

2774 3/23/85

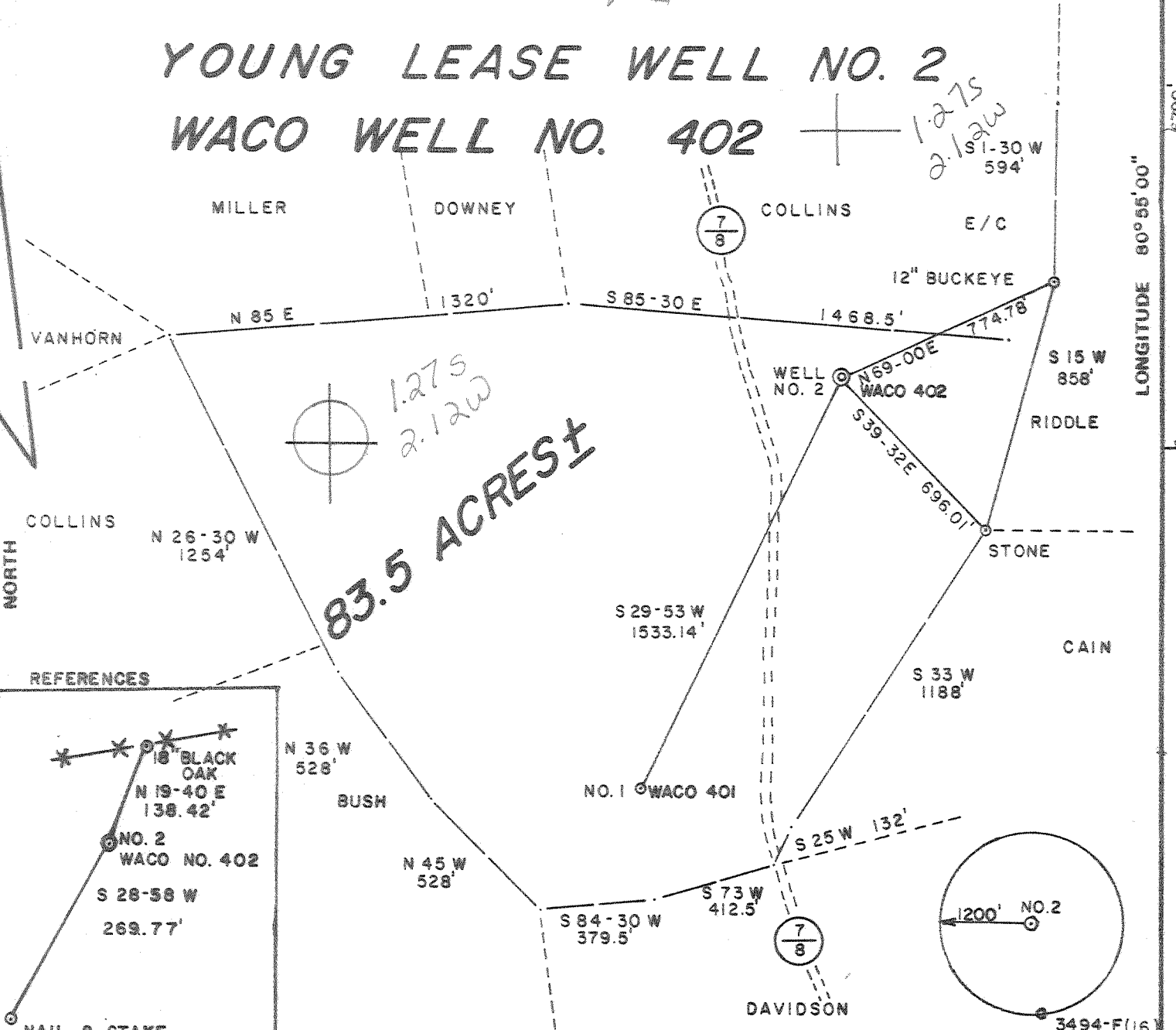
11,100'

CODE \_\_\_\_\_ CARD \_\_\_\_\_ PLOT \_\_\_\_\_

LATITUDE 39°00'00"

