



Using WITSML to Bring Geology to Your Desktop™

A Case Study

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Background

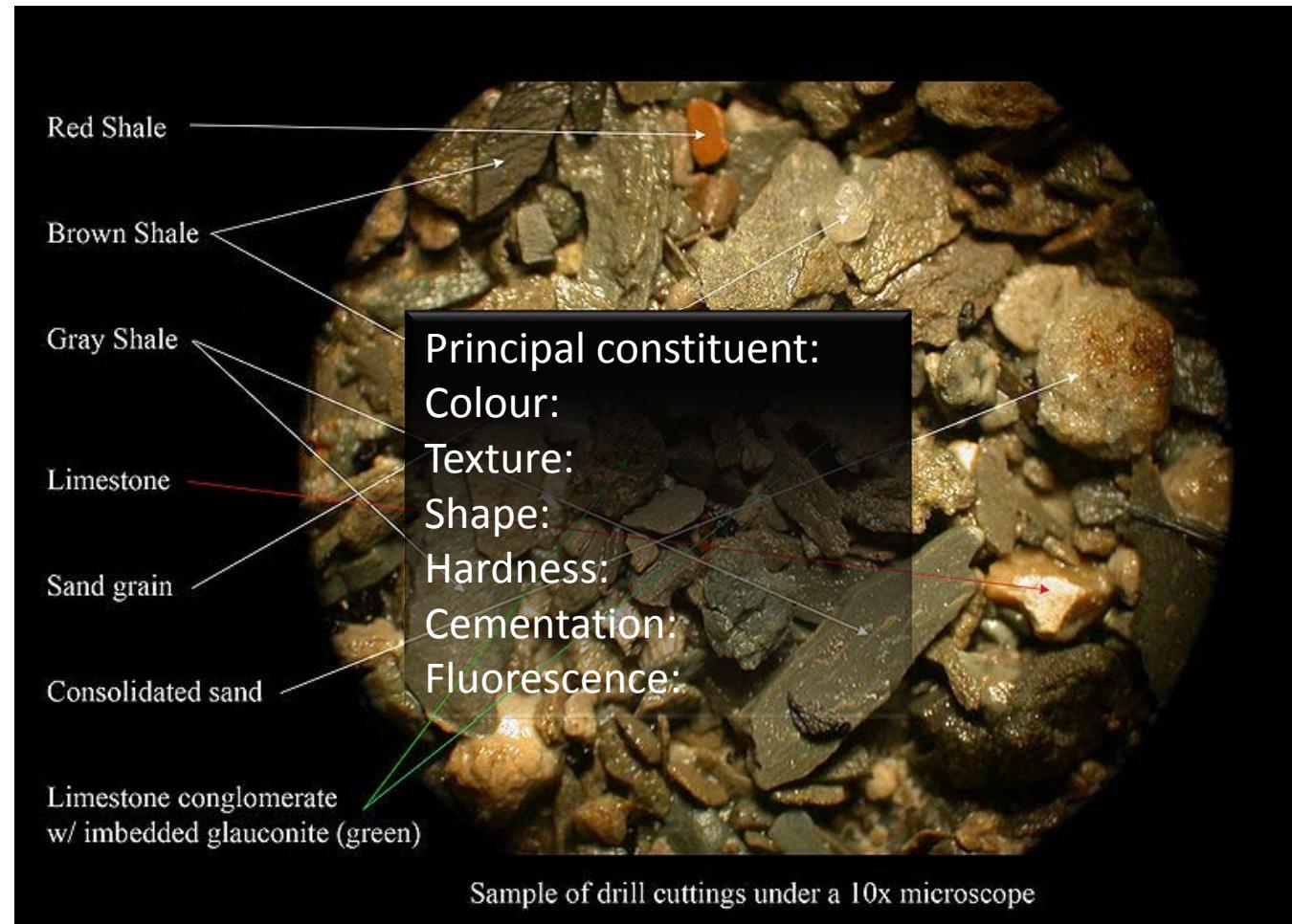
- About to drill 2nd deepwater well in a drilling campaign in offshore West Africa
- Operations base in Lagos
- Subject Matter Experts (SMEs) in South Asia and Europe
- Plugged & Abandoned 1st well without performing DST on potential pay zones

