

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

API 47 - 103 - 03415 County Wetzel District Center
Quad Big Run Pad Name Michael Kuhn Field/Pool Name N/A
Farm name Rachel Elizabeth Wyatt & Sheldon R. Norris Well Number BIG467 12H (L003942)
Operator (as registered with the OOG) EQT Production Company
Address 2400 Ansys Drive, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,385,157.11 Easting 540,264.95
Landing Point of Curve Northing 4,385,367.78 Easting 540,836.81
Bottom Hole Northing 4,381,544.04 Easting 543,226.93

Elevation (ft) 1508' 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)
Synthetic Oil Based Mud 13.95 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 06/17/2021 Date drilling commenced 08/23/2021 Date drilling ceased 03/08/2022
Date completion activities began 12/17/2022 Date completion activities ceased 05/01/2023
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 47, 333 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1999,2072,2267,2341 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1176,1278 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: [Signature]
12/01/2023

APPROVED

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Office of Oil and Gas
JUL 31 2023
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION

API 47- 103 - 03415 Farm name Rachel Elizabeth Wyatt & Sheldon R. Norris Well number BIG467 12H (L003942)

CASING STRINGS	Hole Size	Casing Size	Depth (GL)	New or Used	Grade wt/ft	Basket Depth(s) (GL)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	26"	40'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	1327'	NEW	J-55 54.5#	1227'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2816'	NEW	A-500 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	23,355'	NEW	HP-P110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 1352' GL, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (GL)	WOC (hrs)
Conductor	CLASS A	83	15.6	1.18	98	0	8+
Surface	CLASS A	1076	16.0	1.13	1216	0	8
Coal							
Intermediate 1	CLASS A	988	15.6	1.18	1165	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	5010	15.2	1.04	5210	1352'	8+
Tubing							

Drillers TD (ft) 23,368' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) 1360'

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 TRACK AND EVERY 500' TO SURFACE _____
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE _____
 PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 2344' _____

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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12/01/2023

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Drilling Contractor Falcon (Rig 25)
Address 1120 US-119 City Indiana State PA Zip 15701

Logging Company Scientific Drilling International
Address 124 Vista Drive City Charleroi State PA Zip 15022

Logging Company GyroData
Address 73 Noblestown Road City Carnegie State PA Zip 15106

Drilling Contractor Evolution Well Services
Address 1780 Hughes Landing Blvd Suite125 City The Woodlands State TX Zip 77380

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Environmental Protection

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Well # Michael Kuhn 12H (L003942) Final Formations API# 47-103-03415				
Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	1,176	1,176
Sewickley Coal	1,176	1,176	1,179	1,179
Sand/Shale	1,179	1,179	1,278	1,278
Pittsburgh Coal	1,278	1,278	1,284	1,284
Sand/Shale	1,284	1,284	2,605	2,601
Big Injun	2,605	2,601	2,755	2,750
Sand/Shale	2,755	2,750	2,873	2,868
Berea	2,873	2,868	3,133	3,125
Sand/Shale	3,133	3,125	3,238	3,228
Gantz	3,238	3,228	3,306	3,294
Fifty foot	3,306	3,294	3,394	3,380
Thirty foot	3,394	3,380	3,591	3,568
Bayard	3,591	3,568	3,665	3,637
Sand/Shale	3,665	3,637	3,996	3,944
Upper Speechley	3,996	3,944	4,049	3,993
Speechley	4,049	3,993	4,132	4,069
Balltown	4,132	4,069	4,496	4,404
Bradford	4,496	4,404	5,611	5,432
Benson	5,611	5,432	6,019	5,809
Alexander	6,019	5,809	6,450	6,205
Elk	6,450	6,205	7,422	7,100
Sonyea	7,422	7,100	7,619	7,281
Middlesex	7,619	7,281	7,828	7,453
Genesee	7,828	7,453	7,959	7,546
Geneseo	7,959	7,546	8,001	7,573
Tully	8,001	7,573	8,039	7,596
Hamilton	8,039	7,596	8,310	7,705
Marcellus	8,310	7,705	23,368	7,839

