

1)	Date:	February	28	, 19	84	

2) Operator's KEM #478 Well No.

3) API Well No. 47 - 035 - 1919-REV
State County Permit

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

Revised

5) LOCATION 6) WELL OPE Address 8) OIL & GAS Name	B (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	f "Gas", vation: _ trict: Kaiser P. 0. Ravens TOR TO Iephab _ 1, B pley, WORK: GET FOR of complet a depths: seam dep NG PROC Grade	Production 865 Ripley Explo Box 8 Wood, BE NOTIF OCK OTHER OF THE PRODUCT OF THE	WV FIED A 271 X f old f hysical	On ar 26164 / Drilformatio change vonia 507	Underground Watershed: County: and Mining Co deeper on / Perfo in well (specify) an Brown Sho feet; sa	d storage Grasslic JACKS ON D.7) DESIGNATE Address 9) DRILLING ON Name Cl Address Redrill orate new formation ale et	Quadrangle: Quadrangle: DAGENT R. A. Same CONTRACTOR: int Hurt P. O. Box 388 Elkview, White Stimulate OIL feet. DEP CEMENT FILL-UP OR SACKS (Cubic feet)	Pryce
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Fresh water Coal Intermediate Production Tubing	10 3/s	No.	per ft.		Used				
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Production Tubing									sizes by rule 15.05
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Permit number	47-0	133-19	19-REV					March 28	, 19 84
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									and Gas Inspector, (Refer to ractor shall notify the proper
						work has commend		on operator or mis com	actor small motify the proper
The permitted wor	rk is as de	scribed in	the Notice	a and A	nnlicati	on plat and reclar	mation plan subject	to any modifications ar	nd conditions specified on the
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Permit expires	Marc	h 28,	1986			unless we	ell work is commence	d prior to that date and	prosecuted with due diligence.
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BondNKET	Agent		Plat:	Casin	ig .	Fee 966-			
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NOTE: Keep one copy of this permit posted at the drilling location.

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Administrator, Office of Oil and Gas

2) Operator's
Well No.___ FILE COPY



. 19 FORM IV-2(B) Reverse 47 3) API Well No. Permit County State

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AND STOP COMES AND STORE	NTRACTOR:	9) DRILLING CO	and the second s	a menting and a medical constant	HEIED	ON HE	OR TO	SINSPECT	8) OIL & GAS
		Name LLT	and particular transfer to provide a second						nmain .
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ms part of Torm 14-2(b) is to record th	e dates of certain	occurrences an	u ally it	mow-u	ip inspec	ctions.		\$100 marks to the control of the con
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NOTE: Keep one copy of this permit posted at the drilling location.

1) Date: February 28

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2) Operator's

Well No.

KEM #478

3) API Well No. 47 - 035-1919 Rev State County Permit

STATE OF WEST VIRGINIA DEPARIMENT OF MINES, OFFICE OF OIL & GAS

	REACE OWNE	IR(S) OF RECORD TO BE SERVED	5(1)	COAL OPERATOR None	
			3(1)	Address	
(1)	Name Hou	ward C. and Myrtle G. Fisher		ALUE CSS	
	Address_	Given, WV	5(ii)	COAL OWNER(S) WITH DECLARATION	ON PECCET
	_		3(11)	Name None	ON RECORE
(11)	Name			Address	
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iii)	Name			Address	
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		error agricultural substitution and an experience of the	5/111	COAL LESSEE WITH DECLARATION ON	DECOED.
			2 (111)		RECURD:
				Name None Address	
				Address	
				-	
		TO THE PERSON(S) NAMED ABOVE: You should	have received th	is Form and the following documents:	
		(1) The Application for a Well Work I	Permit on Form IV	-2(B) (or Form IV-4 if the well is	
		to be plugged, which sets out the	e parties involve	d in the drilling or other work.	
		cementing program;	ocation and, if a	oplicable, the proposed casing and	
		(2) The plat (surveyor's map) showing	the well locati	on on Form IV-6; and	
		(3) The Construction and Reclamation plug a well), which sets out the	Plan on Form IV-	9)unless the well work is only to	
		reclamation for the site and acce	plan for erosion ess road.	and sediment control and for	
		THE REASON YOU RECEIVED THESE DOCUMEN	VIS IS THAT YOU H	AVE RIGHTS REGARDING THE APPLICATION	
-	-	WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" (FORM IV-2(B) OR FORM 4, DESIGNATED FOR YOU ACTION AT ALL.	ON THE REVERSE	SIDE OF THE COPY OF THE APPLICATION	
		Take notice that under Chapter 22 of	the West Virgini	Code, the understaned well ar-	
		erator proposes to file or has filed this	Notice and Appli	cation and accompanying documents	
		for a Well Work Permit with the Administra Department of Mines, with respect to a wel	ator of the Offic	e of Oil and Gas, West Virginia	
		and depicted on attached Form IV-6. Copie	es of this Notice	, the Application, the plat, and the	
		Construction and Reclamation Plan have been by hand to the person(s) named above (or h	en mailed by regi	stered or certified mail or delivered	
		before the day of mailing or delivery to t	he Administrator	certain circumstances) on or	
		6) - SURACTION RIGHTS		क्राइटीडार्	MEM
		Check and provide one of the following:		Land hand	7 [
		Included is the lease or leases or o	ther continuing	contract or contracts by which	LUL
		The requirement of Code 22-4-1-(c) (1) through (4). (see reverse side for specifics.	1984
		7) ROYALTY PROVISIONS	2 7583		150
			ket the oil or ga	us based upon a lease or leases OIL & GAS D	IVISION
		to the volume of oil or gas so extracte	or gas in place d, produced or ma	which is not inherently relatePT. OF I	MINES
		If the answer above is No, noth	ing additional is	needed If the anguar is Voc	
		you may use Affidavit Form IV-60.			
		See the reverse side for line item	instructions, ar	d for instructions concerning	
		the required copies of the Notice Reciamation Plan.	and Application,	plat, and Construction and	
The	truth of	the information on the	WELL		

