

**General information**

Wellbore name	6506/11-12 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	BERLING
Discovery	6506/11-10 Berling
Well name	6506/11-12
Seismic location	PGS18M01-PGS16909NWSOMVR20-SHAZ-KPDSDM
Production licence	644
Drilling operator	OMV (Norge) AS
Drill permit	1819-L
Drilling facility	ISLAND INNOVATOR
Drilling days	60
Entered date	30.05.2020
Completed date	28.07.2020
Plugged and abandon date	28.07.2020
Release date	28.07.2022
Publication date	08.08.2022
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS
Discovery wellbore	NO
1st level with HC, age	EARLY CRETACEOUS
1st level with HC, formation	LANGE FM
Kelly bushing elevation [m]	30.0
Water depth [m]	433.0
Total depth (MD) [m RKB]	4150.0
Final vertical depth (TVD) [m RKB]	4092.0
Oldest penetrated age	EARLY CRETACEOUS
Oldest penetrated formation	LANGE FM
Geodetic datum	ED50
NS degrees	65° 8' 48.3" N
EW degrees	6° 20' 32.08" E
NS UTM [m]	7227614.06



EW UTM [m]	375379.65
UTM zone	32
NPDID wellbore	9057

Wellbore history

General

Well 6506/11-12 S was drilled to appraise the 6506/11-10 S Hades discovery. The primary objective was to delineate gas-bearing intra-Lange Formation sands (Breiflabb Member), reduce the uncertainty of the resource estimate, and to perform a formation test.

Operations and results

Appraisal well 6506/11-12 S was spudded with the semi-submersible installation Island Innovator on 31 May 2020 and drilled to TD at 4150 m in the Early Cretaceous Lange Formation. Most of the NPT on the well is caused by three events: repairing the BOP which caused 95 hours NPT, a burst kelly hose causing 37,5 hours NPT, and total losses at 2038 m due to a small intraformational fault not recognized on seismic during the planning phase causing 36 hours NPT. The well was drilled with seawater and hi-vis pills down to 532 m, with Glydril mud from 532 m to 2410 m, and with RheGuard oil-based mud from 2410 m to TD.

The well encountered top of the target sandstones (Breiflabb Member of the Lange Formation) at 4022 m (3963.2 m TVD) with poor to moderate reservoir quality. The reservoir held a gas column down to a possible gas-water contact / free water level at 4029 m (3971 m TVD) based on log interpretation and XPT measurements. The thick sand package at the top of the Breiflabb Member seen in the discovery well was not encountered, instead intercalated sands and shales were encountered immediately at the top reservoir. Additionally, the well encountered a 28 meters water-bearing sandstone interval at 4098 m with poor to moderate reservoir quality in the deeper part of the Lange Formation (Smørflyndre Member). This unit extended from 4098 m to TD.

There were no oil shows in the well.

One core was cut from 4030 to 4058 m with 96% recovery. No fluid sample was taken.

The well was permanently abandoned on 26 July 2020 as a gas appraisal.

Testing

Based on the results from the wireline, it was decided to plug back the reservoir without testing

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
540.00	4150.00

Cuttings available for sampling?	YES
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**Cores at the Norwegian Offshore Directorate**

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	4030.0	4056.8	[m]

Total core sample length [m]	26.8
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
464	NORDLAND GP
464	UNDIFFERENTIATED
557	NAUST FM
1530	KAI FM
1925	HORDALAND GP
1925	BRYGGE FM
2158	ROGALAND GP
2158	TARE FM
2187	TANG FM
2274	SHETLAND GP
2274	SPRINGAR FM
2494	NISE FM
2606	KVITNOS FM
3231	CROMER KNOLL GP
3231	LYSING FM
3371	LANGE FM
4022	UNDIFFERENTIATED
4098	UNDIFFERENTIATED

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT NGI MSIP PPC	3943	4146
CBL GR	2350	3933
MWD - DIR GR PRES	434	530



MWD - DIR GR RES DEN NEU PRES	3974	4150
MWD - DIR GR RES DEN NEU SON PRE	2410	3974
MWD - DIR GR RES PRES	530	2410
PEX CMR XPT	3945	4123

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	530.0	36	532.0	0.00	
SURF.COND.	20	1464.0	26	1471.0	1.68	FIT
INTERM.	13 3/8	2399.0	17 1/2	2410.0	1.88	FIT
INTERM.	9 7/8	3943.0	12 1/4	3974.0	2.01	FIT
OPEN HOLE		4150.0	8 1/2	0.0	0.00	