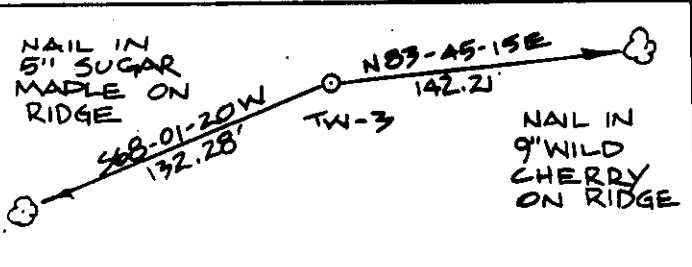
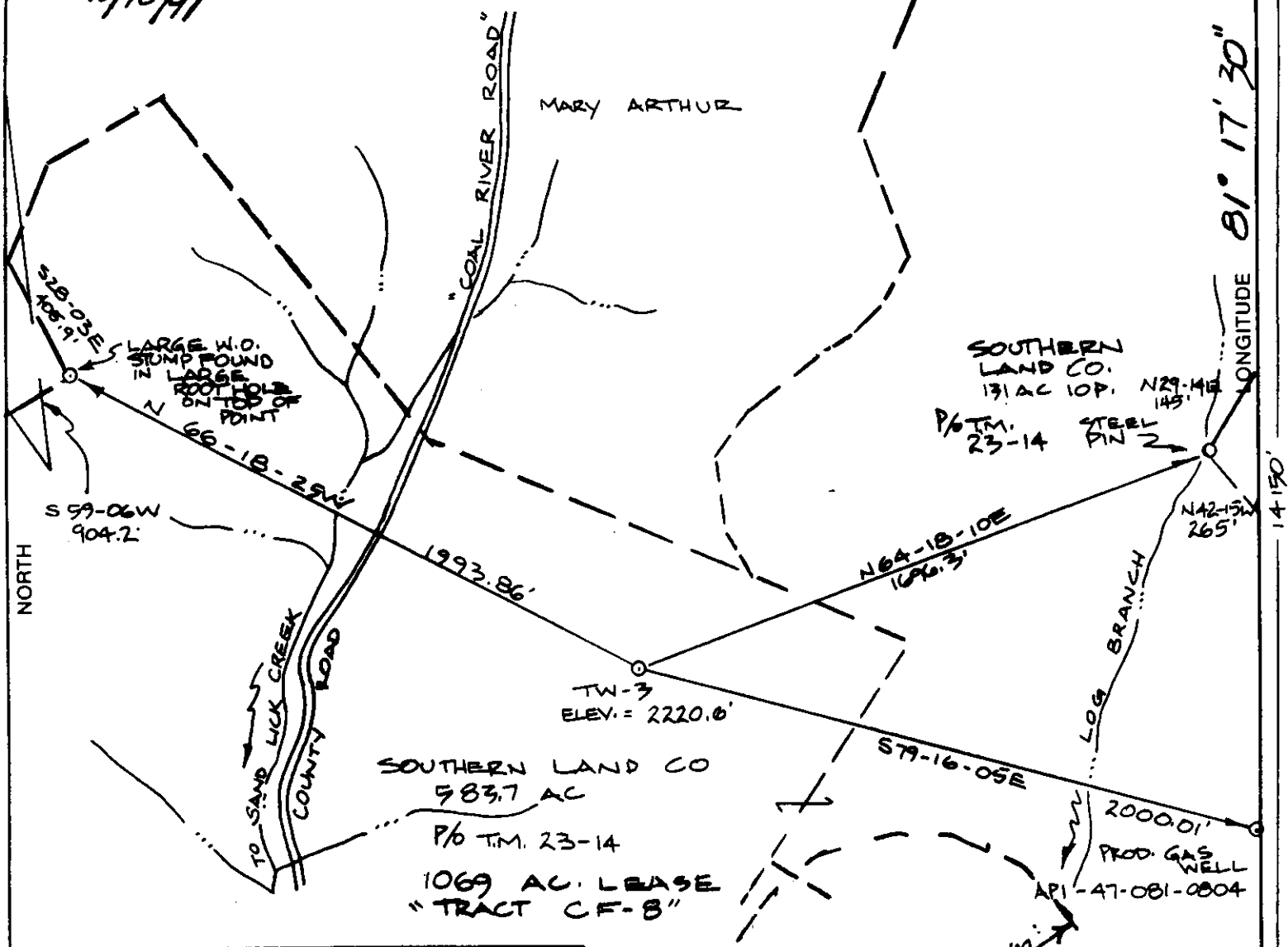


