

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

API 47 - 095 - 02144 County Tyler District McElroy
Quad Center Point Pad Name Sleepy Field/Pool Name _____
Farm name Weimer, Brent A. & Emma Well Number Sleepy 3
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 4,369,565 Easting 522,470
Landing Point of Curve Northing N/A Easting _____
Bottom Hole Northing 4,367,843 Easting 523,940

Elevation (ft) 1,109' 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)
ABS 40

Date permit issued 6/16/2014 Date drilling commenced 8/4/2014 Date drilling ceased 10/23/2014
Date completion activities began 12-21-2015 Date completion activities ceased 12-29-2015
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 90-120' 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 1590-1620' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED Office of Oil & Gas
MAR 27 2016

NAME: [Signature]
DATE: 9/8/16

Reviewed by: _____
10/28/2016

API 47-095 02144

Farm name Weimer, Brent A. & Emma

Well number Sleepy 3

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	17"	16"	30'	New	20/32/24		Y
Surface	15"	11 3/4"	352'	New	20/23/24	50'	Y
Coal							
Intermediate 1	11"	8 5/8"	2,329'	New	20/17/24	1500'	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	5 1/2"	14,183'	New	20		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							
Surface	Class A	310	15.6	1.18	162	CTS	8
Coal							
Intermediate 1	Class A	650	14.7	1.36	589	CTS	8
Intermediate 2							
Intermediate 3							
Production	Class A	1,827	14.4	1.32	2,411	120' from surface	8
Tubing							

Drillers TD (ft) 14,183'

Loggers TD (ft) 14,183'

Deepest formation penetrated Marcellus

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6,353'

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 _____

Received

WAS WELL COMPLETED OPEN HOLE? Yes No

DETAILS _____

Office of Oil & Gas

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WERE TRACERS USED Yes No

TYPE OF TRACER(S) USED _____

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/21/2015	14171	13989	96	Marcellus
2	12/21/2015	13954	13784	72	Marcellus
3	12/22/2015	13749	13587	72	Marcellus
4	12/22/2015	13552	13375	72	Marcellus
5	12/22/2015	13340	13171	72	Marcellus
6	12/22/2015	13136	12951	72	Marcellus
7	12/23/2015	12916	12755	72	Marcellus
8	12/23/2015	12720	12575	72	Marcellus
9	12/23/2015	12540	12368	72	Marcellus
10	12/23/2015	12333	12131	72	Marcellus
11	12/23/2015	12096	11917	72	Marcellus
12	12/24/2015	11882	11731	72	Marcellus
13	12/24/2015	11696	11517	72	Marcellus
14	12/24/2015	11458	11270	72	Marcellus
15	12/24/2015	11225	11083	72	Marcellus
16	12/26/2015	11038	10873	72	Marcellus

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	12/21/15	77.1	7670	6130	5482	179600	7201	N/A
2	12/21/15	77.3	7652	6203	5499	179500	6448	N/A
3	12/22/15	77.3	7167	6055	5026	179800	6312	N/A
4	12/22/15	77.5	7641	5932	5253	180700	6395	N/A
5	12/22/15	77.6	7475	5922	5238	179900	6172	N/A
6	12/22/15	77.3	7445	5760	4670	179700	5893	N/A
7	12/23/15	76.9	7521	6424	4901	179600	5916	N/A
8	12/23/15	77.6	7492	5944	5224	180600	6246	N/A
9	12/23/15	77.1	7651	6038	5425	180100	7217	N/A
10	12/23/15	76.9	7803	6127	4578	180300	6077	N/A
11	12/23/15	77.3	7606	6027	5043	180800	6056	N/A
12	12/24/15	77.1	7233	5796	4873	180000	6259	N/A
13	12/24/15	77.4	7270	6036	5295	180300	6019	N/A
14	12/24/15	77.2	7145	5878	4735	180200	6122	N/A
15	12/24/15	77.1	7831	6406	5146	179900	6021	N/A
16	12/26/15	77.7	7469	5932	4356	179800	5754	N/A

Please insert additional pages as applicable.

