

SURVEYED LONG.
80° 44' 56.9"

11570'

LATITUDE 39° 17' 30"

BARNES LEASE 15.25 ACRES ± WELL NO. 4

ELLA TATE
ESTATE
10.86 ACRES±
SURFACE

KEY OIL COMPANY
& FRANKLIN
BUTLER
3/4 ACRES±
SURFACE

KEY OIL COMPANY
& FRANKLIN
BUTLER
88.37 ACRES±
SURFACE

KEY OIL COMPANY
& FRANKLIN
BUTLER
86.09 ACRES±
SURFACE

KEY OIL COMPANY
& FRANKLIN
BUTLER
86.09 ACRES±
SURFACE

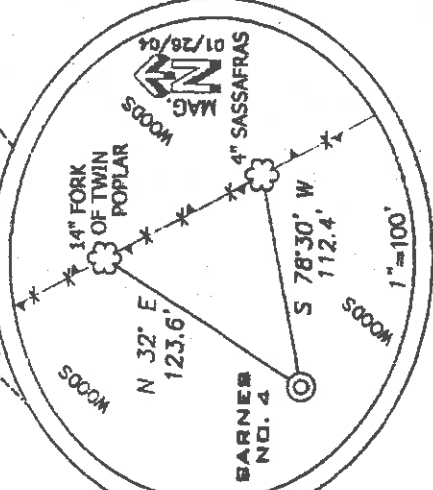
KEY OIL COMPANY
& FRANKLIN
BUTLER
15.25 ACRES±
SURFACE

PAUL MCCUTCHAN
123.38 ACRES±
SURFACE

ELLA TATE
ESTATE
35.96 ACRES±
SURFACE

PROPOSED WELL
STATE PLANE NAD 87
COORDINATES
N) 888988
E) 1646438

REFERENCES



GRID NORTH
WV NORTH ZONE

SURVEYED LAT. 39° 17' 11.8"

LONGITUDE 80° 42' 30"

REFERENCE NOTES

LEASE AS SHOWN TAKEN
FROM DEED BOOK 30
PAGE 425

OWNERSHIP TAKEN FROM PUBLIC
RECORDS OF DODDRIDGE COUNTY,
WV IN JANUARY, 2004.
LAT./LONG. BY DIFFERENTIAL
SUBMETER MAPPING GRADE GPS

(*) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

I, THE UNDERSIGNED HEREBY CERTIFY THAT THIS PLAN IS CORRECT
TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND
PREPARED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.8
1008



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

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL

IF 'GAS' PRODUCTION STORAGE DEEP SHALLOW

LOCATION ELEVATION 1110' WATERSHED TRIBUTARY OF MIDDLE ISLAND CREEK

DISTRICT WEST UNION

QUADRANGLE SMITHBURG 7.5'

SURFACE OWNER KEY OIL COMPANY AND FRANKLIN BUTLER

LEASE NUMBER DODDRIDGE

AGREEMENT 15.25±

OIL & GAS ROYALTY OWNER THOMAS E. MOBLEY HRS & LEWIS MAXWELL HRS LEASE AGREEMENT 15.25±

PROPOSED WORK DRILL CONVERT DRILL DEEPER REFRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY)

TARGET FORMATION ALEXANDER

PERMIT CLEAN OUT & REPLUG 5600'

WELL OPERATOR KEY OIL COMPANY

DESIGNATED AGENT JAN CHAPMAN

ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

DATE: JANUARY 27, 2004

OPERATORS WELL NO. BARNES NO. 4

API WELL NO.

47-017 04801

STATE COUNTY PERMIT

COUNTY NAME

PERMIT

0000 4801

6-6 Smithson-Fink-Schelig

99

MOB 307-271-1101

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

fw

Well Operator's Report of Well Work

Farm Name: KEY OIL COMPANY & FRANKLIN BUTLER

Operator Well No.: BARNES NO. 4

LOCATION: Elevation: 1110'

Quadrangle: SMITHBURG

District: WEST UNION
Latitude: 1875 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 11570 Feet West of 80 Deg. 42 Min. 30 Sec.

