SIMON PETROLEUM TECHNOLOGY

WELL: 25/8-1

Print: 2158F	Units: M [✓ F]	Top	Bottom	Scale	TD
Length: 23 FT	Initials: JC	405	8396	1:500	8549

DIGITAL WIRELINE LOGS PACKAGE
1994
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SPT

COMPLETION LOG

Completion – 0

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PROPRIETARY **EXPLORESSO**

ESSO EXPLORATION NORWAY INC.

COMPLETION LOG

Scale 1:500

Well Name IES 25/8-1		Status Plugged and abandoned.	
Area North Sea offshore Norway	Well Classification NEW FIELD WILDCAT	Total Depth 8549' P.B. 6127'	Deepest Penetration Pre-Triassic Undiff.
Location Lat.: 59° 15' 02,238" Long.: 02° 29' 38,209"	Date Spudded April 28, 1970	Elev. of Datum 31 ft.	Water Depth 423 ft.
Prepared by ESSO EXPLORATION NORWAY INC. Date: January, 1971 Revised:	Date Total Depth Reached June 17, 1970.	Casing Data 30" at 534' 20" at 1279' 13 3/8" at 4363' 9 5/8" at 6171'	Rig GLOMAR GRAND ISLE
	Date Oper. Completed July 3, 1970		Contractor GLOBAL MARINE

LOGS RUN

I-ES	B.H.C. GR-S	GR only	MLL-ML with caliper	Formation Density
1. 1278 - 4415	1. 1279 - 4406	1. 440 - 1279	1. 1279 - 4414	1. 4359 - 6283
2. 4362 - 6285	2. 4362 - 6276		2. 4359 - 6283	2. 6170 - 8355
3. 6170 - 8360	3. 6160 - 8335			

DIPMETER				
1. 1279 - 4410				
2. 4363 - 6280				
3. 6358 - 6835				

Seismic check shots

YES

LITHOLOGIC SYMBOLS

(PROVISIONALLY APPROVED FOR FIELD TESTING)

- ? CLAY (NONFISSILE) - CLAYSTONE < 03mm
- CLAY (FISSILE) OR SHALE < 03mm
- MUDSTONE
- SILT, COARSE (03-06mm) AND SILSTONE
- · SAND (06-2 mm) AND SANDSTONE
- ○ GRANULE BOULDER (> 2mm) AND CONGLOMERATE
- Q QUARTZ
- ▭ FELDSPAR
- LITHIC OR ROCK FRAGMENTS
- ◆ PYRITE
- SIDERITE
- △ CHERT
- ■ COAL
- ▬ CARBONACEOUS MATTER
- GLAUCONITE
- PHOSPHATE
- V VOLCANIC ASH OR BENTONITE
- MICA
- GYPSUM
- + ANHYDRITE
- × HALITE
- ✱ POTASSIUM OR MAGNESIUM SALTS

- LIMESTONE
- DOLOMITIC LIMESTONE ⊥⊥ VERY DOLOMITIC
- CALCAREOUS DOLOMITE ⊥⊥ VERY CALCAREOUS
- DOLOMITE
- MARL

SPECIFY TYPE OF CARBONATE BY ADDING TO BASIC LIMESTONE OR DOLOMITE SYMBOL THE APPROPRIATE ABBREVATION AS SHOWN BELOW

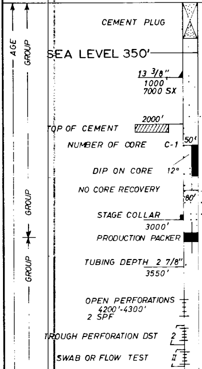
- M = MICRITIC LIMESTONE
- G = GRAIN LIMESTONE (FOR GENERAL USE)
- S = SKELETAL LIMESTONE (FRAGMENTED AND NONFRAGMENTED)
- P = PELLETAL LIMESTONE
- F = FRAMEBUILDER LIMESTONE
- O = OOLITIC LIMESTONE
- K = CHALK
- D = DETRITAL LIMESTONE
- L = LUMP LIMESTONE
- m = MICROCRYSTALLINE OR MICROGRAINED < 03mm

IGNEOUS ROCKS

- IGNEOUS ROCKS IN GENERAL (WRITE OUT THE NAME WHERE THE SPECIFIC TYPE IS KNOWN)

METAMORPHIC ROCKS

- ▨ METAMORPHIC ROCKS IN GENERAL (WRITE OUT THE NAME WHERE THE SPECIFIC TYPE IS KNOWN)

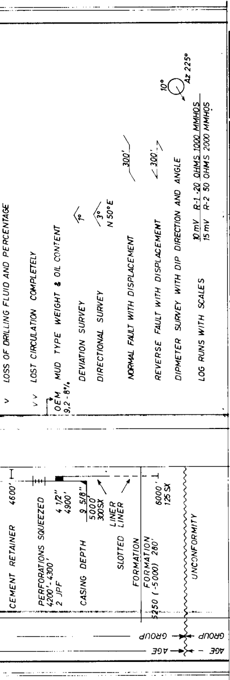


- ◒ SHOW OR STAIN
- ◕ HYDROCARBON CUT
- ◐ FLUORESCENCE
- ☼ GAS SHOW

ABOVE SYMBOLS MAY BE COMBINED

- DEVIATED OR SIDETRACKED HOLE
- 2 OPEN HOLE DST
- 2 MISRUN
- II OPEN HOLE SWAB OR FLOW TEST
- ─○ WIRE LINE TEST
- ── SWC w/ RECOVERY
- ─┼ PO SWC w/ NO RECOVERY
  - SO = SHOT OFF
  - MF = MISFIRE
  - PO = PULLED OFF
  - DB DAMAGED BULLET
- ─◒☼ SWC WITH SHOW
- ●→ BLOWOUT OF OIL
- ☼→ BLOWOUT OF GAS
- ○→ WATER FLOW

- ● OIL PRODUCTION
- ☼ GAS PRODUCTION
- CONDENSATE PRODUCTION
- ○ WATER PRODUCTION
- INTERPRETED OIL PRODUCTIVE
- INTERPRETED GAS PRODUCTIVE
- INTERPRETED WATER BEARING
- INTERPRETED CONDENSATE PROD.


v LOSS OF DRILLING FLUID AND PERCENTAGE
v v LOST CIRCULATION COMPLETELY
OEM 9,2 - 8% MUD TYPE WEIGHT & OIL CONTENT
DEVIATION SURVEY
1°
DIRECTIONAL SURVEY
3° N 50°E
NORMAL FAULT WITH DISPLACEMENT
300'
REVERSE FAULT WITH DISPLACEMENT
300'
DIPMETER SURVEY WITH DIP DIRECTION AND ANGLE
10° Az 225°
LOG RUNS WITH SCALES
10 mV R-1 ·20 OHMS 1000 MMHOS
15 mV R-2 50 OHMS 2000 MMHOS
CEMENT RETAINER 4600'
PERFORATIONS SQUEEZED 4200'-4300' 2 JPF
4 1/2" 4900'
CASING DEPTH
9 5/8" 5000' 300SX
LINER
SLOTTED LINER
FORMATION
FORMATION 5250 (-5000) 280'
6000' 125 SX
UNCONFORMITY
AGE — AGE
GROUP — GROUP

COUNTY Norway
FIELD or LOCATION Wildcat
WELL 25/8-1
COMPANY ESSO

SCHLUMBERGER

COMPANY ESSO Exploration Norway Inc.

