

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

API 47-051-01832 County MARSHALL District MEADE
Quad WILEYVILLE Pad Name BONNETTE-MSH-PAD1 Field/Pool Name VICTORY
Farm name BONNETTE, ROBERT & LINDA Well Number 406H
Operator (as registered with the OOG) SWN PRODUCTION COMPANY LLC
Address PO BOX 12359 City SPRING State TX Zip 77397-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4396896.225 Easting 524698.413
Landing Point of Curve Northing 4396384.396 Easting 524168.418
Bottom Hole Northing 4395491.525 Easting 525189.083

Elevation (ft) 1427.4' 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)
SOBM

Date permit issued 06/10/2015 Date drilling commenced 06/17/2015 Date drilling ceased 09/07/2015
Date completion activities began 11/18/2015 Date completion activities ceased 12/17/2015
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 396 Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 1717 Void(s) encountered (Y/N) depths _____
Coal depth(s) ft 1210.9 Cavern(s) encountered (Y/N) depths _____

Is coal being mined in area (Y/N) N

APPROVED

NAME: Jaquelin Shanta
DATE: 6/30/2016

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JUN 28 2016
N
WV Department of
Environmental Protection
Reviewed by:

AX RBOM 10/21/2016
10/21/16

API 47-051 - 01832 Farm name BONNETTE, ROBERT & LINDA Well number BONNETTE MSH 406H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24	20	126'	N	J-55/ 94#		Y
Surface	17.5	13.375	745'	N	J-55/ 54.50#		Y, 47 BBLS TO SURFACE
Coal	SEE PRODUCTION						
Intermediate 1	12.25	9.625	2803'	N	J-55/ 40#		Y, 50 BBLS TO SURFACE
Intermediate 2							
Intermediate 3							
Production	8.75/8.50	5.5	12607'	N	HCP-110/20#		Y
Tubing		2.375	8116'	N	L-80/4.70#		N
Packer type and depth set		N/A					

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	A	GROUT	19.3	1.20		SURFACE	24
Surface	A	738	15.6	1.19	878.22	SURFACE	8
Coal	SEE SURFACE						
Intermediate 1	A	1117	16.0	1.14	1273.38	SURFACE	8
Intermediate 2							
Intermediate 3							
Production	A	1150/1056	15.6	1.23/1.19	1414.5/1256.64	SURFACE	24
Tubing							

Drillers TD (ft) 12607' Loggers TD (ft) 12607'
 Deepest formation penetrated MARCELLUS Plug back to (ft) NA
 Plug back procedure NA

Kick off depth (ft) 6900'

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 _____

ALL CASING STRINGS RAN WITH A CENTRALIZER AT A MINIMUM OF 1 PER EVERY 3RD JOINT OF CASING

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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WR-36
Rev. 5/08

Date: 06/27/2016
Operators Well Number: BONNETTE MSH 406H
API Well No: 47-051 - 01832

**State of West Virginia
Department of Environmental Protection
Office of Oil and Gas**

Well Operator's Report of
Initial Gas-Oil Ratio

Well Operator SWN PRODUCTION COMPANY LLC Designated Agent _____
Address PO BOX 12359 Address _____
SPRING, TX 77391-2359 _____

Geological Target Formation: MARCELLUS Depth 7043' TVD/7991' MD feet
Perforation Interval 8149'-12486' MD feet

Guidelines for testing:

1. A minimum of gas vented or flared.
2. A 24 hour pre-flow into pipelines or tanks.
3. Uniform producing rate during the 24 hour test per test period.
4. Measurement standards as for Form WR-39, "Report of Annual Production" (see 35CSR4-15)
5. Separate Form WR-36 for each producing formation in a multiple completion.

TEST DATA

Start of Test Date	Time	End of Test Date	Time	Duration of Test
Tubing Pressure	Casing Pressure	Separator Pressure	Separator Temperature	
Oil Production During Test	Gas Production During Test	Water Production During Test		
BBLs	MCF	BBLs	-Salinity	
Oil Gravity	Producing Method (flowing, pumping, gas lift etc.)			
API				

GAS PRODUCTION

Measurement Method		Positive Choke <input checked="" type="checkbox"/>
Flange Tap <input type="checkbox"/> Pipe Tap <input type="checkbox"/> L-10 <input type="checkbox"/>		Positive flow prover <input type="checkbox"/>
Orifice diameter	Pipe Diameter (inside)	Nominal Choke Size inches
		9
Differential Pressure range	Max. Static pressure range	Prover and Orifice diameter - inches
Differential		Static
Gas Gravity (Air = 1.0)	Flowing Temperature	Gas Temperature
Measured	Estimated	
24 Hour Coefficient	24 Hour coefficient pressure PSIA	

