

CORE ANALYSIS REPORT

FOR

RINE DRILLING COMPANY
BARBY-HARPER NO. 3-23 WELL
CLARK COUNTY, KANSAS

CORE LABORATORIES, INC.
Petroleum Reservoir Engineering

OKLAHOMA CITY, OKLAHOMA

October 5, 1982

REPLY TO
SUITE 133
400 SOUTH VERMONT
OKLAHOMA CITY, OK
73108

Rine Drilling Company
Suite 600
300 W. Douglas
Wichita, Kansas 67202

Attn: Mr. Jack Rine

Subject: Core Analysis Data
Barby Harper No. 3-23 Well
Clark County, Kansas
CLI File 3402-11434

Gentlemen:

Cores taken in the subject well in the Toronto Lime formation were received at the Oklahoma City laboratory for special analytical testing described on the Procedure Page.

The accompanying Coregraph presents the Surface Core-Gamma Log and binomially averaged core analysis data in graphical form to aid correlation with downhole electrical surveys.

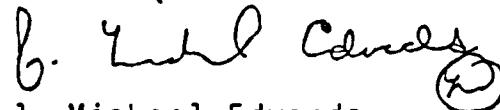
Tabular presentation of the measured physical properties may be found on pages one and two of this report.

Histograms of porosity and permeability in addition to a graph of permeability versus porosity may be found on pages three and four.

It is a pleasure to have this opportunity of serving you.

Very truly yours,

CORE LABORATORIES, INC.



J. Michael Edwards
District Manager

5 cc - Addressee
1 cc - Mr. Gary Sharpe
Rine Drilling Company
Wichita, Kansas 67202

Rine Drilling Company
Barby-Harper No. 3-23 Well
CLI File 3402-11434

Procedure Page

Handling and Analytical Procedures

Diamond coring equipment and water base mud were used to obtain 4.0 inch diameter cores between 4,290.0 and 4,317.8 feet.

The cores were preserved at the well site in a CO₂ atmosphere by CLI personnel.

The cores were transported to Oklahoma City by CLI personnel.

A Core-Gamma Log was recorded for downhole electric log correlation.

Core analysis was made in the intervals requested on right cylinder full diameter samples.

Fluid removal was accomplished using vacuum retorts.

Porosity was determined by density balance method.

Air permeability in two horizontal directions was measured without Klinkenberg correction.

Temporary storage of cores in Oklahoma City laboratory for a period of thirty days without additional charge.

RINE DRILLING COMPANY
 BARBY-HARPER NO. 3-23 WELL
 CLARK COUNTY, KANSAS

DATE: 10-4-82
 FORMATION: TORONTO LIME
 DRLG. FLUID: WATER BASE MUD
 LOCATION:

FILE NO: 3402-11434
 ANALYST: EDWARDS
 LABORATORY: OKLAHOMA CITY

FULL DIAMETER ANALYSIS

SMP. NO.	DEPTH FEET	PERM. TO AIR MD.		POROSITY PERCENT	FLUID OIL	SATS. WATER	GRAIN DEN.	DESCRIPTION
		MAXIMUM	90 DEG.					
1	4290.0-91.0	0.21	0.18	4.0	0.0	81.4	2.73	LM, FOSS, PYR, SHY
2	4291.0-92.0	0.40	0.11	1.1	23.4	63.7	2.72	LM, FOSS, PP VGS, STY
3	4292.0-93.0	13	11	3.6	20.0	40.3	2.72	LM, FOSS, FEW VGS, CALC
4	4293.0-94.0	1.70	0.70	3.0	21.3	33.8	2.72	LM, FOSS, FEW VGS, CALC
5	4294.0-95.0	23	16	10.3	19.4	44.7	2.72	LM, FOSS, VGY, FISS
6	4295.0-96.0	140	30	5.8	17.3	26.5	2.72	LM, FOSS, VGY, FISS, VF
7	4296.0-97.0	7.70	5.50	6.0	9.4	31.4	2.72	LM, FOSS, VGY, FISS
8	4297.0-98.0	4.30	4.00	5.3	7.7	45.6	2.75	LM, FOSS, VGY, FISS, PYR, VF
9	4298.0-99.0	673	31	6.8	7.9	58.2	2.70	LM, FOSS, VGY, VF
10	4299.0- 0.0	893	80	8.0	6.3	61.3	2.67	LM, FOSS, VGY, CHRT, VF
	4300.0-4301.0	TOO BROKEN FOR ANALYSIS						
	4301.0-4302.0	LOST CORE						
11	4302.0- 3.0	2.10	1.80	8.0	7.7	65.7	2.77	LM, FOSS, PP VGS, PYR
12	4303.0- 4.0	4.10	3.00	8.9	6.6	67.4	2.77	LM, FOSS, PP VGS, PYR
13	4304.0- 5.0	1.60	1.20	7.9	4.3	65.7	2.75	LM, FOSS, PP VGS, PYR
14	4305.0- 6.0	0.50	0.41	6.6	4.2	75.4	2.75	LM, FOSS, FEW VGS, FISS, PYR, STY
15	4306.0- 7.0	0.98	0.71	7.9	3.9	77.8	2.77	LM, FOSS, VGY, SL/DOL, STY
16	4307.0- 8.0	0.45	0.38	9.3	3.3	76.3	2.76	LM, FOSS, VGY, SL/DOL
17	4308.0- 9.0	1.90	1.70	8.7	2.5	68.4	2.78	LM, FOSS, VGY, SL/DOL
18	4309.0-10.0	1.60	1.30	9.5	3.9	74.3	2.80	LM, FOSS, VGY, SL/DOL, CALC
19	4310.0-11.0	18	0.56	5.3	2.1	79.1	2.75	LM, FOSS, PP VGS, SL/DOL, CALC

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.

