



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, July 3, 2019
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

EQT PRODUCTION COMPANY
625 LIBERTY AVE., SUITE 1700

PITTSBURGH, PA 15222

Re: Permit Modification Approval for WEU4H13
47-095-02511-00-00

Lateral extension, and add lease.

EQT PRODUCTION COMPANY

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over the typed name and title.

Operator's Well Number: WEU4H13
Farm Name: DONNA J. PETER
U.S. WELL NUMBER: 47-095-02511-00-00
Horizontal 6A New Drill
Date Modification Issued: July 3, 2019

Promoting a healthy environment.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: EQT Production Company 306686 Tyler Centerville West Union
Operator ID County District Quadrangle

2) Operator's Well Number: WEU4H13 Well Pad Name: WEU4

3) Farm Name/Surface Owner: Donna J Peter Public Road Access: WV-18

4) Elevation, current ground: 1079 Elevation, proposed post-construction: 1079

5) Well Type (a) Gas Oil _____ Underground Storage _____

Other _____

(b) If Gas Shallow Deep _____

Horizontal

6) Existing Pad: Yes or No Yes

CTB 7/3/19

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target formation is Marcellus at a depth of 6680' with the anticipated thickness to 54 feet and anticipated target pressure of 2747 PSI

8) Proposed Total Vertical Depth: 6680

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 12422

11) Proposed Horizontal Leg Length: 3642

12) Approximate Fresh Water Strata Depths: 132,175,186,204

13) Method to Determine Fresh Water Depths: By Offset wells

14) Approximate Saltwater Depths: 1128,1219,1222

15) Approximate Coal Seam Depths: 230,281,696

16) Approximate Depth to Possible Void (coal mine, karst, other): None reported

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____

Depth: _____

Seam: _____

Owner: _____

18)

CASING AND TUBING PROGRAM

TYPE	<u>Size (in)</u>	<u>New or Used</u>	<u>Grade</u>	<u>Weight per ft. (lb/ft)</u>	<u>FOOTAGE: For Drilling (ft)</u>	<u>INTERVALS: Left in Well (ft)</u>	<u>CEMENT: Fill-up (Cu. Ft.)/CTS</u>
Conductor	20	NEW	A-500	78.6	40	40	60 ft ³ / CTS
Fresh Water	13 3/8	NEW	J-55	54.5	750	750	668 ft ³ /CTS
Coal							
Intermediate	9 5/8	NEW	P-110	40	2865	2865	1126 ft ³ /CTS
Production	5 1/2	NEW	P-110	20	12422	12422	500' above top producing zone
Tubing	2 3/8		J-55	4.7		May not be run, if run set 40' above top	
Liners							

CTB 7/3/19

TYPE	<u>Size (in)</u>	<u>Wellbore Diameter (in)</u>	<u>Wall Thickness (in)</u>	<u>Burst Pressure (psi)</u>	<u>Anticipated Max. Internal Pressure (psi)</u>	<u>Cement Type</u>	<u>Cement Yield (cu. ft./k)</u>
Conductor	20	26	.375	1378	18	Class A	1.18
Fresh Water	13 3/8	17 1/2	.38	2700	2160	See Variance	1.19
Coal							
Intermediate	9 5/8	12 3/8	.395	3950	6320	Class H	1.07
Production	5 1/2	8 1/2	.361	12640	10112	Class A/H	1.123/2.098
Tubing	2 3/8	N/A	.19	7700			
Liners							

PACKERS

Kind:				
Sizes:				
Depths Set:				

CTB 7/3/19

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill and complete a new horizontal well in the Marcellus Formation. Drill the vertical to an approximate depth of 3143'. Kick off and drill curve. Drill the lateral in the Marcellus. Cement casing.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Hydraulic fracturing is completed in accordance with state regulations using water recycled from previously fractured wells and obtained from freshwater sources. This water is mixed with sand and a small percentage (less than 0.1%) of chemicals (including 15% Hydrochloric acid, friction reducer, biocide, and scale inhibitor), referred to in the industry as a "slickwater" completion. Maximum anticipated internal casing pressure is expected to be approximately 10000 psi, maximum anticipated treating rates are expected to average approximately 100 bpm. Stage lengths vary from 150 to 300 feet. Average approximately 350,000 gallons of water per stage. Sand sizes vary from 100 mesh to 20/40 mesh. Average approximately 400,000 pounds of proppant per stage.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): No Additional

22) Area to be disturbed for well pad only, less access road (acres): No Additional

23) Describe centralizer placement for each casing string:

- Surface: Bow spring centralizers – One at the shoe and one spaced every 500’.
- Intermediate: Bow spring centralizers– One cent at the shoe and one spaced every 500’.
- Production: One solid body cent spaced every joint from production casing shoe to KOP

24) Describe all cement additives associated with each cement type:

Conductor: Class A no additives
Surface (Type 1 Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. .25% Flake Loss Circulation Material (LCM)
Intermediate (Class H Cement): 0-3% Calcium Chloride. Used to speed the setting of cement slurries. 0.25% flake. Loss Circulation Material (LCM) .6% Super FL-300 (fluid loss/lengthens thickening time)
Production:
Lead (Class A Cement): 0.2% CD-20 (dispersant makes cement easier to mix). .15% SuperFL-300 (fluid loss/lengthens thickening time) .15% SEC-10 (fluid loss) 50:50 POZ (extender)
Tail (Class H Cement): 0.2% Super CR-1 (Retarder). Lengthens thickening time. .3% Super FL-200 (fluid loss) .2% SEC-10 (Fluid loss). .2% SuperFL-350 (fluid loss) Reduces amount of water lost to formation. 60 % Calcuim Carbonate. Acid solubility.

