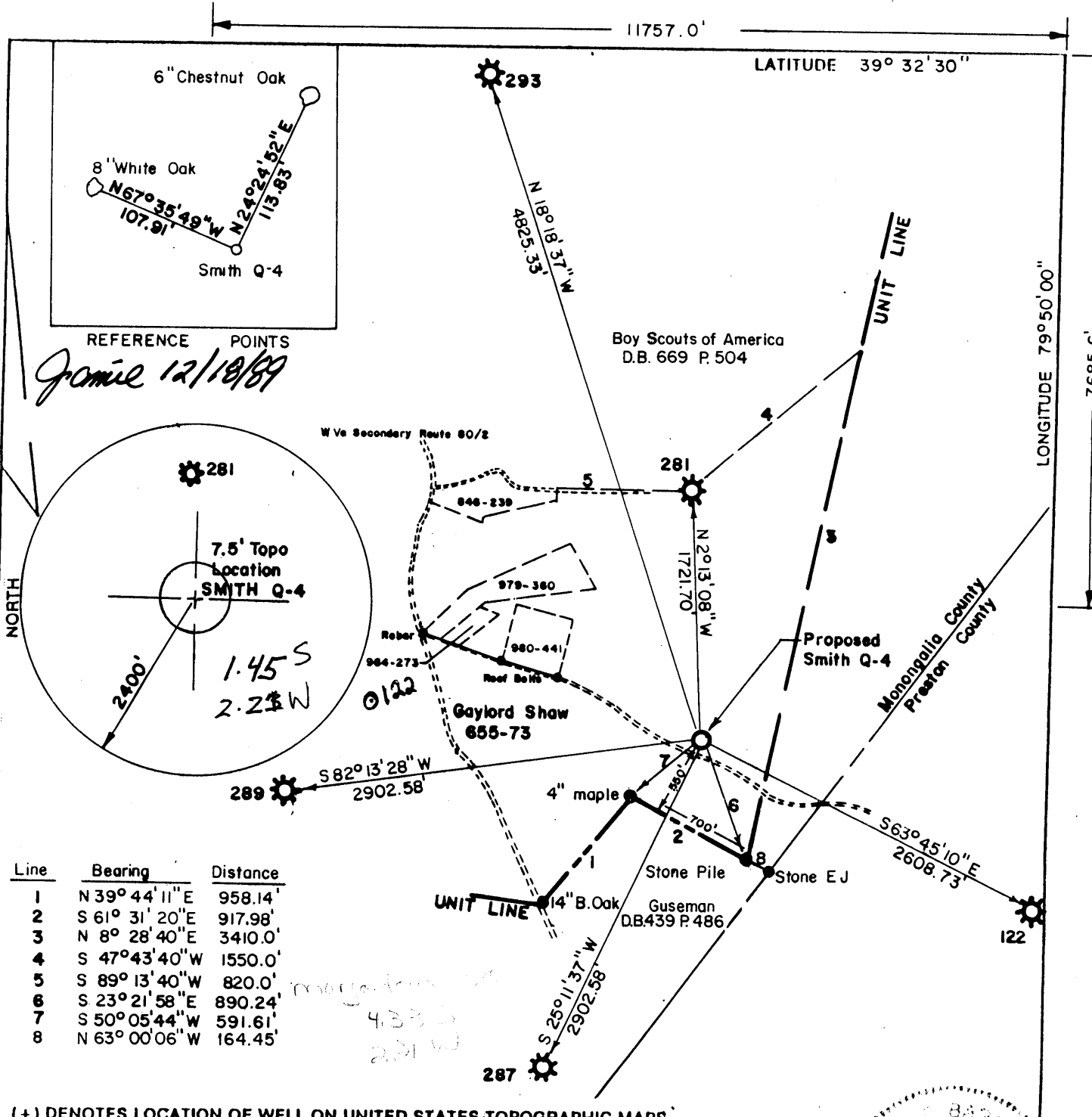


✓✓



Line	Bearing	Distance
1	N 39° 44' 11" E	958.14'
2	S 61° 31' 20" E	917.98'
3	N 8° 28' 40" E	3410.0'
4	S 47° 43' 40" W	1550.0'
5	S 89° 13' 40" W	820.0'
6	S 23° 21' 58" E	890.24'
7	S 50° 05' 44" W	591.61'
8	N 63° 00' 06" W	164.45'

