



1) Date: November 18, 1983
 2) Operator's Well No. 863
 3) API Well No. 47 - 013 - 3684
 State _____ County _____ Permit _____

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

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage _____ / Deep _____ / Shallow)
- 5) LOCATION: Elevation: 949.10' Watershed: Little Kanawha River
 District: Sheridan County: Calhoun Quadrangle: 7.5' Annamoriah
- 6) WELL OPERATOR Sterling Drilling & Prod. Co., Inc DESIGNATED AGENT Harry L. Berger, Jr.
 Address 360 Madison Ave. Fifth 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 B ox 5
Sandridge, W.V. 25274
- 9) DRILLING CONTRACTOR: Name UNKNOWN
 Address _____
- 10) PROPOSED WELL WORK: Drill XXXXXX / 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, 5200 feet
- 13) Approximate strata 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

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 DEPT. OF MINES

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		500'	500'	To Surface	by rule 15.05
Coal									Sizes
Intermediate	7"	J-55	20#	X		2080'	2080'	100 sks	
Production	4 1/2	ERW	10.5#	X			5200'	250 sks	Depths set
Tubing									or as req. by
Liners									Perforations: rule 15.01
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-013-3684 Date December 19, 1983

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 19, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond	Agent: <input checked="" type="checkbox"/>	Plat:	Casing	Fee
	<u>lo</u>	<u>MH</u>	<u>MH</u>	<u>5951</u>

[Signature]
 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

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OIL & GAS DIVISION
DEPT. OF MINES

1) WELL OPERATOR
2) LOCATION
3) WELL OPERATOR
4) OLD & GAS INSPECTOR TO BE NOTIFIED
5) NAME
6) ADDRESS
7) PROPOSED WELL WORK
8) OTHER PHYSICAL CHANGE IN WELL (Specify)
9) GEOLOGICAL TARGET FORMATION
10) APPROXIMATE DATE OF COMPLETION
11) APPROXIMATE DATE OF DRILLING
12) APPROXIMATE COAL SEAM DEPTH
13) CARING AND TUBING PROGRAM

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: _____

Agent	Plan	Caring	Fee
-------	------	--------	-----

12/01/2003



IV-9
(Rev 8-81)

DATE 11-28-83
WELL NO. Wilson # 863
API NO. 47-013-3684

State of West Virginia
Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Sterling Drilling & Prod. Co WELL OPERATOR Sterling Drilling & P.
Address 360 Madison Ave.- NY, NY 10017 Address c/o H.L. Berger - Chars., WV
Telephone (212) 949-9100 Telephone (304) 342-0121

LANDOWNER Alfred Davis 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: 11-30-83
(Date)

Jarrett Newton
(SCD Agent)

ACCESS ROAD	LOCATION
Structure _____ (A)	Structure _____ (1)
Spacing _____	Material _____
Page Ref. Manual _____	Page Ref. Manual <u>DEC 2 - 1983</u>
Structure <u>Drainage Ditches</u> (B)	Structure <u>Rip-Rap</u> OIL & GAS DIVISION (2)
Spacing <u>Roadside</u>	Material <u>Rock</u> DEPT. OF MINES
Page Ref. Manual <u>2-12</u>	Page Ref. Manual <u>2-9</u>
Structure <u>Cross Ditches</u> (C)	Structure _____ (3)
Spacing <u>135' for 4-6% grade</u>	Material _____
Page Ref. Manual <u>2-4</u>	Page Ref. Manual _____

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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

