



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

April 24, 2015

WELL WORK PERMIT

Re-Work

This permit, API Well Number: 47-3902739, issued to SHALE GAS PRODUCTION, LLC, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin

Chief

Operator's Well No: 1

Farm Name: BAILEY, HISEL W.

API Well Number: 47-3902739

Permit Type: Re-Work

Date Issued: 04/24/2015

Promoting a healthy environment.

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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code §22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR 4-19.1.c, if the operator is unable to sample and analyze any water well or spring with one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. 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.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.
8. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Charleston N.W.

Permit No. 2739

Rotary Oil _____
Cable _____ Gas
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company Ajax Pipe Line Company
Address P.O. Box 6190 Charleston, W. Va
Farm H.W. Bailey Acres 52 1/4
Location (waters) Sugar Camp
Well No. 1 Elev. 839.7
District Union County Kanawha
The surface of tract is owned in fee by _____
H.W. Bailey
Address Limestone Branch
Mineral rights are owned by Same
Address _____
Drilling Commenced 6/2/76
Drilling Completed 6/23/76
Initial open flow Show cu. ft. _____ bbls.
Final production 85,000 cu. ft. per day _____ bbls.
Well open _____ hrs. before test 400 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"			
9 5/8 32#	254	254	Surface
8 5/8			
7 20#	2329	2329	165 sacks
5 1/2			
4 1/2			
3			
2 J-55	4217	4217	
Liners Used			

Well treatment details:
Shot with 8,000# 80% Gell 1,200'

Attach copy of cementing record.

Coal was encountered at _____ Feet _____ Inches
Fresh water 130 Feet _____ Salt Water 1150 Feet _____
Producing Sand Brown Shale Depth 4220

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	10		
Sand and Slate			10	1052		
Salt Sand			1052	1500		Salt Water 1150
Big Lime			1680	1835		
Big Injun			1840	1900		Gas 1845
Berea			2260	2275		Gas, Oil, 2260
Sand. Slate			2275	3200		
Slate, Shale			3200	4220		Gas
				4220		T. D.

(over)

* Indicates Electric Log tops in the remarks section.

WW-2A
(Rev. 6-14)

1). Date: _____
2.) Operator's Well Number HW Bailey 1
State County Permit
3.) API Well No.: 47- 39 - 02739

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name Elvin D. Tate
Address 223 Barred Owl Drive
Charleston, WV 25312
(b) Name Tiffany & Patrick Arbaugh
Address 284 Barred Owl Drive
Charleston, WV 25312
(c) Name William F. Young
Address 161 Midland Trail
Hurricane, WV 25526
6) Inspector Terry Urban
Address P.O. Box 1207
Clendenen, WV 25045
Telephone 304-549-5915
5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

Cheryl Bowen, 107 Laurel Rd, Pocahontas, WV 25159

TO THE PERSONS 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)

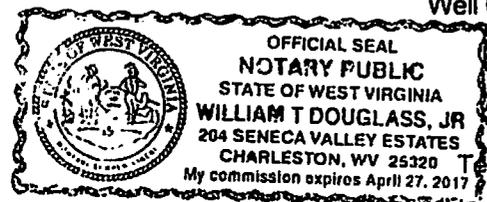
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through on the above named parties by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 35 CSR 4, 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 Shale Gas Production, LLC
By: [Signature]
Its: Managing Member
Address: 929 Charleston Road
Spencer, WV 25276
Telephone: 304-927-5228
Email: ddouglass@reserveoilandgas.com

Subscribed and sworn before me this 11th day of March, 2015

William T. Douglass Notary Public

My Commission Expires April 27, 2015

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov

3902739W

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

7009 0820 0000 6453 8187

OFFICIAL USE

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



H.W. Bailey #1

Sent To Cheryl Bowen

Street, Apt. No.,
or PO Box No. 107 Laurel Road

City, State, ZIP+4 Poca WV 25159

PS Form 3800, August 2006 See Reverse for Instructions

Received

MAR 12 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

Affidavit of Personal Service

State Of West Virginia
County Of Kanawha

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) / WW-3(A) / WW-4(A) / WW-5(A) / WW-6(A)
- (2) Application on Form WW-2(B) / WW-3(B) / WW-4(B) / WW-5(B) / WW-6(B)
- (3) Plat showing the well location on Form WW-6, and
- (4) Construction and Reclamation Plan on Form WW-9

