

### Welcome to

### SN Integrity

Supporting the Australian Energy, Resource, and Utilities sector through smart corrosion monitoring technology,

- Delivering smarter solutions for asset integrity.

  Offering Industry leading, next level inspection, testing and asset integrity technology
- Experience in corrosion monitoring with exceptional depth of experience and expertise in the highly specialized field of smart Ultrasonic (PIMS) based on IoT's
- Links with the very best global partners and products, to deliver best in class solutions through a single point of responsibility approach to critical asset management applications.



### Services

### SN Integrity

**Corrosion Management** 



- Development, selection and implementation of corrosion monitoring systems to ensure asset integrity
- Preparation of corrosion management plan (CMP), including corrosion loops, inspection strategy, mitigation, and actions to implement strategy with performance standards to measure effectiveness of CMP
- Failure mode effects and criticality analysis (FMECA) adding lessons learn into CMP.
- Pipeline Corrosion Monitoring and surveys Assessment such as in line inspection, CP Close Interval, DCVG, internal corrosion monitoring, data analysis to ensure asset integrity



# Services SN Integrity NDT and Inspection



- Selection of suitable technology and methodology to address a particular application.
- Deliver cost-effective selection of new technologies to manage your asset integrity.
- Preparation of Inspection and test plans (RBI and Prescriptive) and I
- Inspection and Maintenance Repair (IMR)
  Budgeting, Planning, Execution, Data
  management, Control and Validation all
  inspection engineering activities including review
  and acceptance of repairs.





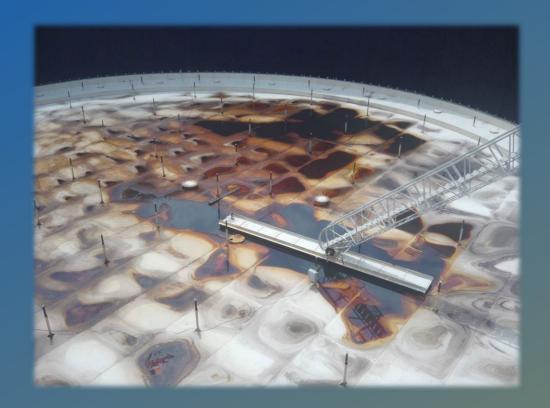




### Services

### SN Integrity

**Ultrasonic Sensor Technology** 



Through affiliations with global industry leading technology providers, SN Integrity are now able to deliver unparalleled corrosion, and erosion monitoring technology hardware, software, analytics, including support directly to the Asset Manager, allowing complete access to real time data, either through existing client network, or as a furnished network included within the system.



## SN Integrity SENSOR NETWORKS, INC



smartPIMS® non-intrusive ultrasonic corrosion and erosion monitoring system, battery powered with integral SIM card, cellular radio, Modbus, LoRaWAN. The Digital Sensor Interface (DSI) unit is programmed to take thickness measurements at any user-defined time interval, then send the data to webPIMS™, a cloud based back-end for analysis, trending and more.





#### Wired or Wireless Non-Intrusive UT Sensors for Corrosion/Erosion Monitoring

Sensor Networks' smartPIMS® 2.0 is the next generation system for non-intrusive ultrasonic corrosion/erosion monitoring of critical assets. The smartPIMS 2.0 boasts a variety of connectivity options for optimal utilization of thickness data via local PC, SCADA/DCS, or wireless transmission to IoT analysis systems.

#### Choose from:

- Mod-Bus
- Datalogger
- LoRaWAN
- Cellular

#### 2.0 New model

#### Monitor Corrosion Rates

With resolution to 0.001" (0.025mm) • of high-risk areas where entry and access is difficult and costly • of historically problematic locations

#### Monitor Low Spots

From post-NDE screening of pits to monitor remaining thickness for fitness for service • of thickness down to 0.040\*

#### Replace/Augment Intrusive Methods

With validation of coupons, ER probes, and other types of systems • With time stamped thickness data for process change correlation

#### Reduce Costs

With elimination of continued scaffolding maintenance and repeating insulation removal and refitting • Per reading with increased frequency of data at no additional cost



RS-485 Cable, Armored Temp Sensor Cable, Armored UT

Rugged design for outdoor use and installation in harst industrial environments

Use in Upstream, Midstream or Downstream environments

Supports up to 8 dual element sensors (up to 275°F/135°C) or up to 18 Ultra-High-Temp (up to 932°F/500°C) sensors per system.

Optional single thermocouple connection for measuring surface temperatures and post-calculation temperature-compensated thickness readings.

Highly stable readings as sensors do not move and thickness measurements made at same exact location time and time again.

