

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

API 47-095-02146 County Tyler District McElroy
Quad Center Point Pad Name Sleepy Field/Pool Name _____
Farm name Weimer, Brent A. & Emma Well Number Sleepy 6
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 4,369,576 Easting 522,462
Landing Point of Curve Northing 4,369,373 Easting 522,232
Bottom Hole Northing 4,370,830 Easting 521,365

Elevation (ft) 1,111.4' 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 8/12/2014 Date drilling ceased 10/9/2014
Date completion activities began 1/3/2016 Date completion activities ceased 1/9/2016
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 Received
Office of Oil & Gas
NAME: [Signature] MAR 27 2016
DATE: 9/8/16

Reviewed by: _____
10/28/2016

API 47-095 02146 Farm name Weimer, Brent A. & Emma Well number Sleepy 6

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"	341'	New	20/23/24	50'	Y
Coal							
Intermediate 1	11"	8 5/8"	2332'	New	20/17/24	1500'	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	5 1/2"	13,395'	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	290	15.6	1.18	159	CTS	8
Coal							
Intermediate 1	Class A	650	14.7	1.36	589	CTS	8
Intermediate 2							
Intermediate 3							
Production	Class A	1,716	14.4	1.32	2,265	320' from surface	8
Tubing							

Drillers TD (ft) 13,395' Loggers TD (ft) 13,395'
 Deepest formation penetrated Marcellus Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 6,090'

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 _____

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API 47- 095 - 02146 Farm name Weimer, Brent A. & Emma Well number Sleepy 6

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	01/03/2016	13338	13206	96	Marcellus
2	01/03/2016	13171	13030	72	Marcellus
3	01/04/2016	12995	12832	72	Marcellus
4	01/04/2016	12797	12614	72	Marcellus
5	01/04/2016	12579	12366	72	Marcellus
6	01/04/2016	12331	12155	72	Marcellus
7	01/05/2016	12120	11926	72	Marcellus
8	01/05/2016	11891	11756	72	Marcellus
9	01/05/2016	11721	11572	72	Marcellus
10	01/05/2016	11537	11362	72	Marcellus
11	01/05/2016	11327	11133	72	Marcellus
12	01/06/2016	11098	10953	72	Marcellus
13	01/06/2016	10918	10734	72	Marcellus
14	01/06/2016	10699	10523	72	Marcellus
15	01/06/2016	10465	10323	72	Marcellus
16	01/07/2016	10286	10101	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	01/03/16	78.1	7395	6632	4947	180700	6346	n/a
2	01/03/16	74.5	7710	5523	4975	180900	7127	n/a
3	01/04/16	78	7320	6108	5261	181150	6084	n/a
4	01/04/16	78.4	7345	5907	5113	179750	6160	n/a
5	01/04/16	78.3	7348	6166	5280	181350	6267	n/a
6	01/04/16	74.7	7263	6477	5081	181100	6085	n/a
7	01/05/16	75.4	7285	6398	5147	181000	6279	n/a
8	01/05/16	72.5	7223	6062	5095	160600	7787	n/a
9	01/05/16	77.6	7634	5858	6120	180750	6324	n/a
10	01/05/16	78	7835	5889	4867	180650	6074	n/a
11	01/05/16	75.9	8083	7936	4673	154400	7382	n/a
12	01/06/16	74.5	8220	7883	5123	180750	7324	n/a
13	01/06/16	74.7	7319	6073	5003	179800	6082	n/a
14	01/06/16	77.9	7338	6295	5083	180150	5949	n/a
15	01/06/16	78	7333	6775	5126	180850	5932	n/a
16	01/07/16	78.6	7182	6310	4907	180500	5958	n/a

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Please insert additional pages as applicable.

