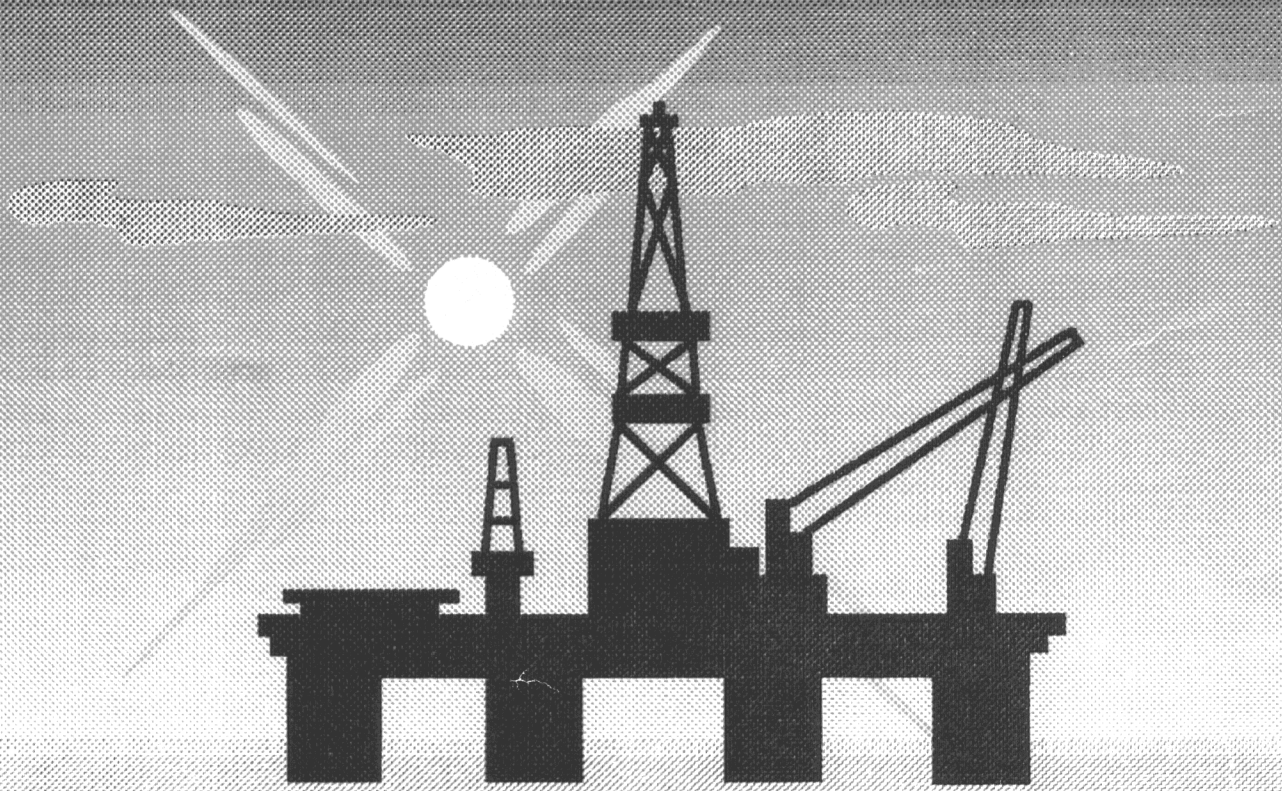
GEOLOGICAL COMPLETION REPORT



PL 126 WELL 6607/5-2

ESSO NORGE a.s

ESSO NORGE A.S

GEOLOGICAL COMPLETION REPORT

WELL 6607/5-2

Prepared by:

R.J. Lyons

R.V. Millen

Reviewed by:

K.H.I. Ledje

J.A. Ferrer

Approved by:

S. Horvik

explo\126ar01v.01e/abz

ESSO NORGE a.s

Geological Completion Report

PL126 - Well 6607/5-2

Distribution List

1. Norwegian Petroleum Directorate, Stavanger
2. Norwegian Petroleum Directorate, Stavanger
3. Statoil, Harstad
4. Statoil, Harstad
5. Mobil Exploration Norway Inc., Stavanger
6. Mobil Exploration Norway Inc., Stavanger
7. Enterprise, Stavanger
8. Esso Norge Exploration Manager
9. Esso Norge Operated Licenses Supervisor (Library)
10. EEC Affiliate Operations, Houston
11. ECI Field Drilling Manager, Houston
12. Esso Norge Drilling Manager, Stavanger

ESSO NORGE a.s

WELL 6607/5-2
PL 126

GEOLOGICAL COMPLETION REPORT

February 1992

ESSO NORGE a.s

Well 6607/5-2 Geological Completion Report

Table of contents

ESSO NORGE a.s

Well 6607/5-2 Geological Completion Report

FIGURES

1. GENERAL INFORMATION

1. GENERAL INFORMATION

1.1 Introduction

PL 126, Block 6607/5, was awarded to Esso, Statoil and Mobil on February 28, 1986 in phase B of the 10th concession round. The licensee's percentage share when awarded was:

Esso Norge a.s	35%	(operator)
Den norske stats oljeselskap a.s	50%	
Mobil Development Norge Inc.	15%	

On June 27, 1991 Esso received MPE approval to farm out interest to Mobil and Enterprise. The new interest percentages are:

Esso Norge a.s	5%	(operator)
Den norske stats oljeselskap a.s	50%	
Mobil Development Norge Inc.	25%	
Enterprise Oil Norge Ltd.	20%	

The license agreement commits the licensees to drill two exploration wells into rocks of Triassic age or to 4,500 m, to test possible Mesozoic prospects.

The first well, 6607/5-1, reached a TD of 3817 m RKB (3805 m TVD) on August 30, 1987. It terminated in rocks of Late Cretaceous (Cenomanian) age.
The second well, 6607/5-2, was drilled to a TD of 4684 m RKB. It terminated in a dolerite intrusive. Rock above the dolerite is dated as Late Cretaceous (Turonian to Coniacian).

1.2 Summary of well data

Operator:	Esso	5%
Partner:	Statoill	50%
	Mobil	25%
	Enterprise	20%
Block:	6607/5	
Licence:	PL 126	
Prospect:	AMUNDSEN II	
Well Classification:	Exploration well	
Objective:	Middle - Lower Jurassic sandstones (Fangst Group, Tilje Formation)	
Location:	Seismic line NRGS--84--470, SP 1005 Latitude: 66 deg. 41' 3.38" N Longitude: 07 deg. 21' 22 52" E UTM: 7 397 329.8 N 427 403.5 E UTM zone 32	
Rig:	Dyvi Stena	
Rkb Elevation:	25 m	
Water Depth:	523 m	
Spud Date:	August 7, 1991	
Date TD Reached:	October 17, 1991	
Total Depth (Driller)	4684 m	
Age at Total Depth:	Turonian - Coniacian	
Rig Released:	November 17, 1991	
Status:	Plugged and Abandoned as Dry Hole	

1.3 Summary of well programs

Mud Program

Sea floor - 1235 m Rkb	Sea water/ Gel
1223 - 2215 m Rkb	KCL / Polymer
2200 - 3702 m Rkb	KCL / Polymer
3690 - 4684 m Rkb	Saturated KCL / Polymer

Casing Program

30" casing shoe at	584 m Rkb
20" casing shoe at	1223 m Rkb
13 3/8" casing shoe at	2200 m Rkb
9 5/8" casing shoe at	3690 m Rkb

Conventional Coring

Core # 1, 4161 - 4188.5 (m Rkb), Rec. 27.23m, 99%.

Sidewall Coring

Run 1	Hole size:	17 1/2"
	Shot:	60
	Recovered:	39 (65% recovery)
Run 2	Hole size:	12 1/4"
	Shot:	60
	Recovered:	40 (67% recovery)
Run 3	Hole size:	8 1/2"
	Shot:	120
	Recovered:	60 (50% recovery)

SUMMARY OF WIRELINE LOGGING

LOG	RUN #	DATE	DEPTH (m RKB)
DLL-MSFL/LSS/CNL-LDT/GR/SP/CAL	1 a	Aug. 21, 91	2200 - 1222.7
SWC	1 b	Aug. 21, 91	2195 - 1240
DLL-MSFL/LSS/CNL-LDT/GR/SP/CAL	2 a	Sept. 14, 91	3700 - 2200
DISFL/GR/SP/CAL	2 b	Sept. 15, 91	3698 - 2200
SWC	2 c	Sept. 15, 91	3680 - 2234
VSP	2 d	Oct. 11, 91	4544 - 3600
DLL/ARRAY SONIC/GR/SP/CAL	3 a	Oct. 21, 91	4667 - 3690
DLL-MSFL/GR/SP/CAL	3 b	Oct. 21, 91	4684 - 3690
CNL-LDT/GR/SP/CAL	3 c	Oct. 22, 91	4684 - 3690
RFT	3 d	Oct. 22, 91	4261,5 - 3752
FMS-GR (Dip data)	3 e	Oct. 23, 91	4684 - 3690
(Image data)	3 f	Oct. 23, 91	4334 - 4149, 3870 - 3727
SWC	3 g	Oct. 23, 91	4665 - 3730
CBL	3 h	Oct. 23, 91	3681 - 2300
SWC	3 i	Oct. 23, 91	4585 - 4190
SWC	3 j	Oct. 24, 91	4190 - 3751

d:\amundsen\sum1

FIGURE 1

WELL SUMMARY

Coordinates:	66 41' 3.36" N 07 21' 22".52 E	Spud date:	Aug. 7, 1991	WELL:	6607/5-2
		T.D. reached:	Oct. 17, 1991		
UTM:	7397329.8 N 427403.5 E	Rig Released:	Nov. 17, 1991		
Seismic Line:	NRGS-84-470, SP 1005	Formation at T.D.:	KVITNOS	COUNTRY	
		Age at T.D.:	Coniacian - Turonian		
Rig:	Dyvi Stena				
RKB:	25	T.D. Driller	4684 m		NORWAY
Water Depth:	523m	T.D. Logger:	4684 m		
Distance from Land:	250 km.	Drilling Days:	105		

OPERATOR	ESSO NORGE A.S.	LICENCE 126	OWNED BY (%)	Esso (5), Statoil (50), Mobil (25) Enterprise (20)

Classification: Exploration well, 2nd commitment.

Objective: Middle - Late Jurassic Sandstones.

Trap type: Tilted fault block.

RESULTS: The well encountered Late Cretaceous, water wet sandstones.

	3748 - 3766m	4167 - 4308m
GROSS THICKNESS:	20 m	141 m
NET SAND THICKNESS:	10.8 m	48 m
NET/GROSS THICKNESS:	0.54	.34
AVERAGE POROSITY:	14.8%	15.4%
WATER SATURATION:	100%	100%

GEOLOGICAL EVALUATION SERVICES

WELL STATUS: PLUGGED AND ABANDONNED, DRYHOLE

Mudlogging:	GEOSERVICES
Wireline Logging:	SCHLUMBERGER
Velocity Survey:	READ
MWD:	ANADRILL
Biostratigraphy:	STRATLAB

CASING

30" @ 584 m
20" @ 1223 m
13 3/8" @ 2200 m
9 5/8" @ 3690 m

CORES

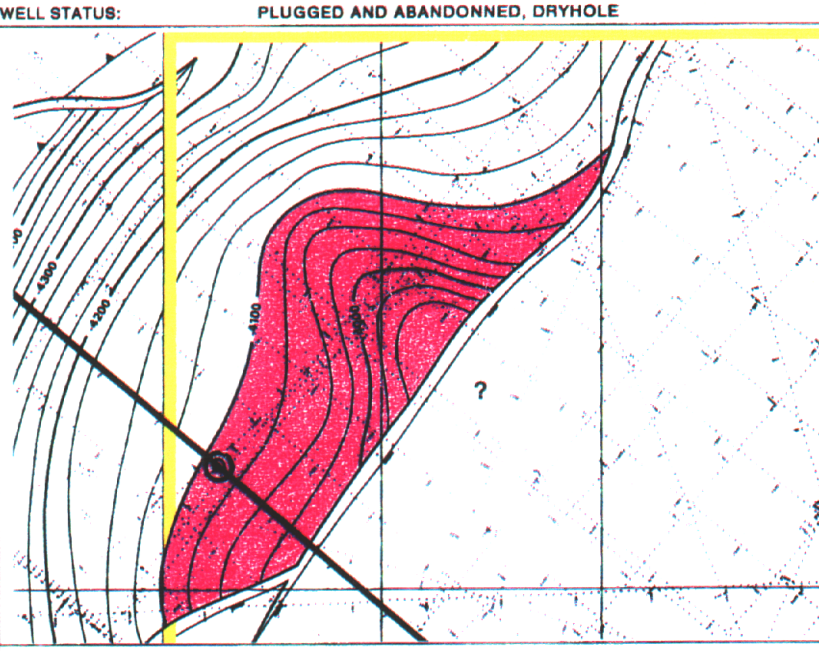
1 4161 - 4186.5m
Rec. 27.23m (99%)
Sidetrack

GAS RECORD

1340 - 2215m
2 - 180 units
(.04 - 3.6%)
C1 - C2

2215 - 3225m
2 - 8 units
(.04 - .16%)
C1 - C2

3225 - 4684m
1 - 22 units
(.02 - .44%)
C1 - C3



LOGS

DLL-MSFL/LSS/LDT/GR/SP	1a	1223 - 2200
SWC	1b	1240 - 2195
DLL-MSFL/LSS/LDT/GR/SP	2a	2200 - 3700
DISFL/GR/SP/CAL	2b	2200 - 3698
SWC	2c	2234 - 3680
VSP	2d	3600 - 4544
DLL/ARRAY/GR/SP/CAL	3a	3690 - 4667
DLL-MSFL/GR/SP	3b	3690 - 4684
CNL-LDT/GR/SP/CAL	3c	3690 - 4684
RFT	3d	3752 - 4262
FMS/GR (DIP)	3e	3690 - 4684
FMS/GR (IMAGE)	3f	4149 - 3870
SWC	3g	3730 - 4685
CBL	3h	2300 - 3681
SWC	3i	4190 - 4585
SWC	3j	3751 - 4190

OIL SHOWS

NO SHOWS IN SANDSTONES

2545 - 2732m: CLYST: LOCAL WEAK YELLOW FLUORESCENCE, YELLOW/WHITE CUT.

ESSO NORGE a.s.

FIGURE 2

1.4 Contractors services and special studies

Drilling Rig	: Dyvi Stena
Rig Positioning	: Geoteam a.s
Mud Contractor	: Anchor
Mud Logging	: Geoservices
Wireline Logging	: Schlumberger
MWD	: Anadrill
Velocity Survey	: Read
Core Analysis	: Geco a.s
Biostratigraphy	: Esso Rep - Bordeaux
	: Stratlab a.s
Geochemistry	: Simon Robertson Ltd.
Dolerite dating	: Geotrack International
Core Petrography/Diagenesis	: Rogalands Research
Clay Analysis of 2 SWC's	: Westlab
Magnetic Susceptibility	: CB - Magneto
FMS Processing/Interpretation	: Z & S Geologi a.s

2. GEOLOGICAL REPORT

2. GEOLOGICAL REPORT

Block 6607/5 was awarded February 28, 1986 in the 10th concession round, phase B. The block is located in the Nordland II area on the Bodø High (figure 3). The Bodø High is a geological province separated from the Halten and Dønn Terrace by the deep Træn Basin to the east of Block 6607/5.The water depth in Block 6607/5 ranges from 365 m in the southeast to 700 m in the northwestern part of the block.

The drilling commitment in the PL126 License Agreement is two wildcat wells drilled into rocks of Triassic age or to 4500 m.

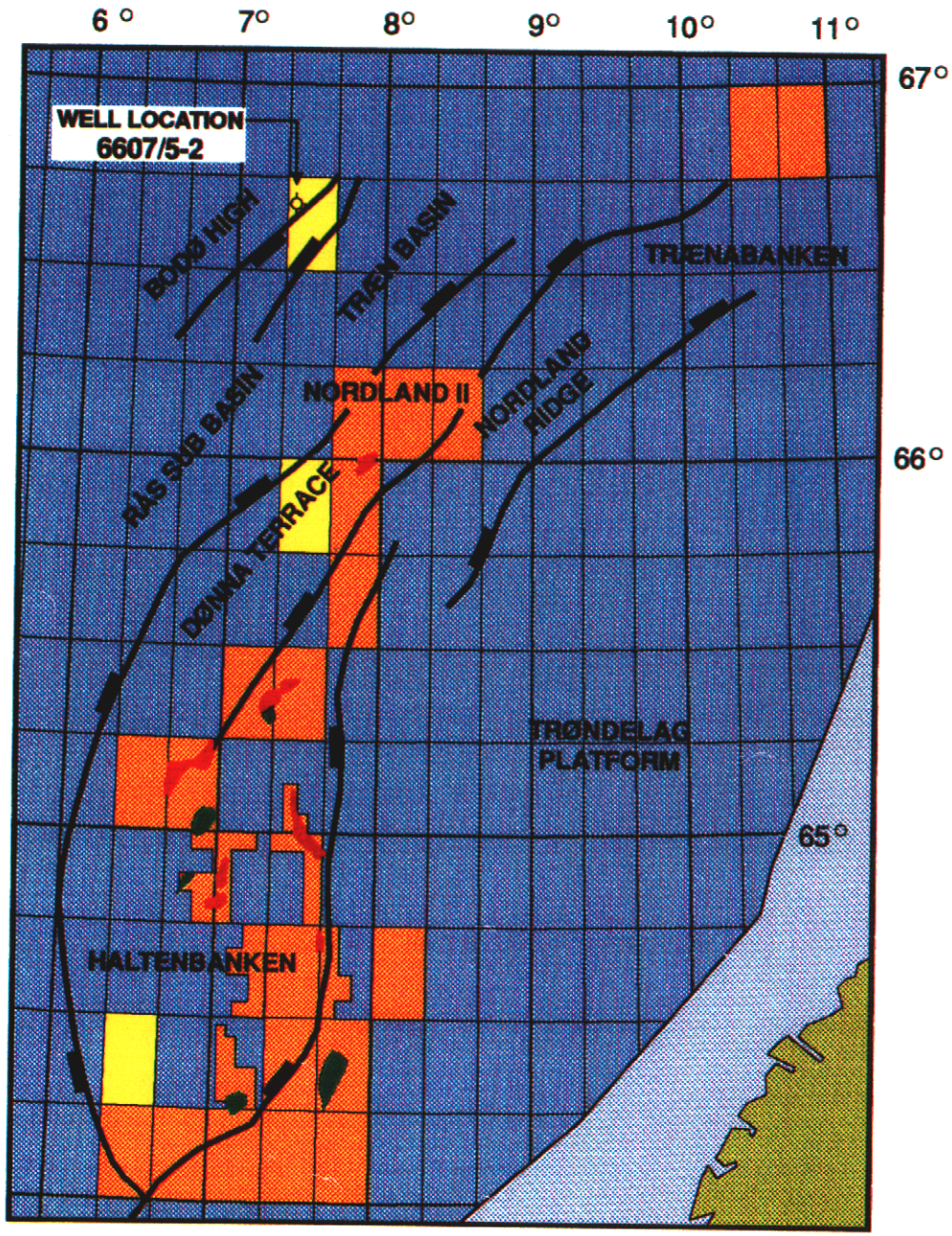
The first well in PL126, Well 6607/5-1, had the Middle-Early Jurassic shallow marine sandstones of the Fangst Group and Tilje Formation as the primary objective. The well did not penetrate the primary but terminated in rocks of Late Cretaceous age (interpreted at the time of drilling as Triassic). The well reached a total depth of 3817 m RKB and was abandoned as a dry hole.

2.1 Pre-drill objective

The objective of Well 6607/5-2 was to test the Amundsen II prospect, a NE-SW oriented tilted fault block (see figure 4). The primary reservoir objective was Middle-Early Jurassic shallow marine sandstones.

The primary risk was that the sequence mapped as Jurassic was actually Cretaceous and that the Jurassic was either absent or too deep for any economic possibility. Adequacy of source rock within the drainage area and structural closure to the north were also major risks. Fault leakage and the presence of gas instead of oil were secondary risks.

Well 6607/5-2 was drilled on seismic line NRGS-84-470 , s.p. 1005 and was the second well of a two well commitment on this block.



ESSO INTEREST

AWARDED BLOCKS

OIL FIELDS

GAS FIELDS

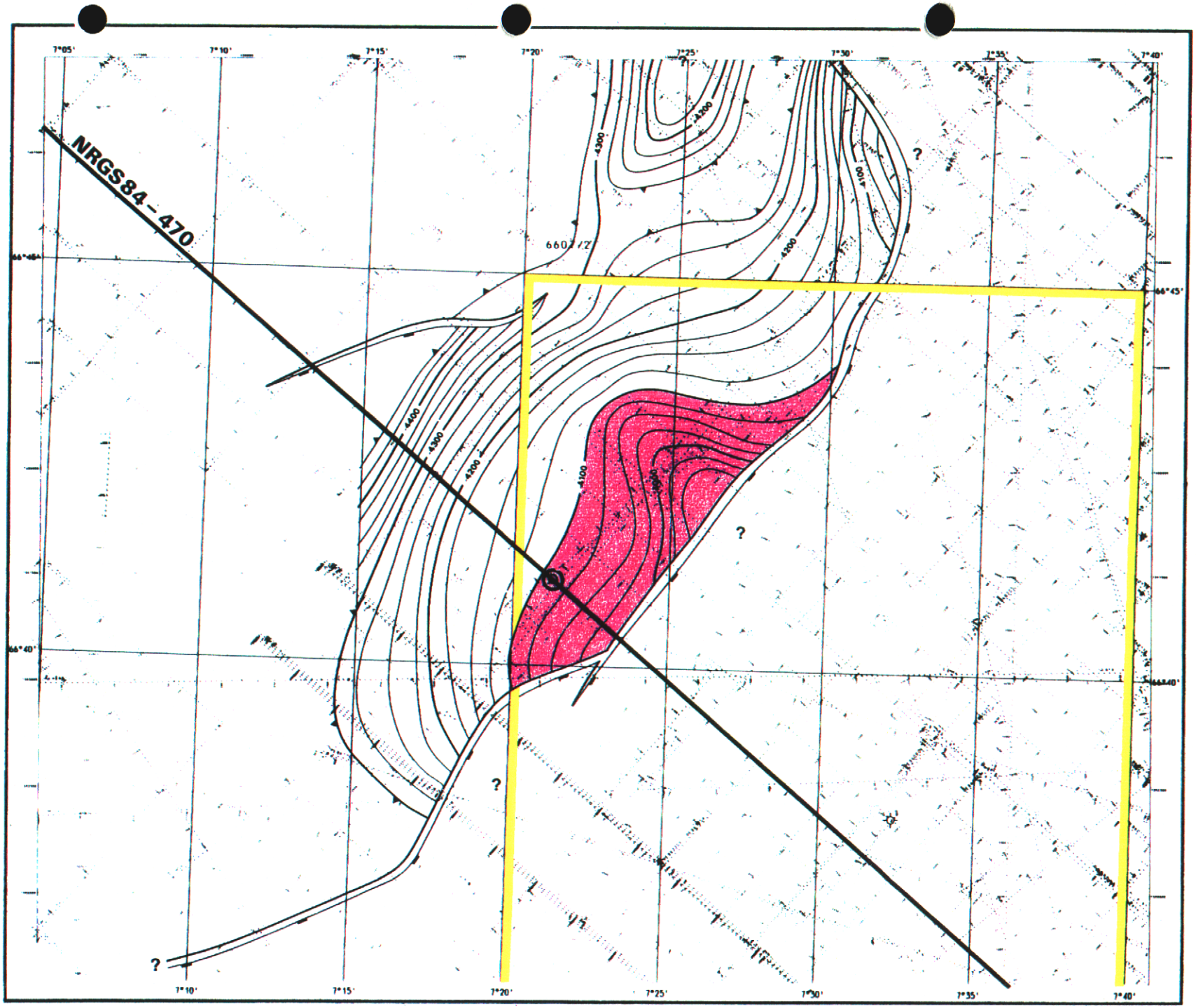
0 100km

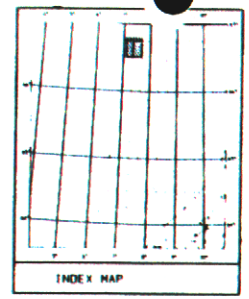
ESSO NORGE a.s

NORWEGIAN SEA

5.91 - EX0406B

FIGURE 3





- Gjennomsnittshastigheter fra brønn 6607/5-1 er benyttet
- Strukturelt spillpunkt; -4275m

0 1 km 5
1 : 50000

Statoil
Norge
Nordland II
6607/5
PL126
Strukturkonturkart, dyp
"Nær bunn krit"?

FIGURE 4

2.2 Results of Well 6607/5-2

Well 6607/5-2 was spudded on August 7, 1991 and plugged and abandoned as a dry hole October 16, 1991. It reached a total depth of 4684 m RKB in a dolerite intrusive. The sediments above the dolerite are of Late Cretaceous age (Turonian to Coniacian).

The well did not penetrate the primary objective of Middle-Early Jurassic sandstones. The seismic reflectors interpreted as Jurassic are actually Cretaceous. This was considered to be the primary risk of the well from the start. Well 6607/5-2 was the second of a two well license commitment. On October 30, 1991 the NPD confirmed that this well fulfilled the PL126 drilling commitment.

Two Upper Cretaceous sandstone reservoir intervals (3748 - 3768 and 4167 - 4308 m) were encountered. Cutting samples indicated poor reservoir quality and since no shows were present, the well was drilled to TD. After TD was reached the well was sidetracked to obtain a core in the lower sandstone for sedimentological and diagenetic studies. Shows are not present in the core, and core analysis determines the permeability to be very poor. Wireline log interpretation indicates both sandstones to be wet. It is possible that both sandstones have been altered by two dolerite intrusives, the first from 3793 - 3885 and the second from 4642 to TD at 4684 m.

Minor fluorescence and cut were observed in five sidewall cores between 2564.5 and 2732.5 m. Weak, scattered shows were also present in drill cutting samples within this interval. In all cases the lithology consists of non-reservoir rock (claystone or argillaceous limestone).

Geochemical analysis indicates that the sediments in this well are poor source rocks (.23 - 1.35 % TOC). The well section is immature for hydrocarbon generation to about 3300 m and early mature for oil from 3300 to about 3600 m. There is a rapid transition from early maturity above 3600 m to post maturity towards the top of the first dolerite intrusive (3793 - 3885 m). Sediments in the interval 3700 to 4642 are over mature for oil.

The prognosed oil source rock of Upper Jurassic age and the mixed oil and gas prone source rock of Lower Jurassic age were not penetrated.

WELL SUMMARY CHART

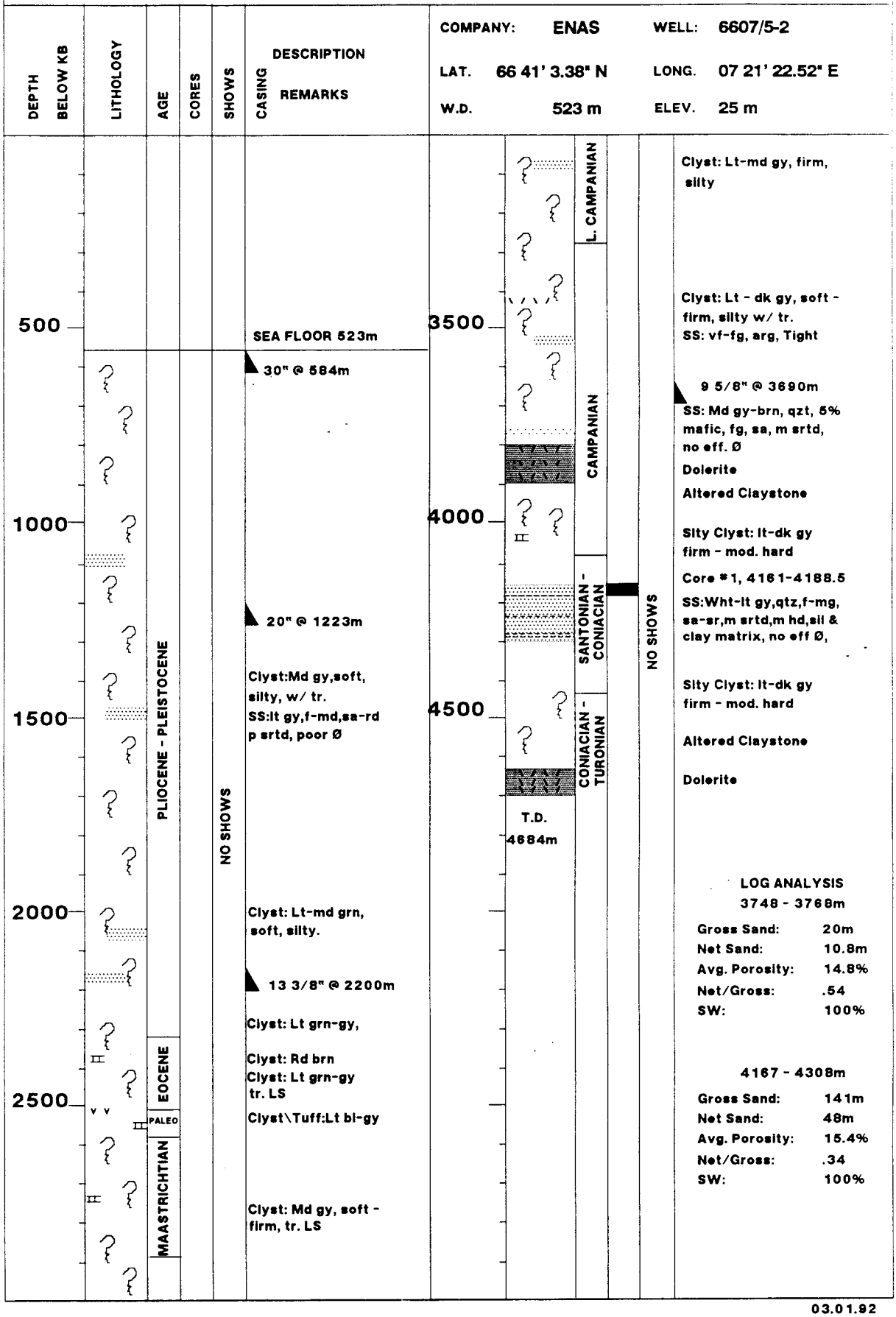


FIGURE 5

2.3 Biostratigraphy

The biostratigraphic analysis of well 6607/5-2 was performed by Stratlab and by Esso Rep.

The analysis is based on cutting samples, sidewall cores and conventional core samples.

Figure 6 shows a summary of the biostratigraphic breakdown.

BIOSTRATIGRAPHIC SUMMARY 6607/5-2

ESSO REP TOPS		STRATLAB TOPS	
DEPTH (m RKB)	AGE	DEPTH (m RKB)	AGE
1250 - 2304	Pleistocene - Pliocene	1250 - 2304	Late ? Pliocene
2330	Middle Eocene,lower part,Palynozone V B	2320 - 2340	Middle Eocene
2350	Early Eocene,Palynozone IV		
2370 - 2377.5	Early Eocene,Palynozone III,upper part	2350 - 2380	Early Eocene
2421 - 2510	Lowermost Eocene,Palynozone III,lower part	2390 - 2600	Late Paleocene
2525	Late Paleocene,Palynozone II		
2538	Late Paleocene,Palynozone II/IB		
2540 - 2570	Late Paleocene,Palynozone IB		
2585	Early Late Paleocene - Danian,probably Danian		
2595	Maastrichtian		
2605 - 2805.5	Early Maastrichtian	2605 - 2870	Early Paleocene
2865 - 3268.5	Late Campanian	2875 - 3265	Late Maastrichtian
3525.5 - 4000	Campanian	3268.5 - 3590	Early Maastrichtian - Late Campanian
		3600 - 3981	Middle - Late Campanian
		3999 - 4095	Middle Campanian
4090 - 4310	Early Campanian (lower part?) - Coniacian	4101 - 4420	Early Campanian
4310 - 4398	Early Campanian (lower part?) - Late Turonian		
4441	Santonian - Turonian	4444 - 4641	Santonian - Coniacian - Turonian
4444 - 4566	Santonian - Turonian	4641 - 4684	Undated Intrusive

FIGURE 6

2.4 Lithostratigraphy

Geological Evaluation and Stratigraphic Description

A lithostratigraphic breakdown of the well based on descriptions of the cuttings, sidewall cores and core, as well as the wireline logs has been performed.

A summary of the stratigraphy is on figure 7. A summary log with the formation boundaries, seismic markers and interpreted results from the biostratigraphic analysis is shown in figure 8. All depths are loggers depth in m RKB.

Cretaceous Sequence - Shetland Group

Depth: 4684 - 2588 m
Thickness: 2096+ m
Age: Turonian - Maastrichtian

The Cretaceous sequence penetrated in this well consists only of the the Shetland Group. The formation tops are based on biostratigraphy, lithology and wireline logs. The base of the Shetland Group was not penetrated.

Kvitnos Formation

Depth: 4684 - 4424 (?)
Thickness: 260 m
Age: Turonian - Coniacian

The Kvitnos formation has been subdivided into several zones based primarily on lithology.

4684 - 4642 m

The well was terminated at 4684 m in a dolerite sill, the top of which is at 4642 m. The top of the sill is marked by a distinct decrease in GR and higher density and resistivity values. The travel times are faster. The sill consists of black dolerite with abundant white plagioclase, quartz (decreasing percentage with depth), and kaolin. The dolerite is very hard and brittle with a fine to medium crystal size.