OPERATOR Kaiser Exploration and Mining Compan

By A.P.

Its General Manager

Address P. O. Box 8

Ravenswood, WV 26164

Telephone 304 273 5371

INSTRUCTIONS TO APPLICANT

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-lb(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-lk 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-lk(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 § 22-4-8a 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-lm, 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—

- 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:

Jackson Co. Liverstock
Market, Inc.

Grantee, lessee, etc.

Assigned to:

Kaiser/Exploration
and Mining Company
By: Patrick Petroleum

Royalty

Book Page

1/8 of prevailing 144/139

field price

Patrick Petroleum

Raiser Exploration 4

187/31

IV-9 (Rev 8-81)



DATE	Febr	uary	13,	1984	
LIETT N	DIEM	4170			

State of Mest Nirginia

API NO. 47 -035 -1919-Rev.

Pepartment of Mines Oil and Gas Division

CONSTRUCTION AND RECLAMATION PLAN

		0.00			D	
COMPANY NAME Kaiser Exploration and M		COPE				
Address P. O. Box 8. Ravenswood.				Same		
Telephone 273-5371						
Revegetation to be carried out by K		Evnl		DISTRICT WE		
		//	-			
This plan has been reviewed by				,	ll corre	ctions
and additions become a part of this pl	an:	-	Date	1	1	
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ACCESS ROAD				LOCATION		
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Spacing 16" and 26" diameter			Material_	Farthen		
Page Ref. Manual 2:7			Page Ref.	Manual	2:12	anno m
Structure Drainage Ditch	(B)	_	Structure		1136	ELV E
Spacing Earthen			Material	77	MAR	7 - 1984
Page Ref. Manual 2:12			Page Ref.	Manual		AS DIVISION
Structure Cross Drains	(C)		Structure			F MINES
	. (0)		_			(3)
Spacing 135', 80'	•		Material_			
Page Ref. Manual 2:4			Page Ref.	Manual		
All structures should be inspecte commercial timber is to be cut and cut and removed from the site befor	stacke	d and	all brush	and small ti	ary. Al mber to	l be
· OK	REVEGE	TATIO	1			
Treatment Area I				Treatment Ar	PA II	
Lime 4 Tons/ac	re			e as Area I ect to pH		Tons/acre
Fertilizer 14-14-14 600 lbs/acr (10-20-20 or equivalent)	e		Fertilizer	(10-20-20 or		lbs/acre
Mulch Hay 2 Tons/ac			Mulch			Tons/acre
Seed*81% Orchard Grass/15% Rydbs/acc			Seed*			lbs/acre
Kentucky 31 Fescue 161bs/acr			***************************************			lbs/acre
Red Clover 81bs/acr	e		***************************************			lbs/acre
*Inoculate all legumes such as vete Inoculate with 3X recommended amount.	h, tre	foil d	mi clovers	with the pr	oper bac	terium.
	77.4	N PRE	PARED EY_	Vincent Woo	d	09/08/2 023
NOTES: Please request landsument			LTDRESS	116 Pfost A	venue	
scelling for one growing season.	•			Ripley, WV	25271	
Attach separate sheets as necessary for comments.		FH	ONE NO.	372-2709		to a management of the state of

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION

F DEPT, OF MINES

INSPECTOR'S WELL REPORT

Permit No. 035 1919

Company Kaiser	Exploration	CASING AND TUBING	DRILLING	LEFT IN	PACK	ERS
Address		Size				
Farm	Livestock	16			Kind of Pac	ker
Well No	Kem 478	10			Size of	
District	CountyJackson	81/4				
Drilling commenced	6 28 84	6%	- 7-4		Depth set_	-
Drilling completed	Total depth	5 3/16			Perf. top	
Date shot	Depth of shot	2		.00	Perf. bottom	
Initial open flow	/10ths Water inInch	Liners Used			Perf. top	
Open flow after tubing_	/10ths Merc. inInch				Perf. bottom	1
Volume	Cu. Ft.	CASING CEME	NTED	SIZE	No. FT	Date
Rock pressure	lbshrs.	NAME OF SER	VICE COMPA	NY		
Dil	bbls., 1st 24 hrs.	COAL WAS EN	COUNTERED	AT	FEET	INCHES
Fresh water	feetfeet	FEET_	INCE	IES	FEET	_INCHES
Salt water	feetfeet	FEET_	INCH	IES	_FEET	INCHES

.

