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Discovery to Development: A Subsurface Case  
History of the Kitan Oil Field, Timor Sea, Joint  
Petroleum Development Area, Timor-Leste and  
Australia

Dave Wheller, Senior Geologist

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# Kitan Fast Track Project

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- 1990 to 2009 mean time from field discovery to first hydrocarbon in Asia Pacific was 9 years (Shuqiang 2010).
- Kitan exploration discovery to first oil in 3yrs and 8 months

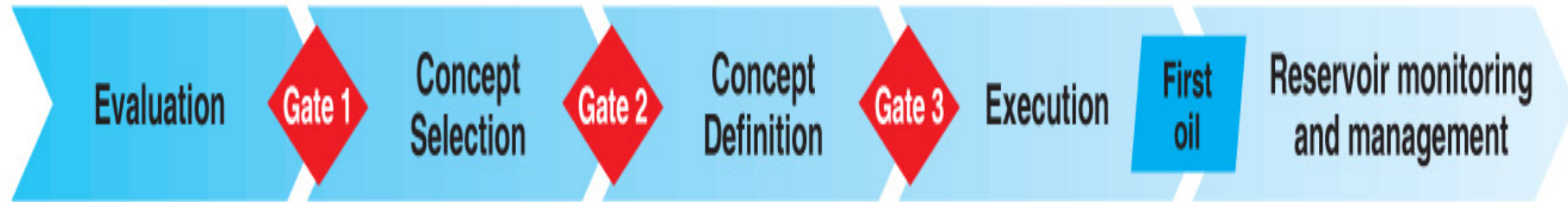


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# Typical Development Life Cycle

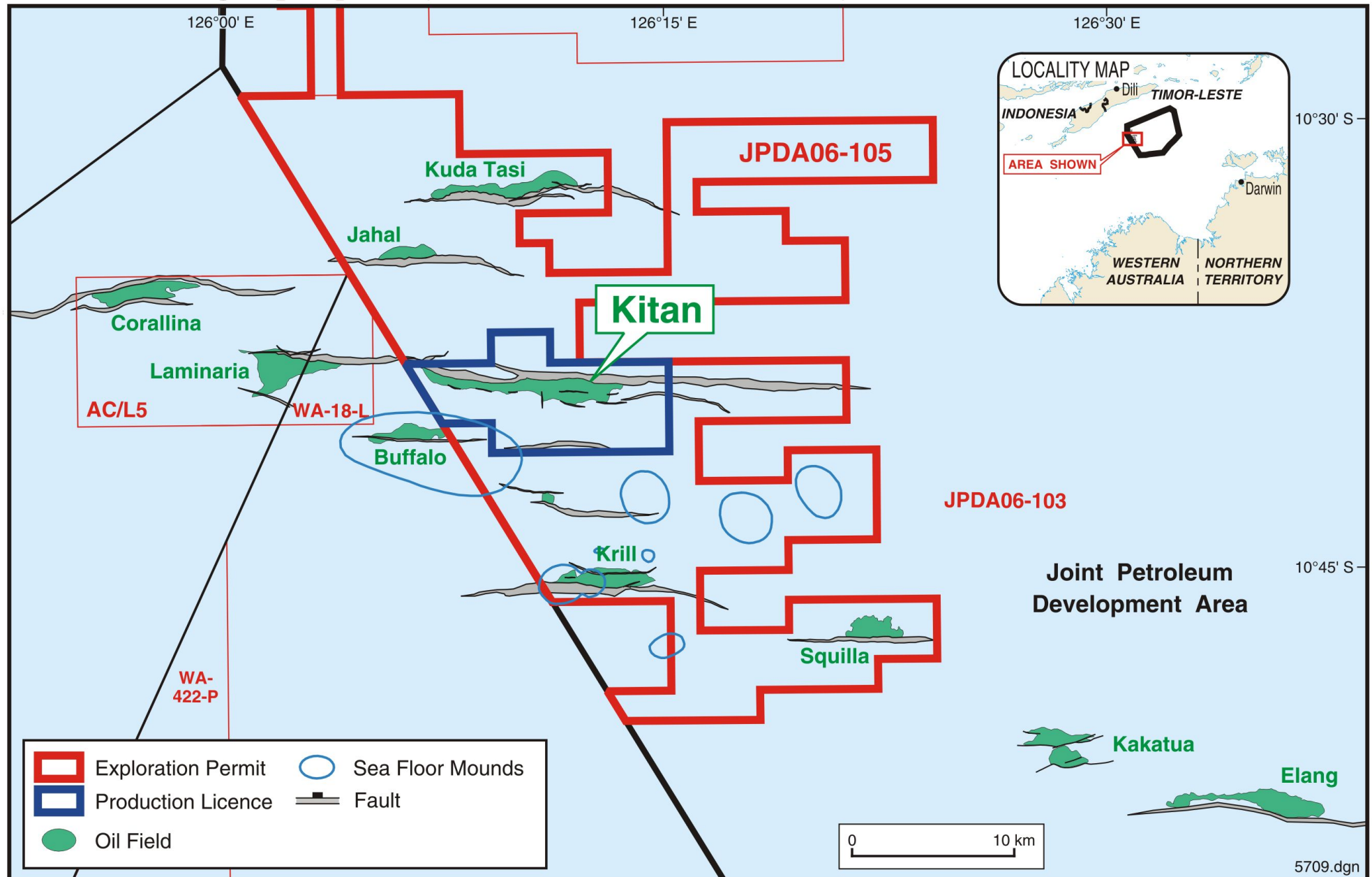
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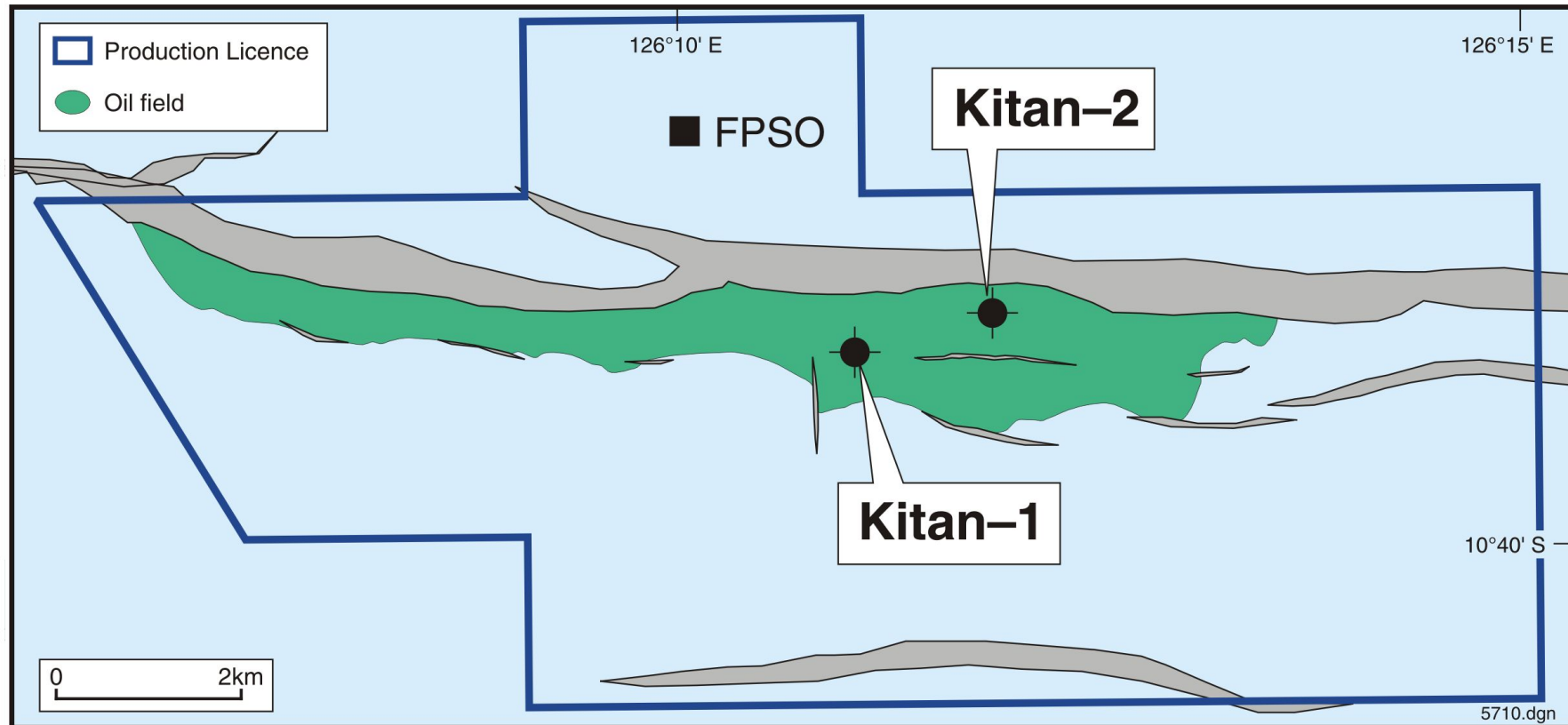
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# Evaluation: Permit and Field Location



