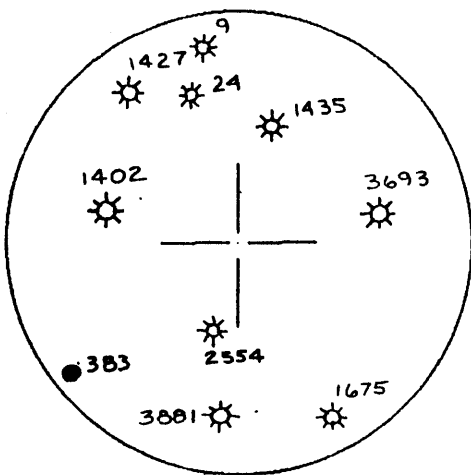


LATITUDE 39°20' 00"

LONGITUDE 80°50'00"

4.850'



0.92
1.33

R. McCULLOUGH
28.75 AC.

STONE □ S77-45E 660.0'

HOUSE □

STEVEN SAUNDERS
T.M. 20 PAR. 9
10 ACRES

N08-00W 660.0'
N13-30W 613.2'

D. WALTON
137 AC.

NO. 1
S42-00W 77.2'

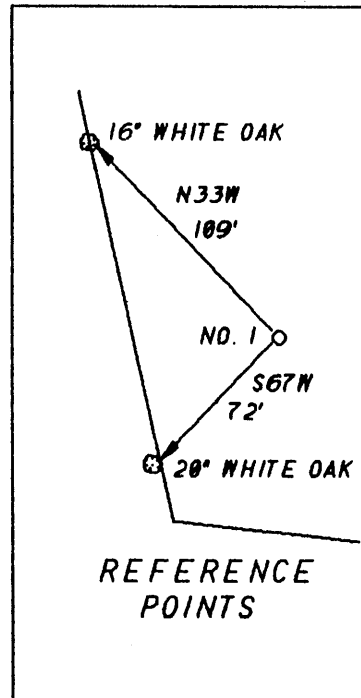
FENCE POST

N74-00W 660.0'

GARNER
25 AC.

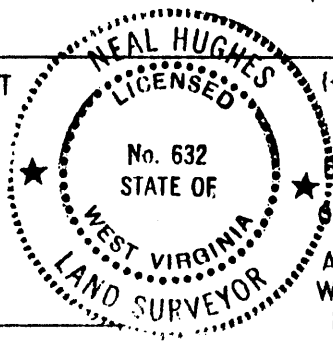
0.92
1.33

WITH ROAD



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 DEC. 10, 19 93

OPERATORS WELL NO. SAUNDERS 1

L.I.S. Neal Hughes
632

API WELL NO. 47 - 095 - 1576
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 93-116
PROVEN SOURCE OF ELEVATION TOP OF KNOB 1130' SCALE 1"=200'

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 1047' WATERSHED LONG RUN

DISTRICT CENTERVILLE COUNTY TYLER QUADRANGLE WEST UNION SC

SURFACE OWNER STEVEN SAUNDERS ACREAGE 10

ROYALTY OWNER STEVEN SAUNDERS LEASE ACREAGE 10

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) 6-6 90 TARGET FORMATION ALEXANDER
ESTIMATED DEPTH 5400'

WELL OPERATOR KEY OIL CO. 425 DESIGNATED AGENT JAN CHAPMAN
ADDRESS 22 GARTON PLAZA WESTON WV 26452 ADDRESS 22 GARTON PLAZA WESTON WV 26452

COUNTY NAME PERMIT

TYLER - 1576

REC'D
 WV Dept of Environmental Protection
 MAR 0 8 04
 Permitting
 Office of Oil, Gas & Coal

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

Well Operator's Report of Well Work

Farm name: SAUNDERS, STEVEN Operator Well No.: SAUNDERS #1

LOCATION: Elevation: 1,047.00 Quadrangle: WEST UNION

District: CENTERVILLE County: TYLER
 Latitude: 4850 Feet South of 39 Deg. 20Min. Sec.
 Longitude 7125 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: 01/11/94
 Well work Commenced: 02/16/94
 Well work Completed: 02/21/94
 Verbal Plugging
 Permission granted on: _____
 Rotary Cable _____ Rig
 Total Depth (feet) 5366'
 Fresh water depths (ft) 90, 320
 Salt water depths (ft) -0-

