

The last 10 years of exploration on the NCS:

Seek and thou shalt find

by

LNAS

Presented by one of them;

Torstein Sanness

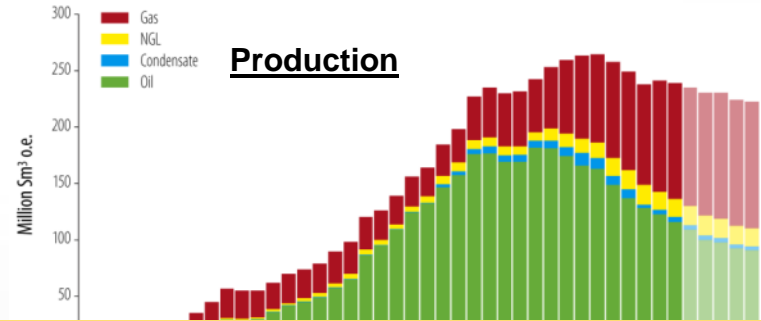
Disclaimer;

*If you have heard some of it before
it shows that experience and knowledge have and can create
value as long as it does not shadow the possibilities*

Trends the last 10 years on NCS



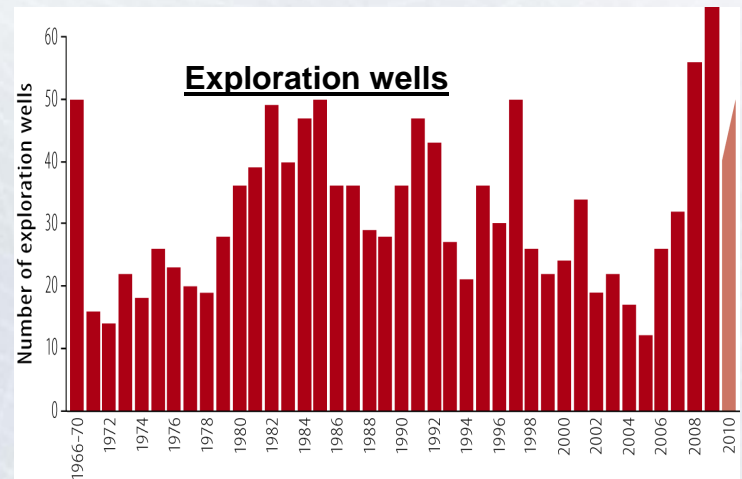
➔ The decline in production is the combined result of reduced exploration and infill drilling and does not only reflect the subsurface potential



