



1) Date: May 31, 19 83
 2) Operator's Well No. KEM #280
 3) API Well No. 47 035 1849
 State County Permit

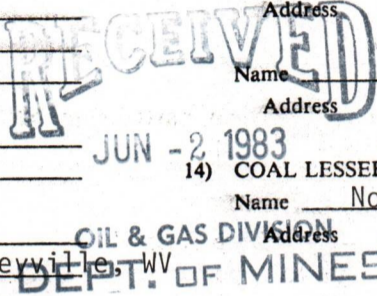
DRILLING CONTRACTOR:

Clint Hurt

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil / Gas X /
 B (If "Gas", Production X / Underground storage / Deep / Shallow X /)
- 5) LOCATION: Elevation: 791 Watershed: Sycamore Creek
 District: Ripley County: Jackson Quadrangle: Ripley
- 6) WELL OPERATOR Kaiser Exploration and Mining Co 11) DESIGNATED AGENT R. A. Pryce
 Address P. O. Box 8 Address Same
Ravenswood, WV 26164
- 7) OIL & GAS ROYALTY OWNER T. J. Randolph, et al 12) COAL OPERATOR None
 Address % C. E. Goodwin Address
Evans, WV
- 8) SURFACE OWNER Roy H. Canterbury 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address Rt. 1 Name None
Ripley, WV 25271 Address
 Acreage 76.5 Name
 Address
- 9) FIELD SALE (IF MADE) TO:
 Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Homer Dougherty Address
 Address Linden Rt., Box 3A, Looneyville, WV
- 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, Devonian Brown Shale
- 17) Estimated depth of completed well, 4951' feet
- 18) Approximate water strata depths: Fresh, 241 feet; salt, feet.
- 19) Approximate coal seam depths: Is coal being mined in the area? Yes / No



20) 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		300-250	300-250	150 sks class A to surface	Sizes
Coal								65 sks 50/50 pozmix	Depths set
Intermediate	7"			X		2221	2221	100 sks class A	
Production	4 1/2"			X		4951	4951	225 sks 50/50 pozmix	
Tubing									Perforations:
Liners									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: Signed: R.A.P.
 My Commission Expires Its: General Manager

OFFICE USE ONLY

Permit number 47-035-1849 DRILLING PERMIT Date June 27 19 83
 Date 09/08/2023

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. 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 February 27, 1984 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond: <u>B4B</u>	Agent: <u>OK</u>	Plat: <u> </u>	Casing: <u> </u>	Fec: <u>963559</u>
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 Administrator, Office of Oil and Gas



KAISER EXPLORATION AND MINING COMPANY

LEASE SUMMARY

KEM # 280

Tract Discription

County: Jackson

District: Ripley

Acres: 80

Bounded By: North - Jacob Landfried
East - Ina Ray
South - C. W. Jewell
West - Mabel Landfried

Lease Parties

Lessor(s): T. J. Randolph et al/C. E. Goodwin

Lessee: Kaiser Exploration and Mining Company

Recording Information

Book and Page: 172/215

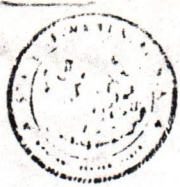
Royalty Provision

1/8 of prevailing field price

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OIL & GAS DIVISION
DEPT. OF MINES

09/08/2023



IV-9
(Rev 8-81)

DATE May 11, 1983

WELL NO. KEM #280

State of West Virginia API NO. 47 - 035 - 1849

Department of Mines
Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME Kaiser Exploration and Mining Co DESIGNATED AGENT Same

Address P. O. Box 8, Ravenswood, WV 26164 Address _____

Telephone 273-5371 Telephone _____

LANDOWNER Roy H. Canterbury 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: May 11, 1983 (Date)

Wayne W. Hughes
(SCD Agent)

ACCESS ROAD

LOCATION

Structure Road Culvert (A) Structure None Required (1)

Spacing 12" diameter Material _____

Page Ref. Manual 2:7 Page Ref. Manual _____

Structure Drainage Ditch (B) Structure _____ (2)

Spacing Earthen Material _____

Page Ref. Manual 2:12 Page Ref. Manual _____

Structure Cross Drains (C) Structure _____ (3)

Spacing 60', 80' Material _____

Page Ref. Manual 2:4 Page Ref. Manual _____

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JUN - 2 1983
OIL & GAS DIVISION
DEPT. OF MINES

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 4 Tons/acre
or correct to pH _____

Lime Same as Area I Tons/acre
or correct to pH _____

Fertilizer 14-14-14 600 lbs/acre
(10-20-20 or equivalent)

Fertilizer _____ lbs/acre
(10-20-20 or equivalent)

Mulch Hay 2 Tons/acre

Mulch _____ Tons/acre

Seed* 81% Orchard Grass/15% Ryegrass 16 lbs/acre

Seed* _____ lbs/acre

Kentucky 31 Fescue 16 lbs/acre

_____ lbs/acre

Red Clover 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 seedling for one growing season. Attach separate sheets as necessary for comments.

