

FLOPETROL

DIVISION : NUD/NAR

BASE : STAVANGER

REPORT N° : 80/2301/36

Well Testing Report Annexes —

Client : B.P. PETROLEUM DEVELOPMENT LTD. NORWAY

Field : WILDCAT Well : 35/3-2

Zone : L. CRETACEOUS Date : 21 SEPTEMBER - 15 OCTOBER 1980

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 70Well : 35/3-2Report N° : 80/2301/3

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 1
Sample nature : Gas Sampling point : gas outlet

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558., 3562-3566m
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 21/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 15.30 - 16.00 Time elapsed since stabilisation : 1 hr 30 minsBottom hole dynamic conditions
Choke size : 38/64 since : 12.34 Well head pressure * 3708 psi Well head temp. : 108
Bottom hole pressure : 5788 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 240.2 °F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.611 Factor $F_{pv} = \frac{1}{VZ}$: 1.051
Values used for calculations :Separator *Pressure : 660 PSIG *Rates - Gas : 38.465 mm SCFD *GOR : 11.62
Temp. : 80 °F Oil (separator cond.) : 447 BOPD *CGR (separator cond.)
Shrinkage factor - 0.955Stock tank *Atmosphere : _____ mmHg. °F *Oil at 60°F : 427 BOPD
Tank temperature : 63 °F Condensate A B C D E F G H I J K L M N O P Q R S T U V W X Y Z AA AB AC AD AE AF AG AH AI AJ AK AL AM AN AO AP AQ AR AS AT AU AV AW AX AY AZ BA BB BC BD BE BF BG BH BI BJ BK BL BM BN BO BP BQ BR BS BT BU BV BW BX BY BZ CA CB CC CD CE CF CG CH CI CJ CK CL CM CN CO CP CQ CR CS CT CU CV CW CX CY CZ DA DB DC DD DE DF DG DH DI DJ DK DL DM DN DO DP DQ DR DS DT DU DV DW DX DY DZ EA EB EC ED EE EF EG EH EI EJ EK EL EM EN EO EP EQ ER ES ET EU EV EW EX EY EZ FA FB FC FD FE FF FG FH FI FJ FK FL FM FN FO FP FQ FR FS FT FU FV FW FX FY FZ GA GB GC GD GE GF GG GH GI GJ GK GL GM GN GO GP GQ GR GS GT GU GV GW GX GY GZ HA HB HC HD HE HF HG HH HI HJ HK HL HM HN HO HP HQ HR HS HT HU HV HW HX HY HZ IA IB IC ID IE IF IG IH IJ IK IL IM IN IO IP IQ IR IS IT IU IV IW IX IY IZ JA JB JC JD JE JF JG JH JI JJ JK JL JM JN JO JP JQ JR JS JT JU JV JW JX JY JZ KA KB KC KD KE KF KG KH KI KJ KK KL KM KN KO KP KQ KR KS KT KU KV KW KX KY KZ LA LB LC LD LE LF LG LH LI LJ LK LL LM LN LO LP LQ LR LS LT LU LV LW LX LY LZ MA MB MC MD ME MF MG MH MI MJ MK ML MN MO MP MQ MR MS MT MU MV MW MX MY MZ NA NB NC ND NE NF NG NH NI NJ NK NL NM NN NO NP NQ NR NS NT NU NV NW NX NY NZ OA OB OC OD OE OF OG OH OI OJ OK OL OM ON OO OP OQ OR OS OT OU OV OW OX OY OZ PA PB PC PD PE PF PG PH PI PJ PK PL PM PN PO PP PQ PR PS PT PU PV PW PX PY PZ QA QB QC QD QE QF QG QH QI QJ QK QL QM QN QO QP QQ QR QS QT QU QV QW QX QY QZ RA RB RC RD RE RF RG RH RI RJ RK RL RM RN RO RP RQ RR RS RT RU RV RW RX RY RZ SA SB SC SD SE SF SG SH SI SJ SK SL SM SN SO SP SQ SR SS ST SU SV SW SX SY SZ TA TB TC TD TE TF TG TH TI TJ TK TL TM TN TO TP TQ TR TS TT TU TV TW TX TY TZ UA UB UC UD UE UF UG UH UI UJ UK UL UM UN UO UP UQ UR US UT UY UZ VA VB VC VD VE VF VG VH VI VJ VK VL VM VN VO VP VQ VR VS VT VU VV VW VX VY VZ WA WB WC WD WE WF WG WH WI WJ WK WL WM WN WO WP WQ WR WS WT WY WZ XA XB XC XD XE XF XG XH XI XJ XK XL XM XN XO XP XQ XR XS XT XU XV XW XX XY XZ YA YB YC YD YE YF YG YH YI YJ YK YL YM YN YO YP YQ YR YS YT YU YV YW YX YZ ZA ZB ZC ZD ZE ZF ZG ZH ZI ZJ ZK ZL ZM ZN ZO ZP ZQ ZR ZS ZT ZU ZV ZW ZX ZY ZZ BSW : _____ % WLR : 6 %
Transferring fluid : Vacuum bottle Transfer duration : 30 mins
Final conditions of the shipping bottle :
Pressure : 660 psi Temp. : 63 °F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : A-4752 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.		
Surface samples No.	<u>22024</u>	

