

RECEIVED

OCT - 5 1984



1) Date: October 3, 19 84  
 2) Operator's Well No. Villers #1073  
 3) API Well No. 47 - 013 - 3812  
 State County Permit

**OIL & GAS DIV.  
DEPT. OF MINES**

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

- 4) WELL TYPE: A Oil        / Gas XX /  
 B (If "Gas", Production XX / Underground storage        / Deep        / Shallow X /)
- 5) LOCATION: Elevation: 1015.75' Watershed: Big Run LK 41  
 District: Lee County: Calhoun Quadrangle: 7.5' Annamoriah
- 6) WELL OPERATOR Sterling Drilling & Prod. Co., Inc. DESIGNATED AGENT Harry L. Berger, Jr.  
 Address 220 E. 42nd St. 33rd Floor Address 710 Virginia St., E.  
New York, New York 10017 Charleston, W.V. 25301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Deo Mace  
 Address Rt. 1 Box 5  
Sandridge, W.V. 25274
- 9) DRILLING CONTRACTOR: Name UNKNOWN AT THIS TIME  
 Address
- 10) PROPOSED WELL WORK: Drill X / Drill deeper        / Redrill        / Stimulate X /  
 Plug off old formation        / Perforate new formation         
 Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, BROWN SHALE
- 12) Estimated depth of completed well, 5070 feet
- 13) Approximate trrata depths: Fresh,        feet; salt,        feet.
- 14) Approximate coal seam depths: 0 Is coal being mined in the area? Yes        / No X

15) CASING AND TUBING PROGRAM

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	Sizes
Conductor										
Fresh water	9 5/8	LS	33#	X		425'	425'	To Surface	<u>NEAT</u>	
Coal										
Intermediate	7"	J-55	20#	X		2150'	2150'	100 sks		
Production	4 1/2	ERW	10.5#	X			5070'	250 sks	<u>old as req. by rule 5.01</u>	
Tubing										
Liners										

**OFFICE USE ONLY  
DRILLING PERMIT**

Permit number 47-013-3812 Date October 29, 19 84

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 October 29, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>148</u>	Agent: <u>MW</u>	Plat: <u>TS</u>	Casing: <u>MW</u>	Fee: <u>7955</u>
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Margaret J. Hesse  
 Administrator, Office of Oil and Gas

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



RECEIVED  
OCT - 5 1984  
OIL & GAS DIV.  
DEPT. OF MINES

OFFICE USE ONLY

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

1) LOCATION: Position 1015.75', ...  
 2) WELL OPERATOR: Starling Drilling & Prod. Co., Inc. Designated Agent: Harry L. Berger, Jr., 220 E. 42nd St., 33rd Floor, New York, New York 10017.  
 3) OFF-WELL INSPECTOR TO BE NOTIFIED: Name: Bob Pace, Address: Rt. 1, Box 57, Sandridge, W.V. 25274.  
 4) PROPOSED WELL WORK: Drill X, Plug off old location.  
 5) OTHER PHYSICAL FEATURES IN WELL VICINITY: BROWN SHALE.  
 6) GEOLOGICAL TARGET FORMATION: BROWN SHALE.  
 7) ESTIMATED DEPTH OF COMPLETED WELL: 570'.  
 8) APPROXIMATE DATE OF COMPLETION: 0.  
 9) CASING AND TUBING PROGRAM: ...

DEPTH INTERVAL	LOG	TEST	DATE	RESULTS
425' - 455'	X	384'	9 5/8 12	To Surface
2150' - 2150'	X	204'	7 1/2 - 7-55	100 sks
2070' - 2070'	X	10.5'	4 1/2 - 5-10	150 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: \_\_\_\_\_

12/08/2023



IV-9  
(Rev 8-81)



DATE 9-26-84  
WELL NO. Villers # 1073  
API NO. 47 - 013 - 3812

State of West Virginia  
Department of Mines  
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Sterling Drilling & Prod. CODESIGNATED AGENT Sterling Drilling & Prod  
Address 360 Madison Ave.-NY, NY 10017 Address c/o H.L.Berger - Chas., WV  
Telephone (212) 682-0204 Telephone (304) 342-0121

LANDOWNER Gerald M. Bowman SOIL CONS. DISTRICT Little Kanawha SCD  
Revegetation to be carried out by Sterling Drilling & Prod. Co.-H.L.Berger (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 10/11/84 (Date)

*field Review*

Randall K. Robinson  
(SCD Agent)

ACCESS ROAD

LOCATION

Structure \_\_\_\_\_ (A)  
Size \_\_\_\_\_  
Page Ref. Manual \_\_\_\_\_

Structure Diversion Ditch (1)  
Material Earthen  
Page Ref. Manual 2-12

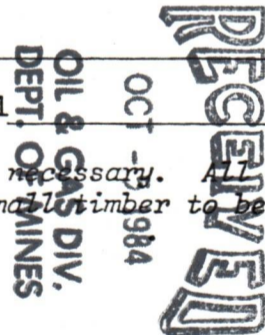
Structure Drainage Ditches (B)  
Location Roadside -- to be maintained  
Page Ref. Manual \_\_\_\_\_

Structure Rip-Rap (2)  
Material Rock  
Page Ref. Manual 2-9

Structure Cross Drains -- 16" pipe (C)  
Spacing 300' for 6-10%  
Page Ref. Manual 2-8 Table 4

Structure \_\_\_\_\_ (3)  
Material \_\_\_\_\_  
Page Ref. Manual \_\_\_\_\_

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 dirt work begins.