TEST RESULTS

Daily Oil	Daily Water	Daily Gas	Gas-Oil Ratio
65.03	97.59	3845.608	

SWN PRODUCTION COMPANY LLC
 Well Operator ELIZABETH GEE
 BY: _____
 ITS: DESIGNATED REPRESENTATIVE
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BONNETTE MSH 406 - PERFORATION RECORD

STAGE NUM	Perf Date	Perf Top MD	Perf Bottom MD	# SHOTS PER STG
1	11/18/2015	12,309	12,486	42
2	11/18/2015	12,049	12,246	42
3	11/18/2015	11,789	11,986	42
4	11/18/2015	11,529	11,726	42
5	11/19/2015	11,269	11,466	42
6	11/19/2015	11,009	11,207	42
7	11/19/2015	10,749	10,946	42
8	11/20/2015	10,489	10,686	42
9	11/20/2015	10,229	10,426	42
10	11/20/2015	9,969	10,166	42
11	11/21/2015	9,709	9,906	42
12	11/21/2015	9,447	9,646	42
13	11/21/2015	9,189	9,386	42
14	11/21/2015	8,929	9,126	42
15	11/22/2015	8,669	8,866	42
16	11/22/2015	8,409	8,606	42
17	11/22/2015	8,149	8,346	42

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BONNETTE MSH 406 - STIMULATION INFORMATION

STAGE NUM	Stim 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
1	11/18/2015	2	8,210	8,913	4,391	423,573	7,064	
2	11/18/2015	2	8,249	8,896	4,757	498,462	7,666	
3	11/18/2015	2	8,239	8,949	4,533	383,467	6,676	
4	11/18/2015	2	8,156	9,098	4,546	468,128	8,861	
5	11/19/2015	2	8,107	8,378	4,690	500,620	7,493	
6	11/19/2015	2	8,069	8,696	4,898	498,591	7,920	
7	11/19/2015	2	8,083	8,523	4,965	495,120	7,890	
8	11/20/2015	2	8,139	8,658	5,132	489,370	7,684	
9	11/20/2015	2	7,859	8,951	4,999	501,309	7,746	
10	11/20/2015	2	8,105	8,572	4,857	494,620	7,479	
11	11/21/2015	2	7,866	8,290	5,199	500,984	7,317	
12	11/21/2015	2	8,008	8,450	5,017	497,643	7,602	
13	11/21/2015	2	7,936	8,311	4,756	500,040	7,409	
14	11/21/2015	2	7,956	8,381	5,257	503,298	7,348	
15	11/22/2015	2	7,932	8,499	4,872	500,138	8,976	
16	11/22/2015	2	7,723	8,435	4,984	480,889	7,299	
17	11/22/2015	2	7,821	8,511	5,177	547,999	7,807	
Grand total		2	8,027	9,098	4,884	8,284,251	130,237	

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BONNETTE MSH 406H

LITHOLOGY/FORMATION	TOP DEPTH, TVD (FT)	BOTTOM DEPTH, TVD (FT)	TOP DEPTH, MD (FT)	BOTTOM DEPTH, MD (FT)	QUANTITY AND TYPE OF FLUID
Base of Fresh Water	N.A.	396.00	N.A.	396.00	
Top of Salt Water	654.00	N.A.	654.00	N.A.	
Pittsburgh Coal	1203.12	1210.09	1204.00	1211.00	
Big Injun (ss)	2313.82	2937.83	2319.00	2945.00	
Berea (siltstone)	2937.83	6446.67	2945.00	7045.43	
Rhinestreet (shale)	6446.67	6718.68	7045.43	7387.59	
Cashaqua (shale)	6718.68	6819.22	7387.59	7523.54	
Middlesex (shale)	6819.22	6894.53	7523.54	7637.15	
Burket (shale)	6894.53	6922.20	7637.15	7684.13	
Tully (ls)	6922.20	6955.9	7684.13	7747.89	
Mahantango (shale)	6955.9	7043.78	7747.89	7991.37	
Marcellus (shale)	7043.78	N.A.	7991.37	N.A.	

