

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

RECEIVED
Office of Oil and Gas

JAN 24 2022

API 47-073-02588 County Pleasants District Union
Quad Ben's Run 7.5' Pad Name P5 Field/Pool Name Arvilla
Farm name BB Land LLC Well Number P5S1U
Operator (as registered with the OOG) Jay-Bee Oil & Gas, Inc.
Address 16 South Avenue W Suite 118 City Cranford State New Jersey Zip 07016

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 337337.52 Easting 1523529.242
Landing Point of Curve Northing 337278.268 Easting 1524421.653
Bottom Hole Northing 330453.576 Easting 1527901.872

Elevation (ft) 868.1' GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Synthetic Based Mud (SOBM), K-49 (Base Oil), Barite, Anco Mul P, Anco Mul S, Anco Mul OW, Anco Mul XL, Anco Mul Mod
Anco Mul OW, Claytone 3, Lime, Calcium Chloride Powder, Phalt S, Mica, Cal-Carb

Date permit issued 3/20/2019 Date drilling commenced 5/9/2019 Date drilling ceased 6/18/2019
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 138' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1729' Void(s) encountered (Y/N) depths N
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
DCN
5/12/22
05/13/2022

API 47-073 - 073-02588

Farm name BB Land LLC

Well number S1U

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	26"	30'	New	N/A	N/A	Grouted from Surface
Surface	22"	18 5/8"	335'	New	J-55 87.5#	41' & 295'	Y
Coal							
Intermediate 1	17.5"	13 3/8"	2123'	New	J-55 61#	2122' & 287'	Y
Intermediate 2	12 1/4"	9 5/8"	9270'	New	HCP 110 47#	9049' 5825' 2207'	Y
Intermediate 3							
Production	8.5"	5.5"	18692'	New	P110 23#	N/A	Y
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A						
Surface	Class A	544	15.6	1.1966	650	CTS	8 hrs
Coal							
Intermediate 1	Class A	1465	15.6	1.1859	1737	CTS	8 hrs
Intermediate 2	Class A	Lead 1194 Tail 400	Lead 12.5 Tail 15	L 2.3085 T1.3259	3329	CTS	8 hrs
Intermediate 3							
Production	Class H	3284	15.6	1.1821	3857	3500'	8 hrs
Tubing							

Drillers TD (ft) 18714'

Loggers TD (ft) 18714'

Deepest formation penetrated Point Pleasant/Utica

Plug back to (ft) 9124'

Plug back procedure Set Bakers Hughes Whip Stock in pilot hole just outside of 9 5/8" casing and kick off

Kick off depth (ft) 9829'

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Steel body centralizer placed every 90' in lateral

90-70 degrees steel body centralizer every second joint

70 degrees to KOP steel body centralizer every 3rd joint

KOP to Surface Bow spring centralizer every 500'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

API 47- 073 - 02588

Farm name BB Land LLC

Well number P5S1U

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12-7-20	18555	18484	84	Point Pleasant
2	12-7-20	18454	18332	84	Point Pleasant
3	12-7-20	18304	18169	84	Point Pleasant
4	12-8-20	18102	17978	84	Point Pleasant
5	12-8-20	17937	17843	84	Point Pleasant
6	12-8-20	17804	17686	84	Point Pleasant
7	12-8-20	17651	17554	84	Point Pleasant
8	12-9-20	17515	17422	84	Point Pleasant
9	12-9-20	17384	17303	84	Point Pleasant
10	2-4-21	17254	17170	84	Point Pleasant
11	2-4-21	17132	17048	84	Point Pleasant
12	2-5-21	17002	16910	84	Point Pleasant
13	2-5-21	16858	16786	84	Point Pleasant
14	2-5-21	16749	16550	84	Point Pleasant
15	2-6-21	16612	16506	84	Point Pleasant
16	2-6-21	16463	16376	84	Point Pleasant

