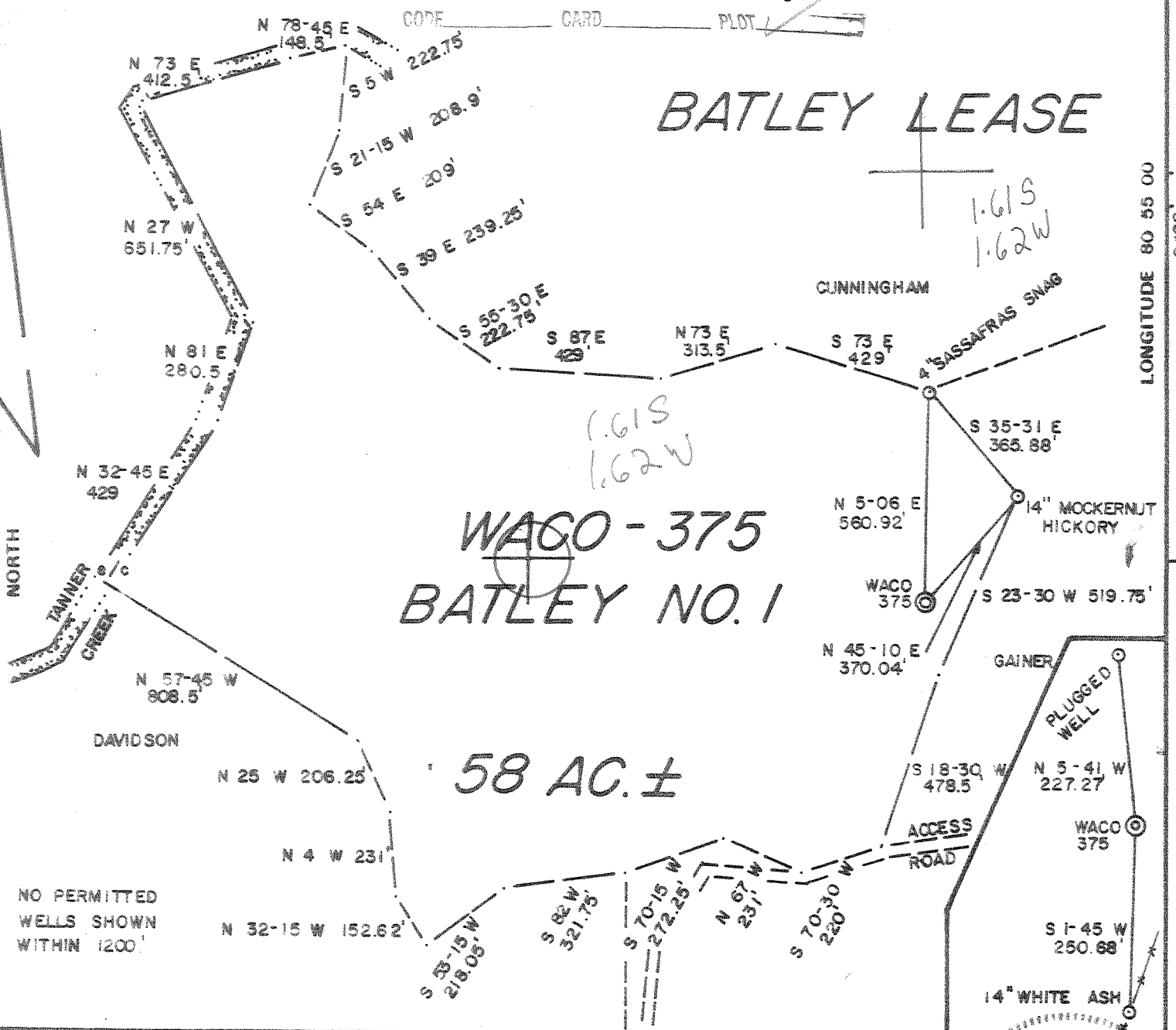


LATITUDE 39 00 00

LONGITUDE 80 55 00

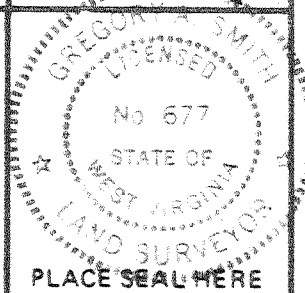
CODE CARD PLOT

BATLEY LEASE



FILE NO. 15 - 39
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
ELEV. 1164'

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 NOV. 2, 1984
 OPERATOR'S WELL NO. WACO - 375
 API WELL NO. BATLEY NO. 1
47 - 021 - 4371
 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 1147' WATER SHED TANNER CREEK
 DISTRICT DEKALB 2 COUNTY GILMER
 QUADRANGLE TANNER 7.S' 634 050 NW 1 Glenville
 SURFACE OWNER BERNICE BATLEY et. al. ACREAGE 53
 OIL & GAS ROYALTY OWNER T. B. WEBSTER, HRS. LEASE ACREAGE 58
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ELK ESTIMATED DEPTH 5350'
 WELL OPERATOR WACO OIL & GAS CO., INC. DESIGNATED AGENT STEPHEN E. HOLLOWAY
 ADDRESS P.O. BOX 397 933 ADDRESS P.O. BOX 397
GLENVILLE, WV. 26351 GLENVILLE, WV. 26351

AUG 24 1985
 AUG 12 1985

Deep Well 6-6 Tanner (178)

FERC
1/27/87



WR-35

Date January 6, 1987
 Operator's Well No. Waco #375
 Farm Batley #1
 API No. 47 - 021 - 4371

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: 1147 Watershed Tanner Creek
 District: Dekalb County Gilmer Quadrangle Tanner 7.5'

COMPANY Waco Oil & Gas Co., Inc.

