



---

**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](http://www.dep.wv.gov)

October 21, 2015

**WELL WORK PERMIT**

**Vertical Well**

This permit, API Well Number: 47-8510239, issued to JAY-BEE OIL & GAS, 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: PLUTO 1A  
Farm Name: JAY BEE YARD LLC  
**API Well Number: 47-8510239**  
**Permit Type: Vertical Well**  
Date Issued: 10/21/2015

**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, drilling ceased, completion of any other permitted well work and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.



WW-2A  
(Rev. 6-14)

1.) Date: \_\_\_\_\_  
2.) Operator's Well Number Pluto 1A  
State 47 County \_\_\_\_\_ Permit \_\_\_\_\_  
3.) API Well No.: \_\_\_\_\_

**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 Jav-Bee Yard. LLC  
Address 3570 Shields Hill Rd.  
Cairo. WV 26337  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
5) (a) Coal Operator  
Name N/A  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name N/A  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name N/A  
Address \_\_\_\_\_  
6) Inspector David Cowan  
Address 1597 Devil Hole Rd.  
Harrisville. WV 26362  
Telephone \_\_\_\_\_

**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  
  x   Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

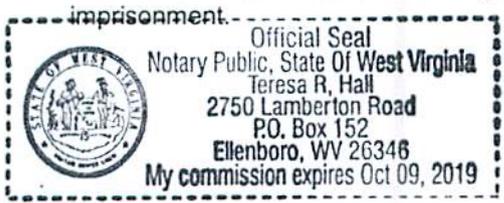
I certify that as required under Chapter 22-6 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through        on the above named parties by:

- 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: Jav-Bee Oil & Gas. Inc.  
By: Shane Dowell *[Signature]* AUG 28 2015  
Its: Office Manager  
Address: 3570 Shields Hill Rd  
Cairo. WV 26337  
Telephone: 304-628-3111  
Email: sdowell@javbeeoil.com

Subscribed and sworn before me this 30<sup>th</sup> day of July, 2015

Teresa R. Hall Notary Public

My Commission Expires October 9<sup>th</sup> 2019

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](mailto:depprivacyofficer@wv.gov)

Faint, illegible text, possibly a return address or recipient information.

My commission expires 09/30/2019  
Ellenboro, WV 26031  
P.O. Box 182  
2700 Lamberston Road  
Hillsboro, VA 22420  
West Virginia



**Affidavit of Personal Service**

State Of West Virginia

County Of Ritchie

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) X / WW-3(A)    / WW-4(A)    / WW-5(A)    / WW-6(A) X
- (2) Application on Form WW-2(B) X / 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
- (5) WW2, WW9 X

--all with respect to operator's Well No. Pluto 1A, Pluto 1 located in Clay District, Ritchie County County, West Virginia, upon the person or organization named--

Jay-Bee Yard, LLC  
--by delivering the same in Ritchie County, State of West Virginia on the 30 day of July, 2015 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:

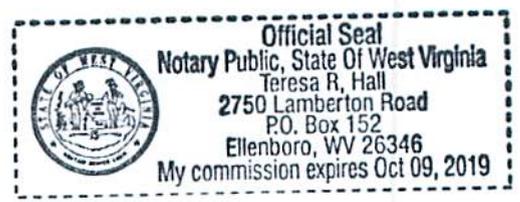
[X] Handing it to the corporation's employee    / officer    / director X / attorney in fact    / named Randy Broda.

Shane D. Duff Shane Duff **Received**  
(Signature of person executing service) **Oil & Gas**

Taken, subscribed and sworn before me this 30<sup>th</sup> day of July, 2015.  
My commission expires October 9<sup>th</sup> 2019.

Teresa R. Hall  
Notary Public

(AFFIX SEAL IF NOTARIZED OUTSIDE THE STATE)



*Handwritten initials*

Official Seal  
Notary Public, State of West Virginia  
Teresa R. Hall  
3750 Landmark Road  
PO Box 152  
Elkhorn, WV 26048  
My commission expires Oct 09, 2018



WW-2A Coal Waiver

COAL OPERATOR, OWNER, OR LESSEE WAIVER

County 085-Ritchie  
Operator Jay-Bee Oil & Gas, Inc Operator's Well Number Pluto 1A

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 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0499 extension 1654

WAIVER

The undersigned coal operator \_\_\_\_\_ / owner X / 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	<u>Jay Bee Yard, LLC</u>
Signature		By	<u>Shane Dowell</u> 7-30-2015
		Its	<u>Office Manager</u> Date
			 7-30-15
			Signature Date

Received  
Office of Oil & Gas  
AUG 03 2015

8510239

WW-2A Surface Waiver

SURFACE OWNER WAIVER

County 085-Ritchie

Operator Jay-Bee Oil & Gas, Inc.

Operator well number Pluto 1A

**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 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 **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

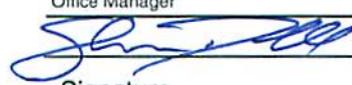
FOR EXECUTION BY A CORPORATION, ETC.

\_\_\_\_\_  
Signature

Date \_\_\_\_\_

Company Name Jay Bee Yard, LLC  
By Shane Dowell 7-30-2015  
Its \_\_\_\_\_ Date

\_\_\_\_\_  
Print Name

Office Manager  
  
Signature Date 7-30-15

Received  
Office of Oil & Gas

AUG 03 2015

**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
Jay Bee Yard, LLC	Jay Bee Yard, LLC	12.5%	322-498
Jay Bee Yard, LLC	Jay-Bee Oil & Gas, Inc.	Affidavit	

SEE AFFIDAVIT.

**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  
Office of Oil & Gas

AUG 03 2015

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:

Jay-Bee Oil & Gas, Inc.

Shane Dowell

Office Manager



**AFFIDAVIT FILED PURSUANT TO  
W. Va. CODE §§ 22-6-8 & 22-6A-5(a)(5)**

STATE OF WEST VIRGINIA

COUNTY OF RITCHIE, to-wit:

Randy Broda, President of Jay-Bee Oil & Gas, Inc. and Randy Broda, Managing Member of Jay Bee Yard, being duly sworn, state as follows:

1. I, Randy Broda, am the President of the applicant, Jay-Bee Oil & Gas, Inc. In my capacity as President, I am qualified and authorized to certify and verify the information set forth or referenced herein on behalf of the applicant.

2. I, Randy Broda, am the Managing Member of Jay Bee Yard, LLC, which holds the rights to extract, produce or market the oil or gas. In my capacity as Managing Member, I am qualified and authorized to certify and verify the information set forth or referenced herein on behalf of Jay Bee Yard, LLC.

3. We certify that we are authorized by the holders of the right to extract, produce or market the oil or gas, if not the applicant, to state that the applicant has the right to extract, produce or market the oil or gas pursuant to the leasing and other continuing contract information provided in the application(s) for the Pluto 1A well (API No(s). to be determined), on Form WW-6A1.

4. We certify that we are authorized by the owner of the working interest in the well to state that it shall tender to the owner of the oil or gas in place not less than one eighth of the total amount paid to or received by or allowed to the owner of the working interest at the wellhead for the oil or gas so extracted, produced or marketed before deducting the amount to be paid to or set aside for the owner of the oil or gas in place, on all such oil or gas to be extracted, produced or marketed from the well.

5. We certify under the penalty of law that we have personally examined and are familiar with the information contained and referenced herein and that, based on our inquiries of those individuals immediately responsible for obtaining the information, we believe that the information is true, accurate and complete. We are aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Further, affiants sayeth naught.

[Signature]  
Randy Broda, President of Jay-Bee Oil & Gas, Inc.

Taken, subscribed and sworn to before me, the undersigned Notary Public, this 31<sup>st</sup> day of July, 2015 by Randy Broda, President of Jay-Bee Oil & Gas, Inc., on behalf of the corporation.

My commission expires: October 9<sup>th</sup> 2019.

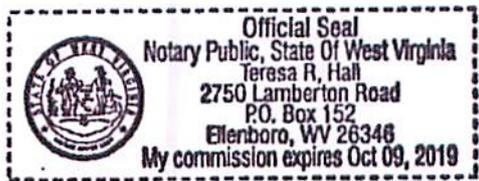
[Signature]  
NOTARY PUBLIC

[Signature]  
Randy Broda, Managing Member of Jay Bee Yard, LLC

Taken, subscribed and sworn to before me, the undersigned Notary Public, this 31<sup>st</sup> day of July, 2015 by Randy Broda, Managing Member of Jay Bee Yard, LLC, on behalf of the company.

My commission expires: October 9<sup>th</sup> 2019.

[Signature]  
NOTARY PUBLIC



WW-2B1  
(5-12)

Well No. Pluto 1A

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 Reliance Labs  
Sampling Contractor 2044 Meadowbrook Rd, Bridgeport, WV 26330

Well Operator Jay-Bee Oil & Gas, Inc.  
Address 3570 Shields Hill Rd  
Cairo, WV 26337  
Telephone 304-628-3111

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 ATTACHMENT

Received  
Office of Oil & Gas  
AUG 03 2015

Pluto 1A 2000' Water Sampling Radius

Name	Address	Phone	TM/P
Camp Hope	601 E MAIN ST HARRISVILLE WV 26362 6313	304-643-2878	M19 P1.1
Jay Bee Yard, LLC	1720 Route 22 E, Union, NJ 07083	304-628-3111	M28 P1
Simonton Building Products, Inc	1 COCHRANE AVE PENNSBORO WV 26415 9404	304-659-2901	M28 P3
First Apostolic Church of Harrisville	601 E MAIN ST HARRISVILLE WV 26362 6313	304-643-2878	M28 P1.3
Charles & Penny Copeland	P O BOX 163 ELLENBORO WV 26346 0235	304-869-3053	M28 P61

Each contact listed above are candidates for water well testing within 2000' of the Pluto 1A well. Jay Bee Yard, LLC will sample if there is no response from any contact.

