



---

**west virginia** department of environmental protection

---

Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
www.dep.wv.gov

October 21, 2013

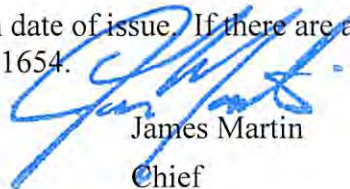
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-9501088, issued to GASTAR EXPLORATION USA, INC., is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.



James Martin  
Chief

Operator's Well No: BEN C. JACKMAN NO. 6

Farm Name: BLATTNER, LOUIS

**API Well Number: 47-9501088**

**Permit Type: Plugging**

Date Issued: 10/21/2013

**Promoting a healthy environment.**

**10/25/2013**

## PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

---

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

9501088P

WW-4B  
Rev. 2/01

1) Date: September 8, 2013  
2) Operator's Well Number Ben C. Jackman No.6  
3) API Well No: 47 - 095 - 1088  
State County Permit

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) WELL TYPE: Oil X Gas X Liquid Injection \_\_\_\_\_ Waste Disposal \_\_\_\_\_  
(If "Gas", Production \_\_\_\_\_ Underground Storage \_\_\_\_\_ ) Deep \_\_\_\_\_ Shallow X  
5) LOCATION: Elevation: 1149' Watershed: McElroy Creek  
District: McElroy 05 County: Tyler 95 Quadrangle Shirley 7.5' 607  
6) WELL OPERATOR: Gastar Exploration, Ltd. 494487685 7) DESIGNATED AGENT Mike McCown  
Address 229 W. Main St., Suite 301 Address 229 W. Main St., Suite 301  
Clarksburg, WV 26301 Clarksburg, WV 26301  
8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) PLUGGING CONTRACTOR  
Name Joe Taylor Name \_\_\_\_\_  
Address 497 Claylick Road Address \_\_\_\_\_  
Ripley, WV 25271

10) WORK ORDER: The work order for the manner of plugging this well is as follows:  
CASING  
8 5/8" 1,280'  
4 1/2" 2,350'  
TOC Est. - 1700'

\* TD MAY BE 2320'  
IF IT IS 2320', PLUG  
#1 NEEDS TO BE FROM  
2320 - 2020.

TD-2,130' Coal: NA  
Note: ORIGINAL TD - 5,515' Plugged back to ~2,130'  
RIH & Check TD to Verify Partial Plug Depth  
Gel TD - 2130  
Plug No. 1 2130 - 2030  
Freepoint, Cut & Pull 4 1/2" Casing at 1,700' (Est.)  
Plug No. 2 1750 - 1650  
Plug No. 3 1330 - 1230  
Plug No. 4 100 - Surface


PERFORMATIONS:  
2166' - 2206'

LINERS

NOTES:

Free point, cut and pull all casing strings present. Place 100 ft. cement plug at bottom of any casing left in well.  
Fill Well Bore with 6% Gel Between all Cement Plugs  
Erect Monument with API No.

Inspector 24 hours before permitted work can commence.

Work order approved by Inspector 

Received Date 9-27-13

OCT 2 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

10/25/2013



NOV 29 1984  
OFFICE COPY

IV-35  
(Rev 8-81)

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date OCTOBER 15, 1984  
Operator's  
Well No. BEN C. JACKMAN #6  
Farm E & W LAWTON; K. COLVIN  
API No. 47 - 095 - 1088

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas XX / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production \_\_\_ / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow \_\_\_ /)

LOCATION: Elevation: 1147.6 Watershed LABELL RUN OF McELROY CREEK OF MIDDLE ISLAND  
District: MC ELROY County TYLER Quadrangle SHIRLEY 7.5' CREEK

COMPANY QUAKER STATE OIL REFINING CORPORATION

ADDRESS P.O. BOX 1327; PARKERSBURG, WV 26101

DESIGNATED AGENT CARL J. CARLSON

ADDRESS P.O. BOX 1327; PARKERSBURG, WV 26101

SURFACE OWNER E. LAWTON, 535 S. 1st, PRINCETON,

ADDRESS K. COLVIN, 212 MCKINLEY; PITTSBURGH, PA 15201

MINERAL RIGHTS OWNER SAME AS ABOVE

ADDRESS \_\_\_\_\_

OIL AND GAS INSPECTOR FOR THIS WORK \_\_\_\_\_

ROBERT LOWTHER ADDRESS GENERAL DEL; MIDDLEBOURNE,

PERMIT ISSUED AUGUST 7, 1984 WV 26149

DRILLING COMMENCED AUGUST 23, 1984

DRILLING COMPLETED SEPTEMBER 3, 1984

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.			
13-10"			
9 5/8			
8 5/8	1280'	1280'	350 SX
7			
5 1/2			
4 1/2	5267'	5267'	275 SX
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION ALEXANDER Depth 5420-5491 feet

Depth of completed well 5515 feet Rotary XX / Cable Tools \_\_\_\_\_

Water strata depth: Fresh N/A feet; Salt N/A feet

Coal seam depths: N/A Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation BENSON, RILEY Pay zone depth 5168, 4728 feet

Gas: Initial open flow 350 Mcf/d Oil: Initial open flow -- Bbl/d

Final open flow 75 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 8 hours

Static rock pressure 2000 psig (surface measurement) after 72 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 2 Bbl/d

Time of open flow between initial and final tests \_\_\_\_\_ hours

Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

Office of Oil and Gas  
WV Dept. of Environmental Protection

Received

10/25/2013

TYLER

1088

FORM IV-35  
(REVERSE)

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

PERFORATED FROM 5168 - 5176' WITH 16 SHOTS. FRACTURED WITH 325 BBLs.  
3% KCl + N<sub>2</sub>, 175 SX 20/40 SAND. BREAKDOWN @ 2300#. AVG. TREATING  
PRESSURE @ 2739#. AVG. RATE 24 BPM. ISIP 1500#.