REVEGETATION

Treatment Area I

Lime 2 Tons/acre  
or correct to pH 6.5  
Fertilizer 500 lbs/acre  
(10-20-20 or equivalent)  
Mulch Hay or Straw 2 Tons/acre  
Seed\* Ky-31 40 lbs/acre  
Ladino Clover 4 lbs/acre  
\_\_\_\_\_ lbs/acre

Treatment Area II

Lime 2 Tons/acre  
or correct to pH 6.5  
Fertilizer 500 lbs/acre  
(10-20-20 or equivalent)  
Mulch Hay or Straw 2 Tons/acre  
Seed\* Ky-31 40 lbs/acre  
Ladino Clover 4 lbs/acre  
\_\_\_\_\_ lbs/acre

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

12/08/2023

PLAN PREPARED BY Richard V. Campbell  
ADDRESS Route 1, Box 30  
Duck, WV 25063  
PHONE NO. (304) 364-5780

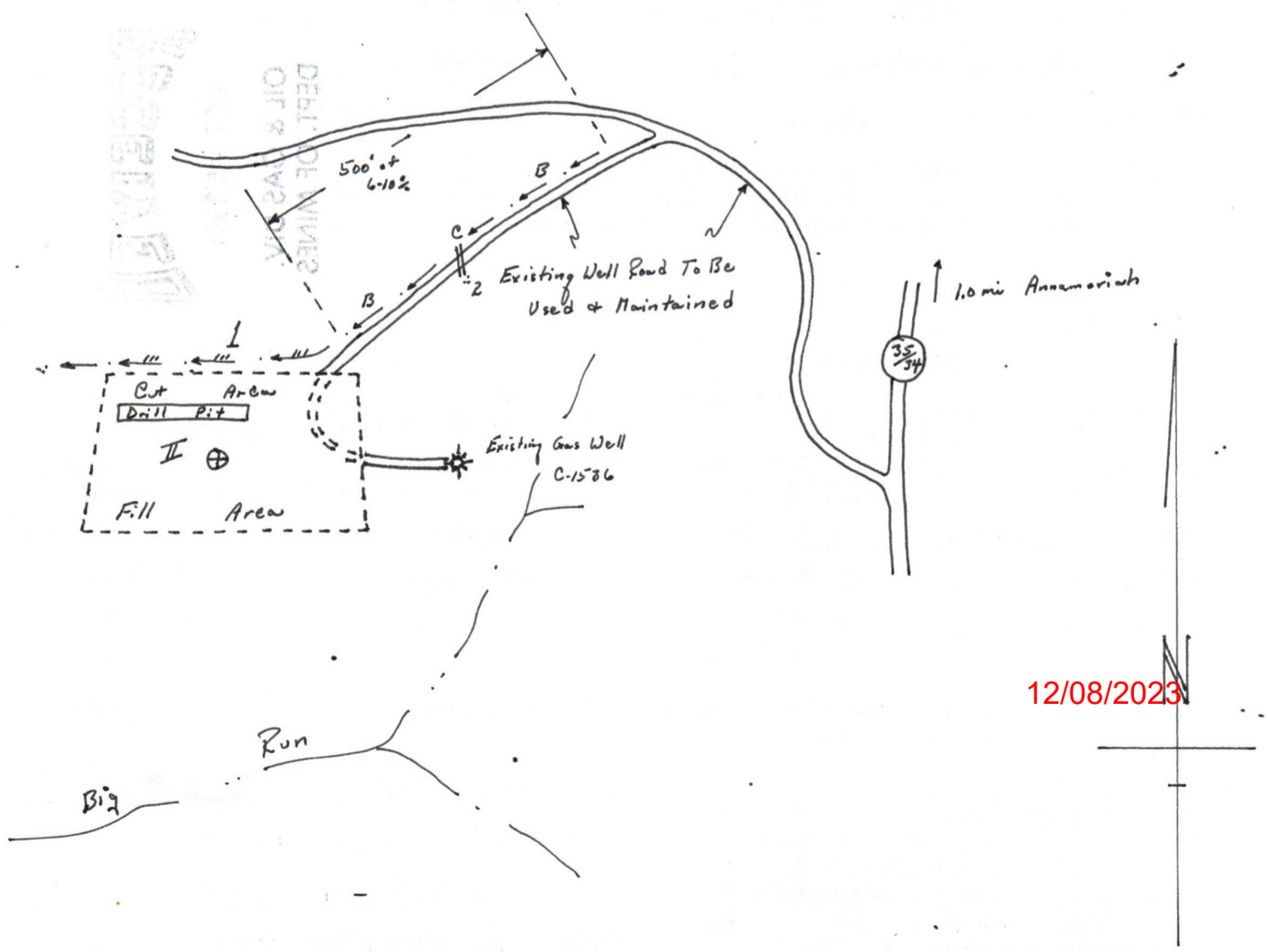
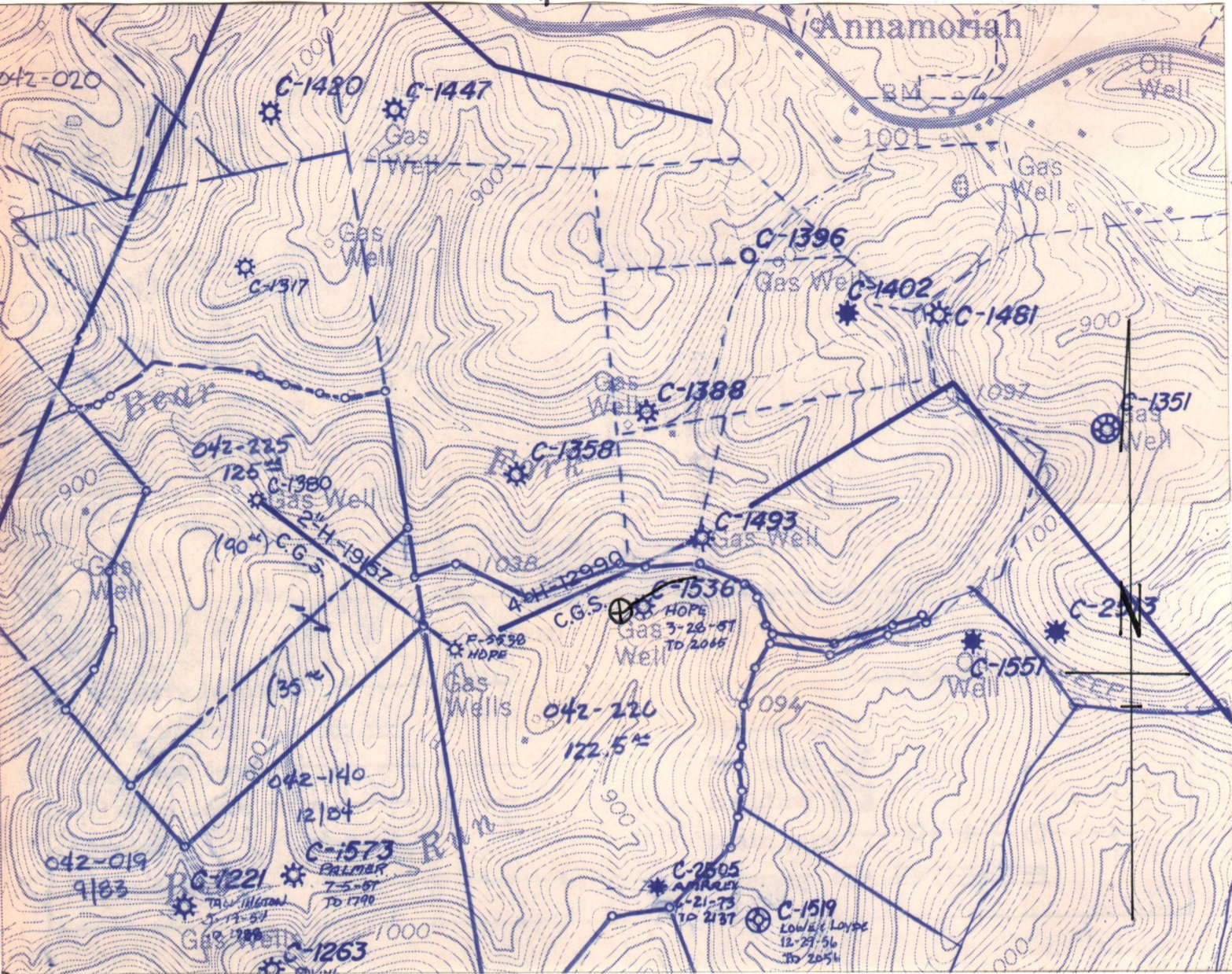
NOTES: Please request landowners' cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

