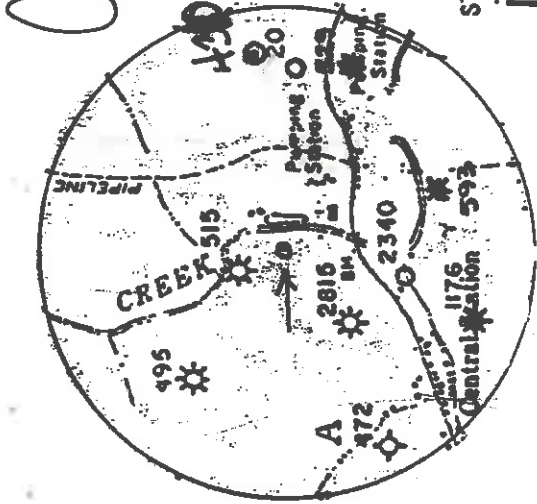
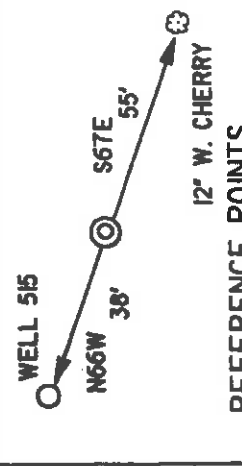
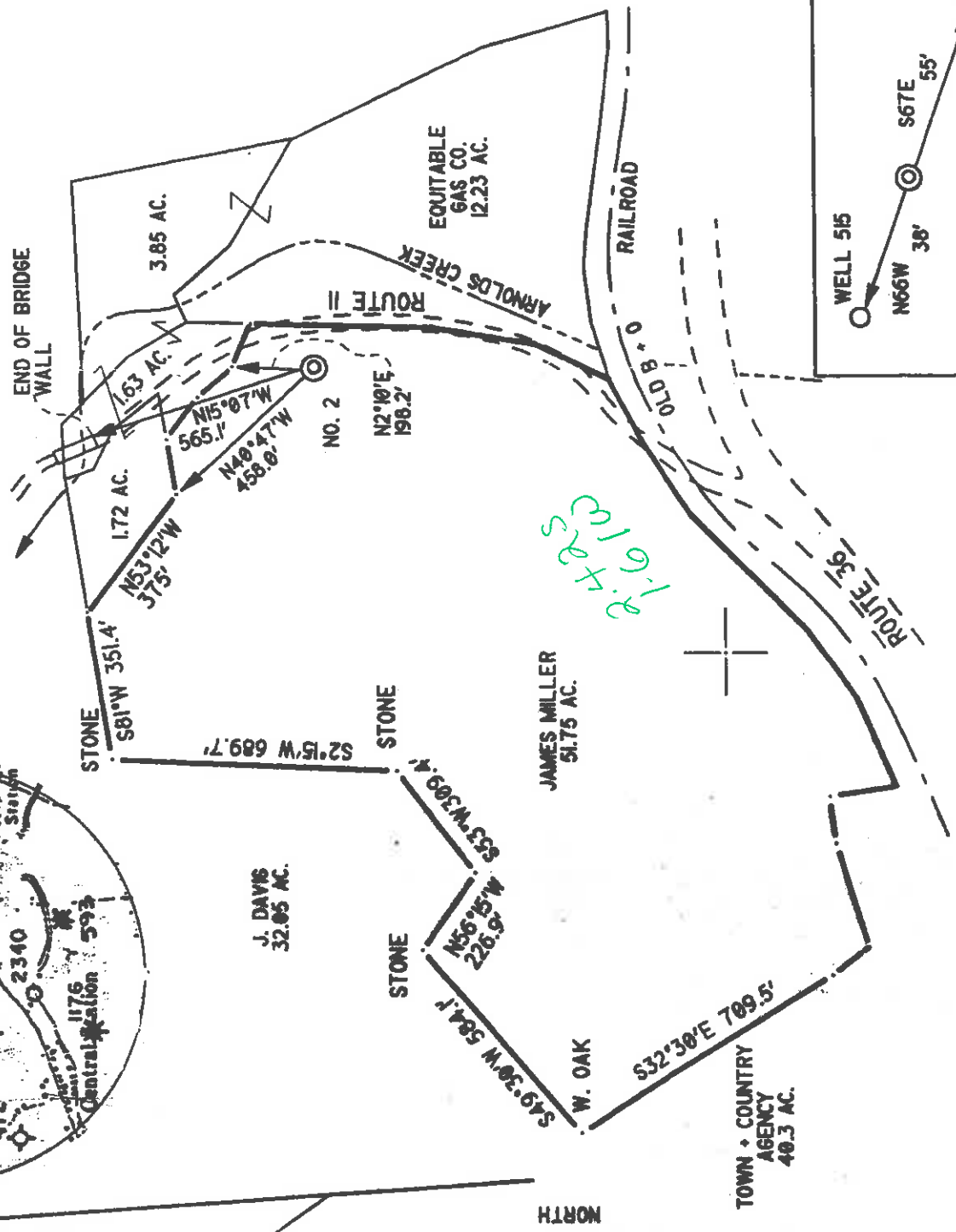


