



1) Date: August 26 19 83
 2) Operator's Well No. KEM #424
 3) API Well No. 47 -035-1896
 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: 741 Watershed: Sycamore Creek
 District: Ripley County: Jackson Quadrangle: Ripley
- 6) WELL OPERATOR Kaiser Exploration and Mining Co DESIGNATED AGENT R. A. Pryce
 Address P. O. Box 8 Address Same
Ravenswood, WV 26164
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Homer Dougherty
 Address Linden Rt., Box 3A
Looneyville, WV
- 9) DRILLING CONTRACTOR: Name Clint Hurt
 Address P. O. Box 388
Elkview, WV
- 10) PROPOSED WELL WORK: Drill X / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Devonian Brown Shale
- 12) Estimated depth of completed well, 4841 feet
- 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: _____ 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	10 3/4"			X		250	250	150 sks class A to surface	
Coal								100 sks class A	
Intermediate	7			X		2280	2280	65 sks 50/50 pozmix	
Production	4 1/2			X		4841	4841	225 sks 50/50 pozmix	
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-035-1896 Date September 14, 19 83

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 September 14, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: BLANKET BOND	Agent: <u>lo</u>	Plat: <u>19.</u>	Casing: <u>T.S.</u>	Fee: <u>964</u> <u>919</u>
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[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

1) WELL IDENTIFICATION: B (1) Gas, Production

2) LOCATION: Elevation: 588, Watered: Sycamore Creek, County: Ripley, District: Ripley

3) WELL OPERATOR: Kaiser Exploration and Mining Co., Designated Agent: R. A. Proctor, Address: P. O. Box 8, Ravenswood, WV 26182

4) DRILLING CONTRACTOR: Name: Clint Kopp, Address: P. O. Box 388, Elkview, WV 26039

5) PROPOSED WELL WORK:

- 1) Drill 100' deep
- 2) Plug off old formation
- 3) Perform new formation
- 4) Other physical change in well (specify): Deviation Brown Shale

6) ESTIMATED DEPTH OF COMPLETED WELL: 100 feet

7) APPROXIMATE BATHYMETRIC DEPTH: 100 feet

8) APPROXIMATE COAL SEAM DEPTH: 100 feet

9) COAL BEING MINED IN THE AREA: Yes

Casing or Tubing	Size	Length	SPECIFICATIONS		Type of stringer	Cement or Grout	Remarks
			Weight per foot	Grade			
10 3/4"	10 3/4"	250'	X		150 sks class A to surface		
7"	7"	220'	X		100 sks class A to surface		
4 1/2"	4 1/2"	220'	X		55 sks 50/50 mix		
		220'	X		220 sks 50/50 mix		

OFFICE USE ONLY

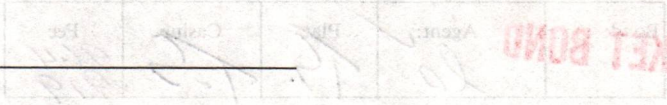
This part of Form IV-2(b) is to record the dates of certain occurrences and any follow-up inspections.

Date	Date(s)
Application received	Follow-up inspection(s)
Well work started	"
Completion of the drilling process	"
Well Record received	"
Reclamation completed	"

OTHER INSPECTIONS

Reason: _____

Reason: _____



09/08/2023

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

For the reverse file of the APPLICANT'S COPY for instructions to the well operator.