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12-7-20	63.2	10419	11320	6810	470380	14077	N/A
2	12-7-20	70.2	10495	11296	7008	470690	10332	N/A
3	12-7-20	71.4	10571	11398	6822	425620	9973	N/A
4	12-8-20	69.7	10504	11293	7326	470700	10549	N/A
5	12-8-20	72.7	10771	11333	7263	373700	9505	N/A
6	12-8-20	67.7	11420	11623	7244	320300	11420	N/A
7	12-8-20	70.5	10137	11212	7359	470550	11459	N/A
8	12-9-20	69.3	10359	11556	7412	468110	10337	N/A
9	12-9-20	67.6	11060	11412	10968	376350	9087	N/A
10	2-4-21	40.6	11389	11863	7751	23360	6668	N/A
11	2-4-21	66.7	10755	11722	7618	376610	10317	N/A
12	2-5-21	72.2	9842	10895	7312	474590	9711	N/A
13	2-5-21	70	9797	10912	7273	473720	10105	N/A
14	2-5-21	69.8	9548	10844	7438	470450	10043	N/A
15	2-6-21	73.8	9449	10743	7299	471275	9647	N/A
16	2-6-21	70.3	9464	10812	7463	435670	10004	N/A

Please insert additional pages as applicable.

API 47- 073 - 02588

Farm name BB Land LLC

Well number P5S1U

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	2-6-21	16339	16244	84	Point Pleasant
18	2-6-21	16149	16104	84	Point Pleasant
19	2-7-21	16070	15989	84	Point Pleasant
20	2-7-21	15952	15866	84	Point Pleasant
21	2-7-21	15820	15715	84	Point Pleasant
22	2-7-21	15672	15570	84	Point Pleasant
23	2-8-21	15515	15436	84	Point Pleasant
24	2-8-21	15402	15288	84	Point Pleasant
25	2-8-21	15243	15116	84	Point Pleasant
26	2-8-21	15082	14948	84	Point Pleasant
27	2-9-21	14918	14789	84	Point Pleasant
28	2-9-21	14756	14673	84	Point Pleasant
29	2-9-21	14622	14518	84	Point Pleasant
30	2-10-21	14480	14392	84	Point Pleasant
31	2-10-21	14350	14205	84	Point Pleasant
32	2-10-21	14147	14026	84	Point Pleasant

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
17	2-6-21	71.2	9100	10698	7243	334960	8127	N/A
18	2-6-21	71.8	9171	10711	7342	467700	9685	N/A
19	2-7-21	72.4	9286	10568	7412	472880	9699	N/A
20	2-7-21	70.3	9161	10499	7288	470510	10204	N/A
21	2-7-21	70.8	9187	10476	7196	470630	9843	N/A
22	2-7-21	71.4	9188	10567	7302	462430	9770	N/A
23	2-8-21	71.3	9097	10551	7211	469560	9787	N/A
24	2-8-21	71.4	9232	10796	7265	457740	10229	N/A
25	2-8-21	70.9	9198	10638	7242	465850	9922	N/A
26	2-8-21	71.4	9330	10811	7318	473860	9718	N/A
27	2-9-21	71.6	9382	11003	7321	471370	9528	N/A
28	2-9-21	70.4	9393	11019	7333	469720	9528	N/A
29	2-9-21	69.9	9593	11291	7434	476930	10338	N/A
30	2-10-21	70.6	9627	11082	7723	476890	9388	N/A
31	2-10-21	70.2	9522	10996	7329	474880	9548	N/A
32	2-10-21	70.6	9494	10873	7218	471150	9782	N/A

Please insert additional pages as applicable.

API 47- 073 - 02588

Farm name BB Land LLC

Well number P5S1U

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
33	2-10-21	13949	13780	84	Point Pleasant
34	2-12-21	13720	13540	84	Point Pleasant
35	2-12-21	13470	13353	84	Point Pleasant
36	2-12-21	13234	13132	84	Point Pleasant
37	2-12-21	13096	12942	84	Point Pleasant
38	2-12-21	12880	12696	84	Point Pleasant
39	2-12-21	12654	12411	84	Point Pleasant
40	2-13-21	12323	12170	84	Point Pleasant
41	2-13-21	12124	11953	84	Point Pleasant
42	2-13-21	11896	11662	84	Point Pleasant
43	2-14-21	11625	11387	84	Point Pleasant
44	2-14-21	11346	11078	84	Point Pleasant
45	2-14-21	11020	10852	84	Point Pleasant

