

c. Casing:

1. 30 inch at 531 feet.
2. 20 inch at 2,400 feet.
3. 13 3/8" at 8,855 feet.
4. 9 5/8" at 12,399 feet.
5. 7 inch at 14,759 feet, top at 12,087 feet.

d. Mud Program:

Initial drilling from the sea floor to 2,450 feet was with sea water and gel. Below 2,450 feet a fresh water spersene XP 20 mud system was used.

## h. Testing:

## 1. Production Test Results:

No production test was made.

## 2. Formation Interval Test Results:

No formation interval test was made.

## 3. Drill Stem Test:

One drill stem test was made. The 9 5/8 inch casing was perforated from 11,935 feet to 11,955 feet. With the packer set at 11,926 feet the tool was open for 3 minutes, then closed for 30 minutes for initial build up, then open for 3 hours. During the 3 hours the well flowed 3 1/4 barrels. Upon completion of flowing the well was shut in for 6 hours and 10 minutes for final pressure build up.

Object:

To transfer, under pressure, reservoir fluid caught in Johnston MFE chambers during a Drill Stem Test on well 30/10-5.

Description:

The Drill Stem Test was carried out in the perforated interval 3638 - 3644 metres, Dowell Schlumberger running the testing tools.

Three MFE chambers were run and fluid under pressure was caught in two of them.

Of these two, one was checked at the well site, the contents recombined and one 600 cc sample transferred to a shipping bottle. The remainder of the sample was then depressurised and caught in a Jerrycan. The sample proved to be mud and water with some gas.

The second chamber, was shipped to the Elf Base at Dusevik where the above recombination was carried out. This sample was found to be mud and gas.

- 9** 1 – Surface sample
- 9** 2 – Bottom hole sample

**N.B.-** Only the subjects marked with a cross appear in this chapter.

<b>FLOPETROL</b>	Customer <b>ELF NORGE A/S</b>	<b>BOTTOM HOLE SAMPLE</b>
Base <u>North Sea</u>	Field _____ Well <u>30/10-5</u>	
Date of Sampling <u>18.4.75</u>	Service Order No _____ Sampling No <u>1</u>	
	Perforations <u>3638 - 3644 metre</u>	

Nature of Fluid Sampled <b>Water, mud and gas</b>	Sampling Depth _____
---	----------------------

**Reservoir and Well Characteristics**

Producing Zone _____	Interval Sampled <b>As Perforations</b>
----------------------	---

Depth Origin <u>RKB</u>	Tubing - Diameter _____	Casing - Diameter _____
Z _____	Shoe _____	Shoe _____

Static Bottom Hole Conditions	ISIP _____ at depth _____ date _____			
	Last Pressure Measurement _____ at depth _____ date _____			
	Temperature _____ at depth _____ date _____			

**Sampling and Transfer Conditions**

Sample Type and No. <b>DOWELL MFE</b>	Capacity <b>2.5 Litre</b>
---------------------------------------	---------------------------

Time at which Sample was taken _____	Timing { Descent Started _____ Out of Well _____
--------------------------------------	---

<input type="checkbox"/> Well closed since _____	Time since closing in _____
<input type="checkbox"/> Well flowing on Choke _____	Duration of flowing on this Choke _____

Conditions of Production during Operation or before closing in	Bottom ( _____ m ft) { Pressure _____ Temp _____	Head { Pressure _____ Temp _____	Separator { Pressure _____ Temp _____	
	Flow Rates _____ BOPD _____	WLR _____ % Production GOR _____	Gravity { Gas (air=1) _____ Oil _____	

Opening Pressure of 1st Valve <b>1640 psig</b>	
--	--

Bubble Point Pressure measured in Sample Temp _____ Pressure _____	Estimated Bubble Point at Bottom Temp _____ Pressure _____
---	---

