

# RECEIVED

Form OG-10

NOV 19 1984



OIL & GAS DIVISION  
DEPT. OF MINES  
Charleston

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

Rotary   
Spudder   
Cable Tools   
Storage

Quadrangle CharlestonPermit No. Kanawha-1234

## WELL RECORD

Oil or Gas Well Gas  
(KIND)

Company	<u>Appalachian Exploration &amp; Development, Inc.</u>		Casing and Tubing	Used in Drilling	Left in Well	Packers
Address	<u>P.O. Box 628, Charleston, W.Va. 25322</u>		Size			
Farm	<u>R. L. Burford</u>	Acres <u>264.33</u>	16			Kind of Packer <u>None</u>
Location (waters)	<u>Fisher Branch</u>		15 <u>3/8</u>	<u>243</u>	<u>243</u>	
Well No.	<u>1</u>	Elev. <u>828.45</u>	10			Size of
District	<u>Union</u>	County <u>Kanawha</u>	8 <u>9-5/8</u>	<u>1927</u>	<u>1927</u>	Depth set
The surface of tract is owned in fee by	<u>R. L. Burford</u>		7 <u>7/8</u>	<u>5617</u>	<u>5617</u>	
	<u>Rt. 4, Box 43</u>		5 <u>3/16</u>			
Address	<u>Charleston, W.Va.</u>		4 <u>1/2</u>			
Mineral rights are owned by	<u>Same as above.</u>		3			Perf. top
Address			2	<u>5647</u>	<u>5647</u>	Perf. bottom
Drilling commenced	<u>April 4, 1968</u>		Liners Used			Perf. top
Drilling completed	<u>April 22, 1968</u>					Perf. bottom
Date Shot	<u>None</u>	From				
With						

Open Flow 800,000 /10ths Water in 1540 Inch  
 Volume 1540 /10ths Merc. in 48 Inch  
 Rock Pressure None lbs. 48 Cu. Ft.  
 Oil None hrs. 48 Cu. Ft.  
 bbls., 1st 24 hrs.

WELL ACIDIZED (DETAILS) 732 barrels of water with 25,000 lbs. of sand. Maximum pressure -

WELL FRACTURED (DETAILS) 4900 lbs.

RESULT AFTER TREATMENT (Initial open flow or bbls.) 3.0 million cubic feet.

ROCK PRESSURE AFTER TREATMENT 1640 HOURS 48

Fresh Water Newburg Feet 5660 Salt Water Feet

Producing Sand Newburg Depth 5660

Attach copy of cementing record. (ON BACK OF SHEET)  
 CASING CEMENTED SIZE No. Ft. Date  
 Amount of cement used (bags)  
 Name of Service Co.  
 COAL WAS ENCOUNTERED AT FEET INCHES  
 FEET INCHES FEET INCHES  
 FEET INCHES FEET INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Shale&Sand	White	Hard	0	110	Damp		
Sand		Hard	110	135			
Shale		Soft	135	180			
Shale&Sand		Hard	180	230			
Sand&Shale		Soft	230	253			
Sand		Hard	253	430			
Sand&Shale		Soft	430	1025			
Sand		Soft	1025	1570			
Sand&Shale		Soft	1370	1640			
Lime		Hard	1640	1800			
Sand		Soft	1800	1835			
Sand&Shale		Soft	1835	2000			
Shale		Soft	2000	2295			
Sand		Soft	2295	2305			
Shale		Soft	2305	4810			
Lime	Hard	4810	4915				
Sand	Hard	4915	4940				
Lime & Dolomite	Hard	4940	5651				
Dolomite	Hard	5651	5655				
Sandstone	Soft	5655	5666				
Sandstone & Dolomite	Soft	5666	5669				
Sandstone	Soft	5669	5671				
SandyDolomite	Hard	5671	5675				

Onondaga  
Oriskany  
Core #1  
5651-55 (Vent  
5651'  
Core #2  
5655-5675

09/08/2023

T.D.



Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
13-1/8" cemented with 200 sacks by Dowell							
9-5/8" cemented with 400 sacks by Halliburton							
7" cemented with 200 sacks by Dowell							

09/08/2023

Date \_\_\_\_\_, 19\_\_\_\_

APPROVED \_\_\_\_\_, Owner

By \_\_\_\_\_  
(Title)



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FILE COPY

NOV 19 1984



1) Date: November 14, 19 84  
 2) Operator's Well No. R.L. Burford #1  
 3) API Well No. 47 - 039 - 2234 - PP - State County Permit FRA C

STATE OF WEST VIRGINIA  
 OIL & GAS DIVISION DEPARTMENT OF MINES, OIL AND GAS DIVISION  
 DEPT. OF MINES APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas X  
 B (If "Gas", Production / Underground storage / Deep / Shallow X)  
 5) LOCATION: Elevation: 828.45' Watershed: Fisher Branch  
 District: Union County: Kanawha Quadrangle: Pocatalico  
 6) WELL OPERATOR Cabot Oil & Gas Corp. of WV 7) DESIGNATED AGENT Robert E. Horrell  
 Address P.O. Box 628 Address P.O. Box 628  
Charleston, WV 25322 8150 Charleston, WV 25322  
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Russell Beall RODNEY DILLON Name UNKNOWN  
 Address P.O. Box 160 Address \_\_\_\_\_  
Philippi, WV 26416 866-4608  
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate X  
 Plug off old formation X / Perforate new formation X  
 Other physical change in well (specify) Plug back Newburg  
 11) GEOLOGICAL TARGET FORMATION, Huron Shale & Oriskany  
 12) Estimated depth of completed well, 5100 feet  
 13) Approximate trata depths: Fresh, N/R feet; salt, \_\_\_\_\_ feet.  
 14) Approximate coal seam depths: N/R Is coal being mined in the area? Yes / No X

15) CASING AND TUBING PROGRAM **WORKOVER**

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling		Left in well	Kinds
Conductor	13	H-40	48			EXISTING	253'	200 sks.	Kinds
Fresh water									
Coal	9-5/8"	H-40	32			EXISTING	1927'	480 sks.	Sizes
Intermediate									
Production	7"	N-80	23			EXISTING	5617'	200 sks.	Depths set
Tubing	2"		TO BE PULLED			EXISTING	5647'		
Liners									Perforations:
	2"		4.6		X		4900'	On packer	Top Bottom
	1-1/2"		2.75	X			4050'		

- Set cast iron bridge plug @ 5100' and dump 2 sks. cal seal.
- Squeeze cement 7" casing 4200'-3600'.