PERFORATED FROM 4728 - 4734'; 4744 - 4751'; 4756 - 4760' WITH 34 HOLES.  
FRACTURED WITH 600 BBLs 3% KCl; +N<sub>2</sub>, 350 SX 20/40 SAND. BREAKDOWN @  
1600#. AVG. TREATING PRESSURE @ 2765#. AVG. RATE @ 28.3 BPM.  
ISIP @ 1500#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
SILT AND SHALE			0	142	
SAND			142	180	
SILT AND SHALE			180	1778	
SAND			1778	1832	
SILT AND SHALE			1832	2000	
LITTLE LIME			2000	2014	
PENCIL CAVE			2014	2016	
BIG LIME			2016	2162	
BIG INJUN			2162	2269	
SHALE			2269	2434	
WEIR			2434	2520	
SHALE			2520	2630	
BEREA			2630	2645	
SHALE			2645	2844	
GORDON			2844	2900	
SHALE			2900	3067	
SILT			3067	3078	
SHALE			3078	3544	
WARREN			3544	3610	
SHALE			3610	4737	
RILEY			4737	4760	
SHALE			4760	5168	
BENSON			5168	5176	
SHALE			5176	5420	
ALEXANDER			5420	5491	
SHALE			5491	5515	T.D.

(Attach separate sheets as necessary)

QUAKER STATE OIL REFINING CORPORATION

Well Operator

*Michael C. Brannock*

By: MICHAEL C. BRANNOCK

10/25/2013

Date: OCTOBER 15, 1984

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."

(1B)

9501088 P

MAR 5 1992

OFFICE COPY

WR-35

11-Dec-91  
API # 47- 95-01088 A

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

TMG

Well Operator's Report of Well Work

Farm name: LAWTON, ELLEN & WATSON Operator Well No.: JACKMAN 6

LOCATION: Elevation: 1147.60 Quadrangle: SHIRLEY

District: MCELROY County: TYLER  
Latitude: 14200 Feet South of 39 Deg. 27Min. 30 Sec.  
Longitude 11700 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: QUAKER STATE CORPORATION  
P.O. BOX 189/1226 PUTNAM HOWE  
BELPRE, OH 45714-0189

Agent: FRANK R. ROTUNDA

Inspector: MIKE UNDERWOOD  
Permit Issued: 12/09/91  
Well work Commenced: 12/12/91  
Well work Completed: 12/19/91  
Verbal Plugging  
Permission granted on: N/A  
Rotary \_\_\_ Cable \_\_\_ Rig  
Total Depth (feet) \_\_\_\_\_  
Fresh water depths (ft) \_\_\_\_\_

Salt water depths (ft) \_\_\_\_\_

Is coal being mined in area (Y/N)?  
Coal Depths (ft): No

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8	1280	1280	CTS
4 1/2		2350	(1700') 150 SX
2 3/8		2130	

RECEIVED  
Office of Oil & Gas  
12 19 91  
WV Division of  
Environmental Protection

OPEN FLOW DATA

Producing formation Big Injun Pay zone depth (ft) 2166  
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d  
Final open flow N/A MCF/d Final open flow N/A Bbl/d  
Time of open flow between initial and final tests N/A Hours  
Static rock Pressure N/A psig (surface pressure) after N/A 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) LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Received

For: QUAKER STATE CORPORATION OCT 2 2013

By: Frank Rotunda  
Date: 1/31/92  
Office of Oil and Gas  
WV Dept. of Environmental Protection

TYLER 10851

Treatment

Perf: 2166' - 2206' with 37 holes  
Frac: 553 bbl fluid and 225 SX 20/40 sand  
Broke @ 2250 PSI Treated @ 31 BPM @ 2100 PSI

Well was plugged back and stimulated in the Big Injun for Disposal.

