

LONG. 80°48'45.0"

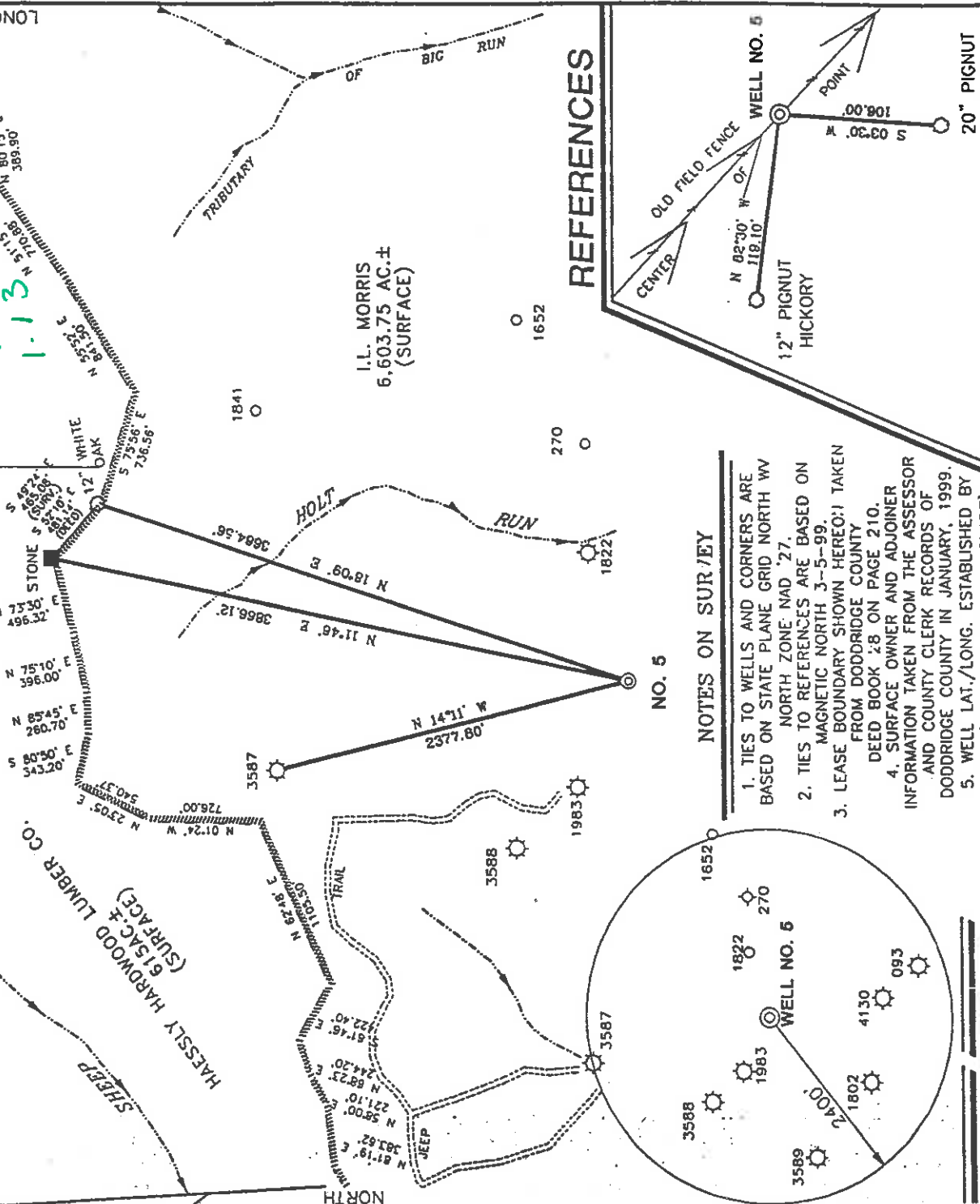
LATITUDE 39°12'30"

5.950'

W.B. MAXWELL LEASE 2,400 ACRES ± WELL NO. 5

LAT. 39°12'07.1" LONGITUDE 80°47'30"

44
1.13



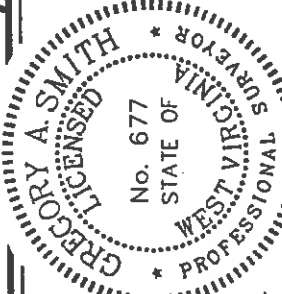
NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27. MAGNETIC NORTH 3-5-99.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 3-5-99.
3. LEASE BOUNDARY SHOWN HEREIN TAKEN FROM DODDRIDGE COUNTY DEED BOOK 28 ON PAGE 210.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JANUARY, 1999.
5. WELL LAT./LONG. ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).



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 ENERGY.