25) Proposed borehole conditioning procedures:

Surface: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Intermediate: Circulate hole clean while rotating & reciprocating the drill string until cuttings diminish at surface.
Production: Pump marker sweep with nut plug to determine actual hole washout. Calculate a gauge holes bottoms up volume. Perform a cleanup cycle by pumping 3-5 bottoms up or until the shakers are clean. Check volume of cuttings coming across the shakers every 15 minutes.

*Note: Attach additional sheets as needed.

Lease No.	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
126129	<u>Waco Oil & Gas Co. Inc., et al (current royalty owner)</u> William H. Ash, et ux, et al (original lessor) Equitable Gas Company Equitrans, Inc. Equitrans, LP Equitrans, LP	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company EQT Production Company	**	LB191/321 DB 274/471 DB433/777 DB 396/640 OG 440/107
126185	<u>L. Bruce and Sandra Jean Stoneking (current royalty owner)</u> Addie Keys Equitable Gas Company Equitrans, Inc. Equitable Production Company	Equitable Gas Company Equitrans, Inc. Equitable Production Company EQT Production Company	**	DB195/375 DB274/471 DB396/640 DB281/346
126187	<u>Jerry R Brown, et al (current royalty owner)</u> Addie Keys, et al (original lessor) Equitable Gas Company Equitrans, Inc./Equitable Gas Company/Equitable Resources, Inc. Equitrans, L.P.	Equitable Gas Company Equitrans, Inc. Equitrans, L.P. EQT Production Company	**	LB195/475 DB 274/471 DB 433/777 DB 396/640
126208	<u>Roxie Davis, et al (current royalty owner)</u> Lucy Davis, et al. (original lessor) Equitable Gas Company Equitrans, Inc./Equitable Gas Company/Equitable Resources, Inc. Equitrans, L.P.	Equitable Gas Company Equitrans, Inc. Equitrans, L.P. EQT Production Company	**	DB 197/551 DB 274/471 DB 433/777 DB 396/640
126165	<u>Hester Britton, et al (current royalty owner)</u> Asia Dell Cumberlandedge, et al (original lessor) Equitable Gas Company Equitrans, Inc. Equitrans, LP	Equitable Gas Company Equitrans, Inc. Equitrans, LP EQT Production Company	**	LB192/360 DB 274/471 DB 433/777 DB 396/640
126257	<u>Thomas E & Richard S Martin (current royalty owner)</u> Daisy Martin and Eli B. Martin (original lessor) M.S. Lantz Columbia Gas Transmission Corp Columbia Natural Resources, Inc Chesapeake Appalachia, LLC Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc Statoil USA Onshore Properties, Inc Antero Resources Corporation	M.S. Lantz Columbia Gas Transmission Corp Columbia Natural Resources, Inc Chesapeake Appalachia, LLC Statoil USA Onshore Properties, Inc Antero Resource Corporation EQT Production Company	**	197/259 197/225 291/175 349/536 363/391 544/291 547/702
126215	<u>Franklin Butler, et al (current royalty owner)</u> Christine Hylbert, et vir (original lessor) Equitable Gas Company Equitrans, Inc./Equitable Gas Company/Equitable Resources, Inc. Equitrans, L.P.	Equitable Gas Company Equitrans, Inc. Equitrans, L.P. EQT Production Company	**	198/402 DB 274/471 DB 433/777 DB 396/640

Doddridge Co.