10/25/2013

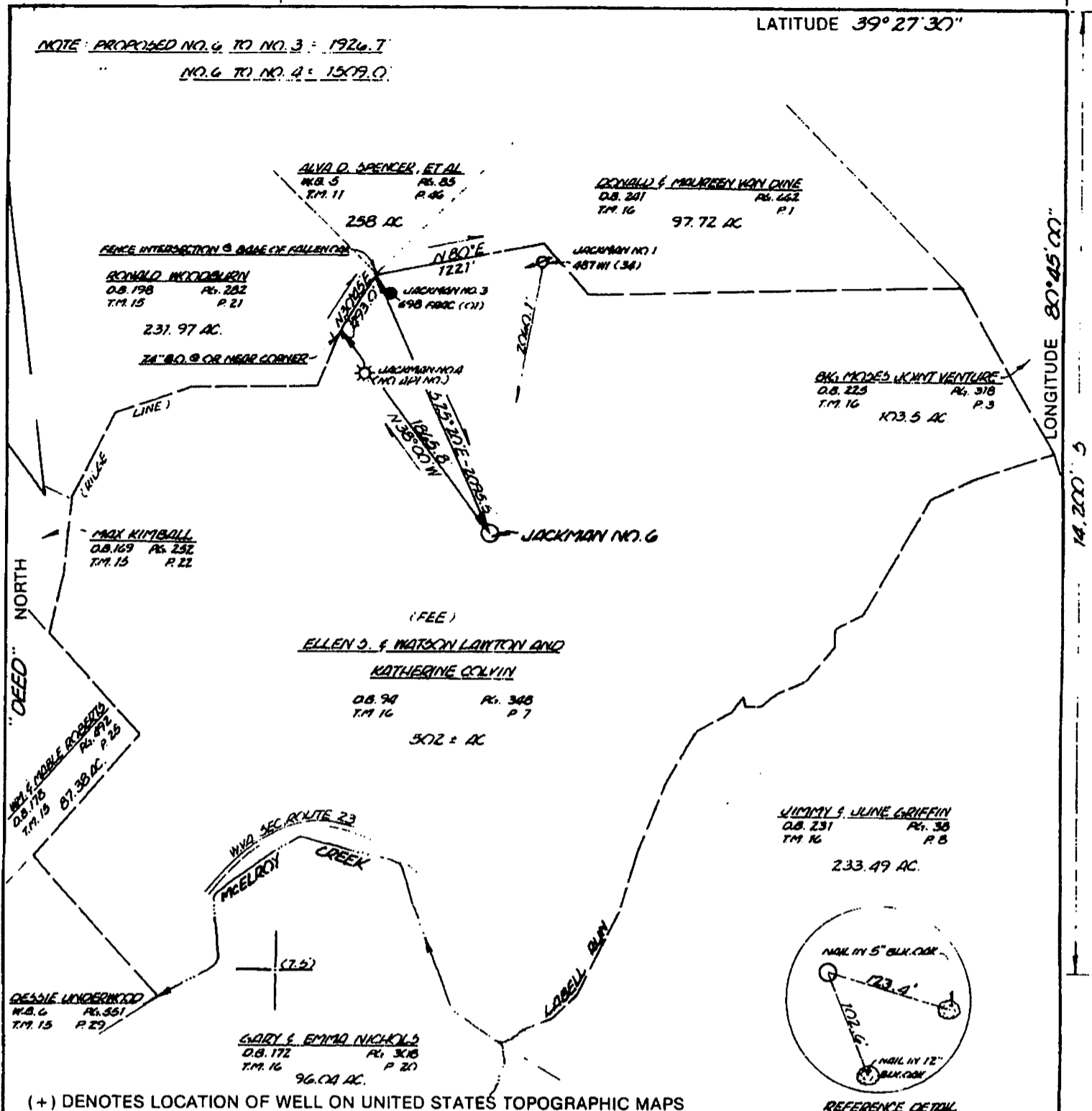
13222

9501088P

11,700' W

LATITUDE 39° 27' 30"

NOTE: PROPOSED NO. 6 TO NO. 3 = 1926.7  
NO. 6 TO NO. 4 = 1509.0



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

REFERENCE DETAIL (SEE PLAT 11)

FILE NO. 8400-27  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1" IN 2000'  
 PROVEN SOURCE OF ELEVATION EXIST. JACKMAN NO. 1 WELL; EL. 1103.27

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) [Signature]  
 R.P.E. \_\_\_\_\_ L.L.S. 577

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE JUNE 15 19 84  
 OPERATOR'S WELL NO BEN C. JACKMAN NO. 6  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL  GAS \_\_\_\_\_ LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_\_\_ STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW \_\_\_\_\_  
 LOCATION: ELEVATION 1147.6 WATERSHED LABELL RUN OF MCELROY CREEK OF MIDDLE ISLAND CR  
 DISTRICT MCELROY COUNTY TYLER  
 QUADRANGLE SHIRLEY 7.5

SURFACE OWNER ELLEN S. & WATSON LAWTON AND KATHERINE COLVIN ACREAGE 502 ±  
 OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 507 ±

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 ALEXANDER ESTIMATED DEPTH 5500'  
 WELL OPERATOR CLAYTON STATE OIL REF. CORP. DESIGNATED AGENT CARL J. CARLSON  
 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101 ADDRESS P.O. BOX 1327 PARKERSBURG, W.V. 26101

