

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

API 47 - 095 - 02330 County Tyler District McElroy  
Quad Shirley 7.5' Pad Name RPT8 Field/Pool Name \_\_\_\_\_  
Farm name Jack Hair et al Well Number RPT8-4U  
Operator (as registered with the OOG) Jay-Bee Oil & Gas, Inc.  
Address 3570 Shields Hill Rd. City Cairo State WV Zip 26337

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,370,411.03 Easting 518,404.84  
Landing Point of Curve Northing 4,370,876.16 Easting 518,429.68  
Bottom Hole Northing 4,372,600.13 Easting 517,871.40

Elevation (ft) 1,245.9' 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  Office of Oil and Gas  
Drilled with  Cable  Rotary

RECEIVED  
MAR 4 2019  
WV Department of Environmental Protection

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 OBM

Date permit issued 4-28-2016 Date drilling commenced 8-17-2016 Date drilling ceased 3-7-2017  
Date completion activities began 4-13-2017 Date completion activities ceased 4-24-2017  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 374' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft N/A 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  
Reviewed by: JEB  
3/14/2019

WR-35  
Rev. 8/23/13

API 47-095 - 02330 Farm name Jack Hair et al Well number RPT8-4U

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	85 lb./ft		Y
Surface	24"	20"	460'	New	94 lb./ft	50'	Y
Coal							
Intermediate 1	17 1/2"	13 3/8"	2,474'	New	61 lb./ft	400', 1,500'	Y
Intermediate 2	12 1/4"	9 5/8"	10,758'	New	47 lb./ft	2346', 3126', 3910'	Y
Intermediate 3							
Production	8 1/2"	5 1/2"	18,587'	New	23 lb./ft		Y
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	Class A	533	15.6	1.19	634	CTS	8
Coal							
Intermediate 1	Class A	Lead 1379 - Tail 429	Lead 15.0 - Tail 15.6	Lead 1.31 - Tail 1.19	Lead 1806 - Tail 511	CTS	8
Intermediate 2	Class A	Lead 1409 - Tail 348	Lead 12.5 - Tail 15	Lead 2.32 - Tail 1.34	Lead 3269 - Tail 466	1805' from surface	8
Intermediate 3							
Production	Class A	3635	15.6	1.18	4289	1000' from surface	8
Tubing							

Drillers TD (ft) 18,720' Loggers TD (ft) 18,720'

Deepest formation penetrated Point Pleasant Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 11,300'

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 Spiral centralizer every joint from TD back to start of

90 degree.

90 - 70 degree every second joint.

70 degree - KOP every third joint.

KOP - Surface centralizer placed 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- 095 - 02330

Farm name Jack Hair et al

Well number RPT8-4U

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	4/13/17	18472	18376	72	Point Pleasant
2	4/16/17	18275	18200	72	Point Pleasant
3	4/16/17	18102	17986	72	Point Pleasant
4	4/16/17	17926	17842	72	Point Pleasant
5	4/17/17	17783	17694	72	Point Pleasant
6	4/17/17	17624	17477	72	Point Pleasant
7	4/17/17	17414	17288	72	Point Pleasant
8	4/18/17	17234	17116	72	Point Pleasant
9	4/18/17	17062	16926	72	Point Pleasant
10	4/18/17	16871	16774	72	Point Pleasant
11	4/18/17	16712	16598	72	Point Pleasant
12	4/18/17	16542	16418	72	Point Pleasant
13	4/19/17	16336	16236	72	Point Pleasant
14	4/19/17	16172	16073	72	Point Pleasant
15	4/19/17	16010	15871	72	Point Pleasant
16	4/19/17	15834	15700	72	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	4/13/17	60	10959	n/a	7632	175900	6748	N/A
2	4/16/17	59	11377	11551	7608	168000	2672	N/A
3	4/16/17	67.3	10941	10885	8118	179100	4165	N/A
4	4/16/17	63	11123	11461	8360	180000	3594	N/A
5	4/17/17	70	11381	11335	8182	179100	1605	N/A
6	4/17/17	69	10874	10999	8120	170500	3375	N/A
7	4/17/17	69	10902	11292	7655	181300	3421	N/A
8	4/18/17	70	11137	11568	8274	181800	3815	N/A
9	4/18/17	67	11199	11581	8439	176100	1623	N/A
10	4/18/17	67	11199	11581	8439	176100	1623	N/A
11	4/18/17	69	11172	11690	8553	180000	2712	N/A
12	4/18/17	73	11085	9995	8463	178000	2317	N/A
13	4/19/17	70	10831	10000	8585	185100	2992	N/A
14	4/19/17	69	10840	10360	8770	169600	2854	N/A
15	4/19/17	71	10951	11615	8865	172300	2731	N/A
16	4/19/17	73	11279	9850	8626	182200	2791	N/A

