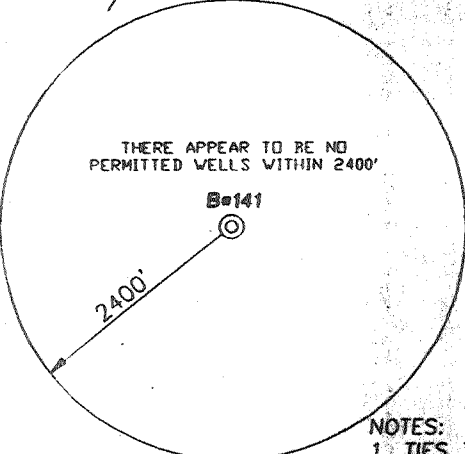
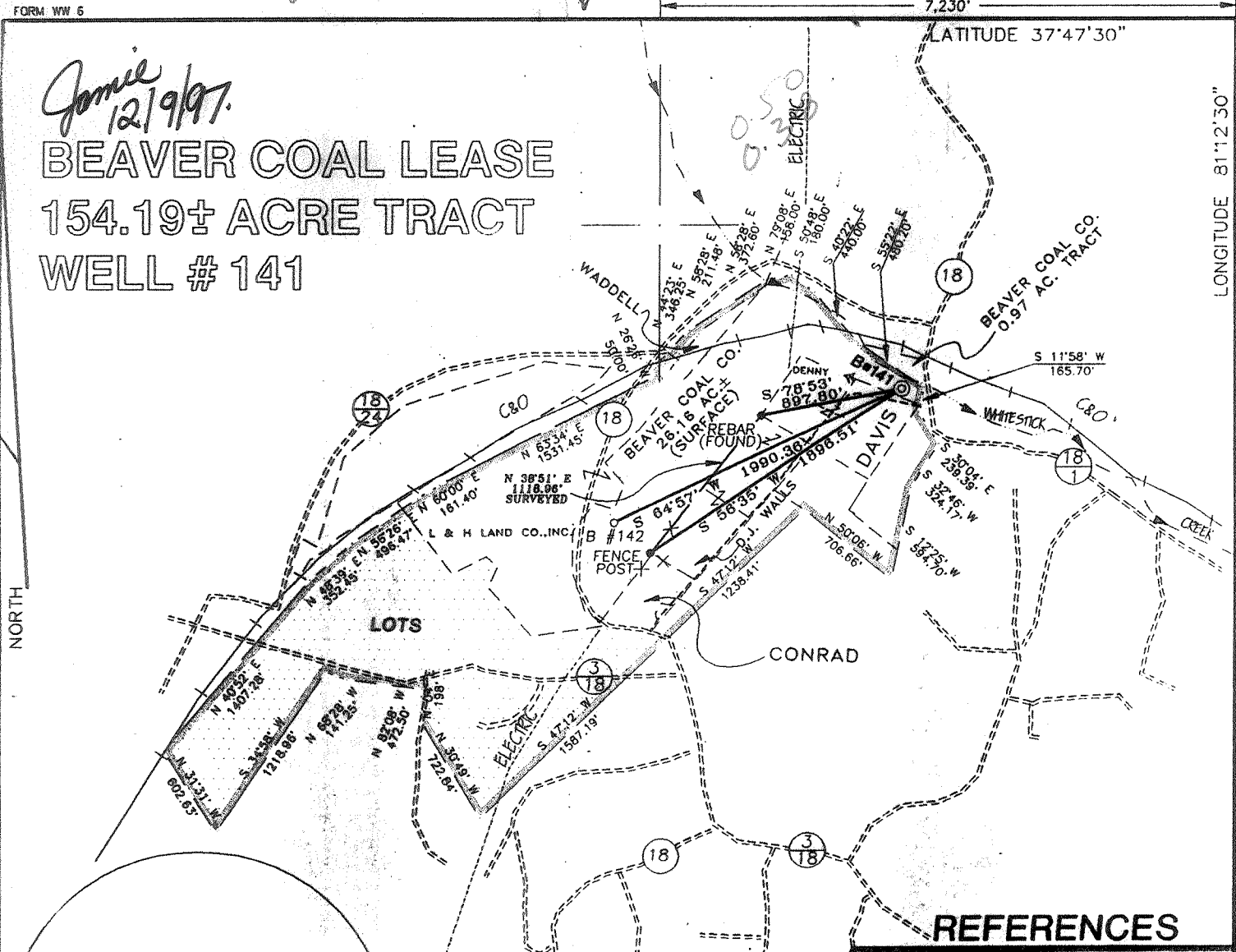


