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

API <u>47</u> <u>033</u> 05967 _{County} Harr	ison	District Grant	
Quad West Milford Pad Name NL		Field/Pool Name	
Farm name_ Linda & William Broadwater		Well Number Nut	ter 1208 S-10H
Operator (as registered with the OOG) HG Energy II A	ppalachia, LLC		
	Parkersburg	State WV	Zip 26101
As Drilled location NAD 83/UTM Attach an as-d Top hole Northing 14218933. Landing Point of Curve Northing 14219241 Bottom Hole Northing 14203911	.52 Eas	nd deviation survey sting 1803919.93 sting 1805419.71 sting 1811342.70	
Elevation (ft) 1147 GL Type of We	ell ∎New □ Existing		□Interim ■ Final
Permit Type 🗆 Deviated 🗆 Horizontal 🔳 Hori	izontal 6A 🛛 Vertical	Depth Type	🗆 Deep 📕 Shallow
Type of Operation Convert Deepen Drill	□ Plug Back □ Redr	illing 🗆 Rework	Stimulate
Well Type 🗆 Brine Disposal 🗆 CBM 🛢 Gas 🗆 Oil 🗆	Secondary Recovery 🗆 S	Solution Mining 🗆 St	orage 🗆 Other
Type of Completion □ Single ■ Multiple Fluids Pr Drilled with □ Cable ■ Rotary	roduced Brine Bras	🗆 NGL 🗆 Oil	Other
Drilling Media Surface hole 🛽 Air 🗆 Mud 🗆 Fresh	Water Intermediate	hole Air Muc	l □ Fresh Water □ Brine
Production hole □ Air ■ Mud □ Fresh Water □ E			
Mud Type(s) and Additive(s) Air/ OBM			
KCL, Barite, Lime, CaCL, base oil, clay, sulfa	tone, safevert FLG, s	afevert WA	
Date permit issued 09/25/2019 Date drilling c Date completion activities began 4/1/2020 Verbal plugging (Y/N) Date permission grade	Date completion ac		ceased 3/6/2020 12/12/2020
			T 3 2021
Please note: Operator is required to submit a plugging ap	plication within 5 days of	verbal permission to p	blug
Freshwater depth(s) ft 390	Open mine(s) (Y/N)	depths	N
Salt water depth(s) ft N/A	Void(s) encountered	•	Ν
Coal depth(s) ft 420,530,902	Cavern(s) encounter		Ν
Is coal being mined in area (Y/N)	viewec	ł	Reviewed by:
Spa			12/31/2021

WR-35

Rev. 8/23/13

API 47-033	05967	Farm na	me_L	inda & W	illiam Br	oadwate	erWe	ll numbe	r_Nutter	1208 S-10I	4
CASING STRINGS	Hole Size	Casing Size	Dej		New or Used	Grade wt/ft		Basket Depth(s)		l cement circulate Provide details b	· /
Conductor	30"	30"	12	20	New	154.	5 lbs/ft			N	
Surface	26"	20"	10	01	New	94 lbs	/ft J-55			Yes	
Coal											
Intermediate 1	17.5"	13.375"	18	85	New	68	lbs/ft			Yes	
Intermediate 2	12.25"	9.625"	27	15	New	40 lbs	s/ft J-55			Yes	
Intermediate 3											
Production	8.5	5.5	237	782	New	23	lbs/ft			Yes	
Tubing	5.5	2.875			New		s/ft J-55			Not cemen	ed
Packer type and de	pth set									Hot bomon	
Comment Details											
CEMENT	Class/Type	Number	7	Slurry	Y	ield	Volume		Cement	WC	C
DATA Conductor	of Cement	of Sacks		wt (ppg)		³ /sks)	<u>(ft³)</u>		Top (MD)	(hr	
Surface	Drilled in				_						
Coal	Class A	1884		15.6	1	.18	2223		surface		8
Intermediate 1											
	Class A	1706/50)6	16.0/16.4		6/1.1	1979/5	61	surface		24
Intermediate 2	Class A	838		15.6	1	.19	994		surface		8
Intermediate 3											
Production	Class A	4626		14.8	1	.33	6513		surface		8
Tubing	not cemente	ed								-	
Drillers TD (ft Deepest forma Plug back pro Kick off depth	tion penetrated cedure	Marcellus			oggers T lug back						
Check all wire	line logs run	■ caliper □ neutron		ensity sistivity	□ deviat ∎ gamma	ed/directi a ray		induction temperat		sonic	
Well cored	Yes No	Conventio	onal	Sidewal	1	W	ere cuttin	gs collect	ed □Yes	s 🔳 No	
20" casing: Centralize	er placed on the shoe j	JZER PLACEM	to surface			ASING S	TRING		Off	с	
9.625" casing: Cer	ntralizers run every	oint to 20" casing then other joint to 13.375" t to top of curve (KOP)	casing th	en placed eve	ry 3 joints to		xe		00	04.0.0	1
WAS WELL (COMPLETED	AS SHOT HOLE	2 0 1	Yes 📕 N	o DI	ETAILS				V C.	
WAS WELL O	COMPLETED	OPEN HOLE?	□ Yes	s 🛔 No	DET	AILS					
WERE TRAC	ERS USED	Yes 📕 No	TYP	PE OF TRA	CER(S)	USED					

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API 47-033 _ 05967

API 4	47- 033 _ 05967	Farm name	Linda & Will	iam Broadwater	Well number Nutter 1208 S-10H
			PERFORATIO	ON RECORD	
Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
					See Attached
			1		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of
		(11005010 (101)	1011 (101)	rioppant (ios)	water (bois)	Nitrogen/other (units
			See Attached					
						-		
_								
							niszenteney/	
						i OM.	10"-1	340
						1		
						I LL	,	

Please insert additional pages as applicable.