Transfer <input type="checkbox"/> By Gravity <input checked="" type="checkbox"/> By Pump Pressure <u>5000 psig</u> Temp <u>40°F</u>	Volume Hg { Collected at End of Transfer <u>590 cc</u> Remaining in Bottle <u>35 cc</u>
--	--

Final Conditions in Bottle after Decompression Pressure <u>1000 psig</u> Temp <u>40°F</u>	Volume Hg withdrawn for Decompression of shipping Bottle <u>.5 cc</u>
--	--

**Identification of Sample**

Bottle No <u>2757.2</u>	sent the _____ by _____	Order No _____
Destination <u>ELF</u>		

Coupled with _____		
Bottom Hole Sample No _____		
Surface Sample No _____	Liquid	Gas

<b>COMMENTS</b> Sample caught during D.S.T. Sample transferred at well Site.	Chief Operator  <b>JOHN SELF</b>
--	--

<b>FLOPETROL</b>		Customer <u>ELF NORGE A/S</u>	<b>BOTTOM HOLE SAMPLE</b>
Base <u>North Sea</u>	Field _____ Well. <u>30/10-5</u>		
Date of Sampling: <u>18.4.75</u>	Service Order No. _____ Perforations <u>3638 - 3644 metres</u>	Sampling No. <u>2</u>	
Nature of Fluid Sampled: <u>Mud &amp; Gas</u>		Sampling Depth: _____	
<b>Reservoir and Well Characteristics</b>			
Producing Zone: _____		Interval Sampled: <u>As Perforations</u>	
Depth Origin: _____	Tubing Diameter: _____	Casing Diameter: _____	
Z: _____	Shoe: _____	Shoe: _____	
Static Bottom Hole Conditions	I.S.I.P.: _____	at depth: _____	date: _____
	Last Pressure Measurement _____	at depth: _____	date: _____
	Temperature: _____	at depth: _____	date: _____
<b>Sampling and Transfer Conditions</b>			
Sample Type and No.: <u>DOWELL MFE</u>		Capacity: <u>2.5 Litre</u>	
Time at which Sample was taken: _____		Timing { Descent Started: _____ Out of Well: _____	
<input type="checkbox"/> Well closed since: _____		Time since closing in: _____	
<input type="checkbox"/> Well flowing on Choke: _____		Duration of flowing on this Choke: _____	
Conditions of Production during Operation or before closing in	Bottom: _____ { Pressure: _____ ( _____ m-ft) { Temp.: _____	Head { Pressure: _____ Temp.: _____	Separator { Pressure: _____ Temp.: _____
	Flow Rates: _____ st.cu.ft/day m <sup>3</sup> /day B.O.P.D.	W L R _____ % Production G.O.R.: _____	Gravity { Gas (air=1) _____ Oil: _____
Opening Pressure of 1st Valve: <u>1530 Psig</u>			
Bubble Point Pressure measured in Sample: Temp: _____ Pressure: _____		Estimated Bubble Point at Bottom: Temp: _____ Pressure: _____	
Transfer <input type="checkbox"/> By Gravity <input checked="" type="checkbox"/> By Pump Pressure: <u>5500 psig</u> Temp: <u>64°F</u>		Volume Hg { Collected at End of Transfer <u>620 cc</u> Remaining in Bottle <u>5 cc</u>	
Final Conditions in Bottle after Decompression Pressure: <u>1650 psig</u> Temp <u>64°F</u>		Volume Hg withdrawn for Decompression of shipping Bottle <u>10 cc</u>	
<b>Identification of Sample</b>			
Bottle No. <u>2575.6</u> sent the _____ by _____		Order No. _____	
Destination: _____			
Coupled with	Remainder of sample in 5 litre Plastic Bottle		
Bottom Hole Sample No			
Surface Sample No	Liquid	Gas	
COMMENTS: Sample caught during D.S.T. Transfer effected at Elf Base, Dusevik 24.4.75			Chief Operator  <u>JOHN SELF</u>

Symbale 1109 GD 03