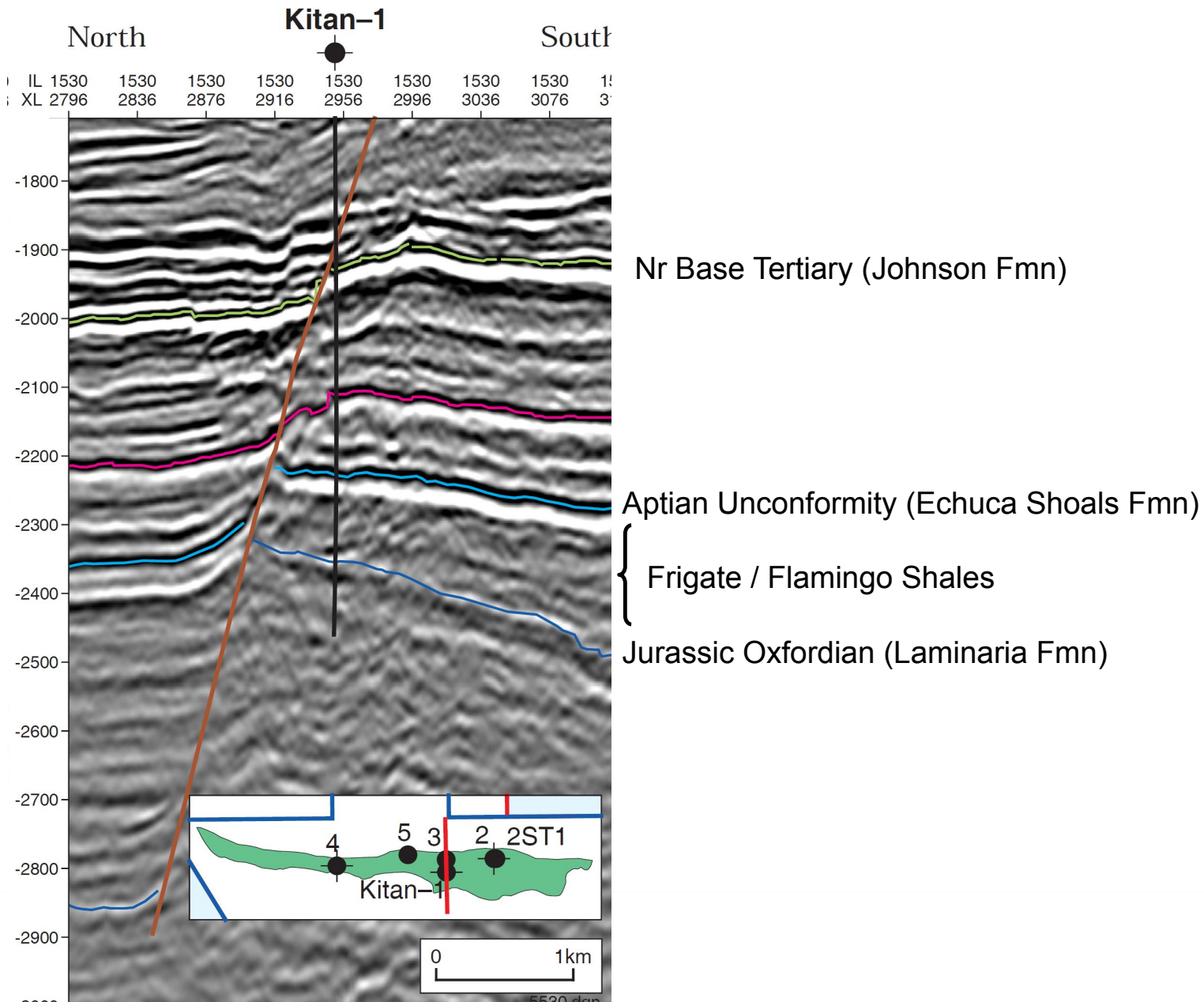
# Evaluation: Discovery and Appraisal



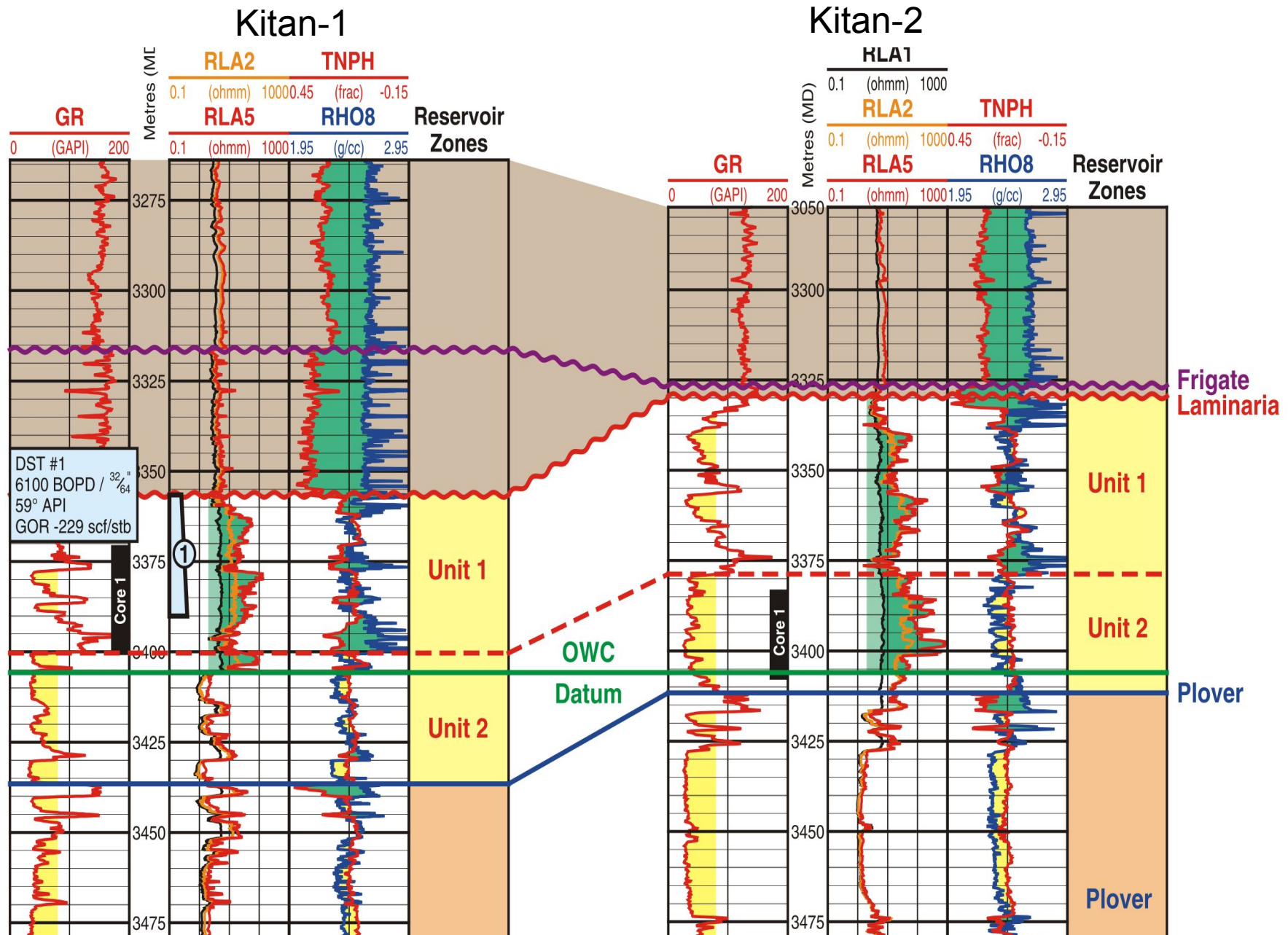
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