



1) Date: October 19, 19 84
 2) Operator's Well No. Starcher #1031 - Rev.
 3) API Well No. 47 - 013 - 3827
 State County Permit

RECEIVED

OCT 22 1984

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

Formerly 47 - 013 - 3800

OIL & GAS DIV.
DEPT. OF MINES

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil Gas
 B (If "Gas", Production Underground storage Deep Shallow)
- 5) LOCATION: Elevation: 788.3' Watershed: Barnes Run
 District: Lee County: Calhoun Quadrangle: 7.5' Arnoldsburg
- 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 / 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, 4725 feet
- 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: 0 Is coal being mined in the area? Yes / No

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		
Conductor									Kinds
Fresh water	9 5/8	LS	33#	X		275'	275'	To Surface	<u>NEAT</u>
Coal									Sizes
Intermediate	7"	J-55	20#	X		1950'	1950'	100 sks	
Production	4 1/2	ERW	10.5#	X			4725'	250 sks	<u>OK as required by rule 15.01</u>
Tubing									Perforations:
Liners									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-013-3827

Date November 9, 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 November 9, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>47550</u>	Agent: <u>TS</u>	Plat: <u>MUMMU</u>	Casing	Fee <u>8050</u>
--------------------	------------------	--------------------	--------	-----------------

Margaret J. Hasser
Administrator, Office of Oil and Gas

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

OFFICE USE ONLY

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

WELL OPERATOR: *Starling Drilling & Prod. Co., Inc.*
 ADDRESS: *220 E. 42nd St., 33rd Floor, New York, New York 10017*
 WELL NO.: *10017*
 PERMIT NO.: *47-013-3827*
 DATE: *October 19, 1984*

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		
Well work started		
Completion of the drilling process		
Well Record received		
Reclamation completed		

OTHER INSPECTIONS

Reason: _____
 Reason: _____



DATE 10-12-84

WELL NO. Starobor # 1031 Rev

API NO. 47 - 013 - 3827

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

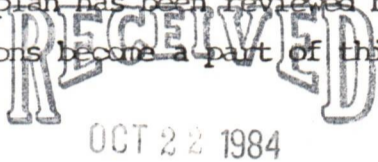
Address 360 Madison Ave.-NY, NY 10017 Address c/o H.L.Berger - Chas., WV

Telephone (212) 682-0204 Telephone (304) 342-0121

LANDOWNER Gail M. Cantley 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: 10/19/84 (Date)



Randall J. Addison
(SCD Agent)

ACCESS ROAD
DEPT. OF MINES

Structure	(A)	LOCATION	(1)
Structure _____	(A)	Structure _____	(1)
Size _____		Material _____	
Page Ref. Manual _____		Page Ref. Manual _____	
Structure <u>Drainage Ditches -N/A</u>	(B)	Structure <u>Rip-Rap</u>	(2)
Location _____		Material <u>Rock</u>	
Page Ref. Manual _____		Page Ref. Manual <u>2-9</u>	
Structure <u>Cross Drains --N/A</u>	(C)	Structure _____	(3)
Spacing _____		Material _____	
Page Ref. Manual _____		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	<u>2</u>	Tons/acre
or correct to pH	<u>6.5</u>	
Fertilizer	<u>500</u>	lbs/acre
	<u>(10-20-20 or equivalent)</u>	
Mulch	<u>Hay or Straw</u>	<u>2</u> Tons/acre
Seed*	<u>Orchard grass</u>	<u>15</u> lbs/acre
	<u>Red Clover</u>	<u>8</u> lbs/acre
	<u>Alsike Clover</u>	<u>4</u> lbs/acre

Treatment Area II

Lime	<u>2</u>	Tons/acre
or correct to pH	<u>6.5</u>	
Fertilizer	<u>500</u>	lbs/acre
	<u>(10-20-20 or equivalent)</u>	
Mulch	<u>Hay or Straw</u>	<u>2</u> Tons/acre
Seed*	<u>Orchard grass</u>	<u>15</u> lbs/acre
	<u>Red Clover</u>	<u>8</u> lbs/acre
	<u>Alsike Clover</u>	<u>4</u> lbs/acre

