Title:
DEC-2: "Decision Support for Dynamic Barrier Management"

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Submitted by:

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Business Impact:
- Continuous knowledge of barrier health status
- Real time decision support and risk management
- Continuous assessment of regulatory compliance during operations
- Common language for communication and consensus across the organization and amongst industry and regulatory stakeholders
- Prevention and mitigation of major accidents
- Reduced downtime and increased operational efficiency

Technical Objectives
- Identify barriers for preventing and mitigating loss of well integrity events
- Identify success paths for maintaining or restoring barrier health when malfunctions occur
- Identify information requirements to assess barrier health, establish decision criteria, and provide guidance for response to barrier degradation
- Identify barrier restoration strategies and guidance for selecting and implementing an available success path

- Develop visualization concepts for presenting information to decision makers and facilitating communication amongst stakeholders

Methodology:
The first phase of the JIP will be funded by a sponsoring partner. An organization meeting will be held in Spring 2016 to assemble potential industry participants. A case study will be identified to address a priority industry issue for well integrity. A case study workshop will be conducted where a core group of Subject Matter Experts will develop a decision support concept for the case study. A closeout meeting will be held where the core group will report on the lessons learned from the case study and assess the value of the approach for their organizations and the industry. Plans will be developed for follow on phases to organize a formal JIP.

Deliverables:
- Methods, best practices, data sources, and tools
- Standardized bow tie diagrams, response trees, and decision protocols
- Pilot-scale decision support systems