Diagnostic Time-Lapse PTA- DW GOM Well

Oilfield Data Services, Inc.

✓ Oil & Gas Reservoir Testing and Evaluation
✓ Real-Time Pressure Transient Analysis
✓ Hydrocarbon Volume Determination
✓ Well(s) Performance Tracking

✓ Multiphase Rate & BHP Calculations
✓ Optimize Gas Lift / Oil Production Rates
✓ Life Of Well Surveillance/Analysis
✓ Automated PVT Calibration

Oilfield Data Services, Inc.
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Visit: www.odsi-energy.com

Automated Real-Time Surveillance (ARTS)
Real-Time Reporting on Wells / Field KPI's

ODSI

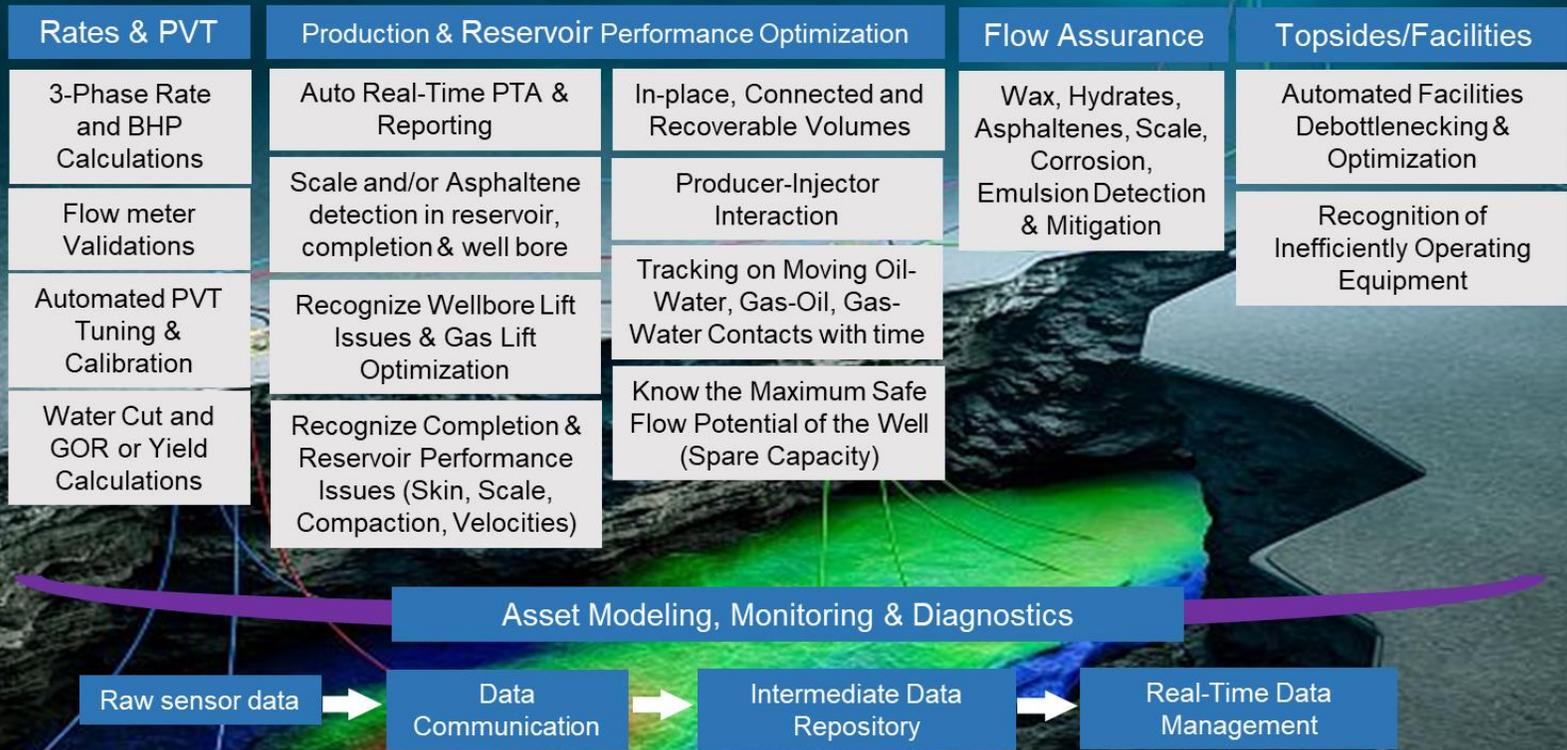**The ARTS Concept: Physics + Automation + Experienced Surveillance Engineers**

