

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

API 47-033-05952 County Harrison District Grant
Quad West Milford Pad Name Nutter 1208 Field/Pool Name _____
Farm name Linda & William Broadwater Well Number Nutter 1208 N-3H
Operator (as registered with the OOG) HG Energy II Appalachia, LLC
Address 5260 Dupont Road City Parkersburg State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 14218964.95 Easting 1803609.30
Landing Point of Curve Northing 14219004.14 Easting 1803465.06
Bottom Hole Northing 14230063.00 Easting 1799768.90

Elevation (ft) 1147 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)
Air/ OBM
KCL, Barite, Lime, CaCL, base oil, clay, sulfatone, safevert FLG, safevert WA

Date permit issued 5/07/2019 Date drilling commenced 8/27/2019 Date drilling ceased 1/14/2020
Date completion activities began 04/07/2020 Date completion activities ceased 8/31/2020
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 390 Open mine(s) (Y/N) depths N
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N
Coal depth(s) ft 420,530,902 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed
SDW

Reviewed by: _____
12/31/2021

API 47-033 - 05952 Farm name Linda & William Broadwater Well number Nutter 1208 N-3H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	30"	120	New	154.5 lbs/ft		N
Surface	26"	20"	1004	New	94 lbs/ft J-55		Yes
Coal							
Intermediate 1	17.5"	13.375"	1888	New	68 lbs/ft		Yes
Intermediate 2	12.25"	9.625"	2725	New	40 lbs/ft J-55		Yes
Intermediate 3							
Production	8.5	5.5	18799	New	23 lbs/ft		Yes
Tubing	5.5	2.875		New	6.5 lbs/ft J-55		Not cemented
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Drilled in						
Surface	Class A	2197	15.6	1.19	2615	surface	8
Coal							
Intermediate 1	Class A	1938/536	16.0/16.4	1.16/1.1	2246/589	surface	24
Intermediate 2	Class A	838	15.6	1.19	999	surface	8
Intermediate 3							
Production	Class A	3675	14.8	1.34	4924	surface	8
Tubing							

Drillers TD (ft) 18820 Loggers TD (ft) _____

Deepest formation penetrated Marcellus Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) _____

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 _____

20" casing: Centralizer placed on the shoe joint and every other joint to surface

13.375" casing: centralizer run every joint to 20" casing then placed every 3 joints to surface

9.625" casing: Centralizers run every other joint to 13.375" casing then placed every 3 joints to surface

5.5" casing: Centralizer run every joint to top of curve (KOP) then centralizers placed every 3 joints to surface

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 _____

API 47- 033 05952 Farm name Linda & William Broadwater Well number Nutter 1208 N-3H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
<u>Marcellus</u>	<u>6933-6936</u>	<u>TVD</u>	<u>7118-18820</u> <u>MD</u>

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2,457 psi Bottom Hole _____ psi DURATION OF TEST 768 hrs

OPEN FLOW Gas 28,920 mcfpd Oil _____ bpd NGL _____ bpd Water 1,890 bpd GAS MEASURED BY Estimated Orifice Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H₂S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		
					See Attached

Please insert additional pages as applicable.

Drilling Contractor Patterson Drilling
Address 2198 University Drive City Lemont Furnace State PA Zip 15456

Logging Company Renegade Wireline Services
Address 191 Earnhardt Rd. City Hunker State PA Zip 15639

Cementing Company Schlumberger
Address 300 Schlumberger Dr. City Sugar Land State TX Zip 77478

Stimulating Company Stingray
Address 14201 Caliber Dr City Oklahoma City State OK Zip 73134

Please insert additional pages as applicable.

Completed by Diane White Telephone 304-420-1119
Signature Diane White Title _____ Date 4/26/2021