# YOUNG LEASE WELL NO. 2 WACO WELL NO. 402

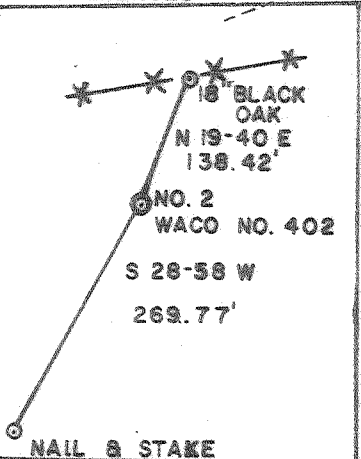
1.275  
2.12W  
S 1-30 W  
594'



LONGITUDE 80°55'00"

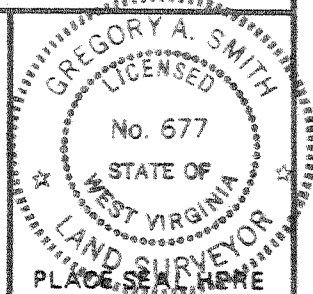
83.5 ACRES ±

REFERENCES



FILE NO. 8-65  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 500'  
MINIMUM DEGREE OF ACCURACY 1/200  
PROVEN SOURCE OF ELEVATION JUNCT. OF ROADS  
ELEV. 739'

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.  
(SIGNED) Gregory A. Smith  
R.P.E. \_\_\_\_\_ L.L.S. 677



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



DATE OCT. 22, 19 82  
OPERATOR'S WELL NO. 2  
API WELL NO. \_\_\_\_\_  
47-021-4385  
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_\_\_ GAS X LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
(IF "GAS,") PRODUCTION X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X  
LOCATION: ELEVATION 975' WATER SHED TANNER CREEK  
DISTRICT DEKALB COUNTY GILMER  
QUADRANGLE TANNER 7.5' 634 050 Wing Glennville  
SURFACE OWNER ADRIAN COLLINS ACREAGE 83.5  
OIL & GAS ROYALTY OWNER MAYNARD F. YOUNG et. al. LEASE ACREAGE 83.5  
LEASE NO. \_\_\_\_\_  
PROPOSED WORK: DRILL X 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 5200'  
WELL OPERATOR WACO OIL & GAS CO., INC. DESIGNATED AGENT STEPHEN HOLLOWAY  
ADDRESS P.O. BOX 397 ADDRESS P.O. BOX 397  
GLENNVILLE, WV 26351 GLENNVILLE, WV 26351

SEP 03 1985

DEEP WELL 6-6 Tanner (178)

FERC  
1/27/87



Date December 8, 1986  
Operator's  
Well No. Waco #402  
Farm Young #2  
API No. 47 - 021 - 4385

State of West Virginia  
DEPARTMENT OF ENERGY  
Oil and Gas Division

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 975' Watershed Tanner Creek  
District: Dekalb County Gilmer Quadrangle Tanner 7.5'

COMPANY WACO OIL & GAS CO., INC.

ADDRESS PO Box 397, Glenville, WV 26351

DESIGNATED AGENT Stephen E. Holloway

ADDRESS PO Box 397, Glenville, WV 26351

SURFACE OWNER Adrian Collins

ADDRESS Tanner, WV

MINERAL RIGHTS OWNER Maynard E. Young et al

ADDRESS Glenville, WV

OIL AND GAS INSPECTOR FOR THIS WORK Craig

Duckworth ADDRESS Gassaway, WV 26624

PERMIT ISSUED August 27, 1985

DRILLING COMMENCED November 13, 1986

DRILLING COMPLETED November 18, 1986

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8			
8 5/8	958	958	surf
7			
5 1/2			
4 1/2		6224	730 sks
3			
2			
Liners used:			

GEOLOGICAL TARGET FORMATION Elk Depth 5990 feet

Depth of completed well 6289 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 90 feet; Salt None feet

Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Shale, Elk, Alexander, Riley Pay zone depth see treatment feet

Gas: Initial open flow \_\_\_\_\_ Mcf/d; Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 1384 Mcf/d; Final open flow show Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1595 psig (surface measurement) after 48 hours shut in