4642 - 4550 m

Indications of rock alteration can be seen on the logs from approximately 4550 m or 92 m above the top of the sill. The closer to the sill the more pronounced the effects. The density gradually increases while the travel times become faster. Resistivity gradually increases as well as becoming very erratic.

Above the sill the lithology is predominantly claystone with siltstone and thin sandstone interbeds. The samples show signs of alteration from approximately 4550 m. Cavings from the altered zone above and below the first sill obscure where the first visible alteration occurs. The predominantly grey claystones and siltstones gradually become harder and denser with increasing amounts of white clay mottling and inclusions. Closer to the sill plagioclase crystals are present and round, grey to black spots can be seen on the claystones. The sands grade up from siltstone and are argillaceous, becoming harder and brittle closer to the sill.

4550 - 4424 (?) m

The top of the Kvitnos formation is approximate because of generally poor biostratigraphical assemblages within a predominantly claystone lithology. The top has been picked on logs on the basis of an increase in resistivity and decrease in gamma-ray.

The section from 4550 m to 4424 (?) m consists primarily of claystone with siltstone and occasional thin argillaceous sandstone stringers. The claystone is light to dark grey and also grey - brown, slightly to very silty, soft to firm, micropyritic in part and slightly carbonaceous in part. It is occasionally slightly calcareous and is micromicaceous and glauconitic in part.

The siltstone in this interval is light to dark grey and medium grey - brown. It is very argillaceous, occasionally grades to very fine grained sandstone and is calcareous in part.

The sandstone is white to medium grey and consists predominantly of very fine to medium quartz grains in a siliceous/argillaceous matrix. It is generally hard with no visible porosity and there are no shows. Glauconite and kaolin are common, some carbonaceous material is present and the sands are occasionally calcareous/dolomitic in part. Loose quartz grains are present throughout the interval and are very fine to fine and occasionally medium to coarse.

Minor amounts of light brown microcrystalline limestone are present in the samples. It is dolomitic in part, hard and occasionally sucrosic.

Nise Formation

Depth: 4424 (?) - 4075 (?) m
Thickness: 349 m (?)
Age: Coniacian - Santonian

The Nise formation has been subdivided into several zones based on lithology.

4424 (?) - 4308 m

This interval is similar to the lithology at the top of the Kvitnos and consists primarily of light to dark grey and grey-brown claystone. Thin interbeds of siltstone and argillaceous sandstone are also present along with trace amounts of limestone.

4308 - 4167 m

This interval consists of sandstone with thin argillaceous/claystone interbeds which become slightly thicker and more numerous towards the base. The log response shows the cleanest sand to be from 4171.5 to 4181.5. Resistivity is relatively high (average of 6 - 7 ohms) throughout the interval and the best density porosities are approximately 19 %. The well was sidetracked from 3998 m to obtain a core, which was cut from 4161 to 4188.5 m (drillers depth). Conventional core analysis shows the best porosity to be 20.4 % at 4163.65 m. The horizontal permeability is very poor, with the best (1.34 mD) at 4185 m.

The sandstone is white to dark grey, quartzitic, and predominantly fine grained grading occasionally to medium with floating coarse grains. The grain size becomes very fine to fine towards the base of the sand and at many of the claystone contacts. The sandstone is sub-angular to sub-rounded, moderately sorted, moderately hard to hard and cemented with silica and clay (kaolin plugging of the pores can be seen in both the samples and the core). There is abundant glauconite, common muscovite and pyrite and also carbonaceous material. There is none to poor visible porosity (due to clay plugging) and there are no shows. Abundant burrows are present in the core.

The claystone and argillaceous interbeds are light to dark grey, occasionally black, silty in part and arenaceous in part. In the core the claystone is lightly to heavily bioturbated with common burrows. Sandstone lenses are also common with occasional floating medium to coarse quartz grains. The claystone is carbonaceous in part with glauconite and pyrite.

This sand is interpreted as a deep water turbidite / gravity flow. Numerous dish structures are evidence of rapid deposition. The environment is of relatively low energy with fossil evidence of Zoophycos. Planelites burrows are common; however they are found in both deep and shallow water and are not indicative of a specific marine environment.

4167 - 4075 (?) m

This is a relatively uniform section of claystone and siltstone with very minor sandstone and limestone. The section is increasingly silty towards the base. The top of the Nise formation is approximate because, like the Kvitnos, the biostratigraphical assemblage is poor. The top is picked on logs on the basis of an increase in resistivity and decrease in gamma-ray. The gamma-ray and resistivity also appear to show a series of minor, cyclical, sea level changes starting at 4075 m.

The claystone is light to medium grey brown, slightly to very silty, soft to firm, micromicaceous, and occasionally calcareous. It contains minor amounts of carbonaceous material with glauconite and kaolin. The siltstone is buff to medium grey brown, mottled in part, argillaceous, soft to firm and is calcareous in part. It occasionally grades into a very fine grained sandstone.

The sandstone is very minor and is white to light brown, quartzitic, very fine grained, argillaceous and tight with no shows. The limestone is buff to medium grey brown, microcrystalline, moderately hard and argillaceous.

Springar Formation

Depth: 4075 (?) - 2588 m
Thickness: 1487 m (?)
Age: Campanian - Maastrichtian

The Springar Formation has been divided into several zones based on lithology.

4075 (?) - 3955 m

This is a uniform section of claystone similar to the top section of the Nise formation. The claystone is light to medium grey brown and soft to firm. There are occasional, thin, siltstone and argillaceous sandstone stringers. Thin, buff to medium grey - brown limestone beds are also present. There are no shows.

3955 - 3885 m

The rock in this interval has been altered by the sill. The resistivity log decreases gradually with depth away from the sill while the sonic travel times gradually slow. The base of the alteration is difficult to pick in samples because of abundant cavings; however the lithology appears to be basically unaltered below 3955.

This interval consists of altered claystone which is white to light grey, occasionally blue grey, microcrystalline, soft to hard and contains numerous black, round spots/specks. It is silty and calcareous in part. The claystone gradually becomes light to dark grey, silty and predominantly soft. Disseminated pyrite is common.

3885 - 3793 m

This is the upper sill and consists of black dolerite with abundant white plagioclase. As in the lower sill quartz is present at the top and decreases in percentage with depth. The dolerite is very hard and brittle with common kaolin and calcite veining. Ferro-Magnesium minerals are also present as in the lower sill (small pieces are occasionally magnetic). Evidence of fracturing was seen where two gas peaks occured near the top of the sill.

The log response in this sill was basically the same as in the lower sill. The gamma ray decreased sharply at the top and coincided with very high resitivities. The density increased sharply at the top while the sonic travel times became faster.

3793 - 3768 m

This zone above the sill is altered. The resistivities are very high and erratic while the sonic travel times are faster. The lithology consists of claystone and siltstone which becomes more altered closer to the sill. The claystone predominates at the top of the interval and alters from a dark grey to a mottled white to light grey. It is soft to firm and increasingly silty closer to the sill. Calcite veining and dark grey round spots are also present. The siltstone grades up from claystone and is mottled white to light grey, occasionally dark grey and soft to hard. Numerous round, dark grey spots are present. Directly overlying the sill, quartz, dolerite grains and kaolin appear to be bedded along with the siltstone.

3768 - 3748 m

This is interpreted to be a Campanian sandstone. Several thin (< 1 m) argillaceous beds within the sandstone are indicated on logs. The resistivity varies within the sand but is highest in the top 5 meters. The density porosity averages 17 % with the sand becoming tighter towards the base.

This sandstone is white to medium grey, quartzitic, predominantly fine to medium grained, occasionally very fine and coarse grained, and poorly to moderately sorted. It is cemented with silica, argillaceous and calcareous cement. Pyrite and argillite grains are common. There is no visible or effective porosity and there are no shows. Black mafic grains that are magnetic in part are described in a sidewall core at 3751 m.

3748 - 2588 m

This is a relatively uniform section of claystone with minor thin stringers of sandstone, limestone and dolomite. The top of this interval is picked on logs on the basis of a decrease in resistivity and density and an increase in gamma-ray.

The claystone is predominantly light to medium grey. Locally it can be dark grey, brownish grey and greenish grey. It is soft to firm, slightly to very silty, occasionally calcareous and contains varying amounts of glauconite, pyrite and carbonaceous material. Slow white cuts were observed in claystone sidewall cores; at 2732.5, 2700 and 2591.5 m. No changes in resistivity or mud gas are present on the logs at these depths.

The sandstones in this interval are thin, light grey, and very fine to medium grained. They are cemented with silica, calcite and argillaceous cement and have no visible porosity.

Thin, discontinuous limestone and dolomite stringers are present. They are buff to medium brown, hard, tight, microcrystalline and occasionally sucrosic.

From 3420.5 to 3422 a thin sill is present. The log response is similar to the thick sills below where the gamma ray and density decrease sharply along with high resistivity values. The sonic travel times become faster. The rock is described as black, hard, altered dolerite. It contains disseminated pyrite, kaolin and calcite crystals.

Tertiary - Quaternary Sequence

Depth: 2588 - 548 m
Thickness: 2040
Age: Paleocene - Pleistocene

The Tertiary - Quaternary sequence has been subdivided into the Rogaland, Hordaland and Nordland groups. Their boundaries are based on biostratigraphy, lithology and wireline log interpretation.

Rogaland Group - Tare Formation

Depth: 2588 - 2381
Thickness: 207
Age: Thanetian - Ypresian

The Rogaland Group is interpreted to consist only of the Tare Formation. As in the 6607/5-1 well the Tang Formation is absent.

The top of the Tare is picked on biostratigraphic interpretation as well as an increase in the resistivity response. There is also a decrease in the gamma-ray at the top.

The lithology consists of claystone that is predominantly light grey to light grey green. It is also occasionally buff to light brown. It is generally firm, silty in part and slightly calcareous in part. Pyrite, glauconite and mica are present. From 2545 to 2570 m the claystone in cuttings has dull to bright yellow fluoresecence giving a slow milky white cut.

Limestone stringers that are off-white to buff in color are scattered throughout the interval . They are soft to hard, micritic and dolomitic in part. Sidewall cores at 2565.5 and 2564.5 contained argillaceous limestone with yellow fluorescence giving a yellow white cut. A small 1 m resistivity spike is present on the logs at 2564 m. A small gas peak was received at this depth while drilling.

From 2515 to 2525 m interbeds of light blue-grey tuffaceous claystone are present. They are also an off white color in part and calcareous in part.

Hordaland Group - Brygge Formation

Depth: 2381 - 2317
Thickness: 64 m
Age: Ypresian

The Brygge Formation was not present in the 6607/5-1 well and is interpreted primarily from Biostratigraphy. The top can be placed at 2317 m on the logs where the gamma ray, resistivity and density decrease. The sonic travel times become slower at this depth. The log responses are unusual in this interval with extremely low density readings in some of the claystones as well as extremely slow travel times.

The lithology consists of claystone with sandstone interbeds and minor, thin, limestone stringers. The claystone is light to medium green and also light grey and light brownish grey. It is soft to firm and silty in part with common floating quartz grains. Glauconite and pyrite are present. The green claystones have a waxy texture. Distinctive red brown claystone is present from 2360 to 2370.

The sandstones are white to light grey, quartzitic, fine to coarse grained and contain abundant lithic fragments. They are unconsolidated to weakly cemented and are poorly sorted. They generally have an argillaceous matrix and no shows are present. A thin bed of light grey to grey green chert occurs at approximately 2340 m.

The limestone stringers are white to greenish white, soft, granular, and chalky in part.

Nordland Group

Depth: 2317 - 548 m
Thickness: 1769 m
Age: Pleistocene to Pliocene

The Nordland Group is subdivided into the Kai and Naust Formations.

Kai Formation

Depth: 2317 - 2003 m
Thickness: 314 m
Age: Pliocene

The top of the Kai is picked on logs on the basis of a decrease in resistivity and slower travel times. As in the Brygge, some of the log reponses are unusual. Extremely low density readings occur in some of the claystones along with extremely slow travel times.

The top of the Kai is very distinct lithologically, where the claystone becomes green in color. The claystone throughout the Kai is light to dark green interbedded with greenish grey, grey and greenish brown claystone. It is soft to firm, occasionally blocky and dense, and silty in part. It is occasionally slightly calcareous and has a waxy texture. Glauconite and pyrite are common with trace amounts of chert.

Thin sandstone stringers that consist predominantly of floating quartz and lithic grains are interbedded with the claystone. Occasionally in weakly cemented aggregates, the grains are fine to coarse, sub-angular to sub-rounded and are poorly sorted.

Naust Formation

Depth: 2003 - 548 m
Thickness: 1455 m
Age: Late Pliocene - Pleistocene

The lithology of the Naust Formation consists of claystone with thin sandstone interbeds. The claystone is light to medium grey and also grey brown in color. It is soft, cohesive and silty to very silty. It is occasionally calcareous and contains mica and pyrite. Shell and fossil fragments are present in trace amounts.

The sandstones consist predominantly of unconsolidated, medium to coarse, quartz and lithic grains in an argillaceous matrix. The grains are sub-angular to sub-rounded and poorly sorted. Mica and pyrite are common with trace amounts of chert and glauconite.

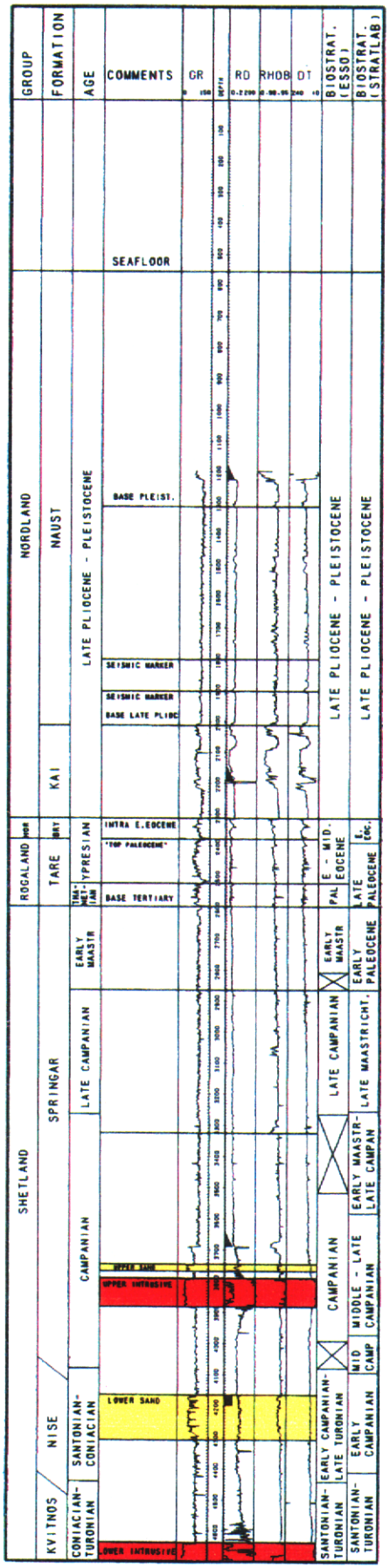
STRATIGRAPHY 6607/5-2

INTERVAL (m RKB)	THICKNESS (m)	AGE	GROUP / FORMATION
548 - 2003	1455	Late Pliocene - Pleistocene	Nordland Group / Naust Formation
2003 - 2317	314	Pliocene	Nordland Group / Kai Formation
2317 - 2381	64	Ypresian	Hordaland Group / Brygge Formation
2381 - 2588	207	Thanetian - Ypresian	Rogaland Group / Tare Formation
2588 - 4075 ?	1487 ?	Campanian - Maastrichtian	Shetland Group / Springar Formation
4075 ? - 4424 ?	349 ?	Coniacian - Santonian	Shetland Group / Nise Formation
4424 ? - 4684	260 ?	Turonian - Coniacian	Shetland Group / Kvitnos Formation

FIGURE 7

ESSO

6607/5-2



ESSO NORGE a.s

SUMMARY LOG
WELL 6607/5-2

Author :	Date :	Scale :
Revised :	Date :	File no.

FIGURE 8

2.5 Reservoir Evaluation

Hydrocarbon Shows

A Geoservice computerized mud logging service was used for the evaluation of hydrocarbon shows in the drilling mud. A flame ionization gas detector and chromatograph were used to measure the percentage of gas in the mud as well as to give a gas composition breakdown. Mud logging started at 1240 m and was used to TD at 4684 m.

Only one gas show was received in the well, from a fracture in the first dolerite sill at 3813 m.

In the cutting samples and sidewall cores there was only one interval where fluorescence and cut were observed. From 2545 to 2732 minor, scattered, yellow fluorescence with slow white cuts was observed. In all cases the shows were in non-reservoir argillaceous limestone and claystone.

Two poor quality reservoir sandstones were encountered in this well. The first, from 3748 to 3768 m is interpreted to be mid to late Campanian. This sandstone was not cored and had no fluorescence or shows in either cutting samples or sidewall cores. Mud gas over the sandstone normalizes to background.

The second sandstone, from 4167 to 4308 m is interpreted to be of Santonian to Coniacian age. Cutting samples indicate poor reservoir quality. No fluorescence or shows are present while the mud gas normalizes to background. The sandstone was not cored when initially drilled however the well was sidetracked and a core was cut from 4161 to 4188.5 m. No fluorescence is present. The effective porosity is poor throughout the core, primarily due to clay plugging.

Petrophysical Evaluation

A petrophysical evaluation was done by Esso and distributed separately to this report. Both of the sandstones previously mentioned are interpreted from wireline logs to be wet. A summary of the analysis is as follows:

Upper Sandstone	Interval	3748 - 3768 m
	Gross Sand	20 m
	Net Sand	10.8 m
	Net/Gross	54 %
	Net Sand Porosity	14.8 %
	Sw	100 %
Lower Sandstone	Interval	4167 - 4308 m
	Gross Sand	141 m
	Net Sand	48 m
	Net/Gross	34 %
	Net Sand Porosity	15.4 %
	Sw	100 %

Core Analysis

Geco a.s performed the core analysis which included horizontal and vertical permeability, porosity, grain density and fluid saturation. The core analysis shows the highest porosity (20.4%) at 4163.65 m and the highest horizontal permeability (1.34 mD) at 4185 m.

Core Petrography

A petrographic study of twenty core samples was performed by Rogaland Research. This study confirms that there is a high degree of clay and kaolin plugging of pores. The general trend of the cored interval is of increasing clay matrix content with depth.

2.6 Pore Pressure Analysis

Summary

Figure 9 summarizes the pressure profile for well 6607/5-2. A normal compaction trend is observed in Pleistocene - Pliocene sediments. Pore pressures begin to increase at the base of the Late Pliocene at 2003m and increase to an estimated maximum of 12.8 - 13 ppg EMW at 2600m in the top of the Cretaceous. Below 2600m pore pressures begin to decrease slightly.

This pressure profile is consistent with other wells in the Nordland II area. The fracture gradient and mud weights required to drill 6607/5-2 are lower than those in 6607/5-1, the closest offset well. The greater water depth (523m vs 368m for 5-1) is the main reason for the lower fracture gradient and one of the reasons lower mud weights were required on 5-2.

Discussion

Dc exponent data was plotted and monitored at the wellsite on a real time basis along with drilling rates, WOB, RPM, torque, mud weight, mud temperature and mud gas. Electric log data and wireline test data (RFT) is also used in the interpretation of pore pressure.

A plot of conductivity, density, sonic and Dc exponent data is attached (figure 10). Wireline log data has been edited to eliminate the influence of tuffaceous sediments. The wireline logs tend to confirm the onset of a transition zone at 2003m. Dc exponent data would appear to indicate the onset of pressure at 1730m; however an increase in silt content is believed responsible for the effect on the Dc exponent.

An alternative interpretation from EPR indicates the onset of pressure at approximately 2200m with maximum pore pressures of 13.5 ppg at 2600m.

All data trends are in agreement with a pressure decline beginning at 2600m. RFT pressure data from 4227, 4229, and 4174-4176m indicate formation pressures of 12.6 ppg EMW.

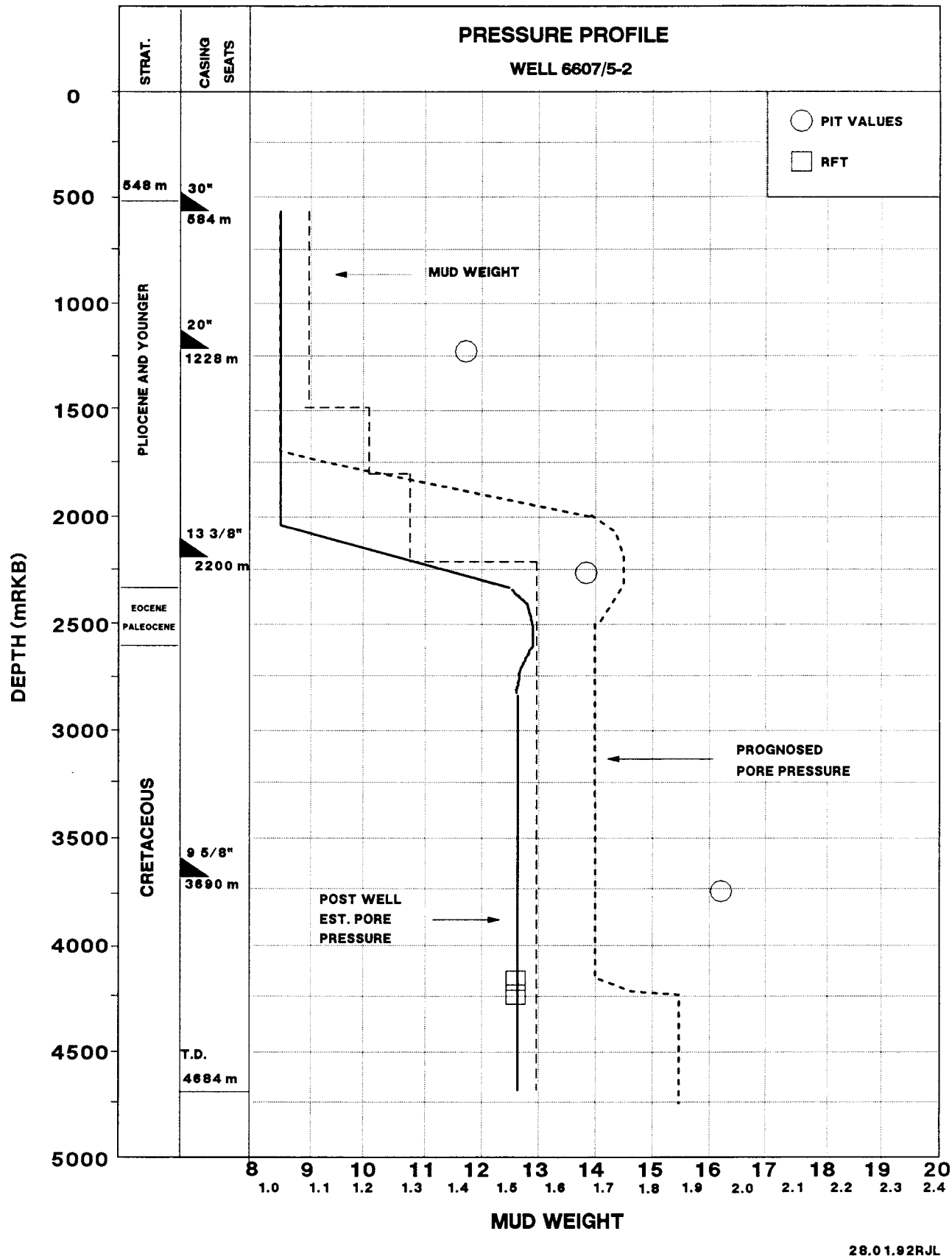

PRESSURE PROFILE
WELL 6607/5-2
STRAT.
CASING SEATS
PIT VALUES
RFT
MUD WEIGHT
548 m
30"
584 m
20"
1228 m
13 3/8"
2200 m
9 5/8"
3690 m
T.D.
4684 m
PLIOCENE AND YOUNGER
EOCENE
PALEOCENE
CRETACEOUS
PROGNOSED
PORE PRESSURE
POST WELL
EST. PORE
PRESSURE
DEPTH (mRKB)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
8 9 10 11 12 13 14 15 16 17 18 19 20
1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4
MUD WEIGHT
28.01.92RJL

FIGURE 9

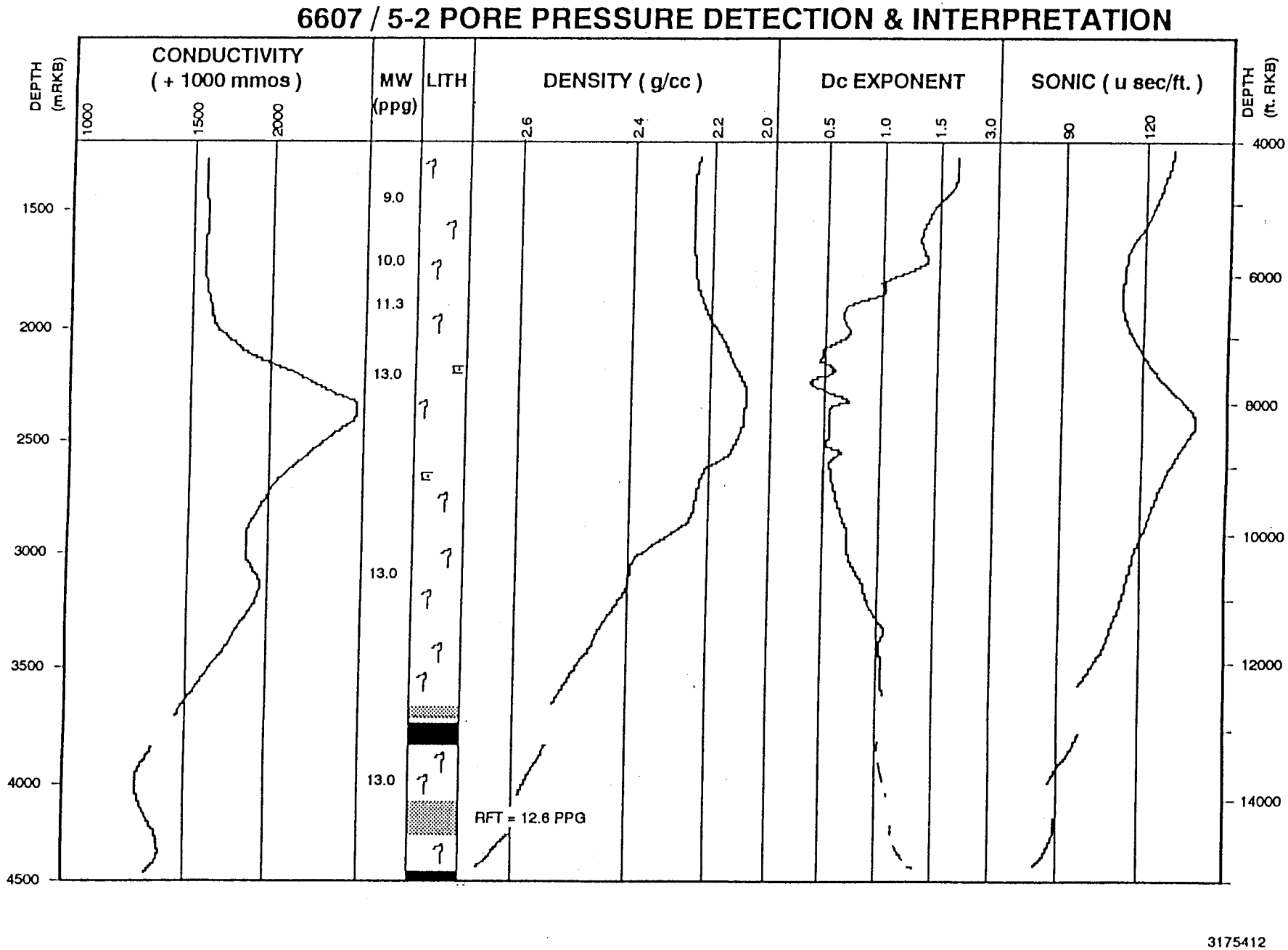

6607 / 5-2 PORE PRESSURE DETECTION & INTERPRETATION
DEPTH (mRKB)
CONDUCTIVITY (+ 1000 mmos)
1000
1500
2000
MW (ppg)
LITH
9.0
10.0
11.3
13.0
13.0
13.0
DENSITY (g/cc)
2.6
2.4
2.2
2.0
RFT = 12.6 PPG
Dc EXPONENT
0.5
1.0
1.5
3.0
SONIC (u sec/ft.)
90
120
DEPTH (ft. RKB)
1500
2000
2500
3000
3500
4000
4500
4000
6000
8000
10000
12000
14000
3175412

FIGURE 10

2.7 Temperature Analysis

Bottom Hole Temperatures

Details of temperatures recorded during logging runs 1 - 3 are attached (figure 11). Horner temperature plots have been made for log runs 2 (figure 12) and 3 (figure 13), giving bottom hole temperatures of 105.5 degrees C at 3702m and 140 degrees C at 4684m Rkb.

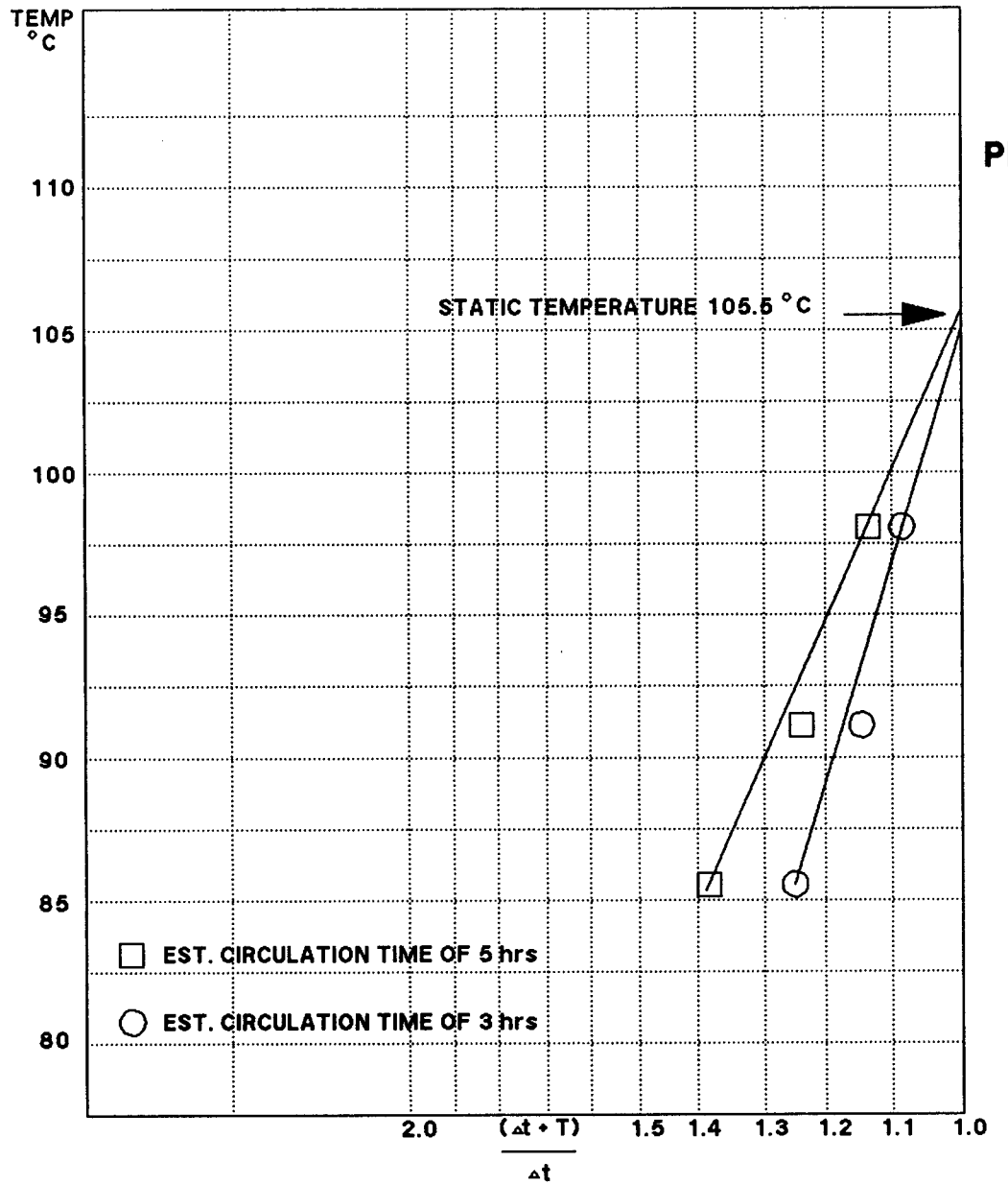
Geothermal Gradient

A geothermal gradient curve (figure 14) has been prepared from Horner temperature data. The present day geothermal gradient at the 6607/5-2 well location is 0.033 - 0.035 degrees C/m. This is a moderate geothermal gradient and is consistent with well 6607/5-1.