WELL 25/8-1

FIELD Wildcat

COUNTY Norway STATE North Sea

LOCATION 59° 15' 02.238" N
02° 29' 38.209" E
Sec. Twp. Rge.

Other Services:
BHC-GR
ML/MLL, FDC
HDT, CST, FIT

Permanent Datum: M.S.L, Elev.
Log Measured From R.T., 29.5 Ft. Above Perm. Datum
Drilling Measured From R.T.

Elev.: K.B. 31'
D.F. 29.5'
G.L. -421

Date	17 - 5/70	5/6-70	18/6-70	
Run No.	One 1/500	2 1/500	3 1/500	
Depth—Driller	4410	6285	8395	Top of fish
Depth—Logger	4410	6280		
Btm. Log Interval	4415	6285	8360	
Top Log Interval	1278	9362	6170	
Casing—Driller	20" @ 1279'	13 @ 4363	13 @ 4363	@
Casing—Logger	1278	4362		
Bit Size	12-¼"	12¼	12¼	
Type Fluid in Hole	Sea WaterMud XP20Spersene	Fresh Water XP20Spersene	Fresh water XP20Spersene	
Dens. | Visc.	10.5 | 70	10.8 | 75	11.7 | 50	|
pH | Fluid Loss	10.5 | 75 ml	10.5 | 4.8 ml	12.0 | 5.0 ml	| ml
Source of Sample	Circulation	Flowline	Flowline	
Rm @ Meas. Temp.	0.65 @ 75 °F	.98 @ 75 °F	.62 @ 75 °F	@ °F
Rmf @ Meas. Temp.	0.45 @ 75 °F	.64 @ 75 °F	.39 @ 75 °F	@ °F
Rmc @ Meas. Temp.	0.88 @ 75 °F	1.30 @ 75 °F	1.10 @ 75 °F	@ °F
Source: Rmf | Rmc	Press | Press	Press | Press	Press | Press	|
Rm @ BHT	0.55 @ 90 °F	.52 @ 147 °F	.29 @ 160 °F	@ °F
Time Since Circ.	10 h	8.00	17.00	
Max. Rec. Temp.	90 °F	147 °F	160 °F	°F
Equip. | Location	2079 | NRY	2079 | NRY	2079 | NRY	|
Recorded By	Dillehay, Hurrle	Hurrle	Hurrle	
Witnessed By	Nichols	Palmer	Lefevre	

FOLD HERE The well name, location and borehole reference data were furnished by the customer.

REMARKS SP Shifted at 3650' Noise on SP from 1275' to 1380' caused by the welding.

Changes in Mud Type or Additional Samples

Date | Sample No.		
Depth—Driller		
Type Fluid in Hole		
Dens. | Visc.		
ph | Fluid Loss	ml	
Source of Sample		
Rm @ Meas. Temp.	@ °F	@ °F
Rmf @ Meas. Temp.	@ °F	@ °F
Rmc @ Meas. Temp.	@ °F	@ °F
Source: Rmf | Rmc		
Rm @ BHT	@ °F	@ °F
Rmf @ BHT	@ °F	@ °F
Rmc @ BHT	@ °F	@ °F

Scale Changes

Type Log	Depth	Scale Up Hole	Scale Down Hole
SP	4400	4 mV	10 mV

Equipment Data

Run No.	Tool Type	Tool Position	Other
1	6 FF 40	1 1/2" Standoff	
2	6 FF 40	1 1/2" "	
3	6 FF 40	1 1/2" "	

Run No.:	(1) One (2) two (3) three
C.D.:	
S.O.:	1½"
Equip. Used: PANEL No.:	F396
CART. No.:	F283
SONDE No.:	M691
IAP No.:	P11A
S.B.R.:	1

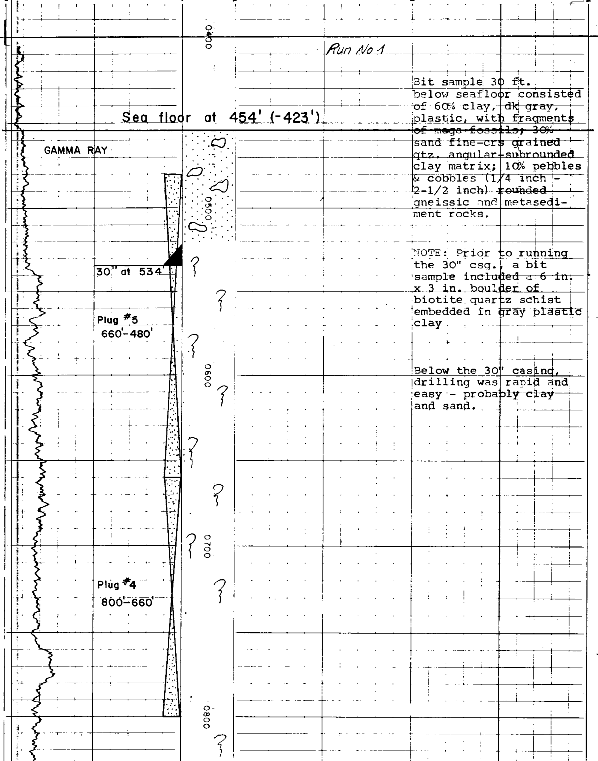
Check one, filling in blanks where applicable:

☐ Surface determined sonde errors used for 6FF40.

☐ 6FF40 sonde error corrected for inch borehole signal at Rm =

☐ 6FF40 zero set in hole at depth of feet.

