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1363
John B.

CITIES SERVICE OIL COMPANY

April 4, 1968

Box 873
Charleston, West Virginia 25323
Telephone: 304 ~~342-5107~~ 344-8383

039 2041

Mr. Pat Burns
Pennzoil Oil Company
P. O. Box 1588
Parkersburg, W. Va. 26101

Dear Pat:

Enclosed is a copy of the report by Oilfield Research, Inc. on GW -1548, Waller C. Hardy, Jr. #19 well which I am sending you with the understanding that we will receive the report of the core you plan to take on your Wallace well when it is completed.

I find that Oilfield Research, Inc. did not perform an analysis on our Hardy #14 well but this well is within 2 miles of the Hardy #14 and I trust will serve your purpose equally well.

Very truly yours,

R. L. Bird, Jr.

RLBjr:BL
encl

OILFIELD RESEARCH, INC.

REGISTERED ENGINEERS

1006 DIAMOND AVENUE • EVANSVILLE, INDIANA 47717 • PHONE 424-2907 (DAY OR NIGHT)

ROBINSON, ILLINOIS

PAINTSVILLE, KENTUCKY

ZACHARIAH, KENTUCKY

WALDO, OHIO

June 2, 1965

Cities Service Oil Company
P. O. Box 873
Charleston, West Virginia

IN RE: Waller C. Hardy, Jr. Etal Lease
Well No. 19-GW-1548
Kanawha County, West Virginia

Gentlemen:

Long sections of full diameter core of the Newburg formation from the subject well were analyzed using whole core procedures. The results of the analysis are tabulated on the coregraph.

Included in this report is a description of the formation cored.

Very truly yours,

OILFIELD RESEARCH, INC.

Robert Alexander

Robert Alexander

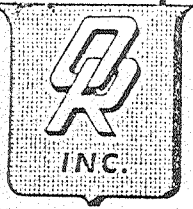
Marlin F. Krieg (wtk)