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-039-2234-PP-FRAC

December 7, 19 84

Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires December 7, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
30	MJD	MN	MN	014122

*Margaret J. Hesse*  
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.





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PERMIT MODIFICATIONS AND CONDITIONS (IF ANY) TO THE PROPOSED WELL WORK

1) LOCATION: Union County, Kanawha District, 828 45'

2) WELL OPERATOR: Cabot Oil & Gas Corp. of WV, P.O. Box 628, Charleston, WV 25322

3) DESIGNATED AGENT: Robert E. Horrell, P.O. Box 628, Charleston, WV 25322

4) NAME: Rodney Dixon

5) ADDRESS: UNKNOWN

6) PROPOSED WELL WORK:
 

- 1) Geotechnical Target Formation: Huron Shale & Oriskany
- 2) Estimated depth of completed well: 5100 feet
- 3) Approximate true depth: 5100 feet
- 4) Approximate casing depth: 5100 feet

Case No.	Well No.	Depth (feet)	Formation	Remarks
13	H-40	48	EXISTING	
3-578	H-40	32	EXISTING	
7	H-80	23	EXISTING	
		200	200 sks.	
		480	480 sks.	
		500	500 sks.	

OFFICE USE ONLY

This part of Form IV-2(b) is to record the dates of certain occurrences and any follow-up inspections.

Date	Date(s)
Application received	Follow-up inspection(s)
Well work started	"
Completion of the drilling process	"
Well Record received	"
Reclamation completed	"

OTHER INSPECTIONS

Reason: \_\_\_\_\_

Reason: \_\_\_\_\_

09/08/2020



1) Date: November 14, 1984  
2) Operator's Well No. R.L. Burford #1  
3) API Well No. 47 - 039 - 2234 -  
State County Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES, OFFICE OF OIL & GAS

NOTICE OF APPLICATION FOR A WELL WORK PERMIT

*P.P. Hall*

4) SURFACE OWNER(S) OF RECORD TO BE SERVED

5(i) COAL OPERATOR NOT OPERATED  
Address \_\_\_\_\_

(i) Name Martha Burford  
Address Rt. 4, Box 45

Charleston, WV 25312

(ii) Name \_\_\_\_\_  
Address \_\_\_\_\_

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:  
Name Brooks F. McCabe  
Address P.O. Box 1692  
Charleston, WV 25326

(iii) Name \_\_\_\_\_  
Address \_\_\_\_\_

Name \_\_\_\_\_

**P 753 224 471**

SEE WITH DECLARATION ON RECORD:  
S \_\_\_\_\_

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

TO THE PERSON(S) NAMED

- (1) The Application to be plugged, and describes cementing procedure
- (2) The plat (survey)
- (3) The Construction and Reclamation Plan

THE REASON YOU RETURNED THIS MAIL WHICH ARE SUMMARIZED IN FORM IV-2(B) OR FORM ACTION AT ALL.

Take notice that the operator proposes to fill for a Well Work Permit Department of Mines, and depicted on attached Construction and Reclamation Plan by hand to the person before the day of mail

6) EXTRACTION RIGHTS

- Check and provide a copy of the lease or other contract by which the right to extract oil or gas is obtained
- Included is the right to extract oil or gas
- The requirement of the lease or other contract is that the right to extract oil or gas is obtained on a lease or leases

7) ROYALTY PROVISIONS

Is the right to extract oil or gas or other contract or other contract for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No **X**

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

★ U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

Sent to <u>Mr. Brooks F. McCabe</u>	
Street and No. <u>P.O. Box 1692</u>	
P.O., State and ZIP Code <u>Charleston, WV 25326</u>	
Postage	\$ _____
Certified Fee	<b>75</b>
Special Delivery Fee	_____
Restricted Delivery Fee	_____
Return Receipt Showing to whom and Date Delivered	<b>60</b>
Return receipt showing to whom, Date, and Address of Delivery	_____
TOTAL Postage and Fees	\$ _____
Postmark or Date	<b>NOV 15 1984</b>

The following documents:

Form IV-4 if the well is being or other work, and the proposed casing and

Form IV-6; and  
The well work is only to be done under the control and for

REGARDING THE APPLICATION A COPY OF THE APPLICATION IS REQUIRED TO TAKE ANY

The undersigned well operator accompanying documents Gas, West Virginia on attached Application Construction, the plat, and the certified mail or delivered (circumstances) on or

contracts by which the right to extract oil or gas is obtained (side for specifics.)

on a lease or leases or other contract or other contract for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No **X**

DEPT. OF MINES  
OIL & GAS DIVISION

NOV 19 1984

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See the reverse side for line item instructions, and for instructions concerning the required copies of the Notice and Application, plat, and Construction and Reclamation Plan.

The truth of the information on the Notice and Application is verified and sworn to and the Notice is signed on behalf of the Well Operator in my County and State by Robert E. Horrell

WELL OPERATOR CABOT OIL & GAS CORP. OF WV

By Robert E. Horrell  
Its District Production Superintendent  
Address P.O. Box 628  
Charleston, WV 25322  
Telephone (304) 347-1600

this 14 day of November, 1984.  
My commission expires March 5, 1989.

Lorene Miller  
Notary Public, Kanawha County,  
State of West Virginia

09/08/2023



INSTRUCTIONS TO APPLICANT

P 753 224 472

CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and
- 3) To be filled out
- 4) & 5) Use separate sheet
- 4) Surface owner(s) see also Code § 2 co-owners of interests in such lands".
- 5(i) "Coal Operator" means corporation that
- 5(ii, iii) See Code § 22-4-2
- 6) See Code § 22-4-1 continuing contract (provided below.
- 7) See Code § § 22-4-

CONCERNING THE REQUIRED COPIES

Filing. Code § 22-4-11 requires three copies of the Notice accompanied by (i) a plat in the forms prescribed by Code § 22-4-1k(d) and 23, (iv) unless previously recorded and 22-3-12a, and (v) the owner of any water well

Service. In addition, with an interest in the

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Ms. Martha Burford	
Street and No. Route 4, Box 45	
P.O., State and ZIP Code Charleston, WV 25312	
Postage	\$
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	60
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date NOV 1981	

Application. However, common or other section hold interests

partnership association or

lease(s) or other continuation in the space

original and required administrator, accompany (ii) a bond in one of other security allowed 4-12b and Regulation required by Code § 22-4-1a(c) Code § 22-4-8a from the closed well.

lessor(s) and the person(s) 22-4-2a, and 22-4-2b.