RINE DRILLING COMPANY
 BARBY-HARPER NO. 3-23 WELL

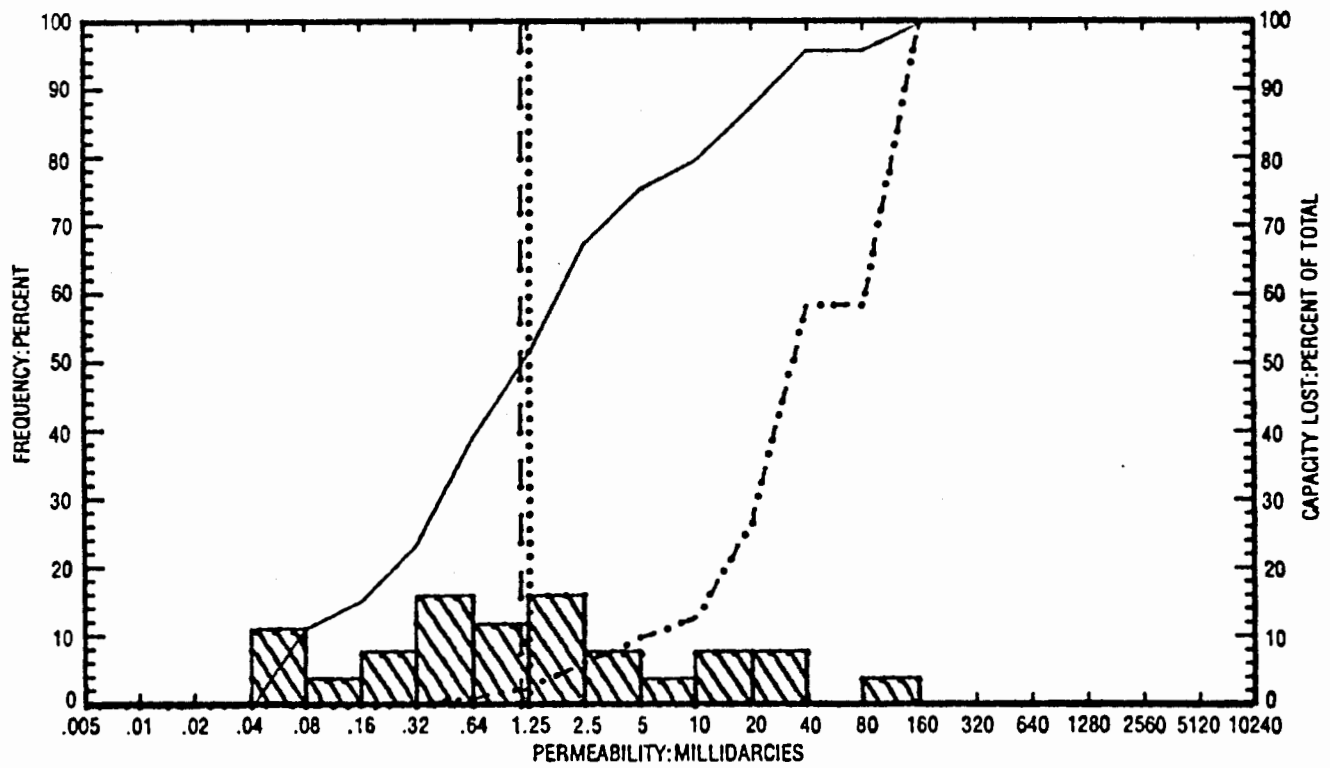
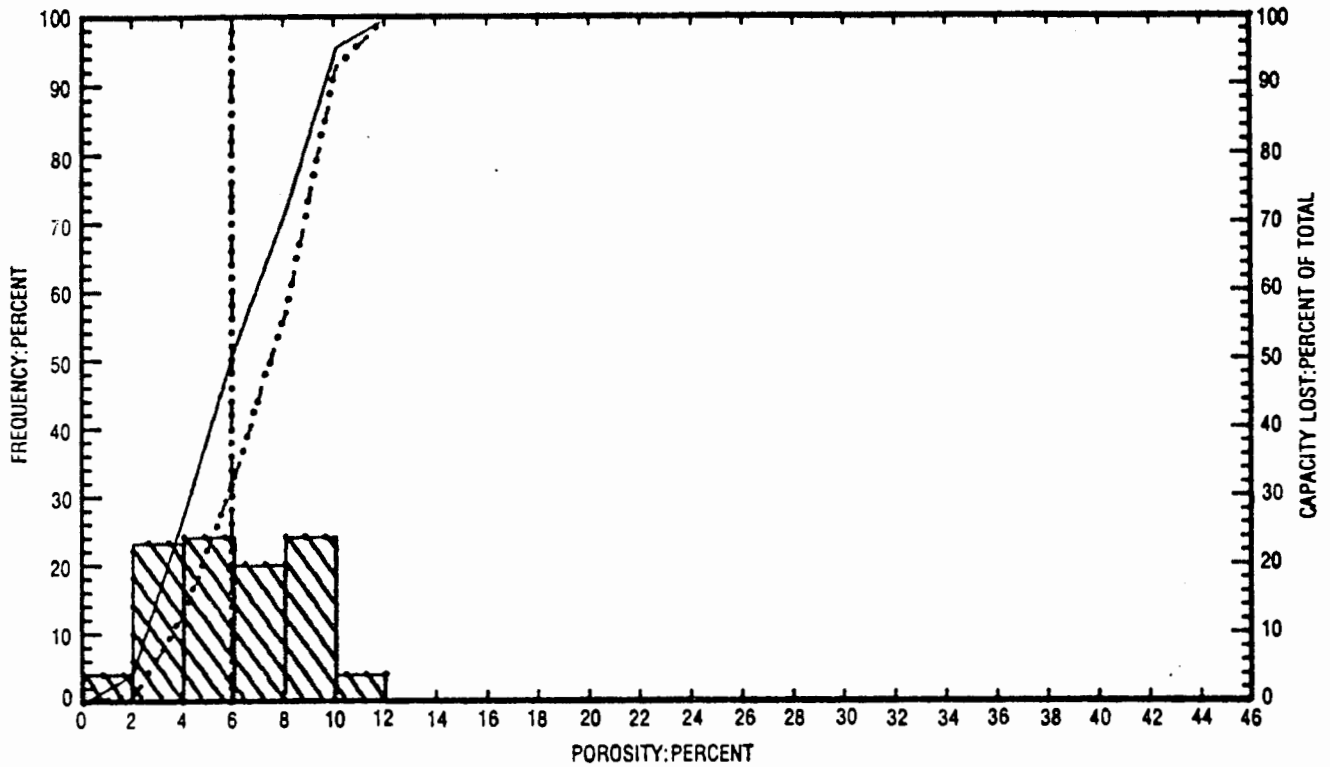
DATE: 10-4-82
 FORMATION: TORONTO LIME

