

**General information**

Wellbore name	6407/1-9
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Discovery	6407/1-9 (Egyptian Vulture)
Well name	6407/1-9
Seismic location	inline 3146. xline 3176
Production licence	939
Drilling operator	Equinor Energy AS
Drill permit	1862-L
Drilling facility	WEST HERCULES
Drilling days	35
Entered date	24.09.2021
Completed date	28.10.2021
Plugged date	28.10.2021
Release date	01.03.2023
Publication date	01.03.2023
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	LANGE FM
Kelly bushing elevation [m]	31.0
Water depth [m]	301.0
Total depth (MD) [m RKB]	3914.0
Final vertical depth (TVD) [m RKB]	3914.0
Maximum inclination [°]	1.3
Bottom hole temperature [°C]	136
Oldest penetrated age	EARLY CRETACEOUS
Oldest penetrated formation	LANGE FM
Geodetic datum	ED50
NS degrees	64° 58' 45.35" N
EW degrees	7° 2' 54.31" E
NS UTM [m]	7207745.18



EW UTM [m]	407905.38
UTM zone	32
NPDID wellbore	9329

Wellbore history

General

Well 6407/1-9 was drilled to test the Egyptian Vulture prospect in the Grinda Graben in the Norwegian Sea. The primary objective was to confirm hydrocarbons in the Early Turonian Intra Lange Formation sandstones.

Operations and results

An 8 1/2 pilot hole NO 6407/1-U-1 was drilled off location to check for shallow gas down to section depth for 26 section. The well was drilled down to 912 m where a flow check confirmed gas bobbles with ROV. The U-1 pilot hole was cemented back, and it was decided to drill another pilot hole.

The second pilot hole, NO 6407/1-U-2, was drilled to 1445 m, flow checked several intervals and only minor gas bubbles was observed at seabed with ROV. The pilot hole was cemented back, and the planned main well location was moved to second pilot hole location.

Wildcat well 6407/1-9 was spudded with the semi-submersible installation West Hercules on 24 September 2021 and drilled to TD at 3914 m in the Early Cretaceous Lange Formation. Drilling to TD proceeded without significant problems, but hole stability issues created problems during logging. The well was drilled with seawater and hi-vis pills down to 1445 m, with Versatec oil-based mud from 1445 m to 3095 m, and with Exploradril oil-based mud from 3095 m to TD.

Numerous Intra-Lange Formation sandstones were penetrated in the interval 3618 m to 3651 m. Light oil was proven in sands in the interval 3715 to 3740 m. Pore pressures between 549 to 549.5 bar was recorded in the upper part of the oil-bearing sands. The only oil shows reported from the well were in these sands.

One core was cut from 3727 m to 3795 m in the Lange Formation with 94.4% recovery. MDT oil samples were taken at 3718.3 m in the Intra-Lange Formation sandstones. Due to problems with hole stability during wireline logging this was the only sampling station, hence, information about fluid and pressure properties were limited to the uppermost sand unit.

The well was permanently abandoned on 28 October 2021 as an oil discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1450.00	3914.00



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	3727.0	3794.6	[m]

Total core sample length [m]	67.6
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
332	NORDLAND GP
332	NO FORMAL NAME
649	NAUST FM
1460	KAI FM
1815	HORDALAND GP
1815	BRYGGE FM
2188	ROGALAND GP
2188	TARE FM
2259	TANG FM
2309	SHETLAND GP
2309	SPRINGAR FM
2482	NISE FM
2637	KVITNOS FM
3179	CROMER KNOLL GP
3179	LYSING FM
3232	LANGE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
LWD - APWD RES GR DI	383	1445
LWD - DI	332	383
LWD - DI APWD RES GR DI	1445	2345
LWD - GR DI APWD RES	3095	3914



LWD - GR DI APWD RES GR CAL DEN	2346	3095
MDT CMR	3150	3860
MSIP QGEO	2283	3914
VSI4	985	3910
XLR	3206	3728
ZAIT NEXT XPT PEX HNGS	3093	3914

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	36	381.7	42	383.7	0.00	
INTERM.	20	1437.8	26	1445.0	1.72	FIT
INTERM.	13 3/8	2338.8	17 1/2	2346.0	2.07	LOT
LINER	9 5/8	3093.8	12 1/4	3095.0	1.92	FIT
OPEN HOLE		3914.0	8 1/2	3914.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
339	1.60	19.0	17.0	Spud Mud	
343	1.35	15.0	14.0	Spud Mud	
1446	1.59	31.0	21.5	Glydril Plus	
1582	1.50	28.0	14.5	Glydril Plus	
1847	1.59	32.0	21.0	Glydril Plus	
2345	1.59	33.0	20.0	Glydril Plus	
2510	1.68	53.0	9.5	Versatec	
2811	1.71	53.0	11.0	Versatec	
3000	1.72	54.0	10.5	Versatec	
3148	1.70	33.0	7.5	Exploradrill	
3619	1.72	36.0	9.0	Exploradrill	
3914	1.55	21.0	15.0	Glydril Plus	
3914	1.72	38.5	9.0	Exploradrill	