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)

IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, lessor, etc.	Grantee, lessee, etc.	Royalty	Book Page
Martha E. Burford	COGC of WV	12.5%	224 595

(Current Royalty Owners)

Martha E. Burford  
Brooks F. McCabe





DATE September 28, 1984  
WELL NO. R. L. Burford #1  
API NO. 47 - 039 - 2234-  
*PP-Free*

DEPT. OF MINES  
OIL & GAS DIVISION

RECEIVED  
NOV 19 1984

State of West Virginia  
Department of Mines  
Oil and Gas Division

OCT. 10 1984

Construction and Reclamation Plan

COMPANY NAME Cabot Oil & Gas Corporation of WV DESIGNATED AGENT Robert Horrell  
ADDRESS P.O. Box 628, Chas. WV 25322 ADDRESS P.O. Box 628 Chas. WV 25322  
TELEPHONE 304-347-1600 TELEPHONE 304-347-1600  
LANDOWNER ? SOIL CONS. DISTRICT Capitol

Revegetation to be carried out by \_\_\_\_\_ Company Contractor \_\_\_\_\_ (Agent)

This plan has been reviewed by CAPITOL SCD. All corrections and additions have become a part of this plan.

RECEIVED  
OCT 12 1984

OCT. 11 1984

(Date)

*R. L. Alford*  
(SCD Agent)

**"SEE ATTACHED COMMENTS"**  
LOCATION \_\_\_\_\_

ACCESS ROAD \_\_\_\_\_

STRUCTURE <u>Ditch Relief Cross Drain</u> (A)	STRUCTURE _____ (1)
SPACING <u>Per Plan</u>	MATERIAL _____
PAGE REF. MANUAL <u>2-1, 2-2, 2-3, 2-4</u>	PAGE REF. MANUAL _____
STRUCTURE _____ (B)	STRUCTURE <u>Sediment Barrier</u> (2)
SPACING _____	MATERIAL <u>Straw Bales or Filter Fence</u>
PAGE REF. MANUAL _____	PAGE REF. MANUAL <u>2:16, 2:18, 2:19</u>
STRUCTURE _____ (C)	STRUCTURE <u>Sediment Barrier</u> (3)
SPACING _____	MATERIAL <u>Vegetated Strip</u>
PAGE REF. MANUAL _____	PAGE REF. MANUAL <u>2:16, 2:17</u>

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before earth work begins.

TREATMENT AREA I		Revegetation	TREATMENT AREA II	
Lime	_____ Tons/acre	Lime	_____ Tons/acre	
or correct to pH	<u>6.5</u>	or correct to pH	<u>6.5</u>	
Fertilizer	<u>500</u> lbs/acre	Fertilizer	<u>500</u> lbs/acre	
	(10-20-20 or equivalent)		(10-20-20 or equivalent)	
Mulch	<u>Hay or Straw @ 1 1/2</u> Tons/acre	Mulch	<u>Hay or Straw @ 1 1/2</u> Tons/acre	
Seed*	<u>Ky 31 Tall Fescue</u> 40 lbs/acre	Seed*	<u>Ky 31 Tall Fescue</u> 40 lbs/acre	
	<u>Redtop</u> 5 lbs/acre		<u>Redtop</u> 5 lbs/acre	
	_____ lbs/acre		_____ lbs/acre	

\*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X the recommended amount.


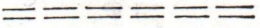
PLAN PREPARED BY Robert E. 09/08/2023  
Cabot Oil and Gas Corporation of W  
ADDRESS P.O. Box 628  
Charleston, WV 25322  
PHONE NO. (304) 347-1600

Note: Please request landowner cooperation to protect new seedlings for one growing season. Attach separate sheets as necessary for comments.



LEGEND

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE Pocatalico



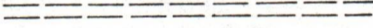





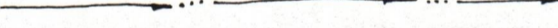









WELL SITE   
ACCESS ROAD 

PHOTOCOPY ATTACHED

WELL SITE PLAN

SKETCH TO INCLUDE WELL LOCATION, EXISTING ACCESS ROAD, ROADS TO BE CONSTRUCTED, WELLSITE, DRILLING PITS AND NECESSARY STRUCTURES NUMBERED OR LETTERED TO CORRESPOND WITH THE FIRST PART OF THIS PLAN. INCLUDE ALL NATURAL DRAINAGE.

LEGEND

WELL LOCATION		DRILLING PIT	
PROPOSED ROAD		EXISTING ROAD	
PROPERTY BOUNDARY		DIVERSION	
EXISTING FENCE		PROPOSED FENCE	
STREAM		SPRING	
WET SPOT		OPEN DITCH	
DRAIN PIPE		BUILDING	
WATERWAY		CULVERT	
RIP RAP		SLOPE OF LAND	

SKETCH ATTACHED

COMMENTS: This is an existing location. The proposed work is a reconditioning of the well.  
The existing road to site to be graded, ditches pulled and drains installed where  
required by field conditions.