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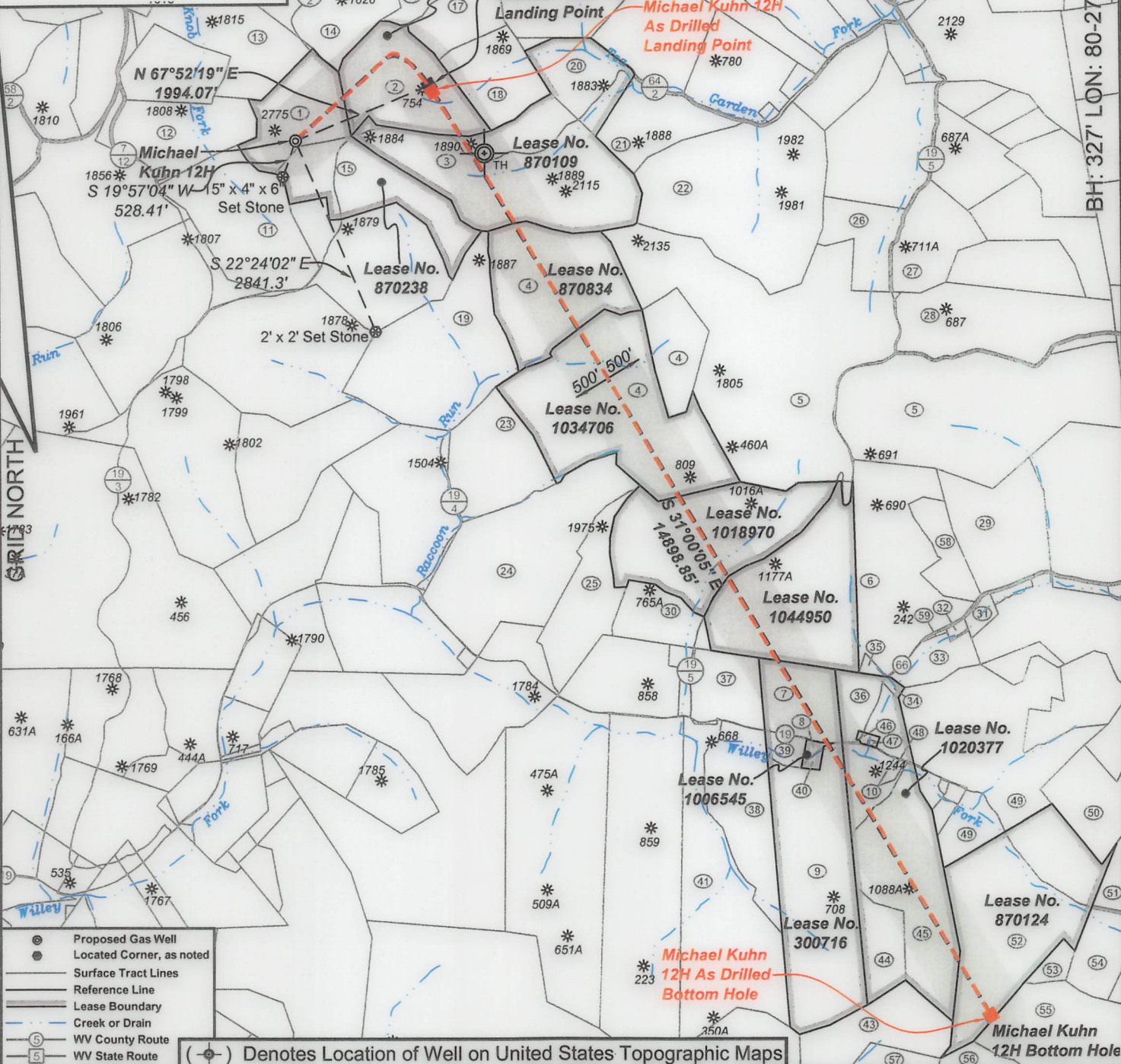
WV Department of
Environmental Protection

12/01/2023

TH: 8763' LAT: 39-37-30

BH: 10853' LAT: 39-35-00

Michael Kuhn 12H
Michael Kuhn
EQT Production Company



- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- ⑤ WV County Route
- ⑤ WV State Route

(●) Denotes Location of Well on United States Topographic Maps

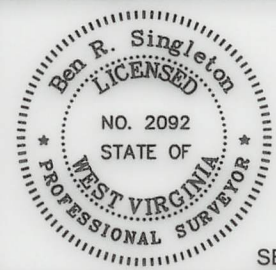
TH: 3592' LON: 80-30-00

BH: 327' LON: 80-27-30



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 Department of Environmental Protection.

Ben R. Singleton
P.S. 2092



SEAL

FILE NO: 49-20
DRAWING NO: Michael Kuhn 12H
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: March 15 20 22
OPERATOR'S WELL NO.: Michael Kuhn 12H
API WELL NO
47 - 103 - 3415
STATE COUNTY PERMIT

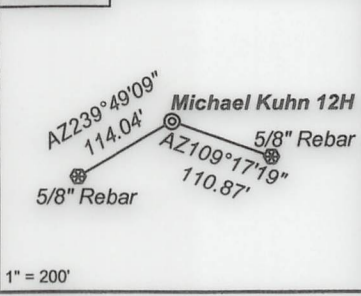
WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
LOCATION: ELEVATION: 1509' WATERSHED: Knob Fork of West Virginia Fork Fishing Creek QUADRANGLE: Big Run
DISTRICT: Center COUNTY: Wetzel
SURFACE OWNER: Rachel Elizabeth Wyatt & Sheldon R. Norris ACREAGE: 36.40
ROYALTY OWNER: Michael G. Kuhn LEASE NO: 870238 ACREAGE: 202
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7751'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 26330

