

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

RECEIVED
Office of Oil and Gas

DEC 23 2024

WV Department of
Environmental Protection

API 47-051-02379 County Marshall District Meade
Quad Glen Easton 7.5' Pad Name HUDSON Field/Pool Name N/A
Farm name CNX LAND, LLC Well Number Hudson S-8HM (L017753)
Operator (as registered with the OOG) EQT Production Company
Address 400 Woodcliff Drive 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 4,408,810.23 Easting 528,014.14
Landing Point of Curve Northing 4,409,387.9 Easting 528,577.5
Bottom Hole Northing 4,406,650.1 Easting 530,188.6

Elevation (ft) 1346' 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 14.23 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polycrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 05/11/2021 Date drilling commenced 09/26/2022 Date drilling ceased 02/01/2024
Date completion activities began 08/20/2024 Date completion activities ceased 09/26/2024
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 77', 572', 622', 766', 916', 976', 1036' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1736', 1887', 2076' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 887', 973' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

Reviewed by:

[Signature]
02/07/2025
1/21/2025

API 47-051 - 02379

Farm name CNX LAND, LLC

Well number Hudson S-8HM (L017753)

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	36"	30"	120'	NEW	118.65#	N/A	Y
Surface	17-1/2"	13-3/8"	1324'	NEW	J-55 54.5#	N/A	Y
Coal							
Intermediate 1	12-1/4"	9-5/8"	2400'	NEW	J-55 36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-3/4", 8-1/2"	6"	18,493'	NEW	P-110 24#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 1152' GL, which is greater than 500' TVD above the producing formation. No issues during cement job. Office of Oil and Gas

DEC 23 2024

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (GL)	WOC (ft)
Conductor	CLASS A	343	15.6	1.21	415	0	8
Surface	CLASS L	1362	16.0	1.13	1539	0	8
Coal							
Intermediate 1	CLASS A	925	15.6	1.12	1036	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	3015	15.0	1.18	3557	1152'	8+
Tubing							

Drillers TD (ft) 18,505' Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure _____

Kick off depth (ft) 1466'

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, EVERY OTHER JOINT TO 8225' AND EVERY JOINT TO 1847'

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 _____

02/07/2025

API 47- 051 - 02379 Farm name CNX LAND, LLC Well number Hudson S-8HM (L017753)

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	6,761-7,023 TVD	7,897-18,505 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3247 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 5045 mcfpd Oil 0 bpd NGL 120 bpd Water 581 bpd GAS MEASURED BY Estimated Orifice Pilot

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

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Please insert additional pages as applicable.

Drilling Contractor Patterson UTI (294)
Address 207 Carlton Drive City Eighty Four State PA Zip 15330

Logging Company Baker Hughes
Address 400 Technology Dr Suite 100 City Canonsburg State PA Zip 15317

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

Cementing Company Universal Pressure Pumping, Inc.
Address 13549 S. Moisertown Road City Meadville State PA Zip 16335

Please insert additional pages as applicable.

Completed by Jacob Caplan Telephone 412-215-2723
Signature  Title Mgr Completions Engr Date 2024-12-16

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

02/07/2025

API 47- 051 - 02379 Farm name CNX LAND, LLC Well number Hudson S-8HM (L017753)

Drilling Contractor Falcon (Rig 27)
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 _____
Address _____ City _____ State _____ Zip _____

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Well # HUDSON S-8HM (L017753) Final Formations API# 47-051-02379

Formation Name	Drill Top MD (ftGRD)	Drill Top (TVD) (ftGRD)	Drill Btm MD (ftGRD)	Drill Btm (TVD) (ftGRD)
Sand/Shale	1	1	887	887
Sewickley Coal	887	887	890	890
Sand/Shale	890	890	973	973
Pittsburgh Coal	973	973	979	979
Sand/Shale	979	979	2,049	2,046
Big Lime	2,049	2,046	2,303	2,298
Big Injun	2,303	2,298	2,359	2,353
Sand/Shale	2,359	2,353	2,633	2,623
Berea	2,633	2,623	3,070	3,052
Sand/Shale	3,070	3,052	3,128	3,109
Gordon	3,128	3,109	3,197	3,177
Sand/Shale	3,197	3,177	3,338	3,315
Bayard	3,338	3,315	3,618	3,581
Sand/Shale	3,618	3,581	5,460	5,023
Alexander	5,460	5,023	5,908	5,358
Elks	5,908	5,358	7,303	6,426
Sonyea	7,303	6,426	7,443	6,532
Middlesex	7,443	6,532	7,486	6,562
Genesee	7,486	6,562	7,570	6,615
Geneseo	7,570	6,615	7,606	6,635
Tully	7,606	6,635	7,652	6,659
Hamilton	7,652	6,659	7,897	6,761
Marcellus	7,897	6,761	18,505	7,023

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**HUDSON
WELL S-8HM
EQT PRODUCTION CO.**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°50'00"

T.H.
A.D.

