

API NO. 45 - 195 - 21073
WELL NAME: JAMES DUNN, PC-437
DATE February 27, 1991

*W5-237
(May 28, 1991)*

Virginia Oil and Gas Inspector
P. O. Box 1416
Abingdon, VA 24210
703 628-8115

REPORT OF COMPLETION OF WELL WORK

Pursuant to Regulation 4.06 of the Regulations under the Virginia Oil and Gas Act, the undersigned well operator reports completion of the type(s) of well work specified below on the referenced well in LIPPS District WISE County, Virginia on 23rd day, OCTOBER month, 1990.

WELL TYPE: Oil / Gas / Enhanced Recovery / Waste Disposal
If Gas-Production / Underground Storage / Exempt by Code Section 45.1-300.B.1. from general Oil and Gas Conservation Law yes / no
WELL WORK: Drill / Deepen / Redrill / Stimulate / Plug Off Old Formation / Perforate New Formation / Plug / Replug / Other physical change in well (specify) _____
The well work was done as shown in the Appendix(es) applicable to the type(s) of well work involved.

CONFIDENTIALITY STATUS UNDER CODE OF VIRGINIA SECTION 45.1-332

X Ninety days from the filing of this report

OR

Two years from _____, the date on which the referenced well was completed, the well being an exploratory well as defined in Code of Virginia, Section 45.1-288.21.

APPLICANT EQUITABLE RESOURCES EXPLORATION
BY J. MATTHEW CONRAD
ITS GEOLOGIST
ADDRESS 1989 E. STONE DR., KINGSPORT, TN 37660
TELEPHONE 615-378-5101



COMPLETION REPORT

WELL TYPE: Oil () Gas Production (X) Gas-Underground Storage ()
 Enhanced Recovery () Waste Disposal ()

LOCATION
 COUNTY WISE DISTRICT LIPPS

SURFACE ELEVATION 2518.40' QUADRANGLE CANEY RIDGE

LATITUDE 12175'S 37° 02' 30" LONGITUDE 10710'W 82° 27' 30"

DRILLING DATA

DATE DRILLING COMMENCED 10-02-90 DRILLING CONTRACTOR UNION DRILLING
 DATE DRILLING COMPLETED 10-07-90 ADDRESS P O DRAWER 40, BUCKHANNON, WV 26201
 DATE WELL COMPLETED 10-23-90 TELEPHONE NUMBER 304-472-4610
 TOTAL DEPTH OF COMPLETED WELL 2678 RIG TYPE X ROTARY CABLE TOOL

GEOLOGICAL DATA

FRESH WATER AT (1) 50' FEET 1/4" STR GPM: (2) FEET GPM
 SALT WATER AT (1) 450' FEET 1/4" STR GPM: (2) FEET GPM

COAL SEAMS:

NAME	TOP	BOTTOM	THICKNESS	MINING IN AREA	
				YES	NO
BECKLEY	2170	2173	3		<u>NO</u>
X-SEAM	2211	2213	2		
POCO #8	2338	2341	3		

OIL AND GAS SHOWS:

FORMATION TOP BOTTOM THICKNESS IPF (MCFD/BOPD) PRESSURE HOURS TESTED
 NONE RECORDED

STIMULATION RECORD POCO 7, SALT SAND, POCO 8, X-SEAM, L. HORSEPEN

ZONE (1) BECKLEY, WARCREEK FORMATION STIMULATED WITH 70 Q FOAM FRAC
 USING 820 BBLs. FLUID, 1,369,000 SCF N2 & 16,000 # 12/20 SAND.
 PERFORATED 2070 TO 2425 NO. OF PERFORATIONS 16 PERFORATION SIZE .34
 FORMATION BROKE DOWN AT 1782 PSIG AVERAGE INJECTED RATE 13.9 BPM
 INITIAL SHUT IN PRESSURE 2489 PSIG 5 MINUTE SHUT IN PRESSURE 2175 PSIG

STIMULATION RECORD

ZONE (2) FORMATION STIMULATED WITH

PERFORATED TO NO. OF PERFORATIONS PERFORATION SIZE
 FORMATION BROKE DOWN AT PSIG AVERAGE INJECTED RATE BPM
 INITIAL SHUT IN PRESSURE PSIG MINUTE SHUT IN PRESSURE PSIG
 FINAL PRODUCTION: () NATURAL (X) AFTER STIMULATION

ZONE	BOD	MCFD	HOURS TESTED	ROCK PRESSURE	HOURS TESTED
ZONE (1)		* 34	6	620	48
ZONE (2)					

FINAL PRODUCTION IF GAS ZONES ARE COMINGLED MCFD HOURS TESTED
 PSIG HOURS TESTED

* - This is not an absolute open flow.