IV-9 REVERSE  
(REV 6-81)

INVOLVED TOPOGRAPHIC MAP  
QUADRANGLE 7 1/2' Annamoriah  
Arnoldsburg NW

LEGEND

Well Site	⊕
Access Road	—



1) Date: October 3, 19 84  
 2) Operator's Well No. 1073  
 3) API Well No. 47-013-3812  
 State County Permit

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OFFICE OF OIL & GAS  
 NOTICE OF APPLICATION FOR A WELL WORK PERMIT

4) SURFACE OWNER(S) OF RECORD TO BE SERVED  
 (i) Name Gerald M. Bowman  
 Address C/O Evelyn Bowman  
Rt. 3 Box 433 Fairmont, W.V. 26554  
 (ii) Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 (iii) Name \_\_\_\_\_  
 Address \_\_\_\_\_

5(i) COAL OPERATOR UNOPERATED  
 Address \_\_\_\_\_  
 5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Name UNKNOWN  
 Address \_\_\_\_\_  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 5(iii) COAL LESSEE WITH DECLARATION ON RECORD:  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_

TO T

1073  
 P 522 051 916  
 RECEIPT FOR CERTIFIED MAIL  
 NO INSURANCE COVERAGE PROVIDED - NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

Sent to <u>GERALD BOWMAN</u>	Postage	\$
<u>cb EVELYN BOWMAN</u>	Certified Fee	\$
Street and No. <u>RT. 3 BOX 433</u>	Special Delivery Fee	\$
P.O., State and ZIP Code <u>FAIRMONT, W.V. 26554</u>	Restricted Delivery Fee	\$
	Return Receipt Showing to whom and Date Delivered	
	Return Receipt Showing to whom, Date, and Address of Delivery	
	TOTAL Postage and Postmark or Date	\$

CHESAPEAKE OCT 4 1984 25301

PS Form 3800, Feb. 1982

6) EXTRACTION RIGHTS  
 Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

7) ROYALTY PROVISIONS  
 Is the right to extract, produce or market the oil or gas based upon a lease or leases or other contract or contracts providing for flat well royalty or any similar provision 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 **XX**

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

**RECEIVED**  
 OCT - 6 1984  
 OIL & GAS DIV.  
 DEPT. OF MINES

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  
Harry L. Berger, Jr.  
 this 3rd day of October, 19 84.  
 My commission expires May 10, 19 89.  
David M. Gillespie  
 Notary Public, Kanawha County,  
 State of West Virginia

