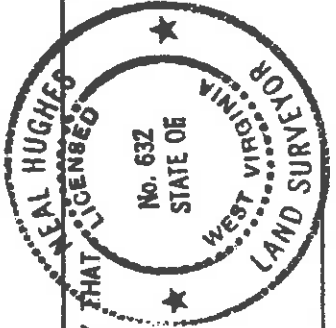
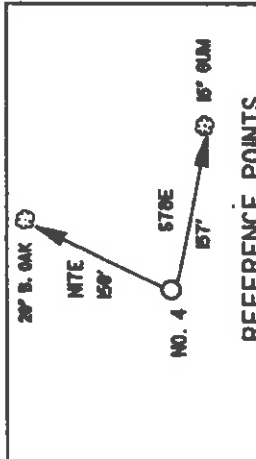
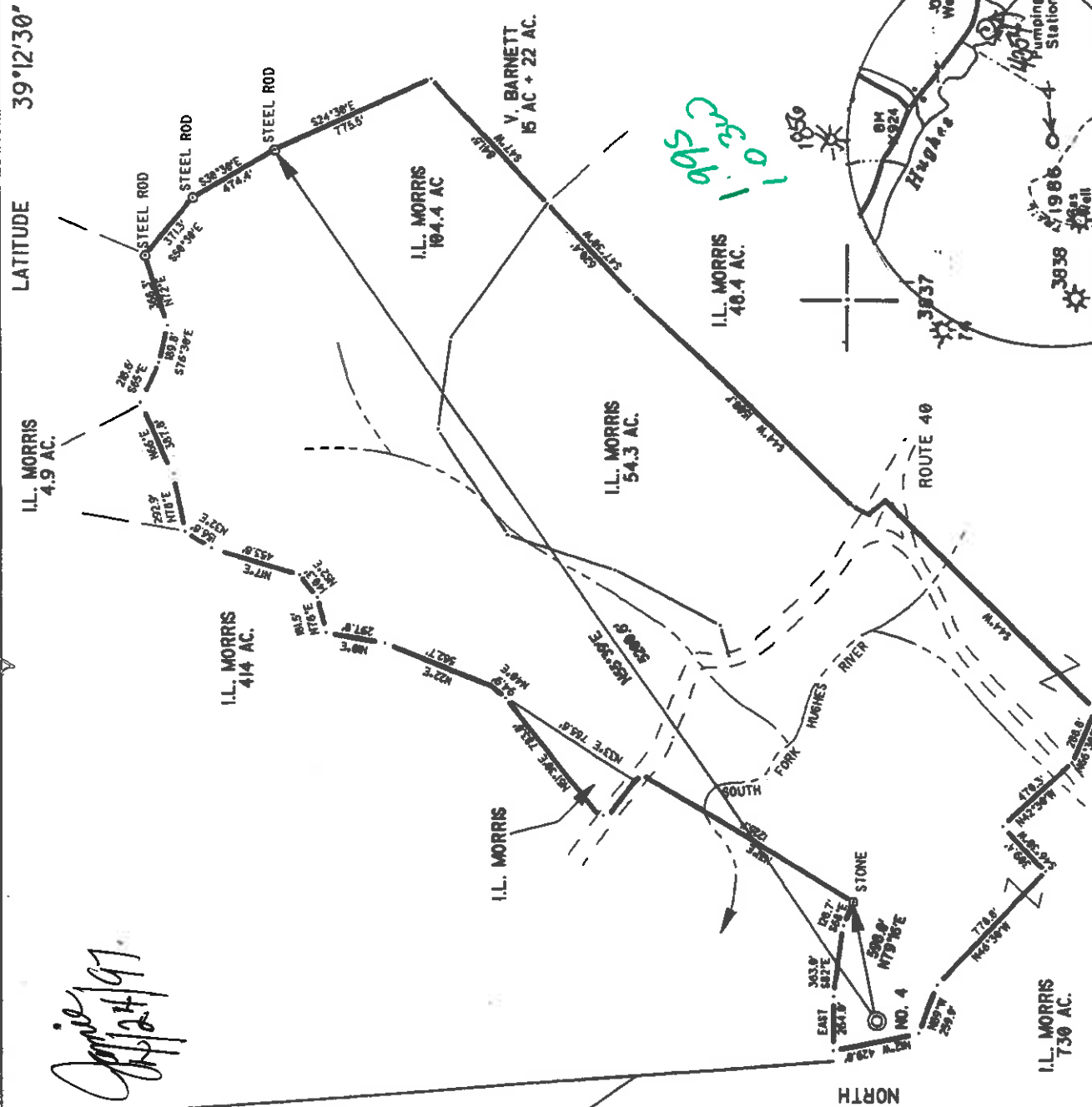


James
12/19/97



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.