--all with respect to operator's Well No. H.W. Bailey 1 located in Union District, Kanawha County, West Virginia, upon the person or organization named--

Elvin D. Tate
--by delivering the same in Kanawha County, State of West Virginia on the 8th day of December, 2014 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him / her / or, because he / she / refused to take it when offered it, by leaving it in his / her / presence.

Handing it to a member of his or her family above the age of 16 years named _____ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to _____, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named _____, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

Handing it to the corporation's employee / officer / director / attorney in fact / named _____.

Will J. Ogden Jr.
(Signature of person executing service)

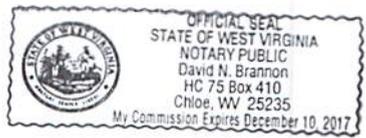
Taken, subscribed and sworn before me this 9th day of December 2014.
My commission expires December 10, 2017

David N. Brannon
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)

Received

MAR 12 2015



Affidavit of Personal Service

State Of West Virginia
County Of Kanawha

The undersigned, being first duly sworn, says that the undersigned served a true and complete copy of all sides of--

- (1) Notice on Form WW-2(A) / WW-3(A) ___ / WW-4(A) ___ / WW-5(A) ___ / WW-6(A) ___
- (2) Application on Form WW-2(B) / WW-3(B) ___ / WW-4(B) ___ / WW-5(B) ___ / WW-6(B) ___
- (3) Plat showing the well location on Form WW-6, and
- (4) Construction and Reclamation Plan on Form WW-9

--all with respect to operator's Well No. Hw Bailey 1 located in Union District, Kanawha County, West Virginia, upon the person or organization named--

Tiffany Arbough
--by delivering the same in Kanawha County, State of West Virginia on the 8th day of December, 2014 in the manner specified below.

[COMPLETE THE APPROPRIATE SECTION]

For an individual:

Handing it to him ___ / her / or, because he ___ / she ___ / refused to take it when offered it, by leaving it in his ___ / her ___ / presence.

Handing it to a member of his or her family above the age of 16 years named _____ who resides at the usual place of abode of the person to be served, and asking the family member to give it to the person to be served as soon as possible.

For a partnership:

Handing it to _____, a partner of the partnership or, because the partner refused to take it when I handed it over, by leaving it in the presence of the partner.

For a limited partnership:

Handing it to the general partner, named _____, or, because the general partner refused to take it when I tried to hand it over, by leaving it in the presence of the general partner.

For a corporation:

Handing it to the corporation's employee ___ / officer ___ / director ___ / attorney in fact ___ / named _____.

Walt J. Doyle Jr.
(Signature of person executing service)

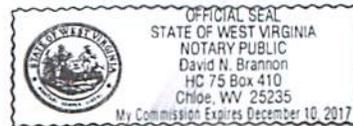
Taken, subscribed and sworn before me this 10th day of March 2015.
My commission expires December 10, 2017

David N. Brannon
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)

Received

MAR 12 2015



39027303

UNITED STATES POSTAL SERVICE

07 JAN 2015



First-Class Mail Postage & Fees Paid USPS Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Shale Gas Production, LLC
929 Charleston Rd
Spencer WV 25276



UNITED STATES POSTAL SERVICE

03 DEC 2014



First-Class Mail Postage & Fees Paid USPS Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Shale Gas Production, LLC
929 Charleston Road
Spencer WV 25276



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Cheryl Bowen
107 Laurel Road
Poca, WV 25159

2. Article N (Transfer) PS Form 3811

Received

MAR 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

COMPLETE THIS SECTION ON DELIVERY

- Signature: Cheryl D. Bowen
- Received by (Printed Name): Cheryl D. Bowen
- Address: 12-4-14
- Date of Delivery: 12-4-14
- Is delivery address different from item 1? Yes No

If YES, enter delivery address below:

- 3. Service Type:
 - Certified Mail
 - Registered
 - Insured Mail
 - Express Mail
 - Return Receipt for Merchandise
 - C.O.D.
- 4. Restricted Delivery? (Extra Fee) Yes No

15-02-M-15

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

William F Young
161 Midland Trail
Hurricane WV 25526

2. Article Number (Transfer from service label)

7009 0820 0000 6453 8217

PS Form 3811, February 2004

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

- A. Signature: William F Young
- Received by (Printed Name): William F Young
- Date of Delivery: 12-4-14
- Is delivery address different from item 1? Yes No
- If YES, enter delivery address below:

3. Service Type

- Certified Mail
- Registered
- Insured Mail
- Express Mail
- Return Receipt for Merchandise
- C.O.D.

4. Restricted Delivery? (Extra Fee)

Yes No

102595-02-M-11

3902739W

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha
Operator Shale Gas Production, LLC Operator's Well Number HW Bailey #1

INSTRUCTIONS TO COAL OPERATOR, OWNER, OR LESSEE

To the coal operator, owner, or lessee named on page WW2-A. You are hereby notified that any objection you wish to make or are required to make by WV Code 22-6-15, 16 or 17, must be filed with the Chief of the Office of Oil and Gas within fifteen (15) days after the receipt of this application by the Office. Mail objections to:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator ____ / owner ____ / lessee ____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.

Signature	Date		Company Name	
			By	
			Its	Date
				Signature
				Date

Received
MAR 12 2015
Office of Oil and Gas
WV Dept. of Environmental Protection

No known owner, operator, or lessee of workable coal bed seams on this tract.

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
Hisel W. Bailey et. al.	Shale Gas Company	1/8	LB 195/394
Shale Gas Company	Shale Gas Production, LLC	same	AB 242/323

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources
- WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

Received

MAR 12 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:
By: Its:

Shale Gas Production, LLC

Managing Member

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Shale Gas Production, LLC OP Code _____

Watershed (HUC 10) Sugarcamp Branch Quadrangle Pocatalico

Elevation 839.7 County Kanawha District Union

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes _____ No x

Will a pit be used for drill cuttings? Yes _____ No x

If so, please describe anticipated pit waste: fresh water

Will a synthetic liner be used in the pit? Yes x No _____ If so, what ml.? 20

Proposed Disposal Method For Treated Pit Wastes:

- _____ Land Application
- _____ Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- _____ Off Site Disposal (Supply form WW-9 for disposal location)
- _____ Other (Explain _____)

Received
MAR 12 2015

Will closed loop system be used? N/A

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air
Office of Oil and Gas
WV Dept. of Environmental Protection

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in pit, no drill cuttings anticipated

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) Soil/dirt

-Landfill or offsite name/permit number? _____

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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 thereto 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 or imprisonment.

Company Official Signature [Signature]

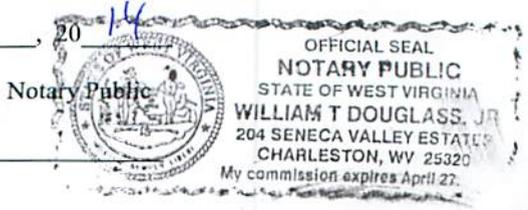
Company Official (Typed Name) J. Scott Freshwater

Company Official Title Managing Member

Subscribed and sworn before me this 4th day of November, 2014

[Signature]

My commission expires April 27, 2014



Proposed Revegetation Treatment: Acres Disturbed 1.5 Prevegetation pH 5.5

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 0.25 lbs/acre (500 lbs minimum)

Mulch Hay 2 Tons/acre

Seed Mixtures

Seed Type	Area I lbs/acre	Seed Type	Area II lbs/acre
Orchard Grass	25	Ladino Clover	5
Red Top Clover	15	KY 31	40

Attach:
Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: _____

Received

Comments: _____

MAR 12 2015

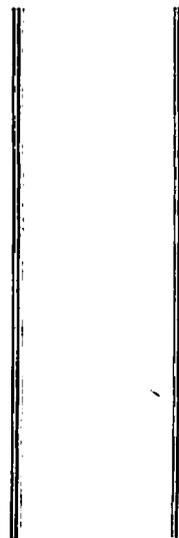
Office of Oil and Gas
WV Dept. of Environmental Protection