IV-9
(Rev 8-81)

DATE August 23, 1983

WELL NO. KEM #424

State of West Virginia
Department of Mines
Oil and Gas Division

API NO. 47-035-1896

RECEIVED
SEP 6 - 1983
DEPT. OF MINES
OIL & GAS DIVISION

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Kaiser Exploration and Mining Co DESIGNATED AGENT R. A. Pryce
Address P. O. Box 8, Ravenswood, WV Address Same
Telephone 273-5371 Telephone _____
LANDOWNER Claude E. Goodwin SOIL CONS. DISTRICT Western
Revegetation to be carried out by Kaiser Exploration and Mining Company (Agent)

This plan has been reviewed by Western SCD. All corrections and additions become a part of this plan: Aug 23, 1983 (Date)
Wayne W. Hughes (SCD Agent)

ACCESS ROAD	LOCATION
Structure <u>Road Culvert</u> (A) Spacing <u>12" diameter</u> Page Ref. Manual <u>2:7</u>	Structure <u>None required</u> (1) Material _____ Page Ref. Manual _____
Structure <u>Drainage Ditch</u> (B) Spacing <u>Earthen</u> Page Ref. Manual <u>2:12</u>	Structure _____ (2) Material _____ Page Ref. Manual _____
Structure <u>Cross Drains</u> (C) Spacing <u>80', 250'</u> Page Ref. Manual <u>2:4</u>	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	Treatment Area II
Lime <u>4</u> Tons/acre or correct to pH _____	Lime <u>Same as Area I</u> Tons/acre or correct to pH _____
Fertilizer <u>14-14-14</u> 600 lbs/acre (10-20-20 or equivalent)	Fertilizer _____ lbs/acre (10-20-20 or equivalent)
Mulch <u>Hay</u> 2 Tons/acre	Mulch _____ Tons/acre
Seed* <u>81% Orchard Grass/15% Ry</u> 16 lbs/acre	Seed* _____ lbs/acre
<u>Kentucky 31 Fescue</u> 16 lbs/acre	_____ lbs/acre
<u>Red Clover</u> 8 lbs/acre	_____ lbs/acre

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

PLAN PREPARED BY Vincent Wood 09/08/2023

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

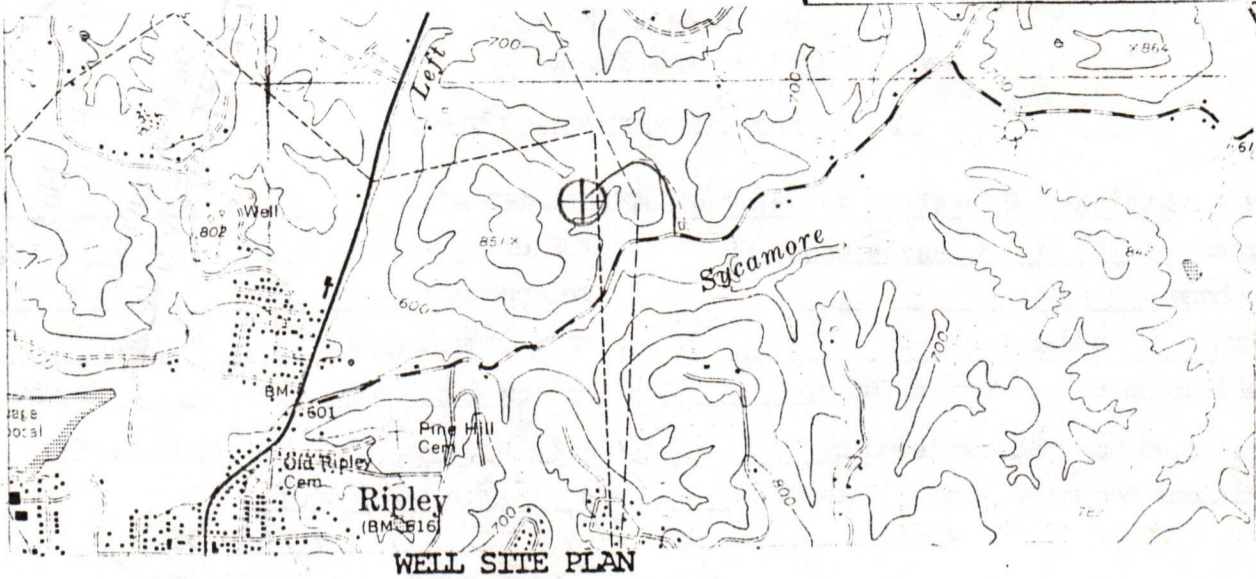
ADDRESS 116 Ppost Avenue
Ripley, WV 25271
PHONE NO. 372-2709

