



1) Date: _____, 19____
 2) Operator's Well No. 340-2
 3) API Well No. 47 - 87 - 3828
 State _____ County _____ Permit _____

DRILLING CONTRACTOR:

Unknown

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil X / Gas X /
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow X)
- 5) LOCATION: Elevation: 1002' Watershed: Wolfpen Run
 District: Harper County: Roane Quadrangle: Walton 7 1/2'
- 6) WELL OPERATOR Key Oil, Inc. 11) DESIGNATED AGENT Joe McLaughlin
 Address P.O. Box 709 Address P.O. Box 709
Spencer, W.Va. 25276 Spencer, W.Va. 25276
- 7) OIL & GAS ROYALTY OWNER W. H. Hersman 12) COAL OPERATOR None
 Address 710 Market St. Address _____
Spencer, W.V. 25276
- 8) SURFACE OWNER Betty F. Hopkins 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address Rt. 2 Box 19 Name None
Gandeeville, W.V. 25243 Address _____
 Acreage 144.5 Name _____
 Address _____
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Homer H. Dougherty Address _____
 Address Linden Route, Box 3-A
Looneyville, WV 25259
- 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name None Address _____
- 15) PROPOSED WORK: Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Marcellus Shale
- 17) Estimated depth of completed well, 5700 feet
- 18) Approximate water strata depths: Fresh, 52 200 500 feet; salt, 700 feet.
- 19) Approximate coal seam depths: None Is coal being mined in the area? Yes X No _____
- 20) CASING AND TUBING PROGRAM

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OIL & GAS DIVISION
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	H-40	32.3	X		300' <u>500</u>	300' <u>600</u>	To surface	by rule <u>5.05</u>
Coal									Sizes
Intermediate	7	J-55	23	X		2,200'	2,200'	To surface	
Production	4 1/2	J-55	10.5	X		5,700'	5,700'	As needed	Depths set
Tubing									
Liners									Perforations: Top Bottom

- 21) 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.)
- 22) ROYALTY PROVISIONS
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing 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.
- 23) Required Copies (See reverse side.)
- 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.
- Notary: Charles Lewis Maxwell Signed: Joe M. Laughlin
 My Commission Expires November 9, 1992 Its: President

47-087-3828

OFFICE USE ONLY

August 10, 1983

DRILLING PERMIT

09/15/2023

Permit number

Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) 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.)

Permit expires April 10, 1984 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond: <u>B</u>	Agent: <u>LS</u>	Plat: <u>PL</u>	Casing: <u>PL</u>	Fee: <u>958</u>
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Michael Lewis
Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
"Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1) A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, 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 §22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.
- 24) The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

.....

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

09/15/2023

Date: _____, 19____

By _____

Its _____

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP.