[Signature]
Title: Inspect 02/26/05

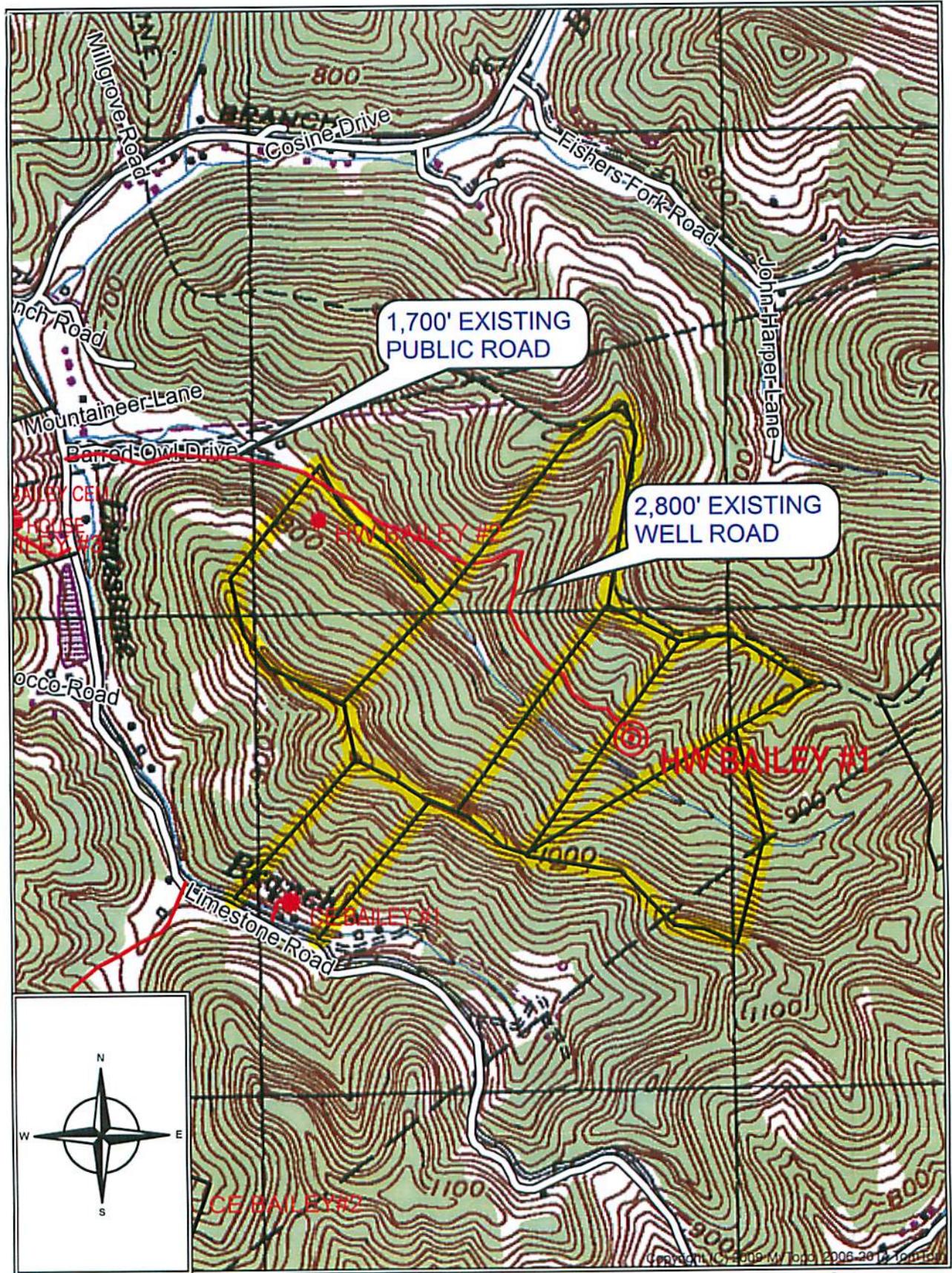
Date: 11-10-14

Field Reviewed? Yes No

Barred Oil De - hmeshe



3902739W

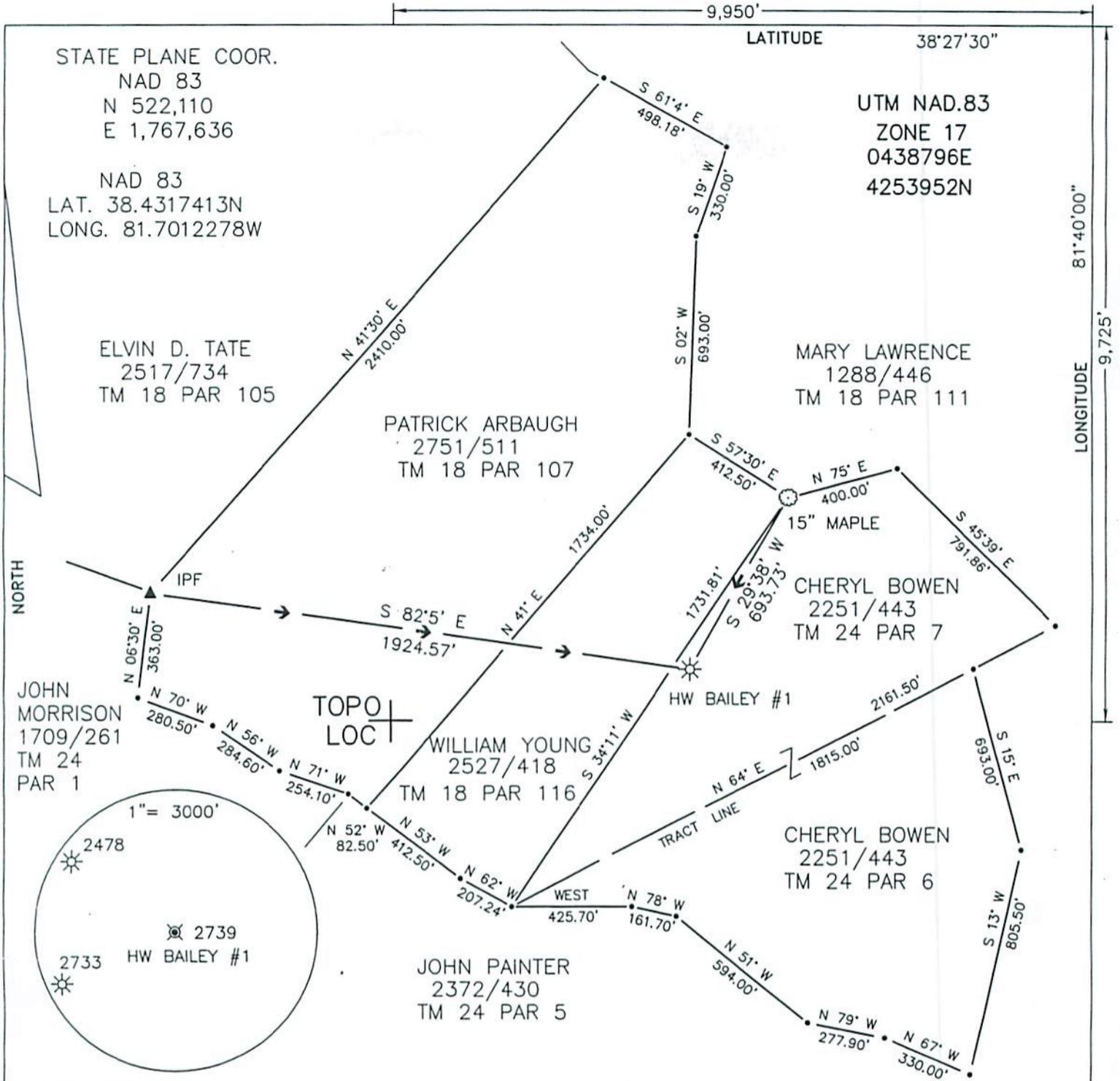


Received

MAR 12 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

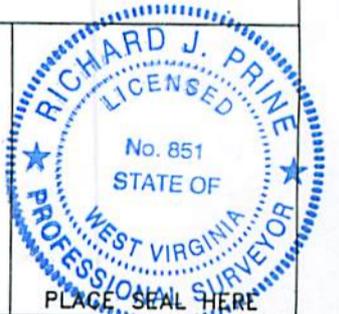
3902739W



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

FILE NO. _____
 DRAWING NO. 14-41
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION GPS