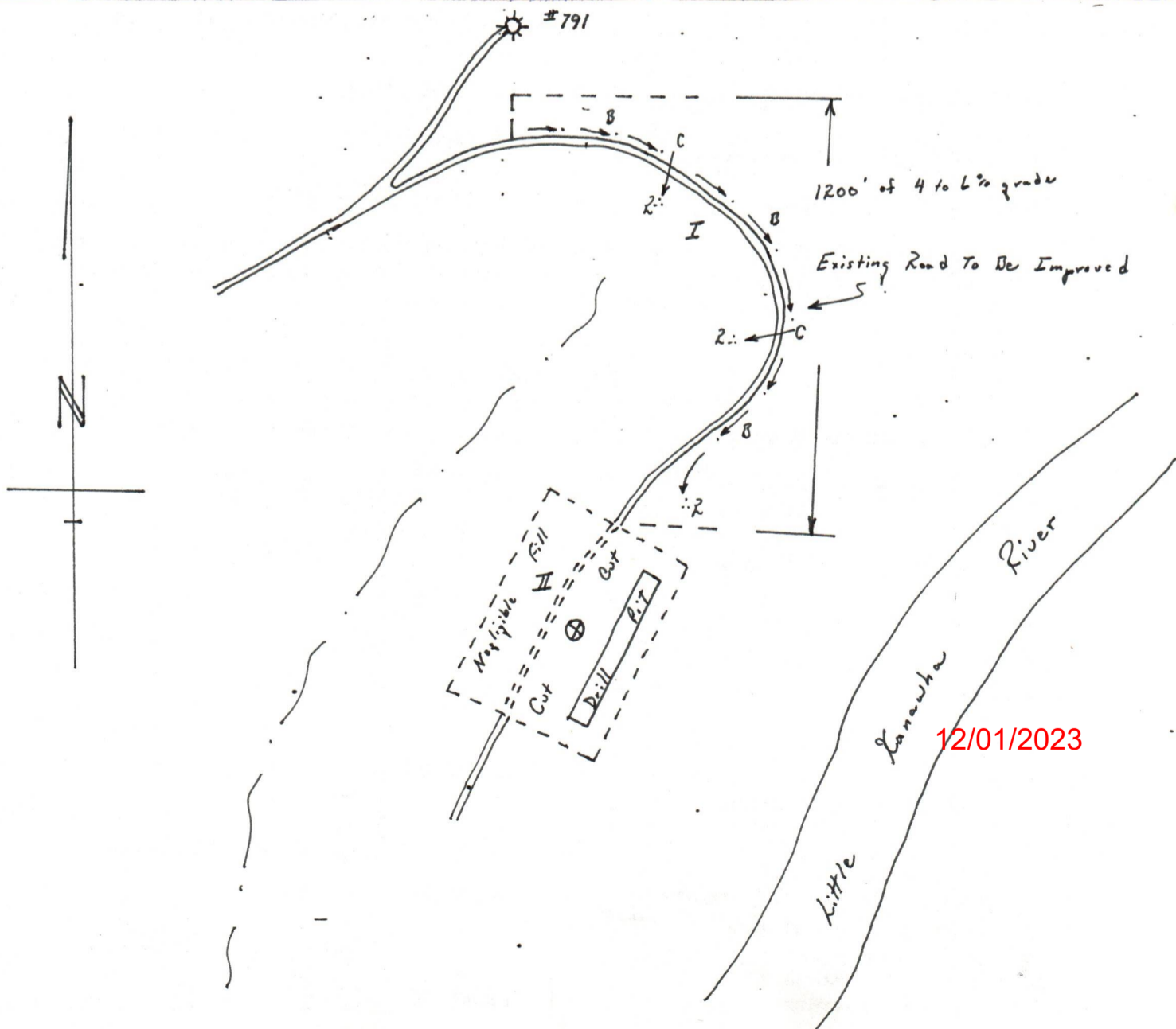
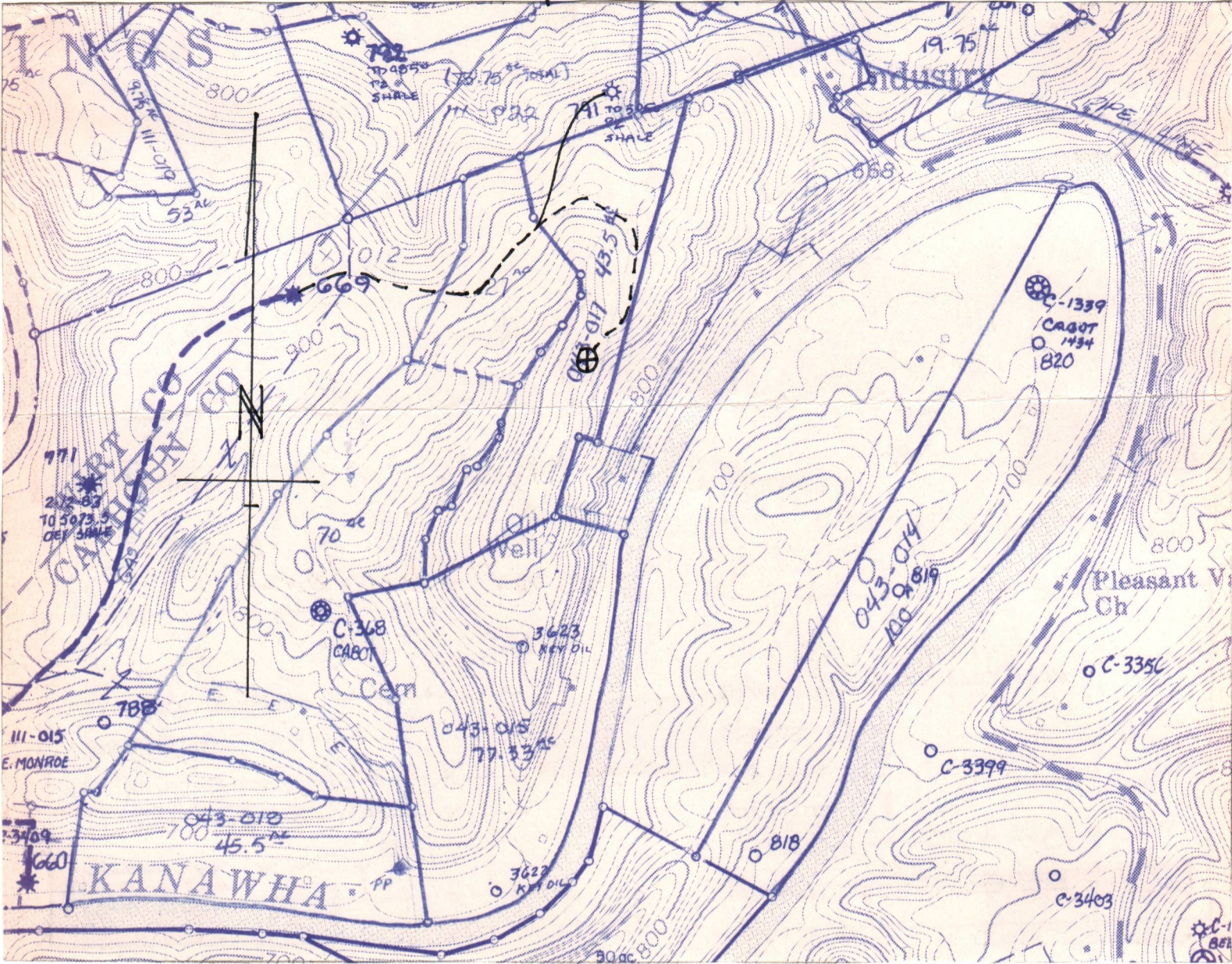
Treatment Area I	Treatment Area II
Lime <u>2</u> Tons/acre or correct to pH <u>6.5</u>	Lime <u>2</u> Tons/acre or correct to pH <u>6.5</u>
Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)	Fertilizer <u>600</u> lbs/acre (10-20-20 or equivalent)
Mulch Hay <u>2</u> Tons/acre	Mulch Hay <u>2</u> Tons/acre
Seed* <u>Ky-31</u> <u>40</u> lbs/acre	Seed* <u>Ky-31</u> <u>40</u> lbs/acre
<u>Ladino Clover</u> <u>4</u> lbs/acre	<u>Ladino Clover</u> <u>4</u> lbs/acre
_____ lbs/acre	_____ lbs/acre