L.S. *Neal Hughes*
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(*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
DATE MARCH 26, 19 97
OPERATORS WELL NO. DRENNAN 4

API WELL NO. 47 - 017-04355
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 97-19 S
PROVEN SOURCE OF ELEVATION ROAD INTER. 966' SCALE 1" = 800'

WELL TYPE: OIL GAS LIQUID WASTE DISPOSAL 'GAS' PRODUCTION STORAGE DEEP SHALLOW

LOCATION ELEVATION 1151' WATERSHED SOUTH FORK HUGHES RIVER
DISTRICT SOUTHWEST COUNTY DODDRIDGE QUADRANGLE OXFORD
SURFACE OWNER I. L. MORRIS ACREAGE 730
ROYALTY OWNER SUSAN V. DRENNAN, ET AL LEASE ACREAGE 236

PROPOSED WORK:
DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION ALEXANDER
ESTIMATED DEPTH 5600' 6-6 134

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN APR 28 1997
ADDRESS 22 GARTON PLAZA WESTON, WV 26452
ADDRESS 22 GARTON PLAZA WESTON, WV 26452

COUNTY NAME PERMIT

5,450' LATITUDE 39°12'30" LONGITUDE 80°45'00" 10,500'

11-11-97
Environmental
0011 1037

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

Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: MORRIS, I.L.

Operator Well No. : DRENNAN #4

LOCATION: Elevation: 1,151.00 Quadrangle: OXFORD

District: SOUTHWEST County: DODDRIDGE
Latitude: 10500 Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude: 5450 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: KEY OIL COMPANY
22 Garton Plaza
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD

Permit Issued: 04/15/97

Well Work Commenced: 05/14/97

Well Work Completed: 05/27/97

Verbal Plugging _____

Permission granted on: _____

Rotary X Cable _____ Rig _____

Total Depth (feet) 5344'

Fresh water depths (ft) 15'

Salt water depths (ft) 392'

Is coal being mined in area (Y / N)? N

Coal Depths (ft) : None Reported

OPEN FLOW DATA

Warren

Speechley

Balltown

Riley

Benson

Elk

Producing formation Alexander

Gas: Initial open flow 84 MCF / d

Final open flow 1,675 MCF / d

Time of open flow between initial and final tests N/A

Static rock pressure 1500 psig (surface pressure) after 96

Pay zone depth (ft)

Oil: Initial open flow 0 Bbl / d

Oil: Final open flow show Bbl / d

Hours

Hours

3224' - 3270'

3280' - 3411'

3707' - 4172'

4392' - 4446'

4851' - 4862'

5000' - 5018'

5100' - 5206'

Second producing formation Commingled

Gas: Initial open flow _____ MCF / d

Final open flow _____ MCF / d

Time of open flow between initial and final tests _____

Static rock pressure _____ psig (surface pressure) after _____

Pay zone depth (ft)

Oil: Initial open flow _____ Bbl / d

Oil: Final open flow _____ Bbl / d

Hours

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: 

Date: OCTOBER 13, 1997

PRESIDENT

OCT 17 1997

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
11 3/4"	129.3	129.3	70 sks To Surface
8 5/8"	1882.85	1882.85	555 sks To Surface
4 1/2"	5254	5254	475 sks
2 3/8"		5121	

**Drennan #4 (47-017-04355)
Four Stage Foam Frac - Halliburton**

1st Stage: Alexander (10 holes) (5141.75' to 5197.5') 60 Quality Foam. 500 gal. 15% HCL. 40,000# 20/40 sand, 421,000 SCF N2, 620 bbls foam.