COUNTY NAME TYLER  
 PERMIT 1088-FRAC

FORM IV-6 (8-78)  
 P. T. HALL

10/25/2013



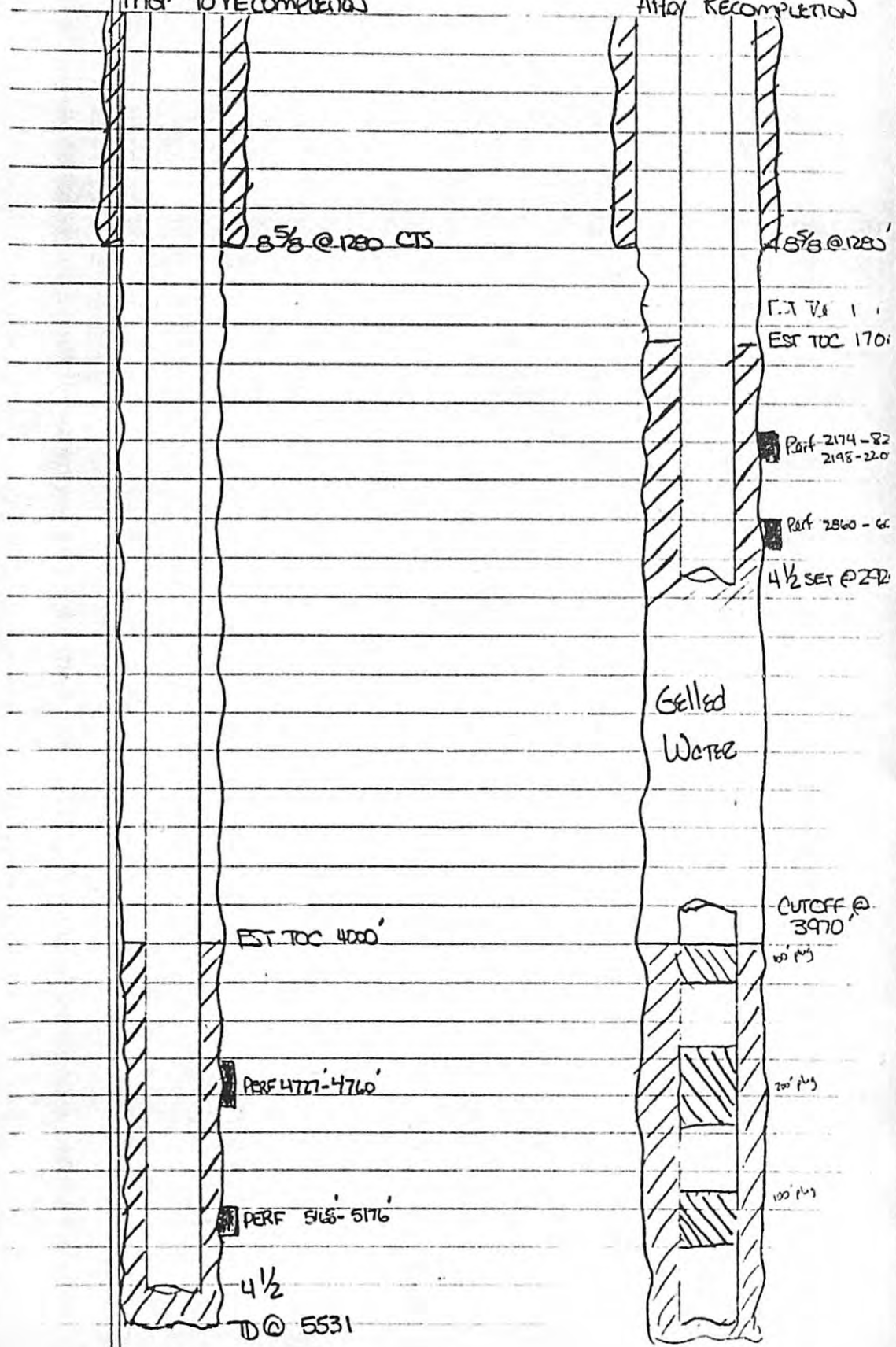
BEN JACKMAN No 6

TSK 3/3/6

47-095-1023

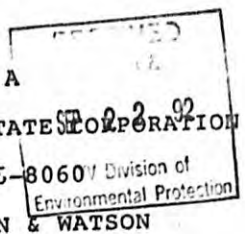
Prior to RECOMPLETION

After RECOMPLETION



IR-26  
OVERSE

INSPECTOR'S PERMIT SUMMARY FORM



WELL TYPE \_\_\_\_\_  
ELEVATION: 1147.60  
DISTRICT: MCELROY  
QUADRANGLE: SHIRLEY  
COUNTY: TYLER

API# 47- 95-01088 A  
OPERATOR: QUAKER STATE CORPORATION  
TELEPHONE: (304)295-8060  
FARM: LAWTON, ELLEN & WATSON  
WELL NO.: JACKMAN 6

SURFACE OWNER \_\_\_\_\_ COMMENTS (Y/N) \_\_\_\_\_ TELEPHONE \_\_\_\_\_  
TARGET FORMATION \_\_\_\_\_ DATE APPLICATION RECEIVED 12/05/91

DATE PERMIT ISSUED: 12/06/91  
DATE LOCATION STARTED 12-27-91 NOTIFIED Yes DRILLING COMMENCED 12-16-91 *Plugging completed*