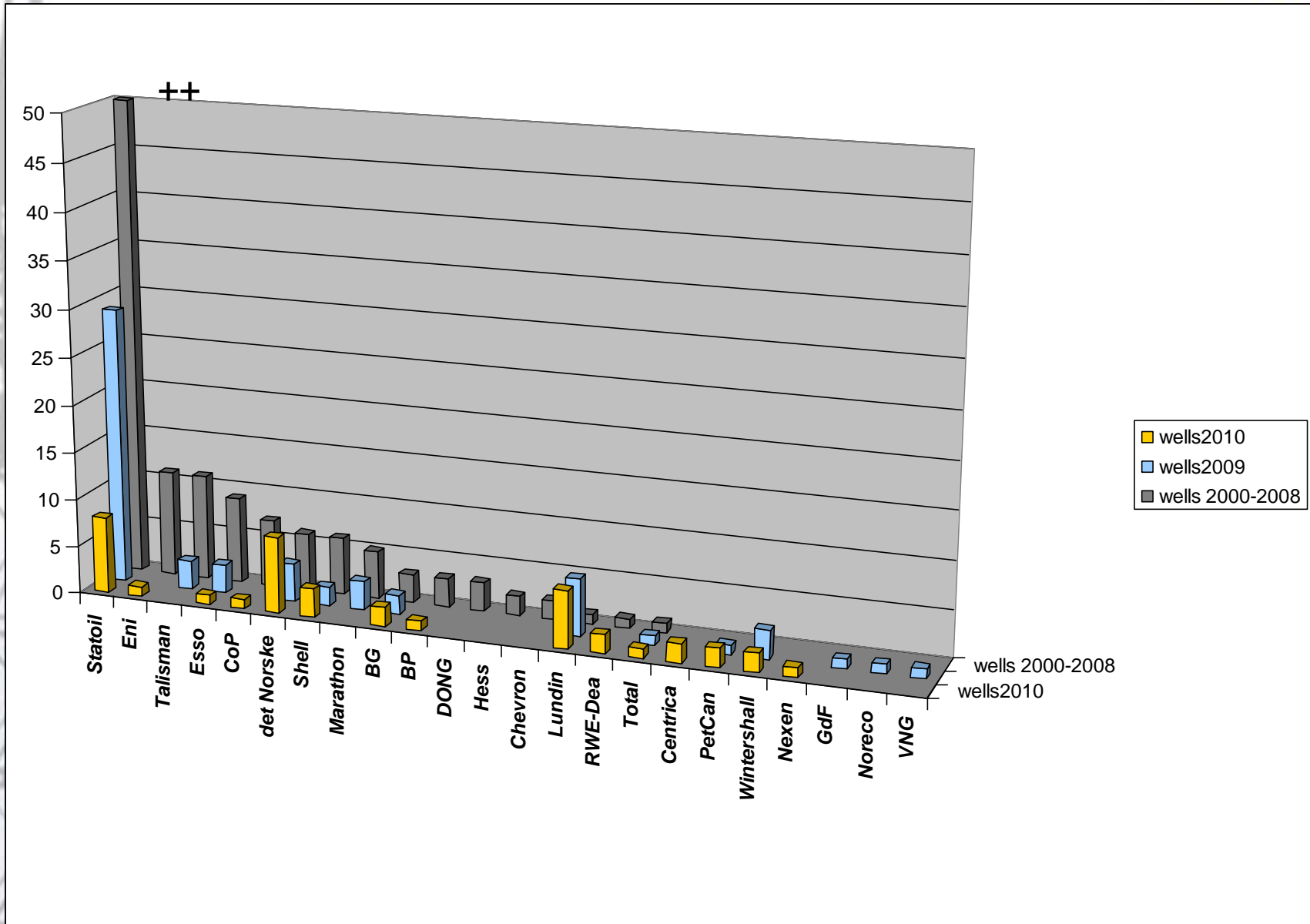
Drill and find more oil and gas

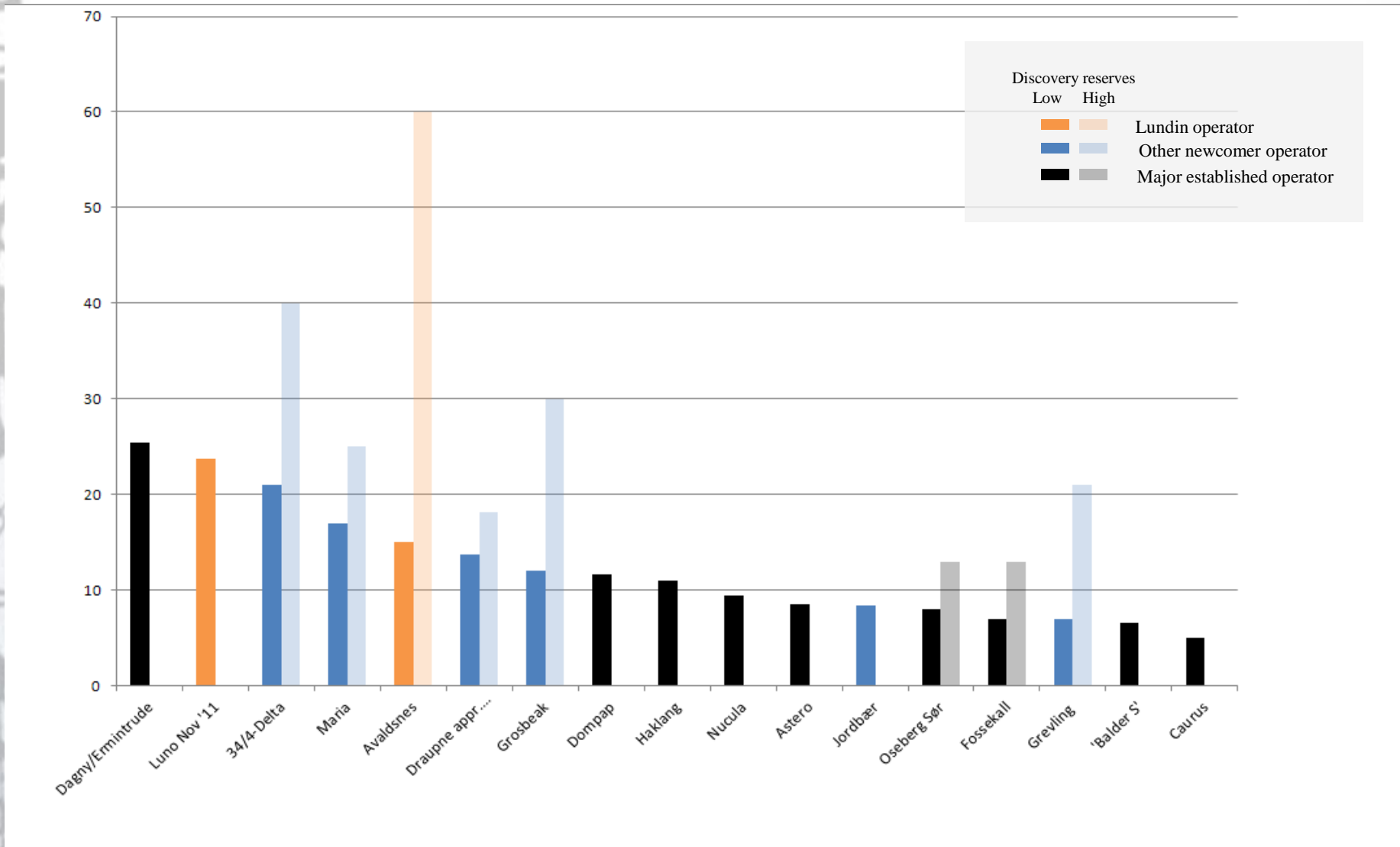
significant volumes

➔ The increased drilling activity is the result of a new company structure on NCS