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. _____ P.S. 851



STATE OF WEST VIRGINIA
 Department of Environmental Protection
 OFFICE OF OIL AND GAS

DATE 10/17, 2014
 OPERATOR'S WELL NO. HW BAILEY #1
 API WELL NO. 47-039-02739
 STATE WV COUNTY KANAWHA PERMIT

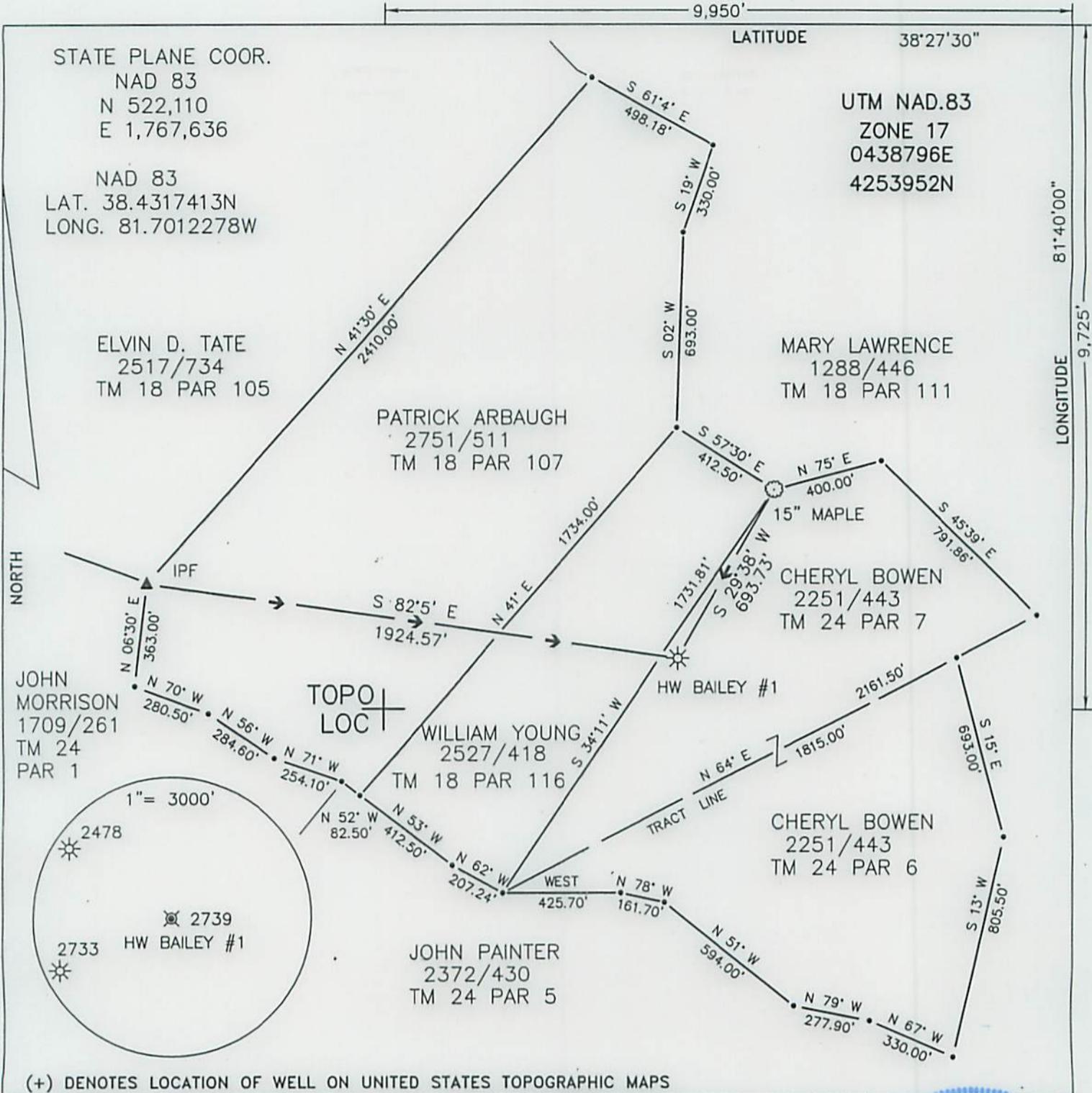
WELL TYPE: OIL GAS LIQUID INJECTION WV WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 836 WATER SHED SUGARCAMP BRANCH OF LIMESTONE BRANCH
 DISTRICT _____ UNION _____ COUNTY KANAWHA
 QUADRANGLE POCOTALICO