ADDRESS 116 Post Avenue

Ripley, WV 25271

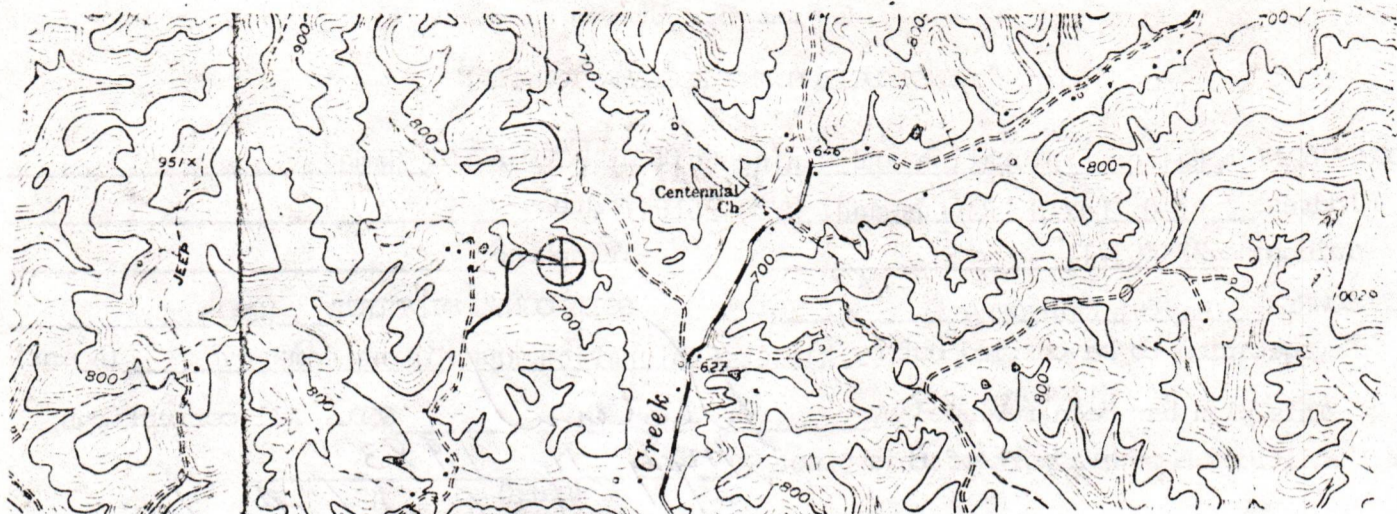
PHONE NO. 372-2709

ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE RIPLEY

LEGEND

Well Site ⊕

Access Road ———



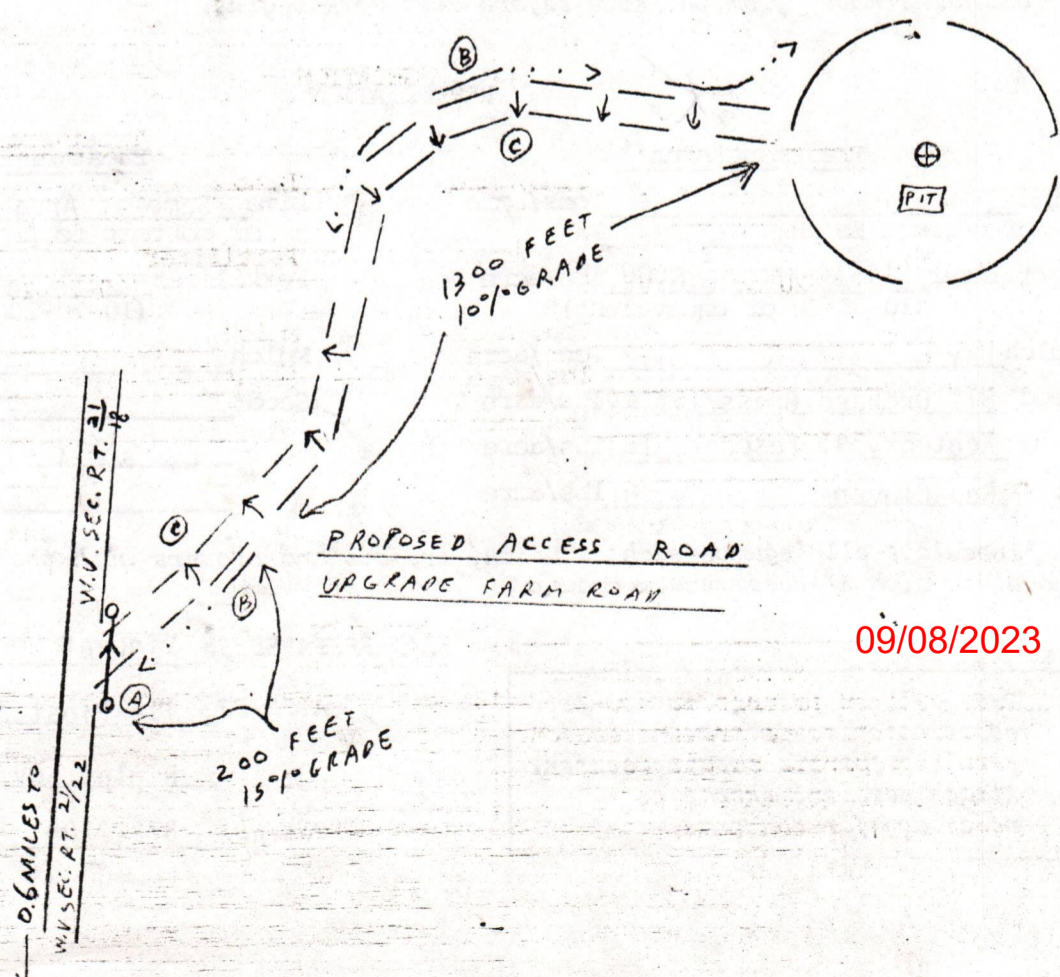
WELL SITE PLAN

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 ⊆ = = = = = |

PROPOSED LOCATION ON PASTURE RIDGE



09/08/2023



IV-35
(Rev 8-81)

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JAN 19 1984

OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date _____
Operator's _____
Well No. KEM-280
Farm T. J. Randolph et al
API No. 47 - 035 - 1849

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: 791' Watershed Sycamore Creek
District: Ripley County Jackson Quadrangle Ripley

COMPANY KEMGAS

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

DESIGNATED AGENT Same

ADDRESS Same

SURFACE OWNER Roy H. Canterbury

ADDRESS Rt. 1, Ripley, WV

MINERAL RIGHTS OWNER T.J. Randolph, et al

ADDRESS c/o C.E. Goodwin, Evans, WV

OIL AND GAS INSPECTOR FOR THIS WORK Homer

Dougherty ADDRESS Linden Rt., Box 3A, Looneyville, WV

PERMIT ISSUED _____

DRILLING COMMENCED 10/14/83

DRILLING COMPLETED 10/19/83

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED CN

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10" 3/4		239'	175 sks Class A Cement to surface
9 5/8			
8 5/8			
7		2211'	100 sks 50/50 poz mix, 100 sks Class A
5 1/2			
4 1/2		4234'	200 sks 50/50 poz mix
