

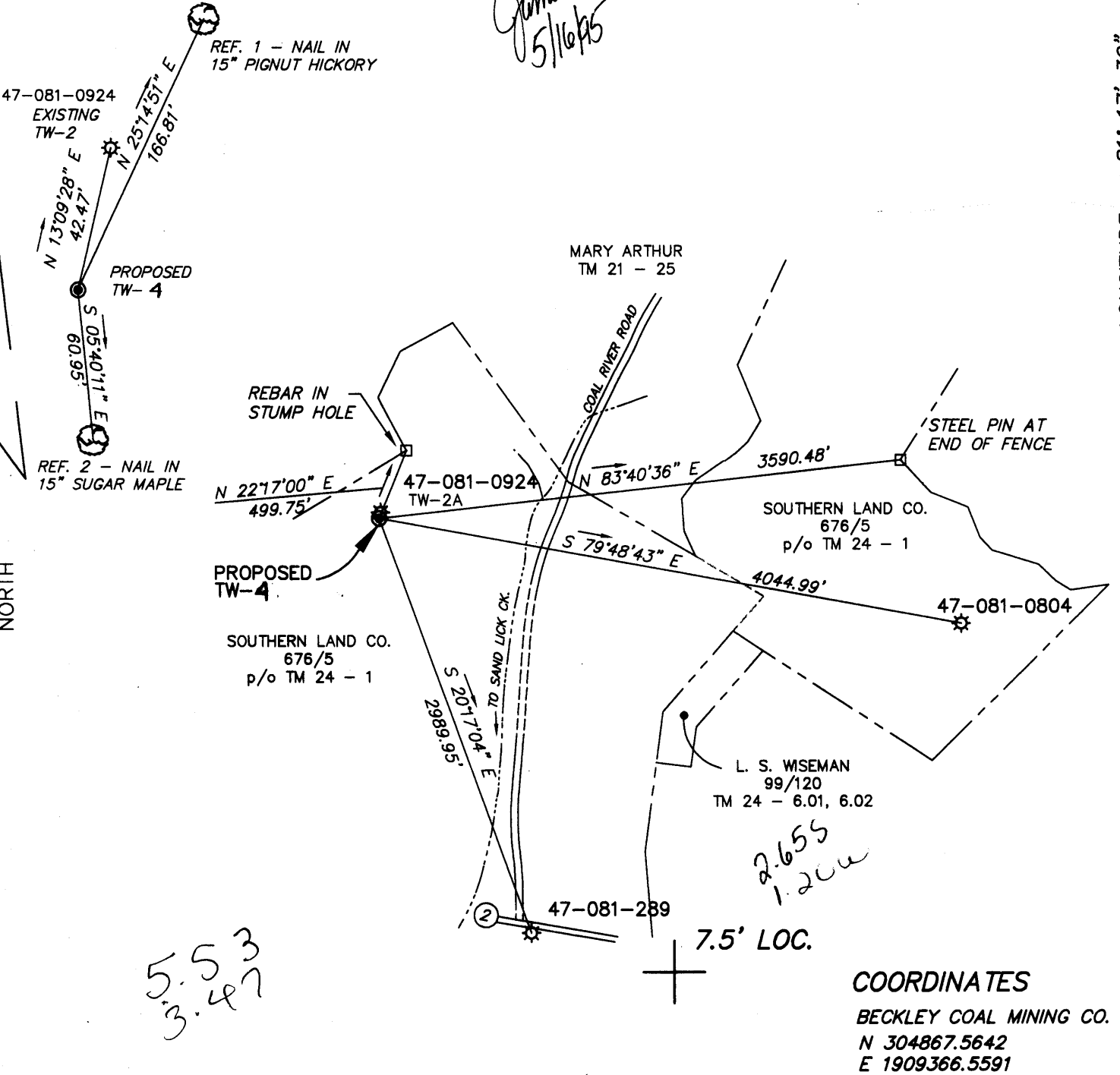
REFERENCES N.T.S.