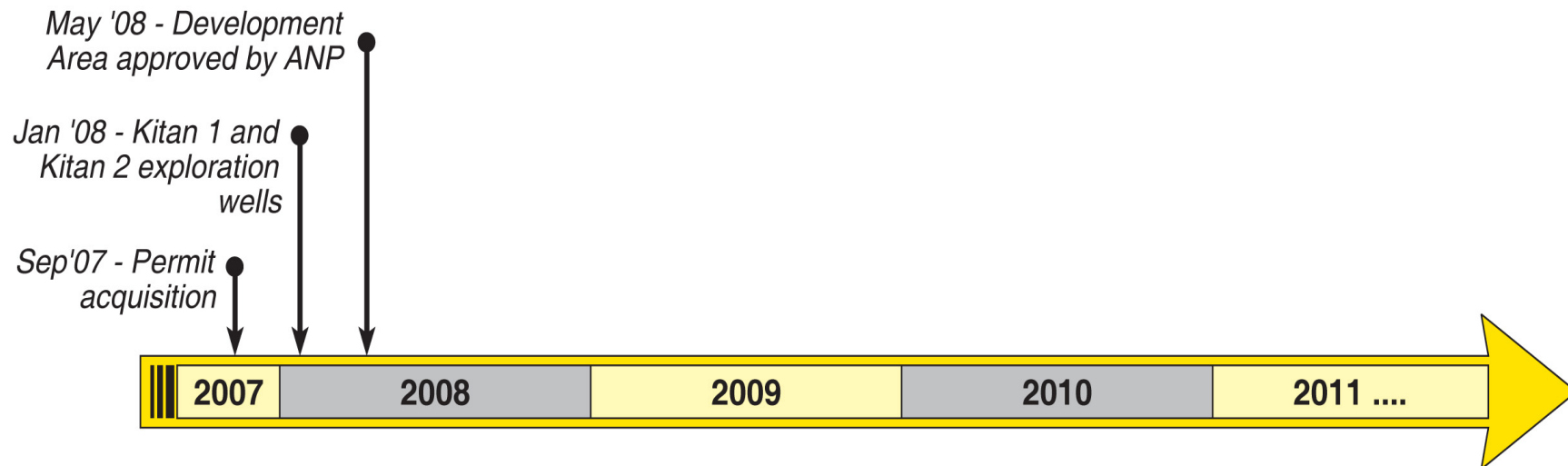
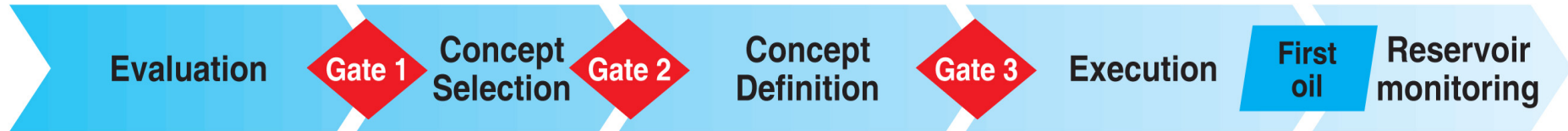
# Evaluation: Kitan Seismic Section, PSTM2005(TWT)