Measurement conditions.

 Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

* 15.45 readings, condensate rate estimated

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 71Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 2Sample nature : condensate Sampling point : oil sight glass

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, 3555.5-3558m, 3562-3566m Sampling interval : _____Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"

Surface elevation : _____ Shoe : _____ Shoe : _____

Bottom hole static conditions	Initial pressure	: <u>6676 psi</u>	at depth : <u>3550.15m</u>	date : <u>12/10/80</u>
	Latest pressure measured	: _____	at depth : _____	date : _____
	Temperature	: _____	at depth : _____	date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 15.30 - 16.00 Time elapsed since stabilisation : 1 hr 30 mins

Bottom hole dynamic conditions	Choke size : <u>38/64</u> since : <u>12.34</u>	Well head pressure * <u>3708 psi</u>	Well head temp. : <u>108°F</u>
	Bottom hole pressure : <u>5788 psi</u>	at depth : <u>3550.15m</u>	date : <u>12/10/80</u>
	Bottom hole temp. : <u>240.2 °F</u>	at depth : <u>3553.66m</u>	date : <u>12/10/80</u>

Flow measurement of sampled gas - Gravity (air: 1) : 0.611 Factor Fpv = $\frac{1}{\sqrt{Z}}$: 1.051
Values used for calculations :

Separator	*Pressure : <u>660 PSIG</u>	*Rates - Gas : <u>38.465 SCFD</u>	GOR : <u>11.62</u>
	Temp. : <u>80 °F</u>	Oil (separator cond.) : <u>447 BOPD</u>	(separator cond.)
		Shrinkage factor - <u>0.955</u>	<input checked="" type="checkbox"/> B

Stock tank	*Atmosphere : _____ mmHg. _____ °F	* Oil at 60°F : <u>427 BOPD</u>
	Tank temperature : <u>63 °F</u>	<input checked="" type="checkbox"/> A <input checked="" type="checkbox"/> B <input checked="" type="checkbox"/> C <input checked="" type="checkbox"/> b

BSW : _____ % WLR : 6 %Transferring fluid : mercury Transfer duration : 30 minsFinal conditions of the shipping bottle :
Pressure : 575 psi Temp. : 63°F 28 cl Hg remaining in bottle

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : 22024-137 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
_____	_____	_____
_____	_____	_____
Surface samples No.	_____	<u>A-4752</u>

Measurement conditions.