(If applicable due to multiple completion--)

Second producing formation Balltown, Speechly Pay zone depth see treatment feet

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 APR 20 1987

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

- 1st Stage - Devonian Shale (6204-5592), 500 gal 15% Hcl, 35 ton CO<sub>2</sub>, 268 MCF N<sub>2</sub>
- 2nd Stage - Elk, Alexander (5345-4929), 500 gal 15% Hcl, 35 ton CO<sub>2</sub>, 390 MCF N<sub>2</sub>
- 3rd Stage - Riley (4617-4350), 500 gal 15% Hcl, 80 ton CO<sub>2</sub>, 558 MCF N<sub>2</sub>
- 4th Stage - Balltown (4120-3578), 1000 gal 15% Hcl, 80 ton CO<sub>2</sub>, 1002 MCF N<sub>2</sub>
- 5th Stage - Speechly (3283-3256), 500 gal 15% Hcl, 20 ton CO<sub>2</sub>, 704 MCF N<sub>2</sub>

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Redrock			0	30	
Sand			30	145	½" Fresh H <sub>2</sub> O @ 90'
Sand & Shale			145	290	
Redrock & Shale			290	900	
Sand & Shale			900	1843	
Little Lime			1843	1866	
Blue Monday			1866	1885	
Big Lime			1885	2021	
Big Injun			2021	2029	
Sand, Shale			2029	2216	
Weir			2216	2263	404 2279
Sand & Shale			2263	2515	813 3354
Gordon			2515	2250	822 4679
Sand, Shale			2250	3244	825 4929
Speechly Section			3244	3571	830 5229
Shale			3571	3631	61
Balltown Section			3631	4153	
Riley Section			4153	4606	
Shale			4606	4685	
Benson			4685	4690	
Sand, shale			4690	4914	
Alexander			4914	4966	
Shale			4966	5078	
Elk Section			5078	5335	
Shale			5335	6207	
Marcellus			6207	6269	
Onondaga Limestone			6269	6289	

(Attach separate sheets as necessary) 6269  
915  
5294

WACO OIL AND GAS CO., ICN.

Well Operator

By: Daniel R. Chapman, Geologist

Date: December 8, 1986

Note: Regulation 2.02(i) provides as follows:  
 "The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coal, encountered in the drilling of a well."



1) Date: August 14, 1985  
 2) Operator's Well No. Waco #402 - Young #2  
 3) API Well No. 47 - 021 - 4385  
 State County Permit

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

- 4) WELL TYPE: A Oil  / Gas  / B (If "Gas", Production  / Underground storage  / Deep  / Shallow  )
- 5) LOCATION: Elevation: 975' / Watershed: Tanner Creek / District: DeKalb / County: Gilmer / Quadrangle: Tanner 7.5'
- 6) WELL OPERATOR Waco Oil & Gas Co. CODE: 51800 / 7) DESIGNATED AGENT Stephen E. Holloway  
 Address PO Box 397 933 / Address PO Box 397  
 Glenville, WV 26351 / Glenville, WV 26351
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Deo Mace / 9) DRILLING CONTRACTOR: Name I.L. Morris Well Service, Inc.  
 Address Rt. 1, Box 5 / Address PO Box 397  
 Sandridge, WV 25274 / Glenville, WV 26351
- 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate  / Plug off old formation  / Perforate new formation  / Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Elk 437  
 12) Estimated depth of completed well, 5990 feet  
 13) Approximate strata depths: Fresh, 200 feet; salt, None feet.  
 14) Approximate coal seam depths: None Is coal being mined in the area? Yes  / No

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5/8	ERW	20#	X		975	975	to surface	by rule 15.05 depths set
Production	4 1/2	J-55	10.5#	X			5990	700 sks.	
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-021-4385 / August 27, 1985  
 Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
 Permit expires August 27, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing: <input checked="" type="checkbox"/>	Fee: 1415	WPCP: <input checked="" type="checkbox"/>	S&E: <input checked="" type="checkbox"/>	Other: <input checked="" type="checkbox"/>
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*K. Daub*  
 Director, Division of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.