12/01/2023

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

PLAN PREPARED BY Richard A. Campbell

ADDRESS Route 1, Box 30

Duck, WV 25063

PHONE NO. (304) 364-5780

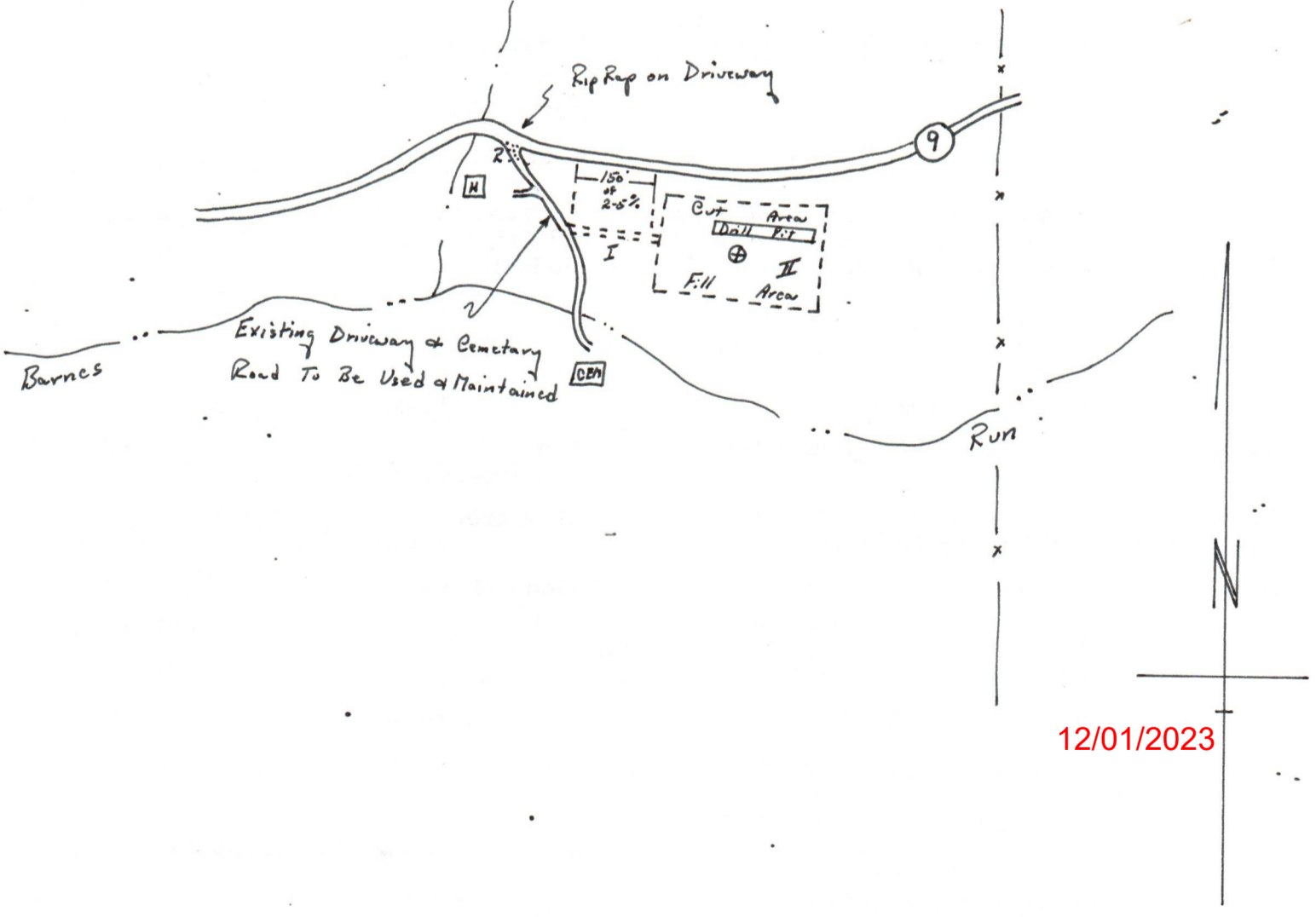
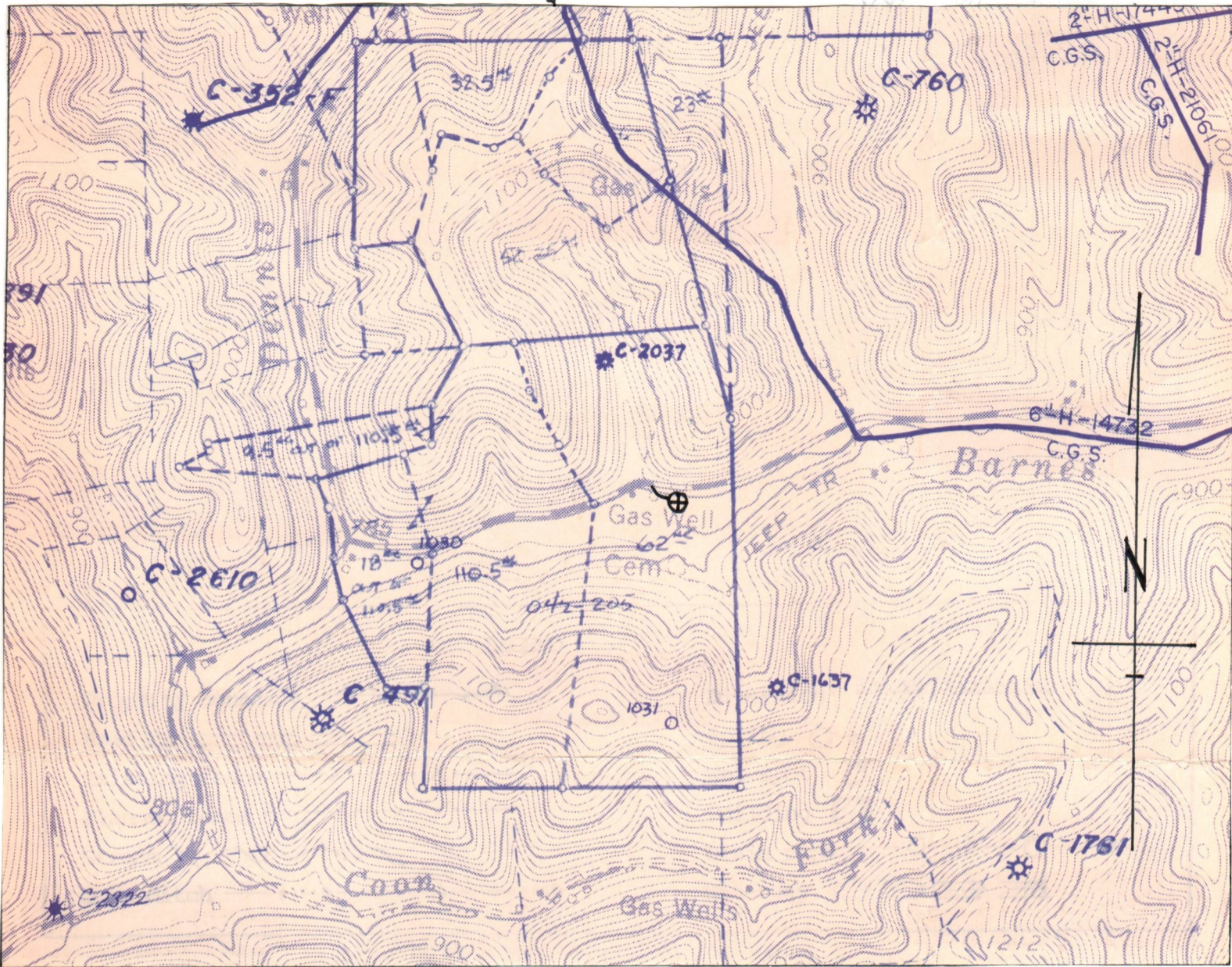
NOTES: Please request landowners' cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

IV-9 REVERSE
(REV 6-81)

