

9/17/87

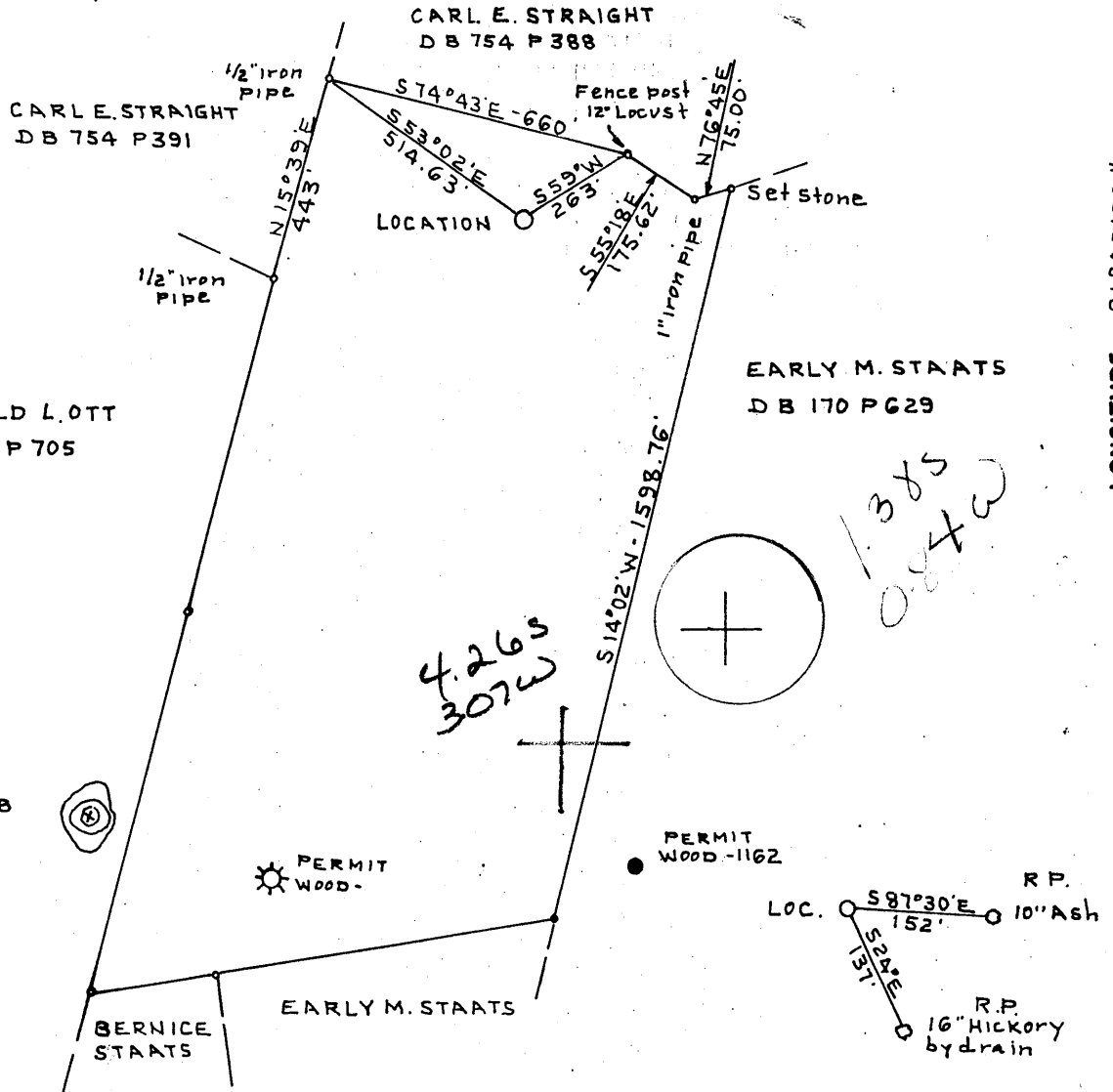
4450 10

LATITUDE 39° 07' 30"

LONGITUDE 81° 42' 30"

7400

NORTH



FILE NO. BK 90 P 85
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1:200'
 PROVEN SOURCE OF ELEVATION USGS TOP KNOB AS SHOWN EL. 875'

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) C. J. Valley Jr.
 R.P.E. _____ L.S. 92