LATITUDE 37° 52' 30"

6,400'

LONGITUDE 81° 17' 30"

13,900'



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

FILE No. 9506-23
 DRAWING No. TW-2A
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 : 2500
 PROVEN SOURCE OF ELEVATION SPOT ELEV. 1801
 AT ROAD INTERSECTION

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) William J. Whittman R.P.E. 646 R.P.S. 646

WILLIAM J. WHITTMAN
 REGISTERED
 No. 646
 STATE OF WEST VIRGINIA
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 NITRO, WV



DATE MARCH 28 19 95
 OPERATOR'S WELL No. TW-4
 API WELL No. 47 081-01000C

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE 47 COUNTY 081 PERMIT 01000C
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 2217.37 WATER SHED SAND LICK CREEK
 DISTRICT CLEAR FORK COUNTY RALEIGH
 QUADRANGLE ECCLES, W. VA.

SURFACE OWNER SOUTHERN LAND CO. ACREAGE 583.7 of 1069
 OIL & GAS ROYALTY OWNER SOUTHERN LAND CO. LEASE ACREAGE 1069

LEASE No. _____
 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 POCA #3 AND #4 ESTIMATED DEPTH 1500'
 WELL OPERATOR THE COLLEGE OF WV DESIGNATED AGENT JAMES SILOSKY
 ADDRESS P.O. BOX AG ADDRESS P.O. BOX AG
BECKLEY, W. VA. 25802 BECKLEY, W. VA. 25802

FORM IV-6 (8-78)

RECEIVED

WV Division of Environmental Protection

DEC 20 1995

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Permitting
Office of Oil & Gas

Farm name: SOUTHERN LAND COMPANY

Operator Well No.: TW4

LOCATION: Elevation: 2,217.37 Quadrangle: ECCLES

District: CLEAR FORK County: RALEIGH
Latitude: 13900 Feet South of 37 Deg. 52Min. 30 Sec.
Longitude 6400 Feet West of 81 Deg. 17 Min. 30 Sec.

Company: COLLEGE OF WEST VIRGINIA,
P.O. BOX AG
BECKLEY, WV 25802-0000

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
20-16			
Cond.			
13	36'	36'	
8 5/8	675'	675'	360 c.f.
4 1/2	1546'	1546'	195 c.f.
2		1248'	

Agent: JAMES G. SILOSKY

Inspector: RODNEY DILLON
Permit Issued: 05/16/95
Well work Commenced: 05/22/95
Well work Completed: 08/15/95

Verbal Plugging
Permission granted on: _____
Rotary x 1 Cable _____ Rig
Total Depth (feet) 1556 ft.
Fresh water depths (ft) 230 ft.

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 762, 986, 1248

OPEN FLOW DATA

Producing formation Beckley Coal Pay zone depth (ft) 993.5' - 999.0'
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

Second producing formation Poca #3 & #4 Pay zone depth (ft) 1255.5' - 1285.5'
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 35 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 180 psig (surface pressure) after 72 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: COLLEGE OF WEST VIRGINIA, THE
By: JAMES G SILOSKY
Date: 12-18-95

DEC 22 1995

WR-35

THE COLLEGE OF WEST VIRGINIA
 WELL TW4 - 047-081-1000 C
 WELL LOG

FORMATION/COLOR	HARD/SOFT	TOP FEET	BOTTOM FEET	REMARKS INCLUDING INDICATION OF ALL FRESH & SALT WATER, COAL, OIL & GAS
Brown Sand		0	24	
Gray Sand		24	38	
Gray Sd/Shale		38	100	
Gray Sand		100	140	
Gray Sd/Shale		140	287	Water @ 230'
Gray Sand		287	450	
Gray Sd/Shale		450	470	
White Sand		470	485	Water @ 480'
Gray Sd/Shale		485	590	
Lt.Gray/White Sd.		590	610	
White Sand		610	655	
Gray Sd/Shale		655	710	
Gray Sand		710	762	
Coal		762	765	
Gray Sd/Shale		765	840	
White Sand		840	890	
Lt.Gray/White Sd		890	940	
Gray Sd/Shale		940	986	
Coal Beckley 984		986	998	
Gray Sd/Shale		998	1085	
Lt.Gray/White Sd		1085	1248	
Coal Poca #4 297		1248	1257	
Gray Sd/Shale		1257	1280	
Coal Poca #3 990		1280	1286	
Gray Sd/Shale		1286	1350	
Red/Gray Sand		1350	1400	
Gray Sd/Shale		1400	1470	
Red/Gray Sand		1470	1556	TOTAL DEPTH

DEC 22 1995

081 1000

WR-35

DETAILS OF PERFORATED INTERVALS, FRACTURING, PHYSICAL CHANGE ETC.