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/17/2015
Job End Date:	11/23/2015
State:	West Virginia
County:	Marshall
API Number:	47-051-01832-00-00
Operator Name:	Southwestern Energy
Well Name and Number:	BONNETTE MSH 406H
Longitude:	-80.71182211
Latitude:	39.72158409
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,171
Total Base Water Volume (gal):	5,469,954
Total Base Non Water Volume:	0



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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	Operator	Carrier	Water	7732-18-5	100.00000	83.94167	
Sand, non-API, 40/70 mesh	Baker Hughes	Proppant	MSDS and Non-MSDS Ingredients Listed Below	N/A		8.60424	
Sand, White, 100 mesh	Baker Hughes	Proppant	MSDS and Non-MSDS Ingredients Listed Below	N/A		6.09063	
HCl, 10.1 - 15%	Baker Hughes	Acidizing	MSDS and Non-MSDS Ingredients Listed Below	N/A		1.16698	SmartCare Product
MaxPerm 30	Baker Hughes	Friction Reducer	MSDS and Non-MSDS Ingredients Listed Below	N/A		0.10157	
Alpha 1427	Baker Hughes	Biocide	MSDS and Non-MSDS Ingredients Listed Below	N/A		0.01006	SmartCare Product
Scaletrol 720	Baker Hughes	Scale Inhibitor	MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00927	SmartCare Product
Ferrotrol 300L	Baker Hughes	Iron Control					

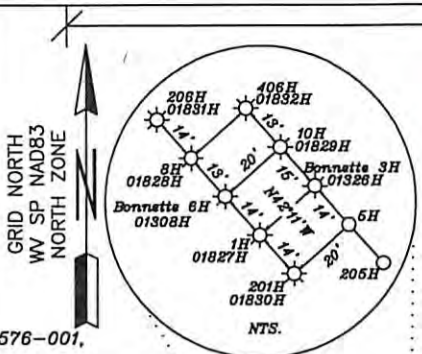
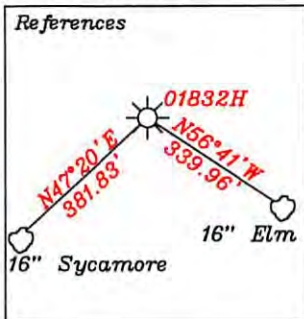
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00802	SmartCare Product
CI-14	Baker Hughes	Corrosion Inhibitor					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00185	
GBW-5	Baker Hughes	Breaker					
			MSDS and Non-MSDS Ingredients Listed Below	N/A		0.00085	SmartCare Product
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Ingredients in Additive (s) (MSDS and non- MSDS)	Baker Hughes	See Trade Name(s) List					
			Crystalline Silica (Quartz)	14808-60-7	100.00000	14.68353	
			Water	7732-18-5	85.00000	1.06675	
			Hydrochloric Acid	7647-01-0	15.00000	0.17493	
			Acrylamide Modified Polymer	38193-60-1	60.00000	0.06089	
			Petroleum Distillates	64742-47-8	30.00000	0.03045	
			Sodium Chloride	7647-14-5	5.00000	0.00517	
			Oxyalkylated alcohol	78330-21-9	5.00000	0.00507	
			Sorbitan monooleate ethoxylate	9005-65-5	5.00000	0.00507	
			Sorbitan, mono-(9Z)- 9octadecenoate	1338-43-8	5.00000	0.00507	
			Citric Acid	77-92-9	60.00000	0.00481	
			Ethylene Glycol	107-21-1	45.00000	0.00417	
			Glutaraldehyde	111-30-8	30.00000	0.00301	
			2-Propenoic, Polymer with Sodium Phosphinate, Sodium Salt	71050-62-9	20.00000	0.00185	
			Methanol	67-56-1	100.00000	0.00184	
			Acetic Acid, Potassium Salt	127-08-2	1.00000	0.00101	
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	10.00000	0.00100	
			Ammonium Persulphate	7727-54-0	100.00000	0.00084	
			Polyoxyalkylenes	68951-67-7	30.00000	0.00055	
			Ethanol	64-17-5	5.00000	0.00050	
			Quaternary Ammonium Compound	68424-85-1	5.00000	0.00050	
			Calcium Chloride	10043-52-4	5.00000	0.00046	
			Fatty Acids	61790-12-3	10.00000	0.00018	
			Modified Thiourea Polymer	68527-49-1	7.00000	0.00013	
			Tetrasodium EDTA	64-02-8	0.10000	0.00010	
			Acetic Acid	64-19-7	0.10000	0.00010	
			Potassium Chloride	7447-40-7	1.00000	0.00009	
			Olefin	64743-02-8	5.00000	0.00009	
			Propargyl Alcohol	107-19-7	5.00000	0.00009	
			Formaldehyde	50-00-0	1.00000	0.00002	