WELL OPERATOR Sterling Drilling & Prod. Co., Inc.  
 By Harry L. Berger  
 Its Designated Agent  
 Address 710 Virginia St., E.  
Charleston, W.V. 25301  
 Telephone 342 - 0121

12/08/2023

I N S T R U C T I O N S T O A P P L I C A N T

CONCERNING THE LINE ITEMS:

- 1) Date of Notice.
- 2) Your well name and number.
- 3) To be filled out by the Office of Oil & Gas.
- 4) & 5) Use separate sheet if necessary.
- 4) Surface owner(s) of record to be served with Notice and Application. However, see also Code § 22-4-1b(b) if "more than three tenants in common or other co-owners of interest described in subsection (a) of this section hold interests in such lands".
- 5(i) "Coal Operator" means any person, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine.
- 5(ii, iii) See Code § 22-4-20.
- 6) See Code § 22-4-11(c). However, in lieu of filing the lease(s) or other continuing contract(s), the Applicant may fill out the information in the space provided below.
- 7) See Code § § 22-4-11(d, e).

CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

Filing. Code § 22-4-1k and Regulation 7.02 provide that the original and required copies of the Notice and Application must be filed with the Administrator, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-1k(d) and the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fees required by Code § 22-4-1a(c) and 22-3-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well on dwelling within 200 feet of the proposed well.

Service. In addition, service must be made on the surface owner(s) and the person(s) with an interest in the coal. See Code § § 22-4-1m, 22-4-2, 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:

<u>Grantor, lessor, etc.</u>	<u>Grantee, lessee, etc.</u>	<u>Royalty</u>	<u>Book Page</u>
G.D. Villers Annamoriah, W.V. 26130	Sterling Drilling and Production Co., Inc.	1/8	46 / 86



1) Date: October 3  
 2) Operator's Well No. V11198  
 3) API Well No. 47 State

**RECEIVED**

OCT 10 1984

**STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES, OIL AND GAS DIVISION**

**OIL & GAS DIVISION**

**APPLICATION FOR A WELL WORK PERMIT**

**DEPT. OF MINES**

- 4) WELL TYPE: \* A Oil XX / Gas XX /  
 B (If "Gas", Production XX / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_)
- 5) LOCATION: Elevation: 1015.75' Watershed: Big Run  
 District: Lee County: Calhoun Quadrangle: \_\_\_\_\_
- 6) WELL OPERATOR Sterling Drilling & Prod. Co., Inc. 7) DESIGNATED AGENT Harry  
 Address 220 E. 42nd St. 33rd Floor Address 710 Virginia  
New York, New York 10017 Charleston, W.V.
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Deo Mace Name UNKNOWN AT THIS  
 Address Rt. 1 Box 5 Address \_\_\_\_\_  
Sandridge, W.V. 25274
- 10) PROPOSED WELL WORK: Drill X / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate \_\_\_\_\_  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, BROWN SHALE
- 12) Estimated depth of completed well, 5070 feet
- 13) Approximate trata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.
- 14) Approximate coal seam depths: 0 Is coal being mined in the area? Yes \_\_\_\_\_
- 15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well	
Conductor								
Fresh water	<u>5/8</u>	<u>LS</u>	<u>33#</u>	<u>X</u>		<u>425'</u>	<u>425'</u>	<u>To Surface</u>
Coal								
Intermediate	<u>7"</u>	<u>J-55</u>	<u>20#</u>	<u>X</u>		<u>2150'</u>	<u>2160'</u>	<u>100 sks</u>
Production	<u>1 1/2</u>	<u>FRW</u>	<u>10.5#</u>	<u>X</u>			<u>5070'</u>	<u>250 sks</u>
Tubing								
Liners								

The law requires a comment period for surface owners. However, the permit can be issued in less than the filing of the Application if the surface owner(s) of record sign(s) the following "Voluntary Statement of No Objection" on a facsimile of this surface owner's copy of the Application.

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners on the reverse side of this Application for a Well Work Permit of (1) a Notice of Application for a Well Work Permit on Form IV-2(A), (2) an Application for a Well Work Permit on Form IV-6, and (4) a Construction and Reclamation Plan on Form IV-9, all for proposed well work on my surface land.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit for the work.

(For execution by corporation, partnership, etc.)

(For execution by natural persons)

NAME: \_\_\_\_\_

Gerald M. Powell  
 (Signature)

By \_\_\_\_\_

Its \_\_\_\_\_ Date \_\_\_\_\_

\_\_\_\_\_  
 (Signature)

**INSTRUCTIONS TO SURFACE OWNERS  
AND  
EXPLANATION OF METHODS AND TIME LIMITS TO COMMENT  
ON OIL AND GAS WELL WORK PERMIT**

The well operator named in the Notice and this Application and the attached materials is applying for a permit from the State to do oil or gas well drilling or other well work. You are being served with these materials because surface owners have the right to file comments before the permit is issued. (**NOTE:** If the surface tract is owned by more than three persons, in multiple heirship for example, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22, Article 4 of the W. Va. Code. Permits are valid for 24 months.

If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator named in the materials and the Administrator of the Office of Oil and Gas in the West Virginia Department of Mines immediately.

**NOTE: You are not required to file any comment at all.**

**Where to file comments and obtain additional information:**

Administrator of the Office of Oil and Gas  
West Virginia Department of Mines  
1615 Washington Street East  
Charleston, West Virginia 25311  
(304) 348-2057

**Who may file comments?** If you wish to file comments, you must be an owner of record of (1) an interest in the surface tract on which the well already is or is about to be located, or (2) an interest in any other surface tract under the same oil or gas lease which will be utilized for roads or other land disturbances.