WATER DEPTHS \_\_\_\_\_  
COAL DEPTHS \_\_\_\_\_

*(SAVED WELL FOR DISPOSAL) CASING NOTES ON BACK*

RAN \_\_\_\_\_ FEET OF \_\_\_\_\_ " PIPE ON \_\_\_\_\_ WITH \_\_\_\_\_ FILL UP  
RAN \_\_\_\_\_ FEET OF \_\_\_\_\_ " PIPE ON \_\_\_\_\_ WITH \_\_\_\_\_ FILL UP  
RAN \_\_\_\_\_ FEET OF \_\_\_\_\_ " PIPE ON \_\_\_\_\_ WITH \_\_\_\_\_ FILL UP  
RAN \_\_\_\_\_ FEET OF \_\_\_\_\_ " PIPE ON \_\_\_\_\_ WITH \_\_\_\_\_ FILL UP  
RAN \_\_\_\_\_ FEET OF \_\_\_\_\_ " PIPE ON \_\_\_\_\_ WITH \_\_\_\_\_ FILL UP

PITS

PIT DISCHARGE DATE \_\_\_\_\_ TYPE \_\_\_\_\_  
FIELD ANALYSIS pH \_\_\_\_\_ Fe \_\_\_\_\_ mg/l Cl \_\_\_\_\_ mg/l  
D.O. \_\_\_\_\_ mg/l TOC \_\_\_\_\_ mg/l

WELL RECORD RECEIVED \_\_\_\_\_ PH OF PRE-SEEDING SOIL \_\_\_\_\_  
DMR RECEIVED \_\_\_\_\_ ACRES DISTURBED \_\_\_\_\_  
TONS OF LIME APP. \_\_\_\_\_  
TONS OF 10-20-20 APP. \_\_\_\_\_  
BALES OF MULCH APP. \_\_\_\_\_

DATE RELEASED 9-24-92  
*Mike Henderson*  
INSPECTOR'S SIGNATURE

-----RECORD ALL VISITS TO THIS WELL ON BACK-----

12-9-91 - Sat on site -  
Two Bottom Hole plugs

5100 - 5000 - CEMENT  
5000 - 4800 - GEL  
4800 - 4700 - CEMENT.

12-10-91 - ok on job HAD TO LEAVE -

GEL HOLE - TO 3800'  
Shot off pipe could  
Not pull

12-11-91 Set on site  
Set middle plug

— CEMENT 3800 - 3700  
Shot off pipe 3680  
Could not pull.

12-12-81 Set on site. →

Shot off pipe 4 1/2  
3030 - FREED UP  
9NO pull four ft's

Set down there  
Broke C.C. To Surface  
PAN 10 SK 50 plus  
23 20"

4501088P

FORM W-2(B)  
(C' ~~W~~e)  
7-85

SURFACE OWNER'S COPY

RECEIVED  
MAY 1 9 1986



1) Date: April 30, 1986  
2) Operator's Well No. DEW JACKMAN 46  
3) API Well No. 47 State 095 County 1088 Permit

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

- 4) WELL TYPE: A Oil  Gas    
B (If "Gas", Production  Underground storage  Deep  Shallow  )
- 5) LOCATION: Elevation: 1147.6' Watershed: Labell Run of McElroy Creek of Middle Island Crk  
District: McElroy County: Tyler Quadrangle: Shirley 7.5'
- 6) WELL OPERATOR QUAKER STATE OIL CODE# 40400 7) DESIGNATED AGENT Samuel F. Barber  
Address P.O. Box 1327 Address 1226 Putnam Howe Drive  
Parkersburg, WV 26101 Salpre, OH 45714
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
Name Robert Lowther Name SMITH DRILLING  
Address General Delivery Address P.O. Box 150  
Middlebourne, WV 26149 Lawrenceville, IL 62439  
(304) 758-4764
- 10) PROPOSED WELL WORK: Drill  / Drill deeper  / Redrill  / Stimulate   
Plug off old formation  / Perforate new formation   
Other physical change in well (specify) Pull pipe/re-cement over new interval
- 11) GEOLOGICAL TARGET FORMATION, Big Injun (See attached)
- 12) Estimated depth of completed well, 2920' feet
- 13) Approximate trata depths: Fresh, 397' feet; salt, 547' feet.
- 14) Approximate coal seam depths: 877' 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		
Conductor									Kinds
Fresh water	8 5/8"	H40	24	XX		1280'	1280'	335 sac	
Coal									Sizes
Intermediate									
Production	4 1/2"	J55	10.5	XX		2920'	2920'	1200' AS NOTED BY PERM 15.01	
Tubing	2"	J	4.5	XX			2900'		
Liners									Perforations
									Top Bottom
									2960' 2866'
									2171' 2204'

The law requires a comment period for surface owners. However, the permit can be issued in less than 15 days from the filing of the Application if the surface owner(s) of record sign(s) the following "Voluntary Statement of No Objection" on a facsimile of this surface owner's copy of the Application.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners on the reverse side of this Application, and that I have received copies of (1) a Notice of Application for a Well Work Permit on Form W-2(A), (2) an Application for a Well Work Permit on Form W-2(B), (3) a survey plat on Form W-6, and (4) a Construction and Reclamation Plan on Form W-9, all for proposed well work on my surface land as described therein.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued based on those materials.