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

12/31/2021

HG Energy II Appalachia, LLC

Nutter 1208 N-3H

Perforation Record

Stage #	Date	Perforation From Depth	Perforation To Depth	Number of perforations	Formation
Sleeve / 1	4/7/2020	18690	18644	N/A	Marcellus
2	4/7/2020	18610	18442	49	Marcellus
3	6/15/2020	18414	18246	35	Marcellus
4	6/15/2020	18218	18050	35	Marcellus
5	6/16/2020	18022	17854	35	Marcellus
6	6/16/2020	17826	17658	35	Marcellus
7	6/22/2020	17630	17462	35	Marcellus
8	6/22/2020	17434	17266	35	Marcellus
9	6/23/2020	17238	17070	35	Marcellus
10	6/23/2020	17042	16874	35	Marcellus
11	6/29/2020	16846	16678	35	Marcellus
12	6/29/2020	16650	16482	35	Marcellus
13	6/30/2020	16454	16286	35	Marcellus
14	6/30/2020	16258	16090	28	Marcellus
15	7/6/2020	16062	15894	28	Marcellus
16	7/6/2020	15866	15698	28	Marcellus
17	7/7/2020	15670	15502	28	Marcellus
18	7/13/2020	15474	15306	28	Marcellus
19	7/13/2020	15278	15110	28	Marcellus
20	7/13/2020	15082	14914	28	Marcellus
21	7/14/2020	14886	14718	28	Marcellus
22	7/14/2020	14690	14522	28	Marcellus
23	7/21/2020	14494	14326	28	Marcellus
24	7/21/2020	14298	14130	28	Marcellus
25	7/21/2020	14102	13934	28	Marcellus
26	7/21/2020	13906	13738	28	Marcellus
27	7/28/2020	13710	13542	28	Marcellus
28	7/28/2020	13514	13346	28	Marcellus
29	7/29/2020	13318	13150	28	Marcellus
30	7/29/2020	13122	12954	28	Marcellus
31	8/3/2020	12926	12758	28	Marcellus
32	8/3/2020	12730	12562	28	Marcellus
33	8/4/2020	12534	12366	28	Marcellus
34	8/4/2020	12338	12170	28	Marcellus
35	8/10/2020	12142	11974	28	Marcellus
36	8/10/2020	11947	11779	28	Marcellus
37	8/11/2020	11753	11585	28	Marcellus
38	8/11/2020	11559	11391	28	Marcellus
39	8/12/2020	11365	11197	28	Marcellus
40	8/12/2020	11171	11003	28	Marcellus
41	8/13/2020	10977	10809	28	Marcellus
42	8/13/2020	10783	10615	28	Marcellus
43	8/17/2020	10589	10421	28	Marcellus
44	8/17/2020	10395	10227	28	Marcellus
45	8/18/2020	10201	10033	28	Marcellus
46	8/18/2020	10007	9839	28	Marcellus
47	8/18/2020	9813	9645	28	Marcellus
48	8/18/2020	9619	9451	28	Marcellus
49	8/19/2020	9425	9257	28	Marcellus
50	8/24/2020	9231	9063	28	Marcellus
51	8/24/2020	9037	8869	28	Marcellus
52	8/24/2020	8843	8675	28	Marcellus
53	8/24/2020	8649	8481	28	Marcellus
54	8/25/2020	8455	8287	28	Marcellus
55	8/25/2020	8261	8093	28	Marcellus
56	8/25/2020	8067	7899	28	Marcellus
57	8/26/2020	7873	7705	28	Marcellus
58	8/26/2020	7679	7511	28	Marcellus
59	8/31/2020	7485	7317	28	Marcellus
60	8/31/2020	7291	7151	24	Marcellus

12/31/2021

HG Energy II Appalachia, LLC
Nutter 1208 N-3H
Stimulation Record

Stage #	Date	Average Pump Rate (BPM)	Average Treatment Pressure (PSI)	Maximum Breakdown Pressure (PSI)	ISIP (PSI)	Proppant (LBS)	Water (BBLs)
Sleeve / 1	4/7/2020	73.1	9397	9887	4093	53000	14018
2	4/7/2020	77	9275	10893	4808	703947	15537
3	6/15/2020	76	9330	10920	5271	704827	14829
4	6/15/2020	79	9924	10820	5243	700989	13955
5	6/16/2020	85	8932	10518	5586	705125	14425
6	6/16/2020	83	9468	10054	5296	704690	13193
7	6/22/2020	78	9380	10173	5146	707270	13615
8	6/22/2020	80	9288	10146	5414	704630	13329
9	6/23/2020	80	9090	10134	5586	706250	12755
10	6/23/2020	86	9762	10296	5802	704700	11669
11	6/29/2020	84	9697	10283	5380	704900	11915
12	6/29/2020	82	9768	10417	5790	707500	11512
13	6/30/2020	78	9246	10262	4999	659200	11517
14	6/30/2020	81	9776	10845	4995	708340	9882
15	7/6/2020	79	9878	11552	5123	402720	8514
16	7/6/2020	80	9915	10935	5480	688430	11120
17	7/7/2020	79	9710	10274	5381	706040	10374
18	7/13/2020	80	9706	10246	5047	704820	9893
19	7/13/2020	77	9577	10577	5460	707760	9916
20	7/13/2020	78	9645	10304	5764	707760	9747
21	7/14/2020	83	9222	9974	4915	707220	10395
22	7/14/2020	91	9565	10174	5620	709100	9613
23	7/21/2020	79	9486	10234	5246	704000	9789
24	7/21/2020	81	9552	10404	5082	706200	9379
25	7/21/2020	82	9778	10452	5200	638000	9016
26	7/21/2020	79	9631	10951	5169	639731	11052
27	7/28/2020	81	9413	10790	5214	707049	9813
28	7/28/2020	80	9032	10323	4953	708078	9533
29	7/29/2020	76	8507	10187	5801	707913	9779
30	7/29/2020	86	9135	10123	5022	708040	11196
31	8/3/2020	88	9034	10171	5647	665964	9750
32	8/3/2020	84	8611	10030	5598	653530	10748
33	8/4/2020	88	7953	8531	5081	708990	11067
34	8/4/2020	90	9050	9711	5404	707540	9779
35	8/10/2020	87	8867	10016	4570	705480	10158
36	8/10/2020	87	9144	10004	4464	678460	10848
37	8/11/2020	85	8858	9735	4872	706930	9507
38	8/11/2020	84	8813	9419	5359	709170	13060
39	8/12/2020	85	8669	9916	5239	697980	9574
40	8/12/2020	88	9361	10360	5569	708220	9263
41	8/13/2020	86	9050	10088	4734	709020	9347
42	8/13/2020	84	8867	10393	5062	674440	10568
43	8/17/2020	87	8559	9375	4936	706540	9481
44	8/17/2020	88	8888	10064	4178	706780	9406
45	8/18/2020	88	8653	9956	4778	706930	10018
46	8/18/2020	88	8469	10098	4647	707410	11415
47	8/18/2020	87	7848	9035	5001	706080	10707
48	8/18/2020	88	7512	7596	5039	707320	10527
49	8/19/2020	87	7652	8388	4872	706610	9476
50	8/24/2020	89	8366	8787	4580	705500	9582
51	8/24/2020	89	8139	9289	4328	707000	10630
52	8/24/2020	89	8199	9056	5105	706900	9722
53	8/24/2020	89	7959	8915	4532	710300	9505
54	8/25/2020	87	7534	8241	4572	707900	9615
55	8/25/2020	88	7527	7911	4624	601800	10442
56	8/25/2020	87.4	7489	8082	4507	707500	12090
57	8/26/2020	88	7294	7603	5460	707400	9722
58	8/26/2020	93	7804	8430	4560	707900	10117
59	8/31/2020	97	8403	9916	4785	715300	10024
60	8/31/2020	95	8761	10145	4515	710300	9888