Hurt Rig 6

Remarks: 6 28 84 2;30 pm Spud date. TD 417 feet 131/4 hole Ran 103/4 csg 11 jts set 397.4 kb cement noscoe 225 sks class a 3 % cacl 1/4 lb per sk flocele plug down 12:30 am.

7 2 84 TD 2147 ran 55 jts 7'' csg set at 2127 cement 100ska class a neat3% cacl and 150 sks 50/50 poz 10% salt 1/4 lb per sk flocele plug down 1:00am woc.

7 2 84

Juff 1 (19/108/2023

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

COMPANY			ADDRESS					
ARM	· · · · · · · · · · · · · · · · · · ·	COUNTY						
illing Material Used			GP 1842					
iner L	ocation	Amount	Packer	Location				
PLUGS USED	AND DEPTH PLACED		BRIDGES	CASIN	CASING AND TUBING			
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOST		
*								
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		per ingegoriae mai august	Account of the second of the					
	22,737.62					Michigal parameters and an extra services		
rillers' Names								
emarks:				and the same				
emarks:			the second secon					
			or o and o to					
			11					
	I hereby certify I vi	sited the above	o wall on this data					

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION DEPT. OF MINES

INSPECTOR'S WELL REPORT

035 **T**919

ermit No. 035 T919		1 June 19 10 80	Oil or	Gas Well	
Kaiser Exploration	CASING AND TUBING	USED IN DRILLING	LEFT IN	PACKER	S
.ddress	Size				
arm	16			Kind of Packe	r
Vell NoKem 478	10			Size of	
districtCounty_Jackson	81/4		1	D. Il and	
Prilling commenced	5 3/16			Depth set	
Drilling completed 7 4 84 Total depth 4455	3			Perf. top	
Date shotDepth of shot	2			Perf. bottom_	
nitial open flow/10ths Water inInch	Liners Used	•		Perf. bottom_	
Open flow after tubing/10ths Merc. inInch			SIZE	No. FT	Date
VolumeCu. Ft.	NAME OF SE				
Rock prescure lbs. hrs. Oil bbls., 1st 24 hrs.	1	NCOUNTERI	ED AT	FEET	_INCHES
Oil				FEET	
Salt water feet feet				FEET	

Remarks:

Drillers' Names_

TD 7 4 84 4455 Ran 4418 41/2 csg Noscoe cement 225 sks 50/50 poz 10% salt 121/2 lb per sk gibsoniite plug down 2:30 am 9 5 84. Waiting to move.

5 84

7 12 84

DEPARTMENT OF MINES

Form 26 2/16/82

STATE OF WEST VIRGINIA

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

COMPANY			ADDRESS				
FARM		COUNTY					
Cilling Material Used				OUNTY			
	cation						
2,00		Amount	Packer	Location			
CEMENT-THICKNESS	ND DEPTH PLACED		BRIDGES	CASIN	G AND TU	BING	
- THERE	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LO	
			i de la constanta				
					-		
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				1 , - *			
						-	
lers' Names		-				-	
				The second secon			
arks:							
		1913	ora E all co:				

09/08/2023

SISTRICT WELL INSPECTOR

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

DEPARTMENT OF MINES



INSPECTOR'S WELL REPORTS EPT. OF MINES

Permit No. <u>035</u> 1919			Oil or	Gas Well
Company Kaiser Exploration	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Address	Size			
FarmAtkinson	16			Kind of Packer
Well NoKem 478	13			
District Ripley County Jackson	81/4			Size of
Drilling commenced	654			Depth set
	5 3/16			
Drilling completedTotal depth	3			Perf. top
Date shotDepth of shot	2		3	Perf. bottom
Initial open flow/10ths Water in	_Inch Liners Used	•		Perf. top
Open flow after tubing/10ths Merc. in	_Inch	The state of the s		Perf. bottom
VolumeC	u. Ft. CASING CEMEN	NTED	SIZE	No. FTDate
lock pressurelbs	hrs. NAME OF SER	VICE COMPA	NY	
Dilbbls., 1st 24	hrs. COAL WAS EN	COUNTERED	AT	FEETINCHES
resh water feet	_feetFEET_	INCH	ES	FEETINCHES
alt water feet	_feetFEET_	INCH	ES	FEETINCHES
Orillers' Names				

At approximately 12:02AM I recieved a call from a Mrs. Federicks stating she had come from Charleston to cedar lakes drive and was afraid to drive up the road toward the well because of the odor of gas. I responeded to the call and was on location at approximately 12:17 am, shut in the well and preceded to check out the area with Mike Carper, Kem Gas employee who was watching the well, we could not find any odor of gas, nor any mrs Federicks, the well was opened back up and preceded to flow nitorgen. I cautioned the well tender to watch the area and head off any problems. At 7:25 AM I returned to the well which was shut in, I inspected the sourrounding areas and could not find any 05/08/2023 ts.

