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Coriolis Measurement – Employing Asset Health and Performance Monitoring for Conventional or Unconventional Production Measurement

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Abstract

Coriolis flowmeters continue to be increasingly applied in numerous allocation and production applications throughout the Upstream Oil & Gas sector. These applications are increasingly demanding in nature, with the respect to their application locations and the availability of skilled manpower. This has given rise to the need for both Asset Health and Asset Performance Monitoring data that users can reliably act on.

Typical Coriolis flow meters produce obscure event notifications which can delay the resolutions of these events. As such, events should be simply categorized for easier recognition of how users resolve the events – either proactively or reactively. Asset Health Monitoring provides a structured approach for users with remedy based information to reduce maintenance resolution time and define the appropriate actions.

Throughout the flow meter life cycle, process impacts can prejudice the device measurement quality or even lead to a device failure. This gives rise to the need for more intelligent flowmeters that can maximize production up-time and provide insightful information into their own performance. This paper will explore Asset Performance Monitoring that gives reliable data on process impact factors related to corrosion, coating or build up, and entrained gas and present metrology based techniques to verify measurement quality by a traceable and attested means.