12/01/2023

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount. Moore's Well Services, Inc.

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.



1) Date: November 18, 1983
2) Operator's Well No. 863
3) API Well No. 47-013-3684
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

5(i) COAL OPERATOR UNOPERATED
Address _____

(i) Name Alfred Davis
Address Monday, W.V. 26152

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

(ii) Name _____
Address _____

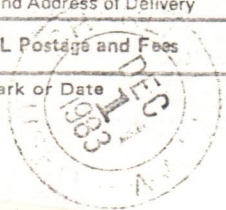
863
P 522 056 673

(iii) Name _____
Address _____

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to <u>ALFRED DAVIS</u>	
Street and No. _____	
P.O., State and ZIP Code <u>MONDAY, W.V. 26152</u>	
Postage	\$ _____
Certified Fee	_____
Special Delivery Fee	_____
Restricted Delivery Fee	_____
Return Receipt Showing to whom and Date Delivered	_____
Return Receipt Showing to whom, Date, and Address of Delivery	_____
TOTAL Postage and Fees	\$ _____
Postmark of Date	

TO THE PERSON(S) NAMED

- (1) The Application to be plugged, and describes cementing procedure
- (2) The plat (survey)
- (3) The Construction plug a well), reclamation for

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

Take notice that operator proposes to file for a Well Work Permit Department of Mines, well and depicted on attached Construction and Reclamation by hand to the person(s) before the day of mail:

6) EXTRACTION RIGHTS
Check and provide or
 Included is the I hold the right
 The requirement of

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

If the answer above is No, nothing additional is needed. If the answer is Yes, 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.
this 18 day of November, 1983.
My commission expires May 10, 1989.

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

and the following documents:
Form IV-4 if the well is drilling or other work, the proposed casing and
Form IV-6; and
the well work is only to prevent control and for

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

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

or contracts by which
see side for specifics.)

RECEIVED
DEC 2 - 1983

OIL & GAS DIVISION
DEPT. OF MINES

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>
Dorcy Wilson Monday, W.V. 26152	Sterling Drilling & Prod. Co., Inc.	1/8	080/276
Virgil D. Monroe Henrietta Mills Harold Humphrey Victor Hamilton Edna Derring Geraldine Hopwood Harley Collins			

12/01/2023

IV-35
(Rev 8-81)

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OCT 4 1984

OIL & GAS DIVISION
DEPT. OF MINES



State of West Virginia
Department of Mines
Oil and Gas Division

Date 9/7/84
Operator's
Well No. 863
Farm Dorcy Wilson
API No. 47 - 013 - 3684

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: 949.10' Watershed Little Kanawha River
District: Sheridan County Calhoun Quadrangle 7.5' Annamoriah

COMPANY Sterling Drilling & Production Co., Inc.

ADDRESS 710 Virginia St., E, Charleston, WV

DESIGNATED AGENT Harry L. Berger, Jr. 25301

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

SURFACE OWNER Alfred Davis

ADDRESS Monday, WV 26152

MINERAL RIGHTS OWNER Dorcy Wilson, et al.

ADDRESS General Delivery, Monday, WV 26152

OIL AND GAS INSPECTOR FOR THIS WORK Deo

Mace ADDRESS Rt.1, Box 5, Sandridge, WV
25274

PERMIT ISSUED 12/19/83

DRILLING COMMENCED 6/20/84

DRILLING COMPLETED 6/26/84

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	496'	496'	surface
8 5/8			
7	2085'	2085'	175 SX
5 1/2			
4 1/2		5233'	290 SX
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5200' feet

Depth of completed well 5259' KB feet Rotary X / Cable Tools _____

Water strata depth: Fresh 375' feet; Salt 174' feet

Coal seam depths: _____ Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3275'-5205' feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow - Bbl/d

Final open flow 411 Mcf/d Final open flow - Bbl/d

Time of open flow between initial and final tests 15 hours 12/01/2023

Static rock pressure 1030 psig (surface measurement) after 96 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

CAL 3684

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

Perforations - 74 holes - 3275'-5205'

Treatment - 3347 MSCF N₂ ; 35 bbls 15% HCL

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OIL & GAS DIVISION
DEPT. OF MINES

