# KETOS Smart Water Management Platform™



The KETOS Smart Water Management Platform enables mining operators to remotely monitor dozens of water quality parameters (including heavy metals) and proactively address potential water quality issues and ensure that water meets specific safety, compliance, and sustainability standards.

The KETOS platform is a fully integrated, autonomous solution that includes IoT sensor systems (WAVE and SHIELD), connectivity, data warehousing, and automated alerts, reporting, and analytics.





## **Predictive Analytics**

KETOS Machine learning algorithms leverage data from multiple sources and enable operators to get ahead of issues before they become real issues. KETOS can provide predictive insight into things like possible compliance issues, maintenance requirements, water usage, and water quality anomalies.



## **Reporting & Alerts**

KETOS users have access to several automated, outof-the-box analytics reports - eliminating the need for analytics or data science expertise. In addition, users can easily configure customized, real-time reports and alerts to support specific requirements and process controls.



### **IoT Sensor Systems** & Connectivity

The KETOS solution can include two separate sensor systems - KETOS SHIELD and KETOS WAVE - to autonomously provide lab-accurate water quality and water efficiency parameters. The sensor systems include cloud integration through several connectivity options including LoRa, WiFi, cellular, and customer networks.



# **Data Warehousing**

KETOS predictive analytics, reporting, and alerts are made possible by a centralized KETOS data warehouse. Data can be aggregated from multiple sources, and data is automatically organized and structured to facilitate turn-key analytics.

#### **KETOS BENEFITS**

- Remotely Monitor Water Quality Parameters (including Heavy Metals)
- No Lab Testing or Manual Intervention Needed
- Real-time Water Quality Results
- Automated Reporting and Threshold-based alerts

TRANSFORMATIVE BUSINESS MODEL

# A \$0 Capex Solution

The KETOS solution includes software, hardware, installation, warranty, maintenance, upgrades, and virtually unlimited testing for a single monthly fee. No CAPEX is required.





KETOS WAVE



#### **KETOS Features**

- Dozens of Parameters Including **Heavy Metals**
- **Real-time Reporting and Analytics**
- **Machine Learning and Predictive Analytics**
- Self-Calibrating and Self-Cleaning
- \$0 CAPEX Investment
- **Maintenance and Installation** Included as a Service
- **Real-time, Threshold-based Alerts**

#### **Sample Applications**

- Remotely monitor discharge water for active and closed mines
- Continuously measure acid run-off (pH)
- Test water autonomously and monitor at remote locations
- Autonomously test for heavy metals
- Test effectiveness of water treatment processes

### Installation



Since 2017, KETOS has been deployed in the US, Canada, India and Mexico. Sample installations include industrial applications for monitoring influent water, process water, and effluent water at power plants, oil & gas companies, and manufacturing facilities. In addition, KETOS is currently leveraged by city, regional, and private utilities for monitoring surface water, groundwater, recycled and treated water treatment plants – and a state park to monitor drinking water safety. KETOS is also a part of three prestigious research consortiums based in both private and public universities where KETOS technology is a part of several research applications including the National Center of Water Quality Research (NCWQR).



# Patented and Award-Winning

Patents have been issued for the KETOS Solution in several countries and PCT coverage globally.



TRACXN Award-Winner: 2020, 2021, & 2023



1st Prize: The Start-up Disruption Award



PRESENTER: SDG Goals UN Summit



NASDAQ: 2017 MILESTONE MAKER



Global Water Awards 2020



First Place For "Mapping" Water Data Prize 2021



WINNER: WORLD **OPEN INNOVATION CONFERENCE 1ST** PRIZE INDUSTRY STARTUP DISRUPTOR



Innovation in Clean-Tech Award



TOP 50: GLOBAL **TECHNOLOGIES** FOR SMART CITIES IN 2020



FINALIST: TOP 10 Agricultural Technologies of Food & Safety In India - Smart Village Initiative



**GOLDMAN** SACHS: 100 MOST INTRIGUING **ENTREPRENEURS** 



Unreasonable Group Fellowship

### **Current Research Partners**

















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