



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
REGION III

PETROLEUM AND OIL-SHALE  
EXPERIMENT STATION

P. O. BOX 621  
LARAMIE, WYOMING

February 26, 1957

*Van Grundy # 2  
File*

Ginther, Warren & Ginther Company  
Box 769  
Sterling, Colorado

Gentlemen:

Transmitted with this letter is a copy of the analysis of the crude oil of your Van Grundy Well No. 2 in the Pawnee Creek field, Logan County, Colorado, for your information and files.

This sample was obtained by the U. S. Geological Survey, Denver, Colorado.

Sincerely yours,

*Paul Biggs*  
PAUL BIGGS  
Petroleum Engineer

Enclosure

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
PETROLEUM AND NATURAL GAS BRANCH

Laboratory Laramie Laboratory sample No. PC-56-163

Purpose for obtaining sample Routine analysis

INFORMATION TO BE FORWARDED WITH EACH SAMPLE OF WATER, OIL, OR GAS

Please supply as much as possible of the following information, using this sheet. Please write clearly or print.

Kind of sample (water, oil, or gas) oil Marks on sample container #1

Field Pawnee Creek Farm or lease Van Grundy

Well No. 2 in the NW NW NE of Section 35 Township 8 N

Range 54 W County Logan State Colo.

Operator Ginther, Warren & Ginther Box 769

Operator's address (main office) Houston, Texas Sterling, Colo.

Sample obtained by N. W. Bass Date 6-6-56

Address Bldg. 25, Fed. Center, Denver, Colo. Representing USGS

Sample obtained from (lead line, separator, flow tank, etc.) Lead line

Date of completion of well 9-29-55 Elevation of well 4235' RB

Name of productive zone from which sample is produced J sand Sand X Shale \_\_\_\_\_ Lime \_\_\_\_\_

Formation name Dakota sandstone

Depths: Top of formation 1917 Bottom of formation \_\_\_\_\_

Top of producing zone 5054 Bottom of producing zone 5063

Total depth drilled 5063 Present depth 5063

Well production: Initial Present Casing record:

Oil, barrels . . . . . 125 9-5/8" at 180

Water, barrels . . . . . 5-1/2" at 5953 w/200

Gas, cubic feet . . . . . \_\_\_\_\_

Pressures { Reservoir . . . . . \_\_\_\_\_  
Tubing . . . . . \_\_\_\_\_  
Casing . . . . . \_\_\_\_\_

Method of production Pumping

Remarks:

# REPORT OF CRUDE PETROLEUM ANALYSIS

Bureau of Mines Laramie Laboratory  
Sample PC-56-163

## IDENTIFICATION

Pawnee Creek field  
"J" sandstone  
5054-5063 feet

Colorado  
Logan County  
NW 1/4 NE 1/4 sec. 35,  
T. 8 N., R. 54 W.

## GENERAL CHARACTERISTICS

Specific gravity, 0. 838 A. P. I. gravity 37.4 ° Pour point, ° F. 50  
Sulfur, percent, less than 0.10 Color, greenish-black  
Saybolt Universal viscosity at 100 ° F., 40 sec.; at \_\_\_\_\_ ° F., \_\_\_\_\_ sec. Nitrogen, percent 0.077

## DISTILLATION, BUREAU OF MINES ROUTINE METHOD

STAGE 1—Distillation at atmospheric pressure, 760 mm. Hg.  
First drop, 26 ° C. (79 ° F.)

Fraction No.	Cut at		Percent	Sum. Percent	Sp. Gr., 60, 60° F.	° A. P. I., 60° F.	C. I.	Aniline Point, ° C.	S. U. Visc., 100° F.	Cloud Test, ° F.
	° C.	° F.								
1	50	122	0.9	0.9						
2	75	167	1.6	2.5	673	78.8		55.5		
3	100	212	3.8	6.3	717	65.9	20	51.5		
4	125	257	6.2	12.5	746	58.2	25	48.8		
5	150	302	6.3	18.8	764	53.7	26	47.1		
6	175	347	6.0	24.8	782	49.5	27	48.1		
7	200	392	5.9	30.7	793	46.9	26	52.8		
8	225	437	5.2	35.9	805	44.3	26	58.9		
9	250	482	5.0	40.9	819	41.3	28	62.5		
10	275	527	6.4	47.3	831	38.8	29	67.1		

STAGE 2—Distillation continued at 40 mm. Hg.

11	200	392	13.0	60.3	849	35.2	33	77.9	42	30
12	225	437	5.2	65.5	871	31.0	40	86.2	60	70
13	250	482	3.4	68.9	880	29.3	41	91.4	83	85
14	275	527	3.0	71.9	886	28.2	40	94.3	105	95
15	300	572	7.9	79.8	905	24.9	46	97.4	190	105
Residuum			18.9	98.7	954	16.8		too dark		

Carbon residue of residuum, 7.0 percent; carbon residue of crude, 1.5 percent.  
**Ramsbottom** 6.0 1.3

## APPROXIMATE SUMMARY

	Percent	Sp. Gr.	° A. P. I.	Viscosity
Light gasoline	6.3	699	70.9	
Total gasoline and naphtha	30.7	756	55.7	
Kerosine distillate	10.2	812	42.8	
Gas oil	16.9	840	37.0	
Nonviscous lubricating distillate	11.9	858-.885	33.4-28.4	50-100
Medium lubricating distillate	6.8	885-.907	28.4-24.5	100-200
Viscous lubricating distillate	3.3	907-.919	24.5-22.5	Above 200
Residuum	18.9	954	16.8	
Distillation loss	1.3			