# Evaluation: Exploration and Appraisal Well



# Life Cycle: Evaluation

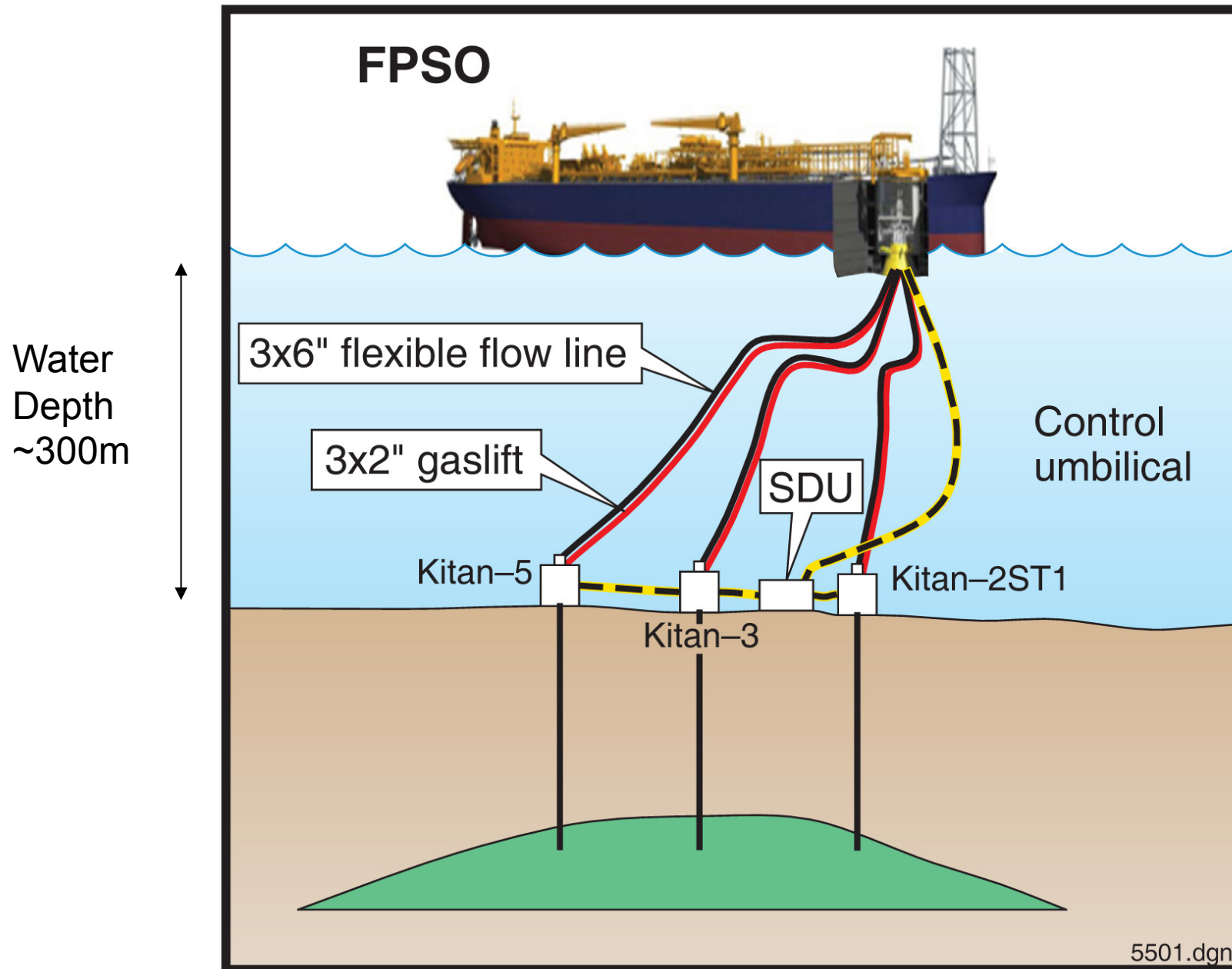


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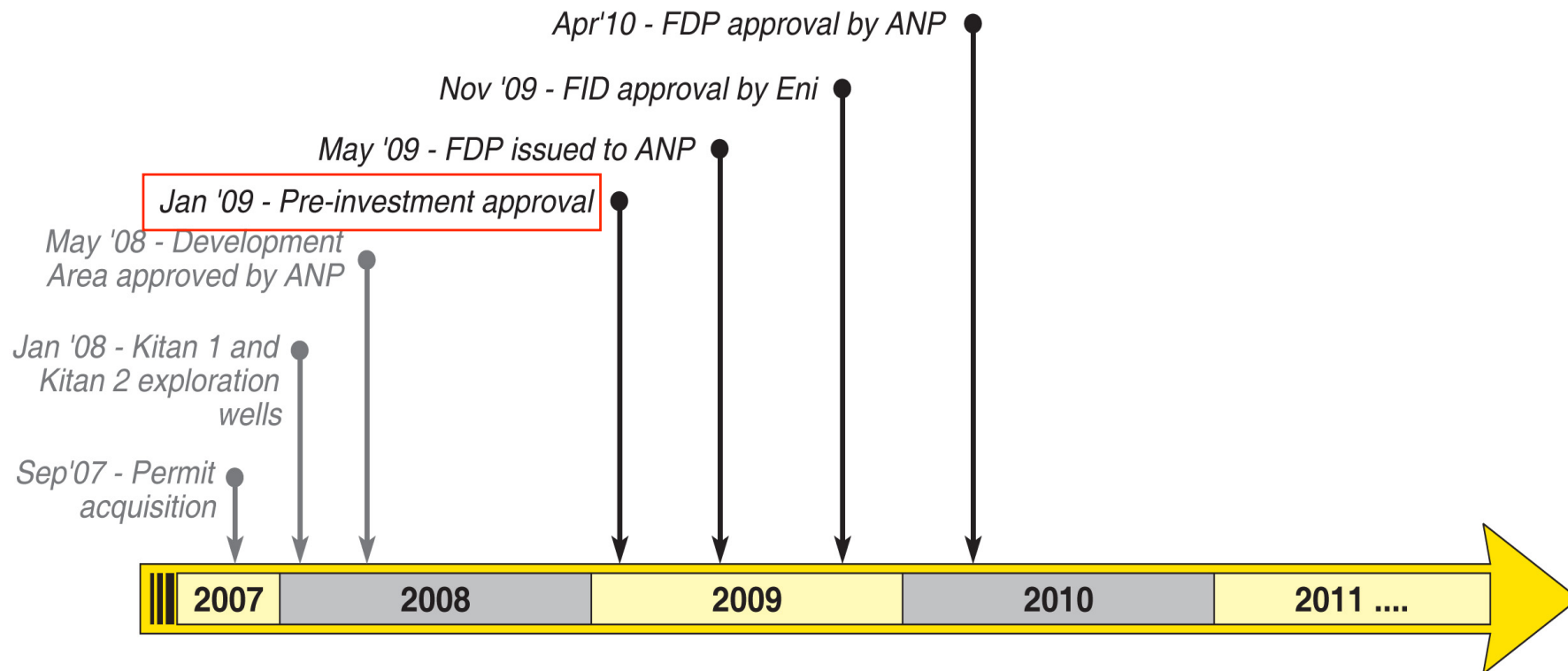
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# Concept Select and Definition: Development Schematic



