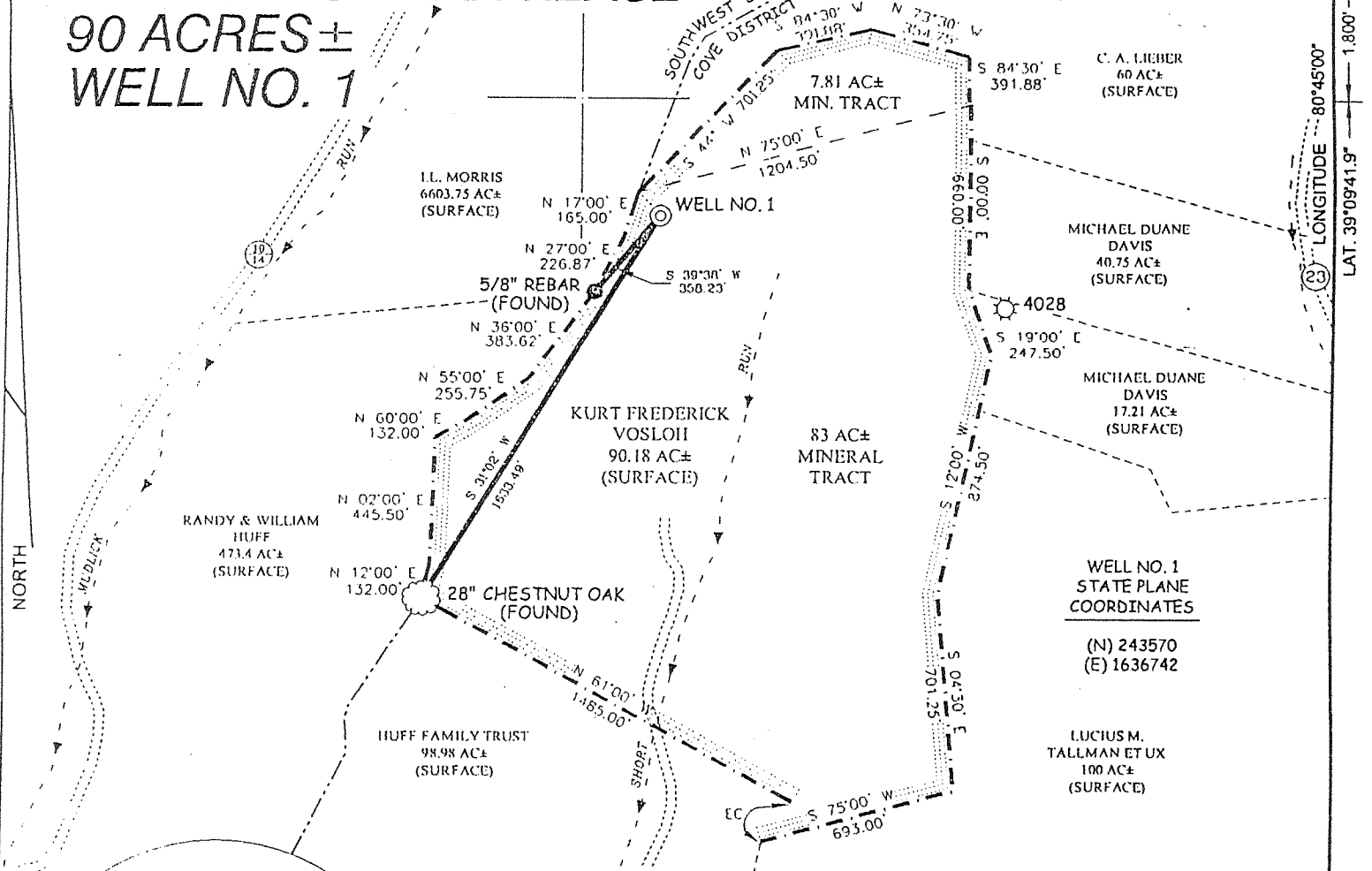


# THOMAS HICKMAN LEASE 90 ACRES ± WELL NO. 1

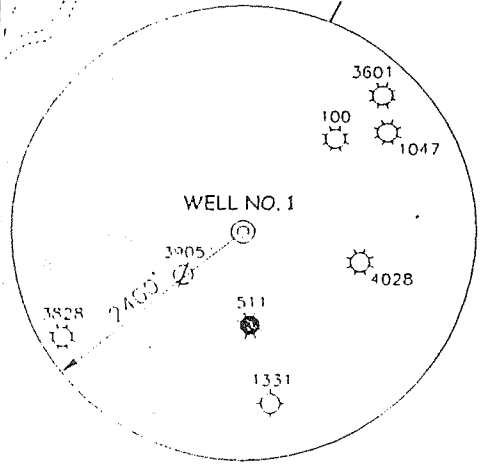
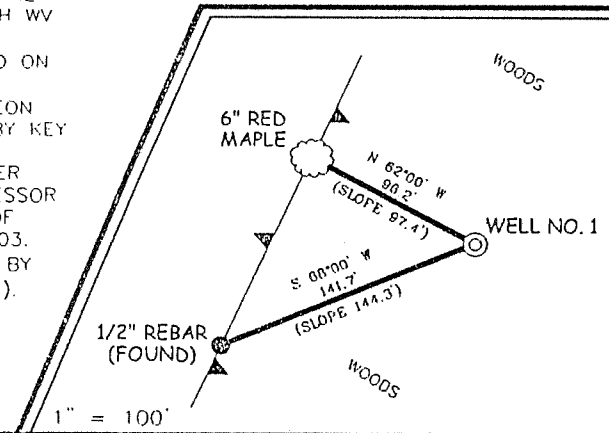
LATITUDE 39°10'00"



### NOTES ON SURVEY

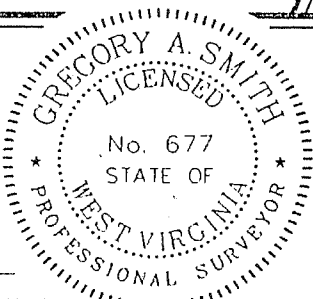
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 4/28/03.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED AS PROVIDED BY KEY OIL CO.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN APRIL, 2003.
5. WELL LAT./LONG. ESTABLISHED BY DGPS (SUBMETER MAPPING GRADE).

### REFERENCES



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 *Gregory A. Smith*



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

DATE APRIL 30, 20 03  
 OPERATORS WELL NO. HICKMAN NO. 1  
 API WELL NO. 47 - 017 - 04741  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 5237P1 (143-29)  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION = 1,274' SCALE 1" = 600'

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 X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X

LOCATION: ELEVATION 1,202' WATERSHED SHORT RUN  
 DISTRICT COVE COUNTY DODDRIDGE QUADRANGLE OXFORD 7.5'

SURFACE OWNER KURT F. VOSLOH ACREAGE 90.18±  
 ROYALTY OWNER ORAL M. CHAPMAN ET AL LEASE ACREAGE 90±

PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 DRILL X CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE X 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 5,600'

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

*(Straight Fork - Bluestone Creek 133)*

JUN 13 2003

COUNTY NAME DODD  
 PERMIT 14741

*M 17*

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

Well Operator's Report of Well Work

Farm Name: THOMAS HICKMAN

Operator Well No.: THOMAS HICKMAN #1

LOCATION: Elevation: 1202.00

Quadrangle: OXFORD

District: COVE County: DODDRIDGE  
Latitude: 8820 Feet South of 39 Deg. 10 Min. 00 Sec.  
Longitude: 1800 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: 06/10/03  
Well Work Commenced: 09/29/03  
Well Work Completed: 10/04/03  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth ( feet ) 5347'  
Fresh water depths ( ft ) 45'  
Salt water depths ( ft ) NONE

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
8 5/8"	1225'	1225'	260 sks To Surface
4 1/2"	5282'	5282'	460 sks

