



1) Date: October 20, 19 84
 2) Operator's Well No. JK-1081
 3) API Well No. 085-721 State West Virginia County Ritchie Permit

RECEIVED
 OCT 31 1984

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: 886 Watershed: Buck Run
 District: Clay County: Ritchie Quadrangle: Pennsboro 7.5
- 6) WELL OPERATOR J & J Enterprises, Inc.
 Address P.O. Box 48
Buckhannon, WV 26201 *24150*
- 7) DESIGNATED AGENT Richard Reddecliff
 Address P.O. Box 48
Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Samual Hersman
 Address P.O. Box 66
Smithville, WV 26178
- 9) DRILLING CONTRACTOR:
 Name S.W. Jack Drilling Co.
 Address P.O. Box 48
Buckhannon, WV 26201
- 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, Devonian Shale
- 12) Estimated depth of completed well, 5995 feet
- 13) Approximate strata depths: Fresh, 2100 feet; salt, N/A feet.
- 14) Approximate coal seam depths: N/A 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	11 3/4	H-20	42	X		130	130'	0 sacks	Kind <u>NEAT</u>
Fresh water	8 5/8	ERW	23	X		1286	1286	To surface	
Coal	8 5/8	ERW	23	X		1286	1286	To surface	Sizes
Intermediate									
Production	4 1/2	J-55	10.5	X		5995	5945	300 sacks	Depths set
Tubing								or as required by rule 15-01	
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-085-7214

November 9, 19 84
 Date

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

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
 Permit expires November 9, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>82</u>	<u>TS</u>	<u>MD</u>	<u>MD</u>	<u>1848</u>

Margaret J. Hass
 Administrator, Office of Oil and Gas

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



STATE OF WEST VIRGINIA

DEPARTMENT OF MINES, OIL AND GAS DIVISION

OFFICE USE ONLY

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

4) WELL LOCATION: B (if "Gas," Production) _____ Underground storage _____
 Elevation: _____
 District: _____
 County: _____
 Watershed: _____
 5) WELL OPERATOR: _____
 Address: _____
 6) OIL & GAS INSPECTOR TO BE NOTIFIED: _____
 Name: _____
 Address: _____
 7) DRILLING CONTRACTOR: _____
 Name: _____
 Address: _____
 8) PROPOSED WELL WORK: Drill _____
 Plug off old formation _____
 Perforate new formation _____
 9) GEOLOGICAL TARGET FORMATION: _____
 10) Estimated depth of completed well, _____ feet
 11) Approximate true depths: Fresh _____ feet
 12) Approximate coal seam depths: _____ feet
 13) Is coal being mined in the area? Yes _____ No _____

Casing or Tubing Type	Size	Grade	Specifications		Footage Intervals		Cement Fill-Up or Packers (Cable feet)	Packers
			Weight per ft.	Length	For drilling	Left in well		
Conductor	2 1/2	API 5CT	22	130	130	130		
Fresh water	2 1/2	API 5CT	22	130	130	130		
Coal	2 1/2	API 5CT	22	130	130	130		
Intermediate								
Production								

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 _____

Permit expires _____

OTHER INSPECTIONS

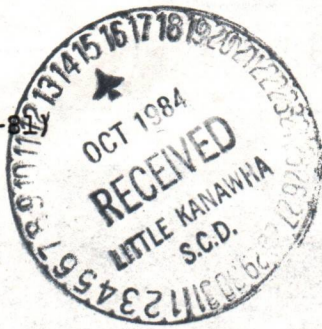
Reason:	Agent:	Plate:	Casing:	Fee:

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

12/22/2023



IV-9
(Rev 8-8)



DATE October 12, 1984
WELL NO. JK-1081
API NO. 47-085-7214

State of West Virginia
Department of Mines
Oil and Gas Division

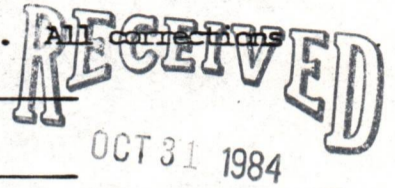
CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME J & J ENTERPRISES, INC.
Address P.O. BOX 48, BUCKHANNON, WV 26201
Telephone 472 - 9403
LANDOWNER Eugene Costilow
Revegetation to be carried out by _____

DESIGNATED AGENT RICHARD M. REDDECLIFF
Address P.O. BOX 48, BUCKHANNON, WV 26201
Telephone 472 - 9403
SOIL CONS. DISTRICT Little Kanawha
J & J ENTERPRISES, INC. (Agent)

This plan has been reviewed by Little Kanawha S.C.D.
and additions become a part of this plan: _____

10/19/84 (Date)
Randall L. Pitterson
(SCD Agent)