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

OMPANY			ADDRESS							
ARM		DISTRICT	COUNTY							
lling Material Used										
ner Loc	ation	Amount	Packer	Location						
PLUGS USED A	ND DEPTH PLACED		BRIDGES	CASIN	G AND TU	BING				
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOS				
				1						
				-						
illers' Names				annen men en de de de de de en						
marks:				*						
			verb e Talania							

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

DATE

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION

DEPT. of MINES

INSPECTOR'S WELL REPORT

				(KI	r Gas Well	
Company <u>Kaiser</u>	Exploration	CASING AND TUBING	USED IN DRILLING	LEFT IN	PACK	ERS
		Size		* 1 1 5 1		
FarmAt	kinson	16			Kind of Pac	ker
Well No		13			Size of	
District	County_ Jackson	81/4				
Drilling commenced		6%		es emiliosificostentiaenteefficostes	Depth set	-
Drilling completed	Total depth	5 3/16			Perf. top	
Date shot	Depth of shot	2		10 10 10	Perf. bottom	
Initial open flow	/10ths Water inInch	Liners Used		n 10	Perf. top	
Open flow after tubing	/10ths Merc. inInch				Perf. bottom	
Volume	Cu. Ft.	CASING CEME	NTED	SIZE	No. FT	Date
Rock pressure	lbshrs.	NAME OF SER	VICE COMPA	NY		
Oil	bbls., 1st 24 hrs.	COAL WAS EN	COUNTERED	AT	_FEET	_INCHES
Fresh water	feetfeet	FEET_	INCH	ES	FEET	_INCHES
Salt water	feetfeet	FEET_	INCH	ES	_FEET	_INCHES
Drillers' Names						
Remarks:						

Starting reclaimation today.

Jen 09/08/2023 f

8 15 84

BATE

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

INSPECTOR'S PLUGGING REPORT

COMPANY			ADDRESS				
ARM		DISTRICT.	C	OUNTY			
illing Material Used							
iner Loc	eation	Amount	Packer	Location			
PLUGS USED A	ND DEPTH PLACED		BRIDGES	CASIN	G AND TU		
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	Los	
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				<u></u>			
illers' Names					- Andrews		
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			• 000 100				

DEPARTMENT OF MINES OIL AND GAS WELLS DIVISION



OIL & GAS DIVISION

PORT DEPT. OF MINES INSPECTOR'S WELL

Permit No. 032 1919		Gas Well	as Well		
Company Kaiser Exploration	CASING AND TUBING	USED IN DRILLING	LEFT IN		PACKERS
Address	Size				
Farm	16			Kind o	f Packer
Well NoKem 478	10			Sizo	f
DistrictCounty_Jackson	81/4			5126 01	
Drilling commenced	6%	a Agrae & son		Depth	set
Drilling completedTotal depth	5 3/16			Perf. to	ор
Date shotDepth of shot	2				ottom
Initial open flow/10ths Water inInch	Liners Used			Perf. to	op
Open flow after tubing/10ths Merc. inInch				Perf. b	ottom
VolumeCu. Ft.	CASING CEME	NTED	SIZE	No. F	TDate
lock pressure lbs hrs.	NAME OF SER	VICE COMPA	NY		
Dilbbls., 1st 24 hrs.	COAL WAS EN	COUNTERED	AT	_FEET	INCHES
Fresh waterfeetfeet	FEET_	INCH	ES	FEET_	INCHES
Salt waterfeetfeet	FEET_	INCH	ES	FEET_	INCHES
Drillers' Names					
Remarks:		The state of the s			

dozer work complete on reclamation. needs seed, fert., lime,. and mulch.

DEPARTMENT OF MINES

OIL AND GAS WELLS DIVISION

MOIZIVIO 240 S IN INSPECTOR'S PLUGGING REPORT

MPANY			ADDRESS				
ARM		DISTRICT		COUNTY			
lling Material Used							
iner Loc	cation	Amount	Packer	Location			
	ND DEPTH PLACED		BRIDGES	CASING AND TUBING			
CEMENT-THICKNESS	WOOD-SIZE	LEAD	CONSTRUCTION-LOCATION	RECOVERED	SIZE	LOS	
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- post - 77 A							
				+			
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and the second s	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			1.			
						and the state of t	
and the second s							
illers' Names							
				and the second s		N-Secretario qualificativa mana	
marks:						-	

SURFACE OWNER'S COPY



	The state of the s	Stat		County	Dermit
3)	API Well No	. 47	, un fina	and the second	
2)	Operator's Well No	KEM	#478		1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (1
1)	Date: Fe	brua	ry 28		, 1934

