



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

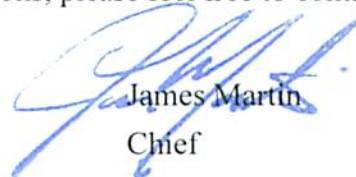
This permit, API Well Number: 47-3902733, issued to SHALE GAS PRODUCTION, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, 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, C. E.
API Well Number: 47-3902733
Permit Type: Re-Work
Date Issued: 04/24/2015

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.

WW - 2B
(Rev. 8/10)

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

1) Well Operator: Shale Gas Production, LLC 494508232 Kanawha Union Pocatalico
Operator ID County District Quadrangle

2) Operator's Well Number: CE Bailey #1 3) Elevation: 740

4) Well Type: (a) Oil _____ or Gas X _____
 (b) If Gas: Production X / Underground Storage _____
 Deep _____ / Shallow X _____

*CK# 9773
\$650⁰⁰*

5) Proposed Target Formation(s): Brown Shale Proposed Target Depth: 4033

6) Proposed Total Depth: 4033 Feet Formation at Proposed Total Depth: Brown Shale

7) Approximate fresh water strata depths: Existing well-See attached

8) Approximate salt water depths: Existing well-See attached

9) Approximate coal seam depths: Existing well

10) Approximate void depths,(coal, Karst, other): Existing well

11) Does land contain coal seams tributary to active mine? None known

12) Describe proposed well work and fracturing methods in detail (attach additional sheets if needed)
Remove existing 2 3/8" tubing. Clean out well using 6 1/2" bit to original TD. Install & Cement 4 1/2" casing. Nitrogen gas frac. Original well drilled & shot in 1976. Has existing 9 5/8" and 7" casing. (See attached well record)

[Signature]
11-10-14

13) **CASING AND TUBING PROGRAM**

TYPE	SPECIFICATIONS			FOOTAGE	INTERVALS	CEMENT
	Size	Grade	Weight per ft			
Conductor						
Fresh Water	9 5/8"	H-40	32#	570	Existing	CTS
Coal						
Intermediate	7"	K-55	20#	2378	Existing	200 cu. ft.
Production	4.5"			4033	New	120 sks
Tubing	2 3/8"			4033	Existing	Received MAR 12 2015
Liners						

Packers: Kind: _____
 Sizes: _____
 Depths Set _____

Office of Oil and Gas
WV Dept. of Environmental Protection

04/24/2015



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

Quadrangle Charleston, N. W.

Permit No. Kan-2733

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

Company <u>Ajax Pipe Line Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 6190 Charleston W. Va</u>				
Farm <u>C.E. Bailey et al</u> Acres <u>38 8/100</u>	Size			
Location (waters) <u>Lime Stone Branch</u>	20-16			
Well No. <u>1</u> Elev. <u>710</u>	Cond.			
District <u>Union</u> County <u>Kanawha</u>	13-10"			
The surface of tract is owned in fee by _____	9 5/8 32#	570	570	Surface
<u>C.E. Bailey et al</u>	8 5/8			
Address <u>910 6th Ave Charleston W. Va</u>	7 20#	2378	2378	
Mineral rights are owned by <u>Same</u>	5 1/2			
Address _____	4 1/2			
Drilling Commenced <u>February 2/16/76</u>	3			
Drilling Completed <u>3/5/76</u>	2		4033	
Initial open flow <u>0</u> cu. ft. _____ bbls.	Liners Used			
Final production <u>55,000</u> cu. ft. per day _____ bbls.				
Well open _____ hrs. before test <u>475#</u> RP.				

Well treatment details:

Attach copy of cementing record.

sect 967' with 6,666# 80% Bell

Coal was encountered at 185 Feet 12' Inches
Fresh water 94 Feet Salt Water 1278 Feet
Producing Sand Brown Shale Depth 4,000'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Top Soil			0	15		
Slate			15	35		
Red Rock			35	90		
Sand			90	100	Fresh Water	
Slate, Gray			100	400	Coal 185'	
Sand			400	650		
Sand, Slate.			650	810		
Slate			810	1040		
Salt Sand			1040	1405	Gas 1050	
Sand Slate			1405	1600		
Big Lime			1600	1760		
Big Injun			1760	1795		
Slate, Sand			1795	2220		
Berea			2220	2245		
Chell			2245	2385		
Sand, Saale			2385	3066		
Brown Saale			3066	4020	Gas	
Black Saale			4020	4025		
Saale			4025	4033	T.D.	