INVOLVED TOPOGRAPHIC MAP
QUADRANGLE 7 1/2' Arnoldsburg
Arnoldsburg SW

LEGEND

Well Site	⊕
Access Road	—



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

NOTICE OF APPLICATION FOR A WELL WORK PERMIT

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

(i) Name Burlin R. Richards
Address General Delivery
Mt. Zion, W.V. 26151

(ii) Name _____
Address _____

(iii) Name _____
Address _____

5(i) COAL OPERATOR UNOPERATED
Address _____

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
Name UNKNOWN
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____

1031-REV.
P 522 056 975

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

TO THE PERSON(S) NAME

- (1) The Applicant to be plugged and described
- (2) The plat
- (3) The construction and reclamation

THE REASON YOU WHICH ARE SUMMARIZED (FORM IV-2(B) OR BY ACTION AT ALL.

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

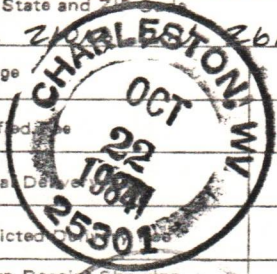
- 6) EXTRACTION RIGHTS
Check and provide
 Included in the lease
I hold the lease
 The requirements of the lease
- 7) ROYALTY PROVISION
Is the right to the mineral or other contract for compensation to the volume of

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

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.
his 19 day of October, 19 84.
My commission expires May 10, 19 89.
Daniel M. Alessie
Notary Public, Kanawha County,
State of West Virginia

Sent to	<u>BURLIN R. RICHARDS</u>
Street and No.	<u>GENERAL DELIVERY</u>
P.O., State and Zip	<u>MT. ZION, W.V. 26151</u>
Postage	<u>25301</u>
Certified Mails	<u>22</u>
Special Delivery	<u>1984</u>
Restricted Mails	<u>25301</u>
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$ <u>2.00</u>
Postmark or Date	<u>OCT 22 1984</u>



Form and the following documents:

(B) (or Form IV-4 if the well is in the drilling or other work, applicable, the proposed casing and

on Form IV-6; and unless the well work is only to and sediment control and for

RIGHTS REGARDING THE APPLICATION OF THE COPY OF THE APPLICATION IS NOT REQUIRED TO TAKE ANY

Under the undersigned well operation and accompanying documents of Oil and Gas, West Virginia described on attached Application by Application, the plat, and the red or certified mail or delivered (in certain circumstances) on or

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OCT 22

RECEIVED
OCT 22 1984

OIL & GAS
DEPT. OF

contract or contracts by which reverse side for specifics.)

used upon a lease or leases, title or any similar provision which is not inherently related? Yes No

ded. If the answer is Yes,

WELL OPERATOR Sterling Drilling & Prod. Co., Inc.
By Harry L. Berger
Its Designated Agent
Address 10 Virginia St., E.
Charleston, W.V. 25301
Telephone 342 - 0121

12/01/2023

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>
Clifford Starcher 1109 16th St. Vienna, W.V. 26106	Sterling Drilling and Production Co., Inc.	1/8	11 / 88



IV-35
(Rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date April 19, 1985
Operator's Well No. 1031-Rev.
Farm Starcher
API No. 47 - 013 - 3827

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: 788.3 Watershed Barnes Run
District: Lee County Calhoun Quadrangle 7.5' Arnoldsburg

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 Burlin R. Richards

ADDRESS Mt. Zion, WV 26151

MINERAL RIGHTS OWNER Clifford Starcher

ADDRESS 1109 16th St., Vienna, WV 26106

OIL AND GAS INSPECTOR FOR THIS WORK Deo Mace

Rt.1 Box 5
ADDRESS Sandridge, WV 25274

PERMIT ISSUED 11/9/84

DRILLING COMMENCED 2/17/85

DRILLING COMPLETED 2/23/85

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	289'	289'	105 sks.
8 5/8			
7	2019'	2019'	175 sks.
5 1/2			
4 1/2		5096'	280 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 4725' feet

Depth of completed well 5138 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 2289'-5054' feet

Gas: Initial open flow show Mcf/d Oil: Initial open flow _____ Bbl/d

Final open flow 198 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 58 hours

Static rock pressure 650 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

12/01/2023

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)

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

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FEB 26 1985

INSPECTOR'S WELL REPORT OIL & GAS DIVISION

DEPT. OF MINES

Permit No. 13-3827

Oil or Gas Well _____
(KIND)

Company Sterling
 Address _____
 Farm Starcher
 Well No. 1031
 District Lee County Cal
 Drilling commenced 2-17-85
 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			
16			Kind of Packer _____
13			
10			Size of _____
8 1/4			
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 _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names Hunt 1

Remarks: lot of water while drilling surface hole.