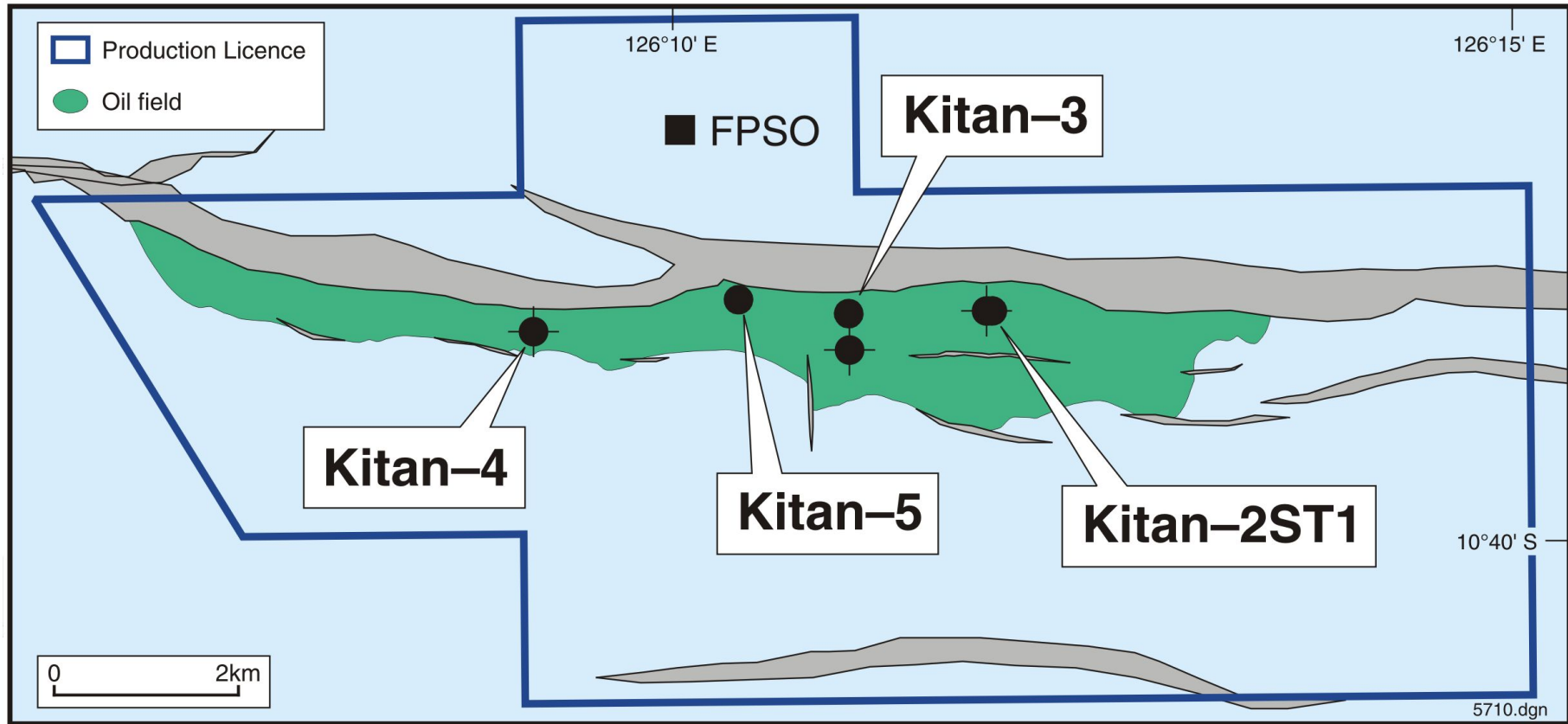
# Life Cycle: Concept Selection and Concept Definition