12/31/2021

HG Energy II Appalachia, LLC

Nutter 1208 N-3H

Formation Schedule

Formation	Top Depth TMD	Top Depth TVD	Bottom Depth TMD	Bottom Depth TVD	Rock Type, Type of Fluid, Gas, Oil	Oil, Gas, Water
Water show	390	390	392	392	sand	1/4-1/2" stream
Coal	420	420	425	425	Coal	
Coal	530	530	533	533	Coal	
1st Salt Sand	733	733	793	793	Sandstone/Siltstone	
2nd Salt Sand	867	867	937	937	Sandstone/siltstone	
Coal	902	902	905	905	Coal	
3rd Salt Sand	973	973	1064	1064	Sand/Siltstone, red shale	
Little Lime	1297	1297	1312	1312	Limestone	
Big Lime	1340	1340	1413	1413	Limestone	
Big Injun	1413	1413	1517	1517	Sandstone	
Gantz (storage)	1728	1728	1777	1777	Sandstone	
50' Sand	1840	1840	1905	1905	Sandstone	
30 foot Sand	1932	1932	1940	1940	Sandstone	
Gordon Stray	1992	1992	2028	2028	Sandstone	
Gordon/Forth Sand	2035	2035	2115	2115	Sandstone	
5th Sand	2245	2245	2268	2268	Sandstone	
Bayard	2323	2323	2355	2355	Sandstone	
Speechley	2957	2957	2977	2977	Sandstone/Siltstone	
Balltown	3159	3158	3199	3198	siltstone/Shale	connections after 3160' 40-50 units until mud up
Bradford	3676	3675	3714	3715	Sandstone	
Benson	4342	4337	4352	4347	Sandstone	
Rhinstreet	5642	5621	6202	6188	Shale	
Cashaqua	6202	6188	6592	6559	shale	
Middlesex	6592	6559	6686	6648	shale	
West River	6686	6648	6803	6738	shale	
Burket	6803	6738	6845	6771	shale	
Tully	6845	6771	6997	6872	Limestone	
Hamilton	6997	6872	7118	6933	shale	
Marcellus	7118	6933	18820	6936	shale	

12/31/2021

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny
Dwayne D. Matheny, P.S. 2070

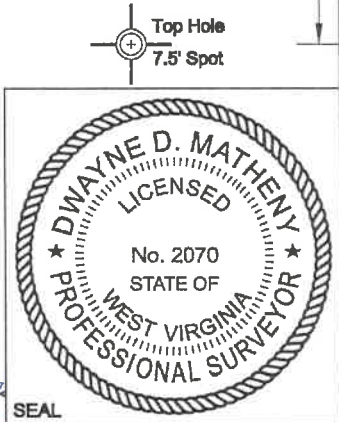
LONGITUDE 80 - 25 - 00
4,872' to Top Hole
8,920' to Bottom Hole

Tag	Bearing	Dist.
L1	S 37°55' E	1,206.0'
L2	S 22°19' E	1,218.3'
L3	N 86°00' W	1,348.3'
L4	N 66°44' W	1,182.0'



Notes:
Well No. 1208 N-3H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,218,964.95' E: 1,803,808.30'
Landing Point Coordinates
N: 14,219,004.14' E: 1,803,465.08'
Bottom Hole Coordinates
N: 14,230,063.00' E: 1,799,758.90'

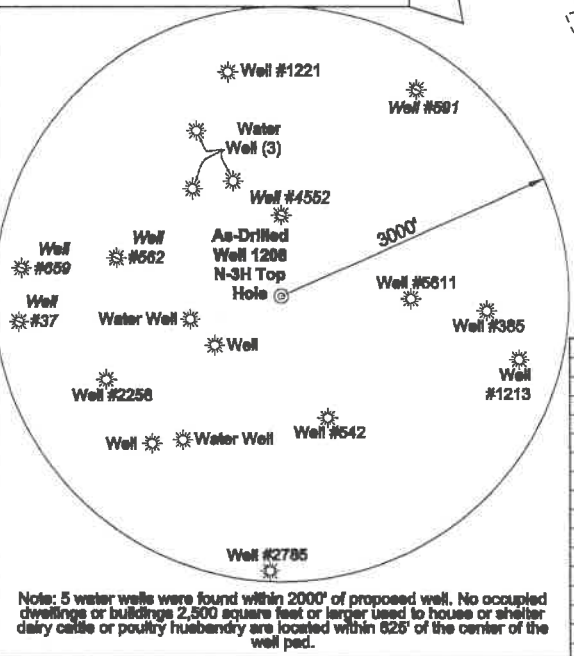
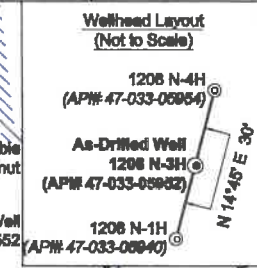
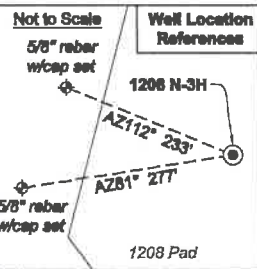
Notes: Well No. 1208 N-3H
West Virginia Coordinate System of 1927, South Zone based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°09'11.84" Latitude: 39°11'01.81"
Longitude: 80°25'28.24" Longitude: 80°26'16.13"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,333,955.281m N: 4,337,337.973m
E: 548,741.214m E: 548,570.858m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.



SEAL

Legend

- ⊙ Proposed gas well
- ⊕ Well Reference, as noted
- ⊙ Monument, as noted
- ⊙ Existing Well, as noted
- ⊙ Existing Plugged Well, as noted
- ⊙ Digitized Well, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracks (approx.)



ID	Lease
1	Jerome B. Gusman
2	Leeman B. Maxwell Heirs
3	William Burnside, et al
4	Orle Myers, et al
6	Claudia Hacker, et al
6	Leeman B. Maxwell Heirs
10	Rebecca D. Reed, et al
11	David Scott, et al
12	Nathan Post, et al
13	William Burnside, et al
14	Joseph Chevront, et al
16	Howard W. Vanscoy, et al
18	George W. Washburn, et al
19	Lloyd Washburn, et al
21	Olga E. Washburn, et ux
22	J.P. Post & C.F. Post

FILE NO: 195-36-G-18
DRAWING NO: 1208 N-3H As-Drilled Well Plat
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

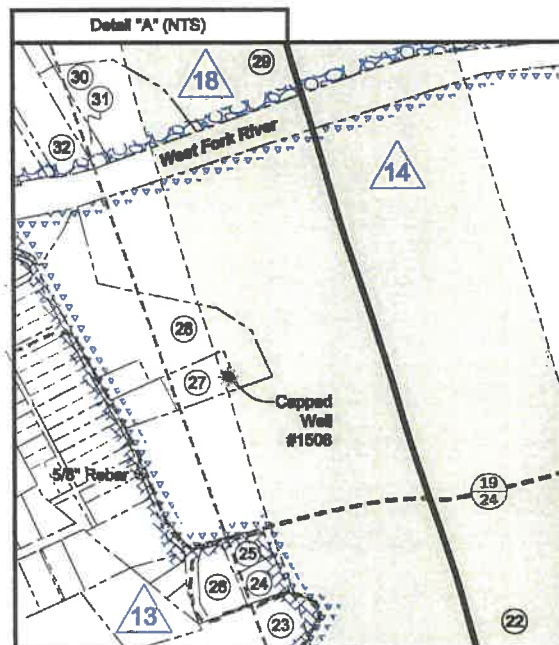
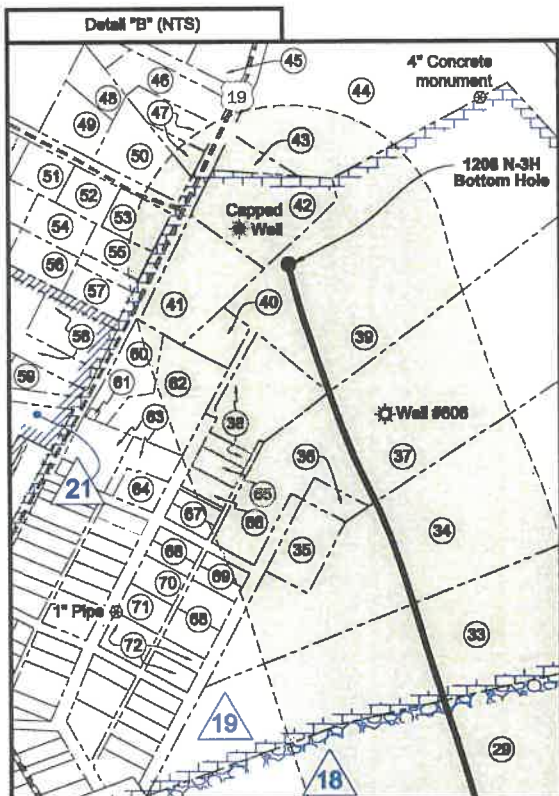
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: April 28 2020
OPERATOR'S WELL NO. 1208 N-3H
API WELL NO
47 - 033 - 05952
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek QUADRANGLE: West Milford
DISTRICT: Grant / Union COUNTY: Harrison
SURFACE OWNER: Linda & William W. Brodwater III ACREAGE: 12/31/2021
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247.84
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,936' TVD
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,820' MD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101