289' of 9 5/8", 105 sk cement, Dowell, 2-18-85

2-19-85
DATE

Dev Mae 12/01/2023
DISTRICT WELL INSPECTOR

Form 26
2/16/82

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FEB 20 1982
OIL AND GAS DIVISION

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.

12/01/2023
DISTRICT WELL INSPECTOR

25-Jun-85

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

RECORDED
DEPARTMENT OF ENERGY
OIL AND GAS

APR 23 1986

Company: STERLING DRILLING
Farm: RICHARDS, BURLIN R. Well: 1031

Permit No. 47- 13-3827 (11-9-84)
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 Des Mace
DATE 4-19-86

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. L. v. B. B.

Administrator

April 29, 1986

Date

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OFFICE OF OIL AND GAS
 CHARLESTON 25303
 FINAL INSPECTION REPORT
 INSPECTOR'S COMPLIANCE REPORT

2023-05-08

Permit No. 41-13-2802
 COUNTY OF MORGAN

Well: 1001
 Operator: RICHARDS, BURLIN R.

Item	Description	In Compliance	
		Yes	No
1.01	Identify all well records		
1.02	Well records filed		
1.03	Well records on file		
1.04	Resources for production & balancing pipelines		
1.05	No surface or underground pollution		
1.06	Installed drilling pipe		
1.07	Necessary equipment to prevent waste		
1.08	Maintained access roads		
1.09	Cement type		
1.10	Abandonment cement strength		
1.11	Abandonment production casing		
1.12	Abandonment coal casing		
1.13	Abandonment fresh water casing		
1.14	Resources available to wellbore		
1.15	High pressure drilling		
1.16	Permit before drilling to prevent waste		
1.17	Notification prior to starting work		

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

SIGNED: _____
 DATE: _____

Your well record was reviewed and recalculation requirements approved. In accordance with Chapter 20, Article 4, Section 2, the above well will remain under bond to ensure for the life of the well.

[Signature]
 Administrator

 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 - 3827
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	107 Section of NGPA Category Code
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	5138 feet
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 Name Seller Code 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: Mo. Day Yr. OCS Lease Number
(c) Name and identification number of this well: (35 letters and digits maximum.)	Starcler #1031-Rev
(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 Buyer Code
(b) Date of the contract:	Mo. Day Yr.
(c) Estimated total annual production from the well:	5.9 Million Cubic Feet

	(a) Base Price	(b) Tax	(c) All Other Prices (Indicate (+) or (-).)	(d) Total of (a), (b) and (c)
7.0 Contract price: (As of filing date. Complete to 3 decimal places.)	S/MMBTU 5.982	-----	-----	-----
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	S/MMBTU 5.982	-----	-----	-----

9.0 Person responsible for this application:	Harry L. Berger, Jr. Name Harry L. Berger, Jr. Signature May 21, 1985 Date Application is Completed	Designated Agent Title 304-342-0121 Phone Number
--	--	---

Agency Use Only
 Date Received by Juris. Agency
 MAY 23 1985
 Date Received by FERC

12/01/2023

DEPARTMENT OF MINES, OIL AND GAS DIVISION

47-013-3827

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: May 21, 19 85

47550

AGENCY USE ONLY

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

WELL DETERMINATION FILE NUMBER

Address: 710 Virginia Street, E. Arcade Bldg
Charleston, WV 25301

850523 -1073-013-3127

Gas Purchaser Contract No. _____

Use Above File Number on all
Communications Relating to This W

Date of Contract _____
(Month, day and year)

SDP #1031-Rev

First Purchaser: UNDEDICATED

Designated Agent: Harry L. Berger, J

Address: _____
(Street or P.O. Box)

Address: Sterling Drilling & Prod. Co
710 Virginia St., E. Arcade
Charleston, WV 25301

(City) (State) (Zip Code)

FERC Seller Code 018084

FERC Buyer Code _____

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

Name: Harry L. Berger, Jr.