Rates & PVT	Production & Reservoir Performance Optimization		Flow Assurance	Topsides/Facilities
3-Phase Rate and BHP Calculations	Auto Real-Time PTA & Reporting	In-place, Connected and Recoverable Volumes	Wax, Hydrates, Asphaltenes, Scale, Corrosion, Emulsion Detection & Mitigation	Automated Facilities Debottlenecking & Optimization
Flow meter Validations	Scale and/or Asphaltene detection in reservoir, completion & well bore	Producer-Injector Interaction		Recognition of Inefficiently Operating Equipment
Automated PVT Tuning & Calibration	Recognize Wellbore Lift Issues & Gas Lift Optimization	Tracking on Moving Oil-Water, Gas-Oil, Gas-Water Contacts with time		
Water Cut and GOR or Yield Calculations	Recognize Completion & Reservoir Performance Issues (Skin, Scale, Compaction, Velocities)	Know the Maximum Safe Flow Potential of the Well (Spare Capacity)		

Asset Modeling, Monitoring & Diagnostics

Raw sensor data → Data Communication → Intermediate Data Repository → Real-Time Data Management
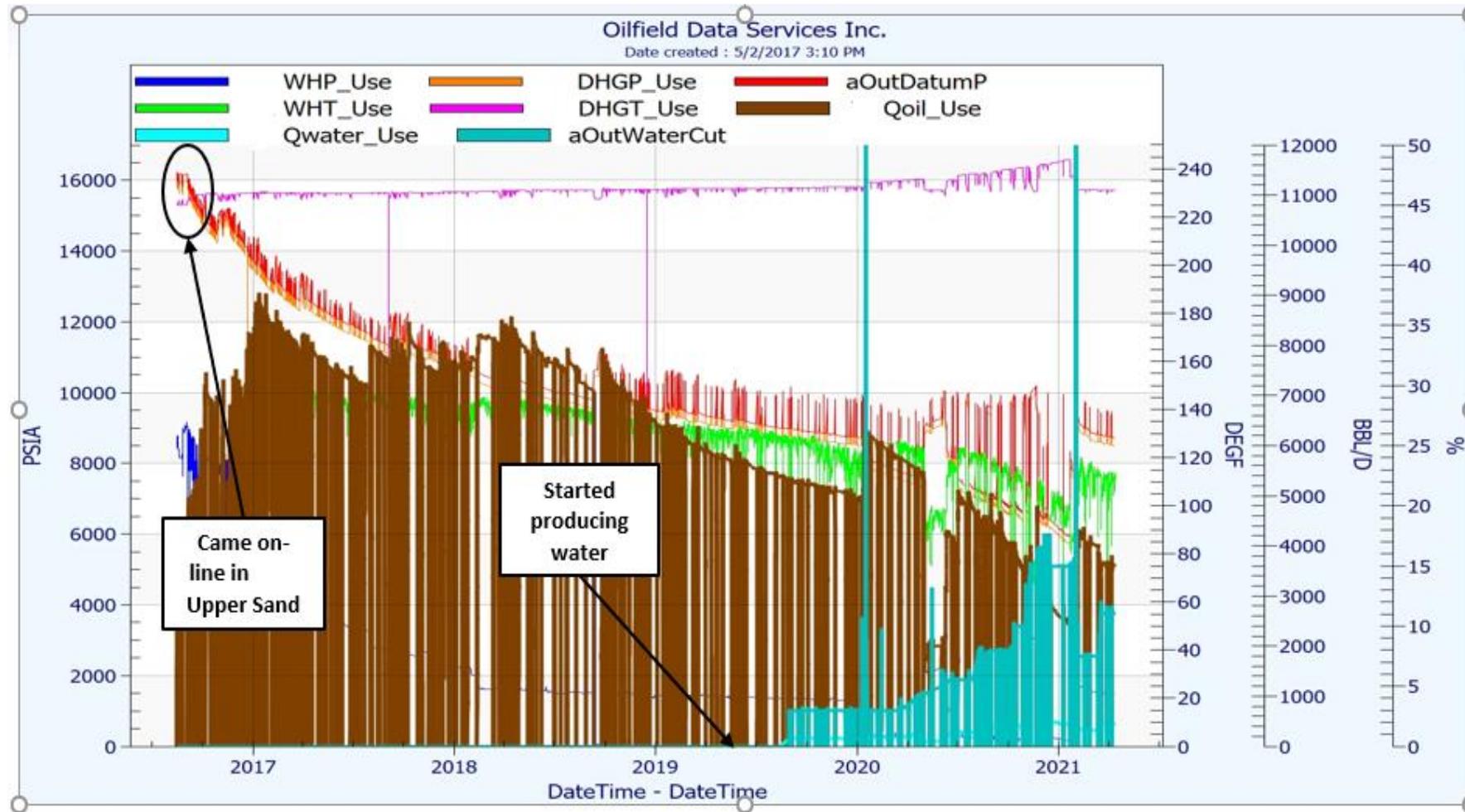
Photo credit: www.energyglobalnews.com