Please insert additional pages as applicable.



WR-35  
Rev. 8/23/13

API 47- 095 - 02330

Farm name Jack Hair et al

Well number RPT8-4U

## PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	4/19/17	15629	15524	72	Point Pleasant
18	4/20/17	15484	15341	72	Point Pleasant
19	4/20/17	15301	15152	72	Point Pleasant
20	4/20/17	15104	14992	72	Point Pleasant
21	4/21/17	14950	14818	72	Point Pleasant
22	4/21/17	14752	14635	72	Point Pleasant
23	4/21/17	14580	14462	72	Point Pleasant
24	4/21/17	14412	14305	72	Point Pleasant
25	4/21/17	14235	14116	72	Point Pleasant
26	4/22/17	14072	13919	72	Point Pleasant
27	4/22/17	13837	13749	72	Point Pleasant
28	4/23/17	13700	13582	72	Point Pleasant
29	4/23/17	13530	13389	72	Point Pleasant
30	4/23/17	13349	13219	72	Point Pleasant
31	4/23/17	13172	13050	72	Point Pleasant
32	4/23/17	12992	12874	72	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	4/19/17	73	10933	10145	8503	177000	2735	n/a
18	4/20/17	73	11042	10328	8590	177900	2619	n/a
19	4/20/17	71	10965	10896	8524	179000	2604	n/a
20	4/20/17	71.4	11041	11076	7662	185600	4043	n/a
21	4/21/17	70	10793	11089	8044	184000	2720	n/a
22	4/21/17	71	10942	11393	8572	194000	3149	n/a
23	4/21/17	67	11263	12146	8643	165900	2949	n/a
24	4/21/17	74	10894	10982	7775	180600	2648	n/a
25	4/21/17	74	10637	11554	7845	178700	2626	n/a
26	4/22/17	72	10506	11866	8049	179900	2709	n/a
27	4/22/17	69	10982	11789	8201	181600	3489	n/a
28	4/23/17	71	10843	10454	8314	179100	2308	n/a
29	4/23/17	72	10462	10478	8124	178600	2592	n/a
30	4/23/17	70	10305	10557	8372	176800	2567	n/a
31	4/23/17	70	10570	11008	8440	184300	2890	n/a
32	4/23/17	75	10436	10736	8214	182400	2757	n/a

Please insert additional pages as applicable.



<b>FORMATION</b>	<b>TOP</b>	<b>BOTTOM</b>
MISC. RED ROCK & SHALES	0	2105
LIME	2105	2205
INJUN	2205	2322
SHALE	2322	2669
GORDON STRAY	2669	2689
SHALE	2689	2885
GORDON	2885	2915
SHALE	2915	3194
BAYARD	3194	3203
SHALE	3203	3532
WARREN	3532	3630
SHALE	3630	3866
BALLTOWN	3866	4029
SHALE	4029	4467
2ND RILEY	4467	4575
SHALE	4575	4726
3RD RILEY	4726	4767
SHALE	4767	4824
BENSON	4824	4827
SHALE	4827	5069
ALEXANDER	5069	5240
SHALE	5240	5485
ELK	5485	5533
SHALE	5533	5994
HAMILTON	5994	6168
SHALE	6168	6824
UPPER MARCELLUS	6824	6844
PARCELL LIME	6844	6879
SHALE	6879	6890
LOWER MARCELLUS	6890	6952
ONONDAGA	6952	6981
HUNTERSVILLE CHERT	6981	7176
ORISKANY	7176	7220
HELDERBERG	7220	7644

