

CONFIDENTIEL

REC

PUITS 25/2-2
CARACTERISTIQUES "RESERVOIR"
A PARTIR DU CPI

WELLFILE

Destinataires:

ELF RE: DEGEN 1 ex
DCO 1 ex
Gisements 2 ex
Div. II 1 ex
Groupe Frigg 1 ex

ELF NORGE: P. Le Rest 1 ex
J. Suau 1 ex
Gisements 1 ex
Geologie 1 ex
Clt: Puits 1 ex

ELF NORGE A/S
RESERVOIR ENGINEERING

Additif à la note ELF NORGE 74/314/AP/kp du 12. juillet 1974.

Les caractéristiques moyennes des sables de Frigg et, plus particulièrement, les zones à gaz et à huile, ont été calculées à partir du Coriband Computer Processed Interpretation de Schlumberger, après reprocessing du 30. juillet 1974. (cf tableau).

Les critères de base, utilisés pour le cut off, sont ceux retenus pour les puits précédents - (cf pl. 1 - 2 -).

Le Chef du Sce. Gisements

B. CARRE

Le Rédacteur

A. PINET

P.J.:

- 1 Tableau - Caractéristiques du Reservoir
- PL N° 1 - Cut. off - Zone à gaz
- PL N° 2 - Cut. off - Zone à huile.

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FRIGG MEMBER

RESERVOIR CHARACTERISTICS

	CPI		ELF PRELIMINARY DATA	
TOP OF SAND BSL depth	- 1922.4 m <i>85</i> <i>1947.4</i>		- 1922.4 m	
SAND BOTTOM BSL depth	- 1988.8 m		- 1988.8 m	
GOC BSL depth	- 1937.2 m <i>28</i> <i>60.2</i>		- 1937.2 m	
WOC BSL depth	- 1947.4 m <i>1947.4</i>		- 1947.4 m	
	GAS	OIL	GAS	OIL
GROSS PAY	14.8 m	10.2 m	14.8 m	10.2 m
NET PAY	14.8 m	7.3 m	14.8 m	6.5 m
Øm %	27.577	26.354	28	27.5
SW m %	9.723	35.304	9	30
<i>α</i>	1.0	0.7157	1.0	0.6373
<i>β</i>	0.2490	0.1220	0.2548	0.1227

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Listing CPI Schlumberger
Cut off of gas reservoir