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Brown Shale Depth 4951' feet

Depth of completed well 4320' feet Rotary X / Cable Tools _____

Water strata depth: Fresh N/A feet; Salt N/A feet Drilled on fluid

Coal seam depths: None Is coal being mined in the area? No
Drilled with fluid - not known

OPEN FLOW DATA

Producing formation Devonian Brown Shale Pay zone depth 4951' feet

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

Final open flow 384 commingled Mcf/d Final open flow _____ Bbl/d

Comingled test Time of open flow between initial and final tests _____ hours

Static rock pressure 1150 psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)

Second producing formation Berea Sandstone Pay zone depth 2459'-2465' feet

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

Final open flow 384 commingled Mcf/d Oil: Final open flow _____ Bbl/d

Comingled test Time of open flow between initial and final tests _____ hours

Static rock pressure 1150 psig (surface measurement) after _____ hours shut in

(Continue on reverse side)

JACK 1849

09/08/2023

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

- 10/26/83 - Devonian Brown Shale perforations: 1st Stage: Lower Brown Shale. 3958'-4235', shot selectively, 18 holes, .39" in diameter.
- 10/28/83 - Devonian Brown Shale perforations: 2nd Stage: Upper Brown Shale. 3413'-3903'; shot selectively, 20 holes, .39" diameter. Berea Sandstone perforations 3rd Stage 2458'-2464'; 3 holes/ft, 18 holes.