TEMPERATURE DATA for WELL 6607/5-2

THERMOMETER DEPTH (m)	LOGGING RUN #	DATE	TOOL STRING	T1 (c)	T2 (c)	T3 (c)	TIME SINCE CIRCULATION (hrs)	DURATION OF CIRCULATION (hrs)
2200	1	21.08.91	SUPERCOMBO	36	36	35	10,1	4,8
3674	2	14.09.91	SUPERCOMBO	85,3	85	85,5	13,25	0
3698	2	15.09.91	DIL	93,3	93,9	94	23	0
3680	2	15.09.91	CST	98,6	99		32,75	0
4667	3	21.10.91	ARRAY SONIC	123	123	123,5	14,6	7
4680	3	21.10.91	DLL/MSFL	126,7	126,7	126	24,3	7
4684	3	22.10.91	CNL-LDT	133,3	133,3	134,4	34,7	7
4684	3	23.10.91	FMS	134	134	135	56,9	7

FIGURE 11



6607/5-2

PLOT FOR HORNER TEMPERATURE

WIRELINE LOGGING RUN 2

TD: 3702 m RKB

CIRCULATION TIME 0 hrs (T)

1. 85.3 C, 13.25 hrs AFTER CIRCULATION

2. 93.7 C, 23 hrs AFTER CIRCULATION

3. 98.8 C, 32.75 hrs AFTER CIRCULATION

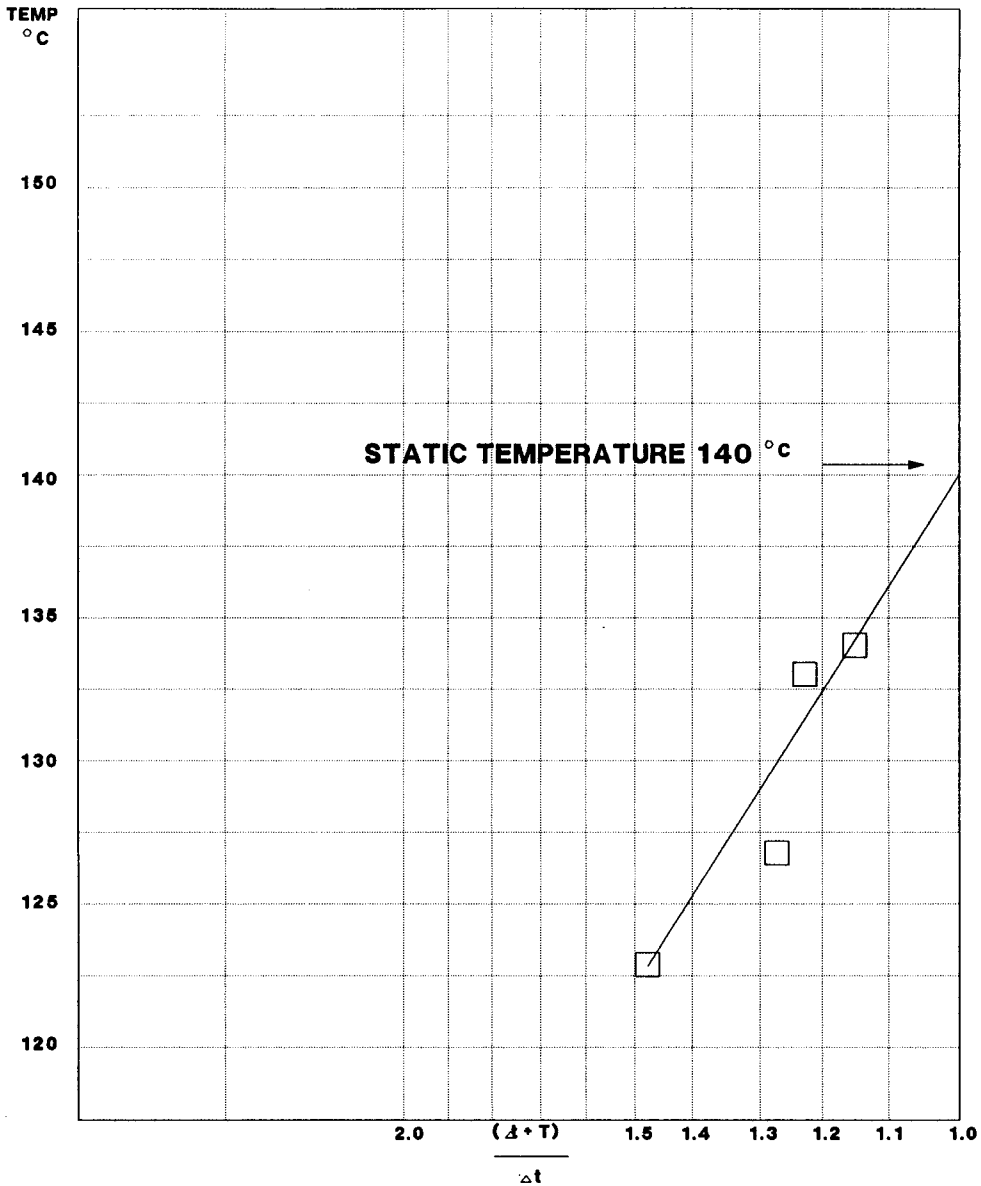
GEOTHERMAL GRADIENT

INTERVAL: SEA FLOOR - 3702m

0.033°C/m

STATIC BOTTOM HOLE TEMPERATURE

FIGURE 12



6607/5-2

PLOT FOR HORNER TEMPERATURE

WIRELINE LOGGING RUN 3

TD: 4684m RKB

CIRCULATION TIME 7 hrs (T)

1. 123 C, 14.6 hrs AFTER CIRCULATION
2. 126.7 C, 24.3 hrs AFTER CIRCULATION
3. 133.3 C, 34.7 hrs AFTER CIRCULATION
4. 134 C, 56.9 hrs AFTER CIRCULATION

GEOTHERMAL GRADIENT

INTERVAL: 3702 - 4684m

0.035°C/m

STATIC BOTTOM HOLE

TEMPERATURE

FIGURE 13

6607/5-2
GEOTHERMAL GRADIENT
(CALCULATED FROM STATIC BHT)

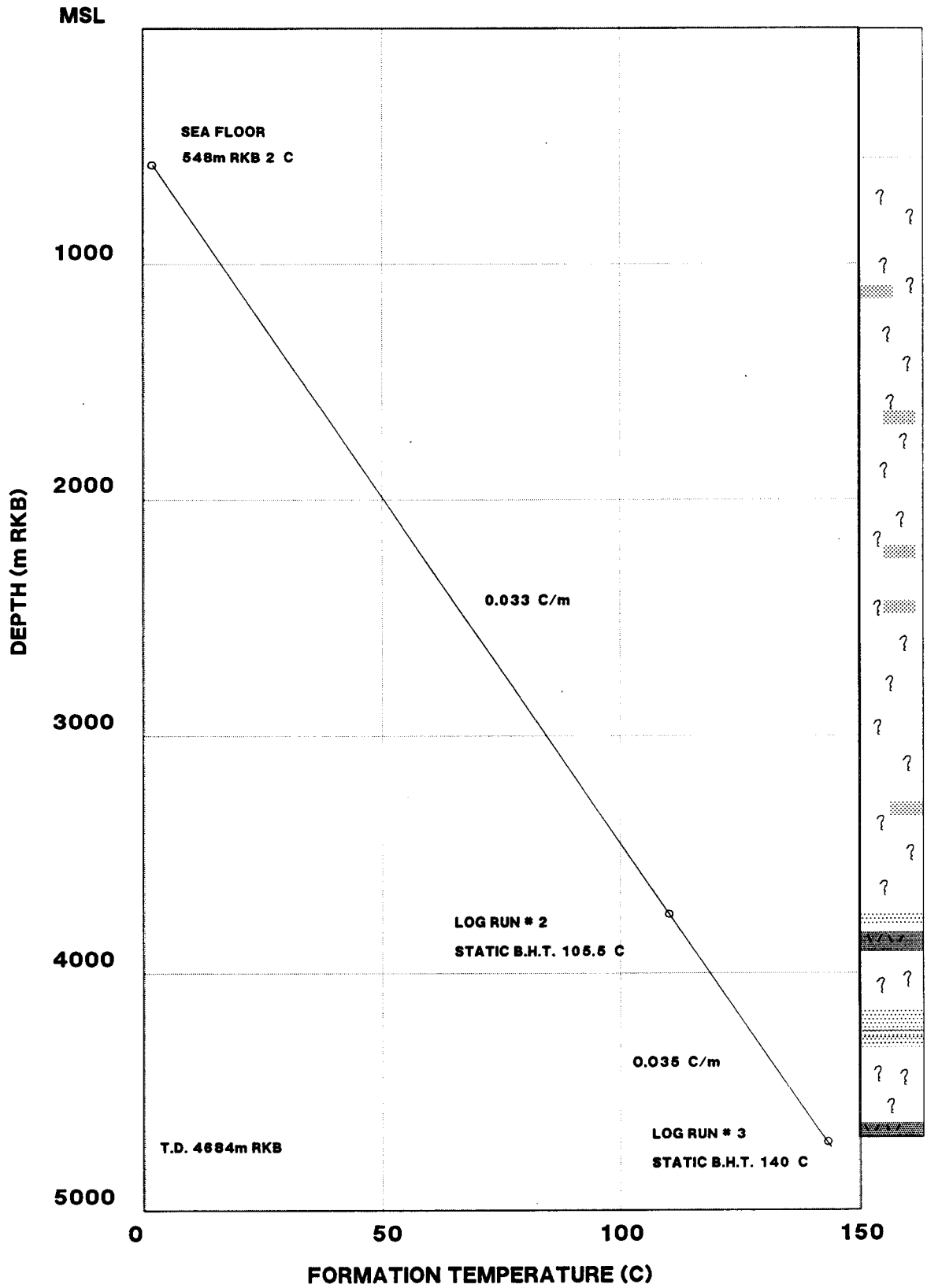


FIGURE 14

2.8 Geochemistry

Geochemical analyses of well 6607/5-2 were performed at Simon - Robertson Laboratories in England.

Canned drill cutting samples at 10 m intervals from 1240 to 4680 m were collected at the wellsite and sent to Simon-Robertson for detailed geochemical analysis. A sample was analyzed every 60 m. A small number of additional samples between 2480 and 2900 m were also analyzed.

The following analyses were performed on all or some of the samples:

- Airspace gaseous (C1 - C6) hydrocarbons
- Occluded gaseous (C1 - C6) hydrocarbons
- Gasoline range (C4 - C7) hydrocarbons
- Lithological description
- Total organic carbon
- Rock-Eval pyrolysis
- Solvent extraction
- Extraction fractionation
- Alkane gas chromatography
- Spore colouration and kerogen description
- Vitrinite reflectance

Details of procedures, tables, charts and interpretation are included in Simon-Robertson's report and Esso's updated block evaluation report.

In summary, no oil or significant gas source rocks are present. The kerogen type is predominantly of vitrinitic and inertinitic composition which have poor gas source potential. The TOC values are low throughout the well. Between 4190 m and 4380 m the residual organic carbon is slightly higher than in the rest of the well.

The well section is immature for hydrocarbon generation to about 3300 m and early mature for oil from 3300 m to about 3600 m. A rapid transition from early maturity above 3600 m to over maturity towards the top of the first igneous intrusive (3793 - 3885.5) is noted. Sediments in the interval 3700 - 4642 m are over mature for oil.

2.9 Seismic Tie

A synthetic seismograph has been prepared using density and sonic logs combined with velocities from the VSP survey. The synthetic seismogram has been spliced into seismic line NRGS84-470 (figure 15).

ESSO NORGE a.s

WELL 6607/5-2

SEISMIC WELL TIE

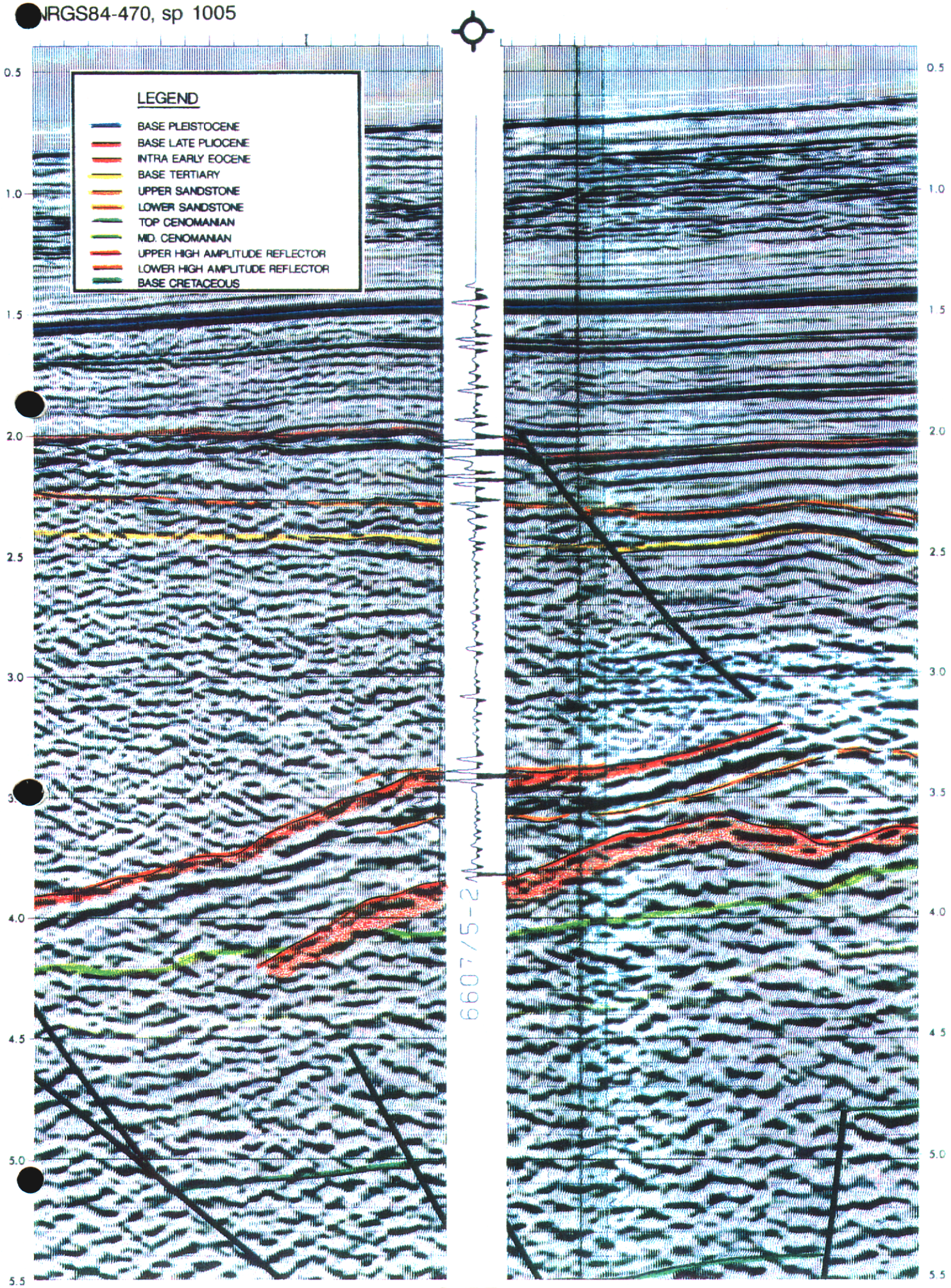


FIGURE 15

3. APPENDIX

3.1 WELLSITE SAMPLE DESCRIPTIONS

WELL: 6607/5-2 LOGGED BY: Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1239	80%	Sand: Predominantly Transparent to translucent Quartz, Multicolored in part, Medium to very coarse grained, Sub Angular, Poorly Sorted, Unconsolidated, Good Porosity, Trace Rose Quartz, Trace Pyrite, Trace Mica, Trace Black Lithic grains, Trace Iron Stained quartz, No Shows. Note: Tr. cement, Tr. Plug rubber, Casing Flakes
	10%	Claystone: Light to Medium Grey, Soft, Sticky, Slightly Micaceous, Silty,
	10%	Common Cement
1240	100%	A/A
1245	70 %	Sand: A/A
	20%	Claystone: A/A, mica gives clyst speckled appearance
	10%	Cement
1250	70%	Sand: A/A
	30%	Claystone: A/A
		Trace Cement
1260	80%	Claystone: Light to Medium Grey, Soft, Sticky, Micaceous, Silty, Slightly Calcareous to Calcareous
	20%	Sand: White to Light Grey, Predominantly Quartz, Fine to Coarse grained, Sub Round to Sub Angular, Moderately Sorted, Unconsolidated, As Above, No Shows
1270	90%	Claystone
	10%	Sand
1280	90%	Claystone: as above
	10%	Sand: as above - consists primarily of coarse quartz grains
1290	100%	Claystone: as above, micaceous, calcareous
1300	90%	Claystone: as above
	10%	Sand: Light Grey, Quartzitic, Fine grained, Sub angular to sub round, well sorted, unconsolidated to very friable, argillaceous cement, No shows
		Trace Free coarse grained quartz
1310	95%	Claystone: Light to Medium Grey, Soft, Sticky, Silty, Micaceous (slightly speckled appearance), Occasionally sandy, Calcareous
	5%	Sand: Medium Grey, Quartzitic, Fine grained, sub angular to sub round, Well sorted, Very friable to hard, Argillaceous cement, Minor silica cement, Very Poor Porosity, No shows

WELL: 6607/5-2 LOGGED BY: Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1320	90%	Claystone: As Above
	10%	Sand: As Above, Very Argillaceous Tr. Pyrite, Tr. Free Coarse Quartz grains, Tr. Ironstone
1330	95%	Claystone: Light to Medium Grey, as above, soft to occasionally firm, Sandy in part, Calcareous in part, decreasing mica content
	5%	Sand: As above
1340	85%	Claystone: As Above
	15%	Sand: Light Grey Brown - Medium Brown, Orange Brown, Quartzitic, Common Mica, Fine to Coarse grained aggregates, Sub round, Moderately sorted, Well cemented - grains welded together, Tight, No shows, Tr. Pyrite
1350	85%	Claystone: As Above
	15%	Sand: As Above, Trace to Common Coarse Free Quartz
1360	80%	As Above
	20%	As Above
1370	75%	Claystone: Light to Medium Grey, Soft to Firm, Sticky, Silty, Trace to Common Mica, Slightly Calcareous, Trace Fossil Fragments
	25%	Sand: Multicolored Quartz aggregates, Very Fine to coarse grained, Sub Round, Hard - Well Cemented, Tight, trace pyrite, common mica
1380	80%	Claystone: As Above
	20%	Sand: As Above
1390	80%	Claystone: Light to Medium Grey, Speckled, Soft to Firm, Sticky, Silty to Very Silty, Sandy in part, Common Mica
	20%	SS: Multicolored Quartz, Quartz Aggregates, Fine to Coarse Grained, Sub Round to Sub Angular, Tight, No Shows, Trace to Common Mica, Trace Pyrite
1400	80%	Claystone: Light to dark grey, speckled with biotite & FeMg minerals, soft to firm & sticky, silty-very silty, occasional floating very fine grain quartz, slightly water soluble, slightly calcareous
	30%	SS: Variably translucent to multicolored quartz, FeMg minerals, mica, loose to aggregates, very fine to coarse, subround to broken angular from larger lithic grains, euhedral to subhedral minerals, trace pyrite, probable as floating grains in claystone or very thin stringers in situ, No Shows

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
1410	70%	Claystone: As above, increasingly silty, trace carbonaceous
	30%	Sandstone: As above, occasional green silicate mineral
1420	65%	Claystone: As above
	35%	SS: As above
1430	70%	Claystone: As above, with sand below, as floating grains.
	30%	SS: As above, occasional lithic igneous/meta? fragments, increasingly micaceous with greenish black to brown flakes and books.
1440	70%	Claystone: As above
	30%	SS: As above
1450	90%	Claystone, as above
	30%	SS: As above
1460	50%	Silty Claystone: Medium to dark grey, speckled with dark mica, soft & sticky to firm, none to very silty, some with very fine to fine floating quartz grains, slightly water soluble, slightly calcareous.
	50%	SS/Sand: Variable translucent to multicolored, mostly very fine to coarse quartz with common lithic metamorphic grains, muscovite, biotite & possible phlogopite mica books & leaves, some weathered yellow, rare shell fragments, trace pyrite nodules, some good porosity in the stringers of sand, no shows
1470	60%	Silty Claystone: As above, some greyish green to greyish brown
	40%	Sand: As above, common rose quartz
1480	65%	Claystone: As above
	35%	Sand: As above
1490	60%	Claystone: As above, some greyish brown
	40%	Sand: As above
1500	70%	Claystone: Predominantly greyish brown to tan, speckled with brown mica, soft-firm, decreasingly sticky, slightly calcareous, rare very fine to silt inclusions
	30%	Sand: As above, decreasing lithic fragments and mica
1510	70%	Claystone: As above
	30%	Sandstone: As above

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1520	80%	Claystone: Medium Grey Brown, Silty, Sandy, Soft
	20%	Sand: As above
1530	80%	Claystone: As above, predominantly brownish grey to greenish grey
	20%	Sandstone: As above
1540	80%	Claystone: As above, becoming medium grey
	20%	Sandstone: As above, slight increase in lithic fragments & mica
1550	80%	Claystone: Medium Grey to Medium Grey Brown, Soft-Firm, Commo mica, Slightly calcareous, silty
	20%	Sand: As above
1560	90%	Claystone: As Above
	10%	Sand: As Above
1570	90%	Claystone: As Above
	10%	Sand: Varicolored Quartz, Very Fine Grained to Coarse grained, sub angular to round, Very hard - consists of free quartz grains and cemented quartz aggregates
1580	90%	Claystone: As Above
	10%	Sand: As Above
1590	90%	Claystone: As Above
	10%	Sand: As Above
1600	90%	Claystone: Medium Grey to Medium Grey Brown, Soft to Firm,
	10%	Becoming less cohesive, Silty, Slightly Calcareous, Tra Mica, Trace Pyrite Sand: Vari colored Quartz and Quartz aggregates, Fine to Coarse grained, Sub Round to Angular, Hard, well cemented, Common Lithic grains, Common Mica, No Shows
1610	90%	Claystone: A/A
	10%	Sand: A/A
1620	90%	Claystone: A/A
	10%	Sand: A/A
1630	85%	Claystone: Medium Grey to Medium Grey Brown, Silty to Very Silty, As Above
	15%	SS: As Above - Free Quartz, Aggregates
1640	90%	Claystone: As Above
	10%	Sand

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1650	90%	Claystone: Light to Medium Grey, As Above
	10%	SS: As Above
1660	90%	Silty Claystone: Medium Grey, Firm (Becoming firmer with depth),
	10%	Silty to Very Silty, Sandy in part, Trace to Common Mica, Trace Pyrite
		Sand: As Above - Floating coarse grained quartz, Occasional very fine to fine grained quartz aggregates
1670	85%	Silty Claystone: Light Grey Brown to Medium Grey, As Above
	15%	Sand: As Above
1680	85%	Claystone: Medium to dark grey, non to very silty, speckled with black mineral inclusions & occasionally trnsl-opaque green & rose quartz, subfriable to slightly sticky
	15%	Sand: Trnsl-opaque occasional rose colored, medium-granule size, subround, poorly sorted quartz with occasional black mineral inclusions, occasional shell frag, as floating grains in claystone
1690	85%	Silty Sandy Claystone: As above, but w/increase in very fine to fine grain quartz inclusives
	15%	SS: As above, with abundant light to dark green minerals & brown mica, occasional shell fragments
1700	90%	Silty Sandy Claystone: As Above
	10%	SS: As Above
1710	90%	Silty Sandy Claystone: As Above
	10%	SS: As Above
1720	90%	Claystone: Medium Grey, Very Silty, Sand, Soft to Sub Blocky
	10%	SS: As Above Tr. Lst white to Light Grey
1730	95%	Sandy Silty Claystone: As Above
	5%	SS: As Above

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1740	90%	Claystone: Light to medium grey, soft & friable to slightly sticky in part, none to slightly silty with rare very fine sand, none to very slightly calcareous
	10%	Sand: Predominantly translucent, some rose to tan, occasionaly dark green or dark brown lithic clast, mostly medium to very coarse grain, occasional dark brown mica book, subround and moderately well sorted, interpreted as floating grains in claystone matrix or thin sand partings.
1750	85%	Claystone: As Above
	15%	Sand: As Above
1760	90%	Claystone: As Above, slight increase in silt.
	10%	Sandstone: As above, increase in lithic fragments and mica (muscovite & biotite)
1770	85% 15%	Sandy Claystone: As above, with increase in fine sand inclusions
1780	90%	Silty Sandy Claystone: As above
	10%	Sand: As above
1790	90% 10%	Claystone: Light to Medium Grey as above Sand: As above
1800	90%	Claystone: Light to Medium Grey, Very Silty, Sandy, Soft to Friable, Occasionally Sub Blocky, Slightly Calcareous, Abundant Mica, Trace Pyrite Sand: Very Coarse Quartz grains, Fine to Medium grained quartz aggregates
1810	85% 15%	Silty Claystone: As Above SS: As Above
1820	90% 10%	Silty Claystone: As Above SS: As Above Tr Lst: Light Brown, Very Fine granular, tight
1830	90% 10%	As Above

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1840	90%	Silty Claystone: Light - Medium Grey, Trace Light Grey Brown,
	10%	Very Silty, As Above
		Sand: As Above
		Tr Lst: Light Brown, Very Fine Granular, Argillaceous, Tight
1850	90%	Claystone: As Above
	10%	Sand: As above
1860	95%	Silty Sandy Claystone: Medium to dark grey, firm, blocky, subfissile to slightly sticky, slightly swelling, slightly to very silty and very fine sandy, very slightly calcareous, common micromicaceous
	5%	Sand: Translucent to white predominantly with dark mica and occasional FeMg mineral inclusions, quartzitic, grains interpacking (welded together), moderately well sorted, coarse to very coarse, angular, hard, no visible porosity, no shows
1870	90%	Silty Sandy Claystone: Poor sample after trip, apparently as above
	10%	Sand/Sandstone: As above
1880	95%	Silty Sandy Claystone: As above, but becoming very soft and water soluble, as much as 50-80% may be going into solution, this corresponds to increased ROP
	5%	Sand/Sandstone: As above, but predominantly unconsolidated, trace glauconite, common rose quartz
1890	90%	Silty Sandy Claystone: As above
	10%	Sand: As above, very rare aggregates
1900	90%	Silty Claystone: As above, decreasingly sandy
	10%	Sand: As above, rare glauconite, occasional foraminifera & fossil frag.
1910	15%	Sand: Translucent, white to transparent, common very dark green to black metamorphic, rose quartz and yellow weather fragments of lithic clasts and chert, poorly sorted, subround to subangular, medium to granule size grains, common forams, shell frags and trace calcite, common pyrite nodules
	85%	Silty Claystone: medium grey, very soft and friable to sticky, some swelling, none to moderately silty, occasional very fine sand

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
1920	90%	Claystone: As above
	10%	Sand: As above
1930	90%	Claystone: As above
	10%	Sand: As above
1940	90%	Claystone: Light to Medium Grey, Very Silty, Sandy, Soft to
	10%	Firm, Sticky in part, Occasionally sub fissile, Tr Pyrite, Tr Fossil Frags
		Sand: Free Coarse grained quartz as above, very fine to fine grained Aggregates
1950	90%	As Above
	10%	
1960	80%	Claystone: As Above, Occasionally Slightly calcareous, Abundant mica
	20%	Sand: As Above
1970	85%	Claystone: As Above
	15%	Sand: Varicolored Coarse grained Quartz and Very fine to medium grained Quartz Aggregates, Sub Round to Angular, Hard, No Shows
1980	85%	Claystone: As Above
	15%	Sand: As Above
1990	90%	As Above
	10%	
2000	85%	As Above
	10%	
2010	75%	Claystone: Green, Firm to Blocky, Silty in part, Dense, Trace Glauconite,
	25%	SS: Varicolored, Predominantly unconsolidated medium to coarse grained quartz, subangular to sub round, moderately sorted, No Shows
2020	80%	Claystone: Green to Green grey, Firm to Blocky, Dense, Hard, Water soluble, Trace Glauconite, Occasionally slightly calcareous
	20%	SS: As Above
2030	95%	Claystone: Light to Medium green, Light green grey, Firm to Blocky, Dense, Hard, Soluble in part in fresh water, Trace Pyrite, Common Glauconite
	5%	As above
		Trace Lst: White, granular, tight

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
2040	90%	Claystone: Light to Medium Green, White - Light green grey, as above
	10%	SS: As above Trace Lst: White, Very Fine granular, Tight, Chalky in part
2050	95%	Claystone: Light to medium green, Light greenish brown, soft to firm, blocky in part, dense, hard, slightly calcareous, Trace Pyrite, Trace glauconite
	5%	As above
2060	90%	Claystone: As above, soft to hard
	8%	SS: As above
	2%	Lst: White to greenish white, Very fine granular, chalky in part, tight, no shows
2070	90%	Two types- Claystone: Light to medium green, as above Silty Sandy Claystone: Medium grey, very silty and very fine to medium grain quartz sand, occasional dark lithic grains, very soft and water soluble to firm and sticky, none to very slightly calcareous, grey clay came in at about 2068 m.
	8%	SS: Translucent to transparent, occasional white to greyish brown, very dark green, grey and brown lithic fragments, subround to subangular, medium to granule size poorly sorted sand, predominantly unconsolidated, apparently as floating grains in claystone or very thin interbeds, no show
	2%	Lst: As above
2080	90%	Silty Sandy Claystone: As above
	10%	SS: As above
2090	100%	Claystone: Very light to dark green, greenish white, dark bluish green, very soft and water soluble, firm to blocky, substicky, waxy to soap luster, some slightly calcareous, trace grading to argillaceous chert, abundant disseminated pyrite and rare pyrite nodule
	tr	Sand: As above
		Lst: As above
2100	100%	Claystone: As above
	tr	SS: As above
	tr	Lst: As above

WELL: 6607/5-2 LOGGED BY: C. Allison/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
2110	100%	Claystone: As above
2120	100%	Claystone: As above
2130	100%	Claystone: As above
2140	100%	Claystone: As above
2150	100%	Claystone: As above
2160	100%	Claystone: As above, becoming dark green to bluish green and brownish green in part, decreasingly water soluble, mostly soft to firm
2170	100%	Claystone: Light to medium green, some bluish green increasing brownish green to brown, waxy luster, soft to hard, some siliceous grading to argillaceous chert, some slightly to moderately silty, occasional pinpoint disseminated pyrite, trace glauconitic
2180	100%	Claystone: As above, slight increase in brown claystone and increase in silt
2190	95%	Two types Claystone: Green to brownish green, as above, commonly siliceous
		Silty Sandy Claystone: Medium grey to medium brownish grey, soft an friable to firm and slightly sticky, slightly to very silty and very fine to medium sandy, slightly to moderately siliceous in part
	5%	Sandstone: Transparent to translucent occasional dark aggregates and lithic fragments, occasional green chert and glauconite, some free mica leaves
2200	95%	Claystone: As above, increase in grey clyst, decrease in green claystone
	5%	SS: As above, decreasing sandstone inclusions in clyst
2210	100%	Claystone: As above
	tr	SS: As above
2215	100%	Claystone: As above
	tr	SS: As above

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
2221	100%	Cement with rare trace green claystone and quartz grains
2225	80%	Cement: Greyish green, speckled with black inclusions and occasional fine quartz and mica.
	20%	Claystone: Greenish grey, very soft to firm, mottled with black silt and quartz silt inclusions, rare very fine to medium quartz sand inclusions, occasional medium to coarse lithic aggregate and quartz grain, water soluble in part, trace possible carbonaceous inclusions, very slightly calcareous
2230	50%	Cmt: As above
	50%	Claystone: As above
2235	60%	Cmt: As above
	40%	Claystone: As above
2240	50%	Cmt: As above
	50%	Claystone: As above, becoming olive green in part
2245	30%	Cmt: As above
	70%	Claystone: As above
2250	20%	Cmt: As above
	80%	Claystone: As above, predominantly light olive green, increasingly silty
2255	10%	Cmt: As above
	90%	Claystone: Greyish green to olive green, speckled with occasional black silt size inclusions and silt size quartz to very fine quartz inclusions, occasional dark brown carbonaceous inclusions, soft to very firm, slightly sticky in part, very slightly calcareous
2260	10%	Cmt: As above
	90%	Claystone: As above
2265	10%	Cmt: As above
	85%	Claystone: As above

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
	5%	Sand: Translucent to transparent, white, some tan and with lithic quartzite fragments mottled with black minerals, mostly firm to coarse, subround, unconsolidated, poorly sorted, interpreted as floating grains in claystone or very thin interbeds
2270	5%	Cmt: As above
	85%	Claystone: As above
	10%	Sand: As above
2275	tr	Cmt: As above
	95%	Claystone: As above
	5%	Sand: As above
2280	90%	Claystone: Greenish grey, commonly speckled with occasional black silt and quartz silt inclusions, occasional very fine sand, rare carbonaceous inclusions, becoming very soft to firm, trace foram and pin point pyrite, very slightly calcareous
	10%	Sand: As above
2285	95%	Claystone: As above, increase in black inclusions
	5%	Sand: As above
2290	95%	Claystone: As above
	5%	Sand: As above, occasional very coarse to granule size lithic quartzite fragments, metamorphic and possible chert Tr. Dolomite
2295	95%	Claystone: Light grey, silty, commonly angular clear to dark quartz grains, very soft, slightly calcareous
	5%	Sandstone: Clear to dark quartz, medium to coarse grained, angular, very hard, metamorphic/ quartzite and possible chert Tr. Dolomite
2300	95%	Claystone: A/A, floating clear/white and multicol. quartz,
	5%	Sandstone: A/A Tr. Dolomite, Dark, hard also Limestone: Buff colored, hard