I
14.6 m

PROF.	RT	PHIN	RdH	SL	VSH	RdMAH	SW	SX0	PHI	IPS	HC	H-D	DD/2	SWP	SX0P	RdMA	0V	P	CO	LI	GOC
1963.0	43.7	25.7	2.05	102.3	9.9	2.70	12.7	41.4	26.5		23.2	7.6									NE
1963.3	48.9	19.6	2.00	105.5	12.2	2.70	11.4	34.6	27.4		24.3	6.4	.0	12.7	41.4	3.52	GR				NE
1963.2	55.5	15.3	1.98	105.5	11.7	2.71	10.5	33.2	28.2		25.3	6.4	.0	11.4	34.6	3.41	GR				NE
1962.9	57.5	12.8	2.01	105.7	13.8	2.72	10.5	35.0	27.1		24.2	6.6	.0	10.5	35.0	2.86	GR				NE
1962.5	55.6	11.7	1.98	105.1	16.8	2.71	10.3	35.2	27.4		24.6	6.8	.0	10.5	35.0	2.76	GR				NE
1962.3	50.2	11.4	1.96	102.9	11.7	2.72	10.6	35.1	29.4		26.3	7.2	.0	10.3	35.2	2.68	GR				NE
1962.0	41.3	11.3	1.97	101.1	13.4	2.71	11.8	36.7	28.8		25.4	7.2	.0	10.6	35.1	2.73	GR				NE
1961.7	38.4	11.3	1.97	101.9	17.2	2.69	12.3	37.1	27.4		24.0	6.8	.0	11.8	36.7	2.69	GR				NE
1961.4	25.8	15.0	2.06	101.6	21.9	2.69	16.6	47.6	23.2		19.3	7.2	-.1	12.3	37.1	2.65	GR				VH
1961.1	7.5	21.0	2.08	98.4	27.9	2.70	29.6	60.7	22.6		15.9	7.0	-.1	16.6	47.6	2.63	GR				VH
1960.8	6.7	18.7	2.16	97.6	24.5	2.70	31.1	54.1	23.7		16.4	5.5	-.0	29.6	60.7	2.63	GR				VH
1960.5	20.0	14.6	2.03	100.3	19.9	2.68	18.0	47.7	25.1		20.6	7.4	-.0	31.1	54.1	2.65	GR				VH
1960.2	44.5	12.4	2.03	101.1	12.9	2.66	12.3	50.0	26.3		23.1	9.9	-.0	18.0	47.7	2.62	GR				VH
1959.7	74.4	11.4	2.01	101.3	10.5	2.66	9.3	48.1	27.6		25.1	10.7	-.0	12.3	50.0	2.59	GR				VH
1959.5	96.4	10.4	1.99	101.5	10.6	2.65	8.2	45.6	27.8		25.5	10.4	-.0	9.3	48.1	2.60	GR				VH
1959.3	93.9	9.7	1.96	101.5	10.6	2.66	8.0	42.2	28.9		26.6	9.9	-.0	8.2	45.6	2.60	GR				VH
1958.9	101.6	10.3	2.10	102.2	11.2	2.66	8.0	44.3	27.4		25.2	9.9	-.0	8.0	42.2	2.60	GR				VH
1958.5	71.0	12.6	2.12	103.2	15.8	2.67	9.6	45.7	26.0		23.5	9.4	-.0	44.3	27.4	2.59	GR				VH
1958.3	44.8	13.2	2.12	104.2	16.2	2.67	12.0	47.0	26.1		23.0	9.1	-.0	9.6	45.7	2.63	GR				VH
1958.0	57.4	11.8	1.98	104.5	15.7	2.67	10.3	42.2	27.2		24.4	8.7	-.0	12.0	47.0	2.61	GR				VH
1957.7	68.3	10.3	1.97	104.5	16.1	2.67	9.4	37.6	27.2		24.7	7.7	.0	10.3	42.2	2.63	GR				VH
1957.4	89.9	9.0	1.96	104.3	15.8	2.68	8.2	33.3	27.1		24.9	6.8	.0	9.4	37.6	2.64	GR				VH
1957.1	101.2	10.5	1.99	104.7	16.1	2.70	7.8	34.7	26.9		24.8	7.2	.0	8.2	33.3	2.65	GR				VH
1956.8	55.9	10.0	1.95	105.8	12.5	2.67	10.1	39.6	29.0		26.1	8.5	.0	7.8	34.7	2.67	GR				VH
1956.5	62.8	7.8	1.92	105.5	15.3	2.69	9.4	28.3	28.6		25.9	5.4	.0	10.1	39.6	2.63	GR				VH