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE RIPLEY

LEGEND

Well Site ⊕

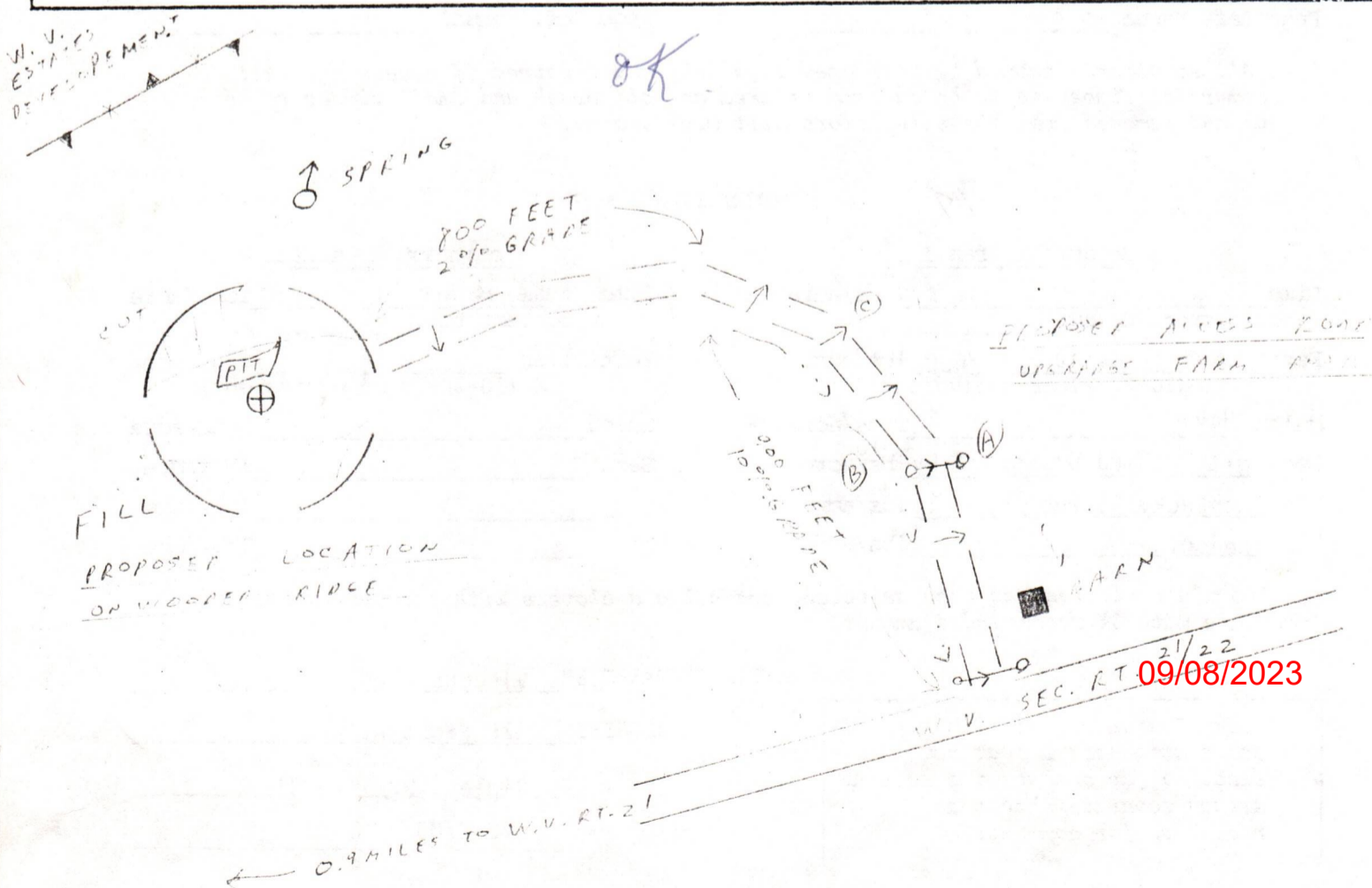
Access Road ————



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

LEGEND

<ul style="list-style-type: none"> Property boundary ———— ——— ——— Road = = = = Existing fence ————X———X——— Planned fence ————/———/——— Stream ~ ~ ~ ~ ~ Open ditch ————→———→———→ 	<ul style="list-style-type: none"> Diversion // // // // // // Spring ○→ Wet spot ♂ Building ■ Drain pipe —○→—○→—○→—○→—○→—○→ Waterway ⊆ ⊆ ⊆ ⊆ ⊆ ⊆ ⊆ ⊆
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1) Date: August 26, 1983
2) Operator's Well No. KEM #424
3) API Well No. 47
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 None

(i) Name Claude E. Goodwin
Address Evans, WV

Address _____

(ii) Name _____
Address _____

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

Name None

Address _____

(iii) Name _____
Address _____

Name _____

Address _____

5(iii) COAL LESSEE WITH DECLARATION ON RECORD:

Name None

Address _____

TO THE PERSON(S) NAMED ABOVE: You should have received this Form and the following documents:

- (1) The Application for a Well Work Permit on Form IV-2(B) (or Form IV-4 if the well is to be plugged, which sets out the parties involved in the drilling or other work, and describes the well and its location and, if applicable, the proposed casing and cementing program;
- (2) The plat (surveyor's map) showing the well location on Form IV-6; and
- (3) The Construction and Reclamation Plan on Form IV-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON THE REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM IV-2(B) OR FORM 4, DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