8510239

WW-9  
(2/15)

API Number 47 - \_\_\_\_\_ - \_\_\_\_\_  
Operator's Well No. Pluto 1A

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Jay-Bee Oil & Gas, Inc. OP Code 24610

Watershed (HUC 10) Hushers Run Quadrangle Ellenboro 7.5

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

Will a pit be used? Yes  No

If so, please describe anticipated pit waste: Drill cuttings, flowback water

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Undergound Injection ( UIC Permit Number UIC2D0859721 )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: No

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? Drilling Soap if necessary

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Leave in Pit

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

-Landfill or offsite name/permit number? N/A

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

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 *Shane Dowell*

Company Official (Typed Name) Shane Dowell

Company Official Title Office Manager

Received  
Office of Oil & Gas  
AUG 03 2015

Subscribed and sworn before me this 30<sup>th</sup> day of July

Teresa R. Hall

My commission expires October 9<sup>th</sup> 2019

2015

Notary Public

Official Seal  
Notary Public, State Of West Virginia  
Teresa R. Hall  
2750 Lamberton Road  
P.O. Box 152  
Ellenboro, WV 26346  
My commission expires Oct 09, 2019

Official Seal  
Notary Public, State of West Virginia  
Teresa R. Hall  
3750 Lamerton Road  
PO Box 152  
Elmhurst, WV 26348  
My commission expires Oct 09, 2019



Jay-Bee Oil & Gas, Inc.

Proposed Revegetation Treatment: Acres Disturbed 4.5 Prevegetation pH 5.5-7.5

Lime 2-4 Tons/acre or to correct to pH 5.5-7.5

Fertilizer type 10/20/29

Fertilizer amount 300 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type lbs/acre

Seed Type lbs/acre

See Page 2 - Survey Sheets

See Page 2 - Survey Sheets

Attach:

Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

*David W. Lawson*

Comments:

*prescribed mulch all cut area no less than 2 tons per acre maintain all C&S during operation*

Received  
Office of Oil & Gas

AUG 03 2015

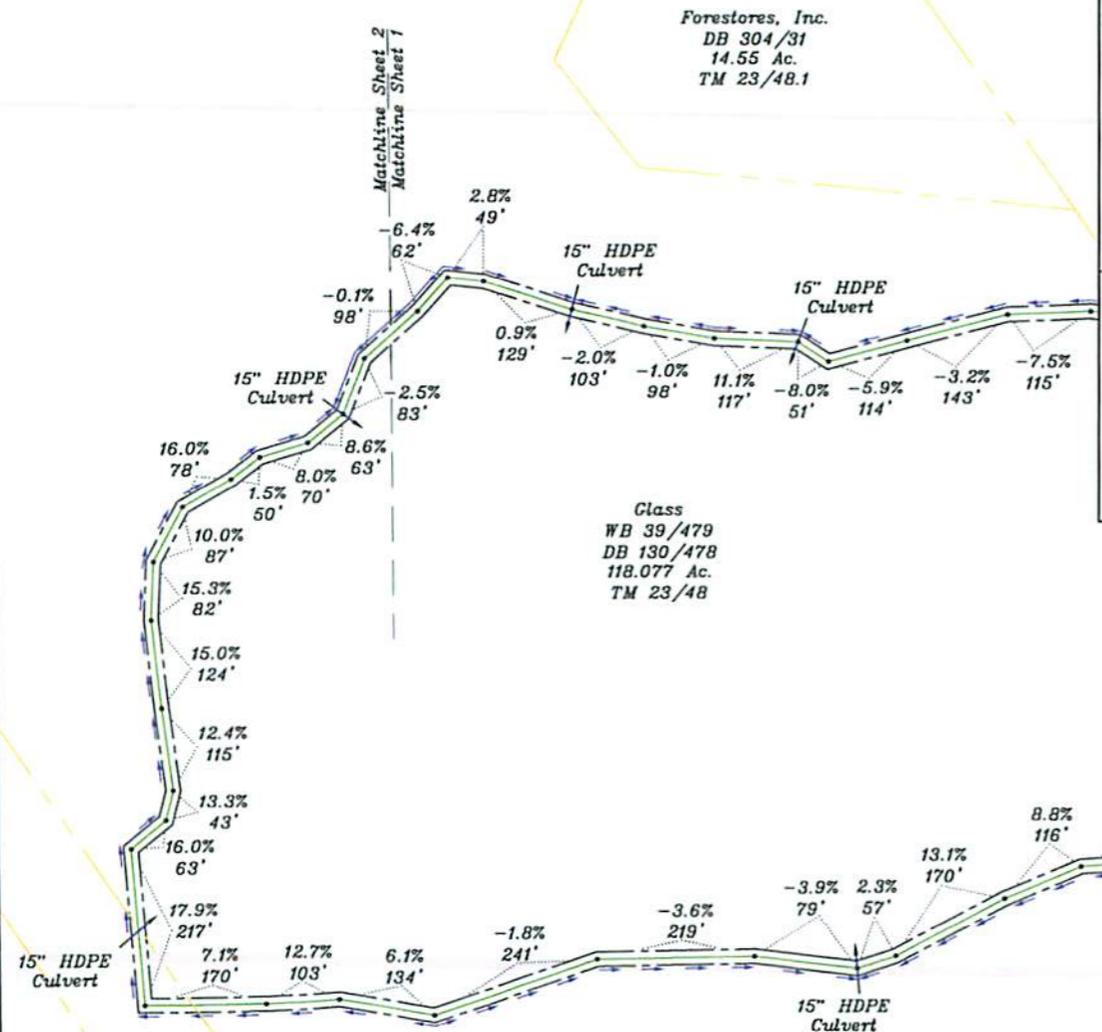
Title: Oil & Gas Inspector

Date: 7-31-15

Field Reviewed?  Yes  No



8520158



Species/Mature	Seeding Rate (bu/acre)	Soil Drainage Preference	pH Range
KY Bluegrass/ Redtop	20	Well - Mod. Well	5.5 - 7.5
Ladino Clover or Birdfoot Trefoil	2-10		
Timothy	5	Well - Mod. Well	5.5 - 8.0
Alfalfa	12	Well - Mod. Well	5.5 - 8.0
Timothy/ Birdfoot Trefoil	5	Well - Mod. Well	5.5 - 7.5
Orchardgrass/ Ladino Clover/ Redtop	10/2/3	Well - Mod. Well	5.5 - 7.5
Orchardgrass/ Ladino Clover	10/2	Well - Mod. Well	5.5 - 7.5
Orchardgrass/ Perennial Ryegrass	20/10	Well - Mod. Well	5.5 - 7.5
Creeping Red Fescue/ Perennial Ryegrass	30/10	Well - Mod. Well	5.5 - 7.5
Orchardgrass or Kentucky Bluegrass	20/10	Well - Mod. Well	6.0 - 7.5
Birdfoot Trefoil/ Redtop	10/5	Well - Mod. Well	5.5 - 7.5
Orchardgrass	20	Well - Mod. Well	5.5 - 7.5
Lathco Flat Pea/ Perennial Ryegrass	30/20	Well - Mod. Well	5.5 - 7.5
Lathco Flat Pea/ Orchardgrass	30/20	Well - Mod. Well	5.5 - 7.5

Table IV-5. Lime and Fertilizer Application Table

pH of Soil	Lime in Tons Per Acre	Fertilizer, Lbs. per Acre	19-20-20, or Equivalent
Above 6.0	2		500
5.0 to 6.0	3		500
Below 5.0	4		500

The pH can be determined with a portable pH testing kit or by sending the soil samples to a soil testing laboratory. When 4 tons of lime per acre are applied it must be incorporated into the soil by disking, backhoeing or treading up and down the slope.

Table IV-6. Mulch Materials Rates and Uses

Material	Minimum Rates Per Acre	Coverage	Remarks
Hay or Straw	2 to 3 Tons	Cover 75% to 90% of Surface	Subject to Wind blowing or washing unless tied down
Wood Fiber	1000 to 1500 lbs	Cover all	For Hydroseeding
Pulp Fiber		Disturbed Areas	
Wood-Cellulose Recycled Paper			

Table IV-1. Recommended seeding dates for permanent and temporary cover unless otherwise specified

Planting Dates	Suitability
March 1 - April 15 and August 1 - October 1	Best seeding periods
April 15 - August 1	HIGH RISK - moisture stress likely
October 1 - Dec. 1	HIGH RISK - Freeze damage to young seedlings
Dec. 1 - March 1	Good seeding period. Dormant seeding.

Table 2. Acceptable fertilization recommendation in absence of a soil test

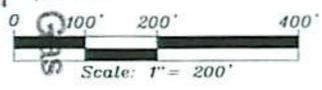
Species	N (lb/acre)	P2O5 (lb/acre)	K2O (lb/acre)	Example Rec. (per acre)
Cool Season Grass	40	80	80	400 lbs. 10-20-20
CS Grass & Legume	30	60	60	300 lbs. 10-20-20
Temporary Cover	40	40	40	200 lbs. 19-19-19

Table 3. Temporary cover suitable for establishment in West Virginia

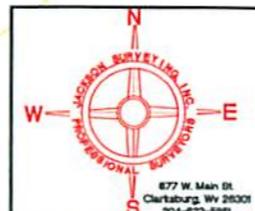
Species	Seeding Rate (bu/acre)	Optimum Seeding Date	Drainage	pH Range
Annual Ryegrass	40	3/1 - 6/15 or 8/15 - 9/15	Well - Poorly	5.5 - 7.5
Field Bromegrass	40	3/1 - 6/15 or 8/15 - 9/15	Well - Mod. Well	6.0 - 7.0
Spring Oats	90	3/1 - 6/15	Well - Poorly	5.5 - 7.0
Sudangrass	40	5/15 - 8/15	Well - Poorly	5.5 - 7.5
Winter Rye	168	9/15 - 10/15	Well - Poorly	5.5 - 7.5
Winter Wheat	180	9/15 - 11/15	Well - Mod. Well	5.5 - 7.0
Japanese Millet	30	6/15 - 8/15	Well	4.5 - 7.0
Redtop	5	3/1 - 6/15	Well	4.0 - 7.5
Annual Ryegrass	25	3/1 - 6/15	Well - Poorly	5.5 - 7.5
Spring Oats	64	3/1 - 6/15	Well - Poorly	5.5 - 7.5

NOTE: These rates should be increased by 50% if planted April 15 - August 1 and October 1 - March 1.

