

LONGITUDE 80.50'00"

LATITUDE 39°17'30"

2.55
89W

SEP 23 1997
Permitting
Office of Oil & Gas

TOWNER LEASE
68.23 ACRES±
WELL #3A

CURRENCE

RÉFÉRENCES

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE AUGUST 13 19 97
OPERATORS WELL NO. TOWNER # 3A
API WELL NO. 47
STATE COUNTY PERMIT NO. 017-04403



I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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.

P.S. Gregory A. Smith
677

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 3630P3A (65-67)
SCALE 1" = 500'
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 904'

WELL TYPE : OIL GAS INJECTION WASTE DISPOSAL "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION : ELEVATION 1167' WATERSHED WILHELM RUN DISTRICT CENTRAL COUNTY DODDRIDGE

SURFACE OWNER VALLIE R. TOWNER, LIFE ESTATE - (JOSEPH TOWNER) QUADRANGLE WEST UNION 7.5' ACREAGE 68.23
ROYALTY OWNER GLENN TOWNER ET.AL. LEASE ACREAGE 68.23 LEASE NO.

PROPOSED WORK : DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION ALEXANDER ESTIMATED DEPTH 5750'

WELL OPERATOR PETROLEUM RESOURCES, Inc. DESIGNATED AGENT STAN MASONER ADDRESS P.O. BOX 1066 WESTON, WV 26452

PERMIT NO. 017-04403

1-1-89

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

Well Operator's Report of Well Work

Farm name: TOWNER, VALLIE Operator Well No.: TOWNER 3-A

LOCATION: Elevation: 1,167.00 Quadrangle: WEST UNION County: DODDRIDGE
District: CENTRAL Feet South of 39 Deg. 17Min. 30 Sec.
Latitude: 1320 Feet West of 80 Deg. 50 Min. 0 Sec.
Longitude 4670 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: PETROLEUM RESOURCES, INC.

P. O. BOX 1066
WESTON, WV 26452-1066

Agent: STANLEY N. MASONER

Inspector: MIKE UNDERWOOD

Permit Issued: 09/29/97

Well work Commenced: 10/15/97

Well work Completed: 10/22/97

Verbal Plugging

Permission granted on: Rig

Rotary Cable 5568'

Total Depth (feet) 98'

Fresh water depths (ft) 98'

Salt water depths (ft) N/A

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

Coal Depths (ft):

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
11 3/4"	126'	126'	CTS 75 sks.
8 5/8"	1418'	1418'	CTS 300 sks.
4 1/2"	5478'	5478'	645 sks.

OPEN FLOW DATA

Producing formation Alexander/Benson pay zone depth (ft) 5394' - 5040'
 Gas: Initial open flow 120 MCF/d Oil: Initial open flow No Show Bbl/
 Final open flow 1380 MCF/d Final open flow Trace Bbl/
 Time of open flow between initial and final tests 40 Hour
 Static rock Pressure 1425 psig (surface pressure) after 24 Hour

Second producing formation Riley/Balltown Pay zone depth (ft) 4690' - 3546'
 Gas: Initial open flow 120 MCF/d Oil: Initial open flow No Show Bbl/
 Final open flow 1380 MCF/d Final open flow Trace Bbl/
 Time of open flow between initial and final tests 40 Hour
 Static rock Pressure 1425 psig (surface pressure) after 24 Hour

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATE 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: PETROLEUM RESOURCES, INC.

By: Stanley N. Masoner
Date: 11/16/97

NOV 21 1997

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

Alexander - 10 Holes - 5351'-5375'	Frac - 500 gals. Hcl Acid 711 bbls. Treated Water Sand - 60,000 lbs. N2 - 596,000 SCF
Enson - 10 Holes - 5022'-5076'	Frac - 750 gals. Hcl Acid 426 bbls. Treated Water Sand - 30,000 lbs. N2 - 366,000 SCF
Olley - 10 Holes - 4449'-4672'	Frac - 1,000 gals. Hcl Acid 460 bbls. Treated Water Sand - 35,000 lbs. N2 - 416,000 SCF
Salttown - 12 Holes - 3531'-4006'	Frac - 1,000 gals. Hcl Acid 512 bbls. Treated Water Sand - 40,000 lbs. N2 - 413,000 SCF