 Tank - Meter - Dump - Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

*15.45 readings, condensate rate estimated

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 72Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 3
 Sample nature : gas Sampling point : gas outlet

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
 Depth origin : _____ Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
 Surface elevation : _____ Shoe : _____ Shoe : _____

Bottom hole static conditions	Initial pressure : <u>6676 psi</u> at depth : <u>3550.15m</u> date : <u>12/10/80</u>
	Latest pressure measured : _____ at depth : _____ date : _____
	Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 17.00-17.30 Time elapsed since stabilisation : 3 hr

Bottom hole dynamic conditions	Choke size : <u>38/64</u> since : <u>12.34</u> Well head pressure * <u>3720 psi</u> Well head temp. : <u>114</u>
	Bottom hole pressure : <u>5781 psi</u> at depth : <u>3550.15m</u> date : <u>12/10/80</u>
	Bottom hole temp. : <u>241 °F</u> at depth : <u>3553.66m</u> date : <u>12/10/80</u>

Flow measurement of sampled gas - Gravity (air: 1) : 0.611 Factor Fpv = $\frac{1}{\sqrt{Z}}$: 1.050
 Values used for calculations :

Separator	*Pressure : <u>660 PSIG</u> *Rates - Gas : <u>38.218 SCFD</u> <u>XOR</u> : <u>11.7</u>
	Temp. : <u>84 °F</u> Oil (separator cond.) : <u>447 BOPD</u> <u>B</u> (separator cond.)

Stock tank	Atmosphere : _____ mmHg. _____ °F *Oil at 60°F : <u>427 BOPD</u>
	Tank temperature : _____ °F <u>A B C a b</u>

BSW : _____ % WLR : 6 %Transferring fluid : Vacuum bottle Transfer duration : 30 mins

Final conditions of the shipping bottle : _____
 Pressure : 660 psi Temp. : 63 °F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : A-3694 sent on : _____ by : _____ Shipping order No. : _____
 Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
Surface samples No.	<u>16251/23</u>	_____

Measurement conditions.

Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

*17.15 readings, condensate rate estimated

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 73Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 4
 Sample nature : condensate Sampling point : oil sight glass

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
 Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
 Surface elevation : _____ Shoe : _____ Shoe : _____

Bottom hole static conditions
 Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
 Latest pressure measured : _____ at depth : _____ date : _____
 Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 17.00 - 17.30 Time elapsed since stabilisation : 3 hr

Bottom hole dynamic conditions
 Choke size : 38/64 since : 12.34 Well head pressure* 3720 psi Well head temp. : 114
 Bottom hole pressure : 5781 psi at depth : 3550.15m date : 12/10/80
 Bottom hole temp. : 241 °F at depth : 3553.66m date : 12/10/80

Flow measurement of sampled gas - Gravity (air: 1) : 0.611 Factor $F_{pv} = \frac{1}{VZ}$: 1.050
 Values used for calculations :

Separator *Pressure : 660 PSIG *Rates - Gas : 38.218 SCFD CGR : 11.7
 Temp. : 84 °F Oil (separator cond.) : 447 BOPD B CGR
C (separator cond.)

Stock tank Atmosphere : _____ mmHg. °F * Oil at 60°F : 427 BOPD
 Tank temperature : _____ °F A B C a b

BSW : _____ % WLR : 6 %

Transferring fluid : mercury Transfer duration : 30 mins

Final conditions of the shipping bottle :
 Pressure : 450 psi Temp. : 63 °F 53 cc mercury left in bottle

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : 16251/23 sent on : _____ by : _____ Shipping order No. : _____
 Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.		
Surface samples No.		<u>A-3694</u>

Measurement conditions.

Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

* 17.15 readings, condensate rate estimated

 Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 74Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 5
 Sample nature : gas Sampling point : gas outlet

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
 Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
 Surface elevation : _____ Shoe : _____ Shoe : _____

Bottom hole static conditions
 Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
 Latest pressure measured : _____ at depth : _____ date : _____
 Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 19.30-20.00 Time elapsed since stabilisation : 1 hr 30 mins

Bottom hole dynamic conditions
 Choke size : 32/64 since : 17.44 Well head pressure : 4475 psi Well head temp. : 110
 Bottom hole pressure : 6091 psi at depth : 3550.15m date : 12/10/80
 Bottom hole temp. : 242.9°F at depth : 3553.66m date : 12/10/80

Flow measurement of sampled gas - Gravity (air: 1) : 0.614 Factor $F_{pv} = \frac{1}{\sqrt{Z}}$: 1.054
 Values used for calculations :