WELL: 6607/5-2 LOGGED BY: H. Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
2305	95%	Claystone: A/A
	5%	Sandstone: A/A
2310	100%	Claystone: A/A
	Tr	Dolomite: A/A
2315	100%	Claystone: A/A
	Tr	Sandstone: Clear quartz, very hard, silica cement
	Tr	Lithics: Mostly quartz
2320	100%	Two types Claystone: 80% light grey A/A Claystone: 20% light to medium green, blocky to fissile, occasionally very soft, waxy, floating glauconite and quartz grains
	Tr	Dolomite: A/A
	Tr	Sandstone: A/A
2325	100%	Claystone: 50% Light grey A/A Claystone: 50% Light to medium green A/A
	Tr	Lithics: Metamorphic quartz/mica
	Tr	Sandstone: Clear quartz, fine grained, subangular, poorly sorted, very hard
	Tr	Dolomite: White, fine grained, hard
2330	98%	Claystone: 20% Light grey A/A Claystone: 80% light to medium green A/A
	Dol 2%	Dolomite: White, fine grained, hard
	Tr	Sandstone: A/A
2335	20%	Limestone: White, firm, slightly argillaceous in parts, chalky texture, crumbly - occasionally brittle, rare micropyrite
	80%	Claystone: Light grey - light grey green, silicous, firm - occ mod hd in parts, blocky, slightly calcareous
	Tr	Tr Chert: Light grey - light grey green, very hard, splintery
	Tr	Sand: Clr - translucent, med to coarse grains, rounded - subang, moderately sorted
2340	Tr	Lst: A/A
	20%	Chert: A/A
	Tr	Sand: A/A
	80%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: P. Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
2345	Tr	Lst: A/A
	100%	Claystone: Light green grey - light grey + occ white incls, becoming micropyritic and glauconite in parts, firm - mod hard, noncalc, occ medium - fine floating sand grains (occ rare grey speckled white - tuff incls)
	Tr	Chert: A/A
	Tr	Sand: A/A
2350	100%	Claystone: A/A
2355	100%	Green claystone, pred soft, dispersive, trace light grey speckled white
2360	100%	Green-grey claystone trace red brown
2365	50%	Green grey clyst. A/A
	50%	Red brown, soft, dispersive, non calcareous
2370	100%	Intd'd Red brown & green grey claystone, soft, trace pyrite, glauconite, trace chert, becoming silty
2375	100%	Claystone: A/A
2380	100%	Claystone: Light green grey, light grey, soapy-waxy luster
2388	100%	Claystone: increasing calcareous.
2390	100%	Claystone: with 10% quartz, 10% Lst white
2395	100%	Claystone: inc. silty, inc. calc.
2400	100%	Claystone: silty A/A
2405	100%	Silty claystone A/A, trace SS very fine grained - silt, light grey, trace pyrite, mica
2410	100%	Silty claystone, A/A
2415		No sample
2420	100%	Silty claystone, light grey, soft, dispersive
2425	100%	Silty claystone: A/A
2430	100%	Silty claystone, trace white chalky Lst
2435	100%	Silty claystone, abundant pyrite, trace rose quartz, trace Limestone

WELL: 6607/5-2 LOGGED BY: P. Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
2440	100%	Claystone: Generally light-medium grey, occ grey brown, firm, occ mod hard, blocky brk, slightly calcareous, silty in parts, non swelling
2445	100%	Claystone: A/A
2450	100%	Claystone: Gen light grey - light grey (white), trace light brown, firm - occ mod hard, slightly calc, occ. silty, trace calcite inclusions
2455	90%	Claystone: Light grey - light grey (white), rare microfossil, becoming slightly micropyritic in parts
	(10%)	Claystone: Med grey-occ grey brown, occ trace light med green claystone, firm, slightly calcareous
2460	100%	Claystone: Light grey A/A becoming medium grey, firm - occ mod hard, sli calc with occ calc incls, pyrite
2465	100%	Claystone: A/A Trace - white soft chalky Lst
2470	100%	Claystone: Light to medium grey, firm, blocky, slightly calcareous, occ slightly micro pyritic, trace pyrite in association with calcite, white, 2% sample mineral fluorescence
2475	90%	Claystone: A/A Trace pyrite
	10%	Lst: White-offwhite, soft-firm
2480	100%	Claystone: Becoming generally med grey, occ light grey, occ trace light green grey, firm, crumbly brk, slightly calc-non calc, trace pyrite, trace sparry calcite, rare rose quartz grains, rare trace chert, light-opaque, hard.
2485	100%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
2490	90%	Claystone: Light grey, med grey, occ trace light green, firm, mod firm i/p, cmb - blky brk, noncalc - sli calc (gen light gry clst) Trace tuff: mottled grey/white
	10%	Lst: Light grey white - white, firm - occ mod hard
2495	100%	Clst A/A Trace pyrite, rare trace sand: f-m grain, clear
	Tr	Lst: A/A
2500	100%	Claystone: Gen med grey - occ light grey - rare trace red brown, firm, blky break, trace calcite, trace pyrite, trace l A/A, bec sli micromic
2505	100%	Claystone: A/A Mainly med grey - grey brown in part, firm, blocky break, trace pyrite, nonswelling
	Tr	Lst: A/A Also trace Dolomitic Lst: medium brown, hard, microxln
2510	100%	Claystone: Medium grey - grey brown, firm - mod firm, cmb - occ subfissile break, non calc, occ incls of lst A/A
	Tr	Lst: A/A occ offwhite to cream, mod hard to hard, angular, break, microxln
2515	90%	Claystone: Medium grey - grey (brown) A/A Trace pyrite
	10%	Claystone: Light grey - light blue grey, slightly glauconitic, rare speckled white - altered tuff? Calcareous, firm to moderately firm, blocky
2520	80%	Claystone: Medium grey - grey brown
	20%	Claystone: Light blue grey A/A, tuffaceous ?
2525	60%	Claystone: Medium grey - grey brown, mod firm - mod hard, blocky, slightly calc, trace green clst, trace pyrite
	40%	Clst/altered tuff: light grey blue, offwhite, soft - firm, slightly calcareous
2530	100%	Claystone: Becoming light to medium grey to occ grey (brown), firm crumbly break, slightly calc, pyrite in parts, with minor traces of blue grey/offwhite tuffaceous clst, trace light green clst
	Tr	Lst: Light grey - offwhite, hard,angular brk, occ trace tan - brown, hard dolomitic Limestone

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
2535	70%	Claystone: Light grey green - light green, soft, amorphous, crumbly break, non calcareous, occ light yellow inclusions, non swelling
	30%	Claystone: Light - medium grey - grey (brown) A/A, trace pyrite nodules, rare trace tan hard dolomite
2540	80%	Claystone: Light grey green - light green, noncalc, very slightly glauconiteic in parts, occ very slightly micropyritic
	20%	Claystone: Light - med grey - grey(brown) A/A trace pyrite nodules, trace sand loose, medium rounded - subrounded
2545	80%	Claystone: Light grey - grey green
	20%	Claystone: Light - med grey A/A
		Bit change 2546 m
2550	100%	1st sample after trip, Claystone: Light grey green - offwhite, soft to firm, crumbly - occasionally blocky break, non calcareous, micropyrite, trace mod firm clst, non swelling Trace sand: clear, medium grained, Trace calcite, Trace brown clst (cavings), 1% sample direct fluor bright yel, cut fluor slow milky whitecut
2555	100%	Claystone: Mainly light grey green - grey white, soft to firm gen A/A, traces of grey (purple) tuff occasionally with thin white calc coating, trace white calcite, pyrite nodules, trace sand Slightly glauconite in parts (rare trace fluor from above at 2550 m)
2560	100%	Claystone: As above 1% sample dir fluor, bright yellow to dull yell, slow milky white cut In clst: Buff - light grey, soft - firm. non calc, non silty generally A/A (occ tuffaceous?) NOTE: Poor milky white cut in test tube very pale white in U.V. Box
2561.5		Spot sample 10% very hard calcite, trace hard tuff, very pale yellow

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
2565	100%	Claystone: Multicolored, light green grey - light grey - light brown, soft - firm, gen A/A occ trace very fine sand in clst, trace calcite 1% sample fluor
2570	100%	Claystone: A/A 4% sample fluor bright yellow to dull yellow
2575	100%	Claystone: Light grey - grey, occ light brown, soft-firm, silty, trace pyrite
2580	100%	Claystone: A/A
2585	100%	Claystone: Pred light grey with 20% light green grey, non calc, blocky - sub fissile, silty
2590	90% 10%	Light green clyst Light green, trace loose sand, trace Ls: dark grey micritic
2595	95% 5%	Claystone: light grey, non calc, blky, soft Ls: light grey - buff, micritic, tr. calc frags.
2600	100%	Light grey, non calc clystn, sl. silty, tr. brn clyst
2605	100%	Light green claystone, soft, blocky - sub fissile
2610	100%	Light grey claystone
2615	100%	Claystone: Becoming v. soft, dispersive
2620	100%	Claystone: A/A
2625	100%	Claystone: trace lithic frags, sl. micro mic.
2630	100%	Claystone: light grey
2635	100%	Claystone: com glauc., trace calc lithic frags.
2640	100%	Claystone: with trace glauc, quartz grains, calcite frags, occ. silty
2645	100%	Claystone: A/A
2650	100%	Claystone: A/A trace Ls, inc. silty, com pyr.
2655	100%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
2660	90%	Claystone: A/A - few green grey cavings, trace dol: light brown, micro crystalline, tight, silty
2665	100%	Claystone: Silty, A/A
2670	100%	Claystone: Light med grey, slightly sub fiss, moderately hard, silty, trace white calcite
2676	100%	Claystone: A/A, trace brown dolomite, silty, micro crystalline, tight
2680	100%	Claystone: A/A, trace vfg SS: dark grey, quartz - lithic, vfg - silt, dolomite cmt, tight, No shows
2685	100%	Claystone becoming firmer, mod hard, silty
2690	100%	Claystone becoming less silty, softer more dispersive
2695	96% 4%	Claystone: As above Dolomite : Dense, tight, N.S.
2700	95% 5%	Claystone: A/A Dolomite : A/A
2705	95% 5%	Claystone: A/A Dolomite with trace quartz grains
2710	100%	Claystone: Trace dolomite
2715	100%	Claystone: A/A
2720	90% 10%	Claystone becoming dark grey, denser Dolomite, light brown microxln, dense
2725	100%	Claystone: light grey, inc. silty content
2730	100% Tr	Claystone: Medium - darkish grey, soft - firm in parts, slightly calc, occ silty in parts, crumbly break (rare blue clst) Dolomite: Tan, very hard, angular break
2735	100% Tr	Claystone: Generally medium grey, A/A occ disseminated pyrite soft - occ firm. Trace light grey green clst, micro pyrite Trace Dolomite A/A
2740	100% Tr	Claystone: A/A Dolomite A/A

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
2745	100%	Claystone: Medium grey, occ trace light blue green clst incls, soft - firm, occ slightly silty, occ micromic, rare trace pyrite
	(Tr)	Dolomite: Tan-buff, firm - hard, crumbly - angular break
2750	100%	Claystone: A/A
2755	100%	Claystone: Medium grey A/A Trace Dolomite incls A/A
2760	100%	Claystone: Medium grey - occ light grey, soft-firm, crumbly break, occ silt, rare m sand grains, occ micropyritic, micromic in parts, traces only of buff-tan dolomite: firm, hard, angular break, rare lithic fragments (red), non calcareous - slightly calcareous + rare white calc incls, soft
2765	100%	Claystone: A/A Becoming slightly micromic, slightly carbonaceous in parts
2770	100%	Claystone: A/A Becoming slightly silty in parts Trace Dolomite, slightly micro pyritic
2775	100%	Claystone: Medium grey, soft-firm, crumbly-break, slightly silty in parts, non-slightly calcareous in parts, occ micro pyrite, rounded cuttings Trace Dolomite: as above, no shows, rare lithic grains
2780	100%	Claystone: A/A occ Trace glauconite grains
2785	100%	Claystone: Becoming siltier, trace lithic frags
2790	100%	Claystone: A/A trace m sand grains, subrounded, trace lithic fragments
2795	100%	Claystone: Medium grey, soft-firm, crumbly break, non-slightly calc, slightly silty, slightly glauc in parts, trace Dolomite incls, Trace lithic frags, trace pyrite
2800	100%	Claystone: Medium grey, A/A, occ rare trace light green clst, firm, micro pyrite
2805	95%	Claystone: Medium grey, slightly silty in parts, A/A, occ dark grey, Trace light green claystone, occ trace glauconite grains

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
	5%	Limestone: Light grey to buff, firm, angular to splintery break, micro crystalline,
2810	100%	Claystone: Medium grey A/A, rare trace dolomite, tan, hard, microxln
2815	100%	Claystone: Generally A/A, occ mod firm green claystone with blocky to subfissile break, rare pyrite tube, clst becoming micromic in parts (rounded cuttings in general)
2820	100%	Claystone: Light grey to medium grey, soft-firm, crumbly break, silty in parts, micromicaceous in parts, nonswelling to slightly hygroturbid, noncalcareous, slightly micro pyritic in parts, occ Trace glauconite + rare light green claystone
	(Tr)	Dolomite: Buff to tan, micro crystalline, hard angular break
2825	100% Tr	Claystone: A/A Dolomite: A/A
2830	100%	Claystone: A/A Trace lithic grains, Trace white calcite
	Tr	Dolomite: A/A
2835	100%	Claystone: A/A
2840	100%	Claystone: Trace Dol. tan, micro crystalline
2845	100%	Claystone: Inc. calcite
2850	100%	Claystone: Common glauconite
2855	100%	Claystone: A/A
2860	100%	Claystone: A/A
2865	100%	Claystone: A/A - inc. quartz grs
2870	100%	Claystone: A/A
2875	100%	Claystone: Slight increase in silt content
2880	100%	Claystone: Becoming denser, sub fissile, trace -5% Dol, buff - light brown, micro xl/n, hard, inc. silt-vfg sand
2885	90% 5% 5%	Claystone: A/A Dolomite : A/A Claystone: Med. dark grey, silty-v.silty, firm

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
2890	95%	Claystone: Med grey, firm, non calc, silty i/p
	5%	Dolomite : buff - light brown, micro crystalline, hard ang fractures com quartz grains trace pyrite, trace silica replaced fossils
		Claystone becoming darker, less silty, firmer, non calc
2895	50%	Claystone: Light-med grey A/A
	45%	Claystone: Med dark grey, sub-fissile, firm,
	5%	Dolomite : A/A
2900	50%	Dark grey claystone
	50%	Light grey claystone
2905	50/50%	Light - dark claystone,
2910	60%	Dark grey claystone,
	40%	Light grey silty claystone
2915	60%	Dark grey claystone
	40%	Light grey claystone
2920	90%	Claystone: Light grey, soft, crumbly break, calcareous, silty slightly micromic, occ micro pyrite, occ trace very fine grained sand lenses in claystone
	10%	Claystone: Dark grey, firm, crumbly to blocky break, non calc trace light green claystone, trace tan-buff dolomitic Lst, trace glauconite (Note 3-4 yellow fluor cuttings cavings after short trip)
2925	90%	Claystone: Light grey A/A
	10%	Claystone: Dark grey A/A
2930	90%	Claystone: Light grey A/A Trace dolomite A/A
	10%	Claystone: A/A, Trace green claystone, occ trace very fine sandstone lenses, clear, micaceous, slightly glauconitic, weak white calc cmt.
2935	100%	Claystone: Generally light to medium grey, soft, crumbly break, calcareous, silty in parts, traces only of dark grey claystone becoming sticky from 2935 m
2940	90%	Claystone: Light grey, very soft, crumbly break, sticky, calcareous, silty - very silty in parts, trace fossil frags/tubes (worm?)

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
	10%	Claystone: Medium grey - occ dark grey, firm - mod firm, micro pyritic in parts, blocky - occ subfissile break, sligthly calc, occ slightly silty, also firm-moderately firm, light green claystone, blocky brk, trace glauconite
	Tr	Limestone: White, soft-firm and occ tan, firm-hard dolomitic Lst
2945	90%	Claystone: Light grey soft A/A
	10%	Claystone: Medium grey A/A
	Tr	Lst: As above
2950	80%	Claystone: A/A Light grey, Trace fossil frags
	20%	Claystone: A/A Medium grey
	Tr	Lst: Off white-buff, firm to hard Dolomitic, sli argillaceous
2955	90%	Claystone: A/A Light grey, Becoming less silty
	10%	Claystone: A/A Occ micropyritic/nodule
	Tr	Dolomitic Lst: Buff - light grey, moderately firm to hard, sli arg, traces lithics + occ sand, medium - coarse, clear, sub angular
2960	90%	Claystone: Light grey A/A
	10%	Claystone: Medium grey A/A occ silty streaks in claystone, glauconitic/micromic, occ glauconite
2965	100%	Claystone: Generally light grey - occ medium grey, soft - occ firm, crumbly break - amorphous, slightly sticky, calcareous, silty in parts, occasional glauconite grains, occ micropyritic lenses, microfossils + pyrite filled tubes, occ trace sand grains, clear, m-coarse, subangular-subround
	Tr	Lst: Offwhite-buff, also dolomite tan-light brown, mod hard - hard, angular break, microcrystalline, rare sucrosic texture
2970	95%	Claystone: Light grey A/A occ trace sand A/A
	5%	Pyrite tubes and nodules associated with some microfossils
	Tr	Lst: A/A with white to opaque calcite + lithic grains
2975	100%	Claystone: Light grey A/A (Trace pyrite only) + lithic grains
2980	70%	Claystone: Light grey, soft, amorphous, calcareous A/A occ slightly silty, trace glauc beads trace sandstone, coarse - fine, subround, pyritic, glauconitic, in dolomitic cmt

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
	30%	Claystone: Medium grey, firm - occ mod firm, blocky - occasionally subfissile break, slightly calc, slightly micromic
2985	60%	Claystone: A/A Light grey
	30%	Claystone: A/A Medium grey
	5%	Lst: Buff, hard, micro crystalline
	5%	Pyrite tubes/nodules, micro fossils and glauconitic sandstone aggregates, fine-coarse, subrounded-rounded, clear to occasionally frosted grains
2990	65%	Claystone: Light grey, soft, calcareous, slightly silty, occ micromic, amorphous - crumbly break
	30%	Claystone: Medium grey, firm, blocky - occ subfissile, micromic in parts, calcareous, occ micropyritic
	Tr	Lst: Dolomitic in parts, buff to tan, mod hard to hard, micro xln, trace calcite
	5%	Sand: Clear-translucent, medium - occ very coarse, sub rounded to rounded associated with 1% pyrite, microfossils, glauconite beads
2995	85%	Claystone: Light grey A/A
	10%	Claystone: Medium grey A/A
	5%	Sand/pyrite A/A microfossils
3000	90%	Claystone: Light grey A/A
	10%	Claystone: Medium grey A/A
		Trace Lst/Dol A/A Heavy trace pyrite
3005	90%	Claystone: Light grey, soft
	10%	Claystone: Medium grey A/A
	Tr	Lst: Buff-light grey white, firm-mod firm, microcrystalline
		Trace pyrite, trace sand A/A

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3010	100% Tr	Claystone: Med grey, silty, non calc, sticky Dolomite: Buff, microxln, hard
3015	100%	Claystone: Med dark grey, blocky - sub fiss, non calcareous, mod hard, slightly silty - silty Trace Dolomite A/A, trace pyrite, trace glauc.
3020	100%	Claystone: A/A
3025	95% 5%	Claystone: A/A Limestone: Dolomitic A/A, pyrite nodules, trace lithic frags
3030	95% 5%	Claystone: Light grey, A/A Limestone: Dolomitic, buff, microxln, hard
3035	60% 40%	Claystone: Light grey A/A Claystone: Light green grey, com - abundant glauconite, com. pyrite, trace rose quartz, lithic frags
3040	95% 5%	Light grey claystone, SS: Quartz, fine grained, silty, com glauc, pyrite, subround, poorly sorted, free grains
3045	100%	Claystone: Light grey - med grey, amorphous, sticky, soft, com. glauc.
3050	100%	Claystone: A/A, common free quartz, glauc and pyrite nodules, trace mica
3055	95% 5%	Claystone: A/A SS: Light grey, vf-mg, silty, friable pred. loose quartz, com. glauc, pyr. tubes, nodules
3060	100%	Claystone: A/A
3070	95% 5%	Claystone: Light grey, soft, amorphous, silty i/p, Sand. free quartz, com. pyrite, com. glauc
3075	95% 5%	Claystone: A/A SS: Light grey, f-medium grained, subangular, poorly sorted, friable - unconsolidated, com glauconite & pyrite
3077		Spot sample, cuttings becoming larger, light-med grey claystone, mod hard, amorphous, non-slightly calcareous.
3080	100%	Light grey claystone A/A, with 5% green grey claystone, soft, micro mic, amorphous

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3085	50%	Light grey claystone A/A
	45%	Claystone: Med grey, mod hard, sl. silty, blocky, non calcareous
	5%	Free quartz grains, glauconite, pyrite
3090	50%	Claystone: Light grey A/A
	50%	Claystone: Med grey A/A
		(Note Bulk cutting slightly less sticky than yesterday)
3095	80%	Claystone: Light grey, soft, silty in parts, slightly calc, n swelling, amorphous, occ traces glauconite in claystone, trace glauconite beads, crumbly break, occ very fine sand lenses, trace soft offwhite calcareous claystone
	20%	Claystone: Medium grey, firm-mod firm, slightly silty, slightly calc, blocky-subfissile break, denser than light claystone, micromic in parts, rare trace microcarb frags
3100	80%	Claystone: Light grey A/A (Trace) light blue grey, firm, non calc claystone
	20%	Claystone: Medium grey A/A, rare trace sand, medium grains, clear, subrounded-round
	Tr	Dolomite: Tan to light brown, hard, trace Lst light grey, firm, microxln
3105	70%	Claystone: Light grey A/A, soft - becoming firmer
	20%	Claystone: Medium grey, firm-mod firm, occ micropyritic
	10%	Sandstone: Light grey (white), firm, friable, very fine grained, well sorted, moderately cemented, argillaceous + calc (weak), slightly glauconitic, No shows, sandstone grading to siltstone, occ m-coarse floating sandgrains
3110	50%	Claystone: Light grey A/A
	35%	Claystone: Medium grey A/A Trace glauconite beads, trace pyrite
	15%	Sandstone: A/A occ aggregates of sand fine to coarse, clear grains in glauconitic/arg cmt, firm-mod firm, friable, no shows, poorly sorted, occ trace Lst light grey

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3115	10%	Claystone: Light grey, soft, sticky, silty, noncalcareous, amorphous
	80%	Claystone: Medium grey, firm - moderately firm, crumbly - blocky - occ subfissile break, slightly calcareous, silty, occasionally micromic, rare micro pyrite in parts
	10%	Sandstone: Offwhite - light grey white, very fine, translucent to clear grains, in white calc matrix, firm - moderately hard, well sorted, glauc in parts, friable in parts, also aggegates of sand fine - medium - occ very coarse grains, clear - translucent, rounded - wellrounded, poorly sorted, with glauconite beads, calcite and occ pyrite cemented with calcareous material/glauc/pyrite. (Rare pinprick dir yel fluor? from buff limestone) ? cavings?
3120	60%	Claystone: Light grey, soft, sticky, silty A/A rounded cuttings
	40%	Claystone: Medium grey, firm-mod firm A/A (rare trace blue grey, micro pyrite, ? tuffaceous claystone, firm)
	Tr	Sandstone: A/A + aggregates/glauconite
3125	80%	Claystone: Light grey A/A soft
	20%	Claystone: Medium grey, firm
	(Tr)	Sandstone: A/A trace glauconite beads/trace pyrite nodules
3130	80%	Claystone: Light grey A/A soft (becoming sligthly firmer)
	20%	Claystone: Medium grey, firm A/A
	(Tr)	Sandstone: A/A very fine grained, rare large sandstone aggregates, glauc pellets/pyrite
3135	70%	Claystone: Light grey, soft, non calc, silty
	20%	Claystone: Medium grey A/A, firm - occ mod firm
	10%	Sandstone: A/A + pyrite + trace glauconite beads + aggregates
3140	70%	Claystone: Light grey
	30%	Claystone: Medium grey A/A trace calcite
	Tr	SST: Light grey - grey white

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3145	65%	Claystone: Light grey, soft - occ firmer, silty A/A
	30%	Claystone: Medium grey
	5%	SS: A/A becoming firm - moderately hard, very fine grained + occ fine - medium grains in glauconite/pyrite aggregates
3150	100%	Claystone: Light grey, soft - occ firm, amorphous, slightly sticky becoming slightly silty, non calcareous, non swell, locally medium grey, firm, sli silty in parts, occ glauconite beads in claystone, (Tr) pyrite nodules/tubes
	Tr	Limestone: White to offwhite, soft, argillaceous, chalky, crumbly break
	Tr	Dolomite Lst: Buff, moderately hard, microxln
3155	100%	Claystone: A/A (note rare trace light brown soft, calcareous claystone, crumbly break)
	Tr	Limestone: White A/A
	Tr	Dolomite: Buff-tan, trace min fluor
3160	95%	Claystone: Light grey A/A, Trace microfossils, occ trace glauconite beads, occ trace pyrite tubes
	Tr	Limestone: White A/A, inclusions in grey claystone?
	5%	Dolomite: Buff-tan, moderately hard, microxln, occ friable (rare trace brown claystone
	Tr	Sandstone: Very fine grained A/A occ, medium - coarse, rounded, translucent grains
3165	95%	Claystone: Light grey sticky, soft, amorphous
	5%	Ls/Dol: A/A, trace vfg sand A/A
3170	100%	Claystone: A/A, trace pyrite, glauc.
3175	100%	Claystone: A/A
3180	100%	Claystone: A/A
3185	100%	Claystone: Light grey, cohesive, silty, com free quartz grains
3190	100%	Claystone: A/A becoming firmer ?

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3195	100%	Claystone: Light grey, soft, slightly sticky silty in parts, non calcareous - occ slightly calcareous, amorphous - crumbly break, locally grading to medium grey claystone, firm crumbly break - rare thin subfissile cuttings, slightly calc in parts Rare glauconite beads/rare pyrite/rare sand grains/rare light grey mod hard limestone/rare white soft limestone.
3200	100%	Claystone A/A Rare trace very fine SS/glauconite beads/buff-light brown limestone
3205	100%	Claystone: A/A occasionally micro carbonaceous, micromicaceous, micropyritic in parts.
	Tr	Sandstone: Offwhite, clear, very fine grained, subrounded, well sorted in weak siliceous cement, micro pyritic and micro glauconitic, friable-mod hard Rare pinpoint yellow direct fluorescense, 1 piece sandstone examined stained light brown with oil giving fast milky white cut.
3210	100%	Claystone: A/A Sandstone: A/A + rare medium loose sand grains, rounded, no shows
3215	100%	Claystone: Light-medium grey, firm, amorphous - locally sub fissile, non-sl. calcareous, silty i/p. Trace SS: A/A, no shows
3220	100%	Claystone: Light-med grey, soft-firm, blocky, glauconitic, silty, trace siliceous, no shows
3225	100%	Claystone: A/A, Trace SS, fine grained, quartz, subrounded

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3230	100%	Claystone: Lt-med grey, soft occ. firm, amorphous, sticky i/p, non-sl. calc., glauconite, silty, tr. SS, N.S.
3235	100%	Claystone: Light grey, soft, amorphous, crumbly break, slightly sticky in parts, becoming very slightly calcareous, non swelling, silty to non silty in parts. Locally medium grey, firm, crumbly break, silty, slightly calcareous, occasionally micro carbonaceous, occ. streaks of disseminated pyrite/glauconite. Trace pyrite nodules/tubes, occ. very fine grained sandstone.
	(Tr)	Sand: Clear, medium grained, subrounded associated with pyrite/glauc streaks. Rare Trace very fine sandstone. 1 piece displaying slight oil staining at one end (patchy?) v rare direct fluor in samples.
	(Tr)	Limestone: Offwhite to cream, soft, argillaceous in parts.
3240	100%	Claystone: A/A occ. micromicaceous in parts
	(Tr)	Sand/sandstone: A/A.
	(Tr)	Limestone: Offwhite A/A.
3245	100%	Claystone: A/A occ. Tr lithic grain.
	Tr	Sandstone: Light grey-offwhite, firm-moderately firm, very fine grained, subrounded, well sorted, weak dolomitic cement,
	(Tr)	Limestone: offwhite A/A-occ. buff, sucrosic texture, firm, argillaceous, slightly dolomitic in parts.
3250	100%	Claystone: Light-medium grey, soft-occasionally firm, amorphous-occ. crumbly break, non. calc.-occ. slightly calc., occ. silty, occ. micromic, occ. microcarbonaceous in parts, Tr calcite.
	Tr	Sandstone: Light grey A/A, Tr glauc beads, Tr pyrite, Tr red lithic grains (1 piece yellow/brown mixture), no shows, non calc.
3255	100%	Claystone: A/A occ. (Trace) light green claystone, Trace pyrite nodules, occ. trace medium-coarse sand, Trace very fine grained sandstone.
	Tr	Dolomitic Lst: buff-light tan, hard, micro crystalline also moderately hard, sucrosic texture.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3260	100%	Claystone A/A: Trace pyrite
	Tr	Claystone: A/A + occ. trace white fibrous calcite/Lst
3265	100%	Claystone: Light to medium grey, soft-occ. firm, amorphous-occ. crumbly break, non calcareous, medium grey becoming silty occ. grading to siltstone locally, some claystone becoming heavily micropyrite, pyrite nodules, occ. micromicaceous, occ. slightly microcarbonaceous, occ. traces very fine sandstone lenses.
3267	Tr	Dolomitic limestone: Buff-light tan A/A.
3268	50%	Claystone: A/A.
	50%	Claystone: Medium to dark grey, moderately firm-moderately hard in parts, non calcareous, blocky-occ. subfissile in parts, micromicaceous and micropyritic in parts, occ. slightly silty, slightly glauconitic, trace light green claystone, occ. grey claystone, waxy lustre.
	Tr	Dolomitic limestone: A/A. Tr pyritized siliceous material, chert, Tr pyrite nodules, rare microfossil, Tr lithic frags + occ. siliceous flattened worm tubes
3269	50%	Claystone: light grey, soft, amorphous, slightly silty, non calc.
		A/A.
	50%	Claystone medium grey, moderately firm A/A + occassional traces light grey green claystone, glauconite beads tr only, micro pyritic in parts.
3270	70%	Claystone: Light grey A/A.
	20%	Claystone: Medium grey A/A becoming firm, Tr pyritized glauconite.
	10%	Sandstone: Light grey to offwhite, very fine grained, no shows also fine-coarse, clear pyritized grains, abundant pyrite nodules, also siliceous chunks + lithic red fragments. Hard spot probably due to sandstone with pyritic cement*.
	Tr	Dolomitic Limestone: A/A.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3273	70%	Claystone: Light grey, soft, amorphous, non calc A/A.
	30%	Claystone: Medium grey A/A.
	Tr	Tr siliceous chunks, pyrite nodules + glauconite beads + red lithic frags.
3275	60%	Med. dark grey claystone, mod. firm, blocky-sub fiss, tr micro pyrite.
	40%	Claystone: lt. grey, soft, amorphous, siliceous mat. (chert?) tr. pyrite nodules, glauc, lithic fragments.
		Lst/dol: Med brown, micro crystalline, hard.
3280	100%	Claystone: 90% lt. med gy., soft-occ. m. firm, amorphous, silty i/p, claystone 10% dk. gy. claystone mod. firm, blocky sub. fiss., firm, tan claystone, mod. firm, silty, occ. reddish brown, tr. chert, pyr and glauc.
3285	100%	Claystone: A/A
3290	100%	Claystone: A/A
3295	100%	Claystone: A/A
3300	100%	Claystone: Med. grey, becoming sticky, Medium brown dolomite, tight, hard ang. fracture, tr siltstone, lt. brown, friable
3305	90% 10%	Claystone: A/A dolomite, med. brown, tight, hard, micro crystalline, angular fracture, 5% quartz, tr lithic grains.
3310	20% 5% 75%	Dolomite: A/A tr calcite/dol. crystals, silty, quartz grains, common pyrite nodules, common metal flakes (bit) claystone a/a.
3315	95%	Claystone: Light grey, soft, amorphous, non calcareous, slightly silty, locally medium grey, firm, crumbly-occ. blocky break, occ. micromic, occ. micro carbonaceous.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
	5%	Dolomitic Limestone: Tan-light brown-dark brown, moderately hard-hard, microcrystalline, angular-brittle break, trace calcite note 1 piece from medium sieve gives good yellow dir fluor, and fast milky white cut in uv light, dol lst, sucrosic texture, oil stained throughout, depth uncertain.
3319	95%	Claystone: A/A.
	5%	Dolomitic Lst: Tan to light brown, hard-very hard, angular break, also buff-occ. offwhite to cream, moderately hard, brittle break, occ. firm, sucrosic, crumbly break.
		(Tr) pyrite nodules + occ. rare tube occ. glauconite bead, rare lithic grain.
		Pooh at 3319 m for bit change. Selection of fluorescent chunks retrieved from stabilizer gives good yellow fluorescence and slow milky white cut.
3325	95%	Claystone: Light to medium grey A/A, generally firm, crumbly blocky brk, micropyritic in parts.
	5%	Dolomitic Lst: Tan to light brown, hard-very hard, angular to splintery break, microcrystalline, also associated with dolomitic Lst some ? weathered dolomitic Lst: Buff-light brown-occ. cream, firm, to moderately firm, crumbly break, generally sucrosic texture, occ. trace white fibrous calcit mineral fluor < 1% sample.
		Heavy trace pyrite, trace lithic frags quartz + red mineral, hard.
3330	95%	Claystone: Light to medium grey, soft-firm, moderately firm in parts, amorphous in parts, crumbly-occ. blocky break, non calc-occ slightly calc, silty in parts, micro pyritic in parts, 1 piece displayed good (plant) carbonaceous remains in silty/micro pyritic grey claystone (coarse lower sand size carbonaceous fragment).

