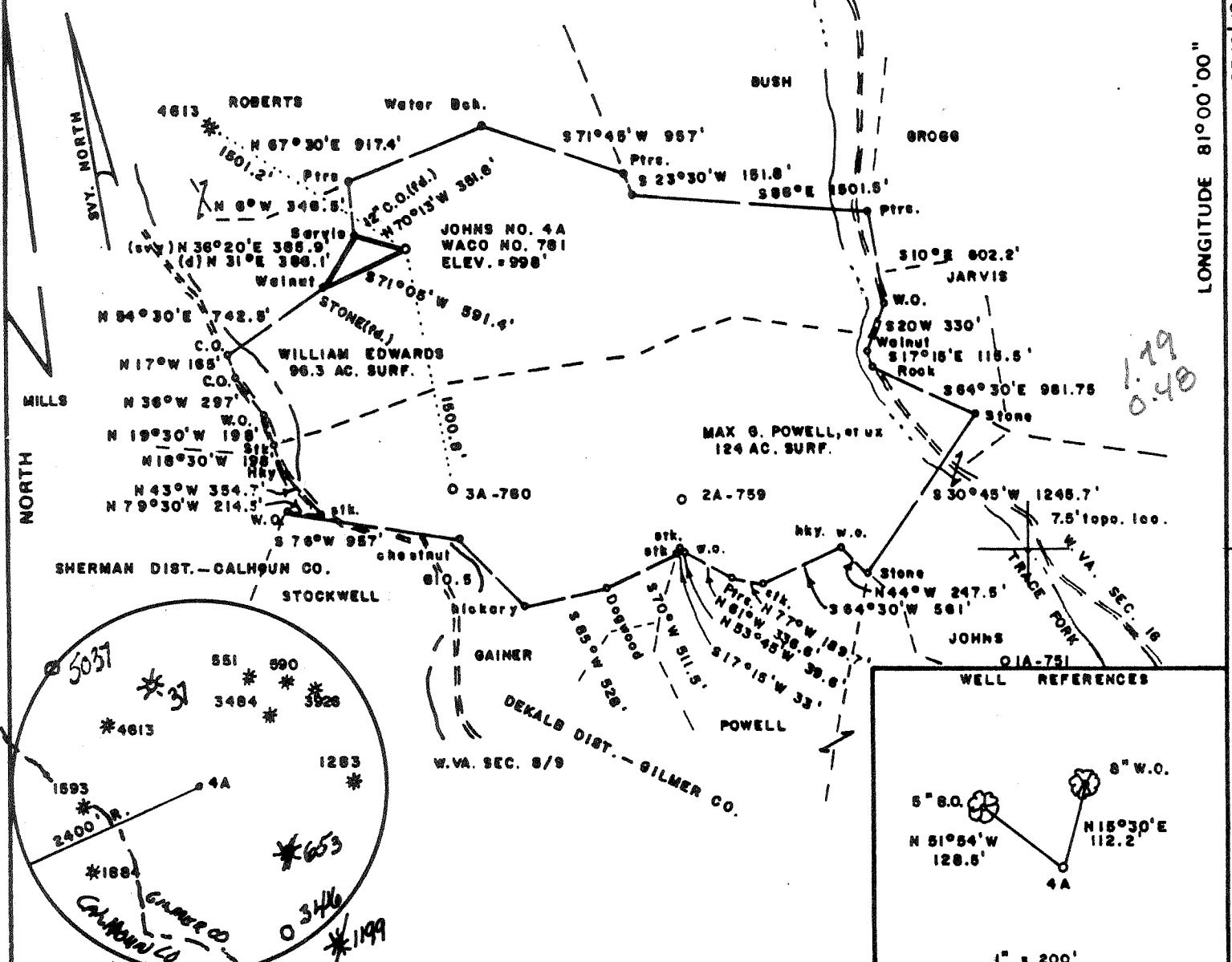


JOHNS LEASE 224 AC. of 324 AC.

LATITUDE 39°00'00"

WACO NO. 761

April 19/93

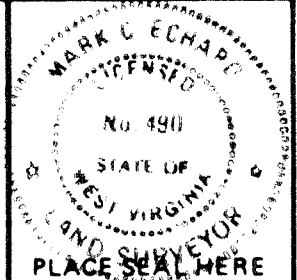


LONGITUDE 81°00'00"

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION Jet. of Roads South Side of Lease ELEV. = 1089'

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 MINES.

