

Using WITSML to Bring Geology to Your Desktop™

A Case Study

Samit Sengupta

Managing Director

Geologix Ltd.

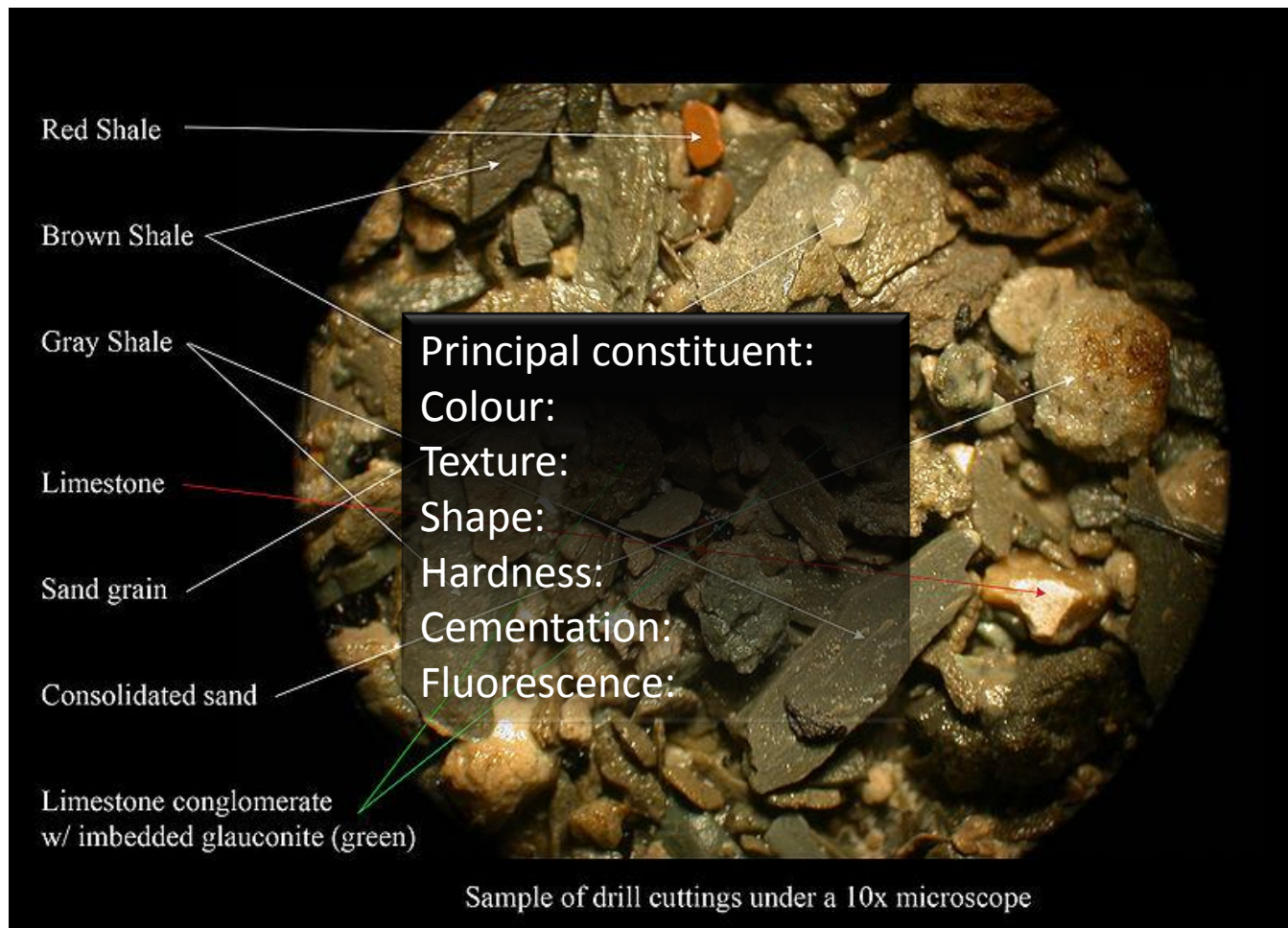
Background

