



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. 104
 SCALE 1 in. = 300 ft.
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION BM on county road 655 ft.

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) John R. Bowers
 R.P.E. 875 L.L.S. _____

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE SEPTEMBER 30, 19 85
 OPERATOR'S WELL NO. TV-104
 API WELL NO. 47-079-1138

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

LOCATION: ELEVATION 673.75 WATERSHED FIVE AND TWENTY MILE CREEK
 DISTRICT TEAYS VALLEY 5 COUNTY PUTNAM
 QUADRANGLE MOUNT OLIVE WV 490 051 SE of Glenwood

SURFACE OWNER V. C. SMITH II ACREAGE 12.8
 OIL & GAS ROYALTY OWNER V. C. SMITH II LEASE ACREAGE 12.8
 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 MARCELLUS SH. ESTIMATED DEPTH 4200'
 WELL OPERATOR TEAVEE OIL & GAS INC. DESIGNATED AGENT DUANE BOWERS
 ADDRESS 1901 KANAWHA VALLEY BLDG. CHARLESTON, WV 25301 ADDRESS 1901 KANAWHA VALLEY BLDG. CHARLESTON WV 25301

COUNTY NAME _____ PERMIT _____

FORM TV-6 (6-78)

DEEP WELL 5-5 Hurricane Creek (210)

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

Perforated from 3024-3684 45 shots (.39") Breakdown with 750 gallons 15% HCl, 2 gallon Iron sequencer, 5 gallon Iron stablizer Pumped 90% intensified foam at 40 barrel/min. carrying 500 sks of 20/40 sand and 75 sks of 10/20 sand with 670,500 SCF N₂ in 149 barrel of 2% KCl water.. Breakdown at 2300 psig pumped 1/2 of sand away dropped 20 perf balls, pumped remaining sand away shut in w/1200 psig on well head. Flowback through 1/4 inch choke 8 hrs 3/4 choke 20 hours 2 inch open blowoff 48 hours

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Surface			0	50	Fresh water 40
Red rock			50	100	
Sand and shale			100	400	
Red rock			400	500	
Sand and shale			500	1074	Salt water 800
Salt sand			1074	1361	
Sandy shale			1361	1375	
Maxton			1375	1385	
Sandy shale			1385	1400	
Little lime			1400	1456	
Slate and shells			1456	1491	
Pencil cave			1491	1495	
Big lime			1495	1715	
Keener sand			1715	1733	
Shale			1733	1759	
Big injun sand			1759	1845	
Silty shale			1845	2250	
Coffee shale			2250	2364	
Berea sand			2264	2290	Gas oil
Gray shale			2290	2479	
Gordan stray			2479	2496	
Gray shale			2496	3330	Gas
Brown shale			3330	3690	Gas
White slate			3690	3994	
Marcellus shale			3994	4135	
Onondaga limestone			4135	4145	TD

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FEB 18 1987

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Depths taken from electric log

(Attach separate sheets as necessary)

Teavee Oil & Gas Inc.

Well Operator

By: Duane Bowers Designated Agent

Date: 2/2/87

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."

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OCT - 1 1985



1) Date: September 30, 1985
 2) Operator's Well No. TV-104
 3) API Well No. 47 079-1138
 State County Permit

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

- 4) WELL TYPE: A Oil / Gas X /
 B (If "Gas", Production X / Underground storage / Deep / Shallow X /)
- 5) LOCATION: Elevation: 673.75' / Watershed: Five and Twenty Mile Creek
 District: Teays Valley 869 / County: Putnam / Quadrangle: Mount Olive WV
- 6) WELL OPERATOR Teavee Oil & Gas CODE: 48900 7) DESIGNATED AGENT Duane Bowers
 Address 1901 Kanawha Valley Bldg Address 1901 Kanawha Valley Bldg
Charleston WV 25301 Charleston WV 25301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Carlos Hively Name
 Address Elkview WV Address
- 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, Devonian Shale (Brown Shale Marcellus Shale)
 12) Estimated depth of completed well, 4200 ⁴⁰¹ feet
 13) Approximate strata depths: Fresh, 50, ± 174 feet; salt, 800 feet.
 14) Approximate coal seam depths: N/A 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		Kinds	Size
Conductor										
Fresh water	<u>9 5/8</u>		<u>32</u>	<u>✓</u>		<u>150 210'</u>	<u>150 210'</u>	<u>To surface</u>	<u>by rule 15.05</u>	
Coal										
Intermediate	<u>7</u>		<u>20</u>	<u>✓</u>		<u>2100</u>	<u>2100</u>	<u>Thru salt sand</u>		
Production	<u>3 1/2</u>		<u>9.2</u>	<u>✓</u>		<u>4200</u>	<u>4200</u>	<u>150 cu ft</u>	<u>Perforations required by rule 015.01</u>	
Tubing										
Liners										

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-079-1138

Date October 1 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 October 1, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>✓</u>	Agent: <u>AB</u>	Plat: <u>MU</u>	Casing: <u>MU</u>	Fee: <u>8493</u>	WPCP: <u>MU</u>	S&E: <u>MU</u>	Other: <u> </u>
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Margaret J. Hesse
 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