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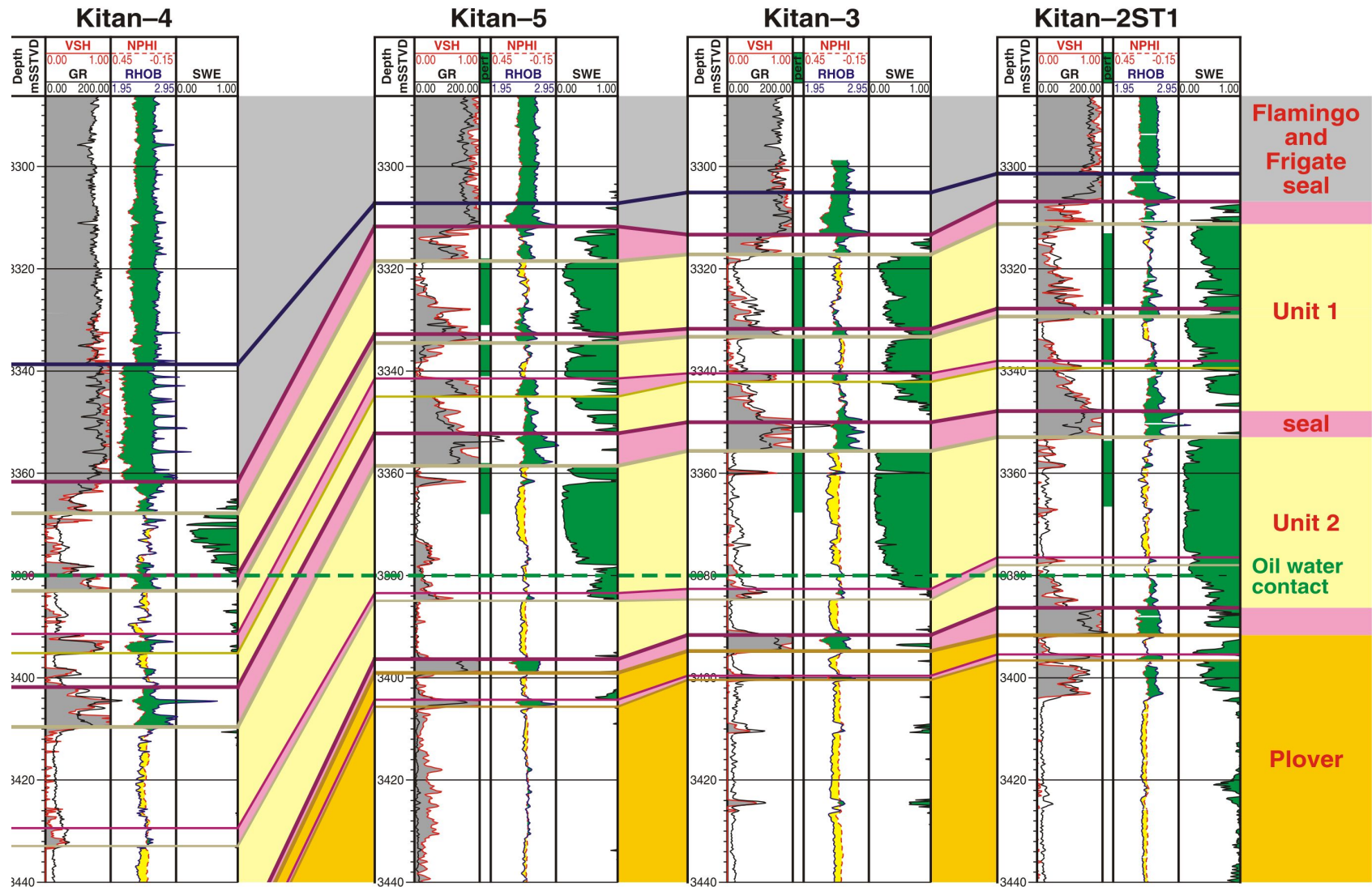
# Execution: Development Well Location



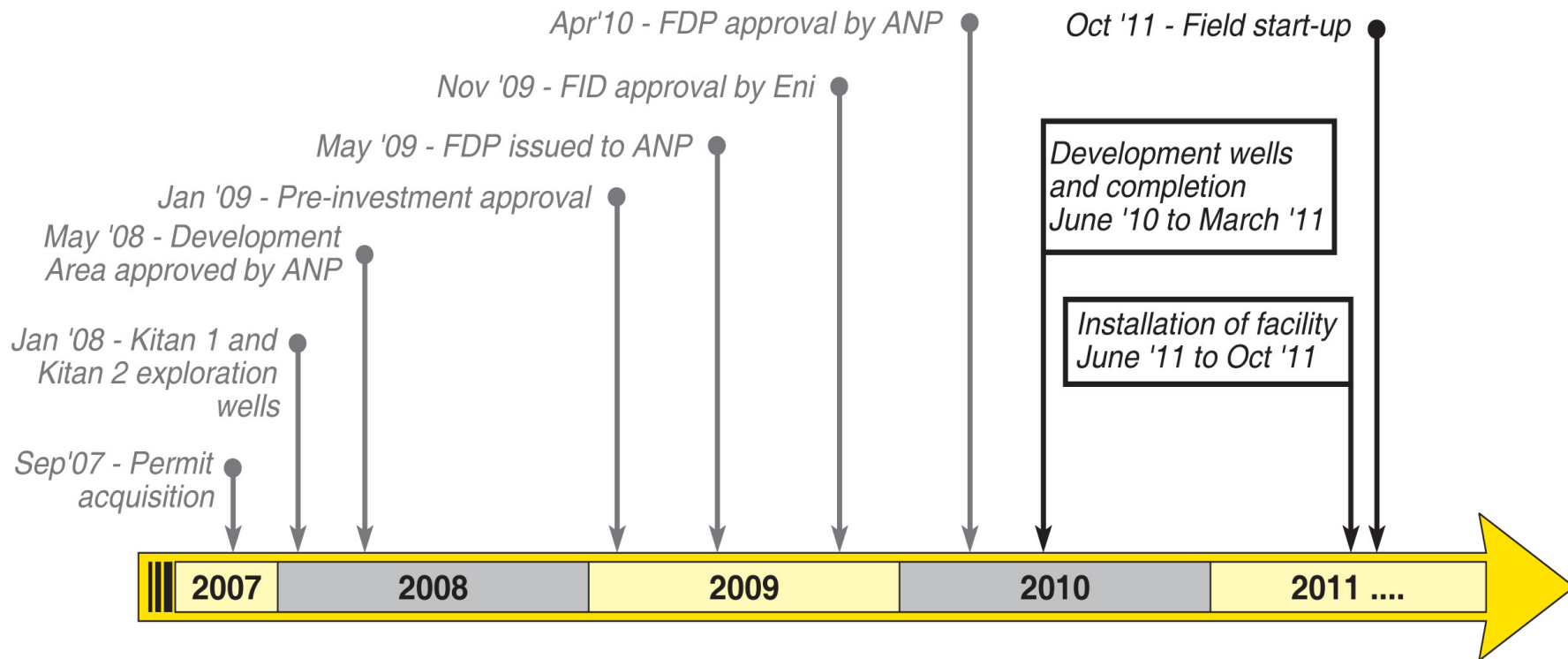
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# Execution: Development Well Correlation