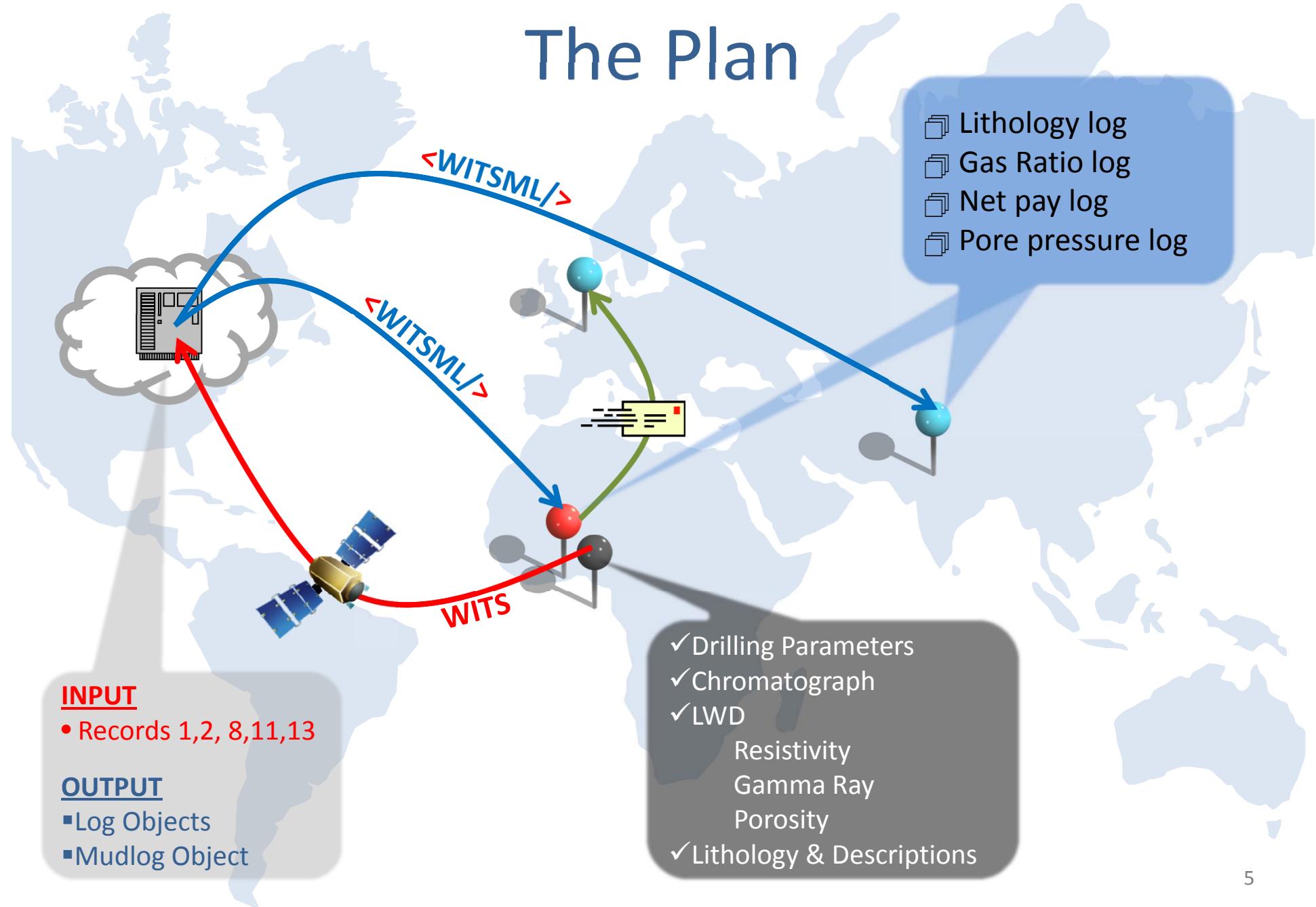
The Problem

- Post well analyses of 1st well indicated that pay zones should have been tested
 - The Operator was unable to justify DST \$ before P&A
 - SMEs did not have access to all available geological information immediately after TD