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

Revised

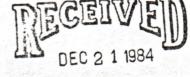
							L WORK PERIV		
4) WELL TY	NAME OF TAXABLE PARTY OF TAXABLE PARTY.	Part Land Control	NORTH CONTRACTOR OF THE PARTY O	San Contract	A /				•
6) LOCATIO	CONTRACTOR SERVICE	No. of Participation of the Pa	Production	1	A SUN TON	/ Underground	storage	/ Deep	_/ Shallow _X()
5) LOCATIO		vation: _	Rinley	part i		Watershed: County:	Grasslick	Quadrangle:	Ripley
6) WELLOP					nn an			ED AGENT R. A.	
Address	ACC STRUCTURES IN SURE	And the second s	Box B	AND THE STREET, STREET	With the state of the state of		Address	Same	
Address to the second	THE PROPERTY OF THE PARTY OF	Ravens	wood.	WV	26164	. La la favoración de la companya de			
8) OIL & GA	S INSPEC	TOR TO	BE NOTI	FIED			9) DRILLING	CONTRACTOR:	
Name	The same of the same of the same of the same	THE RESERVE OF SHIPS	The section of the se					int Hurt	经过的证券
Address	Rt	1 1	lox 101	A	的原理的	Regular School	Address	P. O. Box 383	
	R1	nley.	WV 25	271				Elkview, WV	
0) PROPOSE	D WELL	WORK:	Drill	X	✓ Drill	deeper	/ Redrill	Stimulate_	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4 4 7 2			Plug of	f old	formation	Perfo	rate new formatio	n/	
						n well (specify)	建		
I) GEOLOGI	CAL TAR	GET FOR	MATION			n Brown Sha	16	Printed August 1985	
12) Estima	ated depth o	of complet	ed well,		507	6 feet		A A CALL	
13) Appro						Colored State of the Color of t	,	feet.	
14) Appro	117年日本共和国企业公司	CONTRACT CARESTONIA	TO HOUSE BY THE SECRETARY THE	ASSESSED AND ADDRESS OF THE PARTY OF THE PAR	100 E 200	Is co	oal being mined in t	he area? Yes	/ No/ ,
5) CASING A	AND TUBI	NG PRO	GRAM						
CASING OR TUBING TYPE	Size	SPEC Grade	Weight per ft.	New	Used	FOOTAGE For drilling	Left in well	OR SACKS (Cubic feet)	PACKERS
Conductor	10000	ANTENDE		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2005 OF				Kinds
resh water	10 3/	44 (65)	1.07654.0	X	ALC:	200	200	150 sks clas	s A to surface
oal	10.10	1444	100		HUNNE'		建设在中间基础	e was with the same	Sizes
ntermediate	7"	and the	1.10.66	X		2296	2296	65 sks 50/5	pozmix, 100 sks cl
roduction	4 1/	2"		X		5076	5076	225 sks 50/	Opening serm 1 x
ubing		10 miles		1.90	-30/1	A country of the	5 442 5 17		
iners	1.76							A CONTRACTOR OF THE PARTY OF TH	Perforations:
		3-2-07			. 100			1	Top P TO D Bounding
	1000	3 40 (6	100		788			DJ C	GELV FIII
2 S 2 S 4 7 4 2 7 3 7	1 3 5 5 m			沙里	0.00			I ING	
		Market Market	A Valence	anadaji sa				Constitution of the Consti	MAD 7 - 1984
	The	Tagli (A) et	whate o	ets es	Spolitions.	Harris Day Live	(ag var) sam vara (a)	n be issued in less than	IVII II I
	the filing of	of the App	lication if	the surf	ace owne	r(s) of record sign(s) the following "Vo	oluntary Statement of	LOBJection, DIVISION
	on a facsi	mile of th	is surface	owner's	copy of	the Application.			T. OF MINES
We Fund h									
				, VU	LUNIA	RY STATEMENT	OF NO OBJECTIO	JN	
I hereby stat	te that I ha	ve read th	e instructio	ns to si	ırface ow	ners on the reverse	side of this Applica	ation for a Well Work P	ermit, and that I have received
opies of (1) a No	otice of Ap	plication	for a Well	Work P	ermit on	Form IV-2(A), (2) a	an Application for a	Well Work Permit on I	Form IV-2(B), (3) a survey plat
A CONTRACTOR OF THE PARTY OF TH	The second secon		\$15 PART PROPERTY OF THE PARTY OF THE	THE RESERVE AND ADDRESS.	SHARE WELL WINGS TO SELECT			ork on my surface land	(4) 大小作品等的设备。其他的人们的专门等。如此是一个自己的证明的。如此是一种的证明的证明的证明的。
aterials.	te that I na	ve no obje	ection to tr	ie pianr	led work	described in these n	naterials, and I hav	e no objection to a perm	nit being issued based on those
								A Charles and A Charles	
or execution b	y corporati	ion, partn	ership, etc	.)	AND THE RESERVE	<u>(Fo</u>	r execution by natu	iral persons)	The second secon
	H. H.						/ 110	Z	o lake
IAME:	70 (0.70)		I.P. C		THE IN		MC	TRANCE	Date: 9/40
Ву	Complete.	A PERMIT		数人科学	orne.			(Signature)	
T				,	ata .		Brown State Control of the Control o		Date:
Its	V deathers.	10000	WAY THEY I	U	ate	AN ATTACK		(Signature)	