Fracture. 1st Stage: Lower Brown Shale: Breakdown = 1300 psig with foam at 40 BPM, 75% quality, 60,000# 20/40 sand at 4-10 ppg with 2500-2700 psig. N₂ at 25,000 scf/min and liq. at 10 BPM. Total N₂ of 700,000 scf. Total sand laden fluid of 203 bbls and total fluid of 270 bbls; ISIP=2620. 5 min SIP=1380 psig. 2nd Stage: Upper Brown Shale. Breakdown = 2680 psig with foam at 40 BPM, 75% quality, 60,000# 20/40 sand at 4-10 ppg with 2650-2800 psig. N₂ at 25,000 scf/min & liq at 10 BPM, total N₂ of 698,000 scf. Total sand laden fluid of 320 bbls. ISIP=2770 psig. 5 min SIP=1550 psig. 3rd Stage: Berea Sandstone. Breakdown=2870 psig with foam at 16 BPM. 75% quality. 60,000# 20/40 sand at 4-10 ppg with 2250-2170 psig. N₂ at 9,000 scf/min & liq at 4 BPM. Total N₂ 575,000 scf. Total sand laden fluid=200 bbls. Total fluid = 295 bbls. ISIP=1900 psig. 5 min SIP=1780 psig.

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Soil & Shale			0	60	
Shale & Siltstone			60	322	
Sand			322	394	
Shale			394	590	
Sand			590	650	
Shale			650	751	
Sand			751	808	
Shale & Siltstone			808	1273	
Sand			1273	1315	
Shale			1315	1396	
Sand			1396	1466	
Shale & Siltstone			1466	1750	
Salt Sands			1750	1814	
Big Lime (Greenbrier)			1814	1992	
Shale			1992	2040	
Big Injun			2040	2102	
Shale			2102	2441	
Coffee Shale (Sunbury)			2441	2464	
Berea Sand			2464	2472	S/g
Shale			2472	3693	S/g 3435
Brown Shale			3693	4244	S/g @ 3960, 4020, 4100
Shale			4244	4314	
Total Depth			4314		

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY

Well Operator

By: R.A.P.

09/08/2023

Date: November 15, 1983

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

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INSPECTOR'S WELL REPORT

OIL & GAS DIVISION
DEPT. OF MINES
Oil or Gas Well _____
(KIND)

Permit No. 035 1849

Company <u>Kaiser Exploration</u>	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address _____	Size			
Farm <u>Carney</u>	16			Kind of Packer _____
Well No. _____	13			
District _____ County <u>Jackson</u>	10			Size of _____
Drilling commenced _____	8 1/4			
Drilling completed _____ Total depth _____	6 3/4			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: Set 2221' of 7" Cement Halibut 100 SKS 50/50 poz
10/883
10% Salt + 100 SKS of class 2 + 3%
cal + 1/4 lb per SAC Flocco,

10/883
DATE

James T. Taylor
09/08/2023
DISTRICT WELL INSPECTOR



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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 035-1849 6/83

P. O. Box 8

FARM & WELL NO Randolph, #KEM-280

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 T. Tophal*
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