ADDRESS P.O.Box 397, Glenville, WV 36351

DESIGNATED AGENT Stephen E. Holloway

ADDRESS P. O. Box 397, Glenville, WV 26351

SURFACE OWNER Bernice Batley et.al.

ADDRESS Creston, Ohio

MINERAL RIGHTS OWNER T.B. Webster, Hrs.

ADDRESS Parkersburg, WV

OIL AND GAS INSPECTOR FOR THIS WORK Craig

Duckworth ADDRESS Gassaway, WV

PERMIT ISSUED August 2, 1985

DRILLING COMMENCED December 18, 1986

DRILLING COMPLETED December 22, 1986

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.			
13-10"			
9 5/8			
8 5/8	1155	1155	Surf
7			
5 1/2			
4 1/2		6335	640 sks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Elk Depth 5650 feet

Depth of completed well 6406 feet Rotary X ___ / Cable Tools ___

Water strata depth: Fresh None feet; Salt None feet

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

OPEN FLOW DATA

Producing formation Shale, Elk, Alexander, Benison Pay zone depth See Treatment feet

Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d

Final open flow 1210 Mcf/d Final open flow Show Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 1510 psig (surface measurement) after 48 hours shut in

(If applicable due to multiple completion--)

Second producing formation Riley Balltown 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

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

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

- 1st Stage: Shale(6317-6047) 500 gal 15% HCL, 40 ton CO₂, 560 mcf N₂
- 2nd Stage: Elk, Alexander (5418-5017) 600 gal 15% HCL, 40 ton CO₂, 600 mcf N₂
- 3rd Stage: Benson, Riley (4788-4305) 500 Gal 15% HCL, 40ton CO₂, 610 mcf N₂
- 4th Stage: Balltown, (4057-3744) 1000 gal 15% HCL, 80 ton CO₂, 1009 mcf N₂

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Clay			0	10	No Water Encountered
Sand & Shale			10	265	
Sand, Shale & Redrock			265	1292	
Sand & Shale			1292	1952	
Little Lime			1952	1970	
Blue Monday			1970	1993	
Big Lime			1993	2062	
Big Injun			2062	2128	
Sand & Shale			2128	3327	
Speechly Section			3327	3653	
Shale			3653	3711	
Balltown Section			3711	4300	
Riley Section			4300	4723	
Shale			4723	4786	
Benson			4786	4790	
Sand & Shale			4790	5066	
Alexander			5016	5068	
Shale			5068	5185	
Elk Section			5185	5440	
Shale			5440	6340	
Marcellus Shale			6340	6486	
Onondaga Limestone			6486	6406	
				6506?	

404 2378
 813 3453
 822 4778
 825 5028
 830 5328

486
 1147
 5239

(Attach separate sheets as necessary)

Waco Oil & Gas Co., Inc.

Well Operator

By: Daniel R. Chapman, Geologist

Date: January 6, 1987

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."

FILE COPY
RECEIVED
JUL 18 1985



1) Date: April 8, 19 85
2) Operator's Well No. Waco #375, Batley #1
3) API Well No. 47-021-4371
State County Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ~~MINES~~ OIL AND GAS DIVISION

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil X Gas X
B (If "Gas", Production X / Underground storage / Deep / Shallow X /)
- 5) LOCATION: Elevation: 1147' Watershed: Tanner Creek
District: DeKalb 2 County: Gilmer Quadrangle: Tanner 7.5' C32
- 6) WELL OPERATOR WACO OIL & GAS CO., INC. 933 7) DESIGNATED AGENT Stephen E. Holloway
Address PO Box 397 Address PO Box 397
Glenville, WV 26351 51800 Glenville, WV 26351
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
Name Deo Mace 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 X / Drill deeper / Redrill / Stimulate X /
Plug off old formation / Perforate new formation
Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Elk 427
- 12) Estimated depth of completed well, 5650 feet
- 13) Approximate strata depths: Fresh, 420 feet; salt, None feet.
- 14) Approximate coal seam depths: None Is coal being mined in the area? Yes / No X /

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		1210	1210	275 sks. to	surf.
Production	4 1/2	J-55	10.5#	X			5650	700 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-021-4371 Date August 2 19 85

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 2, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>✓</u>	Agent: <u>ACTB</u>	Plat: <u>MN</u>	Casing: <u>MN</u>	Fee: <u>1384</u>
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[Signature]
DIRECTOR, DIVISION of Oil and Gas

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

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File