AFFIDAVIT OF PERSONAL SERVICE ON SURFACE OWNER

STATE OF West Va COUNTY OF Grackson:
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) X / Form IV-3(A) / Form IV-4(A) / (2) Application on Form IV-2(B) X / 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 478 located in Ripley District, Ackson County, West Virginia, upon the person or organization namec
H. C. Fisher
by delivering the same in Mackson County, State of Mest Vo. on the 3 day of March , 19 gy in the manner specified below.
- [COMPLETE THE APPROPRIATE SECTION]
For an individual: [Handing it to him X / 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 about 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 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 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 [] MAR 7 - 1984 [Signature of person executing service]
OIL & GAS DIVISION
Taken, subscribed and sworn before me this 5 day of March, 1984. My commission expires
Donese Carney
(AFFIX SEAL IF NOTARIZED IF OUTSIDE THE STATE) Notary Public 09/08/2023



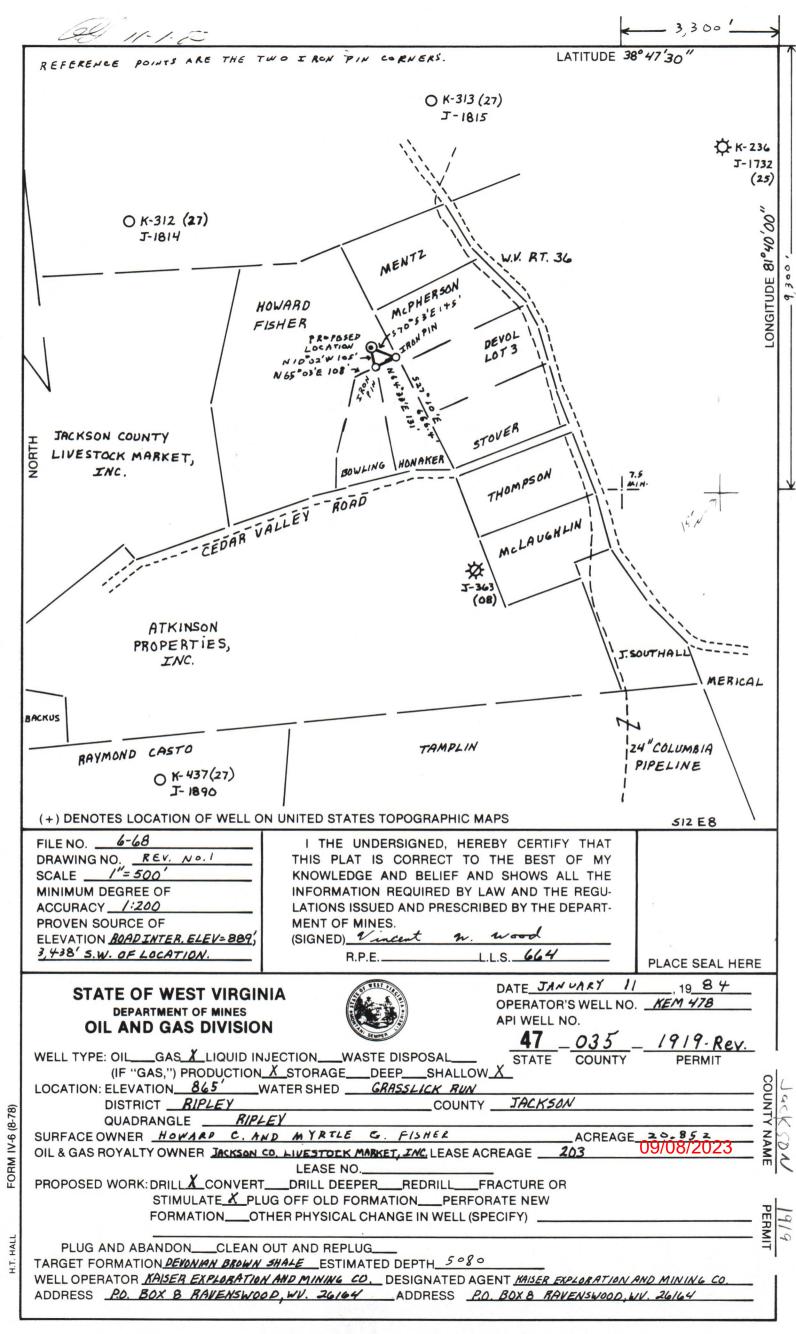
State of West Virginia Department of Mines Oil and Gas Division Charleston 25305

