

POCAHONTAS LAND CORPORATION, Lessor,
THE PITTSTON COMPANY and
HAWLEY COAL MINING CORPORATION,
coal mining lessees.

Part of Tract No. 51-A LATITUDE 37° 22' 30"
MOLLY JUSTICE 46.39 ac.
Min. 37° 25'

Part of Tract No. 68
WM. ROBINSON
"50.75 Ac."
FEE

Part of Tract No. 50
IRVING PAYNE
"50 ac."
89.28 Ac.
Min.

Baker Ridge

Topo Location
0.968
0.56W
0.36
0.5

Surface Owner,
Clarence Baker

Car axle, eastern
edge of spur ridge
road.

S. 20° 11' W.
166.0'

Stone, western edge
of spur ridge road.

S. 45° 41' W. 248.56'

Stone, edge of spur ridge
road.

S. 61° 25' E. 153.9'

Surface Owner,
Homer Lester

Stake, in north-
western edge of
road, on top of spur.

Part of Tract No. 69
WM. ROBINSON
22.33 Ac.
Min.

Part of Tract No. 48
WM. RITTER
"1251.95 Ac."
Fee

POCA. LAND CORR.
CO. ORD. VALUES: N. 6,914.51'
W. 20,135.60'

WELL D-5

N. 80° 48' 40" E.

N. 89° 10' 05" E.

1177.21'

984.30'

Center of spur
Dirt

Dirt

NORTH

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 300'
MINIMUM DEGREE OF
ACCURACY 1" in 2500'
PROVEN SOURCE OF
ELEVATION U.S. Coast & Geodetic
Survey, B.M. U191, Elev. 2267'

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 REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF MINES.

(SIGNED) Thomas V. Jolley
R.P.E. _____ L.L.S. 346 SU

PLACE SEAL HERE

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

FORM IV-6
(8)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

DATE Jan 27, 1981
OPERATOR'S WELL NO. D-5

API WELL NO.
47 - 047 - 0860

STATE COUNTY PERMIT
Revised Est. Depth

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___

(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X

LOCATION: ELEVATION 2,123.52' WATER SHED Slouch Fork

DISTRICT Sandy River COUNTY McDowell

QUADRANGLE Patterson 7 1/2 Min, W.Va. Jaeger 15 C

SURFACE OWNER Clarence Baker ACREAGE _____

OIL & GAS ROYALTY OWNER Pocahontas Land Corporation LEASE ACREAGE 89.28
LEASE NO. _____

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

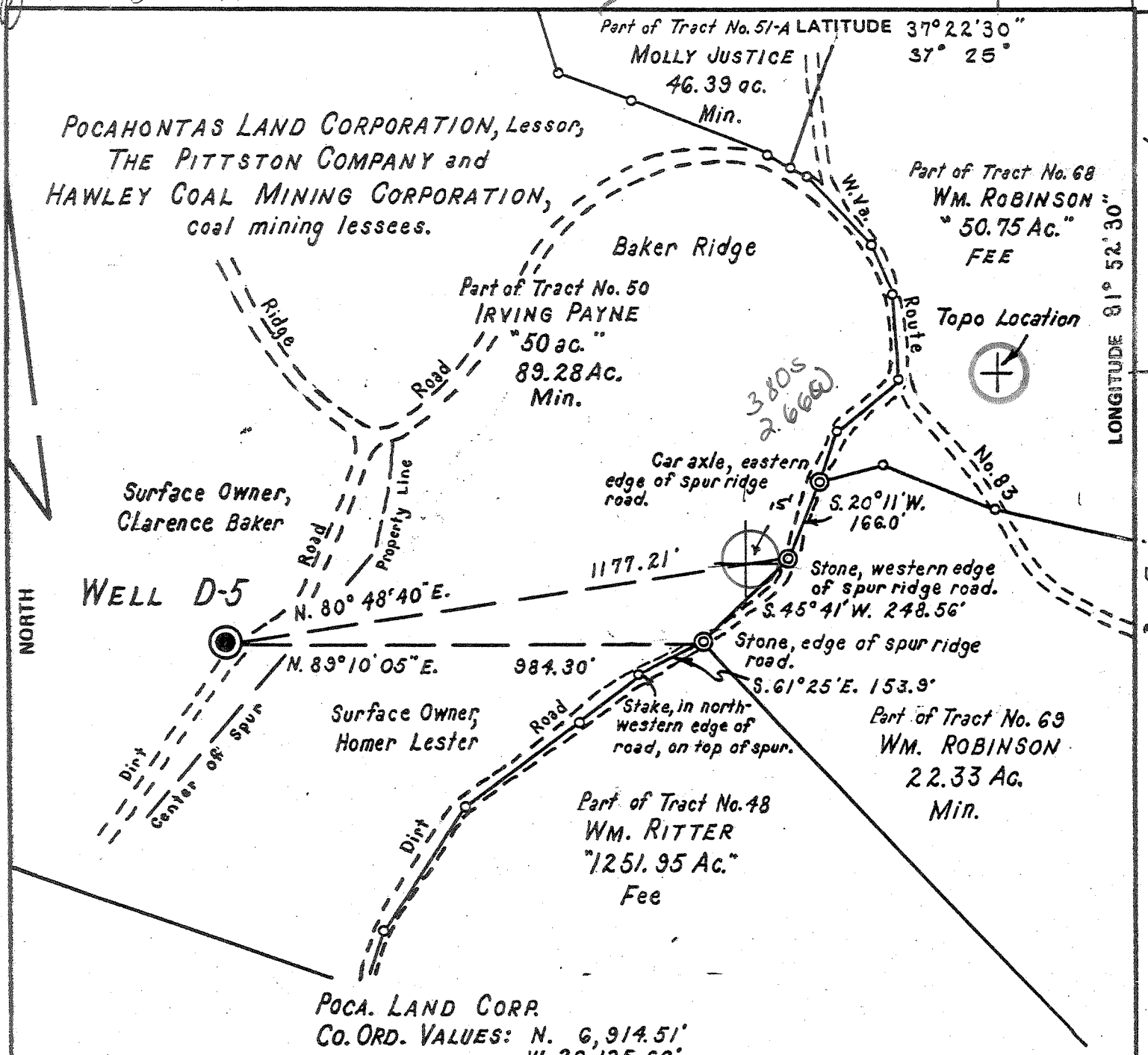
PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION Star-Oriskany ESTIMATED DEPTH 7050' Rockridge