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(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks

04/24/2015

Date 6-1, 19 76

APPROVED [Signature] Owner

By [Signature] (Title)

WW-2A
(Rev. 6-14)

1.) Date: _____
2.) Operator's Well Number CE Bailey #1
State County Permit
3.) API Well No.: 47- Kanawha - 2733

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: 5) (a) Coal Operator
(a) Name Charles Edwin Bailey Jr. Name _____
Address 940 6th Street Address _____
Charleston, WV 25302
(b) Name _____ (b) Coal Owner(s) with Declaration
Address _____ Name _____
Address _____
(c) Name _____ Name _____
Address _____ Address _____
6) Inspector Terry Urban (c) Coal Lessee with Declaration
Address P.O. Box 1207 Name _____
Clendenin, WV 25045 Address _____
Telephone 304-549-5915

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

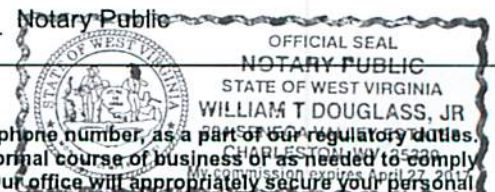
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Office of Oil and Gas
WV Dept. of Environmental Protection

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

My Commission Expires April 27, 2014
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 deprivacyofficer@wv.gov

04/24/2015

MEMORANDUM FOR THE DIRECTOR
SUBJECT: [Illegible]

ADMINISTRATIVE INFORMATION

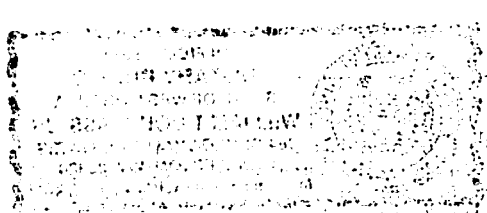
DATE: [Illegible] TIME: [Illegible] BY: [Illegible]

[Illegible text block containing administrative details and possibly a list of items or actions.]

[Illegible text block containing the main body of the memorandum, likely detailing the purpose and findings.]

ST RAM

Office of [Illegible]



WW-2A Surface Waiver

SURFACE OWNER WAIVER

County Kanawha

Operator
Operator well number

Shale Gas Production, LLC
CE Bailey #1

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW2-A

The well operator named on page WW2A 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. 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 57th 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 **FIFTEEN (15) 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 a 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.

List of Water Testing Laboratories. The Office maintains a list of water testing laboratories which you can hire to test your water to establish water quality prior to and after drilling. Contact the Chief to obtain a copy.

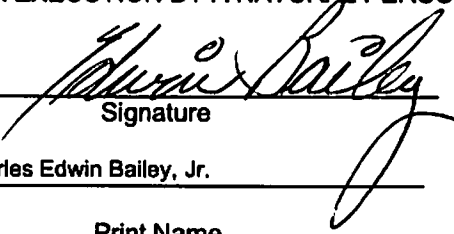
VOLUNTARY STATEMENT OF NO OBJECTION

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 Well Work Permit on Form WW2-A, and attachments consisting of pages 1 through ___ including a work order on Form WW2-B, a survey plat, and a soil and erosion plan, 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 on those materials.

FOR EXECUTION BY A NATURAL PERSON

FOR EXECUTION BY A CORPORATION, ETC.


 Signature _____ Date 12.2.14
 Charles Edwin Bailey, Jr. _____
 Print Name

Company Name _____
 By _____
 Its _____ Date _____
 Signature _____ Date _____

WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County Kanawha
Operator Shale Gas Production, LLC Operator's Well Number CE 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.

_____	Date _____	Company Name _____	_____
Signature		By _____	_____
		Its _____	Date _____
		Signature _____	Date _____

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Office of Oil and Gas
WV Dept. of Environmental Protection

No known owner, operator or lessee of workable coalbed/seam on this tract.

WW-2A1
(Rev. 1/11)

Operator's Well Number CE Bailey #1

**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
Charles E. Bailey et. al.	Shale Gas Company	1/8	LB 195/476
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

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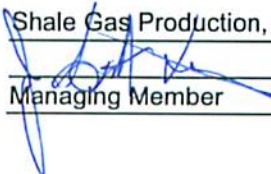
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The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired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

Well Operator:
By: Its:

Shale Gas Production, LLC



Managing Member

04/24/2015

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) Limestone Branch Quadrangle Pocalico

Elevation 740 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

Will closed loop system be used? N/A

MAR 12 2015

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air

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

Office of Oil and Gas
WV Dept. of Environmental Protection

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 _____

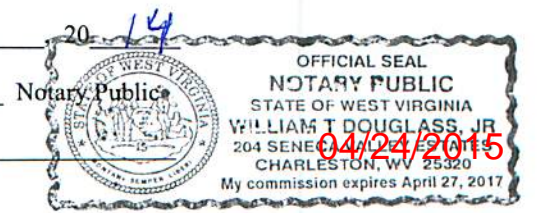
Company Official (Typed Name) Scott Freshwater