Received  
Office of Oil & Gas  
AUG 03 2015



dba. Fisher Engineering  
Dennis L. Fisher, RPE  
PO Box 281  
Philippi, WV 26416  
Cell: 304-677-4129  
E-Mail: Fisher.Engineering@gmz.com

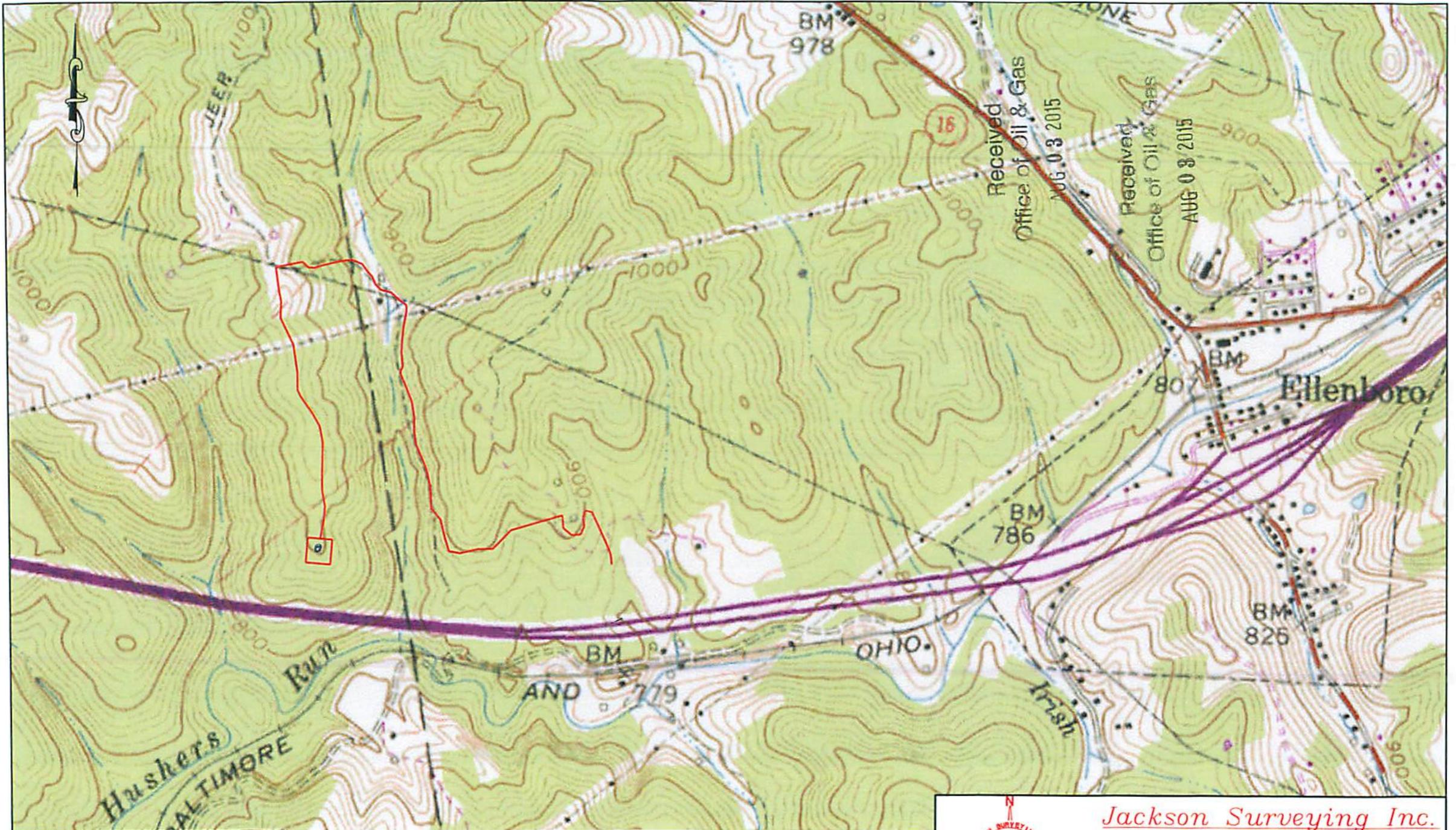


Jackson Surveying Inc.

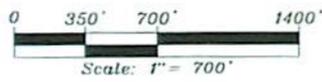
PLUTO #1A WELL

DW  
7-31-15

8510239



Jay Bee  
Oil & Gas  
**DRILLING**  
into the future



dba. Fisher Engineering  
Dennis L. Fisher, RPE  
PO Box 281  
Philippi, WV 26416  
Cell: 304-677-4129  
E-Mail: Fisher.Engineering@gmx.com



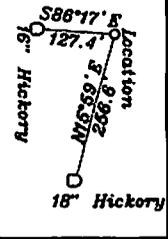
*Jackson Surveying Inc.*

PLUTO #1A TOPO

Page 3 of 3

*Done 7-31-15*

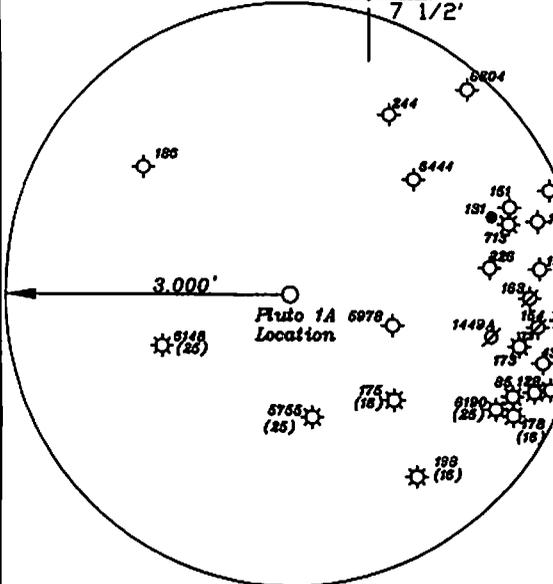
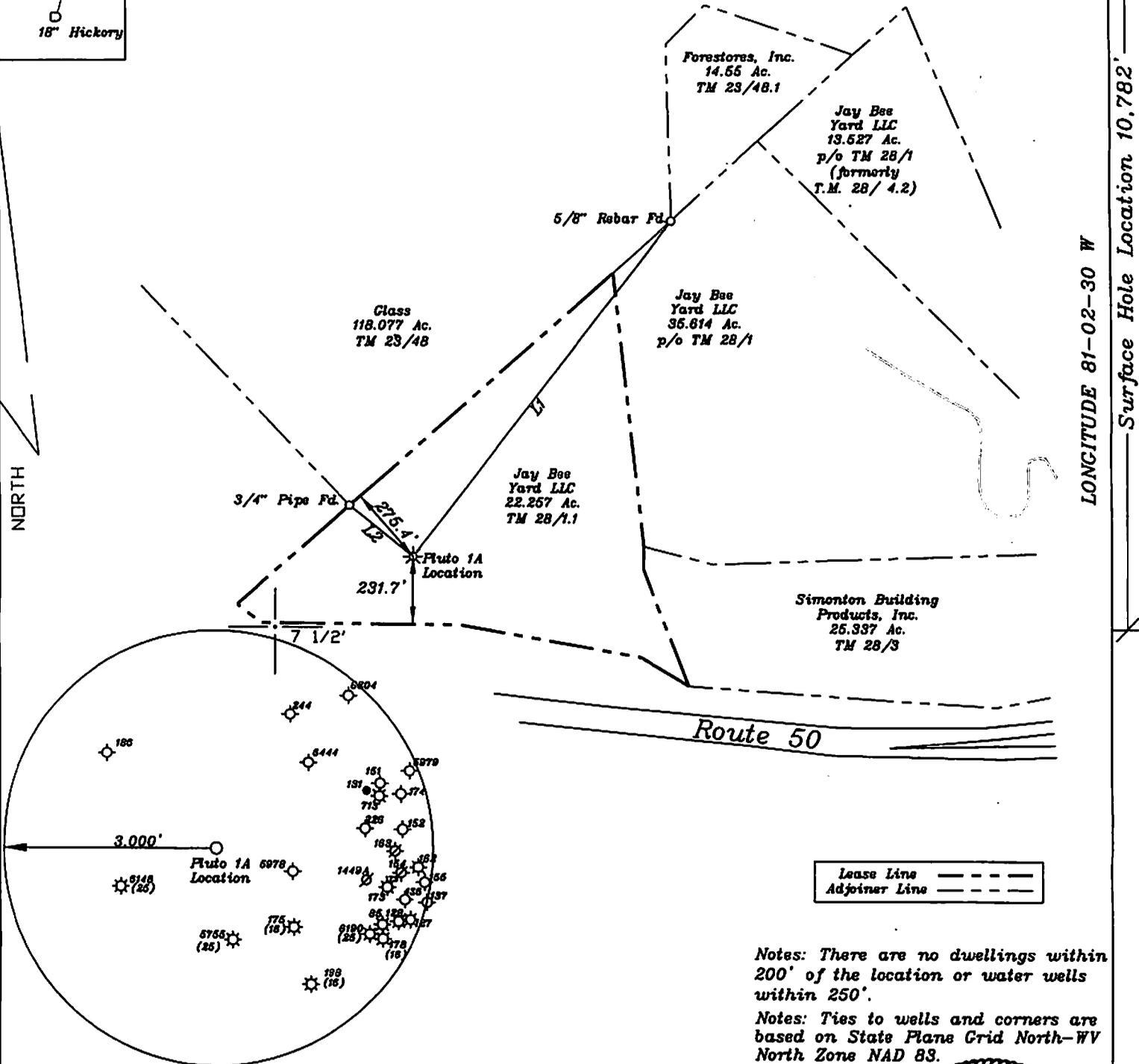
References



L1	S38°02' W	1466'
L2	S51°09' E	280'

LATITUDE 39-17-30 N

Surface Hole Location  
 UTM NAD 83(Feet)-14257877.0 N, 1617253.7 E  
 UTM NAD 83(Meters)-4345809.6 N, 492939.9 E  
 Geo NAD 83 - 39.261592 N, 81.081835 W



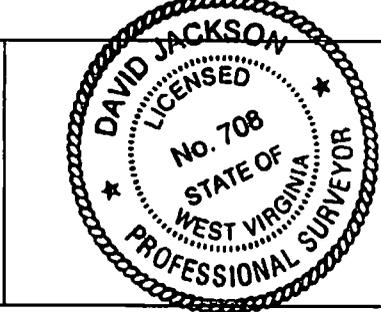
Lease Line - - - - -  
 Adjoiner Line - - - - -

Notes: There are no dwellings within 200' of the location or water wells within 250'.  
 Notes: Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 83.

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

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION GPS  
submeter unit

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.  
 (SIGNED) David Jackson  
 R.P.E. \_\_\_\_\_ L.L.S. 708



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

DATE August 10, 2015  
 OPERATOR'S WELL NO. Pluto 1A  
 API WELL NO. \_\_\_\_\_

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

LOCATION: ELEVATION 1,004' WATER SHED Hushers Run  
 DISTRICT Clay COUNTY Ritchie  
 QUADRANGLE Ellenboro 7 1/2'

SURFACE OWNER Jay Bee Yard LLC ACREAGE 22.257 Ac.  
 OIL & GAS ROYALTY OWNER Jay Bee Yard LLC LEASE ACREAGE 22.257 Ac.  
 LEASE NO. 1-44A

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON CLEAN OUT AND REPLUG  
 TARGET FORMATION Helderberg ESTIMATED DEPTH 7,500'  
 WELL OPERATOR Jay Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda  
 ADDRESS 1720 Rt. 22, East Union, NJ 07083 ADDRESS Route 1, Box 5, Cairo, WV 26337





**JAY-BEE OIL & GAS, INC.**

August 19, 2015

Permitting Office  
Office of Oil and Gas  
West Virginia Dept. of Environmental Protection  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

RE: Pluto 1A Location Exception Letter

Permitting Office:

Jay-Bee Oil & Gas, Inc. is seeking authorization to drill a vertical Oriskany deep well, with a total depth reaching the Helderberg.

Realizing that the typical boundary is 400' from the boundary of a lease line or unit, we are requesting a hearing to be able to complete this specific deep well within 231.7' and 275.4' from the closest boundaries.

If you would have any questions concerning this matter, please feel free to contact our office at the numbers listed below.

Sincerely,

Shane Dowell  
Office Manager



---

west virginia department of environmental protection

---

Oil and Gas Conservation Commission  
601 57<sup>th</sup> Street, SE Charleston, WV 25304  
(304)926-0499, Ext 1656

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

October 14, 2015

Department of Environmental Protection  
Office of Oil and Gas  
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-085-10239

COMPANY: Jay-Bee Oil & Gas, Inc.

FARM: Jay Bee Yard LLC – Pluto 1A

COUNTY Ritchie DISTRICT: Clay QUAD: Ellenboro

The application for the above company is **approved to drill to Helderberg (with Oriskany completion).**

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners; yes
2. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells, well name, and the name and address of the operator; none
3. Provided a plat showing that the proposed location is a distance of <400\* feet from the nearest **lease line** or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

Cindy Raines  
Executive Assistant

\*Docket 235-225 - Exception location hearing

4708510235 46681

API # \_\_\_\_\_

Operator: Jay-Bee Oil & Gas, Inc. \_\_\_\_\_

Well #/Name: Pluto 1A \_\_\_\_\_

Reviewed By: \_\_\_\_\_

End of Comment Period: \_\_\_\_\_

90000

CHECKLIST FOR FILING A PERMIT  
(Not for horizontal H6A wells)

I. New Drill

- WW-2B
- WW-2B signed off by inspector
- WW-2A
- Certified Mail Receipts or affidavit of personal service
- Surface Owner Waiver
- Coal Owner/Lessee/Operator Waiver
- WW-2A (1) including page and book and royalty percentage
- WW-2B (1) (If there are sources to be tested – we need names, addresses and location on topo listed as water testing)
- WW-9 (page 1 and 2)
- Inspector Signature on WW-9
- Reclamation Plan
- Mylar Plat
- Topography Map of the proposed location
- Well Site Safety Plan
- N/A Database for Coal Depths, Permits, Boundaries
- Bond
- A check for \$650.00 shallow well, \$900.00 Deep well
- Workers Comp/Employ/Registered with the SOS. OK

Received  
Office of Oil & Gas

AUG 03 2015

# PLUTO 1A

---

# WELL SITE SAFETY PLAN

JAY-BEE OIL & GAS, INC

Received  
Office of Oil & Gas  
AUG 03 2015

*David Wilson*  
7-31-15

# Table of Contents

---

## Contacts, Schedules, and Meetings

Operator Information.....	Page 1
Emergency Contacts.....	Page 1
Additional Contacts.....	Page 1
Schools Public Facility (1 Mile).....	Page 1
Public Notification Process.....	Page 1
Pre-Spud Meeting Process.....	Page 2
Daily Site Safety Meeting Process.....	Page 2

## Maps and Diagrams

Location Coordinates and Road Information.....	Page 2
Evacuation Plan.....	Page 3
Location Map.....	Page 4
Topographic Map of Location.....	Page 5

## Well Work

Well Work Details.....	Page 6
Emergency Services Notification Process.....	Page 7

## Chemical Inventory & MSDS

Material Safety Data Sheets.....	Page 7
----------------------------------	--------

## BOP and Well Control

BOP Equipment Specs.....	Page 7
BOP Testing Procedures.....	Page 7
Well Control Training.....	Page 8
Drilling Issues Procedures.....	Page 8
Kill Procedures.....	Page 8

## Hydrogen Sulfide (H<sub>2</sub>S)

Detection/Monitoring Procedures.....	Page 10
Notification Process.....	Page 10
PPE.....	Page 10

## Deep Well Additional Requirements

List of Anticipated Zones.....	Page 11
Detailed Casing Program.....	Page 11
Flaring Activities.....	Page 12
1 Mile Radius Notification Information.....	Page 14

## Appendix

Misc Documents to Accompany This Site Safety Plan.....	Appendix
--	----------



**JAY –BEE OIL & GAS INC**  
**3570 SHIELDS HILL RD**  
**CAIRO, WV 26337**  
**OFFICE (304) 628-3111**  
**FAX (304) 628-3107**

**WELL SITE DRILLING PROCEDURES AND SITE SAFETY PLAN**  
**Per 35CSR8/§22-6A**

(Any changes or modifications to previously approved plans must be approved by the West Virginia Department of Environmental Protection - Office of Oil and Gas)

<b>Well Name</b>	Pluto 1A
<b>Well Pad</b>	Pluto 1A Pad
<b>24hr Emergency Contact</b>	Donnie Lindsey – Safety Manager 304-203-5773
<b>Operator Contacts</b>	Roy Lemasters 304-904-8625 Andrew Neill 740-885-9635 Terry Coleman 304-679-8516 Jim Layfield 304-904-2821 Travis Yost 304-904-7228
<b>Contractor Contacts</b> <small>(updated list will be on file on location)</small>	UWS – Harry Berry 304-552-7264 C&J - Chuck Barnett 304-884-6684 Newalta - Wayne Clark 403-806-7110
<b>DEP Contacts</b>	Ritchie DEP Inspector – Michael Goff 304-389-3509 Doddridge DEP Inspector - Doug Newlon 304-932-8049
<b>Local Emergency and Hospital Contacts</b>	911 Center Dispatch Center - 304-659-2979 Sheriff - 304-643-2262 LEPC – Bill Bayless 304-869-3244 Cairo Fire Department 304-628-3312 Ellenboro Fire Department 304-869-3244 Harrisville Fire Department 304-643-2330 Pennsboro Fire Department 304-659-3969 Smithfield Fire Department 304-477-3423
<b>Schools/Public Facilities (1 mile radius)</b>	Ritchie County Middle and High School
<b>Notification of Public of H2S</b>	See the Appendix for list of local contacts. When H2S is applicable to our drilling process, the local contacts and the emergency contacts will be notified of such operations.

## SAFETY PLAN MEETINGS/SCHEDULES

A pre-spud meeting will be held prior to beginning drilling operations and will include prior notice to the county oil and gas inspector or other designated Office of Oil and Gas representative. The attendance log can be found in the appendix.

Regularly scheduled on site safety meetings will be conducted each morning to discuss the planned daily activity. Documentation will be maintained to keep an accurate record of attendance. There will also be a safety meeting scheduled prior to any critical operation.

An accurate headcount of personnel shall be maintained by the supervisor for each shift. There will be a sign posted at the entrance to the well location advising that any person entering the premises will immediately report to the Jay Bee Oil & Gas representative on site and sign the "Check-In and Check-Out" roster. The company representative will maintain the roster to provide an accurate headcount of personnel and visitors on location at any time.

## NOTIFICATION AND PROTECTION ZONES STANDARDS

1. A method of notification to all residents and emergency response personnel who may be affected by specific events during the operation. Such events may include, without limitation, the presence of hydrogen sulfide, blow-outs, and flaring.

As previously mentioned, the site supervisor will maintain a list of all residents in the area which includes their contact information and directions to their houses. The site supervisor will designate an individual to be in charge of contacting area residents in case of an incident. Additionally, the local 911 center will be contacted to ensure proper notification of emergency response personnel.

2. The operator should establish and maintain protection zones during applicable events and working environments.

The site supervisor will establish and maintain above mentioned zones.

## LOCATION INFORMATION

<b>Latitude/Longitude Well Location</b>	Northing 4,345,809.6 Easting 492,939.9
<b>Latitude/Longitude Road Entrance</b>	Northing 4,345,656.7 Easting 493,677.5
<b>Public Road</b>	WV50

<b>Directions to Well</b>	From WV 50 and WV16, travel west on WV50 for approximately 1 mile. Turn right onto Simonton Rd (parking lot of Simonton Windows). Continue straight onto our lease road.
---------------------------	--

**EVACUATION PLAN**

In the unlikely event an evacuation should become necessary, all personnel will gather at a predetermined safe briefing area. The area for this site is identified as:

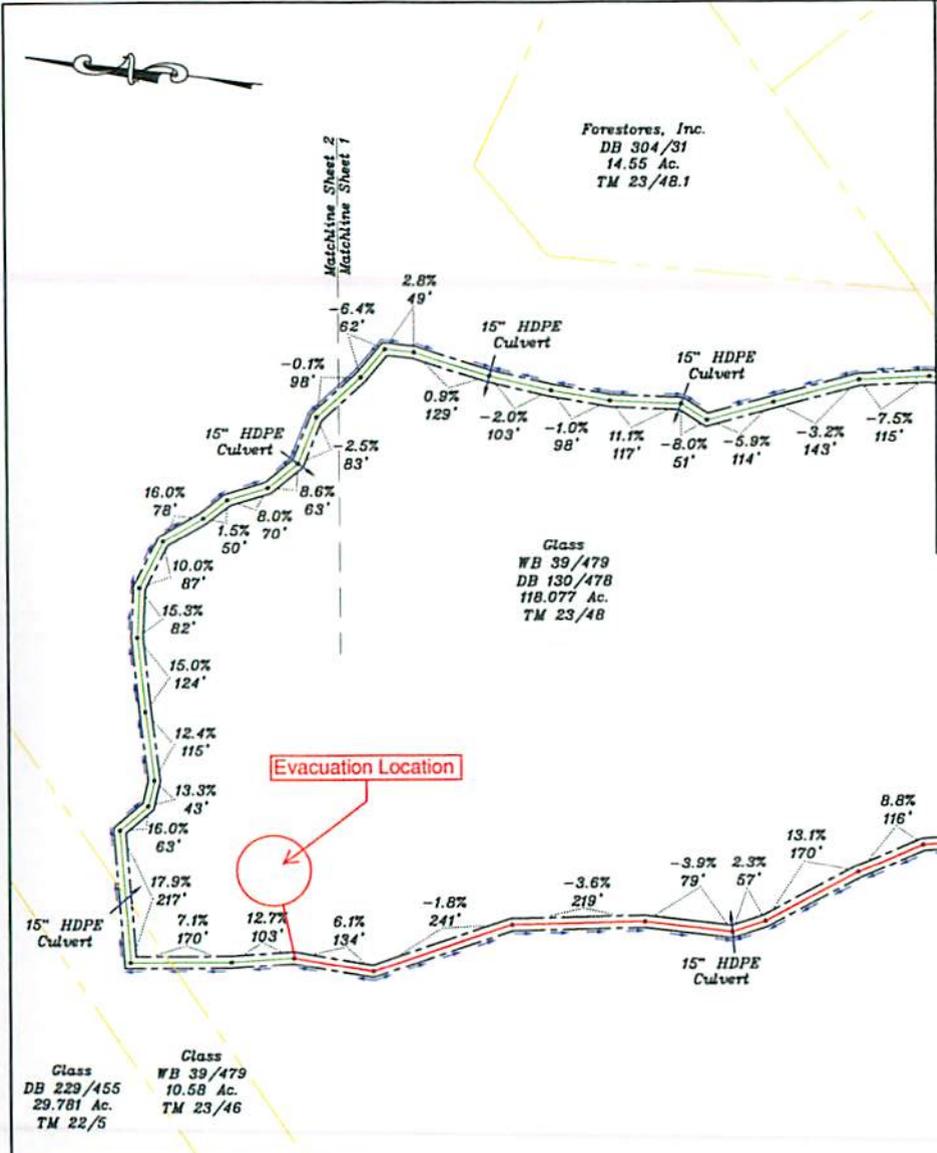
There will be signs for two evacuation routes and at the end of each of these routes there will be a gathering area. On the evacuation route signs there will be arrows pointing in the direction to travel.

An *immediate* head count will be taken by the site supervisor and the location of each individual will be determined. The situation will be assessed with immediate response and emergency calls as needed. The site supervisor will send an employee or other representative to the nearest county road access to prevent unauthorized personnel from entering the location and to direct emergency response personnel to the site. If required, the site supervisor will send an employee or other representative(s) to contact all surrounding residents and shall also go door-to-door, if necessary.

Jay Bee Oil & Gas Inc will maintain first aid kits on site. Site personnel will maintain current First Aid/CPR training as a requirement of their training process.

**LOCATION MAP AND TOPOGRAPHIC MAP**

The following pages include the location map and topographic map of the location including the evacuation plan.



Establishment	Seeding Rate (lb/acre)	Soil Drainage Preference	pH Range
KT Bluegrass	30		
Redtop	5	Well - Mod Well	5.5 - 7.5
Ladino Clover or Birdfoot Trefoil	2/10		
Timothy	5		
Alfalfa	12	Well - Mod Well	6.5 - 8.0
Timothy	5		
Birdfoot Trefoil	6	Well - Poorly	5.5 - 7.5
Orchardgrass	10		
Ladino Clover	2	Well - Mod Well	5.5 - 7.5
Redtop	2		
Orchardgrass	10		
Ladino Clover	2	Well - Mod Well	5.5 - 7.5
Orchardgrass	20	Well - Mod Well	5.5 - 7.5
Perennial Ryegrass	20	Well - Mod Well	5.5 - 7.5
Creeping Red Fescue	30		
Perennial Ryegrass	18	Well - Mod Well	5.5 - 7.5
Orchardgrass or Kentucky Bluegrass	20	Well - Mod Well	5.5 - 7.5
Birdfoot Trefoil	10		
Redtop	5	Well - Mod Well	5.5 - 7.5
Orchardgrass	30		
Ladino Flat Pea	30		
Perennial Ryegrass	20	Well - Mod Well	5.5 - 7.5
Ladino Flat Pea	30		
Orchardgrass	20	Well - Mod Well	5.5 - 7.5

Table 1/5: Lime and Fertilizer Application Table

pH of Soil	Lime (Tons Per Acre)	Fertilizer (Lbs. per Acre)	10-20-20 or Equivalent
Above 6.0	2	500	
5.5 to 6.0	3	500	
Below 5.0	4	500	

Do not use this document with a variable pH zoning map or to modify the soil analysis to a soil testing laboratory other than the one for which the analysis was performed into the soil by adding additional samples on soil from the slope.

Table 1/6: Mulch Materials Rates and Uses

Material	Minimum Rates Per Acre	Coverage	Remarks
Hay or Straw	2 to 3 Tons	Cover 75% to 100% of Surface	Subject to Wind Blowing or washing unless tied down
Wood Chips	1000 to 1500 lbs	Cover all	For Hydroseeding
Pulp Fiber		Disturbed Areas	
Wood-Chips			
Recycled Paper			

Table 1/1: Recommended seeding dates for permanent and temporary cover unless otherwise specified.

Planting Date	Suitability
March 1 - April 15 and August 1 - October 1	Best seeding periods
April 15 - August 1	HIGH RISK - moisture stress likely
October 1 - Dec. 1	HIGH RISK - freeze damage to young seedlings
Dec. 1 - March 1	Good seeding period. Dormant seeding.

Table 2: Acceptable fertilization recommendation is absence of a soil test.

Species	N (lb/acre)	P2O5 (lb/acre)	K2O (lb/acre)	Example Rate (per acre)
Cool Season Grass	40	80	80	400 lb 10-20-20
CS Grass & Legume	30	60	60	300 lb 10-20-20
Temporary Cover	45	45	45	200 lb 19-19-19

Table 3: Temporary cover suitable for establishment in West Virginia

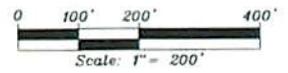
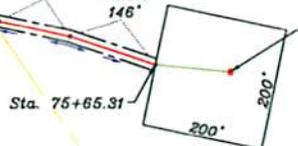
Species	Seeding Rate (lb/acre)	Optimum/Gooding Rate	Drainage	pH Range
Annual Ryegrass	40	3/1 - 6/15 or 6/15 - 8/15	Well - Poorly	5.5 - 7.5
Field Brome	40	3/1 - 6/15 or 6/15 - 8/15	Well - Mod Well	5.0 - 7.0
Spring Oats	55	5/1 - 6/15	Well - Poorly	5.5 - 7.0
Sudangrass	40	5/15 - 8/15	Well - Poorly	5.5 - 7.5
Winter Rye	168	8/15 - 10/15	Well - Poorly	5.5 - 7.5
Winter Wheat	160	5/15 - 7/15	Well - Mod Well	5.5 - 7.0
Japanese Millet	35	6/15 - 8/15	Well	4.5 - 7.0
Redtop	5	5/1 - 6/15	Well	4.0 - 7.5
Annual Ryegrass	25	5/1 - 6/15	Well - Poorly	5.5 - 7.5
Spring Oats	54	3/1 - 6/15	Well - Poorly	5.5 - 7.5

NOTE: These rates should be increased by 50% if planted April 15 - August 1 and October 1 - March 1.

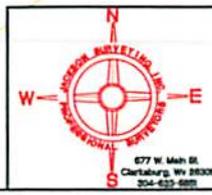
Jay Bee Yard LLC  
DB 322/498  
22.257 Ac.  
TM 28/1.1

Wind Direction

Proposed Pluto #1A Well



dba. Fisher Engineering  
Dennis L. Fisher, RPE  
PO Box 281  
Phillippi, WV 26416  
Cell: 304-677-4129  
E-Mail: Fisher.Engineering@gms.com



Jackson Surveying Inc.

PLUTO #1A WELL

DHR

## **WELL WORK DETAILS: DRILLING METHOD**

The well will be drilled in one phase: Vertical to Total Depth (TD).

The vertical portion of the well will be drilled following the casing and cementing guidelines found later in this plan. The Conductor, Fresh Water, Intermediate and Production holes will be drilled in this process. The Total Depth (TD) of this well is set at 7,500'.

## **WELL WORK DETAILS: WELLBORE CASING AND CEMENTING STANDARDS**

The location, if applicable, of all freshwater, saltwater, oil and gas producing, hydrogen sulfide producing, thief, and high pressure and volume zones are known to the operator.

### **Per Casing & Cementing Standards:**

- All casings used in the wellbore must be new.
- Centralizers must be used during casing installations.
- Cements must meet API standards.
- A conductor must be cemented to the surface from the bottom if freshwater is behind it and conductor must remain in the well.
- At least 300 feet of surface casing shall be installed (unless, oil, gas or saltwater encountered) and must be cemented to the surface.
- Surface casing that is more than 300 feet deep shall be installed at least 50 feet and no more than 100 feet below the deepest freshwater strata and must be cemented to surface.
- Intermediate casing must be cemented to the surface. Production casing, at a minimum, must be installed and cemented at least from the top of target formation to a point 100 feet up inside the intermediate casing.
- All casings cemented shall not be disturbed for at least 8 hours after cementing operations.
- Surface and coal protection casings must be pressure tested at a pressure 20% greater than is expected to have exerted upon them and a cement quality log is conducted.
- Section of the wellbore for the conductor, surface, and coal protection strings drilled using only air, freshwater, or freshwater based drilling medium.
- No oil or gas production or pressure should exist on the surface or coal protection strings.
- Intermediate casing shall be pressure tested in the same manner as above except a shoe or jug test shall be conducted immediately after drilling resumes.
- Production casing must be pressure tested at a pressure 20% greater than is expected to have exerted upon it during the fracturing operations and have a bond log ran.
- Production casing pressure testing again, after fracturing, at a pressure 20% greater than the expected shut in pressure.

## **WELL WORK DETAILS: FRACTURING AND STIMULATION METHODS**

150-300' per stage 8,000gals of acid, pump at 8 gallons a minute, not to exceed maximum production casing pressure.

**A copy of this plan will be provided to the local emergency planning committee or county emergency services offices at least 7 days prior to land disturbance from well work.**

## **CHEMICAL INVENTORY & MSDS**

Material Safety Data Sheets (MSDS) for all materials and chemicals on the well site shall be maintained on the well site and will be readily accessible. The MSDS shall be maintained by the site supervisor. The MSDS sheets can also be submitted with this plan electronically.

## **WELL CONTROL AND BLOW-OUT PREVENTER (BOP) STANDARDS**

1. List of BOP equipment and casing heads with types, sizes, and ratings, to be utilized and available during the drilling of the well:
  - 8 5/8" Well Head 5k
  - 11" Flow Cross 5k, with 2 2 9/16" 5k Gate Valves
  - 11" 5k Schaffer Annular
  - Washington Rotating Head

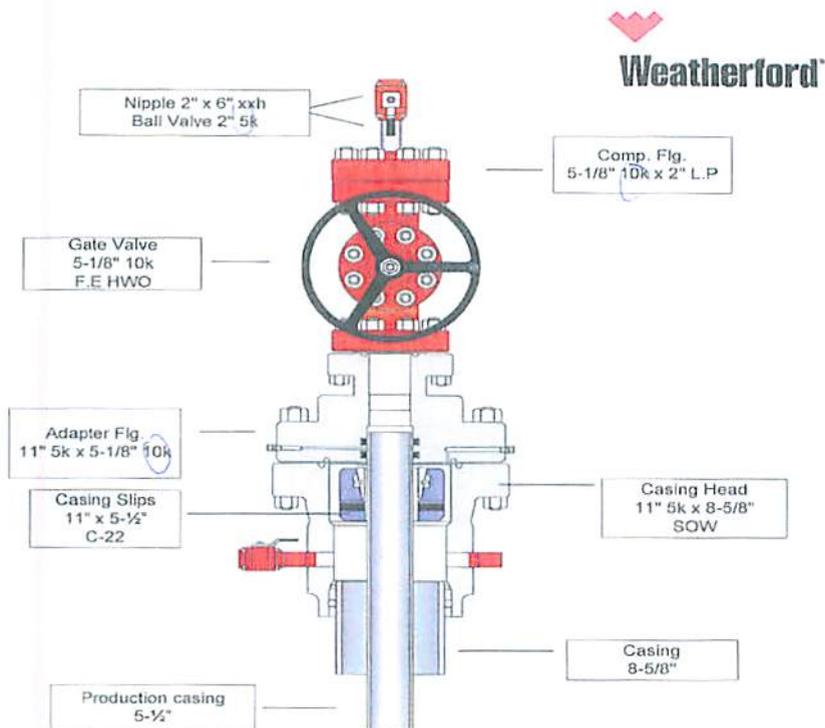
2. The procedure and schedule for testing the BOP stack.

On each new horizontal well to be drilled, we first lay all pieces of BOP and pressure equipment out and visually inspect each piece for damages. If pieces are damaged or worn, they are immediately replaced. Once BOP and pressure equipment is visually inspected and found to be in good visual condition, it is then nipped up and function tested. After we rig up, we then set a test plug in the 8 5/8" well head and the annular is pressure tested to 70% capacity.

3. A schedule for BOP equipment installation and operation on the applicable casing string. BOP will be installed and tested before horizontal drilling starts, weekly and after each bit trip. The BOP will be tested every 21 days thereafter, to the procedures listed in section 2.
4. A list of all personnel with approved well control training and current certification recognized by the International Association of Drilling Contractors (IADC).
5. A detailed record of significant drilling events, including without limitation lost circulation, the presence of hydrogen sulfide gas, fluid entry, kicks, and abnormal pressures, will be maintained for each 24 hour period. The district oil and gas

pressures, will be maintained for each 24 hour period. The district oil and gas inspector or the designated Office of Oil and Gas representative shall be notified as soon as possible of any unusual drilling events such as large kicks that occur during drilling and although the encounter of hydrogen sulfide gas is not anticipated, there will be a mandatory immediate notification of the Office of Oil and Gas in that event.

6. A schematic and description of the wellhead assembly placed on the well upon completion is attached to this packet.



### WELL KILLING STANDARDS

1. As stated in our chemical inventory section, an inventory of all material that will be on site for the mixing of mud shall be kept. The inventory shall include the amount of mixed mud, mixed mud weight, amount of additional weighting material (i.e. barite or bentonite), and the volume of water for mixing.
2. The number and type of mixing units that will be used for the mixing of mud are as follows:

*Paul*

- **Equipment**
  - 1 – 50hp Mud Pump with hopper loading.
  - 1- 30hp Mud Pump with hopper loading.

- **Material**
  - Barazan D Plus 1.75# / bbl – 55 Bags
  - Salt 90# / bbl - 6 Bags
  - Dextrid LT 4# / bbl - 14 Bags
  - Caustic Soda .15# / bbl - 13 Bags
  - Lime .25# / bbl - 22 Bags
  - Barite 190# / bbl
  - Pac-1 - 50lb bag - 25 Bags
  - Baroid - 2000lb Super Sacks - 10 Bags
  - Bicarbonate of Soda - 50lb bag - 31 Bags
  - Wall-Nut Medium - 50lb bag - 45 Bags
  - Aldacide G - 5 Gal - 26 Cans
  - Defoamer - 5 Gal
  - EZ-Mud - 5 Gal - 24 Cans
  - Quik-Thin 50 lb - 15 Bags
  - Soda Ash - 50 lb - 45 Bags
  - Torq-Trim II - 55 Gal - 3 Drums
  - 950 BBL of Mixed Mud
  - 12-14# Mud Weight
  - 150 BBL of water to maintain mud.

3. The methodology and type of kill procedures as recognized by the IADC.

- Wait and Weight
- Driller Method (*Preferred, explained below*)
- Circulate and Weight
- Concurrent Method
- Reverse Circulation
- Dynamic Kill procedure
- Bullheading
- Volumetric Method
- Lubricate and Bleed

4. Well Killing Method –

- a. Space out the drillstring and sound the alarm
  - Position the Kelly or top drive so that no tool joints are in the preventers
  - If possible, have uppermost tool joint at connection height above rotary table/rig floor
- b. Shut down the rotary/top drive and the pumps
  - Stop rotating
  - Stop the mud pumps
- c. Check for well flow. If well is flowing, continue with next step (4.)
  - If well is not flowing then mix mud that is at least 1ppg heavier than what is in well bore.
  - Pump heavier mud down well at a rate of 50% of previous pumping rates until the entire well bore has heavier mud in it.