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
	5%	Dolomitic Lst: A/A 1 caving at 3330 m of light green claystone has dolomite contact.
3335	100%	Claystone: Light grey, soft, amorphous, crumbly break, non calcareous, non silty, non swelling locally grading to medium grey claystone, occ. silty in parts, occ. micro carb., occ slightly calc, generally firm - mod. firm, crumbly-occ. blocky break, occ. micro pyritic in parts, occ. microcarbonaceous, occ traces of very light brown grey claystone, rare glauconite beads and light green claystone (pyritic), disseminated + pyrite nodules, ha
	Tr	Dolomitic Lst: Tan-dark brown, mod. hard-hard, angular to occ. splintery break, rare firm, crumbly brk, sucrosic textured dolomite A/A, tr light grey limestone, tr calcite, rare trace soft white calcareous material in thin lenses in claystone.
3340	20%	Dolomitic Lst: Tan-dark brown, hard, micro crystalline, angular break, trace sucrosic texture, rare white noncalc cavity infill seen in dol.
	80%	Claystone: A/A micro pyritic in parts, trace very light brown grey claystone, some medium grey claystone has very slight green grey appearance i.e. slightly micro glauconitic in parts. Heavy trace pyritic nodules, 1 fish vertebrae seen.
3345	30%	Dolomitic Lst: A/A.
	70%	Claystone: A/A.
3350	90%	Claystone: Medium grey-locally brownish, firm-moderately firm, silty in parts, blocky-occ. subfissile in parts, becoming slightly calcareous in parts, occ. micro micaceous, occ. micro pyritic.
	10%	Dol Lst: A/A, tr pyrite.
3355	90%	Medium grey claystone, becoming lt. gy, firm, silty in part, blocky-rarely sub fissile, sl. calcareous, micro mic, micro pyritic, locally greenish grey.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
	10%	Dolomite, med. brown, hard, angular breakage, micro crystalline.
		One cutting (large seive) green/grey claystone, micro fracture, infilled w/ calcite crystals, oil stain, bright yellow fluorescense, instant milky white cut.
3360	100%	Claystone: A/A, trace ss: med. gy, to lt. gy, vfg-silt, qtz, sub round, mod. well sorted, silica cmt, argillaceous matrix, tight, no shows.
3365	100%	Claystone: Lt gy, becoming softer, sticky, tr. dolomite, tr pyrite.
3370	100%	Claystone: Lt grey, tr med. brown claystone, v. hard, sl. calcareous, dolomitic, tr. dead oil stain, likely caving from 3350-60 interval.
3375	100%	Claystone: Generally light-medium grey, soft, mod. firm, occ. green-grey, firm, micro pyritic, amorphous, occ. brownish, silty, hard, sl. calc.
3380	100%	Claystone: A/A med. grey.
3385	100%	Claystone: A/A med. gry, mod. firm.
3390	100%	Claystone.
3395	100%	Claystone: Med. gy., mod. firm, amorphous, micropyritic i/p, non-v. sl. calcareous, locally silty, tr. brown claystone, hard.
3400	95%	Claystone: Med. light grey, A/A, tr. brown claystone, tr pyrite.
	5%	Dolomitic Lst: Brown, microcrystalline.
3405	100%	Claystone: Light-occ. medium grey, generally soft, amorphous, locally firm, crumbly break, non calcareous, non swelling, occ. slightly silty, occasional offwhite calcareous inclusion, soft, occ. sucrosic texture dolomite inclusions, light brown-buff. Trace hard, tan-brown microcrystalline dolomite inclusions, trace light grey calcite, rare glauconite, trace pyrite
3410	95%	Claystone: A/A.
	5%	Dolomitic Lst: Tan-brown, hard, microcrystalline, angular break, also firm-moderately firm, sucrosic texture, crumbly break, occ trace light grey limestone, tr pyrite.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3415	95%	Claystone: A/A with a trace of white, soft, slightly calc. material, some is argillaceous, occ. streaked with black micro lenses
	5%	Dolomitie: A/A.
3420	40%	Volcanics: (Tuff?): Black/white, variagated, slightly mottled, with clear, wellformed calcite crystals, micropyritic, generally firm-moderately hard to hard, brittle-crumbly break, very calcareous in parts, microfine black radiating (calcium rich tuff) crystals seen in parts, shows, some soft white clay non reactive with 50% HCL kaolinite?
	60%	Claystone: A/A.
	Tr	Dolomite: A/A.
3425	30%	Volcanics A/A occ. black, very hard piecies, (dolerite?) tr mafic minerals, v. fine crystalline, (pyroclasts or intrusive?).
	10%	Dolomite: Light-dark brown, hard, micro crystalline, angular-occasionally brittle break.
	60%	Claystone: Light to medium grey, soft-firm, amorphous-occ. blocky break, non calcareous, non swelling, rarely slightly silty, Tr pyrite nodules, no shows.
3430	30%	Volcanics: A/A
	65%	Claystone: A/A
	5%	Dolomite: A/A, Occ. becoming light brown-buff, firm, sucrosic texture, crumbly break.
3435	15%	Volcanics: Black/white, friable, clay rich, appears tuffaceous, there are however numerous very hard, igneous (doleritic in apperance) pyroclasts, highly micro fractured, calcite/pyrite infill, calcite x/s
	85%	Claystone: A/A
3440	10%	Volcanic: A/A
	90%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3450	100%	Claystone: Lt. med. gy, soft, mod. firm, amorphous, tr. volcanics.
3455	100%	Claystone: A/A, tr volcanics.
3460	90%	Claystone: A/A.
	5%	Dolomite: Med. brown, hard, micro crystalline.
	5%	Tr quartz grains, tr lithic fragments (connection at 3463 inc. volcanics/dolomite cavings?)
3465	100%	Claystone: A/A.
3470	95%	Claystone: tr free quartz, tr lithic frags.
	5%	Volcanics: Common white clay (kaolin?), sl. calcareous.
3475	90%	Claystone: A/A.
	10%	Volcanics, white/black, generally soft, v. friable, sl. calcarous, white clay (kaolin), micro pyritic, tr mafic minerals, vitreous luster, occ. v. hard, vf. crystalline, micro fracture, tr calcite filled fracture, com. pyrite, tr free quartz grains, occ. calcite cement, f.-medium grain.
3480	90%	Claystone: Light to medium grey, soft, amorphous, non calc, non swell, non silty, locally grading to medium grey, firm, micro pyritic, trace glauconite beads in medium claystone.
	5%	Dolomite: Tan to light brown, hard, angular break, brittle break, micro pyritic in parts
	5%	Volcanics: Offwhite/grey white, soft to moderately firm, crumbly-occ. brittle break, some black micro minerals, occ. micro pyritic in parts, some calcite crystals, occ. very hard.
3485	100%	Claystone: A/A.
	Tr	Volcanics A/A occ. rare trace light grey (blue) pieces, firm, brittle break to soft crumbly break.
	Tr	Dolomite: A/A Tr-1%, no shows.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3490	100%	Claystone: A/A.
	Tr	Volcanics A/A, Tr-1%
	Tr	Dolomite: A/A, Tr-1%, Tr pyrite nodules.
3495	100%	Claystone: Generally light to medium grey, soft-firm, non calc., non silty to occ. slightly silty, crumbly break.
	Tr	Volcanics A/A, Tr-2%, offwhite streaked black, micro pyritic, occ. black + calcite crystals, very hard to moderately hard.
	Tr	Dolomite A/A, Tr-2% buff-light brown, hard, micro crystalline A/A, Tr pyrite, occ. Tr sucrosic textured dolomite, firm, crumbly break, rare translucent coarse sand grains, subrounded.
3500	95%	Claystone: Light-medium grey, soft-locally firm, amorphous-crumbly break, non calc., occ. slightly silty, non swelling.
	5%	Dolomite: Light-brown generally moderately firm-hard, micro crystalline-occ. sucrosic, angular-brittle-occ. crumbly break.
	Tr	Volcanics A/A white/black + calcite crystals Tr-1% in sample.
	Tr	Heavy trace pyrite nodules Tr-1% no shows.
3505	100%	Claystone: A/A slightly pyritic in parts, rare micro carbonaceous.
		Trace dolomite as above, rare trace volcanics, trace pyrite nodules, very rare glauconite beads, rare trace light grey, micro crystalline, hard limestone.
3510	100%	Claystone: A/A, tr. dolomite, (cavings)
3515	100%	Claystone: A/A, com. pyrite, occ. dolomite A/A.
3520	100%	Claystone: A/A, common pyrite, tr ss, light grey very fine grained, silt, quartz, tr lithics, tr glauconite, clay matrix, sl. calc, TT, N.S., tr dark brown claystone, mod hard, blocky, sl calcareous.
3525	100%	100% claystone A/A.

WELL: 6607/5-2 LOGGED BY: P. Cook/R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
3530	100%	Claystone: Lt. grey, soft-mod. firm, amorphous, tr medium brown, blocky, hard, sl. dolomitic, tr. free quartz, glauconite, common pyrite.
3535	100%	Claystone: Light grey as above, tr. brown claystone v. hard, trace light grey, hard, blocky, trace glauconite, trace free quartz.
3540	100%	Claystone: Light to medium grey, soft, firm, amorphous - crumbly break, noncalc, nonswell, locally slightly silty - rare very finely sandy, slightly micro micaceous, slightly microcarbonaeous, tr pyrite nodules (1 fish vertebrae seen)
	Tr	Dolomite: Buff-light-dark brown, generally hard, micro crystalline, angular break
	(Tr)	Rare trace sandstone: Light Grey, clear very fine grains, subangular - subrounded, very well sorted in calcareous and argillaceous cement, slightly glauconitic, well cemented, Tight < 5% porosity, no shows moderately hard
3545	100%	Claystone: A/A becoming silty
	(Tr)	Dolomite: A/A rare trace
3550	100%	Claystone A/A: Silty, occ. light green-grey, firm, micro-carb specks
3555	100% (Tr.)	Claystone A/A becoming inc. silt. occ. grading to siltstone Sandstone: Light grey, vf-silt. sub angular - sub rounded, argillareous/calcareous cement, TT, no shows, mod hard.
3560	100%	Claystone: Light grey A/A inc. glauconitic, tr. green-grey claystone, micro pyritic, firm, tr. pyr. tr., calcite, common lithic frags, rose quartz, occ. blue-grey, silty, blocky, firm.
3565	100%	Claystone: Grey to dark grey, greyish green, some brownish grey, soft to firm, sticky to subfriable, some slightly silty, trace dark blue green glauconite, trace disseminated euhedral pyrite inclusions.
3570 slightly	100%	Claystone: As above, slight increase in silty claystone, dolomitic, occasional grain with disseminated euhedral pyrite inclusions.

WELL: 6607/5-2 LOGGED BY: C.Allison/K.O. Foss

DEPTH m	% LITHOLOGY	DESCRIPTION
3575	100%	Claystone: As above, slight increase in silty claystone.
3580	100%	Claystone: Gray, soft, sticky, Tr hard grey silty claystone, Tr. green claystone occ. very pyritic, Tr. limestone, white, hard, Tr brown material.
3585	100%	AA + Tr quartz grains, fine grained, clean, Tr glauconite.
3590	100%	AA + Tr - 1% medium to fine grained clear quartz
3595	100% (Tr.)	Claystone: Gray, soft, sticky, Tr hard, Tr quartz grains, Siltstone: quartz, hard, well cemented, silica cement, thin shell fragments in claystone.
3600	100%	Claystone: Grey, soft, sticky, calcareous
3605	100%	Claystone: As above
3610	90%	Claystone: As above with slight increase in dolomitic calcite, occasional pyrite nodules.
	10%	Sand: Translucent white to transparent, rose, light tan, predominantly unconsolidated, fine to medium, moderately well sorted, subround to subangular, quartz, occasional sandstone, silica cement, no effective porosity, no show.
3615	100%	Claystone: As above, with trace white dolomitic calcite.
3620	100%	Claystone: As above, trace very fine argillacous & glauconitic sandstone poorly cemented with calcite.
3625	95%	Claystone: As above
	5%	Sand/sandstone: As above
3635	100%	Claystone: As above, increasingly brownish grey, sticky, none to slightly silty.
	Tr	Sand/sandstone: Offwhite speckled with dark green glauconite and grey argillaceous material, poorly cemented, very fine quartz with argillaceous material and calcite, predominant as unconsolidated fine to medium grain, moderately sorted, subround to subangular quartz, common very coarse pyrite nodules, no effective porosity, no show.

WELL: 6607/5-2 LOGGED BY: K.O. Foss

DEPTH m	% LITHOLOGY	DESCRIPTION
3640	100%	Claystone: Grey, soft, sticky, calcareous
	Tr	Silt: Milky white quartz, silica cemented
	Tr	Claystone: Dark grey, hard, non-calc
	Tr	Silt/v fine sand: Bluish green, hard calcareous cement
	Tr	Pyrite, glauconite
3645	100%	A/A Claystone
	Tr	AA
3655	100%	Claystone
	Tr	A/A
3660	100	Claystone: Grey, soft, sticky, calcareous
	Tr	Claystone: Light/gray/white, calcareous
	Tr	Sand: Quartz, clear, very fine, loose grains
	Tr	Pyrite, Glauconite
	Tr	Claystone: Grey, hard, non-calcareous
3665	100%	A/A Claystone
	Tr	A/A
3670	100%	A/A Claystone
	Tr	A/A, increase in pyrite
3675	100%	A/A Claystone
	Tr	A/A
3680	100%	A/A Claystone
	Tr	A/A
3685	100	Claystone: Grey, sticky, soft, calcareous
	Tr	Sand: Quartz, very fine, clear-milky white
	Tr	Pyrite, glauconite
3690	100%	Claystone: Medium grey, soft and sticky to firm and subfriable, amorphous to subblocky, very slightly calcareous in part, trace glauconite.
	Tr	Sand: As above
3695	100%	Claystone: As above

WELL: 6607/5-2 LOGGED BY:C. Allison/R.V. Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
3703	40%	Claystone: Very dark grey, some grey green, very firm to moderately hard and dense, brittle to slightly sticky in part, some pinpoint pyrite, trace very fine to medium subround quartz inclusion.
	60%	Cement.
3705	40%	Claystone: As above.
	60%	Cement.
3708	60%	Cement.
	40%	Claystone: Dark grey, firm to blocky, micropyritic in part, slightly calcareous in part, silty in part, trace massive pyrite.
3711	60%	Cement.
	40%	Claystone: As above, with dissem and nodular pyrite.
3714	40%	Cement.
	60%	Claystone: Dark grey, occassionally grey black, blocky, dense, silty in part, as above, trace massive pyrite, trace to common disseminated pyrite.
3717	10%	Cement.
	5%	Siltstone: Offwhite to light grey, mottled grey and translucent, moderately hard and dense, brittle, moderately calcareous, grading to very fine sand, argillaceous grading to and laminated with claystone.
	5%	Sand: Transparent to translucent, milky white to tan, some pink to reddish, predominantly subround to subangular, moderately well sorted, fine to medium unconsolidated quartz sand, no effective porosity, no show.
	80%	Claystone: Dark to very dark grey to grey black, some brownish grey, blocky, dense, very firm to moderately hard, none to slightly calcareous, silty in part, grading to siltstone, trace pyrite.

WELL: 6607/5-2 LOGGED BY:C. Allison/R.V. Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
3720	10%	Cement.
	5%	Siltstone: As above.
	10%	Sand: As above.
	75%	Claystone: As above.
3723	5%	Cement.
	15%	Siltstone: As above.
	10%	Sand: As above.
	70%	Claystone: As above.
3726	15%	Siltstone: As above.
	10%	Sand: As above.
	75%	Claystone: As above.
3729	25%	Siltstone: As above.
	5%	Sand: As above.
	70%	Claystone: As above, becoming increasingly silty grading to siltstone.
37323	20%	Siltstone: Light grey mottled with translucent and dark grey, very firm to moderately hard, some dense, slightly calcareous to siliceous and argillaceous cement, commonly laminated with and grading to claystone.
	80%	Claystone: Medium to dark grey, blocky, soft to very firm, becoming less dense, none to slightly calcareous, commonly silty grading to siltstone.
3735	10%	Siltstone: As above.
	90%	Claystone: As above, with common subround to round lithic chert fragments, abundant nodular pyrite fragments.
3738	NS	Lost when depth recorder on geolograph went down.

WELL: 6607/5-2 LOGGED BY:C. Allison/R.V. Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
3741	5%	Siltstone: As above.
	5%	Sand: Transparent to translucent, white, light brown, reddish, round to subround, moderately well sorted, fine to coarse quartz and lithic chert, unconsolidated, no effective porosity, no show.
	90	Claystone: As above.
3744	5%	Siltstone: As above.
	10%	Sand: As above with abundant round to subround quartz and lithic chert, common forams and fossil fragments.
	85%	Claystone: As above, decreasingly silty.
3747	40%	Clay: Dark grey, very soft and water soluble, most washing away, probable interbedded with sandstone, slightly calcareous.
	60%	Sandstone: Translucent to transparent, light brown, light grey, some black grains, moderately well sorted, fine to medium, round to subangular, mostly disaggregated by bit, poorly cemented with calcite and argillaceous material, some nodular and pyrite cement, no visible or effective porosity, no show.
3750	50%	Claystone: Dark grey, soft to firm, calcareous in part, silty in part.
	50%	Sandstone: White to medium grey, quartzitic, common black lithic grains, fine to coarse grained, poorly to moderately sorted, sub angular to sub round, friable, argillaceous and calcareous cement, tight to poor porosity, no shows, common massive pyrite.
3753	50%	Claystone: As above.
	50%	Sandstone: Light to dark grey as above, tight to very poor porosity, no shows.
3756	50%	Claystone: As above.
	50%	Sandstone: As above, no shows.

WELL: 6607/5-2 LOGGED BY:C. Allison/R.V. Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
3759	40%	Claystone: As above.
	60%	Sandstone: Predominantly transparent to translucent quartz, common black argillite grains, fine to coarse grained, as above, no shows
3762	40%	Claystone: As above
	60%	Sandstone: As above, fine to medium grained, round to sub angular, loose, very friable, trace calcite and argillaceous cement, no shows, common pyrite
3765	50%	Claystone: As above
	50%	Sandstone: As above
3768	40%	Sandstone: Transparent to translucent quartz, common black lithic grains, predominantly medium grained, moderately sorted, subangular to round, loosely cemented with calcite & argillaceous cement, no shows
	60%	Claystone: Dark grey to grey-black, firm to blocky, silty
3771	40%	Sandstone: As above
	60%	Claystone: Mottled light grey to dark grey, soft to blocky, silty to very silty, trace disseminated pyrite, trace floating very fine quartz grains
3774	30%	Sandstone: As above
	70%	Claystone: Two types: - Mottled white to medium grey, soft to firm, very silty, water soluble in part, calcareous in part - Light to dark grey, soft to blocky, trace calcite veining
3777	70%	Claystone: Two types: - Mottled white to light grey, buff, soft to firm, silty, abundant dark grey clay inclusions, grades occasionally into argillaceous siltstone, Tr floating very fine grained quartz, Trace massive pyrite - Light to dark grey, soft to firm, occasionally blocky
	10%	Siltstone: Mottled white, buff, quartzitic, very argillaceous, slightly calcareous
	20%	Sandstone: As above
3780	70%	Claystone: Two types - Predominantly white to light grey, as above

WELL: 6607/5-2 LOGGED BY: Millen/Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
	20%	Siltstone: Mottled white to light grey, buff, very friable to moderately hard, abundant round dark grey clay inclusions, occasionally arenaceous - common silt to very fine grained quartz, calcareous in part
	10%	Sandstone: As above
3783	30%	Claystone: Mottled white to light grey, buff, soft to firm, very silty, water soluble in part also medium to dark grey as above (cavings?)
	70%	Siltstone: Mottled white to medium grey, very argillaceous, quartzitic in part, very firm to moderately hard, dark lithic inclusions, occasionally arenaceous
3786	30%	Claystone: Mottled white to light grey, as above
	70	Siltstone: as above
3789	100%	Siltstone: Two types * Predominantly white to speckled light grey, very argillaceous, soft to hard, abundant dark grey clay inclusions, common black lithic grains, slightly calcareous in part, common glauconite, trace very fine quartz * Dark grey to grey brown, quartzitic, moderately hard to hard, very argillaceous, arenaceous (grades occasionally into very fine grained sand), common argillite grains, common glauconite - Trace calcite, trace light grey claystone, trace massive pyrite
3792	50%	Siltstone: as above
	50%	Reworked Volcanic/Altered Sandstone: white, black, speckled, transparent, translucent brown (quartz 50%, dolerite grains, pyroxene, tourmaline, glauconite) fine to medium grained, occasional welded grains, hard, brittle, occasional white clay matrix, round quartz, common euhedral grains, moderately sorted, no visible porosity (fractured?), no cut or fluorescense
3795	100%	Reworked Volcanics/Altered Sandstone: As above.
3798	100%	Dolerite: Black, very hard, fine to medium crystalline, olivene, amphibole, pyroxene, common white calcite and clay veining, common quartz, plagioclase

WELL: 6607/5-2 LOGGED BY: Millen/Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
3801	100%	Dolerite: As above, increasing iron content in ferromagnesium minerals, white clay is possible feldspar degraded to kaolinite
3804	100%	Dolerite: As above.
3807	100%	Dolerite: As above.
3810	100%	Dolerite: As above, increase in white clay and euhedral crystals (plagioclase)
3813	100%	Dolerite: As above.
3816	100%	Dolerite: As above.
3819	100%	Dolerite: Black, massive, very hard, fine to medium, interlocking mostly euhedral crystals, olivine, altered FeMg minerals, common calcite, clay and quartz veining, no visible porosity or shows.
3822	100%	Dolerite: As above.
3825	100%	Dolerite: As above.
3828	100%	Dolerite: As above.
3831	100%	Dolerite: As above, common plagioclase
3834	100%	Dolerite: As above.
3837	100%	Dolerite: As above.
3840	100%	A/A
3843	100%	Dolerite: Black, as above, common plagioclase
3846	100%	Dolerite: As above.
3849	100%	Dolerite: As above.
3852	100%	Dolerite: As above.
3855	100%	Dolerite: Black, very hard, massive, fine to medium predominantly euhedral crystals, olivine, altered FeMg minerals, (calcite, clay, plagioclase, quartz veining), no shows - Note: First sample after trip at 3854 m

WELL: 6607/5-2 LOGGED BY: Millen/Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
3858	100%	Dolerite: black, white, very hard as above - increase in amount of white clay and plagioclase
3861	100%	Dolerite: Mottled black and white, as above
3864	100%	Dolerite: as above
3867	100%	Dolerite: As above, possible increase in quartz content.
3870	100%	Dolerite: Black/white, very hard, ~2% yellow minerals + FeMg minerals, no shows
3873	100%	Dolerite: A/A 2-5% altered plagioclase - kaolinite
3876	100%	Dolerite: A/A
3879	100%	Dolerite: Generally clear translucent plagioclase with black to light brown crystals, occasional light yellow crystals, rare light green crystals of olivine, ~2-5% white altered plagioclase - kaolinite (very rare light pink striations)
3882	100%	Dolerite: A/A to medium grey, fine grained
3884	50%	Dolerite: A/A becoming more fine grained
	50%	Altered white plagioclase, micro crystalline, moderately hard, brittle - crumbly break, trace black spots on white altered plagioclase.
3885	50%	Dolerite: Fine grained, as above
	50%	Altered clay: White, micro crystalline, soft to hard, brittle altered plagioclase, trace to common silt grains.
3888	40%	Dolerite: Black, mottled white, hard, very fine to medium crystals, increasing amount white clay (altered plagioclase/kaolin) as above, common plagioclase crystals
	60%	Altered Claystone: White, microcrystalline, predominantly hard, occasionally soft, kaolin, altered plagioclase, trace to common silt grains
3891	40%	Dolerite: Dark grey brown to black, as above
	60%	Altered Clay: as above, occasionally speckled
3894	30%	Dolerite: as above
	70%	Altered clay: White, micro crystalline, predominantly moderately hard, occasionally soft/very hard, trace silt, trace quartz, occasionally slightly calcareous, increasingly speckled

WELL: 6607/5-2 LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3897	30%	Dolerite: as above
	70%	Altered Clay: as above, speckled
3900	25%	Dolerite: Dark grey brown to black, as above, common plagioclase crystals
	75%	Altered Clay: White, speckled, microcrystalline, predominantly moderately hard, occasionally soft, trace silt/lithic grains, trace quartz, occasionally calcareous
3903	10%	Dolerite: as above
	90%	Altered clay: White, abundant black very fine to fine specks, microcrystalline as above, trace pyrite, slightly increased amount of silty grains
3906	10%	Dolerite: as above
	90%	Altered Clay: as above, increased amount calcite/white microcrystalline limestone
3909	10%	Dolerite: as above
	90%	Altered Clay: as above, increasing amount of soft blueish grey clay
3912	100%	Altered Clay: White to light brown with abundant black fine to medium, round specks, soft to moderately hard, (calcareous in part), pyrite, trace white microcrystalline calcite/limestone also 4-5% blue-white clay, soft
3915	100%	Altered Clay: White to light grey with abundant black fine to medium round spots, firm to moderatly hard, non calcareous to occasionally slightly calcareous, crumbly to blocky break, microcrystalline texture, trace grey (blue) claystone, occasional trace micropyrite
3918	90%	Altered Clay: White to light grey with abundant black spots A/A,
	10%	light grey -(blue)grey claystone, soft-firm, crumbly break with occasional white soft calcite lenses, no spots, appears unaltered
3921	90%	Altered Clay: White to light grey, spotted A/A
	10%	Light grey-(blue)grey, soft-firm, crumbly break, slightly silty in parts, occasional micro carbonaceous streaks

WELL: 6607/5-2 LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3924	70%	Altered Clay: Offwhite to light grey, spotted, A/A
	30%	Claystone: Light to medium grey - occasionally bluegrey, soft to occasionally moderately hard, crumbly to blocky break, some thin cuttings with brittle break, non calcareous, occ slightly silty, micropyritic in parts, (probably interbedded with clay A/A) trace - 2% dolerite crystals in sample
3927	50%	Altered Clay A/A
	50%	Claystone A/A
	Tr	Dolerite crystals: black, clear, transparent, light brown, light yellow
3930	30%	Altered Clay: Offwhite - light grey, abundant medium grey fine upper sandsize spots, firm to moderately hard, crumbly to blocky break to brittle break
	70%	Claystone: Light to medium grey, non calc, slightly silty in parts, soft to firm, crumbly to blocky break, micro pyritic in parts, some thin cuttings with brittle break.
3933	30%	Altered Clay: Offwhite - light grey, spotted, A/A occasionally grading to grey/white mottled with sucrosic texture, slightly calc, no shows
	70%	Claystone: Light to medium grey, A/A, rare trace calcite
	Tr	Dolerite fragments,
3936	50%	Altered clay: offwhite to grey, micro crystalline, increasing amount of sucrosic textured clay, common disseminated pyrite aggregates
	50%	Claystone: Light to medium grey -occasionally bluegrey, soft to firm becoming firmer in parts, crumbly - blocky break, non calc, Trace light brown claystone
		Tr Dolerite fragments

WELL: 6607/5-2 LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3939	40%	Altered Clay A/A + Trace white kaolinite with green streaks
	60%	Claystone A/A
		Heavy trace dolerite fragments
Spot 3941	30%	Altered Clay: White to greywhite, micro crystalline to sucrosic texture A/A
	70%	Claystone: Light to medium grey, firm to moderately firm, crumbly to blocky/brittle break, non calcareous. Trace micro pyrite
		Heavy traces dolerite fragments (cavings)
3942	20%	Altered Clay: as above
	80%	Claystone: Light to dark grey, firm, as above
3945	10%	Altered Clay: as above
	90%	Claystone: Light to dark grey, firm, occasionally soft, slightly calcareous in part, slightly silty in part, trace disseminated pyrite, trace glauconitic
3948	10%	Altered Clay: as above
	90%	Claystone: Light to dark grey, as above
3951	10%	Altered Clay: as above
	90%	Claystone: Light to dark grey, soft to firm, calcareous in part, silty in part, trace glauconite, trace disseminated pyrite
3954	10%	Altered Clay: as above
	90%	Claystone: as above, predominantly soft, dispersive in part, increasing silt content, occasionally grey brown
3957	10%	Altered Clay: as above
	90%	Claystone: as above
		Note: Poor sample - claystone dissolving in mud

WELL: 6607/5-2 LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3960	10%	Altered Clay: as above - interpreted to be cavings
	80%	Claystone: Light Grey to medium grey brown, occasionally mottled, calcareous in part, soft, silty to very silty, common disseminated pyrite, trace glauconite, occasionally grades to silty claystone
	10%	Siltstone: Mottled light grey, soft, very argillaceous, calcareous
3963	10%	Altered clay: as above
	80%	Claystone: as above, calcareous laminations
	10%	Siltstone: Mottled light grey, soft, very argillaceous, calcareous
3965 (spot)	10%	Altered clay: as above
	80%	Claystone: Light grey to predominantly medium grey brown, soft, dispersive, silty in part to very silty, Trace disseminated and nodular pyrite, occasional calcite veining, trace glauconite
	10%	Siltstone: Mottled light grey, calcareous, as above
3966		As above Note: samples poor - claystone dissolving in mud
3969	10%	Altered Clay: as above - interpreted to be cavings
	80%	Claystone: Light to medium grey, medium grey brown, mottled, silty, dispersive, soft, trace disseminated and nodular pyrite, trace glauconite
	10%	Siltstone: Light to medium grey, mottled grey brown, lithic, very argillaceous, calcareous in part Note: First sample after wiper trip
3972	80%	Claystone: Light to medium grey to grey (brown) tinge, soft, crumbly break, silty occasionally grading to siltstone, non swelling, non calcareous, occasionally mottled white
	20%	Siltstone: Light to medium grey to occasionally grey brown, firm to moderately firm, calcareous and argillaceous, crumbly break, locally grading to very fine sandstone, very slightly glauconitic in parts, no shows Trace pyrite, trace white spotted altered clay, trace dolerite fragments

WELL: 6607/5-2 LOGGED BY: Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3975	80%	Claystone A/A
	20%	Siltstone A/A
		Trace pyrite, white spotted altered clay, dolerite fragments
3978	80%	Claystone: Light to medium grey to grey brown, soft-firm, crumbly break, silty grading locally to siltstone streaks, non swelling, slightly mircropyritic in parts + nodules
	20%	Siltstone: Light to medium grey to offwhite, occasionally mottled white, kaolinite specks, argillaceous and calcareous cement/matrix, firm, crumbly break, pyritic in parts, occasional green specks
	Tr	Limestone: Medium grey brown, microcrystalline, moderately hard, angular to brittle break, dolomitic in parts, argillaceous
3981	80%	Claystone: Becoming light to medium grey brown, soft, dispersive, crumbly break, silty occasionally, trace pyrite
	20%	Siltstone: A/A, no shows
	Tr	Limestone A/A
		(Trace dolerite fragments-cavings)
Spot sample 3983	75%	Claystone: A/A (Lot of clay washed away)
	20%	Siltstone: A/A
	5%	Limestone: Medium grey-grey brown A/A Heavy traces dolerite fragments, traces pyrite

WELL: 6607/5-2 LOGGED BY: P. Cook/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
3984	75%	Claystone: Light grey brown to medium grey, soft, crumbly break, silty grading to siltstone streaks locally, non swelling, occasionally dark grey
	20%	Siltstone: Offwhite to light to medium grey, firm, crumbly break, calcareous and argillaceous matrix, occasionally grading locally to very fine sandstone, occasionally slightly glauconitic
	5%	Limestone: Medium grey to grey brown to tan to buff - occ dark grey, moderately hard, microcrystalline, dolomitic and slightly argillaceous in parts, angular - brittle break, trace mineral fluor
3987	75%	Claystone: A/A occasional white calcareous lenses in claystone
	20%	Siltstone: A/A
	5%	Limestone: A/A
3990	70%	Claystone: A/A claystone still washing away. Trace siliceous worm tubes, one pyritized
	20%	Siltstone: A/A Trace pyrite nodules
	10%	Limestone: A/A
3993	65%	Claystone: A/A
	20%	Siltstone: A/A
	15%	Limestone: A/A
3996	70%	Claystone: Light to medium grey brown, soft, crumbly break, silty locally grading to siltstone, non swelling, occasional white calcareous lenses, occasional black moderately hard claystone
	15%	Siltstone: Off white to light to medium grey brown, firm, crumbly to friable break, calcareous to dolomitic cement in parts, heavily argillaceous in parts, slightly glauconitic and pyritic in parts, No shows, occasionally grading to very fine sandstone
	15%	Limestone: Grey brown to tan to buff, microcrystalline, firm to moderately hard, angular to brittle break, trace light brown calcite (rare trace microfossil)