Take notice that under Chapter 22 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a Well Work Permit with the Administrator of the Office of Oil and Gas, West Virginia Department of Mines, with respect to a well at the location described on attached Application and depicted on attached Form IV-6. Copies of this Notice, the Application, the plat, and the Construction and Reclamation Plan have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Administrator.

6) EXTRACTION RIGHTS

Check and provide one of the following:

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

7) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or leases or other contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No

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

R. A. Pryce
this 30 day of August, 1983.
My commission expires 12/01, 1985.

Mithann Halbert
Notary Public, Jackson County,
State of West Virginia

WELL

OPERATOR Kaiser Exploration and Mining Company

By R. A. P.
Its General Manager
Address P. O. Box 8
Ravenswood, WV 26164
Telephone 304 273 5371

RECEIVED
SEP 6 - 1983
DEPT. OF MINES & GAS DIVISION

09/08/2023

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

CONCERNING THE LINE ITEMS:

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

CONCERNING THE REQUIRED COPIES FOR FILING AND SERVICE:

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

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

INFORMATION SUPPLIED UNDER CODE § 22-4-11(d)

IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on the obverse side of this Notice, I depose and say that I am the person who signed the Notice for the Applicant, and that--

- (1) the tract of land is the same tract described in the Application to which this Notice applies, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

<u>Grantor, lessor, etc.</u>	<u>Grantee, lessee, etc.</u>	<u>Royalty</u>	<u>Book Page</u>
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Claude Goodwin