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
33	2-10-21	70	9348	10798	7256	474000	9941	N/A
34	2-12-21	70.1	9477	10652	7159	472000	9710	N/A
35	2-12-21	70	9399	10548	7245	467000	9508	N/A
36	2-12-21	70.2	9555	10611	7163	458300	9433	N/A
37	2-12-21	68.7	9734	10589	7256	383200	8751	N/A
38	2-12-21	70.9	9491	10422	7309	471500	9807	N/A
39	2-12-21	71	9259	10403	7101	475220	9557	N/A
40	2-13-21	70.7	9271	10284	7173	479000	9312	N/A
41	2-13-21	69.3	9319	10316	7268	470300	10847	N/A
42	2-13-21	70	9409	10856	7327	472190	9720	N/A
43	2-14-21	70.3	9417	10466	7333	463000	9783	N/A
44	2-14-21	69.6	9473	10312	7291	426000	12268	N/A
45	2-14-21	70.6	9245	10662	7222	453600	9476	N/A

Please insert additional pages as applicable.

API 47- 073 - 073-02588 Farm name BB Land LLC Well number S1U

PRODUCING FORMATION(S)	DEPTHS		
Point Pleasant	10243'	TVD	18714' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY
 Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
See Attached	0 surveys & lithology		0		

Please insert additional pages as applicable.

Drilling Contractor Patterson UTI
 Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Stratagraph NE Inc.
 Address 116 Ellsworth Avenue City Marietta State OH Zip 45750

Cementing Company BJ Services
 Address 3415 Millennium Boulevard City Massillon State OH Zip 44646

Stimulating Company ProFrac
 Address 333 Shops Boulevard, Suite 301 City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Lisa Cattafesta Telephone 304-628-3111
 Signature Lisa Cattafesta Title Landman Date 1-18-2022

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Discharge Monitoring Report
Oil and Gas General Permit

Company Name: Jay-Bee Oil & Gas, INC.
API No: 47-073-02588 County: Pleasants
District: Union Well No: P5S1U
Farm Name: BB Land, LLC

Discharge Date/s From:(MMDDYY) _____ To: (MMDDYY) _____

Discharge Times. From: _____ To: _____

Total Volume to be Disposed from this facility (gallons): No Discharge

Disposal Option(s) Utilized (write volumes in gallons):

- (1) Land Application: _____ (Include a topographical map of the Area.)
(2) UIC: _____ Permit No. _____
(3) Offsite Disposal: _____ Site Location: _____
(4) Reuse: _____ Alternate Permit Number: _____
(5) Centralized Facility: _____ Permit No. _____
(6) Other method: _____ (Include an explanation)

Follow Instructions below to determine your treatment category:

Optional Pretreatment test: n/a Cl- mg/l n/a DO mg/l

1. Do you have permission to use expedited treatment from the Director or his representative?
(Y/N) N If yes, who? _____ and place a four (4) on line 7.
If not go to line 2
2. Was Frac Fluid or flowback put into the pit? (Y/N) N If yes, go to line 5. If not, go to line 3.
3. Do you have a chloride value pretreatment (see above)? (Y/N) n/a If yes, go to line 4
If not, go to line 5.
4. Is the Chloride level less than 5000 mg/l? (Y/N) n/a If yes, then enter a one (1) on line 7.
5. Do you have a pretreatment value for DO? (See above) (Y/N) n/a If yes, go to line 6
If not, enter a three (3) in line 7.
6. Is the DO level greater than 2.5 mg/l?(Y/N) n/a If yes, enter a two (2) on line 7. If not, enter a three (3) on line 7.
7. n/a is the category of your pit. Use the Appropriate section.
8. Comments on Pit condition: n/a

Name of Principal Exec. Officer: Lisa Cattafesta

Title of Officer: Landman

Date Completed: 1-18-2022

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the 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.

Lisa Cattafesta

Signature of a Principal Exec. Officer or Authorized agent.

05/13/2022

This is not applicable.