BASS ISLAND	7644	7702
SALINA	7702	8781
LOCKPORT	8781	9075
ROSE HILL	9075	9527
PACKER SHELL	9527	9589
CLINTON	9589	9838
QUEENSTON	9838	10645
REEDSVILLE	10645	11621
UTICA	11621	11773
POINT PLEASANT	11773	0



## Hydraulic Fracturing Fluid Product Component Information Disclosure



Job Start Date:	4/13/2017
Job End Date:	4/24/2017
State:	West Virginia
County:	Tyler
API Number:	47-095-02330-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	RPT 8-4U
Latitude:	39.48310200
Longitude:	-80.78598700
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	12,018
Total Base Water Volume (gal):	7,758,240
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	Company 1	Carrier/Base Fluid	Water	7732-18-5	100.00000	90.33038	None
Sand (Proppant)	Producers Service Corp	Proppant	Silica Substrate	14808-60-7	100.00000	6.68927	None
KRYPTOSPHERE LD35	Producers Service Corp	Ceramic Proppant	Ceramic Materials	66402-68-4	100.00000	1.82621	None
15% IC Acid	Producers Service Corp	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.14901	None
PRO GEL 4.0L	Producers Service Corp	Gel	Guar Gum Blend	9000-30-0	100.00000	0.04074	None
STIMLUBE F	Producers Service Corp	Friction Reducer	Petroleum Distallates	64742-47-8	30.00000	0.02388	None
			Alcohols, ethoxylated	68439-50-9	3.10000	0.00247	None
			Alcohols, ethoxylated	68002-97-1	3.10000	0.00247	None
			Alcohols, ethoxylated	68551-12-2	3.10000	0.00247	None



SCALECLEAR 112	Producers Service Corp	Scale Inhibitor							
			Ethylene Glycol	107-21-1	40.00000	0.01014	None		
BIOCLEAR 1430	Producers Service Corp	Biocide							
			Glutaraldehyde	111-30-8	20.00000	0.00300	None		
			Alkyl dimethyl benzyl ammonium chloride	68424-85-1	5.00000	0.00075	None		
			Dimethylamine	68439-70-3	0.50000	0.00007	None		
PRO BREAK 4	Producers Service Corp	Gel Breaker							
			Surcose	57-50-1	46.00000	0.00003	None		
			Ethylene Glycol	107-21-1	14.00000	0.00001	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							
			Alcohols, ethoxylated	68002-97-1	3.10000	0.00247			
			Alcohols, ethoxylated	68551-12-2	3.10000	0.00247			
			Alcohols, ethoxylated	68439-50-9	3.10000	0.00247			
			Alkyl dimethyl benzyl ammonium chloride	68424-85-1	5.00000	0.00075			
			Dimethylamine	68439-70-3	0.50000	0.00007			
			Ethylene Glycol	107-21-1	14.00000	0.00001			

\* 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.**

June 16, 2017

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

RE: RPT8-4U Records Confidentiality

Dear Ms. Raines:

Please keep all logs and records submitted with the RPT8-4U WR35 confidential.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Shane Dowell".

Shane Dowell  
Office Manager





**Notes:**  
 1. All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats & aerial photos.  
 2. No water wells were found within 250' of the location. No dwelling or agricultural buildings were found within 625' of the center of the well pad.