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shandstone and shale			0	1292	10' KB
Salt sand			1292	1360	
Sand and shale			1360	1701	
Maxon			1701	1810	
Lime			1810	1815	
Pencil cave			1815	1827	
Big lime			1827	1948	
Big Injun and shale			1948	1968	
Siltstone and shale			1968	2336	
Sunbury shale			2336	2350	
Berea			2350	2355	
Sandy siltstone and shale			2355	2704	
Gordon			2704	2713	
Grey siltstone and shale			2713	5259	TD 5259' KB

(Attach separate sheets as necessary)

Sterling Drilling and Production Co., 12/01/2023

Well Operator

By:

Harry J. Berger Jr

Date:

10-3-84

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

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

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JUN 26 1984

OIL & GAS DIVISION

INSPECTOR'S WELL REPORT DEPT. OF MINES

Permit No. 13-3684

Oil or Gas Well _____
(KIND)

Company Sterling

Address _____

Farm Wilson

Well No. 863

District Sheidan County Cal.

Drilling commenced 6-20-84

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 5/8			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 &

Remarks:

494' of 9 5/8" casing, 195 SKS, Dowell, 6-21-84
2085' of 7" " " , 175 SKS, " " , 6-23-84

6-23-84
DATE

W. M. ...
DISTRICT WELL INSPECTOR

12/01/2023

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 NO. 12/01/2023



RECORDED
INDEXED
MAY 1986

APR 23 1986

State of West Virginia

Department of Mines
Oil and Gas Division
Charleston 25305

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
November 1, 1984

(12-19-83)

COMPANY Sterling Drilling
710 Virginia Street, East
Charleston, West Virginia 25301

PERMIT NO 013-3684
FARM & WELL NO Alfred Davis #863
DIST. & COUNTY Sheridan/Calhoun

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 Casing	_____	_____
15.02	Adequate Coal Casing	_____	_____
15.01	Adequate Production Casing	_____	_____
15.04	Adequate Cement Strenght	_____	_____
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 D. 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. H. [Signature]

Administrator-Oil & Gas Division

April 29, 1986

DATE



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Faint, illegible text centered below the third line.

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Faint, illegible text centered below the sixth line.

Faint, illegible text centered below the seventh line.

Faint, illegible text centered below the eighth line.

Vertical text on the left side of the page, possibly a list or index, consisting of several lines of faint, illegible characters.

Main body of text in the center-right area, consisting of several paragraphs of faint, illegible text.

Handwritten signature or initials in the lower-left quadrant of the page.

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 - 3684			
2.0 Type of determination being sought: (Use the codes found on the front of this form.)	107	Section of NGPA	Category	-
3.0 Depth of the deepest completion location: (Only needed if sections 103 or 107 in 2.0 above.)	5259	feet	OCT - 4 1984	
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. OIL & GAS DIV 18084 Name DEPT. OF MINES 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.) (b) For OCS wells:	Sheridan District Field Name Calhoun County State WV - 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.)	Wilson # 863			
(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.) (b) Date of the contract:	UNDEDICATED Name Buyer Code _____ Date of Contract: _____ Mo. Day Yr.			
(c) Estimated total annual production from the well:	12 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 . 8 6 6	-----	-----
8.0 Maximum lawful rate: (As of filing date. Complete to 3 decimal places.)	S/MMBTU	5 . 8 6 6	-----	-----
9.0 Person responsible for this application:	Harry L. Berger, Jr. Designated Agent Name Title <i>Harry L. Berger Jr</i> Signature October 2, 1984 304-342-0121 Date Application is Completed Phone Number			

RECEIVED

Agency Use Only
 Date Received by Juris. Agency
OCT - 4 1984
 Date Received by FERC

12/01/2023

OCT 30 1984

DEPARTMENT OF MINES, OIL AND GAS DIVISION

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: Oct. 2, 19 84

AGENCY USE ONLY

Dev

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

WELL DETERMINATION FILE NUMBER

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

84 1004~~47~~¹⁰⁷ - ~~013~~⁰¹³ - ~~3684~~³⁶⁸⁴

Gas Purchaser Contract No. _____

Use Above File Number on all
Communications Relating to This Well

Date of Contract _____
(Month, day and year)

First Purchaser: UNDEDICATED

Designated Agent: Harry L. Berger, Jr.