**Michael Kuhn 12H
Michael Kuhn
EQT Production Company**

Tract I.D.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	20	32	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	36.40
2	13	8	Wetzel	Church	William B. Francik Jr.	48.44
3	17	1	Wetzel	Church	Buck Buster Hunt Club of WV Inc.	100.00
4	4	12	Wetzel	Grant	Robert L. McCann Jr. & Andrew S. McCann	190.78
5	5	1	Wetzel	Grant	Raccoon Run Properties LLC	370.01
6	10	2.1	Wetzel	Grant	Richard L. Ebright	139.18
7	10	21	Wetzel	Grant	John Gump Jr. & Mary Jo. Gump	25.00
8	10	49	Wetzel	Grant	Brooks & Donna J. Hinerman	1.28
9	10	38	Wetzel	Grant	Tammy D. Chambers	89.67
10	10	31.2	Wetzel	Grant	Zachary W. Adams	13.01
11	20	35	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	54.00
12	20	31	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	40.00
13	20	27	Wetzel	Center	Robert E. & Linda E. Rix	48.75
14	20	18	Wetzel	Center	Robert E. & Linda E. Rix	60.10
15	20	36	Wetzel	Center	Rachel Elizabeth Wyatt & Sheldon R. Norris	45.00
16	20	5	Wetzel	Center	Robert F. & Linda Rix	107.00
17	13	6	Wetzel	Church	William B. & Pamela S. Francik	26.50
18	13	9	Wetzel	Church	William B. Francik Jr.	28.00
19	4	11	Wetzel	Grant	Liberty Holding Company	89.05
20	13	10	Wetzel	Church	Buck Buster Hunt Club of WV Inc	27.50
21	18	1	Wetzel	Church	Andrew Pintus	31.80
22	18	2	Wetzel	Church	David Brickenstein, et al.	98.50
23	9	5	Wetzel	Grant	John E. Selwell	36.50
24	9	12	Wetzel	Grant	Burl Barr	80.28
25	9	64	Wetzel	Grant	Calvin N. Barr, et al.	32.92
26	18	10	Wetzel	Church	Steven W. & Carolyn L. Blair	19.00
27	18	11	Wetzel	Church	Thomas E. Kahl	29.00
28	18	17	Wetzel	Church	Cecil Summers	57.30
29	10	4	Wetzel	Grant	Gary R. Taylor	86.08
30	10	9	Wetzel	Grant	Gregory A. Burdine	22.50
31	10	11	Wetzel	Grant	Earney J. Stoneking	3.52
32	10	2.2	Wetzel	Grant	Earney J. & Romona L. Stoneking	0.99
33	10	2	Wetzel	Grant	Joseph W. Judge	12.75
34	10	31.1	Wetzel	Grant	Norman & Stacy Adams	0.92
35	10	10	Wetzel	Grant	Leroy & Hazel Kirkpatrick	1.07
36	10	31	Wetzel	Grant	John Gump Jr. & Mary Jo. Gump	16.33
37	10	20	Wetzel	Grant	Billy J. & Frances J. Higgins Irrevocable Trust	21.06
38	10	29.2	Wetzel	Grant	Randy R. Rex	40.00
39	10	38.1	Wetzel	Grant	Brooks Hinerman	5.00
40	10	30	Wetzel	Grant	Tammy D. Chambers	1.05
41	10	29	Wetzel	Grant	Billy J. & Frances J. Higgins Irrevocable Trust	99.31
42	15	5	Wetzel	Grant	Donald J. D'Lusk, et al.	43.20
43	15	1	Wetzel	Grant	Timothy E. Titus	43.20
44	10	39	Wetzel	Grant	Tammy D. Chambers	18.38
45	10	32	Wetzel	Grant	Richard E. & Jay A. Griffith	60.00
46	10	22	Wetzel	Grant	Michael & Katrina Wright	0.25
47	10	22	Wetzel	Grant	Michael & Katrina Wright	0.75
48	10	31.3	Wetzel	Grant	Zachary W. Adams	1.24
49	10	23	Wetzel	Grant	Sheridan L. Gump, et al.	97.70
50	10	35	Wetzel	Grant	EQT Gathering LLC	24.00
51	10	41	Wetzel	Grant	Joshua R. Gump	18.53
52	10	40	Wetzel	Grant	Ronald K. & Deloris P. Gump	94.50
53	10	44	Wetzel	Grant	Ronald K. & Deloris P. Gump	4.10
54	10	45.1	Wetzel	Grant	Bruce W. & Crystal F. Bradley	16.00
55	15	2	Wetzel	Grant	Coastal Forest Resources Co	61.00
56	15	8	Wetzel	Grant	Coastal Forest Resources Co	49.00
57	15	7	Wetzel	Grant	Timothy E. Titus	115.00
58	10	3	Wetzel	Grant	William & Lisa Stoneking	17.30
59	10	2.4	Wetzel	Grant	Joseph W. Judge	0.31