NUMBER	DIRECTION	DISTANCE
L1	S37°44' E	1,954'
L2	S68°26' E	2,038'
L3	N04°01' E	1,529'

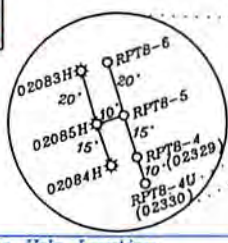
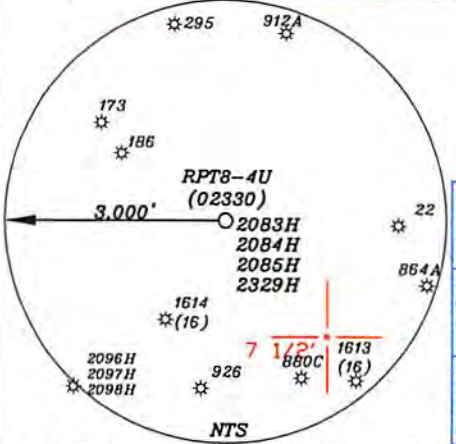
05/03/2019

- A-Hair et al T.M. 2-2 53.31 Ac. T1-13
- B-Sherwood T.M. 2-3 14.5 Ac. T3107
- C-Parr T.M. 23-6.1 8.01 Ac. T3107A
- D-Parr T.M. 23-6 18.62 Ac. T3106
- E-Hair et al T.M. 23-5 3 Ac. T3106
- F-Hair et al T.M. 23-4 9 Ac. T3106
- G-Weekley Est. T.M. 23-27 7 Ac. T3109A2
- H-Adams T.M. 23-1 20 Ac. T3901A1
- I-Bedora T.M. 23-3 9 Ac. RPT11
- J-Parr T.M. 17-54 17.43 Ac.
- K-Parr T.M. 17-55 34 Ac. T3246
- L-Williams T.M. 17-57 12.51 Ac. T3246A
- M-Weekley et al T.M. 16-34 15 Ac. T3248A
- N-Williams T.M. 17-57.3 31.22 Ac. T3246A
- O-Williams T.M. 17-57.2 29.6 Ac. T3246A

**Surface Hole Location**  
 Geo. NAD 83-39.483102 N, 80.785990 W  
 UTM NAD 83(Meters)-4370411.03 N, 518404.84 E  
 UTM NAD 83(Feet)-14338590.18 N, 1700799.87 E

**Landing Point Location**  
 Geo. NAD 83-39.487293 N, 80.785688 W  
 UTM NAD 83(Meters)-4370876.16 N, 518429.68 E  
 UTM NAD 83(Feet)-14340116.22 N, 1700881.36 E

**Bottom Hole Location**  
 Geo. NAD 83-39.502838 N, 80.792134 W  
 UTM NAD 83(Meters)-4372600.13 N, 517871.40 E  
 UTM NAD 83(Feet)-14345772.25 N, 1699049.74 E



**Surface Hole Location**  
 Geo. NAD 83-39.483102 N, 80.785987 W  
 UTM NAD 83(Meters)-4370411.03 N, 518405.13 E  
 UTM NAD 83(Feet)-14338590.18 N, 1700800.82 E

**Landing Point Location**  
 Geo. NAD 83-39.487836 N, 80.785657 W  
 UTM NAD 83(Meters)-4370936.46 N, 518432.26 E  
 UTM NAD 83(Feet)-14340314.03 N, 1700889.82 E

**Bottom Hole Location**  
 Geo. NAD 83-39.502793 N, 80.792061 W  
 UTM NAD 83(Meters)-4372595.10 N, 517877.69 E  
 UTM NAD 83(Feet)-14345755.76 N, 1699070.40 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) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ P.S. 708

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

DATE July 18, 2017  
 OPERATOR'S WELL NO. RPT8 4U  
 API WELL NO. As Drilled

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL STATE 47 COUNTY 095 PERMIT 02330  
 (IF 'GAS') PRODUCTION X STORAGE DEEP X SHALLOW

LOCATION: ELEVATION 1,245.9' WATER SHED Big Run  
 DISTRICT McElroy COUNTY Tyler  
 QUADRANGLE Shirley 7 1/2'

SURFACE OWNER Jack Hair et al ACREAGE 85 ac  
 OIL & GAS ROYALTY OWNER Jack Hair - 85 Ac.