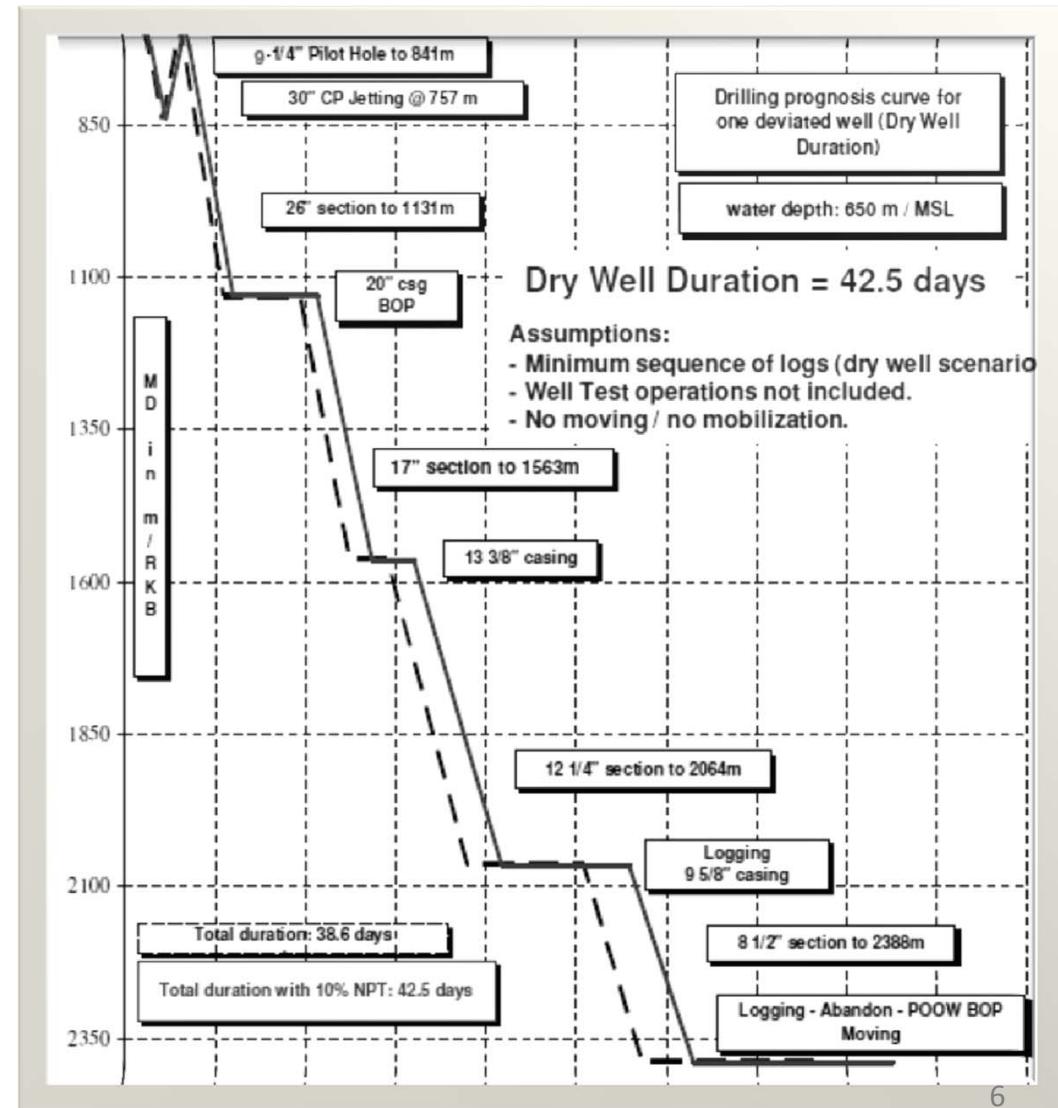
Geology from Drill Cuttings





The Operation

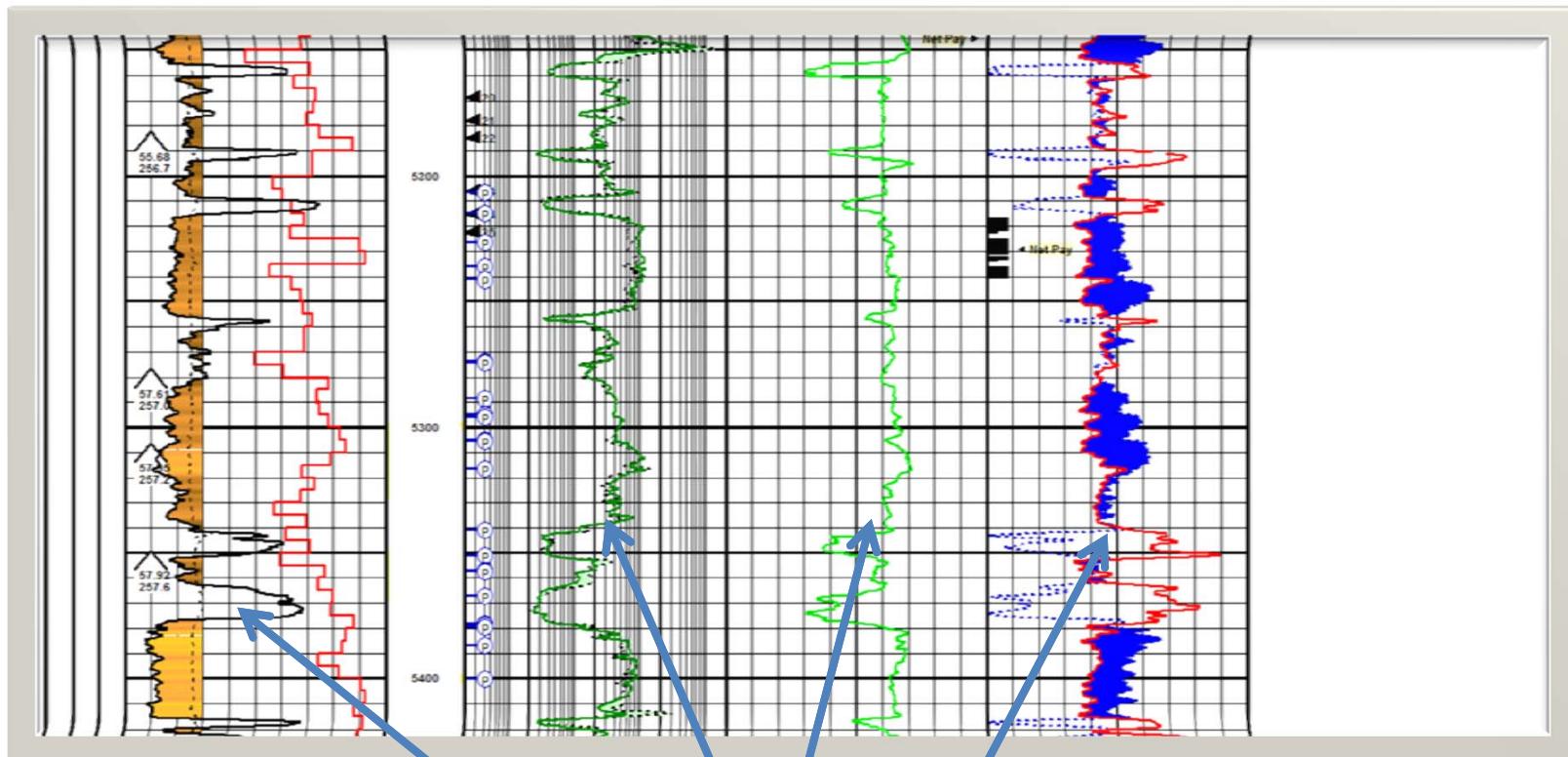
- Water depth = 700 m
- Total Depth = 2,200 m
- Trajectory = Vertical
- On location = 42.5 days