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Farm name Weimer, Brent A. & Emma

Well number Sleepy 3

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	12/26/2015	10836	10697	72	Marcellus
18	12/26/2015	10640	10503	72	Marcellus
19	12/26/2015	10450	10298	72	Marcellus
20	12/27/2015	10251	10091	72	Marcellus
21	12/27/2015	10048	9878	72	Marcellus
22	12/27/2015	9826	9690	72	Marcellus
23	12/27/2015	9647	9489	72	Marcellus
24	12/27/2015	9431	9250	72	Marcellus
25	12/27/2015	9230	9060	72	Marcellus
26	12/28/2015	9008	8832	72	Marcellus
27	12/28/2015	8787	8630	72	Marcellus
28	12/28/2015	8594	8427	72	Marcellus
29	12/28/2015	8374	8236	72	Marcellus
30	12/28/2015	8178	8013	72	Marcellus
31	12/28/2015	7979	7829	72	Marcellus
32	12/29/2015	7780	7617	72	Marcellus

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 (bbbls)	Amount of Nitrogen/other (units)
17	12/26/15	77.2	7382	6275	5156	179800	5997	N/A
18	12/26/15	77.7	7258	5899	4646	180050	5943	N/A
19	12/26/15	77.7	7026	5511	4328	179800	5868	N/A
20	12/27/15	77	7009	6288	4838	179050	5801	N/A
21	12/27/15	77	7047	5649	4652	179300	5866	N/A
22	12/27/15	77.1	6958	5537	4624	179650	5787	N/A
23	12/27/15	77.8	7264	5769	4435	180400	5635	N/A
24	12/27/15	77.8	7313	5723	4122	180400	5781	N/A
25	12/27/15	78	6817	5745	4590	180250	5970	N/A
26	12/28/15	78.2	7080	5651	4500	180300	5794	N/A
27	12/28/15	79.7	7030	5718	4563	179650	5681	N/A
28	12/28/15	79.6	6940	5901	4644	180450	5758	N/A
29	12/28/15	79.5	7083	6033	5219	180550	5693	N/A
30	12/28/15	79.5	6873	6092	4653	180400	5667	N/A
31	12/28/15	80.1	6859	6112	4707	181900	5601	N/A
32	12/29/15	80.5	6755	5830	4726	180650	5396	N/A

Please insert additional pages as applicable.

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
33	12/29/2015	7572	7412	72	Marcellus
34	12/29/2015	7366	7207	72	Marcellus

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	12/29/15	80.2	6872	6312	4749	181600	5390	n/a
34	12/29/15	79.7	6921	6036	4826	181650	5407	n/a

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Please insert additional pages as applicable.

API 47- 095 - 02144 Farm name Weimer, Brent A. & Emma Well number Sleepy 3

PRODUCING FORMATION(S)	DEPTH(S)		
	DEPTH	TVD	MD
Marcellus	6,988'		14,183'

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2500 psi Bottom Hole N/A psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 4600 mcfpd Oil 56 bpd NGL bpd Water 260 bpd GAS MEASURED BY Estimated Orifice Pilot

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

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Please insert additional pages as applicable.

Drilling Contractor Horizontal Well Drillers
Address 2915 SH 74 South City Purcell State OK Zip 73080

Logging Company Precise Well Analysis
Address PO Box 542 City Belpre State OH Zip 45714

Cementing Company Nabors Completion & Production
Address 1650 Hackers Creek Rd. City Jane Lew State WV Zip 26378

Stimulating Company CalFrac
Address 717 17th St. City Denver State CO Zip 80202

Please insert additional pages as applicable.

Completed by Shane Dowell Telephone 304-628-3111
Signature  Title Office Manager Date 3-24-2016

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

Lithology

Sleepy 3 47-095-02144

FORMATION	TOP	BOTTOM
MISC. RED ROCK & SHALES	0	2205
LIME	2205	2305
INJUN	2305	2422
SHALE	2422	2769
GORDON STRAY	2769	2789
SHALE	2789	2985
GORDON	2985	3015
SHALE	3015	3294
BAYARD	3294	3303
SHALE	3303	3632
WARREN	3632	3730
SHALE	3730	3966
BALLTOWN	3966	4129
SHALE	4129	4567
2ND RILEY	4567	4675
SHALE	4675	4826
3RD RILEY	4826	4867
SHALE	4867	4924
BENSON	4924	4927
SHALE	4927	5169
ALEXANDER	5169	5340
SHALE	5340	5585
ELK	5585	5633
SHALE	5633	6007
HAMILTON	6007	6181
SHALE	6181	6837
UPPER Marcellus	6837	6843
PARCELL LIME	6843	6878
SHALE	6878	6966
LOWER MARCELLUS	6966	