LEASE NO. RPT 8  
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As Drilled  
 PLUG AND ABANDON CLEAN OUT AND REPLUG  
 TARGET FORMATION Utica ESTIMATED DEPTH TVD=12,019' TMD=18,720'  
 WELL OPERATOR Jay Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda  
 ADDRESS 1720 Rt. 22 East Union, NJ 07083 ADDRESS Rt. 1 Box 5 Cairo, WV 26337

LONGITUDE 80-45-00 W Bottom Hole 14,110' Top Hole 6,155'



References



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.
- No waters wells were found within 250' of the location. No dwelling or agricultural buildings were found within 625' of the center of the well pad.

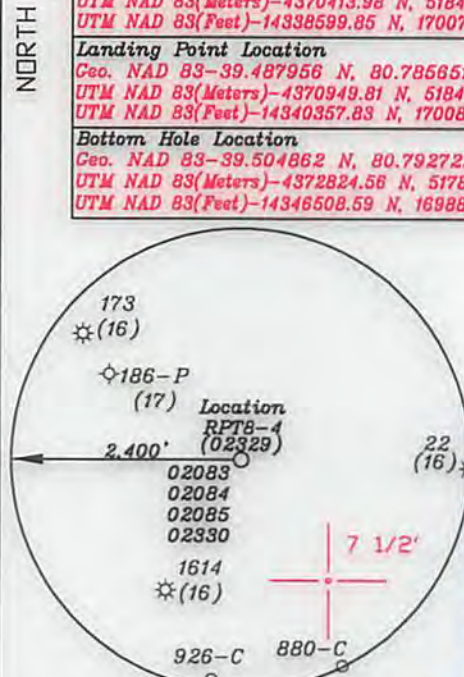
NUMBER	DIRECTION	DISTANCE
L1	S37°51' E	1,945'
L2	S58°37' E	2,031'
L3	N04°00' E	1,781'

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- C-Parr T.M. 23-6.1 8.01 Ac. T3107A
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- F-Hair et al T.M. 23-4 9 Ac. T3106
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- H-Adams T.M. 23-1 20 Ac. T3901A1
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- J-Parr T.M. 17-54 17.43 Ac. T3221
- K-Parr T.M. 17-55 34 Ac. T3246
- L-Williams T.M. 17-57 12.51 Ac. T3246A
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- N-Williams T.M. 17-57.3 31.22 Ac. T3246A
- O-Williams T.M. 17-57.2 29.6 Ac. T3246A
- P-Williams T.M. 17-57.1 20.47 Ac. T3246A
- Q-Hammitt et al T.M. 17-34 18.49 Ac.
- R-Nichols et al T.M. 2-19 12.5 Ac.
- S-Weekley T.M. 16-33 16.5 Ac. T3248B
- T-Wilkinson T.M. 17-33 1 Ac.
- U-Peck T.M. 17-28 5 Ac.
- V-Parr T.M. 23-7 46.5 Ac. T4002B

**Surface Hole Location**  
 Geo. NAD 83-39.483129 N, 80.785998 W  
 UTM NAD 83(Meters)-4370413.98 N, 518404.12 E  
 UTM NAD 83(Feet)-14338599.85 N, 1700797.53 E

**Landing Point Location**  
 Geo. NAD 83-39.487956 N, 80.785651 W  
 UTM NAD 83(Meters)-4370949.81 N, 518432.67 E  
 UTM NAD 83(Feet)-14340357.83 N, 1700891.18 E