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°37'30"

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MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-2-9.2	CONSOLIDATION COAL CO.	1.00
9-2-10.1	CONSOLIDATION COAL CO.	2.00
9-3-1.1	CONSOLIDATION COAL CO.	5.00
9-3-1.2	MARSHALL COUNTY COAL	1.00
9-3-2.1	JAMES & GINGER REGIEC	0.940
9-3-4.2	GRANT M. & MALISSA D. CARTER	0.720
9-3-4.3	JOHN & RACHEL HOLPP	0.870
9-3-4.6	DANIEL E. WEST, ET UX	12.035
9-3-6.1	TRAVIS POSTLETHWAIT	1.0468
9-3-18.1	LLOYD A. BEE, ET UX	1.010
9-3-18.2	RAYMOND E. & CINDY L. WHITE	2.103
9-3-18.3	RAYMOND E. & CINDY L. WHITE	0.086
9-8-4.1	CNX LAND LLC	1.04
9-8-5.1	RAYMOND E. & CINDY L. WHITE	0.333
9-8-4.1	KAYLA E. BRATTON	1.42
N/A	WV DOH	N/A

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

NAD'83 S.P.C.(FT) N. 486,150.43 E. 1,639,181.25
NAD'83 GEO. LAT-(N) 39.828827 LONG-(W) 80.672627
NAD'83 UTM (M) N. 4,408,810.23 E. 528,014.14

LANDING POINT

NAD'83 S.P.C.(FT) N. 488,027.5 E. 1,641,046.2
NAD'83 GEO. LAT-(N) 39.834046 LONG-(W) 80.668074
NAD'83 UTM (M) N. 4,409,391.6 E. 528,572.7

BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 478,941.7 E. 1,646,199.7
NAD'83 GEO. LAT-(N) 39.809287 LONG-(W) 80.647311
NAD'83 UTM (M) N. 4,406,649.8 E. 530,189.1

**AS DRILLED COORDINATES
FOR WELL NO. 8HM**

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

NAD'83 S.P.C.(FT) N. 486,150.43 E. 1,639,181.25
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LANDING POINT

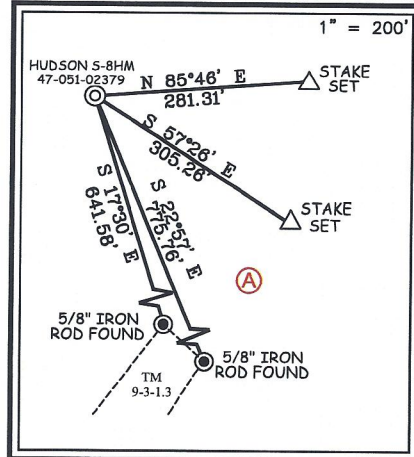
NAD'83 S.P.C.(FT) N. 488,015.1 E. 1,641,061.5
NAD'83 GEO. LAT-(N) 39.834013 LONG-(W) 80.668019
NAD'83 UTM (M) N. 4,409,387.9 E. 528,577.5

BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 478,942.7 E. 1,646,198.1
NAD'83 GEO. LAT-(N) 39.809290 LONG-(W) 80.647317
NAD'83 UTM (M) N. 4,406,650.1 E. 530,188.6

B.H.
A.D.

REFERENCES



NOTES ON SURVEY

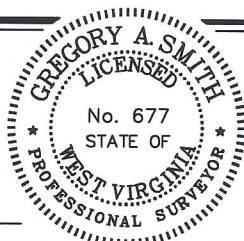
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS OR DWELLINGS > 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- TAX MAP LOCATION FOR 9-5-9 & 9-5-10 IS INCORRECT. 9-5-9'S DEED CALLS FOR BEING A RESERVATION OF 20 ACRES LYING ON THE NORTHEAST SIDE OF ROAD. THEREFORE MAKING THE ACREAGE ASSESSMENT INCORRECT DUE TO THE OUT SALES OF 9-5-10.1 AND 9-5-10.2.
- WELL PLAT UPDATED TO SHOW AS-DRILLED PATH.
- AS-DRILLED INFORMATION PROVIDED BY EQT PRODUCTION CO.



12 Washburn Drive P.O. Box 150 | Glenville, WV 26031 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slsvw.com

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. Gregory A. Smith
677



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

DATE FEBRUARY 12, 20 24

REVISED _____, 20 _____

OPERATORS WELL NO. HUDSON S-8HM

API WELL NO. **47 - 051 - 02379**
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 8911-EQT-8HMAD.dwg

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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



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

LOCATION: ELEVATION 1,346.26' WATERSHED GRAVE CREEK (HUC 10)
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER CNX LAND LLC ACREAGE 106.935±
ROYALTY OWNER STONE HILL MINERALS HOLDINGS LLC, ET AL ACREAGE 106.935±