- 🔥 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

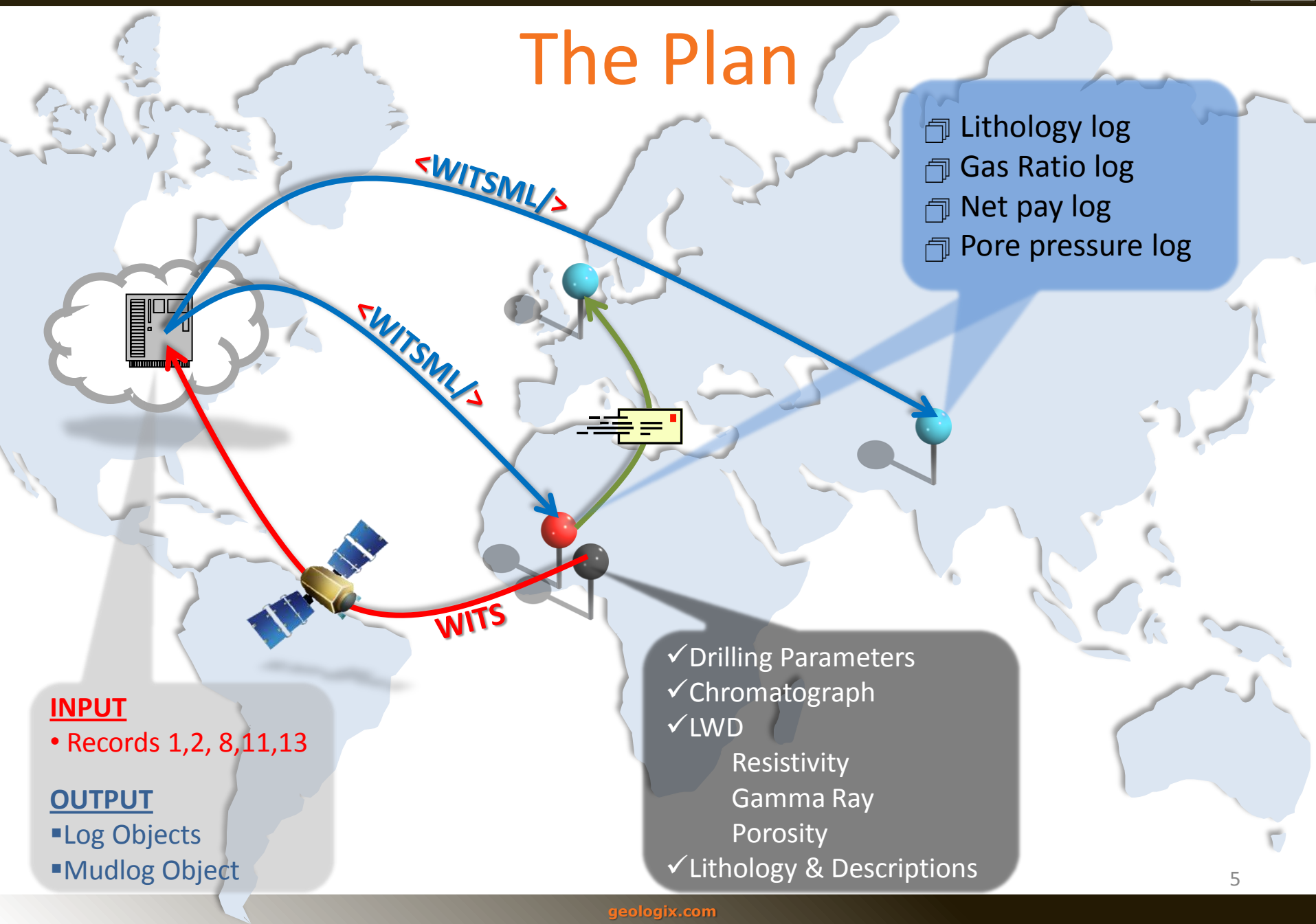
The Problem

- 🔥 **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