Separator	Pressure : <u>825</u> PSIG	Rates - Gas : <u>27.131</u> SCFD	GOR : <u>11.69</u>
	Temp. : <u>96</u> °F	Oil (separator cond.) : <u>317</u> BOPD	(separator cond.)
		Shrinkage factor - <u>93%</u>	<input type="checkbox"/> B <input type="checkbox"/> C

Stock tank	Atmosphere : _____ mmHg. _____ °F	Oil at 60°F : <u>341.0</u> BOPD
	Tank temperature : _____ 68 _____ °F	<input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> a <input type="checkbox"/> b

BSW : _____ % WLR : 13 %

Transferring fluid : Vacuum bottle Transfer duration : 30 mins

Final conditions of the shipping bottle :
 Pressure : 825 Temp. : 65°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : A-10729 sent on : _____ by : _____ Shipping order No. : _____
 Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
_____	_____	_____
_____	_____	_____
Surface samples No.	<u>16251/10</u>	_____

Measurement conditions.

Tank - Meter - Dump -
 a Corrected with shrinkage tester - b Corrected with tank -

D - REMARKS -

 Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 75Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 6
Sample nature : condensate Sampling point : oil sight glass

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 19.30-20.00 Time elapsed since stabilisation : 1 hr 30 minsBottom hole dynamic conditions
Choke size : 32/64 since : 17.44 Well head pressure : 4475 psi Well head temp. : 110
Bottom hole pressure : 6091 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 242.9°F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.614 Factor Fpv = $\frac{1}{VZ}$: 1.054
Values used for calculations :Separator Pressure : 825 PSIG Rates - Gas : 27.131 SCFD GOR : 11.69
Temp. : 96 °F Oil (separator cond.) : 317 BOPD (separator cond.)
Shrinkage factor - 93%

B
C

Stock tank Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 341 BOPD
Tank temperature : _____ °F

A	B	C	a	b
---	---	---	---	---

BSW : _____ % WLR : 13 %Transferring fluid : mercury Transfer duration : 30 minsFinal conditions of the shipping bottle :
Pressure : 450 psig Temp. : 65°F 53 cc Hg remaining in bottle

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : 16251/10 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
_____	_____	_____
_____	_____	_____
Surface samples No.	_____	<u>A-10729</u>

Measurement conditions.

 Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 76Well : 35/3-2Report N°: 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 7
 Sample nature : gas Sampling point : gas outlet

A - RESERVOIR AND WELL CHARACTERISTICS--

Producing zone : _____ Perforations : 3547-3552m, 3555.5-3558m, 3562-3566m Sampling interval : _____
 Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
 Surface elevation : _____ Shoe : _____ Shoe : _____

Bottom hole static conditions
 Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
 Latest pressure measured : _____ at depth : _____ date : _____
 Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 20.30-21.00 Time elapsed since stabilisation: 2 hr 30 mins

Bottom hole dynamic conditions
 Choke size : 32/64 since : 17.44 Well head pressure : 4475 psi Well head temp. : 110
 Bottom hole pressure : 6028 psi at depth : 3550.15m date : 12/10/80
 Bottom hole temp. : 243.1°F at depth : 3553.66m date : 12/10/80

Flow measurement of sampled gas - Gravity (air: 1) : 0.614 Factor $F_{pv} = \frac{1}{\sqrt{Z}}$: 1.054
 Values used for calculations :

Separator Pressure : 825 PSIG Rates - Gas : 27.156 SCFD ~~GOR~~ : 9.075
 Temp. : 97 °F Oil (separator cond.) : 246.45 BOPD **B** CGR (separator cond.)
 Shrinkage factor - 93% **C**

Stock tank Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 265.2 BOPD
 Tank temperature : _____ 68 °F 21.00 reading **A B C a b**

BSW : _____ % WLR : 13 %

Transferring fluid : Vacuum bottle Transfer duration : 30 mins

Final conditions of the shipping bottle :
 Pressure : 825 Temp. : 64°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : A-7315 sent on : _____ by : _____ Shipping order No. : _____
 Addressee : _____

Coupled with

LIQUID

GAS

Bottom hole samples No.