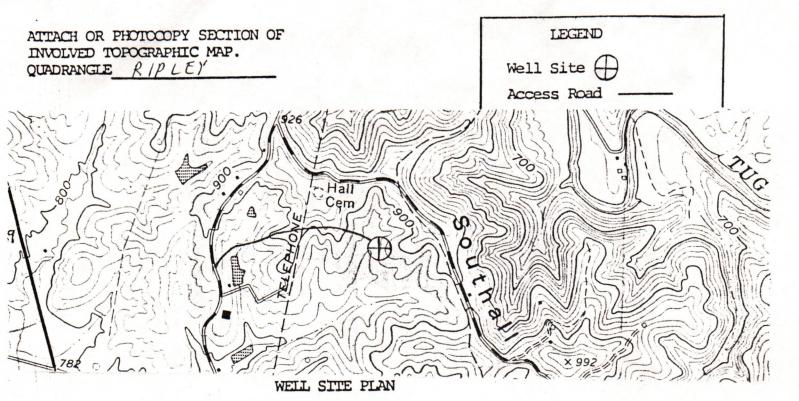


OIL & GAS DIVISION
DEPT. OF MINES

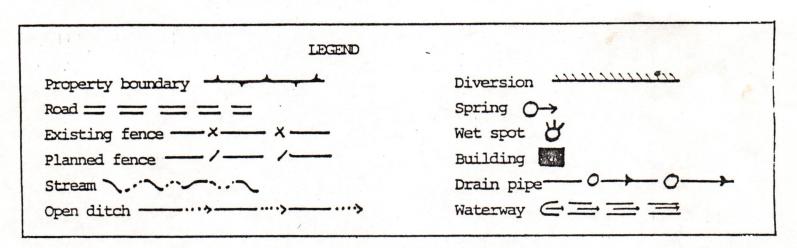
FINAL INSPECTION REPORT
INSPECTORS COMPLIANCE REPORT

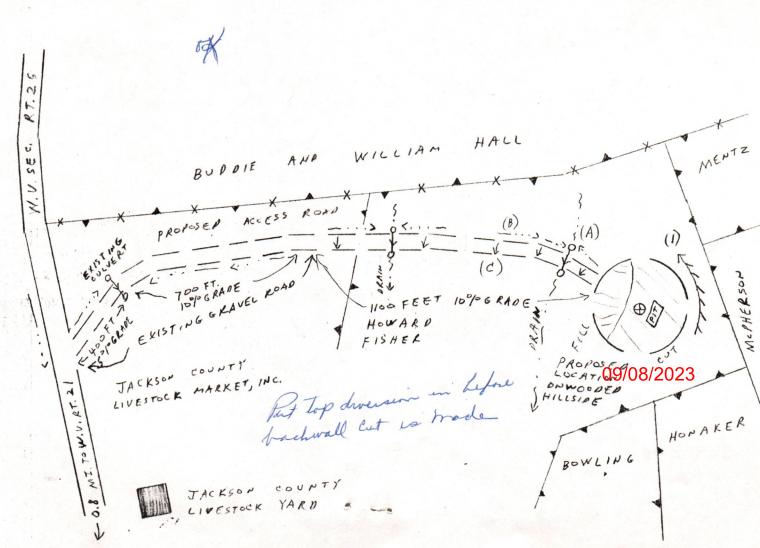
	INSTECTORS COM LIAM	E KEFUKI				
COMPANY	Kaiser Exploration	PERMIT NO _	03	5 19	19	
	P. O. Box 8	FARM & WELL	NO	Kem	478	Fisher
	Ravenswood, WV 26164	DIST. & COU			ckson	
			TV	G01/F0		
RULE	DESCRIPTION		YES		LIANC	NO NO
23.06	Notification Prior to Starting Work			Х		2.10
25.04	Prepared before Drilling to Prevent W	laste				
25.03	High-Pressure Drilling		-	-X-		
16.01	Required Permits at Wellsite			С		
15.03	Adequate Fresh Water Casing			X		
15.02	Adequate Coal Casing					
15.01	Adequate Production Casing	•		X	_	
15.04	Adequate Cement Strenght			X	_	
15.05	Cement Type	•		X	_	
23.02	Maintained Access Roads			X		
25.01	Necessary Equipment to Prevent Waste			3.5		
23.04	Reclaimed Drilling Pits			X		
23.05	No Surface or Underground Pollution					
23.07	Requirements for Production & Gatheri	ng Pipelines		-X-	_	
16.01	Well Records on Site	0 1				
16.02	Well Records Filed	-				
7.05	Identification Markings			37	_	
,		-		X	_	
I HAVE I	NSPECTED THE ABOVE CAPTIONED WELL AND	RECOMMEND THAT	r IT	BE E	RELEAS	SED:
		SIGNED O	e sh	2	Tush	alval
		11			1	
		DATE	12 2	21 84	+ -	
with Cha	l record was received and reclamation pter 22, Article 4, Section 2, the abo for the life of the well.	requirements ave well will n	rema	in ur	ider b	oond
				23,	1985	
		T	ATT			





ketch 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.