QUADRANGLE Walton 7.5

LEGEND

Well Site ⊕

Access Road ———

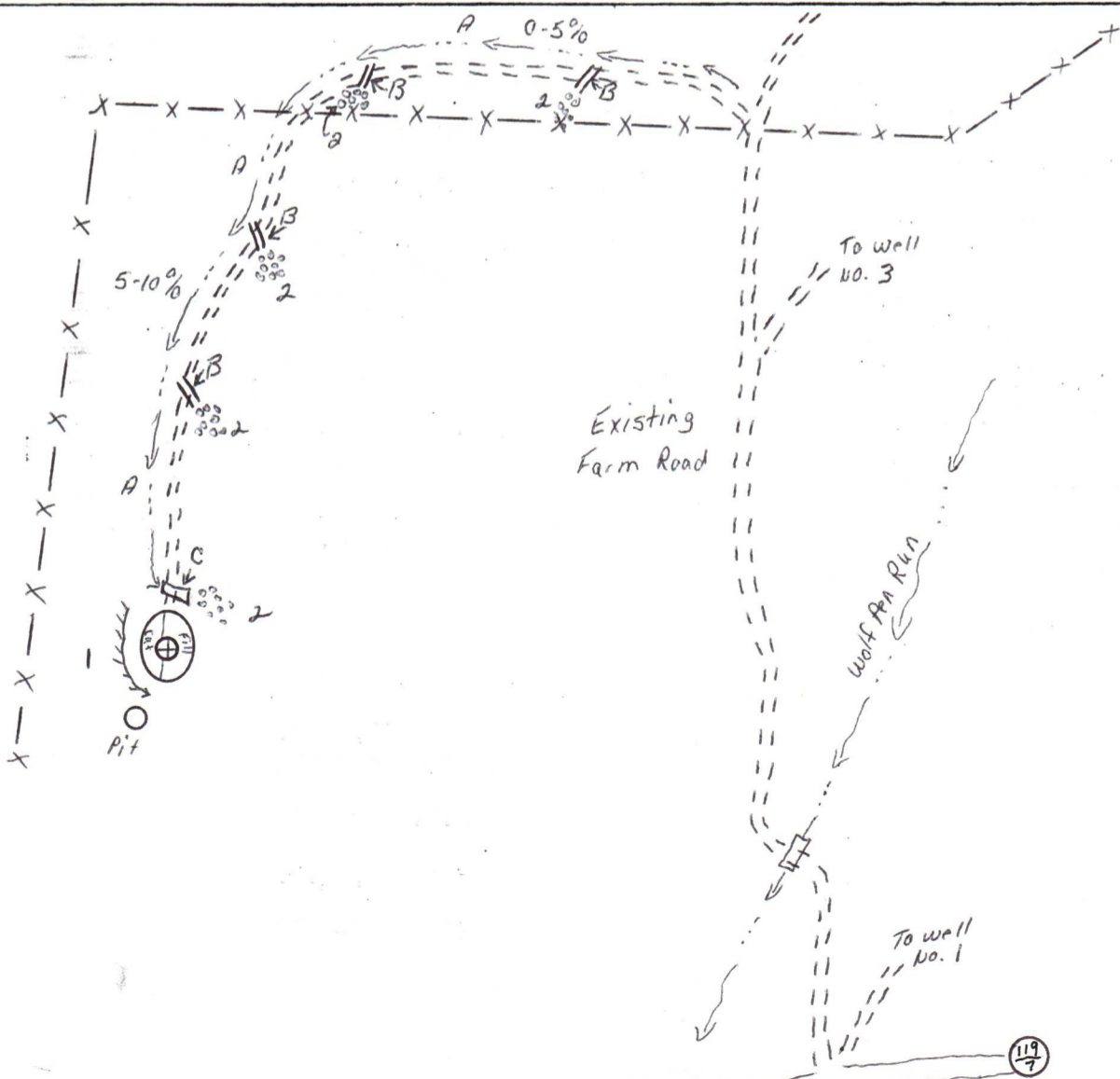


WELL SITE PLAN

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

LEGEND

- | | |
|--|--------------------------|
| Property boundary ——— ——— ——— ——— ——— | Diversion ////////////// |
| Road = = = = = | Spring ○→ |
| Existing fence — x — x — | Wet spot ☹ |
| Planned fence — / — / — | Building ■ |
| Stream ~ ~ ~ ~ ~ | Drain pipe — ○ — ○ — ○ — |
| Open ditch — ···· — ···· — ···· — ···· — | Waterway <= = = = |



09/15/2023



IV-9
(Rev 8-81)

DATE Sept. 21, 1982

WELL NO. 340-2

State of West Virginia API NO. 47 - 87 - 3828

Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Key Oil, Inc. DESIGNATED AGENT Joe McLaughlin
 Address P.O. Box 709 Spencer, W.V. 25276 Address P.O. Box 709 Spencer, W.V. 25276
 Telephone 927-5490 Telephone 927-5490
 LANDOWNER Betty F. Hopkins SOIL CONS. DISTRICT Little Kanawha
 Revegetation to be carried out by Key Oil, Inc (Agent)

This plan has been reviewed by Little Kanawha SCD. All corrections and additions become a part of this plan: 6-3-83

(Date)
Jarrett Newton
(SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>Drainage Ditch</u> (A)	Structure <u>Diversion Ditch</u> (1)
Spacing _____	Material <u>Soil</u>
Page Ref. Manual <u>2-12</u>	Page Ref. Manual <u>2-12</u>
Structure <u>Cross Drains</u> (B)	Structure <u>Rip-Rap</u> (2)
Spacing <u>80' - 400'</u>	Material <u>Stone</u>
Page Ref. Manual <u>2-1</u>	Page Ref. Manual <u>2-9</u>
Structure <u>Culvert</u> (C)	Structure _____ (3)
Spacing <u>(15")</u>	Material _____
Page Ref. Manual <u>2-7</u>	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.

