

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452 , Governor , Cabinet Secretary www.dep.wv.gov

WELL WORK PERMIT

Re: Permit approval for

This well work permit 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 any additional specific 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 of 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.

Per 35 CSR 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) 926-0450.

Chief

Mant.

Operator's Well Number: Farm Name: U.S. WELL NUMBER: /

Date Issued:

Promoting a healthy environment.

west virginia department of environmental protection

Oil and Gas Conservation Commission 601 57th Street, SE Charleston, WV 25304 (304)926-0499, Ext 1656 Jim Justice, Governor Barry K. Lay, Chairman ogcc.wv.gov

June 27, 2017

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

RE: Application for Deep Well Permit – API #47-073-02570

COMPANY: Jay-Bee Oil & Gas, Inc.

)

FARM: Robert and Victoria Davis - P8N4U

COUNTY Pleasants DISTRICT: McKim QUAD: Bens Run

The application for the above company is approved to drill to Trenton

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 <u>410</u> 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,

indy Kaines

Cindy Raines Administrator

Office of Oil and Gas 4707302570 JUL 18 2017

PERMIT CONDITIONS

WV Department of Environmental Protection

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

- 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.
- 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.
- 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 - 2B (Rev. 8/10)

1) Well Operator:	Jay-Bee Oil & Gas, Inc.	24610	073-Pleasants	05-McKim	Ben's Run 7.5
	3570 Shields Hill Rd, Cairo, WV 26337	Operator ID	County	District	Quadrangle
2) Operator's Wel	Number: P8N4U		3) Elevation: _	1058.7'	-
4) Well Type: (a) (Dil or Gas X				
(b) I	f Gas: Production X / Un	derground Stor	aner		
		derground Stor	lage	_	
	Deep X / S			2	
5) Proposed Targe 6) Proposed Total 7) Approximate fre		Shallow F Formation at P	-	S	1,221' ton
5) Proposed Targo 6) Proposed Total 7) Approximate fre 8) Approximate sa	Deep X / S et Formation(s): Trenton Depth: 11.221' Feet esh water strata depths: 118' per A	Shallow F Formation at P	-	S	
5) Proposed Targo 6) Proposed Total 7) Approximate fre 8) Approximate sa 9) Approximate co	Deep X / S et Formation(s): Trenton Depth: <u>11.221</u> Feet esh water strata depths: <u>118' per A</u> It water depths: <u>N/A</u>	ShallowF Formation at P PI 47-073-00542	-	jet Depth: <u>1</u> I Depth: <u>⊤ren</u>	1,221' ton DAH 5-15-11

Drill to the target formation for logging purposes and plugging back for possible future horizontal well.

SEE ATTACH	ED DETAILS	SURFACE	TO INT	ERMEDIATE	DAILDED	WITH AIR.
PRODUCTION	HOLE DRILLE	WITH 12.	5 PPG	SYNTHET	IC OIL B	ASED MUD

13)		CASING AND TUBING PROGRAM				
TYPE S	SPECIFIC	ATIONS		FOOTAGE	INTERVALS	<u>CEMENT</u>
	Size	Grade	Weight per ft	For Drilling	Left in Well	Fill -up (Cu. Ft.)
Conductor	26	A500	85 lb./ft	30'	30'	CTS 49 Cu. Ft.
Fresh Water	20	J55	94 lb./ft	300'	300'	CTS 288 Cu. Ft.
Coal	13 3/8	J55	61 lb./ft	1,800'	1,800'	CTS 1,250 Cu. Ft.
Intermediate	9 5/8	HCP-110	47 lb./ft	7,100'	7,100'	1,910 Cu. Ft.
Production						
Tubing						
Liners					·;	

Packers:	Kind:	N/A	RECEIVED Office of Oil and Gas	
	Sizes:		Child of Of and Gas	
	Depths	Set	MAY 1 8 2017	07/04/0047
				07/2 1/2017

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 11,221'.

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, when completed.
- Production casing pressure testing again, after fracturing, at a pressure 20% greater than the expected shut in pressure, when completed.
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Office of Oil and Gas

JUL 2 0 2017

- After running the casing for the 9 5/8" string, the hole is filled with approximately 12.5# Synthetic Oil Based Mud (SOBM). We will then drill on mud through TD.