Marlin F. Krieg

RA:csr

8C: Addressee





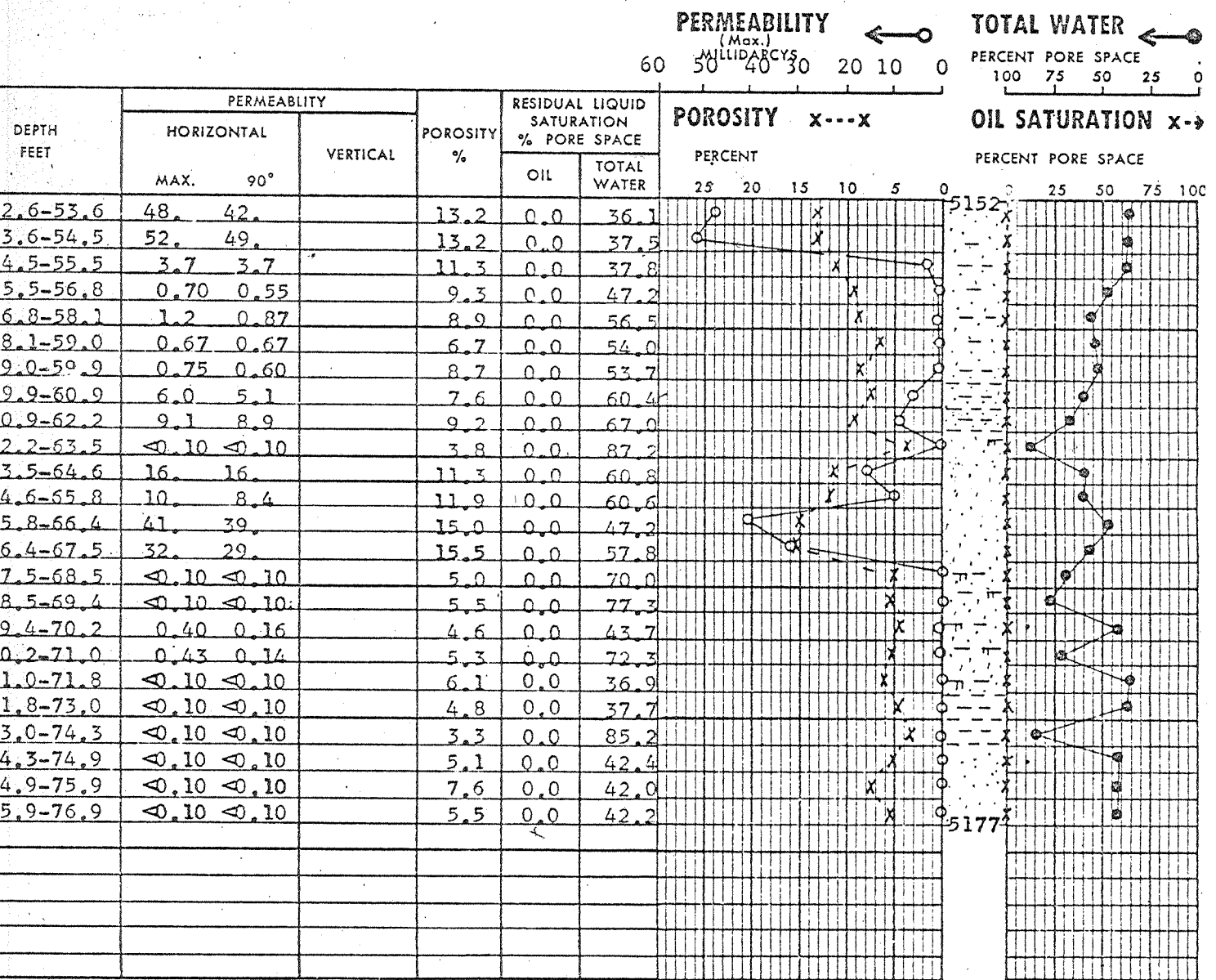
OILFIELD RESEARCH, INC.

CITIES SERVICE OIL CO. ELEVATION 688.96' C.L. FILE NO. 6506006
 WALLER C. HARDY, JR. WELL 19-GW-1548 FORMATION NINBURG DATE CORED 5-23-65
 ETAL
 LOUDON DRLG. FLUID FWB DATE REPORT 6-2-65
 KANAWHA STATE W. VA. TYPE OF CORE DIAMOND PERMIT NO.
 REMARKS SAMPLED BY OR-JCM

WHOLE CORE ANALYSIS REPORT

SANDSTONE CALCAREOUS SANDSTONE SHALY SANDSTONE SHALE

These analyses, opinions or interpretations are based on observations and material 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 Oilfield Research, Inc. (all errors and omissions excepted) but Oilfield Research, Inc. and its officers and employees, assume no responsibility and make no warranty or representation as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or used in connection with which this report is used or relied upon.



CORE SUMMARY

CON	DEPTH, FEET	FEET CORE ANALYZED	AVERAGE PERMEABILITY		AVERAGE POROSITY %	AVERAGE LIQUID SATURATION, %	
			HORIZONTAL MAX.	VERTICAL 90°		OIL	WATER
	5152.6 - 5167.5	*13.6	16.	14.	10.8	0.0	52.8