Jamie
10/15/91

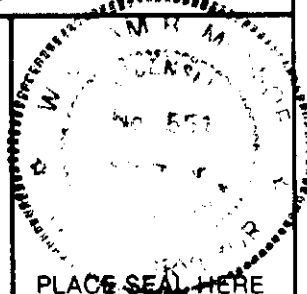
LATITUDE 37° 52' 30"
LONGITUDE 81° 17' 30"



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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 500'
MINIMUM DEGREE OF ACCURACY 1:2500'
PROVEN SOURCE OF ELEVATION B.M. ELEV. 1997'
NT'LY 1750' FROM TW-3

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) [Signature]
R.P.E. _____ L.L.S. 551



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



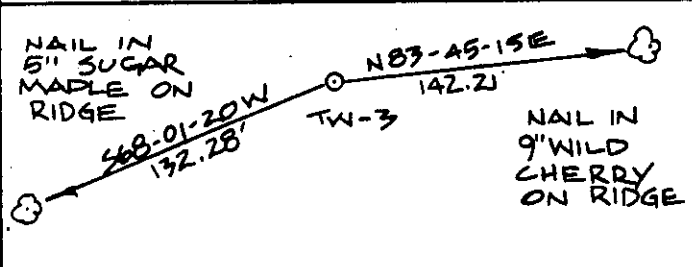
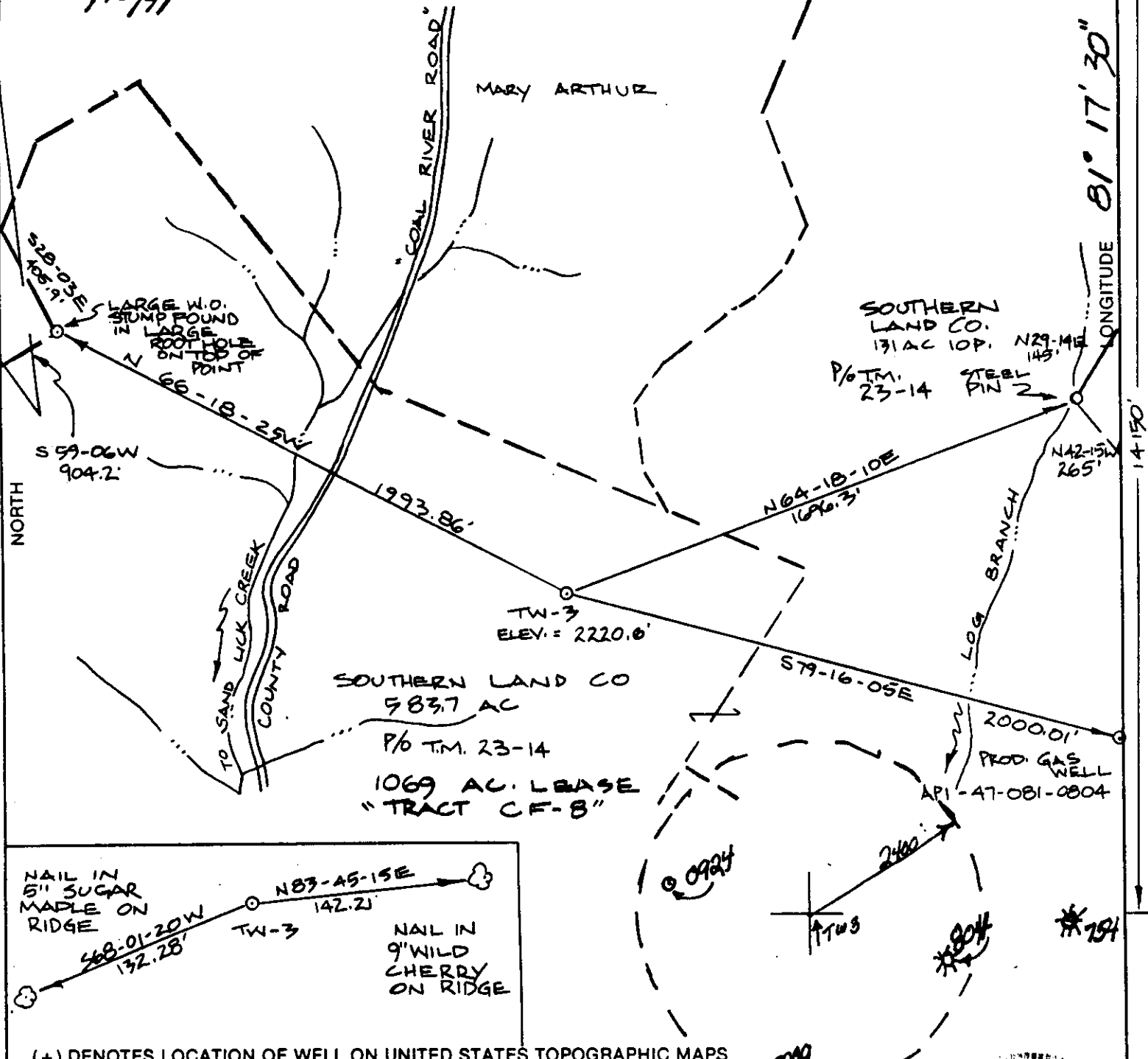
DATE SEPTEMBER 19 91
OPERATOR'S WELL NO. TW-3
API WELL NO. 47-081-0925-PP