OIL & GAS DIVISION DEPT. OF MINES



IV-35 (Rev 8-81)

State of Mest Mirginia

Department of Mines Bil and Gas Bivision

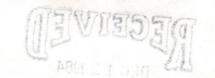
Date	July 25, 1984
Operator	
Well No.	KEM #478
Farm	Jackson Co. Livestock
APT No.	47 - 035 - 1010

WELL OPERATOR'S REPORT

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

/ Gas X / Liquid Injection / Waste Disposal

OCATION: Elevation: 865' Watershe	The state of the s				
District: Ripley County	Jackson	Quadrangle	e Kenna		
					-
COMPANY KAISER EXPLORATION AND MINING COMPAN	NY.		gram že	A-A Might L	
ADDRESS P .O. Box 8, Ravenswood, WV 26164	-	Used in	Left	Cement	7
DESIGNATED AGENT R. A. Pryce	_ Tubing	Drilling	Anna Cart	fill up Cu. ft.	
ADDRESS Same	Size				1
SURFACE OWNER Howard & Myrtle Fisher	THE PROPERTY AND ADDRESS OF THE PARTY OF THE				
ADDRESS Given, WV	$-\frac{100^{3/4}}{13-10^{3/4}}$	397KB	397 KB	225 sks c	1355
MINERAL RIGHTS OWNER Jackson Co. Livestock	9 5/8	037113	037 KB	LEG SKG C	
ADDRESS Ripley, WV 25271	- 8 5/8				7
OIL AND GAS INSPECTOR FOR THIS WORK Jerry		2127	2127	150 sks 50 100 sks c	750
Tephabock ADDRESS Rt. 1, Box 101-A				100 3K3 C	733
PERMIT ISSUED 368/84 Ripley, WV 25271	4 1/2	4428	4428	225 sks 50	150
DRILLING COMMENCED 6/28/84	- 3	1120	, , , , ,	LEG SKG GC	7
DRILLING COMPLETED 7/04/84	_ 2				
IF APPLICABLE: PLUGGING OF DRY HOLE ON					7
CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED	Liners				-
ON				1	_
GEOLOGICAL TARGET FORMATION Devonian B	Brown Shale	Dep	th 4178	feet	C
Depth of completed well 4455 fe	et Rotary	X / Cable	e Tools_		
Water strata depth: Fresh N/A fe	et; Salt N	/Afeet			
Coal seam depths: NONE RECOGNIZED	Is coal	being min	ed in the	e area? NO	
DPEN FLOW DATA	DRILL	ED ON FLUI	D Not k	(nown	
Producing formation Devonian Brown				****	t
* Gas: Initial open flow - Mcf					
Final open flow 1055 Mcf		nal open f	-		
Time of open flow between					
Static rock pressure 975 psig(su					a
F	etion)				
(If applicable due to multiple comple			LL 2540 09	9/08/2023 fee	t
(If applicable due to multiple comple Second producing formation Berea San	idstone Pay	zone dep	tn 2549 -		
Second producing formation Berea San					
Second producing formation Berea San * Gas: Initial open flow - Mcf	d Oil: Ini	itial open	flow_0	Bb1/d	d
Second producing formation Berea San	d Oil: Ini	itial open nal open f	flow 0	Bb1/d	d



DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, EIC. YOUNG'S perforated 19 shots (.39" dia) shots 4178' to 4358' Brown Shale

NOWSCO on location to foam frac Brown Shale. Breakdown pressure: 2200 7/12/84: psig with foam; breakdown fluid: foam; treating pressure: 2340 psig; total N2: 1155 mscf; total fluid: 137 bbl; no sand; ISIP: 1400 psig;

5 min SIP: 1350 psig.

YOUNG's perforated Berea with 20 (.40" dia) holes, 2549' - 2559' 7/12/84:

7/12/84: NOWSCO to foam frac the Berea; breakdown pressure: 2130 psig; maximum

pressure: 2300; total fluid: 250 bbl; total sand: 58,000# of 20/40 sand; ISIP: 3700 psig; 5 min SIP: 3600 psig; sanded off at 58,000# of sand; got well flushed half way to Berea perforations.

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	95	
Siltstone and Shale	95	252	K all A Lett at lette et lette 17.7
Sand	252	360	
Shale and Siltstone	360	740	
Sand	740	785	
Sand and Shale	785	1194	
Dunkard Sands	1194	1595	
Shale and Siltstone	1595	1746	and the second s
Salt Sands	1746	1973	
Big Lime (Greenbrier)	1973	2065	
Shale	2065	2095	
Big Injun Sand	2095	2182	
Shale	2182	2534	
Coffee Shale	2534	2554	
Berea Sand	2554	2565	S/G
Shale	2565	3805	
Brown Shale	2805	4372	s/G @ 3944, 4245, 4344
Shale	4372	4463	
Total Depth	4463		
			addings about the same of the
			West August Lines

(Attach separate sheets as necessary)

KAISER EXPLORATION AND MINING COMPANY Well Operator 09/08/2023 August 1, 1984 Date:

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."