Digital Surveillance Tool – Automated Time-Lapse Real-Time PTA

- Recognized buildups, drawdowns and multi-rate tests
- Analyzes for elementary PTA parameters
- Outputs a PTA report and historic time-lapse PTA trend plots

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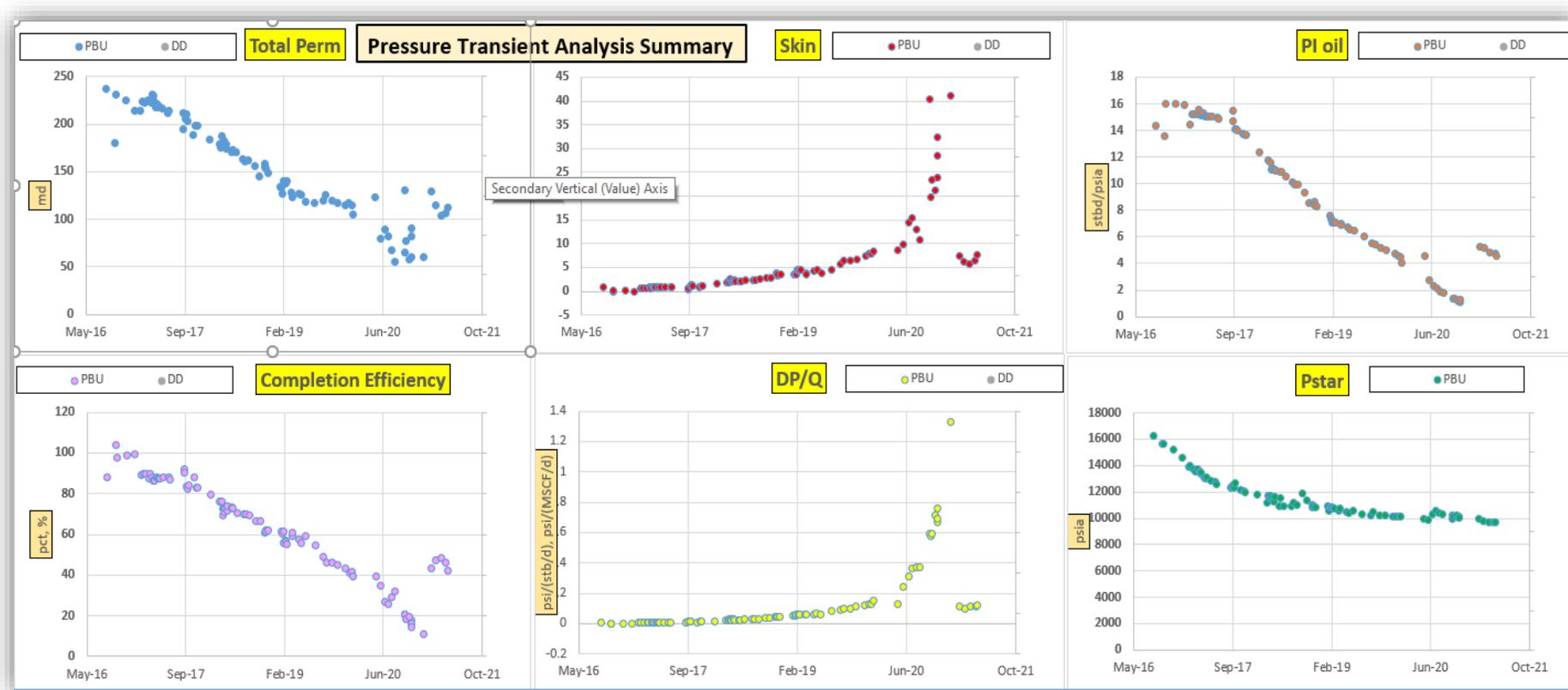- Life Of Well Surveillance/Analysis
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Time-Lapse Auto PTA – Production History