No.	TM / Par	Owner	Bk / Pg	Ac.
72	2901 / 180			0.172
	2901 / 150	Adam Lee Carder	W171 / 954	0.172
	2901 / 137			0.406
71	2901 / 140	Elma Toothman & Cynthia Marsh, et al	F094 / 806	0.344
	2901 / 142			0.172
70	2901 / 141	Jeremy S. Wagoner	1318 / 925	0.172
	2901 / 166			0.172
69	2901 / 185	Bruce & Luella Cayton	1373 / 35	0.172
	2901 / 164			0.344
	2901 / 162			0.344
68	2901 / 144	TAD Investments LLC	1562 / 172	0.172
	2901 / 143			0.172
	2901 / 145			0.172
67	2901 / 148	Blity J. Guhl	1557 / 649	0.172
	2901 / 148			0.172
66	2901 / 148	Bradford & Nicholee Cottrill	1506 / 806	0.24
65	2901 / 149	Dixie L. Quickle	1357 / 413	0.24
64	2901 / 128.1	Rebecca Morris	W157 / 802	0.33
	2901 / 128			1.06
63	2901 / 100	Kathryn Burnside	1577 / 314	0.64
62	2901 / 129	Scharollette B. Dunlap	1348 / 347	1.44
61	2901 / 101.1	Grant-Union PSD	1173 / 393	0.02
60	2901 / 101.2	Mary Tiney	1449 / 85	0.84
59	2901 / 215	Michael Price	1398 / 915	0.40
	2901 / 221			1.25
58	2901 / 220	Gene Edward & Linda Carole Cox	1049 / 971	0.817
	2901 / 17.5			0.45
57	2901 / 17.5	Mary K. Heath	1478 / 380	0.45
56	2901 / 17.8	Richard D. & Melissa S. Grimm	1428 / 49	0.55
55	2901 / 17.3	Todd J. Pratt	1489 / 872	0.45
54	2901 / 17.7	Rodney J. Rollins	1447 / 1001	0.56
	2901 / 18			0.55
53	2901 / 18	Charles & Carrie Pack	1304 / 61	0.55
52	2901 / 178	Jamie Baker & Keria Kover	1585 / 926	0.50
51	2901 / 179	John C. & Shaeta Miller	1562 / 899	0.50
50	2901 / 71	Richard W. & Rhva L. Bartlett	1580 / 180	1.17
49	2901 / 58	Gregory Somerville	1422 / 1277	0.97
48	2901 / 59	Charles & Lea Ann Dobbins	1107 / 731	0.51
	2901 / 74			0.53
47	2901 / 73	Ralph E. & Shaelvie J. Campbell	921 / 270	0.38
	2901 / 75			0.87
46	2901 / 75.1	Hilda J. Flint	1183 / 1157	0.57
	404 / 16			3.06
45	2901 / 75.1	Sharon D. Emerson	W181 / 477	0.57
44	404 / 16	Kelley & Victoria J. Roark	1518 / 173	3.06
43	2901 / 108	Larry G. & Lisa S. Campbell	1344 / 830	0.54
42	2901 / 107	Erin K. & John D. Vaughn II	1535 / 813	2.00
41	2901 / 108.1	John D. & Teresa C. Vaughn	1502 / 142	1.773
40	2901 / 105	Joshua B. & Amber D. Campbell	1427 / 90	0.50
39	404 / 34	Callwell J. & Patricia F. Hutson	1209 / 163	11.00
	2901 / 152			0.82
38	2901 / 150	Harrison County Commission	1494 / 195	0.17
37	404 / 35	Bruce W. & Luella R. Cayton	1029 / 339	12.80
36	404 / 35.1		1317 / 470	0.30
	404 / 64			0.17
	404 / 63			0.17
35	404 / 62	Dennis J. Burnside Jr., et al	F112 / 1123	0.17
	404 / 81			0.17
	404 / 80			0.17
34	404 / 36	Dennis J. Burnside Jr., et al	F112 / 1123	16.30
33	404 / 37	Larry & Rebecca Myers	WB148/1089	18.10
32	404 / 54		798 / 235	1.35
31	404 / 55.3	Jackson Lodge 36 A.F. & A.M.	1032 / 1061	0.42
30	404 / 55.11		1191 / 281	1.79
29	404 / 55	Larry & Rebecca Myers	WB148/1089	54.74
28	2003 / 14	Ernest D. Burton	1558 / 413	3.81
27	2003 / 14.2	Billy & Sarah Garrett	1491 / 531	0.99
26	2003 / 43	Jack Ewart, et ux Living Trust	1557 / 1005	0.25
	2003 / 41			0.29
25	2003 / 42			0.28
24	2003 / 44	Patricia Ann Highland	1478 / 216	0.35
23	424 / 10	Joseph H. Mason & Dedine Mason Brown	WB119/1137	22.25
22	406 / 75	William Michael McDonald	1377 / 99	202.18
21	424 / 11.1	Eric A. & Alana N. Burnside	1385 / 1089	13.92
20	425 / 2	Lonzo A. & Erica Martin	1589 / 1078	5.035
19	425 / 1	Joel B. Shuman, et al	WB188/472	89.00
18	424 / 31	Chris & Misty Montgomery	1449 / 358	15.30
17	424 / 32	Chad W. Johnson	1481 / 22	0.98
16	425 / 33	David A. & Julie Keesucker	1262 / 81	34.70
15	425 / 33.5	Shawn & Ashley B. SanJulian	1512 / 978	5.80
14	425 / 32	Terri L. Winters	1448 / 74	2.00
	425 / 33.3			2.00
13	425 / 33.2	Earl Milton Jenkins	1285 / 521	2.00
	425 / 33.1			2.00
12	425 / 33.4	David J. & Angeena K. Keesucker	1439 / 457	3.01
11	424 / 11	Gary L. & Amy Cross	1555 / 1018	1.83
10	425 / 31.3	Gary S. & Melinda M. Brodwater	1354 / 175	2.00
9	424 / 52.1	Robert J. Brightbill	1580 / 293	139.98
8	424 / 52.2	David Keesucker	1533 / 1283	2.38
7	424 / 52	Bernice A. Keesucker	1188 / 552	2.17
6	425 / 31.1	Dona R. & David R. Scarff	1380 / 652	1.00
5	425 / 31.2	Linda & William W. Brodwater III	1343 / 1279	1.16
4	445 / 1		- / -	87.78
3	445 / 10	Lee M. Nutter	WB 667 / 445	66.87
2	445 / 2			84.57
1	425 / 31	Linda & William W. Brodwater III	1410 / 1045	247.84