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 ___

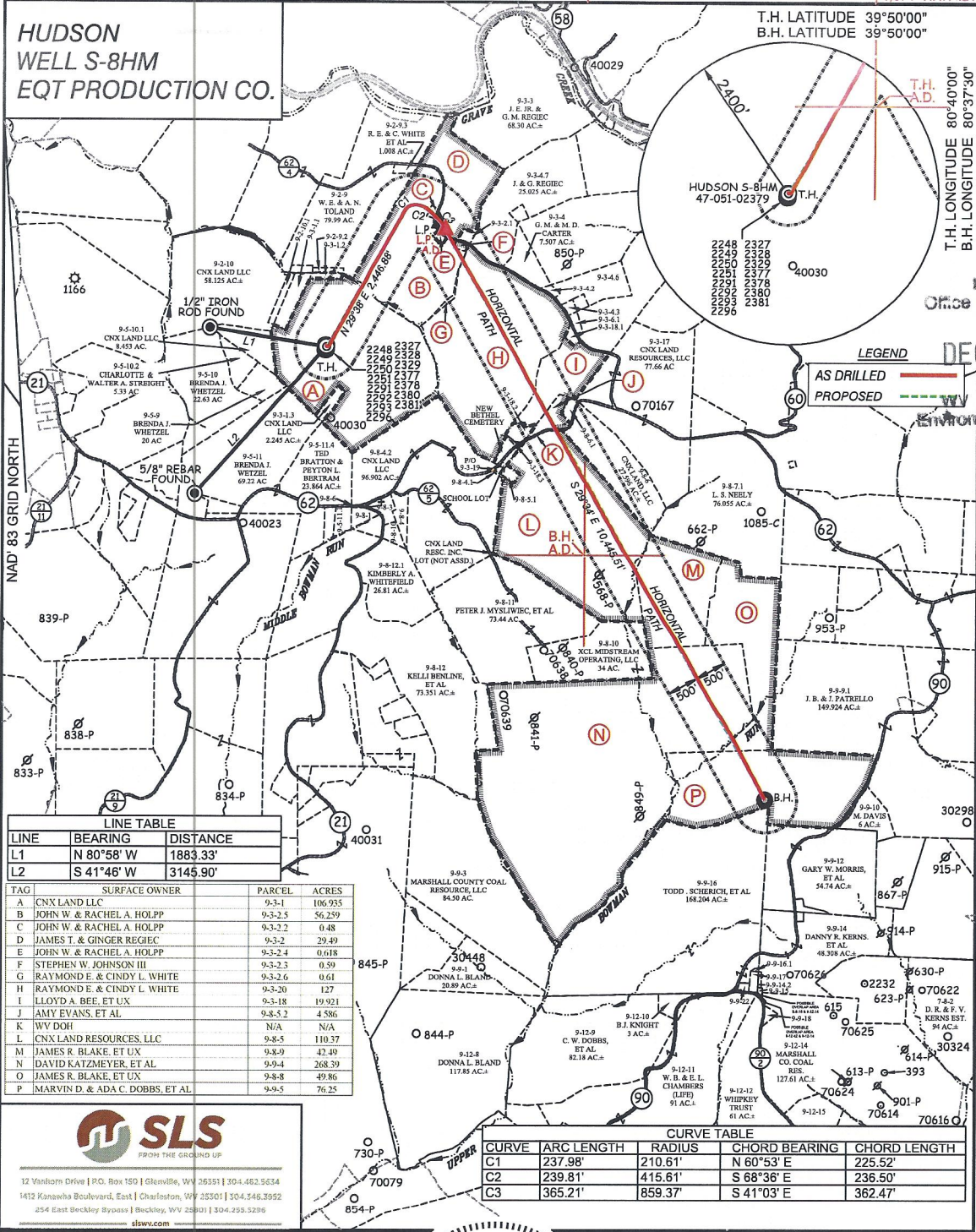
PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS
ESTIMATED DEPTH TVD: 6,782' / TMD: 18,443

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JOSEPH C. MALLOW
ADDRESS 400 WOODCLIFF DRIVE ADDRESS 427 MIDSTATE DRIVE
CANONSBURG, PA 15317 CLARKSBURG, WV 26301

02/07/2025

COUNTY NAME
PERMIT

**HUDSON
WELL S-8HM
EQT PRODUCTION CO.**



LINE TABLE

LINE	BEARING	DISTANCE
L1	N 80°58' W	1883.33'
L2	S 41°46' W	3145.90'

TAG	SURFACE OWNER	PARCEL	ACRES
A	CNX LAND LLC	9-3-1	106.935
B	JOHN W. & RACHEL A. HOLPP	9-3-2.5	56.259
C	JOHN W. & RACHEL A. HOLPP	9-3-2.2	0.48
D	JAMES T. & GINGER REGIEC	9-3-2	29.49
E	JOHN W. & RACHEL A. HOLPP	9-3-2.4	0.618
F	STEPHEN W. JOHNSON III	9-3-2.3	0.59
G	RAYMOND E. & CINDY L. WHITE	9-3-2.6	0.61
H	RAYMOND E. & CINDY L. WHITE	9-3-2.0	1.27
I	LLOYD A. BEE, ET UX	9-3-18	19.921
J	AMY EVANS, ET AL	9-3-5.2	4.586
K	WY DOH	N/A	N/A
L	CNX LAND RESOURCES, LLC	9-3-5	110.37
M	JAMES R. BLAKE, ET UX	9-3-0	42.49
N	DAVID KATZMEYER, ET AL	9-3-4	268.39
O	JAMES R. BLAKE, ET UX	9-3-8	49.86
P	MARVIN D. & ADA C. DOBBS, ET AL	9-3-5	76.25

