



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

To THE DEPARTMENT OF MINES,
Charleston, W. Va.

Elizabeth Crabtree

~~XXXXXXXXXX~~ COAL OWNER (not operated)

Fort Gay, W. Va.

ADDRESS

COAL OPERATOR OR COAL OWNER

ADDRESS

Elizabeth Crabtree

OWNER OF MINERAL RIGHTS

Fort Gay, W. Va.

ADDRESS

F. M. Hicks

NAME OF WELL OPERATOR

141 Gallaher Street,
Huntington, W. Va.

COMPLETE ADDRESS

March 17th, 19 59

PROPOSED LOCATION

Butler District

Wayne County

Well No. 1 39° 10' 82° 35' E. 560'

Elizabeth Crabtree Farm

45 acres

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated March 3rd, 1959, made by Elizabeth Crabtree, to F. M. Hicks, and recorded on the 3rd day of March, 1959, in the office of the County Clerk for said County in Book 49, page 385.

The enclosed plat was prepared by a competent engineer and shows the proposed location of a well to be drilled for oil and gas by the undersigned well operator on the farm and in the Magisterial District and County above named, determined by survey and courses and distances from two permanent points, or land marks.

The undersigned well operator is informed and believes there are no coal operators operating beds of coal beneath said farm or tract of land on which said well is located, or within 500 feet of the boundaries of the same, who have mapped their workings and filed their maps as required by law, excepting the coal operators or coal owners (if any) above named as addressees.

The above named coal operators or coal owners (if any) are notified that any objections they may desire to make to such proposed location, or which they are required to make by Section 3 of said Code, if the drilling of a well at said proposed location will cause a dangerous condition in or about their respective coal mines, must be received by, or filed with the Department of Mines within ten* days from the receipt of a copy of this notice and accompanying plat by said Department. Said coal operators are further notified that forms for use in making such objections will be furnished to them by the Department of Mines promptly on request and that all such objections must set forth as definitely as is reasonably possible the ground or grounds on which such objections are based and indicate the direction and distance the proposed location should be moved to overcome same.

(The next paragraph is to be completed only in Department's copy.)

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address _____ day _____ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,

F. M. Hicks

WELL OPERATOR

141 Gallaher Street

STREET

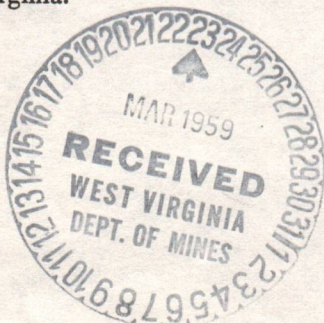
Huntington

CITY OR TOWN

West Virginia.

STATE

08/18/2023



Address of Well Operator }

*Section 3 If no such objections be filed or be found by the department of mines, within said period of ten days from the receipt of said notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a drilling permit reciting the filing of such plat, that no objections have been made by the coal operators to the location, or found thereto by the department, and that the same is approved and the well operator authorized to proceed to drill at said location.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

NOTICE OF PROPOSED LOCATION OF OIL AND GAS WELL

To The Department of Mines,
Charleston, W. Va.

Elizabeth Crabtree

~~Elizabeth Crabtree~~ (not operated)

Fort Gay, W. Va.

F. M. Hicks
141 Callahan Street,
Huntington, W. Va.

March 17th 1939

PROPOSED LOCATION

Butler

District

Wayne

County

Well No. 1

Elizabeth Crabtree

Elizabeth Crabtree

OWNER OF MINERAL RIGHTS

Fort Gay, W. Va.

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having the title thereto, (or as the case may be) under grant or lease dated

March 3rd, 1939, made by Elizabeth Crabtree

and recorded on the 3rd day

of March, 1939, in the office of the County Clerk for said County in

Book 49 page 385

The enclosed plat was prepared by a competent engineer and shows the proposed location of a well to be drilled for oil and gas by the undersigned well operator on the farm and in the Mineral District and County above named, determined by survey and courses and distances from two permanent points or land marks.

