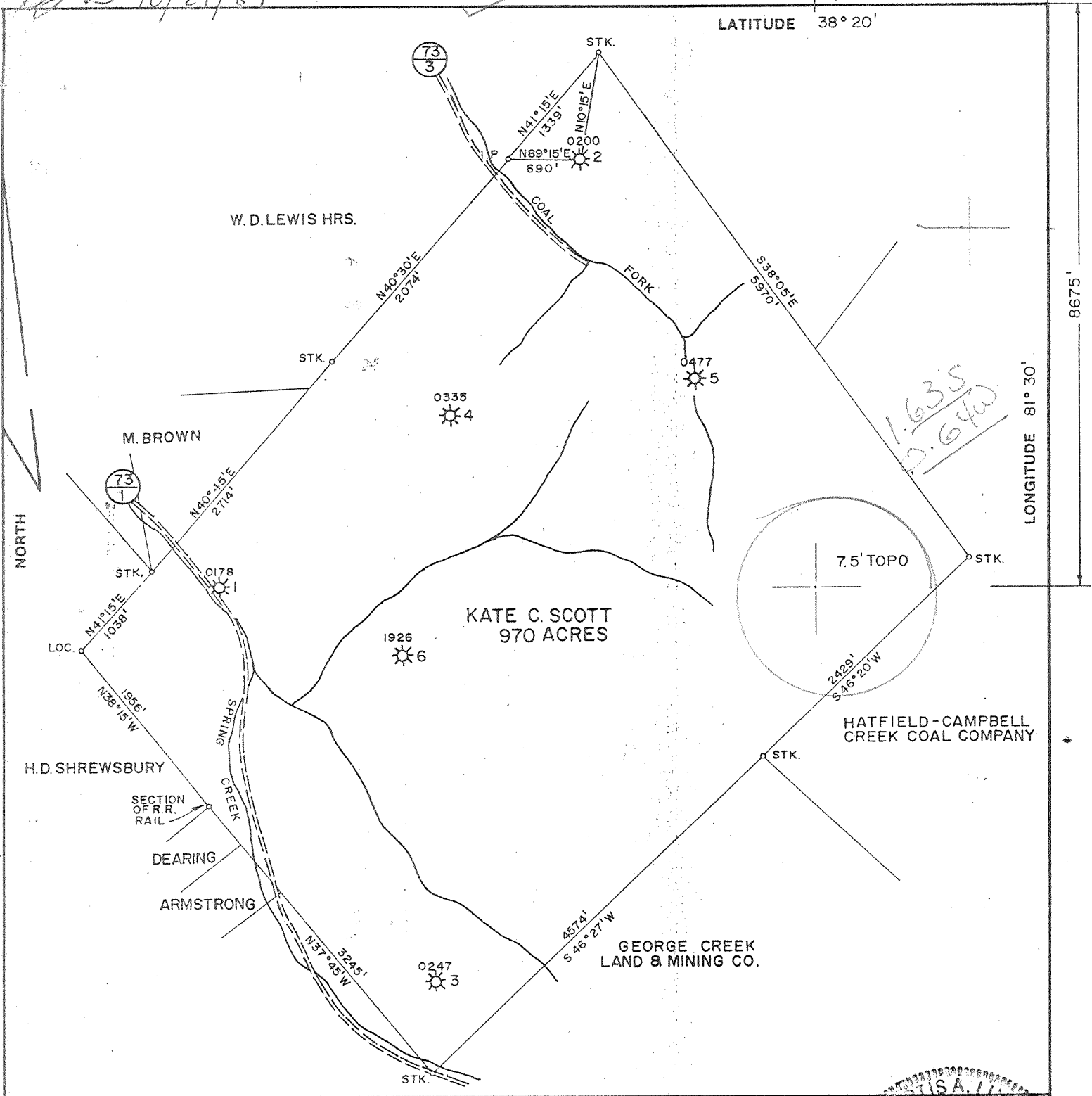


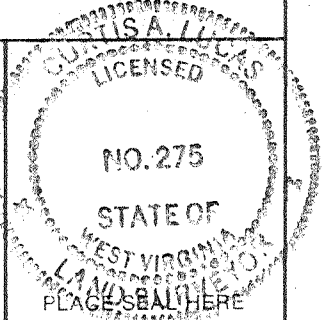
10/29/87

3450'



FILE NO. 651
 MAP 110W-111W SQS S78 W52
 SCALE 1"=1320'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION PENNZOIL RECORDS

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) Curtis A. Lucas
 CURTIS A. LUCAS LLS 275



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE OCTOBER 12, 19 87
 FARM KATE C. SCOTT NO. 2
 API WELL NO.