Signature: *Harry L. Berger, Jr.* Agent _____
(Print) (Title)

Address: Sterling Drilling & Prod. Co., Inc.
710 Virginia St., E., Arcade Bldg.
(Street or P.O. Box)

Charleston, WV 25301
(City) (State) (Zip Code)

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

- 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

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

AGENCY USE ONLY

12/01/2023

QUALIFIED

RECEIVED

MAY 23 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.: 47-013-3827 Well Name: #1031-Rev Starcher

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 = 180 * API Units
2. Remarks:

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

1. GR Value = 126 * API Units
2. Calculation: $\frac{0.7 \text{ (GR Value at Base Line)}}{0.7 \text{ (180 *)}} = \underline{126}$ 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 Lin Feet
From**	To***		
2210	5136	2926	123

Total Devonian Interval 2926

Total Less Than 0.7 (Shale Base)

123

% Less Than 0.7 (Shale Base Line) = $\frac{123}{2926} \times 100 = \underline{4.2\%}$

12/01/2023

*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 788.3

WELL OPERATOR Sterling Drilling & Production Co Watershed Barnes Run

ADDRESS 710 Virginia Street, East Dist. Lee County Calhoun Quad. Arnbq 7.5
Charleston, WV 25301

Gas Purchase
Contract No. _____

GAS PURCHASER UNDEDICATED

Meter Chart Code _____

ADDRESS _____

Date of Contract _____

* * * * *

Date surface drilling began: 2/17/85

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

Bottom Hole Pressure. PSIA -- Pf = Pwe ^{XLGS}

$$t = 60 + (0.0075 \times \underline{5138}) + 459.67 = \underline{558} \cdot X = \frac{1}{53.34} \times \underline{558} = \underline{.0000336}$$

$$Pf = \underline{650} \times 2.7183 \cdot \underline{.0000336} \times \underline{3618} \times \underline{.690} \times \underline{1.07} = \underline{711} \text{ PSI}$$

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)(1) 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.

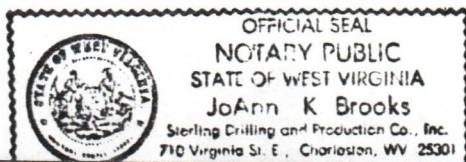
STATE OF WEST VIRGINIA

COUNTY OF Kanawha, TO-WIT:

I, JoAnn 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 21st day of May, 1985, has acknowledged the same before me, in my county aforesaid.

Given under my hand and official seal this 21st day of May, 1985.
My term of office expires on the 27th day of October, 1991.

(NOTARIAL SEAL)