The undersigned well operator is informed and believes there are no coal operators operating upon or about the land on which said well is located, or within 500 feet of the boundary of the same, who have mapped their workings and filed their maps as required by law, excepting the coal operators or coal owners (if any) above named as addressees.

The above named coal operators or coal owners (if any) are notified that any objections they may desire to make to such proposed location, or which they are required to make by Section 3 of said Code, if the drilling of a well at said proposed location will cause a dangerous condition in or about their respective coal mines, must be received by, or filed with the Department of Mines within ten days from the receipt of a copy of this notice and accompanying plat by said Department. Said coal operators are further notified that forms for use in making such objections will be furnished to them by the Department of Mines promptly on request and that all such objections must set forth as definitely as is reasonably possible the ground or grounds on which such objections are based and indicate the direction and distance the proposed location should be moved to overcome same.

(The next paragraph is to be completed only in Department's copy.)
Copies of this notice and the enclosed plat were mailed by registered mail or delivered to the above

named coal operators or coal owners at their above shown respective address _____ day _____ before _____ to the Department of Mines at Charleston, West Virginia.

Very truly yours,

F. M. Hicks

WELL OPERATOR

141 Callahan Street

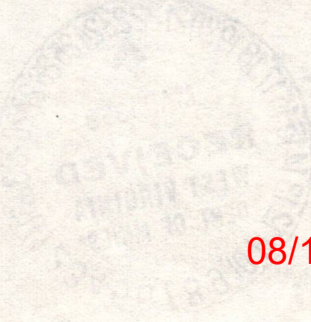
CITY

Huntington

CITY OR TOWN

West Virginia.

STATE



08/18/2023

*Section 3. If no such objections be filed or be found by the department of mines within and within of ten days from the receipt of said notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a drilling permit, certifying the title of such plat, that no objections have been made by the coal operators to the location or found therein by the department, and that the same is approved and the well operator authorized to proceed to drill at said location.

PERMIT NUMBER

WAY-1177



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Quadrangle Guyandot

Permit No. WAY-1177

WELL RECORD

Oil or Gas Well Dry hole
(KIND)

Company F. M. Hicks
Address 141 Gallaher St, Huntington, W. Va.
Farm Elizabeth Loar Crabtree Acres 45
Location (waters) Tabors Creek
Well No. One Elev. 560
District Butler County Wayne
The surface of tract is owned in fee by Same
Address Fort Gay, W. Va.
Mineral rights are owned by Same
Address _____
Drilling commenced April 2, 1959
Drilling completed April 10, 1959
Date Shot no From _____ To _____
With well not shot
Open Flow /10ths Water in No gas Inch _____
/10ths Merc. in _____ Inch _____
Volume Dry Hole Cu. Ft. _____
Rock Pressure _____ lbs. _____ hrs.
Oil none bbls., 1st 24 hrs. _____
WELL ACIDIZED no
WELL FRACTURED no

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			
10	45'	45'	Size of
8 1/4	211'	211'	
6 3/8			Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____

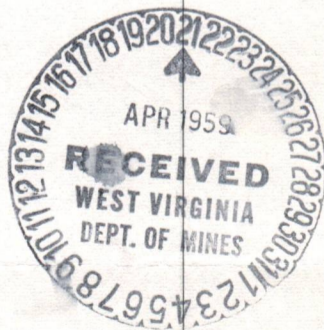
COAL WAS ENCOUNTERED AT none FEET _____ INCHES _____
FEET _____ INCHES _____ FEET _____ INCHES _____
FEET _____ INCHES _____ FEET _____ INCHES _____

RESULT AFTER TREATMENT _____

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water 5' Feet _____ Salt Water 567' Feet _____