**Time limits for comments.** The law requires these materials to be delivered on or before the date the operator files his Application. You have **FIFTEEN (15) DAYS** after the filing date to file your comments as provided in **Methods for Filing Comments** below. You may call the Administrator's office at the above telephone number to be sure of the date. However, if you have been contacted by the well operator, and if you have signed a "voluntary statement of no objection" to any of the planned work described in these materials, then the permit may be issued at any time.

**Comments must be in writing.** Your comments must include your name, address and telephone number, the well operator's name and well number, and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

**Methods for filing comments.** Comments must be filed in person or received in the mail at the Administrator's office by the time stated above. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling.

The Administrator for Oil and Gas has the power to deny or condition a well work permit based on your comments on the following grounds:

- "(1) The proposed well work will constitute a hazard to the safety of persons; or
- "(2) The plan for soil erosion and sediment control is not adequate or effective; or
- "(3) Damage would occur to publicly owned lands or resources; or
- "(4) The proposed well work fails to protect fresh water sources or supplies."

**If you want a copy of the permit** as it is finally issued, or a copy of the order denying the permit, you should request a copy from the Administrator.

**List of Water Testing Laboratories.** The Administrator maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Administrator's office or an Oil and Gas Inspector to obtain a copy of the list.





IV-35  
(Rev 8-81)

RECEIVED  
JUL 5 - 1985

OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date June 13, 1985  
Operator's  
Well No. # 1073  
Farm Villers  
API No. 47 - 013 - 3812

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

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

LOCATION: Elevation: 1015.75' Watershed Big Run  
District: Lee County Calhoun Quadrangle Annamoriah 7 1/2'

COMPANY Sterling Drilling & Production Co., Inc.

ADDRESS 710 Va. St. E., Charleston, WV 25301

DESIGNATED AGENT Harry L. Berger, Jr.

ADDRESS 710 Va. St. E., Charleston, WV 25301

SURFACE OWNER Gerald M. Bowman

ADDRESS Rt. 2 Box 763, Bridgeport, WV 26330

MINERAL RIGHTS OWNER G. D. Villers

ADDRESS Annamoriah, WV 26130

OIL AND GAS INSPECTOR FOR THIS WORK Deo Mace

ADDRESS Rt.1 Box 5, Sandridge, WV 25274

PERMIT ISSUED October 29, 1984

DRILLING COMMENCED November 29, 1984

DRILLING COMPLETED December 4, 1984

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	427'	427'	155 sks.
8 5/8			
7	2171'	2171'	175 sks.
5 1/2			
4 1/2		5048'	280 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5070' feet

Depth of completed well 5094'KB feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh not reported feet; Salt not reported feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 2992'-5042' feet

Gas: Initial open flow show Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 984 Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 61 hours

Static rock pressure 925 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

(Continue on reverse side)

CAL 3812

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

1st Stage: 24 holes 4547'-5042'  
 2nd Stage: 25 holes 3840'-4386'  
 3rd Stage: 20 holes 2992'-3717'

Treatment

1st Stage: 600 gals. 15% HCl; 1,368 MSCF N<sub>2</sub>  
 2nd Stage: 750 gals. 15% HCl; 1,360 MSCF N<sub>2</sub>  
 3rd Stage: 840 gals. 15% HCl; 1,306 MSCF N<sub>2</sub>

**WELL LOG**

Villers # 1073

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
					All Depths from 10'KB
Sandstone and Shale			0	1601	
Salt Sand			1601	1639	
Shale			1639	1660	
Salt Sand			1660	1740	
Shale			1740	1761	
Salt Sand			1761	1867	
Shale			1867	1873	
Little Lime			1873	1893	
Pencil Cave			1893	1899	
Big Lime			1899	2010	
Big Injun			2010	2043	
Silty Shale			2043	2402	
Sunbury Shale			2402	2414	
Berea			2414	2416	
Siltstone and Shale			2416	2771	
Shale			2771	4815	Top of Java formation @ 4595'
Siltstone			4815	4852	
Shale			4852	5094	
Total Depth				5094'	

(Attach separate sheets as necessary)

Sterling Drilling & Production Co., Inc.  
 Well Operator 12/08/2023  
 By: Harry J. Berger, Jr.  
 Date: 7-2-85

**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 ~~minerals~~, encountered in the drilling of a well."

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

RECEIVED  
DEC 4 - 1984

OIL & GAS DIVISION  
DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 13-3812

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

Company <u>Sterling</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Villars</u>	16			Kind of Packer _____
Well No. <u>1073</u>	13			Size of _____
District <u>See</u> County <u>Cal.</u>	10			Depth set _____
Drilling commenced <u>11-29-84</u>	8 1/4			Perf. top _____
Drilling completed _____ Total depth _____	6 3/8			Perf. bottom _____
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 Hunt 7

Remarks: 427' of 9 7/8" casing, 135 SKS cement, Dowell, 11-30-84  
cement circulated.

11-30-84  
DATE

W. M. ... 12/08/2023  
DISTRICT WELL INSPECTOR

2/16/82

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS WELLS DIVISION  
**INSPECTOR'S PLUGGING REPORT**

Permit No. \_\_\_\_\_

Well No. \_\_\_\_\_

COMPANY \_\_\_\_\_ ADDRESS \_\_\_\_\_

FARM \_\_\_\_\_ DISTRICT \_\_\_\_\_ COUNTY \_\_\_\_\_

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 \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_  
DATE I hereby certify I visited the above well on this date.