FILE NO: 195-36-G-18
DRAWING NO: 1208 N-3H As-Drilled Well Plat
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

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

DATE: April 28 20 20
OPERATOR'S WELL NO. 1208 N-3H
API WELL NO
47 - 033 - 05952
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek

QUADRANGLE: West Milford

DISTRICT: Grant / Union

COUNTY: Harrison

SURFACE OWNER: Linda & William W. Brodwater III

ACREAGE: 12/31/2021

ROYALTY OWNER: Leeman B. Maxwell Heirs, et al

LEASE NO: ACREAGE: 247.84

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____ 6,936' TVD

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,820' MD

WELL OPERATOR: HG Energy II Appalachia, LLC
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101

5,992' to Bottom Hole
2,224' to Top Hole
BTM LATITUDE 39 - 12 - 30
TOP LATITUDE 39 - 10 - 00

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the rules issued and prescribed by the Department of Environmental Protection.

Dwayne D. Matheny
Dwayne D. Matheny, P.S. 2070

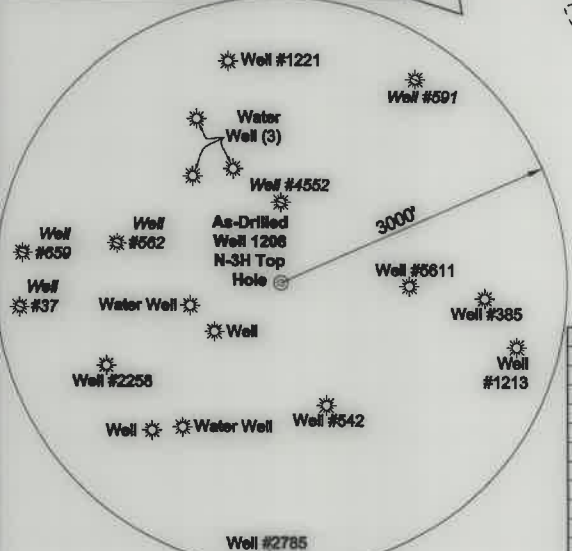
LONGITUDE 80 - 25 - 00
4,872' to Top Hole
8,920' to Bottom Hole

Tag	Bearing	Dist.
L1	S 37°55' E	1,208.0'
L2	S 22°19' E	1,218.3'
L3	N 69°00' W	1,348.3'
L4	N 66°44' W	1,182.0'



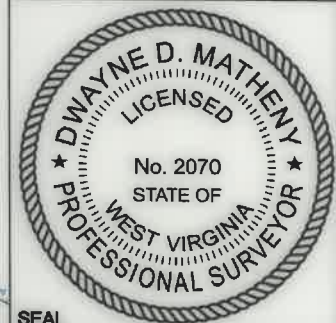
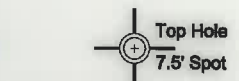
Notes:
Well No. 1208 N-3H
UTM NAD 1983 (USSF)
Top Hole Coordinates
N: 14,218,964.95' E: 1,803,809.30'
Landing Point Coordinates
N: 14,219,004.14' E: 1,803,465.06'
Bottom Hole Coordinates
N: 14,230,063.00' E: 1,799,768.90'

Notes: Well No. 1208 N-3H
West Virginia Coordinate System of 1927, South Zone based upon Differential GPS Measurements.
Top Hole coordinates Bottom Hole coordinates
Latitude: 39°09'11.84" Latitude: 39°11'01.81"
Longitude: 80°25'28.24" Longitude: 80°26'16.13"
UTM Zone 17, NAD 1983
Top Hole Coordinates Bottom Hole Coordinates
N: 4,333,955.281m N: 4,337,337.973m
E: 549,741.214m E: 548,570.658m
Plat orientation and corner and well references are based upon the grid north meridian.
Well location references are based upon the magnetic meridian.