PLACE SEAL HERE

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



DATE AUGUST 3, 1987
 OPERATOR'S WELL NO. STAATS NO 2
 API WELL NO. _____
47 - 107 - 1416
 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 823.45' WATER SHED SHORT RUN OF POND CREEK
 DISTRICT HARRIS COUNTY WOOD
 QUADRANGLE POND CREEK WY-OHIO 523 009 Wcy Belleville
 SURFACE OWNER BERNICE IRENE STAATS ACREAGE 70
 OIL & GAS ROYALTY OWNER BERNICE IRENE STAATS LEASE ACREAGE 70
 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 Devonian Shale ESTIMATED DEPTH 4200
 WELL OPERATOR H.D. WELLS OIL & GAS INC. DESIGNATED AGENT H.D. WELLS
 ADDRESS P.O. BOX 1785 ADDRESS P.O. BOX 1785
CHARLESTON WV 25326 443 CHARLESTON WV 25326

SEP 21 1987

NY HALL

6-6 New England (296)



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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 4/18/88
Operator's
Well No. Staats #2
Farm Staats
API No. 47 - 107 - 1416

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

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

LOCATION: Elevation: 823.45 Watershed Short Run of Pond Creek
District: Harris County Wood Quadrangle Pond Creek

COMPANY H. D. Wells Oil & Gas Exp. & Dev., Inc.

ADDRESS P.O. Box 1785, Charleston, WV 25326

DESIGNATED AGENT H. D. Wells, III

ADDRESS same

SURFACE OWNER Percy A. Staats

ADDRESS 119 Manchester Rd., Oakridge, TN 37830

MINERAL RIGHTS OWNER same

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK Glen P.

Robinson ADDRESS Mineral Wells, WV

PERMIT ISSUED 9/17/87

DRILLING COMMENCED 9/30/87

DRILLING COMPLETED 10/9/87

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	375'	375'	circ to surface
8 5/8			
7	2200'	2200'	1,000'
5 1/2			
4 1/2	4000'	4000'	
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 3763 feet

Depth of completed well 3925 feet Rotary x / Cable Tools

Water strata depth: Fresh 221 feet; Salt 961 feet

Coal seam depths: n/a Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Shale Pay zone depth 2865-2879 feet

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

Final open flow 60 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 385 psig (surface measurement) after 4 hours shut in

(If applicable due to multiple completion--)

Second producing formation Shale Pay zone depth 3237-3763 feet

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

Final open flow 60 Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 400 psig (surface measurement) after 4 hours shut in

(Continue on reverse side)

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

1st Stage Perf.

H 3598-3763 11 holes

2nd Stage Perf.

H 3237-3247 10 holes

3rd Stage Perf.

D 2865-2879 12 holes

DEPARTMENT OF ENERGY
DIVISION OF OIL & GAS

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Top Soil			0	20	
Sand			20	100	
Shale			100	361	
Sand & Shale			361	1050	
Shale			1050	1535	
Lime			1535	1550	
Injun Sand			1550	1700	
Sand			1700	2865	
Shale			2865	2880	
Sand			2880	3230	
Shale			3230	3250	Gas Show
Sand			3250	3560	
Shale			3560	3925	Total Depth

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

H. D. Wells Oil & Gas Exp. & Dev., Inc.
Well Operator

By: *[Signature]*
Date: 4/18/88

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."
33

(Obtained 7/85)

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1) Date: August 3, 1987
 2) Operator's Well No. Staats #2
 3) API Well No. 47 State 107 County 1416 Permit

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

- 4) WELL TYPE: A Oil / Gas
 B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 875 Watershed: Short Run of Pond Creek
 District: Harris 2 County: Wood 107 Quadrangle: Pond Creek 552
- 6) WELL OPERATOR: H D Wells Oil & Gas CODE: 52900 7) DESIGNATED AGENT H. D. Wells, III
 Address P.O. Box 1785 Address same
Charleston, WV 25326
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Glen P. Robinson
 Address Rt. 1, #6
Mineralwells, WV
- 9) DRILLING CONTRACTOR: Name Clint Hurt & Associates
 Address _____
- 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, Devonian Shale
- 12) Estimated depth of completed well, 4200 feet
- 13) Approximate trata depths: Fresh, _____ feet; salt, _____ feet.
- 14) Approximate coal seam depths: _____ 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									
Fresh water	9-5/8	J55	20#	x		375'	375'	<i>C.R.C. To Surface</i> by reg. 15.05	Kinds <u>38CSR-18-11.3</u>
Coal									Sizes
Intermediate	7	J55	22#	x		2200'	2200'	1,000 fill by reg. 15.01	<u>38CSR-18-11.2.2</u>
Production	4-1/2	J55	10.5	x		4000'	4000'		Depths set <u>38CSR-18-11.1</u>
Tubing									
Lin...									Perforations: Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-107-1416 Date September 17 1987

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 September 17, 1989 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 <u>231</u> <u>4600</u> <u>4601</u>	MPOB <input checked="" type="checkbox"/>	SEE <input checked="" type="checkbox"/>	Other
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NOTE: Keep one copy of this permit posted at the drilling location.
John H. Johnston by Margaret J. ...
 Director, Division of Oil and Gas File

10847