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API 47- 033	3_05967	Farm	_{name} Linda 8	William B	roadwater	_Well n	umber	Nutter 1	208 S-10H
PRODUCING Marcellus	FORMATION(S)		<u>DEPTHS</u> 6958-7017	7	357-23809				
			0000-7017	TVD 7	337-23609	MD			
-				_					
Please insert ac	lditional pages as	applicable.							
GAS TEST	🗆 Build up 🛛 🗆 I	Drawdown	l Open Flow	С	DIL TEST 🗆 F	`low □	Pump		
SHUT-IN PRE	SSURE Surfac	2,608	psi Botto	m Hole	psi	DURAT	ION OI	TEST	710 hrs
OPEN FLOW	Gas 29,808 mcfpo	Oil d	NGL bpd		Water 112 bpd			RED BY	🗆 Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FI MD					JANTITYAND DIL, GAS, H₂S, ETC)
	0		0						
							See A	ttached	
						_			
201									
	dditional pages as								
Drilling Contra	actor Patterson D	rilling							
Address 2198	University Drive		City	Lemont Fur	nace	State	PA	_ Zip <u>15</u>	156
	any Renegade V	Vireline Serv	vices						
Address 191 E	arnhardt Rd.		City	Hunker		State	PA	Zip150	339
Cementing Co	mpany Schlumbe	rger							
Address 300 S	chlumberger Dr.		City	Sugar Land		State	ТХ	Zip774	478
Stimulating Co	ompany Stingray	,						0,,	
Address 1420			City	Oklahoma (City	State	ОК	Zip 73	134 c c
Please insert a	dditional pages as	applicable.						I <u></u>	· · · · · ·
Completed by	v Diane White	-			Telephone	304-420-	-1119	Aton Etono o	
Signature	Diane W	hite	Title		, cooptione		Date 4	26/2021	

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry

WR-35 Rev. 8/23/13

API 47- 033	05967	Farm	name Nutter		Well number Nutter 1208 S-10H				
PRODUCING Marcellus	FORMATION(S		<u>DEPTHS</u> 6958-7017	TVD	7357-23809	MD			
Please insert ac	lditional pages as	applicable.							
GAS TEST	🗆 Build up 🛛	Drawdown	Open Flow	(DIL TEST 🗆 F	°low □	Pump		
SHUT-IN PRE	SSURE Surfa	2,608	_psi Botto	m Hole	psi	DURAT	ION OF	TEST 710	hrs
OPEN FLOW	Gas 29,808 mcfj	Oil	NGL bpd		Water 2,112 bpd		EASUR		ilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN F MD				CORD QUANTIT	
	0		0						
							See At	tached	
					C)ffice	orand Gu	5	
						1001V 2	3 2021		
						Spi Luni	ranem Pert v	tion	
	ditional pages a								
Drilling Contra Address 2198	actor Patterson I University Drive	Drilling	City	Lemont Fu	rnace	State	PA	Zip 15456	
	any Renegade	Wireline Serv	vices						
-			City	Tutikei		State		_Zip <u>15639</u>	
Cementing Co Address 300 S	mpany Schlumb chlumberger Dr.	erger	City	Sugar Lan	d	State	тх	Zip 77478	
Stimulating Co Address 14201	ompany Stingra	iy	City	Oklahoma	City	State	ОК	Zip 73134	
	dditional pages a	s applicable.						- ~rY	
Completed by	Jiane White				Telephone	304-420	-1119		
Signature	Diane L	white	Title				Date 4/2	6/2021	

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

HG Energy II Appalachia, LLC Nutter 1208 S-10H 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	1/4" stream	Water
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	523 units gas
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	2963	2958	2983	2978	Sandstone/Siltstone	
Balltown	3186	3176	3221	3211	siltstone/Shale	
Bradford	3706	3666	3771	3731	Sandstone	
Benson	4445	4354	4455	4364	Sandstone	
Rhinestreet	5798	5620	6547	6305	Shale	
Cashaqua	6532	6307	6785	6527	shale	
Middlesex	6794	6549	6887	6615	shale	
West River	6892	6637	7022	6722	shale	
Burket	7035	6754	7071	6758	shale	
Tully	7096	6802	7228	6859.5	Limestone	
Hamilton	7246	6901	7345	6917	shale	
Marcellus	7357	6958	23809	7017	shale	

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HG Energy II Appalachia, LLC Nutter 1208 S-10H Perforation Record