Kaiser Exploration
and Mining Company

1/8 of prevailing
field price

To be recorded



1) Date: August 26, 19 82
 2) Operator's Well No. KEM 3424
 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: 741 Watershed: Sycamore Creek
 District: Sinpley County: Jackson Quadrangle: Dingle
- 6) WELL OPERATOR Kaiser Exploration and Mining Co. 7) DESIGNATED AGENT R. A. Pryce
 Address P. O. Box 8 Address Same
Ravenswood, WV 26154
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Bomer Dougherty Name Clint Hutt
 Address Linden Pt., Box 3A Address P. O. Box 388
Looneyville, WV Elkview, WV
- 10) PROPOSED WELL WORK: Drill X / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Devonian Brown Shale
- 12) Estimated depth of completed well, 4941 feet
 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: _____ 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		Kinds	Sizes
Conductor										
Fresh water	<u>10 3/4"</u>			<u>X</u>		<u>250</u>	<u>250</u>	<u>150 sks class 1 to surface</u>		
Coal								<u>100 sks class 1</u>		
Intermediate	<u>7"</u>			<u>X</u>		<u>2200</u>	<u>2200</u>	<u>50 sks 50/100 pozmix</u>		
Production	<u>4 1/2"</u>			<u>X</u>		<u>1041</u>	<u>4941</u>	<u>225 sks 50/100</u>	<u>Depths set mix</u>	
Tubing										
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: _____
 By _____
 Its _____ Date _____

R. E. Goodwin Date: 8/31/82
 (Signature)
 _____ Date: _____
 (Signature)

AFFIDAVIT OF PERSONAL SERVICE ON SURFACE OWNER

STATE OF West Virginia,
COUNTY OF JACKSON:

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form IV-2(A) / Form IV-3(A) / Form IV-4(A) /
- (2) Application on Form IV-2(B) / Form IV-3(B) / Form IV-4(B) /
- (3) Plat showing the well location on Form IV-6, and
- (4) Construction and Reclamation Plan on Form IV-9 (unless the application is to plug a well)

--all with respect to operator's Well No. KEM 424 located in Ripley District, JACKSON County, West Virginia, upon the person or organization named--

C. E. Goodwin

--by delivering the same in Jackson County, State of West Va. on the 31 day of August, 1983 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him / her / or, because he / she / refused to take it when I offered it, by leaving it in his / her / presence.

[] Handing it to a member of his or her family above the age of 16 years named _____ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

[] Handing it to _____, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

[] Handing it to the general partner, named _____, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

[] Handing it to the corporation's employee / officer / director / attorney in fact / named _____.

Steph Kelly
(Signature of person executing service)

Taken, subscribed and sworn before me this 2 day of Sept, 1983.
My commission expires December 2, 1990.

William K. Dew
Notary Public

(AFFIX SEAL IF NOTARIZED IF OUTSIDE THE STATE)

09/08/2023

IV-35
(Rev 8-81)

RECEIVED
JAN 19 1984

OIL & GAS DIVISION
DEPT. OF MINES



State of West Virginia
Department of Mines
Oil and Gas Division

Date 1/11/84
Operator's Well No. KEM #424
Farm Goodwin
API No. 47 - 035 - 1896

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 /)

LOCATION: Elevation: 741' Watershed Sycamore Creek
District: Ripley County Jackson Quadrangle Ripley

COMPANY Kaiser Exploration and Mining Company

ADDRESS P. O. Box 8, Ravenswood, WV 26164

DESIGNATED AGENT Robert A. Pryce

ADDRESS P. O. Box 8, Ravenswood, WV 26164

SURFACE OWNER Claude E. Goodwin

ADDRESS Evans, WV

MINERAL RIGHTS OWNER Same

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK Jerry

Tephabock ADDRESS Rt. 1, Box 101A, Ripley, WV

PERMIT ISSUED 9/14/83

DRILLING COMMENCED 11/29/83

DRILLING COMPLETED 12/5/83

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"	10 3/4"	250.6'	150 sks Class A
9 5/8			
8 5/8			
7	7"	2304'	175 sks 50/50 poz-mix, 100 sks Class A
5 1/2			
4 1/2	4 1/2"	4187'	200 sks 50/50 poz-mix
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Brown Shale Depth 4841' feet