ACCESS ROAD

Structure Drainage Ditch (A)
Spacing Constructed along inside Rd. cuts
Page Ref. Manual 2-12
Structure Cross relief drain (B)
Spacing As per table 1 in Manual 2-4
Page Ref. Manual 2-1
Structure Stone Creek Crossing (C)
Spacing In Crossing & Along Each Bank
Page Ref. Manual _____

LOCATION OIL & GAS DIVISION
DEPT. OF MINES

Structure Diversion Ditch (1)
Material Earthen
Page Ref. Manual 2-12
Structure Rip-Rap (2)
Material Brush & Logs
Page Ref. Manual N/A
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 3 Tons/acre
or correct to pH 6.5
Fertilizer 600 lbs/acre
(10-20-20 or equivalent)
Mulch Hay 2 Tons/acre
Seed* KY-31 30 lbs/acre
Annual Rye 10 lbs/acre
Red Clover 5 lbs/acre

Treatment Area II

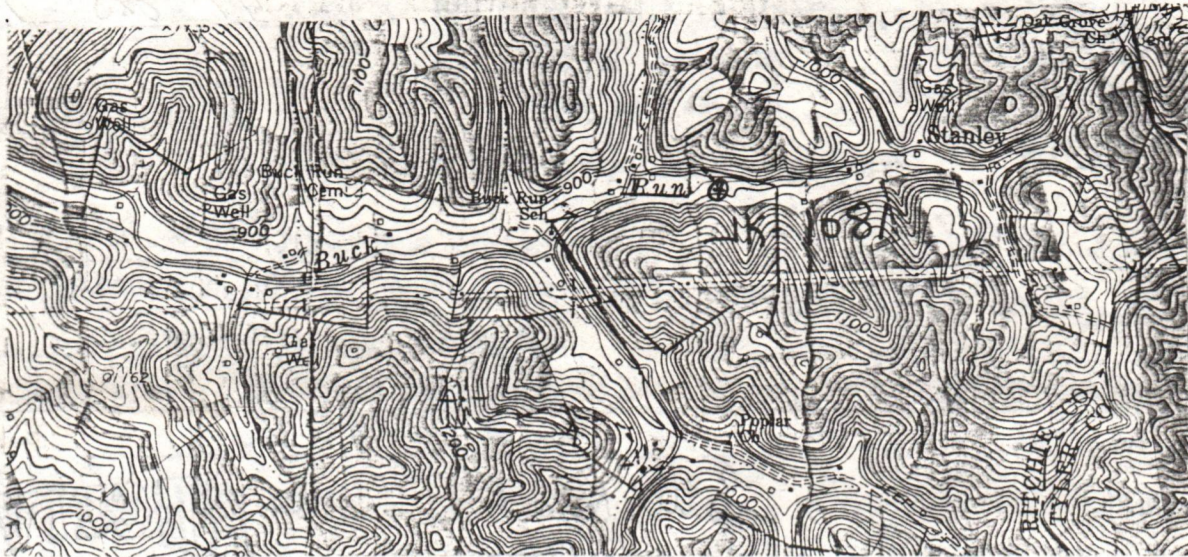
Lime 3 Tons/acre
or correct to pH 6.5
Fertilizer 600 lbs/acre
(10-20-20 or equivalent)
Mulch Hay 3 Tons/acre
Seed* Orchard Grass 30 lbs/acre
Ladino Clover 5 lbs/acre
Red Clover 5 lbs/acre