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

Address: Sterling Drilling & Prod. Co., Inc
710 Virginia St., E. Arcade Bldg.
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. Agent
(Print) _____ (Title)

Signature: *Harry L. Berger Jr*
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

- 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
- X 107-3 Devonian Shale
- 107-5 Production enhancement
- 107-6 New Tight Formation
- 107-7 Recompletion Tight Formation

AGENCY USE ONLY

QUALIFIED
12/01/2023

RECEIVED

OCT - 4 1984

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: Starkey Drilling & Production Co., Inc. Agent: H.L. Berger

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-013-3684 Well Name: Nelson # 963

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 = 160 * API Units

2. Remarks:

Gamma Ray Scale = 0 → 200 API Units

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

1. GR Value = 160 * API Units

2. Calculation: $0.7 \text{ (GR Value at Base Line)}$
 $0.7 \text{ (} \underline{160} \text{ *)} = \underline{112} \text{ API Units}$

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***		
2356'	5254'		

Total Devonian Interval 2898'

Total Less Than 0.7 (Shale Base)

46'

% Less Than 0.7 (Shale Base Line) = $\frac{0.0159}{2898} \times 100 = \underline{1.59} \%$

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 949.10

WELL OPERATOR Sterling Drilling and Production Watershed Little Kanawha River
Co., Inc.

ADDRESS 710 Virginia St., East Dist. Sheridan County Calhoun Quad. Annamor 7 1/2
Charleston, WV 25301

Gas Purchase
Contract No. _____

GAS PURCHASER UNDEDICATED

Meter Chart Code _____

ADDRESS _____

Date of Contract _____

* * * * *

Date surface drilling began: 6/20/84

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

Bottom Hole Pressure. PSIA -- Pf = Pwe XLGS

$$t = 60 + (0.0075 \times 5259) + 459.67 = 559 \cdot x = \frac{1}{53.34} \times 559 = .0000335$$

$$Pf = 1030 \times 2.7183 \cdot 0.000335 \times 4240 \times 1.690 \times 1.08 = 1145 \text{ PSIA}$$

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

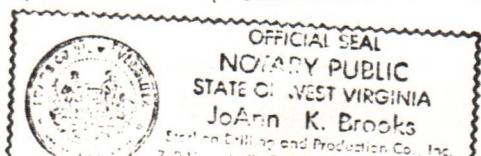
COUNTY OF Kanawha, TO-WIT:

I, 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 2nd day of October, 1984, has acknowledged the same before me, in my county aforesaid.