"ATTACHMENT NO. 1"

The College of West Virginia
Well TW4 - 047-081-1000 C
Treatment Detail

Stage #1 - Perforate 1351.0' to 1352.5' w/9 holes, break formation @ 3,491 PSIG, foam frac with 1,500# of 20/40 sand at 11 BPM and 3,305 PSIG. ISIP 2,789 PSIG.

Stage #2 (Poca #3 & #4) - Perforate 1,255.5' to 1,285.5' with 24 holes. Break formation at 3,300 PSI. Foam frac with 5,000# of 80/100 sand & 25,500# of 20/40 sand. Average rate - 19.2 BPM, average pressure - 2,082 PSIG. ISIP - 1,875 PSIG.

Stage #3 (Beckley) - Perforate 993.5' to 999.0' with 33 holes. Break formation at 3,243 PSIG. Foam Frac with 8,900# of 80/100 sand & 3,100# of 20/40 sand. Average rate - 20 BPM, average pressure - 2,824 PSIG. ISIP - 3,081 PSIG.

RECEIVED
WV Division of
Environmental Protection

Page 1 of _____
Form WW2-A
(9/87)
Permit Copy

APR 05 1995

1) Date: March 23, 1995
2) Operator's well number
TW4
3) API Well No: 47 - 081 - 1000
State - County - Permit

Permitting
Office of Oil & Gas

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 Southern Land Company
Address 1401 Kanawha Valley Building
Charleston, WV 25301
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Rodney Dillon
Address P.O. Box 1526
Sophia, WV 25921
Telephone (304) - 683-3989

5) (a) Coal Operator:
Name New Beckley Mining
Address Box 145
Glen Daniel, WV 25844
(b) Coal Owner(s) with Declaration
Name Southern Land Company
Address 1401 Kanawha Valley Building
Charleston, WV 25301
Name _____
Address _____
(c) Coal Lessee with Declaration
Name New Beckley Mining
Address Box 145
Glen Daniel, WV 25844

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
 Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

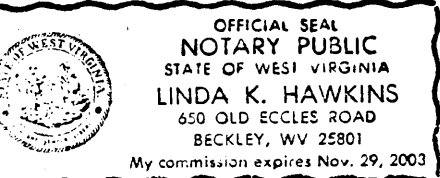
I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

- Personal Service (Affidavit attached)
- 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 The College of West Virginia
By: James Silosky
Its: Agent
Address P. O. Box AG
Beckley, WV 25802-2830
Telephone 304-253-7351 Ext. 310



Subscribed and sworn before me this 3rd day of April, 1995

Linda K Hawkins

My commission expires Nov 29 2003 Notary Public

RECEIVED

STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

WV Division of Environmental Protection

5653

① 331

- 1) Well Operator: The College of West Virginia 10335
- 2) Permitting's Well Number: TW4
- 3) Elevation: 2217.37
- Well type: (a) Oil / or Gas X /
- (b) If Gas: Production / Underground Storage /
Deep / Shallow X /
- Proposed Target Formation(s): Pocahontas #3 & #4 Coals
- Proposed Total Depth: 1450 feet
- Approximate fresh water strata depths: 500 ft.
- Approximate salt water depths: N/A
- Approximate coal seam depths: 990' (Beckley), 1250' (#4), 1280' (#3)
- Does land contain coal seams tributary to active mine? Yes / No X /
- Proposed Well Work: Drill & complete coal bed methane
- 12)

Issued 05/16/95
Expired 05/16/97

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	13 3/8	H	48	30	30	
Fresh Water	8 5/8	H	24	650	650	250 c.f.
Coal						
Intermediate						
Production	4 1/2	K	10.5	1450	1450	200 c.f.
Tubing	2 3/8			1400	1400	
Liners						

PACKERS : Kind N/A
Sizes
Depths set

For Office of Oil and Gas Use Only

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

to