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REVEGETATION

Treatment Area I & II	Treatment Area III
Lime _____ Tons/acre	Lime _____ Tons/acre
or correct to pH <u>6.5</u>	or correct to pH _____
Fertilizer <u>500</u> lbs/acre	Fertilizer _____ lbs/acre
(10-20-20 or equivalent)	(10-20-20 or equivalent)
Mulch <u>Hay or Straw</u> Tons/acre	Mulch _____ Tons/acre
Seed* <u>Orchardgrass</u> 12 lbs/acre	Seed* _____ lbs/acre
<u>Ladino Clover</u> 3 lbs/acre	_____ lbs/acre
_____ lbs/acre	_____ lbs/acre

OIL & GAS DIVISION
DEPT. OF MINEC
Treatment Area III

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

PLAN PREPARED BY Key Oil, Inc. 09/15/2023
Doug McDonald

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

ADDRESS P.O. Box 709
Spencer, W.V. 25276
PHONE NO. (304)927-5490

B-11



State of West Virginia

BARTON B. LAY, JR.
DIRECTOR

Department of Mines
Oil and Gas Division
Charleston 25305

THEODORE M. STREIT
ADMINISTRATOR

February 19, 1985

Key Oil Company
P. O. Box 709
Spencer, WV 25276

In Re: Permit No: 47-087-3828
Farm: Betty F. Hopkins
Well No: 340-2
District: Harper
County: Roane
Issued: 8-10-83

Gentlemen:

The FINAL INSPECTION REPORT for the above captioned well has been received in this office. Only the column checked below applies:

XXXXX The well designated by the above captioned permit number has been released under your Blanket Bond. (PERMIT CANCELLED - NEVER DRILLED)

Please return the enclosed cancelled single bond which covered the well designated by the above permit number to the surety company who executed said bond in your behalf, in order that they may give you credit on their records.

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

Very truly yours,

Theodore M. Streit, Administrator
Dept. Mines-Office of Oil & Gas

TMS/nw

09/15/2023

B-12

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
STATUS INSPECTION REQUEST
INSPECTOR'S COMPLIANCE REPORT

Permit No. 087-3828 County. Roane
Company. Key Oil, Inc. Farm. Betty F. Hopkins
Inspector. Homer Dougherty Well No. 340-2
Date. September 20, 1984 Issued. 8-10-83

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 Strength	_____	_____
23.02	Maintained Access Roads	_____	_____
25.01	Necessary Equipment to prevent Waste	_____	_____
23.03	Reclaimed Drilling Site	_____	_____
23.04	Reclaimed Drilling Pits	_____	_____
23.05	No Surface or Underground Pollution	_____	_____
7.03	Identification Markings	_____	_____

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OIL & GAS DIVISION
DEPT. OF MINES

COMMENTS: Please issue final on cancellation if location is okay. Permit
expired on 4-10-84 and company says well was not drilled.