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 2220.6' WATER SHED SAND LICK CREEK
DISTRICT CLEAR FORK COUNTY RALEIGH
QUADRANGLE ECCLES
SURFACE OWNER SOUTHERN LAND CO. ACREAGE 783.7 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 WEIR Big Lime ESTIMATED DEPTH 3250'
WELL OPERATOR BDM ENGINEERING SERVICES DESIGNATED AGENT C. DAVID LOCKE
ADDRESS 1199 VANVOORHIS RD., STE 4 MORGANTOWN, WV 26505 ADDRESS 1199 VANVOORHIS RD., STE 4 MORGANTOWN, WV 26505

COUNTY NAME RAL PERMIT 0925 PP

Jamie
10/15/91

← 4410' →
LATITUDE 37° 52' 30"



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

FILE NO. _____
DRAWING NO. _____
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MINIMUM DEGREE OF ACCURACY 1:2500'
PROVEN SOURCE OF ELEVATION B.M. ELEV. 1997'
NTLY 1750' FROM TW 3

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) Walter Blaser
R.P.E. _____ L.L.S. 551

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE SEPTEMBER, 19 91
OPERATOR'S WELL NO. TW-3
API WELL NO. 47 081 0925-PP

WELL TYPE: OIL _____ GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW

LOCATION: ELEVATION 2220.0' WATER SHED SAND LICK CREEK
DISTRICT CLEAR FORK COUNTY RALEIGH
QUADRANGLE ECCLES

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) AUG 13 1993

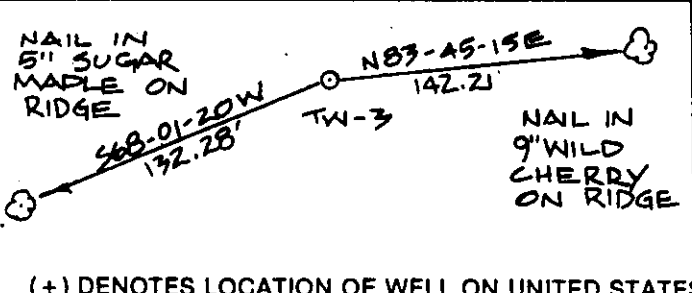
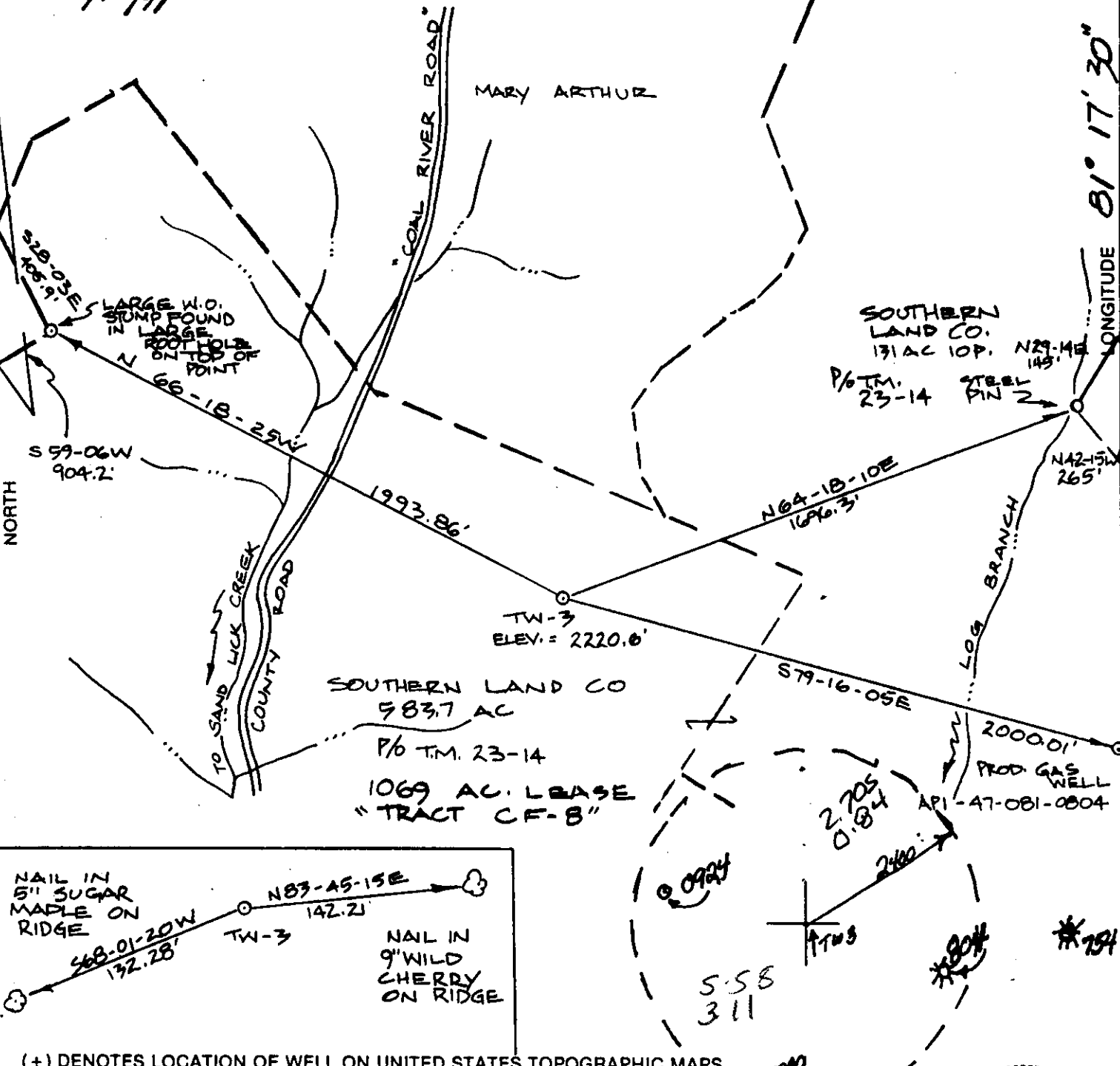
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION WEIR Big Lime ESTIMATED DEPTH 3250'
WELL OPERATOR BDM ENGINEERING SERVICES DESIGNATED AGENT C. DAVID LOCKE
ADDRESS 1199 VANVOORHIS RD., STE 4 ADDRESS 1199 VANVOORHIS RD., STE 4
MORGANTOWN, WV 26505 MORGANTOWN, WV 26505

COUNTY NAME RALEIGH
PERMIT 0925

Jamie
10/15/91

LATITUDE 37° 52' 30"

LONGITUDE 81° 17' 30"



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

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:2500'
 PROVEN SOURCE OF ELEVATION B.M. ELEV. 1997'
 N.T.L.Y 1750' FROM TW 3

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) *[Signature]*
 R.P.E. _____ L.L.S. 551



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE SEPTEMBER, 19 91
 OPERATOR'S WELL NO. TW-3
 API WELL NO.