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Farm name Weimer, Brent A. & Emma

Well number Sleepy 6

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	01/07/2016	10058	9899	72	Marcellus
18	01/07/2016	9856	9687	72	Marcellus
19	01/07/2016	9642	9493	72	Marcellus
20	01/07/2016	9460	9280	72	Marcellus
21	01/07/2016	9220	9088	72	Marcellus
22	01/08/2016	9050	8838	72	Marcellus
23	01/08/2016	8773	8603	72	Marcellus
24	01/08/2016	8561	8425	72	Marcellus
25	01/08/2016	8383	8261	72	Marcellus
26	01/08/2016	8204	8057	72	Marcellus
27	01/08/2016	7998	7849	72	Marcellus
28	01/09/2016	7800	7637	72	Marcellus
29	01/09/2016	7598	7488	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	01/07/16	77.9	6996	6073	5120	180150	5810	N/A
18	01/07/16	78.2	7007	6351	5012	180250	5892	N/A
19	01/07/16	77.5	6842	6941	5076	180350	5900	N/A
20	01/07/16	78.1	7232	5964	4749	180600	5870	N/A
21	01/07/16	78.5	7206	6573	5072	180650	5799	N/A
22	01/08/16	78.9	7177	6654	5136	180450	5810	N/A
23	01/08/16	77.7	7196	6683	4901	180000	5722	N/A
24	01/08/16	78.3	7113	5842	5510	180400	5798	N/A
25	01/08/16	78.2	7156	5694	4523	180200	5664	N/A
26	01/08/16	79.9	6967	5506	4187	180550	5649	N/A
27	01/08/16	83.1	6495	4696	3922	181300	5652	N/A
28	01/09/16	75.2	5773	4335	3763	192300	6431	N/A
29	01/09/16	78.6	5963	3677	3765	181700	5114	N/A

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>			
Marcellus	6,919'	TVD	13,395'	MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SIUT-IN PRESSURE Surface 2700 psi Bottom Hole N/A psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 6100 mcfpd Oil 30 bpd NGL bpd Water 150 bpd GAS MEASURED BY Estimated Orifice Pilot

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

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

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MAR 27 2016

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

10/28/2016

Lithology

Sleepy 6 47-095-02146

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	6897
LOWER MARCELLUS	6897	

10/28/2016

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/3/2016
Job End Date:	1/9/2016
State:	West Virginia
County:	Tyler
API Number:	47-095-02146-00-00
Operator Name:	Jay-Bee Oil & Gas, Inc.
Well Name and Number:	Sleepy 6
Longitude:	-80.73902778
Latitude:	39.47538889
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,919
Total Base Water Volume (gal):	7,684,257
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Abstract 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		7732-18-5	100.00000	92.19887	
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, Microbiocide, Clean Perforations					
			Crystalline silica (Quartz)	14808-60-7	100.00000	7.41362	
			Hydrochloric acid	7647-01-0	37.00000	0.17816	
			Paraffinic hydrocarbon solvent	64742-47-8	30.00000	0.04049	
			2-Propenoic acid, polymer with	225987-30-8	40.00000	0.03599	
			-propenamides, sodium salt	64742-46-7	60.00000	0.01875	
			Distillates (petroleum), hydrotreated middle	9000-30-0	60.00000	0.01875	
			Guar gum	25322-68-3	54.50000	0.01491	
			Polyethylene glycol mixture	67-56-1	60.00000	0.00918	
			Methanol	12173-60-3	1.00000	0.00887	
			Illite	471-34-1	1.00000	0.00875	
			Calcite				