Stage #	Date	Perforation From Depth	Perforation To Depth	Number of perforations	Ecomotion	
eeve / 1	4/1/2020	23672			Formation	
			23623	N/A	Marcellus	
2	10/16/2020	23589	23421	49	Marcellus	
3	10/17/2020	23393	23225	42	Marcelius	
4	10/17/2020	23197	23029	42	Marcellus	
5	10/18/2020	23001	22833	42	Marcellus	
6	10/18/2020	22805	22637	42		
7	11/3/2020	22609			Marcellus	
			22441	28	Marcellus	
8	11/3/2020	22413	22245	28	Marcellus	
9	11/4/2020	22217	22049	28	Marcellus	
10	11/5/2020	22021	21853	28	Marcellus	
11	11/7/2020	21825	21657	28	Marcellus	
12	11/7/2020	21629	21461	28		
13	11/8/2020	21433			Marcellus	
			21265	28	Marcellus	
14	11/9/2020	21237	21069	28	Marcellus	
15	11/9/2020	21041	20873	28	Marcellus	
16	11/10/2020	20845	20677	28	Marcellus	
17	11/11/2020	20649	20481	28	Marcellus	
18	11/12/2020	20453	20285	28		
19	11/12/2020	20257	20089		Marcellus	
				28	Marcellus	
20	11/13/2020	20061	19893	28	Marcellus	
21	11/14/2020	19865	19697	28	Marcellus	
22	11/14/2020	19669	19501	28	Marcellus	
23	11/15/2020	19473	19305	28	Marcellus	
24	11/15/2020	19277	19109	28		
25	11/16/2020	19081	18913		Marcellus	
				28	Marcellus	
26	11/17/2020	18885	18717	28	Marcellus	
27	11/17/2020	18689	18521	28	Marcellus	
28	11/19/2020	18493	18325	28	Marcellus	
29	11/19/2020	18297	18129	28	Marcellus	
30	11/21/2020	18101	17933	28		
31	11/21/2020	17905	17955		Marcellus	
				28	Marcellus	
32	11/22/2020	17709	17541	28	Marcellus	
33	11/22/2020	17513	17345	28	Marcellus	
34	11/23/2020	17317	17149	28	Marcellus	
35	11/24/2020	17121	16953	28	Marcellus	
36	11/25/2020	16925	16757	28		
37	11/26/2020	16729	16561		Marcellus	
				28	Marcellus	
38	11/27/2020	16533	16365	28	Marcellus	
39	11/28/2020	16337	16169	28	Marcellus	
40	11/28/2020	16141	15973	28	Marcellus	
41	11/29/2020	15945	15777	28	Marcellus	
42	11/30/2020	15749	15581	28		
43	11/30/2020	15553			Marcellus	
44			15385	28	Marcellus	
	12/1/2020	15357	15189	28	Marcellus	
45	12/1/2020	15161	14993	28	Marcellus	
46	12/2/2020	14965	14797	28	Marcellus	
47	12/2/2020	14769	14601	28	Marcellus	
48	12/3/2020	14573	14405	28		
49	12/4/2020	14377			Marcellus	
50			14209	28	Marcellus	
	12/4/2020	14181	14013	28	Marcellus	
51	12/4/2020	13985	13817	28	Marcellus	
52	12/5/2020	13789	13621	28	Marcellus	26.00
53	12/5/2020	13593	13425	28	Marcellus	Offic
54	12/5/2020	13397	13229	28		NOV 1
55	12/6/2020	13201	13033		Marcellus	- NOV
56				28	Marcellus	
	12/6/2020	13005	12837	28	Marcellus	
57	12/6/2020	12809	12641	28	Marcellus	1.
58	12/6/2020	12613	12445	28	Marcellus	Envi
59	12/7/2020	12417	12249	28	Marcellus	
60	12/7/2020	12221	12053	28	Marcellus	
61	12/7/2020	12025	11857	28		
62	12/7/2020				Marcellus	
		11829	11661	28	Marcellus	
63	12/8/2020	11633	11465	28	Marcellus	
64	12/8/2020	11437	11269	28	Marcellus	
65	12/8/2020	11241	11073	28	Marcellus	
66	12/8/2020	11045	10877	28		
67	12/8/2020	10849	10681	28	Marcellus	
68	12/9/2020				Marcellus	
		10653	10485	28	Marcellus	
69	12/9/2020	10457	10289	28	Marcellus	
70	12/9/2020	10261	10093	28	Marcellus	
71	12/9/2020	10065	9897	28	Marcellus	
72	12/10/2020	9869	9701	28		
73	12/10/2020	9673			Marcellus	
			9505	28	Marcellus	
74	12/10/2020	9477	9309	28	Marcellus	
75	12/10/2020	9281	9113	28	Marcellus	
76	12/10/2020	9085	8917	28		
77	12/11/2020	8889	8721		Marcellus	
				28	Marcellus	
78	12/11/2020	8693	8525	28	Marcellus	12/31/20
79	12/11/2020	8497	8329	28	Marcellus	
	12/11/2020	8301	8133	28	Marcellus	
80		8105	7937	28	Marcellus	
80 81	12/11/20/01	~~~~	1 331	40	IVIATCEIIUS	
81	12/11/2020	7000	77/11	30		
	12/11/2020 12/12/2020 12/12/2020	7909 7713	7741 7545	28 28	Marcellus Marcellus	

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HG Energy II Appalachia, LLC Nutter 1208 S-10H Stimulation Record

Stage #	Date	Average Pump Rate (BPM)	(PSI)	Maximum Breakdown Pressure (PSI)	ISIP (PSI)	Proppant (LBS)	Water (BBLs)
eve / 1	4/1/2020	75	8636	10340	4710	48000	18254
2	10/16/2020	73	10,147	10,557	5,240	664760	14,284
3	10/17/2020	76	10,308	11,009	5,025	708880	14,666
4	10/17/2020	73	10,215	10,901	5,242	606540	12,991
5	10/18/2020	76	10,240	11,028	5,218	606650	13,661
6	10/18/2020	81	10,466	11,262	5,600	703300	14,755
7	11/3/2020	78	9,915	11,135	5,740	704990	12,714
8	11/3/2020	78	9,708	10,557	5,690	705510	12,796
9	11/4/2020	83	9,834	10,557	6,200	699120	11,693
10	11/5/2020	82	9,810	10,239	5,860	703730	11,636
11	11/7/2020	83	9,622	10,176	6,280	624740	9,307
12	11/7/2020	82	9,923	10,450	5,670	704540	9,810
13	11/8/2020	84	10,091	10,462	5,660	705350	9,751
14	11/9/2020	80	10,024	10,637	5,870	703630	9,908
15	11/9/2020	78	10,182	11,416	5,980	705600	10,195
16		78	9,911	11,008	4,788	707300	9,519
17	11/11/2020	82	9,708	10,670	4,855	705800	10,497
18		82	9,776	10,979	5,347	705100	9,584
19	11/12/2020	78	9,910	10,976	5,095	706000	9,852
20	11/13/2020	77	9,845	10,840	5,348	705400	9,716
21	11/14/2020	83	9,811	10,896	4,703	704800	9,700
22	11/14/2020	84	9,817	10,441	4,712	704120	9,591
23	11/15/2020	81	9,486	10,339	5,354	707980	9,827
24		83	9,626	10,114	5,146	707820	9,686
25		86	9,554	10,133	5,280	705300	12,155
26		87	9,374	9,675	5,680	666570	9,687
27		89	9,186	9,512	5,950	706340	9,757
28		91	9,003	9,622	5,525	687980	11,338
29		91	9,575	10,255	5,197	703960	9,562
30		102	9,923	10,557	5,780	680810	9,900
31		105	9,936	10,733	5,382	707610	9,845
32	<u> </u>	104	9,777	10,276	5,397	703390	9,776
33	11/22/2020	106	9,943	10,574	5,670	709150	9,857
34		105	9,876	10,420	5,840	704950	9,839
35	11/24/2020	105	9,655	10,257	5,349	706090	12,525
36		106	9,615	10,233	5,760	708700	9,854
37	11/26/2020	107	9,586	10,175	5,940	706730	9,800
38		106	9,823	10,400	4,760	708580	9,849
39		104	9,552	10,350	5,670	706430	9,757
40	11/28/2020	104	9,683	10,258	5,441	708000	9,836
41	11/29/2020	102	9,480	9,907	4,792	707110	9,896
42		106	9,544	10,103	5,550	681300	9,516
43		106	9,402	10,162	4,864	679290	9,703
44		102	9,604	10,388	4,512	680360	9,672
45		106	9,703	10,268	5,330	682400	9,568
46		98	9,256	10,068	4,975	680260	9,550
47	12/2/2020	101	9,258	10,337	4,490	680500	11,067
48		103	9,608	10,150	4,570	656440	9,453
49		106	9,274	10,033	4,642	683380	9,175
50		104	9,172	9,738	4,869	682780	11,239
51		100	8,809	9,267	4,710	680380	9,283
52		106	9,545	10,227	5,057	679980	9,177
53		102	9,044	9,399	5,110	678580	9,731
54		106	8,615	9,364	5,271	682900	9,243
55		104	8,446	9,097	4,438	685260	9,281
56		104	8,769	9,166	5,060	685310	9,500
57		106	9,007	9,550	5,710	682480	9,590
58		108	9,040	9,568	4,912	685860	9,287
59		104	8,685	9,340	5,425	684950	9,284
60		105	8,806	9,292	4,840	684340	9,627
61		106	9,120	9,672	5,060	682050	9,551
62		106	8,994	9,721	5,390	681310	9,195
63		103	8,682	9,164	5,125	684620	9,125
64		106	8,670	9,167	5,350	680840	9,095
65		106	8,603	9,081	5,610	682980	9,598
66		106	8,580	9,151	5,560	684430	9,610
67		107	8,455	8,924	5,010	682570	9,049
68	+ · · · · · · · · · · · · · · · · · · ·	103	8,027	8,861	4,667	682220	9,101
69		107	8,060	8,516	5,053	683030	8,937
70		105	7,891	8,363	5,590	683430	9,571
71		105	8,070	8,553	5,020	680560	9,696
72	<u> </u>	107	8,335	8,942	4,961	680020	9,936
73		107	8,375	8,745	4,998	682990	8,945
74	12/10/2020	108	8,475	8,946	4,820	678640	9,578
75	12/10/2020	104	8,492	9,788	4,940	679770	9,555
76	12/10/2020	104	8,500	10,520	4,884	681700	9,407
77	12/11/2020	105	8,147	8,877	4,820	683570	9,407
78		105	8,137	9,198	5,490	692260 12/	
79		103	7,925	8,634	5,780	679580	
80	1 1 1 1	106	7,704	8,451	5,780	683060	9,618
81		108	7,929	8,662	5,490		9,592
82		107	8,124	9,513		685090	9,604
83		107	7,771	8,228	5,039	680130	9,413
	12/12/2020	107	7,901	8,673	5,460	680480 709880	9,692 9,641

