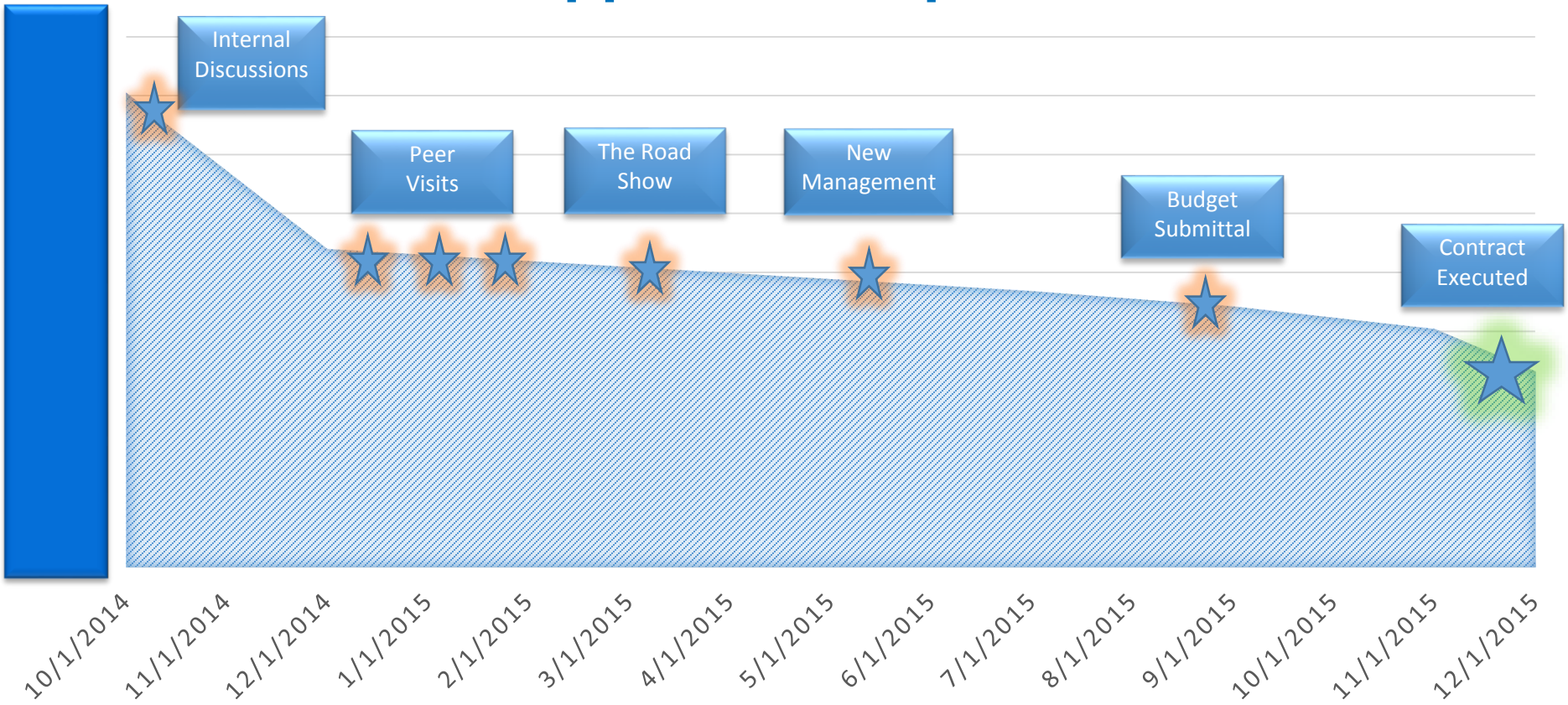
Utilizing Apache's New PI Infrastructure to Improve Situational Awareness and Extend Asset Life