47 081 0925
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 2220.0' WATER SHED SAND LICK CREEK
 DISTRICT CLEAR FORK I COUNTY RALEIGH
 QUADRANGLE ECCLES

SURFACE OWNER SOUTHERN LAND CO. ACREAGE 983.7 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 WEIR Big Lime ESTIMATED DEPTH 3250'
 WELL OPERATOR BDM ENGINEERING SERVICES DESIGNATED AGENT C. DAVID LOCKE
 ADDRESS 1199 VANVOORHIS RD., STE 4 ADDRESS 1199 VANVOORHIS RD., STE 4
MORGANTOWN, WV 26505 4761 MORGANTOWN, WV 26505

OCT 18 1991

COUNTY NAME PERMIT

API # 47- 81-00925

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

RECEIVED
WV Division of
Environmental Protection

Well Operator's Report of Well Work

Farm name: SOUTHERN LAND COMPANY Operator Well No.: TW-3

LOCATION: Elevation: 2220.60 Quadrangle: ECCLES

District: CLEAR FORK County: RALEIGH
Latitude: 14150 Feet South of 37 Deg. 52Min. 30 Sec.
Longitude 4410 Feet West of 81 Deg. 17 Min. 30 Sec.

407 0 6 22
Permitting
Office of Oil & Gas

Company: BDM ENGINEERING SERVICES

1199 VAN VOORHIS ROAD, SUITE C Casing | Used in | Left | Cement

MORGANTOWN, WV 26505-0000

Agent: C D. LOCKE

Inspector: RODNEY G. DILLON

Permit Issued: 10/15/91

Well work Commenced: 10/29/91

Well work Completed: 11/05/91

Verbal Pluging

Permission granted on:

Rotary x Cable Rig

Total Depth (feet) 3193

Fresh water depths (ft) 110, 143

Salt water depths (ft) None

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

Coal Depths (ft): 943 (Becklev)

1212, 1220 (Poca #4)

1242 (Poca #3)

Size	Drilling	in Well	Fill Up Cu. Ft.
13 3/8	30	All	
8 5/8	1358	All	341
4 1/2	3159	All	

OPEN FLOW DATA

Producing formation Ravenscliff Pay zone depth (ft) 1790-1804
Gas: Initial open flow Show MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 39 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 62 Hours
Static rock Pressure 210 psig (surface pressure) after 62 Hours

Second producing formation Poca #3, #4 Pay zone depth (ft) 1213-1245
Gas: Initial open flow 47 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 80 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure 270 psig (surface pressure) after 62 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 COALS ENCOUNTERED BY THE WELLBORE.

For: BDM ENGINEERING SERVICES COMPANY

Reviewed: IMG

Recorded: _____

By: [Signature]
Date: 11/2/91

4/8/97

August 9, 1993 (FAX)

(BDM Morgantown)

API #: 47-081-00925

SOUTHERN LAND COMPANY
DISTRICT: CLEARFORK
ELEVATION: 2220'

Operator Well No: TW-3
County: Raleigh
Quadrangle: Eccles

<u>FORMATION NAME</u>	<u>TOP</u>	<u>BASE</u>	<u>THICKNESS</u>	<u>NOTES</u>
Swell Coal A	707	711	4	gas show @ 712'
Beckley Coal	948	954	6	Show @ 953'
Pocahontas #4 Coal	1212	1218	4	
Pocahontas #4 Coal	1220	1223	3	
Pocahontas # 3 Coal	1242	1246	4	
Ravencliff	1782	1852	70	
Marion	2162	2223	61	
Big Line	2664	3091	427	gas show @ 2752, 2795-97, 2813-26, 2863-69, 2912, 2985, 3084