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	5			
Sand & Gravel			5	45			
Sand			45	65			
Slate			65	142			
Sand			142	208			
Slate			208	215			
Sand			215	273			
Slate			273	300			
Sand			300	305			
Slate			305	320			
Sand			320	340			
Slate			340	345			
Sand			345	350			
Slate & Shells			350	402			
Sand			402	430			
Slate			430	445			
Sand			445	474			
Slate			474	483			
Sand			483	498			
Slate			498	525			
Broken Sand			525	550			
Salt Sand			550	702			
Slate			702	731			
Salt Sand			731	755			



Salt Water encountered at 567'
Total depth drilled, Well was stopped after picking up hole full water in Salt Sand,
This was intended to be a shallow oil well in the Salt Sand



DEPARTMENT OF MINES, OIL AND GAS DIVISION

APPROVED

By

(Title)

Date

April 11, 1955

Owner

1955

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Salt	White	Hard	173	173		173	Salt water encountered at 50'
Salt Sand	White	Hard	170	170		170	Total depth drilled, well was stopped after picking up hole full water in salt sand.
Broken Sand	White	Hard	165	165		165	This was intended to be a shallow oil well in the salt sand.
Shale & Shells	White	Hard	160	160		160	
Sand	White	Hard	155	155		155	
Shale	White	Hard	150	150		150	
Sand	White	Hard	145	145		145	
Shale	White	Hard	140	140		140	
Sand	White	Hard	135	135		135	
Shale	White	Hard	130	130		130	
Sand	White	Hard	125	125		125	
Shale	White	Hard	120	120		120	
Sand	White	Hard	115	115		115	
Shale	White	Hard	110	110		110	
Sand	White	Hard	105	105		105	
Shale	White	Hard	100	100		100	
Sand	White	Hard	95	95		95	
Shale	White	Hard	90	90		90	
Sand	White	Hard	85	85		85	
Shale	White	Hard	80	80		80	
Sand	White	Hard	75	75		75	
Shale	White	Hard	70	70		70	
Sand	White	Hard	65	65		65	
Shale	White	Hard	60	60		60	
Sand	White	Hard	55	55		55	
Shale	White	Hard	50	50		50	
Sand	White	Hard	45	45		45	
Shale	White	Hard	40	40		40	
Sand	White	Hard	35	35		35	
Shale	White	Hard	30	30		30	
Sand	White	Hard	25	25		25	
Shale	White	Hard	20	20		20	
Sand	White	Hard	15	15		15	
Shale	White	Hard	10	10		10	
Sand	White	Hard	5	5		5	
Shale	White	Hard	0	0		0	

08/18/2023

B-3

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

INSPECTOR'S PLUGGING REPORT

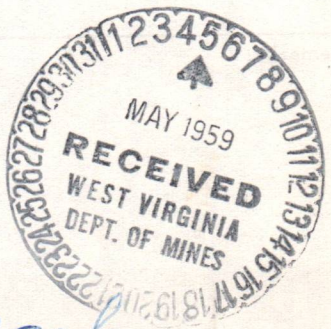
Permit No. WAY-1177 Well No. 1
COMPANY F. M. Hicks ADDRESS 141 Gallagher Street
Huntington, W. Va.
FARM Elizabeth Loar Crabtree DISTRICT Butler COUNTY Wayne

Filling Material Used _____

Liner	Location	Amount	Packer	Location
PLUGS USED AND DEPTH PLACED			BRIDGES	CASING AND TUBING
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED SIZE LOST

Drillers' Names Edwin Hanna
Hurston Prichard

Remarks: Filling 8" hole from 755' to 505' with clay; cement 505'-495';
crushed stone 495'-490'.