SURFACE OWNER CHERYL BOWEN ACREAGE 50.31
 OIL & GAS ROYALTY OWNER HISEL W. BAILEY ETAL LEASE ACREAGE 52.25
 LEASE NO. _____

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
 FORMATION OTHER PHSYICAL CHANGE IN WELL (SPECIFY): PULL TUBING & INSTALL 4 1/2"
 PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 4212
 WELL OPERATOR SHALE GAS PRODUCTION LLC DESIGNATED AGENT J. SCOTT FRESHWATER
 ADDRESS 929 CHARLESTON ROAD ADDRESS 929 CHARLESTON ROAD
SPENCER, WV 25276 SPENCER, WV 25276



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

FILE NO. _____
 DRAWING NO. 14-41
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1 IN 200
 PROVEN SOURCE OF ELEVATION GPS

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) _____
 R.P.E. _____ P.S. 851



STATE OF WEST VIRGINIA
 Department of Environmental Protection
 OFFICE OF OIL AND GAS

DATE 10/17, 2014
 OPERATOR'S WELL NO. HW BAILEY #1
 API WELL NO. 47 - 039 - 02739
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 836 WATER SHED SUGARCAMP BRANCH OF LIMESTONE BRANCH
 DISTRICT UNION COUNTY KANAWHA
 QUADRANGLE POCATALICO

SURFACE OWNER CHERYL BOWEN ACREAGE 50.31
 OIL & GAS ROYALTY OWNER HISEL W. BAILEY ETAL LEASE ACREAGE 52.25
 LEASE NO. _____

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY): PULL TUBING & INSTALL 4 1/2"
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION BROWN SHALE ESTIMATED DEPTH 4212
 WELL OPERATOR SHALE GAS PRODUCTION LLC DESIGNATED AGENT J. SCOTT FRESHWATER
 ADDRESS 929 CHARLESTON ROAD ADDRESS 929 CHARLESTON ROAD
SPENCER, WV 25276 SPENCER, WV 25276

WW-2B1
(5-12)

Well No. HW Bailey #1

West Virginia Department of Environmental Protection
Office of Oil and Gas

NOTICE TO SURFACE OWNERS

The well operator named below is preparing to file for a permit from the state to drill a new well. Before a well work permit can be filed with the Chief of the Office of Oil and Gas, the well operator is required to have given notice of the right to request water well or spring analytical testing. This notice shall be given to the owners or occupants of land which have a water well or spring being utilized for human consumption, domestic animals, or other general use and which is located within 1000 feet of the proposed well site.

With this form, the operator is giving you notice of your right to request analytical testing. The operator is required to sample and analyze the water wells or springs of all owners or occupants who request it. Therefore, if you wish to have your water well or spring tested, contact the operator named below.

All sampling shall be completed prior to drilling. Within thirty (30) days of the receipt of such sample analyses the operator shall submit the results to the Chief of the Office of Oil and Gas and to the owners or occupants who may have requested them.

Be advised, you have the right to sample and analyze any water supply at your own expense.

