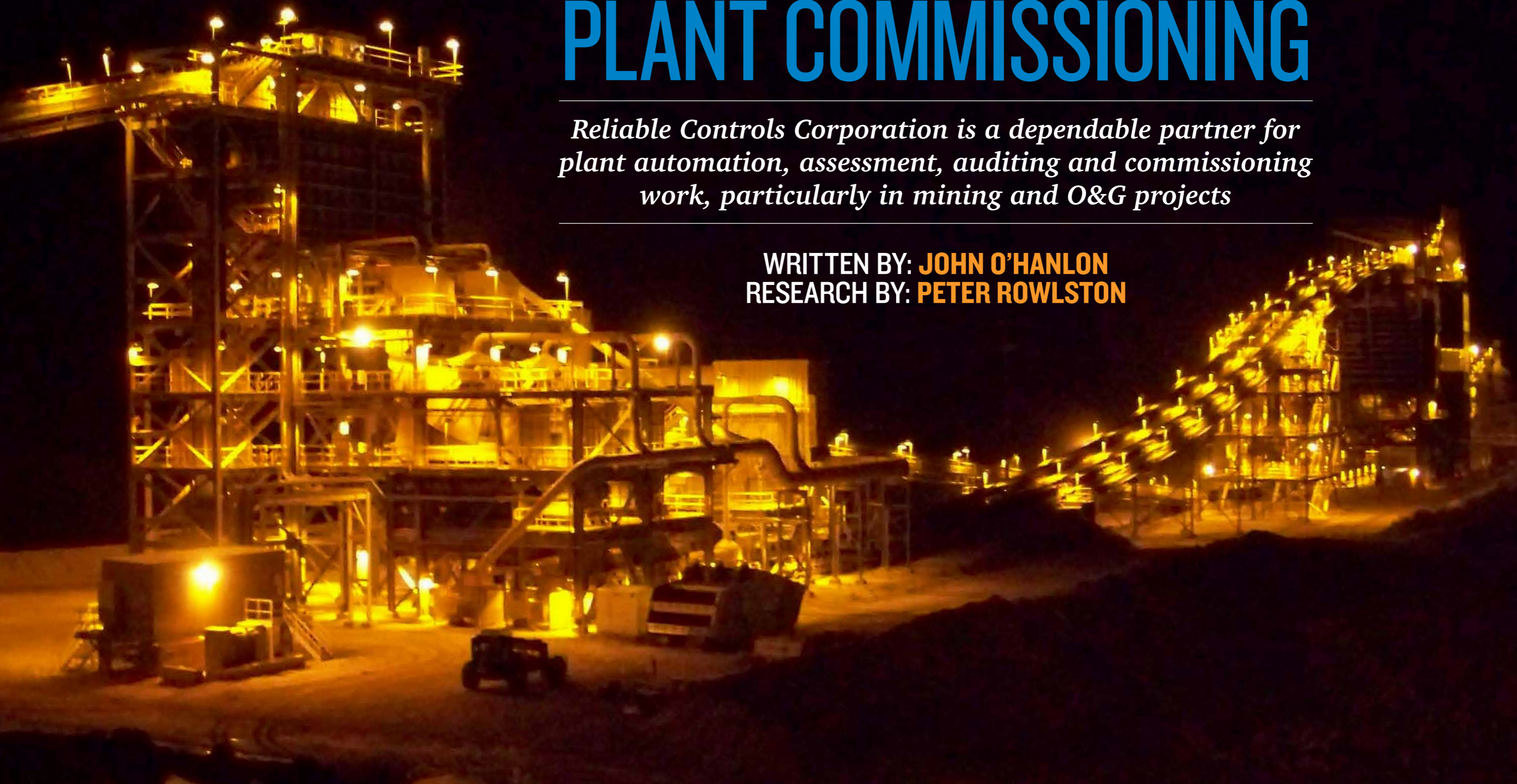
BETTER CONTROLS AND  
PLANT COMMISSIONING



# BETTER CONTROLS AND PLANT COMMISSIONING

*Reliable Controls Corporation is a dependable partner for plant automation, assessment, auditing and commissioning work, particularly in mining and O&G projects*