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* 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)

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Bottom Hole 11,356'
LATITUDE 39-45-00 N

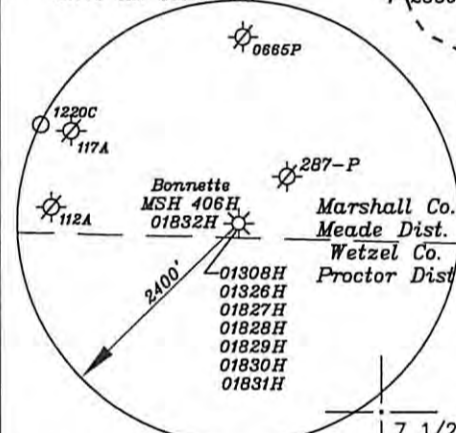
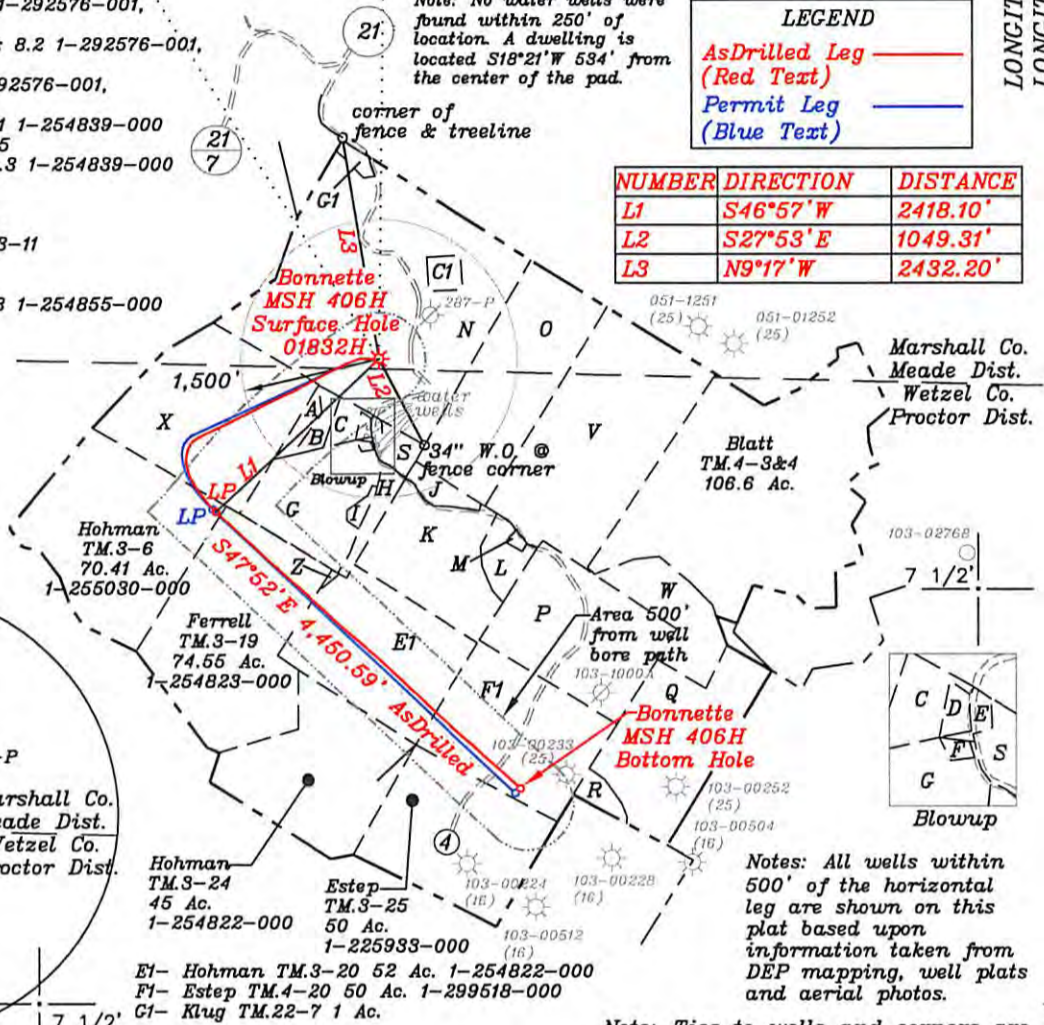
Surface Hole	UTM NAD 83(meters)-4396896.225 N. 524698.413 E
LP	UTM NAD 83(meters)-4396384.396 N. 524168.418 E
Bottom Hole	UTM NAD 83(meters)-4395491.525 N. 525189.083 E
Surface Hole	UTM NAD 83(meters)-4396896.213 N. 524698.409 E
LP	UTM NAD 83(meters)-4396392.847 N. 524156.711 E
Bottom Hole	UTM NAD 83(meters)-4395477.778 N. 525171.481 E