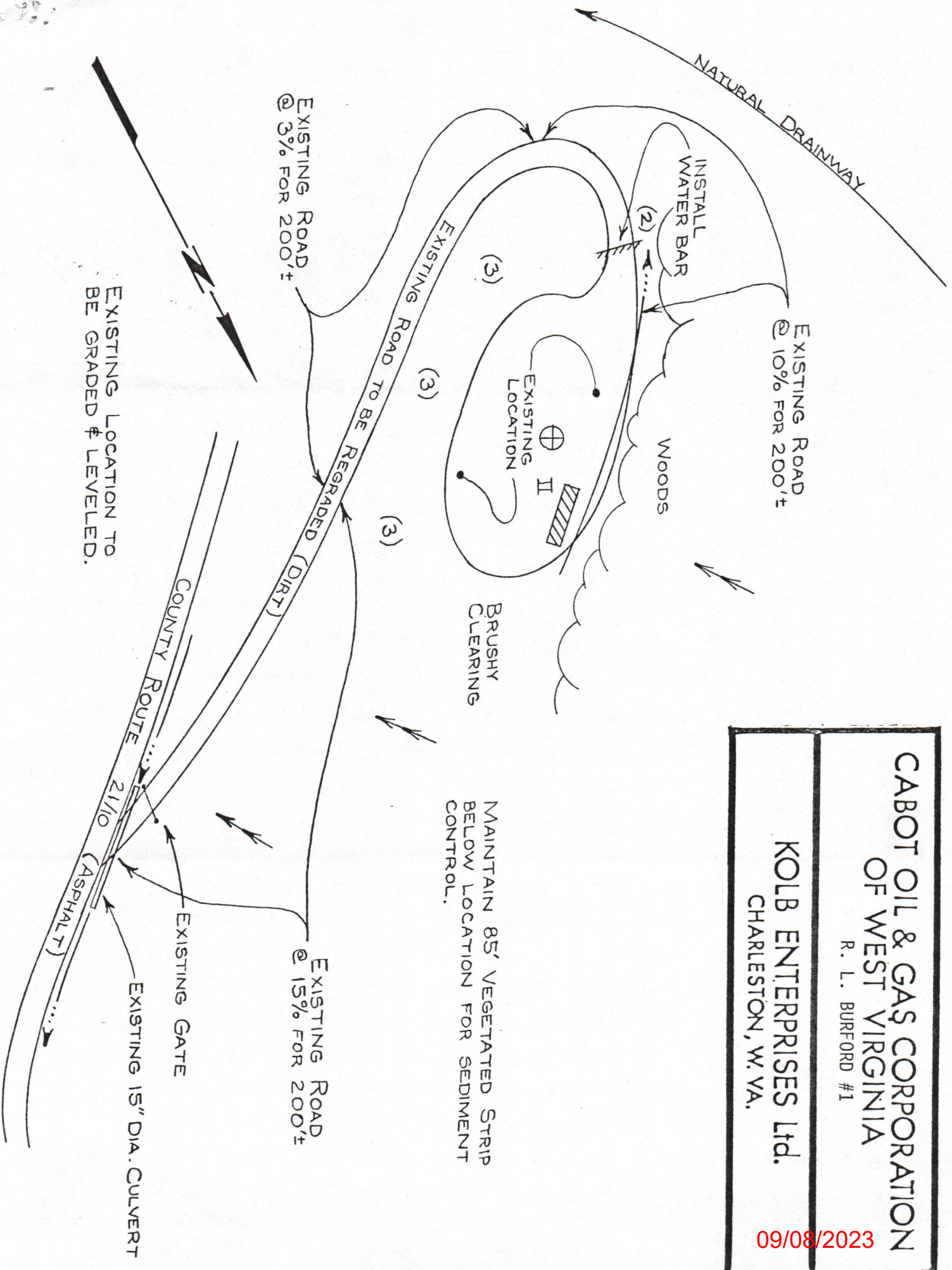
Ditch Relief Cross Drains to be spaced in accordance with Table 1 on Page  
2-4 of the erosion and sediment control manual and shall be based upon the  
as-built slopes of the final road configuration.

09/08/2023



**CABOT OIL & GAS CORPORATION**  
**OF WEST VIRGINIA**  
 R. L. BURFORD #1  
**KOLB ENTERPRISES Ltd.**  
 CHARLESTON, W. VA.