Listed below is the laboratory chosen by operator to perform analysis, and contactor chosen to collect sample.

Certified Laboratory Name	<u>ALS Environmental Lab</u>	Received
Sampling Contractor	_____	
Well Operator	<u>Shale Gas Production, LLC</u>	MAR 12 2015
Address	<u>929 Charleston Road</u>	
	<u>Spencer, WV 25276</u>	Office of Oil and Gas
Telephone	<u>304-927-5228</u>	WV Dept. of Environmental Protection

FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. If there are no water wells or springs within 1000 feet of the proposed site, the Chief may require the operator to test wells up to 2000 feet from the proposed site.

See Attached.

39 02739 W

Well Information/Potential Water Well Sample Sheet
Operator: Shale Gas Production
Well Number: H. Bailey #1

Shale Gas Production, LLC

Well Information / Potential Water Well Sample Data Sheet

Operator: **Shale Gas Production, LLC**

Lease Name and Number: **H Bailey #1**

Comments

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner (s) that were potentially utilizing groundwater (potable) for human consumption or other purposes within one thousand (1,000) feet of the proposed well site. The following landowners have been notified of the opportunity to request a water sample should it be necessary.

Please note that the following information is subject to change upon field inspection

Individual Contacted or Notified

Owner / Occupant: Tiffany Arbaugh *304-552-6254*

Address: End of Barred Owl Drive, Charleston, WV 25312

Letter/Notice Date: 10/13/14

Comments: Left notice with lady watching kids; Mrs. Arbaugh called me on 10/13/14; said no well. Has spring but far away from well. Only home within 1,000 feet of wellhead. *She did not request sample of spring be taken.*

Received

MAR 12 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

3902739W

4
 QUADRANGLE _____
 PERMIT NO. 2739

WELL

COMPANY AJAX Pipe Line Co
 ADDRESS _____
 FARM H.W. Bailey ACRES 52 1/4
 LOCATION (waters) Sugar Camp Branch
 WELL NO. 1 ELEVATION 839.7
 DISTRICT Union COUNTY Kanawha
 The surface of tract is owned in fee by H.W. Bailey

Address _____
 Mineral rights are owned by _____
 Address _____

Drilling commenced 6-2-76
 Drilling completed 6-25-76 Drilled in
 Date Shot 6-23-76 From 3000 To 4220

With _____
 Open Flow Show Below Shot /10th Water in _____ Inch
 _____ /10th Merc. in _____ Inch
 Volume 130,000 after 48 hr Cu. Ft.
 Rock Pressure 400 lbs. 24 hrs.
 Oil _____ bbls., 1st 24 hrs.

WELL ACIDIZED _____

 WELL FRACTURED _____

RESULT AFTER TREATMENT _____

ROCK PRESSURE AFTER TREATMENT _____
720 # 7262

FRESH WATER _____ FEET
 SALT WATER _____ FEET

RECORD

OIL OR GAS WELL Gas

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of packer
16"			<u>Hook Wall</u>
13 3/8"			Size of _____
10 3/4"			Depth set _____
9 5/8" <u>32#</u>	<u>254'</u>	<u>254</u>	<u>2268</u>
8 5/8"			Perf. top _____
7" <u>20#</u> <u>R3</u> <u>KSS</u>	<u>2329</u>	<u>16550</u> <u>2329</u>	Perf. bottom _____
5 1/2"			<u>124.40' pf.</u>
4 1/2"			Perf. top _____
3 1/2"			Perf. bottom _____
2 3/8" <u>460#</u>	<u>R2 J-55</u>	<u>4217</u>	<u>124.40'</u>
Liners Used			

Casing Cemented _____ Size 9 5/8 No. Ft. 254 Date 2-4-76

Casing Cemented 6-18-76 Size 7 1/2 No. Ft. 2529 Date 6-11-76

Casing Cemented _____ Size _____ No. Ft. _____ Date _____

Coal Encountered: _____ Depth _____ Thickness _____

Coal Encountered: _____ Depth _____ Thickness _____

Received

MAR 12 2015

Office of Oil and Gas
 WV Dept. of Environmental Protection