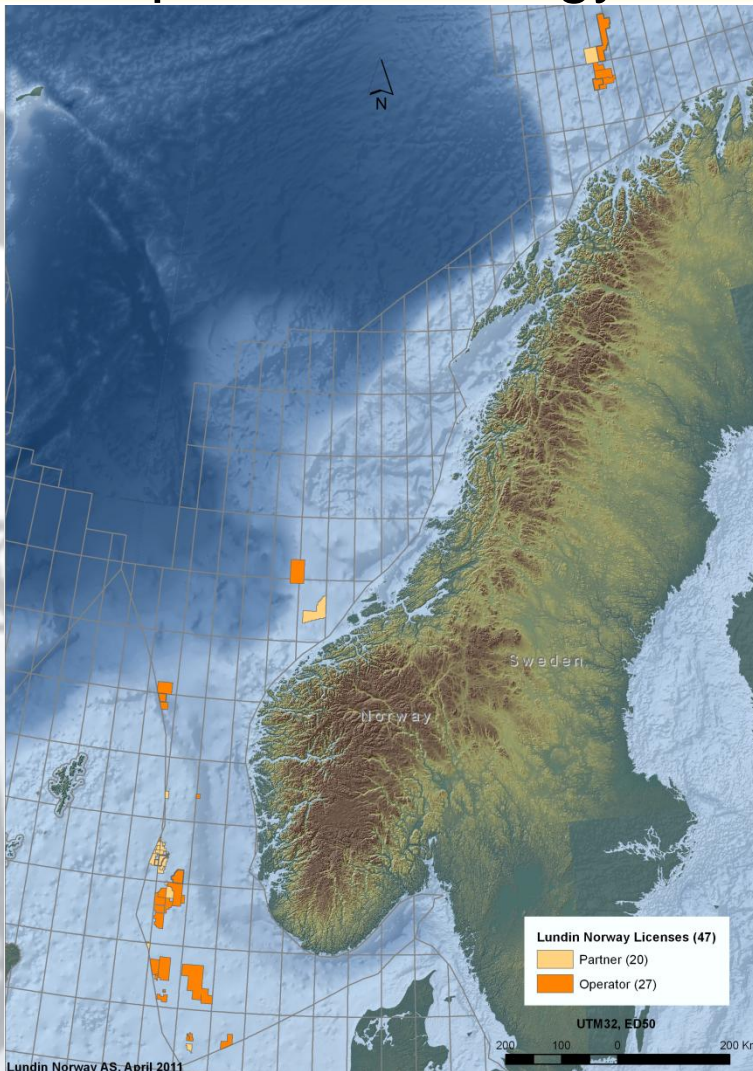


Changes in exploration and delineation drilling





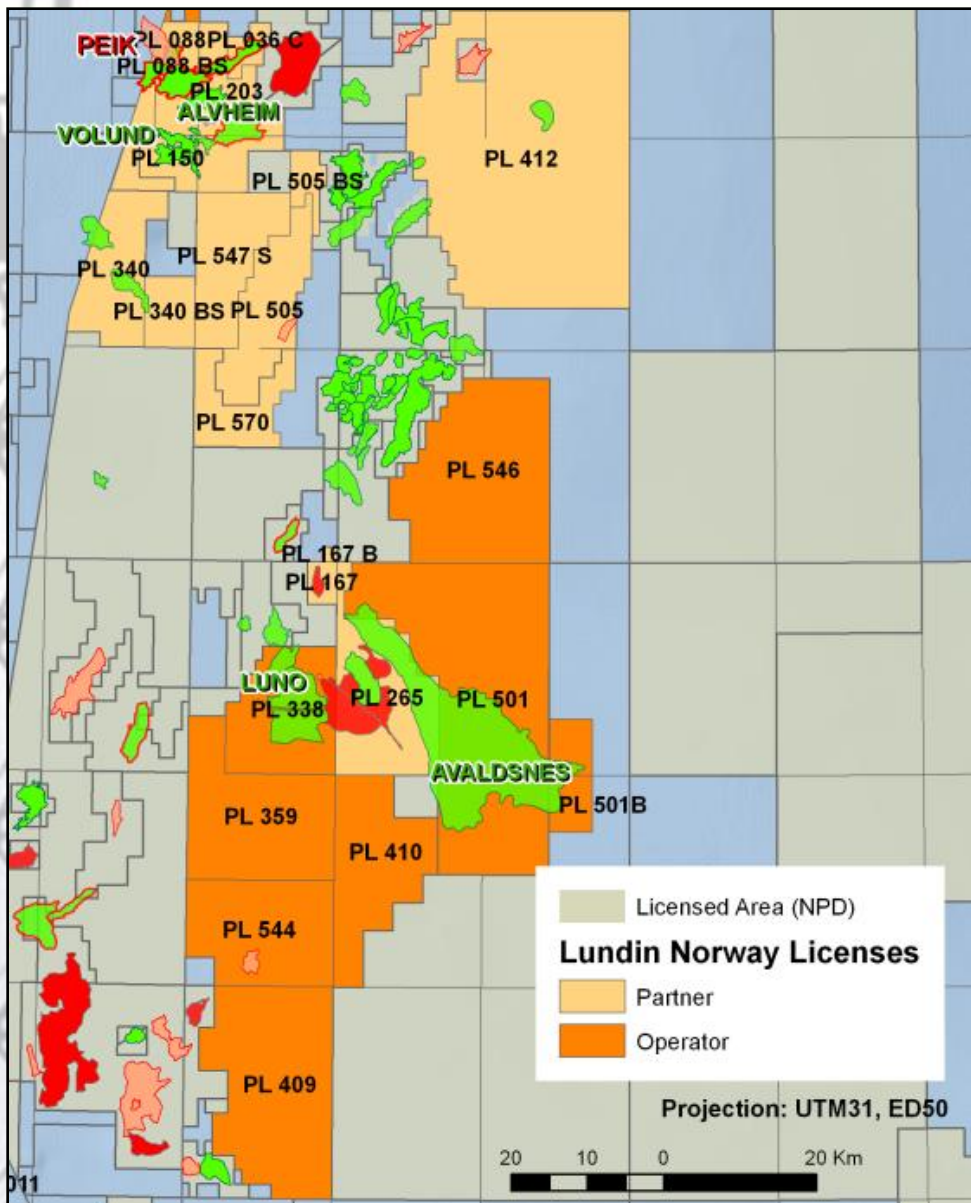
Lundin portfolio strategy



- Cash flow protected organic growth
- Leverage on what we know and develop new concepts
- Utilise synergy in portfolio in relation to improved exploration and development
- Efficient exploration through early drilling decisions and continuous drilling activity
- Tailor yearly balanced drilling portfolio in relation to
 - Stand-alone frontier exploration
 - Growth exploration
 - Mature tie-in exploration
- Maintain production from existing and emerging developments (Alvheim and Volund)
- Data/fact driven subsurface understanding, with a clear appreciation of the limitations of Data, Tools, Methods and Theories at any time

Lundin production: 23k/day
increasing to 60 k/day

Lundin core area



- ➔ Established the Alvheim area as a major light oil province as an active partner
- ➔ 10 Operated wells in the Lundin core area since autumn 2007
- ➔ Established the Haugaland High, a 4th generation exploration area, as a major oil province 45 years after the first award in 1965
- ➔ 10 years with surprises:
 - Alvheim: significant oil field, not a gas satellite
 - Volund: significant oil satellite
 - Marihøne: light under saturated oil
 - Luno: proximal Jurassic reservoir facies with under saturated oil
 - Luno South: basement discovery
 - Avaldsnes: unbiodegraded oil discovery
 - Apollo: serendipity discovery of oil at three levels; Balder, Heimdal and Volgian/Cretaceous
- ➔ No surprise:
 - Dry holes have also been drilled
 - Every well contains a learning base