(For execution by corporation, partnership, etc.) (For execution by natural persons)

NAME: \_\_\_\_\_  
By \_\_\_\_\_  
Its \_\_\_\_\_ Date \_\_\_\_\_

(Signature) \_\_\_\_\_ Date \_\_\_\_\_  
(Signature) \_\_\_\_\_ Date \_\_\_\_\_

10/25/2013

9501088F

FORM WW-2(B)  
(Obverse)  
7/85

FILE COPY

RECEIVED  
MAY 1 9 1986



1) Date: April 30, 1986  
2) Operator's Well No. BEN JACKMAN #6  
3) API Well No. 47-095-1088-F  
State County Permit

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

- 4) WELL TYPE: A Oil        / Gas XX /  
B (If "Gas", Production XX / Underground storage        / Deep        / Shallow XX /)
- 5) LOCATION: Elevation: 1147.6' Watershed: Labell Run of McElroy Creek of Middle Island Crk  
District: McElroy County: Tyler Quadrangle: Shirley 7.5' 606
- 6) WELL OPERATOR QUAKER STATE OIL CODE: 40400 7) DESIGNATED AGENT Samuel F. Barber  
Address P.O. Box 1327 Address 1226 Putnam Howe Drive  
Parkersburg, WV 26101 Belpre, OH 45714
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
Name Robert Lowther Name SMITH DRILLING  
Address General Delivery Address P.O. Box 150  
Middlebourne, WV 26149 (304) 758-4764 Lawrenceville, IL 62439
- 10) PROPOSED WELL WORK: Drill        / Drill deeper        / Redrill        / Stimulate X /  
Plug off old formation XX / Perforate new formation XX /  
Other physical change in well (specify) Pull pipe/re-cement over new interval (See attached)
- 11) GEOLOGICAL TARGET FORMATION, Big Injun
- 12) Estimated depth of completed well, 2920' feet
- 13) Approximate trata depths: Fresh, 397' feet; salt, 547' feet.
- 14) Approximate coal seam depths: 827' Is coal being mined in the area? Yes        / No XX /

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		Kind	Size
Conductor										
Fresh water	8 5/8"	H40	24	XX		1280'	1280'	335 sx		
Coal										
Intermediate										
Production	4 1/2"	J55	10.5	XX		2920'	2920'	1200' AS REQUIRED BY RULE 15.01		
Tubing	2"	J	4.5	XX			2900'			
Lin.									Perforations:	
									Top	Bottom
									2860'	2866'
									2174'	2204'

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-095-1088-F

Date May 23 19 86

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 May 23, 1988 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <u>ALB</u>	Plat: <u>AS</u>	Casing: <u>AS</u>	Fee: <u>15412</u>	WPCP: <u>AS</u>	S&E: <u>AS</u>	Other:
-------	-------------------	-----------------	-------------------	-------------------	-----------------	----------------	--------

NOTE: Keep one copy of this permit posted at the drilling location.

John H. Johnston by J. J. Largent  
Director, Division of Oil and Gas

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

6237

OK # 050231  
\$400. = 4

9501088P

- 1) Date: September 8, 2013
- 2) Operator's Well Number Ben C. Jackman No.6
- 3) API Well No: 47 - 095 - 1088  
State County Permit

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

- 4) Surface Owner(s) to be served:
  - (a) Name Louis Blattner ✓  
Address 665 Fairmont Pike  
Wheeling, WV 26003
  - (b) Name Donald E. Moore ✓  
Address HC 74, Box 94-B  
Alma, WV 26320
  - (c) Name Charles A. Kocher ✓  
Address 74 Cloverdale Church Road  
Saint Marys, WV 26170
- 6) Inspector Joe Taylor  
Address 497 Claylick Road  
Ripley, WV 25271 ✓  
Telephone 304-380-7469

- 5) (a) Coal Operator:
  - Name NA
  - Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration
  - Name NA
  - Address \_\_\_\_\_
- (c) Coal Lessee with Declaration
  - Name \_\_\_\_\_
  - Address \_\_\_\_\_

**TO THE PERSON(S) NAMED ABOVE:** You should have received this Form and the following documents:

- 1) The Application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work, and describes the well and its location and the plugging work order; and
- 2) The plat (surveyor's map) showing the well location on Form WW-6

The reason you have received these documents is that you have rights regarding the application which are summarized in the instructions on the reverse side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator Gastar Exploration, Ltd.

By: Michael McCown Mike McCown  
 Its: COO & Designated Agent  
 Address 229 W. Main St., Suite 301  
Clarksburg, WV 26301  
 Telephone (304) 622-4796

Subscribed and sworn before me this

11th day of September, 2013

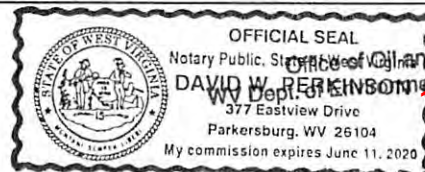
David W. Perkins

Notary Public

My Commission Expires

June 11, 2020

OCT 2 2013



Received

10/25/2013

**SURFACE OWNER WAIVER**

Operator's Well  
Number

Ben C. Jackman No.6  
47- 095- 1088

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A**

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (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. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

**WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) DAYS** after the filing date to file your comments. Comments must be filed in-person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

**Comments must be in writing.** Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation..."

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

**VOLUNTARY STATEMENT OF NO OBJECTION**

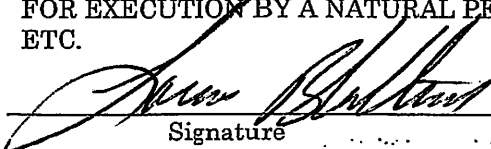
I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