Surface samples No.

2474/47

Measurement conditions.

 Tank - Meter - Dump - a Corrected with shrinkage tester - b Corrected with tank -

D - REMARKS -

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 77Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 12/10/80 Service order : _____ Sampling No. : 8
Sample nature : _____ Sampling point : _____

A - RESERVOIR AND WELL CHARACTERISTICS--

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 20.30-21.00 Time elapsed since stabilisation : 2 hrs 30 minsBottom hole dynamic conditions
Choke size : 32/64 since : 17.44 Well head pressure : 4475 psi Well head temp. : 110
Bottom hole pressure : 6082 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 243.1°F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.614 Factor Fpv = $\frac{1}{VZ}$: 1.054
Values used for calculations :Separator Pressure : 825 PSIG Rates - Gas : 27.156 SCFD GOR : 9.075
Temp. : 97 °F Oil (separator cond.) : 246.45 BOPD

B
C

 CGR (separator cond.)Stock tank Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 265.2 BOPD
Tank temperature : 68 °F

A	B	C	a	b
---	---	---	---	---

BSW : _____ % WLR : 13 %Transferring fluid : mercury Transfer duration : 30 minsFinal conditions of the shipping bottle :
Pressure : 450 psi Temp. : 63°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : 2474/47 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
Surface samples No.	_____	<u>A-7315</u>

Measurement conditions.

 Tank - Meter - Dump - a Corrected with shrinkage tester - b Corrected with tank -

D - REMARKS -

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 78Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 13/10/80 Service order : _____ Sampling No. : 9
Sample nature : gas Sampling point : separator gas outlet

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 03.00-03.30 Time elapsed since stabilisation : 9 hrsBottom hole dynamic conditions
Choke size : 32/64 since : 17.44 Well head pressure : 4454 psi Well head temp. : 116
Bottom hole pressure : 6043 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 243.7°F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.616 Factor $F_{pv} = \frac{1}{\sqrt{Z}}$: 1.052
Values used for calculations :Separator Pressure : 825 PSIG Rates - Gas : 26.425 SCFD GOR : 11.07
Temp. : 104 °F Oil (separator cond.) : 292 BOPD

B	CGR (separator cond.)
C	

Stock tank Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 277.8 BOPD
Tank temperature : _____ °F

A	B	C	a	b
---	---	---	---	---

BSW : _____ % WLR : 13 %Transferring fluid : Vacuum Transfer duration : 30 minsFinal conditions of the shipping bottle :
Pressure : 825 psi Temp. : 61°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : A-10493 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
Surface samples No.	<u>22226/12</u>	_____

Measurement conditions.

 Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 79Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 13/10/80 Service order : _____ Sampling No. : 10
Sample nature : gas condensate Sampling point : separator sight glass

A - RESERVOIR AND WELL CHARACTERISTICS--

Producing zone : _____ Perforations : 3547-3552m, 3555.5-3558m, 3562-3566m Sampling interval : _____
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 03.00-03.30 Time elapsed since stabilisation : 9 hrsBottom hole dynamic conditions
Choke size : 32/64 since : 17.44 Well head pressure : 4454 psi Well head temp. : 116
Bottom hole pressure : 6043 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 243.7°F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.616 Factor $F_{pv} = \frac{1}{VZ}$: 1.052
Values used for calculations :Separator Pressure : 825 PSIG Rates - Gas : 26.425 MMSCFD GOR : 11.07
Temp. : 104 °F Oil (separator cond.) : 292 BOPD CGR (separator cond.)

B
C

Stock tank Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 277.8 BOPD
Tank temperature : 68 °F

A	B	C	a	b
---	---	---	---	---

BSW : _____ % WLR : 13 %Transferring fluid : Mercury Transfer duration : 30 minsFinal conditions of the shipping bottle :
Pressure : 420 psi Temp. : 61°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : 2226/121 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
_____	_____	_____
Surface samples No.	_____	<u>A-10493</u>

Measurement conditions.

 Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

28 cc Hg remaining in bottle

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 80Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 13/10/80 Service order : _____ Sampling No. : 11
Sample nature : gas Sampling point : gas outlet

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 04.30-05.00 Time elapsed since stabilisation : 10hr 30 minsBottom hole dynamic conditions
Choke size : 32/64 since : 17.44 Well head pressure : 4447 psi Well head temp. : 116
Bottom hole pressure : 6037 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 243.8°F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.616 Factor $F_{pv} = \frac{1}{\sqrt{Z}}$: 1.052
Values used for calculations :Separator Pressure : 825 PSIG Rates - Gas : 25.98 MMSCFD ~~GOR~~ : 9.11
Temp. : 104 °F Oil (separator cond.) : 237 BOPD B C CGR (separator cond.)Stock tank Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 220 BOPD
Tank temperature : 68 °F A B C a bBSW : _____ % WLR : 13 %Transferring fluid : Vacuum Transfer duration : 30 minsFinal conditions of the shipping bottle : _____
Pressure : 825 psi Temp. : 60°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : A-4758 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.		
Surface samples No.	<u>1268/54</u>	

Measurement conditions.

 A Tank - B Meter - C Dump -
 a Corrected with shrinkage tester - b Corrected with tank -

D - REMARKS -

Condensate rate estimated

Visa Chief Operator

FLOPETROL

Client : BP

Section : ANNEX

42Base : StavangerField : WildcatPage : 81Well : 35/3-2Report N° : 80/2301/36

SURFACE SAMPLING

Date of sampling : 13/10/80 Service order : _____ Sampling No. : 12
Sample nature : gas condensate Sampling point : separator sight glass

A - RESERVOIR AND WELL CHARACTERISTICS-

Producing zone : _____ Perforations : 3547-3552m, Sampling interval : _____
3555.5-3558m, 3562-3566m
Depth origin : R.K.B. Tubing Dia. : 5" D.P. Casing Dia. : 9 5/8"
Surface elevation : _____ Shoe : _____ Shoe : _____Bottom hole static conditions
Initial pressure : 6676 psi at depth : 3550.15m date : 12/10/80
Latest pressure measured : _____ at depth : _____ date : _____
Temperature : _____ at depth : _____ date : _____

B - MEASUREMENT AND SAMPLING CONDITIONS

Time at which sample was taken : 04.30-05.00 Time elapsed since stabilisation : _____Bottom hole dynamic conditions
Choke size : 32/64 since : 17.44 Well head pressure : 4447 psi Well head temp. : 116
Bottom hole pressure : 6037 psi at depth : 3550.15m date : 12/10/80
Bottom hole temp. : 243.8°F at depth : 3553.66m date : 12/10/80Flow measurement of sampled gas - Gravity (air: 1) : 0.616 Factor Fpv = $\frac{1}{VZ}$: 1.052
Values used for calculations :Separator
Pressure : 825 PSIG Rates - Gas : 25.981 MMSCFD GOR : 9.11
Temp. : 104 °F Oil (separator cond.) : 237 BOPD

B	CGR
C	(separator cond.)

Stock tank
Atmosphere : _____ mmHg. _____ °F Oil at 60°F : 220 BOPD
Tank temperature : 68 °F

A	B	C	a	b
---	---	---	---	---

BSW : _____ % WLR : 13 %Transferring fluid : Mercury Transfer duration : _____Final conditions of the shipping bottle :
Pressure : 420 spi Temp. : 60°F

C - IDENTIFICATION OF THE SAMPLE

Shipping bottle No. : 12689/54 sent on : _____ by : _____ Shipping order No. : _____
Addressee : _____

Coupled with	LIQUID	GAS
Bottom hole samples No.	_____	_____
Surface samples No.	_____	<u>A-6758</u>

Measurement conditions.

 Tank - Meter - Dump -
 Corrected with shrinkage tester - Corrected with tank -

D - REMARKS -

28 cc Hg remaining in bottle
Condensate rate estimated

Visa Chief Operator