Company Official Title Managing Member

Subscribed and sworn before me this 4th day of November

W. J. [Signature]

My commission expires April 27, 2017



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

Area I		Area II	
Seed Type	lbs/acre	Seed Type	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: _____

Comments: _____

[Handwritten Signature]

Title: Inspector Date: 11-10-14

Field Reviewed? Yes No

Limestone outright between 2 & 3

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Office of Oil and Gas
WV Dept. of Environmental Protection

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NOTE:

Any Trees 6" or larger in Diameter will be cut and piled. Brush will be used as Sediment Barriers. Temporary seed and mulch all slopes upon construction. Stone over all Culverts and entrance off existing roadway.

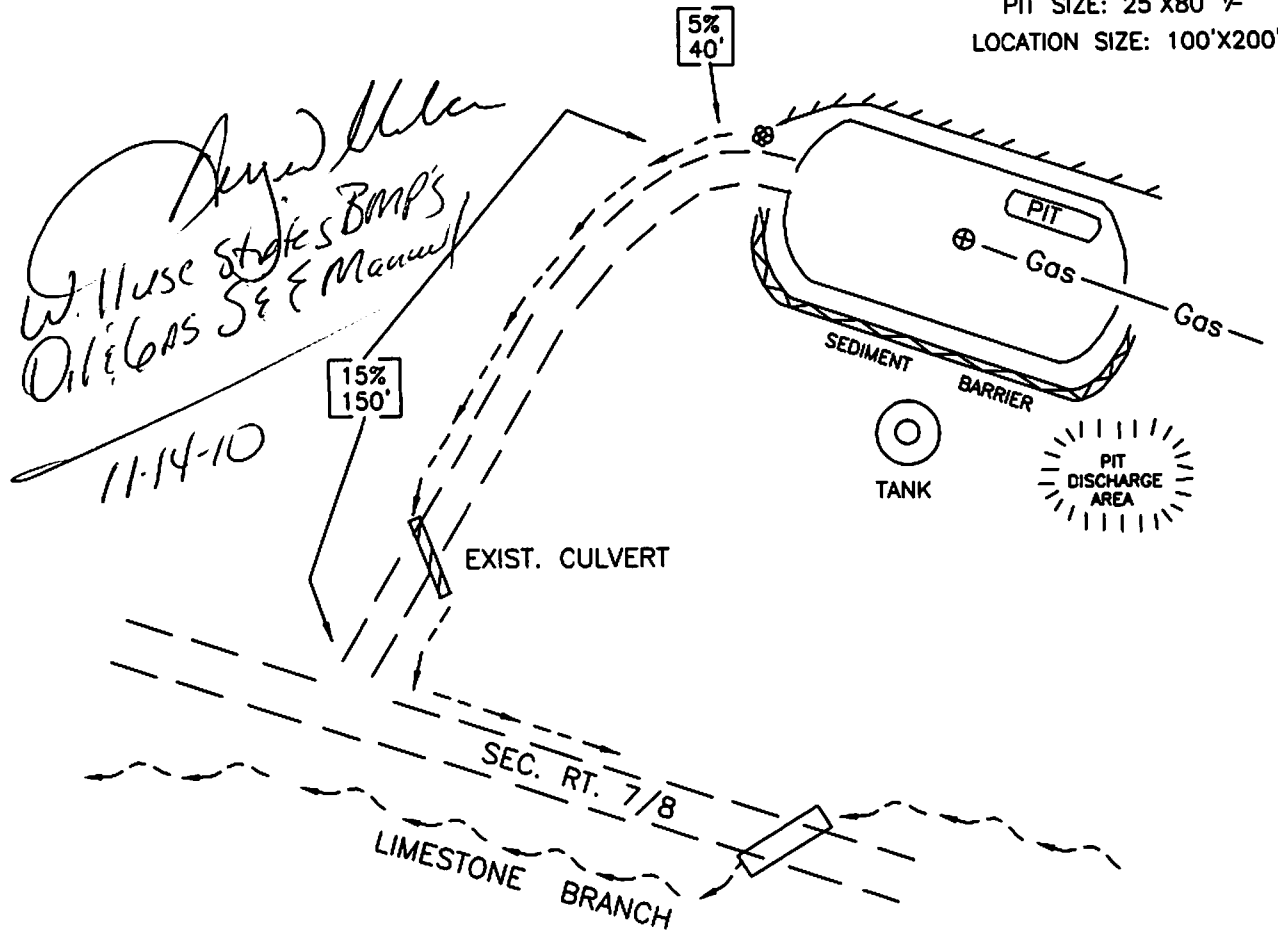
CE BAILEY

#1



NOTE:

PIT SIZE: 25'X80' +/-
LOCATION SIZE: 100'X200' +/-



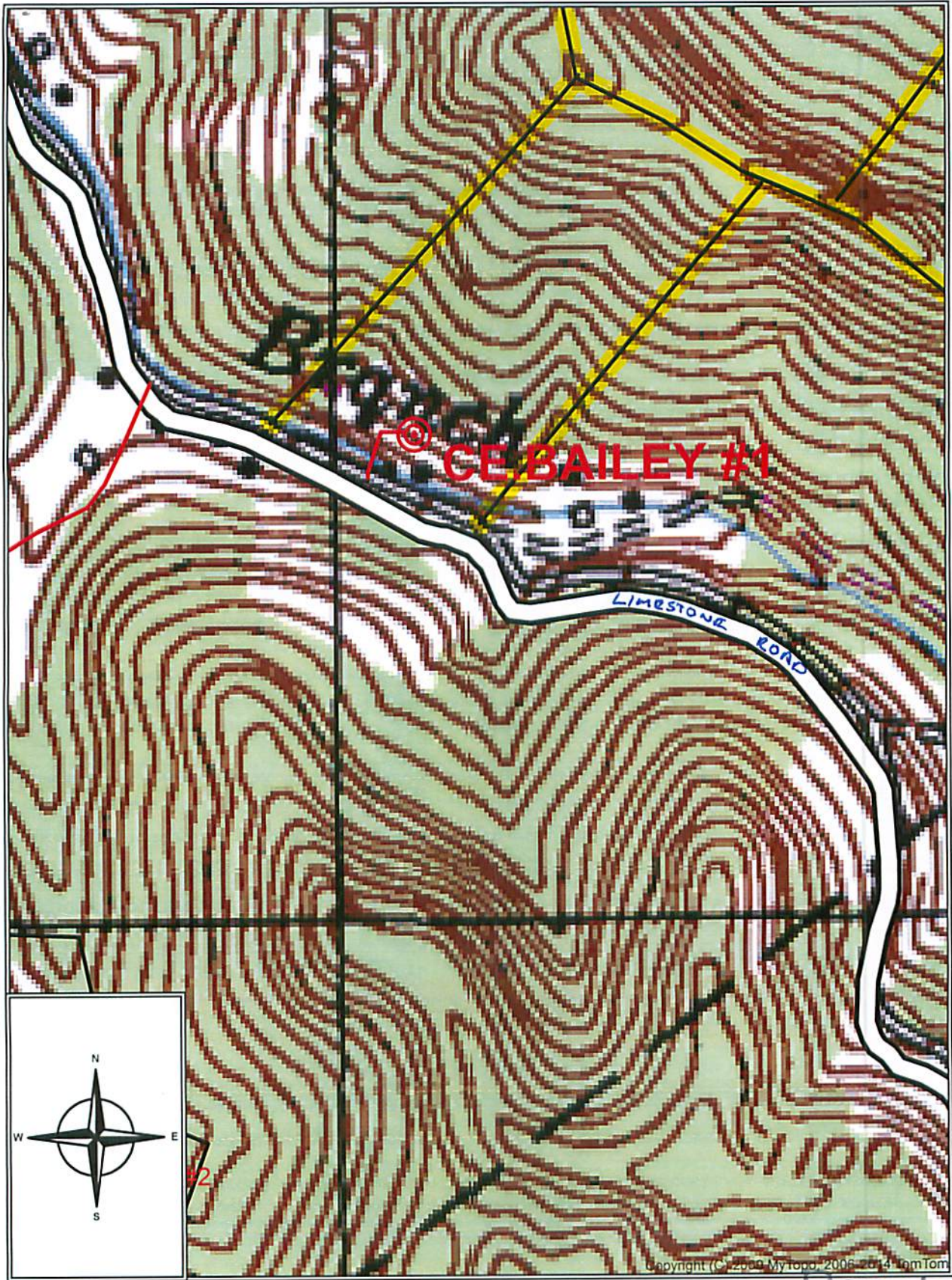
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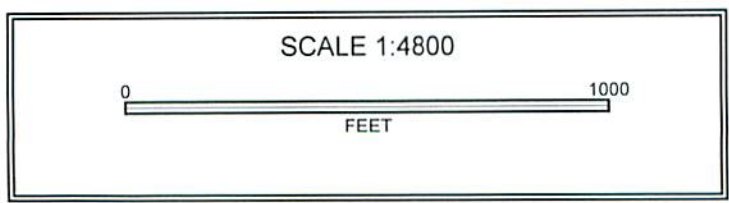
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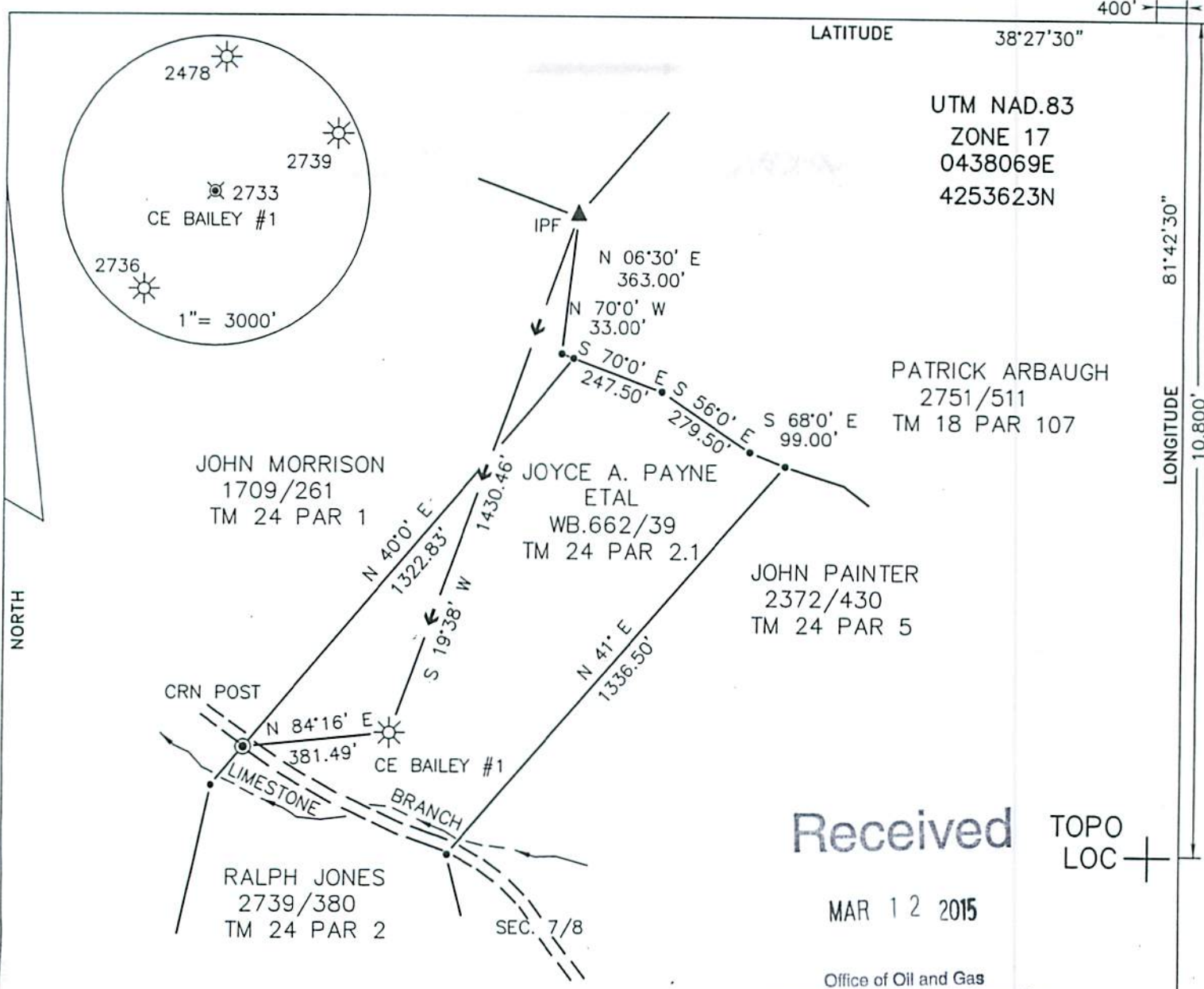
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WV Dept. of Environmental Protection
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3902733



LATITUDE 38°27'30"

UTM NAD.83
ZONE 17
0438069E
4253623N

PATRICK ARBAUGH
2751/511
TM 18 PAR 107

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LOC

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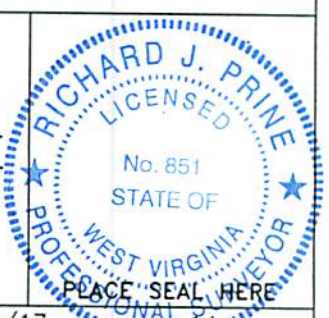
STATE PLANE COOR.
NAD 83
N 521,028
E 1,765,249

NAD 83
LAT. 38.4287204N
LONG. 81.7095318W

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

FILE NO. _____
 DRAWING NO. 14-42
 SCALE 1"=400'
 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. CE BAILEY #1
 API WELL NO. 47-039-02733
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 751 WATER SHED LIMESTONE BRANCH
 DISTRICT UNION COUNTY KANAWHA
 QUADRANGLE POCATALICO

SURFACE OWNER JOYCE A. PAYNE ETAL ACREAGE 24.7
 OIL & GAS ROYALTY OWNER C.E. BAILEY JR. ETAL LEASE ACREAGE 38.05

LEASE NO. _____

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE X 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 4033
 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

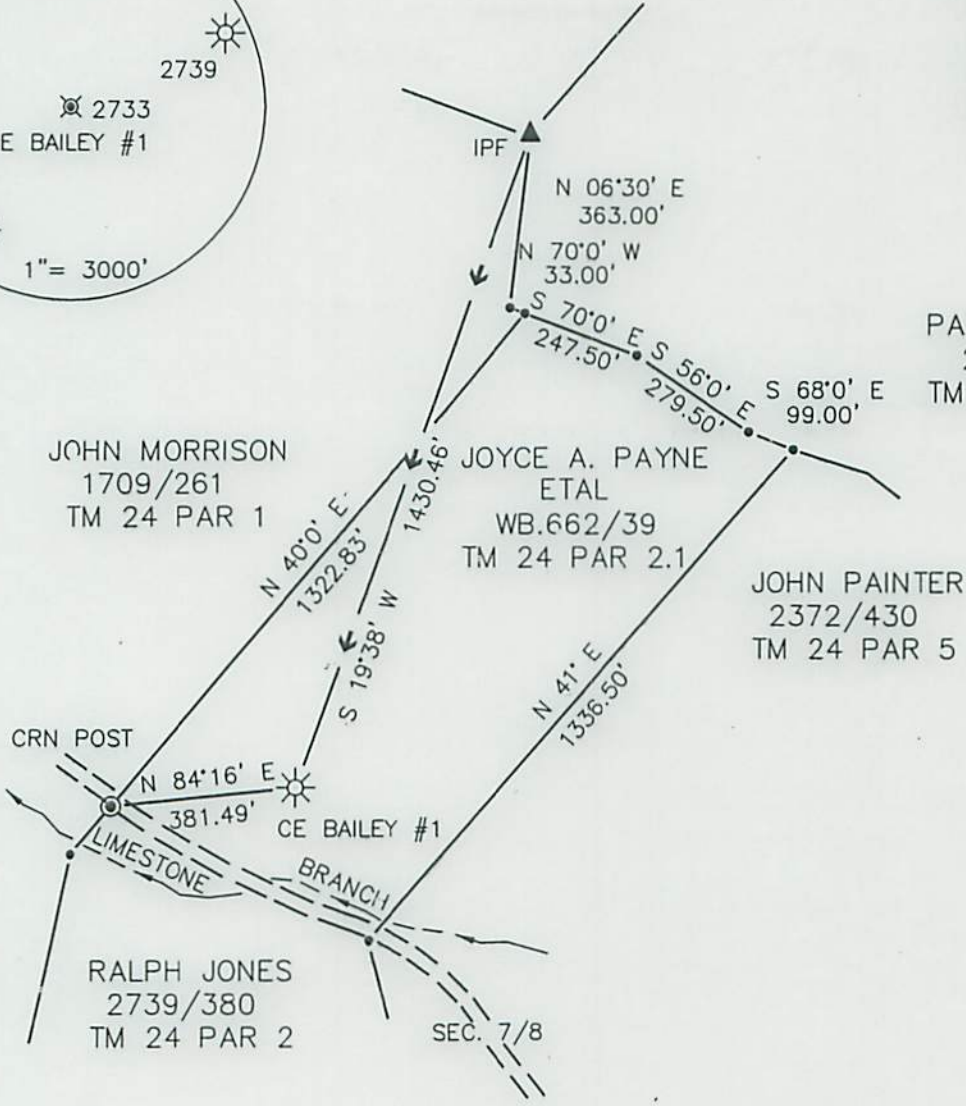
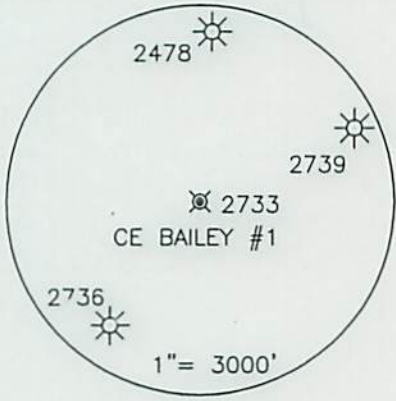
04/24/2015

400'

LATITUDE 38°27'30"

UTM NAD.83
ZONE 17
0438069E
4253623N

LONGITUDE 81°42'30"
10,800'