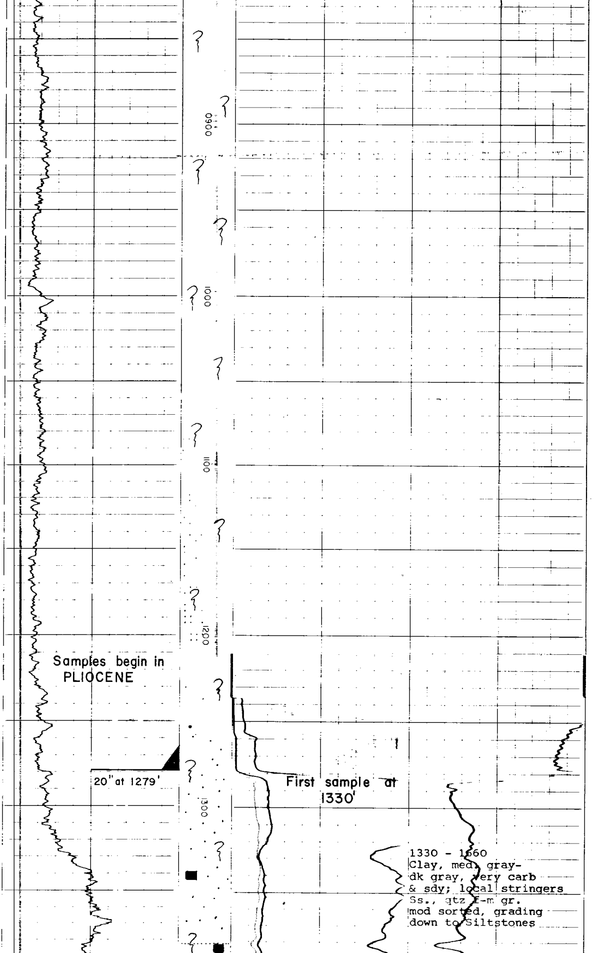
SPONTANEOUS POTENTIAL millivolts	DEPTHS	RESISTIVITY ohms - m²/m	CONDUCTIVITY millimhos/m = $\frac{1000}{\text{ohms - m}^2/\text{m}}$
1400 - 8360 4 − |↔| +		A - 16" - M SHORT NORMAL 0 — 10	6FF40 INDUCTION 1000 — 0 2000 — 1000
GAMMA RAY API UNITS		INDUCTION 0 — 10	
0405 - 1400 0 — 120		AMP. SHORT NORMAL 0 — 2	



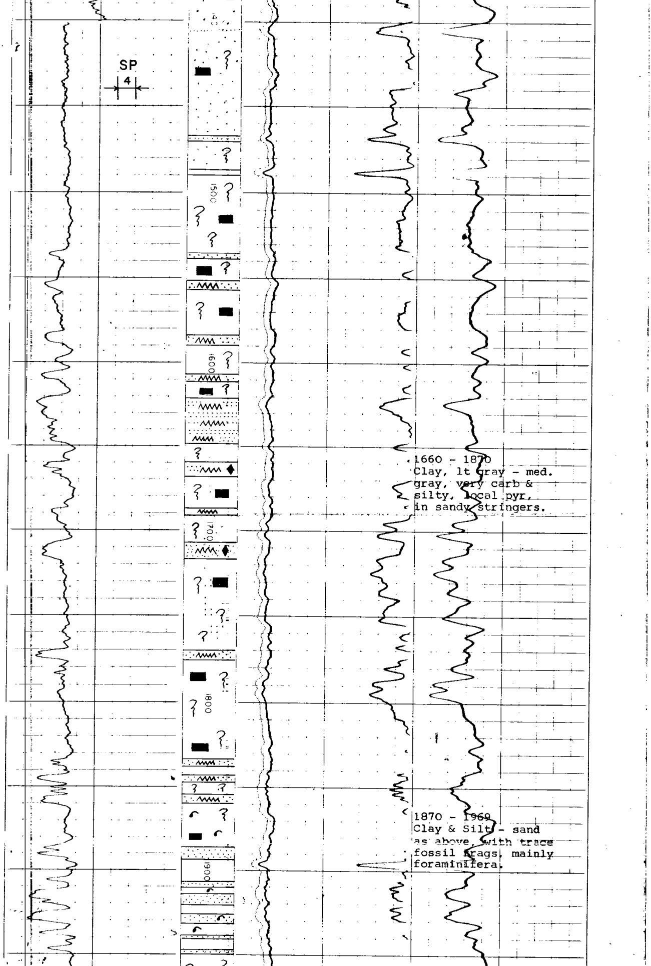
Bit sample 30 ft. below seafloor consisted of 60% clay, dk gray, plastic, with fragments of mega fossils; 30% sand fine-crs grained qtz. angular-subrounded clay matrix; 10% pebbles & cobbles (1/4 inch - 2-1/2 inch) rounded gneissic and metasediment rocks.

NOTE: Prior to running the 30" csg., a bit sample included a 6 in. x 3 in. boulder of biotite quartz schist embedded in gray plastic clay

Below the 30" casing, drilling was rapid and easy - probably clay and sand.

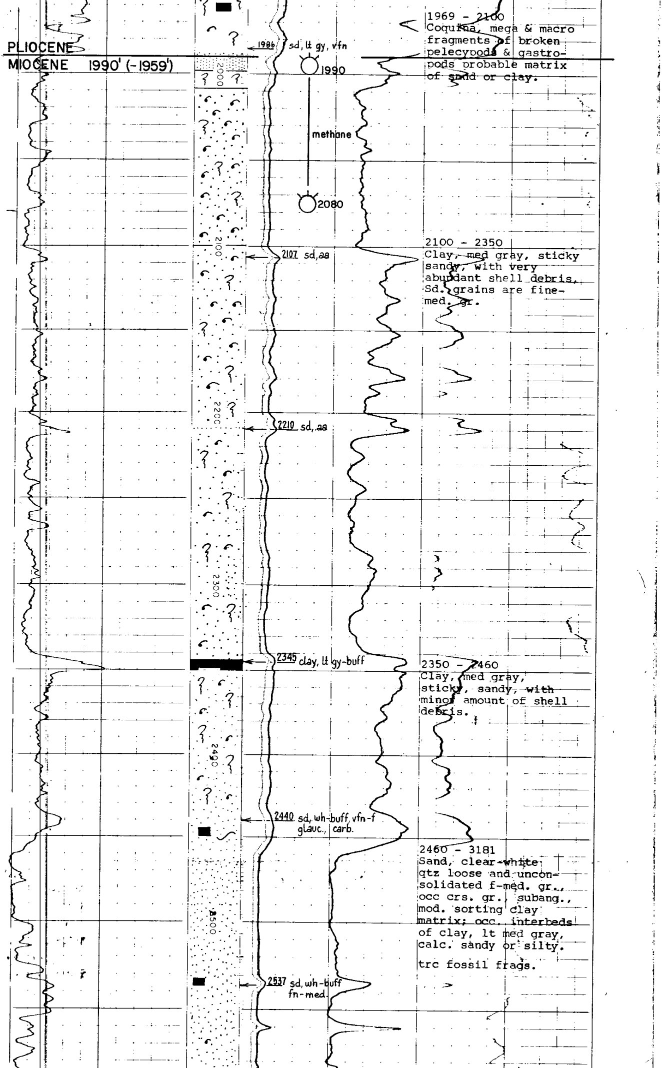


1330 - 1360
Clay, med, gray-
dk gray, very carb
& sdy; local stringers
Ss., qtz f-m gr.
mod sorted, grading
down to Siltstones



1660 - 1870
Clay, lt gray - med. gray, very carb & silty, local pyr, in sandy stringers.