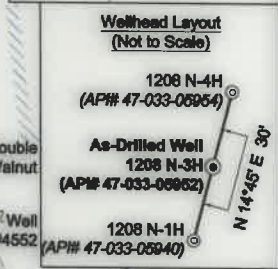
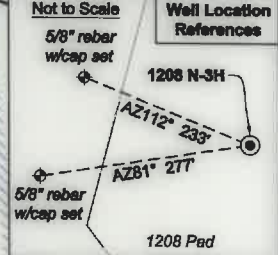
Note: 5 water wells were found within 2000' of proposed well. No occupied dwellings or buildings 2,500 square feet or larger used to house or shelter dairy cattle or poultry husbandry are located within 625' of the center of the well pad.

ID	Lessee
1	Jerome B. Gusman
2	Leeman B. Maxwell Heirs
3	William Burnside, et al
4	Oris Myers, et al
5	Claudia Hacker, et al
6	Leeman B. Maxwell Heirs
10	Rebecca D. Reed, et al
11	David Scott, et al
12	Nathan Post, et al
13	William Burnside, et al
14	Joseph Chevront, et al
16	Howard W. Vanascoy, et al
18	George W. Washburn, et al
19	Lloyd Washburn, et al
21	Olga E. Washburn, et ux
22	J.P. Post & C.F. Post



Legend

- Proposed gas well
- Well Reference, as noted
- Monument, as noted
- Existing Well, as noted
- Existing Plugged Well, as noted
- Digitized Well, as noted
- Creek or Drain
- Existing Road
- Surface boundary (approx.)
- Interior surface tracts (approx.)



FILE NO: 195-36-G-18
DRAWING NO: 1208 N-3H As-Drilled Well Plat
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

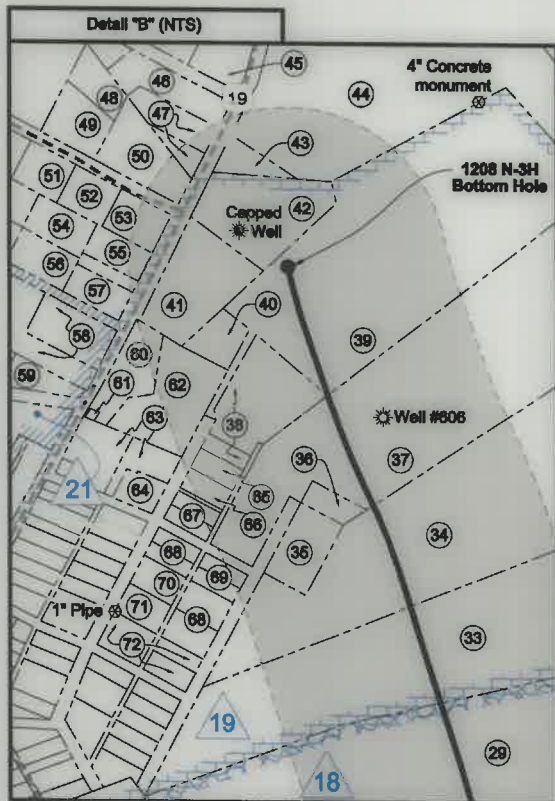
STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: April 28 20 20
OPERATOR'S WELL NO. 1208 N-3H
API WELL NO
47 - 033 - 05952
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek
DISTRICT: Grant / Union
SURFACE OWNER: Linda & William W. Brodwater III
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247.84
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 Shale ESTIMATED DEPTH: 18,820' MD 6,936' TVD

WELL OPERATOR: HG Energy II Appalachia, LLC DESIGNATED AGENT: Diane C. White
ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road
Parkersburg, WV 26101 Parkersburg, WV 26101