	11/2/20 8:11	Fracture Start Date/Time:
	12/13/20 5:44	Fracture End Date/Time:
	West Virginia	State:
	Harrison	County:
(e.g. XX-X)	47-033-05967-0000	API Number:
	HG Energy	Operator Number:
	Nutter 1208 South 10H	Well Name:
	Yes	Federal Well:
	No	Tribal Well:
	-80,423232	Longitudet
	39,153241	Latitude:
	NAD27	Long/Lat Projection:
		True Vertical Depth (TVD):
		Total Clean Fluid Volume* (gal):



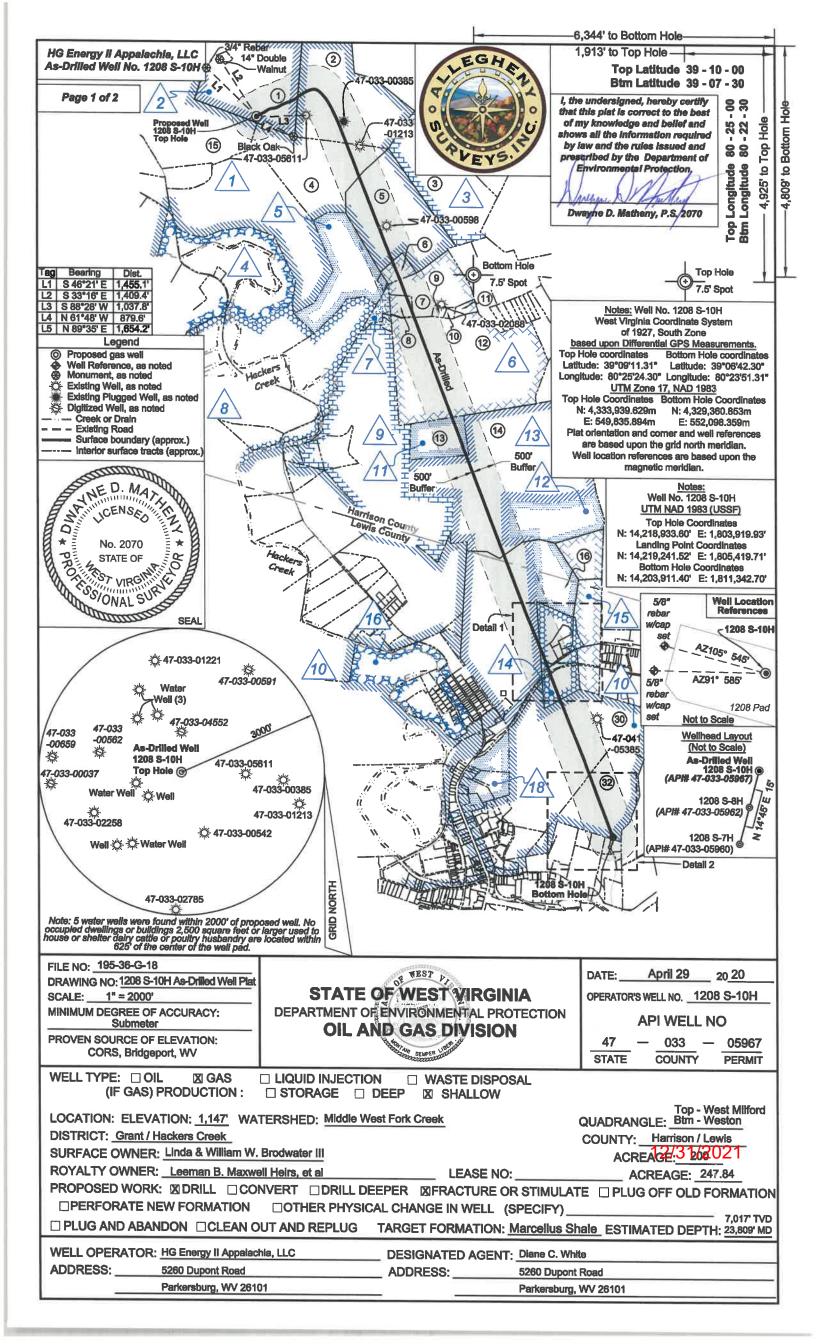
Additive	Specific Gravity	Additive Quantity	Mass (lbs)
Water	1.00	33,834,864	282,351,940
Sand (100 Mesh Proppant)	2.65	5,962,439	5,962,439
Sand (40/70 Proppant)	2.65	48,621,830	48,621,830
Hydrochloric Acid (28%)	1.12	40,594	48.594
NEFE-180	0.99	284	2,348
			5 - 11 X - 165
			Line of the state
			a to be here the
			the second s
			Total Storry Mass (Lbs) 3.86.979,151

Ingredients Section:

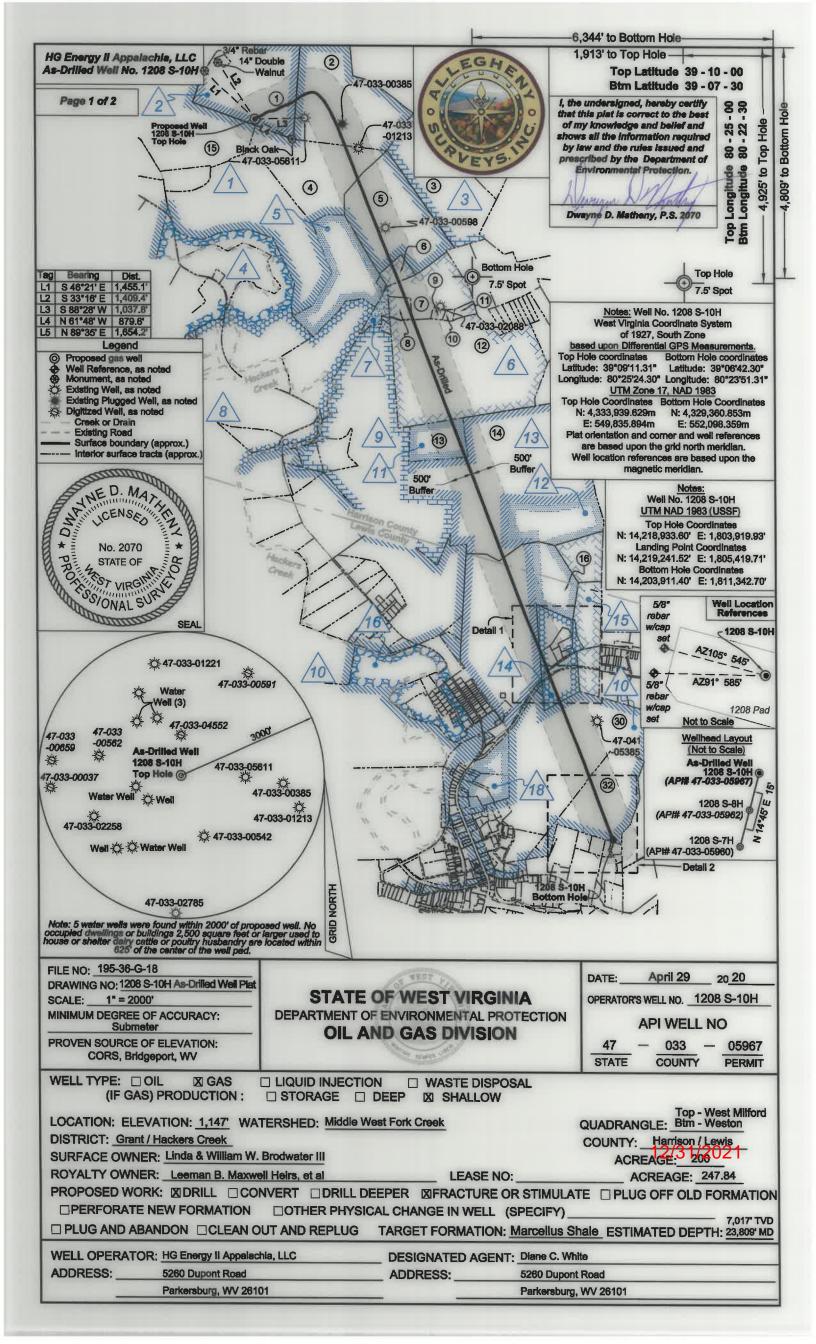
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Mass per Component (LBS)	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments	Claimant Company
Water	HG Energy	Carriet/Base Fluid	Water	7732-18-5	100.00%	282 351,930	83,78914%		Water
Sand (100 Mesh Proppant)	US Silica	Proppant	Silica Substrate	14808-60-7	100.00%	5.962.439	1.7693%		Sand (100 Mesh Proppant)
	US Silica	Proppant	Silica Substrate	14808-60-7	100.00%	48,621,830	14. 128744		Sand (40/70 Proppant)
	Dover	Acidizing	Hydrochloric Acid (Hydrogen Chloride)	7732-18-5	36.00%	14,614	0.00334*6		Hydrochloric Acid (28%)
<i></i>			Water	7732-18-5	64.00%	25,980	0.00771%		Hydrochloric Acid (28%)
VEFE-180	Dover	Corrosion Inhibitor/Iron Control	Acetic acid	64-19-7	89.00%	2,089	0.0000276		NEFE-180
			Methanol	67-56-1	40,00%	9.54	000231		NEFE-180
			2-Ethylhexanol	104-76-7	10.00%	23,5	0.00007%		NEFE-180
			Fany acids, tall oil	61790-12-3	5.00%	117	0.00003**		NEFE-180
			Coconut oil acid diethanolamine	68603-42-9	5.00%	114	0.00003%		NEFE-180
			Alcohols, C14-15, ethoxylated	68951-67-7	5.00%	117	Ø.00003%		NEFE-180
			2-Propyn-1-ol	107-19-7	5,00%	117	0.00003%		NEFE-1.80
									NEFE-180
							MU		NEFE-180



