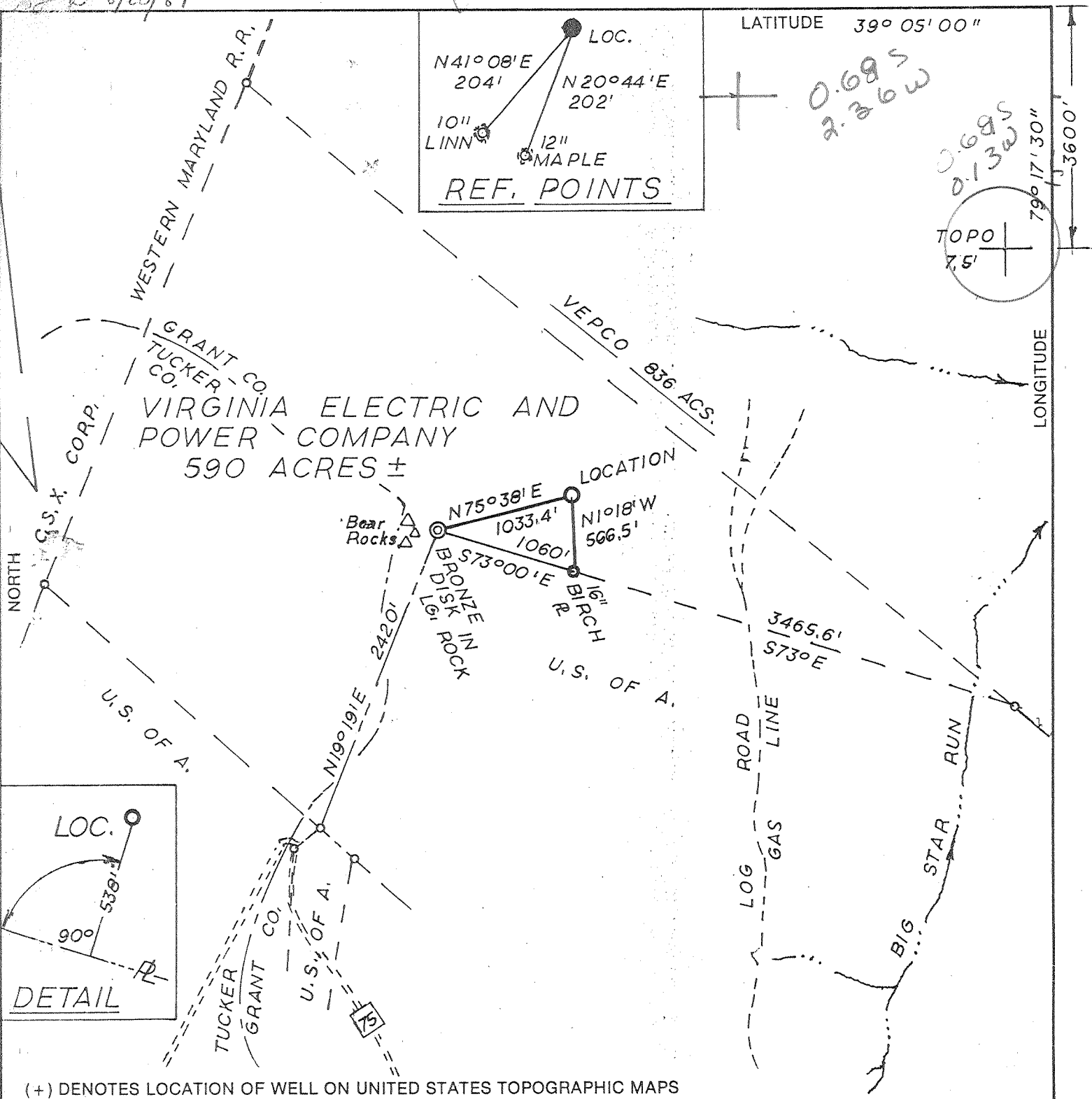


8/20/87

700'



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

FILE NO. U.D.I. - 4 - 72
 DRAWING NO. 87-10
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION FORKS LOG RD. 1500' S. E. OF LOC. = 3077

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) Thomas P. Weaver, Jr.
 R.P.E. _____ L.L.S. 410

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE JULY 15, 1987
 OPERATOR'S WELL NO. 2568
 API WELL NO. (CNR# 21704)
47 - 023 - 0020
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 3460 WATERSHED BIG STAR RUN
 DISTRICT UNION 3 COUNTY GRANT
 QUADRANGLE BLACKBIRD KNOB 255 034 SE9 Davis
 SURFACE OWNER VIRGINIA ELECTRIC AND POWER COMPANY ACREAGE 590
 OIL & GAS ROYALTY OWNER VA. ELECTRIC & POW. CO. LEASE ACREAGE _____

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 ORISKANY ESTIMATED DEPTH 9400'
 WELL OPERATOR UNION DRILLING INC. DESIGNATED AGENT JOSEPH C. PETTEY
 ADDRESS P. O. DRAWER 40 AUG 2 - 1987 ADDRESS SAME
BUCKHANNON, WV, 26201

COUNTY NAME GRANT
 PERMIT _____

DEEP WELL 3-3 (375) one 10/15/1987 DRD - Corriganville

TIGHT HOLE



IV-35
(Rev 8-81)

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SEP 01 1988

State of West Virginia

Department of Mines
Oil and Gas Division

Date August 29, 1988

Operator's WVG02565

Well No. _____

Farm vepco Unit #1

API No. 47 - 023 - 0020

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

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: 3460 Watershed Big Star Run

District: Union County Grant Quadrangle Blackbird Knob

COMPANY EQUITABLE RESOURCES EXPLORATION, INC.