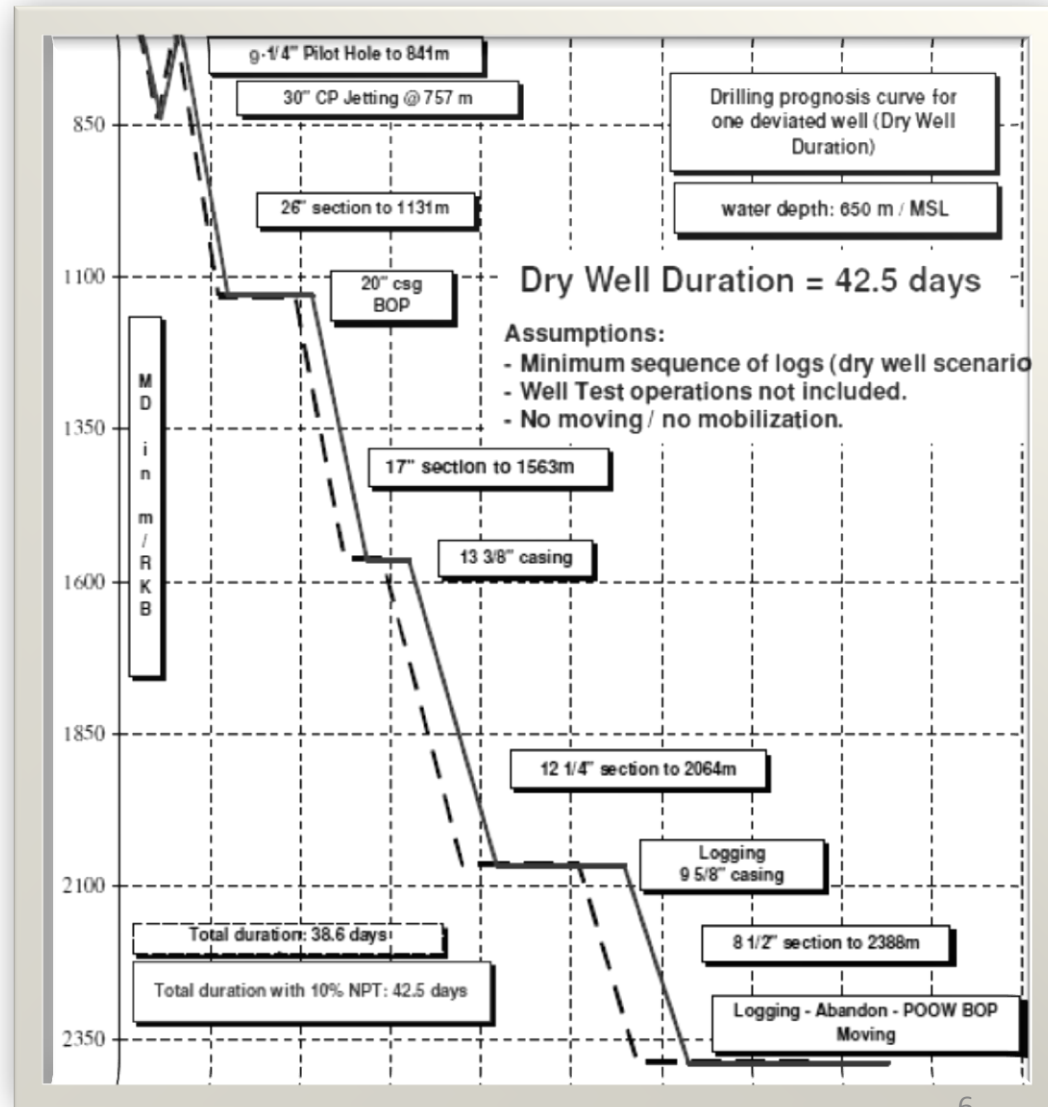


The Plan

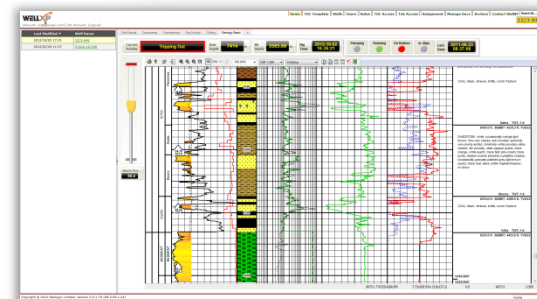
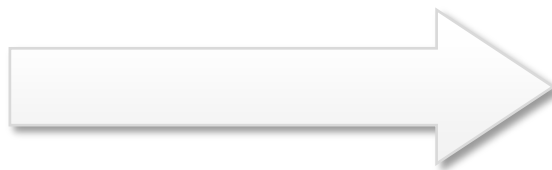
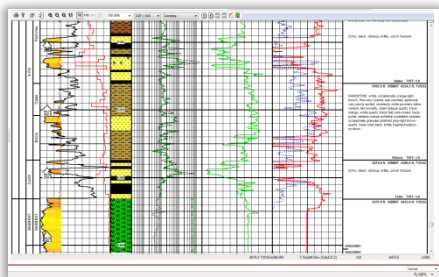