1870 - 1969
Clay & Silt - sand as above, with trace fossil frags, mainly foraminifera.



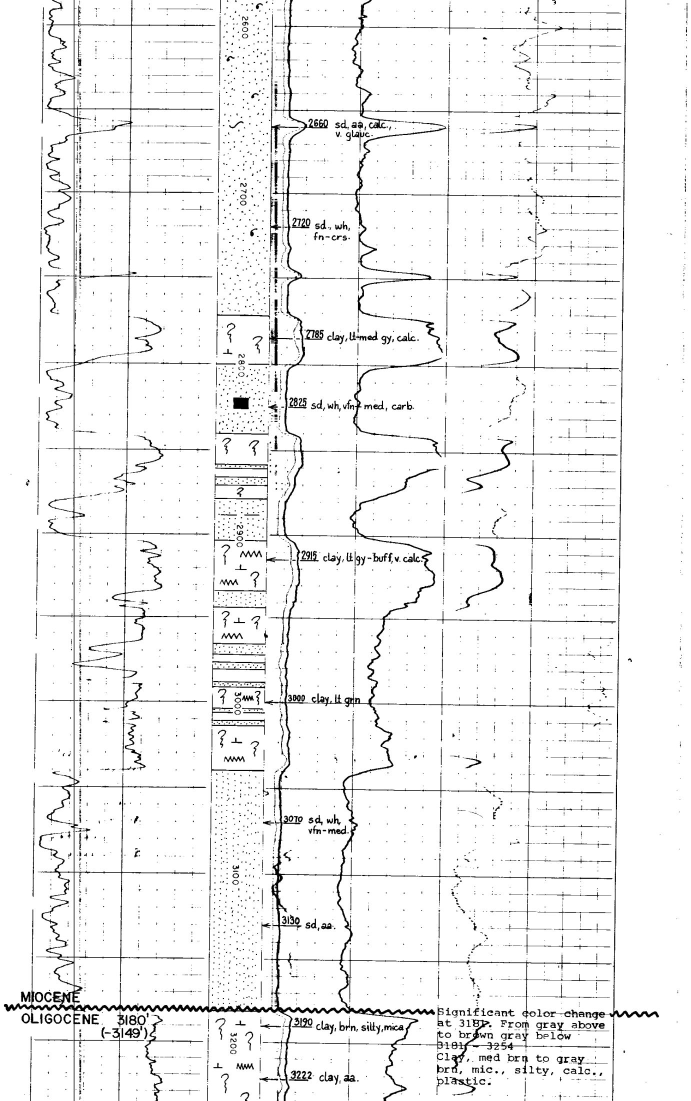
1969 - 2100
Coquina, mega & macro fragments of broken pelecypods & gastropods probable matrix of sand or clay.

2100 - 2350
Clay, med gray, sticky sandy, with very abundant shell debris. Sd. grains are fine-med. gr.

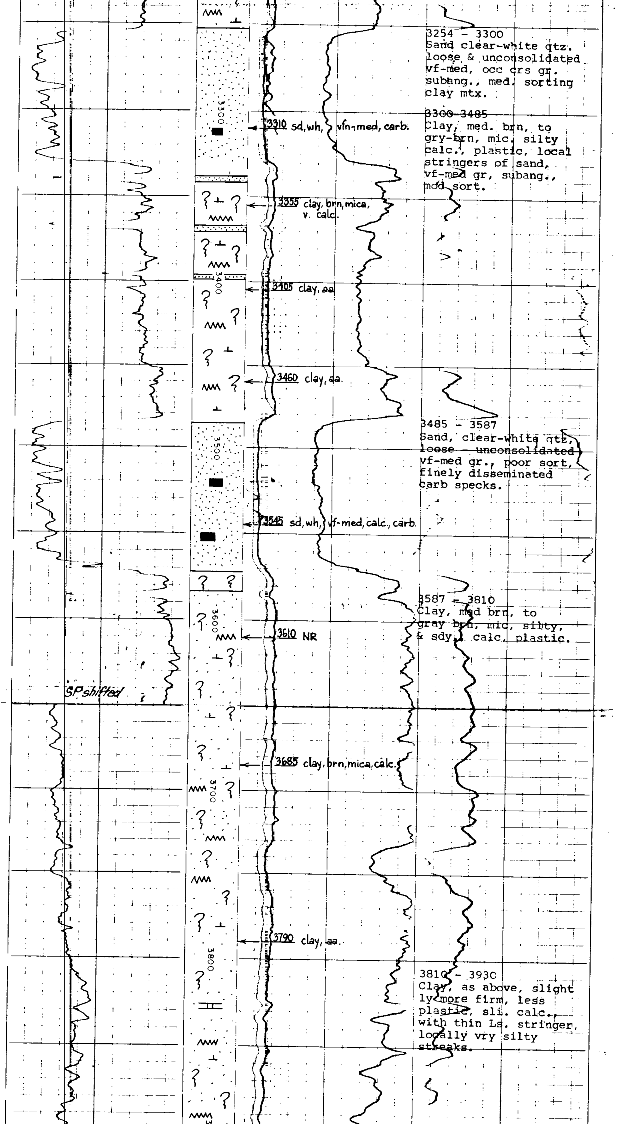
2350 - 2460
Clay, med gray, sticky, sandy, with minor amount of shell debris.

2460 - 3181
Sand, clear-white qtz loose and unconsolidated f-med. gr., occ crs. gr., subang., mod. sorting clay matrix; occ. interbeds of clay, lt med gray, calc. sandy or silty.

trc fossil frags.



Significant color change at 3181. From gray above to brown gray below
3181 - 3254
Clay, med brn to gray brn, mic., silty, calc., plastic.



3254 - 3300
Sand clear-white qtz. loose & unconsolidated vf-med, occ crs gr. subang., med. sorting clay mtx.

3310 sd, wh, vfn-med, carb.

3300-3485
Clay, med. brn, to gry-brn, mic. silty calc., plastic, local stringers of sand, vf-med gr, subang., mod sort.