Lundin strategy on the Haugaland High

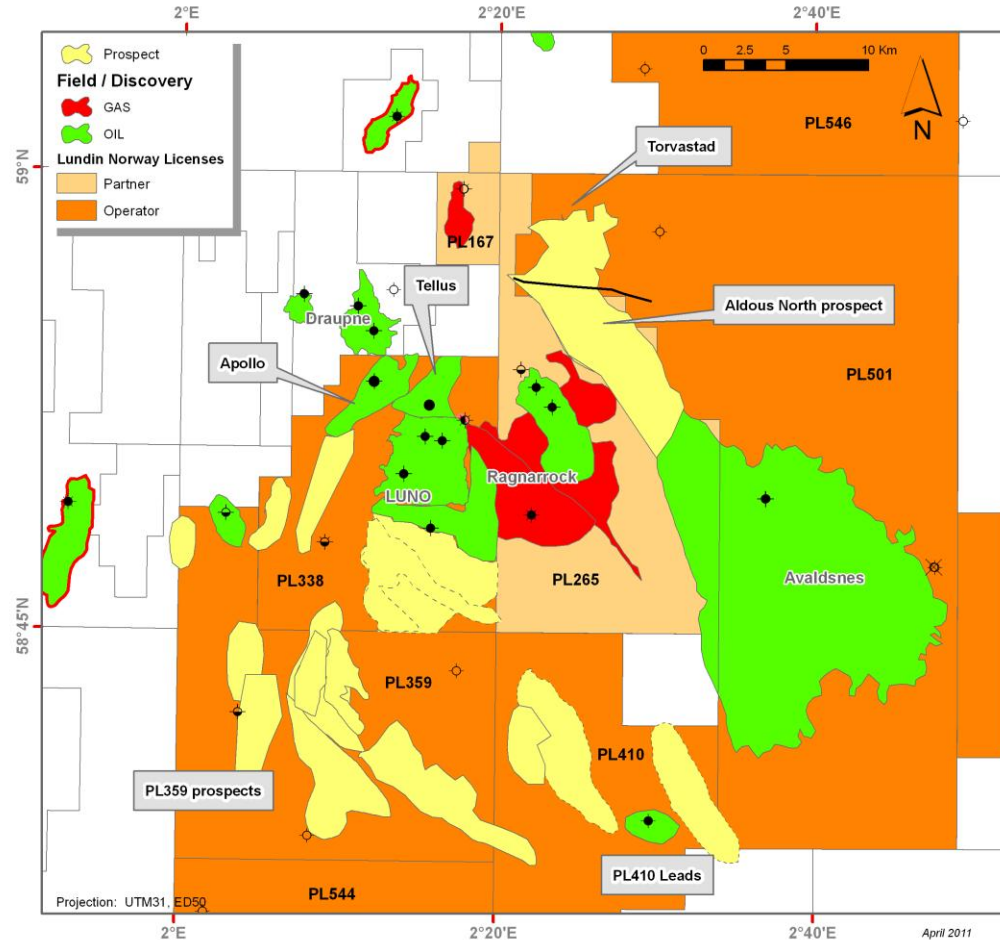


Operated 7 wells and 4 DSTs

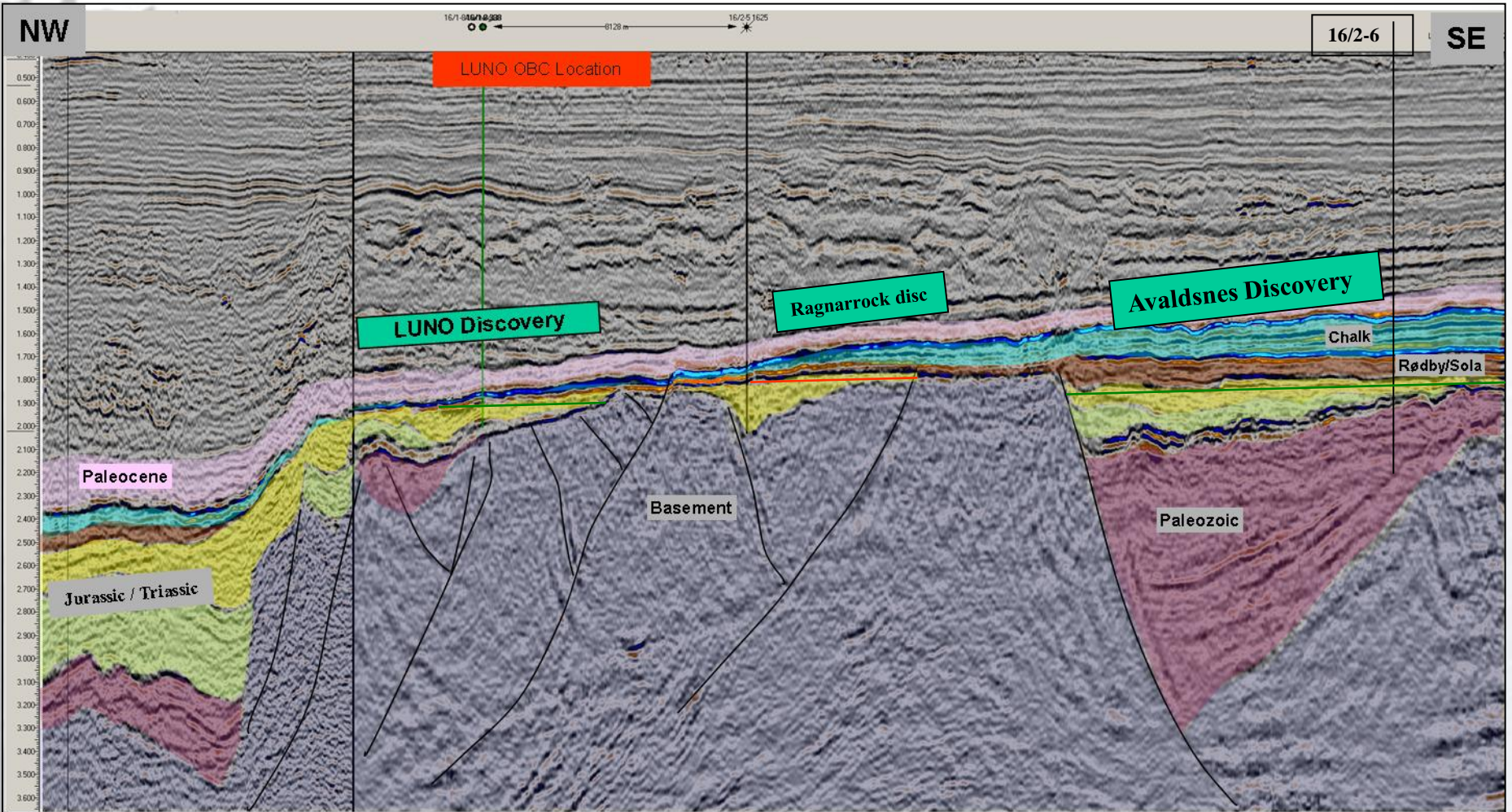
- Cored, SWC, fluid samples, mini-dst, quality logging, technical sidesteps to secure proper logging or coring
- PL 338: 2500 mill NOK
 - 5 wells: 16/1-8, 10, 13, 14, 15 3 DSTs
 - 3D OBC
 - Part of regional 3D 1650 sqkm geostreamer survey
 - Plan for additional exploration drilling to follow the PDO
- PL 359: 220 mill NOK
 - 16/4-5 tight basement
 - New well in 2012
- PL 501: 400 mill NOK
 - 16/2-6, Avaldsnes discovery
 - 16/3-4, 16/2-7, 16/3-4, 16/2-8 and 16/2-9
- PL410:
 - Well to be drilled 2012