47 - 039 - 0200 - Fr 46
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS.") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 952.69' WATER SHED COAL FORK
 DISTRICT MALDEN 1 COUNTY KANAWHA
 QUADRANGLE CHARLESTON EAST 75' 289 024 SE 9-15' Charleston
 SURFACE OWNER I.V. CUNNINGHAM SR. ACREAGE 970
 OIL & GAS ROYALTY OWNER I.V. CUNNINGHAM SR. LEASE ACREAGE 970
 LEASE NO. 79261-50

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ORISKANY & BIG INJUN ESTIMATED DEPTH 4909'
 WELL OPERATOR PENNZOIL COMPANY DESIGNATED AGENT JAMES A. CREWS
 ADDRESS P.O. BOX 5519 ADDRESS P.O. BOX 5519
06000 VIENNA, W.VA. 26105 0222 well VIENNA, W.VA. 26105
6-6 Campbells Creek - (214) Malden

NOV 9 1987

RECEIVED
of Energy

14 OCT 87
API # 47-039-0200-F.

NOV 21 90

State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Permitting
Oil and Gas Section Well Operator's Report of Well Work

Farm name: I. V. CUNNINGHAM

Operator Well No.: KATE SCOTT #2

LOCATION: Elevation: 952.69 Quadrangle: CHARLESTON EAST

District: MALDEN County: KANAWHA
Latitude: 0 FEET SOUTH OF 38 Des. 0 MIN. 0. SEC.
Longitude 8675 FEET WEST OF 81 Des. 30 MIN. 0 SEC.

Company: PENNZOIL PRODUCTS COMPANY

P. O. BOX 5519
VIENNA, WV

Agent: JAMES A. CREWS

Inspector: CARLOS W. HIVELEY
Permit Issued: 11-3-87
Well work Commenced: 11-25-87
Well work Completed: 2-26-88

Verbal Plugging
Permission granted on:

Rotary Cable Rig
Total Depth (feet) 4909

Fresh water depths (ft) N/A

Salt water depths (ft) 670

Is coal being mined in area (Y/N)?

Coal Depths (ft): 298 and 388

Casings & Tubins	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
(See original well record.)			

OPEN FLOW DATA

Producing formation Big Injun/Oriskany Pay zone depth (ft) 1543-4888
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 67 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 137 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: PENNZOIL PRODUCTS COMPANY
By: Timothy P. Roush
Date: November 19, 1990

Perforated: 1543-1566 (15 holes)

Fractured: Big Injun - 540 Bbls. gelled KCl water,
30,000# 20/40 sand

6299

RAW-200
 EL-957

OIL OR GAS WELL

GAS

SOUTH PENN OIL
 Chamber of Commerce Bldg. Company
 Pittsburgh, Pa. Address

COMPLETION DATA SHEET

No. 2

FORMATION RECORD

SHEET NO. 1.

WELL NO. 2

FARM Kate C. Scott

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Clay				0	14			
Lime & Shells				14	105			
Sand				105	165			
Lime				165	298			
Coal				298	300			
Lime				300	330			
Sand				330	365			
Lime				365	388			
Coal				388	390			
Lime & Shells				390	490			
Sand				490	520			
		Show of Gas			493			
Slate				520	530			
Lime				530	570			
Sand				570	600			
Slate & Lime				600	620			
Lime				620	640			
Salt Sand				640	1035			
			Water		670			2 Bailers per Hr
			Water		697			Hole full
Slate & Shells				1035	1115			
Sand				1115	1220			
Salt Sand				1220	1258			
Maxon Sand				1258	1310			
Little Lime				1310	1347			
Slate				1347	1351			
Lime				1351	1353			
Slate				1353	1356			
Lime				1356	1361			
Pencil Cave				1361	1366			
Big Lime				1366	1530			
			Gas		1424			15/10-W.2" Ope 184,320
Keener Sand				1530	1550			
		Show of Gas			1545			
Big Injun				1550	1600			
Slate & Shell				1600	1700			
Slate & Shell				1700	2000			
Slate				2000	2250			
Gritty Lime				2250	2400			
Slate & Shell				2400	2570			
Lime & Shells				2570	2615			
Slate (Light)				2615	3100			
Slate & Shell (Dark)				3100	3175			
Brown Shale				3175	3225			

(Cont'd)

shot
 Well was not shot atfeet; well was shot atfeet.