No.	TM / Par	Owner	Bk / Pg	Ac.
72	2901 / 180			0.172
	2901 / 159	Adam Lee Carder	W171 / 954	0.172
	2901 / 137			0.406
71	2901 / 140	Elma Toothman & Cynthia Marsh, et al	F094 / 806	0.344
70	2901 / 142			0.172
	2901 / 141	Jeramey S. Wagoner	1318 / 925	0.172
69	2901 / 168			0.172
	2901 / 165	Bruce & Luella Cayton	1373 / 35	0.172
	2901 / 164			0.344
68	2901 / 162		1562 / 169	0.344
	2901 / 144	TAD Investments LLC		0.172
	2901 / 143		1562 / 172	0.172
67	2901 / 145			0.172
	2901 / 146	Billy J. Guhl	1557 / 649	0.172
66	2901 / 148			0.24
65	2901 / 149	Bradford & Nicholes Cotrill	1506 / 808	0.24
64	2901 / 128.1	Dbble L. Quickle	1367 / 413	0.24
63	2901 / 128	Rebecca Morris	W157 / 802	0.33
62	2901 / 100			1.06
61	2901 / 129	Kathryn Burnside	1577 / 314	0.64
60	2901 / 101.1	Scharollette B. Dunlap	1348 / 347	1.44
59	2901 / 101.2	Grant-Union PSD	1173 / 393	0.02
58	2901 / 215	Mary Tinney	1449 / 85	0.84
	2901 / 221	Michael Price	1388 / 915	0.40
	2901 / 220	Gene Edward & Linda Carole Cox	1087 / 950	1.25
57	2901 / 17.5	Mary K. Heath	1049 / 871	0.817
56	2901 / 17.6	Richard D. & Melissa S. Grimm	1478 / 390	0.45
55	2901 / 17.3	Todd J. Pratt	1426 / 49	0.55
54	2901 / 17.7	Rodney J. Rollins	1489 / 872	0.45
53	2901 / 18	Charles & Carrie Peck	1447 / 1001	0.58
52	2901 / 178	Jamie Baker & Karla Kovar	1364 / 81	0.55
51	2901 / 179	John C. & Sheeta Miller	1585 / 926	0.50
50	2901 / 71	Richard W. & Riva L. Barblett	1582 / 889	0.50
49	2901 / 58	Gregory Somerville	1580 / 180	1.17
48	2901 / 59	Charles & Lea Ann Dobbins	1422 / 1277	0.97
47	2901 / 74		1107 / 731	0.51
	2901 / 73	Ralph E. & Shelve J. Campbell	821 / 270	0.53
46	2901 / 75			0.38
45	2901 / 75.1	Hilda J. Flint	1183 / 1157	0.87
44	404 / 18	Sharon D. Emerson	W161 / 477	0.57
43	2901 / 108	Keffrey & Victoria J. Roark	1518 / 173	3.08
42	2901 / 107	Larry G. & Lisa S. Campbell	1344 / 830	0.54
41	2901 / 106.1	Erin K. & John D. Vaughn II	1535 / 813	2.00
40	2901 / 105	John D. & Teresa C. Vaughn	1502 / 142	1.773
39	404 / 34	Joshua B. & Amber D. Campbell	1427 / 90	0.50
38	2901 / 152	Callwell J. & Patricia F. Hutson	1209 / 163	11.00
37	404 / 35		1484 / 195	0.17
36	404 / 35.1		1029 / 339	12.80
	404 / 84		1317 / 470	0.30
	404 / 63			0.17
35	404 / 62			0.17
	404 / 81	Dennis J. Burnside Jr., et al	F112 / 1123	0.17
	404 / 80			0.17
34	404 / 36			16.30
33	404 / 37	Dennis J. Burnside Jr., et al	F112 / 1123	16.30
32	404 / 54	Larry & Rebecca Myers	WB148/1089	18.10
31	404 / 55.3		798 / 235	1.35
30	404 / 55.11	Jackson Lodge 35 A.F. & A.M.	1032 / 1061	0.42
29	404 / 66		1191 / 281	1.79
28	2003 / 14	Larry & Rebecca Myers	WB148/1089	54.74
27	2003 / 14.2	Ernest D. Burion	1558 / 413	3.81
26	2003 / 43	Billy & Sarah Garrett	1491 / 531	0.59
	2003 / 41			0.25
25	2003 / 42	Jack Ewart, et ux Living Trust	1557 / 1005	0.29
24	2003 / 44			0.28
23	424 / 10	Patricia Ann Highland	1478 / 216	0.35
22	405 / 75			22.25
21	424 / 11.1	Joseph H. Mason & Dedra Mason Brown	WB119/1137	202.18
20	425 / 2	William Michael McDonald	1377 / 99	13.92
19	425 / 1	Eric A. & Alana N. Burnside	1365 / 1089	5.035
18	424 / 31	Lonzo A. & Erica Martin	WB168/472	89.00
17	424 / 32	Joel B. Shuman, et al	1449 / 358	15.30
16	425 / 33	Chris & Misty Montgomery	1461 / 22	0.98
15	425 / 33.5	Chad W. Johnson	1262 / 81	34.70
14	425 / 32	David A. & Julie Keesucker	1512 / 978	5.90
	425 / 33.3	Shawn & Ashley B. SanJulian	1448 / 74	2.00
13	425 / 33.2	Terri L. Winters		2.00
	425 / 33.1	Earl Milton Jenkins	1285 / 521	2.00
12	425 / 33.4			2.00
11	424 / 11	David J. & Angeena K. Keesucker	1439 / 457	3.01
10	425 / 31.3	Gary L. & Amy Cross	1555 / 1018	1.63
9	424 / 52.1	Gary S. & Melinda M. Brodwater	1354 / 175	2.00
8	424 / 52.2	Robert J. Brightbill	1580 / 293	139.98
7	424 / 52	David Keesucker	1533 / 1283	2.38
6	425 / 31.1	Bernice A. Keesucker	1186 / 552	2.17
5	425 / 31.2	Dona R. & David R. Scarff	1380 / 652	1.00
4	445 / 1	Linda & William W. Brodwater III	1343 / 1279	1.16
3	445 / 10		- / -	87.78
2	445 / 2	Lisa M. Nutter	WB 687 /	66.87
1	425 / 31		445	84.57
		Linda & William W. Brodwater III	1410 / 1045	247.84

FILE NO: 195-36-G-18
DRAWING NO: 1208 N-3H As-Drilled Well Plat
SCALE: 1" = 1500'
MINIMUM DEGREE OF ACCURACY: Submeter
PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

STATE OF WEST VIRGINIA
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OIL AND GAS DIVISION

DATE: April 28 20 20
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47 - 033 - 05952
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WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
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LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek QUADRANGLE: West Milford
DISTRICT: Grant / Union COUNTY: Harrison
SURFACE OWNER: Linda & William W. Brodwater III ACREAGE: 200
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247.84

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
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 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 18,820' MD

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