Results: 7 discoveries and 2 upgrades:

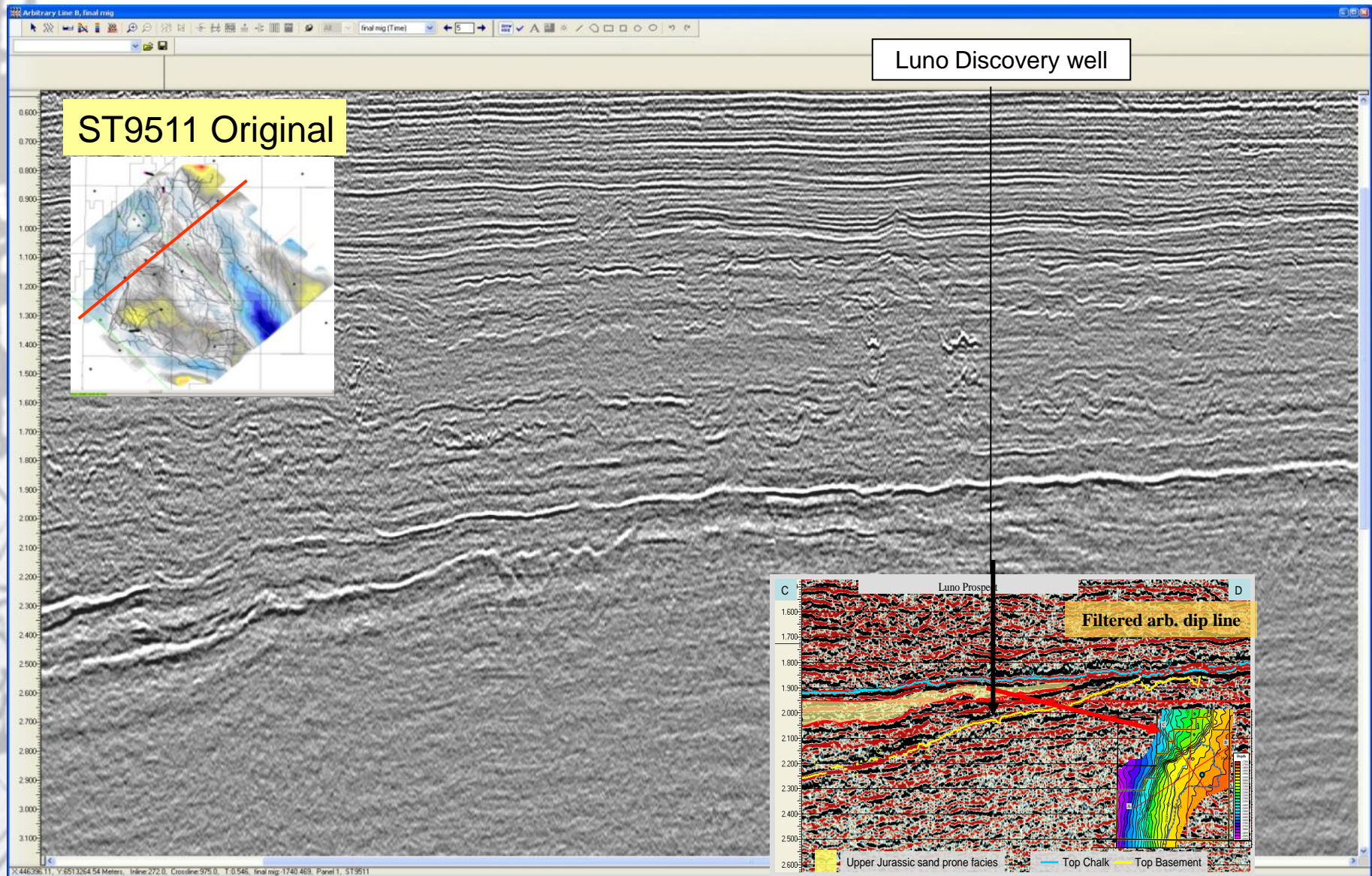
- Luno
- Luno South
- Apollo 3 discoveries
- Tellus
- Avaldsnes
- 16/1-3 upgrade of shows to h-c column
- 16/5-1 upgrade to Luno oil in basement
- Developed several new play types and late migration of light oil
- Introduced new geophysical interpretation techniques