Category 1
Sampling Results

API No : 47-073-02588

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	5	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl	5,000	_____	5,000	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**			Monitor	_____	mg/l
Oil and Grease			Monitor	_____	mg/l
Total Al***			Monitor	_____	mg/l
TSS			Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume			Monitor	_____	Gal
Flow			Monitor	_____	Gal/min
Disposal Area			Monitor	_____	Acres

*** Al is only reported if the pH is above 9.0

Category 2
Sampling Results

API No : _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	10	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**			Monitor	_____	mg/l
Oil and Grease			Monitor	_____	mg/l
Total Al***			Monitor	_____	mg/l
TSS			Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume			Monitor	_____	Gal
Flow			Monitor	_____	Gal/min
Disposal Area			Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____

Date: _____

** Include a description of your aeration technique.

Aeration Code: _____

*** Al is only reported if the pH is above 9.0

This is not applicable.

Category 3
Sampling Results

API No : 47-073-02588

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	20	_____	N/A	N/A	Days
Fe	6	_____	6	_____	mg/l
D.O.	2.5	_____	2.5	_____	mg/l
Settleable Sol.	0.5	_____	0.5	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
Total Al***		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____ Date: _____
 ** Include a description of your aeration technique. Aeration Code: _____
 *** Al is only reported if the pH is above 9.0.

Category 4
Sampling Results

API No: _____

Parameter	Predischarge		Discharge		Units
	Limits	Reported	Limits	Reported	
pH	6-10	_____	6-10	_____	S.U
Settling Time	1	_____	N/A	N/A	Days
Fe	Monitor	_____	Monitor	_____	mg/l
D.O.	Monitor	_____	Monitor	_____	mg/l
Settleable Sol.	Monitor	_____	Monitor	_____	mg/l
Cl*	12,500	_____	12,500	_____	mg/l
Oil	Trace	_____	Trace	_____	Obs.
TOC**		_____	Monitor	_____	mg/l
Oil and Grease		_____	Monitor	_____	mg/l
TSS		_____	Monitor	_____	mg/l
Total Mn	Monitor	_____	Monitor	_____	mg/l
Volume		_____	Monitor	_____	Gal
Flow		_____	Monitor	_____	Gal/min
Activated Carbon (0.175)		_____	N/A	N/A	lb/B1
Date Site Reclaimed	N/A	N/A			10 days from dis.
Disposal Area		_____	Monitor	_____	Acres

* Can be 25,000 with inspector's approval,

(Inspector's signature): _____ Date: _____

05/13/2022

OIL AND GAS RECLAMATION NOTICE

TO:

Name _____

Address _____

Name _____

Address _____

Name _____

Address _____

Pursuant to West Virginia Code 22-7, notice is hereby given that the undersigned well operator is commencing the reclamation of the surface disturbance caused by well work required by West Virginia Code 22-6-30 on the tract of land as follows:

API Permit No. 47- 073 02588 _____;

Acreage 165.0 _____;

Watershed Sugar Creek of Outlet Middle Island Creek (HUC-10) _____;

District Union _____;

County Pleasants _____;

Public Road Access Arvilla Road _____;

Generally used farm name BB Land, LLC _____.

This tract of land was utilized in connection with the well work authorized by the permit listed above issued by the Office of Oil and Gas of the West Virginia Department of Environmental Protection.

Any claim for oil and gas production damage compensation from the undersigned must be made within 2 years of the publication of this notice.

Well Operator Jay-Bee Oil & Gas, INC. _____

Address 3570 Shields Hill Road _____

Cairo, WV 26337 _____

Telephone 304-628-3111 _____

P5 Pad Lithology	
ELEVATION	868'
FORMATION	TOP
INJUN	1920
GORDON	2668
HAMILTON	5228
UPPER Marcellus	5702
PARCELL LME	5713
LOWER MARCELLUS	5609
Onondaga	5815
Oriskany	6031
Bass Islands	6509
Salina	6565
Wills Creek	7198
Lockport	7438
McKenzie	7652
Rose Hill	7741
Packer Shell	8017
Clinton-Medina	8110
Queenston	8294
Reedsville	9086
Utica	9992
Point Pleasant SH	10136
Trenton	10303

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/7/2020
Job End Date:	2/14/2021
State:	West Virginia
County:	Pleasants
API Number:	47-073-02588-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	P5 S1U
Latitude:	39.41547000
Longitude:	-81.07507000
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	10,690
Total Base Water Volume (gal):	18,781,686
Total Base Non Water Volume:	0

Hydraulic Fracturing Fluid Composition:

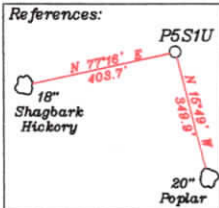
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Jay-Bee Oil and Gas	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.14681	None
Sand (40/70 White Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	4.97459	None
Sand(30/50 Mesh) Proppant	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	4.01196	None
Sand (100 Mesh Proppant)	ProFrac	Proppant	Silica Substrate	14808-60-7	100.00000	2.00100	None
Hydrochloric Acid (15%)	PVS	Acidizing	Water	7732-18-5	85.00000	0.42197	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.18368	None
Sand(30/50 Carboilite)	Jay-Bee Oil and Gas	Proppant	Mullite	1302-93-8	85.00000	0.18706	None
			Silicon Dioxide, (amorphous as glass)	7631-86-9	35.00000	0.07702	None
			Silica Crystalline-Cristobalite	14464-46-1	20.00000	0.04401	None



ProSlick 100	EES	Friction Reducer	Hydroreated Light Petroleum Distillate	64742-47-8	30.00000	0.02834	None
			Alcohol, C11-14-iso, C13-rich, ethoxylated	78330-21-9	5.00000	0.00472	None
Provis 4.0	EES	Gel	Guar Gum	9000-30-0	55.00000	0.00951	None
			Petroleum Distillate	64742-47-8	55.00000	0.00951	None
			Suspending agent	1302-78-9	5.00000	0.00086	None
ProCheck 100	EES	Scale Inhibitor	Non-hazardous substances	Proprietary	90.00000	0.01657	None
			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid) (BHMT)	34690-00-1	10.00000	0.00184	None
Bioclear 1430	EES	Biocide	Glutaraldehyde	111-30-8	20.00000	0.00357	None
			Benzyl-(C12-C16 Alkyl)-Dimethyl-Ammonium Chloride	68424-85-1	5.00000	0.00089	None
			Dimethylamine	68439-70-3	0.50000	0.00009	None
ProHib 100	ProFrac	Acid Inhibitor	2-Propyn-1-ol compound w/ methylxirane	38172-91-7	15.00000	0.00017	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Chemical(s)	Listed Above	See Trade Name(s) List	Water	7732-18-5	85.00000	0.42197	
			Mullite	1302-93-8	85.00000	0.18706	
			Silica Crystalline-Cristobalite	14464-46-1	20.00000	0.04401	
			Non-hazardous substances	Proprietary	90.00000	0.01657	
			Guar Gum	9000-30-0	55.00000	0.00951	
			Alcohol, C11-14-iso, C13-rich, ethoxylated	78330-21-9	5.00000	0.00472	
			Glutaraldehyde	111-30-8	20.00000	0.00357	
			Suspending agent	1302-78-9	5.00000	0.00086	
			Dimethylamine	68439-70-3	0.50000	0.00009	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
 ** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
 Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



JAY BEE OIL & GAS INC
 P5S1U UNIT BOUNDARY 7 1/2'
 AREA - 174.429 ACRES ±
 Darin J. Barber, et al
 07-11-27
 165 Ac.

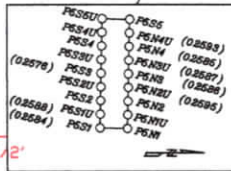
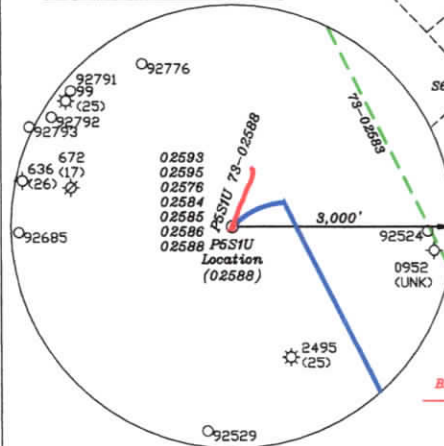
Top Hole 9,439'
 Bottom Hole 9,198'

LATITUDE 39-25-00 N (TH)
 LATITUDE 39-27-30 N (BH)

Unit Boundary Line
 400' from Bore Path
 500' from Bore Path
 Well Lateral
 Point Pleasant Legs within 3000'
 Leased Tracts
 Surface Tracts
 Tracts within Unit Boundary

- Notes:
- All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats, & aerial photos.
 - Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 83.
 - No water wells were found within 250' of the well location. No dwellings or buildings were found within 625' from the center of the proposed pad. No perennial streams are located within 100' of LOD. No producing trout stream is located within 300' of LOD.
 - All deep wells within 3000' of well bore path are shown on this plat.
 - Wells 2484, 2495, & 2502 were permitted as deep wells but the producing formation is Marcellus.