Depth of completed well 4260 feet Rotary X / Cable Tools

Water strata depth: Fresh feet; Salt feet

Coal seam depths: N/A Is coal being mined in the area? No
DRILLED ON FLUID - NOT KNOWN

OPEN FLOW DATA

Producing formation Devonian Brown Shale Pay zone depth 2931'-4152' feet

Gas: Initial open flow Trace Mcf/d Oil: Initial open flow Bbl/d

Final open flow 150 comingled Mcf/d Oil: Final open flow N/A Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1000 psig (surface measurement) after hours shut in
(If applicable due to multiple completion--)

Second producing formation Berea Sandstone Pay zone depth 2420'-2428' feet

Gas: Initial open flow Trace Mcf/d Oil: Initial open flow Bbl/d

Final open flow 150 comingled Mcf/d Oil: Final open flow N/A Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1000 psig (surface measurement) after hours shut in

(Continue on reverse side)

STACK 1896

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

LOWER BROWN SHALE: Perforated from 3808' to 4152'. Foam frac. Breakdown at 1940 psig. Treated w/75% quality foam at 2010 and 2280 psig. Used 60,000#, 20/40 sand at 2-10 ppg. H₂O rate- 10 bbl/min, N₂ rate-25 MSCF/min, foam rate-40 bbl/min. Total N₂ - 766 MSCF. Total sand laden fluid was 309 bbls. ISIP= 1800 psig, 5 min SIP = 1300 psig.

UPPER BROWN SHALE: Perforated from 2931 to 3232'. Foam frac. Breakdown w/foam at 1820 psig. Treated w/75% quality foam at 1970 to 2060. Used 60,000#, 20/40 sand at 2-10 ppg. H₂O rate- 10 bbl/min, N₂ rate-22 MSCF/min, foam rate-40 bbl/min. Total N₂- 736 MSCF, total sand laden fluid-243 bbls, total fluid was 309 bbls, ISIP-1620 psig, 5 min SIP-1220 psig.

BEREA SANDSTONE: Perforated from 2420' to 2428'. Foam frac: breakdown w/foam at 2500 psig. Treated 2/75% quality foam at 2010-2240 psig. Used 49,000#, 20/40 sand from 4-10 ppg, H₂O rate was 4 bbl/min, N₂ rate was 10 MSCF/min; foam rate was 16 bbl/min; total N₂ rate was 495 MSCF, total sand laden fluid was 160 bbls, total fluid was 223 bbls, ISIP-1900 psig; 5 min SIP-1670 psig.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil and Shale			0	140	
Siltstone			140	270	
Sand			270	310	
Shale			310	540	
Sand			540	590	
Shale			590	676	
Sand			676	730	
Shale and Siltstone			730	1320	
Dunkard Sand			1320	1410	
Shale			1410	1680	
Salt Sands			1680	1774	
Big Lime (Greenbrier)			1774	1935	
Shale			1935	1970	
Big Injun Sand			1970	2060	
Shale			2060	2396	
Coffee Shale (Sunbury)			2396	2420	
Berea Sand			2420	2430	S/g
Shale			2430	3634	S/g @ 2926,3206
Brown Shale			3634	4139	S/g @ 3812,4109
Shale			4139	4260	
Total Depth			4260		

(Attach separate sheets as necessary)

Kaiser Exploration and Mining Company
Well Operator

By: R. A. P.

09/08/2023

Date: January 17, 1984

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 coal, encountered in the drilling of a well."

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

RECEIVED
DEC 8 - 1983

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

Permit No. 035 1896

Oil or Gas Well _____
(KIND)

Company <u>Kaiser Exploration</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Goodwin</u>	16			Kind of Packer _____
Well No. <u>424</u>	13			
District _____ County <u>Jackson</u>	10			Size of _____
Drilling commenced <u>11 28 83</u>	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: C. Hart Rig #2

moving onto

11 28 83
DATE

Jerry T. [Signature]
09/08/2023

Form 26
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.