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

PLAN PREPARED BY Smith Land Surveying 12/22/2023

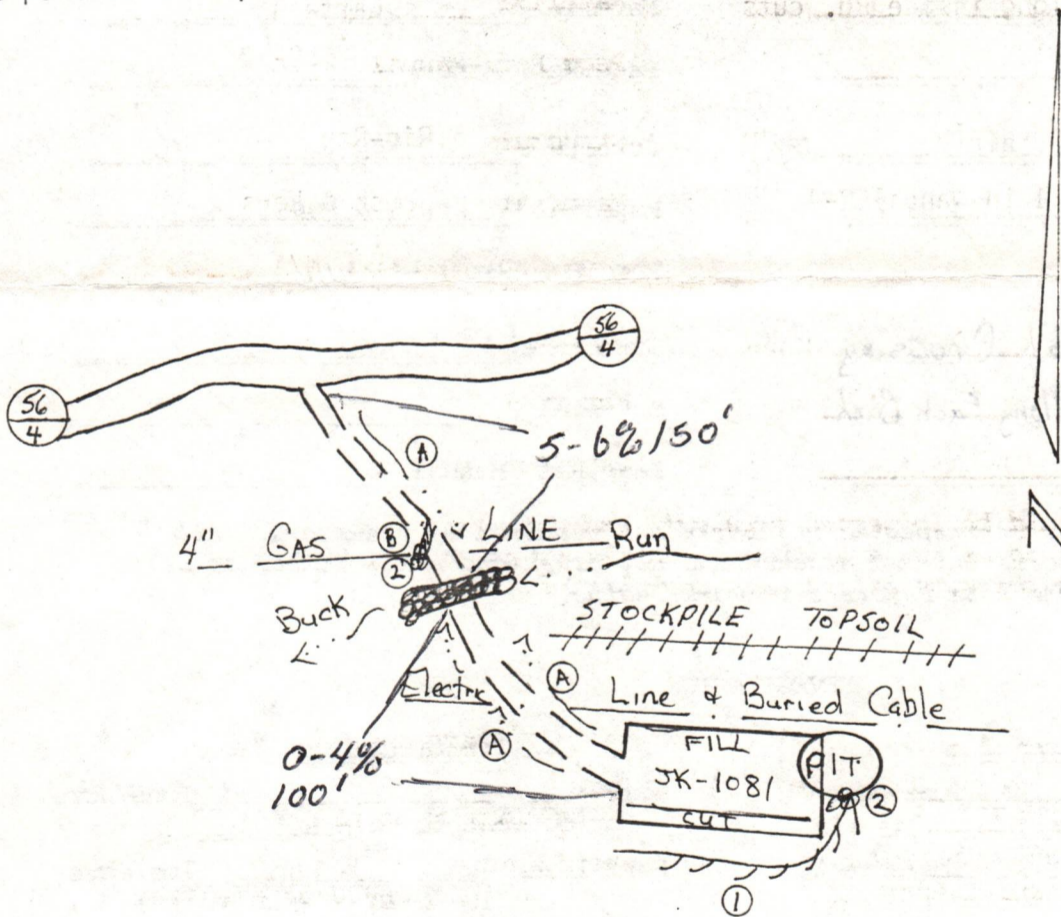
ADDRESS 111 South Street
Glenville, WV 26351
PHONE NO. 462 - 5634

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



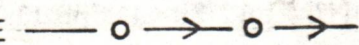
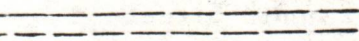
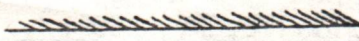
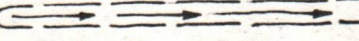

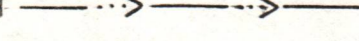
WELL SITE PLAN



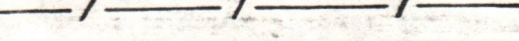



Sketch to include well location, existing access road, roads to be constructed, well-site, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.



Access road subject to change between company and land owner, or aquirement of right-of-way. If change is made , a revised reclamation plan will be submitted. All cuts 2:1 slope. All topsoil to be stockpiled and used in reclamation. All grades for roads and locations as well as sediment structures shown on drawing.

LEGEND

- DRAIN PIPE 
- ROAD 
- DIVERSION 
- WATERWAY 
- STREAM 
- OPEN DITCH 

- PROPERTY BOUNDARY  12/22/2023
- EXISTING FENCE 
- PLANNED FENCE 
- BUILDING 
- WET SPOT 
- SPRING 

SLS
SMITH LAND SURVEYING CO.
111 SOUTH ST.
GLENVILLE, WV. 26351

1) Date: October 20, 1984
 2) Operator's Well No. JK-1081
 3) API Well No. 47-085-7214
 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 Eugene Costilow
 Address 3121 Evelyn Avenue
Loraine, Ohio 44052
- (ii) Name _____
 Address _____
- (iii) Name _____
 Address _____

5(i) COAL OPERATOR N/A
 Address _____

5(ii) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Name N/A
 Address _____

P 574 016 002

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

TO THE PERSON(S) NAMED ABOVE

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

THE REASON YOU RECEIVED THIS APPLICATION IS AS DESCRIBED IN THE APPLICATION (FORM IV-2(B) OR FORM 4, ACTION AT ALL.

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

- 6) EXTRACTION RIGHTS
 Check and provide one of the following:
 Included is the land I hold the right to.
 The requirement of the lease.
 The requirement of the lease.
- 7) ROYALTY PROVISIONS
 Is the right to extract or other contract or for compensation to the volume of oil or gas produced or to be produced.