WW Damatiment of



HG Energy II Appalachia, LLC Page 2 of 2		
As-Drilled Well No. 1208 S-10H		
HEGHEL		
	Detail 1 - Scale: 1" = 500' (4x) 16	
u Ci		
PVEYS		
ID Lease	17 13 17 14 5/8" Rebar 5/8" Rebar 5/8" Rebar	
1 Jerome B. Gusman 2 Leeman B. Maxwell Heirs	20 5/8" Rebar	
3 A.J. Smith, et ux 4 W.L. & Flora Hughes 5 Hannah H. Smith		
6 Walter Neely, et al 7 Page Harmer Thomas, et al		
8 Howard Neely 9 W.A. Jackson 10 Isaac Jackson	25 3 20 1/2" Iron pipe 24 27 28 20 29 29 29	
11 Pearl Reel 12 William C. White	2 2 2 2 2	
14 C.H. Stalnaker, et ux 15 Gamett M. Corley		
16 John B. Davisson 18 David Kent Moss, et al		
Harrison County - Grant-Outside District		
No. TM / Par Owner Bk / Pg Ac. 1 425 / 31 Linda & William W. Brodwater III 1410 / 1045 247.84 2 445 / 2 Lisa M. Nutter W687 / 445 84.57		
3 445 / 12 Lisa M. Nutter W687 / 445 64.50 4 445 / 10 Lisa M. Nutter W687 / 445 66.87		
5 445 / 11 Lise M. Nutter W687 / 445 75.50 6 445 / 22 John D. Smith Estate W13 / 53 4.00	10 39 M	
7 445 / 23 Robert Allman, et al W177 / 231 32.84 8 445 / 23.2 Patricia T. Stamm 1341 / 1204 5.06 9 445 / 23.4 Daryl W. & Cheryl Lantz 1477 / 473 1.38	Detail 2 - Scale: 1" = 500' (4x)	
10 445 / 23.3 Daryl W. & Cheryl Lantz 1411 / 900 1.06 11 445 / 23.1 Daryl W. & Cheryl Lantz 1411 / 900 2.50		
12 445 / 46 James W. Riffle II & William L. Law 1385 / 259 140.43 13 465 / 6 John G. & Rebecca M. Moore 1421 / 350 21.37 14 465 / 4.1 John G. & Rebecca M. Moore 1421 / 350 353.80	30 / 32	
14 465 / 4.1 John G. & Rebecca M. Moore 1421 / 350 353.80 15 445 / 1 Lisa M. Nutter 1577 / 738 87.78 Lewis County - Hackers Creek District	10	
No. TM / Par Owner Bk / Pg Ac. 16 8C / 55 William C. White W23 / 102 92.02		
17 8C / 56 Esther M. Riffle 347 / 76 23.12 18 8C / 57 Mary V. Corley Ward 581 / 453 29.28 19 8C / 57.2 Eathan S. Wamsley & Sharon L. Harper 581 / 291 1.72		
20 8C / 56.8 Ginger Knight & Howard Knight Jr. 649 / 54 2.06 21 8C / 56.7 Prime Space LLC 614 / 116 1.34	1208 S-10H Bottom Hole	
22 8C / 56.3 Prime Space LLC 614 / 120 0.28 23 8C / 56.1 Prime Space LLC 593 / 618 0.42 24 8C / 56.4 Christy Pratt & Rocky L. Lipps 714 / 947 0.94		
24 8C / 56.4 Christy Pratt & Rocky L. Lipps 714 / 947 0.94 25 8C / 56.5 Christy Pratt 574 / 546 2.41 26 8C / 56 Esther M. Riffie 347 / 76 23.12	1208 S-10H Bottom Hole	
27 8C / 56.6 Jack L. & Gladys M. Frazier 578 / 162 1.82 28 8C / 87 Mike Ross Inc. 531 / 303 14.27	Bottom Hole	
29 8C / 57.1 Jack L. Frazier 524 / 498 13.50 30 8C / 58 William C. White W23 / 102 126.18 31 6 / 29 Ronzel C. & Sandra K. Richards 333 / 347 5.20	Reber w/cap 36	
31 6 / 29 Ronzel C. & Sandra K. Richards 333 / 347 5.20 32 8C / 59 James E. & Louise K. Dyer 551 / 372 54.62 33 9C / 8 Rose Ann & Hunter Kolb W6 / 670 88.16	w/cap - 36 33 33	
34 8C / 62.2 Timothy & Sharon Ross 629 / 775 1.21 35 8C / 62.3 Michael E. Moeller 644 / 274 1.17	Reber	
36 8C / 61.2 Michael E. Moeller 699 / 327 2.40 37 8C / 61.3 Michael E. Moeller 674 / 3 2.40 38 8C / 61.4 Michael E. Moeller 674 / 3 10.38	39	
38 8C / 61.4 Michael E. Moeller 674 / 3 10.38 39 8C / 62.1 Snider Construction 620 / 320 6.51 40 8C / 62.4 Robert Stewart III 674 / 43 0.56	39 0	
41 8C / 62.5 Robert Stewart III 691 / 463 0.55 FILE NO: 195-36-G-18		
DRAWING NO: 1208 S-10H As-Drilled Well Plat	DATE: <u>April 29</u> 20 20 VEST VIRGINIA OPERATOR'S WELL NO. 1208 S-10H	
MINIMUM DEGREE OF ACCURACY: DEPARTMENT OF ENVI	RONMENTAL PROTECTION	
PROVEN SOURCE OF ELEVATION:	47 - 033 - 05967	
	STATE COUNTY PERMIT	
(IF GAS) PRODUCTION : STORAGE DEEP	□ WASTE DISPOSAL ☑ SHALLOW	
LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek QUADRANGLE: Btm - Weston		
DISTRICT: <u>Grant / Hackers Creek</u> SURFACE OWNER: <u>Linda & William W. Brodwater III</u>	COUNTY: <u>Harrison / Lewis</u> ACREACE: <u>3102021</u>	
ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247.84		
PROPOSED WORK: IDRILL CONVERT DRILL DEEPER IDRILL OF STIMULATE PLUG OFF OLD FORMATION Image: Performance New Formation Image: Dotter Physical Change in Well (SPECIFY) Image: Dotter Physical Change in Well		
PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus Shale ESTIMATED DEPTH: 23,809' MD		
	SIGNATED AGENT: Diane C. White	
ADDRESS: <u>5260 Dupont Road</u> ADE Parkersburg, WV 26101	DRESS:5260 Dupont Road Parkersburg, WV 26101	



