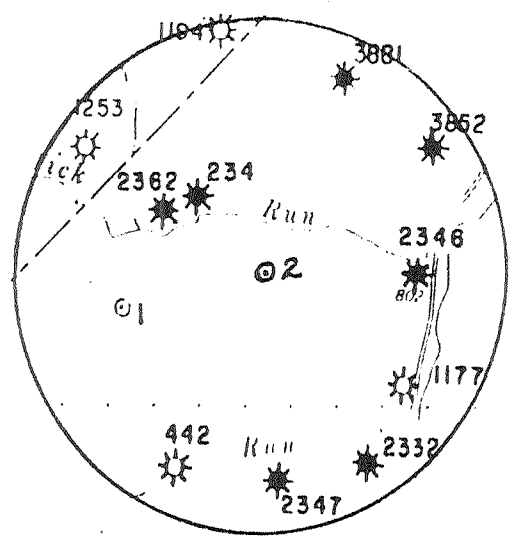
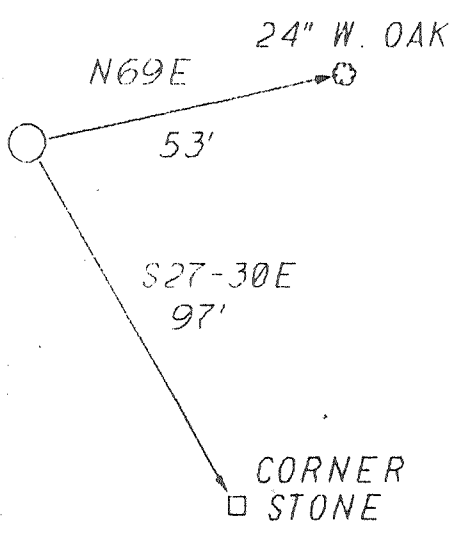


LONGITUDE 80° 05' 00"

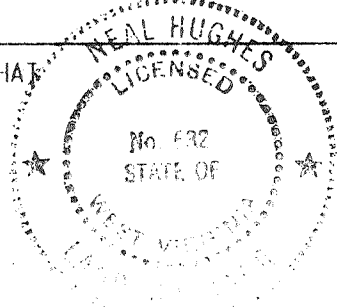
8.500'

1.575
1.530



REFERENCE POINTS

I THE UNDERSIGNED, DO 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 ENERGY.



(*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 DATE NOV. 5 19 93
 OPERATORS WELL NO JAMES NO 2
 API WELL NO 47 - 017 - 4071
 STATE COUNTY PERMIT

LLS
632 Neal Hughes

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 93-106
 PROVEN SOURCE OF ELEVATION Knob 1118' SCALE 1"=1000'

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1020' WATERSHED MUDLICK RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 915
 SURFACE OWNER LAWRENCE JAMES ACRFAGE 215 3c
 ROYALTY OWNER LAWRENCE JAMES LEASE ACRFAGE 215
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD
 PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) 6-6 Greenwood (089) ESTIMATED DEPTH 5500'
 TARGET FORMATION ALEXANDER

WELL OPERATOR KEY OIL CO. 475 DESIGNATED AGENT JAN CHAPMAN
 ADDRESS 22 GARTON PLAZA ADDRESS 22 GARTON PLAZA

COUNTY NAME PERMIT

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: JAMES, LAWRENCE Operator Well No.: JAMES #2

LOCATION: Elevation: 1,020.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE
Latitude: 8500 Feet South of 39 Deg. 20Min. Sec.
Longitude 8000 Feet West of 80 Deg. 50 Min. Sec.

Company: KEY OIL COMPANY
22 GARTON PLAZA
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 11/18/93
Well work Commenced: 11-22-93
Well work Completed: 11-29-93
Verbal Plugging
Permission granted on:
Rotary x Cable _____ Rig _____
Total Depth (feet) 5300'
Fresh water depths (ft) 35' 548'

Salt water depths (ft) 0'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): NONE

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	23'	23'	
11 3/4"	123'	123'	70 sks. to surface
8 5/8"	1541'	1541'	405 sks. to surface
4 1/2"		5244'	255 sks.
1.5"		5168'	