WRITTEN BY: **JOHN O'HANLON**  
RESEARCH BY: **PETER ROWLSTON**



Gold and copper  
recovery in the  
Dominican Republic



Ed Macha always felt there was a better way. Fascinated since childhood by the possibilities of automation, he learned the industry inside and out, knowing one day he would be the one to transform it. Beginning at the age of 15, he spent his summers sweeping electrical room floors and troubleshooting pull cords on conveyor belts at a mine site in Mexico. After graduating in electrical engineering from New Mexico State University, Macha worked as a control engineer, taking on numerous jobs including a large commissioning project working with Bowen Engineering and Fluor Daniels in the multi-million Alumbreira project in Argentina. Five years later, there was a delay in projects and Ed realized that was the time to jump on the idea he never stopped dreaming about. The opportunity to start his own business.

With the support of his father, Al Macha, and younger brother Alex Macha, who are now respectively RCC's Vice Presidents in Operations and Technology, Ed Macha developed a unique method for systemizing power, instrumentation and control systems in a way that could make projects more efficient during commissioning. With the implementation of this new way and the support of a few key people, Reliable Controls Corporation (RCC) was born in April of 1999.

The primary focus of RCC was the mining industry. The company's first big break came within months of being established, with the challenge to automate a tripper conveyor control system at a mine that used lasers for control and optimisation. This was followed by another large project performing



Copper and gold underground mining in Indonesia

a complete Instrumentation and Controls audit and assessment in 2001 at Minera Escondida’s concentrator. The next few years brought nothing but opportunity and growth for the flourishing company. In 2002, RCC performed the commissioning and start-up of the Power Distribution Systems and Controls Systems for BHP Billiton at Minera Escondida’s Phase IV megaproject.

That success attracted the attention of other major clients and the company grew fast. In 2004, RCC had reached eight employees, at which point it expanded its operation in Salt Lake City: since then it has experienced steady growth and today has 53 employees. If there’s a key to this business, it lies in the commitment of its staff. With an average age of 38 the team includes seasoned engineers with the ability to manage large teams, a middle generation in their thirties, highly tech-savvy and bright, and the youngest generation in their 20s, many of whom joined RCC straight from university, eager to learn and willing to work hard to get where they need to be. “It’s a very constructive combination!” says Macha. “We have great leaders in all of those age groups.”

The company’s portfolio developed quickly, with satisfied clients in both the mining and the oil and gas (O&G) sectors. RCC is

a perfect fit with businesses in these two sectors – companies that are in the process of building new facilities and clients that are reassessing their existing facilities. This was always the basis for building the firm’s reputation, he says. “We build trust, respect and unity. We become family with our clients, making it a win-win situation. To do this, we train and develop as much as we can. We value our people’s experience and give them

training, so we are offering our clients continuing expertise. The world faces a crisis of resources right now and the type of work we do on power systems, instrumentation, automation and commissioning is huge in fixing that crisis. RCC is developing and training the next generation to step up and resolve the crisis.” The company’s record of growth by recommendation and the long term relationships it has built with mining and O&G majors testifies to the success of this approach.

RCC’s engineers are experienced in both understanding the synergies as well as the unique characteristics of plant

1999

RCC’s foundation year

design, installation and commissioning in each of them. “We focus on understanding our clients’ needs,” he emphasises. “For example many of them need to modernise or upgrade their facilities after

a long period of operation – they might not even have the original documentation, drawings and commissioning information. So the first thing we will do is to make an audit of the whole installation. We trace every wire, and create plant drawings and documentation that may be missing or out of date: in short, we tell the client exactly where their plant is at!”

RCC’s qualified engineers then use

“WE BUILD TRUST, RESPECT AND UNITY. WE BECOME FAMILY WITH OUR CLIENTS, MAKING IT A WIN-WIN SITUATION. TO DO THIS, WE TRAIN AND DEVELOP AS MUCH AS WE CAN”

a proprietary system to pinpoint potential opportunities and offer detailed recommendations for creating more favourable conditions with little to no downtime. “The system breaks the job down into work packages: our engineers go through the entire plant and give the owner a snapshot of every last detail of his instrumentation, automation and electrical installation.” Having established the baseline, RCC goes on to make its recommendation of what needs to be done to upgrade and improve safety or compliance. A great example of this service was shown in 2009, when Barrick Gold contracted RCC to provide electrical and instrumentation assessment and ‘as-built’

engineering services at the Cortez Pipeline Mill located 60 miles south west of Elko, Nevada.