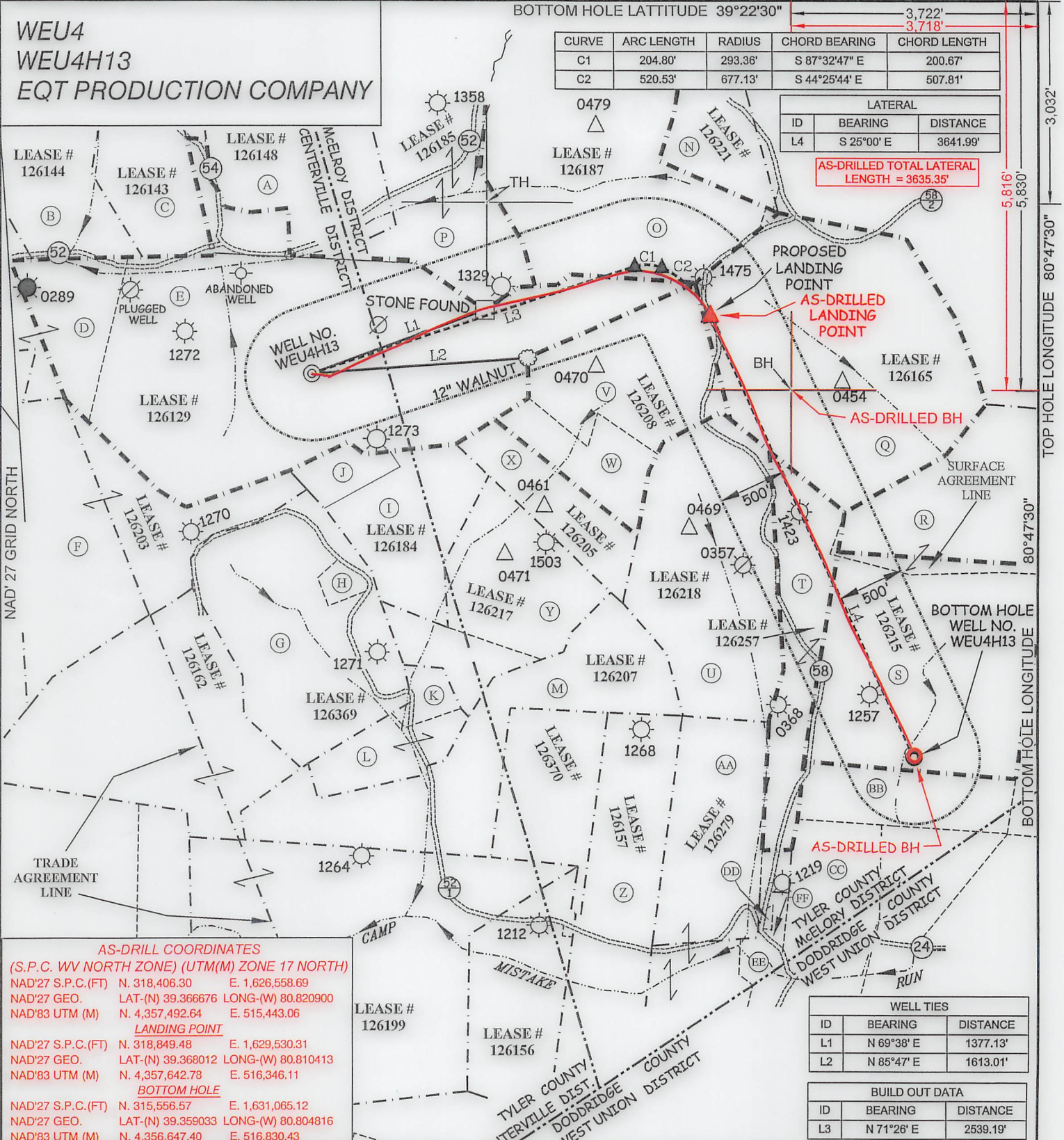
** Per West Virginia Code Section 22-6-8.

WEU4
WEU4H13
EQT PRODUCTION COMPANY

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	204.80'	293.36'	S 87°32'47" E	200.67'
C2	520.53'	677.13'	S 44°25'44" E	507.81'

LATERAL		
ID	BEARING	DISTANCE
L4	S 25°00' E	3641.99'

AS-DRILLED TOTAL LATERAL LENGTH = 3635.35'



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

NAD'27 S.P.C.(FT) N. 318,406.30 E. 1,626,558.69
 NAD'27 GEO. LAT-(N) 39.366676 LONG-(W) 80.820900
 NAD'83 UTM (M) N. 4,357,492.64 E. 515,443.06

LANDING POINT

NAD'27 S.P.C.(FT) N. 318,849.48 E. 1,629,530.31
 NAD'27 GEO. LAT-(N) 39.368012 LONG-(W) 80.810413
 NAD'83 UTM (M) N. 4,357,642.78 E. 516,346.11

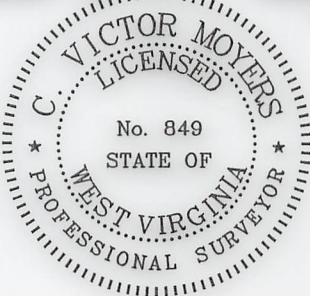
BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 315,556.57 E. 1,631,065.12
 NAD'27 GEO. LAT-(N) 39.359033 LONG-(W) 80.804816
 NAD'83 UTM (M) N. 4,356,647.40 E. 516,830.43

WELL TIES		
ID	BEARING	DISTANCE
L1	N 69°38' E	1377.13'
L2	N 85°47' E	1613.01'

BUILD OUT DATA		
ID	BEARING	DISTANCE
L3	N 71°26' E	2539.19'

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634
www.slsww.com



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

SCALE 1" = 1000'
 DATE MAY 29, 20 19
 REVISED 7/02/19
 OPERATORS WELL NO. WEU4H13
 API WELL NO. 47 - 95 - 02511
 STATE COUNTY PERMIT

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*

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

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

NAD'27 S.P.C.(FT) N. 318,406.30 E. 1,626,558.69
 NAD'27 GEO. LAT-(N) 39.366676 LONG-(W) 80.820900
 NAD'83 UTM (M) N. 4,357,492.64 E. 515,443.06

LANDING POINT

NAD'27 S.P.C.(FT) N. 318,843.40 E. 1,629,521.74
 NAD'27 GEO. LAT-(N) 39.367995 LONG-(W) 80.810443
 NAD'83 UTM (M) N. 4,357,640.89 E. 516,343.53

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 315,542.63 E. 1,631,060.90
 NAD'27 GEO. LAT-(N) 39.358995 LONG-(W) 80.804830
 NAD'83 UTM (M) N. 4,356,643.14 E. 516,829.22