DISTRICT 12/08/2023

IR-20  
Obverse  
7-85

12-Jul-85

RECEIVED  
DEPARTMENT OF ENERGY  
OIL AND GAS

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION  
CHARLESTON 25305  
FINAL INSPECTION REPORT  
INSPECTORS COMPLIANCE REPORT

APR 15 1986

10-29-84

Company: STERLING DRILLING PROD. CO., INC.  
Farm: BOWMAN, GERALD M. Well: VILLERS 1073

Permit No. 47- 13-3812  
County: CALHOUN

Rule	Description	In Compliance	
		Yes	No
23.06	Notification prior to starting work	-----	-----
25.04	Prepped 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	-----	-----
25.01	Necessary Equipment to Prevent Waste	-----	-----
23.04	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 Wes Mace  
DATE 4-12-86

Your well record was received and reclamation requirements approved. In accordance with Chapter 22B, Article 1, Section 26, the above well will remain under bond coverage for the life of the well.

T. H. v. B.  
Director-Oil and Gas Division

April 21, 1986

Date

12-01-82

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION  
CHARLESTON 25302  
FINAL INSPECTION REPORT  
INSPECTOR COMPLIANCE REPORT

APR 18 1982

Permit No. 47-13-2812  
County: CALHOUN

Company: STERLING DRILLING PROD. CO., INC.  
Well: VILLERS 1073

Rule	Description	In Compliance	
		Yes	No
15.02	Notified prior to starting work		
15.04	Placed before drilling to prevent waste		
15.05	High pressure drilling		
15.06	Required permits at wellsite		
15.07	Added to the permit casing		
15.08	Added to the permit casing		
15.09	Added to the permit casing		
15.10	Added to the permit casing		
15.11	Added to the permit casing		
15.12	Added to the permit casing		
15.13	Added to the permit casing		
15.14	Added to the permit casing		
15.15	Added to the permit casing		
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15.93	Added to the permit casing		
15.94	Added to the permit casing		
15.95	Added to the permit casing		
15.96	Added to the permit casing		
15.97	Added to the permit casing		
15.98	Added to the permit casing		
15.99	Added to the permit casing		
16.00	Added to the permit casing		

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

SIGNED: *[Signature]*  
DATE: 11-19-82

*[Signature]*  
Director-Oil and Gas Division

Date

**APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL  
PRICE UNDER THE NATURAL GAS POLICY ACT (NGPA)**

1.0 API well number: (If not assigned, leave blank. 14 digits.)	47 - 013 - 3812			
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	107 Section of NGPA	<div style="font-size: 2em; font-weight: bold; border: 1px solid black; padding: 5px; display: inline-block;">RECEIVED</div> JUL 5 1985 OIL & GAS DIV. DEPT. OF MINES		
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	5094			
4.0 Name, address and code number of applicant: (35 letters per line maximum. If code number not available, leave blank.)	Sterling Drilling and Production Co. Inc.			018084 Seller Code
	Name 710 Virginia St. East, Arcade Building			
	Street Charleston, WV 25301			
	City	State	Zip Code	
5.0 Location of this well: (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	Lee District			
	Field Name Calhoun			
	County	State	WV	
(b) For OCS wells:	Area Name		Block Number	
	Date of Lease:		OCS Lease Number	
	Mo.	Day	Yr.	
(c) Name and identification number of this well: (35 letters and digits maximum.)	Villers #1073			
(d) If code 4 or 5 in 2.0 above, name of the reservoir: (35 letters maximum.)				
6.0 (a) Name and code number of the purchaser: (35 letters and digits maximum. If code number not available, leave blank.)	Undedicated			
	Name			
(b) Date of the contract:	_____ Mo. Day Yr.			
(c) Estimated total annual production from the well:	29.5 Million Cubic Feet			
		(a) Base Price	(b) Tax	(c) All Other Prices (Indicate (+) or (-).)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	S/MMBTU	6 0 3 4	-----	-----
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	S/MMBTU	6 0 3 4	-----	-----
9.0 Person responsible for this application:	Harry L. Berger, Jr.			Designated Agent
Agency Use Only	Name			Title
Date Received by JWRIL Agency JUL - 5 1985	Signature <i>Harry L. Berger, Jr.</i>			
Date Received by FERC	July 2, 1985			304-342-0121
FERC (12-18-82)	Date Application is Completed			Phone Number

12/08/2023

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

JUL 30 1985

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

47-013-3812

Date: July 2, 19 85

47550

AGENCY USE ONLY

Applicant's Name: Sterling Drilling & Production Co., Inc

WELL DETERMINATION FILE NUMBER

Address: 710 Virginia St., E., Arcade Bldg.

850705 - 1073-013 - 3812

Charleston, WV 25301

Use Above File Number on all  
Communications Relating to This Well

Gas Purchaser Contract No. \_\_\_\_\_

SDP #1073

Date of Contract \_\_\_\_\_

(Month, day and year)

First Purchaser: Undedicated P629

Designated Agent: Harry L. Berger, Jr.

Address: \_\_\_\_\_  
(Street or P.O. Box)

Address: 710 Virginia St., E., Arcade Bldg.

Charleston, WV 25301

(City) (State) (Zip Code)

FERC Seller Code \_\_\_\_\_

FERC Buyer Code \_\_\_\_\_

NAME AND TITLE OF PERSON TO WHOM QUESTIONS CONCERNING THIS APPLICATION SHALL  
BE ADDRESSED:

Name: Harry L. Berger, Jr.