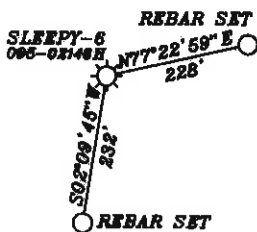
Organic phosphonate 1	Proprietary	30.00000	0.00727	Proprietary CAS
2,2-Dibromo-3-Nitropropionamide	10222-01-2	20.00000	0.00547	
Goethite	1310-14-1	0.10000	0.00454	
Sorbitan monooleate	1336-43-8	5.00000	0.00450	
Sorbitan monooleate, ethoxylated	9005-65-6	5.00000	0.00450	
Apatite	64476-38-6	0.10000	0.00370	
Biotite	1302-27-8	0.10000	0.00370	
Ilmenite	98072-94-7	0.10000	0.00329	
Isodecyl alcohol, ethoxylated	78330-21-9	3.00000	0.00270	
Organic phosphonate 2	Proprietary	10.00000	0.00242	Proprietary CAS
Sodium acetate	126-96-5	2.00000	0.00180	
Quaternary ammonium compounds, bis(hydrogenated tallow; alkyl)dimethyl, salts with bentonite	68953-56-2	5.00000	0.00156	
Ammonium chloride	12125-02-9	10.00000	0.00145	
Amine salt	Proprietary	5.00000	0.00121	Proprietary CAS
Oxalkylated polyamine	Proprietary	5.00000	0.00121	Proprietary CAS
Sodium bromide	7647-15-6	4.00000	0.00109	
Ammonium Persulfate	7727-54-0	100.00000	0.00101	
Dibromacetonitrile	3252-43-5	3.00000	0.00082	
Oxirane, 2-methyl-, polymer with oxirane, monodecyl ether	37251-67-5	1.50000	0.00047	
Alcohols, C9-11, ethoxylated	68439-46-3	5.00000	0.00030	
Acetic acid	64-19-7	1.00000	0.00024	
Acrylamide	79-06-1	0.10000	0.00009	
Alcohols, C12-13, ethoxylated	66455-14-9	1.00000	0.00006	
Alcohols, C14-15, ethoxylated	68951-67-7	30.00000	0.00006	
Modified thiourea polymer	68527-49-1	30.00000	0.00006	
Fatty acids, tall-oil	61790-12-3	30.00000	0.00006	
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 chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

References



NOTES:
 1. CORNER TIES, REFERENCES, PROPERTY LINE INFORMATION, 2400' CIRCLE AND SURFACE OWNERSHIPS WERE TAKEN FROM ERNEST J. BENCHEK III PLAT DATED JUNE 2, 2014. FILE NO. 201906.
 2. WELL HEAD WAS FIELD LOCATED BY JACKSON SURVEYING USING RTK GPS AND IS BASED UPON AN OPUS SOLUTION.
 3. LEC AND BH LOCATIONS ARE BASED UPON DRILLING REPORT BY PANTHER DRILLING SYSTEMS DATED OCTOBER 2, 2014 WITH JOB NUMBER NE140027H.