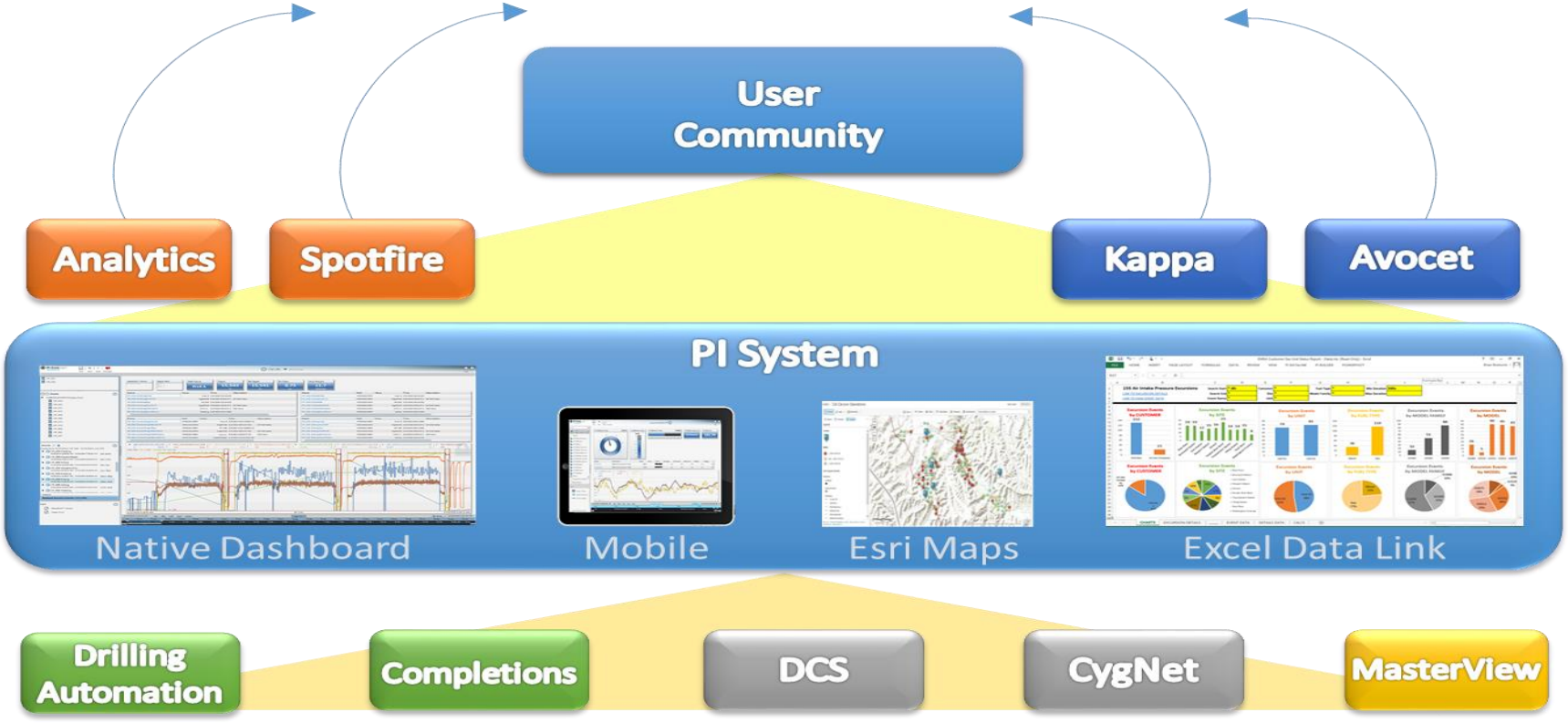
Kelly Sherrill - Manager Automation, Optimization & Production Data Management

10/11/2016

OSIsoft Path To Approval at Apache



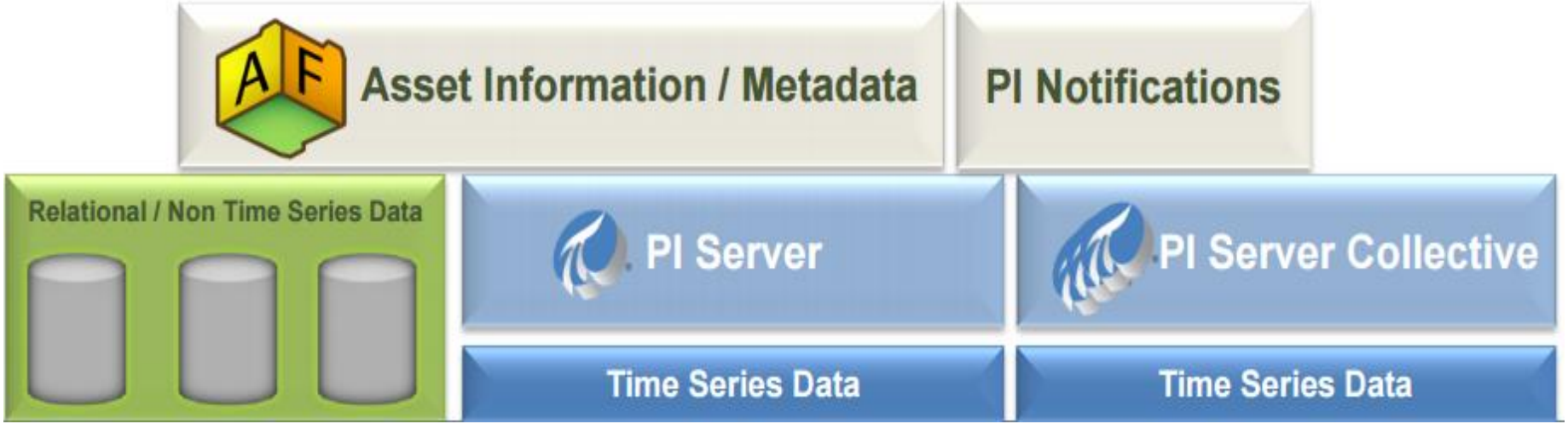
Conceptual Data Flow & Design



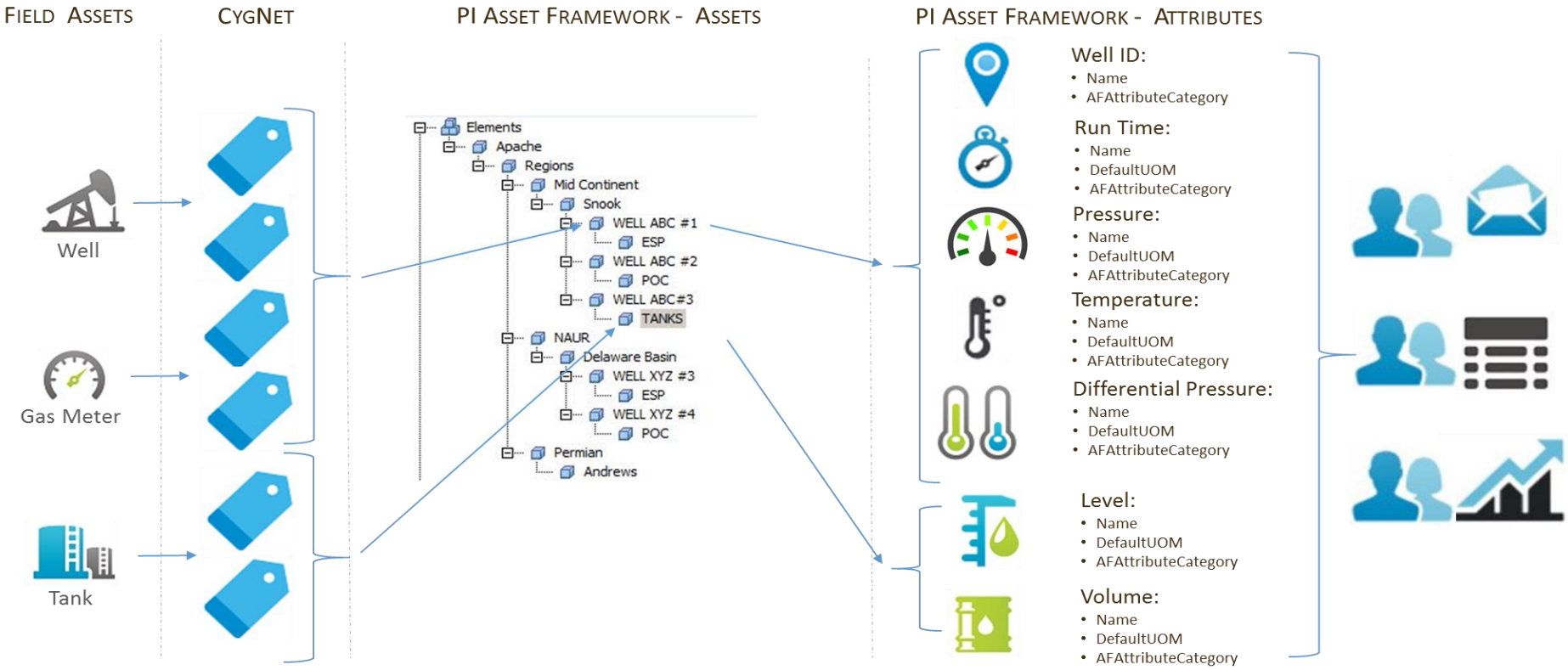
PI System Implementation Project

- Steering Committee
- Phased Implementation
- Development of Asset Framework