CASING AND TUBING

	<u>SIZE</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>LENGTH</u>	<u>PACKERS OR</u>	
					<u>PERFORATIONS</u>	<u>BRIDGE PLUGS</u>
					<u>FEET TO FEET</u>	<u>KIND SIZE SET AT</u>
CONDUCTOR	11 3/4"		27'			

CASING
Circulated
and Cemented
to Surface

WATER PROTECTION

(Casing Set
According to
Section
45.1-334) 8 5/8" 356'

COAL PROTECTION

(Casing Set
According to
Section
45.1-334)

OTHER CASING &

Tubing Left 4 1/2" 2632'
In Well 2 3/8" 2473'

LINERS

Remaining
In Well

OTHER used and not
left

Is the well underlain by Red Shale Yes ___ No, If Yes, was coal
protection string set to Red Shales? Yes ___ No

REMARKS: Shut down, fishing jobs, depths and dates, caving, etc.

Samples and Cuttings

Will Will not be available for examination by a member of the Virginia Division of Mineral Resources

Will Will not be furnished to the Virginia Division of Mineral Resources upon request

Will Will not require sacks to be furnished by the Virginia Division of Mineral Resources

Electric Logs and Surveys:

Type of Electric Log(s) Ran: CDL-GR

Did log disclose vertical location of a coal seam? Yes No

Was log made at request of a coal owner according to Section 45.1-333.B.1 of the Virginia Code? Yes No

Note: If a coal seam was located, the part of the survey from the surface through the coal is attached in accordance with Section 45.1-333.B.3 of the Virginia Code

Deviation Surveys

Deviation surveys were were not required under Section 45.1-333.C of the Virginia Code "to the bottom of the lowers published coal seam depth."

Note: If a deviation survey(s) was/were required, the survey results are as follows:

Depth of Survey	Feet/Degree Deviated From True Vertical	Depth of Survey	Feet/Degree Deviated From True Vertical
	See Attachment		

A continuous survey was was not required, under Section 45.1-333.C of the Virginia Code.

Note: If a continuous survey was required, the survey results are attached.

Changes in the Permitted Well Work:

The well operator did did not make any change(s) in the permitted well work, verbally approved by the Inspector or Assistant Inspector under Regulation 4.03 of the Regulations under the Virginia Oil and Gas Act, for the purpose of insuring successful completion of the well work.

NOTE: The nature and purpose of each such change, if any, is set out below or on additional sheets if such are required.

Confidentiality Status:

Confidentiality status under Section 45.1-332 of the Virginia Code:

The operator requests that information herein and log(s) be kept confidential (after COMPLETION DATE of the well) for a period of

Ninety (90) days
 two (2) years, if the well is exploratory

DRILLER'S LOG

Compiled by J. MATTHEW CONRAD

Geological Age	Formation	General Lithology	Color	Depth		Thickness	Remarks
				Top	Bottom		
PENNSYLVANIAN		SAND, SHALE & THIN COALS		0	2170	2170	
"		BECKLEY COAL		2170	2173	3	
"		SAND, SHALE & THIN COALS		2173	2211	38	
"		X-SEAM COAL		2211	2213	2	
"		SAND, SHALE & THIN COALS		2213	2338	125	
"		POCO #8 COAL		2338	2341	3	
"		SAND, SHALE & THIN COALS		2341	2614	273	
MISSISSIPPIAN		RED ROCK		2614	2678	64	
		LOGGER'S TD			2678		

DIRECTIONAL SURVEY

PC - 437

<u>DEPTH</u>	<u>DEGREES</u>
142'	1/4°
233'	0°
410'	1/2°
691'	1°
908'	0°
1100'	1/2°
1310'	1/2°
1528'	1/2°
1746'	1°
1935'	1°
2148'	1°

Date: February 11, 1987

Operator's Well No. P-437

WS-237

VIRGINIA OIL AND GAS INSPECTOR
DEPARTMENT OF LABOR AND INDUSTRY
DIVISION OF MINES
OIL AND GAS SECTION
205 W. MAIN STREET
ABINGDON, VIRGINIA 24210
PHONE 703 628-8115

WELL PLAT

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000. Latitude and longitude lines are represented by border lines as shown.