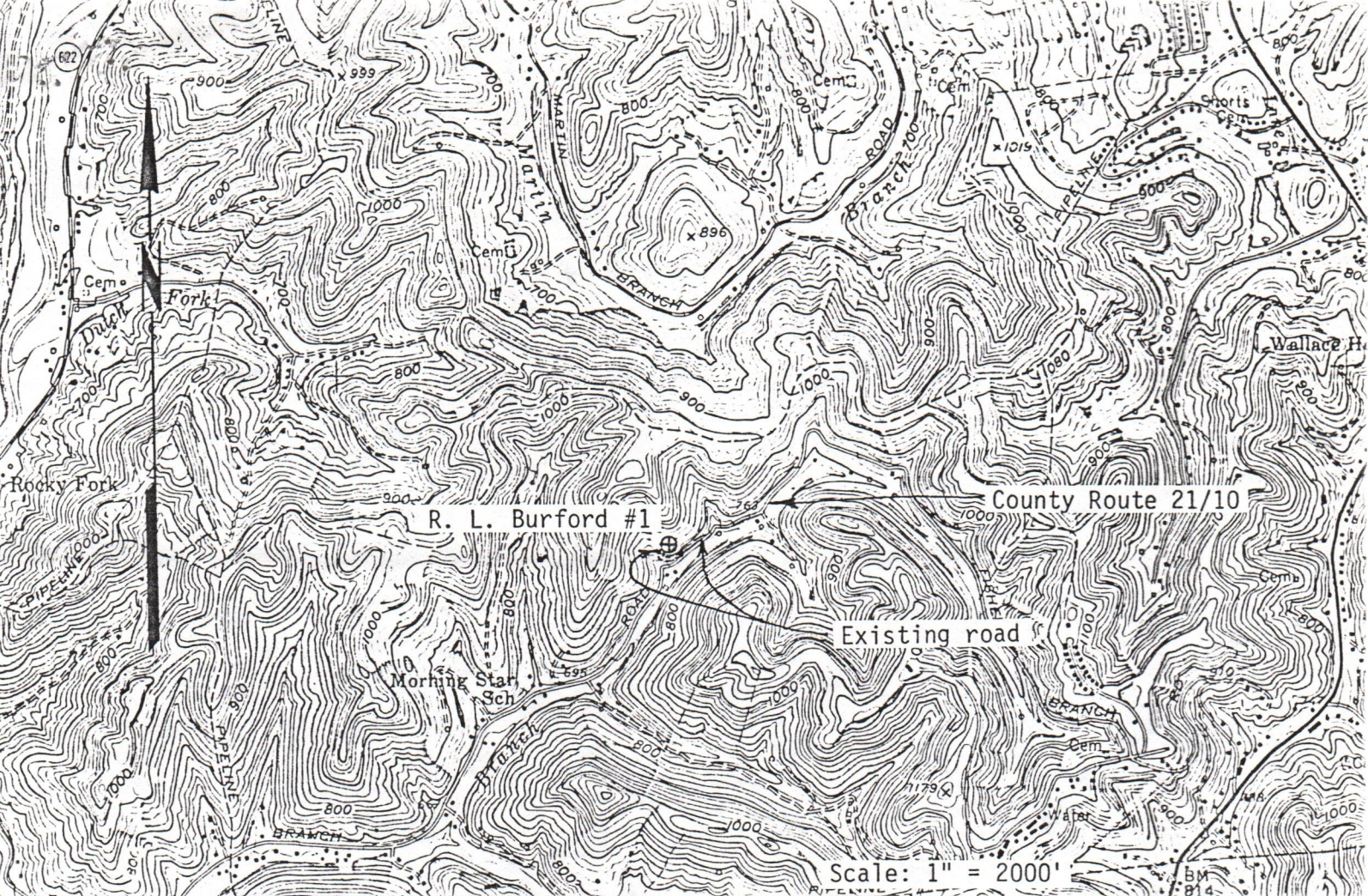
09/08/2023



EXISTING LOCATION TO BE GRADED & LEVELLED.

MAINTAIN 85' VEGETATED STRIP BELOW LOCATION FOR SEDIMENT CONTROL.





Scale: 1" = 2000'

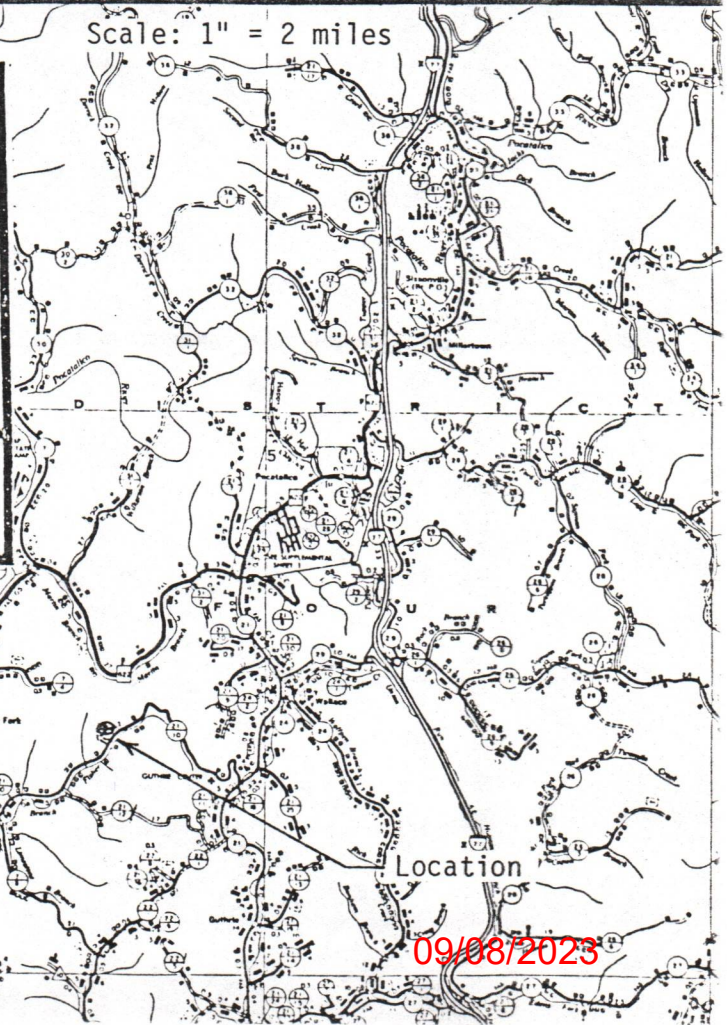
Scale: 1" = 2 miles

# CABOT OIL & GAS CORPORATION OF WEST VIRGINIA

R. L. BURFORD #1

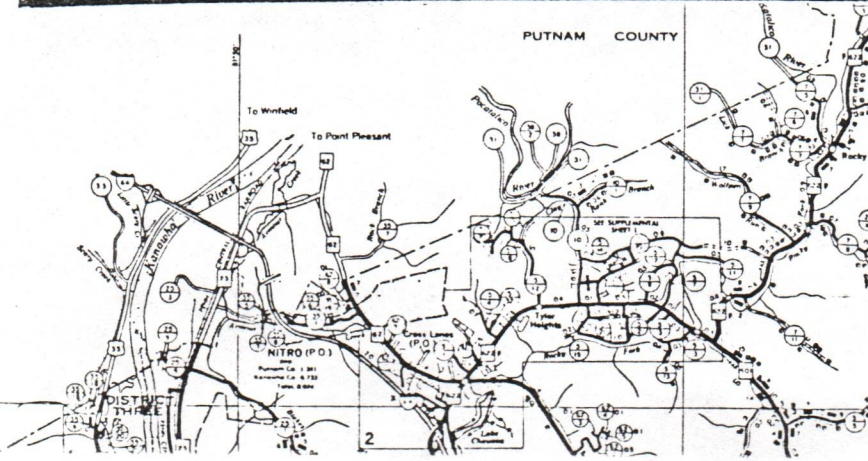
QUADRANGLE: Pocatalico  
 COUNTY: Kanawha DISTRICT: Union  
 scale: 1" = 2000 contour interval: 20'

**KOLB ENTERPRISES Ltd.**  
 CHARLESTON, W. VA.



Location

09/08/2023





# CAPITOL SOIL CONSERVATION DISTRICT

DATE: OCTOBER 11, 1984

1422 Federal Building  
500 Quarrier St.  
Charleston, WV 25301

WELL SITE: R. L. BURFORD #1  
Cabot Oil & Gas Corporation of WV  
P. O. Box 628, Chas., WV25322  
Robert E. Horrell--347-1600

QUADRANGLE: POCATALICO

LANDOWNER: ???