Sent to <u>Eugene Costilow</u>	
Street and No. <u>3121 Evelyn Avenue</u>	
P.O., State and ZIP Code <u>Loraine, Ohio 44052</u>	
Postage	\$ 37
Certified Fee	75
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	60
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees, WV	\$ 1.72
Postmark for Date 22 OCT 1984 USPS	

* U.S.G.P.O. 1983-403-517

PS Form 3800, Feb. 1982

DECLARATION ON RECORD:
N/A

including documents:

the well is
 other work,
 and casing and

is only to
 and for

THE APPLICATION
 IS APPLICABLE
 TAKE ANY

RECEIVED

OCT 31 1984

and well operation documents
 : Virginia
 and Application
 : plat, and the
 mail or delivered
 s) on or

OIL & GAS DIVISION
 DEPT. OF MINES

by which
 specifics.)

or leases
 or provision
 tly related

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
Richard Reddecliff

this 20 day of October, 19 84.
 My commission expires 12/7, 19 92.

Gregory A. Smith
 Notary Public, Gilmer County,
 State of West Virginia

WELL OPERATOR J & J Enterprises, Inc.

By Richard M. Reddecliff
 Its Designated Agent
 Address P.O. Box 48
Buckhannon, WV 26201
 Telephone 472-9403

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>
Eugene Costilow	J & J Enterprises, Inc.	1/2	167/293
Marshall Dotson Heirs	no leasing rights	1/2	

SURFACE OWNER'S COPY



1) Date: October 20, 19 84
 2) Operator's Well No. JK-1081
 3) API Well No. 47
 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 X /
 B (If "Gas", Production X / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 886 Watershed: Buck Run
 District: Clay County: Ritchie Quadrangle: Pennsboro 7.5
- 6) WELL OPERATOR J & J Enterprises DESIGNATED AGENT Richard Reddecliff
 Address P.O. Box 48 Address P.O. Box 48
Buckhannon, WV 26201 Buckhannon, WV 26201
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Samuel Hersman
 Address P.O. Box 66
Smithville, WV 26178
- 9) DRILLING CONTRACTOR: Name _____ 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, Devonian Shale
- 12) Estimated depth of completed well, 5995 feet
- 13) Approximate strata depths: Fresh, 100 feet; salt, N/A feet.
- 14) Approximate coal seam depths: N/A Is coal being mined in the area? Yes _____ / No X /
- 15) CASING AND TUBING PROGRAM

RECEIVED
 OCT 31 1984
 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		Kinds	Sizes
Conductor	1 3/4	H-20	42	X		30	0	0 sacks		
Fresh water	8 5/8	ERV	23	X		1286	1286	To surface		
Coal	8 5/8	ERV	23	X		1286	1286	To surface		
Intermediate										
Production	4 1/2	J-55	10.5	X		5995	5945	300 sacks		
Tubing								or as required by rule 15-01		
Liners									Perforations:	
									Top	Bottom

The law requires a comment period for surface owners. However, the permit can be issued in less than 15 days from 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, and that I have received copies 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-2(B), (3) a survey plat on Form IV-6, and (4) a Construction and Reclamation Plan on Form IV-9, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued based on those materials.

(For execution by corporation, partnership, etc.)

(For execution by natural persons)

NAME: _____

X Eugene Costilow
(Signature)

Date: 10-24-84

By _____

Its _____ Date _____

(Signature) _____ Date: _____

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

**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.

12/22/2023
Surface Owner



RECEIVED

APR 17 1985

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date April 16, 1985
Operator's Well No. JK-1081
Farm Costilow
API No. 47 - 085 - 7214

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: 886 Watershed Buck Run
District: Clay County Ritchie Quadrangle Pennsboro 7.5

COMPANY J&J Enterprises, Inc.

ADDRESS P.O. Box 48, Buckhannon, WV 26201

DESIGNATED AGENT Richard Reddecliff

ADDRESS P.O. Box 48, Buckhannon, WV 26201

SURFACE OWNER Eugene Costilow

ADDRESS 3121 Evelyn Ave. Loraine, OH 44052

MINERAL RIGHTS OWNER Same as surface

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK Samuel

Hersman ADDRESS P.O. Box 66, Smithville, WV

PERMIT ISSUED 11/9/84

DRILLING COMMENCED 3/13/85

DRILLING COMPLETED 3/21/85

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"	81	81	0 sks.
9 5/8			
8 5/8	1525.15	1525.15	330 sks.
7			
5 1/2			
4 1/2	5874.55	5874.55	430 sks.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 5658-68 feet

Depth of completed well 5957 feet Rotary x / Cable Tools

Water strata depth: Fresh 35,40,65 feet; Salt 0 feet

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

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 5658-5768 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Ebl/d

Combined Final open flow 1,161 Mcf/d Final open flow Ebl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1700 psig (surface measurement) after 96 hours shut in

(If applicable due to multiple completion--)

Second producing formation Alexander, Benson & Riley Pay zone depth 5022-32 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Ebl/d