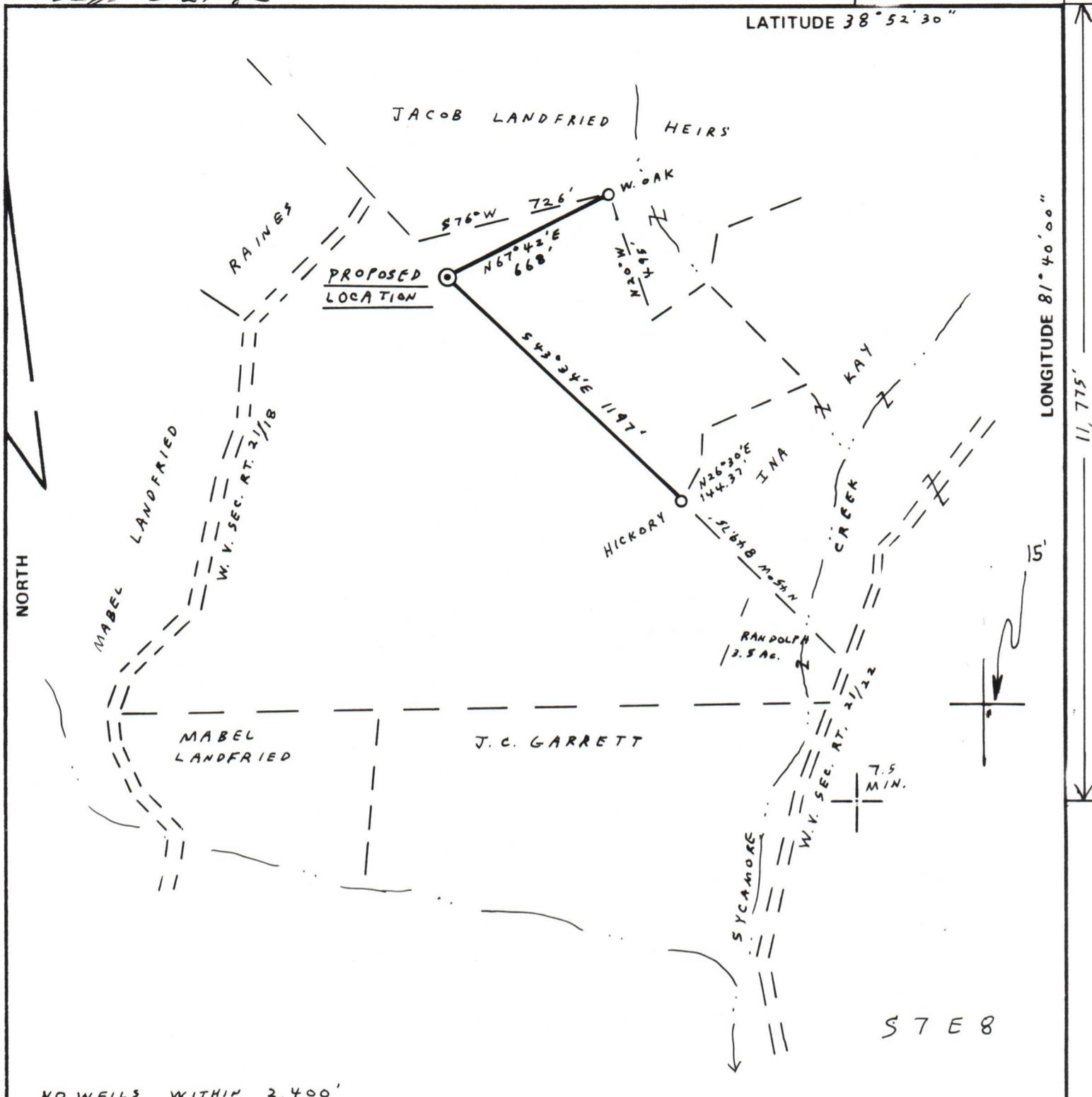
09/08/2023

6-21-83

3,075'

LATITUDE 38° 52' 30"

LONGITUDE 81° 40' 00"



NO WELLS WITHIN 2,400'

FILE NO. 6-17
 DRAWING NO. REV. NO. 1
 SCALE 1" = 500
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION ROAD INTER. ELEV. = 827, 1900' S.E. 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 MAY 27, 1983
 OPERATOR'S WELL NO. KEM 280
 API WELL NO. 47-035-1849
 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 791 WATER SHED SYCAMORE CREEK
 DISTRICT RIPLEY COUNTY JACKSON
 QUADRANGLE RIPLEY
 SURFACE OWNER ROY H. CANTERBURY ACREAGE 76.5
 OIL & GAS ROYALTY OWNER T. J. RANDOLPH, ET AL. LEASE ACREAGE 80 PART OF 161 AC.
 LEASE NO. 87-05-1919
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

09/08/2023

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN BROWN SHALE ESTIMATED DEPTH 4951'
 WELL OPERATOR KAISER EXPLOR. & MIN. CO. DESIGNATED AGENT KAISER EXPLORATION AND MINING CO.
 ADDRESS P.O. BOX 8 ADDRESS P.O. BOX 8
RAVENSWOOD, W.V. 26164 RAVENSWOOD, W.V. 26164

FORM IV-6 (8-78) H.T. HALL

JACK. 1849