SLS
FROM THE GROUND UP

12 Vashons Drive | P.O. Box 150 | Glenville, WV 26031 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slsww.com

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	237.98'	210.61'	N 60°53' E	225.52'
C2	239.81'	415.61'	S 68°38' E	236.50'
C3	365.21'	859.37'	S 41°03' E	362.47'

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 NAD83 GEO. LAT.(-N) 39.809287 LONG.(-W) 80.647311
 NAD83 UTM (M) N. 4,406,648.8 E. 530,189.1

GREGORY A. SMITH
 LICENSED
 No. 677
 STATE OF
 WEST VIRGINIA
 PROFESSIONAL SURVEYOR

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

P.S. 677 *Gregory A. Smith*

SCALE 1" = 2000' FILE NO. 2911-EQT-S8HMAD.dwg

DATE FEBRUARY 12, 20 24
 REVISED _____, 20 ____

OPERATORS WELL NO. HUDSON S-8HM
 API WELL 47 - 051 - 02379
 NO. STATE COUNTY PERMIT

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

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP - PARCEL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE WW-6A1)

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JOSEPH C. MALLOW
 ADDRESS 400 WOODCLIFF DRIVE ADDRESS 427 MIDSTATE DRIVE
 CANONSBURG, PA 15317 CLARKSBURG, WV 26301

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 Department of Environmental Protection

6,265' B.H. A.D.
 1,674' T.H. A.D.
 T.H. LATITUDE 39°50'00"
 B.H. LATITUDE 39°50'00"
 T.H. LONGITUDE 80°40'00"
 B.H. LONGITUDE 80°37'30"
 1,642' T.H. A.D.
 5,768' B.H. A.D.

Perforation Data

PROPERTY
Office of Oil and Gas

DEC 23 2024

WV Department of
Environmental Protection

02/07/2025

Stage No.	Perforation Date	Stage Perforated From TMD Ft.	Stage Perforated To TMD Ft.	# of Perforations/Stage	Formation(s)
2	08/20/2024	18408	18228	40	Marcellus
3	08/21/2024	18209	18029	40	Marcellus
4	08/21/2024	18011	17831	40	Marcellus
5	08/22/2024	17812	17632	40	Marcellus
6	08/22/2024	17614	17434	40	Marcellus
7	08/22/2024	17415	17235	40	Marcellus
8	08/22/2024	17217	17037	40	Marcellus
9	08/23/2024	17018	16838	40	Marcellus
10	08/23/2024	16820	16640	40	Marcellus
11	08/23/2024	16621	16441	40	Marcellus
12	08/24/2024	16423	16243	40	Marcellus
13	08/24/2024	16224	16044	40	Marcellus
14	08/24/2024	16026	15846	40	Marcellus
15	08/25/2024	15827	15647	40	Marcellus
16	08/25/2024	15629	15449	40	Marcellus
17	08/25/2024	15430	15250	40	Marcellus
18	08/25/2024	15232	15052	40	Marcellus
19	08/25/2024	15033	14853	40	Marcellus
20	08/26/2024	14835	14655	40	Marcellus
21	08/26/2024	14636	14456	40	Marcellus
22	08/27/2024	14438	14258	40	Marcellus
23	08/27/2024	14239	14059	40	Marcellus
24	08/27/2024	14041	13861	40	Marcellus
25	08/28/2024	13842	13662	40	Marcellus
26	08/28/2024	13644	13464	40	Marcellus
27	08/29/2024	13445	13265	40	Marcellus
28	08/30/2024	13247	13067	40	Marcellus
29	08/30/2024	13048	12868	40	Marcellus
30	08/31/2024	12850	12670	40	Marcellus
31	08/31/2024	12651	12471	40	Marcellus
32	09/01/2024	12453	12273	40	Marcellus
33	09/01/2024	12254	12074	40	Marcellus
34	09/02/2024	12056	11876	40	Marcellus
35	09/02/2024	11857	11677	40	Marcellus
36	09/03/2024	11659	11479	40	Marcellus
37	09/04/2024	11460	11280	40	Marcellus
38	09/04/2024	11262	11082	40	Marcellus
39	09/04/2024	11063	10883	40	Marcellus
40	09/05/2024	10865	10685	40	Marcellus
41	09/05/2024	10666	10486	40	Marcellus
42	09/05/2024	10468	10288	40	Marcellus