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

WELL OPERATOR EQT PRODUCTION COMPANY
 ADDRESS 2400 ANSYS DRIVE, SUITE 200
CANONSBURG, PA 15317

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

COUNTY NAME PERMIT

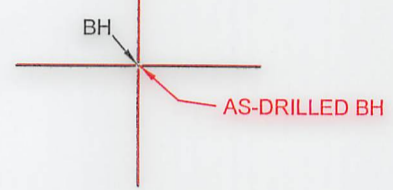
**WEU4
WEU4H13
EQT PRODUCTION COMPANY**

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

NAD'27 S.P.C.(FT)	N. 318,406.30	E. 1,626,558.69
NAD'27 GEO.	LAT-(N) 39.366676	LONG-(W) 80.820900
NAD'83 UTM (M)	N. 4,357,492.64	E. 515,443.06
LANDING POINT		
NAD'27 S.P.C.(FT)	N. 318,843.40	E. 1,629,521.74
NAD'27 GEO.	LAT-(N) 39.367995	LONG-(W) 80.810443
NAD'83 UTM (M)	N. 4,357,640.89	E. 516,343.53
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 315,542.63	E. 1,631,060.90
NAD'27 GEO.	LAT-(N) 39.358995	LONG-(W) 80.804830
NAD'83 UTM (M)	N. 4,356,643.14	E. 516,829.22

SURFACE OWNERSHIP			
TAG	SURFACE OWNER	ACRES	T.M. - PAR.
TYLER COUNTY			
A	CHASE & REBA J. BARTRUG	109.94 ACRES±	TM-C-16-10
B	CONRAD COSTILOW	46.17 ACRES±	TM-C-16-14
C	JEFFERY E. & ANITA L. HOOVER	24.84 ACRES±	TM-C-16-16
D	RICHARD H. METCALF	61.57 ACRES±	TM-C-16-17
E	DONNA J. PETER	113.4 ACRES±	TM-C-16-22
F	CHRIS BAUM ET AL	56.84 ACRES±	TM-C-16-23
G	LEONA W. LORKOVICH ET AL	45.89 ACRES±	TM-C-16-24
H	STONEWALL GAS COMPANY	2 ACRES±	TM-C-16-24.2
I	PAUL WEEKLEY (LIFE)	18 ACRES±	TM-C-16-27
J	PAUL WEEKLEY (LIFE)	5 ACRES±	TM-C-16-28
K	PAUL WEEKLEY (LIFE)	3.37 ACRES±	TM-C-16-29
L	KENDRA WYKE ET AL	9.5 ACRES±	TM-C-18-02
M	ANZANETTA DRAIN HRS	46.88 ACRES±	TM-C-18-03
N	GARY DAVENPORT	16 ACRES±	TM-M-21-25
O	BRUCE & SANDRA STONEKING	69.44 ACRES±	TM-M-21-28
P	BRUCE & SANDRA STONEKING	42.86 ACRES±	TM-M-21-29
Q	ASIA DELL CUMBERLEDGE	75.75 ACRES±	TM-M-21-32
R	BRUCE W. BOLAND	35.43 ACRES±	TM-M-21-34
S	GORDON L. KEYS ET AL	60.6 ACRES±	TM-M-21-35
T	THOMAS E. & RICHARD S. MARTIN	28.99 ACRES±	TM-M-21-36
U	CLAY M. PERKINS ET AL	50.25 ACRES±	TM-M-21-37
V	EDWARD II & CAROLYN A. WHITE	40 ACRES±	TM-M-21-38
W	EDWARD II & CAROLYN A. WHITE	12.5 ACRES±	TM-M-21-39
X	EDWARD II & CAROLYN A. WHITE	16 ACRES±	TM-M-21-40
Y	BRYAN W. PRATT	23 ACRES±	TM-M-21-41
Z	RICHARD & LISA HENDRICKSON	44.68 ACRES±	TM-M-23-02
AA	JAMES T. & KATHRYN L. McNULTY	50.18 ACRES±	TM-M-23-3.1
BB	MYRON B. & BETTY WHITE	15.15 ACRES±	TM-M-23-07
DODDRIDGE COUNTY			
CC	MYRON B. & BETTY L. WHITE	14.88 ACRES±	TM-WU-01-01
DD	KENDRA K. (COTTRILL) WYKE	0.5 ACRES±	TM-WU-01-08
EE	JUDITH ANN BAGLEY	10.09 ACRES±	TM-WU-01-10
FF	JASON E. & JENNIFER L. BAGLEY	1.42 ACRES±	TM-WU-01-10.1

TH

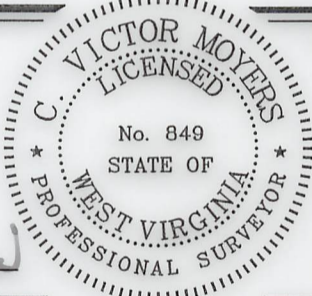
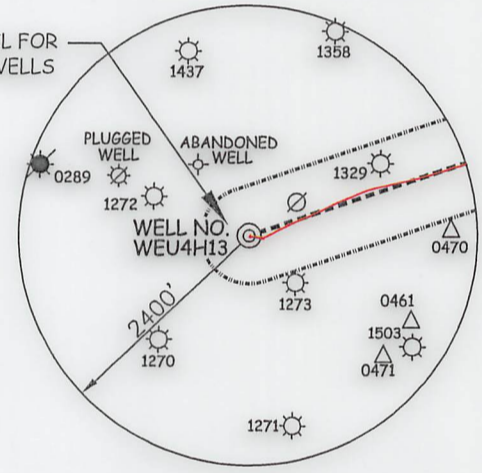