3355 clay, brn, mica, v. calc.

3405 clay, aa

3460 clay, aa.

3485 - 3587
Sand, clear-white qtz, loose - unconsolidated vf-med gr., poor sort, finely disseminated carb specks.

3545 sd, wh, vf-med, calc., carb.

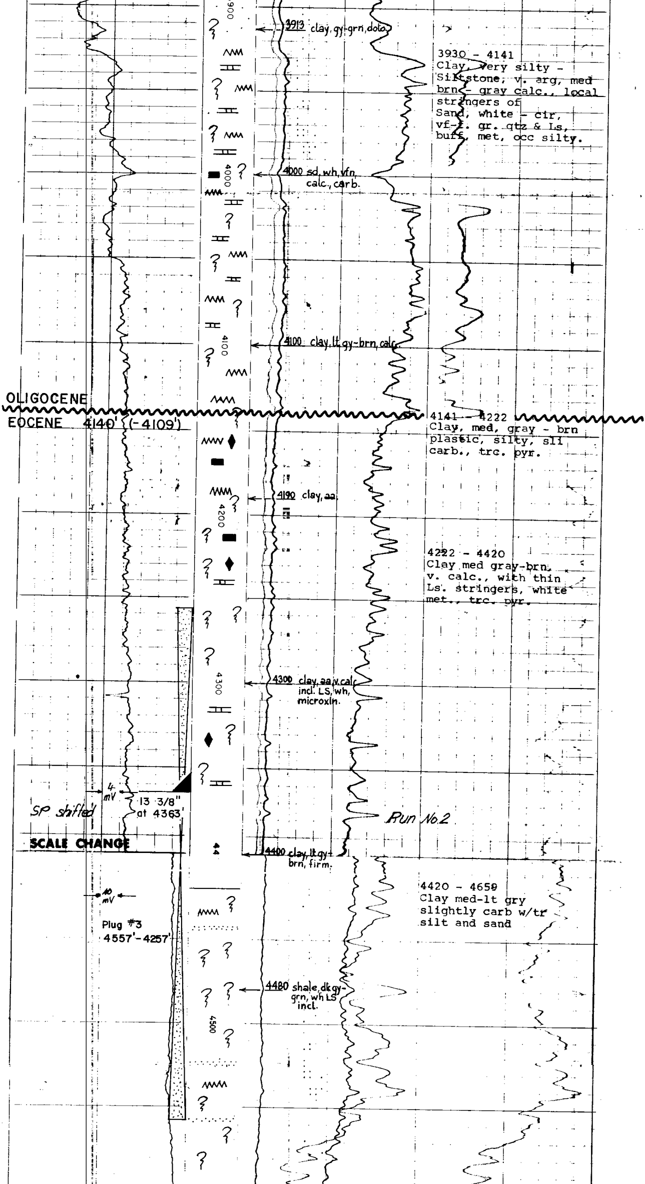
3587 - 3810
Clay, med brn, to gray brn, mic, silty, & sdy, calc, plastic.

3610 NR

3685 clay, brn, mica, calc.

3790 clay, aa.

3810 - 3930
Clay, as above, slightly more firm, less plastic, sli. calc., with thin Ls. stringer, locally vry silty streaks.

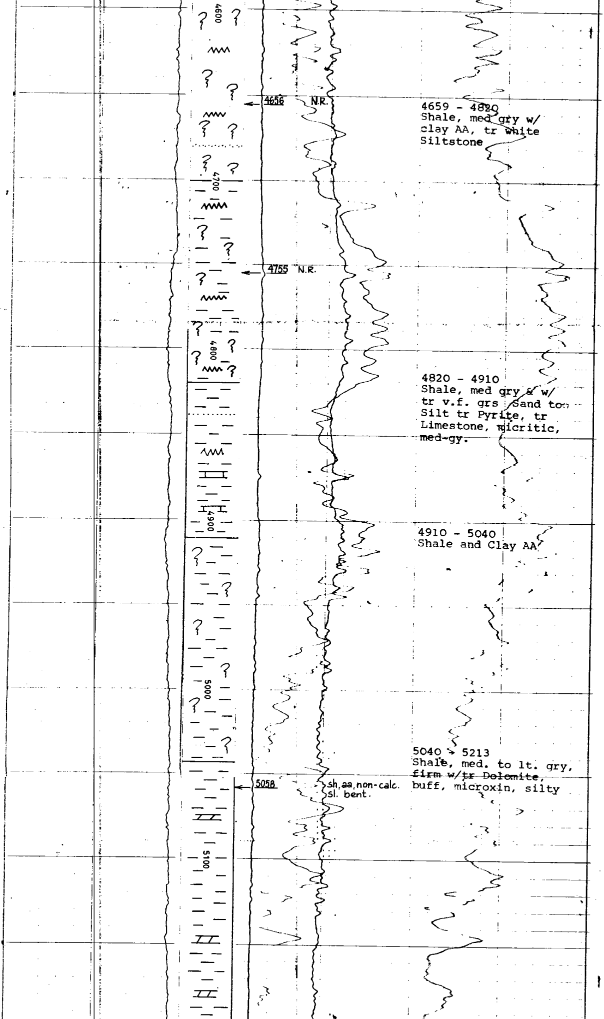


3930 - 4141
Clay, very silty - Siltstone, v. arg, med brn - gray calc., local stringers of Sand, white - clr, vf-f. gr. qtz & Ls, buff, met, occ silty.

4141 - 4222
Clay, med, gray - brn plastic, silty, sli carb., trc. pyr.

4222 - 4420
Clay med gray-brn. v. calc., with thin Ls. stringers, white met., trc. pyr.