4-30-59 I hereby certify I visited the above well on this date.
DATE

J.W. pack

DISTRICT WELL INSPECTOR

08/18/2023

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

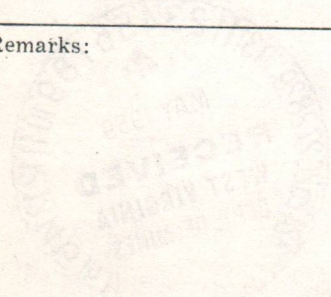
INSPECTOR'S WELL REPORT

Permit No. _____ Oil or Gas Well _____
(KIND)

		CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Company _____		Size			Kind of Packer _____
Address _____		16			
Farm _____		13			
Well No. _____		10			Size of _____
District _____ County _____		8 1/4			
Drilling commenced _____		6 5/8			Depth set _____
Drilling completed _____ Total depth _____		5 3/16			
Date shot _____ Depth of shot _____		3			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch		2			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch		Liners Used			Perf. top _____
Volume _____ Cu. Ft.					Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.		CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.		COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Fresh water _____ feet _____ feet		_____ FEET _____ INCHES _____ FEET _____ INCHES			
Salt water _____ feet _____ feet		_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: _____





STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
CHARLESTON

March 23, 1959

C
O
P
Y

Mr. James W. Pack, Inspector
Oil and Gas Wells
Hamlin, West Virginia

Dear Mr. Pack:

We are in receipt of applications for permits
to drill wells in your district:

Well No. 1 on Z. T. Moore et al Farm, Sheridan
District, Lincoln County from Moore Gas Company. Permit number
will be LIN-1307.

Well No. 1 on Elizabeth Crabtree Farm, Butler
District, Wayne County from F. M. Hicks. Permit number will be
WAY-1177.

Very truly yours,

Crawford L. Wilson, Director
DEPARTMENT OF MINES

BY: _____
Assistant Director
OIL AND GAS DIVISION

MG/m

08/18/2023



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
CHARLESTON

March 23, 1929

13-4

COPY

Mr. James W. Peck, Inspector
Oil and Gas wells
Hunting, West Virginia

Dear Mr. Peck:

We are in receipt of applications for permits
to drill wells in your district:

Well No. 1 on S. T. Moore et al Farm, Sheridan
District, Lincoln County from Moore Gas Company. Permit number
will be LB-1307.

Well No. 1 on Elizabeth Crook's Farm, Sadler
District, Wayne County from F. H. Hines. Permit number will be
WB-1177.

Very truly yours,

Crawford L. Wilson, Director
DEPARTMENT OF MINES

BY: _____
Assistant Director
OIL AND GAS DIVISION

10/2

B-5
April 2, 1959

Mr. F. N. Hicks
141 Gallaher Street
Huntington, West Virginia

Dear Mr. Hicks:

Enclosed is Permit WAY-1177 for drilling Well
No. 1 on Elizabeth Crabtree Farm, Butler District, Wayne
County.

Please post one copy of permit at the well site.
When drilling is completed, please send us two copies of the
well record.

Very truly yours,

Crawford L. Wilson, Director
DEPARTMENT OF MINES

BY

Assistant Director
OIL AND GAS DIVISION

NG/m

encl:

cc Mr. James W. Pack, Inspector

Mr. R. C. Tucker, Assistant
State Geologist

08/18/2023

PROPOSED MANNER OF PLUGGING AND FILLING WELL

(REQUIRED BY RULES AND REGULATIONS)

WEST VIRGINIA DEPARTMENT OF MINES
OIL AND GAS DIVISION
WORK ORDER

Well to be plugged and filled as follows:

WORK ORDER PREPARED BY THE DEPARTMENT OF MINES

TOTAL DEPTH 755'

Fill with red clay from bottom 755' - 500'
Neat cement 500' - 490'
5' crushed stone on cement, Sealing off Salt Water

SET A BRIDGE at 250'
2 sacks neat cement and 5' crushed stone on bridge

Pull 8-1/4" casing and
Fill with Clay to surface

ERECT MARKER, in compliance with Rule 18, 1931 Regulations

To the Department of Mines
Coal Owner or Operator,
Lease or Property Owner.

Gentlemen:

This "work order" is submitted for your approval and concurrence and unless notified of your disapproval or non-concurrence, the undersigned will proceed with the plugging and filling of said well in the above described manner on the date stated in the notice of intention to plug and abandon the said well on opposite side of this sheet.

Very truly yours,

Well Operator.