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

OPEN FLOW DATA

Warren	3252' - 3300'
Speechley	3316' - 3397'
Balltown	3580' - 4250'
Rileys	4401' - 4813'
Benson	4870' - 4880'

Producing formation Alexander Pay zone depth ( ft ) 5109' - 5218'  
 Gas: Initial open flow 89 MCF / d Oil: Initial open flow 0 Bbl / d  
 Final open flow 1958 MCF / d Oil: Final open flow show Bbl / d  
 Time of open flow between initial and final tests N/A Hours  
 Static rock pressure 1250 psig ( surface pressure ) after 96 Hours

Second producing formation Commingled Pay zone depth ( ft ) \_\_\_\_\_  
 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: *Jan Chapman*  
Date: January 3, 2004

PRESIDENT

*DODD. 4741*

FEB 13 2004

T. Hickman #1 (47-017-4741)  
Four Stage Foam Frac – Universal Well Services

1 <sup>st</sup> Stage:	Alexander ( 14 holes ) ( 4992.25' to 5213.75' )	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 565,000 SCF N2, 815 bbls foam.
2 <sup>nd</sup> Stage:	Benson ( 7 holes ) ( 4872.5' to 4874' ) Third Riley ( 6 holes ) ( 4786' to 4790.75' )	60 Quality Foam. 750 gal 15% HCL. 30,000# 20/40 sand, 359,000 SCF N2, 525 bbls foam.
3 <sup>rd</sup> Stage:	Riley ( 9 holes ) ( 4444.50' to 4461.50' ) Balltown ( 5 holes ) ( 4032.25' to 4033.25' )	60 Quality Foam 1000 gal 15% HCL. 5,000# 80/100 sand, 35,000# 20/40 sand, 448,000 SCF N2, 616 bbls foam.
4 <sup>th</sup> Stage:	Speechley (8 holes ) ( 3328.25' to 3389.75' ) Warren ( 6 holes ) ( 3273.75' to 3292.25' )	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 517,000 SCF N2, 729bbls foam.

WELL LOG

KB-GL	0	10	
Clay	10	14	
Red Rock & Sand & Shale	14	42	
Sand & Shale	42	110	
Shale & Red Rock	110	118	¼" to ½" water @ 45'
Sand & Shale	118	184	
Sand	184	204	
Sand & Shale	204	259	
Red Rock	259	280	
Sand & Shale	280	384	
Red Rock	384	400	
Sand & Shale	400	574	
Sand	574	620	
Sand & Shale	620	760	
Red Rock	760	800	
Sand & Shale	800	1325	
Sand & Shale & Red Rock	1325	1885	
Little Lime	1885	1900	
Big Lime	1900	1987	
Big Injun	1987	2073	
Shale	2073	2201	
Weir	2201	2319	
Shale	2319	2405	
Berea	2405	2413	
Sand & Shale	2413	2603	
Gordon	2603	2637	
Shale	2637	3252	
Warren	3252	3300	
Shale	3300	3316	
Speechley	3316	3397	
Shale	3397	3580	
Balltown	3580	4250	
Shale	4250	4401	
Riley	4401	4488	
Shale	4488	4756	
Third Riley	4756	4813	
Shale	4813	4870	
Benson	4870	4880	
Shale	4880	5109	
Alexander	5109	5218	
Shale	5218	5347	
TD	5347		

**Gas Checks**

1922' – No Show  
 1953' – No Show  
 2243' – 12/10<sup>ths</sup> w/w –2"  
 2613' – 6/10<sup>ths</sup> w/w –2"  
 3207' – 6/10<sup>ths</sup> w/w –2"  
 3807' – 6/10<sup>ths</sup> w/w –2"  
 4456' – 6/10<sup>ths</sup> w/w –2"  
 4908' – 6/10<sup>ths</sup> w/w –2"  
 5160' – 6/10<sup>ths</sup> w/w –2"  
 5347' – 4/10<sup>ths</sup> w/w –2"