4420 - 4659
Clay med-lt gry slightly carb w/tr silt and sand

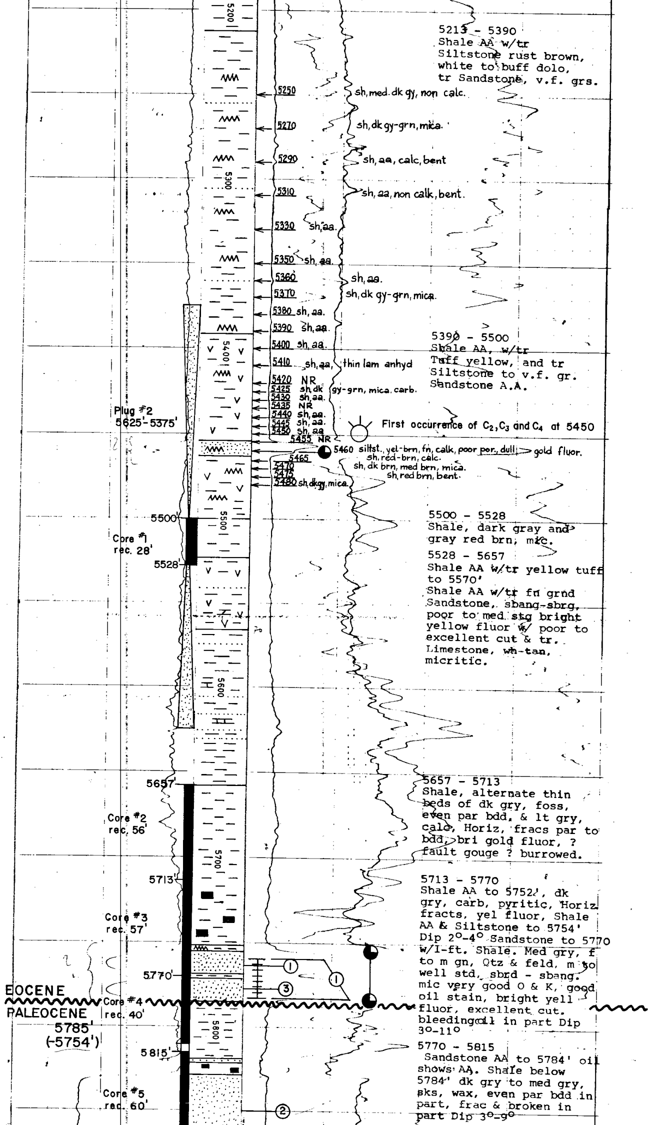


4659 - 4820
Shale, med gry w/
clay AA, tr white
Siltstone

4820 - 4910
Shale, med gry & w/
tr v.f. grs Sand to
Silt tr Pyrite, tr
Limestone, micritic,
med-gy.

4910 - 5040
Shale and Clay AA

5040 → 5213
Shale, med. to lt. gry,
firm w/tr Dolomite,
buff, microxin, silty



5213 - 5390
Shale AA w/tr
Siltstone rust brown,
white to buff dolo,
tr Sandstone, v.f. grs.

5390 - 5500
Shale AA, w/tr
Tuff yellow, and tr
Siltstone to v.f. gr.
Sandstone A.A.

5500 - 5528
Shale, dark gray and
gray red brn, mic.

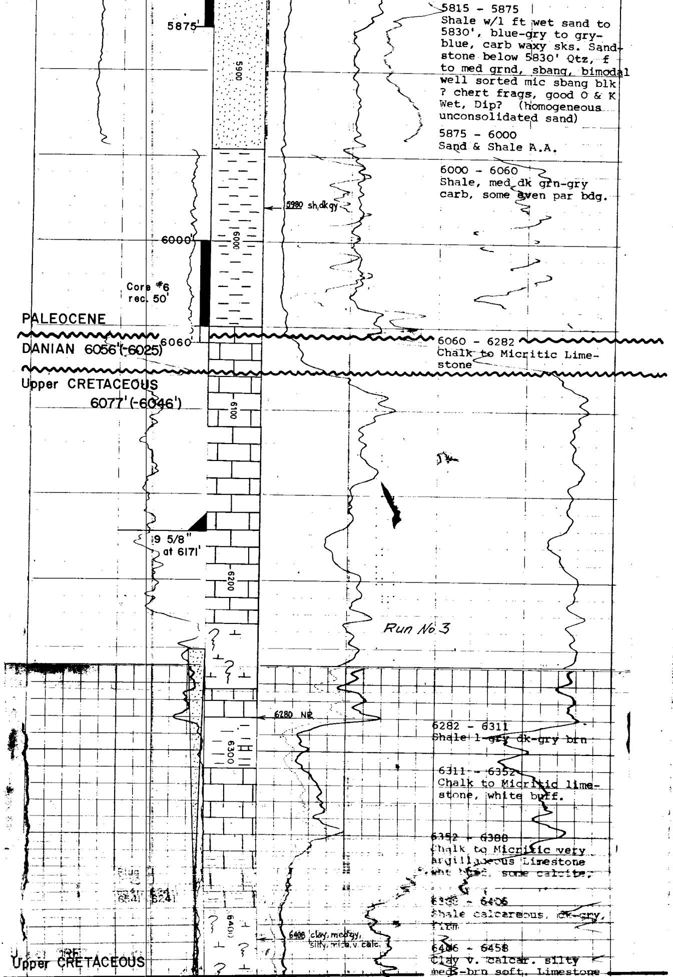
5528 - 5657
Shale AA w/tr yellow tuff
to 5570'
Shale AA w/tr fn grnd
Sandstone, sbang-sbrg,
poor to med stg bright
yellow fluor w/ poor to
excellent cut & tr.
Limestone, wh-tan,
micritic.

5657 - 5713
Shale, alternate thin
beds of dk gry, foss,
even par bdd, & lt gry,
calc, Horiz, fracs par to
bdd, bri gold fluor, ?
fault gouge ? burrowed.

5713 - 5770
Shale AA to 5752', dk
gry, carb, pyritic, Horiz.
fracts, yel fluor, Shale
AA & Siltstone to 5754'
Dip 2°-4° Sandstone to 5770
w/I-ft. Shale. Med gry, f
to m gn, Qtz & feld, m to
well std, sbrd - sbang.
mic very good O & K, good
oil stain, bright yell
fluor, excellent cut.
bleeding oil in part Dip
3°-11°

5770 - 5815
Sandstone AA to 5784' oil
shows AA. Shale below
5784' dk gry to med gry,
sks, wax, even par bdd in
part, frac & broken in
part Dip 3°-9°

RRB = 31'



5815 - 5875
Shale w/1 ft wet sand to 5830', blue-gry to gry-blue, carb waxy sks. Sandstone below 5830' Qtz, f to med grnd, sbang, bimodal well sorted mic sbang blk ? chert frags, good O & K Wet, Dip? (homogeneous unconsolidated sand)

5875 - 6000
Sand & Shale A.A.

6000 - 6060
Shale, med dk grn-gry carb, some even par bdg.