1956.2	113.1	7.4	1.94	104.3	15.5	2.68	7.2	27.8	27.7		25.7	5.7	.0	9.4	28.3	2.66	GR				VH
1955.9	117.6	8.9	1.95	104.3	17.7	2.67	7.1	31.7	26.8		24.9	6.6	-.0	7.2	27.8	2.65	GR				VH
1955.6	38.5	8.4	1.98	107.5	18.1	2.71	11.3	24.4	29.9		26.6	3.9	.0	7.1	31.7	2.62	GR				VH
1955.3	26.1	15.3	1.95	115.7	10.7	2.68	15.6	23.7	27.9		23.6	2.3	.0	11.3	24.4	2.67	GR				VH
1955.0	23.2	14.2	1.96	117.3	24.4	2.72	15.3	33.7	26.6		22.6	4.9	.0	15.6	23.7	2.29	GR	NC			VH
1954.7	49.4	12.0	1.97	108.7	11.9	2.66	10.8	47.3	28.9		25.8	10.6	.0	15.3	33.7	2.68	GR				VH
1954.4	77.1	10.8	1.98	106.3	10.1	2.66	8.9	46.2	28.5		25.9	10.6	.0	10.8	47.3	2.05	GR				VH
1954.1	94.4	9.9	1.99	105.9	12.5	2.66	8.2	41.1	27.4		25.2	9.0	.0	8.9	46.2	2.05	GR				VH
1953.8	110.7	9.0	1.95	104.7	13.7	2.68	7.3	34.1	28.3		26.2	7.6	-.0	8.2	41.1	2.61	GR				VH
1953.5	118.0	9.0	1.94	104.8	15.0	2.68	6.9	32.8	28.4		26.5	7.4	-.0	7.3	34.1	2.66	GR				VH
1953.2	123.5	8.4	1.94	105.9	14.5	2.67	6.9	34.0	28.2		26.2	7.6	-.0	6.9	32.8	2.65	GR				VH
1952.9	113.5	8.8	1.94	106.3	8.4	2.65	7.1	41.6	30.1		27.9	10.4	-.0	6.9	34.0	2.64	GR				VH
1952.5	93.5	11.2	1.95	105.7	13.2	2.66	7.7	43.1	29.1		26.9	10.3	-.0	7.1	41.6	2.59	GR				VH
1952.2	119.1	11.1	1.96	102.7	14.1	2.70	6.9	37.4	28.8		26.8	8.8	-.0	7.7	43.1	2.62	GR				VH
1951.7	150.4	9.9	1.95	101.5	12.5	2.69	6.1	36.6	29.1		27.3	8.9	-.0	6.9	37.4	2.67	GR				VH
1951.5	227.2	9.5	1.96	101.7	11.1	2.67	5.1	39.2	28.8		27.3	9.8	-.0	6.1	36.6	2.67	GR				VH
1951.3	296.5	8.5	1.97	101.1	8.9	2.66	4.6	41.0	28.8		27.5	10.5	-.0	5.1	39.2	2.65	GR				VH
1951.1	331.1	8.1	1.97	100.3	9.2	2.66	4.4	39.1	28.3		27.1	9.8	-.0	4.6	41.0	2.62	GR				VH
1950.7	316.8	7.6	1.97	101.0	9.2	2.67	4.4	37.0	28.5		27.2	9.3	-.0	4.4	39.1	2.63	GR				VH
1950.1	317.4	6.7	1.95	101.7	8.3	2.66	4.4	35.1	29.1		27.9	9.0	-.0	4.4	37.0	2.65	GR				VH
1950.1	300.2	5.6	1.94	101.0	9.3	2.65	4.5	33.1	28.8		27.5	8.2	-.0	4.4	35.1	2.65	GR				VH
1949.1	275.8	6.2	1.95	100.7	10.1	2.69	4.7	28.3	29.0		27.6	6.9	-.0	4.5	33.1	2.63	GR				VH
1949.0	237.3	24.6	2.05	110.9	16.9	2.72	5.6	25.2	23.8		22.5	4.7	.0	4.7	28.3	2.67	GR				NE
1949.0	3.6	42.9	2.12	132.2	35.2	2.73	45.8	45.8	18.8		10.2	.0	-.1	5.6	25.2	3.54	GR				NE Top of sand
1948.9	1.5	31.3	2.11	144.8	46.1	2.77	53.7	48.3	20.6		9.6	7.1	-.1	45.8	30.6	3.65	GR				NE