PLAN PREPARED BY: Robert E. Horrell, Cabot, & Kolb Enterprises, Ltd.

PLAN RECEIVED BY CAPITOL SCD ON: OCTOBER 10, 1984, CERTIFIED MAIL #P753-224-528.

PLAN REVIEWED BY: Linda M. Cable, District Manager, Capitol SCD, on OCTOBER 11, 1984.

## RECLAMATION PLAN COMMENTS:

- (1) The number of cross drains or broad based dips per various slopes of the access road must be included in the plan or in the sketch if space permits.
- (2) The name of the landowner needs to be included on the plan.
- (3) Structures shown on the sketch must be referenced on the plan, i.e., water bar on TREATMENT AREA I or do you mean cross drain (?), and the open ditch on TREATMENT AREA II.
- (4) Also, structures listed on the plan must be identified on the sketch, i.e., cross drains.

OIL & GAS DIVISION  
DEPT. OF MINES

NOV 19 1984

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*R. C. Alford*

NOTE: ALL COMMENTS SHOULD BE STUDIED SO THEY  
WILL NOT BE REPEATED ON FUTURE PLANS.

R. C. ALFORD, CHAIRMAN  
BOARD OF SUPERVISORS

cc: Office of Oil & Gas, WV Dept. of Mines  
Fred Kolb, Kolb Enterprises, Ltd.

09/08/2023



SURFACE OWNERS

R. L. BURFORD #1 (47-039-2234)

Martha Burford  
Route 4, Box 45  
Charleston, West Virginia 25312

Brooks F. McCabe  
P. O. Box 1692  
Charleston, West Virginia 25326

09/08/2023



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FEB 25 1985



IV-35 (Rev 8-81)

OIL & GAS DIVISION DEPT. OF MINES State of West Virginia Department of Mines Oil and Gas Division

Date February 20, 1985 Operator's Well No. #1 Farm R. L. Burford API No. 47 - 039 - 2234

WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas XX / Liquid Injection / Waste Disposal (If "Gas," Production XX / Underground Storage / Deep / Shallow XX /)

LOCATION: Elevation: 828.45' Watershed Fisher Branch District: Union County Kanawha Quadrangle Pocatalico

COMPANY Cabot Oil & Gas Corporation of WV ADDRESS Box 628, Charleston, WV 25322 DESIGNATED AGENT Robert E. Horrell ADDRESS Box 628, Charleston, WV 25322 SURFACE OWNER Martha Burford ADDRESS Route 4, Box 45, Charleston, WV 25312 MINERAL RIGHTS OWNER See Attached List ADDRESS OIL AND GAS INSPECTOR FOR THIS WORK Russell Beall ADDRESS Box 160, Philippi, WV 26416 PERMIT ISSUED 12/7/84 WORKOVER COMMENCED 12/26/84 WORKOVER COMPLETED 1/19/84 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 9 5/8, 8 5/8, 7 (Squeezed), 5 1/2, 4 1/2, 3 -1/2 (w/Parmaco Packer @ 4138'), 2 (Pulled), 1-1/2 (w/seating nipple).

GEOLOGICAL TARGET FORMATION Oriskany Shale Depth 4894-4920 feet 3972-4054 feet Depth of completed well PBDT 4960 feet Rotary / Cable Tools Water strata depth: Fresh feet; Salt feet Coal seam depths: Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Huron Shale Pay zone depth 3972-4054 feet Gas: Initial open flow - - Mcf/d Oil: Initial open flow - - Bbl/d 4 hr. Final open flow 127 Mcf/d Final open flow - - Bbl/d Time of open flow between initial and final tests - - hours

Static rock pressure 570 psig (surface measurement) after - - hours shut in (If applicable due to multiple completion--)

Second producing formation Oriskany Pay zone depth 4894-4920 feet Gas: Initial open flow - - Mcf/d Oil: Initial open flow - - Bbl/d 4 hr. Final open flow 778 Mcf/d Oil: Final open flow - - Bbl/d Time of open flow between initial and final tests - - hours

Static rock pressure 1100 psig (surface measurement) after - - hours shut in

(Continue on reverse side)

09/08/2023

KAN - 2234



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**DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.**

Move in, R/U Pool Well Service. Pulled 5647' 2-3/8" tbg. Set Baker Model S bridge plug @ 4960'. Dumped 2 sks cal-seal. Perf squeeze perfs @ 4300'. R/U Howco squeeze w/75 sks Class A, 3% CaCl<sub>2</sub>, 1/4# flocele w/1% CFR2 & 90 sks 50/50 poz, 10% salt w/3/4 of 1% CFR2. RIH w/2-7/8" tbg & drl string and drilled out cement to TD 4954'. Perf to squeeze @ 3700'. Squeezed w/75 sks 50/50 Poz w/10% salt, 3/4 of 1% CFR2. Ran GR, Bond logs 3699-2450'. TOC 2642'. Drilled out cement. R/U McCullough, perf Oriskany 4894-4920' (13 holes). RIH w/2-7/8" EUE tbg w/Howco 7" RTTS pkr. R/U Howco, dumped 250 gals 15% HCL. Pumped 250 gals 15% HCL down tbg, loaded hole w/H<sub>2</sub>O & broke down perfs @ 1000 psi. Treated w/670 bbls cross link gel, 345 sks 20/40 sand @ 2#/gal & 36,000 SCF N<sub>2</sub> @ 1000 SCF/min. ATP 4779 psi. AIR 10.6 bpm. ISIP 3970 psi. 15 min 3200 psi. Shut in 3 hrs & opened thru 2". POOH w/2-7/8" EUE tbg & RTTS pkr from 4835'. R/U McCullough. Perf Shale w/select fire 3972-4054' (15 holes). Run 2-7/8" EUE tbg w/Howco BP & RTTS pkr. RU Dowell. Load hole w/N<sub>2</sub> & broke down Shale @ 3100 psi. Avg. N<sub>2</sub>rate 20,000 SCF/min. ATP 2700 psi. ISIP 1400, 15 min 1275 psi. Released thru 1" choke. POOH w/2-7/8". Ran 135 jts 3-1/2" w/7" Parmaco tension pkr 4138.25'. Set pkr @ 4138.25 GL. **WELL LOG** Ran 144 jts 1-1/2" tbg w/seating nipple & perf jt. Set @ 4879.90 GL, seating nipple set @ 4849' GL.