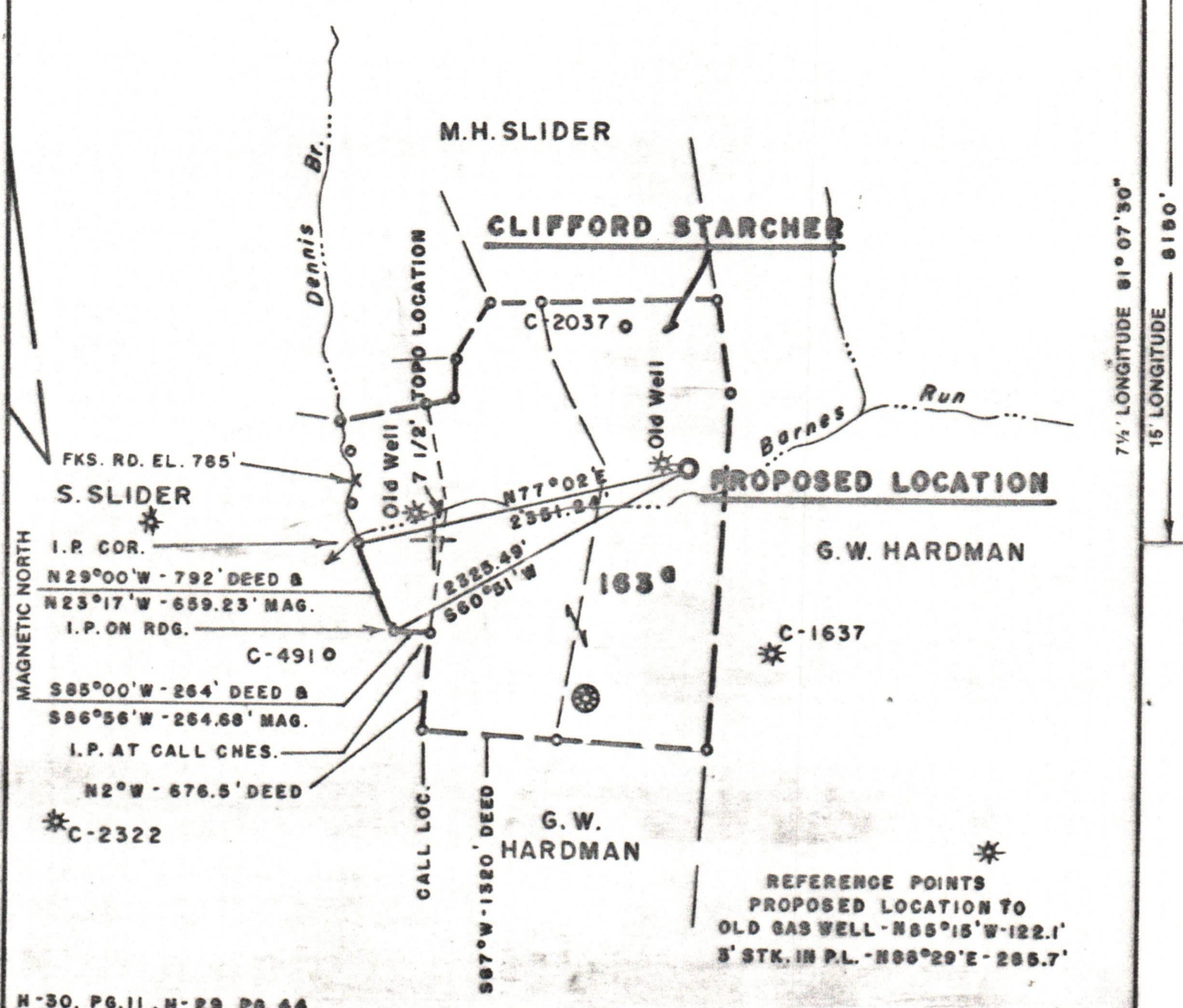


JoAnn K Brooks
Notary Public

772 11/8/84

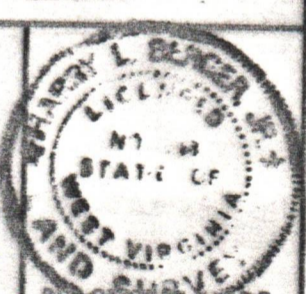
15' LATITUDE 9700'
7 1/2' LATITUDE 38° 52' 30"

7 1/2' LONGITUDE 81° 07' 30"
15' LONGITUDE 8150'



FILE NO. 042-205
 MAP NO. 58-C
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION U.S.G.S. DATA FKS. RD. SHOWN EL. 785'

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. 1248



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

STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION
 DATE OCT. 17 1984
 OPERATOR'S WELL NO. 1031 Rev.
 API WELL NO. 47-013-3827
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION ELEVATION 788.3' WATER SHED BARNES RUN
 DISTRICT LEE COUNTY CALHOUN
 QUADRANGLE 7 1/2' ARNOLDSBURG (ARNOLDSBURG S.W.)
 SURFACE OWNER BURLIN R. RICHARDS ACREAGE 91.69
 OIL & GAS ROYALTY OWNER CLIFFORD STARCHER LEASE ACREAGE 163
 LEASE NO. 042-205
 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 4725'
 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

12/01/2023