WELL: 6607/5-2 LOGGED BY: P. Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3999	65%	Claystone: A/A
	20%	Siltstone: A/A
	15%	Limestone: A/A Tr. pyrite nodules (Tr dolerite fragments cavings)
4002	60%	Claystone: Medium grey (brown) to light grey, soft, silty, crumbly break, non calcareous
	20%	Siltstone: A/A
	20%	Limestone: A/A Tan to light brown to brown, occasionally cream inclusions, firm crumbly break Tr. shell fragments, trace pyrite (disseminated and nodules)
4005	70%	Claystone: Light to medium grey brown, soft, silty, crumbly break, non calcareous, becoming slightly glauconitic locally, occasional white calcareous streaks, with minor siltstones streaks
	15%	Siltstone: Off white to light grey brown, firm to moderately firm, crumbly to friable break, calcareous to dolomitic cement, argillaceous matrix, slightly glauconitic in parts
	15%	Limestone: A/A
4008	75%	Claystone: Light to medium grey brown, soft, silty as above (Note: Claystone dissolving in mud)
	15%	Siltstone: as above
	10%	Limestone: as above
4011	75%	Claystone: as above
	15%	Siltstone: as above
	10%	Limestone: as above
4014	70%	Claystone: Light to medium grey brown, soft, slightly to very silty, common calcareous laminae, trace glauconite, trace kaolin
	15%	Siltstone: Buff to medium grey brown, mottled in part, soft to firm, calcareous, dolomitic in part, argillaceous, trace glauconite, no show

WELL: 6607/5-2 LOGGED BY: P. Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
	15%	Limestone: Buff to medium brown, microcrystalline, moderately hard, argillaceous in part, trace pyrite, tight, no shows
4020		POOH at 4021 m sample taken before bottoms up (trip sample) Wash/ream from 3690 m result very contaminated samples
	70%	Claystone: A/A
	15%	Siltstone: A/A
	15%	Limestone: A/A
4023		Contaminated with 80% dolerite fragments from trip Non representative sample
4026	50%	Claystone: A/A
	10%	Siltstone: A/A
	10%	Limestone: A/A
	50%	Contaminants dolerite, spotted clay
4029	40%	Claystone: Light to medium grey brown, soft to firm crumbly break, silty to slightly silty, glauconitic, non swelling, occasionally slightly carbonaceous, locally grading to siltstone streaks, generally non calcareous, occasional white kaolin ? specks
	15%	Siltstone: Off white to light to medium grey, firm to moderately firm, slightly glauconitic, friable, well cemented with calcareous to occasional dolomitic cement and argillaceous matrix
	10%	Limestone: Tan to light brown, micro crystalline, moderately hard angular break
	(35%)	Contaminants: dolerite/altered clay
4032	45%	Claystone: A/A becoming firmer in parts, trace pyrite nodules
	15%	Siltstone: A/A
	10%	Limestone: A/A
	30%	Contaminants: dolerite fragments
4035	75%	Claystone: Light to medium grey brown, soft, occasionally firm, slightly to very silty, mottled in part, trace calcareous and kaolin laminae, common pyrite
	20%	Siltstone: Light to medium grey brown, mottled, moderately hard, argillaceous, dolomitic in part

WELL: 6607/5-2 LOGGED BY: P. Cook/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
	5%	Limestone: as above, becoming dolomitic
4038	80%	Claystone: as above
	20%	Siltstone: as above, occasionally arenaceous in part
		Trace Limestone: Dolomitic, as above
4041	80%	Claystone: Light to medium grey brown, mottled light brown, soft to firm, occasionally blocky, noncalcareous, silty, trace glauconite, trace pyrite
	20%	Siltstone: Buff to medium grey brown, mottled, moderately hard to friable, very argillaceous, calcareous in part, occasionally arenaceous, tight, no shows, dolomitic in part
4044	80%	Claystone: Light to medium grey brown, mottled in part, soft to firm, occasionally blocky, silty, trace glauconite, trace pyrite, non calcareous
	20%	Siltstone: as above, dolomitic in part
4047	80%	Claystone: as above
	20%	Siltstone: Buff to Medium grey brown as above, grades to very fine grained sandstone, calcareous cement, dolomitic in part, tight, no shows
4050	75%	Claystone: Mottled grey brown, noncalcareous, as above
	25%	Siltstone: as above grading to very fine grained sandstone, trace glauconite, trace kaolin
4053	75%	Claystone: Light to medium grey brown, mottled in part, soft to firm, occasionally blocky, silty, noncalcareous, trace glauconite, trace pyrite, common kaolin laminations, trace calcareous laminations
	25%	Siltstone: Buff to medium grey brown, mottled, soft to hard, predominantly moderately hard, very argillaceous, calcareous, dolomitic in part, trace glauconite, trace kaolin - grades occasionally into very fine grained quartzitic sandstone
4056	75%	Claystone: as above
	20%	Siltstone: as above
	5%	Sandstone: White to light brown, quartzitic, very fine grained, sub angular to sub round, friable to hard, silica cement, occasional calcareous cement, tight, no shows, common glauconite, trace kaolin
		Trace Buff to light brown microcrystalline limestone, argillaceous

WELL: 6607/5-2 LOGGED BY: P. Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4059	70%	Claystone: as above
	25%	Siltstone: as above, calcareous, grades into VFG sandstone
	5%	Sandstone: White, as above
		Trace limestone: as above
4062	75%	Claystone: Light to medium grey (brown), soft to firm, crumbly break, silty grading to siltstone lenses locally, non swelling, generally non calcareous, locally micromicaceous, slightly glauconitic locally, white banding of calcareous material associated with siltstone lenses, locally microcarbonaceous in parts
	20%	Siltstone: White to light grey (brown), soft-firm-occasionally moderately hard, crumbly - friable, glauconitic, calcareous and argillaceous matrix, kaolin in parts, occasionally grading to very fine grained sandstone, rare floating clear, subangular to subrounded quartz grains in argillaceous matrix, occasionally calcareous, no shows
	5%	Limestone: Buff to tan, moderately hard, microcrystalline also cream to buff, firm and slightly argillaceous, crumbly to brittle break, occasional rare calcite, slightly dolomitic in parts
	Tr	Sandstone: A/A No shows ≈ 20% sample mineral fluor only no cut
4065	70%	Claystone: A/A Some cuttings moderately hard, thin, angular break
	15%	Siltstone: A/A
	10%	Limestone: A/A Becoming slightly glauconitic in buff limestone
	5%	Sandstone: A/A Frequently grades to siltstone, calcareous cement, tight, well cemented ≈ 20% sample mineral fluor only, no cut
4068	75%	Claystone: A/A
	15%	Siltstone: A/A
	5%	Limestone: A/A
	5%	Sandstone: A/A

WELL: 6607/5-2 LOGGED BY: P. Cook/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
4071	80%	Claystone: Medium grey (brown), soft, silty, crumbly break, non calcareous, and medium to dark grey claystone, firm to moderately firm, blocky to slightly sub fissile, micro micaceous, slightly micro carbonaceous in parts, glauconitic in parts, slightly micropyritic in parts and slightly calcareous - grades to siltstone streaks frequently
	20%	Siltstone: Offwhite to light grey, firm, crumbly break - friable, slightly glauconitic, micromic, calcareous/argillaceous cement, tight, no shows
	Tr	Limestone: Tan to buff to cream, microcrystalline, moderately hard, slightly dolomitic in parts, slightly glauconitic in parts
4074	75%	Claystone: Generally medium grey brown
	20%	Siltstone: A/A Occasionally grading to very fine sandstone, argillaceous and kaolin cement + calc cement
	5%	Limestone: A/A ≈ 15% mineral fluor in sample
4077	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: Tan to light brown to cream, moderately hard to firm, angular to occasionally crumbly break, dolomitic in parts Tr Pyrite: disseminated and nodules
4080	75%	Claystone: Medium grey brown to occasionally medium to dark grey, soft to moderately firm, silty, slightly glauconitic, micro pyritic, micro micaceous, micro carbonaceous in parts, non calcareous to slightly calcareous, siltstone streaks
	20%	Siltstone: A/A Occasional siliceous cement
	5%	Limestone: Buff to light brown to tan to offwhite/cream, firm to moderately hard, angular to brittle to crumbly break, slightly glauconitic
4083	80%	Claystone: A/A
	15%	Siltstone: Offwhite to light grey, firm, crumbly to friable, glauconitic in parts, argillaceous/calcareous/kaolin matrix in parts, tight, no shows, rare micropyritic, Tr pyrite nodules, occasionally locally grading to very fine sandstone

WELL: 6607/5-2 LOGGED BY: P. Cook/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
4083	5%	Limestone: A/A
4086	80%	Claystone: A/A
	15%	Siltstone: As lenses in claystone above
	5%	Limestone: A/A
4089	80%	Claystone: Light to medium grey brown, occasionally medium grey, soft to blocky, silty, grades into siltstone
	20%	Siltstone: White to light grey, light to medium brown, mottled in part, firm, occasionally hard, glauconitic in part, argillaceous, calcareous in part, grades occasionally to very fine grained sandstone
4092	80%	Claystone: as above
	20%	Siltstone: as above
4095	75%	Claystone: as above
	25%	Siltstone: Two types * Mottled light to medium brown, argillaceous, calcareous in part, soft to moderately hard, common kaolin, trace carbonaceous flecks, grades into very fine grained sand * White to light brown, quartzitic, glauconitic, moderately hard to hard, common kaolin Trace free coarse quartz grains
4098	75%	Claystone: Light to medium grey brown, soft to blocky, silty, trace carbonaceous flecks, micro micaceous in part, micropyritic in part
	25%	Siltstone: Two types * Mottled light to medium grey brown, argillaceous, calcareous in part, soft to moderately hard, common kaolin laminae, grades into very fine grained sandstone * White to light brown, as above, grades into very fine grained sandstone
4101	75%	Claystone: as above
	25%	Siltstone: as above
4104	80%	Claystone: as above
	20%	Siltstone: as above
4107	75%	Claystone: Light to medium grey brown, soft to blocky, micromicaceous, micropyritic, silty to very silty, grades to siltstone

WELL: 6607/5-2 LOGGED BY: P. Cook/Millen

DEPTH m	% LITHOLOGY	DESCRIPTION
4107 (cont.)	25%	Siltstone: Two types * Mottled buff to medium grey brown, argillaceous, predominantly moderately hard, common kaolin, calcareous in part, grades into VF grained sandstone * White to light brown, quartzitic, glauconitic, friable to moderately hard, common kaolin, calcareous in part, grades into VF grained sandstone, tight, no shows Trace coarse grained free quartz
4110	75%	Claystone: as above, occasionally dark grey brown
	25%	Siltstone: as above, trace carbonaceous flecks
4113	80%	Claystone: Mottled light to medium grey brown, soft to firm also dark grey brown, blocky as above
	20%	Siltstone: as above
4116	75%	Claystone: Mottled light to medium grey brown, soft to firm, as above also dark grey brown, blocky
	25%	Siltstone: as above grading into very fine grained sandstone, as above Trace free coarse grained quartz
4119	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: Tan to light brown, micro crystalline, moderately hard, dolomitic, brittle to angular break, occasional sucrosic texture, crumbly break
4122	85%	Claystone: Light to medium grey brown, soft to firm, crumbly break, silty frequently grading to siltstone, slightly carbonaceous, glauconitic occasionally micropyritic, noncalcareous, kaolin specks, micromicaceous, free floating clear wellrounded quartz grains, also moderately firm, blocky, dark grey claystone A/A
	15%	Siltstone: Offwhite to light brown, common carbonaceous material, (black brittle not fibrous), heavily cemented with white non calcareous kaolin, slightly glauconitic Slightly micromic and micropyritic in parts, occasionally locally grades to very fine sandstone, occasional white calcareous and glauconitic banding
4125	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: A/A

WELL: 6607/5-2 LOGGED BY: P. Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4128	80%	Claystone: A/A
	20%	Siltstone: A/A
4131	80%	Claystone: Light to medium grey (brown), soft to firm to moderately firm, silty, micromic, glauconitic in parts, non calcareous, nonswell, crumbly - occasionally blocky break, occasionally micro carbonaceous and micro pyritic, siltstone lenses and occasional white calcareous and kaolin streaks
	20%	Siltstone: Light grey - offwhite - grey brown variagated, glauconitic, calcareous/kaolin/argillaceous matrix, carbonaceous in parts, few large flakes muscovite, firm - moderately firm, crumbly break
	Tr	Limestone: Tan - light brown, microcrystalline, dolomitic, occasionally sucrosic texture with glauconite
4234	80%	Claystone: Light to medium grey brown A/A
	20%	Siltstone: No shows
	Tr	Limestone: A/A
4137	75%	Claystone: A/A
	20%	Siltstone: A/A some fine grained sandgrains
	5%	Limestone: Mainly tan to light brown, sucrosic texture, firm crumbly break, glauconitic, associated with siltstone/fine grained sandstone as cement in minor streaks
4140	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: A/A
4143	75%	Claystone: Light grey to grey brown, firm, crumbly break, to blocky, silty, glauconitic, non calcareous, nonswell, occasionally micro carbonaceous, micro micaceous and micro pyritic, siltstone lenses common
	25%	Siltstone: A/A
	Tr	Limestone: A/A

WELL: 6607/5-2 LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4146	75%	Claystone: Light to medium grey brown, firm to blocky, silty in part as above
	25%	Siltstone: as above
		Trace Limestone: as above
4149	75%	Claystone: Light to medium grey brown, soft to blocky, micromicaceous, common kaolin, silty, occasional carbonaceous flecks, common disseminated pyrite, trace glauconite
	25%	Siltstone: White to light brown, light to medium grey brown, very friable to hard, common kaolin, calcareous in part, glauconitic in part, argillaceous, occasional carbonaceous flecks, grades occasionally into very fine grained sand
4152	80%	Claystone: as above
	20%	Siltstone: as above, increased calcareous content
4155	80%	Claystone: as above, trace nodular pyrite
	20%	Siltstone: as above
		Tr Limestone: Buff to light brown, micro crystalline, tight Trace sub angular to round coarse quartz grains
4158%	80%	Claystone: as above
	20%	Siltstone: White to light brown, light to medium grey brown, mottled in part, as above, no shows
4161	80%	Claystone: A/A Trip sample
	20%	Siltstone: A/A No shows
4164	75%	Claystone: Trip sample
	25%	Siltstone: As above

WELL: 6607/5-2 LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4166		Spot sample
	70%	Claystone: Light to medium grey brown, as above
	30%	Siltstone: as above
		Note: abundant cavings from trip
4167	100%	Sand: White, quartzose, medium to coarse grained, sub angular to sub round, well sorted, unconsolidated, good porosity, no fluorescense or cut, trace glauconite, trace muscovite
4170	100%	Sand: as above
4173	100%	Sand: as above
4176	100%	Sand: as above, trace weakly silica cemented grains, good porosity, no shows, trace carbonaceous flakes
4179	50%	Sand: as above
	40%	Claystone: Light to medium grey brown, soft to blocky, micromicaceous, trace disseminated pyrite, trace carbonaceous material, trace kaolin, silty to very silty
	10%	Siltstone: White to light grey, light to medium grey brown, argillaceous, slightly calcareous, friable to moderately hard, glauconitic in part, trace carbonaceous flakes
4182	40%	Sand: as above, higher percentage medium grained sand
	40%	Claystone: Light to medium grey brown, as above
	20%	Siltstone: White to light grey, as above, quartzitic in part, grades into very fine grained sandstone
4185	70%	Sand: White, quartzose as above, occasionally weakly cemented with silica, common black carbonaceous material
	20%	Claystone: as above
	10%	Siltstone: as above
4188	70%	Sandstone: White, quartzose, fine to coarse grained, predominantly medium grained, sub angular to round, moderately well sorted, unconsolidated, occasionally very weakly cemented with kaolin/silica, good pososity, no shows, common free black carbonaceous grains and flakes, trace glauconitic & muscovite
	30%	Claystone: Light to medium grey brown, light grey, soft to blocky, common carbonaceous material, common kaolin, occasionally calcareous in part, silty to very silty - grades into siltsone, arenaceous in part
4191	60%	Sandstone: as above, medium to coarse grained, no shows
	40%	Claystone: as above, non calcareous, common carbonaceous material

WELL: 6607/5-2 LOGGED BY: Millen/Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4194	70%	Sandstone: as above, medium to coarse grained
	30%	Claystone: Mottled light to medium grey brown, as above, common carbonaceous laminae
4197	80%	Sandstone: as above, occasional rose quartz
	20%	Claystone: as above Trace orange mineral fluorescence
4200	80%	Sandstone: White, quartzose, fine to coarse grained, predominantly medium,subangular to rounded, moderately sorted, unconsolidated to friable, weak silica to occasional slightly calc/kaolin cement, trace glauconite trace pyrite, no shows
	20%	Claystone: Light to medium grey brown, firm, crumbly to blocky break, non clacareous, silty, carbonaceous, white kaolin specks
4203	80%	Sandstone: A/A becoming less unconsolidated, friable, weak siliceous/kaolin cement, trace glauconite, trace micro pyrite, trace pin prick dull yellow mineral fluor, no cut, rare muscovite flakes
	20%	Claystone: A/A
4206	80%	Sandstone: White, fine to coarse, generally medium to coarse, friable, weak siliceous and kaolin cement, trace muscovite, trace glauconite, clear to translucent grains, sub angular to occasionally rounded, moderately sorted to locally poorly sorted, trace carbonaceous flakes, trace limestone: buff, microcrystalline, no shows
	20%	Claystone: A/A some washing away
4209	90%	Sandstone: A/A No shows
	10%	Claystone: A/A
4212	90%	Sandstone: Becoming well cemented with weak siliceous cement, occasional kaolin, glauconite, micro pyrite, friable, bit separates grains, porosity? 5-10? occasional carbonaceous flakes
	10%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4215	90%	Sandstone: A/A
	10%	Claystone: A/A
4218	80%	Sandstone: Clear qtz, medium to coarse, sub angular - subrounded, moderately hard, silica cement with sutured contacts between grains, trace of glauconite, no visual porosity
	20%	Claystone: Med. grey, soft-block, w/silt streaks and coarse qtz grains floating
	Tr	Carbonaceous grains
4221	80%	Sandstone: A/A
	20%	Claystone: A/A
4224	80%	Sandstone: A/A
	20%	Claystone: A/A
4227	80%	Sandstone: Clear quartz, fine grained, subrounded, hard, single and sutured grains w/traces of mica and glauconite, originally in fn-crs, friable to hard, silica cemented sandstone aggregates
	20%	Claystone: med-grey, soft-blocky, trace white clay with carb. specks + glauconite
	Tr	Carbonaceous grains, pyrite, lithic fragments
4230	80%	Sandstone: A/A
	20%	Claystone: A/A
4233	80%	Sandstone: A/A
	20%	Claystone: A/A
4236	80%	Sandstone: A/A
	20%	Claystone: A/A
4239	80%	Sandstone I: clear quartz, friable to v. hard, medium grained, subangular - subrounded, mod. sorted, silica cmt, traces of glauconite and mica and coal, <u>fair to poor porosity</u>, <u>no shows</u>
	Tr	Sandstone II: grey - clear quartz, v. friable, fn-med grained, subangular - subrounded, poorly sorted, high content of clay matrix

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
	20%	Claystone: dark - med grey, soft to blocky
	Tr	Lithic fragments, carbonaceous fragments
4242	90%	Sandstone: A/A
	10%	Claystone: A/A
4245	90%	Sandstone: A/A
	10%	Claystone: A/A
4248	90%	Sandstone: A/A
	10%	Claystone: A/A
	Tr	Incr. common carbonaceous, black blocky fragments
4251	90%	Sandstone: A/A
	10%	Claystone: A/A
4254	90%	Sandstone: A/A
	10%	Claystone: A/A w/pyrite streaks
	Tr	Lithics + carb. fragments Increasing amount of white altered claystone w/high silt content.
4257	90%	Sandstone: A/A
	10%	Claystone: A/A
4260	80%	Sandstone: A/A
	20%	Claystone: A/A
4263	80%	Sandstone: A/A
	20%	Claystone: A/A
	Tr	Common carbonaceous black, angular, blocky fragments, pyrite
4266	70%	Sandstone: A/A
	30%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4269	70%	Sandstone: A/A
	30%	Claystone: A/A
4272	70%	Sandstone: Clear to dk brown quartz, very fine to coarse, friable, very hard, subangular to subrounded, poorly sorted, silica cemented, common glauconite, common carbonaceous flakes associated w/sandstone aggregates, poor porosity, no shows
	30%	Claystone: Medium to dark grey, soft to blocky, trace of pyrite,
4275	100%	Sandstone: A/A trace buff to light brown dolomitic limestone some as cement for SST
	Tr	Claystone
4278	100%	Sandstone: A/A
	Tr	Claystone
4281	100%	Sandstone: A/A
4284	90%	Sandstone: A/A
	10%	Claystone: A/A
4287	90%	Sandstone: White, fine to coarse quartz, clear to translucent grains, subangular to subrounded, poor to moderatly sorted in weak to moderate silica cement, trace dolomitic cement, glauconite, carbonaceous flakes, no shows, trace muscovite
	10%	Claystone: A/A Possibly cavings
4289	90%	Sandstone: White to light grey, well cemented, moderately hard, fine to coarse, generally fine to medium, clear to translucent, subangular to subrounded grains, poorly sorted, in weak moderate silica cement, occasionally calcareous in parts, glauconitic, trace micropyrite, light grey to grey brown claystone inclusions in sandstone (probably coal streaks)
	10%	Claystone: Light grey brown, firm, crumbly to blocky break, non calcareous. Trace light brown to buff limestone, microcrystalline.

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4290	90%	Sandstone: A/A Trace light buff argillaceous matrix in parts, trace offwhite calcareous/kaolin streaks
	10%	Claystone: A/A
4293	80%	Sandstone: A/A Rare trace yellow mineral fluorescence
	20%	Claystone: A/A Grading locally to siltstone, trace mica flakes, trace black carbonaceous coal streaks
4296	80%	Sandstone: A/A White to light grey, fine to coarse, clear to translucent grains in weak to moderate silica cement, increasing kaolin content, light (pink) white to white banded grey, moderately hard, poorly sorted subangular to subrounded grains, glauconitic, carbonaceous black coal inclusions, micropyritic in parts, no shows, poor porosity
	20%	Claystone: Light to medium (grey) brown, firm-moderately firm, crumbly break, non calcareous, grading to siltstone streaks with kaolin banding locally, carbonaceous in parts, slightly micropyritic in parts
	70%	Sandstone: A/A Becoming slightly micaceous (biotite), generally fine to medium grains, no shows
4299	30%	Claystone: Medium grey brown, firm, crumbly break, non calcareous, silty, micropyritic, glauconitic, micaceous, carbonaceous in parts grading to siltstone with kaolin lenses, interbedded with sandstone above, slightly calcareous locally
4302	70%	Sandstone: A/A Becoming argillaceous/kaolinitic and slightly calcareous locally
	30%	Claystone: A/A Grading to siltsone locally, trace carbonaceous fragments, firm - moderately firm in parts, crumbly to blocky break
4305	70%	Sandstone: A/A
	30%	Claystone: A/A
4308	70%	Sandstone: A/A
	30%	Claystone: A/A Increasing silt content

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4311	70%	Sandstone: Clear to grey quartz, fine-medium grained, subangular - subrounded, mod-poor sort., v. hard, dolomite cemented, common glauconite grains, few loose quartz grains observed, poor visual porosity, no shows
	30%	Claystone. Med. grey to med. brown, blocky, micaceous, grading to siltstone
	Tr	Carbonaceous grains, pyrite
	Tr	Dolerite
4314	70%	Sandstone: A/A Quartzitic w/20% silica and calcite/dol cement
	30%	Claystone: A/A
	Tr	Dolerite becoming more abundant
4317	70%	Sandstone: A/A
	29%	Claystone: A/A
	1%	Dolerite
	Tr	Pyrite
4320	70%	Sandstone: A/A w/abundant loose clear quartz grains, coarse subangular
	30%	Claystone: A/A
	Tr	Dolerite
4323	70%	Sandstone: A/A w/abundant loose qtz grains
	27%	Claystone: A/A
	3%	Dolerite: Keeps increasing
4326	50%	Sandstone: White to clear to light grey, fine to medium, clear to translucent grains, subangular to subrounded, poorly sorted, in weak to moderate silica cement, slightly glauconitic in parts, locally grading to siltstone, micropyritic in parts.
	40%	Claystone: Light to medium grey brown, firm, blocky to crumbly break, silty, micromicaceous in parts, micropyritic in parts
	10%	Dolerite: Black, clear, light yellow to light green crystals, pyritic in parts
	Tr	Altered Clay: White, black spots, firm crumbly break, calcared

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4329	50%	Sandstone: Predominantly loose quartz, fine to medium grained
	40%	Claystone: Light to medium (grey) brown A/A, carbonaceous, with kaolin? specks
	10%	Dolerite: A/A
	Tr	Altered Clay: White
	(Tr)	Limestone: Light brown, microcrystalline, slightly dolomitic
4332	40%	Sandstone: A/A Weak silica cement
	50%	Claystone: A/A
	10%	Dolerite: A/A Moderately hard, brittle break
	(~1%)	Altered Clay: White A/A
4335	30%	Sandstone: White to light grey, fine to medium, poorly sorted, subangular to subrounded, in weak silica cement, kaolin, slightly glauconitic, firm to moderately hard, friable, grading locally to siltstone in argill/kaolin matrix
	60%	Claystone: Light grey brown, with white kaolin specks silty, carbonaceous in parts, non calcareous, firm, crumbly to blocky break
	10%	Dolerite: A/A
	~1%	Altered Clay: A/A
	~1%	Limestone: Light brown, moderately hard, microcrystlline, dolomitic
4338	10%	Sandstone: A/A Lightly washed sample
	80%	Claystone: Light grey brown, soft, crumbly break, (easily washed away) silty, carbonaceous in parts, non calcareous, grading to siltstone locally, trace micro pyrite
	5%	Dolerite A/A
	5%	Limestone: Light brown to buff, hard - moderately hard, microcrystalline, angular break - blocky break in parts, dolomitic
	Tr	Altered Clay: White, black spots, moderately hard, occasionally slightly calcareous

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4341	20%	Sandstone: Light grey to clear to offwhite, generally very fine to fine to medium, weak silica cement, argillaceous, grading to siltstone locally, occasional brown dolomitic cement, slightly glauconitic, friable, loose quartz
	80%	Claystone: A/A Becoming micropyritic, light grey/buff locally very silty grading to siltstone
	Tr	Limestone A/A
	Tr	Altered Clay: White with black spots, occasionally grey with whitespots, slightly calc in parts, soft to moderately hard
	Tr	Dolerite: Crystals as above
4344	10%	Sandstone: A/A No shows
	90%	Claystone: A/A
	Tr	Limestone: A/A
	Tr	Altered Clay: A/A
4347	10%	Sandstone: A/A
	80%	Claystone: A/A
	5%	Altered Clay: A/A
	5%	Dolerite: A/A
	Tr	Dolomite: Light brown to buff, hard
4350	10%	Sandstone: A/A
	80%	Claystone: A/A
	5%	Altered Clay: A/A
	5%	Dolerite: A/A
	Tr	Dolomite: A/A
4353	10%	Sandstone: A/A
	80%	Claystone: A/A
	5%	Altered Clay: A/A
	5%	Dolerite: A/A
4356	15%	Sandstone: A/A
	10%	Claystone: A/A
	10%	Dolerite: A/A
	5%	Altered Claystone: A/A
4359	15%	Sandstone: A/A
	80%	Claystone: A/A
	5%	Dolerite: A/A
	Tr	Altered Claystone A/A

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4362	10%	Sandstone: Clear to lt grey, quartzose, fine to medium grained, poorly sorted, hard, dolomitic cmt, common glauconite grains, loose coarse subrounded qtz grains
	80%	Claystone: Dk. brown, blocky, micaceous, slightly calcareous, grading to siltstone
	5%	Dolerite: Black, brown, yellow, v. hard, micro xln.
	5%	Altered Clay: White, black spots, very hard
4365	15%	Sandstone: A/A
	75%	Claystone: A/A
	5%	Dolerite: A/A
	5%	Altered Clay: A/A
4368	10%	Sandstone: Light grey to clear, fine to medium grained, poorly sorted in grey argillacous/weak silica cement, some clear crystals in matrix not quartz (easily crushed), slightly glauconitic, friable to moderately hard,
	90%	Claystone: Light to medium grey brown, firm, crumbly to occasionally blocky break, non calcareous to locally slightly calcareous, silty, slightly micromicaceous, grading to siltstone locally, white kaolin streaks locally glauconitic in parts, rare trace pyrite Trace dolerite crystals, trace dolomitic limestone, trace white altered clay
4371	10%	Sandstone: A/A
	90%	Claystone: A/A
4374	70%	Sandstone: Loose sand, clear to transluecent, very fine to fine with some coarse to medium grains, moderately sorted, subangular to subrounded, no shows
	30%	Claystone: A/A

WELL: 6607/5-2 LOGGED BY: Ledje/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4375	80%	Claystone: Light to medium grey (brown tinge) soft to firm, crumbly break, silty grading to siltstone, carbonaceous, micromicaceous, slightly glauconitic, white calcareous soft inclusions, white kaolin, in parts very finely sandy
	20%	Sandstone: Offwhite to light grey, firm to friable, very fine to fine, subangular to subrounded grains, well cemented in kaolin/light grey to buff argillaceous matrix, occasionallly slightly calc/trace dolomitic cement, carbonaceous, glauconitic, also loose quartz fine to medium A/A (trace pyrite) rare trace pinprick yello mineral fluor, no shows
		Trace light brown limestone, (trace dolerite)
4377	80%	Trip sample 80% Claystone A/A
	20%	20% Sandstone A/A
4380	100%	Claystone: Light to medium grey brown, firm, crumbly break, non calcareous, silty, carbonaceous, slightly glauconitic, occasionally grading to siltstone/very fine sandstone, no shows
4383	90%	Claystone A/A becoming slightly micropyritic locally
	10%	Sandstone: Offwhite to light grey, very fine to fine grains, subangular to subrounded, wellsorted, argillaceous/calcareous - occasionally dolomitic cement, friable to moderately firm, kaolinitic in parts, some medium loose grains, locally glauconitic and carbonaceous
4386	90%	Claystone: Light grey to medium grey brown, non calcareous, s to firm, crumbly break, silty, carbonaceous, micropyritic in parts, grading to offwhite/buff/light grey siltstone/very fine sandstone, glauconitic in parts, slightly micaceous in parts
	10%	Sandstone: A/A

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4389	85%	Claystone: A/A
	15%	Sandstone: Offwhite to light grey A/A, friable, occasionally moderately hard, dolomitic cement, glauconitic, carbonaceous in parts, white kaolin specks
4392	90%	Claystone: A/A
	10%	Sandstone: A/A
4395	90%	Claystone: A/A
	10%	Sandstone: A/A no shows
		Tr Dolomitic Limestone: Lightbrown to tan, microcrystalline, hard (still 1/2-1% dolerite frags contamination)
4398	90%	Claystone: Light to medium grey brown, firm, crumbly break, silty occasionally grading to siltstone/very fine sandstone, non calcareous to occasional white calc specks/streaks, slightly carbonaceous, slightly glauconitic, rare micro pyrite, kaolin specks
	10%	Sandstone: A/A, As minor streaks in claystone
	Tr	Dolomitic Lst: A/A
4401	90%	Claystone: Light to medium grey, firm, crumbly break, non calcareous, silty to slightly silty, slightly carbonaceous, occasionally grading to siltstone/sandstone lenses
	10%	Sandstone: Offwhite to light grey, very fine to fine, slightly carbonaceous, slightly glauconitic, well cemented with calc/kaolin/argill matrix, slightly micropyritic locally
4404	90%	Claystone: A/A
	10%	Sandstone: A/A
	Tr	Limestone: Dolomitic, light brown - tan, microcrystalline to sucrosic, moderately hard - hard
4407	90%	Claystone: A/A Occasional pyrite nodule
	10%	Sandstone: A/A Occasional light brown dolomitic cement
	Tr	Limestone: Dolomitic A/A

WELL: 6607/5-2 LOGGED BY: Cook/Ledje

DEPTH m	% LITHOLOGY	DESCRIPTION
4410	90%	Claystone: A/A
	10%	Sandstone: A/A
	Tr	Dolerite
4413	75%	Sandstone: Clear white to med grey quartzose sand, vf to med grained, v. hard, sub.ang.-sub.round, glauconite, non calcareous to dolomite/calcite cement, also argillaceous matrix, poorly sorted, no visible porosity, no shows (common loose qtz grains in this sample)
	25%	Claystone: Dk grey, soft-blocky, calcareous, micromicaceous, grading to siltstone
4416	40%	Sandstone: A/A
	60%	Claystone: A/A
4419	40%	Sandstone: A/A
	60%	Claystone: A/A
4422	30%	Sandstone: A/A
	70%	Claystone: A/A
4425	40%	Sandstone: A/A
	60%	Claystone: A/A
4428	40%	Sandstone: A/A Common loose qtz grains
	60%	Claystone: A/A
4431	30%	Sandstone: A/A
	70%	Claystone: A/A
4434	40%	Sandstone: A/A Micropyritic
	60%	Claystone: A/A
	Tr	Dolerite
4437	40%	Sandstone: A/A Very fine grained
	60%	Claystone: A/A
4440	30%	Sandstone: A/A
	70%	Claystone: A/A
4443	30%	Sandstone: Clear-white to med.grey quartzose sand, very hard to very friable, very fine to medium grained, poorly sorted, subangular to subrounded, calcareous cement as well as argillaceous cmt, no to poor porosity, no shows Common loose quartz, clear, md-crs grained, subrounded-subangular
	70%	Claystone: Dk grey, soft to blocky, calcareous

WELL: 6607/5-2 LOGGED BY: Ledje/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4446	30%	Sandstone: A/A
	70%	Claystone: A/A
4449	40%	Claystone: Light to medium grey, firm, crumbly to blocky break, calcareous to slightly calcareous, slightly carbonaceus, silty to very silty, locally grading to siltstone/very fine sandstone, kaolin streaks and specks, slightly glauconitic in parts.
	60%	Sandstone: Offwhite to light grey white, firm to moderately hard, generally very fine to fine clear grains, occasionally medium grains, subangular to subrounded, well cemented, nil visual porosity, argillaceous/kaolin variagated light grey/white matrix, slightly calcareous, slightly glauconitic, slightly micaceous locally micro pyritic and carbonaceous, frequently interbedded with claystone/siltstone above.
	Tr	Limestone: Light brown - tan, micro crystallic, moderately hard.
4452	50%	Claystone: A/A
	50%	Sandstone: A/A
4455	60%	Claystone: A/A
	40%	Sandstone: A/A
4458	60%	Claystone: A/A
	40%	Sandstone: A/A Trace white-cream calcite crystals Tr brown dolomitic limestone.
4461	50%	Claystone: A/A
	50%	Sandstone: A/A Slightly micropyritic Tr limestone A/A.
4464	50%	Claystone: Light to medium grey, variagated/mottled white, firm, crumbly break, non calcareous to slightly calcareus locally, micro carbonaceous, slightly glauconitic, silty to very silty locally, abundant white kaolin specks plus occasional streaks, locally grading to siltstone/very fine sandstone streaks slightly micro micaceous in parts. Disseminated pyrite locally.