PATRICK ARBAUGH
2751/511
TM 18 PAR 107

JOHN MORRISON
1709/261
TM 24 PAR 1

JOYCE A. PAYNE
ETAL
WB.662/39
TM 24 PAR 2.1

JOHN PAINTER
2372/430
TM 24 PAR 5

CRN POST
N 84°16' E
381.49'
CE BAILEY #1

RALPH JONES
2739/380
TM 24 PAR 2

TOPO
LOC

STATE PLANE COOR.
NAD 83
N 521,028
E 1,765,249

NAD 83
LAT. 38.4287204N
LONG. 81.7095318W

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

FILE NO. _____
 DRAWING NO. 14-42
 SCALE 1"=400'
 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 REGU-
 LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
 MENT OF ENERGY.
 (SIGNED) _____
 R.P.E. _____ P.S. 651



PLACE SEAL HERE

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

DATE 10/17, 2014
 OPERATOR'S WELL NO. CE BAILEY #1
 API WELL NO. 47 - 039 - 02733w
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 751 WATER SHED LIMESTONE BRANCH
 DISTRICT UNION COUNTY KANAWHA
 QUADRANGLE POCOTALICO

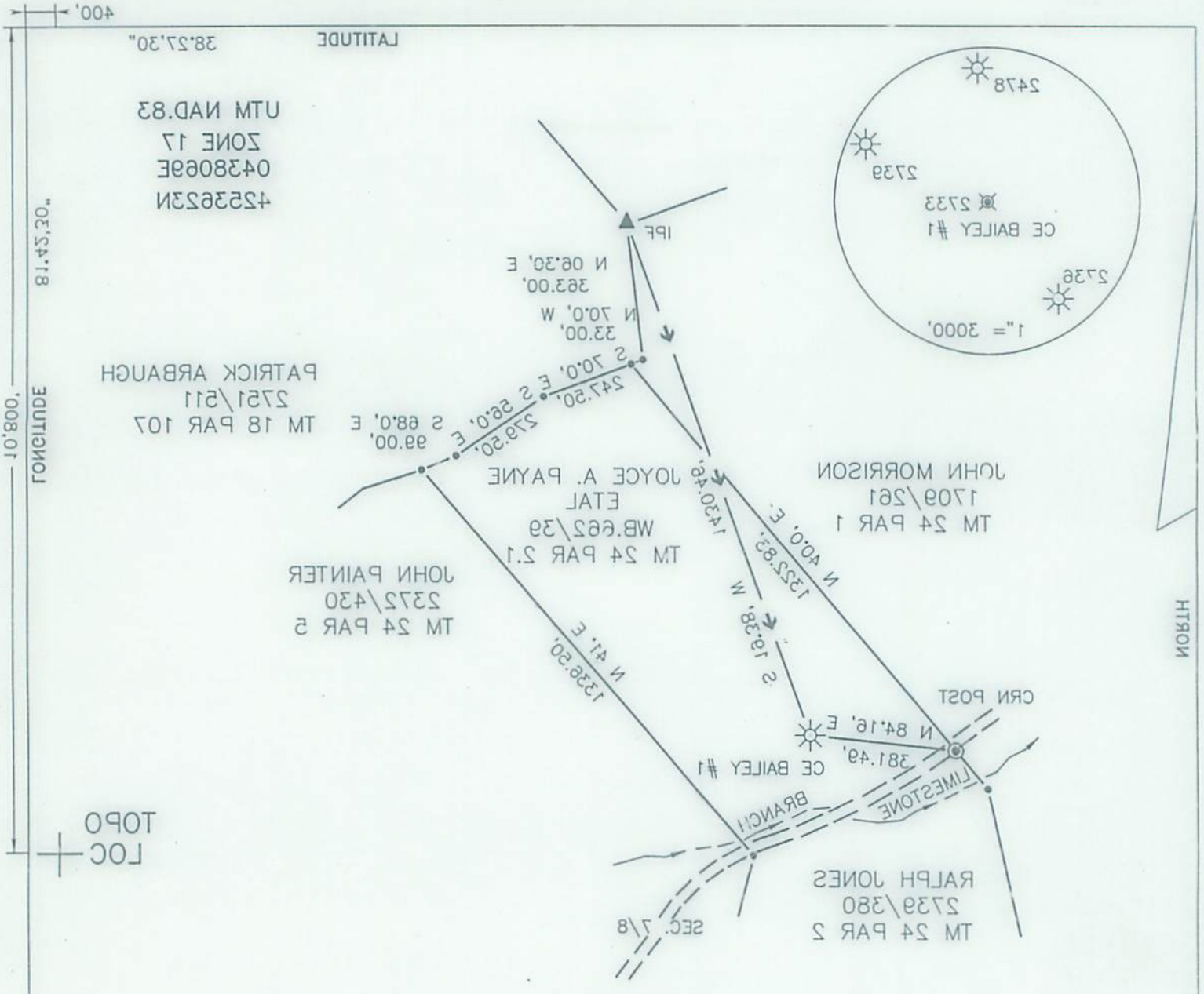
SURFACE OWNER JOYCE A. PAYNE ETAL ACREAGE 24.7
 OIL & GAS ROYALTY OWNER C.E. BAILEY JR. ETAL LEASE ACREAGE 38.05
 LEASE NO. _____

