Hifi Announces New Pipeline Pig Management Application and Two New Patents

Hifi HDS providing more value-added commercial applications in addition to preventative pipeline leak detection

CALGARY, Alberta, February 15, 2021 -- Hifi Engineering Inc. ("Hifi"), a developer and supplier of next generation fiber optic sensing technology used to monitor assets including pipelines and oil and gas wells, today announced the company has released the HDS Pipeline Pig Management Application (PMA) for pipelines as part of their patented high fidelity distributed sensing (HDS™) platform. HDS is a specialized data interrogation and analysis platform which uses advanced machine learning and artificial intelligence software algorithms to support Hifi's high fidelity fiber optic sensors.

The new PMA allows pipeline operators to use the HDS 2.0 platform and web-based HDS Monitor pipeline monitoring interface to manage pipeline pig detection and tracking for their pipeline networks. Pigs are sensed and tracked automatically. The pipeline operator can optionally pre-enter pig identifying information such as a unique ID and final destination into the system. Alerts can be enabled to track the pig by time or by location, including the speed and relative strain of the pig as it travels through the pipe. The web-based HDS Monitor pipeline monitoring interface software will provide notifications to the pipeline control room if a pig stops unexpectedly and when the pig run has been completed (see attached image examples).

"The PMA is a great addition to the HDS system," said Ehsan Jalilian, Vice President Systems Engineering for Hifi. "This application will greatly simplify and streamline our operational processes, and will save our customers time and money through pinpointing the location of issues encountered during pigging operations."

Hifi also announced two new patents:

US16/805,277: HDS Event Detection Algorithm
This patent covers Hifi's pipeline event detection algorithms, including its preventative leak detection algorithm. Hifi applies its leading-edge signal processing algorithms to the distributed high-fidelity data acquired from its fiber optic sensors. This patent recognizes Hifi's innovative approach to pipeline event detection, with a strong emphasis on the accurate detection of events without false positives.

US15/773,965: Versatile Pipeline Field Leak Simulation System
This patent recognizes Hifi's innovative approach to designing and conducting field leak simulations to test the effectiveness and readiness of its HDS pipeline monitoring system. The patent covers the design of an easy to deploy leak simulation system which is capable of simulating gas and liquid leaks on or near a pipeline, with maximum control provided to the operators in order to simulate leaks with various pressures, flow rates, and nozzle sizes. This innovation enables the operators to remotely trigger leaks (on a scheduled basis or on demand) and provides a feedback mechanism to notify the operator of the successful execution of the leak simulation.

"We are very pleased with both the launch of Hifi's Pipeline Pig Management Application and these additional patents supporting the HDS 2.0 platform," said Steven Koles, Hifi's President and CEO. "These internally developed innovations help support preventative pipeline leak detection, as well as our

other operational applications which help support environmental, social, and governance (ESG) scorecard objectives of our pipeline partners."

Hifi will be providing a webinar for the Fiber Optic Sensing Association (FOSA) on February 18th titled "Retrofitting Existing Pipelines for Fiber Optic Monitoring". Registration for the webinar can be made at:

https://register.gotowebinar.com/register/3908214488456354062

About Hifi Engineering

Hifi is a privately held Canadian company, with minority ownership from Enbridge, Cenovus and BDC, specializing in the development, supply and commercial operation of next generation fiber optic sensing technologies primarily used for preventative leak detection for pipelines and monitoring of critical assets. Headquartered in Calgary, Alberta, Hifi currently has a number of commercialized products based on its high fidelity distributed sensing (HDS™) technology platform, over 60 patents, and was named the winner of the 2019 Canadian Energy Pipeline Association (CEPA) Foundation Innovation Award, as well as the Digital Innovator of the year for the 2019 Global Petroleum Show (GPS) awards. For more information, visit hifieng.com