No objections have been filed by the coal owner or coal operator, or any available adjacent lease or property owners or interposed by the Department of Mines to the manner herein described for the plugging and filling of the well above mentioned. Therefore, the same is hereby approved this

21st. day of APRIL, 19 59

DEPARTMENT OF MINES
Oil and Gas Division

By: M. E. Gispick

NOTE: This "work order" shall be filed in triplicate, one copy for the files of the Department of Mines; one to be approved or corrected and returned to the well operator as his authority for plugging said well; and one for the well inspector.

08/18/2023



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

NOTICE OF INTENTION TO PLUG AND ABANDON WELL

(REQUIRED BY SECTION 9, ARTICLE 4, CHAPTER 22 OF THE CODE)

To THE DEPARTMENT OF MINES,
Charleston, W. Va.

_____	F. M. HICKS
Coal Operator or Coal Owner	Name of Well Operator
_____	141 GALLAHER STREET
Address	Complete Address
_____	HUNTINGTON, WEST VIRGINIA
Coal Operator or Coal Owner	APRIL 21, 19 59
_____	WELL TO BE ABANDONED
Address	BUTLER District
_____	WAYNE County
Lease or Property Owner	Well No. 1
_____	ELIZABETH LOAR CRABTREE Farm
Address	

Inspector to be notified MR. JAMES W. PACK, HAMLIN, WEST VIRGINIA

Gentlemen:— **24 HOURS IN ADVANCE OF PLUGGING DATE**

The undersigned well operator is about to abandon the above described well and will commence

the work of plugging and abandoning said well on the date inspector is notified (which date shall not be less than five days after the day on which this notice so mailed is received, or in due course should be received by the Department of Mines).

This notice is given you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not represented the undersigned will proceed on that date, or shortly thereafter, to plug and fill said well in the manner required by Section 10, Article 4, Chapter 22 of the Code and given in detail on the reverse side of this notice, in "Work Order."

This notice is being mailed by registered mail to each of you at the above addresses on the above date.

Very truly yours,



Well Operator.

08/18/2023

NOTE: Upon the abandonment of all wells drilled prior to June 1, 1929, a plat prepared by a registered engineer, showing the district and county in which the tract of land is located, the name and acreage of same, the names of the owners and adjacent tracts, and the location of the about to be abandoned well, determined by survey, and the courses and distances of such well from two permanent points or landmarks on said tract, shall be submitted with this notice.

NOTE: In case plugging is not commenced within four months from the above date, this permit shall expire and be of no further force or effect.

(over) WAY-1177-P PERMIT NUMBER

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE MADE IN TRIPLICATE, ONE COPY MAILED TO THE DEPARTMENT, ONE COPY TO BE RETAINED BY THE WELL OPERATOR AND THE THIRD COPY (AND EXTRA COPIES IF REQUIRED) SHOULD BE MAILED TO EACH COAL OPERATOR AT THEIR RESPECTIVE ADDRESSES.

COAL OPERATOR OR OWNER	<u>none</u>	NAME OF WELL OPERATOR	<u>F. M. Hicks, permit # WAY-1177</u>
ADDRESS		COMPLETE ADDRESS	<u>141 Gallaher St. Huntington, W. Va.</u>
COAL OPERATOR OR OWNER		WELL AND LOCATION	<u>May 27, 1959</u> 19
ADDRESS		Butler	District
LEASE OR PROPERTY OWNER		Wayne	County
ADDRESS		Well No. <u>One</u>	
		<u>Elizabeth Crabtree</u>	Farm
STATE INSPECTOR SUPERVISING PLUGGING	<u>James W. Pack</u>		

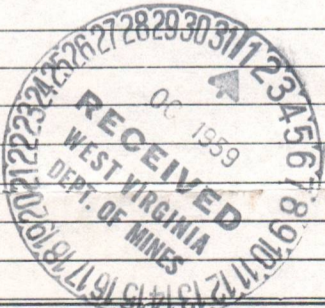
AFFIDAVIT

STATE OF WEST VIRGINIA,

County of _____ } ss:

Hurston Prichard and Edwin Hanna
being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by F. M. Hicks, well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 30 day of April, 1959, and that the well was plugged and filled in the following manner:

SAND OR ZONE RECORD	FILLING MATERIAL	PLUGS USED	CASING	
			CSG PULLED	CSG LEFT IN
FORMATION		SIZE & KIND		
<u>Salt Sand</u>	<u>Red Clay, from bottom 755' to 500' Neat Cement from 500' to 490' Stone from 490' to 480'</u>	<u>Cement and stone</u>	<u>45' of 10" Casing</u>	
	<u>Bridge set at 250' 2 bags neat cement and 5' of crushed stone and filled with Clay to surface, Marker erected in compliance with rule 18, 1931 regulations</u>		<u>211' of 8" Casing</u>	
				<u>No Casing left in well</u>
COAL SEAMS				
(NAME)				
(NAME)				
(NAME)				
(NAME)				
				DESCRIPTION OF MONUMENT
				<u>In compliance with Rule 18 1931 Regulations</u>



and that the work of plugging and filling said well was completed on the 4 th day of May, 1959.

And further deponents saith not.

Sworn to and subscribed before me this 30 th day of September, 1959.

My commission expires: Feb 11 - 1963

Hurston Prichard
Edwin Hanna
Margaret L. Wood
Notary Public.
Permit No. WAY-1177

08/18/2023

STATEMENT OF PLUGGING AND FILLING WELL

THIS STATEMENT SHOULD BE MADE IN THE PRESENCE OF THE LOCAL OPERATOR OR OWNER OF THE WELL OPERATOR AND THE FIELD SUPERVISOR OF THE DISTRICT OFFICE OF THE DEPARTMENT OF MINES AND GEOLOGICAL SURVEY AT THE TIME OF PLUGGING AND FILLING OF THE WELL.

NAME OF WELL OPERATOR: E. L. Hicks, permit # W-1111
 ADDRESS: 111 Gallaher St., Huntington, W. Va.
 LOCAL OPERATOR OR OWNER: _____
 ADDRESS: _____
 WELL AND LOCATION: 1st 27, 1929
 DISTRICT: _____
 COUNTY: _____
 WELL NO.: One
 STATE INSPECTOR SUPERVISING PLUGGING: James W. Beck
 NAME: _____
 ADDRESS: _____