WELL: 6607/5-2 LOGGED BY: Ledje/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
	50%	Sandstone: Offwhite to light grey, firm to hard, very fine to fine, subangular to subrounded, well sorted, well cemented calc and dolomitic cement, kaolin and argillaceous matrix common, slightly carbonaceous, glauconitic in parts, occasional calcite white to light brown. Occasionally micro pyritic.
	Tr	Limestone: Light brown to brown, micro crystalline, hard, slightly glauconitic and microcarbonaceous in parts, occ firm sucrosic texture, dolomitic.
4467	60%	Claystone: A/A
	40%	Sandstone: A/A No shows
	Tr	Limestone: A/A
4470	30%	Claystone: A/A Becoming moderately firm to hard, locally blocky break and very silty grading to very fine sandstone.
	70%	Sandstone: A/A
	Tr	Trace limestone buff to brown, micro cystalline, hard
4473	30%	Claystone: Light to medium grey brown, firm to moderately firm, blocky to crumbly break, silty grading to siltstone/very fine sandstone.
	70%	Sandstone: Offwhite to light grey, very fine to fine, subangular to subrounded, well sorted, calc/dolomitic/argillaceous matrix, kaolinitic in parts, slightly glauconitic in parts, carbonaceous and grading to siltstone/claystone frequently, moderately hard to hard.
	Tr	Dolomitic limestone A/A
4476	40%	Claystone: Brownish grey to grey, mottled with white, soft to sticky to very firm and brittle none to slightly calcareous, commonly very silty grading to siltstone.
	15%	Siltstone: Medium grey to brownish grey, mottled with translucent, very firm to moderately hard, cemented with argillaceous, calcareous in part, medium to coarse silt, very fine sand and clay grading, claystone and sandstone no effective poroxity, trace glauconite and carbonaceous material.

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
	45%	Sandstone: Offwhite to light tan, light grey to brownish grey, translucent, very fine to rare medium quartz sand, coarse silt, commonly argillaceous to calcareous cement friable and firm to moderately hard, slightly glauconitic, subround to subangular poorly sorted quartz, no visible or effective porosity, no show.
4479	60%	Claystone: As above, becoming dark grey, mottled with white, some brownish grey.
	10%	Siltstone: As above.
	30%	Sandstone: As above, some clean.
4482	60%	Claystone: As above, trace fossil fragment.
	10%	Siltstone: As above, trace pinpoint pyrite.
	30%	Sandstone: As above.
4485	40%	Claystone: As above, commonly very silty.
	20%	Siltstone: As above
	40%	Sandstone: As above, seen in sample as mostly loose grains (disaggregated by bit), commonly with cement contacts, round to subangular poor to moderately sorted, some possible intergrannular porosity, trace glauconite pellets.
4488	40%	Claystone: As above, commonly silty grading to siltstone.
	20%	Siltstone: As above, very fine to coarse silt.
	40%	Sandstone: As above.
4491	50%	Claystone: As above.
	25%	Siltstone: As above.
	25%	Sandstone: As above, mostly poorly to moderately cemented very fine to medium grain quartz.

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
4494	50%	Claystone: Light to dark grey, some brownish grey, soft to very firm, some subfissile, none to very silty grading to siltstone, none to slightly calcareous.
	30%	Siltstone: Light to medium grey, offwhite, mottled with translucent and rare black, fine to coarse silt cemented with white to grey clay to slight calcareous cement, commonly grading to very fine sandstone and claystone, very firm and friable to moderately hard, no effective porosity or show.
	20%	Sandstone: As above.
4497	60%	Claystone: As above.
	25%	Siltstone: As above, slightly glauconitic.
	15%	Sandstone: As above.
4500	50%	Claystone: As above.
	20%	Siltstone: As above.
	30%	Sandstone: Translucent, offwhite, light tan, light grey, very fine to medium, poorly sorted, subangular to subround quartz, poorly cemented with argillaceous material and calcite, some loose grains (disaggregated by bit) trace glauconite, no effective porosity, no show.
4503	65%	Claystone: As above, slightly to very silty.
	25%	Siltstone: Light to dark grey, offwhite, mottled with offwhite and translucent quartz, fine to coarse silt, argillaceous and calcite matrix, some grading to very fine sandstone, commonly grading to claystone, firm to very firm.
	10%	Sandstone: As above.
4506	60%	Claystone: As above.
	25%	Siltstone: As above.
	15%	Sandstone: As above, some increasing subangular medium quartz sand.

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
4509	65%	Claystone: As above.
	15%	Siltstone: As above.
	20%	Sandstone: Translucent to offwhite, light grey, very fine to fine and rare medium grain quartz, subround to subangular moderately sorted, poorly cemented with calcite and argillaceous material, rarely clean, some loose grains, no visible porosity, no show.
4512	65%	Claystone: Medium to dark grey to brownish grey, mottled with offwhite, soft and friable to firm, slightly to very silty grading to siltstone, none to slightly calcareous.
	15%	Siltstone: As above, slightly glauconitic.
	20%	Sandstone: As above.
4515	70%	Claystone: Medium to very dark grey to greyblack, some offwhite, soft and friable to firm, slightly to very silty, none to slightly calcareous, commonly laminated, some with pyrite lamination.
	20%	Siltstone: As above.
	10%	Sandstone: As above.
4518	70%	Claystone: A/A
	20%	Siltstone: A/A
	10%	Sandstone: A/A
4521	65%	Claystone: Dark grey, firm, blocky, silty.
	20%	Siltstone: Light grey, argillaceous, very fine sand.
	15%	Sandstone: White, light grey, fine grained, silty, mod. sorted, sub ang. to sub round, poor calcite cement, tight, no shows.
4524	80%	Claystone: A/A
	20%	Siltstone: A/A
4527	80%	Claystone: As above.
	10%	Siltstone: As above, grades to very fine grained ss.
	10%	Sandstone: As above
4530	90%	Claystone: Dark grey as above with common white inclusions (alteration?)
	10%	Siltstone: As above

WELL: 6607/5-2 LOGGED BY: Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
4533	70%	Claystone: Common white inclusions.
	30%	Siltstone: Grades to very fine grained sandstone.
4536	70%	Claystone: A/A
	20%	Siltstone: A/A
	10%	Sandstone: White - light grey, quartz, subrounded, sub.ang. occ. angular fragment med.occ. coarse grained, silica cement, tr. dolerite fragment (cavings?) poor Ø, no shows.
4539	70%	Claystone: As above, becoming sub fissile.
	30%	Sandstone: White buff, quartz, tr. grains to lithic fragments Sub angular, sub round, hard, moderately sorted, tight, poor porosity, no shows, grades to siltstone, tr pyrite.
4542	80%	Claystone: A/A w/finely laminated siltstones becoming sub fissile shale.
	10%	Siltstone: Light grey, argillaceous, v. fine grained sand.
	10%	Sandstone: As above.
4545	80%	Claystone: As above, with disseminated pyrite in clay laminations.
	15%	Siltstone: As above.
	5%	Sandstone: As above.
4548	85%	Claystone: Medium to very dark grey, mottled with offwhite, firm and friable to very firm, subfis in part, none to slightly calcareous, none to very silty grading to siltstone, laminated and graded with silt in part, micromicaceous.
	15%	Siltstone: Offwhite, light to medium grey, soft to firm and friable, fine to medium silt, rare coarse silt, argillaceous and calcareous matrix, slightly to very calcareous, no visible porosity, no show, trace fossil fragments.
	Trace	Sandstone: As above, possible cave.
	Trace	Dolerite + altered claystone: Probable cavings.
4551	85%	Claystone: As above.
	15%	Siltstone: As above.
	Trace	Sandstone: Possible cavings.

WELL: 6607/5-2 LOGGED BY: Lyons/C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
4554	85%	Claystone: As above, with some disseminated pyrite in laminations.
	15%	Siltstone: As above.
4557	75%	Claystone: As above.
	25%	Siltstone: As above.
	Trace	Dolerite + altered claystone: Probable cavings.
4560	70%	Claystone: As above, commonly silty grading to siltstone, subfissile to fissile in part, rare plant impression, some possible alteration.
	20%	Siltstone: As above, occasionally grading to very fine argillaceous sandstone, soft and friable to moderately hard and dense, calcareous, argillaceous and some with siliceous cement, some possible alteration.
	10%	Sandstone: Offwhite, translucent, commonly speckled with dark and offwhite inclusions, disaggregated loose grain in part to very firm and brittle, some hard and dense grading to quartzite, silt size, very fine to coase grain quartz, subround to interlocking, poorly sorted, abundant free nodular and pyrite cemented grains, mostly very tight, no shows, some possible alteration, tr glauconite.
	Trace	Dolerite + altered claystone: Probable cavings.
4563	70%	Claystone: As above.
	20%	Siltstone: As above.
	10%	Sandstone: As above.
4566	60%	Claystone: As above, increasingly silty.
	30%	Siltstone: As above.
	10%	Sandstone: As above.
4569	60%	Claystone: As above, increasingly silty and gradational with siltstone, harder.
	30%	Siltstone: As above.
	10%	Sandstone: As above.

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
4572	65%	Claystone: As above.
	30%	Siltstone: As above.
	5%	Sandstone: Offwhite, light brownish grey, translucent, firm and brittle to hard and dense, silt size, very fine to medium, subround to angular, moderatly sorted, some nodular pyrite, argillaceous and silty in part, tight, no shows.
4575	80%	Claystone: Dark grey, firm, moderately hard, sub fissile, silty occasional white inclusions (alteration?)
	20%	Siltstone: Light grey, firm, argillaceous occasionally grades to very fine sandstone tr. sandstone a/a.
4578	80%	Claystone: As above.
	20%	Siltstone: As above. Trace quartz, white, very hard, brittle, green-black mineralization. Tr. siltstone? common plagiclase mineralization.
4581	70%	Claystone: As above.
	20%	Siltstone: As above becomming hard to very hard, tr. quartz a/a
4584	80%	Claystone: Dark grey, firm-mod hard, sub fissile, silty.
	20%	Siltstone: Light grey, hard, argillaceous, calcareous, tr. nodular pyrite
4587	70%	Claystone: As above, common siltstone laminae.
	30%	Siltstone: As above.
4590	70%	Claystone: As above, common siltstone laminae.
	30%	Siltstone: As above, tr. plagioclase crystals (alteration) occasionally white, specked light grey, quartzitic, soft.
4593	90%	Claystone: As above.
	10%	Siltstone: As above.
4596	70%	Claystone: As above.
	30%	Siltstone: As above becoming locally very hard, grades to fine grained sandstone, occasionally trace massive pyrite.

WELL: 6607/5-2 LOGGED BY: C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
4599	85%	Claystone: Becoming very dense and hard, some with conchoidal fracture, none to very silty.
	15%	Siltstone: As above.
		Tr. plagioclase? crystalization.
4602	80%	Claystone: Medium to very dark grey, moderate to very hard and dense, angular to conchoidal fracture, siltstone and pyrite laminae, grading to siltstone in part.
	20%	Siltstone: Light to dark grey, offwhite, fine to coarse silt with some very fine grain sand inclusions, hard and dense, brittle in part, argillaceous grading to claystone, trace to poor very fine sandstone, no porosity, no shows.
4605	70%	Claystone: As above increasingly dense, abundant disseminated and nodular pyrite. Common fossil fragments.
	30%	Siltstone: As above, with abundant disseminated and nodular pyrite, fossil fragments, commonly quartzitic, common euhedral lath shaped authigenic K feldspar crystals.
4608	60%	Claystone: As above.
	40%	Siltstone: As above.
4611	70%	Claystone: As above, increasing light grey to offwhite, commonly speckled with pinpoint white inclusions.
	30%	Siltstone: As above, increasingly dense and siliceous in part.
4614	20%	Siltstone: As above.
	80%	2 Types claystone.
		1st Claystone: As above, moderately hard and dense (90% of total claystone).
		2nd Claystone: Offwhite to light green, spotted with medium grey, firm to moderately hard, friable in part, waxy luster, very tight, dense in part (10% of total claystone) silty, grading to siltstone.

WELL: 6607/5-2 LOGGED BY: R. Lyons/C. Allison

DEPTH m	% LITHOLOGY	DESCRIPTION
4617	85%	Claystone: (two types).
		1st Claystone: Medium to very dark grey to blackish grey, hard and dense, brittle in part, silty, commonly grading to siltstone, (up to 75% of claystone).
		2nd Claystone: Offwhite to light grey with medium grey spots, as above (25% of total claystone).
	15%	Siltstone: As above.
4620	80%	Claystone: As above, becoming predominantly off white to light grey with medium grey spots.
	20%	Siltstone: As above.
4623	85%	Claystone: As above, common nodular pyrite.
	15%	Siltstone: As above.
4626	60%	Claystone: As above.
	40%	Siltstone: As above.
4629	60%	Claystone: Offwhite, mod. hard. occasionally friable, grey spots.
	40%	Siltstone: As above, tr. sandstone.
4632	80%	Claystone: Offwhite, as above.
	20%	Siltstone: As above.
4635	75%	Altered Claystone: Offwhite, light grey spots, firm-moderately hard, occasionally friable, silty.
	5%	Dolerite? Black very fine-fine grained, hard, massive angular break, may be altered siltstone (upper contact?)
	20%	Altered Siltstone: Slightly sandy in part.
4638	70%	Altered Claystone: As above.
	15%	Altered Siltstone: As above.
	15%	Dolerite? Pred. white tr black, fine grained, very hard, brittle predominantly quartz? with 25% mafic material.

WELL: 6607/5-2 LOGGED BY: R. Lyons

DEPTH m	% LITHOLOGY	DESCRIPTION
4641	75%	Dolerite: Black-white, quartz-pyroxene, fine-medium, grained, very hard, brittle.
	20%	Altered Claystone: White with grey specks as above.
4644	85%	Dolerite: As above, some possible K feldspar, altered to kaolinite, occasional pyrite.
	15%	Altered Claystone: As above.
4647	90%	Dolerite: As above.
	10%	Altered Claystone and Kaolinized K feldspar: As above.
4650	90%	Dolerite: As above.
	10%	Altered Claystone: As above.
4653	100%	Dolerite: As above.
	Tr	Altered Claystone: As above.
4656	100%	Dolerite: Opaque black, dark green, white, translucent light green, purple, transparent quartz, hard, dense, interlocking crystals, common K feldspar grading to kaolinite, pyroxene, some chloritization, trace amphiboles.
4659	100%	Dolerite: As above.
4662	100%	Dolerite: As above, common dark green, soft, opaque mineral, common pyrite.
4665	100%	Dolerite: As above, heavy chloritization.
4668	100%	Dolerite: As above.
4671	100%	Dolerite.
4674	100%	Dolerite.
4679	100%	Dolerite.
4680	100%	Dolerite increasing, kaolin.
4683	100%	Dolerite.
4684.5	100%	Dolerite, spot sample at FTD.

ESSO NORGE a.s
WELLSITE SAMPLE DESCRIPTION

WELL: 6607/5-2 SIDETRACK LOGGED BY: Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
3999		100% Cement
4000		100% Cement
4001		100% Cement
4002		100% Cement
4003		100% Cement (Trace claystone/siltstone)
4004		100% Cement (Trace claystone/siltstone)
4005		100% Cement (Trace claystone/siltstone)
4006		100% Cement (Trace claystone/siltstone)
4007		100% Cement (Rare trace claystone)
4008		100% Cement (Rare trace claystone)
4009		99-100% Cement (Trace to 1% formation at 4008.8m) Claystone: Medium grey, firm to moderately firm, crumbly to blocky break, non calcareous, silty in parts, minor white kaolin specks, rare glauconite. Also traces of claystone: Light grey (brown) banded white in parts, soft, crumbly break, silty, slightly carbonaceous in parts, micromicaceous in parts occasionally grading to siltstone locally, light grey white, firm, slightly calcareous.
4010		100% Cement (Trace claystone)
4011		100% Cement (Trace claystone)
4012		100% Cement (Trace claystone)
4012.25	95%	Cement
	5%	Claystone: Medium grey to light grey (brown), firm to moderately firm, crumbly to blocky break, silty locally grading to siltstone, non calcareous to occasionally slightly calcareous, microcarbonaceous in parts, rare glauconite, occasional micropyritic in parts, occasional white kaolin specks/white banding in siltstone lenses, slightly micromicaceous.
4012.5	95%	Cement
	5%	Claystone/siltstone: A/A trace light brown, microcrystalline dolomitic limestone, slightly micropyritic in parts, hard.
4012.75	95%	Cement
	5%	Claystone: A/A traces siltstone grading to very fine sandstone, glauconitic, trace dolomitic limestone: light brown, microcrystalline, hard, brittle to angular break.
4013	90%	Cement
	10%	Claystone/siltstone with traces dolomitic limestone.
4013.3	90%	Cement
	10%	Claystone/siltstone with traces dolomitic limestone.

WELL: 6607/5-2 SIDETRACK LOGGED BY: Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4013.5	90%	Cement
	10%	Claystone/siltstone with traces dolomitic limestone.
4013.75	85%	Cement
	15%	Claystone with siltstone streaks + traces of dolomitic limestone
4014	85%	Cement
	15%	Claystone/siltstone + trace dolomite
4014.25	85%	Cement
	15%	Claystone/siltstone + trace dolomite A/A
4014.5	85%	Cement
	15%	Claystone/siltstone + trace dolomite A/A
4015	80	Cement
	20%	Claystone: Medium grey (brown) to light grey brown, firm to moderately firm, crumbly to blocky break, silty, micromicaceous and micropyritic in parts, kaolin specks, microcarbonaceous in parts, non to slightly calcareous, rare glauconite, siltstone streaks generally off white, kaolinitic and slightly calc slightly glauconitic, firm, friable to moderately cemented, trace light brown dolomitic limestone, moderately hard - hard, angular break.
4016.5	20%	Cement
	80%	Formation
4016.7	10%	Cement
	90%	Formation
4017	Tr	Cement
	100%	Claystone: Light to medium grey (brown), firm to moderately firm, crumbly break, silty grading to siltstone lenses, microcarbonaceous, micropyritic in parts, kaolin specks, non to slightly calcareous, slightly glauconitic, trace pyrite nodules. Siltstone: Light grey (white), firm, kaolin + calcareous cement, friable, glauconitic, grading occasionally to very fine sandstone.
	Tr	Limestone: Buff to light brown, moderately hard, microcrystalline, dolomitic in parts.
4018	100%	Claystone with siltstone lenses, Tr limestone A/A.

WELL: 6607/5-2 SIDETRACK LOGGED BY: Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4019	100%	Claystone with minor siltstone streaks A/A
4020	100%	Claystone with siltstone streaks: kaolin/calc cement, firm-moderately firm, occasionally grading to very fine sandstone.
4021	100%	Claystone with siltstone streaks.
4022	100%	Claystone: Medium grey to light grey (brown), firm, crumbly break, silty, slightly carbonaceous, non to slightly calcareous, rare glauconite, occasional white kaolin specks, occasional white calcareous banding, occasional siltstone/very fine sandstone streaks: Generally off white - light grey white, argillaceous, kaolinitic, glauconitic in parts, occasionally firm to mod firm, well cemented, calcareous/dolomitic cement. Trace buff to cream to light brown, firm to hard, microcrystalline, dolomitic limestone.
4023	100%	Claystone with siltstone streaks A/A
4024	100%	Claystone with siltstone streaks A/A
4027	95%	Claystone: Light grey (brown), firm, crumbly break, silty, slightly carbonaceous, non to slightly calcareous, kaolin specks, occasionally micromicaceous, with siltstone streaks.
	5%	Siltstone: Generally off white - light grey (white), argillaceous, kaolinitic, glauconitic in parts, firm to occasionally moderately firm with calcareous and occasionally light brown dolomitic cement, generally friable, occasionally grading locally to siltstone/very fine sandstone.
	Tr	Limestone: Light brown to occasionally buff, moderately hard to hard, brittle to angular break, microcrystalline.
4030	95%	Claystone: A/A
	5%	Siltstone: A/A
	Tr	Limestone: A/A
4033	65%	Claystone: A/A Some medium grey, slightly glauconitic, more silty.
	20%	Siltstone: A/A Trace pyrite nodules.
	15%	Limestone: A/A But carbonaceous and micropyritic (heavily) in parts, contact seen as limestone grades into siltstone.

WELL: 6607/5-2 SIDETRACK LOGGED BY: Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4036	85%	Claystone: Generally light grey (brown) occasionally white kaolin bands.
	10%	Siltstone: A/A Micropyritic in parts.
	5%	Limestone:
4038	95%	Claystone: Light grey (brown) - occasionally medium grey, firm, silty, slightly carbonaceous, kaolin specks.
	5%	Siltstone: A/A Glauconitic, kaolinitic, argillaceous.
	Tr	Limestone:
4041	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: Light brown to buff, microcrystalline, slightly dolomitic, non carb, non pyritic.
4044	65%	Claystone: A/A
	30%	Siltstone: A/A
	5%	Limestone: A/A
4047	65%	Claystone: A/A
	30%	Siltstone: A/A
	5%	Limestone: A/A
4050	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: A/A
4053	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: A/A
4056	75%	Claystone: Light grey (brown), silty A/A.
	20%	Siltstone: A/A Slightly micro pyritic, some dolomitic cemented siltstone, carbonaceous.
	5%	Limestone: Light brown to buff to cream, firm to moderately hard, carbonaceous, micropyritic in parts, dolomitic, occasional sucrosic texture.
4059	80%	Claystone: Light grey (brown) to light grey, white banding, firm, crumbly break, very silty, slightly carbonaceous, glauconitic, abundant kaolin specks/streaks.
	20%	Siltstone: Light grey to white, argillaceous, carbonaceous, glauconitic, kaolinitic, firm, slightly calcareous.
	Tr	Limestone: A/A

WELL: 6607/5-2 SIDETRACK LOGGED BY: Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4062	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: A/A
4065	70%	Claystone: A/A
	20%	Siltstone: A/A occasionally micropyritic in parts.
	10%	Limestone: Light grey to buff to light brown, firm to moderately hard, brittle to angular break, slightly carbonaceous and slightly micropyritic in parts, microcrystalline, occasionally sucrosic texture, contact seen between light grey (slightly dolomitic LST) and medium brown dolomitic limestone.
4068	60%	Claystone: A/A Slightly micromicaceous and glauconitic, occasional pyrite nodules.
	30%	Siltstone: A/A
	10%	Limestone: A/A
4071	85%	Claystone: Light grey brown with light grey white streaks, silty, carbonaceous, kaolin specks, non calcareous, some disseminated micro pyrite, firm, crumbly break.
	15%	Siltstone: Light grey to off white, argillaceous, kaolinitic, slightly calc in parts, firm, well cemented in parts, friable, glauconitic and kaolinitic in parts.
	Tr	Limestone: A/A.
4074	85%	Claystone: As above.
	15%	Siltstone: As above.
4077	85%	Claystone: As above, very silty.
	15%	Siltstone: As above, common glauconite.
4080	85%	Claystone: Light to medium grey brown, silty, soft to occasionally firm, as above.
	15%	Siltstone: Buff to light grey, argillaceous, kaolinitic, as above.
4083	80%	Claystone: As above.
	20%	Siltstone: As above.

WELL: 6607/5-2 SIDETRACK LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4086	80%	Claystone: Light to medium grey brown, silty, soft to firm, common glauconite, micropyritic in part.
	20%	Siltstone: Buff to light grey, mottled in part, argillaceous, common kaolin, calcareous in part, very friable to moderately hard
	Tr	Limestone: Light grey to buff, micro crystalline, argillaceous.
4089	80%	Claystone: As above.
	20%	Siltstone: As above, occasionally grades into VFG sandstone.
4092	75%	Claystone: As above.
	25%	Siltstone: As above, mottled in part.
4095	75%	Claystone: As above, very silty.
	25%	Siltstone: As above.
4098	75%	Claystone: As above.
	25%	Siltstone: As above.
4101	80%	Claystone: Light to medium grey brown, silty, soft to occasionally firm, common kaolin, glauconitic in part, micropyritic in part, trace pyrite nodules.
	20%	Siltstone: White to light grey brown, mottled in part, argillaceous, common glauconite, calcareous in part, common kaolin, very friable to moderately hard, grades occasionally into very fine grained sandstone.
4104	75%	Claystone: As above.
	25%	Siltstone: As above.
4107	80%	Claystone: As above, common disseminated pyrite.
	20%	Siltstone: As above.
		Trace muscovite.
4110	80%	Claystone: Light to medium grey (brown) with occasional white mottling, firm, crumbly break, silty, kaolin specks, rare glauconite, micro carbonaceous, occasional micropyrite, non calcareous.
	20%	Siltstone: White to light grey, argillaceous, glauconitic, common kaolin, occasional micro carbonaceous in parts, occasionally grades to very fine sandstone. Friable, firm to occasionally moderately firm, rare mica flakes.
	Tr	Limestone: Light brown, firm, occasionally friable in siltstone matrix, slightly dolomitic, slightly glauconitic.

WELL: 6607/5-2 SIDETRACK LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4113	80%	Claystone: A/A
	20%	Siltstone: A/A Trace micro pyrite.
4116	80%	Claystone: Light to medium grey brown A/A, occasional white kaolin streaks.
	20%	Siltstone: A/A Occasional moderately hard dolomitic cement.
	Tr	Limestone: Light brown, firm, sucrosic texture, dolomitic.
4119	80%	Claystone: A/A
	20%	Siltstone: A/A
	Tr	Limestone: A/A
4122	65%	Claystone: Light to medium grey brown, firm, crumbly break, slightly carbonaceous, kaolin specks, occasionally micropyritic, non calcareous, silty.
	35%	Siltstone: Light grey to white to translucent white, firm, friable, kaolinitic and calcareous cement, argillaceous in parts, some light brown dolomitic cmt, glauconitic, some free coarse lower sand grains, translucent and well rounded in matrix, trace muscovite, trace pyrite nodules.
	Tr	Limestone: Light brown, firm, sucrosic texture, dolomitic.
4125	65%	Claystone: A/A Occasional offwhite kaolin streaks.
	35%	Siltstone: A/A Occasional coarse sand sized carbonaceous fragments in matrix.
	(Tr)	Limestone: A/A
4128	65%	Claystone: A/A
	35%	Siltstone: A/A Micropyritic, no large carbonaceous fragments, trace coarse sand grains in siltstone matrix, glauconitic.
	Tr	Limestone: Light brown, microcrystalline and sucrosic textured, dolomitic.
4131	55%	Claystone: A/A Becoming mottled white and very silty in parts.
	45%	Siltstone: A/A
	Tr	Limestone: A/A

WELL: 6607/5-2 SIDETRACK LOGGED BY: Millen/Cook

DEPTH m	% LITHOLOGY	DESCRIPTION
4134	60%	Claystone: As above.
	40%	Siltstone: As above.
4137	65%	Claystone: As above.
	35%	Siltstone: As above.
4140	65%	Claystone: Light to medium grey brown, silty, soft to firm, common kaolin, as above.
	35%	Siltstone: White to light grey brown, mottled in part, argillaceous, as above.
4143	65%	Claystone: As above.
	35%	Siltstone: As above.
4146	65%	Claystone: As above.
	35%	Siltstone: As above.
4149	70%	Claystone: Becoming firmer with depth, as above, glauconitic in part.
	30%	Siltstone: Predominantly light grey brown, as above.
4152	75%	Claystone: Light to medium grey brown, firm, silty, common kaolin, glauconitic in part, trace disseminated pyrite.
	25%	Siltstone: White to light grey, light grey brown, mottled in part, argillaceous, calcareous in part, common kaolin, occasional very fine quartz grains.
4155	75%	Claystone: As above.
	25%	Siltstone: As above.
4158	50%	Claystone: As above.
	50%	Siltstone: White to light grey brown, argillaceous, arenaceous, (common very fine to fine quartz and lithic grains in silty matrix), kaolinitic, calcareous in part, trace to common glauconite, tight, no shows.
4161	50%	Claystone: As above.
	50%	Siltstone:
4164		Coring - poor sample - see core description.
4167		See core description.
4170 -4188.5		See core description.

3.2 SIDEWALL CORE DESCRIPTIONS

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 1
DESCRIBED BY : Millen

SHOT : 60
RECOVERED : 39
MISFIRES : 11
SHOT OFF : 9
PULLED OFF: 1

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
1	2195	45	Claystone: Medium grey brown to medium brown, firm, silty, non dispersive, abundant pyrite throughout core, abundant glauconite, abundant black lithic grains (very fine to fine grained)
2	2184	42	Claystone: Medium grey, firm, silty, non dispersive, common floating very fine to fine quartz and lithic grains, trace mica, calcareous
3	2180	-	Misfire
4	2170	49	Claystone: Mottled Green and light brown, firm, slightly silty in part, trace glauconite, trace mica.
5	2160,5	15	Claystone: Brownish green claystone matrix with abundant mottled brownish green to green siliceous chert (?); moderately hard to hard, brittle, common disseminated pyrite
6	2151,5	57	Claystone: Light to Medium green, soft to firm, sub blocky in part, common disseminated pyrite.
7	2135,2	50	Claystone: Light to Medium green, as above
8	2116,5	55	Claystone: Light grey green to brownish green, soft, dispersive in part.
9	2102	-	Misfire
10	2088	55	Claystone: Light to Medium green, soft to sub fissile, dispersive in part.
11	2076	-	Shot off
12	2048	-	Misfire
13	2034	57	Claystone: Light to Medium green, as above
14	2025	-	Misfire

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 1
DESCRIBED BY : Millen

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
15	2020	55	Claystone: Light to medium green, soft, dispersive, trace disseminated pyrite
16	2015,5	-	Misfire
17	2010	47	Claystone: Light grey green, soft, slightly sticky, dispersive in part, silty, common silt to very fine grained quartz, common disseminated pyrite
18	2000	52	Claystone: Light to medium grey brown, soft, sticky, silty, calcareous, trace green claystone, trace floating medium grained quartz
19	1985	50	Claystone: Medium grey to medium grey brown, soft to firm, silty, calcareous, common floating fine to medium grained quartz
20	1955	55	Claystone: Medium grey brown, soft to firm, silty, calcareous
21	1930	60	Claystone: Medium grey, soft, slightly sticky, slightly silty, calcareous, trace mica
22	1897	46	Claystone: Medium grey, slightly silty to silty
23	1880	-	Misfire
24	1802	45	Claystone: Medium grey, as above
25	1772	55	Claystone: Medium grey, as above
26	1750	50	Claystone: Medium grey, as above
27	1715	49	Claystone: Medium grey, soft to firm, silty to very silty, calcareous, trace floating coarse grained quartz, trace floating fine to medium grained quartz aggregates - very hard, welded grains
28	1689,5	45	Claystone: Medium grey, soft to firm, silty, calcareous in part

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 1
DESCRIBED BY : Millen

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
29	1649	-	Misfire
30	1616,5	40	Claystone: Medium grey, very soft, sticky, silty, calcareous, trace mica, trace green claystone, trace floating medium grained quartz
31	1560	45	Claystone: Medium grey, soft to firm, silty, calcareous, trace floating quartz grains
32	1525	35	Claystone: Medium grey, very soft, sticky, as above
33	1495	-	Shot off
34	1475	-	Shot off
35	1439	-	Misfire
36	1399	50	Claystone: Medium grey, as above
37	1384,2	55	Claystone: Medium grey, soft to firm, silty, calcareous, common floating coarse grained quartz
38	1333	48	Claystone: Medium grey, as above
39	1295	49	Claystone: Medium grey, as above, trace to common mica, trace calcite crystals
40	1268	-	Shot off
41	1240	-	Misfire
42	2190	-	Shot off
43	2180	-	Shot off
44	2160,5	35	Claystone: Mottled green to light brown, soft to firm, trace glauconite, common disseminated pyrite, trace brownish green siliceous chert
45	2116,5	54	Claystone: Light grey green to brownish green, soft, dispersive in part
46	2102	55	Claystone: Light to Medium green, firm, sub fissile in part
47	2048	-	Shot off

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 1
DESCRIBED BY : Millen

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
48	2025	60	Claystone: Light Grey Green, soft, trace glauconite, trace pyritized fossil fragment, trace disseminated pyrite
49	2015,5	55	Claystone: Light Grey Green to light green, as above
50	2000	47	Claystone: Light to medium grey brown, soft to firm, silty, calcareous
51	1930	-	Pulled off
52	1897	48	Claystone: Medium grey, soft to firm, slightly silty to silty, calcareous
53	1880	52	Claystone: Medium grey, soft to firm, silty, calcareous
54	1715	46	Claystone: Medium grey, as above
55	1689,5	-	Misfire
56	1649	-	Misfire
57	1495	32	Claystone: Light grey, soft, sticky, slightly silty
58	1475	-	Shot off
59	1439	-	Shot off
60	1240	50	Claystone: Medium grey, soft, silty, calcareous

NOTE: Re-shot sidewalls that appeared to have pulled off without recovery (i.e. no recorded pull when recovering bullet from formation)

EXPLO\AX01A.08E /lhz

ESSO NORGE A.S.