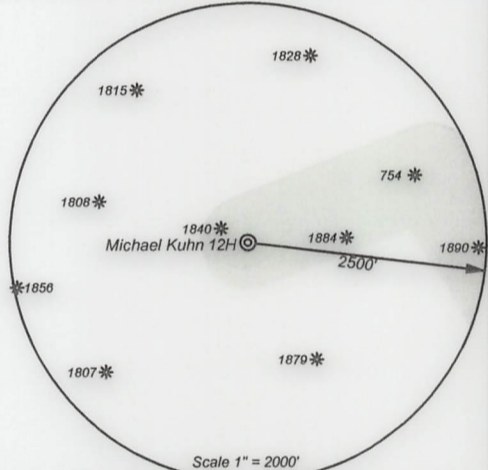
Well References



As Drilled Well Information:
 Michael Kuhn 12H coordinates are
 NAD 27 N: 407,824.59 E: 1,709,523.11
 NAD 83 UTM N: 4,385,157.70 E: 540,264.95
 Michael Kuhn 12H Kick Out Point coordinates are
 NAD 27 N: 407,826.57 E: 1,709,520.68
 NAD 83 UTM N: 4,385,157.70 E: 540,264.20
 Michael Kuhn 12H Landing Point coordinates are
 NAD 27 N: 408,484.49 E: 1,711,411.11
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 Michael Kuhn 12H Bottom Hole coordinates are
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 West Virginia Coordinate system of 1927 (North Zone)
 based upon Differential GPS Measurements.
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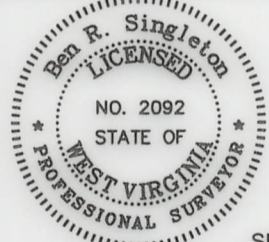


Lease No.	Owner	Acres
300641	Beulah Deloris Ballard	47
870109	Buckbusters Hunting Club of WVA, LLC	127.5
870834	Shiben Estates, Inc., et al.	60.75
1034706	Andrew S. McCann, et al.	107.75
1018970	Three Rivers Royalty, LLC, et al.	75
1044950	Patrick Harold Hasenbuhler, et al.	139.18
300716	Bounty Minerals LLC, et al.	122
1020377	Patrick Harold Hasenbuhler, et al.	110
870124	Ronald Keith Gump, II and Deloris Paula Gump, et al.	94.5
1006545	Ricky A. Plants, et al.	2



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 Department of Environmental Protection.

Ben R. Singleton
 P.S. 2092



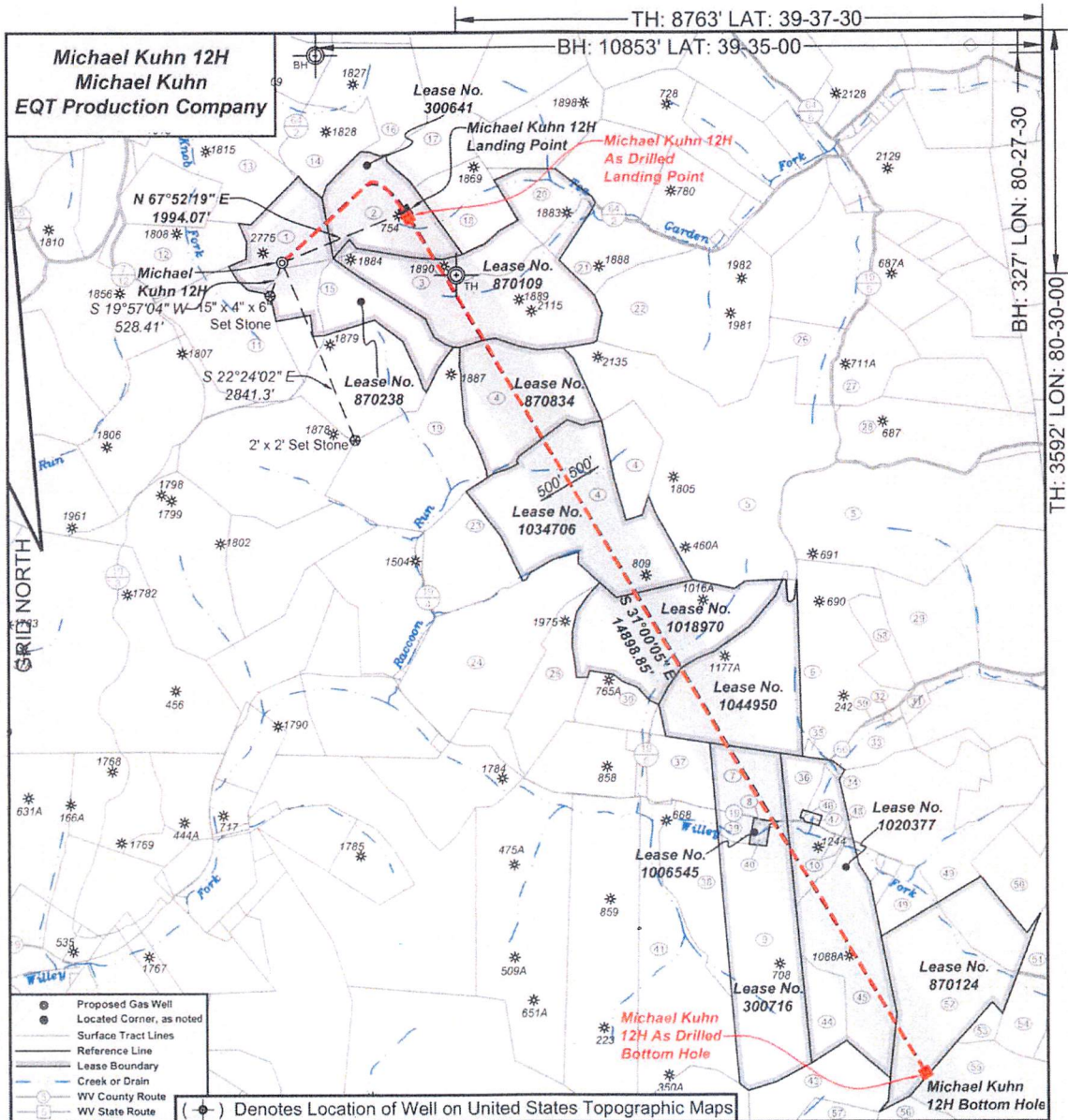
FILE NO: 49-20
 DRAWING NO: Michael Kuhn 12H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
 1:2500
 PROVEN SOURCE OF ELEVATION:
 NGS CORS Station



DATE: March 15 20 22
 OPERATOR'S WELL NO.: Michael Kuhn 12H
 API WELL NO
 47 - 103 - 3415
 STATE COUNTY PERMIT

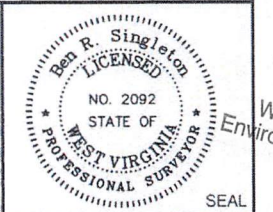
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 LOCATION: ELEVATION: 1509' WATERSHED: Knob Fork of West Virginia Fork Fishing Creek QUADRANGLE: Big Run
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 ROYALTY OWNER: Michael G. Kuhn LEASE NO: 870238 ACREAGE: 202
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 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
 Canonsburg, PA 15317 Bridgeport, WV 26330



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P.S. 2092



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OIL AND GAS DIVISION

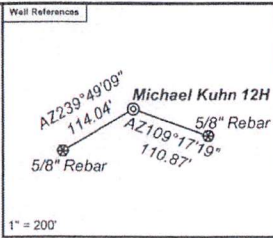
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Michael Kuhn
EQT Production Company

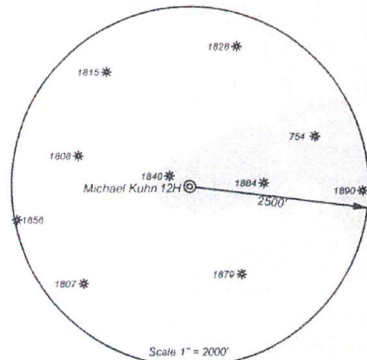


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24	9	12	Wetzel	Grant	Burt Bar	83.25
25	9	84	Wetzel	Grant	Carvin N. Bar, et al	32.82
26	18	10	Wetzel	Church	Steven W. & Carolyn L. Bar	19.00
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28	18	17	Wetzel	Church	Cecil Summers	57.30
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30	10	9	Wetzel	Grant	Gregory A. Burdine	22.50
31	10	11	Wetzel	Grant	Earmey J. Stoneking	2.52
32	10	2.2	Wetzel	Grant	Earmey J. & Rhonora L. Stoneking	0.96
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34	10	31.1	Wetzel	Grant	Norman & Stacy Adams	0.92
35	10	10	Wetzel	Grant	Leroy & Hazel Kirkpatrick	1.07
36	10	31	Wetzel	Grant	John Gump Jr. & Mary Jo Gump	18.33
37	10	20	Wetzel	Grant	Billy J. & Frances J. Higgins Inevitable Trust	21.08
38	10	29.2	Wetzel	Grant	Randy R. Rev	40.00
39	10	35.1	Wetzel	Grant	Brooks Hineman	5.00
40	10	30	Wetzel	Grant	Tammy D. Chambers	1.05
41	10	29	Wetzel	Grant	Billy J. & Frances J. Higgins Inevitable Trust	98.21
42	15	5	Wetzel	Grant	Donald J. D. Lusk, et al	43.20
43	15	1	Wetzel	Grant	Timothy E. Trus	43.20
44	10	36	Wetzel	Grant	Tammy D. Chambers	18.58
45	10	32	Wetzel	Grant	Richard E. & Jay A. Griffith	96.00
46	10	22	Wetzel	Grant	Michael & Katrina Wight	0.25
47	10	22	Wetzel	Grant	Michael & Katrina Wight	0.75
48	10	31.3	Wetzel	Grant	Zachary W. Adams	1.24
49	10	23	Wetzel	Grant	Sherran L. Gump, et al	97.70
50	10	35	Wetzel	Grant	EQT Gathering LLC	24.00
51	10	41	Wetzel	Grant	Joshua R. Gump	18.53
52	10	40	Wetzel	Grant	Ronald K. & Debra P. Gump	64.50
53	10	44	Wetzel	Grant	Ronald K. & Debra P. Gump	4.10
54	10	45.1	Wetzel	Grant	Bruce W. & Crystal P. Bredley	16.00
55	15	2	Wetzel	Grant	Coastal Forest Resources Co	61.00
56	15	8	Wetzel	Grant	Coastal Forest Resources Co	49.00
57	15	7	Wetzel	Grant	Timothy E. Trus	116.00
58	10	3	Wetzel	Grant	William & Lisa Stoneking	17.30
59	10	2.4	Wetzel	Grant	Joseph W. Judge	0.31