WELL OPERATOR Cabot Oil and Gas Corp. DESIGNATED AGENT Jim Campbell

ADDRESS Box G28 ADDRESS Box 628
Charleston, W.Va. Charleston, W.Va.

AUG 24 1981
(350)



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THE PITTSBURY COMPANY and
HAWLEY COAL MINING CORPORATION,
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89.28 Ac.
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Topo Location

NORTH

WELL D-5

N. 80° 48' 40" E.

1177.21'

Car axle, eastern edge of spur ridge road.

3805
2.660

S. 20° 11' W. 166.0'

Stone, western edge of spur ridge road.

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SCALE 1" = 300'
MINIMUM DEGREE OF ACCURACY 1' in 2500'
PROVEN SOURCE OF ELEVATION U.S. Coast & Geodetic Survey, B.M. 1191, Elev. 2267'

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) Thomas V. Jolley
R.P.E. _____ L.L.S. 346 SU

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
FORM IV-6 (8-78)



DATE Jan 27, 1981
OPERATOR'S WELL NO. D-5
API WELL NO. _____
47 - 047 - 0860
STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 2,123.52' WATER SHED Slouch Fork
DISTRICT Sandy River COUNTY McDowell
QUADRANGLE Patterson 7 1/2 Min, W.Va. Jaeger C
SURFACE OWNER Clarence Baker ACREAGE _____
OIL & GAS ROYALTY OWNER Pocahontas Land Corporation LEASE ACREAGE 89.28
LEASE NO. _____
PROPOSED WORK: DRILL X 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 Shale ESTIMATED DEPTH 6505
WELL OPERATOR Cabot Oil and Gas Corp. DESIGNATED AGENT Jim Cramblett
ADDRESS Box 628 ADDRESS Box 628
Charleston, W.Va. Charleston, W.Va.

RECEIVED

OCT 23 1984

OIL & GAS DIVISION

17-35 (Rev 8-81)

RECEIVED

OCT 23 1984

OIL & GAS DIVISION

DEPT. OF MINES

State of West Virginia

Department of Mines

Oil and Gas Division

Date October 18, 1984

Operator's

Well No. D-5

Farm Pocahontas Land Corp.

API No. 47 - 047 - 0860

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 X / Underground Storage / Deep X / Shallow /)

LOCATION: Elevation: 2123.52 Watershed Slauch Fork District: Sandy River County McDowell Quadrangle Patterson 7 1/2'

COMPANY Cabot Oil & Gas Corporation of WV

ADDRESS P.O. Box 628, Charleston, WV 25322

DESIGNATED AGENT Robert E. Horrell

ADDRESS P.O. Box 628, Charleston, WV 25322

SURFACE OWNER Clarence Baker

ADDRESS Star Rt. Box 136, Jolo, WV 24850

MINERAL RIGHTS OWNER Pocahontas Land Corp.