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43	09/05/2024	10269	10089	40	Marcellus
44	09/06/2024	10071	9891	40	Marcellus
45	09/06/2024	9872	9692	40	Marcellus
46	09/06/2024	9674	9494	40	Marcellus
47	09/07/2024	9475	9295	40	Marcellus
48	09/07/2024	9277	9097	40	Marcellus
49	09/07/2024	9078	8898	40	Marcellus
50	09/07/2024	8880	8700	40	Marcellus
51	09/08/2024	8681	8501	40	Marcellus
52	09/08/2024	8483	8303	40	Marcellus
53	09/08/2024	8284	8104	40	Marcellus
54	09/08/2024	8086	7926	36	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	08/21/2024	96	8426	7961	3895	249980	6659	
2	08/21/2024	99	7809	6286	4321	500175	10090	
3	08/21/2024	99	7897	6066	5815	500003	10067	
4	08/22/2024	100	7811	6020	4682	500000	10026	
5	08/22/2024	100	7872	6237	4967	500040	9958	
6	08/22/2024	100	8309	6143	4655	500157	10562	
7	08/23/2024	95	8630	7210	4854	392359	8963	
8	08/23/2024	98	8159	5701	4243	500281	10029	
9	08/23/2024	99	8382	6244	4982	391024	9015	
10	08/24/2024	95	7318	5141	4840	499968	10603	
11	08/24/2024	100	7601	5082	4767	500001	10070	
12	08/24/2024	100	8122	5803	4875	500122	9947	
13	08/24/2024	100	8197	5824	4130	499999	10356	
14	08/25/2024	100	7564	5309	5317	500006	10373	
15	08/25/2024	100	7679	5728	4669	500146	10065	
16	08/25/2024	99	8037	5767	4624	499988	9855	
17	08/25/2024	98	8203	5620	5101	500006	10440	
18	08/26/2024	100	7661	5504	4867	499972	10389	
19	08/26/2024	100	7273	5583	4789	499985	9917	
20	08/26/2024	100	7958	5514	5082	499966	10319	
21	08/27/2024	100	8079	5088	4761	499972	9883	
22	08/27/2024	98	8249	5565	4647	500024	9899	
23	08/28/2024	78	8770	7229	5247	499957	9836	
24	08/28/2024	100	7879	5944	4797	499993	9810	
25	08/29/2024	99	7768	5525	5327	499960	9831	
26	08/29/2024	92	7253	5833	4889	500340	9805	
27	08/30/2024	95	7534	7184	4733	499938	9822	
28	08/30/2024	100	7470	6196	5037	500830	9670	
29	08/31/2024	80	8373	5633	6065	474799	9970	
30	08/31/2024	96	7545	6441	5124	500053	9776	
31	09/01/2024	97	7533	6034	4730	500505	9784	
32	09/02/2024	99	7737	5740	5374	499949	9723	
33	09/02/2024	85	8239	5760	4689	580994	10749	
34	09/03/2024	100	7452	5797	5004	499946	9684	
35	09/03/2024	95	7669	5450	4845	499969	9650	
36	09/04/2024	100	7764	5365	4912	499999	9701	
37	09/04/2024	96	7709	6246	4699	501404	9700	
38	09/05/2024	77	7727	5800	4822	501877	11838	
39	09/05/2024	95	7701	5455	4801	500428	9676	
40	09/05/2024	96	7763	5615	5054	500165	9817	
41	09/05/2024	99	7728	5430	4843	500343	9747	

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42	09/06/2024	99	7017	5443	4872	500100	9665
43	09/06/2024	99	7071	5941	4900	500090	9663
44	09/06/2024	98	7771	5599	4579	500299	9674
45	09/06/2024	97	7069	5511	4844	500323	9633
46	09/07/2024	99	6922	5214	4934	500098	9548
47	09/07/2024	85	8004	4985	4788	501375	11711
48	09/07/2024	98	7275	5628	4558	500313	9609
49	09/07/2024	99	7203	5290	4616	500034	9575
50	09/08/2024	80	7492	5873	4661	500043	10045
51	09/08/2024	97	7726	5554	5016	500335	9610
52	09/08/2024	99	7061	7388	5122	500468	9539
53	09/08/2024	99	6637	7687	4992	500125	9567
54	09/09/2024	100	6599	2978	4874	450044	8527

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	08/20/2024
Job End Date:	09/09/2024
State:	West Virginia
County:	Marshall
API Number:	47-051-02379-00-00
Operator Name:	EQT Production
Well Name and Number:	Hudson S-8HM
Latitude:	39.828827
Longitude:	-80.672627
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7052
Total Base Water Volume (gal)*:	22362480
Total Base Non Water Volume:	0



Water Source	Percent
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Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	EQT	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.38099	None
Sand (Proppant)	EQT	Proppant					
			Silica Substrate	14808-60-7	100.00000	12.43149	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			ALKANES, C12-26-BRANCHED AND LINEAR	90622-53-0	40.00000	0.01834	None
StimSTREAM FR 9800	ChemStream	Friction Reducer					
			ACRYLAMIDE-CHLORIDE SALT OF TRIMETHYLAMMONIO-ETHYL ACRYLATE COPOLYMER	69418-26-4	40.00000	0.01834	None
Clearal 268	ChemStream	Biocide					
			Water	7732-18-5	80.00000	0.00882	None