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/21/2015
Job End Date:	12/29/2015
State:	West Virginia
County:	Tyler
API Number:	47-095-02144-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	Sleepy 3
Longitude:	-80.73891670
Latitude:	39.47530560
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,988
Total Base Water Volume (gal):	8,750,120
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	Customer & CWS	Base Fluid & Mix Water	Water	7732-18-5	100.00000	91.77709	
Sand (Proppant), DAP-901, DAP-925, DWP-111, DWP-621, DWP-901, DWP-938, DWP-844, Hydrochloric Acid	CWS	Propping Agent, Scale Inhibitor, Acid Corrosion Inhibitor, Gel Slurry, Friction Reducer, Breaker, Surfactant, Microbicide, Clean Perforations					
			Crystalline silica (Quartz)	14808-60-7	100.00000	7.86111	
			Hydrochloric acid	7647-01-0	37.00000	0.14960	
			Paraffinic hydrocarbon solvent	64742-47-8	30.00000	0.03798	
			2-Propenoic acid, polymer with 225987-30-8	225987-30-8	40.00000	0.03376	
			Guar gum	9000-30-0	60.00000	0.02122	
			Distillates (petroleum), hydrotreated middle	64742-46-7	60.00000	0.02122	
			Polyethylene glycol mixture	25322-68-3	54.50000	0.01544	
			Illite	12173-60-3	1.00000	0.00946	
			Calcite	471-34-1	1.00000	0.00924	
			Methanol	67-56-1	60.00000	0.00914	