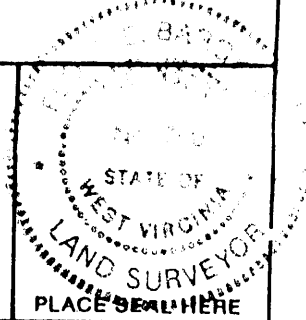
7.5' Topo Location SMITH Q-4  
2400'  
1.45 S  
2.23 W

0122  
4330  
221 W

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

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1"=1000'  
MINIMUM DEGREE OF ACCURACY 1:200  
PROVEN SOURCE OF ELEVATION USGS Benchmark "23 SKS 1956 2202"

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 ENERGY  
(SIGNED) *Lloyd E. Burgoyne Jr.*  
R.P.E. \_\_\_\_\_ L.L.S. No. 760



STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS



DATE \_\_\_\_\_ 19\_\_\_\_  
OPERATOR'S WELL NO. Smith Q-4  
API WELL NO. 47-061-0952  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP  SHALLOW \_\_\_  
LOCATION: ELEVATION 2094.17 WATER SHED Deckers Creek  
DISTRICT Clinton COUNTY Monongalia  
QUADRANGLE Masonstown

SURFACE OWNER Gaylord Shaw ACREAGE 147.62 Acs, ±  
OIL & GAS ROYALTY OWNER Horton Porter Smith, et al LEASE ACREAGE 648 Acs ±  
LEASE NO. 110900

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 Helderberg ESTIMATED DEPTH 8300'  
WELL OPERATOR Phillips Petroleum Company DESIGNATED AGENT Anthony Pellegrino  
ADDRESS Box 1967, Houston, TX 77251-1967 ADDRESS 107 Seemont Dr., Kingwood, WV 26537

FORM WW-6

COUNTY NAME  
PERMIT

DEEP WELL 6-6 South Burns Chapel (313) Dec 28 1989



Date July , 1990

State of West Virginia

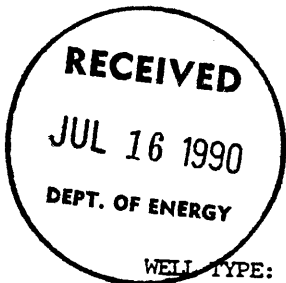
Operator's Well No. Smith-Q #4

DEPARTMENT OF ENERGY

Farm Horton Porter Smith

Oil and Gas Division

API No. 47-061-0952



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 \_\_\_ / Underground Storage \_\_\_ / Deep X / Shallow \_\_\_ /)

LOCATION: Elevation: 2094.17 Watershed Deckers Creek  
District: Clinton County Monongalia Quadrangle Masontown

COMPANY Phillips Petroleum Company  
ADDRESS Box 1967, Houston, TX 77251

DESIGNATED AGENT Anthony Pellegrino  
ADDRESS 110 Seemont, Kingwood, WV

SURFACE OWNER Gaylord & Dorothy Shaw  
ADDRESS Rt.10, Bx 56, Morgantown, WV

MINERAL RIGHTS OWNER -  
ADDRESS -

OIL AND GAS INSPECTOR FOR THIS Don Ellis  
2604 Crab Apple Ln, Fairmont, WV

PERMIT ISSUED 12-18-89

DRILLING COMMENCED 1-27-90

DRILLING COMPLETED 2-14-90

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

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13 3/8"	163	163	193
9 5/8"	1520	1520	680
8 5/8"			
7"			
5 1/2"	8026	8026	540
4 1/2"			
3"			
2 3/8"		7700	-
Liners used			

GEOLOGICAL TARGET FORMATION Helderberg Depth 8044' feet

Depth of completed well 8116'\* feet AIR X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh 110', 710', 385', 147', 180' SALT: 2700'

Coal seam depths: 285-287', 225-235' Is coal being mined in the area? No

(\* 8026' PBTD)

OPEN FLOW DATA

Producing formation Huntersville Pay zone depth 7620-7830' feet

Gas: Initial open flow 124 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 123 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 72 hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in  
(If applicable due to multiple completion--)

Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ 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

(Continue on reverse side)

JUL 20 1990

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

\*\*\*\*\* SEE ATTACHED: PERF/ACIDIZE/FRAC REPORT \*\*\*\*\*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Big Injun			782'		
Gordon			1475'		
Bayrd			1826'		
Speechly			2498'		
Tully			7087'		
Huntersville Chert			7618'		
Oriskany			7968'		
Helderburg			8044'		

<p>7618 2094 ----- 5524</p>	<p>7968 2094 ----- 5874</p>	<p>8044 2094 ----- 5950</p>
---	---	---

(Attach separate sheets as necessary)

Phillips Petroleum Company

Well Operator \_\_\_\_\_

By: P.D. Bairrington P.D. Bairrington, Prod. Engr. Dir.