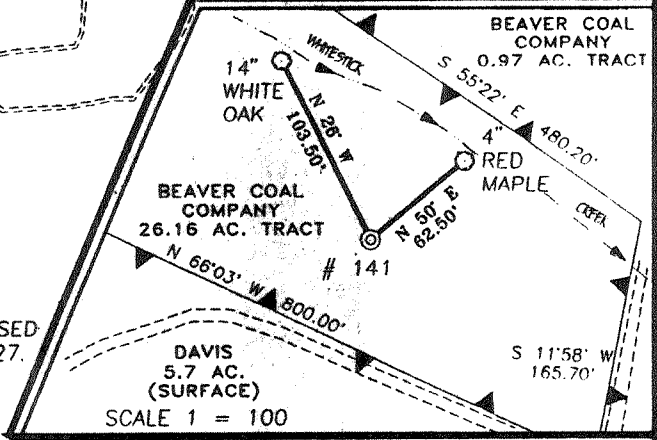
Jamie
12/19/97.

BEAVER COAL LEASE 154.19± ACRE TRACT WELL # 141

NORTH



REFERENCES

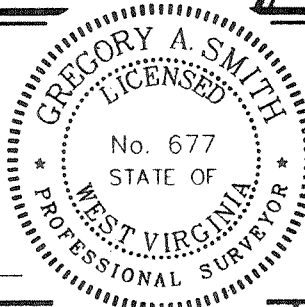


NOTES:
 1. TIES TO CORNERS AND WELLS ARE BASED ON GRID NORTH, WV SOUTH ZONE NAD '27.
 2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 11-19-97.



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.

P.S. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE NOVEMBER 20, 19 97
 OPERATORS WELL NO. BEAVER # 141
 API WELL NO. 47-081-01121
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 3639P141 (61-57)
 PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 2344' SCALE 1" = 1000'

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS



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

LOCATION :
 ELEVATION 2336' WATERSHED WHITESTICK CREEK
 DISTRICT TOWN COUNTY RALEIGH QUADRANGLE BECKLEY 7.5'

SURFACE OWNER BEAVER COAL COMPANY ACREAGE 26.16 OF 154.19
 ROYALTY OWNER BEAVER COAL COMPANY LEASE ACREAGE 154.19

PROPOSED WORK : LEASE NO. _____
 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 BIG LIME & WEIR
 ESTIMATED DEPTH 4500

WELL OPERATOR ENERGY SEARCH, INC. DESIGNATED AGENT FRANK ROTUNDA 057 12 1997
 ADDRESS 280 SANDERS W. BLVD. SUITE 200 KNOXVILLE, TENNESSEE 37922 ADDRESS 1613 GREENMONT HILLS DR. VIENNA, WV 26105

COUNTY NAME PERMIT

WR-35

05-Dec-97

API # 47- 81-01121

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

Well Operator's Report of Well Work

Farm name: BEAVER COAL COMPANY, LTD Operator Well No.: BEAVER #141

LOCATION: Elevation: 2,336.00 Quadrangle: BECKLEY

District: TOWN County: RALEIGH
Latitude: 2590 Feet South of 37 Deg. 47Min. 30 Sec.
Longitude 7230 Feet West of 81 Deg. 12 Min. 30 Sec.

Company: ENERGY SEARCH, INC.
280 FT. SANDERS, W. BLVD., STE. 200
KNOXVILLE, TN 37922-0000

Agent: FRANK R. ROTUNDA

Inspector: RODNEY DILLON
Permit Issued: 12/08/97
Well work Commenced: 12/30/97
Well work Completed: 03/23/98
Verbal Plugging
Permission granted on: N/A
Rotary XX Cable Rig
Total Depth (feet) 3670'
Fresh water depths (ft) 250'

Salt water depths (ft) _____
3292' - 3396'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 962'-76, 637'-651

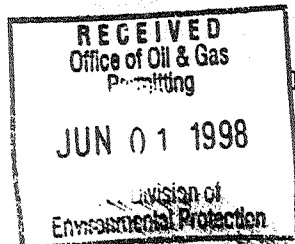
Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
12 3/4"	20'	20'	
7"	910'	910'	319
4 1/2"	3496'	3496'	399