AS-DRILL COORDINATES
(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'27 S.P.C.(FT)	N. 318,406.30	E. 1,626,558.69
NAD'27 GEO.	LAT-(N) 39.366676	LONG-(W) 80.820900
NAD'83 UTM (M)	N. 4,357,492.64	E. 515,443.06
LANDING POINT		
NAD'27 S.P.C.(FT)	N. 318,849.48	E. 1,629,530.31
NAD'27 GEO.	LAT-(N) 39.368012	LONG-(W) 80.810413
NAD'83 UTM (M)	N. 4,357,642.78	E. 516,346.11
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 315,556.57	E. 1,631,065.12
NAD'27 GEO.	LAT-(N) 39.359033	LONG-(W) 80.804816
NAD'83 UTM (M)	N. 4,356,647.40	E. 516,830.43

ROYALTY OWNERS		
L. BRUCE STONEKING ET AL	42 AC.±	LEASE NO. 126185
JERRY RAY BROWN	76 AC.±	LEASE NO. 126187
ROXIE DAVIS ET AL	53 AC.±	LEASE NO. 126208
HESTER BRITTON ET AL	76 AC.±	LEASE NO. 126165
THOMAS E. & RICHARD S. MARTIN	28 AC.±	LEASE NO. 126257
FRANKLIN BUTLER ET AL	76 AC.±	LEASE NO. 126215

- 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.




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 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 MAY 29, 20 19
 REVISED 7/02/19
 OPERATORS WELL NO. WEU4H13
 API WELL NO. 47 - 95 - 02511
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7701PWEU4H13AD_R.dwg (516540)
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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



WELL TYPE:	OIL <input type="checkbox"/>	GAS <input checked="" type="checkbox"/>	LIQUID INJECTION <input type="checkbox"/>	WASTE DISPOSAL <input type="checkbox"/>	IF "GAS" PRODUCTION <input checked="" type="checkbox"/>	STORAGE <input type="checkbox"/>	DEEP <input type="checkbox"/>	SHALLOW <input checked="" type="checkbox"/>
LOCATION:	PAD ELEVATION <u>1,079'</u> WATERSHED <u>TRIBUTARY OF CAMP MISTAKE RUN</u>							
	DISTRICT <u>CENTERVILLE</u> COUNTY <u>TYLER</u> QUADRANGLE <u>WEST UNION 7.5'</u>							
	SURFACE OWNER <u>DONNA J. PETER</u> ACREAGE <u>113.40±</u>							
	ROYALTY OWNER <u>WACO OIL AND GAS INC. ET AL</u> ACREAGE <u>152±</u>							
	PROPOSED WORK: LEASE NO. <u>126129</u>							
	DRILL <input checked="" type="checkbox"/> CONVERT <input type="checkbox"/> DRILL DEEPER <input type="checkbox"/> REDRILL <input type="checkbox"/> FRACTURE OR STIMULATE <input checked="" type="checkbox"/> PLUG OFF OLD FORMATION <input type="checkbox"/>							
	PERFORATE NEW FORMATION <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG <input type="checkbox"/> OTHER <input type="checkbox"/>							
	PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION <u>MARCELLUS</u>							
	ESTIMATED DEPTH <u>6,680'</u>							

WELL OPERATOR <u>EQT PRODUCTION COMPANY</u>	DESIGNATED AGENT <u>JASON RANSON</u>
ADDRESS <u>2400 ANSYS DRIVE, SUITE 200</u> <u>CANONSBURG, PA 15317</u>	ADDRESS <u>115 PROFESSIONAL PLACE</u> P.O. BOX 280 <u>BRIDGEPORT, WV 26330</u>

COUNTY NAME
PERMIT

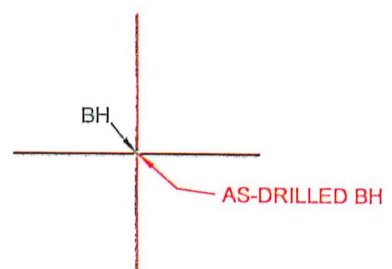
**WEU4
WEU4H13
EQT PRODUCTION COMPANY**

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

NAD'27 S.P.C.(FT)	N. 318,406.30	E. 1,626,558.69
NAD'27 GEO.	LAT-(N) 39.366676	LONG-(W) 80.820900
NAD'83 UTM (M)	N. 4,357,492.64	E. 515,443.06
LANDING POINT		
NAD'27 S.P.C.(FT)	N. 318,843.40	E. 1,629,521.74
NAD'27 GEO.	LAT-(N) 39.367995	LONG-(W) 80.810443
NAD'83 UTM (M)	N. 4,357,640.89	E. 516,343.53
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 315,542.63	E. 1,631,060.90
NAD'27 GEO.	LAT-(N) 39.358995	LONG-(W) 80.804830
NAD'83 UTM (M)	N. 4,356,643.14	E. 516,829.22