Final open flow Mcf/d Oil: Final open flow Ebl/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)

434159
4731-33
5022-32
12/22/2023

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

Devonian Shale: Perforations: 5658-66 (8 holes) 5706-08 (4 holes) 5766-68 (4 holes)
 Fracturing: 300 sks. 20/40 sand: 557 Bbls. fluid.
 Alexander: Perforations: 5022-32 (14 holes)
 Fracturing: 400 sks. 20/40 sand: 555 Bbls. fluid.
 Benson: Perforations: 4731-33 (8 holes)
 Fracturing: 170 sks. 20/40 sand:
 Riley: Perforations: 4340-44 (7 holes) 4350-52 (7 holes) 4358-59 (4 holes)
 Fracturing: 250 sks. 20/40 sand: 422 Bbls. fluid:

BOTTOM HOLE PRESSURE $P_f = P_{we}^{XGLS}$
 $t = 60 + (0.0075 \times 5875) + 459.7 = 564$ $X = 53.35 \times 564 = 30077$ $= 0.000033$ $P_f = 1700 \times 2.72^{(0.000033)}$
 $(0.695)(5054)(0.9) = 1700 \times 2.72^{0.1} = 1700 \times 1.1$
 Pf = 1870 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all and salt water, coal, oil and
Fill & red rock			0	15	
Red rock & shale			15	35	Damp @ 35'
Sand, shale & red rock			35	170	
Sand, red rock & shale			170	390	1/2" stream @ 40'
Sand & shale			390	685	
Red rock, sand & shale			685	900	1/2" stream @ 65'
Shale & sand			900	1150	
Sand & shale			1150	1185	1 1/2" stream @ 75'
Sand & shale			1185	1495	
Sand			1495	1700	More water @ 82'
Little lime			1700	1735	
Big Lime			1735	1815	More @ 1120'
Injun			1815	1885	
Shale & sand			1885	4340	Gas ck @ 1875
Riley			4340	4359	Gas ck @ 1925
Sand & shale			4359	4731	Gas ck @ 2547
Benson			4731	4733	} Blew water out of tube through 2"
Sand & shale			4733	5022	
Alexander			5022	5032	Gas ck @ 2856 80/10-2" w/water 377,000 cu.ft.
Sand & shale			5032	5658	
Devonian Shale			5658	5768	Gas ck @ 3912 70/10-2" w/water 353,000 cu.ft.
Shale			5768	5957	
				T.D.	Gas ck @ 4438 90/10-2" w/water 400,000 cu.ft.
					Gas ck @ 5431 70/10-2" w/water 353,000 cu.ft.

(Attach separate sheets as necessary)

J&J Enterprises, Inc.

Well Operator

12/22/2023

By:

Date: 4/16/85

Robert Dahlin/Geologist

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
 encountered in the drilling of a well."

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

RECEIVED
MAR 26 1985

INSPECTOR'S WELL REPORT OIL & GAS DIVISION
DEPT. OF MINES

Permit No. 085-7214

Oil or Gas Well _____
(KIND)

Company JFS

Address _____

Farm EUGENE COSTLOW

Well No. JFE 1081

District CLAY County RITCHIE

Drilling commenced _____

Drilling completed _____ Total depth _____

Date shot _____ Depth of shot _____

Initial open flow _____ /10ths Water in _____ Inch

Open flow after tubing _____ /10ths Merc. in _____ Inch

Volume _____ Cu. Ft.

Rock pressure _____ lbs. _____ hrs.

Oil _____ bbls., 1st 24 hrs.
2" AT 65'

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 85% SIZE 1525' No. FT. 3-16-85 Date

NAME OF SERVICE COMPANY 330-SKS HALLIBROOK

COAL WAS ENCOUNTERED AT No FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

_____ FEET _____ INCHES FEET _____ INCHES

Drillers' Names S. W. JACK - Rig 22 - HEAVY

Remarks: Rig Repaired

Visit Rig - 2750' AND DUSTING - HAD GOOD SHOW OF GAS
AT 1925' BLOWED H.2.O. OUT OF U-TUB.
ON-3-16-85 T.O. 10 7/8" HOLE AT 1600'

3-19-85 Pit's good

Nick Umbsa
DISTRICT WELL INSPECTOR

12/22/2023

Form 26
2/16/82

RECEIVED
MAR 2 9 1982
OIL & GAS DIVISION
DEPT. OF MINES

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: _____

I hereby certify I visited the above well on this date.

