

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

Well Operator's Report of Well Work

Farm name: ADRIAN, GEORGE ETAL

Operator Well No. : MAXWELL HRS. #4

LOCATION: Elevation: 1,197.00

Quadrangle: NEW MILTON

District: NEW MILTON

County: DODDRIDGE

Latitude: 1780 Feet South of 39 Deg. 15 Min. 0 Sec.

Longitude: 8700 Feet West of 80 Deg. 42 Min. 30 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD

Permit Issued: 07/01/96

Well Work Commenced: 07/22/96

Well Work Completed: 07/30/96

Verbal Plugging

Permission granted on: _____ Rig

Rotary X Cable _____ 5355'

Total Depth (feet) _____ 44' 557'

Fresh water depths (ft) _____ NONE

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"	1177'	1177'	315 sks.
4 1/2"	5303'	5303'	To surface 430 sks.
2 3/8"		5148'	

OPEN FLOW DATA

Warren
Speechley
Balltown
Riley

3250' - 3251'
3288' - 3353'
4001' - 4002'
4436' - 4790'

Producing formation _____ Alexander _____

Gas: Initial open flow 103 _____ MCF / d

Final open flow 1,540 _____ MCF / d

Time of open flow between initial and final tests _____ N/A _____ Hours

Static rock pressure 1550 _____ psig (surface pressure) after 96 _____ Hours

Second producing formation _____ Comingled

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

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: 

President

Date: JANUARY 22, 1997

FEB 14 1997

Maxwell #4 (47-017-04277)

Three Stage Foam Frac - Halliburton

1st Stage: Alexander (12 holes) (5168.5' - 5220.5') 60 Quality Foam. 500 gal. 15% HCL.
60,000# 20/40 sand, 550,000 SCF N2,
809 bbls foam.

2nd Stage: Rileys (8 holes) (4436.25' - 4790.75') 60 Quality Foam. 750 gal 15% HCL.
Balltown (4 holes) (4001.25' - 4002 ') 5,000# 80/100 sand, 35,000# 20/40 sand,
439,000 SCF N2, 650 bbls foam.

3rd Stage: Speechley (12 holes) (3226.75' - 3293.25') 60 Quality Foam, 1,000 gal 15% HCL.
Warren (2 holes) (3251.5' - 3251.75') 10,000# 80/100 sand, 40,000# 20/40 sand,
473,000 SCF N2, 680 bbls foam.

WELL LOG

Fill	0	5	
Shale & Red Rock	5	44	
Sand	44	152	
Shale & Red Rock	152	181	
Sand	181	236	
Shale	236	261	
Sand	261	290	
Shale & Red Rock	290	349	
Sand & Shale & Red Rock	349	514	
Lim	514	528	
Red Rock & Sand & Shale	528	1831	
Little Lime	1831	1844	
Sand & Shale	1844	1881	
Big Lime	1881	1957	
Big Injun	1957	2007	Gas Checks
Shale	2007	2156	1701' No Show
Weir	2156	2248	1886' No Show
Shale	2248	2367	1948' No Show
Berea	2367	2338	2507' No Show
Sand & Shale	2338	2543	3001' 16/10ths H2O 2"
Gordon	2543	2604	3524' 8/10ths H2O 2"
Sand & Shale	2604	3226	4204' 10/10ths H2O 2"
Warren	3226	3266	4639' 10/10ths H2O 2"
Shale	3266	3284	5009' 20/10ths H2O 2"
Speechley	3284	3384	5349' 12/10ths H2O 2"
Shale	3384	3952	Collars 6/10ths H2O 2"
Balltown	3952	4186	
Shale & Sand	4186	4404	
Rileys	4404	4818	
Shale	4818	4883	
Benson	4883	4890	
Sand & Shale	4890	5026	
Alexander	5026	5124	
Sand & Shale	5124	5355	
T.D.	5355		

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

1) Well Operator: KEY OIL COMPANY ⁴⁷⁵ 25655 (6) 511

2) Operator's Well Number: MAXWELL HEIRS #4 3) Elevation: 1197'

4) Well type: (a) Oil X / or Gas X / Issued 07/01/96

(b) If Gas: Production X / Underground Storage / Expires 07/01/98
 Deep / Shallow X

Proposed Target Formation(s): ALEXANDER ⁴³⁹

Proposed Total Depth: 5400 feet

Approximate fresh water strata depths: 90'

Approximate salt water depths: -0-

Approximate coal seam depths: NONE

10) Does land contain coal seams tributary to active mines? Yes / No X

11) Proposed Well Work: DRILL, STIMULATE, PRODUCE

12)

RECEIVED
 WV Division of
 Environmental Protection
 JUN 17 1996
 Permitting
 Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT PER FT.	FOOTAGE	INTERVALS	CEMENT
Conductor						Fill-up (cu. ft.)
Fresh Water	8 5/8	ERW	23	1195		<u>0.2 Mils</u>
Coal						322 SKS. <u>TO SURFACE</u>
Intermediate						<u>38591811.3</u>
Production	4 1/2	J-55	10.5	5295		<u>38591811.2</u>
Tubing	1.5					470 SKS. <u>38591811.1</u>
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only

Fee(s) paid: PA Well Work Permit PA Reclamation Fund PA WPCP
 Plat PA | WW-9 PA Bond PA | WW-2B PA Agent PA
 (Type)

RECEIVED
WV Division of
Environmental Protection

JUN 17 1996

Permitting
Office of Oil & Gas

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

25655/6/510

1) Date: APRIL 29, 1996
2) Operator's well number
3) API Well No: MAXWELL #4 47 - 017 - 4277
State County Permit

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: _____ 5) (a) Coal Operator: _____
 (a) Name GEORGE ADRIAN, ET AL Name NONE
 Address RT. 1 BOX 95A Address _____
 NEW MILTON, WV 26411
 (b) Name _____ (b) Coal Owner(s) with Declaration
 Address _____ Name _____
 (c) Name _____ Address _____
 Address _____
 6) Inspector MIKE UNDERWOOD (c) Coal Lessee with Declaration
 Address RT. 2 BOX 135 Name _____
 SALEM, WV 26426 Address _____
 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
 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)
 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: _____
 Address 22 GARTON PLAZA
 WESTON, WV 26452
 Telephone 304-269-7102

Subscribed and sworn before me this 29TH day of APRIL, 1996

My commission expires MARCH 24, 2003

Karen Cook
 Notary Public
 OFFICIAL SEAL NOTARY PUBLIC
 STATE OF WEST VIRGINIA
 JANE 1894 1997 25778
 My Commission Expires March 24, 2003