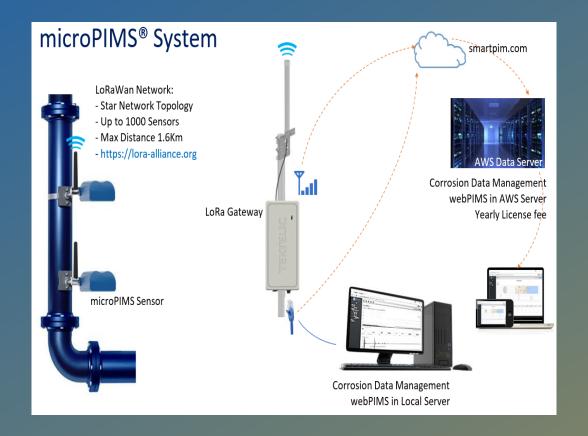
ATEX, IECEx, UL.CSA and Japanese hazardous-area certified.

PRELIMINARY DATA SHEET. All information and specs are subject to change without

### SN Integrity





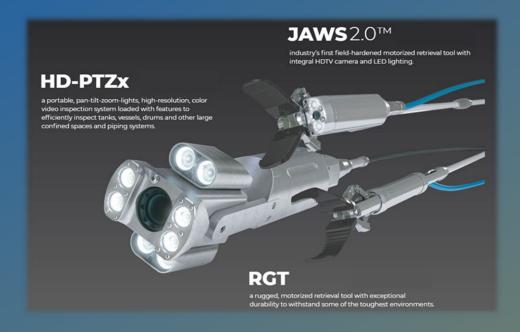


New wireless microPIMS® non-intrusive ultrasonic corrosion and erosion monitoring system, battery powered with data straight to the cloud using a LoRaWAN gateway.



# Products SN Integrity





- HD-PTZx™ is a Full High-Definition (HDTV) field-hardened, rugged, waterproof and reliable Pan-Tilt-Zoom industrial video inspection camera system.
- JAWS2.0™ is a rugged, motorised retrieval tool with integral HDTV camera and LED lighting. It is easy to operate, robust, submersible, and is suitable in any industrial environment
- The Remote Grabber tool (RGT) is a rugged, motorised retrieval tool with exceptional durability to withstand some of the toughest environments. Likewise it is easy to operate, robust, submersible, and is suitable in any industrial environment



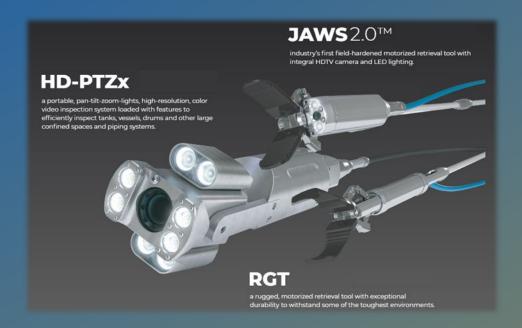
### Services

### SN Integrity



### Remote Visual Inspection and retrieval.





Employing the HD PTZx Inspection Camera System or the JAWS2.0<sup>TM</sup> motorised retrieval tool with integral HDTV camera and LED lighting, these systems have applications in tankage, piping, vessel, stack and ducting remote access visual inspection.

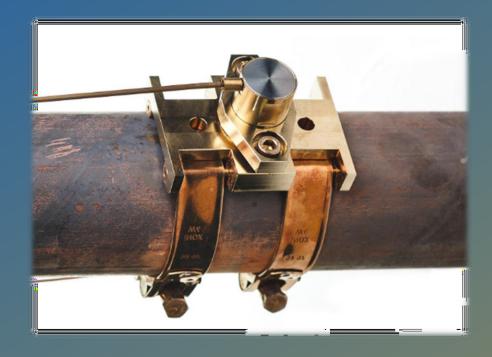


### SN Integrity

Ionix Advanced Technologies







HOTSENSE™ sensors are a redeployable data collection systems to provide a complete non-invasive corrosion monitoring solution, to deliver key asset integrity data, meeting cost, EHS, and operational targets, while minimising operation risk and maximising productivity with enhanced asset data and intelligence.

### SN Integrity







WAND™ System provides highly accurate, repeatable thickness measurements in volume, without the limitations of manual ultrasonic testing (UT) or the costs associated with fully automated wireless permanently installed monitoring systems (PIMS)



# SN Integrity







































# Summary SN Integrity



Supporting Australian Energy, Resource, and Utilities sector through smart corrosion monitoring technology.

Delivering smarter solutions for asset integrity. Offering industry leading, next level inspection, testing and asset integrity technology.

#### Services:

- Corrosion Management
- NDT and Inspection
- Analysis and Reporting
- Ultrasonic Sensor Technology
- Remote Visual Inspection and Retrieval

#### **Equipment and Products**

- Ionix
- HOTSENSE™
- Inductosense
  - WAND SYSTEM™
- Sensor Networks
  - smartPIMS™
  - microPIMS™
  - HD-PTZx, JAWS, RGT



### With thanks

### SN Integrity



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