SURFACE OWNERSHIP			
TAG	SURFACE OWNER	ACRES	T.M. - PAR.
TYLER COUNTY			
A	CHASE & REBA J. BARTRUG	109.94 ACRES±	TM-C-16-10
B	CONRAD COSTILOW	46.17 ACRES±	TM-C-16-14
C	JEFFERY E. & ANITA L. HOOVER	24.84 ACRES±	TM-C-16-16
D	RICHARD H. METCALF	61.57 ACRES±	TM-C-16-17
E	DONNA J. PETER	113.4 ACRES±	TM-C-16-22
F	CHRIS BAUM ET AL	56.84 ACRES±	TM-C-16-23
G	LEONA W. LORKOVICH ET AL	45.89 ACRES±	TM-C-16-24
H	STONEWALL GAS COMPANY	2 ACRES±	TM-C-16-24.2
I	PAUL WEEKLEY (LIFE)	18 ACRES±	TM-C-16-27
J	PAUL WEEKLEY (LIFE)	5 ACRES±	TM-C-16-28
K	PAUL WEEKLEY (LIFE)	3.37 ACRES±	TM-C-16-29
L	KENDRA WYKE ET AL	9.5 ACRES±	TM-C-18-02
M	ANZANETTA DRAIN HRS	46.88 ACRES±	TM-C-18-03
N	GARY DAVENPORT	16 ACRES±	TM-M-21-25
O	BRUCE & SANDRA STONEKING	69.44 ACRES±	TM-M-21-28
P	BRUCE & SANDRA STONEKING	42.86 ACRES±	TM-M-21-29
Q	ASIA DELL CUMBERLEDGE	75.75 ACRES±	TM-M-21-32
R	BRUCE W. BOLAND	35.43 ACRES±	TM-M-21-34
S	GORDON L. KEYS ET AL	60.6 ACRES±	TM-M-21-35
T	THOMAS E. & RICHARD S. MARTIN	28.99 ACRES±	TM-M-21-36
U	CLAY M. PERKINS ET AL	50.25 ACRES±	TM-M-21-37
V	EDWARD II & CAROLYN A. WHITE	40 ACRES±	TM-M-21-38
W	EDWARD II & CAROLYN A. WHITE	12.5 ACRES±	TM-M-21-39
X	EDWARD II & CAROLYN A. WHITE	16 ACRES±	TM-M-21-40
Y	BRYAN W. PRAIT	23 ACRES±	TM-M-21-41
Z	RICHARD & LISA HENDRICKSON	44.68 ACRES±	TM-M-23-02
AA	JAMES T. & KATHRYN L. McNULTY	50.18 ACRES±	TM-M-23-3.1
BB	MYRON B. & BETTY WHITE	15.15 ACRES±	TM-M-23-07
DODDRIDGE COUNTY			
CC	MYRON B. & BETTY L. WHITE	14.88 ACRES±	TM-WU-01-01
DD	KENDRA K. (COTTRILL) WYKE	0.5 ACRES±	TM-WU-01-08
EE	JUDITH ANN BAGLEY	10.09 ACRES±	TM-WU-01-10
FF	JASON E. & JENNIFER L. BAGLEY	1.42 ACRES±	TM-WU-01-10.1

TH

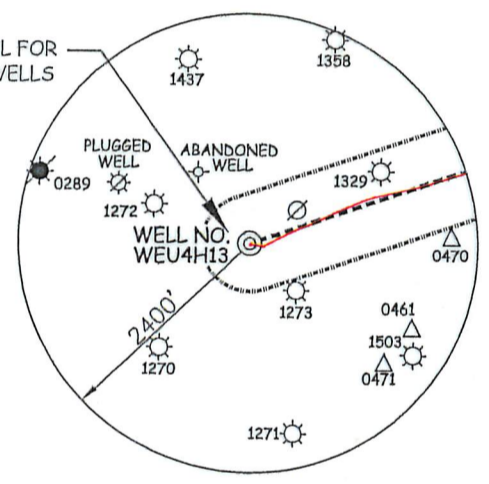
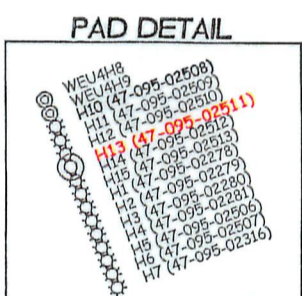
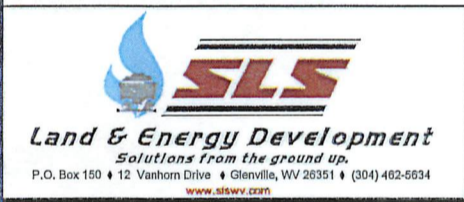


AS-DRILL COORDINATES
(S.P.C. WV NORTH ZONE) (UTM(M) ZONE 17 NORTH)

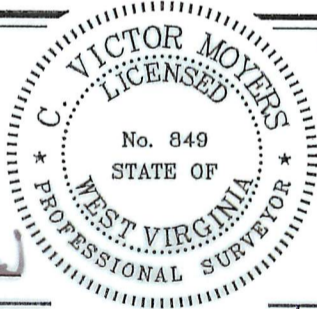
NAD'27 S.P.C.(FT)	N. 318,406.30	E. 1,626,558.69
NAD'27 GEO.	LAT-(N) 39.366676	LONG-(W) 80.820900
NAD'83 UTM (M)	N. 4,357,492.64	E. 515,443.06
LANDING POINT		
NAD'27 S.P.C.(FT)	N. 318,849.48	E. 1,629,530.31
NAD'27 GEO.	LAT-(N) 39.368012	LONG-(W) 80.810413
NAD'83 UTM (M)	N. 4,357,642.78	E. 516,346.11
BOTTOM HOLE		
NAD'27 S.P.C.(FT)	N. 315,556.57	E. 1,631,065.12
NAD'27 GEO.	LAT-(N) 39.359033	LONG-(W) 80.804816
NAD'83 UTM (M)	N. 4,356,647.40	E. 516,830.43

ROYALTY OWNERS		
L. BRUCE STONEKING ET AL	42 AC.±	LEASE NO. 126185
JERRY RAY BROWN	76 AC.±	LEASE NO. 126187
ROXIE DAVIS ET AL	53 AC.±	LEASE NO. 126208
HESTER BRITTON ET AL	76 AC.±	LEASE NO. 126165
THOMAS E. & RICHARD S. MARTIN	28 AC.±	LEASE NO. 126257
FRANKLIN BUTLER ET AL	76 AC.±	LEASE NO. 126215

- 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.



SEE PAD DETAIL FOR ADDITIONAL WELLS



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE MAY 29 , 20 19
 REVISED 7/02/19
 OPERATORS WELL NO. WEU4H13
 API WELL NO. 47 - 95 - 02511
 STATE WEST VIRGINIA COUNTY TYLER PERMIT 804730

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.
 P.S. 849 *C. Victor Moyers*

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7701PWEU4H13AD_R.dwg (516540)
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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

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

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

SURFACE OWNER DONNA J. PETER ACREAGE 113.40±
 ROYALTY OWNER WACO OIL AND GAS INC. ET AL ACREAGE 152±
 PROPOSED WORK: LEASE NO. 126129

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 2400 ANSYS DRIVE, SUITE 200 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
 CANONSBURG, PA 15317 BRIDGEPORT, WV 26330

COUNTY NAME
PERMIT

WEU4 WEU4H13 EQT PRODUCTION COMPANY

SURFACE OWNERSHIP

TAG	SURFACE OWNER	ACRES	T.M. - PAR.
TYLER COUNTY			
A	CHASE & REBA J. BARTRUG	109.94 ACRES±	TM-C-16-10
B	CONRAD COSTILOW	46.17 ACRES±	TM-C-16-14
C	JEFFERY E. & ANITA L. HOOVER	24.84 ACRES±	TM-C-16-16
D	RICHARD H. METCALF	61.57 ACRES±	TM-C-16-17
E	DONNA J. PETER	113.4 ACRES±	TM-C-16-22
F	CHRIS BAUM ET AL	56.84 ACRES±	TM-C-16-23
G	LEONA W. LORKOVICH ET AL	45.89 ACRES±	TM-C-16-24
H	STONEWALL GAS COMPANY	2 ACRES±	TM-C-16-24.2
I	PAUL WEEKLEY (LIFE)	18 ACRES±	TM-C-16-27
J	PAUL WEEKLEY (LIFE)	5 ACRES±	TM-C-16-28
K	PAUL WEEKLEY (LIFE)	3.37 ACRES±	TM-C-16-29
L	KENDRA WYKE ET AL	9.5 ACRES±	TM-C-18-02
M	ANZANETTA DRAIN HRS	46.88 ACRES±	TM-C-18-03
N	GARY DAVENPORT	16 ACRES±	TM-M-21-25
O	BRUCE & SANDRA STONEKING	69.44 ACRES±	TM-M-21-28
P	BRUCE & SANDRA STONEKING	42.86 ACRES±	TM-M-21-29
Q	ASIA DELL CUMBERLEDGE	75.75 ACRES±	TM-M-21-32
R	BRUCE W. BOLAND	35.43 ACRES±	TM-M-21-34
S	GORDON L. KEYS ET AL	60.6 ACRES±	TM-M-21-35
T	THOMAS E. & RICHARD S. MARTIN	28.99 ACRES±	TM-M-21-36
U	CLAY M. PERKINS ET AL	50.25 ACRES±	TM-M-21-37
V	EDWARD II & CAROLYN A. WHITE	40 ACRES±	TM-M-21-38
W	EDWARD II & CAROLYN A. WHITE	12.5 ACRES±	TM-M-21-39
X	EDWARD II & CAROLYN A. WHITE	16 ACRES±	TM-M-21-40
Y	BRYAN W. PRATT	23 ACRES±	TM-M-21-41
Z	RICHARD & LISA HENDRICKSON	44.68 ACRES±	TM-M-23-02
AA	JAMES T. & KATHRYN L. McNULTY	50.18 ACRES±	TM-M-23-3.1
BB	MYRON B. & BETTY WHITE	15.15 ACRES±	TM-M-23-07
DODDRIDGE COUNTY			
CC	MYRON B. & BETTY L. WHITE	14.88 ACRES±	TM-WU-01-01
DD	KENDRA K. (COTTRILL) WYKE	0.5 ACRES±	TM-WU-01-08
EE	JUDITH ANN BAGLEY	10.09 ACRES±	TM-WU-01-10
FF	JASON E. & JENNIFER L. BAGLEY	1.42 ACRES±	TM-WU-01-10.1