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	17	17	
11 3/4"	132	132	70 sks to surface
8 5/8"	1582	1582	415 sks to surface
4 1/2"		5290	260 sks
1.5"		5093	

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

OPEN FLOW DATA

Riley 4517-4558
 Benson 4924-4931

Producing formation Alexander Pay zone depth (ft) 5211-5244
 Gas: Initial open flow 15 MCF/d Oil: Initial open flow 0 Bbl/d
 Final open flow 1061 MCF/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests N/A Hours
 Static rock Pressure 1600 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 Jan Chapman
 Date: March 4, 1994

SAUNDERS #1 47-095-1576
 DETAILS OF PERFORATED INTERVALS AND FRACTURING
 3 STAGE FOAM FRAC - HALLIBURTON

Stage 1: Alexander (10 holes) (5214.50'-5237') 60 Quality Foam, 750 gal. 15% HCl, 30,000 lbs. 20-40 sand, 354,000 SCF N₂, 524 bbls. foam.

Stage 2: Benson (10 holes) (4926'-4928.25') 75 Quality Foam, 750 gal. 15% HCl, 30,000 lbs. 20-40 sand, 424,000 SCF N₂, 520 bbls. foam.

Stage 3: Riley (13 holes) (4518.75'-4551.25') 60 Quality Foam, 750 gal. 15% HCl, 5000 lbs. 80-100 sand, 35,000 lbs. 20-40 sand, 410,000 SCF N₂, 647 bbls. foam.

WELL LOG

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Sand, shale, red rock	0	1880	Damp at 90'
Little Lime	1880	1904	Damp at 320'
Big Lime	1904	2036	
Big Injun	2036	2094	
Sand and shale	2094	4517	<u>Gas Checks:</u>
Riley	4517	4558	2500' N/S
Sand and shale	4558	4924	3000' N/S
Benson	4924	4931	3524' N/S
Sand and shale	4931	5211	4021' N/S
Alexander	5211	5244	4424' N/S
Sand and shale	5244	5366 T.D.	4703' 2/10 thru 1" w/water
			5000' 2/10 thru 1" w/water
			T.D. 2/10 thru 1" w/water

18563

095-1576
 Issued 01/11/94
 Expires 01/11/96
 Page of

FORM WW-2B

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

18563

- 1) Well Operator: Key Oil Company ⁴⁷⁵ 25655 (1) 671
- 2) Operator's Well Number: Saunders #1 3) Elevation: 104
- Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5400 feet
- 7) Approximate fresh water strata depths: 90'
- 8) Approximate salt water depths: 1475'
- 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		CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	16	USED		25	0	30/11/3
Fresh Water	11 3/4	ERW	42	132	132	To Surface
Coal						
Intermediate	8 5/8	ERW	23	1525	1525	To Surface
Production	4 1/2	J-55	10.50		5300 ←	260 sks.
Tubing	1.5"					
Liners						

PACKERS : Kind
 Sizes
 Depths set

For Division of Oil and Gas Use Only

1403/21

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

2) Operator's well number
Saunders #1
3) API Well No: 47 - 095 - 1576
State - County - Permit

Permitting
of Oil & Gas
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>Steven Saunders</u>
Address <u>1904 13th Avenue</u>
<u>Vienna, WV 26105</u></p> <p>(b) Name _____
Address _____</p> <p>(c) Name _____
Address _____</p> | <p>5) (a) Coal Operator:</p> <p>Name <u>None</u>
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 <u>(304)- 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
 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:

- _____ 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: Jan Chapman Jan Chapman
Its: President
Address 22 Garton Plaza
Weston, WV 26452
Telephone 304-269-7102

Subscribed and sworn before me this 16th day of December, 1993

Karen Cook Notary Public