**Bottom Hole Location**  
 Geo. NAD 83-39.504862 N, 80.792722 W  
 UTM NAD 83(Meters)-4372824.56 N, 517820.32 E  
 UTM NAD 83(Feet)-14346508.59 N, 1698882.16 E



**Surface Hole Location**  
 Geo. NAD 83-39.483128 N, 80.785998 W  
 UTM NAD 83(Meters)-4370413.91 N, 518404.15 E  
 UTM NAD 83(Feet)-14338599.65 N, 1700797.62 E

**Landing Point Location**  
 Geo. NAD 83-39.488062 N, 80.785641 W  
 UTM NAD 83(Meters)-4370961.56 N, 518433.54 E  
 UTM NAD 83(Feet)-14340396.37 N, 1700894.04 E

**Bottom Hole Location**  
 Geo. NAD 83-39.504447 N, 80.792657 W  
 UTM NAD 83(Meters)-4372778.59 N, 517826.02 E  
 UTM NAD 83(Feet)-14346357.62 N, 1698900.86 E

3. 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" = 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 July 18, 2016  
 OPERATOR'S WELL NO. RPT8 4  
 API WELL NO. AsDrilled

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL \_\_\_\_\_  
 (IF 'GAS') PRODUCTION X STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1,245.9' WATER SHED Big Run  
 DISTRICT McElroy COUNTY Tyler  
 QUADRANGLE Shirley 7 1/2'  
 SURFACE OWNER Jack Hair et al ACREAGE 85 ac  
 OIL & GAS ROYALTY OWNER Jack Hair et al (85 Ac.)

LEASE NO. RPT 8  
 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 Marcellus ESTIMATED DEPTH TVD=6,886' TMD=14,728'  
 WELL OPERATOR Jay Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda  
 ADDRESS 1720 Rt. 22 East Union, NJ 07083 ADDRESS Rt. 1 Box 5 Cairo, WV 26337



ADDRESS: 1150 W. 33rd Street, Norfolk, VA 23502  
 ADDRESS: 1 Box 2, Catonsville, MD 21033  
 MEGG DESCRIPTION: 1000 Gallons of 100% Acetone  
 DESIGNATED AGENCY: Environmental Protection Agency  
 TABLE INFORMATION: Material: Acetone, ESTIMATED DEPTH: 1.0' to 1.5',  
 BURST AND ABANDON: CLEAN OUT AND REBURST  
 INFORMATION: OTHER PHYSICAL CHANGE IN MEGG (SPECIFY):  
 STIMULATE BURST OF OLD FORMATION BEFORE/BEHIND  
 PROPOSED WORKING: COMPLETE DIGGING DEEPER BEDDING FACILITY OR  
 LEASE NO: 8818

05/03/2019

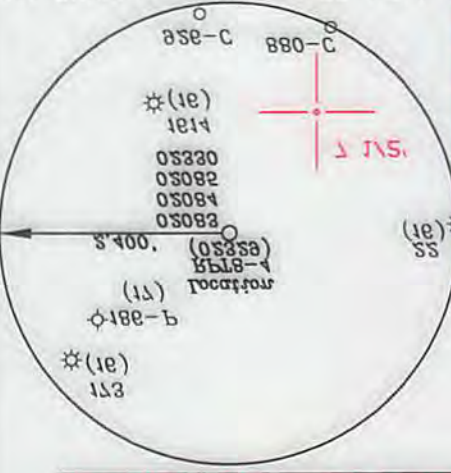
DIG & GAS POLYETHYLENE LINER (80' AC)  
 SURFACE OWNER: Jack Hays et al  
 ADDRESS: 82 ac  
 SURVANCE: 2111st & 115,  
 DISTRICT: McHenry  
 COUNTY: Jefferson  
 LOCATION: ELEVATION: 1342', WATER SHED: BFD BWS  
 (IF GAS) PRODUCTION: X STORAGE: DEEP ZHANGOW X  
 MEGG TYPE: DIG GAS X LIQUID INJECTION WASTE DISPOSAL  
 STATE: VA COUNTY: 080 PERMIT: 03350  
 OFFICE OF DIG AND GAS: 8818  
 DIVISION OF ENVIRONMENTAL PROTECTION: 8818  
 STATE OF WEST VIRGINIA: 8818  
 DATE: 11/18/2018