Vice President and Land Manager

Signature: [Signature]

(Title)

Address: 710 Virginia St., E., Arcade Bldg.  
(Street or P.O. Box)

Charleston, WV 25301

Telephone: 304 342-0121

(Area Code) (Phone Number)

(Certificate of Proof of Service to Purchaser)

NGPA Category Applied For

NGPA SECTION/SUBSECTION

- 102 New Natural Gas
- 102-2 2.5 Mile Test
- 102-3 1000 Foot Deeper Test
- 102-4 New Onshore Reservoir

- 108 Stripper Well Natural Gas
- 108- Stripper Well
- 108-1 Seasonally Affected
- 108-2 Enhanced Recovery
- 108-3 Temporary Pressure Buildup

- 103 New Onshore Production Well
- 103 New Onshore Production Well

- 107 High Cost Natural Gas
- 107-0 Deep (more than 15,000 feet)
- 107-1 Geopressured Brine
- 107-2 Coal Seams
- 107-3 Devonian Shale
- 107-5 Production enhancement
- 107-6 New Tight Formation
- 107-7 Recompletion Tight Formation

AGENCY USE ONLY

QUALIFIED

12/08/2023

RECEIVED

JUL 5 1985

OIL & GAS DIV  
DEPT. OF MINES



DEVONIAN SHALE GAMMA RAY LOG ANALYSIS  
APPLICATION FOR DETERMINATION OF THE MAXIMUM LAWFUL  
PRICE UNDER THE NATURAL GAS POLICY ACT

Operator: Sterling Drilling & Production Co. Agent: Harry L. Berger, Jr.

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-013-3812 Well Name: #1073 Vickers

West Virginia Office of Oil and Gas County: Calhoun

References: SJA File No. \_\_\_\_\_

Vol. \_\_\_\_\_ Page \_\_\_\_\_ Line \_\_\_\_\_

I. NOTE: A Gamma Ray Log has been marked with the (a) Shale Base Line, (b) a line representing 0.7 x (Shale Base Line), (c) intervals with Gamma Ray units less than 0.7 x (Shale Base Line) and that log is included with this analysis.

II. Gamma Ray elevation indices:

A. Shale Base Line (API Units)

1. GR Value at Base Line = 165 \* API Units
2. Remarks: \_\_\_\_\_

B. Gamma Ray Log Value at 0.7 x Value at Base Line

1. GR Value = 115.5 \* API Units
2. Calculation:  $\frac{0.7 \text{ (GR Value at Base Line)}}{0.7 \text{ (165 *)}} = \underline{115.5}$  API Units

III. Intervals with GR index less than 0.7 x (Value at Base Line):

Interval		Thickness of Interval Feet	Feet of less than* 0.7 (Shale Base Line) Feet
From**	To***		
<u>2414'</u>	<u>5066</u>	<u>2652'</u>	<u>90'</u>

Total Devonian Interval 2652'

Total Less Than 0.7 (Shale Base) 90'

% Less Than 0.7 (Shale Base Line) =  $\frac{0.0339}{1} \times 100 = \underline{3.4\%}$

12/08/2023

\*Marked on log included with analysis.  
 \*\*Top of Devonian Section Recorded on First Interval in this Column.  
 \*\*\*Lesser of TD or Bottom of Devonian Section Recorded as last Interval in this Column.

WELL CLASSIFICATION FORM

HIGH COST GAS WELL - DEVONIAN SHALE

NGPA Section 107

DESIGNATED AGENT Harry L. Berger, Jr.

ADDRESS Arcade Building; 710 Virginia St., E  
Charleston, WV 25301

LOCATION Elevation 1015.75'

WELL OPERATOR Sterling Drilling & Production Co Watershed Big Run

ADDRESS 710 Virginia Street, East  
Charleston, WV 25301

Dist. Lee County Calhoun Quad. Annamrh 7

Gas Purchase  
Contract No.

GAS PURCHASER Undedicated

Meter Chart Code

ADDRESS

Date of Contract

\* \* \* \* \*

Date surface drilling began: November 29, 1984

Indicate the bottom hole pressure of the well and explain how this was calculated.

Bottom Hole Pressure. PSIA -- Pf = Pwe XLGS

$$t = 60 + (0.0075 \times 5094) + 459.67 = 558 \cdot X = \frac{1}{53.34} \times 558 = 0.000336$$

$$Pf = 925 \times 2.7183 \times 0.000336 \times 4017 \times 1.690 \times 1.07 = 1022 \text{ PSI}$$

AFFIDAVIT

I, Harry L. Berger, Jr., having been first sworn according to law, state that I have calculated the percentage of footage of the producing interval which is not Devonian Shale as indicated by a Gamma Ray index of less than 0.7 if a Gamma Ray log described in subparagraph (3)(i) or (3)(ii)(A) has been filed, or as indicated by the report described in subparagraph (3)(ii)(B); I have demonstrated that the percentage of potentially disqualifying non-shale footage is equal to or less than five (5) percent of the gross Devonian age interval; and I have no knowledge of any information not described in the application which is inconsistent with a conclusion that the well qualifies as a high-cost natural gas well.

*Harry L. Berger, Jr.*

STATE OF WEST VIRGINIA

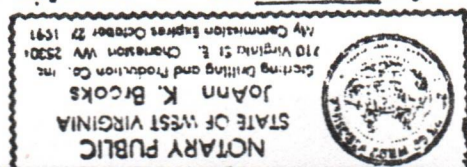
COUNTY OF Kanawha, TO-WIT:

I, *John K. Brooks*, a Notary Public in and for the state and county aforesaid, do certify that *Harry L. Berger, Jr.*, whose name is signed to the writing above, bearing date the 2nd day of July, 1985, has acknowledged the same before me, in my county aforesaid.