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

RECEIVED

DEC 8 - 1983

OIL & GAS DIVISION
DEPT. OF MINES

INSPECTOR'S WELL REPORT

Permit No. 035 1896

Oil or Gas Well _____
(KIND)

Company <u>Geiser Exploration</u> Address _____ Farm <u>Doodwin</u> Well No. <u>424</u> District _____ County <u>JACKSON</u> 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. 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 _____

Remarks: Rig # 2 Hunt.
11 2983 RAW 250' sat at 260' kb 10 3/4" pipe 89TS Halliburton Cement.
150 SKS class 2 3% cal 1/4 lb Flovlop 54. Return to
Surface. Plug Down 6 pm 11 2983
11 3083 Drill Cement.

11 30 83
DATE

09/08/2023

Form 26
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.

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

RECEIVED

DEC 13 1983

INSPECTOR'S WELL REPORT

OIL & GAS DIVISION

DEPT. OF MINES
(TRIND)

Permit No. 035 1896

Company	Address	Farm	Well No.	District	County	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS	
						Size			Kind of Packer	
<u>Kaiser Exploration</u>		<u>Goodwin</u>	<u>Kem 424</u>		<u>JACKSON</u>	16				
						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	
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.		CASING CEMENTED	SIZE	No. FT.	Date	
Rock pressure				lbs.	hrs.	NAME OF SERVICE COMPANY				
Oil				bbls., 1st 24 hrs.		COAL WAS ENCOUNTERED AT				
Fresh water				feet	feet		FEET	INCHES	FEET	INCHES
Salt water				feet	feet		FEET	INCHES	FEET	INCHES

Drillers' Names _____

Hang Rig 2

Remarks: _____

RAN 105 FTS 4 1/2" csg 4187 feet set at 4197 lb. Halliburton Cement.

200 SACS 50/50 POZ 10% salt 1/4 lb Floerke per st

plug down 7:15 AM. This morning

12 5 83

DATE

Jerry [Signature] 09/08/2023

Form 26
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: _____

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

DATE

09/08/2023



RECEIVED

JUL 25 1984

State of West Virginia
Department of Mines
Oil and Gas Division
Charleston 25305

OIL & GAS DIVISION
DEPT. OF MINES

FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT
February 8, 1984

COMPANY Kaiser Exploration & Mining Co. PERMIT NO 035-1896 9/83
P. O. Box 8 FARM & WELL NO Goodwin, #KEM-424
Ravenswood, West Virginia 26164 DIST. & COUNTY Ripley/Jackson