Date: July 9, 1990

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 ..., encountered in the drilling of a well."

## SMITH Q-4

3/09/90 Perf: 7750' - 7830' w/2spf  
 3/11/90 Acidized w/3000 gal 15% FE acid. Max perssure = 3650 psi  
 Flow and swab back load.  
 3/16/90 Frac with -  
 8400 gal 50/50 MeOH Prepad  
 39,900 gal pad: Purgel II containing 22,600 lbs sand  
 @ 1/2-1 ppg  
 22,974 gal Purgel II containing 79,000 lbs sand  
 @ 1/2-6 ppg

Initial rate 9.7 BPM @ 6758 psi  
 Final rate 20.6 BPM @ 8580 psi  
 ISIP 4411 psi  
 5-mins 4033 psi  
 10-mins 3697 psi  
 15-mins 3576 psi  
 Flow and swab back load

5/1/90 Perf: 7620' - 7700' w/2spf  
 Acidized w/3000 gal 15% FE acid  
 Initial rate 3.5 BPM @ 2900 psi  
 Average rate 5.0 BPM @ 3400 psi  
 Final rate 5.0 BPM @ 3600 psi  
 ISIP 2600 psi  
 5-mins 2400 psi  
 10-mins 1950 psi  
 Flow and swab back load

5/24/90 Frac: 7620' - 7700' with -  
 24 bbls 28% HCl acid  
 60 bbls 5% HCl acid pad  
 265 bbls 5% HCl gelled acid w/0.25 ppg sand  
 250 bbls 5% HCl gelled acid w/0.50 ppg sand  
 350 bbls 5% HCl gelled acid w/0.75 ppg sand  
 222 bbls 5% HCl gelled acid w/1.00 ppg sand  
 133 bbls flush  
 Average pressure 4784 psi  
 Average rate 24 BPM  
 Flow and swab back load

Phillips Petroleum Company

Well Operator

By: 

Date: July 9, 1990

JUL 20 1990

RECEIVED  
OCT 26 1989

Issued 12/18/89  
061 952 Expires 12/18/91

FORM WW-2B

Page \_\_\_ of \_\_\_

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

- 1) Well Operator: Phillips Petroleum Company <sup>693</sup> 38600 (4) 461
- 2) Operator's Well Number: Smith-Q #4 3) Elevation: 2094
- 4) Well type: (a) Oil \_\_\_ / or Gas X /  
(b) If Gas: Production X / Underground Storage \_\_\_ /  
Deep \_\_\_ / Shallow \_\_\_
- 5) Proposed Target Formation(s): Helderberg 485
- 6) Proposed Total Depth: 7950 feet
- 7) Approximate fresh water strata depths: 110', 710', 385', 147', 180'
- 8) Approximate salt water depths: 2700' in #1 well
- 9) Approximate coal seam depths: 285' to 287' in #2 well, 225' - 235'
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_ / No X
- 11) Proposed Well Work: Drill and Complete a gas well.
- 12) Drill & Stimulate New Well.

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	13 3/8"	H-40	48#	120'	120'	70
Fresh Water	9 5/8"	J-55	40#	1500'	1500'	470
Coal						385R18-1-3 385R18-11-2
Intermediate						
Production	5 1/2"	J-55	15.5#	7950'	7950' ←	350
Tubing	2 3/8"	J-55	4.7#		7700'	385R18-1-3
Liners						

9733

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

131381  
27

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond \$50 Surety  Agent

**RECEIVED**  
OCT 26 1988

Date: October 23, 1989  
Operator's well number  
Smith Q-4  
API Well No: 47 - 061 - 0952  
State - County - Permit

DIVISION OF OIL & GAS 3)  
DEPARTMENT OF ENERGY

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 Gaylord & Dorothy Shaw  
Address Rt. 10, Box 56  
Morgantown, WV 26505
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Don Ellis  
Address 2604 Crab Apple Lane  
Fairmont, WV 26554  
Telephone (304)- 534-5596

- 5) (a) Coal Operator:
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
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 \_\_\_ 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 Phillips Petroleum Company  
By: Morgan Jones (Morgan Jones)  
Its: Houston Area Manager  
Address Box 1967  
Houston, TX 77251-1967  
Telephone (713) 669-3762

Subscribed and sworn before me this 23rd day of October 23rd, 1989

Bonnie J. Anderson Notary Public  
My commission expires \_\_\_\_\_  
BONNIE J. ANDERSON  
Notary Public, State of Texas