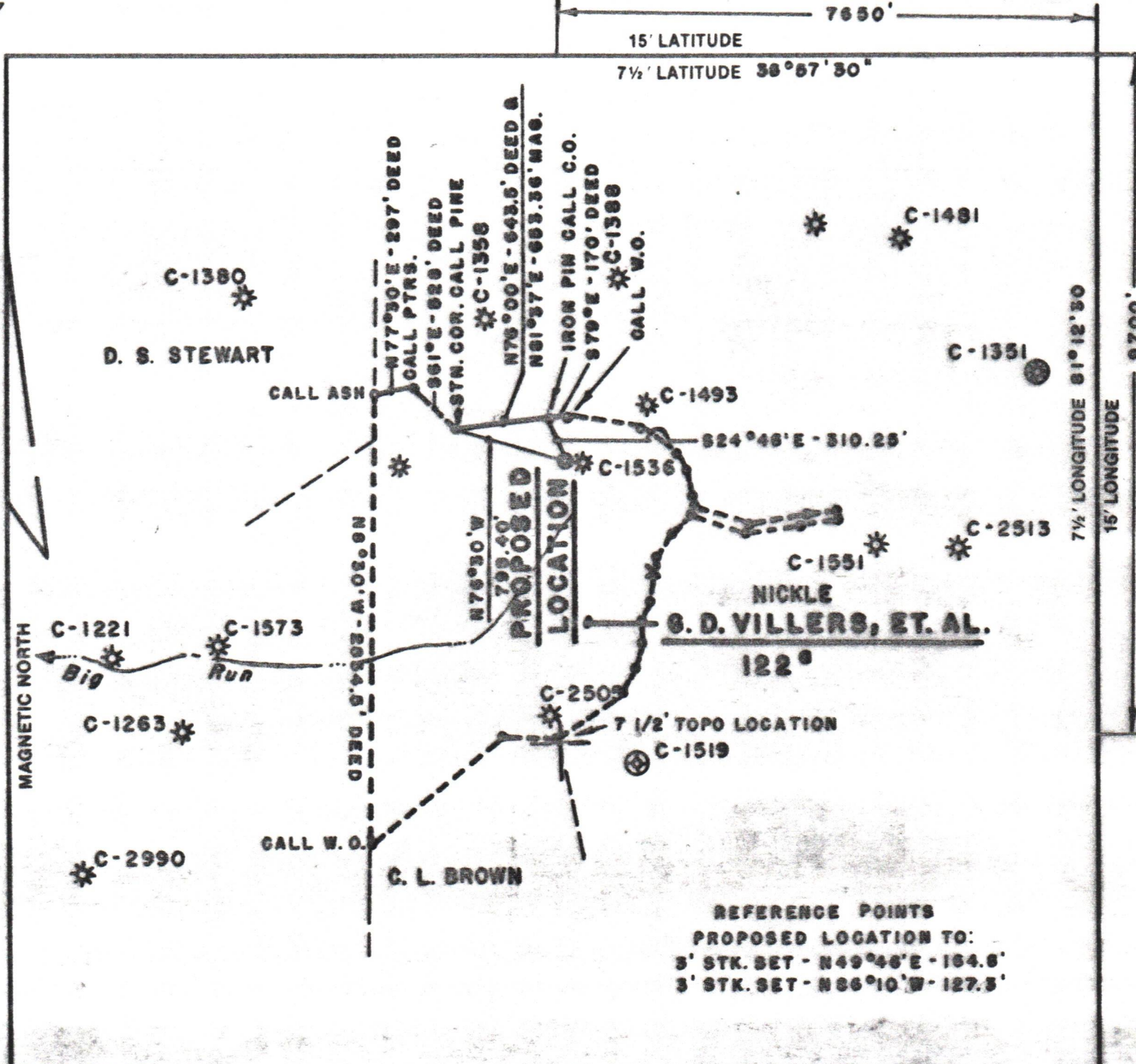
12/08/2023

Given under my hand and official seal this 2nd day of July, 1985.  
My term of office expires on the 27th day of October, 1991.

(NOTARIAL SEAL)



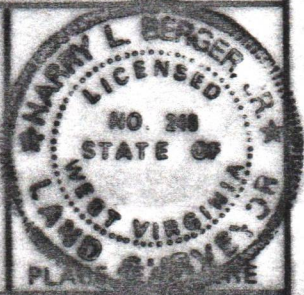
*John K. Brooks*  
Notary Public



N-30, PG. 17

FILE NO. 042-226  
 MAP NO. 55-A  
 SCALE 1"=1000'  
 MINIMUM DEGREE OF ACCURACY 1:200  
 PROVEN SOURCE OF ELEVATION U.S.G.S. DATA FKS. RD. SHOWN EL. 1094'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.  
 (SIGNED) Harry L. Berger, Jr.  
 HARRY L. BERGER, JR. L.L.S. 248



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE SEPT. 18, 19 84  
 OPERATOR'S WELL NO. 1078  
 API WELL NO. 47-013-3812  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1018.75' WATER SHED BIG RUN  
 DISTRICT LEE COUNTY CALHOUN  
 QUADRANGLE 7 1/2' ANNAMORIAN (ARNOLDSBURG N.W.)  
 SURFACE OWNER GERALD M. DOWMAN ACREAGE 122  
 OIL & GAS ROYALTY OWNER S. D. VILLERS, ET. AL. LEASE ACREAGE 122  
 LEASE NO. 042-226  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 5070'  
 OPERATOR STERLING DRILLING & PRODUCTION CO. INC. AGENT HARRY L. BERGER  
 ADDRESS 360 MADISON AVE. - 5TH FLOOR ADDRESS 710 VIRGINIA ST. E.  
NEW YORK, N.Y. 10017 CHARLESTON, WV 25301

12/08/2023