RCC performed a detailed electrical and instrumentation assessment including verification and wire tracing, as well as providing ‘as-built’ documentation. ‘As-built’ means assessing the variations from original engineering plans to what was actually built – and any subsequent modifications. Without this, it is impossible to plan any future development. At Cortez Pipeline Mill, wiring, drawings, motor schematics, instrumentation, controls and electrical systems were all audited and the client presented with a turnover package and recommendations related to safety and reliability, critical

**“WE TRACE EVERY WIRE, AND CREATE PLANT DRAWINGS AND DOCUMENTATION THAT MAY BE MISSING OR OUT OF DATE: IN SHORT, WE TELL THE CLIENT EXACTLY WHERE THEIR PLANT IS AT!”**

instrumentation and logic, and electrical and instrumentation component conditions with respect to both safety and functionality. A job well done, which developed into a continued relationship with Barrick and work in major projects world-wide, including being a key partner in the Pueblo Viejo mega project (2011-2013) in the

Dominican Republic where RCC provided pre-commissioning and commissioning services for both Fluor and Barrick.

Another core service that has really made its mark on the mining industry is testing and commissioning. This can be applied to a simple standalone plant or complex site-wide systems. “We place a lot of emphasis on that, and have developed a systematic approach to commissioning that is as foolproof as we can make it,” says Ed Macha. He is referring to the in-house software application that covers the whole process of verifying and validating the plant and getting it up and running. The company has been busy in its home state (Utah), Arizona, and Nevada, last year completing commissioning services for Freeport McMoRan, Barrick, and Rio Tinto.

Currently, the company is in the commissioning process for the \$160 million gyratory crushing system and 21,500 gallons per minute Merrill-Crowe facility at Allied Nevada’s Hycroft gold mine. RCC is providing services to complete all electrical and instrumentation terminations and performing component testing and plant commissioning. The systematised approach by project manager, Jeff VanDyke, and team of 20 has made a substantial difference in the project.



Copper thickener in the Atacama Desert, Chile

Another aspect Reliable Controls prides itself in is that of forging innovative technology. RCC has just launched a new application called PlantSight ([www.plantsight.com](http://www.plantsight.com)) based on its unique system which is now available to purchase by anyone. This tool is cloud-based and utilises iPads and laptops to perform all inspections, punchlists and test package completion. The key is to have immediate information available for tracking, making decisions, early discovery and accountability based systems required for the commissioning of world-class facilities. “This tool is great for tracking real time progress, and generating online reporting,” Ed Macha enthuses. “The system aims to improve efficiencies, reducing re-do work and improving the reporting process, all of

“PLANTSIGHT IS A GREAT TOOL FOR TRACKING REAL TIME PROGRESS, AND GENERATING ONLINE REPORTING”



RCC engineer, Michael Toone, utilizing PlantSight while commissioning

which help to meet project deadlines. I truly believe RCC understands the importance of technology and is one of few businesses in the industry that are capitalising on it!”

With offices already established in the USA, Chile and the Dominican Republic RCC is now setting up shop in Peru and Indonesia. “We will go wherever our clients need us,” says Macha – and he makes it clear that though he is currently focused on South East Asia and South America, Australia and Canada are definitely of interest, and that the logical progression going forward will be a big push into the energy sector. The latest international venture in Indonesia has proved RCC’s ability to work with a 14-16

hour time difference between the site and the engineering companies/suppliers in North America, as well as the logistics challenge.

Though his clients agree that RCC holds the key to the best available plant assessment and commissioning, Ed Macha still thinks there is a better way. “We do our work with so much pride. Everything we do is beautiful. It is a work of art. We all believe in doing a job with passion! We cannot stand mediocrity - there is always the challenge to do it better!” **BE**

For more information about Reliable Controls visit: [www.rcontrols.com](http://www.rcontrols.com)



RCC management - Fred Botha, Alex Macha, Al Macha, Nikki Butler, Ed Macha, Brad Liljenquist



## **RELIABLE CONTROLS**

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