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StimSTREAM FR 9800	ChemStream	Friction Reducer						
			Water	7732-18-5	15.00000	0.00258	None	
Enviro-Syn HCR-7000- WL	Fluid USA, Inc.	Synthenic Acid						
			FLUID-Acid-00001	Proprietary	20.00000	0.00199	None	
Clearal 268	ChemStream	Biocide						
			Glutaraldehyde	111-30-8	20.00000	0.00055	None	
Enviro-Syn HCR-7000- WL	Fluid USA, Inc.	Synthenic Acid						
			FLUID-Amine-00001	Proprietary	10.00000	0.00050	None	
StimSTREAM FR 9800	ChemStream	Friction Reducer						
			ETHOXYLATED ALCOHOLS (C12-16)	68551-12-2	5.00000	0.00029	None	
StimSTREAM SC-398	ChemStream	Scale Inhibitor						
			AA/ATBS Co-polymer	9003-05-8	5.00000	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	
Clearal 268	ChemStream	Biocide						
			Ethanol	64-17-5	1.50000	0.00000	None	
StimSTREAM SC-398	ChemStream	Scale Inhibitor						
			AA/Maleic Anhydride Co- polymer	9003-04-7	1.00000	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 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%

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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**HUDSON
WELL S-8HM
EQT PRODUCTION CO.**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°50'00"

T.H.
A.D.

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°37'30"

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-2-9.2	CONSOLIDATION COAL CO.	1.00
9-2-10.1	CONSOLIDATION COAL CO.	2.00
9-3-1.1	CONSOLIDATION COAL CO.	5.00
9-3-1.2	MARSHALL COUNTY COAL	1.00
9-3-2.1	JAMES & GINGER REGIEC	0.940
9-3-4.2	GRANT M. & MALISSA D. CARTER	0.720
9-3-4.3	JOHN & RACHEL HOLPP	0.870
9-3-4.6	DANIEL E. WEST, ET UX	12.035
9-3-6.1	TRAVIS POSTLETHWAIT	1.0468
9-3-18.1	LLOYD A. BEE, ET UX	1.010
9-3-18.2	RAYMOND E. & CINDY L. WHITE	2.103
9-3-18.3	RAYMOND E. & CINDY L. WHITE	0.086
9-8-4.1	CNX LAND LLC	1.04
9-8-5.1	RAYMOND E. & CINDY L. WHITE	0.333
9-8-4.1	KAYLA E. BRATTON	1.42
N/A	WV DOH	N/A

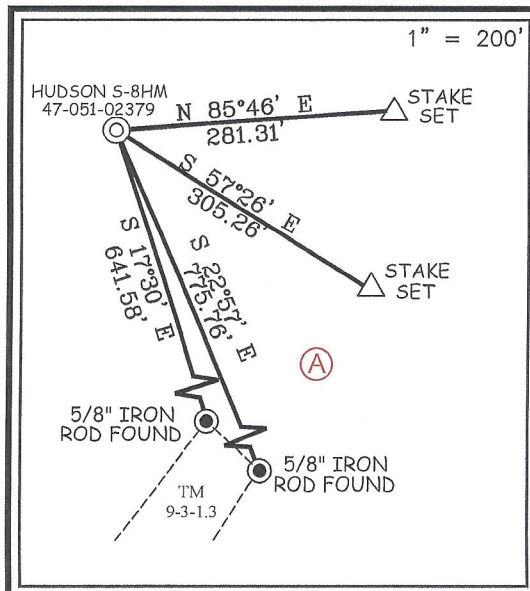
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 486,150.43 E. 1,639,181.25
 NAD'83 GEO. LAT-(N) 39.828827 LONG-(W) 80.672627
 NAD'83 UTM (M) N. 4,408,810.23 E. 528,014.14
LANDING POINT
 NAD'83 S.P.C.(FT) N. 488,027.5 E. 1,641,046.2
 NAD'83 GEO. LAT-(N) 39.834046 LONG-(W) 80.666074
 NAD'83 UTM (M) N. 4,409,391.6 E. 528,572.7
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 478,941.7 E. 1,646,199.7
 NAD'83 GEO. LAT-(N) 39.809287 LONG-(W) 80.647311
 NAD'83 UTM (M) N. 4,406,649.8 E. 530,189.1

**AS DRILLED COORDINATES
FOR WELL NO. 8HM**

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17)
 NAD'83 S.P.C.(FT) N. 486,150.43 E. 1,639,181.25
 NAD'83 GEO. LAT-(N) 39.828827 LONG-(W) 80.672627
 NAD'83 UTM (M) N. 4,408,810.23 E. 528,014.14
LANDING POINT
 NAD'83 S.P.C.(FT) N. 488,015.1 E. 1,641,061.5
 NAD'83 GEO. LAT-(N) 39.834013 LONG-(W) 80.666019
 NAD'83 UTM (M) N. 4,409,387.9 E. 528,577.5
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 478,942.7 E. 1,646,198.1
 NAD'83 GEO. LAT-(N) 39.809290 LONG-(W) 80.647317
 NAD'83 UTM (M) N. 4,406,650.1 E. 530,188.6

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REFERENCES



NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS OR DWELLINGS > 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- TAX MAP LOCATION FOR 9-5-9 & 9-5-10 IS INCORRECT. 9-5-9'S DEED CALLS FOR BEING A RESERVATION OF 20 ACRES LYING ON THE NORTHEAST SIDE OF ROAD. THEREFORE MAKING THE ACREAGE ASSESSMENT INCORRECT DUE TO THE OUT SALES OF 9-5-10.1 AND 9-5-10.2.
- WELL PLAT UPDATED TO SHOW AS-DRILLED PATH.
- AS-DRILLED INFORMATION PROVIDED BY EQT PRODUCTION CO.