As Drilled
 Permitted



NUMBER	DIRECTION	DISTANCE
L1	N04°28' E	1,851.3'
L2	S73°10' W	2,929.1'
L3	N77°19' E	883.9'

Top Hole	UTM NAD 83 (Meters)	-4362885.24 N, 493537.43 E
Landing Point	UTM NAD 83 (Meters)	-4362989.31 N, 493748.32 E
Bottom Hole	UTM NAD 83 (Meters)	-4360807.09 N, 494900.02 E
Top Hole	UTM NAD 83 (Meters)	-4362885.23 N, 493537.44 E
Bottom Hole	UTM NAD 83 (Meters)	-4363130.49 N, 493829.45 E

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

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 2000'
 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 L Jackson
 R.P.E. _____ P.S. 708



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

DATE January 07, 2022
 OPERATOR'S WELL NO. P5S1U
 API WELL NO. 47-073-02588
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 868.8' WATER SHED Sugar Creek of Outlet Middle Island Creek (HUC-10)
 DISTRICT Union COUNTY Pleasants
 QUADRANGLE Bens Run 7 1/2'

SURFACE OWNER BB Land, LLC. ACREAGE 165.0 Ac.
 OIL & GAS ROYALTY OWNER Jay-Bee Royalty LEASE ACREAGE 165.0 Ac.
 LEASE NO. P7207

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

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Point Pleasant ESTIMATED DEPTH TVD = 10,495'; TMD = 10,616'
 WELL OPERATOR Jay-Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda
 ADDRESS 1720 Route 22 E, Union, NJ 07083 ADDRESS 3570 Shields Hill Rd., Cairo, WV 26337

Top Hole 9,439'
 Bottom Hole 9,198'
 LONGITUDE 81-02-30 W
 LONGITUDE 81-02-30 W
 Bottom Hole 14,811'

FORM 9999

WELL - P5S1U
UNIT BOUNDARY AREA -
174.429 ACRES ±

TRACT	SURFACE OWNER	TAX MAP/PARCEL	ACRES
S1	DAVID L. & SHARON M. NAPIER	04-4-28.16	20.524
S2	DAVID L. & SHARON M. NAPIER	04-4-28.17	17.164
S3	WILLIAM C. WINLAND	04-4-28.18	8.076
S4	MICHEAL S. & JASON M. HOOPER	04-4-25	23.066
S5	ROBERT TIMOTHY CUMM & LISA DAWN CUMM	04-4-24	51.0
S6	BRYAN FLEMING, ET AL	04-4-15	87.5
S7	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-15-6	266
S8	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-15-5	50.0
S9	MELANIE JO MANUSE REVOCABLE TRUST	07-11-41	123.27
S10	MATTHEW A. & DAWNA M. TAYLOR	07-11-44	25.8
S11	MATTHEW A. & DAWNA M. TAYLOR	07-11-43	18.6
S12	CLINTON G. HALL, JR.	04-4-7	39.5
S13	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-15-2	27.0
S14	GOLDEN EAGLES RESOURCES LLC & HUMMER PROPERTIES LLC	07-15-12	28.944
S15	CLINTON G. HALL, JR., MAX E. & LINDA L. HALL	07-11-49	6.36
S16	GOLDEN EAGLES RESOURCES LLC & HUMMER PROPERTIES LLC	07-11-40	62.063
S17	MICHELLE L. FOURQUREAN	07-15-8.1	1.231
S18	JANET M. HANSEN	04-4-29	3.5
S19	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	04-4-51	114.0
S20	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-15-11	50.0
S21	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-15-1	52.5
S22	JUDITH M. DAVIS	07-15-8	118.769
S23	JAMES A., JASON M., JOSEPH W. & JEFFREY W. POWELL	07-11-47	49.0
S24	JAMES A., JASON M., JOSEPH W. & JEFFREY W. POWELL	07-11-46	67.0
S25	HEARTWOOD FORESTLAND FUND IV LIMITED PARTNERSHIP	07-15-3	16.75



