

Core Laboratories, Inc.
Petroleum Reservoir Engineering
DALLAS, TEXAS

PHILLIPS PETROLEUM CO.
E. VACUUM GRAYBURG S.A. UNIT 3229-005

DATE : 5-6-79
FORMATION : GRAYBURG

FILE NO : 3202-11118
ANALYSTS : NEFF

FULL DIAMETER ANALYSIS

SAMPLE NUMBER	DEPTH	PERM. TO MAXIMUM	AIR (MD) 90 DEG	POR. He	FLUID OIL	SATS. WTR	GRAIN DEN	DESCRIPTION
385	4576.0-77.0	3.9	3.1	11.8	11.9	22.2	2.85	DOL, ANHY, V/F, SL/V, STY
386	4577.0-78.0	0.1	<0.1	5.1	16.7	47.6	2.87	DOL, ANHY, SHY, DNS
387	4579.0-80.0	0.7	<0.1	4.3	18.4	34.2	2.87	DOL, ANHY, SL/F, STY
388	4580.0-81.0	0.9	0.5	8.3	9.3	32.0	2.86	DOL, ANHY, V/F
389	4581.0-82.0	1.9	1.3	9.5	13.2	27.4	2.83	DOL, ANHY, SL/V, COL, SL/F, STY
390	4582.0-83.0	1.5	6.0	9.7	17.2	25.4	2.84	DOL, ANHY, SL/F, COL
391	4583.0-84.0	5.1	4.4	13.6	18.1	18.6	2.85	DOL, ANHY, COL, SL/F, STY
392	4584.0-85.0	9.8	8.5	16.6	23.1	21.5	2.85	DOL, ANHY, COL, SL/V, FOSS, SL/F, STY
393	4585.0-86.0	3.0	2.8	16.8	18.2	27.7	2.81	DOL, ANHY, COL
394	4586.0-87.0	2.2	1.9	17.3	32.5	17.4	2.84	DOL, ANHY, COL, PP, STY
395	4587.0-88.0	1.7	1.4	15.2	26.0	20.1	2.85	DOL, ANHY, SL/V, SL/F, COL, STY
396	4588.0-89.0	3.6	*	15.3	20.5	23.3	2.85	DOL, ANHY, V/F, COL
397	4589.0-90.0	2.8	2.4	13.0	27.6	24.9	2.85	DOL, SL/F, SL/V, COL, STY
398	4590.0-91.0	5.2	4.6	15.6	26.2	27.3	2.82	DOL, SH, LAM, COL, V/F, SL/V
399	4591.0-92.0	7.7	5.9	15.2	23.6	29.1	2.85	DOL, SH, LAM, COL, SL/V
400	4592.0-93.0	3.8	8.0	11.9	26.2	29.2	2.81	DOL, SH, LAM, V/F, SL/V
401	4593.0-94.0	1.2	7.9	14.0	32.0	24.6	2.89	DOL, ANHY, COL, SL/F
402	4594.0-95.0	1.1	10.	11.8	24.1	26.3	2.87	DOL, ANHY, COL, STY
403	4595.0-96.0	7.6	6.8	10.9	15.3	26.4	2.87	DOL, ANHY, COL, SL/F, STY
404	4596.0-97.0	2.4	*	11.5	21.8	27.0	2.87	DOL, ANHY, V/F
405	4597.0-98.0	3.1	*	12.6	28.2	22.8	2.85	DOL, ANHY, V/F
406	4598.0-99.0	6.9	6.0	13.1	25.4	25.4	2.87	DOL, SL/V, COL, STY
407	4599.0-00.0	4.1	3.2	11.5	34.3	26.3	2.87	DOL, ANHY, SL/F, COL, PP, STY
408	4600.0-01.0	2.5	20.	12.6	27.5	20.7	2.85	DOL, PP, SL/F
409	4601.0-02.0	9.2	8.3	14.4	30.3	27.6	2.88	DOL, ANHY, STY
410	4602.0-03.0	4.3	*	13.4	29.6	27.6	2.87	DOL, ANHY, V/F
411	4603.0-04.0	6.5	*	13.2	26.8	26.7	2.86	DOL, V/F, PP
412	4604.0-05.0	2.9	*	13.9	27.6	26.4	2.88	DOL, ANHY, V/F

CORE NO. 11 4605.0-4665.0 CUT 60' REC 60'

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted), but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.