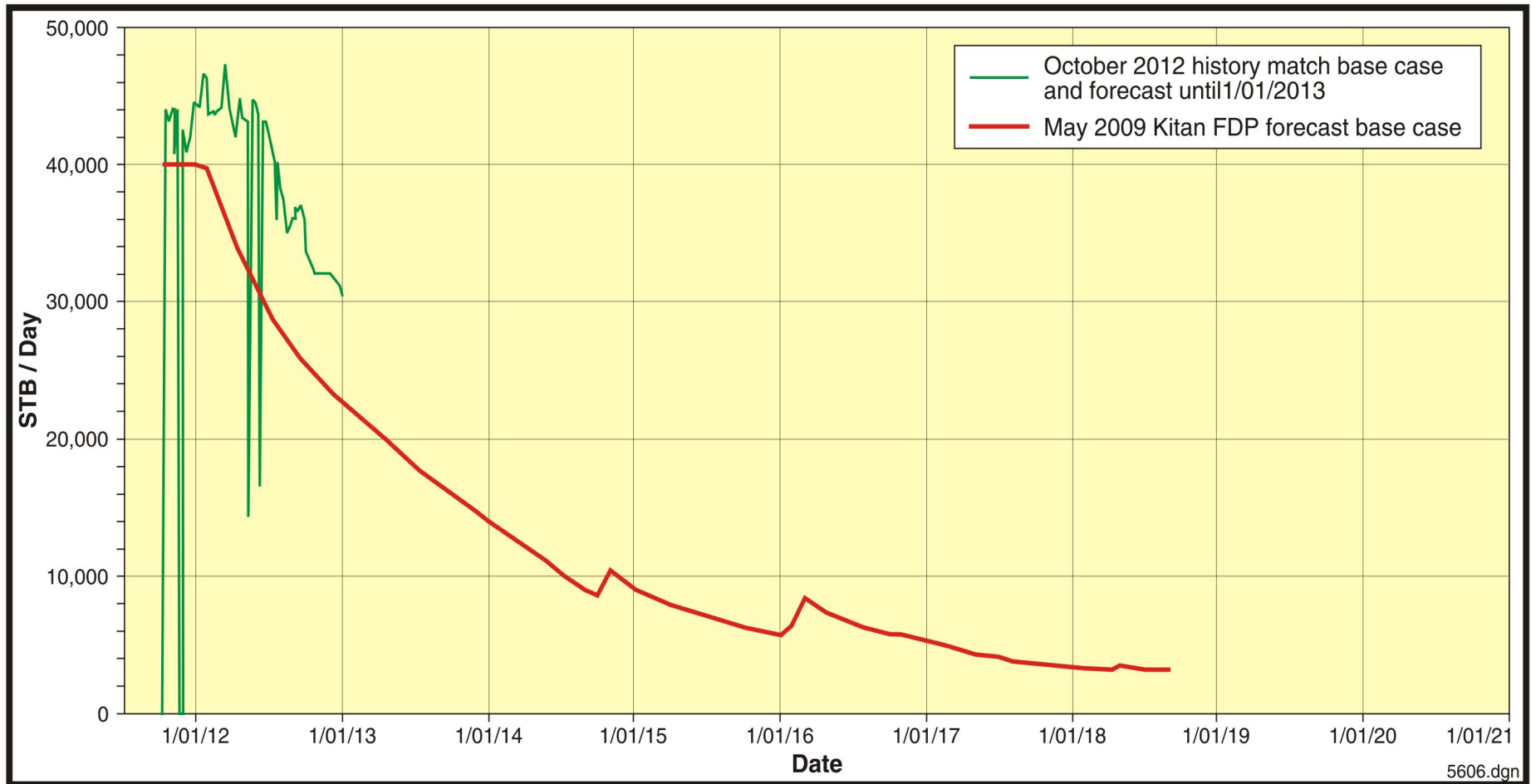
# Life Cycle: First Oil and Ongoing Reservoir Monitoring



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# Reservoir Management: Production History Match versus Original Pre Production Forecast



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# Key Results

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- Kitan exploration discovery to first oil in 3yrs and 8 months
- Laminaria Unit-1 and Unit-2 different productivity
- Extended Plateau period of 9 months



# Factors For The Kitan Fast Track Development

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- Exploration and appraisal results and data acquisition
- Relatively small oil field
- Close proximity to proven successful and similar oil fields
- Prompt completion of studies
- Pre-production low case being economic
- Technically and commercially aligned JVP
- Supportive external stakeholders, in particular the ANP





# Acknowledgements

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- Fellow authors Grant Ellis, Yohan Suhardiman, Ryosuke Yokote, Giuseppe Maniscalco, Joseph Derrij, Doani Selvaggi.
- Both past and present Eni staff and contractors most notably Adrian Goldberg, Kon Kostas, Glenn Simon, Tony Dixon, Anelia Simeonva, Dave Hearty, Fiona Burns, Carl Stark, Konstantin Galybin, Shane McGilligan, Sandra Ball, Paola Guaita, Enrico Salardi, Aaron Bond and Vanni Donagemma.



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