OPEN FLOW DATA

Riley 4478-4526
Benson 4898-4904
Producing formation Alexander Pay zone depth (ft) 5184-5210

Gas: Initial open flow 29 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 712 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure 1890 psig (surface pressure) after 96 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: KEY OIL COMPANY
By: Jan Chapman President
Date: December 15, 1993

James #2 47-017-4071
 Details of Perforated Intervals and Fracturing
 3 Stage Foam Frac - Halliburton

Stage 1: Alexander (11 holes) (5189.75'-5202') 60 Quality foam, 500 gal. 15% HCl, 30,000 lbs.
 20-40 sand, 358,000 SCFN₂

Stage 2: Benson (10 holes) (4899'-4901.25') 75 Quality foam, 750 gal. 15% HCl, 20,000 lbs.
 20-40 sand, 363,000 SCFN₂

Stage 3: Riley (10 holes) (4497.50'-4222') 60 Quality foam, 750 gal. 15% HCl, 5000 lbs.
 80-100 sand, 35,000 lbs. 20-40 sand, 414,000 SCFN₂

WELL LOG

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Sand, shale, red rock	0	1874	1/2" Stream H ₂ O @35'
Little Lime	1874	1910	1/2" Stream H ₂ O @548'
Big Lime	1910	2020	
Injun	2020	2070	
Sand and shale	2070	4478	
Riley	4478	4526	<u>Gas Checks:</u>
Sand and shale	4526	4898	
Benson	4898	4904	2505 N/S
Sand and shale	4904	5184	3005 N/S
Alexander	5184	5210	3502 N/S
Sand and shale	5210	5300 T.D.	4000 N/S
			4500 N/S
			4910 N/S
			T.D. 8/10 thru 1" w/water

DF -424
 PFT-439

18307

017-4071

FORM WW-2B

NOV 1 2 93

Page ___ of ___

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

Issued 11/18/93
 Expires 11/18/95
 671

Well Operator: Key Oil Company ⁴⁷⁵ 55655 ①

Operator's Well Number: James #2 3) Elevation: 1020

Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /

Proposed Target Formation(s): Alexander 439

- 6) Proposed Total Depth: 5400 feet
- 7) Approximate fresh water strata depths: 90'
- 8) Approximate salt water depths: 1450'
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No
- 11) Proposed Well Work: Drill, Stimulate, Produce
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMEN Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor						38CSR1871
Fresh Water	11 3/4	ERW	42	132	132	To surface
Coal						38CSR19110
Intermediate	8 5/8	ERW	23	1500	1500	To surface
Production	4 1/2	J-55	10.50		5300	260 sks.
Tubing	1.5"					38CSR19111
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Division of Oil and Gas Use Only

Fee(s) paid: _____ Well Work Permit _____ Reclamation Fund _____ WPC: _____

Plot _____

1) Date: November 8, 1993
2) Operator's well number
James #2
3) API Well No: 47 - 017 - 4071
State - County - Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- | | |
|--|--|
| <p>4) Surface Owner(s) to be served:</p> <p>(a) Name <u>Lawrence James</u>
Address <u>Rt. 1 Box 104</u>
<u>Greenwood, WV 26360</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name _____
Address _____</p> <p>(b) Coal Owner(s) with Declaration</p> <p>Name _____
Address _____</p> <p>Name _____
Address _____</p> <p>(c) Coal Lessee with Declaration</p> <p>Name _____
Address _____</p> |
| <p>6) Inspector <u>Mike Underwood</u>
Address <u>Rt. 2 Box 135</u>
<u>Salem, WV 26426</u>
Telephone (304)- <u>782-1043</u></p> | |

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

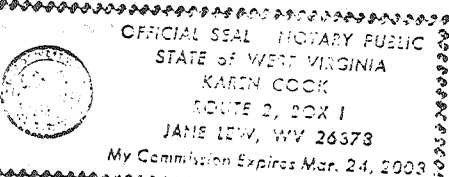
- X Personal Service (Affidavit attached)
- _____ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Key Oil Company
 By: [Signature]
 Its: President
 Address 22 Garton Plaza
Weston, WV 26452
 Telephone 304-269-7102



Subscribed and sworn before me this 8th day of November, 19 93

Karen Cook Notary Public
My commission expires March 24, 2003