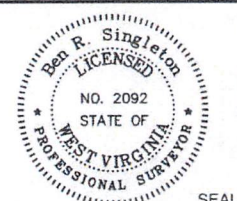


Lease No.	Owner	Acres
300641	Beulah Deloris Ballard	47
870109	Buckbusters Hunting Club of WVA, LLC	127.5
870834	Shiben Estates, Inc. et al	60.75
1034706	Andrew S. McCann, et al	107.75
1018970	Three Rivers Royalty, LLC, et al	75
1044950	Patrick Harold Hasenbuhler, et al	139.18
300716	Bounty Minerals LLC, et al	122
1020377	Patrick Harold Hasenbuhler, et al	110
870124	Ronald Keith Gump, II and Deloris Paula Gump, et al	94.5
1006545	Ricky A. Plants, et al	2



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 Department of Environmental Protection.

Ben R. Singleton
 P.S. 2092



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FILE NO: 49-20
 DRAWING NO: Michael Kuhn 12H
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY:
 1:2500
 PROVEN SOURCE OF ELEVATION:
 NGS CORS Station

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

DATE: March 15 20 22
 OPERATOR'S WELL NO.: Michael Kuhn 12H
 API WELL NO
 47 - 103 - 3415
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: 1509' WATERSHED: Knob Fork of West Virginia Fork Fishing Creek QUADRANGLE: Big Run
 DISTRICT: Center COUNTY: Wetzel
 SURFACE OWNER: Rachel Elizabeth Wyatt & Sheldon R. Norris ACREAGE: 36.40
 ROYALTY OWNER: Michael G. Kuhn LEASE NO: 870238 ACREAGE: 202
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 7751'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Joseph C. Mallow
 ADDRESS: 400 Woodcliff Drive ADDRESS: 115 Professional Place PO Box 280
 Canonsburg, PA 15317 Bridgeport, WV 26330

12/01/2023

Perforation Data

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Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
1	12/19/2022	23262	23201	16	Marcellus
2	12/20/2022	23182	23021	36	Marcellus
3	12/20/2022	23002	22842	36	Marcellus
4	12/21/2022	22824	22664	36	Marcellus
5	12/21/2022	22645	22485	36	Marcellus
6	12/22/2022	22466	22306	36	Marcellus
7	12/23/2022	22288	22128	36	Marcellus
8	12/29/2022	22109	21949	36	Marcellus
9	12/29/2022	21922	21771	36	Marcellus
10	12/30/2022	21752	21592	36	Marcellus
11	12/30/2022	21573	21413	36	Marcellus
12	12/31/2022	21394	21235	36	Marcellus
13	12/31/2022	21216	21056	36	Marcellus
14	01/01/2023	21037	20857	40	Marcellus
15	01/01/2023	20839	20659	40	Marcellus
16	01/02/2023	20640	20460	40	Marcellus
17	01/02/2023	20442	20262	40	Marcellus
18	01/04/2023	20243	20063	40	Marcellus
19	01/04/2023	20045	19865	40	Marcellus
20	01/04/2023	19846	19666	40	Marcellus
21	01/06/2023	19648	19468	40	Marcellus
22	01/06/2023	19449	19269	40	Marcellus
23	01/07/2023	19251	19071	40	Marcellus
24	01/07/2023	19052	18872	40	Marcellus
25	01/08/2023	18854	18674	40	Marcellus
26	01/09/2023	18655	18475	40	Marcellus
27	01/09/2023	18457	18277	40	Marcellus
28	01/10/2023	18258	18078	40	Marcellus
29	01/10/2023	18060	17880	40	Marcellus
30	01/11/2023	17861	17681	40	Marcellus
31	01/12/2023	17663	17483	40	Marcellus
32	01/12/2023	17464	17284	40	Marcellus
33	01/13/2023	17266	17086	40	Marcellus
34	01/13/2023	17067	16887	40	Marcellus
35	01/14/2023	16869	16689	40	Marcellus
36	01/15/2023	16670	16490	40	Marcellus
37	01/15/2023	16472	16292	40	Marcellus
38	01/16/2023	16273	16093	40	Marcellus
39	01/17/2023	16075	15895	40	Marcellus
40	01/17/2023	15876	15696	40	Marcellus
41	01/18/2023	15678	15498	40	Marcellus
42	01/19/2023	15479	15299	40	Marcellus
43	01/19/2023	15281	15101	40	Marcellus