Mark C. Echard
 (SIGNED) MARK C. ECHARD
 R.P.E. _____ L.L.S. 490



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE OCTOBER 29, 19 92
 OPERATOR'S WELL NO. JOHNS NO. 4A
 API WELL NO. WACO NO. 761
47 - 021 - 5113
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW

LOCATION: ELEVATION 998' WATER SHED TRACE FORK
 DISTRICT DEKALB 2 COUNTY GILMER
 QUADRANGLE GRANTSVILLE 7.5' *Arnolds. NE*

SURFACE OWNER WILLIAM EDWARDS ACREAGE 96.3
 OIL & GAS ROYALTY OWNER FRED WILT HRS. et al LEASE ACREAGE 324
 LEASE NO. _____

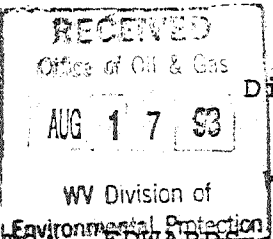
PROPOSED WORK: DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH 5900'
 WELL OPERATOR WACO OIL & GAS CO. INC. DESIGNATED AGENT STEPHEN E. HOLLOWAY
 ADDRESS P.O. BOX 397 433 ADDRESS P.O. BOX 397
GLENVILLE, W.V. 26351 GLENVILLE, W.V. 26351

1.795 = 15'
0.48W = 15'

6-6 note

(177)



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

Well Operator's Report of Well Work

Farm name: EDWARDS, WILLIAM Operator Well No.: JOHNS 4A-W-761

LOCATION: Elevation: 998.00 Quadrangle: GRANTSVILLE

District: DEKALB County: GILMER
Latitude: 9310 Feet South of 39 Deg. Min. Sec.
Longitude 2550 Feet West of 81 Deg. Min. Sec.

Company: WACO OIL & GAS CO., INC.
1297 N. LEWIS ST.
GLENVILLE, WV 26351-0000

Agent: STEPHEN E. HOLLOWAY

Inspector: CRAIG DUCKWORTH
Permit Issued: 03/19/93
Well work Commenced: 05/03/93
Well work Completed: 05/08/93

Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 6264'
Fresh water depths (ft) None

Salt water depths (ft) None

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	1015'	1015'	C. T. S.
4-1/2"		6197	650 Sks.

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) see treatment
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 1639 MCF/d Final open flow show Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1475 psig (surface pressure) after 48 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d 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 WELLS.

For: WACO OIL & GAS CO., INC.

By: Daniel R. Chapman, Geologist
Date: July 14, 1993

Reviewed TMG
Recorded _____

JUL 23 1993

437 437

- 1st stage: Devonian Shale (6112-5582) 1500 gal 15% HCL, 35 ton CO₂, 500 mcf N₂
- 2nd stage: Elk, Alexander (5398-4959) 600 gal 15% HCL, 40 ton CO₂, 900 mcf N₂
- 3rd stage: Benson, Riley, Balltown, (4729-4003) 660 gal 15% HCL, 50 ton CO₂, 1,000 mcf N₂
- 4th stage: Balltown, Speechly (3897-3337) 680 gal 15% HCL, 40 ton CO₂, 900 mcf N₂

Sand, Shale	0	268	No Water Reported
Sand, Shale, Red Rock	268	860	
Sand, Shale	860	1907	
Little Lime	1907	1926	
Blue Monday	1926	1952	
Big Lime	1952	1994	
Big Injun	1994	2086	
Sand, Shale	2086	3347	
Speechly Section	3347	3686	
Shale	3686	3738	
Balltown Section	3738	4301	
Riley Section	4301	4662	
Shale	4662	4726	
Benson	4726	4730	
Shale	4730	4948	
Alexander	4948	5003	
Shale	5003	5114	
Elk Section	5114	5398	
Shale	5398	6264	T. D.

DF - 437

DFA - 437

RECEIVED
 WV Division of
 Environmental Protection

021-5113
 Issued 3/19/93
 Expires 3/19/95

FORM WW-2B

MAR 18 93

Page ___ of ___

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 Office of Oil & Gas **WELL WORK PERMIT APPLICATION**

- 1) Well Operator: Waco Oil and Gas Company, Inc. 51800 (2) 379
- 2) Operator's Well Number: Waco 761 - Johns 4A 3) Elevation: 998'
- 4) Well type: (a) Oil ___ / or Gas X /
 (b) If Gas: Production X / Underground Storage ___ /
 Deep ___ / Shallow X /
- 5) Proposed Target Formation(s): Marcellus 422
- 6) Proposed Total Depth: 5,900 feet
- 7) Approximate fresh water strata depths: 78'
- 8) Approximate salt water depths: None
- 9) Approximate coal seam depths: None
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: Drill and stimulate new well.
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						3805/18 1/3
Fresh Water	8-5/8"	A P I	20.#	700'	700'	C. T. S.
Coal						3805/18 1/2
Intermediate						
Production	4-1/2"	A P I	10.5#		5,900'	525 Sks.
Tubing						3805/8 1/1
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Division of Oil and Gas Use Only

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

16936

02430/5

1) Date: February 1, 1993
2) Operator's well number
Waco 761 - Johns 4A
3) API Well No: 47 - 021 - 5113
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name William Edwards
Address Star Rt. 161-A
Tanner, WV 26179
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Craig Duckworth
Address Box 107, Davisson Rt.
Gassaway, WV 26624
Telephone (304)- 364-5942

5) (a) Coal Operator:
Name N/A
Address _____
(b) Coal Owner(s) with Declaration
Name N/A
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name N/A
Address _____

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 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 7 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 22B 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 Waco Oil and Gas Company, Inc.
By: [Signature] Stephen E. Holloway
Its: Agent
Address P. O. Box 397
Glennville, WV 26351
Telephone (304) 462-5347

Subscribed and sworn before me this 1st day of February, 1993

[Signature] Notary Public
My commission expires August 31, 1998