This plat is new X / updated /

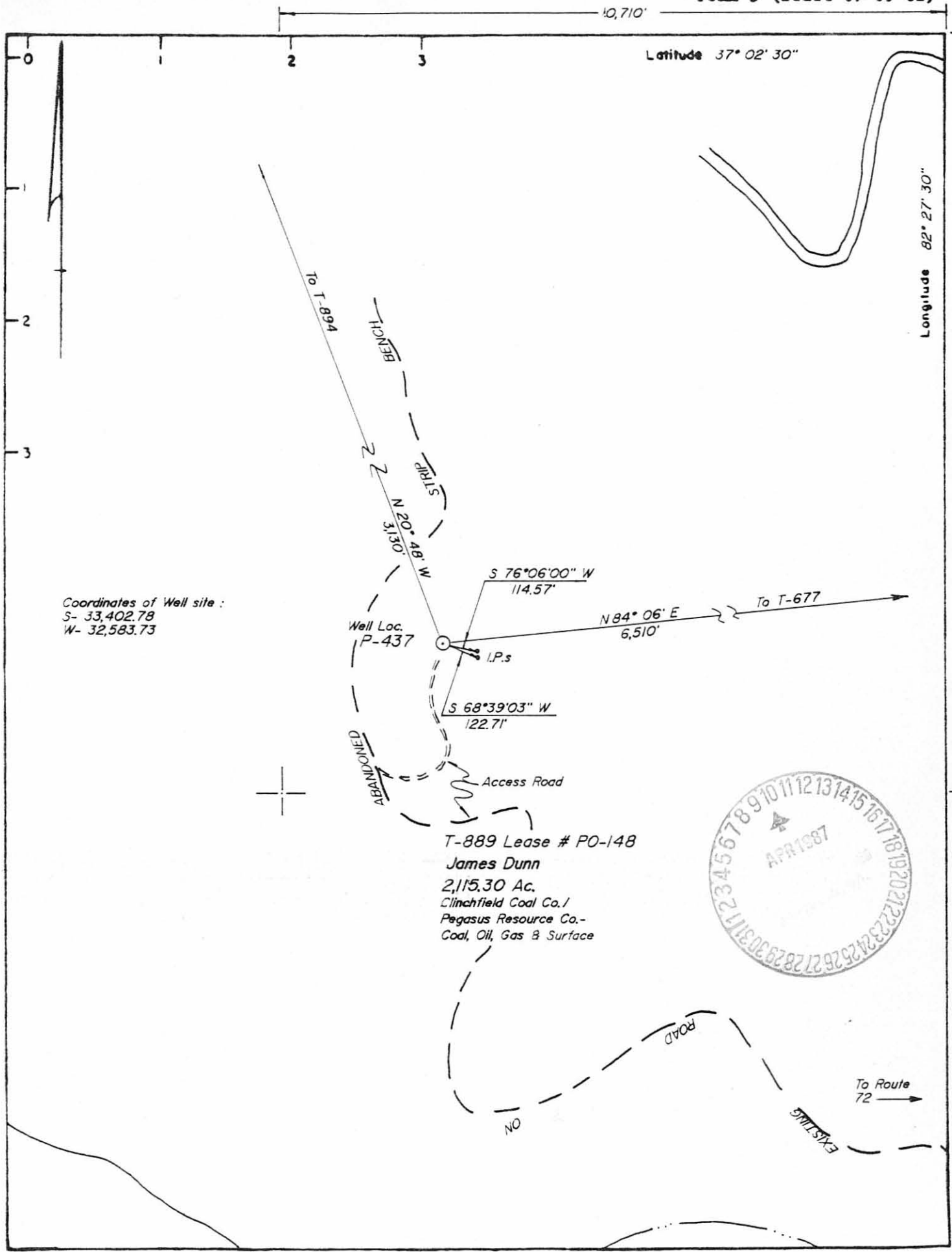
This plat is X / is not / based on a mine coordinate system established for the areas of the well location.

Well operator Philadelphia Oil Company
1989 East Stone Drive
Address 2 Executive Park Place, Kingsport, TN 37660
Farm James Dunn
Tract T-889 Acres 2,115.30 Lease No. PO-148
Elevation 2518.40
Quadrangle Caney Ridge
County Wise District Lipps
Registered Engineer X Registration No. 6992
Certified Land Surveyor Cert. No.
File No. Drawing No. 1855
Date 2-11-87 Scale 1" = 400'

Certification of Well Plat

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 of the Virginia Well Review Board.

J. L. Baldridge
Registered Engineer or Certified Land Surveyor
in Charge



Coordinates of Well site:
S- 33,402.78
W- 32,583.73

T-889 Lease # PO-148
James Dunn
2,115.30 Ac.
Clinchfield Coal Co./
Pegasus Resource Co.-
Coal, Oil, Gas & Surface



WS-237

Date: February 11, 1987

Operator's Well No. P-437

VIRGINIA OIL AND GAS INSPECTOR
DEPARTMENT OF LABOR AND INDUSTRY
DIVISION OF MINES
OIL AND GAS SECTION
205 W. MAIN STREET
ABINGDON, VIRGINIA 24210
PHONE 703 628-8115

WELL PLAT

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000. Latitude and longitude lines are represented by border lines as shown.

This plat is new X / updated /

This plat is X / is not / based on a mine coordinate system established for the areas of the well location.

Well operator Philadelphia Oil Company
1989 East Stone Drive
Address 2 Executive Park Place, Kingsport, TN 37660
Farm James Dunn
Tract T-889 Acres 2,115.30 Lease No. PO-148
Elevation 2518.40
Quadrangle Coney Ridge
County Wise District Linn
Registered Engineer X Registration No. 6992
Certified Land Surveyor Cert. No.
File No. Drawing No. 1855
Date 2-11-87 Scale 1" = 400'

Certification of Well Plat

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 of the Virginia Well Review Board.

A. L. Baldridge
Registered Engineer or Certified Land Surveyor
in Charge