STATEMENT OF PLUGGING AND FILLING WELL

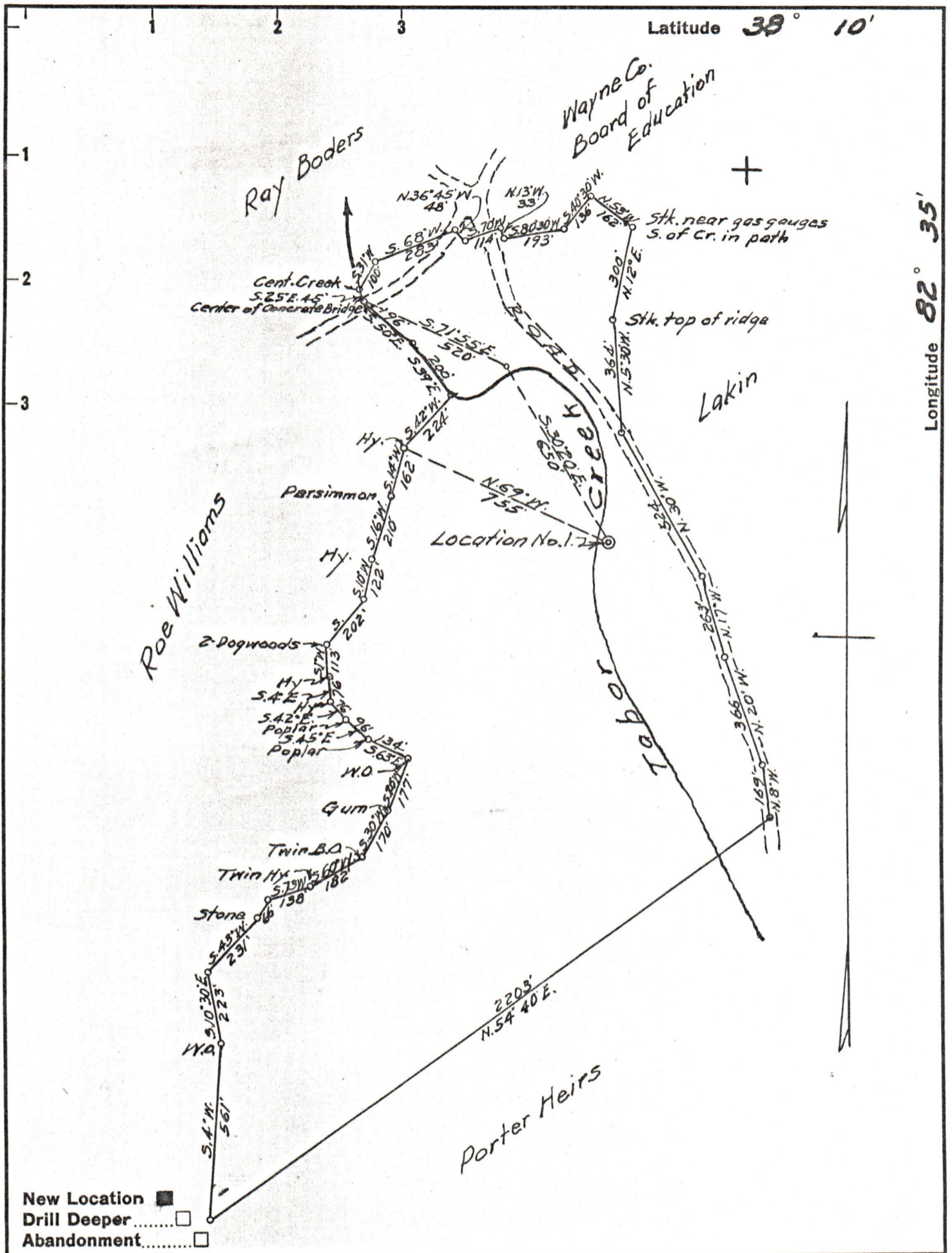
STATE OF WEST VIRGINIA
 County of _____
 I, Richard Hirston, being duly sworn, depose and say that I am experienced in the work of plugging and filling of oil and gas wells and was employed by E. L. Hicks and participated in the work of plugging and filling the above well, that said work was completed on the 30 day of April, 1929, and that the well was plugged and filled in the following manner:

DEPTH OR TOP OF ZONE	PLUGS USED	REMARKS
21' of 8" casing	8" casing	compliance with rule 18, 1921 regulations
21' of 8" casing	8" casing	and filled with clay to surface, latter erected in compliance with rule 18, 1921 regulations
180'		Bridge set at 250'; 2 bags cement and 2' of crushed stone
180'		to 190'; stone from 190' to 500'; best cement from 500' to 525'; from bottom 192'
1 1/2' of 10" casing	Cement and stone	
No casing left in well		



My commission expires _____ day of _____, 1929
 And further deposes and says that the work of plugging and filling said well was completed on the 30 day of _____, 1929
 Sworn to and subscribed before me this _____ day of _____, 1929
 My commission expires _____ day of _____, 1929

08/18/2023



New Location
 Drill Deeper
 Abandonment

Company F. M. HICKS
 Address HUNTINGTON, W. VA.
 Farm ELIZABETH L. CRADTREE
 Tract 1 Acres 45 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 560
 Quadrangle LOUISA
 County WAYNE District BUTLER
 Engineer G. G. Owing
 Engineer's Registration No. 309
 File No. _____ Drawing No. _____
 Date 3-4-59 Scale 1" = 400'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. Way-1117 08/18/2023

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing.