

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

API 47-095-02508 County Tyler District Centerville
Quad West Union Pad Name WEU4 Field/Pool Name N/A
Farm name Donna J Peter Well Number WEU4H10 (516537)
Operator (as registered with the OOG) EQT Production Company
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled Location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,357,505.35 Easting 515,437.91
Landing Point of Curve Northing 4,356,942.37 Easting 515,153.11
Bottom Hole Northing 4,355,872.35 Easting 515,677.46

Elevation (ft) 1079' 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) 12.0 ppg Synthetic Base : Mud Barium Sulfate (Mil-Bar 410), Synthetic Base Oil (Next-Base), Calcium Chloride, Bentonite Clay (Carbo-Gel II), Polymerized Fatty Acid Emulsifier(Carbo-Tec and Next-Mul HT), Lime, Walnut Shells Cellulosic Material (Chek-Loss, LCM), Calcium Carbonate (Mil-Carb), Gilsonite (Ecco-Blok)

Date permit issued 8/3/2018 Date drilling commenced 8/21/2018 Date drilling ceased 1/16/2019
Date completion activities began 3/11/2019 Date completion activities ceased 3/17/2019
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 132, 175, 186, 204 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1128, 1219, 1222 Void(s) encountered (Y/N) depths N RECEIVED
Coal depth(s) ft 232, 285, 700 Cavern(s) encountered (Y/N) depths N Office of Oil and Gas
Is coal being mined in area (Y/N) N JUN 14 2019

Reviewed by: Department of Environmental Protection

Reviewed

JPB
6/24/2019

API 47-095 - 02508

Farm name Donna J Peter

Well number WEU4H10 (516537)

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"	53'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	750'	NEW	J-55 54.5#	668	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2865'	NEW	A-500 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	11503'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ² /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	100	15.6	1.18	118	0	8+
Surface	CLASS A	736	16	1.13	832	0	22
Coal							
Intermediate 1	CLASS H	1085	16.4	1.07	1161	0	20
Intermediate 2							
Intermediate 3							
Production	Class A	1855	15.6	1.23	2282	4000	+72
Tubing							

Drillers TD (ft) 11,517' MD

Deepest formation penetrated MARCELLUS

Plug back procedure N/A

Loggers TD (ft) N/A

Plug back to (ft) N/A

Kick off depth (ft) 4308' MD

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 CONDUCTOR: NONE

SURFACE: on shoe joint and less than every 150' and within 100' from surface.

INTERMEDIATE: On shoe joint and less than every 150' and within 100' from surface.

PRODUCTION: 197 Composite bodied centralizers on every joint from TD up to 3042' MD

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS

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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS

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

API 47- 095 - 02508

Farm name _____

Donna J Peter

Well number _____

WEU4H10 (516537)

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
					Please See Attachment

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)
								Please See Attachment
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Please insert additional pages as applicable.

API 47- 095 - 02508 Farm name Donna J Peter Well number WEU4H10 (516537)

PRODUCING FORMATION(S)

DEPTHS

MARCELLUS 6,582' TVD 7,368 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow Oil TEST Flow Pump

SHUT-IN PRESSURE Surface 2,459 psi Bottom Hole N/A psi DURATION OF TEST 146.5 hrs

OPEN FLOW Gas 9.878 mcfpd N/A bpd Oil N/A bpd NGL 5.1 bpd Water 425.3 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	DEPTH IN FT	DEPTH IN FT	DEPTH IN FT	MD	MD	MD		
	0			0					

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling
Address 10350 Richmond Avenue Suite 700 City Houston State TX Zip 77042

Logging Company Baker Hughes
Address 400 Technology Drive - Suite 120 City Canonsburg State PA Zip 15317

Cementing Company Halliburton
Address 121 Champion Way Ste 110 City Canonsburg State PA Zip 15317

Stimulating Company ProFrac
Address 777 Main Street Suite 3900 City Fort Worth State TX Zip 76102

Please insert additional pages as applicable.

Completed by Adam Hughey Telephone (412) 553-5884
Signature  Title Director - Completions Date 06/13/2019

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Drilling Contractor Falcon Drilling Company LLC

Address P.1120 Rt 119 Hwy North City Indiana State PA Zip 15701

Logging Company Gyrodata Inc.

Address 73 Noblestown Road City Carnegie State PA Zip 15106

Logging Company Scientific Drilling International

Address 124 Vista Drive City Charleroi State PA Zip 15022

Cementing Company Universal

Address 13549 S. Mosiertown Rd City Meadville State PA Zip 16335

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516537 47-095-02508-00-00 Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
1 (Toe Sub)	2/15/2019	11,431	11,433	0	MARCELLUS
2	3/12/2019	11,231	11,412	40	MARCELLUS
3	3/12/2019	11,031	11,212	40	MARCELLUS
4	3/12/2019	10,831	11,012	40	MARCELLUS
5	3/12/2019	10,631	10,813	40	MARCELLUS
6	3/13/2019	10,431	10,612	40	MARCELLUS
7	3/13/2019	10,231	10,412	40	MARCELLUS
8	3/13/2019	10,031	10,212	40	MARCELLUS
9	3/13/2019	9,831	10,012	40	MARCELLUS
10	3/13/2019	9,631	9,812	40	MARCELLUS
11	3/14/2019	9,431	9,612	40	MARCELLUS
12	3/14/2019	9,201	9,284	40	MARCELLUS
12	3/14/2019	9,231	9,412	40	MARCELLUS
13	3/15/2019	9,001	9,182	40	MARCELLUS
14	3/15/2019	8,801	8,982	40	MARCELLUS
15	3/15/2019	8,621	8,802	40	MARCELLUS
16	3/15/2019	8,421	8,602	40	MARCELLUS
17	3/15/2019	8,221	8,402	40	MARCELLUS
18	3/16/2019	8,021	8,202	40	MARCELLUS
19	3/16/2019	7,821	8,002	40	MARCELLUS
20	3/16/2019	7,621	7,802	40	MARCELLUS
21	3/16/2019	7,421	7,602	40	MARCELLUS
Kill Plug	3/16/2019	7,321	7,323	0	MARCELLUS

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516537 47-095-02508-00-00 - Stimulated Stages

Stage Number	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Nitrogen/other (units)
1	3/12/2019	82	8,706	9,401	4,933	210,300	6,561	0
2	3/12/2019	101	7,038	7,332	4,222	525,100	9,152	0
3	3/12/2019	100.7	7,257	7,689	3,540	600,040	9,622	0
4	3/12/2019	100.4	7,529	7,984	3,149	600,080	9,968	0
5	3/13/2019	100.5	7,456	7,844	3,171	600,770	9,819	0
6	3/13/2019	100	8,083	9,229	3,021	600,600	9,881	0
7	3/13/2019	100	7,806	8,649	2,950	600,650	9,841	0
8	3/13/2019	100	7,667	7,975	3,346	600,300	9,756	0
9	3/13/2019	100	7,404	7,935	3,259	600,060	9,678	0
10	3/13/2019	100.6	7,200	7,627	3,642	600,100	9,752	0
11	3/14/2019	100	7,083	7,568	2,894	600,900	10,010	0
12	3/14/2019	100	7,190	9,718	3,087	600,740	14,347	0
13	3/15/2019	100.2	7,330	8,200	3,321	600,450	9,911	0
14	3/15/2019	100	7,009	7,718	3,845	538,640	12,871	0
15	3/15/2019	94.7	7,790	9,546	3,140	600,330	11,629	0
16	3/15/2019	97.3	7,045	7,486	3,503	600,180	10,171	0
17	3/16/2019	98.2	7,085	7,420	3,752	600,020	10,004	0
18	3/16/2019	98	7,013	7,389	3,395	600,020	9,828	0
19	3/16/2019	95	6,862	7,339	3,919	600,280	9,501	0
20	3/16/2019	99	6,944	7,277	3,628	600,540	9,563	0
21	3/16/2019	99.1	6,911	7,143	4,075	600,180	9,762	0
Kill Plug	3/16/2019							0

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Hydraulic Fracturing
DISCLOSURE



FIND A WELL BY STATE **ABOUT PROJECT PARTNERS**

(Note: Clicking the FracFocus, FIND A WELL links will open a new window.)



Submission to FracFocus Successful!

Dashboard

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	3/11/2019
Job End Date:	3/17/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02508-00-00
Operator Name:	EQT Production
Well Name and Number:	516537
Latitude:	39.36679100
Longitude:	-80.82095900
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,582
Total Base Water Volume (gal):	8,891,316
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	ProFrac	Carrier/Base Fluid	Water	7732-18-5	100.00000	85.74610	None
ProVis 4.0	ProFrac	Gelling Agent					
				Listed Below			

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Clearal 268	Chemstream	Bacteria Treatment							
					Listed Below				
Sand (Proppant)	ProFrac	Proppant							
					Listed Below				
Other Chemical (s)	Listed Above	See Trade Name (s) List							
					Listed Below				
StimSTREAM FR 9800	Chemstream	Friction Reducer							
					Listed Below				
StimSTREAM SC-398	Chemstream	Scale Inhibitor							
					Listed Below				
ProHib 100	ProFrac	Acid Corrosion Inhibitor							
					Listed Below				
Hydrochloric Acid (15%)	ProFrac	Acidizing							
					Listed Below				
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.									
		Silica Substrate			14808-60-7		100.00000	13.96044	None
		Hydrochloric Acid			7647-01-0		15.00000	0.03041	None
		Copolymer Of 2-Propenamide			Proprietary		30.00000	0.02013	None
		Petroleum Distillate			64742-47-8		20.00000	0.01342	None
		Petroleum Distillate			64742-47-8		20.00000	0.01342	None

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			Non-Hazardous Substances	Proprietary	90.00000	0.01255	None
			Non-Hazardous Substances	Proprietary	90.00000	0.00827	
			Non-Hazardous Substances	Proprietary	90.00000	0.00827	None
			Glutaraldehyde	111-30-8	20.00000	0.00279	None
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00134	None
			Alcohols, C12-16, Ethoxylated	68551-12-2	2.00000	0.00134	None
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00134	
			Alcohols, C12-16, Ethoxylated	68551-12-2	2.00000	0.00134	
			Bis(HexaMethylene Triamine Penta (Methylene Phosphonic Acid) (BHMT)34690-00-1	34690-00-1	10.00000	0.00092	None
			Bis(HexaMethylene Triamine Penta (Methylene Phosphonic Acid) (BHMT)34690-00-1	34690-00-1	10.00000	0.00092	
			Ammonium Chloride ((NH4)Cl)	12125-02-9	1.00000	0.00067	None
			Ammonium Chloride ((NH4)Cl)	12125-02-9	1.00000	0.00067	
			Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00042	None
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00042	None
			Methanol	67-56-1	90.00000	0.00036	
			Methanol	67-56-1	90.00000	0.00036	None
			Hydrotreated Light Distillate (Petroleum)	64742-47-8	65.00000	0.00007	None
			Hydrotreated Light Distillate (Petroleum)	64742-47-8	65.00000	0.00007	
			Gum Guar	9000-30-0	50.00000	0.00005	None
			Gum Guar	9000-30-0	50.00000	0.00005	

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			Propargyl Alcohol	107-19-7	5.00000	0.00002	None
			Xylene	1330-20-7	5.00000	0.00002	
			Alcohols, C7-9-ISO, C8-Rich	68526-83-0	5.00000	0.00002	None
			Isopropanol	67-63-0	5.00000	0.00002	None
			Alcohols, C7-9-ISO, C8-Rich	68526-83-0	5.00000	0.00002	
			Isopropanol	67-63-0	5.00000	0.00002	
			Imidazoline	61790-69-0	5.00000	0.00002	None
			Xylene	1330-20-7	5.00000	0.00002	None
			Propargyl Alcohol	107-19-7	5.00000	0.00002	
			Imidazoline	61790-69-0	5.00000	0.00002	
			Ethylbenzene	100-41-4	1.00000	0.00000	
			Ethylbenzene	100-41-4	1.00000	0.00000	None

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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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API 47-095-02508

Formation Name	Drill Top MD (ftKB)	Drill Btm MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm (TVD) (ftKB)
FRESH WATER ZONE	0	204	0	204
SAND/SHALE	0	235	0	235
COAL	235	237	235	237
SAND/SHALE	237	286	237	286
COAL	286	290	286	290
SAND/SHALE	290	701	290	701
COAL	701	705	701	705
SAND/SHALE	705	1843	705	1843
MAXTON	1843	2042	1843	2042
SAND/SHALE	2042	2116	2042	2116
BIG LIME	2116	2400	2116	2400
SAND/SHALE	2400	2408	2400	2408
WEIR	2408	2455	2408	2455
SAND/SHALE	2455	2495	2455	2495
GANTZ	2495	2512	2495	2512
SAND/SHALE	2512	2609	2512	2609
FIFTY FOOT	2609	2664	2609	2664
SAND/SHALE	2664	2695	2664	2695
THIRTY FOOT	2695	2749	2695	2749
SAND/SHALE	2749	2775	2749	2775
GORDON	2775	2820	2775	2820
SAND/SHALE	2820	2846	2820	2846
FORTH SAND	2846	2908	2846	2908
SAND/SHALE	2908	2959	2908	2959
FIFTH SAND	2959	2972	2959	2972
SAND/SHALE	2972	3016	2972	3016
BAYARD	3016	3153	3016	3153
SAND/SHALE	3153	3379	3153	3379
WARREN	3379	3445	3379	3445
SAND/SHALE	3445	3465	3445	3465
SPEECHLEY	3465	3579	3465	3579
SAND/SHALE	3579	3981	3579	3981
BALLTOWN A	3981	4093	3981	4093
SAND/SHALE	4093	4579	4093	4570
RILEY	4579	4869	4570	4812
SAND/SHALE	4869	5000	4812	4910
BENSON	5000	5063	4910	4958
SAND/SHALE	5063	5247	4958	5096
ALEXANDER	5247	5329	5096	5159
ELKS	5329	6789	5159	6264
SONYEA	6789	6974	6264	6396
MIDDLESEX	6974	7046	6396	6440
GENESEE	7046	7193	6440	6518
GENESEO	7193	7256	6518	6545
TULLY	7256	7320	6545	6568
HAMILTON	7320	7368	6568	6582
MARCELLUS	7368	11517	6582	6633

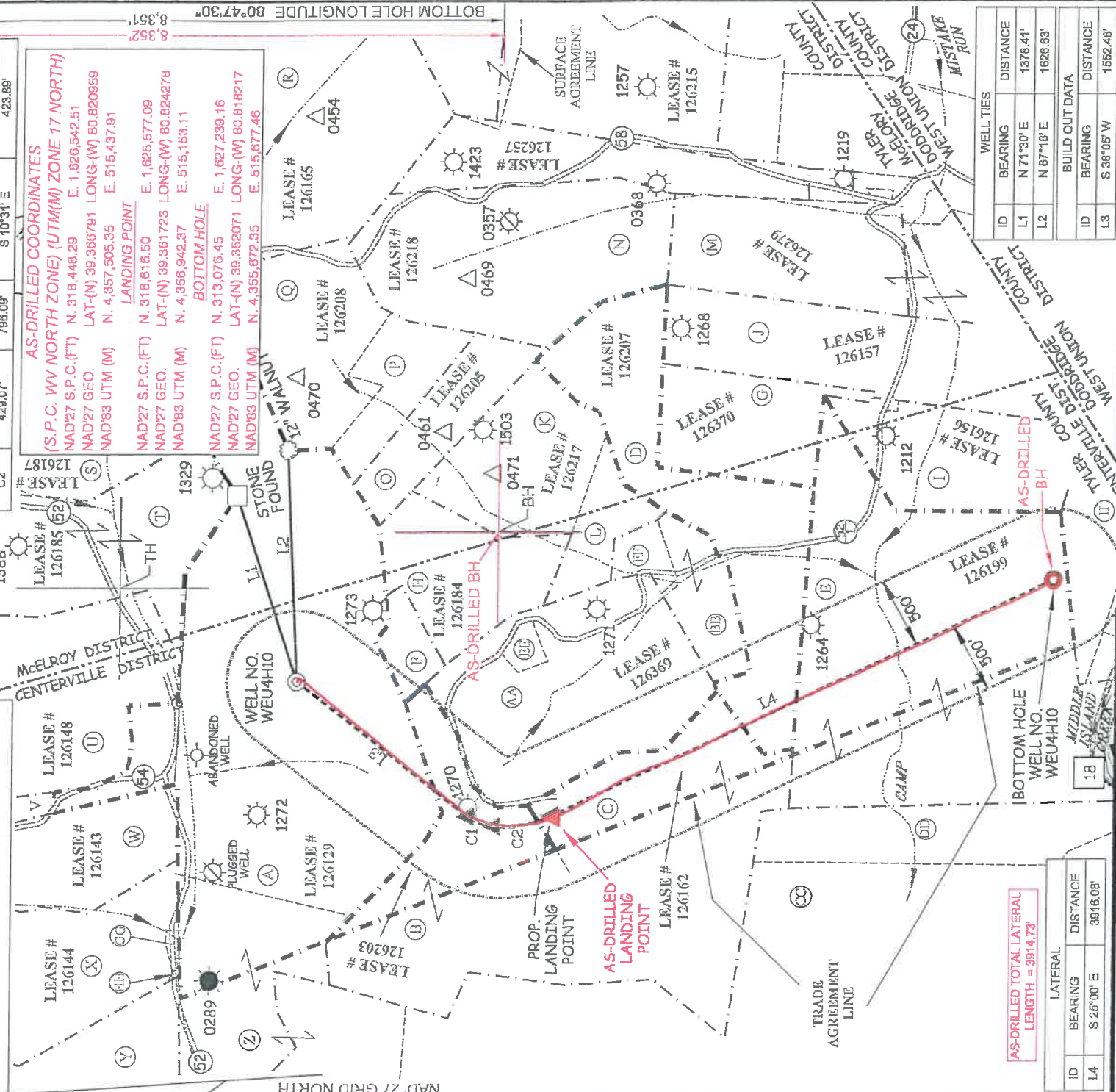
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WEU4
WEU4H10
EQT PRODUCTION COMPANY

AS-DRILLED COORDINATES
(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD27 S.P.C.(FT) N. 318,448.29 E. 1,625,542.51
NAD27 GEO. LAT-(N) 39.366791 LONG-(W) 80.820959
NAD83 UTM (M) N. 4,357,505.35 E. 515,437.91
LANDING POINT
NAD27 S.P.C.(FT) N. 316,616.50 E. 1,625,577.09
NAD27 GEO. LAT-(N) 39.361723 LONG-(W) 80.824278
NAD83 UTM (M) N. 4,356,942.37 E. 515,153.11
BOTTOM HOLE
NAD27 S.P.C.(FT) N. 313,076.45 E. 1,627,239.16
NAD27 GEO. LAT-(N) 39.352071 LONG-(W) 80.818217
NAD83 UTM (M) N. 4,355,872.35 E. 515,677.46



ID	BEARING	DISTANCE
L4	S 25°00' E	3916.08'

AS-DRILLED TOTAL LATERAL LENGTH = 3914.73'

WELL TIES	ID	BEARING	DISTANCE
L1	N 71°30' E	1378.41'	
L2	N 87°18' E	1628.63'	
BUILD OUT DATA	ID	BEARING	DISTANCE
L3	S 36°05' W	1552.46'	



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www.sls-wv.com

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849
C. Victor Moyers



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

FILE NO. 7701PWEU4H10AD.dwg (5165537)

DATE FEBRUARY 13, 2019

SCALE 1" = 1000'

REVISED

OPERATORS WELL NO. WEU4H10

API

WELL NO. **47-95-2508**

STATE COUNTY PERMIT

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



(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD27 S.P.C.(FT) N. 318,448.29 E. 1,625,542.51
NAD27 GEO. LAT-(N) 39.366791 LONG-(W) 80.820959
NAD83 UTM (M) N. 4,357,505.35 E. 515,437.91
LANDING POINT
NAD27 S.P.C.(FT) N. 318,628.28 E. 1,625,552.43
NAD27 GEO. LAT-(N) 39.361750 LONG-(W) 80.824224
NAD83 UTM (M) N. 4,356,945.43 E. 515,157.73
BOTTOM HOLE
NAD27 S.P.C.(FT) N. 313,077.11 E. 1,627,247.42
NAD27 GEO. LAT-(N) 39.352073 LONG-(W) 80.818188
NAD83 UTM (M) N. 4,355,872.59 E. 515,676.97

LEGEND

COUNTY ROUTE	⊖	LEASE LINE	---
PROPOSED WELL	⊙	SURFACE LINE	---
EXISTING WELL	⊗	PROPOSED WELL LATERAL	---
PERMITTED WELL	⊕	AS-DRILLED WELL LATERAL	---
DRILL PATH BEND POINT	▲	OFFSET LINE	---
PLUGGED WELL	⊘	TIE LINE	---
STORAGE WELL	△	CREEK	---
CENTERVILLE DISTRICT	C-00-00	ROAD	---
TAX MAP-PARCEL	M-00-00	FENCE LINE	---

DESIGNATED AGENT **JASON RANSON**
ADDRESS **115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330**

WELL OPERATOR **EQT PRODUCTION COMPANY**
ADDRESS **115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330**

COUNTY NAME _____ PERMIT _____

**WEU4
WEU4H10
EQT PRODUCTION COMPANY**

TYLER COUNTY		
TAG	SURFACE OWNER	ACRES
A	DONNA J. PETER	113.4 ACRES#
B	CHRIS BAUMET AL	56.84 ACRES#
C	PEARLIE DAVIS	53 ACRES#
D	ANANETIA DRAIN HRS	46.88 ACRES#
E	ELIZABETH C. FISHBECK	98.81 ACRES#
F	PAUL WEEKLEY (LIFE)	5 ACRES#
G	LESLIE MOORE ET AL	20.25 ACRES#
H	PAUL WEEKLEY (LIFE)	18 ACRES#
I	COREY A. & ANGELA J. EUNE	27.5 ACRES#
J	RICHARD & LISA L. HENDRICKSON	44.68 ACRES#
K	BRYAN W. PRATT	23 ACRES#
L	BRYAN W. PRATT	6.75 ACRES#
M	JAMES & KATHRYN McNULTY	50.18 ACRES#
N	CLAY M. PERKINS ET AL	50.25 ACRES#
O	EDWARD II & CAROLYN A. WHITE	16 ACRES#
P	EDWARD II & CAROLYN A. WHITE	12.50 ACRES#
Q	EDWARD II & CAROLYN WHITE	40 ACRES#
R	ASIA DELL CUMBERLEDGE	75.75 ACRES#
S	BRUCE & SANDRA STONEKING	69.44 ACRES#
T	BRUCE & SANDRA STONEKING	42.86 ACRES#
U	CHASE & REBA BARTUG	109.94 ACRES#
V	MARK A. & JOEL A. PROSSOR ET AL	2.50 ACRES#
W	JEFFERY E. & ANITA L. HOOVER	24.84 ACRES#
X	CONRAD COSTILOW	46.17 ACRES#
Y	JOHN R. ANDERS II	19.75 ACRES#
Z	RICHARD & YVONNE METCALF	61.57 ACRES#
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CC	STEVEN MALICKI JR. ET AL	115.28 ACRES#
DD	STEVEN MALICKI JR.	32.94 ACRES#
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FF	PAUL WEEKLEY (LIFE)	3.37 ACRES#
GG	RONALD H. METCALF	.61 ACRES#
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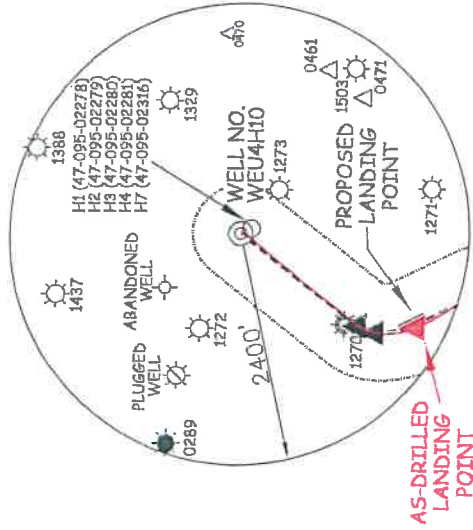
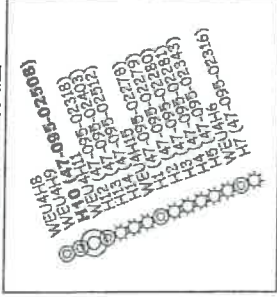
NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS 2500 SQ. FT. OR GREATER WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE (SHEET 1) AND TOPO MARK SCALE ARE 1" = 2000'.
- AS DRILLED INFORMATION PROVIDED BY EQT.



Land & Energy Development
Solutions From the Ground Up.
P.O. Box 150 • 112 Vallonia Drive • Grantsville, WV 26031 • (304) 492-5934
www.sls.com

PAD DETAIL



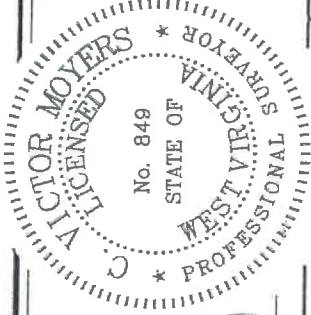
ROYALTY OWNERS	
EILEEN CAYTON ET AL	57 AC.± LEASE NO. 126203
BRYAN BRITTON ET AL	54 AC.± LEASE NO. 126162
BEATRICE BRADY ET AL	47 AC.± LEASE NO. 126207
FRANKLIN BUTLER ET AL	101 AC.± LEASE NO. 126199

(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)	
NAD27 S.P.C.(FT)	N. 316,448.29 E. 1,626,542.51
NAD27 GEO.	LAT-(N) 39.366791 LONG-(W) 80.820959
NAD83 UTM (M)	N. 4,357,506.35 E. 515,437.91
LANDING POINT	
NAD27 S.P.C.(FT)	N. 316,626.28 E. 1,625,592.43
NAD27 GEO.	LAT-(N) 39.361750 LONG-(W) 80.824224
NAD83 UTM (M)	N. 4,356,945.43 E. 515,157.73
BOTTOM HOLE	
NAD27 S.P.C.(FT)	N. 313,077.11 E. 1,627,247.42
NAD27 GEO.	LAT-(N) 39.352073 LONG-(W) 80.818188
NAD83 UTM (M)	N. 4,355,872.59 E. 515,679.97

(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)	
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LANDING POINT	
NAD27 S.P.C.(FT)	N. 318,616.50 E. 1,625,577.09
NAD27 GEO.	LAT-(N) 39.361723 LONG-(W) 80.824278
NAD83 UTM (M)	N. 4,356,942.37 E. 515,153.11
BOTTOM HOLE	
NAD27 S.P.C.(FT)	N. 313,076.45 E. 1,627,239.16
NAD27 GEO.	LAT-(N) 39.352071 LONG-(W) 80.818217
NAD83 UTM (M)	N. 4,355,872.35 E. 515,677.46

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*



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

DATE FEBRUARY 13, 2019

REVISED _____, 20____

OPERATORS WELL NO. WEU4H10

API _____

WELL NO. 47 - 95 - 2508

STATE _____ COUNTY _____

PERMIT _____

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



MINIMUM DEGREE OF ACCURACY 1 / 2500

FILE NO. 7701PWEU4H10AD.dwg (516537)

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

WELL TYPE: OIL ___ GAS ___ LIQUID ___ WASTE ___ INJECTION ___ DISPOSAL ___ IF "GAS" PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

LOCATION: PAD ELEVATION 1,079' WATERSHED CENTERVILLE COUNTY TYLER

DISTRICT CENTERVILLE COUNTY TYLER

SURFACE OWNER DONNA J. PETER

ROYALTY OWNER WACO OIL AND GAS INC. ET AL

QUADRANGLE WEST UNION 7.5'

ACREAGE 113.40±

ACREAGE 152±

LEASE NO. 126129

PROPOSED WORK:

DRILL ___ X ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ X ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___

PHYSICAL CHANGE IN WELL (SPECIFY) ___ TARGET FORMATION MARCELLUS

ESTIMATED DEPTH 6,680'

WELL OPERATOR EQT PRODUCTION COMPANY

DESIGNATED AGENT JASON RANSON

ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330

WEU4
WEU4H10
EQT PRODUCTION COMPANY

TOP HOLE LATITUDE 39°22'30"
BOTTOM HOLE LATITUDE 39°22'30"

7,500'
7,508'

8,282'

TOP HOLE LONGITUDE 80°47'30"
BOTTOM HOLE LONGITUDE 80°47'30"

8,351'

8,352'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	198.85'	383.49'	S 20°49' W	196.15'
C2	429.07'	796.09'	S 10°31' E	423.89'

AS-DRILLED COORDINATES
(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)

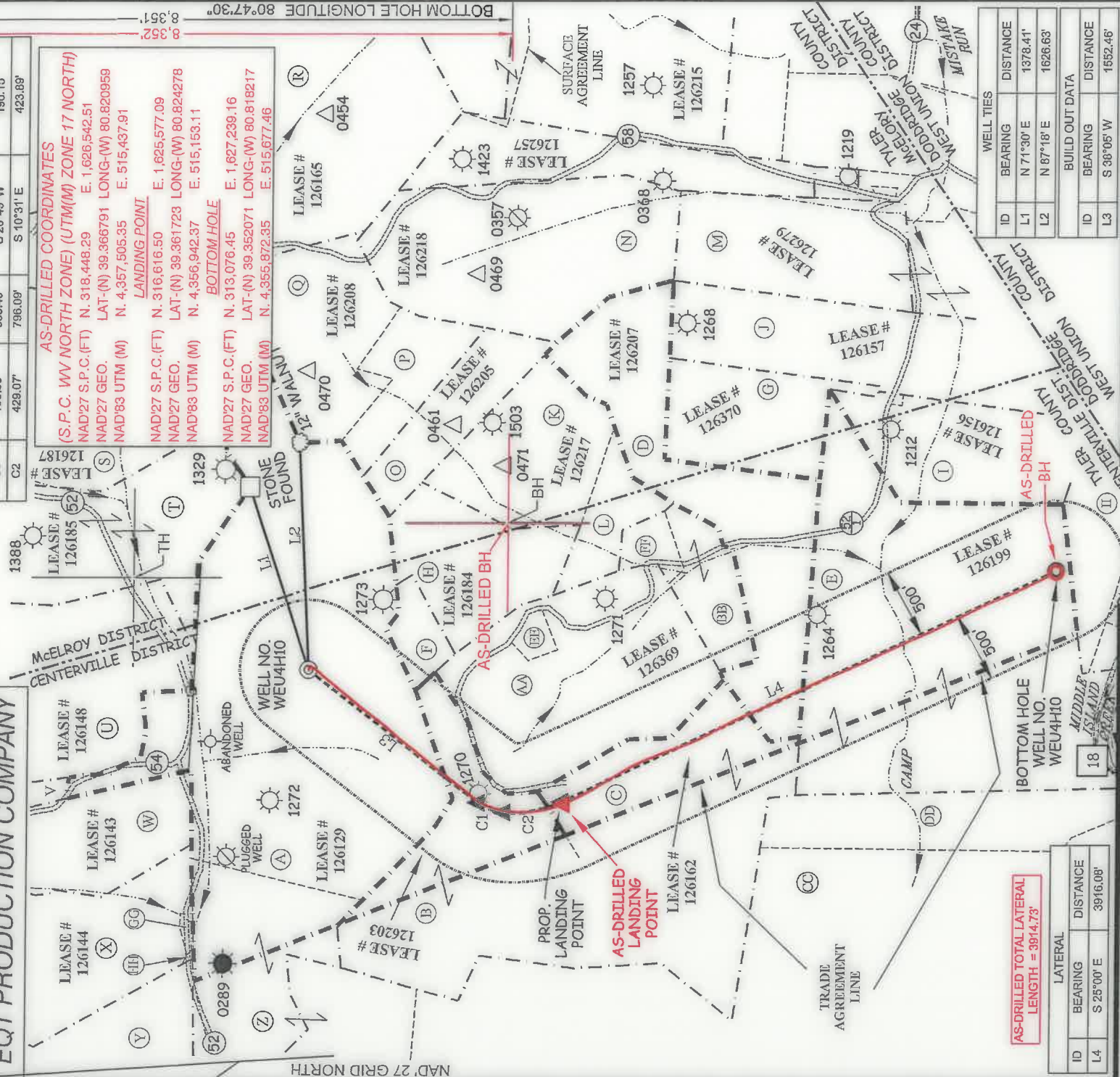
NAD27 S.P.C.(FT) N. 318,448.29 E. 1,626,542.51
 NAD27 GEO. LAT.-(N) 39.366791 LONG.-(W) 80.820959
 NAD83 UTM (M) N. 4,357,505.35 E. 515,437.91

LANDING POINT

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 NAD27 GEO. LAT.-(N) 39.361723 LONG.-(W) 80.824278
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BOTTOM HOLE

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 NAD27 GEO. LAT.-(N) 39.352071 LONG.-(W) 80.818217
 NAD83 UTM (M) N. 4,355,872.35 E. 515,677.46



LATERAL	
ID	DISTANCE
L4	3916.08'

AS-DRILLED TOTAL LATERAL LENGTH = 3914.73'

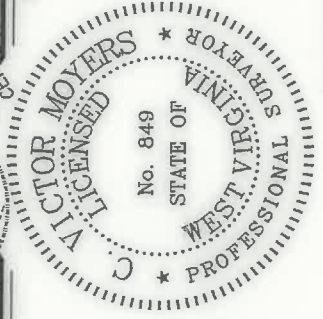
WELL TIES		
ID	BEARING	DISTANCE
L1	N 71°30' E	1378.41'
L2	N 67°18' E	1626.63'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	S 36°05' W	1552.46'



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P.S. *C. Victor Moyers*
849



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 FILE NO. 7701PWEU4H10AD.dwg (516537)
 DATE FEBRUARY 13, 2019
 SCALE 1" = 1000'
 REVISED OPERATORS WELL NO. WEU4H10

STATE 47 - 95 - 2508
 COUNTY PERMIT

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



(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)

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LANDING POINT

NAD27 S.P.C.(FT) N. 316,626.28 E. 1,625,592.43
 NAD27 GEO. LAT.-(N) 39.361750 LONG.-(W) 80.824224
 NAD83 UTM (M) N. 4,356,945.43 E. 515,157.73

BOTTOM HOLE

NAD27 S.P.C.(FT) N. 313,077.11 E. 1,627,242.42
 NAD27 GEO. LAT.-(N) 39.352073 LONG.-(W) 80.818188
 NAD83 UTM (M) N. 4,355,872.59 E. 515,678.97

COUNTY NAME _____ PERMIT _____

LEGEND

- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- DRILL PATH BEND POINT
- PLUGGED WELL
- STORAGE WELL
- CENTERVILLE DISTRICT TAX MAP-PARCEL
- MGLEROY DISTRICT TAX MAP-PARCEL
- LEASE LINE
- SURFACE LINE
- PROPOSED WELL LATERAL
- AS-DRILLED WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- FENCE LINE

WELL OPERATOR EQT PRODUCTION COMPANY
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330

DESIGNATED AGENT JASON RANSON
 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
 BRIDGEPORT, WV 26330

WEU4
WEU4H10

EQT PRODUCTION COMPANY

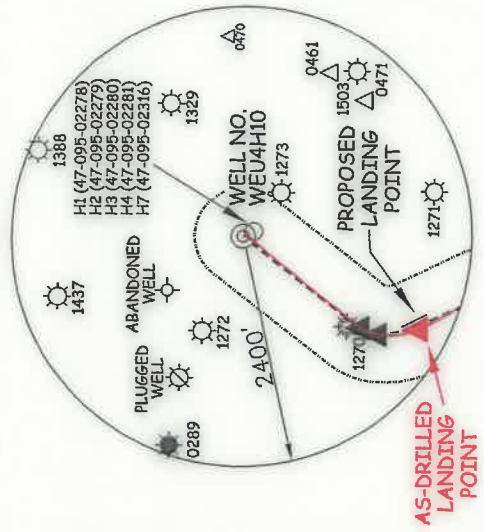
BOTTOM HOLE LONGITUDE 80°47'30"

8,351'

7,500'

7,508'

TYLER COUNTY		SURFACE OWNERSHIP		T.M. - PAR.	
TAG	SURFACE OWNER	ACRES	T.M. - PAR.	ACRES	T.M. - PAR.
A	DONNA J. PETER	113.4 ACRES±	TM C-16-22		
B	CHRIS BAUM ET AL	56.84 ACRES±	TM C-16-23		
C	PEARLIE DAVIS	53 ACRES±	TM C-16-25		
D	ANZANETTA DRAIN HRS	46.88 ACRES±	TM C-18-03		
E	ELIZABETH C. FISHBICK	98.81 ACRES±	TM C-18-04		
F	PAUL WEEKLEY (LIFE)	5 ACRES±	TM C-16-28		
G	LESLIE MOORE ET AL	20.25 ACRES±	TM M-23-01		
H	PAUL WEEKLEY (LIFE)	18 ACRES±	TM M-23-06		
I	COREY A. & ANGELA J. BLINE	27.5 ACRES±	TM M-23-02		
J	RICHARD & LISA L. HIENDRICKSON	44.68 ACRES±	TM M-21-41		
K	BRYAN W. PRATT	23 ACRES±	TM M-21-42		
L	BRYAN W. PRATT	6.75 ACRES±	TM M-23-31		
M	JAMES & KATHRYN McNULTY	50.18 ACRES±	TM M-21-37		
N	CLAY M. PERKINS ET AL.	50.25 ACRES±	TM M-21-40		
O	EDWARD II & CAROLYN A. WHITE	16 ACRES±	TM M-21-39		
P	EDWARD II & CAROLYN A. WHITE	12.50 ACRES±	TM M-21-38		
Q	EDWARD II & CAROLYN WHITE	40 ACRES±	TM M-21-32		
R	ASIA DELL CUMBERLEDGE	75.75 ACRES±	TM M-21-28		
S	BRUCE & SANDRA STONKING	69.44 ACRES±	TM M-21-29		
T	BRUCE & SANDRA STONKING	42.86 ACRES±	TM C-16-10		
U	CHASE & REBA BARJUDG	109.94 ACRES±	TM C-16-15		
V	MARK A. & JOEL A. PROSSOR ET AL.	2.50 ACRES±	TM C-16-16		
W	JERRY E. & ANITA L. HOOVER	24.84 ACRES±	TM C-16-14		
X	CONRAD COSTILOW	46.17 ACRES±	TM C-16-14		
Y	JOHN R. ANDERS II	19.75 ACRES±	TM C-16-17		
Z	RICHARD & YVONNE METCALF	61.57 ACRES±	TM C-16-24		
AA	LEONA LORKOVICH ET AL.	45.89 ACRES±	TM C-18-02		
BB	KINDRA & ROGER WYKE ET AL.	9.5 ACRES±	TM C-18-11		
CC	STEVEN MALICKI JR. ET AL	115.28 ACRES±	TM C-16-29		
DD	STEVEN MALICKI JR.	32.94 ACRES±	TM C-16-14.1		
EE	STONEWALL GAS COMPANY	2 ACRES±	TM C-16-14.2		
FF	PAUL WEEKLEY (LIFE)	3.37 ACRES±	TM WU-01-04		
GG	RONALD H. METCALF	.61 ACRES±			
HH	JOHN R. ANDERS, II	.09 ACRES±			
II	DALJE & DWIGHT HUSK	55.71 ACRES±			

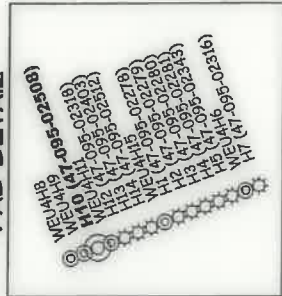


ROYALTY OWNERS		LEASE NO.	
EILEEN CAYTON ET AL	57 AC.±	126203	
BRYAN BRITTON ET AL	54 AC.±	126162	
BEATRICE BRADY ET AL	47 AC.±	126207	
FRANKLIN BUTLER ET AL	101 AC.±	126199	

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- NOTES ON SURVEY**
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS 2500 SQ. FT. OR GREATER WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
 - WELL SPOT CIRCLE (SHEET 1) AND TOPO MARK SCALE ARE 1" = 2000'
 - AS DRILLED INFORMATION PROVIDED BY EOT.

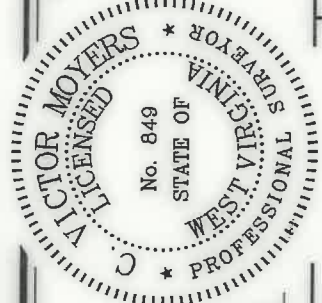
PAD DETAIL



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Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhook Drive • Glenville, WV 26331 • (904) 462-5634

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P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE FEBRUARY 13, 2019
REVISED _____, 20____
OPERATORS WELL NO. WEU4H10
API _____
WELL NO. **47-95-2508**
STATE _____ COUNTY _____ PERMIT _____

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 7701PWEU4H10AD.dwg (516537)
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORP NETWORK)



WELL TYPE: OIL ___ GAS ___ LIQUID ___ WASTE ___ INJECTION ___ DISPOSAL ___ "GAS" PRODUCTION ___ IF ___ STORAGE ___ DEEP ___ SHALLOW ___ X

LOCATION: PAD ELEVATION 1,079' WATERSHED CENTERVILLE COUNTY TYLER QUADRANGLE WEST UNION 7.5' TRIBUTARY OF CAMP MISTAKE RUN

SURFACE OWNER DONNA J. PETER
ROYALTY OWNER WACO OIL AND GAS INC. ET AL

PROPOSED WORK:
DRILL CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,680'

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JASON RANSON
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330
ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280 BRIDGEPORT, WV 26330