The Setup

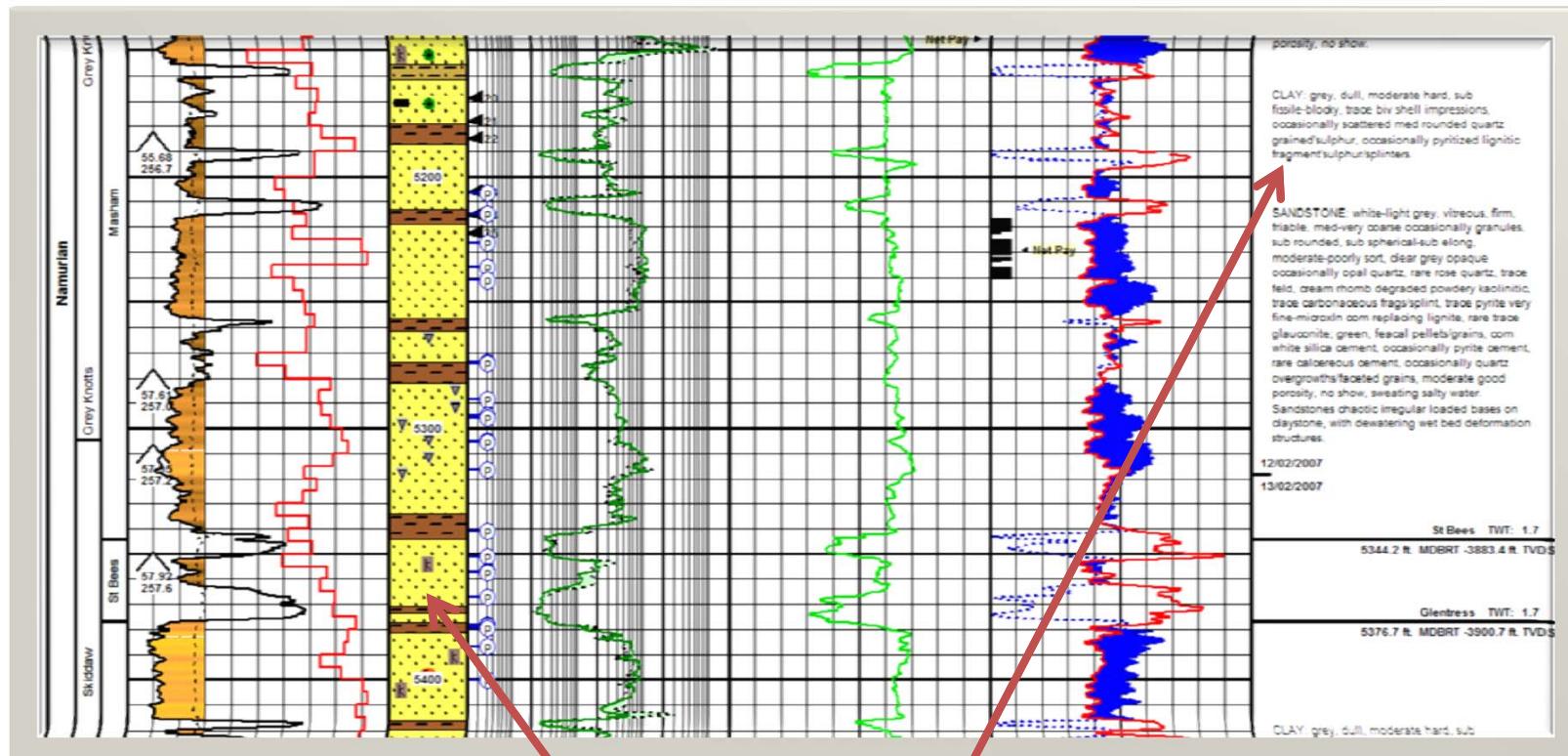


The Result



Log Object

The Result



Mudlog Object

Log Object

Lessons Learnt

Aspect	Statistics
Total number of channels transmitted from the rig	182
Satellite bandwidth provided	64 kbps dedicated
Total number of channels consumed in WITSML	78
Total number of WITSML clients PCs	5
Total number of WITSML client applications	2

- Bandwidth was underutilized – and could have been used for other data if required.
 - **Workflows determine what data is required in real-time**

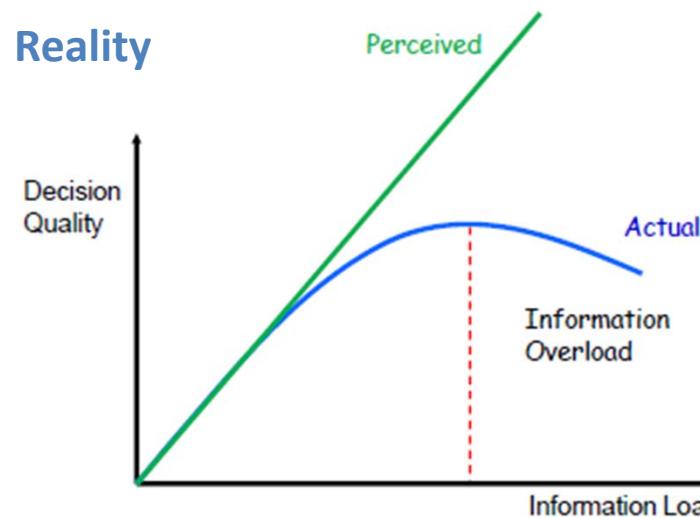


Avoid Information Overload!

Perception

More information, in less time,
means better decisions.

Reality





The Benefits

- The *automatic aggregation of sensor data* from different service providers in real time
- The *seamless assimilation of geological information* provided by the well-site geologist on a near real-time basis
- Quicker and effective decision-making during drilling
- **The well completed 7.5 days ahead of schedule**



Technology & Standards

Technology

- GEO (office)
- GEOLite (wellsite)
- WellStore (cloud)

www.geologix.com

Standards

- WITS
<http://home.sprynet.com/~carob/index.htm>
- WITSML
<http://www.energistics.com>



Thank You!

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