- A- Ries 3 Ac. TM.3-8 1-292576-001, 1-254767-000
- B- Hohman 4.07 Ac. TM.3-8.3 1-292576-001, 1-254767-000
- C- Hohman 4.12 Ac. TM.3-8.1 & 8.2 1-292576-001, 1-254767-000
- D- B. Ferrell 1 Ac. TM.3-9 1-292576-001, 1-254916-000
- E- B. Ferrell 0.54 Ac. TM.3-10.1 1-254839-000
- F- B. Ferrell 0.33 Ac. TM.3-10.5
- G- J. Ferrell 28.97 Ac. TM.3-10.3 1-254839-000
- H- Miller 5.02 Ac. TM.3-10.2
- I- Ferrell 1.29 Ac. TM.3-10.4
- J- Zombotti 4.34 Ac. TM.3-11.2
- K- R. Yoho et al 38.59 Ac. TM.3-11
- L- Blatt 7.42 Ac. TM.3-11.3
- M- Herrick 0.65 Ac. TM.3-11.1
- N- Bonnette 126.53 Ac. TM.22-8 1-254855-000
- O- Fox 56 Ac. TM.4-1
- P- Dulaney 52 Ac. TM.4-12
- Q- Klug 48 Ac. TM.4-22
- R- Estep 3.45 Ac. TM.4-21
- S- Zombotti 4.15 Ac. TM.3-10 1-254839-000
- V- Fox 74.7 Ac. TM.4-2
- W- Blatt TM.4-13 22.14 Ac.
- X- Ries TM.3-7 62.32 Ac. 1-255029-000
- Z- Ferrell TM.3-20.1 1 Ac.
- CI- The Co. Comm. of Marshall Co. 3.143 Ac. TM.22-8.1

Notes: No water wells were found within 250' of location. A dwelling is located S18°21'W 534' from the center of the pad.

LEGEND		
AsDrilled Leg	(Red Text)	—
Permit Leg	(Blue Text)	—

NUMBER	DIRECTION	DISTANCE
L1	S46°57'W	2418.10'
L2	S27°53'E	1049.31'
L3	N9°17'W	2432.20'

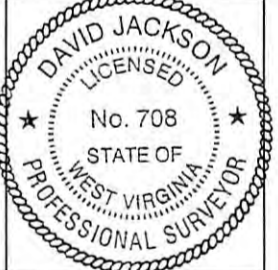


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

Note: Ties to wells and corners are based on State Plane Grid North-WV North Zone NAD 83.

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. _____ L.L.S. 708



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

DATE March 1, 2016
 OPERATOR'S WELL NO. Bonnette MSH 406H
 API WELL NO. AsDrilled

WELL TYPE: OIL GAS LIQUID INJECTION X WASTE DISPOSAL _____ STATE 47 COUNTY 051 PERMIT 01832H
 (IF "GAS") PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X

LOCATION: ELEVATION 1,427.4' WATER SHED Whetstone Creek
 DISTRICT Meade COUNTY Marshall
 QUADRANGLE Wileyville 7 1/2'

SURFACE OWNER Robert and Linda Bonnette ACREAGE 126.53 ac.
 OIL & GAS ROYALTY OWNER Robert and Linda Bonnette, Robert and Barbara Bias, & Larry and Glenda Kress LEASE ACREAGE 576.49 ac.

LEASE NO. _____

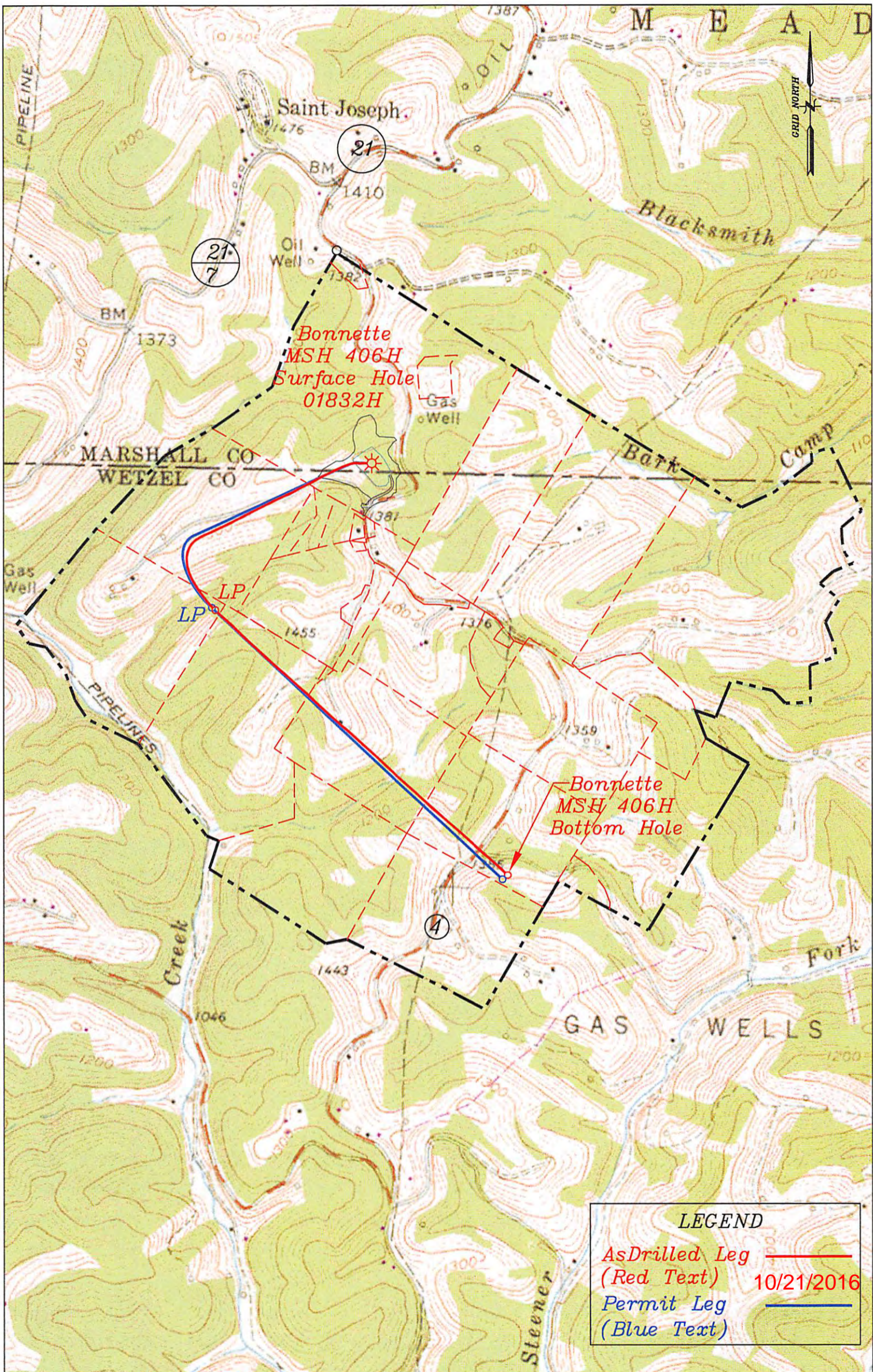
PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION X OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AsDrilled

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION Marcellus ESTIMATED DEPTH TVD=7,066'; TMD=12,607'
 WELL OPERATOR SWN Production Co. LLC DESIGNATED AGENT Dee Southall
 ADDRESS P.O. Box 1300 Jane Lew, WV 26378 ADDRESS P.O. Box 1300 Jane Lew, WV 26378

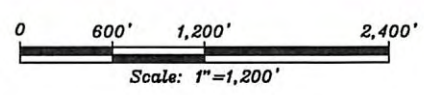
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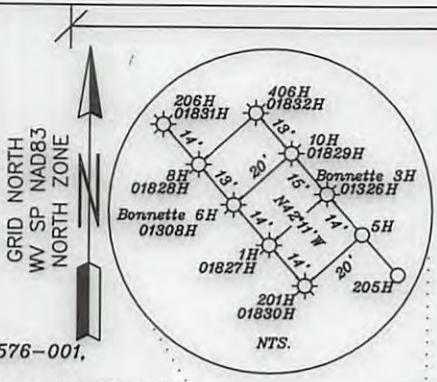
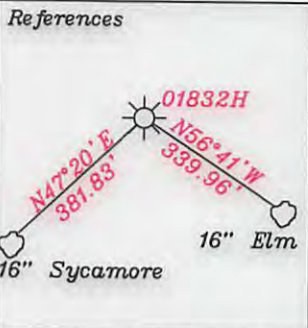
LONGITUDE 80-42-30 W (TH)
 LONGITUDE 80-40-00 W (BH)

Bottom Hole 14,846'
 Top Hole 10,364'



Well: Bonnette MSH 406H
 Quad: Wileyville 7 1/2'
 District: Meade
 County: Marshall





Bottom Hole 11,356'
LATITUDE 39-45-00 N

Surface Hole	UTM NAD 83(meters)-4396896.225 N. 524698.413 E
LP	UTM NAD 83(meters)-4396384.396 N. 524168.418 E
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LONGITUDE 80-42-30 W (TH)
LONGITUDE 80-40-00 W (BH)

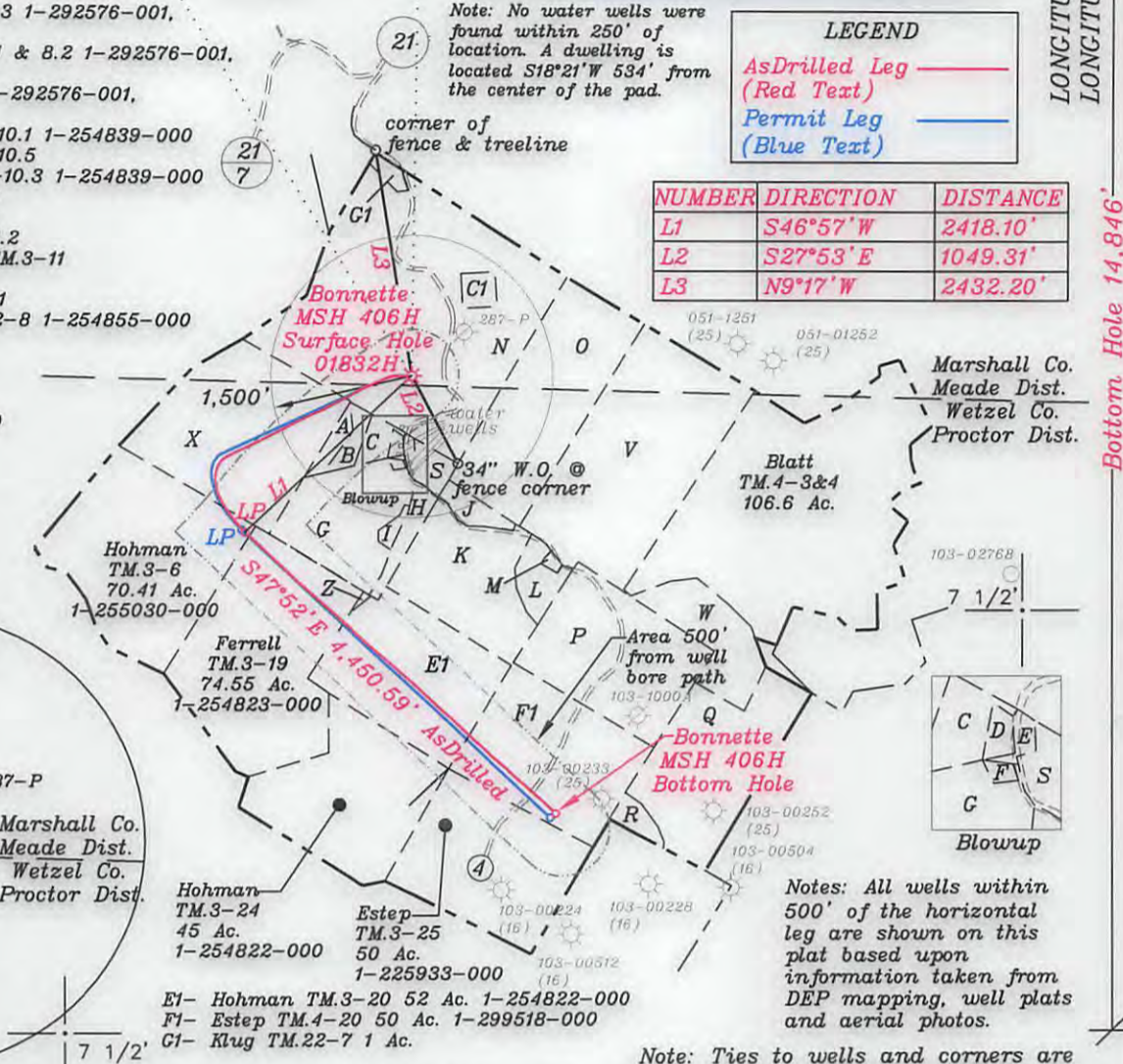
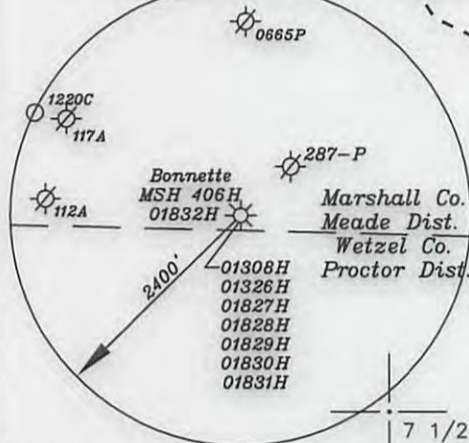
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- D- B. Ferrell 1 Ac. TM.3-9 1-292576-001, 1-254916-000
- E- B. Ferrell 0.54 Ac. TM.3-10.1 1-254839-000
- F- B. Ferrell 0.33 Ac. TM.3-10.5
- G- J. Ferrell 28.97 Ac. TM.3-10.3 1-254839-000
- H- Miller 5.02 Ac. TM.3-10.2
- I- Ferrell 1.29 Ac. TM.3-10.4
- J- Zombotti 4.34 Ac. TM.3-11.2
- K- R. Yoho et al 38.59 Ac. TM.3-11
- L- Blatt 7.42 Ac. TM.3-11.3
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- N- Bonnette 126.53 Ac. TM.22-8 1-254855-000
- O- Fox 56 Ac. TM.4-1
- P- Dulaney 52 Ac. TM.4-12
- Q- Klug 48 Ac. TM.4-22
- R- Estep 3.45 Ac. TM.4-21
- S- Zombotti 4.15 Ac. TM.3-10 1-254839-000
- V- Fox 74.7 Ac. TM.4-2
- W- Blatt TM.4-13 22.14 Ac.
- X- Ries TM.3-7 62.32 Ac. 1-255029-000
- Z- Ferrell TM.3-20.1 1 Ac.
- C1- The Co. Comm. of Marshall Co. 3.143 Ac. TM.22-8.1