ADDRESS P. O. Drawer 40, Buckhannon, WV 26201

DESIGNATED AGENT Douglas P. Terry

ADDRESS P. O. Drawer 40, Buckhannon, WV 26201

SURFACE OWNER Virginia Electric & Power Co.

ADDRESS One James River Plaza, Richmond, VA 23219

MINERAL RIGHTS OWNER same as surface

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Phillip

Tracy P. O. Box 2536

ADDRESS Elkins, WV 26241

PERMIT ISSUED 8/20/87

DRILLING COMMENCED 9/15/87

DRILLING COMPLETED 10/15/87

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

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	11'	0	
13-10"		154.50	165.2
9 5/8		3502.29	1353.5
8 5/8			
7			
5 1/2		9886.59	720.5
4 1/2			
3			
2 3/8"		9700	
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 9400 feet

Depth of completed well 9915 feet Rotary x / Cable Tools _____

Water strata depth: Fresh 39,98,180 feet; Salt 0 feet:

Coal seam depths: 0 Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation _____ Pay zone depth _____ feet

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 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)

3129/94

0105 2833

→ per R. Drabosh 4/4/94 kla.

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

TIGHT HOLE

{ 3H-9784-9786 } 5H-9770-9775
{ 4H-9779-9782 } 25H-9732-9738

Frac 10/28/87 Halliburton
Perforations: 9732-9786, Corriganville - 1500 gals. 15% Fe Acid
220,000 lbs. 20/40 sand

2/20/88 - Halliburton, Corriganville - 1000 gals. 5% Fe acid.

3/2/88 - Halliburton
Perforations: 9396-9476, Oriskany - 5% HCl
10,000 lbs. 80/100 sand
220,000 lbs. 20/40 sand

Baker R-3 Production Packer @ 9512', bottom Tbg. @ 9700'.
RTTS Packer @ 9754', left in hole (junk).

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Mauch Chunk Groups			surface		
Foreknobs Group			3496	5337	1/2" Stream of wtr. @ 39'
Scherr Group			5337		3/4" stream of wtr. @ 98'
Sycamore			7442	7471	1/2" stream of wtr. @ 180'
Harrell Shale			8251	8644	
Tully Horizon			8644	8649	
Upper Marcellus			9012	9039	
Purcell L.S.			9039	9107	Gas Check @ 2500' no show
Lower Marcellus			9107	9154	@3500' no show
Tioga Metabentonite			9154	9170	@ 4500' 4/10-2" wtr.
Needmore Shale			9170	9286	@ 5766' 2/10-1 1/4" wtr.
Oriskany S.S.			9286	9486	@ 6554' 2/10-1 1/4" wtr.
helderberg			9486	9712	
Mandata Shale			9712	9727	
Corriganville L.S.			9727	9795	
New Creek L.S.			9795	9832	
Keyser L.S.			9832	9915 T.D.	

9986
173 cor 9915
10 9659
023
9659 15
250 expl.
Htg

(Attach separate sheets as necessary)

EQUITABLE RESOURCES EXPLORATION, INC.

Well Operator

By: Douglas P. Terry

Date: August 29, 1988 DOUGLAS P. TERRY

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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AUG 19 1987



1) Date: August 11, 19 87
2) Operator's Well No. 2565
3) API Well No. 47 -023-0020
State County Permit

STATE OF WEST VIRGINIA
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 X / Shallow /)
5) LOCATION: Elevation: 3460 Watershed: Big Star Run
District: Union 3 County: Grant 23 Quadrangle: Blackbird Knob 255
6) WELL OPERATOR Union Drilling, Inc. CODE: 50550 7) DESIGNATED AGENT Joseph C. Pettey
Address Post Office Drawer 40 Buckhannon, WV 26201
8) OIL & GAS INSPECTOR TO BE NOTIFIED Phillip Tracy
Address P. O. Box 2536 Elkins, WV 26241
9) DRILLING CONTRACTOR: Union Drilling, Inc.
Address P. O. Box Drawer 40 Buckhannon, WV 26201
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, Oriskany
12) Estimated depth of completed well, 9400 feet
13) Approximate trrata depths: Fresh, feet; salt, 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
Conductor									
Fresh water									
Coal									
Intermediate	9 5/8	N-80	36&40	X		2500	2500	as required	
Production	5 1/2	N-80	17	X		9400	9400	to surface	Depths set
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-023-0020 August 20 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 August 20, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat	Casing	Fee	Other
		[Signature]	[Signature]	227 9/82	[Signature]

John W. Johnstonby Margaret Hase
Director, Division of Oil and Gas
File

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.