Salt salt
 Fresh water atfeet; fresh water atfeet.

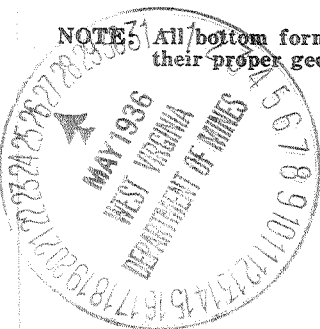
producing
 Well was hole.
 dry

Date

Approved

Owner

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.



SOUTH PENN OIL
 Chamber of Commerce Bldg.
 Pittsburgh, Pa.

COMPLETION DATA SHEET
 No. 2
 FORMATION RECORD
 SHEET NO. 2.

WELL NO. 2 FARM Kate C. Scott

Name	Color	Character	Oil, Gas or Water	Top	Bottom	Thickness	Total Depth	Remarks
Cont'd.								
Lime & Shells				3225	3450			
Brown Slate				3450	3775			
Lime & Shells				3775	3827			
Brown Shale				3827	3847			
Lime & Shells				3847	3875			
Gray Slate				3875	4310			
Brown Shale				4310	4757			
Black Slate				4757	4791			
Corniferous				4791	4888			
Oriskany				4888	4899			
			Gas		4892	70/10-W.2" Ope		400,000
			Gas		4893	16/10-W.2" Ope		700,000
			Gas		4894	40/10-W.2" Ope		1,108,800
			Gas		4895	10/10 W.3" Ope		1,247,400
			Gas		4899	12/10-W.3" Ope		1,350,000
Lime				4899	4909			4806,000
Total Depth							4909	

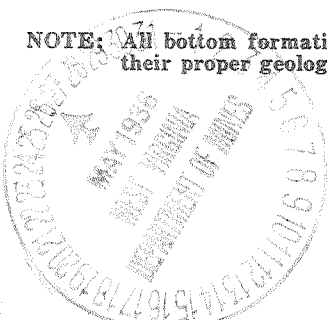
Well was ~~not~~ ^{shot} shot at 4892'-4906', -200t. feet; well was shot at _____ feet.

Salt Fresh water at 670 feet; salt fresh water at 697 feet.

Well was ~~dry~~ ^{producing} hole.

Approved By Ston Spencer Land Dept. Owner
 SOUTH PENN OIL COMPANY,

NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.



7/85

RECEIVED
OCT 20 1987



- 1) Date: October 14, 1987
 2) Operator's Well No. Kate Scott No. 2
 3) API Well No. 47 039 0200 -FRAC
 State County Permit

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

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow **289**
- 5) LOCATION: Elevation: 952.69 Watershed: Coal Fork
 District: Malden 6737 County: Kanawha 039 Quadrangle: Charleston East
- 6) WELL OPERATOR Pennzoil Prod. CODE: 37450 7) DESIGNATED AGENT James A. Crews
 Address PO Box 5519 Address PO Box 5519
Vienna, WV 26105-5519 Vienna, WV 26105-5519
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Carlos Hively
 Address 223 Pinch Ridge Road
Elkview, WV 25071
- 9) DRILLING CONTRACTOR: Name _____ 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, Big Injun
 12) Estimated depth of completed well, 4,909 feet
 13) Approximate trata depths: Fresh, _____ feet; salt, 670,697 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		Kinds	Sizes
Conductor										
Fresh water	10					420	420			
Coal										
Intermediate	8 1/2					1,393	1,393			
Production	7					4,841	4,841	*		Depths set
Tubing										
Liners										Perforations: Top Bottom

* Will cement 1800-1400'

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-039-0200-FRAC

November 3 19 87
 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 November 3, 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>235</u>	WPLI: <input checked="" type="checkbox"/>	S&E: <u>mk</u>	Other: _____
---	--	---	---	-----------------	---	----------------	--------------

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

[Signature]
 Director, Division of Oil and Gas

File

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