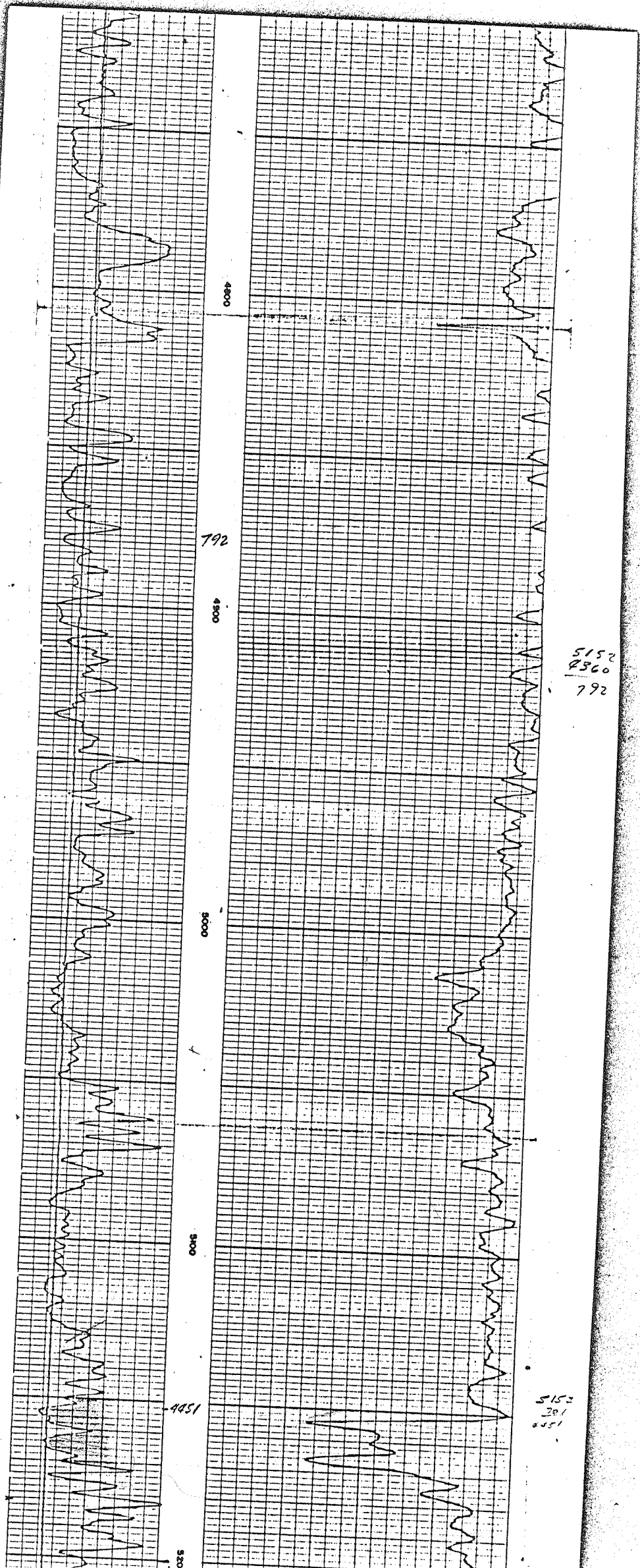
Age for samples with max. permeability greater than 0.10 millidarcy.

FORMATION CORED

Following is the description of the formation cored:

<u>Depth Interval</u> <u>Feet</u>	<u>Description</u>
NEWBURG	
5145.0 - 5146.0	- Sandstone and shale, hard, dense, quartzitic.
5146.0 - 5152.5	- Shale, interbedded with sand grains, scattered sand grains @ 5150'.
5152.5 - 5154.0	- Sandstone, fine grained, gray to white.
5154.0 - 5160.0	- Sandstone, with shale laminations.
5160.0 - 5162.0	- Sandstone, with numerous shale laminations, 50% sand, 50% shale.
5162.0 - 5163.0	- Sandstone, fine grained, calcareous, white, dense.
5163.0 - 5168.0	- Sandstone, fine grained, white.
5168.0 - 5171.8	- Sandstone, fine grained, calcareous, shaly, quartzitic pebbles @ 5171'.
5171.8 - 5174.0	- Shale.
5174.0 - 5177.0	- Sandstone, fine grained, quartzitic.
5177.0 - 5183.0	- Shale, gray, dense.

KAWAHA 2041
CITIES SERVICE
W.C. HARDY #19



266
2550
5152

5152
201
4451