- Repeat until well is stable.

d. Shut-in the well

- Close the designated BOP (blowout preventer)
- Ensure the choke is closed
- Open the choke line hydraulic opening valve
  - Verify the well is shut-in and the flow has stopped

## HYDROGEN SULFIDE (H<sub>2</sub>S) OPERATIONS STANDARDS

We will be penetrating the Onondaga formation, our safety measures when drilling in such formations are as follows:

When drilling in areas of *known* H<sub>2</sub>S, rig crews will:

- Be trained in H<sub>2</sub>S safety measures
- Have the appropriate safety equipment
- Use equipment that fits guidelines for H<sub>2</sub>S.
  - H<sub>2</sub>S Sensors on:
    - Drilling Station
    - Drilling Floor
    - Every 50' in a 50' radius around the rig
    - Clipped on Floor Hand Belts
  - An audible siren alarm that is tripped by the sensors
  - Respirators
  - Wind Sock

Any influx into the wellbore should be assumed to contain H<sub>2</sub>S. The size of the influx, amount of under balance, formation character, weather conditions, etc. should be considered when deciding to circulate out or pump away the influx. If the decision is made to circulate out the H<sub>2</sub>S kick, clear the rig floor and restricted area of all unnecessary personnel and take the following additional precautions:

- Rope off the rig substructure – to include BOPs, choke lines, choke manifold and mud return areas – and identify as a restricted area. No one shall enter these areas without proper breathing apparatus, H<sub>2</sub>S monitor, and specific approval from the Toolpusher.
- Continuously monitor the H<sub>2</sub>S concentration level in the **mud returns**.
- The drilling supervisor shall alert affected downwind facilities and population.
- The drilling supervisor shall implement any other precautions deemed necessary.
- When circulating, all personnel involved in the well control operation will mask-up at least 30 minutes prior to bottoms up. The flow from the choke should be diverted through the gas buster and the gas should be flared. The mud stream will return to the active system where any remaining gas can be removed by the degasser and the use of an H<sub>2</sub>S scavenger system.

NOTE: An evacuation plan will be posted on site at all times as mentioned on page 3 of this plan.

A list of emergency contact numbers for the area where the well is located is attached to this document, as mentioned on page 3.

The site supervisor, or an appointed designee, shall work closely with local first responders in the area prior to drilling to familiarize them with potential incidents that are related to oil and gas development so that proper response can be utilized and to help implement the Well Site Safety Plan.

### DEEP WELL ADDITIONAL REQUIREMENT

Below is a list of anticipated freshwater, saltwater, oil and gas, hydrogen sulfide, thief zones, high pressure and volume zones and their expected depths

- Freshwater - 259'
- Saltwater - 1000'
- Big Injun - 1,946'
- Gordon - 2,872'
- Benson - 5,070'
- Marcellus - 6,130'

Possible H2S Zones:

- Onondaga - 6,162'
- Huntersville - 6,520'
- Oriskany - 7,350'
- Helderburg - 7,500'

Below is our casing program for this well:

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	16	New	J55	40	30	30	Grout to Surface
Fresh Water	11 3/4	New	J55	32	310	310	147cf CTS
Coal							
Intermediate	8 5/8	New	J55	24	2,050	2,050	521cf CTS
Production	5 1/2	New	P110	17	7,350	7,350	1273cf CTS
Tubing							
Liners							
TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield	
Conductor	16	17 1/2	.495	3,000#	Class A Cement	1.19CF per Sack	
Fresh Water	11 3/4	15	.333	1,500#	Class A Cement	1.26CF per Sack	
Coal							
Intermediate	8 5/8	11	.264	2,950#	Class A Cement	1.45CF per Sack	
Production	5 1/2	7 7/8	.304	15,000#	Type 1 Cement	1.34CF per Sack	
Tubing							
Liners							

# WELL FLARING OPERATIONS STANDARDS

(Operations and Process Completed by Jay-Bee Oil & Gas Inc.)

We do not anticipate using flaring for flow-back of the well. However, in the drilling process flaring may be used in situations required for safely drilling the well.

## 1. PURPOSE

• This procedure shall apply to the commissioning of Surface Well Testing equipment received at a Well Testing location or base operation. • To clearly define Safe Operating Recommendations for all Jay-Bee employees, Clients and Contractors.

## 2. SCOPE

This procedure shall apply to the onsite rig up of Surface Well Testing equipment received at a Surface Well Testing location or base operation.

## 3. RESPONSIBILITY

It shall be the responsibility of the Senior Site Supervisor to ensure equipment either at base or at location is rigged up in accordance with these requirements at a minimum and with safe working practices and procedures. All state or local requirements should also be referenced, and if there are differences between Jay-Bee recommendations and local or state regulations the larger spacing distance should be utilized if possible.

Any issues or deviations with the spacing requirements set forth (due to lack of space on location, etc) should be addressed with local management for approval and properly documented before proceeding.

## 4. RECOMMENDED EQUIPMENT SPACING & FIRE SAFETY

**4.1. Layout Spacing (General Requirements)** • Wellhead to heated Separator (with flame arrestor) – 75ft

- Wellhead to Cold Separator – 50ft
- Cold Separator to atmospheric tanks – 50ft
- Heated Separator (with flame arrestor) to atmospheric tanks – 75ft
- Separator to flare stack – 75ft
- Wellhead to tanks – 100ft
- Tanks to flare – 100ft
- Flare to wellhead – 100ft
- Vaporizer to tanks – 100ft
- Vaporizer to separator – 75ft
- Office trailer to wellhead & tanks – 100ft
- Office trailer to separator – 75ft
- Wellhead to Non-certified pressurized Storage tank – 100ft

## 4.2. Tanks (Detailed)

- Tanks should be a minimum of 50' from a separator, well test unit or other non-fired equipment
- Tanks should be a minimum of 100' from a fired vessel or heater treater
- Tanks shall be a minimum of 100' from a wellhead
- Gauge hatches on atmospheric tanks used to store crude oil shall be closed at all times

when not in use

- Flammable liquids should not be stored within 100' of well, except for fuel in tanks of operating equipment
- Liquefied Petroleum Gas tanks larger than 250 gals should be 150' from rig
- ALL tanks will be properly grounded individually, using copper grounding cable with a minimum gauge of 1/0.
- ALL tanks will be individually vented with a 2" x 10' and 4" x 10' vent stack, using the integrated 2" and 4" vent holes.
- ALL return lines will be plumbed into the side of the tanks. A short line will come out horizontally, with a 90 degree elbow at the end pointing, with an additional line going directly to the ground. Then a 90 degree elbow must be placed at ground level, where connections from the contractor can be made. The weight of the line WILL be placed on the line laying on the ground.
- Gas monitor devices will be placed on site near the tank entrances during frac/drill operations.
- ALL employees on site will NOT be allowed near the tanks, during any tank operations.
- Prior to the start of well work, current contracted employees and management will complete vapor awareness, confined space, and associated dangers prior to job start. Jay-Bee Oil & Gas, Inc. employees will also participate in this process.

#### **4.3. Vent Lines**

- Vent lines from tanks shall be joined and ultimate discharge shall be directed away from loading racks and fired vessels in accord to API RP 12-R1
- Discharge of oil or gas to atmosphere should be downwind, 100' from wellhead, open flame or other ignition source

#### **4.4. Gas Burning**

- Incinerator or flare not less than 100' from wellhead and test tanks
- Gas not to be burned within 100' from well or storage tank

#### **4.5. Engines (Vehicles, Generators, etc.)**

- Vehicles not involved in operations should be 100' from wellbore
- Spark arrestors or equivalent shall be provided on all internal combustion engines within 100' of wellbore

#### **4.6. General**

- No ignition sources are permitted in any area where smoking is not permitted
- Smoking or open flame not permitted within 20 feet of compressed gas

The following pages list the names, addresses, and telephone numbers of all residents, businesses, churches, schools and emergency facilities within 1 mile radius that may be affected by different specific events during the drilling process:

Name	Address	Phone	TM/P
Pearl Everett II & Nathaniel Lyle Mason, or Tenants	P O BOX 235 ELLENBORO WV 26346 0235	304-869-3892	M13 P31, 37.1, 37.2, 38
Harold & Alice Bunner	723 Dogwood Lane	304-869-3710	M13 P37
Bonds Creek Church	Bonds Creek Rd, Ellenboro, WV 26346	304-869-3542	M18 P4
Bonds Creek Youth Center	Bonds Creek Rd, Ellenboro, WV 26346	304-684-7457	M18 P11
Green Hunter	122 Lonesome Pine Rd. Ellenboro, WV 26346	304-374-2251	M18 P11
Fairmont Ridge Church	Bonds Creek & Fairmont Ridge Rd, Ellenboro, WV 26346	none listed	M18 P10
Luther & Julia Collins	RT1 OX 21 KERMIT WV 25674 9703	540-912-9101	M18 P20.3
Ronald L Casto	136 Casto Dr. Ellenboro, WV 26346	304-869-3353	M28 P29.2
Patrick Ray Keith	78 VALLEY MANOR LN WILLIAMSTOWN WV 26187 9781	none listed	M28 P29
Jacob Paul & Donna Griffith	264 Lost Run Rd. Ellenboro, WV 26346	304-869-3514	M28 P5
Steven Allen & John Wesley Seese Life Estate	RT 1 BOX 42 HARRISVILLE WV 26362 9707	none listed	M28 P15
Charles W Cunningham	P O BOX 116 ELLENBORO WV 26346 0235	none listed	M28 P30.1
Camp Hope	601 E MAIN ST HARRISVILLE WV 26362 6313	304-643-2878	M19 P1.1
First Apostolic Church of Harrisville	601 E MAIN ST HARRISVILLE WV 26362 6313	304-643-2878	M28 P1.3
Charles & Penny Copeland	P O BOX 163 ELLENBORO WV 26346 0235	304-869-3053	M28 P61
C&W Logs & Veneer	250 HEBRON RD. ST MARYS. WV. 26170	304-684-9974	M28 P59
David & Patricia Deak	498 Pike Rd. Ellenboro, WV 26346	304-869-3462	M28 P1.2
Bernard McCormick	97 Sellers Lane. Ellenboro, WV 26346	304-869-3329	M28 P2
Simonton Building Products, Inc	1 COCHRANE AVE PENNSBORO WV 26415 9404	304-659-2901	M28 P3
Gerald & Teresa Hall	P O BOX 399 RT 50 W ELLENBORO WV 26346 0399	304-643-2242	M28 P4
Trenton Energy	RT 50, Ellenboro, WV 26346	304-869-3799	M28 P4
Dennis Sellers	303 FIRST ST PENNSBORO WV 26415 1123	304-659-2255	M28 P4.3
Anthony & Anissa Sellers	P O BOX 247 ELLENBORO WV 26346 0235	none listed	M28 P5.1
Kevin & Kathy Jones	PO BOX 334 ELLENBORO WV 26346	none listed	M28 P5
RITCHIE CO BD OF EDUCATION	217 W MAIN ST HARRISVILLE WV 26362 0001	304-643-4136	M2 P86