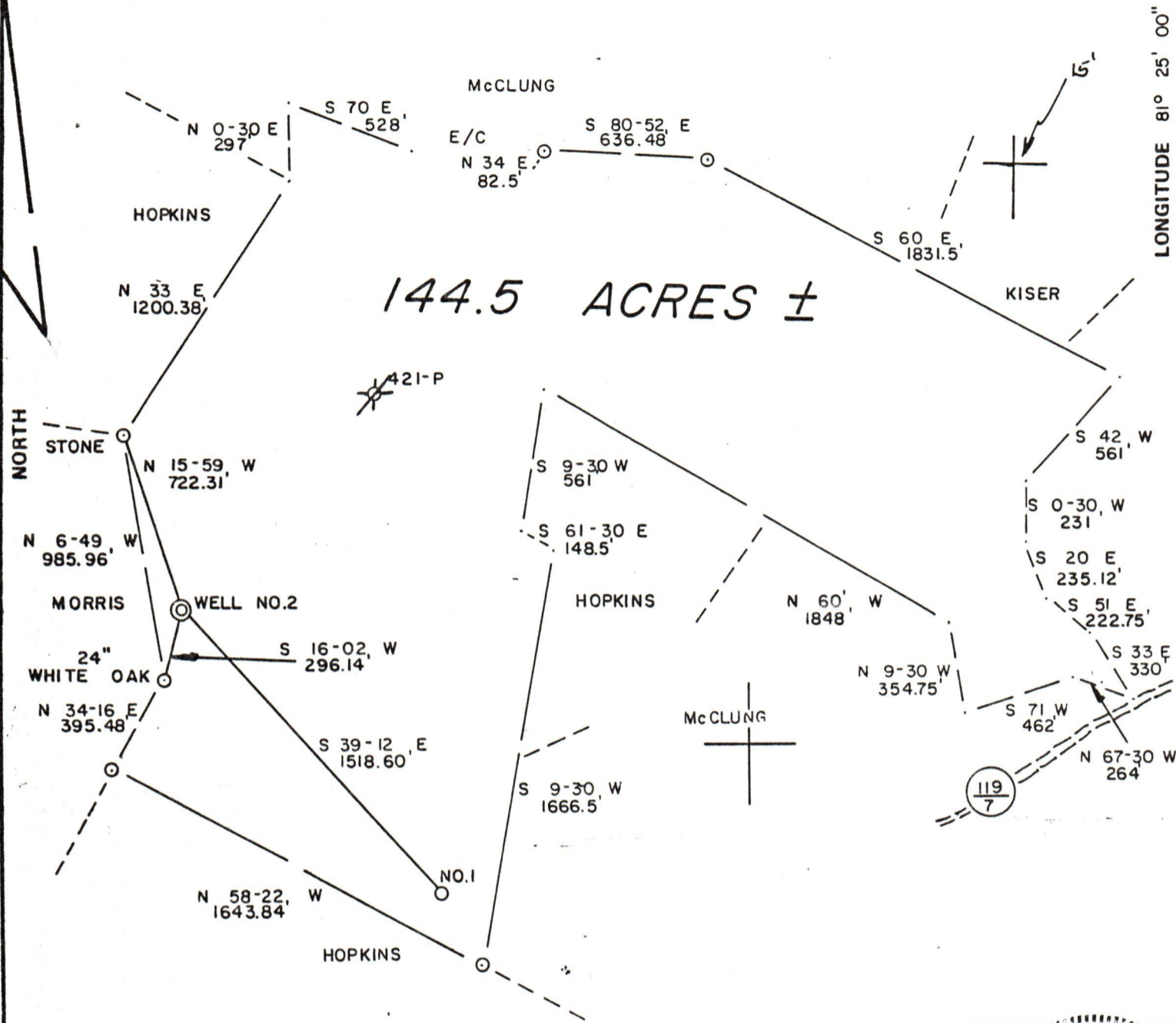
I have inspected the above well and (~~Have/Have Not~~) found it to be in compliance with all of the rules and regulations of the Office of Oil and Gas-Department of Mines of the State of West Virginia.

SIGNED: Homer H. Dougherty
DATE: 2/13/85

09/15/2023

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FEB 1 8 1983
DEPT. OF MINES
STATE OF TEXAS

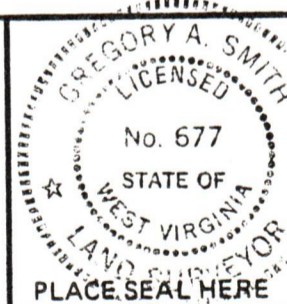
HERSMAN LEASE WELL NO. 2



FILE NO. 8-35
 DRAWING NO. _____
 SCALE 1" = 600'
 MINIMUM DEGREE OF ACCURACY 1 / 200
 PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS
 ELEV. 839'

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) Gregory A. Smith
 R.P.E. _____ L.L.S. 677



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE AUG 19, 1982
 OPERATOR'S WELL NO. 2
 API WELL NO.

47 - 087 - 3828
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION X STORAGE DEEP SHALLOW X
 LOCATION: ELEVATION 1002' WATER SHED WOLF PEN RUN
 DISTRICT HARPER COUNTY ROANE
 QUADRANGLE WALTON 7.5

SURFACE OWNER BETTY F. HOPKINS ACREAGE 144.5
 OIL & GAS ROYALTY OWNER W. H. HERSMAN LEASE ACREAGE 144.5
 LEASE NO. 340

09/15/2023

PROPOSED WORK: DRILL X 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 MARCELLUS ESTIMATED DEPTH 5100'
 WELL OPERATOR KEY OIL, INC DESIGNATED AGENT JOE McLAUGHLIN
 ADDRESS P. O. BOX 709 ADDRESS P. O. BOX 709