

REFERENCE NOTES

LEASE AS SHOWN TAKEN FROM A TITLE OPINION DATED 06-11-2003 AS PREPARED BY GARY MORRIS, LAWYER OWNERSHIP TAKEN FROM PUBLIC RECORDS OF DODDRIDGE COUNTY, WV IN NOVEMBER, 2003. LAT/LONG BY DIFFERENTIAL SUBMETER MAPPING GRADE GPS

APPROXIMATE MINERAL TRACT DIVISION LINE

GLASPELL 34.5 ACRES± SURFACE TM 9-23

WILLIAM YERKEY 54.93 ACRES± SURFACE TM 9-24

STONE, FD. EDWARD SNYDER 19.11 ACRES± SURFACE TM 9-32.1

EDWARD SNYDER 35.84 ACRES± SURFACE TM 9-32.2

EDWARD SNYDER 36.63 ACRES± SURFACE TM 9-32

HOOVER FORK 115 ACRES± SURFACE TM 13-03

N 61° 19' 21.44" W 396.00'±

S 26° 51' E 167.67'

N 87° W 55.70' (SLOPE 61.0)

18" CHESTNUT OAK

BROOME NO. 3 2400'

4710

2408

BROOME NO. 3 5/8 REBAR, FD. REFERENCES

5/8 REBAR, FD. REFERENCES

J. WILLIAMS 25.29 ACRES± SURFACE TM 13-09

J. WILLIAMS 25.29 ACRES± SURFACE TM 13-09

L. WILLIAMS 25.29 ACRES± SURFACE TM 13-09.1

L. WILLIAMS 25.29 ACRES± SURFACE TM 13-09.1

22" FORM OF 48" QUAD SUGAR MAPLE

1" = 100'

S 56° 30' E 161.00'

WOODS

WOODS

WOODS

WOODS

INDENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS.

I THE UNDERSIGNED 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 ENVIRONMENTAL PROTECTION

P.S. 1008

Terry A. Shreve



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

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL

IF GAS PRODUCTION STORAGE DEEP SHALLOW X

LOCATION ELEVATION 1278' WATERSHED TRIBUTARY OF FLINT RUN

DISTRICT GRANT COUNTY DODDRIDGE

QUADRANGLE SMITHBURG 7.5' LEASE NUMBER

SURFACE OWNER CAROL LYNN LISTON AND DAVID K. LISTON ACREAGE 55 AC±

OIL & GAS ROYALTY OWNER ED BROOME, INC. ET AL LEASE ACREAGE 55 AC±

PROPOSED WORK: DRILL X CONVERT DEEPL DEEPL REFRILL FRACURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY)

TARGET FORMATION ALEXANDER PLUG & ABANDON ESTIMATED DEPTH 5600' CLEAN CUT & REFLUG

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN

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

DATE DECEMBER 15, 2003

OPERATORS WELL NO. BROOME NO. 3

API WELL NO. 47-017-04864

STATE COUNTY PERMIT

STATE COUNTY PERMIT

STATE COUNTY PERMIT

COUNTY NAME

PERMIT

0000 4864

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

Well Operator's Report of Well Work

Farm Name: CAROL LYNN & DAVID K. LISTON

Operator Well No.: BROOME NO. 3

LOCATION: Elevation: 1278'

Quadrangle: SMITHBURG

District: WEST UNION

County: DODDRIDGE

Latitude: 1185 Feet South of 39 Deg. 20 Min. 00 Sec.

Longitude: 7335 Feet West of 80 Deg. 40 Min. 00 Sec.

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

Agent: JAN CHAPMAN

Inspector: MIKE UNDERWOOD  
Permit Issued: 08/19/04  
Well Work Commenced: 08/27/04  
Well Work Completed: 09/02/04

Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth ( feet ) 5752'  
Fresh water depths ( ft ) NONE  
Salt water depths ( ft ) 761', 979'

Is coal being mined in area ( Y / N ) ? N  
Coal Depths ( ft ) : \_\_\_\_\_

OPEN FLOW DATA

Warren  
Speechley  
Balltown  
Riley  
Benson  
Alexander

3614' - 3658'  
3678' - 3852'  
3861' - 4572'  
4721' - 4820'  
5251' - 5262'  
5504' - 5604'

Producing formation \_\_\_\_\_ MCF / d Oil: \_\_\_\_\_ Bbl / d  
Gas: Initial open flow 84 MCF / d Oil: Initial open flow 0 Bbl / d  
Final open flow 1.859 MCF / d Oil: Final open flow show 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 Commingled MCF / d Oil: Initial open flow \_\_\_\_\_ Bbl / d  
Final open flow Commingled 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 PERFORMATED 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 30, 2004

PRESIDENT

JAN 07 2005

0000 4864

RECEIVED  
Office of Oil & Gas  
Office of Chief  
OCT 14 2004  
WV Department of  
Environmental Protec

Broome #3 (47-017-4864)  
Four Stage Foam Frac – BJ Services

1 <sup>st</sup> Stage:	Alexander (13 holes) ( 5543.50' to 5597' )	60 Quality Foam, 500 gal. 15% HCL, 60,000# 20/40 sand, 565,000 SCF N2, 821 bbis foam
2 <sup>nd</sup> Stage:	Benson ( 10 holes) ( 5254.75' to 5257' ) Third Riley ( 3 holes ) ( 5031.75' to 5032.25' )	60 Quality Foam, 750 gal 15% HCl, 40,000# 20/40 sand, 454,000 SCF N2, 627 bbis foam
3 <sup>rd</sup> Stage:	Riley ( 9 holes ) ( 4774.75' to 4787.50' ) Balltown ( 4 holes ) ( 4554.75' to 4555.50' )	60 Quality Foam, 750 gal 15% HCl 5,000# 80/100 sand, 35,000# 20/40 sand, 448,000 SCF N2, 621 bbis foam
4 <sup>th</sup> Stage:	Speechley ( 3 holes ) ( 3681.50' to 3682' ) Warren ( 9 holes ) ( 3594.25' to 3653' ) Elizabeth ( 3 holes ) ( 3209.75' to 3210.25' )	60 Quality Foam, 1,000 gal 15% HCl 5,000# 80/100 sand, 45,000# 20/40 sand, 517,000 SCF N2, 734 bbis foam
<u>WELL LOG</u>		
KB	0	10
Sand	10	15
Red Rock	15	18
Sand	18	56
Sand & Shale	56	90
Shale & Red Rock	90	119
Sand & Shale	119	180
Limestone	180	196
Sand & Shale	106	219
Red Rock & Shale	219	452
Sand & Shale	452	552
Sand	552	570
Sand & Shale	570	637
Sand	637	641
Sand & Shale	641	1250
Red Rock	1250	1275
Sand & Shale	1275	1930
Sand	1930	2004
Sand & Shale	2004	2106
Blue Monday	2106	2156
Big Lime	2156	2210
Keener	2210	2254
Big Injun	2254	2344
Shale	2344	2474
Weir	2474	2502
Shale	2502	2879
Gordon	2879	2930
Shale	2930	3614
Warren	3614	3658
Shale	3658	3678
Speechley	3678	3852
Shale	3852	3861
Balltown	3861	4572
Shale	4572	4721
Riley	4721	4820
Shale	4820	5251
Benson	5251	5262
Shale	5262	5504
Alexander	5504	5604
Shale	5604	5752
TD	5752	

Damp @ 76'  
3/4" water @ 979'

Gas Checks  
2357' - 2/10<sup>ths</sup> 2" water  
2891' - Odor  
3551' - 4/10<sup>ths</sup> 2" water  
TD - 4/10<sup>ths</sup> 2" water