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
SEE ATTACHED ORIGINAL WELL RECORD					

(Attach separate sheets as necessary)

CABOT OIL & GAS CORPORATION OF WEST VIRGINIA  
Well Operator

By: Robert E. Howell 09/08/2023  
Date: February 20, 1985

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



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

INSPECTOR'S WELL REPORT

Permit No. 039-2234 P.P. Frge

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company Cabot Gas Co.  
 Address \_\_\_\_\_  
 Farm R. L. Burford  
 Well No. R. L. Burford # 1  
 District Union County Kanawha  
 Drilling commenced \_\_\_\_\_  
 Drilling completed \_\_\_\_\_ Total depth \_\_\_\_\_  
 Date shot \_\_\_\_\_ Depth of shot \_\_\_\_\_  
 Initial open flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
 Open flow after tubing \_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
 Volume \_\_\_\_\_ Cu. Ft.  
 Rock pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
 Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
 Fresh water \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			Kind of Packer _____
16			
13			Size of _____
10			
8 3/4			Depth set _____
6 3/4			
5 3/16			Perf. top _____
3			Perf. bottom _____
2			Perf. top _____
Liners Used			Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. FT. \_\_\_\_\_ Date \_\_\_\_\_  
 NAME OF SERVICE COMPANY \_\_\_\_\_  
 COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
 \_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Drillers' Names Pooler Well Service

Remarks:  
Drilling Cement out of 7" casing at 3810' deep. Perforated at 4300' deep using 16 SKS. Neat. set cement plug at 4960' - cemented with 75 SKS. Class A.

1-3-85  
DATE

Carlos W. Hines  
DISTRICT WELL INSPECTOR

09/06/2023







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

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OIL & GAS DIVISION  
DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 039-2234 PA Free

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company Cobat Gas Co.  
 Address \_\_\_\_\_  
 Farm R.L. Burford  
 Well No. R.L. Burford #1  
 District Cabin Creek County Kanawha  
 Drilling commenced \_\_\_\_\_  
 Drilling completed \_\_\_\_\_ Total depth \_\_\_\_\_  
 Date shot \_\_\_\_\_ Depth of shot \_\_\_\_\_  
 Initial open flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
 Open flow after tubing \_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
 Volume \_\_\_\_\_ Cu. Ft.  
 Rock pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
 Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
 Fresh water \_\_\_\_\_ feet \_\_\_\_\_ feet  
 Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			Kind of Packer _____
16			
13			Size of _____
10			
8 1/4			Depth set _____
6 5/8			
5 3/16			Perf. top _____
3			Perf. bottom _____
2			
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. FT. \_\_\_\_\_ Date \_\_\_\_\_

NAME OF SERVICE COMPANY \_\_\_\_\_

COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

Drillers' Names Pooler Well Service

Remarks:

*Running 2 7/8" tubing to knock out plug, getting ready to perforate pipe*

1-8-85

DATE

Charles W. Hays  
DISTRICT WELL INSPECTOR

09/08/2023







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

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INSPECTOR'S WELL REPORT OIL & GAS DIVISION

DEPT. OF MINES  
Oil or Gas Well \_\_\_\_\_  
(KIND)

Permit No. 039-2234 P.P. Frac.

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

Drillers' Names Pooler well service

Remarks:

Doing well Frac. Halliburton doing well Frac.

1-10-85  
DATE

Carlos H. Hines  
09/08/2023  
DISTRICT WELL INSPECTOR







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

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OIL & GAS DIVISION  
DEPT. OF MINES

**INSPECTOR'S WELL REPORT**

Permit No. 039-2234 P.P. Free

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company Cabot Gas Co.

Address \_\_\_\_\_

Farm R. L. Butford

Well No. R. L. Butford #1

District Union County Kanawha

Drilling commenced \_\_\_\_\_

Drilling completed \_\_\_\_\_ Total depth \_\_\_\_\_

Date shot \_\_\_\_\_ Depth of shot \_\_\_\_\_

Initial open flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch

Open flow after tubing \_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch

Volume \_\_\_\_\_ Cu. Ft.

Rock pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.

Oil \_\_\_\_\_ bbls., 1st 24 hrs.

Fresh water \_\_\_\_\_ feet \_\_\_\_\_ feet

Salt water \_\_\_\_\_ feet \_\_\_\_\_ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			Kind of Packer _____
16			
13			Size of _____
10			Depth set _____
8 1/4			Perf. top _____
6 3/4			Perf. bottom _____
5 3/16			Perf. top _____
3			Perf. bottom _____
2			
Liners Used			

CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. FT. \_\_\_\_\_ Date \_\_\_\_\_

NAME OF SERVICE COMPANY \_\_\_\_\_

COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

\_\_\_\_\_ FEET \_\_\_\_\_ INCHES FEET \_\_\_\_\_ INCHES

Drillers' Names Pooler Well Service

Remarks:  
Doing Gas Ratio Test. service Rig sitting on well.

1-24-85  
DATE

Carlos W. Hines  
INSPECTOR

08/08/2023







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

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OIL & GAS DIVISION

INSPECTOR'S WELL REPORT DEPT. OF MINES

Permit No. 039-7234-PP-Frac

Oil or Gas Well \_\_\_\_\_  
(KIND)

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

Drillers' Names \_\_\_\_\_

Remarks: location & Access Road Reclaimed & seeded.