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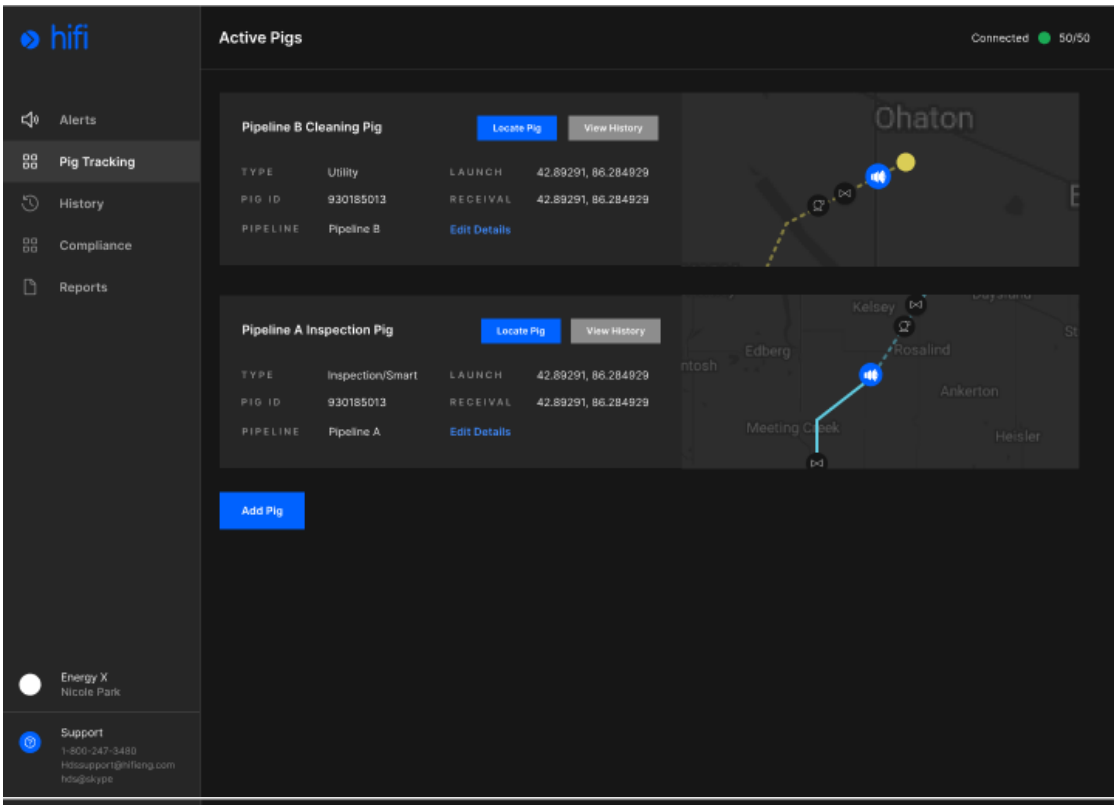
hifi
Active Pigs
Connected 50/50
Alerts
Pig Tracking
History
Compliance
Reports
Pipeline B Cleaning Pig
Locate Pig
View History
TYPE Utility
PIG ID 930185013
PIPELINE Pipeline B
LAUNCH 42.89291, 86.284929
RECEIVAL 42.89291, 86.284929
Edit Details
Ohaton
Pipeline A Inspection Pig
Locate Pig
View History
TYPE Inspection/Smart
PIG ID 930185013
PIPELINE Pipeline A
LAUNCH 42.89291, 86.284929
RECEIVAL 42.89291, 86.284929
Edit Details
Kelsey
Edberg
Rosalind
Ankerton
Meeting Creek
Heisler
Add Pig
Energy X
Nicole Park
Support
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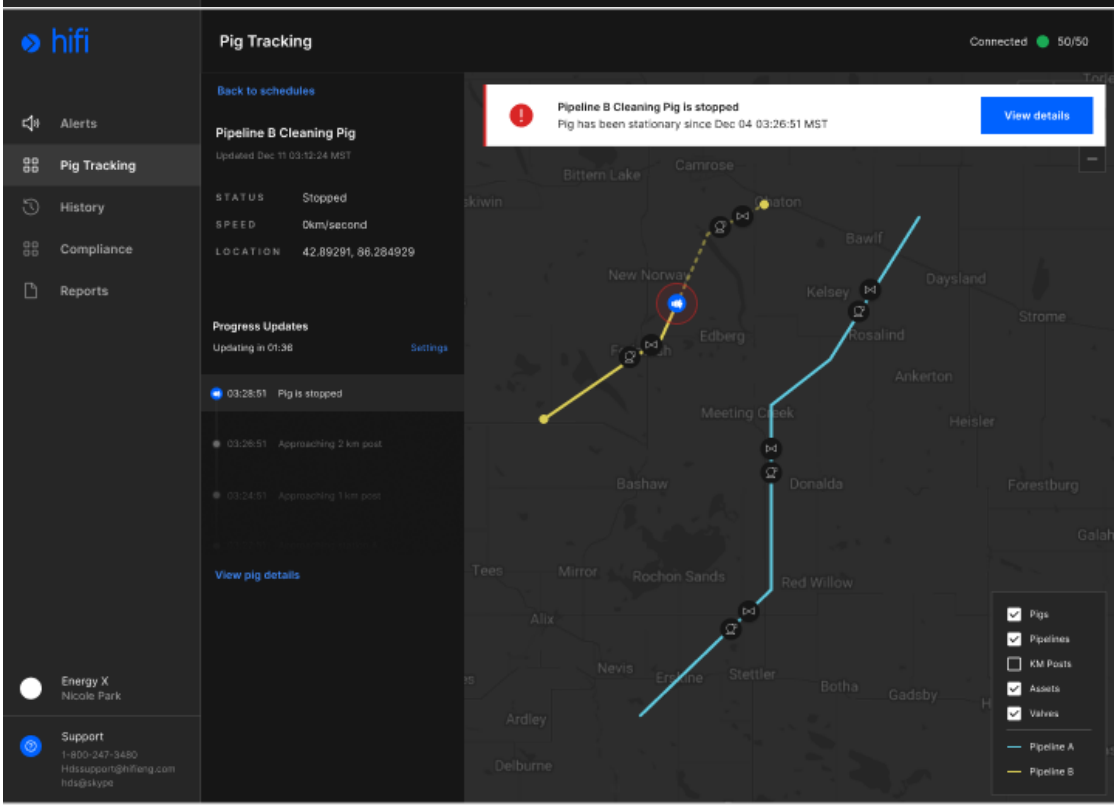
hifi
Pig Tracking
Connected 50/50
Alerts
Pig Tracking
History
Compliance
Reports
Back to schedules
Pipeline B Cleaning Pig
Updated Dec 11 03:12:24 MST
STATUS Stopped
SPEED 0km/second
LOCATION 42.89291, 86.284929
Progress Updates
Updating in 01:38
Settings
03:28:51 Pig is stopped
View pig details
Pipeline B Cleaning Pig is stopped
Pig has been stationary since Dec 04 03:26:51 MST
View details
Bittern Lake
Camrose
Bawlf
New Norway
Kelsey
Daysland
Edberg
Rosalind
Strome
Ankerton
Meeting Creek
Heisler
Bashaw
Donalda
Forestburg
Tees
Mirror
Rochon Sands
Red Willow
Alix
Nevis
Stettler
Botha
Gadsby
Ardley
Delburne
Pigs
Pipelines
KM Posts
Assets
Valves
Pipeline A
Pipeline B
Energy X
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