**FOR EXECUTION BY A NATURAL PERSON  
ETC.**

**FOR EXECUTION BY A CORPORATION,**

**Received**

Signature  Date 9-17-13 Name \_\_\_\_\_  
By \_\_\_\_\_  
Its \_\_\_\_\_

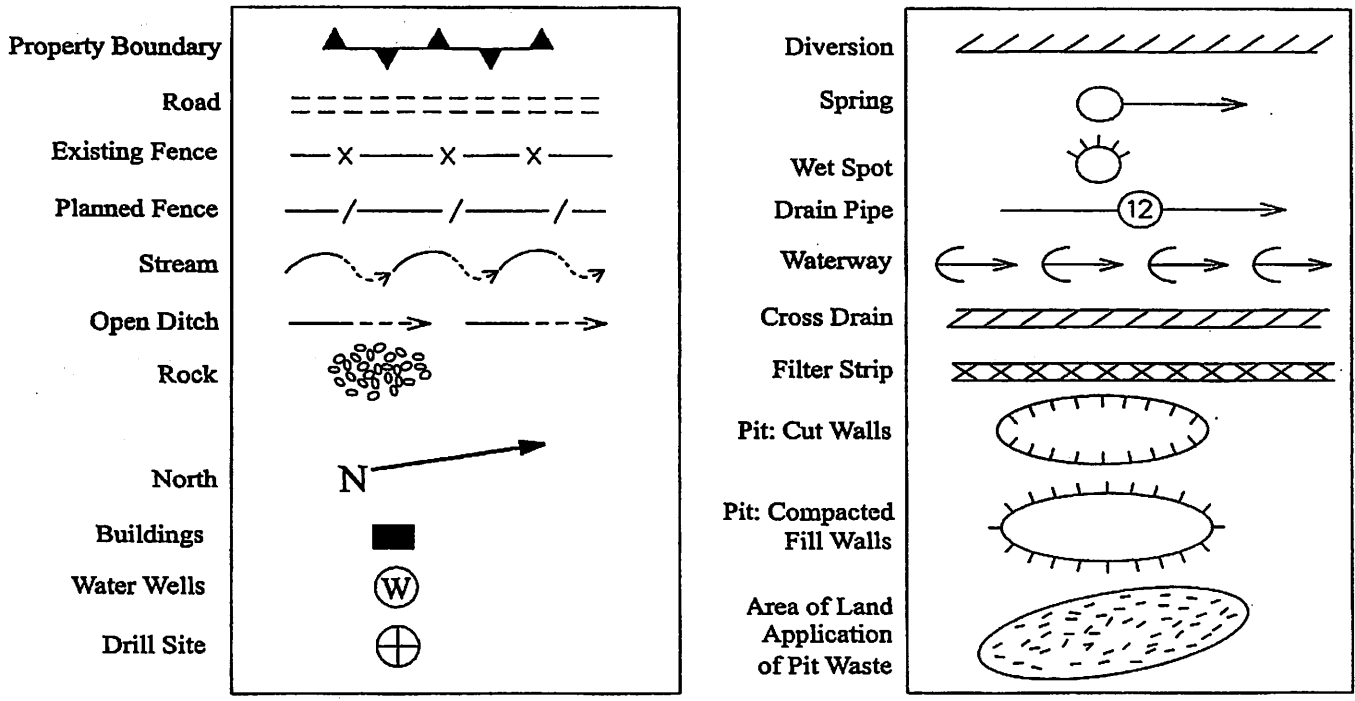
\_\_\_\_\_  
Date OCT 2 2013

Signature \_\_\_\_\_ Office of Oil and Gas  
WV Dept. of Environmental Protection **10/25/2013**





Legend



Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 0.2 Ac. Prevegetation pH \_\_\_\_\_

Area II Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5

Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)

Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>		<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.	Seed Type	Lbs./Ac.
Tall Fescue	40	Tall Fescue	40
Ladino Clover	5	Ladino Clover	5

Attach:  
 Drawing(s) of road, location, pit and proposed area for land application  
 Photocopied section of involved 7.5' topographic sheet.