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44	01/20/2023	15082	14902	40	Marcellus
45	01/20/2023	14884	14704	40	Marcellus
46	01/21/2023	14685	14505	40	Marcellus
47	01/21/2023	14487	14307	40	Marcellus
48	01/21/2023	14288	14108	40	Marcellus
49	01/22/2023	14090	13910	40	Marcellus
50	01/22/2023	13891	13711	40	Marcellus
51	01/23/2023	13693	13513	40	Marcellus
52	01/26/2023	13494	13314	40	Marcellus
53	01/27/2023	13296	13116	40	Marcellus
54	01/27/2023	13097	12917	40	Marcellus
55	01/27/2023	12899	12719	40	Marcellus
56	01/28/2023	12700	12520	40	Marcellus
57	01/29/2023	12502	12322	40	Marcellus
58	01/29/2023	12303	12123	40	Marcellus
59	01/29/2023	12105	11925	40	Marcellus
60	01/30/2023	11906	11726	40	Marcellus
61	01/30/2023	11708	11528	40	Marcellus
62	01/31/2023	11509	11329	40	Marcellus
63	02/01/2023	11311	11131	40	Marcellus
64	02/01/2023	11112	10932	40	Marcellus
65	02/02/2023	10914	10734	40	Marcellus
66	02/02/2023	10715	10535	40	Marcellus
67	02/06/2023	10517	10337	40	Marcellus
68	02/06/2023	10318	10138	40	Marcellus
69	02/06/2023	10120	9940	40	Marcellus
70	02/10/2023	9921	9741	40	Marcellus
71	02/10/2023	9723	9543	40	Marcellus
72	02/10/2023	9524	9344	40	Marcellus
73	02/11/2023	9326	9146	40	Marcellus
74	02/11/2023	9127	8947	40	Marcellus
75	02/11/2023	8929	8749	40	Marcellus
76	02/11/2023	8730	8550	40	Marcellus
77	02/12/2023	8532	8352	40	Marcellus

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Stimulation Data

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Stage #	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/20/2022	65	9219	7354	5280	176136	0.000	
2	02/12/2023	99	9330	8521	8941	396155	0.000	
3	02/12/2023	91	9334	5966	9006	396204	0.000	
4	12/21/2022	93	9183	4532	5784	396138	9238.000	
5	12/22/2022	90	9283	5893	5717	396216	9184.000	
6	12/23/2022	83	9363	6119	5787	396351	9193.000	
7	12/23/2022	75	8887	6001	6034	396584	9322.000	
8	12/30/2022	88	9266	6696	5704	396178	9112.000	
9	12/30/2022	90	9358	6426	5752	396058	9129.000	
10	12/31/2022	87	9327	6391	5821	396138	9123.000	
11	12/31/2022	86	9450	6491	5608	396079	9100.000	
12	01/01/2023	81	9306	6614	5560	396114	9178.000	
13	01/01/2023	83	9430	6522	5867	396027	9084.000	
14	01/02/2023	84	9321	6470	6183	440202	10064.000	
15	01/02/2023	91	9504	6386	6185	441063	10071.000	
16	01/03/2023	92	9446	6379	5956	440332	10019.000	
17	01/04/2023	91	9351	6433	6050	440149	10043.000	
18	01/05/2023	91	9374	6400	6266	440246	10079.000	
19	01/05/2023	92	9461	6680	6204	440063	10044.000	
20	01/06/2023	96	9436	6262	5826	440280	10114.000	
21	01/06/2023	97	9424	6352	6238	440100	9975.000	
22	01/07/2023	96	9469	6320	6217	440400	9986.000	
23	01/08/2023	97	9437	6515	5997	440188	10011.000	
24	01/08/2023	96	9388	6551	5575	440100	9971.000	
25	01/09/2023	99	9415	6569	6494	440779	9946.000	
26	01/09/2023	92	9375	6157	5852	440058	9954.000	
27	01/10/2023	99	9355	6198	5632	440793	9930.000	
28	01/11/2023	99	9426	6080	6431	440131	9916.000	
29	01/11/2023	99	9286	6323	5774	440045	9935.000	
30	01/12/2023	100	9313	6180	5563	440077	9927.000	
31	01/12/2023	99	9369	6370	6462	440114	9954.000	
32	01/13/2023	100	9181	6084	5598	440121	9879.000	
33	01/14/2023	100	9172	6184	5928	440153	9871.000	
34	01/15/2023	100	9211	5000	6144	440138	9892.000	
35	01/15/2023	101	9183	5978	5662	440199	9872.000	
36	01/16/2023	100	9143	6028	5864	440029	9872.000	
37	01/16/2023	98	9138	5805	5813	440109	9872.000	
38	01/17/2023	100	9204	5802	6039	440011	9833.000	
39	01/17/2023	100	9230	6028	6241	440153	9867.000	
40	01/18/2023	99	9156	5782	5381	440118	9846.000	
41	01/19/2023	100	9143	5947	5969	440267	9838.000	
42	01/19/2023	100	9234	5863	5340	440168	9757.000	
43	01/20/2023	100	9124	5851	5671	440438	9822.000	