Deepwater GOM Oil Well Example

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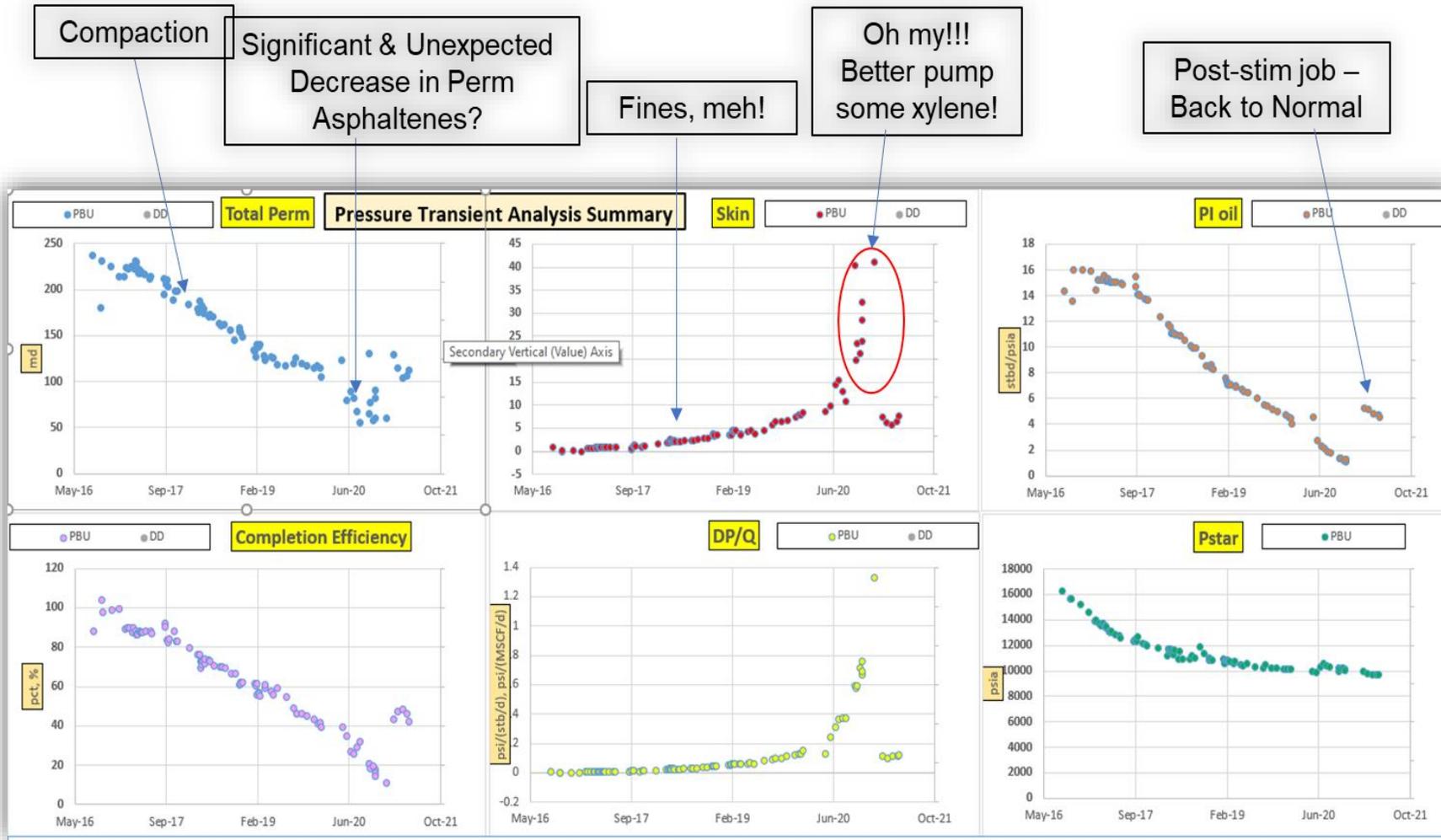+1 (713) 521 - 4571 | info@oilfielddataservices.com
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PTA Dashboard – Accreting Skin Example

What can a few simple plots tell you?

PTA Dashboard – Accreting Skin Example

Digital Surveillance Tool – Automated Time-Lapse Real-Time PTA

- The tool performed PTA consistently and tracked well's KPI's with time
- Once Scale and Asphaltene issues were recognized, the Operator performed a stimulation job and was able to improve PI by 300% and reduce skin from 40 to 5