DATE

DISTRICT WELL INSPECTOR

12/22/2023

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

RECEIVED
DEC 4 - 1984

OIL & GAS DIVISION

INSPECTOR'S WELL REPORT DEPT. OF MINES

Permit No. 85-7214

Oil or Gas Well _____
(KIND)

Company <u>J+J Enterprises Inc.</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Eugene Costilow</u>	16			Kind of Packer _____
Well No. <u>JK-1081</u>	13			
District <u>Clay</u> County <u>Ritchie</u>	10			Size of _____
Drilling commenced _____	8 1/4			
Drilling completed _____ Total depth _____	6 5/8			Depth set _____
Date shot _____ Depth of shot _____	5 3/16			
Initial open flow _____ /10ths Water in _____ Inch	3			Perf. top _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	2			Perf. bottom _____
Volume _____ Cu. Ft.	Liners Used			Perf. top _____
Rock pressure _____ lbs. _____ hrs.				Perf. bottom _____
Oil _____ bbls., 1st 24 hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Fresh water _____ feet _____ feet	NAME OF SERVICE COMPANY _____			
Salt water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names _____

Remarks: Visit with Greg Kenger (D.M.R.)
Check on construction work - access road rocked to
creek crossing - culvert not yet installed - Location
completed all brush work done.

11-30-84
DATE

Samuel H. Hester
1212212023
DISTRICT WELL INSPECTOR

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: _____

_____ I hereby certify I visited the above well on this date.

DATE

DISTRICT WELL INSPECTOR
12/22/2023

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

RECEIVED
JUL 3 - 1985
OIL & GAS DIVISION
DEPT. OF MINES

Company: J & J ENTERPRISES
Farm: COSTILOW, EUGENE

Well: JK-1081

(11-09-84)
Permit No. 47- 85-7214
County: RITCHIE

Rule	Description	In Compliance	
		Yes	No
23.06	Notification prior to starting work	✓	
25.04	Prepared before drilling to prevent waste		
25.03	High pressure drilling	✓	
16.01	Required permits at wellsite	✓	
15.03	Adequate Fresh Water Casings		
15.02	Adequate Coal Casings		
15.01	Adequate Production Casings		
15.04	Adequate Cement Strength		
15.05	Cement Type		
23.02	Maintained Access Roads	✓	
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 Samuel M. Heroman

DATE 6-26-85

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

T. H. ...
Administrator

July 11, 1985
Date

FERC-121

1.0 API well number: (If not available, leave blank. 11 digits.)	47-085-7214			
2.0 Type of determination being sought (Use the codes found on the front of this form.)	107 Section of NGPA	N/A Category Code		
3.0 Depth of the deepest completion location (Only enter if sections 103 or 107 in 2.0 above.)	5032 feet			
4.0 Name, address and code number of applicant (35 letters per line maximum. If code number not available, leave blank.)	J & J Enterprises, Inc. Name P.O. Box 697		009480 Suffix Code	
	Street Indiana, PA	15701 Zip Code		
	City	State		
5.0 Location of this well (Complete (a) or (b).) (a) For onshore wells (35 letters maximum for field name.)	Clay Field Name Ritchie		WVA State	
	County			
(b) For OCS wells:	N/A 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.)	JK-1081			
(d) If code 4 or 5 in 2.0 above, name of the reservoir (35 letters maximum.)	N/A			
6.0 (a) Name and code number of the purchaser (35 letters and digits maximum. If code number not available, leave blank.)	Purchaser not yet designated			
	Name		Suffix Code	
(b) Date of the contract.	Mo. Day Yr.			
(c) Estimated annual production:	MMcf			
	(a) Base Price (\$/MMBTU)	(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.)	5 9 8 2	2 7 8	---	6 2 6 0
8.0 Maximum lawful rate (As of filing date. Complete to 3 decimal places.)	5 9 8 2	2 7 8	---	6 2 6 0
9.0 Person responsible for this application	Richard J. Kline Secretary			
Agency Use Only	Name Richard J. Kline		Title Secretary	
Date received by Joint Agency	Signature			
MAY 29 1985	Date application is completed 5-24-85		Phone Number (412) 349-6800	
Date received by FERC	12/22/2023			

JUN 14 1985

COVER SHEET, STATE APPLICATION FOR WELL CLASSIFICATION

Date: May 24, 1985

24150

AGENCY USE ONLY

Dr

Applicant's Name: J & J ENTERPRISES, INC.