County: DODDRIDGE

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

Agent: JAN CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 05/05/04
Well Work Commenced: 08/07/04
Well Work Completed: 08/10/04

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5400'
Fresh water depths (ft) 452'
Salt water depths (ft) NONE

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 225' (4')

OPEN FLOW DATA

Warren
Speechley
Balltown
Rileys
Benson
Alexander

Producing formation _____
Gas: Initial open flow 84 MCF / d
Final open flow 2,144 MCF / d
Time of open flow between initial and final tests N/A
Static rock pressure 1895 psig (surface pressure) after 96 Hours
Pay zone depth (ft)
Oil: Initial open flow 0 Bbl / d
Oil: Final open flow show Bbl / d
Hours

Second producing formation _____
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

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORMED 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.

0000 4801

For: KEY OIL COMPANY

RECEIVED
Office of Oil & Gas
Office of Chief
DEC 2 2004
WV Department of
Environmental Protection

By: 
Date: November 23, 2004

DEC 2 3 2004

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
8 5/8"	1115'	1115'	250 sks To Surface
4 1/2"	5330'	5330'	480 sks.

Barnes #4 (47-017-4801)
Four Stage Foam Frac – BJ Services

1 st Stage:	Alexander (14 holes) (5166' to 5239.50')	60 Quality Foam, 500 gal. 15% HCL., 60,000# 20/40 sand, 565,000 SCF N2, 815 bbis foam
2 nd Stage:	Benson (9 holes) (4907' to 4909') Third Riley (4 holes) (4739.50' to 4795.75')	60 Quality Foam, 750 gal 15% HCl, 30,000# 20/40 sand, 383,000 SCF N2, 526 bbis foam
3 rd Stage:	Riley (8 holes) (4454.50' to 4472') Balltown (5 holes) (3768' to 4019.25')	60 Quality Foam, 750 gal 15% HCl 5,000# 80/100 sand, 30,000# 20/40 sand, 437,000 SCF N2, 603bbis foam
4 th Stage:	Speechley (11 holes) (3300.25' to 3371.75') Warren (2 holes) (3268.35' & 3268.50')	60 Quality Foam, 750 gal 15% HCl 5,000# 80/100 sand, 45,000# 20/40 sand, 475,000 SCF N2, 729bbis foam

WELL LOG

KB	0	10	
Sand & Gravel	10	25	
Sand & Shale	25	48	
Sand & Shale & Red Rock	48	225	
Coal	225	229	
Sand & Shale	229	501	Damp @ 452'
Red Rock	501	543	
Sand & Shale	543	622	
Red Rock	622	640	
Sand & Shale	640	780	
Sand	780	802	
Sand & Shale	802	855	
Red Rock	855	914	
Sand & Shale	914	1099	
Sand	1099	1203	
Sand & Shale	1203	1807	
Little Lime	1807	1850	
Big Lime	1850	1896	
Big Irjun	1896	2006	
Shale	2006	2153	<u>Gas Checks</u>
Weir	2153	2242	1823' – No Show
Shale	2242	2550	2606' - Odor
Gordon	2550	2616	3264' - Odor
Shale	2616	3230	3800 – 8/10 ^{ths} water/2"
Warren	3230	3285	4460' - 8/10 ^{ths} water/2"
Shale	3285	3294	4930' - 4/10 ^{ths} water/2"
Speechley	3294	3380	5150' - 4/10 ^{ths} water/2"
Shale	3380	3574	
Balltown	3574	4095	
Shale	4095	4416	
Riley	4416	4494	
Shale	4494	4730	
Third Riley	4730	4860	
Shale	4860	4902	
Benson	4902	4913	
Shale	4913	5150	
Alexander	5150	5254	
Shale	5254	5400	
TD	5400		

DEC 23 2004