2-19-85  
DATE

Carlos W. Hines  
DIRECTOR OF MINES

00/08/2023







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MAY 28 1985

IV-20  
Reverse  
34

04-Mar-85

OIL & GAS DIVISION  
DEPT. OF MINES

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OFFICE OF OIL AND GAS  
CHARLESTON 25305  
FINAL INSPECTION REPORT  
INSPECTORS COMPLIANCE REPORT

Company: CABOT O & G CORP  
Farm: BURFORD, MARTHA

Well: BURFORD 1

Permit No. 47- 39-2234 - *FRAC* (12-07-84)  
County: KANAWHA

Rule	Description	In Compliance	
		Yes	No
23.06	Notification prior to starting work	-----	-----
25.04	Prepared before drilling to prevent waste	-----	-----
25.03	High pressure drilling	-----	-----
16.01	Required permits at wellsite	-----	-----
15.03	Adequate Fresh Water Casings	-----	-----
15.02	Adequate Coal Casings	-----	-----
15.01	Adequate Production Casings	-----	-----
15.04	Adequate Cement Strength	-----	-----
15.05	Cement Type	-----	-----
23.02	Maintained Access Roads	-----	-----
15.01	Necessary Equipment to Prevent Waste	-----	-----
15.04	Reclaimed Drilling Pits	-----	-----
23.05	No Surface or Underground Pollution	-----	-----
23.07	Requirements for Production & Gathering Pipelines	-----	-----
16.01	Well Records on Site	-----	-----
16.02	Well Records Filed	-----	-----
7.05	Identification Markings	-----	-----

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

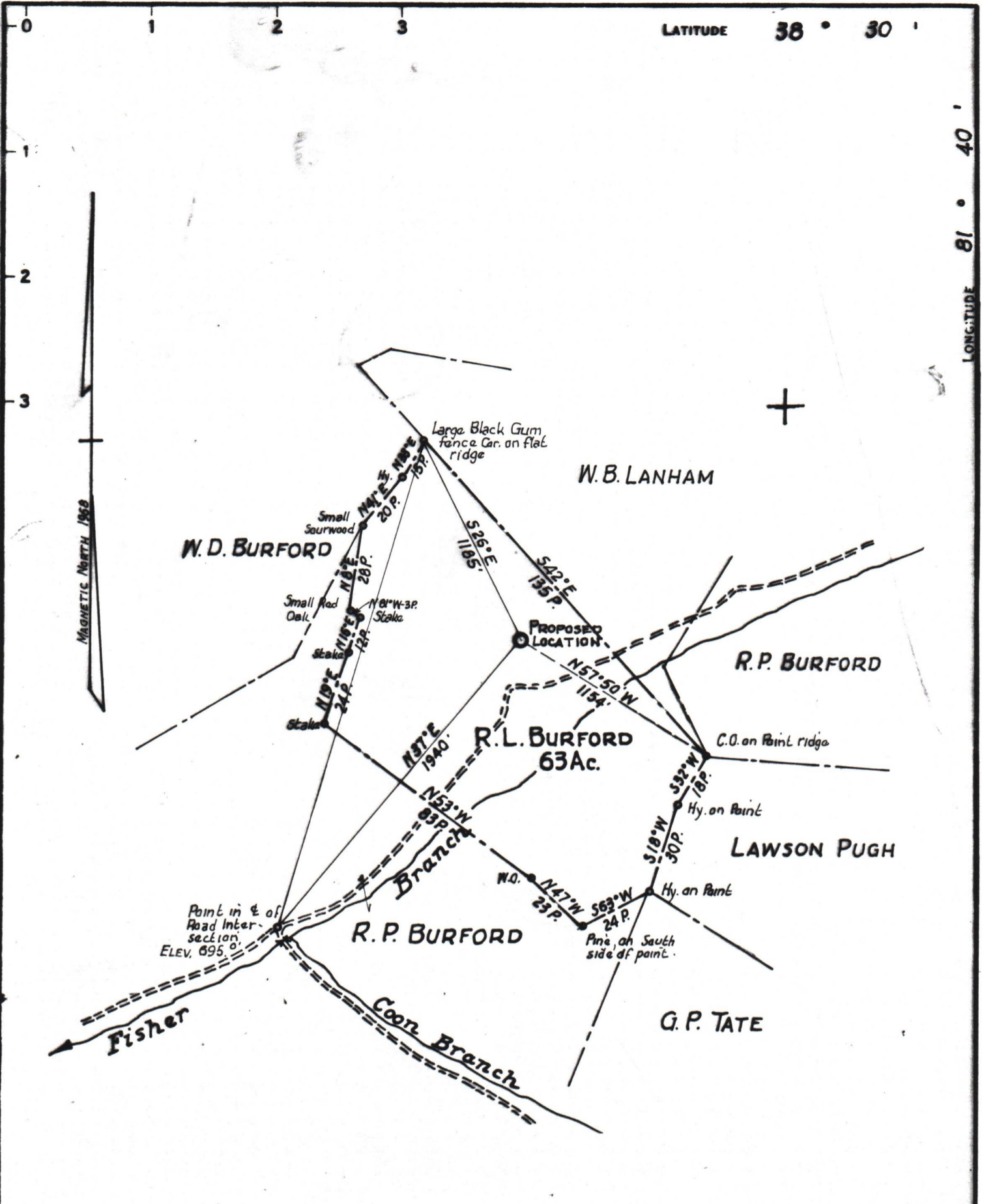
SIGNED *Charles W. Hinkle*  
DATE *5-22-85*

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

*T. H. ...*  
-----  
Administrator  
May 28, 1985  
-----  
Date

09/08/2023





- PP-Frac- 12/7/84
- NEW LOCATION
- RECONDITION
- DRILL DEEPER
- ABANDONMENT

**CERTIFICATE**

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."  
 Minimum degree of accuracy is one part in 200

Signed T.S. [Signature] R.P.E. #269

COMPANY	<u>Cabot Oil &amp; Gas Co. Inc.</u>
ADDRESS	<u>P.O. Box 628 CHARLESTON, W. VA. 25322</u>
FARM	<u>R.L. BURFORD ETAL</u>
MAP	<u>63-PP-01 (UNIT)</u>
WELL (FARM) NO.	<u>1</u>
ELEVATION (SPIRIT LEVEL)	<u>828.45</u>
QUADRANGLE	<u>CHARLESTON N.W.</u>
COUNTY	<u>KANAWHA</u>
DISTRICT	<u>UNION</u>
POINT OF PROVEN ELEVATION	<u>U.S.G.S. DATUM - ROAD INTERSECTION</u>
FILE NO.	<u>MARCH 11, 1968</u>
DATE	<u>SCALE 1" = 660'</u>

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON  
**WELL LOCATION MAP**  
 FILE NO. KAN-2234-PP-Frac  
 09/08/2023

+ 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.