API # 47-81-00925

SOUTHERN LAND COMPANY
District: CLEARFORK
Elevation: 2220.6

Operator Well No.: TW-3
County: RALEIGH
Quadrangle: ECCLES

TW#3

Details of Perforated Intervals and Fracturing

- January 28, 1992 Perforated Ravencloff 1790-1804 (10 shots)
- January 30, 1992 Stimulated Ravencloff with 25,000 gallons of 80 quality foam, 40,000# sand (35,000# 20/40 sand, 5,000# 80/100 sand). BDP 1750 psi, ATP 2326 psi, ISIP 2020 psi, 5 min SIP 1740 psi, 10 min SIP 1720 psi, 15 min SIP 1690 psi.
- February 7, 1992 Perforated gas bearing fracture 1594 to 1601 (19 shots). Stimulation attempted but no production detected.
- February 10, 1992 Perforated Poca #3 and #4 1213 to 1245 (38 shots)
- February 11, 1992 Stimulated Poca #3 and #4 with 80 quality nitrogen foam, 100 sacks of 80/100 mesh sand, 530 sacks of 20/40 mesh sand, BDP 2294 psi, ATP 1985 psi, ISIP 1636 psi, 5 min SIP 1455 psi, 10 min SIP 1400 psi, 15 min SIP 1322 psi.

OCT 11 1991

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

Issued 10/15/91

revised 10/15/93

- 1) Well Operator: BDM Engineering Services Company ^{476.1} 3285 (1) 331
- 2) Operator's Well Number: TW - 3 3) Elevation: 2220.6'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Big Lime 345
- 6) Proposed Total Depth: 3150 feet
- 7) Approximate fresh water strata depths: 250, 301, 328, 440, 482
- 8) Approximate salt water depths: None
- 9) Approximate coal seam depths: 590, 840, 1090, 1140
- 10) Does land contain coal seams tributary to active mine? Yes / No /

11) Proposed Well Work: Drill & Stimulate New Well.

CASING AND TUBING PROGRAM

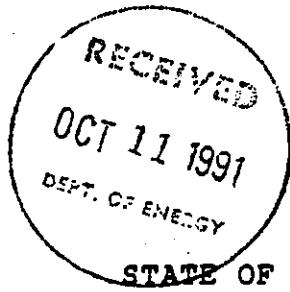
See Schematic Attached

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	13-3/8"					
Fresh Water						
Coal						
Intermediate	8-5/8"	H-40	28#	1300'	1300'	Cement to Surface
Production	4-1/2"	J-55	10.5#	3100'	3100'	200 sacks
Tubing						
Liners						

PACKERS : Kind Cement Open Hole Hook Wall Packer
Sizes 8 5/8" x 10 3/4"
Depths set Above the Beckley Coal Seam @ 840'

For Division of Oil and Gas Use Only

2988
 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 10,000 ^{400 JA} 6035 Agent
 (Type)



1) Date: October 1, 1991
2) Operator's well number TW - 3
3) API Well No: 47 - 081 - 0925
State - County - Permit

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 Bldg.
Charleston, WV 25301
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Rodney C. Dillon
Address P.O. Box 1526
Sophia, WV 25921
Telephone (304)-683-3989

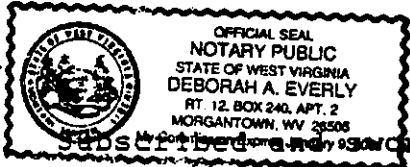
5) (a) Coal Operator:
Name New Beckley Mining Corporation
Address P.O. Box 145, Mattsville Road
Glen Daniel, WV 25844
(b) Coal Owner(s) with Declaration
Name Southern Land Company
Address 1401 Kanawha Valley Bldg.
Charleston, WV 25301
Name _____
Address _____
(c) Coal Lessee with Declaration
Name New Beckley Mining Corporation
Address P.O. Box 145, Mattsville Road
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 BDM Engineering Services Company
By: C.D. Locke _____
Its: Agent
Address 1199 Van Voorhis Road, Suite 4
Morgantown, WV 26505
Telephone 304-598-2666



Subscribed and sworn before me this 1 day of October, 1991
Deborah A. Everly Notary Public
My commission expires January 9, 2001