- Connectors
- Messaging

Asset Framework Overview



Asset Framework Overview – The “Aha!” Moment

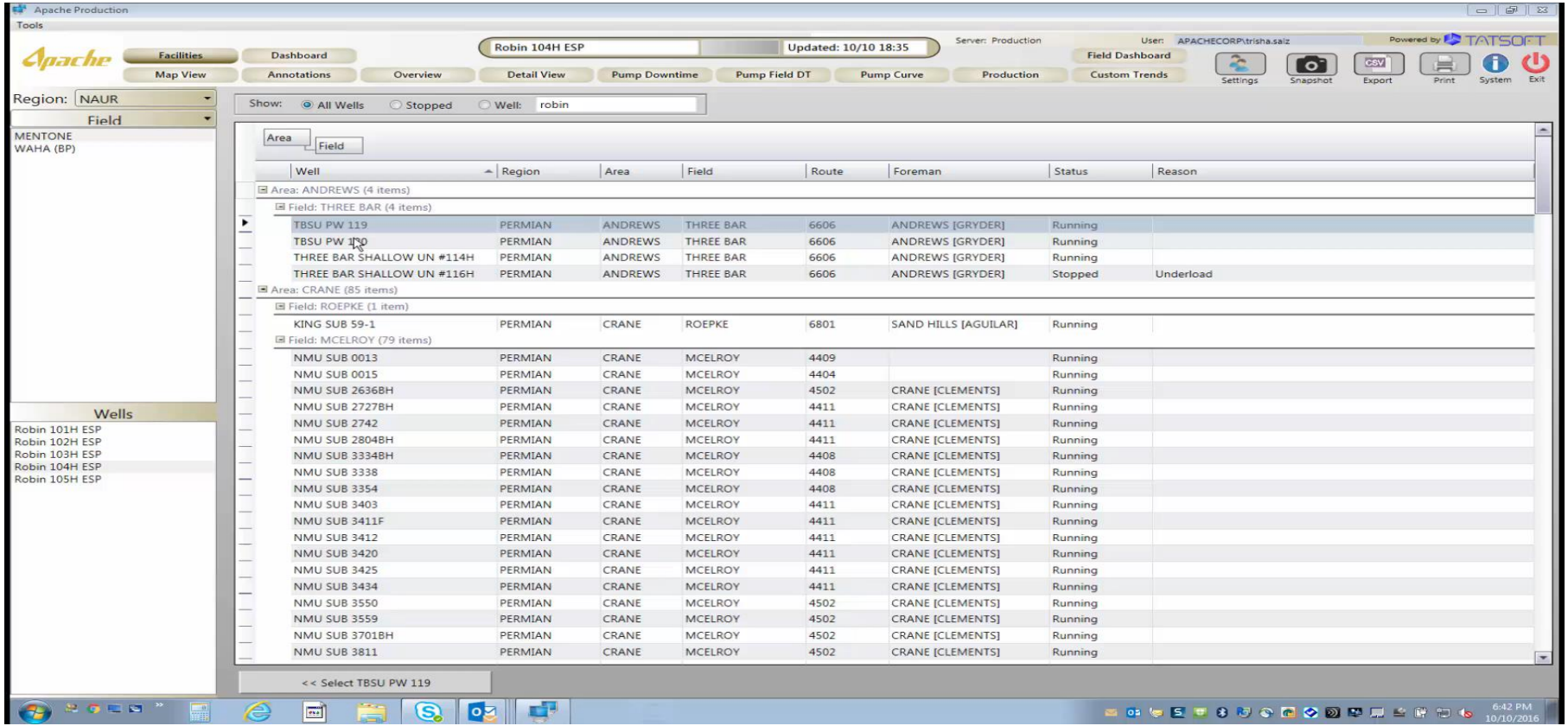


Phase II: Electrical Submersible Pumps

- Identify Issues
- Capabilities of Current Systems
- External Solutions
- Justifications

