WELL: 31/2-4 PART 2 INTERVAL: 1520-1720M LOG DEPTH (CORES 18-28). RESERVOIR ZONES 3 - 4 DEPTH SCALE 1:200

CHRONOSTRATIGRAPHY: LATE CALLOVIAN / MIDDLE CALLOVIAN / LATE BT/EARLY CN

LOG DEPTH (M): 1524.50, 1525.20, 1542.50, 1560.50, 1565.40, 1565.50, 1581.20, 1583.50, 1597.70, 1601.50, 1605.10, 1605.50, 1619.50, 1624.60, 1625.00, 1642.40, 1643.00, 1660.90

CORED INTERVAL: 19, 20, 21, 22, 23, 24, 25, 26, 27, 28; NOT CORED

DEPTH (M): 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720

GAMMA RAY
API UNITS
25 100

CALIPER
HOLE DIAMETER IN INCHES
8 22

SAND PERCENTAGE
100 0

LITHOLOGY

ACCESSORY MINERALS

POROSITY % BV
40 30 20 10 0

ZONES (3-4): 3, 4

INTERVAL TRANSIT TIME
MICROSECONDS PER FOOT
140 40

BULK DENSITY
G/CM³
1.95 2.95

NEUTRON POROSITY
%
..... MATRIX
45 -15

RESISTIVITY
OHMS-M²/M
DUAL LATEROLOG-RXO
LATEROLOG-9 DEEP
LATEROLOG-9 SHALLOW
0.2 2000

FWL

GRAIN SIZE TREND

GRAINSIZE BEDDING
S U V F M C R

SEDIMENTARY/BIOGENIC STRUCTURES ORG.REMAINS

LITHOFACIES
MARL SHALE
Vs¹ Fs² Ms² Cs² Cs¹

HIGH RESOLUTION DIPMETER
DIP ANGLE AND DIRECTION
DATA UNMODIFIED FOR STRUCTURAL DIP CALCULATED AT 4°/60°E (SCHLUMBERGER)
0 10 20 30 40 50 60 70 80
N=39
N=33
N=26
N=56
N=48

PALYNOFACIES
TYPE
ENVIRONMENT 1 2 3 4 5 6 7 <ONSHORE OFFSHORE>
SALINITY 1 2 3 4 5 6 <LOW HIGH>
ENERGY 1 2 3 4 5 6 7 <HIGH LOW>
PROXIMITY TO TERRESTRIAL ORGANIC SOURCES
PROXIMAL 1
LATERAL 2
DISTAL 3

SEQUENCE: B, B(iv), B(iii), B(ii), B(i), A(ii), A(i)

SEQUENCE PALAEONTOLOGY: (?), INNER(MOST) NERITIC, LITTORAL (?)

ENVIRONMENTAL UNITS
UNIT 3
3(iv) ONLAP
3(iii) OFFLAP (ESTUARINE(?) ONLAP TO TOP)
3(ii) ONLAP
3(i) ESTUARINE OFFLAP
UNIT 2
2(vi)
2(v)
2(iv)
2(iii)
2(ii)
2(i)
UNIT 1
1(vi)
1(v)
1(iv)
1(iii)
1(ii)
1(i)

DEPOSITIONAL SETTING: (DISTAL) COASTAL OFFLAPS; (DISTAL) COASTAL OFFLAP; (TRANSGRESSIVE ?) INNER SHELF; COASTAL OFFLAP; INNER SHELF

DEPTH (M): 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720

LITHOLOGICAL LEGEND

SEDIMENTARY BEDDING
- UNBEDDED, MASSIVE
- WELL BEDDED
- FAIRLY WELL BEDDED
- SLIGHTLY BEDDED
- IRREGULAR, WAVY BEDDING
- X-BEDDING
- X-BEDDING LOW ANGLE
- FLASER BEDDING
- LENTICULAR BEDDING
- GRADED BEDDING
- WINNOWED HORIZON (OR LAG)

SEDIMENTARY STRUCTURES
- DISTURBED/FAULTED
- SLUMPED, CONTORTED
- LOAD CASTS
- ASYMMETRICAL RIPPLES
- PEBBLE LINEATION

BIOLOGIC CHARACTERISTICS
- CHURNED, BIOTURBATED
- BURROWS
- BORED SURFACE
- SHELL,FOSSIL LINEATION
- UNSPEC. BROKEN FOSSILS,ANGULAR
- GASTROPODS
- LAMELLIBRANCHS(PELECYPODS,BIVALVES)
- BELEMNITES
- CRINOIDS
- FORAMINIFERA,GENERAL
- PLANT REMAINS
- PLANT FRAGMENT LINEATION

ACCESSORY MINERALS
- GC GLAUCONITE
- MC MICA
- PY PYRITE
- SD SIDERITE

RELATIVE ABUNDANCE INDICATOR: SCARCE / COMMON / ABUNDANT

NB IN THE LITHOLOGY CALCAREOUS SANDSTONE IS DENOTED AS SANDY LIMESTONE FOR REASONS OF CLARITY

AUTHORS: LEVELL-WILLIAMSON & DE WEERD (KSEPL), WHITAKER & NOORDERMEER (SIPM), LARSEN (NORSKE SHELL)

LITHOFACIES

- Cs^1 — POORLY SORTED COARSE-GRANULAR SAND
- Cs^2 — MODERATELY WELL SORTED COARSE-MEDIUM SAND
- Ms^1 — HETEROGENEOUS,CROSS-BEDDED MEDIUM-COARSE SAND
- Ms^2 — MODERATELY BIOTURBATED MEDIUM SANDSTONE
- Fs^1 — THOROUGHLY BIOTURBATED,MICACEOUS FINE SANDSTONE
- Fs^2 — INTERBEDDED ORGANIC-RICH SHALES AND RIPPLE-OR-PLANE LAMINATED FINE-VERY FINE SANDSTONE
- Vs^1 — THOROUGHLY BIOTURBATED VERY FINE SILTY SANDSTONE/SILTSTONE
- — SHALE
- — MARL

PALYNOFACIES :

ENVIRONMENT

ONSHORE
1. LOWER / UPPER DELTA PLAIN
2. BEACH / LITTORAL / CHANNEL
3. SHOREFACE / ESTUARINE / LAGOONAL
4. SHOREFACE (LOWER)
5. OFFSHORE (UPPER)
6. OFFSHORE (UPPER - LOWER)
7. OFFSHORE (LOWER)

OFFSHORE

FOR EXPLANATION OF PALYNOFACIES TYPE, SALINITY AND PROXIMITY INDICATIONS SEE APPENDIX III (VOL.2)

1520-1720 m

Koninklijke/Shell
Exploratie en Produktie Laboratorium

COMPOSITE LOG AND BIOSTRATIGRAPHICAL LOG
WELL 31/2-4
NORSKE SHELL

SCALE 1:200 PART 2
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