WELL WORK DETAILS: FRACTURING AND STIMULATION METHODS

This well will not be fractured or stimulated at this time. Vertical logging only.

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JUL 2 0 2017

WW-2A (Rev. 6-14)

1). Date:	5-15-2017

2.) Operator's Well Number P8N4U

State

47-

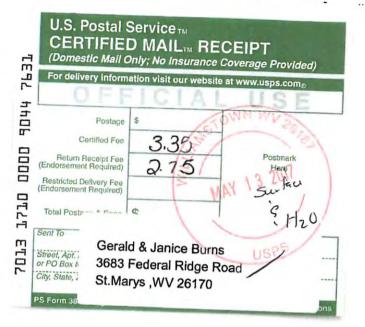
County Permit

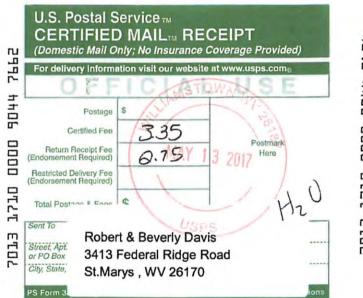
3.	API	Well	No :	

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

Surface Ov	wner(s) to be served:	, 5) (a) Coal Operator
(a) Name	Michael & Victoria Davis	Name
Address	615 Riverside Drive	Address
	St. Marvs, WV 26170 ,	
(b) Name	Gerald & Janice Burns	(h) Cool Ourser(s) with Dealer it
Address	3683 Federal Ridge Rd.	(b) Coal Owner(s) with Declaration
		Name
	St. Marvs, WV 26170	Address
(c) Name	Linda Laurah	
Address	Linda Lough	Name
Address	4293 Hebron Rd.	Address
Ch lange of	St. Marys, WV 26170	
6) Inspector	Derek Haught	(c) Coal Lessee with Declaration
Address	P.O. Box 85	Name
	Smithville WV 26178	Address
Telephone	304-206-7613	The second se
	TO THE PERSONS NA	AMED ABOVE TAKE NOTICE THAT:
Included is the	te lease or leases or other continuing	g contract or contracts by which I hold the right to extract oil and gas
Included is the	ie information required by Chapter 2	2, Article 6, Section 8(d) of the Code of West Virginia (see page 2)
application, a loca	and accompanying docum	lenis pages 1 through on the above named parties have
	i cisonal bervice (Antuavit atta	icnea)
X	Certified Mail (Postmarked pos	tal receipt attached)
· · · · · ·	Publication (Notice of Publication	on attached)
I have rea	ad and understand Chapter 22-6 an	d 35 CSR 4, and I agree to the terms and conditions of any permit
and a surger of the		
this application for	nder penalty of law that I have pers	sonally examined and am familiar with the information submitted on
and approvatori it	and an allounnerits, and that ha	1580 00 my induiny of those individuals immediately
oprisonment. c	Vificial Seal	s for submitting false information, including the possibility of fine and
The second second	intoidi Ocdr	
A: 12.3	r an P Hall	Jay-Bee Oil & Gas, Inc.
RECE	TATT	Shane Dowell
Office of O	I and Gas IIS.	Office Manager 3570 Shields Hill Rd
NAV 1	0 2017S Oct. 09, 2019	Cairo, WV 26337
MAY 1	Telephone:	304-628-3111
_ WV Depa	tment of Empile	sdowoll@iouhoosil.com
Subschoopeners	Notipissione me this 20th day of	sdowell@iavbeeoil.com
11	day of	Are by Doing , Jav-Bee Oil & Gas. Inc.
Heren	A. Hall	Notary Dublis
Ay Commission E	xpires a ct- all a	Notary Public
I and Gas Privacy N		
e Office of Oil and (Sas processes your personal Information.	such as name, address and phone number, as a part of our regulatory duties.
our personal information	tion may be disclosed to other State agen	such as name, address and phone number, as a part of our regulatory duties. cles or third parties in the normal course of business or as needed to comply.
formation. If you be	latory requirements, including Freedom of	f information Act requests. Our office will appropriately secure your personal
pprivacyofficer@ww	The second second con use of your be	ritormation Act requests. Our office will appropriately secure your personal risonal information, please contact DEP's Chief Privacy Officer at
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		JUL 2 0 2017
		WV Department of
		WV Department of Environmental Protection
		Environmental Protection



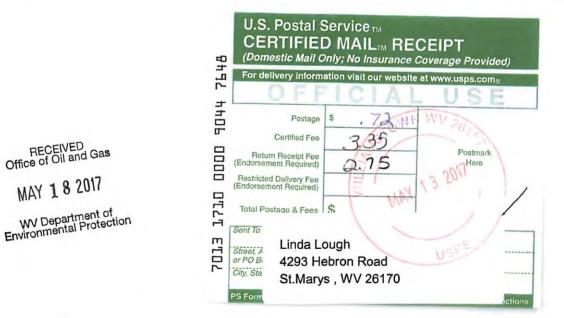




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MAY 1 8 2017





WW-2A1 (Rev. 1/11)

Operator's Well Number P8N4U

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
Billy D. Hanlin	BB Land, LLC	12.5%	297-596
John P. Riggs	BB Land, LLC	12.5%	293-502
Brenda Riggs	BB Land, LLC	12.5%	293-502
John & Brenda Riggs	BB Land, LLC	12.5%	293-502

SEE AFFIDANN

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

The per mit app licant for the proposed well work add ressed in this ap plication he reby a cknowledges 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

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 ac quired f rom the appr opriate aut hority bef ore t he af fected activity is initiated.

Well Operator: By:Its: Jay-Bee Oil & Gas, Inc. Shane Dowell

-1-

Office Manager

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MAY 1 8 2017

07/21/2017

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 BB Land, LLC, 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 BB Land, 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 BB Land, 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 P8N4U well (API No. to be determined), on Form WW-2A1.

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.

RECEIVED Office of Oil and Gas

JUL 1 9 2017

Page 1 of 2

WV Departmen07/21/2017 Environmental Protection

4707302570

Further, affiants sayeth naught.

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

Taken, subscribed and sworn to before me, the undersigned Notary Public, this <u>15</u>^m day of <u>Map</u>, <u>2017</u> by Randy Broda, President of Jay-Bee <u>BP Conclusions</u> on behalf of the corporation. My commission expires: <u>April 18</u>, <u>2022</u>. <u>My Commission Expires</u> <u>April 18</u>, <u>2022</u>.

Taken, subscribed and sworn to before me, the undersigned Notary Public, this 15^{++} day of 1000 of 1000 member of BB Land, LLC, on behalf of the company.

OFFICIAL SEAL Commissioner for West Virginia Shane M. Dowell Porkersburg, WV My Commission Expires April 18, 2022 My commission expires: 4pril2022 NOTARY PUBLIC

RECEIVED Office of Oil and Gas

JUL 1 9 2017

WV Department of Environmental Protection

Page 2 of 2

WW-2B1 (5-12)

Well No. P8N4U

4707302570

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	

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

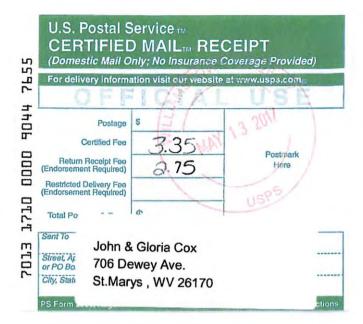
FOR OPERATOR'S USE ONLY: Below, or on an attached page, list those persons which were given this notice. Place an asterisk beside the one(s) that contacted you and requested sampling and analyses. If there were no requests made, indicate by underling which one you have selected to sample and analyze. 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 LIST.