6060 - 6282
Chalk to Micritic Limestone

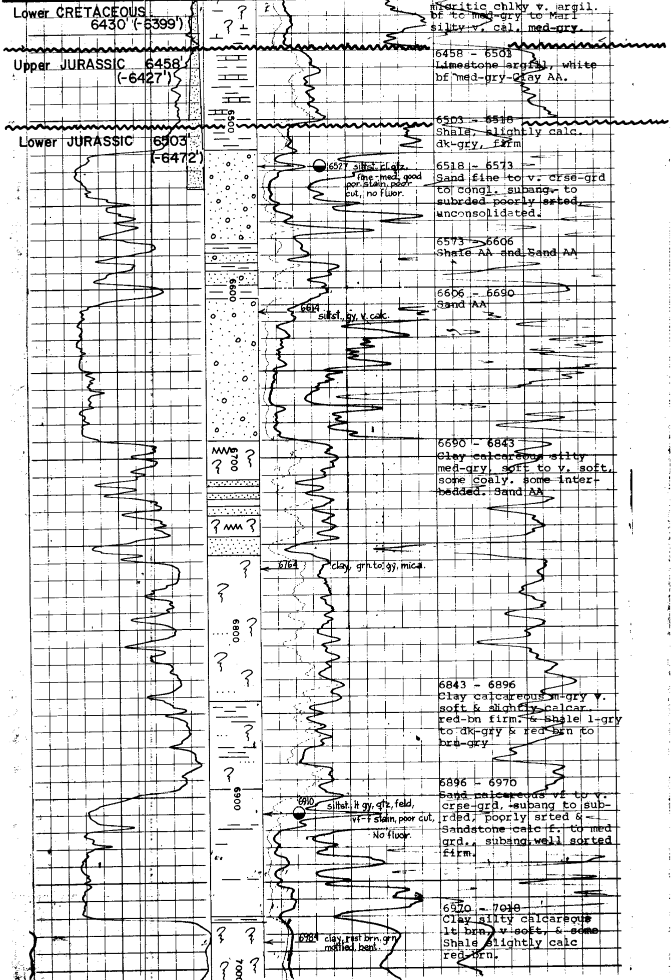
6282 - 6311
Shale l-gry dk-gry brn

6311 - 6352
Chalk to Micritic limestone, white buff.

6352 - 6388
Chalk to Micritic very argillaceous Limestone wht [illegible], some calcite,

6388 - 6406
Shale calcareous, dk-gry, firm

6406 - 6458
Clay v. calcar. silty med-brn soft. Limestone



micritic chlky v. argil. bf to med-gry to Marl silty v. cal. med-gry.

6458 - 6503
Limestone argill, white bf med-gry-Clay AA.

6503 - 6518
Shale, slightly calc. dk-gry, firm

6518 - 6573
Sand fine to v. crse-grd to congl. subang. to subrded poorly srted, unconsolidated.

6573 - 6606
Shale AA and Sand AA

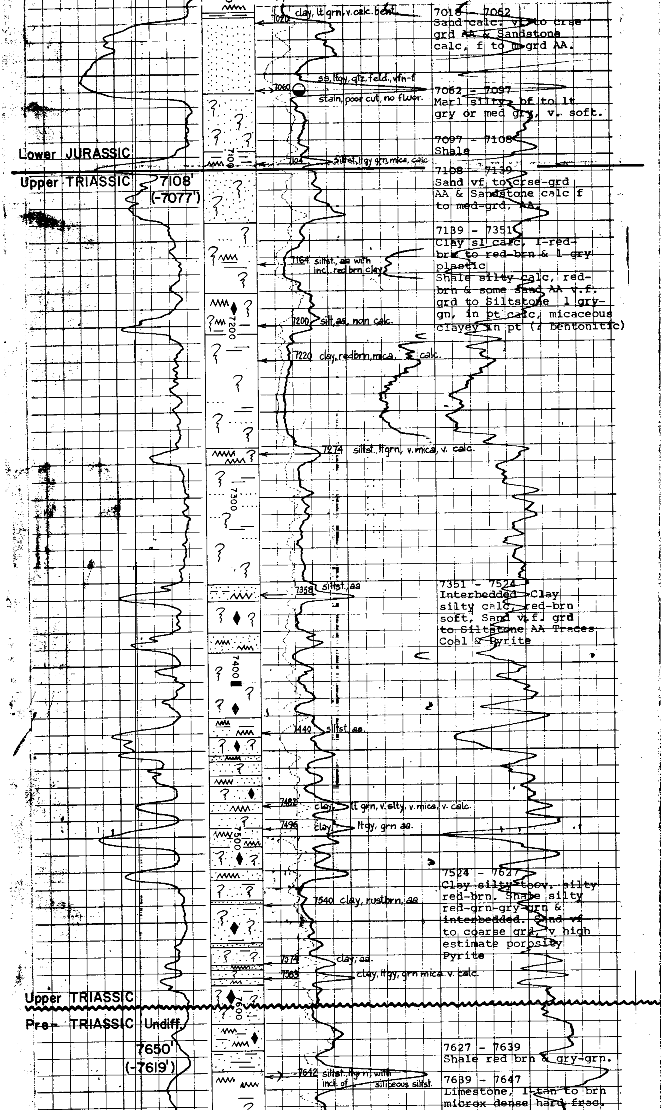
6606 - 6690
Sand AA

6690 - 6843
Clay calcareous silty med-gry, soft to v. soft, some coaly. some interbedded. Sand AA

6843 - 6896
Clay calcareous m-gry v. soft & slightly calcar. red-bn firm. & Shale l-gry to dk-gry & red brn to brn-gry

6896 - 6970
Sand calcareous vf to v. crse-grd, subang to subrded, poorly srted & Sandstone calc f. to med grd., subang, well sorted firm.

6970 - 7018
Clay silty calcareous lt brn, v soft, & some Shale slightly calc red-brn.



7018 - 7062
Sand calc. vf to crse grd AA & Sandstone calc, f to m grd AA.

7062 - 7097
Marl silty, bf to lt gry or med gry, v. soft.

7097 - 7108
Shale

7108 - 7139
Sand vf to crse-grd AA & Sandstone calc f to med-grd, AA.