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HG Energy II Appalachia, LLC As-Drilled Well No. 1208 S-10H	
Detail 1 - Scale: 1* 10 Lease 1 Jerome B. Guarman 2 Leaman B. Maxwell Heirs 3 A.J. Smith, et ux 4 WL.& Flore Hughes 5 Hannah H. Smith 6 Hannah H. Smith 7 Page Hamer Thomas, et al 8 Howard Neely 9 W.A. Jackson 11 Pearl Real 12 William C. White 13 J.W. Jackson 14 C.H. Stanatkin, et ux 16 Gameti M. Corley 18 David Keeri Moss, et al	abar Rebar " Iron -pipe
Harrison County - Grant-Outside District No. TM / Par Owner Bk / Pg Ac. 1 425/31 Linda & William W. Brodwater III 1410 / 1045 247.84 2 445/12 Lisa M. Nutter W687 / 445 64.50 3 446 / 12 Lisa M. Nutter W687 / 445 64.50 4 445 / 10 Lisa M. Nutter W687 / 445 66.87 5 445 / 11 Lisa M. Nutter W687 / 445 66.87 6 445 / 23 Robert Allman, et al W177 / 231 32.84 8 445 / 23.2 Patricia T. Stamm 1341 / 1204 5.06 9 445 / 23.3 Daryl W. & Cheryl Lantz 1417 / 473 1.38 10 445 / 23.1 Daryl W. & Cheryl Lantz 1411 / 900 2.50 12 445 / 46 Jamee W. Riffle II & William L. Law 1385 / 259 140.43 13 465 / 6 John G. & Rebecca M. Moore 1421 / 350 353.80 15 445 / 1 John G. & Rebecca M. Moore 1421 / 350 353.80 15 445 / 1 Lisa M. Nutter 1577 / 738 87.78 Lewis County	33 15 30 * = 500° (4x) 32 10
29 8C / 57.1 Jack L. Frazier 524 / 498 13.50 30 8C / 58 William C. White W23 / 102 126.18 31 6 / 29 Ronzel C. & Sandra K. Richards 333 / 347 5.20 32 8C / 59 James E. & Louise K. Dyer 551 / 372 54.62 33 9C / 8 Rose Ann & Hunter Kolb W6 / 670 88.16 34 8C / 62.2 Timothy & Sharon Roses 629 / 775 1.21 35 8C / 61.2 Michael E. Moeller 644 / 274 1.17 36 8C / 61.2 Michael E. Moeller 674 / 3 2.40 38 8C / 61.4 Michael E. Moeller 674 / 3 10.38 39 8C / 62.1 Snider Construction 620 / 320 6.51	33 Reber w/cap
41 8C/62.5 Robert Stewart III 691/463 0.55	
(IF GAS) PRODUCTION : STORAGE DEEP SHALLOW Top - We LOCATION: ELEVATION: 1,147' WATERSHED: Middle West Fork Creek QUADRANGLE: Btm - We DISTRICT: Grant / Hackers Creek COUNTY: Harrison / Lev SURFACE OWNER: Linda & William W. Brodwater III ACREAGE: 200 COUNTY: ROYALTY OWNER: Leeman B. Maxwell Heirs, et al LEASE NO: ACREAGE: 247 PROPOSED WORK: XIDRILL CONVERT DRILL DEEPER XIFRACTURE OR STIMULATE PLUG OFF OLD FO PREFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)	21 7.84 DRMATION 7,017' TVD
WELL OPERATOR: HG Energy II Appelachia, LLC DESIGNATED AGENT: Diane C. White ADDRESS: 5260 Dupont Road ADDRESS: 5260 Dupont Road Parkersburg, WV 26101 Parkersburg, WV 26101 Parkersburg, WV 26101	