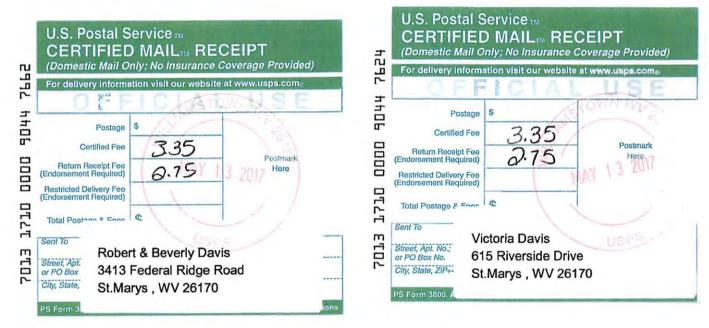
RECEIVED Office of Oil and Gas

MAY 1 8 2017

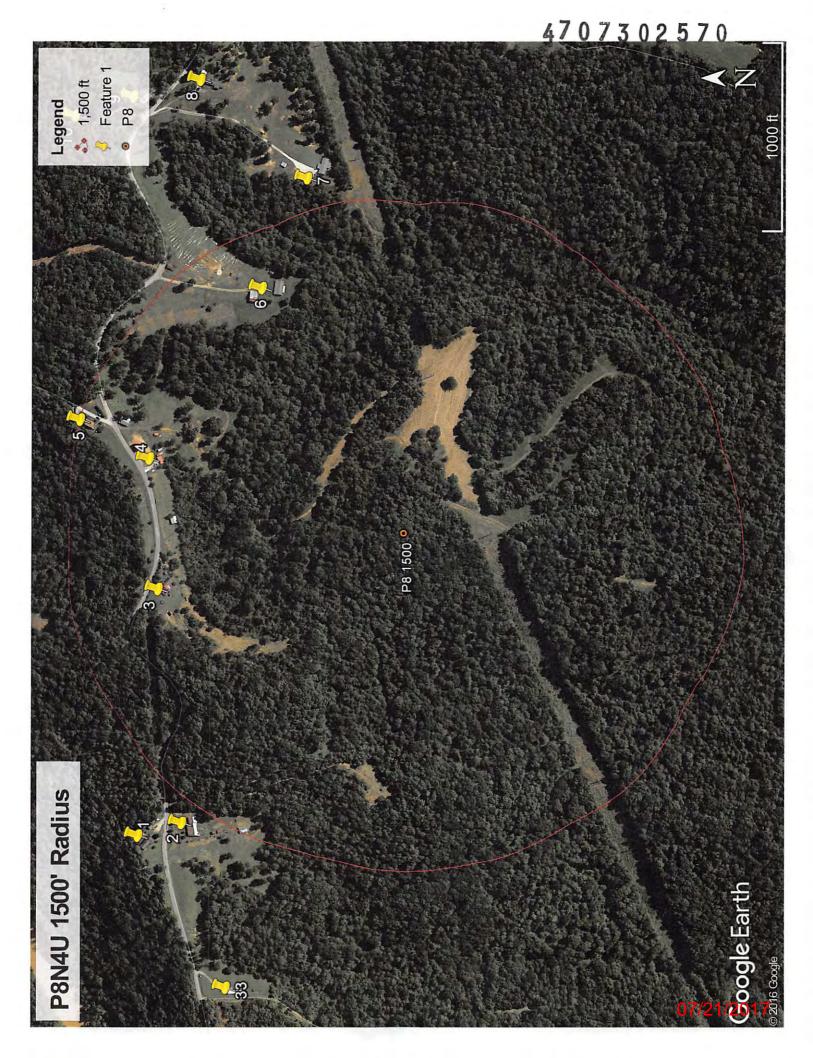
	P8N4U 1500' Water Sampling Radius			
Name	Address	Phone	TM/P	٦
Jack & Barbara Kimball	3912 Federal Ridge Rd., St. Marys, WV 26170	304-684-2674	M3 P15.1	1
Howard & Karen Smith	3911 Federal Ridge Rd., St. Marys, WV 26170	304-684-7701	M3 P15	٦,
Gerald & Janice <u>Burns</u>	3683 Federal Ridge Rd., St. Marys, WV 26170	304-684-2685	M3 P16	7
John & Gloria <u>Cox</u>	706 Dewey Ave, St. Marys, WV 26170	304-684-7667	M3 P18	₹_
Robert & Beverly Davis	3413 Federal Ridge Rd., St. Marys, WV 26170	304-684-9235	M3 P30.4	7
Richard Davis	3263 Federal Ridge Rd., St. Marys, WV 26170	304-684-7414	M3 P30.3	1