Address: P.O. Box 697

Indiana, PA. 15701

Gas Purchaser Contract No. _____

Date of Contract _____
(Month, day and year)

First Purchaser: P 629

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

(City) _____ (State) _____ (Zip Code) _____

FERC Seller Code 009480

FERC Buyer Code _____

WELL DETERMINATION FILE NUMBER
850529 -1073-085 - 7214
Use Above File Number on all
Communications Relating to This Well

Designated Agent: Richard Reddecliff

Address: P.O. Box 48

Buckhannon, WVA 26201

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

Name: Vicki Vanderberg

Signature: *Vicki Vanderberg* (Print) _____ (Title) _____

Address: P.O. Box 697

(Street or P.O. Box)
Indiana, PA. 15701

(City) _____ (State) _____ (Zip Code) _____
412) 349-6800

Telephone: _____
(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 Buildup

AGENCY USE ONLY

9
QUALIFIED
12/22/2023

RECEIVED

MAY 29 1985

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

Date Received

Determination Date

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

Operator: J & J Enterprises, Inc.

Agent: Richard Reddecliff

Type Determination being sought - 107 (Devonian Shale)

API Well No.: 47-085-7214

Well Name: Costilow JK-1081

West Virginia Office of Oil and Gas
 References: SJA File No.

County: Ritchie

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 = 170 * API Units
2. Remarks:

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

1. GR Value = 119 * API Units
2. Calculation: $\frac{0.7 \text{ (GR Value at Base Line)}}{0.7 \text{ (} \underline{170} \text{ *)} = \underline{119} \text{ API Units}$

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***		
2274'	5954'	3680'	48.5'

Total Devonian Interval 3680'

Total Less Than 0.7 (Shale Base) 48.5'

% Less Than 0.7 (Shale Base Line) = $\frac{0.0132}{1} \times 100 = \underline{1.32} \%$ 12/22/2023

*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.

Date May 24, 1985

Operator's
Well No. JK-1081

API Well No.
47 - 085 - 7214
State County Permit

WELL CLASSIFICATION FORM
HIGH COST GAS WELL - DEVONIAN SHALE
NGPA Section 107

DESIGNATED AGENT Richard Reddecliff

ADDRESS P.O. Box 48
Buckhannon, West Virginia, 26201

LOCATION Elevation 886
Watershed Buck Run

Dist. Clay County Ritchie Quad. Pennsboro

Gas Purchase
Contract No. _____

Meter Chart Code _____

Date of Contract _____

WELL OPERATOR J & J Enterprises, Inc.

ADDRESS P.O. Box 697
Indiana, PA 15701

GAS PURCHASER Not Yet Designated

ADDRESS _____

* * * * *

Date surface drilling began: March 13, 1985

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

BOTTOM HOLE PRESSURE $Pf = Pwe^{XGLS}$
 $t=60 + (0.0075 \times 5875) + 459.7 = 564$ $X = \frac{1}{53.35} \times \frac{1}{564} = 30077 = 0.000033$ $Pf = 1700 \times 2.72^{0.000033}$
 $(0.695)(5054)(0.9) = 1700 \times 2.72^{0.1} = 1700 \times 1.1$
Pf= 1870 psi

AFFIDAVIT

I, James H. McElwain, 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.

James H. McElwain

STATE OF ~~WEST VIRGINIA~~ PA
COUNTY OF Indiana, TO-WIT:

I, Vicki L. Vanderberg, a Notary Public in and for the state and county aforesaid, do certify that James H. McElwain, whose name is signed to the writing above, bearing date the 24 day of May, 1985, has acknowledged the same before me, in my county aforesaid.

12/22/2023

Given under my hand and official seal this 24 day of May, 1985.
My term of office expires on the 23 day of January, 198488.

(NOTARIAL SEAL)

Vicki L. Vanderberg
VICKI L. VANDERBERG, NOTARY PUBLIC
MY Notary Public 1.23.1988
Member, Pennsylvania Association of Notaries

17751 11/9/97

7580'