P.S. 677
Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE MARCH 5, 19 99
OPERATORS WELL NO. W.B. MAXWELL #5
API WELL NO. 47-017 STATE COUNTY PERMIT 4512

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4152P5 (69-75)
PROVEN SOURCE OF ELEVATION JUNCTION OF ROADS ELEVATION 886'
SCALE 1" = 1000'

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

LOCATION: ELEVATION 1202' WATERSHED HOLT RUN OF SOUTH FORK HUGHES RIVER
DISTRICT SOUTHWEST COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'

SURFACE OWNER I.L. MORRIS ACREAGE 6,603.75
ROYALTY OWNER W.B. MAXWELL HEIRS ET AL LEASE ACREAGE 2,400
LEASE NO. _____

PROPOSED WORK: DRILL CONVERT _____ 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'

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN MAY 24 1999
ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

County Name DODD PERMIT 4512

6-4-133

WR-35

18 - May - 99
API # 47 - 017-4512

K

Office of Oil & Gas
Permitting

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

DEC 20 1999

Farm name: MORRIS, I.L.

Operator Well No. : W.B. MAXWELL #5

LOCATION: Elevation: 1,202.00

Quadrangle: OXFORD

District: SOUTHWEST

County: DODDRIDGE

Latitude: 2,320 Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude: 5,950 Feet West of 80 Deg. 47 Min. 30 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 05/21/99
Well Work Commenced: 10/25/99
Well Work Completed: 10/30/99

Verbal Plugging
Permission granted on: _____ Rig
Rotary X Cable _____
Total Depth (feet) 5390'
Fresh water depths (ft) 50'
Salt water depths (ft) NONE

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 29' (4')

OPEN FLOW DATA

Warren
Speechley
Balltown
Rileys
Benson
Elk
Producing formation Alexander
Gas: Initial open flow 25 MCF/d
Final open flow 1524 MCF/d
Time of open flow between initial and final tests N/A
Static rock pressure 1750 psig (surface pressure) after 96 Hours
Pay zone depth (ft) 5120' - 5223'
Oil: Initial open flow 0 Bbl/d
Oil: Final open flow show Bbl/d
Hours

3251' - 3311'
3325' - 3427'
3636' - 4356'
4434' - 4824'
4878' - 4889'
5008' - 5092'

Second producing formation Commingled

Gas: Initial open flow _____ MCF/d
Final open flow _____ MCF/d
Time of open flow between initial and final tests _____ Hours
Static rock pressure _____ psig (surface pressure) after _____ Hours
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 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

FEB 25 2000

By: *Jan E. Chapman*
Date: December 13, 1999

PRESIDENT

Dodd 4512

W. B. Maxwell #5 (47-017-4512)
Four Stage Foam Frac - Halliburton

1 st Stage:	Alexander (15 holes) (5218' to 5154.25') Elk (3 holes) (5041.75' to 5042.25')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 810 bbis foam.
2 nd Stage:	Benson (7 holes) 4883.75' to 4885.25') Third Riley (4 holes) (4808.50' to 4809.25') Second Riley (3 holes) (4714.50' to 4715')	60 Quality Foam. 1,000 gal 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 616 bbis foam.
3 rd Stage:	Riley (12 holes) (4452.75' to 4476.25') Balltown (3 holes) (4219.75' to 4220.25')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 742 bbis foam.
4 th Stage:	Speechley (9 holes) (3334' to 3414.25') Warren (7 hole) (3296.75' to 3307.25')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 684 bbis foam.

WELL LOG

Fill	0	4	
Sand	4	11	
Shell	11	29	
Coal	29	33	
Sand & Shale	33	140	
Red Rock	140	150	
Sand & Shale	150	200	
White Sand	200	240	
Red Rock & Shale	240	535	
Sand & Shale	535	654	
Red Rock & Sand & Shale	654	870	
Sand & Shale	870	940	
Sand	940	1033	
Sand & Shale	1033	1732	
Sand	1732	1845	
Sand & Shale	1845	1860	
Little Lime	1860	1881	
Big Lime	1881	1946	
Big Injun	1946	2027	
Shale	2027	2182	
Weir	2182	2306	
Sand & Shale	2306	2590	
Gordon	2590	2626	
Shale	2626	3251	
Warren	3251	3311	
Shale	3311	3325	
Speechley	3325	3427	
Shale	3427	3636	
Balltown	3636	4356	
Shale	4356	4434	
Riley	4434	4486	
Shale	4486	4703	
Second Riley	4703	4719	
Shale	4719	4781	
Third Riley	4781	4824	
Shale	4824	4878	
Benson	4878	4889	
Shale	4889	5008	
Elk	5008	5092	
Shale	5092	5120	
Alexander	5120	5223	
Sand & Shale	5223	5390	
T.D.	5390		

Damp @ 50'

Gas Checks

1948' - No Show
2631' - 2/10^{ths} -1" w/H²O
3368' - 2/10^{ths} -1" w/H²O
4021' - 2/10^{ths} -1" w/H²O
4424' - 2/10^{ths} -1" w/H²O
4793' - 8/10^{ths} -1" w/H²O
5160' - 6/10^{ths} -1" w/H²O
T.D. - 6/10^{ths} -1" w/H²O