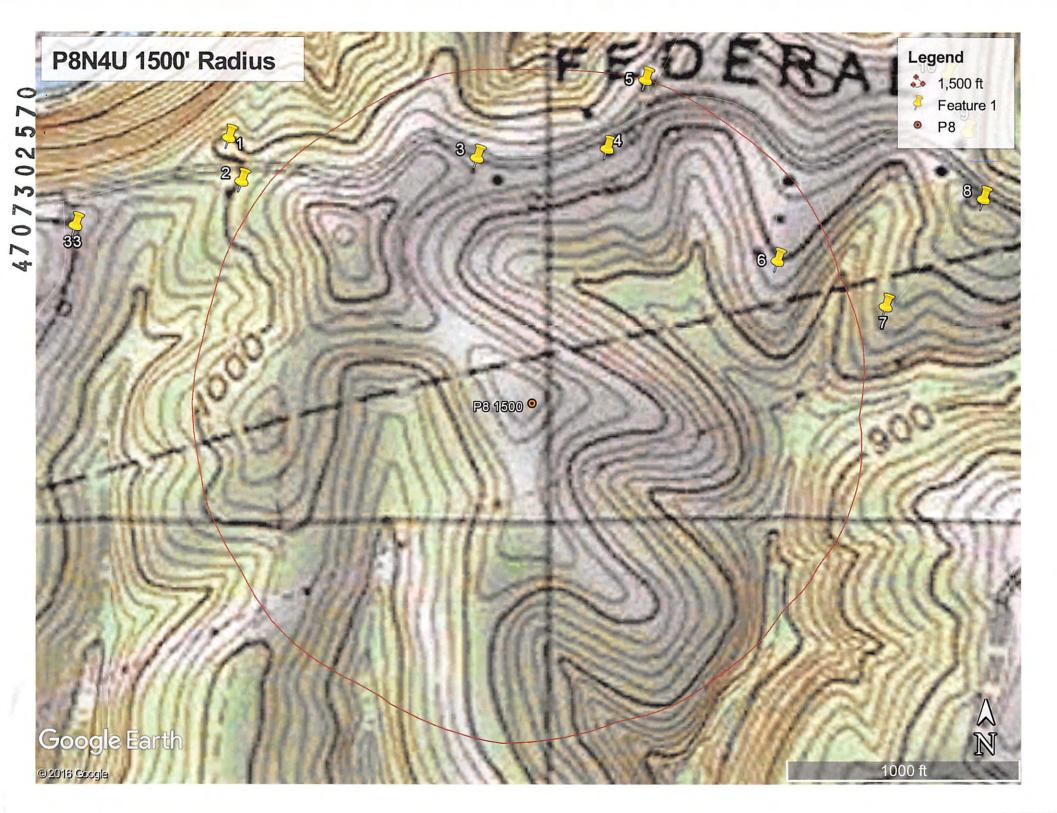












WW-9		
(5/16)	API Number 47	
RECEIVED Office of Oil and Gas	Operator's Well No. P8N4U	
Chice of Oli and Gas	STATE OF WEST VIRGINIA	
MAY 1 8 2017 DEPARTM	MENT OF ENVIRONMENTAL PROTECTION	
	OFFICE OF OIL AND GAS	
WV Department of FLUIDS/ C Environmental Protection	CUTTINGS DISPOSAL & RECLAMATION PLAN	
Operator Name_Jay-Bee Oil & Gas, Inc.	OP Code 24610	
Watershed (HUC 10) Outlet Middle Island Creek - Midd	dle Ohio North Watershed Quadrangle Ben's Run 7.5'	
Do you anticipate using more than 5,000 bbls of Will a pit be used? Yes No	of water to complete the proposed well work? Yes 🔽 No 🗌	
If so, please describe anticipated pit w	vaste:	
Will a synthetic liner be used in the p		
Proposed Disposal Method For Treate	ed Pit Wastes:	
Land Application (i	f selected provide a completed form WW-9-GPP)	
Underground Injecti	ion (UIC Permit Number UIC2D0859721)	
Reuse (at API Num		
	Supply form WW-9 for disposal location)	
Other (Explain		
Will closed loop systembe used? If so, descri	be: Yes	DmH
Drilling medium anticipated for this well (verti	ical and horizontal)? Air, freshwater, oil based, etc. Air	5-15-1-
-If oil based, what type? Synthetic, pe	etroleum, etc.	
Additives to be used in drilling medium? Drilli	ing Soap if necessary	
Drill cuttings disposal method? Leave in pit, la	and fill, removed offsite, etc. Removed from Site	
-If left in pit and plan to solidify what	medium will be used? (cement, lime, sawdust) Landfill	
-Landfill or offsite name/permit numb	Der? Meadowfill/Permit 101219WV	
	ffice of Oil and Gas of any load of drill cuttings or associated waste rejected at any shall be provided within 24 hours of rejection and the permittee shall also disclose	