Supervisor: [blank]  
 ELEVATION: 682  
 PROVEN SOURCE OF ACCURACY: 1 for 500  
 MINIMUM DEGREE OF SCALE: 1" = 5000'  
 DRAWING NO: 1  
 FIGE NO: [blank]

(21000)  
 ENVIRONMENTAL PROTECTION  
 ISSUED AND DESCRIBED BY THE DEPARTMENT OF INFORMATION RECEIVED BY GYM AND THE BUREAU KNOWLEDGE AND BELIEF AND SHOWS ALL THE THIS THAT IS CORRECT TO THE BEST OF MY I THE UNDERSIGNED, HEREBY CERTIFY THAT



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

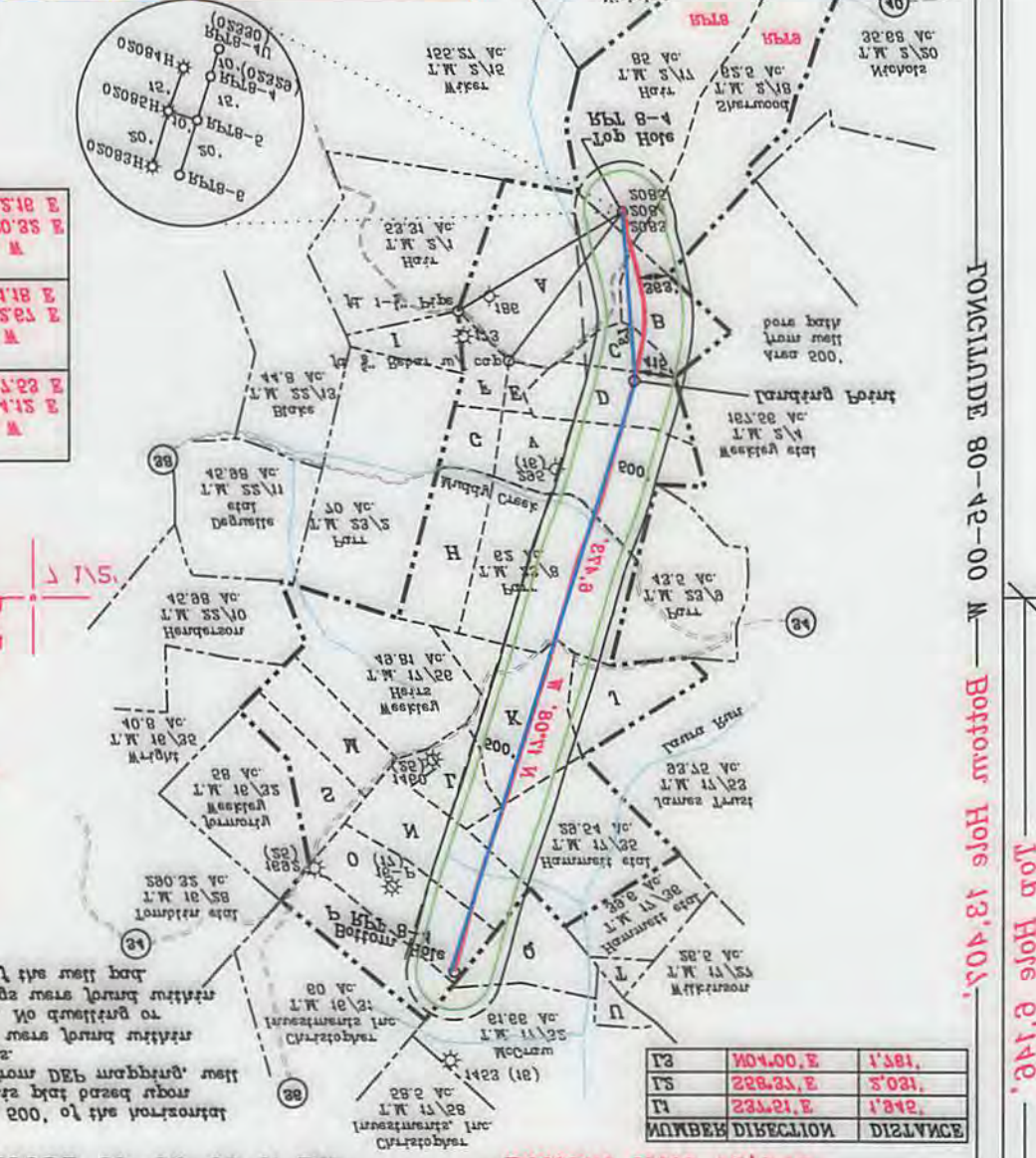


UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E GEO: NAD 83 - 38° 20' 44.11 N' 80° 13' 52.21 W Bottom Hole Location
UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E GEO: NAD 83 - 38° 48' 00.25 N' 80° 13' 52.21 W Landmark Point Location
UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E GEO: NAD 83 - 38° 48' 15.58 N' 80° 13' 52.21 W Surface Hole Location

State Plane Grid North - MA North Zone NAD 83  
 2' less to north and correct the offset on

UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E UTM NAD 83 (Zone 18Q) - 14340321.82 N' 1400881.04 E GEO: NAD 83 - 38° 20' 44.11 N' 80° 13' 52.21 W Bottom Hole Location
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- A - 100' Lx 100' 10' 2" 140028
- B - 100' Lx 100' 10' 2" 140028