LATITUDE 39°20'00"

LONGITUDE 80°47'30"



*Open 10/1/96*  
*0 11550*

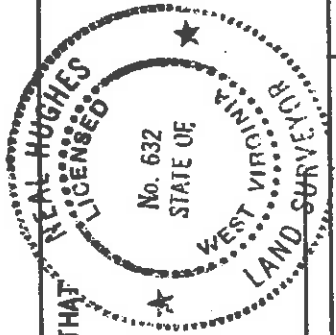


REFERENCE POINTS

(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE SEPTEMBER 16, 19 96  
 OPERATORS WELL NO. MILLER 2

API WELL NO. 47-017-04311  
 STATE COUNTY PERMIT



I THE UNDERSIGNED, DO 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.

L.L.S. *Neal Hughes*  
 632

MINIMUM DEGREE OF ACCURACY 1/200  
 FILE NO. 96-76  
 SCALE 1" = 400'  
 PROVEN SOURCE OF ELEVATION BM 816

STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENERGY  
 OIL AND GAS DIVISION

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

LOCATION: ELEVATION 840' WATERSHED ARNOLDS CREEK  
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION  
 SURFACE OWNER JAMES RICHARD MILLER, JR. ACREAGE 51.75  
 ROYALTY OWNER MARGARET MILLER, ET AL LEASE ACREAGE 53.65

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 ALEXANDER  
 ESTIMATED DEPTH 5600'

WELL OPERATOR KEY OIL COMPANY  
 ADDRESS 22 GARTON PLAZA WESTON, WV 26452  
 DESIGNATED AGENT JAN CHAPMAN  
 ADDRESS 22 GARTON PLAZA WESTON, WV 26452  
 PERMIT 6-6-89

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

REC-10-107

Permitting  
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: MILLER, MARGARET

Operator Well No. : MILLER #2

LOCATION: Elevation: 840.00

Quadrangle: WEST UNION

District: CENTRAL  
Latitude: 12650 Feet South of 39 Deg. 20 Min. 0 Sec.  
Longitude: 8500 Feet West of 80 Deg. 47 Min. 30 Sec.

County: DODDRIDGE

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD  
Permit Issued: 10/07/96  
Well Work Commenced: 10/20/96  
Well Work Completed: 10/29/96

Verbal Plugging  
Permission granted on: \_\_\_\_\_ Rig  
Rotary X Cable \_\_\_\_\_  
Total Depth ( feet ) 5325'  
Fresh water depths ( ft ) 34  
Salt water depths ( ft ) NONE

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

Casing & Tubing Size	Used In Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"			
8 5/8"	867.9'	867.9'	255 sks
4 1/2"	5150'	5150'	To surface 445 sks
2 3/8"		5017'	

OPEN FLOW DATA

Speechley  
Balltown  
Riley  
Benson

3227' - 3344'  
3728' - 3802'  
4310' - 4717'  
4758' - 4764'  
5006' - 5094'

Producing formation \_\_\_\_\_  
Gas: Initial open flow 0 MCF / d Oil: Initial open flow 0 Bbl / d  
Final open flow 1.443 MCF / d Oil: Final open flow show Bbl / d  
Time of open flow between initial and final tests N/A Hours  
Static rock pressure 1700 psig ( surface pressure ) after 96 Hours

Second producing formation \_\_\_\_\_  
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 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.