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Listing CPI Schlumberger
Cut off of oil reservoir

PROF.	RT	PHIN	RDB	SL	VSH	ROMAN	SW	SXØ	PHI	IPS	HC	H2O	DD/2	SHP	SXØP	ROMA	ØV	P	CØ	LI
1979.1	.6	34.3	2.08	104.0	14.3	2.68	96.3	97.3	30.8		1.1	.3	.0	96.3	97.3	2.65				DN
1978.9	.6	32.8	2.08	104.2	6.2	2.66	95.0	97.7	32.9		1.7	.9	.0	95.0	97.7	2.65				DN
1978.5	.6	35.1	2.08	103.9	10.8	2.69	93.4	93.4	32.2		2.1	.0	.0	93.4	89.4	2.67				GR
1978.2	.6	38.0	2.08	104.7	12.4	2.73	88.2	88.2	32.9		3.9	.0	.0	88.2	79.9	2.71				GR
1977.8	.7	41.3	2.09	100.4	13.2	2.79	80.2	80.2	33.9		6.7	.0	.1	80.2	79.4	2.78				GR
1977.5	.8	41.6	2.13	106.3	21.6	2.82	77.8	86.0	30.3		6.7	2.5	.0	77.8	86.0	2.80				GR
1977.2	1.0	47.4	2.18	124.1	41.7	2.86	79.5	95.5	23.3		4.8	3.7	.1	79.5	102.3	3.23				GR * NE
1976.9	1.1	44.2	2.17	122.8	59.9	2.85	86.3	97.1	16.0		2.2	1.7	.1	86.3	116.9	2.86				GR * NE
1976.5	1.1	40.2	2.17	107.5	56.2	2.79	93.4	94.8	13.3		.9	.2	.0	93.4	94.8	2.66				GR
1976.3	.9	34.5	2.17	104.1	38.1	2.73	92.5	92.5	20.2		1.5	.0	.0	92.5	89.8	2.65				DN
1976.0	.8	31.5	2.15	97.5	21.4	2.69	95.3	99.0	24.9		1.2	.9	.0	95.3	99.6	2.65				DN
1975.7	.6	31.6	2.15	98.3	16.9	2.69	100.0	100.0	26.6		.0	.0	.0	100.9	100.4	2.66				GR
1975.4	.6	31.8	2.12	98.1	11.5	2.67	99.9	99.9	29.6		.0	.0	.1	99.9	97.0	2.65				DN
1975.1	.6	32.7	2.10	100.1	7.3	2.67	97.1	97.1	31.8		.9	.0	.1	97.1	94.8	2.66				GR
1974.8	.6	34.5	2.09	102.5	5.1	2.69	91.9	91.9	33.4		2.7	.0	.2	91.9	91.1	2.69				GR
1974.5	.7	34.2	2.09	104.3	7.6	2.69	87.4	87.9	32.5		4.1	.1	.0	87.4	87.9	2.68				GR WOC
1974.2	.8	34.2	2.07	103.5	10.1	2.68	78.5	78.5	31.9		6.9	.0	.0	78.5	68.3	2.66				GR
Y 1,2m	1.1	34.5	2.06	104.7	7.5	2.69	66.6	66.6	33.0		11.0	.0	.0	66.6	45.4	2.67				DN
1973.5	1.5	38.5	2.11	109.2	14.7	2.78	58.4	58.4	30.7		12.8	.0	.0	58.4	36.8	2.77				GR
1973.3	1.9	41.7	2.18	116.3	38.9	2.86	58.1	58.1	22.6		9.5	.0	.0	58.1	49.6	2.86				GR
1973.0	1.9	38.0	2.19	115.1	48.3	2.78	65.6	81.1	17.5		6.0	2.7	.0	65.6	81.1	2.72				GR
1972.7	1.7	43.7	2.21	120.2	51.1	2.86	65.1	78.1	18.8		6.5	2.4	.0	65.1	78.1	3.13				GR NE
1972.4	1.7	42.6	2.17	119.9	53.2	2.84	65.4	82.3	18.7		6.5	3.2	.0	65.4	82.3	2.82				GR NE
1972.1	1.7	42.9	2.20	120.2	49.7	2.86	67.2	76.7	18.8		6.2	1.8	.0	67.2	76.7	2.99				GR NE