The Operation

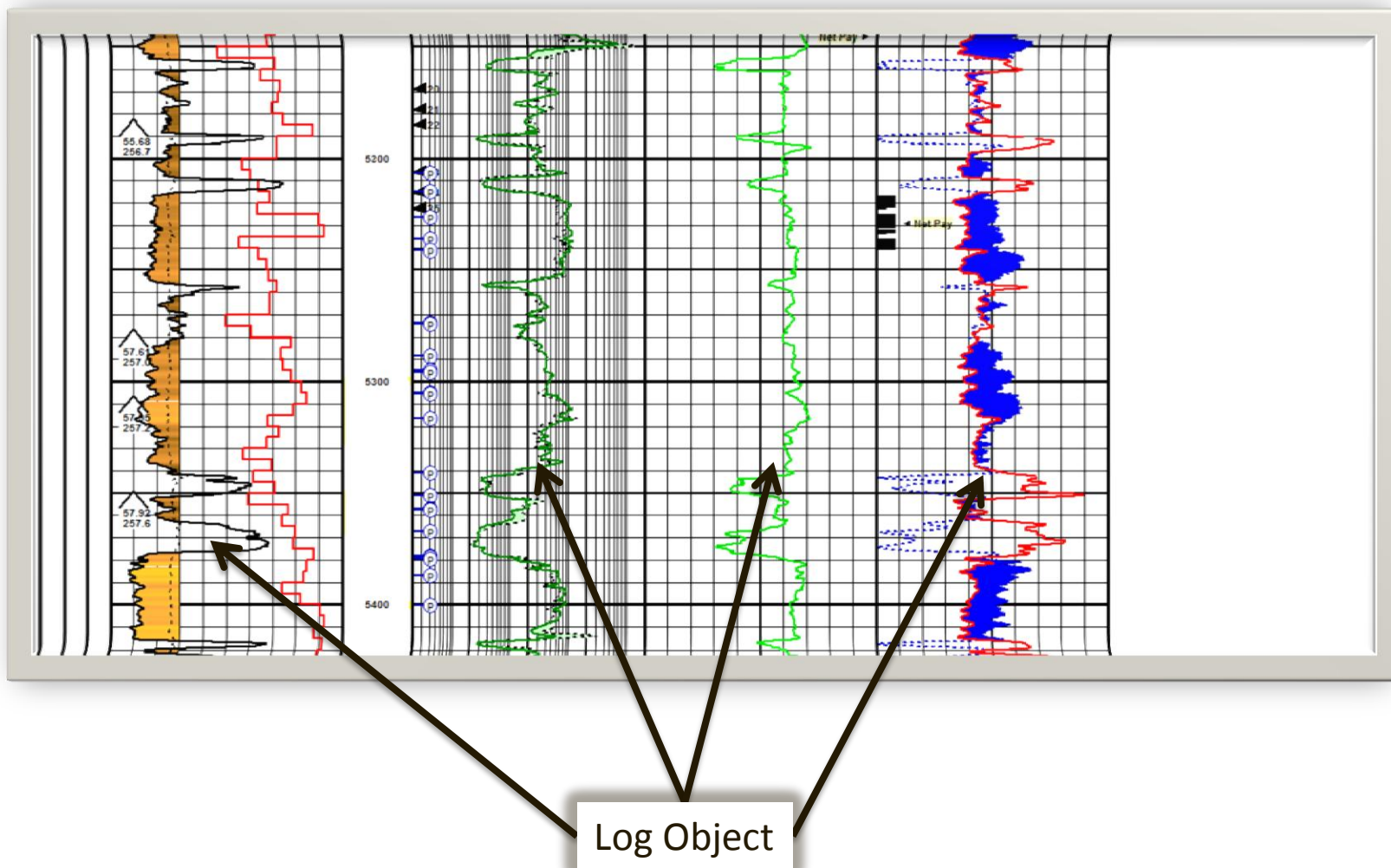
- 🔥 Water depth = 700 m
- 🔥 Total Depth = 2,200 m
- 🔥 Trajectory = Vertical
- 🔥 On location = 42.5 days