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) Shane Doweff	
Company Official Title_Office Manager	
Subscribed and swom before me this 15^{44} day of May	
Subscribed and swom before me this 15 day of May	, 20
Teresa R. Hall	Notan Subjic View Notary Public and Co Mest Virginia
My commission expires Oct 9th 2019	1724 Victory Mill Rd.
	07/21/21847 spires Oct. 09, 201

	Second and a second sec
Form	WW-9
гонн	VV VV -9

		Operator's Well N	No. P8N4U	
Proposed Revegetation Treatm	ent: Acres Disturbed 20.8	Preveg etation pH	6.8	
Lime 3	Tons/acre or to correct to pH	6.8		
Fertilizer type 10-20	0-20			
Fertilizer amount 500)lbs	/acre		
Mulch Hay 20	Tons/ac	cre		
	Seed	Mixtures		
Temporar y		Permanent	Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre	
Annual Ryegrass	40	KY Bluegrass	20	
Field Bloomgrass	40	Creeping Red Fescue	30	
Sudangrass	40	Perennial Ryegrass	10	

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

lan Approved by:		
omments:		
itle: Dil + Ges Inspector	Date: 5-15-17	
Field Reviewed?)No	RECEIVED Office of Oil and Gas
		MAY 1 8 2017

WV Department 07/21/2017 Environmental Protection

WW-9- GPP Rev. 5/16 Page 1 of 2

API Number 47 - _____ Operator's Well No. P8N4U

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

Operator Name: Jay-Bee Oil & Gas, Inc.

Watershed (HUC 10): Outlet Middle Island Creek - Middle Ohio North Watershed Ouad: Ben's Run 7.5'

Farm Name: Michael & Victoria Davis

 List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Fluids to be discharged are produced water from the hydraulic frac. The water will be collected via piping at the wellhead, discharging directly into storage tanks.

No fertilizer will be stored on site. Fuel, oil, and lubricants will be stored on site, but located within secondary containment. Spills from construction equipment, well treatment fluids, and produced well fluids are the only possible source of contamination to groundwater. The tanks will be installed on an earthen dike, and lined to WV DEP standards.

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

Earthen berm to be constructed around the perimeter of the pad with storm sumps to control release of the captured precipitation.

Construction and well servicing equipment will be monitored and inspected daily for leaks. Earthen pit and tanks will be monitored daily for leaks. We will have spill kits on site.

 List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Middle Island creek is located .5 miles northwest of drill pad.

4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

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5. Discuss any existing groundwater quality data for your facility or an adjacent property.

MAY 1 8 2017

WV Department 21/2017 Environmental Protection WW-9- GPP Rev. 5/16

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Page 2 of 2

API Number 47 -Operator's Well No. P8N4U

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No waste material will be used for deicing or fill material on the property, unless allowed by another state or federal rule.

Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall
provide direction on how to prevent groundwater contamination.

During the construction phase of the location, all employees will have daily communication regarding the integrity of silt fence, including proper installation. Post construction one on one employee training will include:

- Proper containment cleanup (since the facility will be concrete)
- Proper connect and disconnect of connections to unloading brine trucks.
- Proper communication of the spill hotline, in case of emergency.
- Discussion of proper pre and post trip inspections on trucks at the facility.
- Proper understanding of the loadout procedures at the facility.
- Daily inspection of the disposal well head, including pressures.
- Proper inspection and operation of the tanks and pump(s) at the facility.
- 8. Provide provisions and frequency for inspections of all GPP elements and equipment.

No fertilizer will be stored on site. Fuel, oil, and lubricants will be stored on site, but located within secondary containment. Spills from construction equipment, well treatment fluids, and produced well fluids are the only possible source of contamination to groundwater.

Inspections to be performed daily.

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Signature:

Date:

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