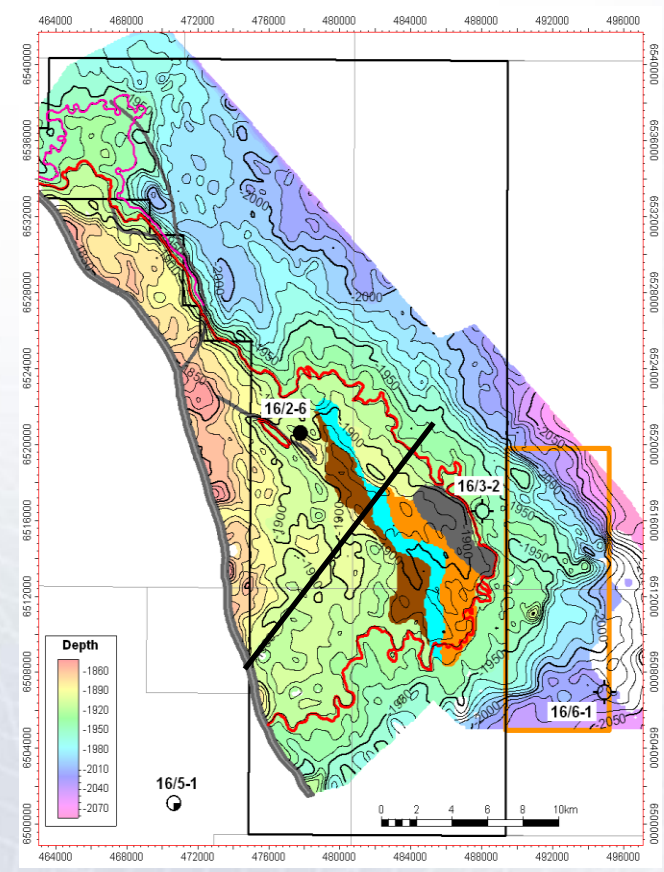
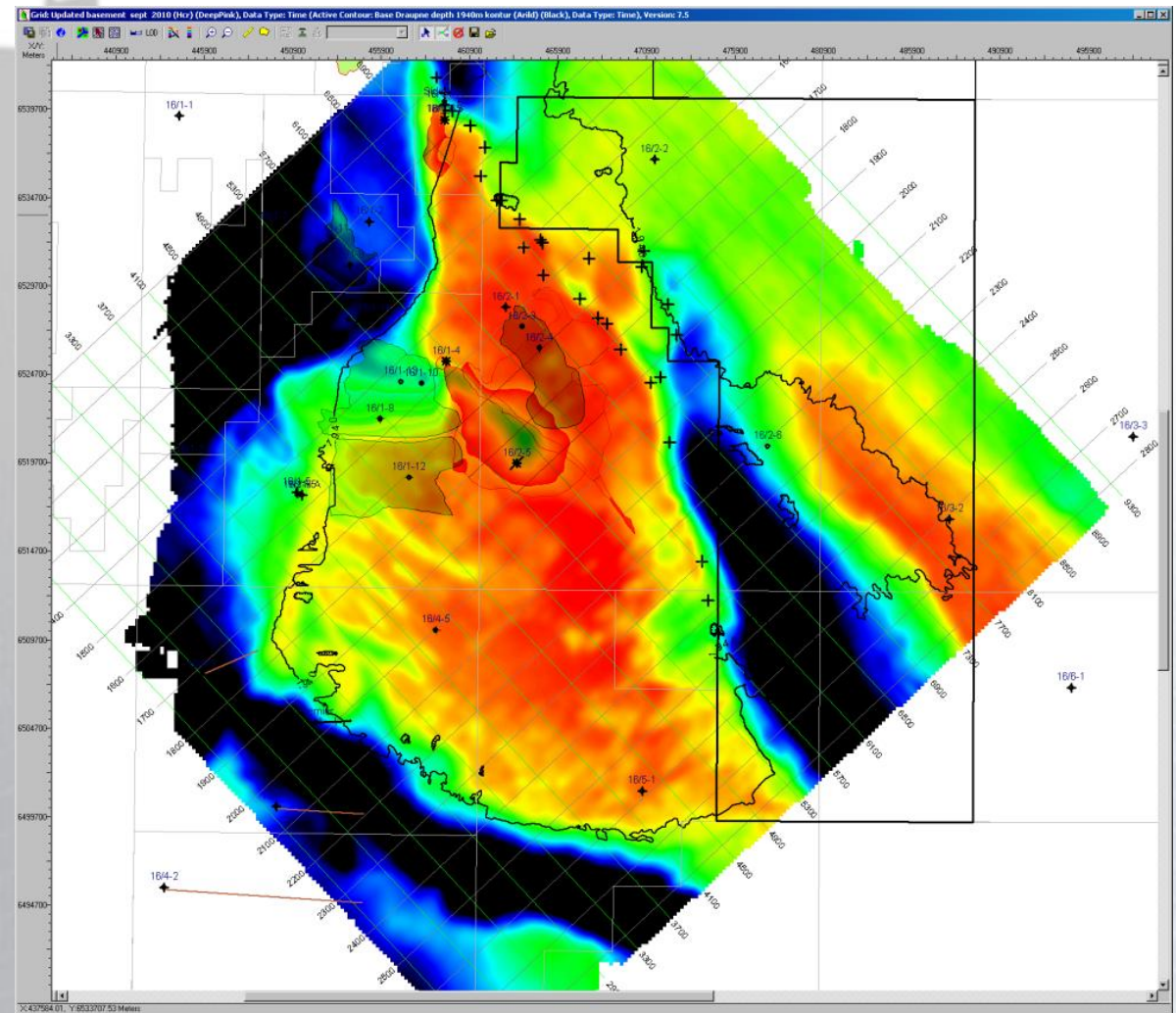
NW to SE line over the Haugaland High