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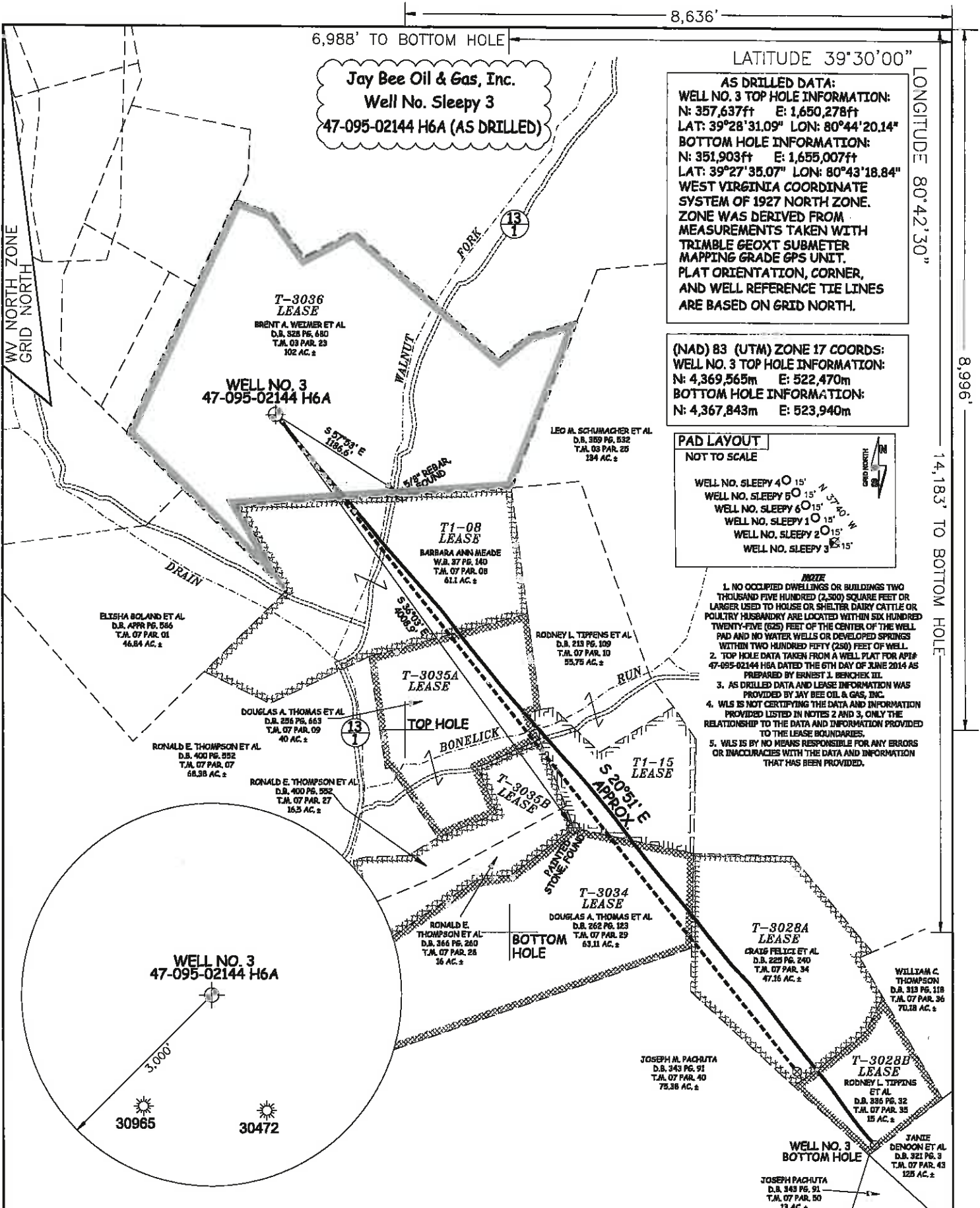
Organic phosphonate 1	Proprietary	30.00000	0.00747	Proprietary CAS
2,2-Dibromo-3-Nitropropionamide	10222-01-2	20.00000	0.00567	
Goethite	1310-14-1	0.10000	0.00483	
Sorbitan monooleate, ethoxylated	9005-65-6	5.00000	0.00422	
Sorbitan monooleate	1338-43-8	5.00000	0.00422	
Apatite	64476-38-6	0.10000	0.00395	
Biotite	1302-27-8	0.10000	0.00395	
Ilmenite	98072-94-7	0.10000	0.00351	
Isotridecyl alcohol, ethoxylated	78330-21-9	3.00000	0.00253	
Organic phosphonate 2	Proprietary	10.00000	0.00249	Proprietary CAS
Quaternary ammonium compounds, bis(hydrogenated tallow alkyl)dimethyl, salts with bentonite	68953-58-2	5.00000	0.00177	
Sodium acetate	126-96-5	2.00000	0.00169	
Ammonium chloride	12125-02-9	10.00000	0.00149	
Oxyalkylated polyamine	Proprietary	5.00000	0.00124	Proprietary CAS
Amine salt	Proprietary	5.00000	0.00124	Proprietary CAS
Sodium bromide	7647-15-6	4.00000	0.00113	
Ammonium Persulfate	7727-54-0	100.00000	0.00109	
Dibromoacetonitrile	3252-43-5	3.00000	0.00085	
Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00053	
Alcohols, C9-11, ethoxylated	98439-46-3	5.00000	0.00026	
Acetic acid	64-19-7	1.00000	0.00025	
Acrylamide	79-06-1	0.10000	0.00008	
Modified thiourea polymer	68527-49-1	30.00000	0.00005	
Alcohols, C12-13, ethoxylated	66455-14-9	1.00000	0.00005	
Fatty acids, tall-oil	61790-12-3	30.00000	0.00005	
Alcohols, C14-15, ethoxylated	68951-67-7	30.00000	0.00005	
Formaldehyde	50-00-0	0.10000	0.00004	
Propargyl Alcohol	107-19-7	10.00000	0.00002	
Alkenes, C>10 a-	64743-02-8	5.00000	0.00001	
Sodium chloride	7647-14-5	1.00000		

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.

* 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 Field Development Products is subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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 Office of Oil & Gas
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6,988' TO BOTTOM HOLE

8,636'

LATITUDE 39°30'00"

LONGITUDE 80°42'30"

Jay Bee Oil & Gas, Inc.
Well No. Sleepy 3
47-095-02144 H6A (AS DRILLED)