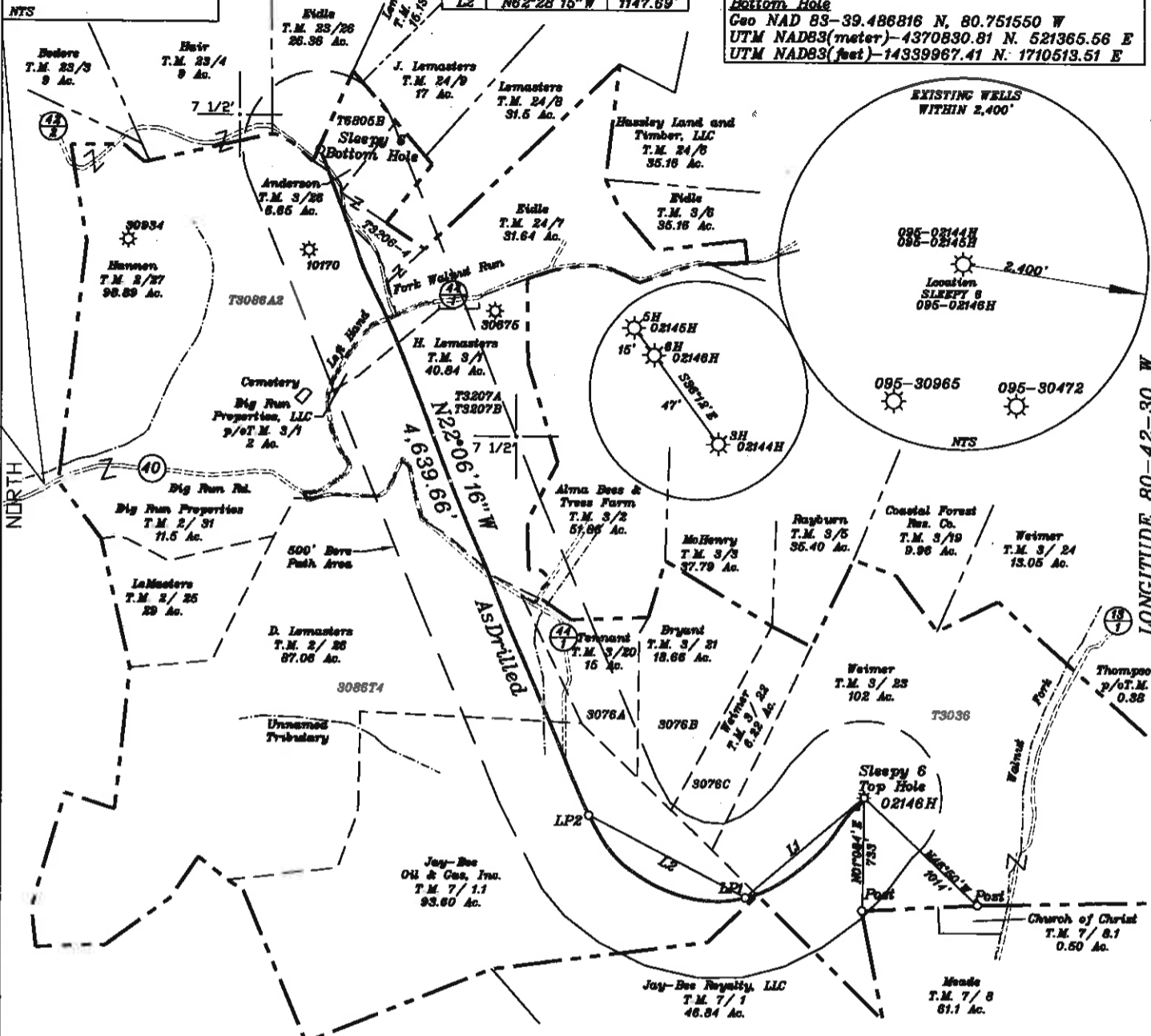
Line	Bearing	Distance
L1	S49°37'55\"/>	

Top Hole
 Geo NAD 83-39.475482 N, 80.738840 W
 UTM NAD83(meter)-4369576.01 N, 522462.22 E
 UTM NAD83(feet)-14335850.64 N, 1714111.46 E

Landing Point 1
 Geo NAD 83-39.473664 N, 80.741522 W
 UTM NAD83(meter)-4369373.65 N, 522232.07 E
 UTM NAD83(feet)-14335186.72 N, 1713356.38 E

Landing Point 2
 Geo NAD 83-39.475082 N, 80.745153 W
 UTM NAD83(meter)-4369530.08 N, 521919.31 E
 UTM NAD83(feet)-14335699.94 N, 1712330.28 E

Bottom Hole
 Geo NAD 83-39.486816 N, 80.751550 W
 UTM NAD83(meter)-4370830.81 N, 521365.56 E
 UTM NAD83(feet)-14339967.41 N, 1710513.51 E



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

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 1000'
 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.L.S. 708



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

DATE March 23, 2016
 OPERATOR'S WELL NO. Sleepy 6
 API WELL NO. As Drilled
47 - 095 - 02146H

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

LOCATION: ELEVATION 1111.4' WATER SHED Walnut Fork of Indian Creek
 DISTRICT McElroy COUNTY Tyler
 QUADRANGLE Center Point 7 1/2'

SURFACE OWNER Brent A. & Emma Weimer ACREAGE 102.00 10/28/2016
 ROYALTY OWNER Mary Gwen Tustin ACREAGE 102.00
 LEASE NO. "See ownership list above for lease numbers"

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) As Drilled
 PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION Marcellus ESTIMATED DEPTH TVD = 6,919'; TMD = 13,395'
 WELL OPERATOR Jay Bee Oil & Gas, Inc. DESIGNATED AGENT Randy Broda
 ADDRESS 1720 Rt. 22, East Union, NJ 07083 ADDRESS 3570 Shields Hill Road, Cairo, WV 26337