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE X 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 4033
 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

04/24/2015



STATE PLANE COOR.
 NAD 83
 N 521,028
 E 1,765,249

LAT. 38.4287204N
 LONG. 81.7095318W
 NAD 83

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

FILE NO. _____
 DRAWING NO. 14-42
 SCALE 1"=400'
 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. 651



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

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

LOCATION: ELEVATION 751
 DISTRICT _____
 QUADRANGLE _____
 SURFACE OWNER JOYCE A. PAYNE ETAL
 OIL & GAS ROYALTY OWNER C.E. BAILEY JR. ETAL
 LEASE NO. _____
 04/24/2015

FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY): _____
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW
 DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____

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

DATE 10/17/2014
 OPERATOR'S WELL NO. CE BAILEY #1
 API WELL NO. _____
 STATE _____ COUNTY _____ PERMIT 47-039-02733W

400'
 81.45.20"
 10'800.
 TOPO LOC

LATITUDE 38.27.30"
 UTM NAD.83
 ZONE 17
 0438069E
 +2526523N

PATRICK ARBAUGH
 2751/211
 TM 18 PAR 107

JOHN PAINTER
 2372/430
 TM 24 PAR 2

JOYCE A. PAYNE
 ETAL
 WB.662/39
 TM 24 PAR 2.1

JOHN MORRISON
 1709/261
 TM 24 PAR 1

CRN POST
 N 84.16' E
 381.49'
 CE BAILEY #1

RALPH JONES
 2739/380
 TM 24 PAR 2

WW-2B1
(5-12)

Well No. CE 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 ALS Environmental Lab
Sampling Contractor _____

Received

MAR 12 2015

Well Operator Shale Gas Production, LLC
Address 929 Charleston Road
Spencer, WV 25276
Telephone 304-927-5228

Office of Oil and Gas
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.

*Will obtain water well sample from Paul Logier
at 1194 Limestone Road.*

04/24/2015

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

Shale Gas Production, LLC

Well Information / Potential Water Well Sample Data Sheet

Operator: **Shale Gas Production, LLC**

Lease Name and Number: **C. 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: Melissa Spear

Address: 1145 Limestone Road, Charleston, WV 25312

Letter/Notice Date: 10/13/14

Comments: No well



Owner / Occupant:

Address: 1121 Limestone Road, Charleston, WV 25312

Letter/Notice Date: 10/13/14

Comments: No water well

Owner / Occupant:

Address: 1159 Limestone Road

Letter/Notice Date: 10/13/14

Comments: No water well

Received

MAR 12 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

04/24/2015

Well Information/Potential Water Well Sample Sheet

Operator: Shale Gas Production

Well Number: C. Bailey #1

Owner / Occupant:

Address: 873 Limestone Road

Letter/Notice Date: 10/13/14

Comments: Posted notice on door

TU

Owner / Occupant:

Address: 998 Limestone Road

Letter/Notice Date: 10/13/14

Comments: posted notice on door of white house and yellow trailer

Owner / Occupant: Barbara and John Vanoy

Address: 1097 Limestone Road

Letter/Notice Date 10/13/14

Comments: Water well not in use

Owner / Occupant: John Morrison

Address: 1140 Limestone Road

Letter/Notice Date: 10/13/14

Comments: has water well; not in use. May want tested; will call if he does.

Owner / Occupant:

Address: 1227 Limestone Road

Letter/Notice Date: 10/13/14

Comments: Posted in mailbox

Received

MAR 12 2015

Office of Oil and Gas
Wy Dept. of Environmental Protection

04/24/2015

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

Owner / Occupant: Paul Lanier 304-776-5655

Address: 1194 Limestone Road

Letter/Notice Date: 10/13/14

Comments: Has well and city water also. **** Wants Sample*****

14

Owner / Occupant: Davis

Address: 1366 Limestone Road

Letter/Notice Date: 10/13/14

Comments: water well not in use; left notice with male; will call if wants tested.

Received

MAY 14 2015

Office of Oil and Gas
WV Dept. of Environmental Protection

04/24/2015