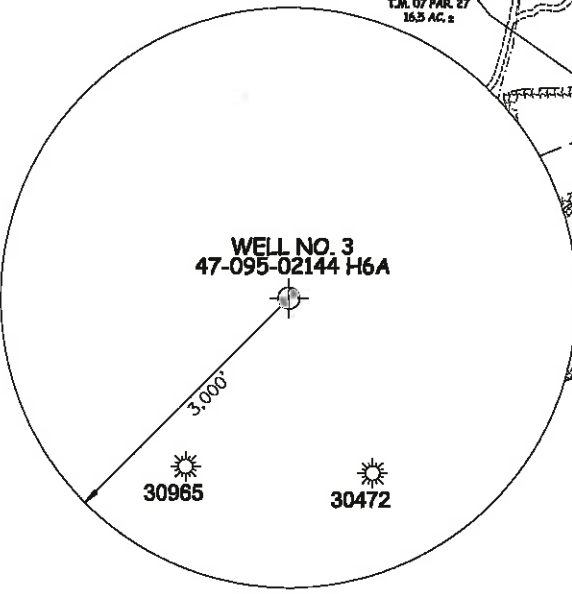
AS DRILLED DATA:
WELL NO. 3 TOP HOLE INFORMATION:
 N: 357,637ft E: 1,650,278ft
 LAT: 39°28'31.09" LON: 80°44'20.14"
BOTTOM HOLE INFORMATION:
 N: 351,903ft E: 1,655,007ft
 LAT: 39°27'35.07" LON: 80°43'18.84"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE. ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE 660XT SUBMETER MAPPING GRADE GPS UNIT. PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.

(NAD) 83 (UTM) ZONE 17 COORDS:
WELL NO. 3 TOP HOLE INFORMATION:
 N: 4,369,565m E: 522,470m
BOTTOM HOLE INFORMATION:
 N: 4,367,843m E: 523,940m

PAD LAYOUT
 NOT TO SCALE

WELL NO. SLEEPY 4 15'
 WELL NO. SLEEPY 5 15'
 WELL NO. SLEEPY 6 15'
 WELL NO. SLEEPY 1 15'
 WELL NO. SLEEPY 2 15'
 WELL NO. SLEEPY 3 15'

- NOTE**
1. NO OCCUPIED DWELLINGS OR BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD AND NO WATER WELLS OR DEVELOPED SPRINGS WITHIN TWO HUNDRED FIFTY (250) FEET OF WELL.
 2. TOP HOLE DATA TAKEN FROM A WELL PLAT FOR API# 47-095-02144 H6A DATED THE 6TH DAY OF JUNE 2014 AS PREPARED BY ERNEST J. BENCHEK III.
 3. AS DRILLED DATA AND LEASE INFORMATION WAS PROVIDED BY JAY BEE OIL & GAS, INC.
 4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
 5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.



JOB # **JAYBEESLEEPY3**
 DRAWING # **SLEEPY3H**
 SCALE **1" = 1000'**
 MINIMUM DEGREE OF ACCURACY **SUBMETER**
 PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 DIVISION OF OIL AND GAS



STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

WILLOW LAND SURVEYING PLLC
 220 MASONIC AVE. PENNSBORO WEST VIRGINIA 26415

LEGEND

- Surface Owner Boundary Lines +/-
- Interior Surface Tracts +/-
- Found monument, as noted
- Proposed Well Path
- As Drilled Well Path

DATE **03/21/16**
 OPERATOR'S WELL# **SLEEPY 3**

WELL TYPE: OIL ___ GAS **X** LIQUID INJECTION ___ WASTE DISPOSAL ___ **47 - 095 - 02144**
 (IF "GAS") PRODUCTION **X** STORAGE ___ DEEP ___ SHALLOW **X** STATE COUNTY PERMIT
 LOCATION: ELEVATION **1,120'** WATERSHED **OUTLET MIDDLE ISLAND CREEK** COUNTY NAME **TYLER**
 QUADRANGLE **SHIRLEY 7.5'** DISTRICT **MCELROY** COUNTY **TYLER** PERMIT **10/28/2016**

SURFACE OWNER **BRENT A. WEIMER ET AL** ACREAGE **102 ACRES +/-**
 OIL & GAS ROYALTY OWNER **T-3036; T1-08; T-3035A; T-3035B; T1-15; T-3034; T-3028A; T-3028B** LEASE ACREAGE **102 ACRES±; 63.27 ACRES±; 40 ACRES±; 32.5 ACRES±; 23.88 ACRES±; 63.11 ACRES±; 47.16 ACRES±; 15 ACRES±**

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
 PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL ___
 (SPECIFY) **(X) AS DRILLED** PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
 TARGET FORMATION **MARCELLUS** ESTIMATED DEPTH **6,988' TVD 14,183' MD**
 WELL OPERATOR **JAY BEE OIL & GAS, INC.** DESIGNATED AGENT **RANDY BRODA**
 ADDRESS **1720 ROUTE 22** ADDRESS **ROUTE 1, BOX 5**
EAST UNION, NJ 07083 **CAIRO, WV 26337**