1971.8	1.7	41.3	2.20	113.7	53.5	2.84	69.6	71.1	17.0		5.2	.3	.0	69.6	71.1	2.84				GR NE
1971.4	1.8	42.0	2.18	117.1	46.6	2.85	61.6	73.3	20.3		7.8	2.4	.0	61.6	73.3	2.84				GR NE
1971.1	2.2	47.1	2.15	125.5	54.9	2.86	57.7	89.6	18.1		7.6	5.8	.0	57.7	92.4	3.21				GR NE
IV 0,6m	2.4	40.8	2.09	123.2	41.1	2.77	50.3	63.0	23.6		11.7	3.0	.0	50.3	63.0	2.71				GR * NE
1970.5	2.2	47.3	2.15	113.8	40.8	2.84	52.8	57.8	22.9		10.8	1.2	.0	52.8	57.8	3.24				GR NE
1970.2	2.7	44.7	2.19	117.1	56.2	2.86	53.2	82.6	17.5		8.2	5.1	.0	53.2	82.6	3.13				GR NE
1969.9	3.0	35.8	2.17	113.0	46.2	2.75	53.3	79.5	17.6		8.2	4.6	.1	53.3	79.5	2.66				DN
1969.5	3.3	32.4	2.18	95.8	31.9	2.73	50.5	63.6	20.3		10.0	2.7	.0	50.5	63.6	2.67				DN
1969.3	3.9	32.9	2.17	94.5	30.9	2.73	46.1	58.3	20.9		11.3	2.6	.1	46.1	58.3	2.68				GR
1969.0	6.8	31.2	2.14	94.7	16.1	2.70	32.2	56.3	25.8		17.5	6.2	.0	32.2	56.3	2.68				DN
1968.7	7.4	31.5	2.15	95.5	16.9	2.71	31.2	51.6	25.2		17.4	5.1	.0	31.2	51.6	2.69				GR
1968.4	12.7	31.9	2.13	97.3	15.2	2.71	23.1	45.5	26.5		20.4	6.0	.0	23.1	45.5	2.68				DN
1968.1	18.3	29.8	2.12	97.1	4.6	2.69	18.8	44.8	29.1		23.6	7.6	.0	18.8	44.8	2.68				DN
1967.8	19.0	31.0	2.13	96.9	13.1	2.70	19.1	45.3	26.6		21.5	7.0	.0	19.1	45.3	2.68				DN
1967.5	18.2	32.6	2.14	98.1	18.7	2.72	19.6	46.7	25.4		20.4	6.9	.0	19.6	46.7	2.69				IL
1967.2	12.5	35.7	2.14	101.4	26.2	2.76	23.3	49.8	24.4		18.7	6.5	.1	23.3	49.8	2.72				LL
1966.9	6.3	44.6	2.20	110.9	40.7	2.85	34.0	59.2	20.8		13.8	5.3	.1	34.0	59.2	3.22				LL NE
1966.5	4.1	42.4	2.19	113.9	50.5	2.86	41.3	71.8	19.8		11.6	6.0	.0	41.3	71.8	2.88				GR NE
1966.3	3.8	35.7	2.14	103.3	34.8	2.74	43.7	64.2	21.9		12.3	4.5	.0	43.7	64.2	2.68				GR
1966.0	4.3	31.7	2.13	97.5	13.4	2.70	39.2	54.3	27.3		16.6	4.1	.0	39.2	54.3	2.68				DN
1965.7	9.2	32.1	2.11	97.9	10.2	2.70	25.7	49.2	29.0		21.5	6.8	.0	25.7	49.2	2.68				DN
1965.4	19.3	35.9	2.09	94.9	21.2	2.72	17.3	49.0	27.8		22.9	8.8	.0	17.3	49.0	2.69				LL
1965.3	18.8	34.9	2.08	93.5	16.3	2.71	17.4	52.0	29.0		24.0	10.0	.0	17.4	52.0	2.69				IL
1964.7	17.3	34.7	2.10	95.9	15.6	2.72	18.3	53.4	29.2		23.9	10.2	.0	18.3	53.4	2.70				IL
1964.4	29.4	31.9	2.12	97.2	13.1	2.70	14.8	57.3	27.7		23.6	11.8	.0	14.8	57.3	2.68				IL
1964.1	59.9	29.4	2.11	98.5	.0	2.68	12.3	51.2	30.9		27.1	12.0	.0	12.3	51.2	2.68				DN GOC