OPEN FLOW DATA

Producing formation Ravencliff Pay zone depth (ft) see back
Gas: Initial open flow 110 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 200 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure 160 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____
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

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: ENERGY SEARCH, INC.
By: Chris Murney
Date: _____
RAL 1121

JUN 08 1998

Weir:

Perfs: 3292' - 3304' (16), 3318' - 30' (4); 3362' - 74' (4), 3390' - 96' (4)

Breakdown with 500 gal. 15 % HCl @ 1747 psi; Ballout With 500 gal. 15 % HCl to 3800psi.

75Q Foam Frac - 30 BPM; 35,000# 20/40 sand; 203 bbl total fluid; 319,000 scf N₂; Max TP 1295 psi; ATP 1255 psi; ISIP 1250 psi; 10 min. SIP/111 PSI.

RAVENCLIFF:

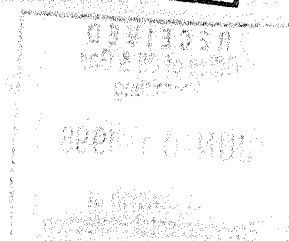
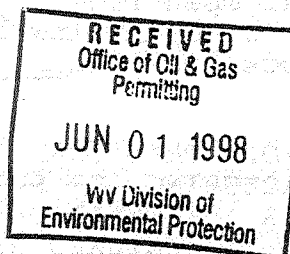
Perfs: 1608' - 18' (30)

Breakdown with 500 gal. 15 % HCl @ 1301 psi:

75Q Foam Frac - 30 BPM; 32,700# 20/40 sand; 210 bbl total fluid; 275,000 SCF N₂ Max TP 2575 psi;

ATP 2200 psi; ISIP 2000 psi; 10 min. SIP 1575 psi.

Set CIBP @1820' to plug off weir zone, determined to be wet



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

081 1121

Well Operator: ENERGY SEARCH INC ⁵⁰¹⁴ 15925 (6) 234

Operator's Well Number: 141 3) Elevation: 2336

Well type: (a) Oil ___ / or Gas X /
(b) If Gas: Production X / Underground Storage ___ /
Deep ___ / Shallow ___

Issued 12/08/97
Expires 12/08/99

5) Proposed Target Formation(s): ³⁸⁷ Weir, Big Lime, Maxton, Ravencliff

6) Proposed Total Depth: 3800 feet

7) Approximate fresh water strata depths: 100 feet

8) Approximate salt water depths: _____

9) Approximate coal seam depths: 660, 795

10) Does land contain coal seams tributary to active mine? Yes ___ / No X /

11) Proposed Well Work: Drill and stimulate new well.

12) _____

RECEIVED
WV Division of
Environmental Protection
DEC 6 1997
Permitting
Office of Oil & Gas

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						38CSRBH 3 Cement to surface
Fresh Water	9 5/8	32#		130'	130'	
Coal						38CSRBH 2 2
Coal Intermediate	7"	17#		900'	900'	125 sks to surface 30 CSR18-11.3
Production	4 1/2	10.5#		3800'	3800'	200 sks or as reg. 38 CSR 18
Tubing						38CSRBH 1
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

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

27247

1) Date: DECEMBER 02, 1997
2) Operator's well number
BEAVER COAL #141
3) API Well No: 47 - 081 - 1121
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 BEAVER COAL COMPANY LTD Name _____
Address PO BOX 1537 Address _____
BECKLEY WV 25802

(b) Name _____ (b) Coal Owner(s) with Declaration
Address _____ Name BEAVER COAL COMPANY LTD
Address PO BOX 1537
BECKLEY WV 25802

(c) Name _____ Name _____
Address _____ Address _____

6) Inspector ROD DILLION (c) Coal Lessee with Declaration
Address PO BOX 131 Name PINE VALLEY COAL COMPANY
BRADLEY WV 25818 Address PO BOX 1447
Telephone (304)- 543-0769 CRAB ORCHARD WV 25827

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 ENERGY SEARCH INC
By: Eric R. Polander
Its: DESIGNATED AGENT
Address 1613 GREENMONT HILLS
VIENNA WV 26105
Telephone 304-295-6090

Subscribed and sworn before me this 2nd day of December 1997

My commission expires 6-11-2000