Received  
 Office of Oil & Gas  
 AUG 03 2015

# Pluto 1A

Well Site Safety Plan 1 Mile Radius Aerial



Moats Rd

Pluto 1A

Google earth

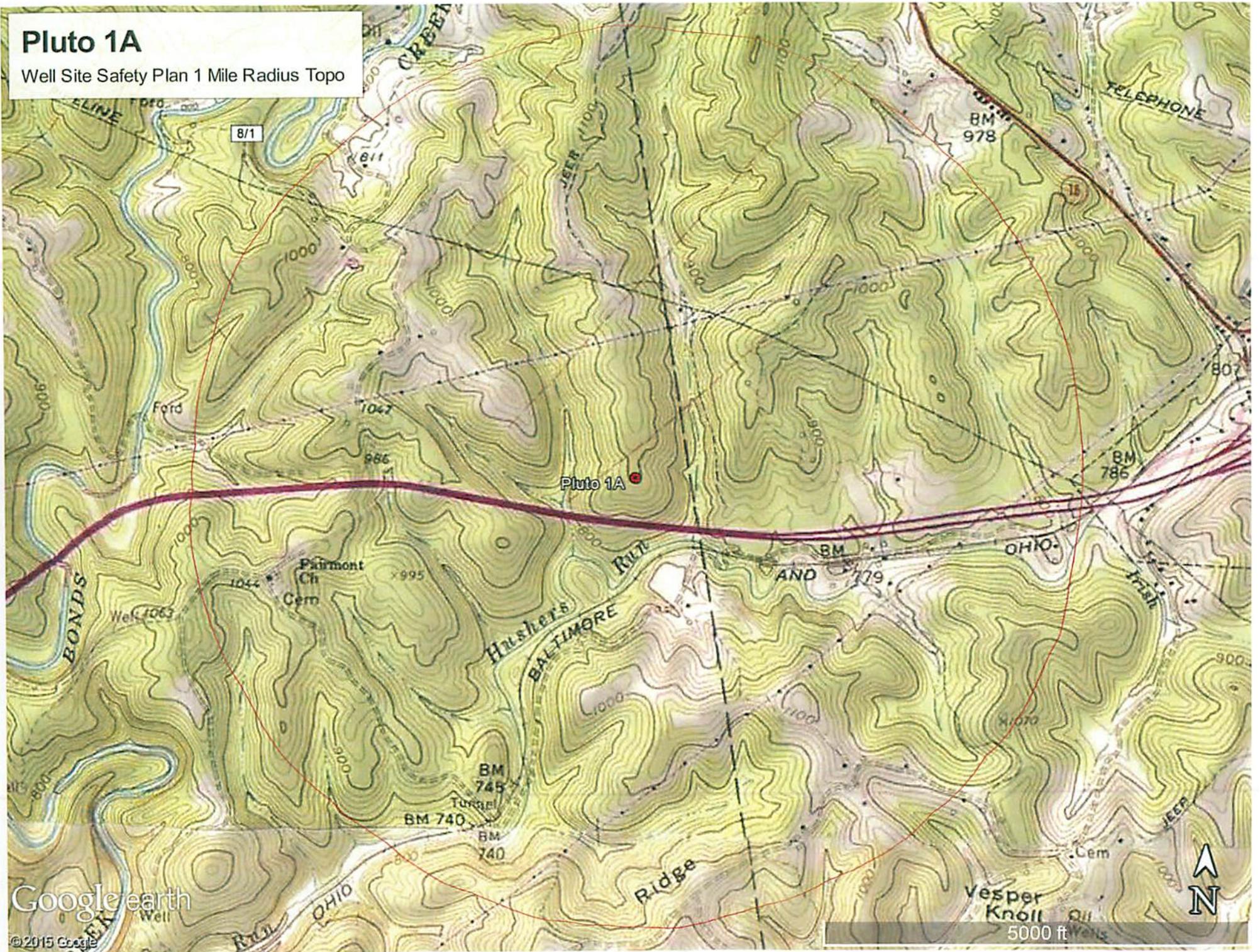
© 2015 Google

5000 ft



# Pluto 1A

Well Site Safety Plan 1 Mile Radius Topo



Google earth

© 2015 Google

*du*

# **APPENDIX**



**JAY BEE OIL & GAS – EMERGENCY CONTACT NUMBERS**

<b>Agency Type</b>	<b>Agency Name</b>	<b>Phone Number</b>
	<b>ALL EMERGENCIES</b>	<b>DIAL 911</b>
911 Dispatch Centers	Non Emergency Calls – Doddridge/Ritchie Counties	304-659-3770
	Non Emergency Calls – Tyler County	304-758-4275
Fire Departments Doddridge County	Bancs Fire Department	304-873-3772
	Greenwood Fire Department	304-873-2440
	McClellan Fire Department	304-782-2774
	Smithburg Fire Department	304-873-1493
	West Union Fire Department	304-873-1391
Fire Departments Ritchie County	Cairo Fire Department	304-628-3312
	Ellenboro Fire Department	304-869-3244
	Harrisville Fire Department	304-643-2330
	Pennsboro Fire Department	304-659-3969
	Smithfield Fire Department	304-477-3423
Fire Departments Tyler County	Alma Fire Department	304-758-4066
	Middlebourne Fire Department	304-758-4349
	Shirley Fire Department	304-758-2391
	Sistersville Fire Department	304-652-7131
Law Enforcement	WV State Police – Doddridge County Detachment	304-873-2101
	WV State Police – Ritchie County Detachment	304-643-2101

	WV State Police – Tyler County Detachment	304-455-0913
	Doddridge County Sheriff's Department	304-873-1000
	Ritchie County Sheriff's Department	304-643-2662
	Tyler County Sheriff's Department	304-758-4229
Industry Emergency Contacts	Boots & Coots	1-800-256-9688
	CUDD Well Control	1-800-990-2833
	Wild Well Control	281-784-4700
Other Contacts	Allegheny Power – Electric	1-800-255-3443
	Miss Utility Underground Line Locator	1-800-245-4848
	State Emergency Spills	1-800-642-3074
	Poison Control Center	1-800-222-2222
	WV Office of Oil and Gas	304-926-0499



Well Control Accreditation Program

## Certificate of Completion

The individual below has successfully completed a course in well control instruction at an institution accredited by the International Association of Drilling Contractors.

**Roy Lemasters**

Recipient Name

**3395**

ID Number

**Drilling**

Course Name

**Supervisor**

Level

**18-Jul-15**

Completion Date

**18-Jul-17**

Expiration Date

**Surface**

Stack Qualification

**Wild Well Control**

Training Provider

**1.281.784.4700**

Telephone Contact

**Clarksburg, WV USA**

Course Location

**WC519**

Program ID Number

**David Kennedy**

Instructor Name

Certificate Number: **WSEC614303**

Authorized Signature (Corporate Official or Instructor)



**IADC  
WELLCAP**



Well Control Accreditation Program

## Certificate of Completion

The individual below has successfully completed a course in well control instruction at an institution accredited by the International Association of Drilling Contractors.

**Kevin Carpenter**  
Recipient Name

**3394**  
ID Number

**Drilling**  
Course Name

**Supervisor**  
Level

**18-Jul-15**  
Completion Date

**18-Jul-17**  
Expiration Date

**Surface**  
Stack Qualification

**Wild Well Control**  
Training Provider

**1.281.784.4700**  
Telephone Contact

**Clarksburg, WV USA**  
Course Location

**WC519**  
Program ID Number

**David Kennedy**  
Instructor Name

Certificate Number: **WSEC614302**

A handwritten signature in black ink, appearing to read 'David Kennedy'.

Authorized Signature (Corporate Official or Instructor)



# CERTIFICATE OF COMPLETION

CERTIFICATE No. N155874



**Aaron Cecil Edwards**

ID No. 1608

Has Successfully Completed a Course at the  
Fundamental Level  
for  
Drilling  
With Stack Qualification of Surface

Completion Date: 21 August 2013 Expiration Date: 21 August 2015

Buckhannon, WV USA



Certified by IADC Accredited Program WC519  
**Well Control Training**  
A Division of Wild Well Control, Inc.



Attested by:

*Rita H. Lee*





23 E Washington Ave, Ellenboro, WV 26346 to U.S. 50, Ellenboro, WV 26346

Drive 1.2 miles, 2 min



○ 23 E Washington Ave  
Ellenboro, WV 26346

1. Head west on E Washington Ave toward S Main St



16 ft

2. Turn left onto S Main St



-  3. Turn right to merge onto US-50 W 0.2 mi
-  4. Turn right 1.0 mi
-  **U.S. 50**  
Ellenboro, WV 26346 20 ft

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2015 Google 200 ft 