SIMON PETROLEUM TECHNOLOGY

WELL: 2/8-10

Print: 782 N Units: (M) F Top 340 Bottom 2670 Scale 1/500 TD 2682.2

Length: 20 FT Initials: AC

COMPLETION LOG

Completion (1) – ϕ N

Comp. Log 2/8-10 1/500

AMOCO NORWAY OIL COMPANY

COMPOSITE WELL LOG: 2/8-10

AREA: OFFSHORE NORWAY
LICENCE: 006
LOCATION: LAT: 56°15' 53.32" N
LONG: 03° 24' 58.81" E
RIG: SEDCO 135 G
MUDLOG SERVICE: GEOSERVICES

SPUD DATE: JUNE 30, 1976
INITIAL STATUS: VALHALL DELINEATION
COMPLETION DATE: AUGUST 29, 1976
FINAL STATUS: SUCCESSFUL DELINEATION WELL
AMOCO ENGINEERS: H. BERGSLAND, R. SKEIE, J. SÖRVANG, A. TANSÖ

TOTAL DEPTH: 2682.2 m
K.B. ELEVATION: 32.6 m
WATER DEPTH: 68.6 m
AMOCO GEOLOGISTS: G. EYNON, T. HALLBERG, I. NORBURY

OPERATIONAL SYMBOLS

CASING SEAT
CORE INTERVAL 2050 REC. 2080 LOST
PERFORATED INTERVAL 2130–2150
SIDE WALL CORE REC 8130, LOST 8140
DRILL STEM TEST DST. NO. 1
FORMATION INTERVAL TEST FIT
DEVIATION SURVEY ½°
CEMENT PLUG 2180–2220

SHOWS

OIL: POOR, FAIR, GOOD, V. GOOD, EXCELLENT

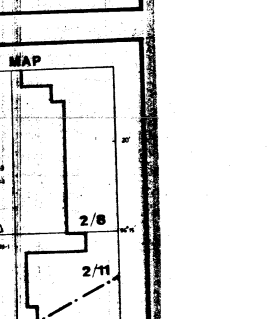
GAS: TRACE, FAIR, GOOD

CASING RECORD

30" Casing shoe at 173.7 m
20" Casing shoe at 368 m
13 3/8" Casing shoe at 1280.4 m
9 5/8" Casing shoe at 2601.8 m

BIT SIZE DATA

LOCATION MAP



LITHOLOGY MINERALOGY & PALAEONTOLOGY SYMBOLS

SANDSTONE, SILTSTONE, CALCAREOUS SILTSTONE, CLAY, SHALE, CALCAREOUS SHALE, ARGILLACEOUS LIMESTONE, LIMESTONE, DOLOMITIC LIMESTONE, DOLOMITE, GYPSUM, ANHYDRITE, SALT, POTASSIUM SALT, CHERT, COAL, VOLCANIC TUFF, PYRITE, LIMONITE HEMATITE, SIDERITE, GLAUCONITE, OOLITES & PISOLITES, CONCRETIONS, PEBBLES, CHERT, SHELL DEBRIS, FORAMINIFERA, BRYOZOA, SPICULES

LOGS

Listed below are the logs run by Schlumberger for 2/8-10.

Run No.	Type	From - To (In meters RKB)	Date
1	CBL-GR-TT	100 - 356	July 5, 1976
1	ISF/Sonic-RIL-SP-GR	368 - 1287	July 9, 1976
1	CNFE-GR-Cal	2315 - 2621	July 25, 1976
2	ISF/Sonic-SP-GR	1280 - 2619	July 25, 1976
1	Continuous Dipmeter	2315 - 2621	July 26, 1976
1	Sonic-VDL-GR	2315 - 2620	July 26, 1976
1	DLL-MSFL-GR-SP-Cal	2315 - 2621	July 26, 1976
1	Temperature log	2350 - 2621	July 26, 1976
2	Temperature log	2350 - 2621	July 26, 1976
3	Temperature log	2350 - 2621	July 26, 1976
3	ISF/Sonic-SP-GR	2425 - 2680	July 27, 1976
2	CBL-VDL-GR-TT	1185 - 2556	August 2, 1976
4	Temperature log	2350 - 2560	August 3, 1976
5	Temperature log	2350 - 2560	August 3, 1976
6	Temperature log	2350 - 2650	August 3, 1976
3	CBL-TT	2285 - 2495	August 17, 1976
4	CBL-VDL-CCL	2285 - 2489	August 18, 1976

TEST SUMMARY

Tests were conducted over three intervals. The Upper-Hod productivity was tested by Test No. 1. The productivity of the Tor formation was tested by Test No. 2 and 3.

Using Kiel water-frac process a hydraulic fracture treatment were conducted on Test Nos. 1 and 3. These jobs consisted basically of 1500 bbl pad with flow back and 2000 bbl of slight gelled frac-fluid containing 20000 lbs of 100 mesh, 2000 lbs of 20/40 and 20000 lbs of 10/20 mesh sand.

Test No. 1

Perforations : 8320 - 8355 feet RKB

Frac job : 1740 bbl pad
: 1175 bbl frac fluid containing 200 sacks of Oklahoma No. 1 and 112 sacks of 20/40 sand at a average concentration of 1.5 ppg.

Post-frac flow:
Flow rate : 360 BOPD
GOR : 1736 SCF/STB
FFP : 2252 psi
FSIP : 6435 psi
Oil gravity : 31.9° API
Gas gravity : 0.674

Samples : 6 bottom hole samples (4 good samples) 3 sets recombination samples

Test No. 2

Perforations : 8180 - 8230 feet RKB

Test Results
Flow rate : 3560 BOPD
FFP : 5216 psi
GOR : 777 SCF/STB
FSIP : 6225 psi
Oil gravity : 36.5° API
Gas gravity : 0.653

Samples : None

Remarks : The test string was plugged with large solids. The well was rocked and the solids were bullheaded into the formation. The 9 5/8-inch casing was found collapsed or split in the perforated interval.

Test No. 3

Perforations : 8135 - 8155 feet RKB

Frac job : 1377 bbl pad
2550 bbls of frac fluid containing 210 sacks of Oklahoma No. 1, 210 sacks of 20/40 sands and 210 sacks of 10/20 sands at an average concentration of 2.5 ppg.

Post frac flow:
Flow rate : 5511 BOPD
GOR : 937 SCF/BBL
FWHP : 3033 psi
FSIP : 6338 psi
Oil gravity : 37.5° API
Gas gravity : 0.660

Samples : 5 bottom hole samples (4 good samples) 2 sets recombination samples