FILE NO: 3402-11434
 ANALYST: EDWARDS

FULL DIAMETER ANALYSIS

SMP. NO.	DEPTH FEET	PERM. TO AIR MD.		POROSITY PERCENT	FLUID SATS.		GRAIN DEN.	DESCRIPTION
		MAXIMUM	90 DEG.		OIL	WATER		
20	4311.0-12.0	746	0.23	5.2	1.3	77.3	2.74	LM, FOSS, PP VGS, SL/DOL, CALC, SHY, VF
+ 21	4312.0-13.0 4313.0-14.0	2.80	2.40	4.2	0.0	76.1	2.74	LM, FOSS, SL/DOL, SHY, VF SH, LMY
+ 22	4314.0-15.0	1.20	0.61	2.9	0.0	77.4	2.73	LM, FOSS, FISS, SHY
23	4315.0-16.0	0.07	0.06	3.0	0.0	74.5	2.73	LM, FOSS, SHY
24	4316.0-17.0	0.08	0.07	2.6	0.0	71.6	2.74	LM, FOSS, CALC, SHY
25	4317.0-17.8	0.05	0.04	2.9	0.0	78.4	2.73	LM, FOSS, FISS, SHY

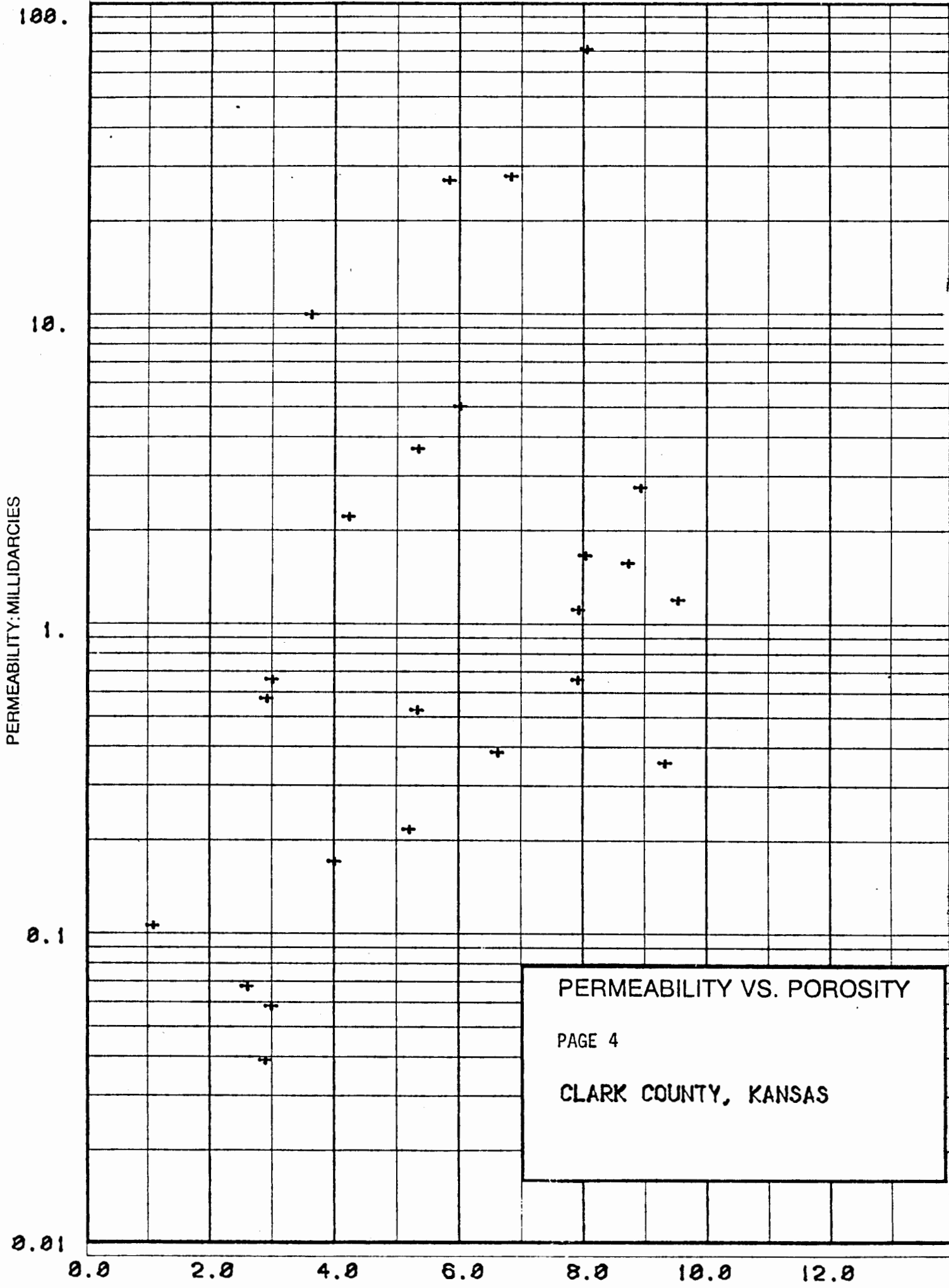
+ DENOTES HORIZONTAL CRACKS



PERMEABILITY AND POROSITY HISTOGRAMS PAGE 3

RINE DRILLING COMPANY
 BARBY-HARPER NO. 3-23 WELL
 CLARK COUNTY, KANSAS

- LEGEND**
- ARITHMETIC MEAN POROSITY
 - GEOMETRIC MEAN PERMEABILITY
 - MEDIAN VALUE
 - CUMULATIVE FREQUENCY
 - .-.-.- CUMULATIVE CAPACITY LOST



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Petroleum Reservoir Engineering

OKLAHOMA CITY, OKLAHOMA

October 5, 1982

REPLY TO
SUITE 133
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Rine Drilling Company
Suite 600
300 W. Douglas
Wichita, Kansas 67202

Attn: Mr. Jack Rine

Gentlemen:

Core Laboratories, Inc., Oklahoma City, has previously provided core storage space at no charge to our clients. During the last year our need for space became acute and many clients have been forced to rent storage in "mini-storage" warehouses. However, these spaces are expensive, difficult to maintain, and have limited accessibility.

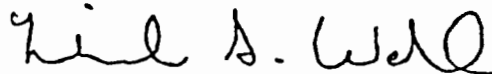
In an effort to solve these problems, we are instituting a new core storage program effective May 1, 1982. Additional space adjoining our present facility has been leased and prepared specifically for core storage. There will be a monthly charge for handling, maintenance and storage based on the amount of core involved.

Please contact us within 30 days of receiving your final report so that we may make arrangements to store your core, ship it to another location or donate it to one of the university geological surveys.

We believe this program will eliminate most of the problems associated with core storage and enable us to serve our clientele more efficiently in the future. If you have any questions regarding this program, please do not hesitate to contact us (405-946-5422).

Very truly yours,

CORE LABORATORIES, INC.



Michael S. Wahl
Laboratory Supervisor