ADDRESS P.O. Box 1517, Bluefield, WV 24701

OIL AND GAS INSPECTOR FOR THIS WORK Arthur St. Clair P.O. Box 157

ADDRESS Brenton, WV 24818 732-6227

PERMIT ISSUED 1/21/81

DRILLING COMMENCED 7/25/81

DRILLING COMPLETED 8/20/81

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VEREAL PERMISSION OBTAINED ON

Table with 4 columns: Casing Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 11-3/4" 12x10", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, 2-7/8" Liners used.

BS 6000-6828, Berea 4850-490

GEOLOGICAL TARGET FORMATION Brown Shale, Berea & Big Lime Depth BL 3835-4215 feet

Depth of completed well PBTD=6840 feet Rotary / Cable Tools

Water strata depth: Fresh 50, 630, 820 feet; Salt 1595, 1625, 1705, 1915 feet

Coal seam depths: 630, 820, 1595, 1705 Is coal being mined in the area? Yes

OPEN FLOW DATA

Producing formation Big Lime & Berea Pay zone depth Berea 4890- feet

Gas: Initial open flow Mcf/d Oil: Initial open flow 4892 Bbl/d

4 hr. Final open flow 900 Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests hours

Static rock pressure 920 psig (surface measurement) after hours shut in

(If applicable due to multiple completion--)

Second producing formation Brown Shale Pay zone depth 5097-6900 feet

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

Final open flow est. 200* 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

NOV 19 1984

100 MCP total FDP

up dw → marcellus

→ PB TD 6840-

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
 Set 38' of 16" csg. Ran 11-3/4" csg. (883.90') w/100 sks. Class A. LTD 7114'. Shot Brown Shale 6900-5097' w/17,600# glycerin. Ran 48 jts. perf. tbg. 1612' with lockset packer @ 4924'. Bottom of tbg. @ 6536'. R/U McCullough. Perf Berea 4890-4892' (14 holes). R/U Dowell. BD Berea w/500 gal 28% HCL. BD press 600#. Treated w/15,000# 80/100 sand and 60,000# 20/40 sand. ATP: 1,034#. AIR: 25 bbl/min. Total fluid: 817 bbls. Sand laden 565 bbls. ISIP 500#, after 15 min: 250#, after 1 hr: vacuum. Perf'd 4-1/2" csg from 4500-4501'. Squeezed w/150 sks. Class A, 3% CaCl₂. Perf'd Big Lime from 4028-4034' (6 holes 3886-3892' (6 hole). R/U Dowell. Spotted 500 gal 15% acid over Big Lime. Treated (bottom) Big Lime w/500 gal 15% HCL & 2500 gal gel acid. BD press 1000#. ATP: 1900#. AIR: 5 bbl/min, flushed w/3500 gal H₂O. Total fluid: 6,500 gal. ISIP 250#; 15 min - 0#. Treated (top) Big Lime dwn backside w/500 gal 15% HCL & 3500 gal acid. Flushed w/4500 gal H₂O. BD press 1000#. ATP: 2100#. AIR: 2-1/2 bbl/min. Total fluid: 8500 gal. ISIP: 1750#; 15 min - 1200#. Ran 2-7/8" tbg. w/sliding sleeve & overshot. Tried to hook onto lockset packer. Could not hook onto lockset packer. After a number of attempts - no success. Rigged down and moved off. Will move back at later date.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
nd & Shale	Grey	Hard	0	2600	
vencliff Sand	Grey	Hard	2600	2640	
nd Stringers					
& Shale	Grey	Hard	2640	2730	
vencliff	Grey	V. Hard	2730	2750	
is Limestone	D. Grey	Hard	2750	2830	
nd & Shale					
ime Stringers	Grey	Hard	2830	3770	
ttle Lime	Grey	Hard	3770	3810	
ncil Cave	D. Grey	Soft	3810	3835	
g Lime	L. Grey	Hard	3835	4215	
ale w/Sand					
Stringers	Grey	Hard	4215	4850	
erea	L. Grey	Hard	4850	4903	
ale	Grey	Soft	4903	6000	
ale	D. Brown	V. Soft	6000	6828	
arcellus	Black	Soft	6828	6840	
ondaga LS	Grey	Hard	6840	6920	
riskany	Grey	Hard	6920	6945	
elderburg	Grey	Hard	6945	7118	

7118
4903
2215 expl fts

(Attach separate sheets as necessary)

CABOT OIL & GAS CORPORATION OF WEST VIRGINIA
Well Operator

By: Robert E. Harrell
Date: October 18, 1984

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."