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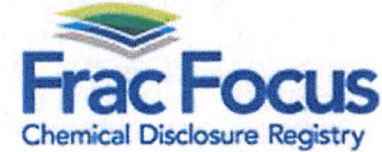
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44	01/20/2023	100	9187	6093	5923	440407	9859.000
45	01/21/2023	100	9207	9291	5812	440302	9822.000
46	01/21/2023	99	9129	5750	5654	440058	9829.000
47	01/21/2023	100	9160	5842	6030	440293	9789.000
48	01/22/2023	100	9115	5969	5882	440248	9765.000
49	01/22/2023	100	9154	5760	5758	440172	9785.000
50	01/23/2023	100	9044	5867	5981	440443	9755.000
51	01/26/2023	98	9203	6055	5564	440068	9762.000
52	01/27/2023	99	9203	5919	5426	440374	9763.000
53	01/28/2023	100	9162	5671	5259	440462	9761.000
54	01/28/2023	100	9187	6026	5543	440888	9753.000
55	01/28/2023	100	8940	5715	4956	440005	9691.000
56	01/29/2023	99	9160	5779	5756	440328	9681.000
57	01/29/2023	100	9080	5542	5373	440037	9723.000
58	01/29/2023	100	9084	5470	5703	440451	9683.000
59	01/30/2023	100	9077	5538	5644	440468	9690.000
60	01/30/2023	100	9005	5677	5023	440057	9690.000
61	01/31/2023	100	9140	5722	4890	440015	9652.000
62	02/01/2023	100	8873	5954	5255	440957	9952.000
63	02/01/2023	100	9131	5510	5688	440477	9587.000
64	02/02/2023	100	8939	5623	5493	440020	9671.000
65	02/02/2023	100	9033	5707	4988	440091	9629.000
66	02/06/2023	100	8921	6048	4940	440500	9641.000
67	02/06/2023	100	8753	5629	5885	440002	9655.000
68	02/06/2023	101	8966	5963	5357	440183	9684.000
69	02/10/2023	100	8684	8758	4588	440240	9604.000
70	02/10/2023	100	8531	6210	5396	440090	9586.000
71	02/11/2023	100	8614	5931	5268	440032	9611.000
72	02/11/2023	100	8371	3381	4527	440031	9571.000
73	02/11/2023	100	8398	6713	4787	440063	9565.000
74	02/11/2023	100	8425	5435	5118	440178	9797.000
75	02/11/2023	100	8197	5651	5537	440014	9591.000
76	02/12/2023	100	8374	7939	4386	440015	9546.000
77	02/12/2023	100	8235	0	4545	440228	8996.238

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/17/2022
Job End Date:	4/7/2023
State:	West Virginia
County:	Wetzel
API Number:	47-103-03415-00-00
Operator Name:	EQT Production
Well Name and Number:	Michael Kuhn 12H
Latitude:	39.61522170
Longitude:	-80.53091420
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,867
Total Base Water Volume (gal):	30,196,414
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	EQT	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.19781	None
Sand (Proppant)	EQT	Proppant	Silica Substrate	14808-60-7	100.00000	11.58717	None
Clearal 268	ChemStream	Biocide	Non-hazardous substances	Proprietary	80.00000	0.00914	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor	Non-hazardous substances	Proprietary	90.00000	0.00800	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Copolymer of 2-propenamide	Proprietary	30.00000	0.00406	None
StimSTREAM FR 2800	ChemStream	Friction Reducer	Distillates (petroleum), hydrated light	64742-47-8	25.00000	0.00386	None
15% HCl	Evolution Well Services	Acid	Hydrogen Chloride	7647-01-0	15.00000	0.00188	None
StimSTREAM FR 9800	ChemStream	Friction Reducer	Petroleum Distillate	64742-47-8	20.00000	0.00180	None
Clearal 268	ChemStream	Biocide					

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			Glutaraldehyde	111-30-8	20.00000	0.00057	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor					
			Methanol	67-56-1	90.00000	0.00020	None
StimSTREAM FR 2800	ChemStream	Friction Reducer					
			Alcohols, C11-14-iso, C13-rich, ethoxylated	78330-21-9	5.00000	0.00015	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor					
			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT)	34690-00-1	10.00000	0.00010	None
Ferriplex 66	Evolution	Iron Control					
			Acetic Acid	000064-19-7	50.00000	0.00005	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00002	None
Ferriplex 66	Evolution	Iron Control					
			Citric Acid	000077-92-9	30.00000	0.00002	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00002	None
Clearal 268	ChemStream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00001	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00001	None
Clearal 268	ChemStream	Biocide					
			Ethanol	64-17-5	1.50000	0.00000	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor					
			Alcohols, C14-C15, ethoxylated	68951-67-7	7.00000	0.00000	None
Plexhib 166	Evolution	Acid Corrosion Inhibitor					
			Propargyl alcohol	107-19-7	5.00000	0.00000	None

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)

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