Purpose
- To innovate safety and develop end user confidence and trust

Value
- Uniquely positioned to supply products and services that can complement, integrate and support projects from the design stage, through to maintenance, data retrieval services and analysis

Experience
- A team comprised of experts in monitoring hardware and systems
The Janus Range Provides

- Retrofittable Guard for Telescoping & Non-Telescoping Retrievers
- Improved Double Seal / Double Isolation with Janus Access Fitting
- Online ‘Plug & Abandon’ Solution for Redundant Access Fittings
Access Fittings for Pressurised Systems

- Corrosion Coupons and Probes
- Injection Quills and Atomizers
- Sample Points
High pressure mechanical access systems

- Technique requires pressure balance for safe operation
- Equalization channels on carrier plugs can block
- Back pressure pumps can be used to ensure balance but are not always available or practical
Fatality in May 2012 led to many operators suspending online retrieval of intrusive devices.

The fatality occurred during the retrieval of an ER probe installed at the 6 o'clock position on a slug catcher line.

The access fitting had not been serviced in over four years.

Scaffolding was built to accommodate a technician, located directly below the retriever to help support the weight.
- High pressure retrieval tools and portable isolations are required for device changeouts under pressure (online)

- Incidents reported globally range from loss of containment, severe injury and fatalities

- Life extension of assets, diluting field experience, and growing concerns around intrusive monitoring techniques called for innovation to solve several problems

- Axess release the Janus™ Guard having consulted with Shell on the design and piloting it successfully
Mechanical retrieval tool designs are unchanged in 70+ years

Last update was in 1978

Over 300 new retrievers are introduced to the field each year

Access fitting design has not changed since the first field installation in 1950

Over 3000 new access fittings are commissioned each year and it is estimated that over 100,000 are in active service
Janus Guard
- Remove the line of fire
- Retrofittable, auto deploying and built into the retrievers, replacing original components
- Axess retrievers with the guard are lighter than other brands without the guard
- Low cost, low maintenance and do not require re-certification of technicians
April 2022 Shell successfully complete a retrieval with the Janus™ retrieval tool

The retrieval of strip coupons installed at the six o’clock position on a slug catcher line is completed

The access fitting had not been serviced in over four years due to the LFI and Risk Assessment

The location was identified as a valuable data point for the integrity program at QGTL and the similarity to the LFI is obvious
Client Projects & Received Benefit - 1

- ConocoPhillips now use the Janus retriever on over 70% of retrievals in Alaska
- Over 2000 successful retrievals throughout 2022
- Service Technicians feel protected and secure
- Optimized stroke lengths reduce overall weight of tools
- Engagement of the service team has resulted in further tool enhancements and revisions
Client Projects & Received Benefit - 2

- Hilcorp use the Janus retriever on 100% of all flowline locations

- Previously unable to utilize telescoping tools due to debris blocking equalization ports

- Non-telescoping tool designs struggle with solids and the risk of not equalizing pressure can result in uncontrolled moving parts – line of fire/dropped object

- Recognized internally as embracing innovation and reducing risk
Client Projects & Received Benefit – 3

- Retrievals have not been performed since 2012
- Developing the reinstatement of online retrieval program
- Includes an operator independence program to train field operators
- Regain monitoring and reduce reliance on inspections
- Innovation Gateway has enabled Axess to work with engineers and product champions
Janus Fittings

- Access fittings can be safer and until now double isolation valves depend on a single O-ring between process and environment.

- Our Janus fittings incorporate **two additional sealing faces**, ensuring double isolation valves have double seals and the external threads are protected from the environment.

- Existing **Service Valves** can be adapted to realize the benefits at low cost.
Janus Fittings

- Seals the external threads from the environment with the O-ring positioned on the access fitting.

- Radial sealing surface provides an additional seal for the service valve and the pressure retaining cover.

- The only access fitting with a double seal and double isolation between process and environment.

- Applies to both mechanical and hydraulic systems.
Repurpose Access Fittings
- Convert fittings to injection points
- Can be serviced under pressure
- Solution for additional injection points as they require less pipework real estate
- No bulky flanged side tee or troublesome NPT side connections
- Chemical isolated from access fitting material
**Abandonment Solution**
- The existing device is retrieved, and an abandonment plug is installed
- Single piece with integral check valves
- Giant button-head connection for injection of sealant and the access fitting is purged and sealed
- Current pressure retaining covers are not an ideal solution for fittings no longer required as part of a monitoring program
- Install an abandonment cover and inject, purge and lock the cover in position
Janus™ Range
- Applies to legacy tools to make them safer
- Minimal changes to existing procedures
- Results of HAZID/JSA/RA/ change dramatically
- Patents pending through USPTO and PCT protected
- Finalists for 2023 AMPP Innovation Awards!