

BARNES LEASE 34.12 ACRES± WELL NO. 2

JOHN P. &
MARY LONGACRE ET AL.
88.37 ACRES±
(SURFACE)

14" CHESTNUT
OAK

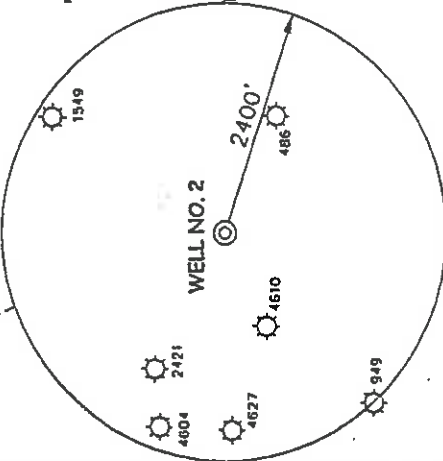
LEONCE LABEL
90 ACRES±
(SURFACE)

DANNY CANTRELL
67.25 ACRES±
(SURFACE)

THOMAS BARNES
34.12 ACRES±
(SURFACE)

TATTS
10.86 ACRES±
(SURFACE)

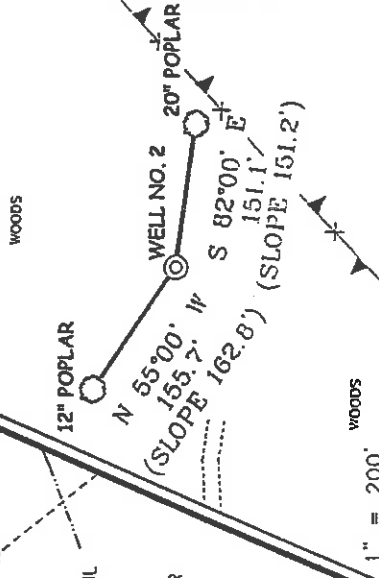
THOMAS BARNES
15.5 ACRES±
(SURFACE)



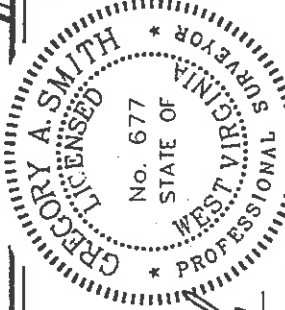
NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 03-04-02.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A TITLE OPINION DATED APRIL 2, 1998 AS PREPARED BY RICHARD 2. REDDECLIFF ATTORNEY AT LAW.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN MARCH 2002.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



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 PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



P.S.
677 *Gregory A. Smith*

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4975P2(114/75)
PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1,295'
SCALE 1" = 400'

WELL TYPE : OIL GAS INJECTION WASTE LIQUID IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION : ELEVATION 1,088' WATERSHED MIDDLE ISLAND CREEK

DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER THOMAS BARNES ACREAGE 34.12

ROYALTY OWNER THOMAS BARNES ET AL. LEASE ACREAGE 34.12 LEASE NO. _____

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 GORDON ESTIMATED DEPTH 2,900'

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

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE MARCH 3, 20 02
OPERATORS WELL NO. 2
API WELL NO. 47-17-04682
STATE COUNTY PERMIT



0000 COUNTY NAME
4682 PERMIT

6-6 99
APR 19 2002

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

RECEIVED
Office of Oil & Gas
Permitting

SEP 19 2002

Well Operator's Report of Well Work

WV Department of
Environmental Protection
Operator Well No.: BARNES #2

Farm Name: THOMAS BARNES, ET. AL.

LOCATION: Elevation: 1088'

Quadrangle: WEST UNION

District: WEST UNION County: DODDRIDGE
Latitude: 425 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 50 Feet West of 80 Deg. 45 Min. 00 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 04/15/02
Well Work Commenced: 07/15/02
Well Work Completed: 07/17/02

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig

Total Depth (feet) 2788'
Fresh water depths (ft) 168'
Salt water depths (ft) None

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

OPEN FLOW DATA

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
8 5/8"	1108'	1108'	280 sks To Surface
4 1/2"	2732'	2732'	240 sks
2 3/8"			

Producing formation Keener
Gas: Initial open flow 133 MCF / d Oil: Initial open flow 0 Bbl / d
Final open flow 1,913 MCF / d Oil: Final open flow show Bbl / d
Time of open flow between initial and final tests N/A Hours
Static rock pressure 125 psig (surface pressure) after 96 Hours

Second producing formation Commingled
Gas: Initial open flow _____ MCF / d Oil: Initial open flow _____ Bbl / d
Final open flow _____ MCF / d Oil: 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: 
Date: September 3, 2002

DCT 18 2002

PRESIDENT

DODD 4682

Barnes #2 (47-017 -4682)
Two Stage Foam Frac - B.J. Services

1st Stage: Gordon (7 holes) (2613.25' to 2629.25') 60 Quality Foam. 500 gal. 15% HCL.
Berea (2377.75' to 2391.75') 60,000# 20/40 sand, 545,000 SCF N2,
774 bbis foam.

2nd Stage: Big Injun (15 holes) (1950' to 2007.75') 60 Quality Foam. 1,000 gal 15% HCL.
Keener (6 holes) 1916' to 1936.75') 60,000# 20/40 sand, 632,000 SCF N2,
843 bbis foam.

WELL LOG

KB-GL	0	10	
Gravel	10	25	
Sand & Shale	25	60	
Red Rock	60	85	
Sand & Shale	85	140	
Sand	140	173	Damp @ 168'
Sand & Shale	173	510	
Sand	510	530	
Sand & Shale	530	760	
Sand	760	765	
Sand & Shale	765	937	
Sand	937	953	
Sand & Shale	953	1119	
Sand	1119	1182	
Sand & Shale	1182	1592	
Sand	1592	1713	
Sand & Shale	1713	1811	
Little Lime	1811	1849	
Big Lime	1849	1903	
Keener	1903	1966	
Shale & Lime	1966	1972	
Big Injun	1972	2026	
Sand & Shale	2026	2173	
Weir	2173	2267	
Sand & Shale	2267	2373	
Berea	2373	2393	
Sand & Shale	2393	2568	
Gordon	2568	2633	
Shale	2633	2788	
TD	2788		

Gas Checks

1811' - 2110^{ths} -2" w/water
2032' - 1410^{ths} -2" w/water
2095' - 2010^{ths} -2" w/water
2443' - 1010^{ths} -2" w/water
2631' - 1010^{ths} -2" w/water
2726' - 1010^{ths} -2" w/water