- C - 100' Lx 100' 10' 2" 140028
- D - 100' Lx 100' 10' 2" 140028
- E - 100' Lx 100' 10' 2" 140028
- F - 100' Lx 100' 10' 2" 140028
- G - 100' Lx 100' 10' 2" 140028
- H - 100' Lx 100' 10' 2" 140028
- I - 100' Lx 100' 10' 2" 140028
- J - 100' Lx 100' 10' 2" 140028
- K - 100' Lx 100' 10' 2" 140028
- L - 100' Lx 100' 10' 2" 140028
- M - 100' Lx 100' 10' 2" 140028
- N - 100' Lx 100' 10' 2" 140028
- O - 100' Lx 100' 10' 2" 140028
- P - 100' Lx 100' 10' 2" 140028
- Q - 100' Lx 100' 10' 2" 140028
- R - 100' Lx 100' 10' 2" 140028
- S - 100' Lx 100' 10' 2" 140028
- T - 100' Lx 100' 10' 2" 140028
- U - 100' Lx 100' 10' 2" 140028
- V - 100' Lx 100' 10' 2" 140028
- W - 100' Lx 100' 10' 2" 140028
- X - 100' Lx 100' 10' 2" 140028
- Y - 100' Lx 100' 10' 2" 140028
- Z - 100' Lx 100' 10' 2" 140028



Notes:  
 1. All wells within 200' of the point of  
 2. No water wells were found within  
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 100. No water wells were found within

NUMBER	DIRECTION	DISTANCE
13	N04.00° E	1' 381
15	S28.31° E	1' 031
17	S23.21° E	1' 842

LONGITUDE 80-42-00 W - Bottom Hole 13' 402'  
 LONGITUDE 80-42-00 W - Bottom Hole 13' 402'  
 LONGITUDE 80-42-00 W - Bottom Hole 13' 402'  
 LONGITUDE 80-42-00 W - Bottom Hole 13' 402'