Note: No water wells were found within 250' of location. A dwelling is located S18°21'W 534' from the center of the pad.

LEGEND

AsDrilled Leg	(Red Text)
Permit Leg	(Blue Text)

NUMBER	DIRECTION	DISTANCE
L1	S46°57'W	2418.10'
L2	S27°53'E	1049.31'
L3	N9°17'W	2432.20'



Notes: All wells within 500' of the horizontal leg are shown on this plat based upon information taken from DEP mapping, well plats and aerial photos.

Note: 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. _____ L.L.S. 708



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

DATE March 1, 2016
OPERATOR'S WELL NO. Bonnette MSH 406H
API WELL NO. AsDrilled

WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL STATE 47 COUNTY 051 PERMIT 01832H
(IF "GAS") PRODUCTION STORAGE DEEP SHALLOW X

LOCATION: ELEVATION 1,427.4' WATER SHED Whetstone Creek
DISTRICT Meade COUNTY Marshall
QUADRANGLE Wileyville 7 1/2'

SURFACE OWNER Robert and Linda Bonnette ACREAGE 126.53 ac.
OIL & GAS ROYALTY OWNER Robert and Linda Bonnette, Robert and Barbara Bias, & Larry and Glenda Kress LEASE ACREAGE 576.49 **10/21/2016**

LEASE NO. _____

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) AsDrilled

PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION Marcellus ESTIMATED DEPTH TVD=7,066'; TMD=12,607'

WELL OPERATOR SWN Production Co. LLC DESIGNATED AGENT Dee Southall
ADDRESS P.O. Box 1300 Jane Lew, WV 26378 ADDRESS P.O. Box 1300 Jane Lew, WV 26378