

# Regional PhaseFinder Package Norwegian Viking Graben

## GEOS4'S EXCLUSIVE PHASEFINDER TECHNOLOGY

This science-based technology accurately predicts charge timing, fluid volume and composition rapidly and inexpensively, based on calibrations from major petroleum provinces worldwide using PhaseKinetics\*.

The organic-rich shales of the Upper Jurassic Draupne Formation are the prime source rock in the North Sea. These widely distributed, several hundred meters thick shales show significant lateral and vertical variations in source rock characteristics, with major effects on the timing of petroleum generation.

This PhaseFinder Package addresses Draupne Formation source rock heterogeneity northwest and southwest of the Stord Basin. The data assist in predicting the relative volumes of gaseous and liquid phases, infer migration pathways and predict daughter compositions ahead of drilling.

## The GEOS4 Norwegian Viking Graben package provides

- representatives of 10 key immature source rocks,
- kinetic parameters for timing predictions using slow heating rates,
- Petroleum Type Organofacies for predicting bulk petroleum types,
- 2- and 4-component gas/oil ratio prediction in time and space,
- 14-component physical property/PVT prediction in time and space,
- kinetic data provided as tables as well as digital files for direct import into PetroMod® (SLB) and Temis® (Beicip-Franlab).

\* di Primio, R. and B. Horsfield, 2006, From petroleum type organofacies to hydrocarbon phase prediction: AAPG Bulletin, Vol. 90.



**TAKE ADVANTAGE OF  
APPROXIMATE 40% SAVING ON  
REGULAR PRICES WHEN YOU  
PURCHASE THIS PHASEFINDER**

# Regional PhaseFinder Package Norwegian Viking Graben

## UNIQUE SOURCE ROCK SAMPLE SUITE

Our carefully selected source rock suite covers the area northwest and southwest of the Stord Basin. Major discoveries prove these areas as key exploration targets.

Using standard kinetic parameters usually doesn't account for local source rock variations encountered on site and can produce erroneous or misleading results. This PhaseFinder package provides site-specific petroleum generation characteristics to tackle geographic variability of the Upper Jurassic Draupne shales from the Norwegian northern Viking Graben for more confident petroleum phase and volume predictions.

### Full PhaseKinetics parameters:

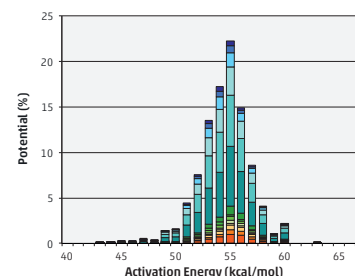
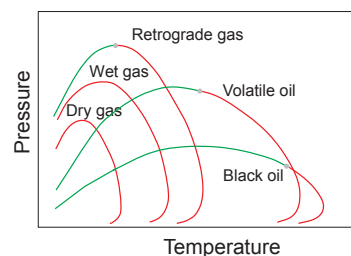
Well	Formation	Age	Depth (m)	Tmax (°C)	HI
16/3-4	Draupne	U. Jurassic	1918,8	416	499
16/3-4	Draupne	U. Jurassic	1918,9	421	490
30/9-14	Draupne	U. Jurassic	2969,27	430	362
31/2-10	Draupne	U. Jurassic	1579,4	415	248
31/4-9	Draupne	U. Jurassic	2114,37	414	306
34/7-26 SR	Draupne	U. Jurassic	4575,03	418	444

Additionally, first and second level screening data from Rock-Eval and pyrolysis gas chromatography are supplied:

Well	Formation	Age	Depth (m)	Tmax (°C)	HI
16/1-14	Draupne	U. Jurassic	2390,77	423	407
16/2-7 A	Draupne	U. Jurassic	2014,08	418	457
31/4-10	Draupne	U. Jurassic	2014,55	420	360
34/7-26 SR	Draupne	U. Jurassic	4539,48	420	431

GEOS4's Norwegian Viking Graben PhaseFinder package allows the combination of source specific compositional predictions of petroleum with petroleum system modelling.

The correct reproduction of petroleum phase behaviour represents a major step forward in modelling fluid generation, migration and accumulation in this complex setting.



### GEOS4 GmbH

Peter-Huchel-Chaussee 88  
14552 Michendorf · Germany

Phone +49 (0)331.2 88 17 80  
Fax +49 (0)331.2 88 17 82

info@geos4.com  
www.geos4.com