For: KEY OIL COMPANY

By: 

President

Date: JANUARY 22, 1997

FEB 14 1997

Miller #2 (47-017-04311)  
Four Stage Foam Frac - Halliburton

1st Stage:	Alexander (11 holes) (5047.25' - 5085')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 807 bbis foam.
2nd Stage:	Benson (8 holes) (4765.75' - 4767.5') Third Riley (2 holes) (4707.75' - 4708")	60 Quality Foam. 750 gal 15% HCL. 35,000# 20/40 sand, 394,000 SCF N2, 514 bbis foam.
3rd Stage:	Riley (11 holes) (4367.75' - 4339.75')	60 Quality Foam. 750 gal 15% HCL. 10,000# 80/100 sand, 30,000# 20/40 sand, 508,000 SCF N2, 547 bbis foam.
4th Stage:	Balktown (9 holes) (3751.25' - 3790.5') Speechley (3 holes) (3332' - 3332.5')	60 Quality Foam, 1000 gal 15% HCL. 5,000# 80/100 sand, 35,000# 20/40 sand, 390,000 SCF N2, 589 bbis foam.
<b>WELL LOG</b>		
Clay & Fill	0	
Sand & Shale	20	
Sand	45	Damp @ 34'
Sand & Shale	112	
Sand	485	
Sand & Shale	525	
Sand	737	
Sand & Shale	740	
Sand	1579	
Shale	1597	
Little Lime	1755	
Pencil Cave	1781	
Big Lime	1790	
Big Injun	1865	
Shale	1952	
Weir	2083	
Shale	2200	
Berea	2281	
Shale	2287	
Gordon	2487	
Sand & Shale	2504	
Warren	3150	
Shale	3216	
Balktown	3227	
Shale	3802	
Riley	4310	
Shale	4378	
3rd Riley	4648	
Shale	4717	
Benson	4762	
Sand & Shale	4774	
Alexander	5006	
Silt & Shale	5094	
T.D.	5325	

<u>Gas Checks</u>	
1707	NO SHOW
2548	NO SHOW
3010	NO SHOW
3513	NO SHOW
4010	NO SHOW
4421	13/10 - 1/4" H <sub>2</sub> O
4811	27/10- 1/2" H <sub>2</sub> O
TD	3/10 - 1" H <sub>2</sub> O

22636

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

Well Operator: KEY OIL COMPANY <sup>475</sup> 25655 ① 671

Operator's Well Number: MILLER #2 3) Elevation: 840'

Well type: (a) Oil X/ or Gas X/ Issued 10/07/96

(b) If Gas: Production X/ Underground Storage / Shallow X/ Expires 10/07/98

**RECEIVED**  
Division of Environmental Protection  
SEP 24 1996

Proposed Target Formation(s): ALEXANDER <sup>439</sup>

Proposed Total Depth: 5400 feet

Approximate fresh water strata depths: 65'

Approximate salt water depths: -0-

Approximate coal seam depths: N/A

Does land contain coal seams tributary to active mine? Yes / No X/

Proposed Well Work: DRILL, STIMULATE, PRODUCE

**CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS	FOOTAGE INTERVALS	CEMENT		
	Size	Grade	Weight per ft. drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4	ERW	42	40	0
Fresh Water	8 5/8	ERW	23	840	230 SKS. TO SURFACE
Coal					
Intermediate					
Production	4 1/2	J-55	10.5	5250	450 SKS.
Tubing	1.5				
Liners					

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

FOR Office of Oil and Gas Use Only  
Fee(s) paid: 175 Well Work Permit 175 Reclamation Fund 175 WPCP  
Plat 175 WW-6 175 Bond 175 (Type) \_\_\_\_\_ Agent

**RECEIVED**  
WV Division of  
Environmental Protection

SEP 24 1996

Permitting  
Office of Oil & Gas

1) Date: SEPTEMBER 23, 1996  
2) Operator's well number MILLER #2  
3) API Well No: 47 - 017 - 4311  
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: 5) (a) Coal Operator:  
 (a) Name MARGARET MILLER Name NONE  
 Address P. O. BOX 1027 Address \_\_\_\_\_  
 OZONA, TX 76943  
 (b) Name \_\_\_\_\_ (b) Coal Owner(s) with Declaration  
 Address \_\_\_\_\_ Name \_\_\_\_\_  
 (c) Name \_\_\_\_\_ Address \_\_\_\_\_  
 Address \_\_\_\_\_  
 (c) Coal Lessee with Declaration  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_

6) Inspector MIKE UNDERWOOD  
 Address RI. 2 BOX 135  
 SALEM, WV 26426  
 Telephone (304) - 782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by: \_\_\_\_\_ personal service (Affidavit attached)

X Certified Mail (Postmarked postal receipt attached) \_\_\_\_\_ publication (Notice of Publication attached) \_\_\_\_\_

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator KEY OIL COMPANY  
 By \_\_\_\_\_  
 Its: \_\_\_\_\_ PRESIDENT  
 Address 22 GARTON PLAZA  
 WESTON, WV 26452  
 Telephone 304-269-7102

Subscribed and sworn before me this 23RD day of \_\_\_\_\_, 19 96  
 My commission expires MARCH 24, 2003