P.S. 708

David L Jackson



Jay Bee
Oil & Gas

DRILLING
into the future

OPERATOR'S
WELL #: P5S1U
API #: 47-073-02588
DISTRICT: UNION
COUNTY: PLEASANTS
STATE: WV

WELL PLAT
PAGE 2 OF 3
DATE: 01/07/2022

05/13/2022

form. wwg


**WELL - P5S1U
UNIT BOUNDARY AREA -
174.429 ACRES ±**

Tracts	Tax Map/Parcel Union District	Lease #	Lessor, Grantor, etc
A	07-11-29	P7207	Jay Bee Royalty
B	07-11-45	P7208	Berry Properties, LLC
C	07-11-43	P7258	Steven Alan Amos
C	07-11-43	P7258	The Presbytery of Louisville, New Church Dev.
C	07-11-43	P7258	Thorn Family Simple Test Trust, L.T. Thorn Trustee
C	07-11-43	P7258	Ruth Savage Campbell
C	07-11-43	P7258	Sally Shingleton Merrill
C	07-11-43	P7258	Robert Carl Anderson
C	07-11-43	P7258	Robert H. Worden
C	07-11-43	P7258	Richard L. Worden
C	07-11-43	P7258	Presbyterian Church of Henderson, KY
C	07-11-43	P7258	Neil B. Worden
C	07-11-43	P7258	Meadowview Presbyterian Church
C	07-11-43	P7258	Martha R. Best
C	07-11-43	P7258	Mary Louise (Sanderson) Spencer
C	07-11-43	P7258	Linda W. Maikish
C	07-11-43	P7258	Loxley O. Shingleton
C	07-11-43	P7258	Kathryn B. Smith
C	07-11-43	P7258	Jamie M. Dawson
C	07-11-43	P7258	Eva N. Westgate
C	07-11-43	P7258	Eric W. Amos
C	07-11-43	P7258	Elizabeth R. Shingleton
C	07-11-43	P7258	Daniel G. Worden
C	07-11-43	P7258	Chapel Hill Presbyterian Church
C	07-11-43	P7258	Berry Properties, LLC
C	07-11-43	P7258	Bellewood Presbyterian Home for Children
C	07-11-43	P7258	Anita Kay Simpson
C	07-11-43	P7258	Aubra Kathleen Connour
C	07-11-43	P7258	Judith McCullough Special Commisioner For: Nancy W. Fischer National Society to Prevent Blindness Louisville Presbyterian Seminary Kosair Charities
D	07-11-44	P7259	Berry Properties, LLC
E	07-11-41	P7260	Melanie Jo Manuse Revocable Trust
F	07-15-01	APCO148A	John R. Tice
F			APCO Energy, Inc
G	07-15-05	APCO511E	Wiley J. Elliot
G	07-15-05	APCO511E	Leslie R. Elliot
G	07-15-05	APCO511E	Ila Lee Leatherman
G			APCO Energy, Inc/JE Olds
H	07-15-06	APCO511F&G	Wiley J. Elliot
H	07-15-06	APCO511F&G	Leslie R. Elliot
H	07-15-06	APCO511F&G	Ila Lee Leatherman
H			APCO Energy, Inc/JE Olds
I	07-15-03	APCO511C	Wiley J. Elliot
I	07-15-03	APCO511C	Leslie R. Elliot
I	07-15-03	APCO511C	Ila Lee Leatherman
I			APCO Energy, Inc/JE Olds
J	07-15-07	APCO148	John R. Tice
J			APCO Energy, Inc
K	07-15-08, & 8.1	APCO120	Judith M. Davis
K			LM Associates/Alliance Petroleum



P.S. 708 *David L Jackson*

Notes: The information on this page was furnished by Jay Bee Oil & Gas.

 <p style="text-align: center;">Jay Bee Oil & Gas DRILLING into the future</p>	OPERATOR'S WELL #: P5S1U API #: 47-073-02588 DISTRICT: UNION COUNTY: PLEASANTS STATE: WV	WELL PLAT PAGE 3 OF 3 DATE: 01/07/2022
	05/13/2022	