2nd Stage: Benson (10 holes) (4854' to 4856.25') 60 Quality Foam. 750 gal 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 615 bbls foam.

3rd Stage: Riley (8 holes) (4420' to 4443.25') 60 Quality Foam. 1000 gal 15% HCL. 5,000# 80/100 sand, 35,000# 20/40 sand, 438,000 SCF N2, 645 bbls foam.

4th Stage: Speechley (9 holes) (3286' to 3403.75') 60 Quality Foam, 1,000 gal 15% HCL. 5,000# 80/100 sand, 55,000# 20/40 sand, 522,000 SCF N2, 819 bbls foam.

Warren (5 holes) (3247.75' to 3261.25')

WELL LOG

Fill	0	4	
Sand & Shell	4	28	Damp @ 15'
Red Rock & Sand & Shale	28	531	Damp @ 392'
Lime	531	536	
Sand & Shale & Red Rock	536	1077	
Sand	1077	1194	
Shale & Red Rock	1194	1522	
White Sand	1522	1571	
Sand & Shale	1571	1832	
Little Lime	1832	1846	
Sand & Shale	1846	1882	
Big Lime	1882	1930	
Big Injun	1930	2020	
Shale	2020	2149	
Weir	2149	2271	
Shale	2271	2352	
Berea	2352	2362	
Sand & Shale	2362	2546	
Gordon	2546	2599	
Sand & Shale	2599	3224	
Warren	3224	3270	
Shale	3270	3280	
Speechley	3280	3411	
Shale	3411	3707	
Balltown	3707	4172	
Shale & Sand	4172	4392	
Riley	4392	4446	
Shale	4446	4851	
Benson	4851	4862	
Sand & Shale	4862	5000	
Elk	5000	5018	
Shale	5018	5100	
Alexander	5100	5206	
Sand & Shale	5206	5344	
T.D.	5344		

Gas Checks

2593 - No Show
 3026' - 4/10ths 2" w/H²O
 3519 - 4/10ths 2" w/H²O
 4014 - 4/10ths 2" w/H²O
 4819 - 6/10ths 2" w/H²O
 5130 - 6/10ths 2" w/H²O
 TD - 6/10ths 2" w/H²O
 Collars - 4/10ths 2" w/H²O

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

1) Well Operator: KEY OIL COMPANY 25155 526
 2) Operator's Well Number: DRENNAN #4 3) Elevation: 1151'

4) Well type: (a) Oil X / or Gas X / Issued 04/15/97
 (b) If Gas: Production X / Underground Storage / Expired 04/15/99
Deep / Shallow X /

Proposed Target Formation(s): ALEXANDER

Proposed Total Depth: 5600 feet

Approximate fresh water strata depths: 100'

Approximate salt water depths: 1511'

9) Approximate coal seam depths: NONE REPORTED

10) Does land contain coal seams tributary to active mine? Yes / No X /

11) Proposed Well Work: DRILL, STIMULATE, PRODUCE Appl. Well

12)

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT PER FT.	FOOTAGE	INTERVALS	CEMENT
Conductor						
Fresh Water	11 3/4	ERW	42	132		70 SKS. TO SURFACE
Coal						545 SKS. TO SURFACE
Intermediate	8 5/8	ERW	23	2020		460 SKS.
Production	4 1/2	J-55	10.5	5470		
Tubing	1.5					
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only
 Fee(s) paid: Well Work Permit Reclamation Fund WPC2
 Plat WW-9 WW-2B Bond _____ (Type)

1) Date: APRIL 5, 1997
2) Operator's well number
DRENNAN #4
3) API Well No: 47 - 017 - 4355
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: 5) (a) Coal Operator:

(a) Name I. L. MORRIS Name NONE
Address P. O. BOX 397 Address
GLENVILLE, WV 26351

(b) Name (b) Coal Owner(s) with Declaration
Address Name Address

(c) Name Name
Address Address

6) Inspector MIKE UNDERWOOD (c) Coal Lessee with Declaration
Address RT. 2 BOX 135 Name
SALEM, WV 26426 Address

Telephone (304) - 782-1043

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

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 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:

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

I have read and understand Chapter 22-6 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 21TH day of MARCH 24, 2003
My commission expires