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	_____✓	_____

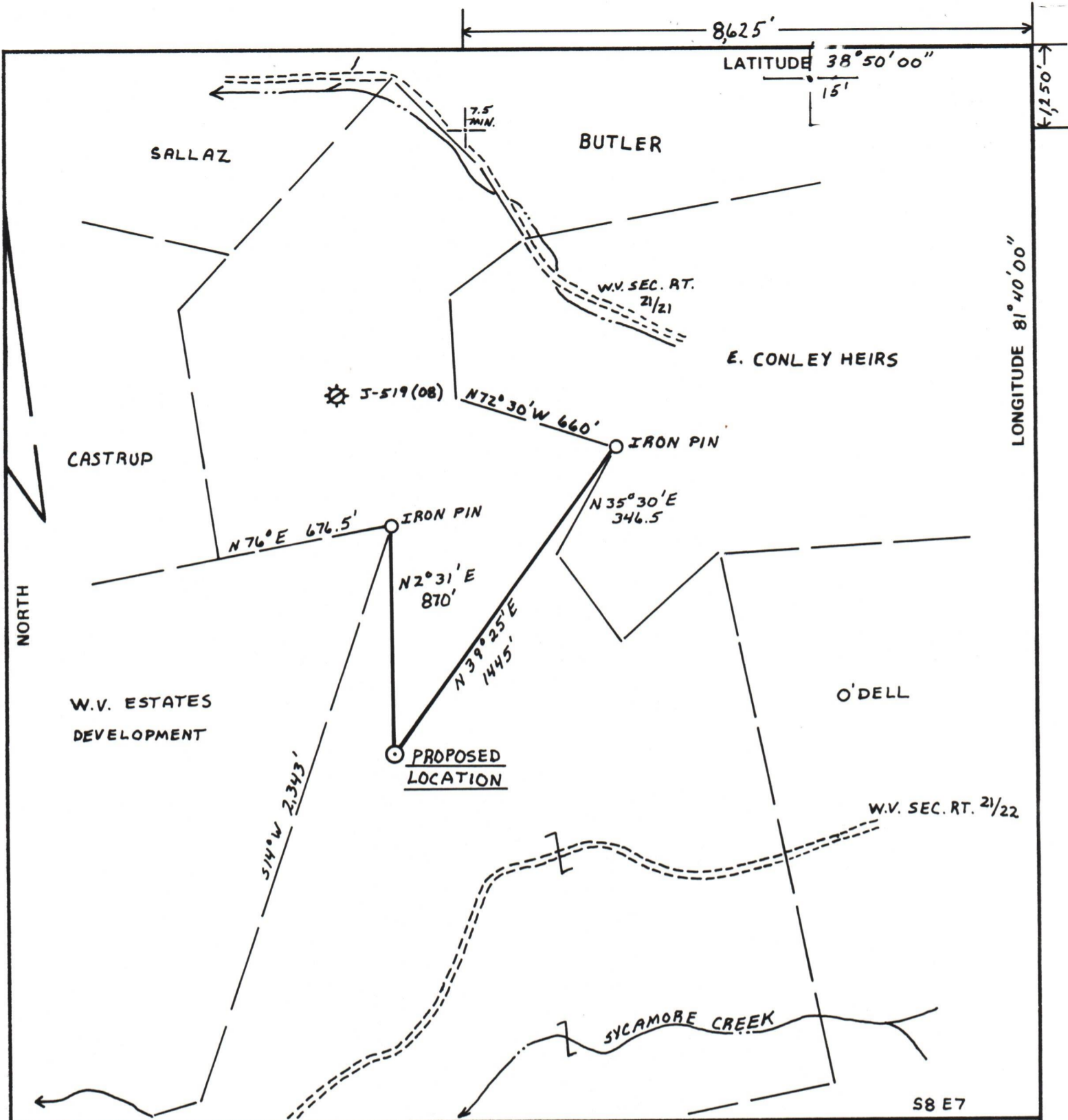
I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED *James R. Tephaholoh*
DATE 7/1984

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-Oil & Gas Division

July 27, 1984
DATE



FILE NO. 6-51
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION HIGH POINT ELEV. = 851'; 825' S.W. OF LOCATION.

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) Vincent N. Wood
 R.P.E. _____ L.L.S. 664

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE AUGUST 18, 19 83
 OPERATOR'S WELL NO. KEM 424
 API WELL NO. _____
47 - 035 - 1896 ✓
 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 741' WATER SHED SYCAMORE CREEK
 DISTRICT RIPLEY COUNTY JACKSON
 QUADRANGLE RIPLEY
 SURFACE OWNER CLAUDE E. GOODWIN ACREAGE 55.5 Ac., PART OF 109.20892023
 OIL & GAS ROYALTY OWNER CLAUDE E. GOODWIN LEASE ACREAGE 204.5
 LEASE NO. 84-07-3127
 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 DEVONIAN BROWN SHALE ESTIMATED DEPTH 4841'
 WELL OPERATOR KAISER EXPLOR. AND MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING CO.
 ADDRESS P.O. BOX 8 RAVENSWOOD, WV. 26164 ADDRESS P.O. BOX 8 RAVENSWOOD, WV. 26164

FORM IV-6 (8-78)

H. T. HALL

JACK. 1076