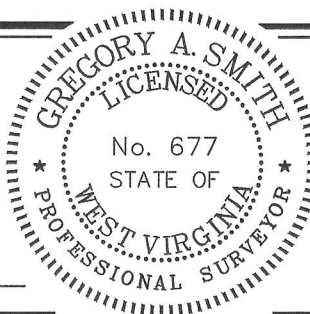


12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slswv.com

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.
677

Gregory A. Smith



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

DATE FEBRUARY 12, 20 24

REVISED _____, 20 _____

OPERATORS WELL NO. HUDSON S-8HM

API WELL NO. **47 - 051 - 02379**
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8911-EQT-8HMAD.dwg

HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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



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

LOCATION: ELEVATION 1,346.26' WATERSHED GRAVE CREEK (HUC 10)

DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER CNX LAND LLC ACREAGE 106.935±

ROYALTY OWNER STONE HILL MINERALS HOLDINGS LLC, ET AL ACREAGE **02107/2025**

PROPOSED WORK: LEASE NO. SEE WW-6A1

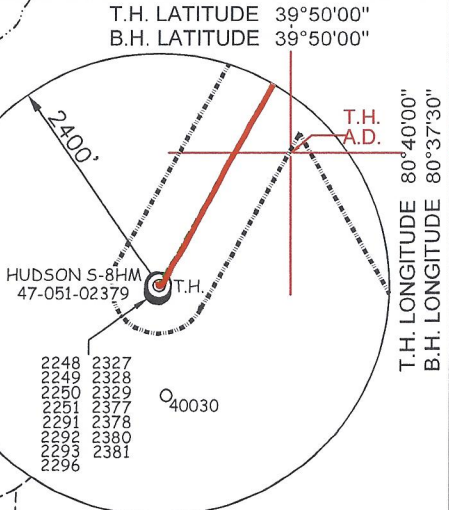
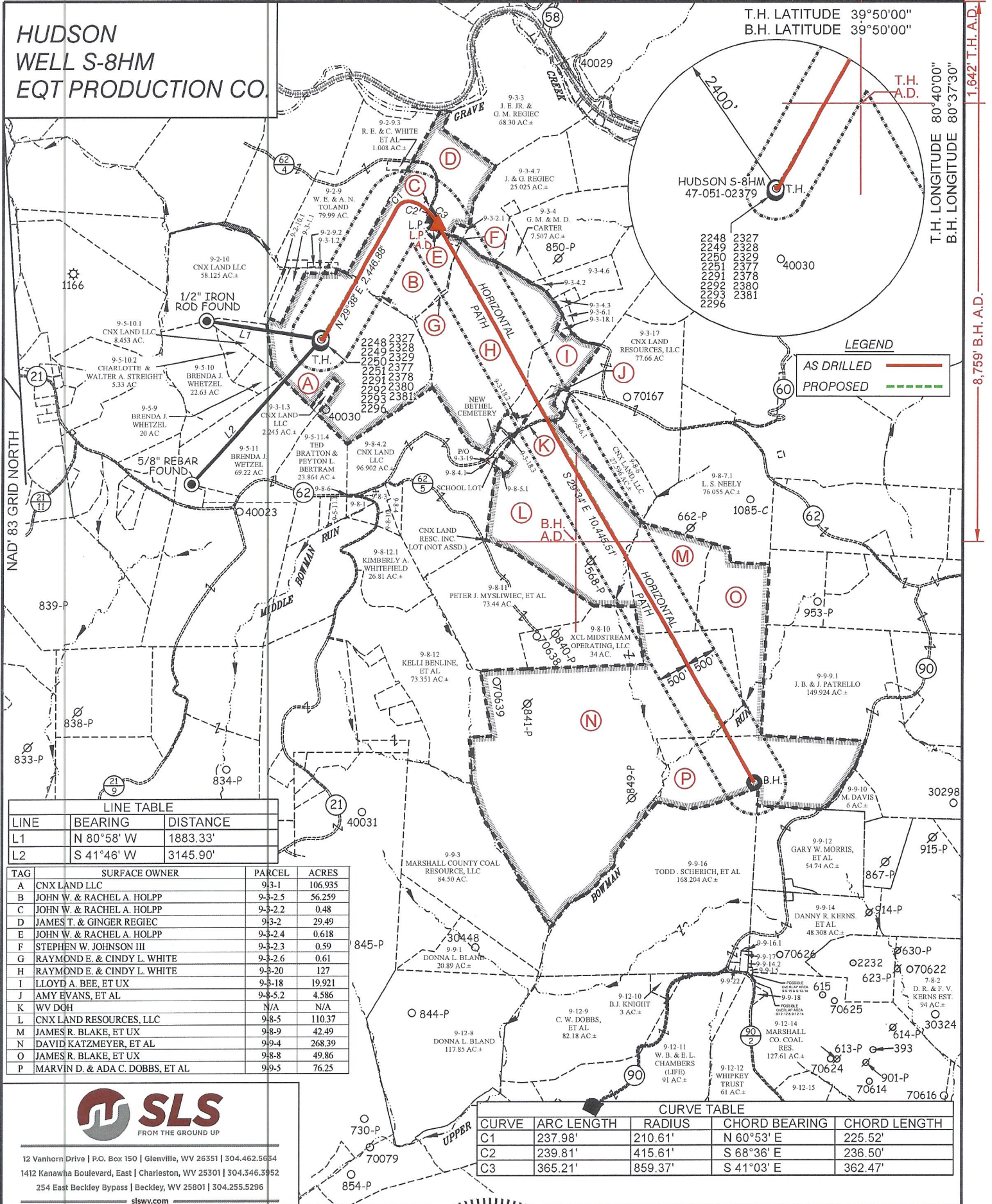
DRILL **X** CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE **X** PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD: 6,782' / TMD: 18,443