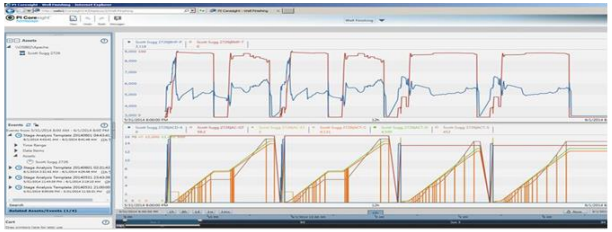
ESP Video

ESP Video

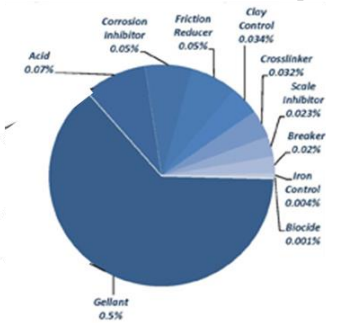


Next Steps – Future Phases

- Well Flowback Monitoring



- Chemical Usage



- Tank Management

- Pump Off Control

Contact Information

Kelly Sherrill

Kelly.Sherrill@apachecorp.com

Manager Automation, Optimization & Production Data Management

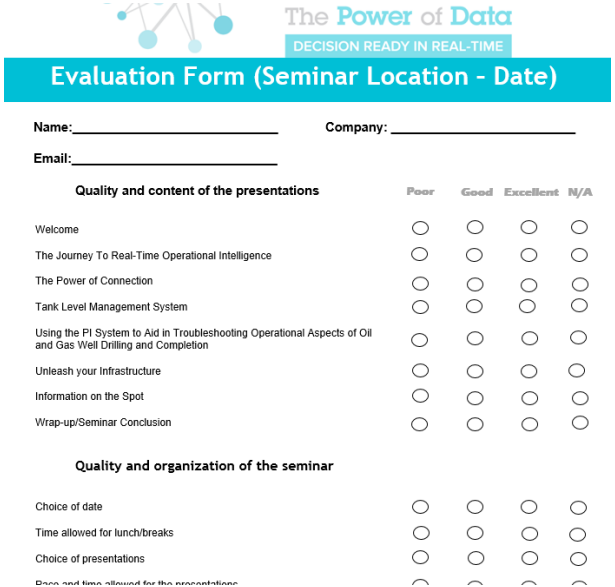
Questions

Please wait for the **microphone** before asking your questions

State your **name & company**

Please don't forget to…

Complete the Survey for this session



The Power of Data

DECISION READY IN REAL-TIME

Evaluation Form (Seminar Location - Date)

Name:_____ Company: _____

Email:_____

Quality and content of the presentations	Poor	Good	Excellent	N/A
Welcome	○	○	○	○
The Journey To Real-Time Operational Intelligence	○	○	○	○
The Power of Connection	○	○	○	○
Tank Level Management System	○	○	○	○
Using the PI System to Aid in Troubleshooting Operational Aspects of Oil and Gas Well Drilling and Completion	○	○	○	○
Unleash your Infrastructure	○	○	○	○
Information on the Spot	○	○	○	○
Wrap-up/Seminar Conclusion	○	○	○	○

Quality and organization of the seminar				
Choice of date	○	○	○	○
Time allowed for lunch/breaks	○	○	○	○
Choice of presentations	○	○	○	○
Pace and time allowed for the presentations	○	○	○	○

감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

- 1 ESP system failure $70k (downhole equipment only)
  Apache operated ESP's ~500
- Apache mean run life 2.5 years, industry average +3
- Company average utilizing smart analytics:
  12 – 15 major "saves" per year
- Utilizes PI as primary data source
- Identifies how problems evolve such as:
  Cycling Gas Lock, Scale, Power Issues
- System can be utilized for compressors, POC, rotating equipment, well analysis . . .