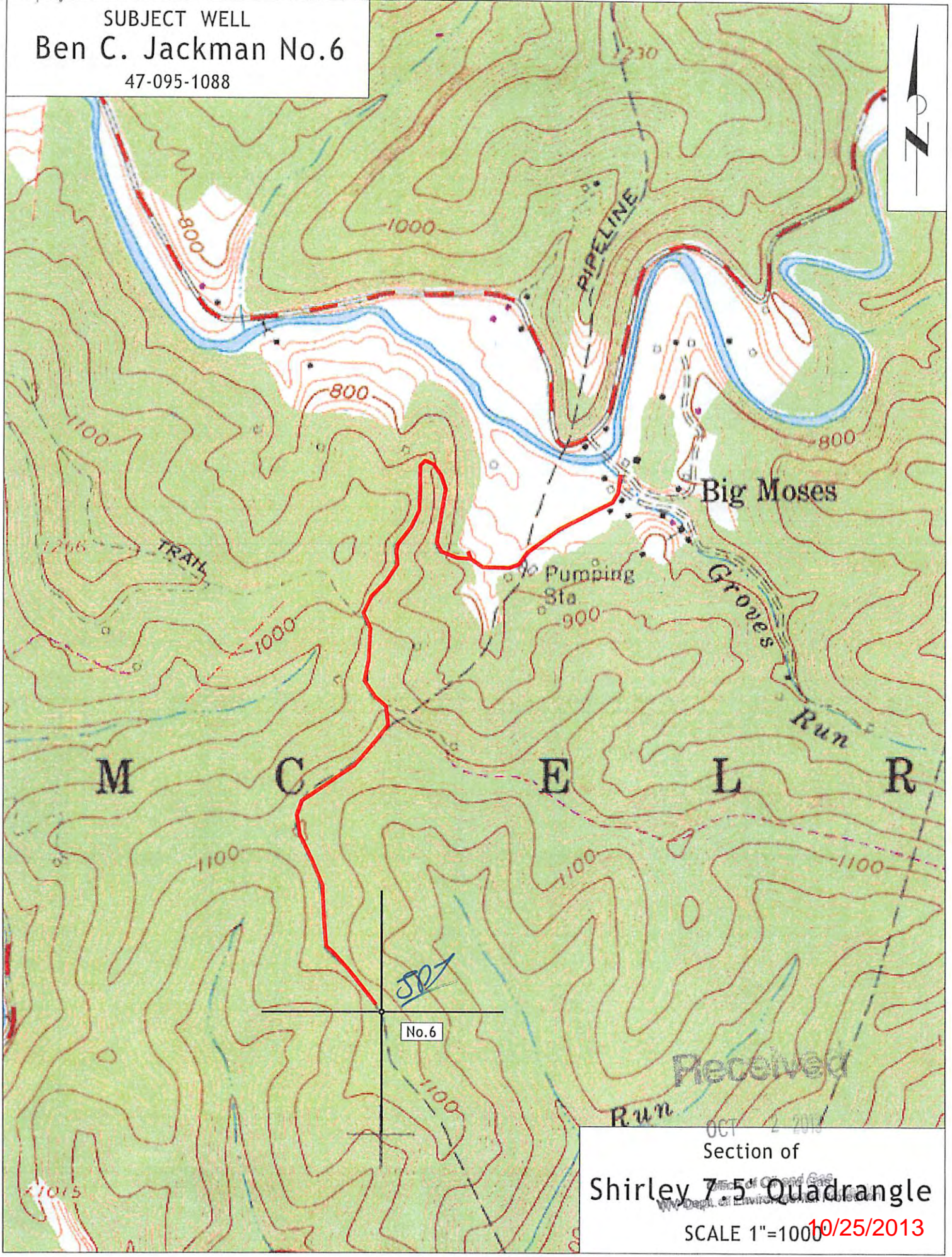
Plan Approved by: [Signature]

Comments: \_\_\_\_\_

Title: Impadr. Date: 9-22-13

Field Reviewed?  Yes  No

SUBJECT WELL  
Ben C. Jackman No.6  
47-095-1088



No.6

Received

OCT 2 2013

Section of  
Shirley 7.5 Quadrangle

SCALE 1"=1000' 10/25/2013

West Virginia Department of Environmental Protection  
Office of Oil & Gas

**WELL LOCATION FORM: GPS**

API: 47- 095 - 1088 WELL NO: No.6

FARM NAME: Ben C. Jackman

RESPONSIBLE PARTY NAME: Gastar Exploration, Ltd.

COUNTY: Tyler DISTRICT: McElroy

QUADRANGLE: Shirley 7.5'

SURFACE OWNER: Louis Blattner

ROYALTY OWNER: Louis Blattner et al.

UTM GPS NORTHING: 4,363,357 (NAD 83)

UTM GPS EASTING: 517,953 (NAD 83) GPS ELEVATION: 350 m. 1149 ft.

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit on the above well. The Office of Oil & Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone:17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) - meters.
2. Accuracy to Datum - 3.05 meters
3. Data Collection Method:

Survey Grade GPS	<input type="checkbox"/>	Post Processed Differential	<input type="checkbox"/>
		Real-Time Differential	<input type="checkbox"/>
Mapping Grade GPS	<input checked="" type="checkbox"/>	Post Processed Differential	<input checked="" type="checkbox"/>
		Real-Time Differential	<input type="checkbox"/>

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

Michael Q. McCown Mike McCown  
Signature

September 8, 2013  
Date

COO & Designated Agent  
Title

Received

OCT 2 2013



October 1, 2013

WVDEP-Office of Oil & Gas  
Attn: Mr. Jeff McLaughlin  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

VIA USPS

Subject: Plugging Permit Applications, Tyler County, WV

Dear Jeff:

Enclosed herein for your review and further handling, please find Plugging Permit Applications for the M.W. Spencer well #'s 22 & 23 and the Ben C. Jackman well #'s 1 & 6, along with a check in the amount of \$400.00 for the pits associated with these wells.

If you have any questions or need additional information, please feel free to contact me at 304/966-0362.

Sincerely,

DAVE PERKINSON  
Landman

Office of Oil and Gas  
WV Dept. of Environmental Protection

OCT 2 2013

Received

Gastar Exploration LTD.  
229 West Main Street, Suite 301 · Clarksburg, WV 26301  
Phone: (304) 622-4796 · Fax: (304) 622-4824

10/25/2013