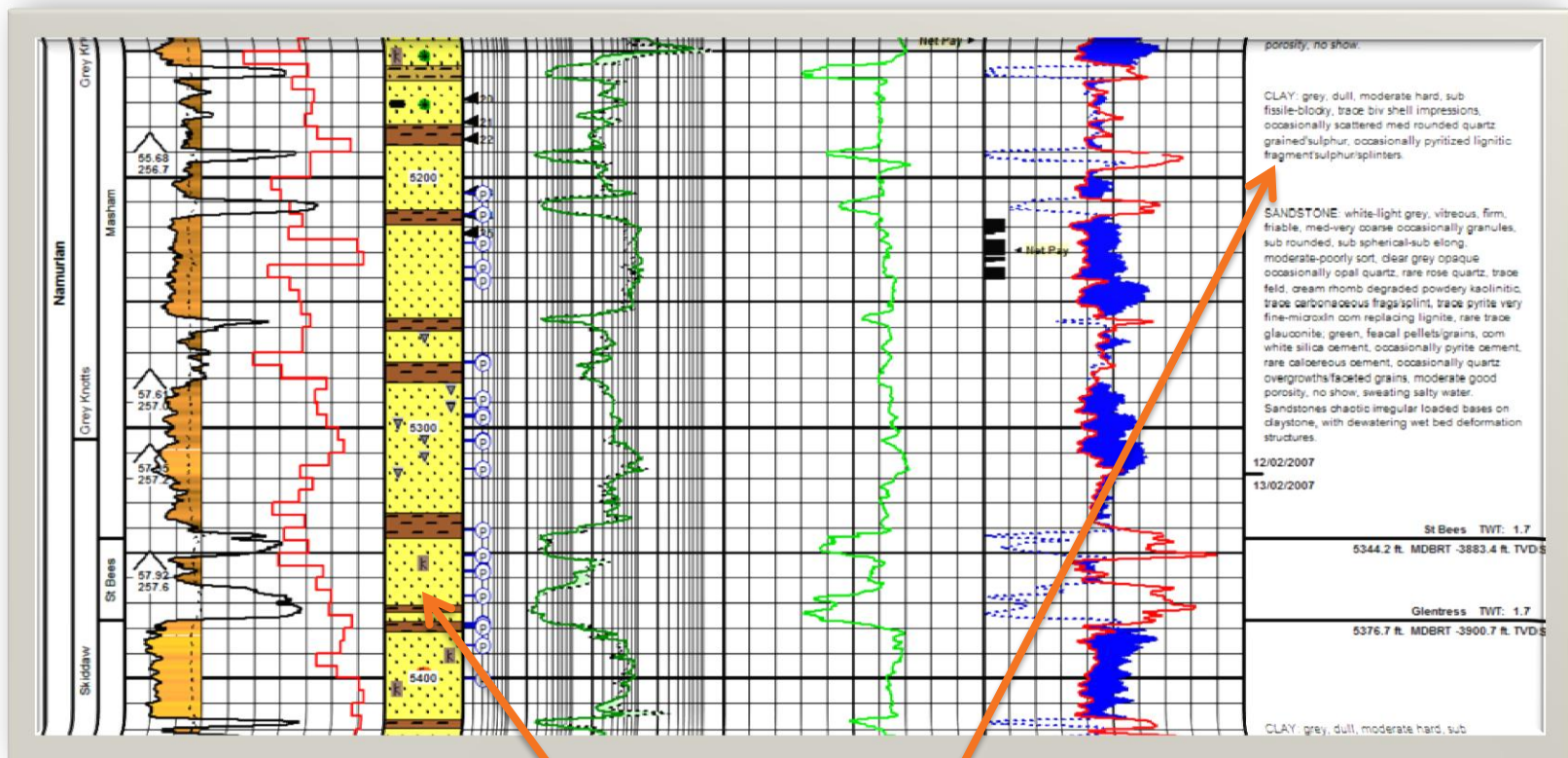
The Setup



The Result



The Result



Mudlog Object

Log Object

Lessons Learnt

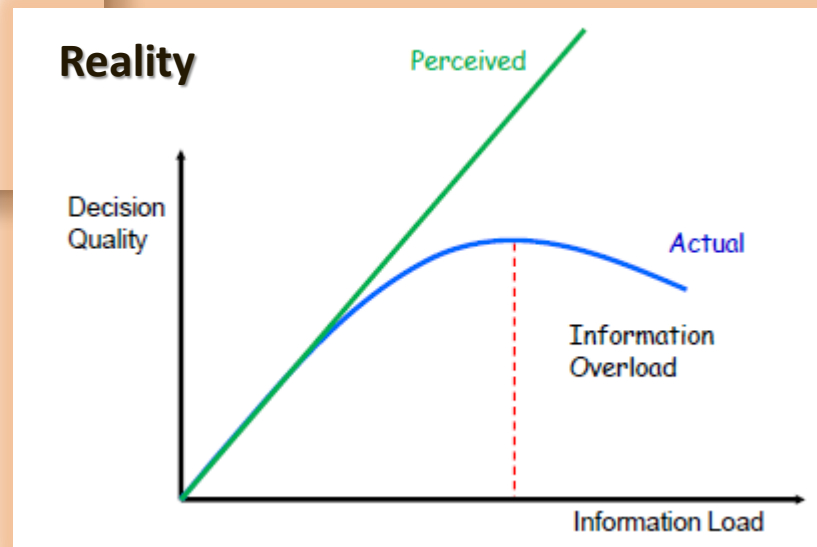
| Aspect | Statistics |
|---|-------------------|
| Total number of channels transmitted from the rig | 182 |
| Satellite bandwidth provided | 64 kbps dedicated |
| Total number of channels consumed in WITSML | 78 |
| Total number of WITSML clients PCs | 5 |
| Total number of WITSML client applications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



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
home.sprynet.com/~carob/index.htm
- 🔥 WITSML
www.energistics.com

Questions?

Samit Sengupta

Geologix Ltd

UK : +44 1603 706900

USA : +1 713 917 6755

India : +91 22 4030 9171

Indonesia : +62 21 575 0896