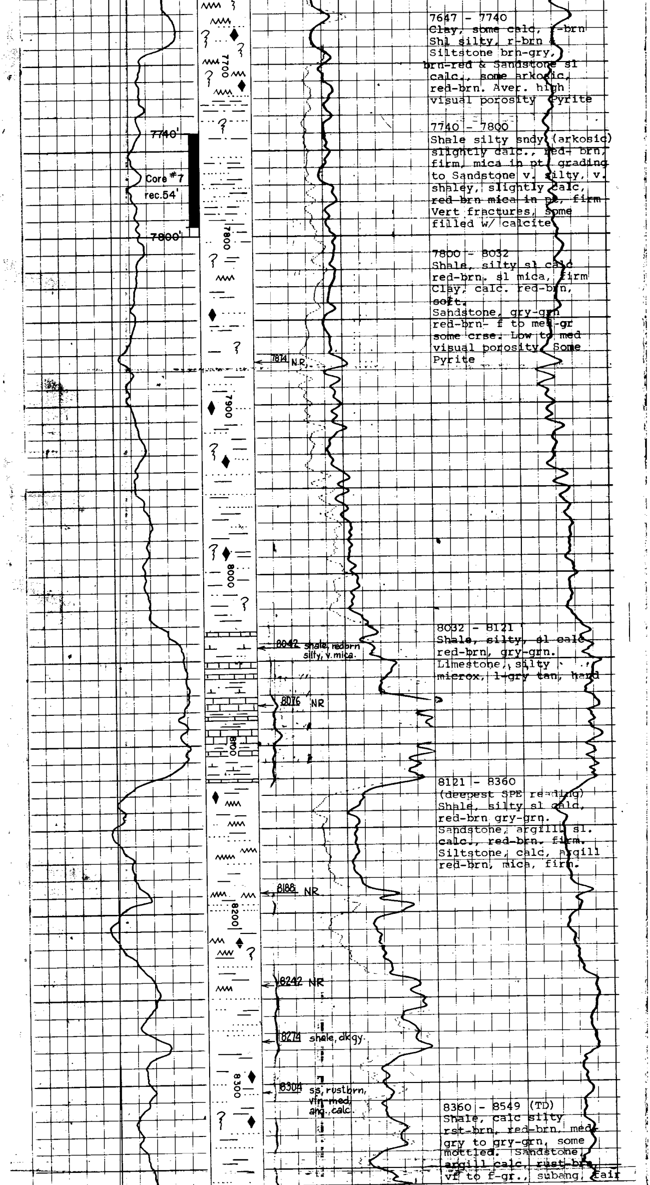
7139 - 7351
Clay sl calc, l-red-brn to red-brn & l gry plastic
Shale silty calc, red-brn & some Sand AA v.f. grd to Siltstone l gry-gn, in pt calc, micaceous clayey in pt (? bentonitic)

7351 - 7524
Interbedded Clay silty calc, red-brn soft, Sand v.f. grd to Siltstone AA Traces Coal & Pyrite

7524 - 7627
Clay silty to v. silty red-brn. Shale silty red-grn-gry-grn & interbedded. Sand vf to coarse grd, v high estimate porosity Pyrite

7627 - 7639
Shale red brn & gry-grn.

7639 - 7647
Limestone, l-tan to brn microx dense hard frac.



7647 - 7740
Clay, some calc, r-brn Shl silty, r-brn & Siltstone brn-gry, brn-red & Sandstone sl calc., some arkosic, red-brn. Aver. high visual porosity Pyrite

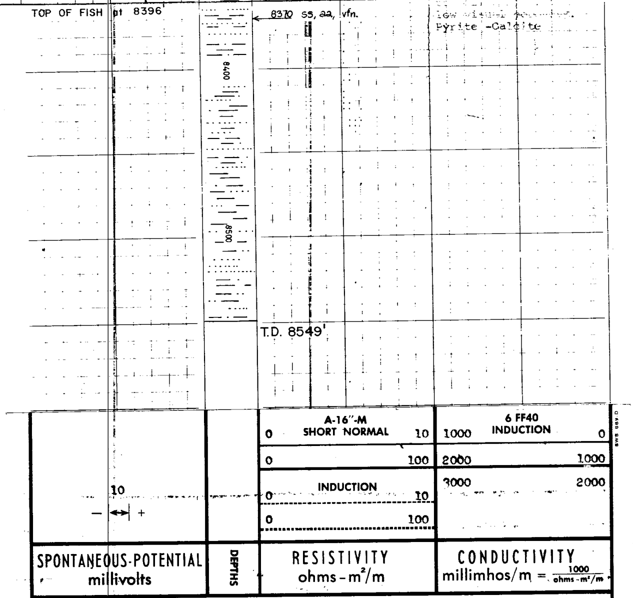
7740 - 7800
Shale silty sndy (arkosic) slightly calc., red- brn, firm, mica in pt. grading to Sandstone v. silty, v. shaley, slightly calc, red brn mica in pt, firm Vert fractures, some filled w/ calcite

7800 - 8032
Shale, silty sl calc red-brn. sl mica, firm Clay, calc. red-brn, soft.
Sandstone, gry-grn red-brn- f to med-gr some crse. Low to med visual porosity. Some Pyrite

8032 - 8121
Shale, silty, sl calc, red-brn, gry-grn.
Limestone, silty microx, l-gry tan, hard

8121 - 8360
(deepest SPE reading)
Shale, silty sl calc, red-brn gry-grn.
Sandstone, argill sl. calc., red-brn. firm.
Siltstone, calc, argill red-brn, mica, firm.

8360 - 8549 (TD)
Shale, calc silty rst-brn, red-brn, med gry to gry-grn, some mottled. Sandstone, argill calc, rust-brn, vf to f-gr., subang, fair



COMPANY ESSO Exploration Norway, Inc.
WELL 25/8-1
FIELD Wildcat
COUNTY Norway STATE North Sea

SCHL. FR 8360
SCHL. TD
DRLR TD 8395
Elev:
KB 31
DF 29.5
GL -421

25/8-1
FIT - TEST

No.	Depth	Test Results
Fit 1	5763	Recovered 7.1 cf gas, 8500 cc oil, 23° API at 60° F, 1500 cc water, GOR 133. Sampling time 25 minutes, sampling pressure 2400 psi, Final shut in pressure 2700 psi. Hydrostatic pressure 3450 psi.
Fit 2	5850	Recovered 5 gallons water (14,500 cc) and 500 cc mud. Sampling time 40 minutes. Sampling pressure 2850 psi. Final shut in pressure 2850 psi. Hydrostatic pressure 3700 psi.
Fit 3	5776	Recovered 13.3 cf gas, 16,500 cc oil, 20° API at 60° F, 500 cc mud, GOR 128. Sampling time 30 minutes, Sampling pressure 2700 psi, Final shut in pressure 2750 psi. Hydrostatic pressure 3600 psi.

PRODUCTION TEST

Production Test 5758 - 5782 - 4 flow periods

Flow test number	Clean up	1	2	3	4
Choke size	24/64	24/64	34/64	64/64	64/64
Flow Rate BOPD	751	902	1530	1990	2700
Flow Period - Hours	6.76	2.93	2.67	7.16	18.95
Oil Produced - BBLS	255	111	330	533	2000
Cumulative Oil Produced-BBLS	255	366	696	1229	3229
Final Surface Flowing Pressure-Psi	465	450	440	450	437
Final Surface Shut in Pressure-Psi	538	540	540	570	579
GOR - Ft^3/BBL	140	102	103	116	130
Oil Gravity API°	21	21	21	21	21
BS and W	TR-0.4	TR-0.2	TR-0.3	TR-0.4	TR-0.4
Separator Pressure or back Pressure at burner - Psi.	300	298	320	377	320