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Kelly Bar/Ground Level	Red	Soft	0	10	
Sand & Shale	Gray	Med.	10	82	Hole damp @ 98'
Sand & Shale	Gray/Red	Soft	82	100	
Shale & Red Rock	Gray/Red	Med.	100	150	
Sand & Shale	Gray/Red	Med.	150	380	Hole out @ 172'. 1/4" stream
Sand & Shale	Gray	Med.	380	520	
Sand	Gray	Med.	520	565	
Sand & Shale	Gray	Hard	565	575	
Sand & Shale	Gray	Med.	575	690	
Red Rock & Shale	Red/Gray	Med.	690	728	
Sand	Gray	Hard	728	740	
Sand & Shale	Gray	Med.	740	872	
Sand	Gray	Hard	872	900	
Sand & Shale	Gray	Med.	900	1028	
Sand, Shale & Red Rock	Red/Gray	Med.	1028	1064	
Sand	Gray	Hard	1064	1080	
Shale, Red Rock & Sand	Red/Gray	Med.	1080	1129	
Sand & Shale	Gray	Med.	1129	1183	
Red Rock & Shale	Gray/Red	Med.	1183	1235	
Sand & Shale	Gray	Med.	1235	1243	
Red Rock & Shale	Gray/Red	Soft	1243	1255	
Red Rock & Shale	Gray	Med.	1255	1278	
Red Rock & Shale	Gray/Red	Soft	1278	1326	
Sand & Shale	Gray	Med.	1326	1348	
Shale & Red Rock	Gray/Red	Soft	1348	1360	
Sand & Shale	Gray	Med.	1360	1425	
Sand	White/Gray	Hard	1425	1900	
Sand & Shale	Gray	Med.	1900	1958	Gas check @ 2020' - no show
Little Lime	Gray	Hard	1958	2096	
Sand & Shale	Gray	Hard	2096	2123	
Big Lime	Gray	Med.	2123	2135	
Sand & Injurn	White/Gray	Hard	2135	2204	Gas check @ 2266' - no show
Sand & Shale	Gray	Med.	2204	2244	Gas check @ 2358' - no show
Sand	Gray	Hard	2244	3519	Gas check @ 3008' - no show
Sand & Shale	Gray	Hard	3519	3550	Gas check @ 4268' - no show
Sand & Shale	Gray	Med.	3550	4667	
Riley/Sand	Brown	Hard	4667	4674	
Sand & Shale	Gray	Med.	4674	5020	Gas check @ 4763' 4/10 - 1" with water
Sand	Lt. Brown	Hard	5020	5030	
Sand & Shale	Gray	Med.	5030	5083	
Benson	Dk. Brown	Med.	5083	5087	Gas check @ 5197' - no show
Sand & Shale	Gray	Med.	5087	5345	
Sand	Gray	Med.	5345	5373	
Sand & Shale	Gray	Med.	5373	5380	Gas check @ 5412' 6/10 - 1" with water
Sand	Gray	Med.	5380	5390	Gas check @ 5568' 2/10 - 1" with water
Sand & Shale	Brown	Med.	5390	5568	T.D. @ 5568'

Case No. 10-94-017-04403

FORM WW-2B

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

Page ___ of ___
Issued 09/29/97
Expires 09/29/99

24357

Well Operator: Petroleum Resources, Inc. 38300
Operator's Well Number: Towner 3-A 671
Well type: (a) Oil ___ / or Gas X /
3) Elevation: 1067

(b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow X /

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Office of Oil & Gas

- 5) Proposed Target Formation(s): Alexander feet
- 6) Proposed Total Depth: 5750 feet
- 7) Approximate fresh water strata depths: 750'
- 8) Approximate salt water depths: None
- 9) Approximate coal seam depths: None
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: New Well Drill and Stimulate
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	11 3/4"			20'		
Fresh Water	8 5/8"	H-40	20#	1067'	1067'	
Coal					38 csr 18-11.2, 38 csr 18-11.3	
Intermediate						
Production	4 1/2"	J-55	10.5#	5750'	5750'	700 sks
Tubing						38 csr 18-11.1
Liners						

PACKERS: Kind _____
Sizes _____

Depths set _____

John K. Gold
10/31

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond _____ Type _____

1) Date: 8/22/97
2) Operator's well number
Towney 3-A
3) API Well No: 47 - 017 - 4403
State _____ County _____ Permit _____

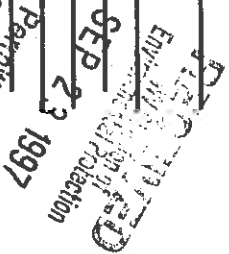
STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served: 5) (a) Coal Operator:

(a) Name Vallie R. Towney Name _____
Address RR. 1 Box 295 Address _____

(b) Name Joseph L. Towney (b) Coal Owner(s) with Declaration
Address P.O. Box 21 Name _____
Smithburg WV 26436 Address _____



(c) Name _____ Name _____
Address _____ Address _____

6) Inspector Mike Underwood (c) Coal Lessee with Declaration
Address Rt. 2 Box 21 Name _____
Salem WV 26426 Address _____
Telephone (304)-420-4550

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 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22-6 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)

INSTRUCTIONS TO SURFACE OWNERS NAMED ABOVE

(Continued on Reverse)

The well operator named below is applying for a permit from the State to do oil or gas well work. Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months.

Well Operator Petroleum Resources Inc.
By: Seyma Staxley N. Masoner
Its: Vice President
Address P.O. Box 1066
Weston WV 26452
Telephone (304) 269-4218

Subscribed and sworn before me this 22nd day of August, 1997
Verdine Phil Mitchell Notary Public
My commission expires Jan. 26, 2007