24.09.91

PAGE 1

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 2
DESCRIBED BY : Allison/Foss

SHOT : 60
RECOVERED : 40
MISFIRES :
LOST : 16
EMPTY : 4

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
1	3680.0	LOST	
2	3651.0	EMPTY	
3	3632.0	LOST	
4	3612.0	LOST	
5	3575.0	LOST	
6	3567.5	LOST	
7	3525.5	40	CLAY: greenish grey, soft, very calcareous, no show
8	3525.5	40	CLAY: grey, soft noncalcareous, no show
9	3523.5	30	CLAY: grey, soft, very calcareous, no show
10	3473.5	LOST	
11	3471.5	LOST	
12	3421.5	10	MUD CAKE & CLAY: grey soft, noncalcareous, no show
13	3420.5	10	MUD CAKE & CLAY: grey, hard calcareous, no show
14	3390.0	LOST	
15	3349.0	LOST	
16	3322.0	40	CLAY: soft-hard,bluish grey,very slightly calc,no show
17	3297.5	40	CLAY: soft-hard, grey, noncalcareous, no show
18	3268.5	30	CLAY:grey,dark green,hard,v calcareous,calcite,no show
19	3209.0	LOST	
20	3168.0	LOST	
21	3120.0	LOST	

ESSO NORGE a.s

24.09.91

PAGE 2

SIDEWALL CORE DESCRIPTION FORM

SHOT : 60
RECOVERED : 40
MISFIRES :
LOST : 16
EMPTY : 4

WELL: 6607/5-2

LOGGING RUN #: 2
DESCRIBED BY : Allison/Foss

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
22	3067.0	35	CLAY: grey-dark grey, hard, very calcareous, no show
23	3042.0	LOST	
24	3023.5	LOST	
25	2991.0	40	CLAY: grey, soft, very calcareous, no show
26	2957.0	40	CLAY: grey, soft, very calcareous, large hole,no show
27	2925.0	50	CLAY: grey, soft, very calcareous, no show
28	2886.5	50	CLAY: grey soft, very calcareous, no show
29	2865.0	28	CLAY: grey, mod hard, micromica, calc, glauc, no show
30	2845.0	40	CLAY: dk grey, soft-mod hard, noncalc, glauc, no show
31	2805.5	50	CLAY: grey, soft-mod hard, noncalcareous, no show
32	2800.0	50	CLAY: grey, soft-mod hard, noncalcareous, no show
33	2750.0	55	CLAY: gy, sft-moderately hard,noncalcareous, no show
34	2732.5	45	CLAY: gy, sft-mod hd, v calc, slow wh cut, yel residue
35	2700.0	55	CLAY: gy, sft-mod hd, v calc, slow wh cut, yel residue
36	2675.5	50	CLAY: grey, soft, sticky, very calcareous, no show
37	2650.0	LOST	
38	2624.0	52	CLAY: grey, hard, firm, calcareous, no show
39	2591.5	50	CLAY: dk grey,sft-hd,stky,noncalc,spot yel fluor wh cut
40	2565.5	30	LS: green, v arg,sft-v frm,gd yel wh fluor,yel wh cut
41	2564.5	18	LS: gy green,green,v frm,arg,spot yel fluor,yel wh cut
42	2538.0	50	CLAY: gy gn,frm,noncalcareous,sbfis,v sft wet,no show
43	2519.5	30	CLAY: v dk gy,v frm,brittle,noncalc, wtr sol, no show

ESSO NORGE a.s

24.09.91

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 2
DESCRIBED BY : Allison/Foss

SHOT : 60
RECOVERED : 40
MISFIRES :
LOST : 16
EMPTY : 4

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
44	2497.5	48	CLAY: mottled grey white, sft & fri, noncalc, no show
45	2469.5	EMPTY	
46	2450.5	52	CLAY: v dk grey,v sft & fri,noncalc,wtr sol,no show
47	2421.5	45	CLAY: v dk grey,v sft & fri,wtr sol,noncalc,no show
48	2402.0	40	CLAY: v dk gy, v sft & fri, noncalc, wtr sol, no show
49	2377.5	50	CLAY: mot gy gn,lt gn,v sft,noncalc,dissem pyr,no show
50	2376.5	45	CLAY: dark green, sticky, soft,noncalc, no show
51	2355.5	55	CLAY: dark green,sticky,soft,noncalcareous, no show
52	2345.0	LOST	
53	2330.5	38	CLAY: gy gn, v slty, frm, subplastic,noncalc,no show
54	2318.5	38	CLAY: dark gn, firm, noncalc, water soluble, no show
55	2304.0	43	CLAY:v dk gy,vf qtz sd,sl calc,frm,fri,wtr sol,no show
56	2282.0	47	CLAY:v dk gy,vf qtz sd/mica,sl calc,frm,wtr sol,no show
57	2263.0	50	CLAY: v dk gy, mod calc, wtr sol, frm, no show
58	2255.0	36	CLAY: v dk gy,vf-f qtz sd,calc,frm,fri,wtr sol,no show
59	2248.5	45	CLAY: v dk gy,vf qtz sd/mica,sl calc,frm,wtr sol, no show.
60	2234.0	40	CLAY: v dk gy,vf-f qtz sd,calc,frm,fri,wtr sol, no show.
			NOTE: Re-shot sidewalls that appeared to have pulled off without recovery (i.e. no recorded pull when recovering bullet from formation).

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 3
DESCRIBED BY : Lyons/Allison

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
1	4665	5	DOLORITE: black & white, broken translucent quartz, pyroxene, kaolinized plagioclase, fine to medium crystalline, no porosity or show.
2	4620	10	ALTERED CLAYSTONE: white with grey spots, moderately hard & dense, lineated "spots" of mineralization, silty texture, no shows.
3	4605	MISFIRE	
4	4570	EMPTY	
5	4540	EMPTY	
6	4502	MISFIRE	
7	4483	10	SILTY CLAYSTONE: very dark grey, moderately hard and dense, micromicaceous, grading to siltstone, some poor very fine argillaceous sandstone.
8	4468	EMPTY	
9	4450	MISFIRE	
10	4423	5	X-LAMINATED SILTSTONE & CLAYSTONE: dark grey, hard and dense claystone, off white loose quartz silt with white clay matrix, hard, no shows.
11	4398	10	MUDCAKE ONLY
12	4378	MISFIRE	
13	4356	20	SANDSTONE: buff to off white, translucent, fine grained, well sorted subround to subangular quartz, moderately hard, argillaceous/siliceous cement, no effective P & P, glauconitic, no show.
14	4338	30	SANDSTONE: buff to off white, translucent, poorly sorted, very fine to medium subround quartz, hard & dense, argillaceous/siliceous cement, white flakes & glauconitic inclusions, no effective P & P, no show.

126AX01V.11E /lhz

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 3

DESCRIBED BY : Lyons/Allison

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
15	4320	MISFIRE	
16	4313	10	SANDSTONE: buff to off white, translucent, poorly sorted, very fine to coarse subround quartz, mod.hard & dense, argillaceous/siliceous cement, white flakes & glauconitic inclusions, no effective P & P, no show.
17	4300	5	SANDSTONE: buff, translucent, poorly sorted, very fine to coarse subround quartz, very firm, friable, very argillaceous, slightly calcareous, white flakes & glauconitic inclusions, no effective P & P, no show.
18	4290	MISFIRE	
19	4275	MISFIRE	
20	4260	MISFIRE	
21	4240	MISFIRE	
22	4213	MISFIRE	
23	4195	MISFIRE	
24	4187	MISFIRE	
25	4183	MISFIRE	
26	4178	MISFIRE	
27	4170	MISFIRE	
28	4168	MISFIRE	
29	4155	MISFIRE	
30	4140	MISFIRE	
31	4123	15	CLAYSTONE: dark grey, very firm, subfissile, platy in part.

126AX01V.11E /lhz

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

WELL: 6607/5-2

LOGGING RUN #: 3
DESCRIBED BY : Lyons/Allison

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
32	4110	EMPTY	
33	4078	EMPTY	
34	4060	LOST	
35	4040	EMPTY	
36	4000	15	CLAYSTONE: dark grey, very firm, subfissile, platy in part.
37	3985	LOST	
38	3970	10	CLAYSTONE: dark grey, very firm, subfissile, platy in part, silty in part, friable to subplastic
39	3948	10	CLAYSTONE: dark grey, very firm, subfissile, platy in part, silty in part, friable to subplastic
40	3935	10	CLAYSTONE: dark grey, hard and dense, micromicaceous with muscovite
41	3920	20	SILTSTONE: laminated dark grey and off white, firm, fine silt in clay matrix, brittle.
42	3900		MUDCAKE ONLY
43	3880	EMPTY	
44	3865	EMPTY	
45	3829	10	DOLERITE: translucent white, translucent grown, green interlocking very coarse, pyroxene, quartz, kaolinized feldspar, hard and brittle, dense, no permeability or porosity.
46	3810	5	DOLERITE: translucent white, translucent brown, green interlocking very coarse, pyroxene, quartz, kaolinized feldspar, very firm & brittle, "weathered" texture no permeability or porosity.

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 3
DESCRIBED BY : Lyons/Allison

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
47	3785	LOST	
48	3765	15	SILTSTONE: off white, light grey, mottled with dark grey, very firm, friable, coarse silt in clay matrix, very calcareous, no show.
49	3755	MISFIRE	
50	3740	25	CLAYSTONE: dark grey, very firm, dense, conchoidal break.
51	3730	10	CLAYSTONE: dark grey, firm, micromicaceous with muscovite, slightly calcareous, subfissile.
52	4398	MISFIRE	
53	4313	EMPTY	
54	4275	20	SILTSTONE: off white, speckled with pin point white and dark grey inclusions, very firm, subfissile.
55	4240	MISFIRE	
56	4210	20	SILTSTONE: off white, speckled with pin point white and dark grey inclusions, very firm, subfissile.
57	4187	2	SILTSTONE: grey to greyish brown, firm, friable, fine to coarse dark green glauconite grains.
58	4183	MISFIRE	
59	4173	EMPTY	
60	3985	10	SANDSTONE: buff to white, translucent, poorly sorted very fine to medium subround quartz, moderately hard & brittle, argillaceous/siliceous cement, white flakes & glauconitic inclusions, no effective P & P, no show.
61	4585	EMPTY	
62	4570	EMPTY	

126AX01V.11E /lhz

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 3
DESCRIBED BY : Lyons/Allison

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
63	4568	EMPTY	
64	4560	15	CLAYSTONE: dark grey, soft, sub fissile, silty => grading to siltstone, sl. calcareous.
65	4550	20	CLAYSTONE: dark grey, very firm, blocky, pyrite, veining, very sl. calcareous.
66	4540	10	SILTY CLAYSTONE: dark grey, soft, sticky sl. calc., very silty => siltstone.
67	4502	30	SILTY CLAYSTONE: dark grey, firm, sl. calc., v. silty
68	4413	15	SILTSTONE & CLAYSTONE: interlaminated, dark grey, v.firm, micro micaceous medium siltstone in clay matrix.
69	4398	20	SILTY CLAYSTONE: dark grey, soft, sticky sl. calc.
70	4378	26	SILTY CLAYSTONE => grading to siltstone
71	4330	30	SILTY CLAYSTONE: dark grey, firm, blocky sl. calc.
72	4320	20	SILTY CLAYSTONE: dark grey, firm, blocky sl. calc.
73	4313	20	CLAYSTONE: dark grey, firm, blocky, sl. cacl, silty
74	4290	5	CLAYSTONE: as above
75	4270	EMPTY	
76	4270	20	SILTSTONE: Medium grey, quartz, trace glauconite, trace black lithic? grains, very argillaceous, trace sand, No Ø, No shows.
77	4260	30	SANDSTONE: light grey - off white, quartz glauconite, common black fragments, friable argillaceous matrix, No effective porosity. No shows, trace siltstone laminae

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

			SHOT :120
			RECOVERED : 60
WELL:	6607/5-2	LOGGING RUN #: 3	MISFIRES : 22
		DESCRIBED BY : Lyons/Allison	LOST : 21
			EMPTY : 17

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
78	4250	25	SANDSTONE: light-medium grey, as above inc. argillaceous, No effective porosity, No shows.
79	4245	32	SANDSTONE: light grey, quartz, trace glauc, trace black fragments, very fine grained silt, sub round, mod sorted, friable, argillaceous/silica cement, No effective porosity, No shows.
80	4240	15	SILTSTONE: dark grey, quartz argillaceous silt-ufg sand, sub round, mod sorted hard, non calcareous, TT, No shows.
81	4235	30	CLAYSTONE: medium grey brown, cohesive, blocky, silty, sl. calcareous.
82	4230	30	SANDSTONE: light grey, quartz, com. glauconite, trace black fragments, vfg - silt, sub round, mod. sorted, argillaceous, silica matrix, No efffective porosity, No shows.
83	4220	40	SANDSTONE: as above u/ aprox 5% black (FeMg?) fragments (Positively attracted by magnet), No effective porosity, No shows.
84	4216	25	CLAYSTONE: dark grey, massive, firm silty.
85	4213	3	SANDSTONE: white - light grey, quartz, vfg, 5% glauconite, 5% black fragments, finely disseminated, sub round, moderately hard, No effective porosity, No shows.
86	4210	25	SANDSTONE: off white, quartz, 5% black fragments, trace glauconite, very fine - silt, sub round, moderately sorted, moderately hard, No effective porosity, No shows.
87	4205	25	CLAYSTONE: dark grey, massive, hard.
88	4200	25	SANDSTONE: as above, very fine grained. No effective porosity, No shows.

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

WELL: 6607/5-2

LOGGING RUN #: 3
DESCRIBED BY : Lyons/Allison

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
89	4195	20	SANDSTONE: medium grey brown, quartz,5% glauconite, 5% black fragments, fine grained, sub angular, moderately sorted, friable, trace poor to No effective porosity, No shows.
90	4190	10	CLAYSTONE: dark grey, firm, blocky.
91	4185		Lost bullet
92	4183		" "
93	4180		" "
94	4178		" "
95	4177		" "
96	4174		" "
97	4174		" "
98	4173		" "
99	4172	15	SANDSTONE: medium grey brown, quartz, 5% glauconite, 5% black mafic fragments, micaceous, fine grained, sub angular, friable moderately sorted, TIGHT - Tr. POOR POROSITY, argillaceous matrix, No shows with clay laminae
100	4172		Lost bullet
101	4170		" "
102	4170	25	CLAYSTONE: dark grey, firm, cohesive, blocky, common glauconite, tr. floating quartz grains.
103	4168	25	SANDSTONE: light grey, quartz, glauconite, 10% black mafic minerals, tr. pyrite, very fine - fine grained, silty, sub round, moderately sorted, moderately hard, argillaceous/silica cement, No effective porosity, No shows
104	4160	30	CLAYSTONE: medium grey, firm, blocky.
105	4155		Lost bullet
106	4150		" "
107	4140		" "
108	4130		" "
109	4120		" "
110	4120		" "

ESSO NORGE a.s

SIDEWALL CORE DESCRIPTION FORM

SHOT :120
RECOVERED : 60
MISFIRES : 22
LOST : 21
EMPTY : 17

WELL: 6607/5-2

LOGGING RUN #: 3
DESCRIBED BY : Lyons/Allison

SWC #	DEPTH (m)	REC (mm)	DESCRIPTION (underline Porosity and Shows)
111	4090	25	CLAYSTONE: medium grey, firm, blocky.
112	4078	10	CLAYSTONE: medium grey, firm.
113	4060	20	CLAYSTONE: with siltstone laminae.
114	4040	20	CLAYSTONE: medium grey, firm.
115	3985		Empty
116	3775	20	ALTERED CLAYSTONE: light green grey, with dark grey inclusions, silty, firm.
117	3770	30	CLAYSTONE: dark grey, silty, firm.
118	3762		Lost bullet
119	3755		Lost bullet
120	3751	30	SANDSTONE: dark grey - black, quartz with abundant black mafic grains, trace white clay inclusions, fine - medium grained, abundant mica, relatively high S.G., dark grains react to magnet. No effective porosity. No shows.

126AX01V.11E /lhz

3.3 CONVENTIONAL CORE DESCRIPTION

CONVENTIONAL CORE DESCRIPTION

COMPANY: ESSO

DATE: Nov. 12/91 GEOL.: Millen, Cook, Tenney

WELL: 6607/5-2

COUNTRY(Offshore): NORWAY

CORE No: 1

INTERVAL: FROM: 4161 TO: 4188.5

RECOVERY: 27.23 M. 99 %

DEPTH	LITHOLOGY Contacts Accessories Fossils	Sed. Structures	DIP	POROSITY % OBSER. P	F	G	Meas.	K	LITHOLOGIC DESCRIPTION (REMARKS)	SHOWS Type-Quality	Environ
4161			5°						4161 - 4161.15 Claystone with Sandstone lenses and clasts: alternating light and dark bands, occasional pyrite infilled lense, glauconite lenses and grains, minor burrows (Planelites)	NO SHOWS	DEEP MARINE TURBIDITE / GRAVITY FLOW
			5°						4161.15-4161.87 Sandstone: light to dark grey, quartzitic, fine grained, occ. medium grained, sub angular to sub round, moderately well sorted, moderately hard to hard, silica cement, abundant clay, no to poor effective porosity (clay plugging of pores), common glauconite, common pyrite, carbonaceous grains, upper part of interval contains numerous floating coarse quartz grains, numerous burrows at base of interval (Planelites), scattered muscovite.		
4162			5°				SEE	SEE			
							CORE	CORE			
4163			5°				ANALYSIS	ANALYSIS			
									4161.87-4162.33 Sandstone: Light to medium grey, quartzitic, predominantly upper fine grained, common dark grey to black Clay beds, very carbonaceous in part, slightly bioturbated, common glauconite.		
4164									4162.33-4163.25 Sandstone: White to light grey, quartzitic, fine grained, common floating medium and coarse grains, sub angular to sub round, moderately well sorted, moderately hard to hard, silica and clay cement, none to poor effective porosity (clay plugging of pores), abundant glauconite, common pyrite and muscovite, common carbonaceous material, occasional burrows, trace dish structures.	NO SHOWS	
4165									4163.25-4163.49 Sandstone with numerous dark grey to black Claystone bands, occasional stylolite, claystone very carbonaceous in part, abundant glauconite, muscovite, rare burrow (Planelites)		
4166									4163.49-4169 Sandstone: White to light gray, quartzitic, fine grained, common floating medium and coarse grains, trace v. fine grains, silica and clay (kaolin) cement, clay plugging of pores, poor effective porosity, common burrows and dish structures at top of interval, calcareous in part from 4166.4 to 4169 m.		
4167											
4168											
4169											

CONVENTIONAL CORE DESCRIPTION

COMPANY: ESSO

DATE: Nov. 12/91 GEOL.: Millen, Cook, Tenney

WELL: 6607/5-2

COUNTRY(Offshore): NORWAY

CORE No: 1

INTERVAL: FROM: 4161 TO: 4188.5

RECOVERY: 27.23 M. 99 %

DEPTH	LITHOLOGY Contacts Accessories Fossils	Sed. Structures	DIP	POROSITY % OBSER. P	F	G	Meas.	K	LITHOLOGIC DESCRIPTION (REMARKS)	SHOWS Type-Quality	Environ
4169									4169-4171 Sandstone: White to light grey, quartzitic, predom fine grained, common floating medium and coarse grains, trace v. f. grains, s. ang. to s. rnd, m. srted, silica and clay cement, abundant clay plugging of pores (kaolin), none to poor eff. porosity, glauc., muscovite, pyrite, tr. carb. material, thin sharply dipping argillaceous band at 4169.7. Also 9 cm sharply dipping clay band at 4170.5.	NO SHOWS	DEEP MARINE TURBIDITE / GRAVITY FLOW
			30°								
4170							SEE	SEE			
			30°								
							CORE	CORE			
4171			30°						4171-4171.35 Claystone/Shale: Dark grey to black, blocky to sub fissile, micromicaceous, common silt to fine grained sand lenses, glauconite assoc. with sand lenses, com.pyr.		
							ANALYSIS	ANALYSIS			
			15°						4171.35-4171.65 Sandstone with Shale/Clay laminae. Sandstone: Medium to dark grey, finer grained than above, occasional coarse grains, no effective porosity. Thin clay/shale laminae and stylolites at top and base of interval.		
4172									4171.65-4172.38 Sandstone: White to light grey, quartzitic, predom fine grained, s.ang.-s.round, silica & clay cement, common kaolin plugging, poor effective porosity, abundant glauconite, sharp contact at base.		
4173									4172.38-4173 Argillaceous Sandstone grading to arenaceous Claystone: dark grey to black, generally fine quartz grains in argillaceous matrix, minor clay infilled burrows, tight.	NO SHOWS	
4174									4173-4174.28 Argillaceous Sandstone: dark grey, quartzitic, very fine to fine, trace medium, silica and clay cement, (argillaceous matrix) tight, glauc., pyrite, muscovite, kaolin,		
4175									4174.28-4177 Sandstone with numerous Claystone/Argillaceous beds. Sandstone: Light to dark grey, varying argillaceous content, generally sharp contacts between light colored "clean" sands and dark argillacous sands and claystone, common burrows throughout interval, slightly bioturbated, claystone beds and laminae dark grey to black, high angle sharp irregular contact between light grey sand and dark grey argillaceous sand at 4174.8 (slump structure), numerous thin parallel, wavy claystone/shale laminae at 4176, calcareous at 4174.21, scattered coarse glauconite gns.		
4176			2°								
4177											

CONVENTIONAL CORE DESCRIPTION

COMPANY: ESSO

DATE: Nov. 12/91 GEOL.: Millen, Cook, Tenney

WELL: 6607/5-2

COUNTRY(Offshore): NORWAY

CORE No: 1

INTERVAL: FROM: 4161 TO: 4188.5

RECOVERY: 27.23 M. 99 %

DEPTH	LITHOLOGY Contacts Accessories Fossils	Sed. Structures	DIP	POROSITY % OBSER. P	F	G	Meas.	K	LITHOLOGIC DESCRIPTION (REMARKS)	SHOWS Type-Quality	Environ
4177			4°						4177-4177.32 Sandstone: White to light grey, quartzitic, predominantly fine grained, occasionally medium grained, sub angular to sub round, moderately well sorted, silica and clay cement, pores plugged with clay (kaolin) none to poor effective porosity, abundant glauconite, sharp contact at base.	NO SHOWS	DEEP MARINE TURBIDITE / GRAVITY FLOW
4178							SEE	SEE	4177.32-4178.4 Sandstone: Dark grey, quartzitic, argillaceous, grades occasionally to arenaceous claystone, very fine to fine grained, tr. medium, tight, occasional lenticular black claystone clasts.		
			8°				CORE	CORE	4178.4-4180.53 Sandstone: Light to medium grey, quartzitic, fine grained, common medium and floating coarse grains, sub angular to sub round, silica and clay cement, pores plugged with clay (kaolin), none to poor effective porosity, common glauconite, muscovite and pyrite, occasional carbonaceous grain, common burrows (Planelites), deformational contact at 4180.15, trace stylolites, dark grey to black claystone (silty/sandy) beds at 4178.7, 4170,54 and 4180 m (5-10 cm in thickness), occ. slightly bioturbated, numerous floating coarse quartz grains at base of interval, dish structure at 4179.12.		
4179							ANALYSIS	ANALYSIS			
4180											
4181											
4182			4°						4180.53-4184.25 Predominently Sandstone with Claystone (generally arenaceous) interbeds. Sandstone: Medium to dark grey, quartzitic, predominantly fine grained, common medium and floating coarse grains, occ. v. fine, silica / clay cement, abundant kaolin, none to poor effective porosity, commonly grades to arenaceous claystone: dark grey to black, blocky, occasionally sub fissile, silty in part, hard (sharp splintery break), carbonaceous in part, common burrows, slight bioturbation, scattered large glauconite grains, sands occasionally very fine grained, both sharp and gradational contacts between sands and claystone/argillaceous beds.	NO SHOWS	
4183											
4184									4184.25-4185 Interbedded Claystone and SS Sandstone: White to light grey, quartzitic, very fine to occ. medium grained, very hard in part - welded grains, floating coarse grains, tight, common burrows (Planelites). Claystone: Dark grey to black, hard.		
4185											

CONVENTIONAL CORE DESCRIPTION

COMPANY: ESSO

DATE: Nov. 12/91 GEOL.: Millen, Cook, Tenney

WELL: 6607/5-2

COUNTRY(Offshore): NORWAY

CORE No: 1

INTERVAL: FROM: 4161 TO: 4188.5

RECOVERY: 27.23 M. 99 %

DEPTH	LITHOLOGY Contacts Accessories Fossils	Sed. Structures	DIP	POROSITY % OBSER. P	F	G	Meas.	K
4185								
4186							SEE	SEE
4187							CORE ANALYSIS	CORE ANALYSIS
4188								

LITHOLOGIC DESCRIPTION (REMARKS)

4185-4185.73 Claystone with abundant Sandstone bands and lenses.
Claystone: Dark grey to black, silty in part, arenaceous in part, mottled, hard, carbonaceous in part, bioturbated/churned, common burrows (Zoophycos), occasional pyrite bleb.
Sandstone: White to light grey, quartzitic, v. fine to occ. medium grained, well cemented, abundant glauconite.

4185.73 - 4187.12
Sandstone with Claystone interbeds.
Sandstone: Medium grey, quartzitic, very fine to fine, occ. medium grained, very hard - welded grains, common kaolin, varying argillaceous content, common burrows, common glauconite. Claystone: Dark grey to black, hard, blocky, carbonaceous in part, silty and arenaceous in part, bioturbated.

4187.12-4188.23 Sandstone: White to light grey, quartzitic, fine grained, common medium and coarse grains, trace v. fine, sub angular to sub round, silica and clay cement, clay plugging of pores, no to poor effective porosity (thin argillaceous, bioturbated band at 4187.80, burrow) common glauconite.

Note: Trace fossil burrows in core consist of Zoophycos and Planelites. Zoophycos is present from approx. 4185.2 m.

SHOWS Type-Quality: NO SHOWS

Environ: DEEP MARINE TURBIDITE / GRAVITY FLOW

3.4 RFT DATA

DATE: Oct: 22, 1991

WIRELINE TEST DATA/INTERPRETATION REPORT

6607/5-2

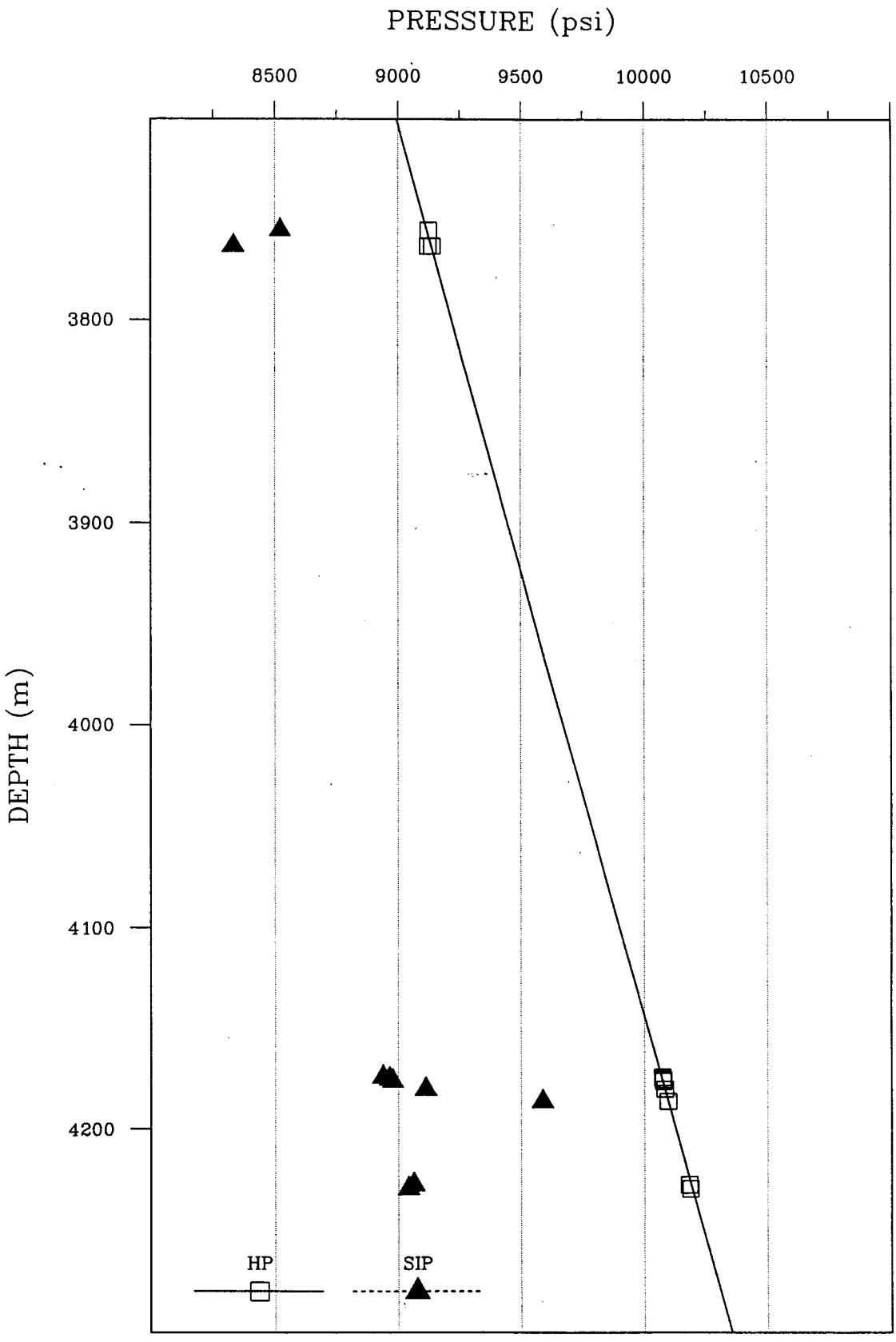
REFERENCE LOG: CNL-LDT (GR) 1:200

RKB: 25m

TEST	DEPTH m Rkb	DEPTH m ss	IHP (psi)	DRAWDOW (psi)	SIP (psi)	EMW (FORMATION)	FHP (psi)	EMW HP	MOBILITY (md/cp)	COMMENTS
1	3752	3727	9113,4	83,2	440,5		9110,8	14,2		DRY TEST
2	3755	3730	9126,5	64	8524,5		9120,2	14,2	.02	SLOW LEAK ?
3	3763	3738	9141,1	3603,5	8334,6	13,0	9139,7	14,2	.58	GOOD TEST, LOW PERM
4	3771	3746	9161,4	38,5	48,2		9150	14,2		DRY TEST
5	4167	4142	10062,7	54,3	73,1		10060	14,1		DRY TEST
6	4172	4147	10072,5	43	5135,6		10069,4	14,1	.02	SLOW LEAK, ABORT
7	4174	4149	10075	103,4	8939	12,6	10074,4	14,1	.15	GOOD TEST, LOW PERM
8	4176	4151	10079,6	39,6	8979	12,6	10077,9	14,1	.08	GOOD TEST, LOW PERM
9	4180	4155	10084,5	29,1	9113,7	12,8	10084,4	14,1	.03	GOOD TEST, LOW PERM
10	4186	4161	10097,7	40,4	9589,6	13,5	10095	14,1		SEAL FAIL ?
11	4214	4189	10158	40,7	1861,6		10154	14,1		DRY
12	4227	4202	10183,1	68,2	9065,7	12,6	10182,8	14,1	.1	GOOD TEST, LOW PERM
13	4229	4204	10188,1	36,1	9043,8	12,6	10187,5	14,1	.03	GOOD TEST, LOW PERM
14	4236	4211	10203,1	35,2	74		10201,9	14,1		DRY TEST
15	4259	4234	10254,6	66,4	67,1		10253,9	14,1		DRY TEST
16	4261,5	4236,5	10259,2	51,9	114,3		10262,5	14,1		DRY TEST
17	4175	4150	10077,2	57,8	8966,3	12,6	10075,9	14,1		ATTEMPT SAMPLE, ABORT - LOW PERM
18	4210	4185	10148,9	102,4	117,45		10146,7	14,1		DRY TEST
19	3763	3738	9125,7	72,4	3852,3		9120,5	14,2		DRY TEST

NOTE: 1. Strain gauge pressures reported, HP recorded and used to verify
2. 14.1 ppg Mud weight from Pill prior to logging

6607/5-2 RFT PRESSURE PLOT



3.5 COMPLETION LOG