TH

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

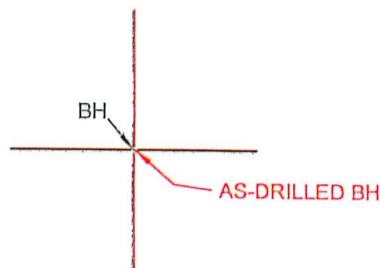
NAD'27 S.P.C.(FT) N. 318,406.30 E. 1,626,558.69
 NAD'27 GEO. LAT-(N) 39.366676 LONG-(W) 80.820900
 NAD'83 UTM (M) N. 4,357,492.64 E. 515,443.06

LANDING POINT

NAD'27 S.P.C.(FT) N. 318,843.40 E. 1,629,521.74
 NAD'27 GEO. LAT-(N) 39.367995 LONG-(W) 80.810443
 NAD'83 UTM (M) N. 4,357,640.89 E. 516,343.53

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 315,542.63 E. 1,631,060.90
 NAD'27 GEO. LAT-(N) 39.358995 LONG-(W) 80.804830
 NAD'83 UTM (M) N. 4,356,643.14 E. 516,829.22



AS-DRILL COORDINATES

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

NAD'27 S.P.C.(FT) N. 318,406.30 E. 1,626,558.69
 NAD'27 GEO. LAT-(N) 39.366676 LONG-(W) 80.820900
 NAD'83 UTM (M) N. 4,357,492.64 E. 515,443.06

LANDING POINT

NAD'27 S.P.C.(FT) N. 318,849.48 E. 1,629,530.31
 NAD'27 GEO. LAT-(N) 39.368012 LONG-(W) 80.810413
 NAD'83 UTM (M) N. 4,357,642.78 E. 516,346.11

BOTTOM HOLE

NAD'27 S.P.C.(FT) N. 315,556.57 E. 1,631,065.12
 NAD'27 GEO. LAT-(N) 39.359033 LONG-(W) 80.804816
 NAD'83 UTM (M) N. 4,356,647.40 E. 516,830.43

ROYALTY OWNERS

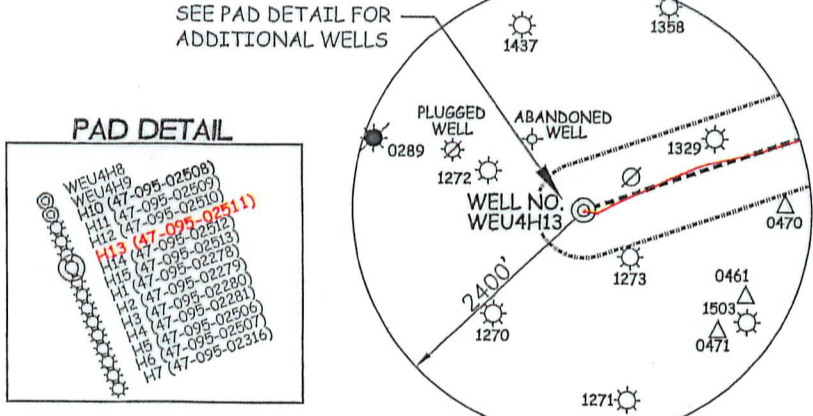
L. BRUCE STONEKING ET AL	42 AC.±	LEASE NO. 126185
JERRY RAY BROWN	76 AC.±	LEASE NO. 126187
ROXIE DAVIS ET AL	53 AC.±	LEASE NO. 126208
HESTER BRITTON ET AL	76 AC.±	LEASE NO. 126165
THOMAS E. & RICHARD S. MARTIN	28 AC.±	LEASE NO. 126257
FRANKLIN BUTLER ET AL	76 AC.±	LEASE NO. 126215

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.

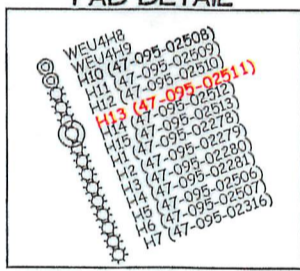


SLS
 Land & Energy Development
 Solutions from the ground up.
 P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634
 www.slsww.com



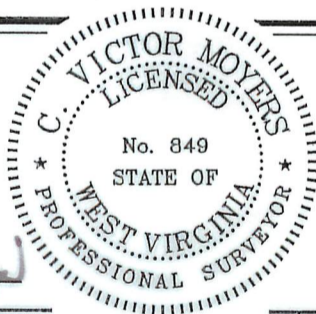
SEE PAD DETAIL FOR ADDITIONAL WELLS

PAD DETAIL



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 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 MAY 29, 20 19
 REVISED 7/02/19
 OPERATORS WELL NO. WEU4H13
 API WELL NO. 47 - 95 - 02511
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 7701PWEU4H13AD_R.dwg (516540)

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

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

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

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

SURFACE OWNER DONNA J. PETER ACREAGE 113.40±
 ROYALTY OWNER WACO OIL AND GAS INC. ET AL ACREAGE 152±
 PROPOSED WORK: LEASE NO. 126129
 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 2400 ANSYS DRIVE, SUITE 200 ADDRESS 115 PROFESSIONAL PLACE P.O. BOX 280
CANONSBURG, PA 15317 BRIDGEPORT, WV 26330

COUNTY NAME PERMIT