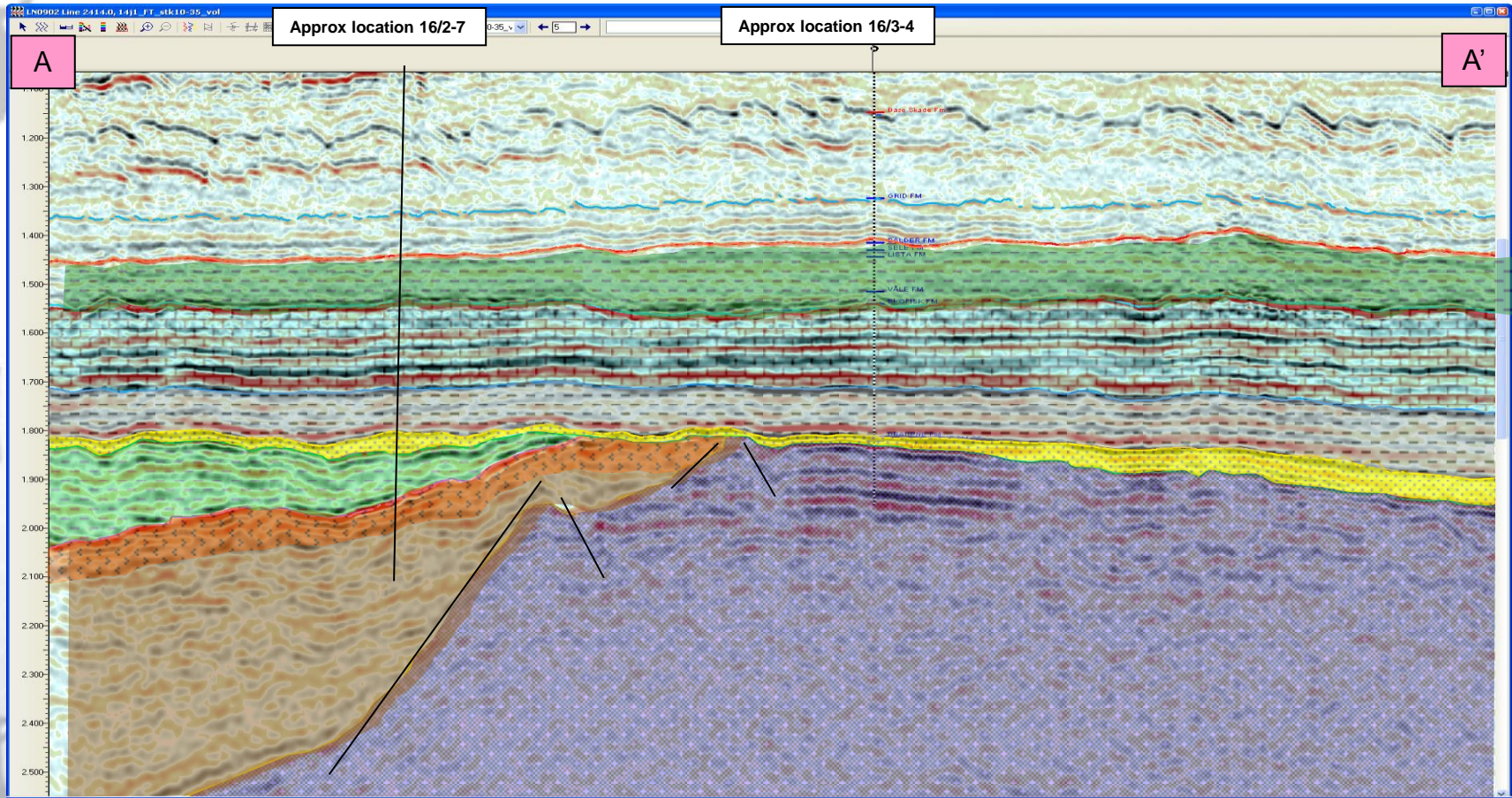
3D quality at the time of application



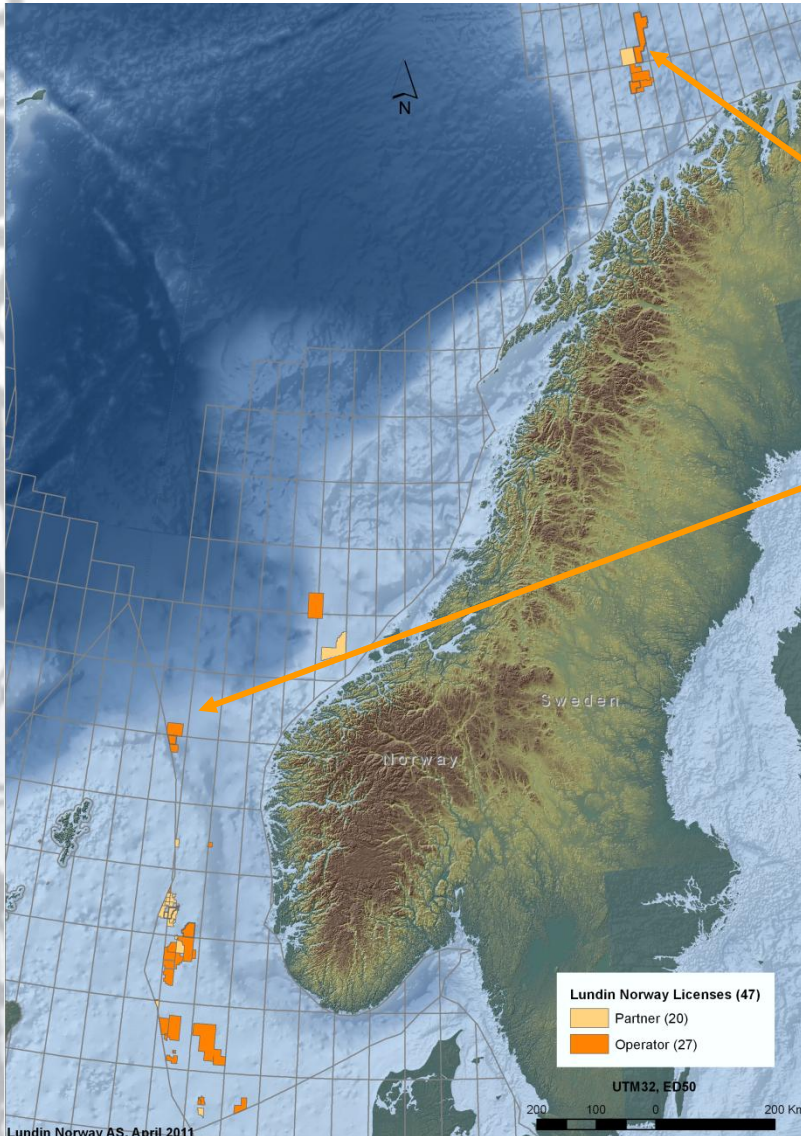
The Avaldsnes discovery



The Avaldsnes discovery

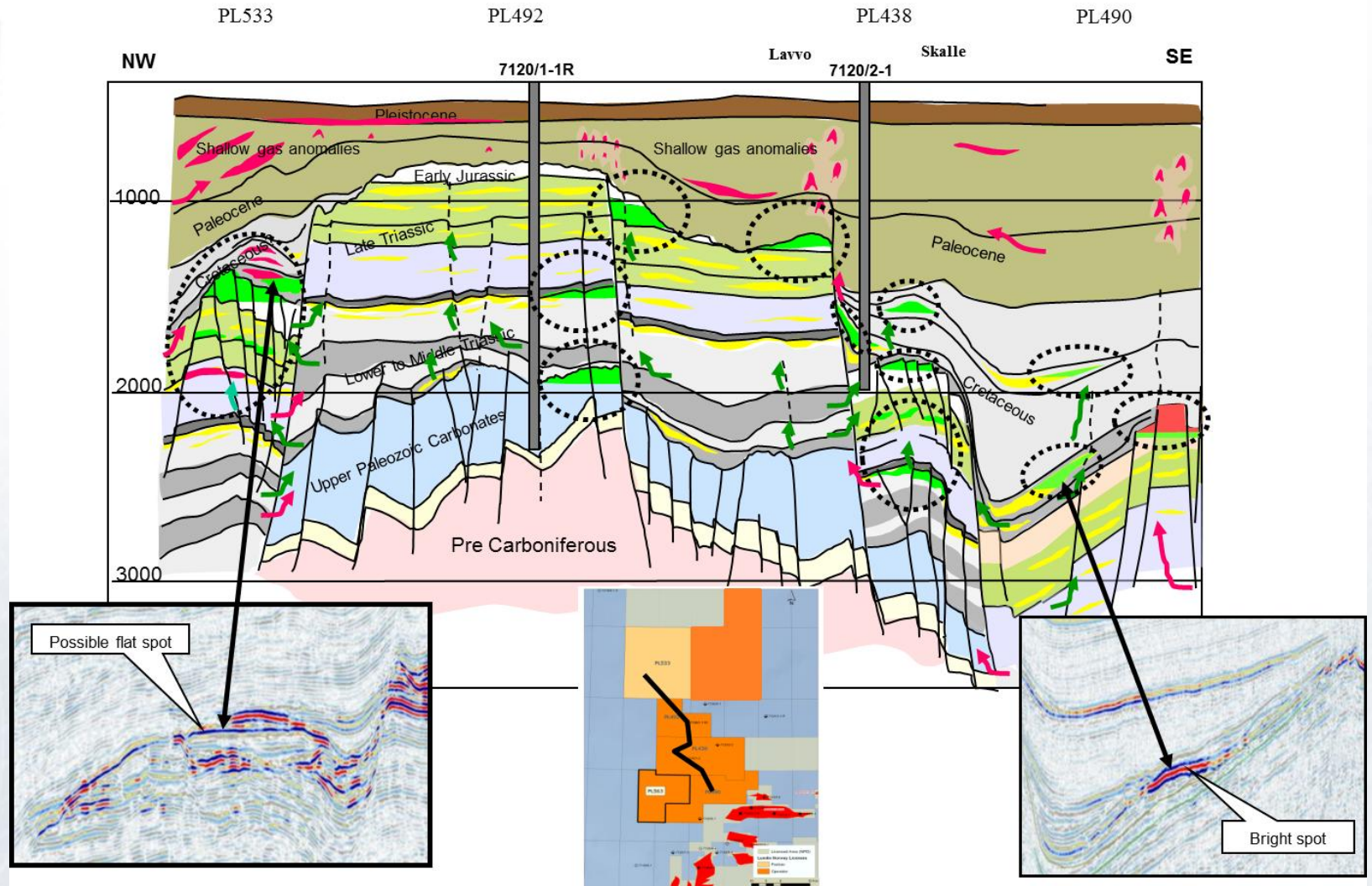


Lundin portfolio strategy to build new core areas



- Growth beyond proven reserves in the current Alvheim
Luno/Avaldsnes areas need new core areas:
 - Loppa High; Jurassic inversion
 - Manet High: Jurassic inversion
 - Other areas

Play types in Lundin's Barents Sea acreage



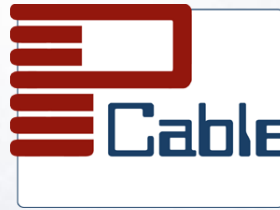
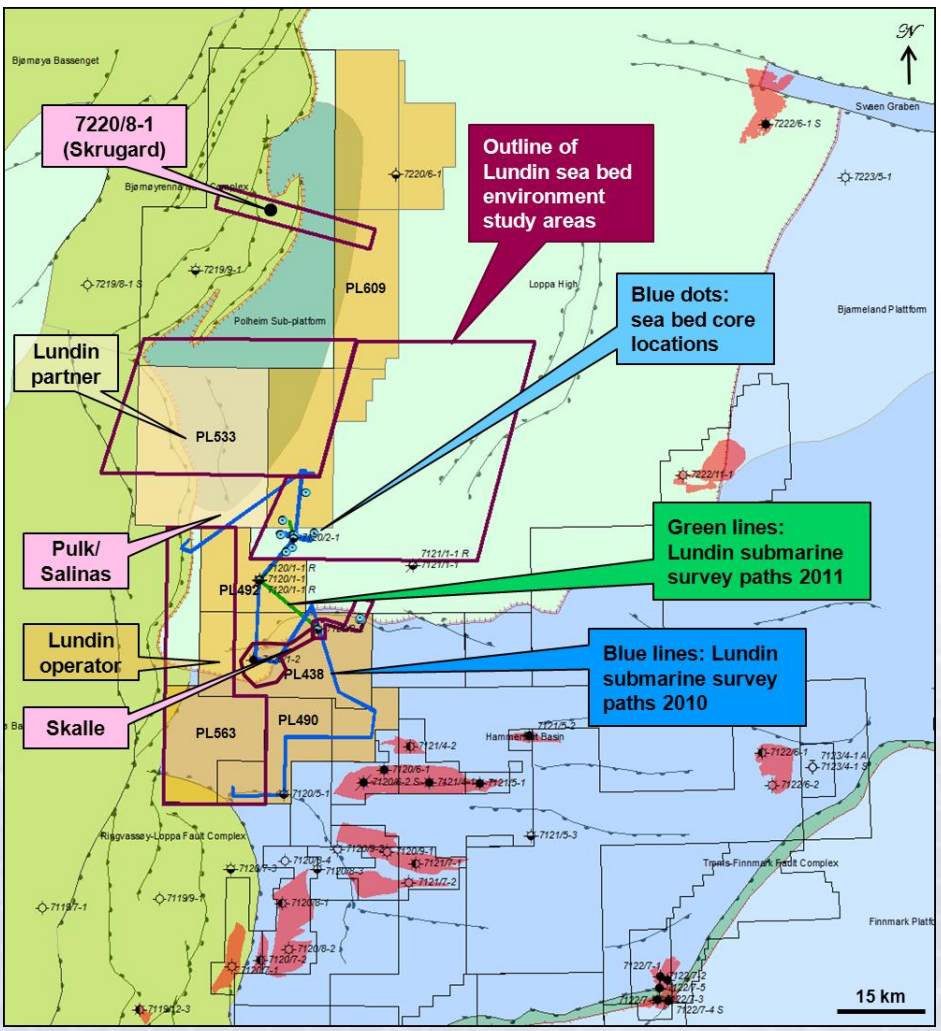
Lundin near sea bottom mapping from 2007



Marbank



Institute for Geoscience



Lundin's near sea bottom mapping from 2007