12/01/2023

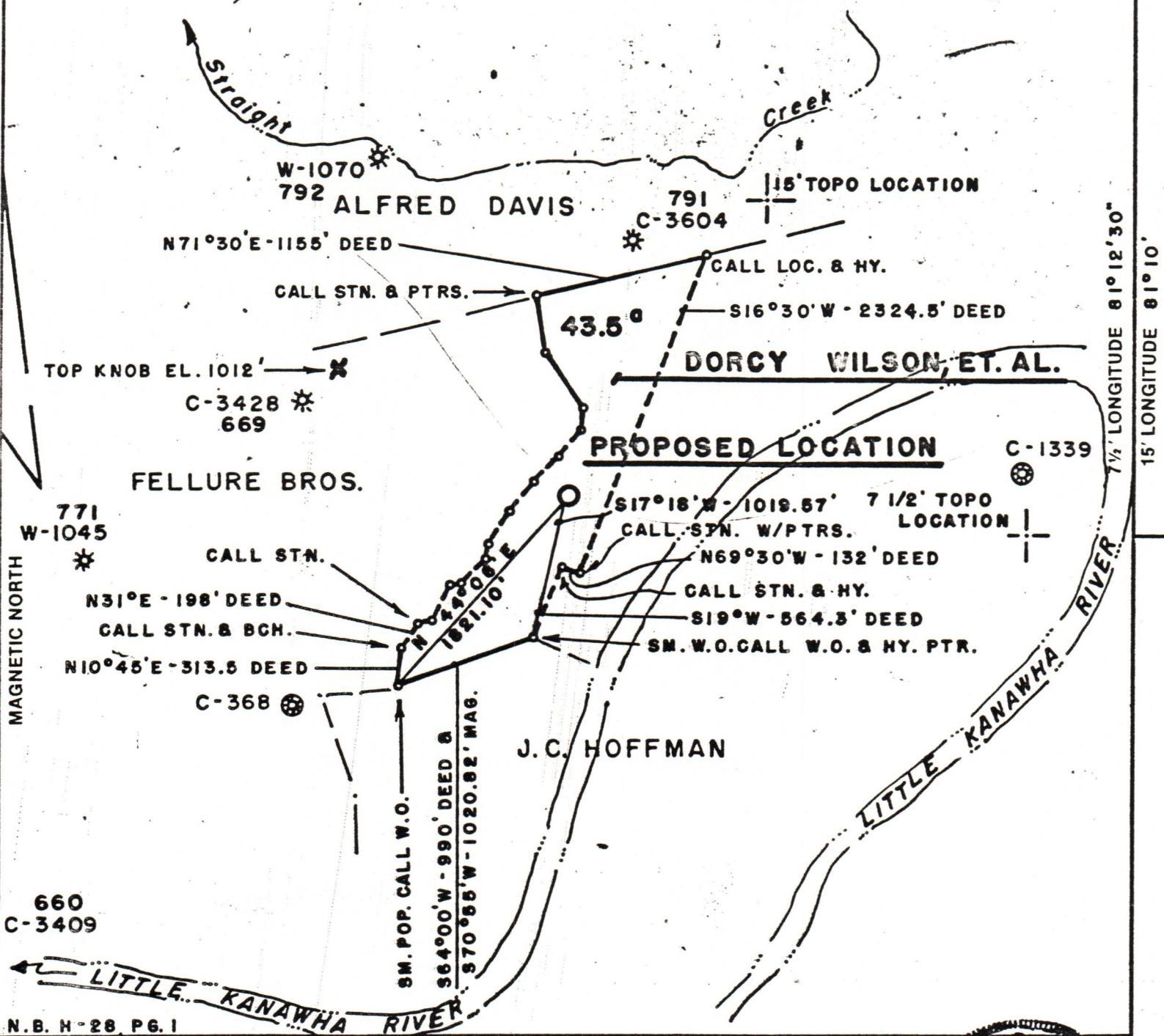
Given under my hand and official seal this 2nd day of October, 1984.
My term of office expires on the 27th day of October, 1991.

(NOTARIAL SEAL)



JoAnn K. Brooks
Notary Public

15' LATITUDE 39°00'
7 1/2' LATITUDE 39°00'

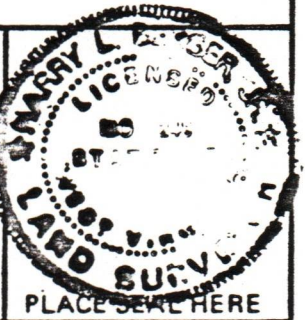


N.B. H-28, P.6.1

FILE NO. 043-017
 MAP NO. 58-A
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION U.S.G.S. DATA TOP KNOB SHOWN EL. 1012'

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)



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE NOV. 13, 19 85
 OPERATOR'S WELL NO. 863
 API WELL NO. 47-013-3684
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 949.10' WATER SHED LITTLE KANAWHA RIVER
 DISTRICT SHERIDAN COUNTY CALHOUN
 QUADRANGLE 7 1/2' ANNAMORIAH (ARNOLDSBURG N.W.)
 SURFACE OWNER ALFRED DAVIS ACREAGE 43.5
 OIL & GAS ROYALTY OWNER DORCY WILSON, ET. AL. LEASE ACREAGE 43.5 12/01/2023
 LEASE NO. 043-017

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 5200'
 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