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JOSEPH C. MALLOW
 ADDRESS 400 WOODCLIFF DRIVE ADDRESS 427 MIDSTATE DRIVE
 CANONSBURG, PA 15317 CLARKSBURG, WV 26301

COUNTY NAME PERMIT

**HUDSON
WELL S-8HM
EQT PRODUCTION CO.**



LEGEND

AS DRILLED ———

PROPOSED - - - - -

LINE TABLE

LINE	BEARING	DISTANCE
L1	N 80°58' W	1883.33'
L2	S 41°46' W	3145.90'

TAG	SURFACE OWNER	PARCEL	ACRES
A	CNX LAND LLC	9-3-1	106.935
B	JOHN W. & RACHEL A. HOLPP	9-3-2.5	56.259
C	JOHN W. & RACHEL A. HOLPP	9-3-2.2	0.48
D	JAMES T. & GINGER REGIEC	9-3-2	29.49
E	JOHN W. & RACHEL A. HOLPP	9-3-2.4	0.618
F	STEPHEN W. JOHNSON III	9-3-2.3	0.59
G	RAYMOND E. & CINDY L. WHITE	9-3-2.6	0.61
H	RAYMOND E. & CINDY L. WHITE	9-3-20	127
I	LLOYD A. BEE, ET UX	9-3-18	19.921
J	AMY EVANS, ET AL	9-3-5.2	4.586
K	WV DOH	N/A	N/A
L	CNX LAND RESOURCES, LLC	9-8-5	110.37
M	JAMES R. BLAKE, ET UX	9-8-9	42.49
N	DAVID KATZMEYER, ET AL	9-9-4	268.39
O	JAMES R. BLAKE, ET UX	9-8-8	49.86
P	MARVIN D. & ADA C. DOBBS, ET AL	9-9-5	76.25

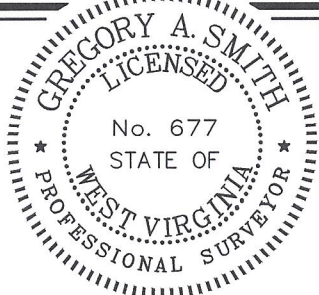
CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	237.98'	210.61'	N 60°53' E	225.52'
C2	239.81'	415.61'	S 68°36' E	236.50'
C3	365.21'	859.37'	S 41°03' E	362.47'



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 NAD'83 UTM (M) N. 4,406,649.8 E. 530,189.1



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

P.S. 677 *Gregory A. Smith*

LEGEND

LEASE LINE ———

SURFACE LINE ———

WELL LATERAL ———

OFFSET LINE - - - - -

TIE LINE ———

CREEK ———

ROAD ———

COUNTY ROUTE ———

PROPOSED WELL ———

EXISTING WELL ———

PERMITTED WELL ———

TAX MAP-PARCEL ———

SURFACE OWNER (SEE TABLE) ———

LEASE # (SEE WW-6A1) ———

SCALE 1" = 2000' FILE NO. 8911-EQT-8HMAD.dwg

DATE FEBRUARY 12, 20 24

REVISED _____, 20 _____

OPERATORS WELL NO. HUDSON S-8HM

API WELL NO. **47-051-02379**

NO. STATE COUNTY PERMIT

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

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT JOSEPH C. MALLOW
 ADDRESS 400 WOODCLIFF DRIVE ADDRESS 427 MIDSTATE DRIVE
 CANONSBURG, PA 15317 CLARKSBURG, WV 26301

COUNTY NAME _____ PERMIT _____