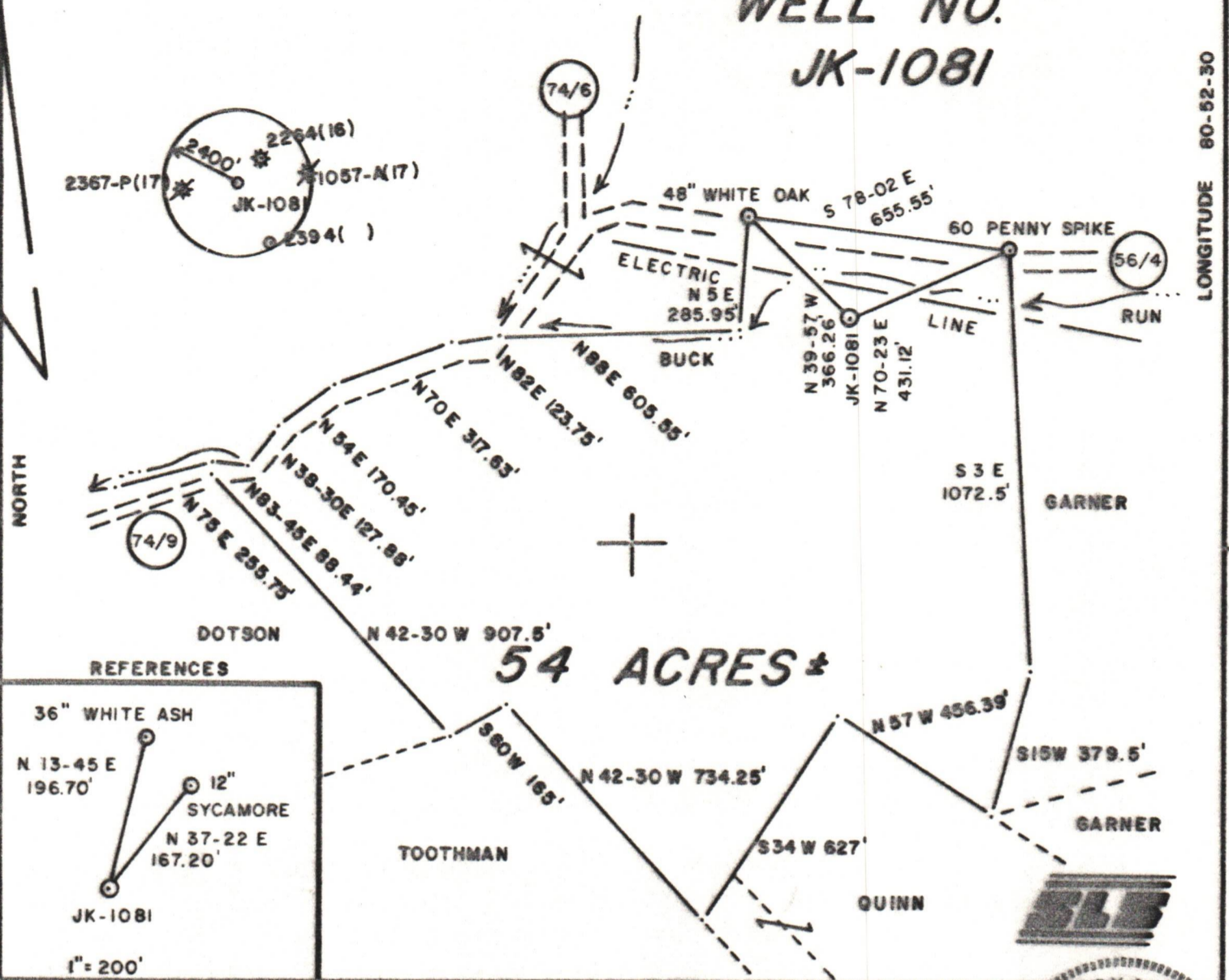
LATITUDE 39-20-00

EUGENE COSTILOW LEASE

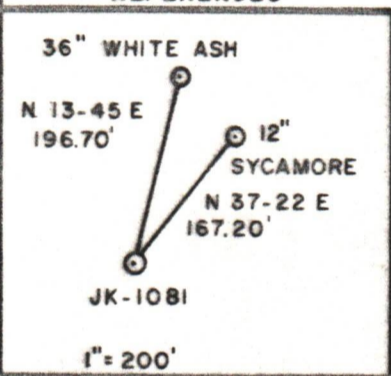
WELL NO. JK-1081

LONGITUDE 80-52-30

9230'



REFERENCES

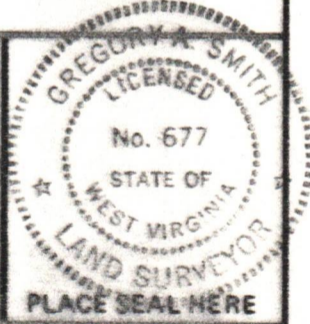


54 ACRES ±

FILE NO. 15-32
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
ELEV. = 1270'

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



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



DATE OCTOBER 13, 19 84
 OPERATOR'S WELL NO. JK-1081
 API WELL NO. _____
47-085-7214
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 886' WATER SHED BUCK RUN
 DISTRICT CLAY COUNTY RITCHIE
 QUADRANGLE PENNSBORO 7.5'
 SURFACE OWNER EUGENE COSTILOW ACREAGE 54
 OIL & GAS ROYALTY OWNER EUGENE COSTILOW LEASE ACREAGE 54
 LEASE NO. JJ-1521
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW
 FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 5595'
 WELL OPERATOR J&J ENTERPRISES, INC. DESIGNATED AGENT RICHARD REDDECLIFF
 ADDRESS P.O. BOX 48 ADDRESS P.O. BOX 48
BUCKHANNON, WV 26201 BUCKHANNON, WV 26201

12/22/2023