

### west virginia department of environmental protection

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

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

Friday, March 6, 2020 WELL WORK PERMIT Horizontal 6A / New Drill

HG ENERGY II APPALACHIA, LLC 5260 DUPONT ROAD

PARKERSBURG, WV 26101

Permit approval for ANTONIO 1206 S-10H

47-033-05987-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin

Chief

Operator's Well Number: ANTONIO 1206 S-10H

Farm Name: ANTONIO P., LLC

U.S. WELL NUMBER: 47-033-05987-00-00

Horizontal 6A New Drill Date Issued: 3/6/2020

API Number: 4703305997

### PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### **CONDITIONS**

- This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

API Number: 470 3305987

# PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, sending an email to DEPOOGNotify@wv.gov.

WW-6B (04/15)

API NO. 47	
OPERATOR WELL NO.	Antonio 1206 S-10H
Well Pad Name: Antoni	o 1206

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

1) Well Operator: HG E	nergy	II Appa	alachia, 📙	4945199	32	Harrison	Grant	West Milford 7.5'
, · · · ·				Operator		County	District	Quadrangle
2) Operator's Well Numb	er: Ant	tonio 12	206 S-10	- H	ell Pad	Name: Anton	io 1206	
3) Farm Name/Surface O	wner:	HG Energ	y II Appalach	ia, LLC Pub	lic Roa	d Access: Had	ckers Cree	k Rd @ SR 19
4) Elevation, current grou	ınd: _	1364'	Ele	evation, pro	posed	post-construction	on: 1350'	
5) Well Type (a) Gas	x		_ Oil		_ Unde	erground Storag	ge	
Other								
(b)If Gas	Shal	low	<u>x</u>	De	еер			
	Hori	izontal	<u>x</u>	·····				
6) Existing Pad: Yes or N	o No							
7) Proposed Target Forms	` '	•	• • •	-		•	essure(s):	
Marcellus at 7081'/7260	and 1/	9' in thi	CKNESS. A	nticipated p	ressure	at 4314#.		
8) Proposed Total Vertica	l Depth	725	2'					
9) Formation at Total Ver	tical De	epth: [	Marcellus					
10) Proposed Total Meas	ured De	pth: 2	27,405'					
11) Proposed Horizontal	Leg Ler	ngth: _	18,307'					
12) Approximate Fresh W	ater St	rata De	pths:	135', 480	', 637',	731'		
13) Method to Determine	Fresh V	Water D	epths: N	learest off	set wel	l data		
14) Approximate Saltwate	er Deptl	hs: No	saltwater de	epths found or	n WR35's	for offset wells, sa	It water expec	ted to be below elevation
15) Approximate Coal Se	am Dep	oths: 6	23', 1010'	to 1015' (	Surface	e casing is beir	ng extende	d to cover the coal)
16) Approximate Depth to	o Possib	ole Void	d (coal mi	ne, karst, o	ther): <u> </u>	None		
17) Does Proposed well le directly overlying or adjac				ns Yes		No	<u> </u>	
(a) If Yes, provide Mine	Info:	Name:						
.,		Depth	:					
		Seam:						
		Owner	r:					

WW-6B (04/15)

API NO. 47		
OPERATOR WELL	NO.	Antonio 1206 S-10H
Well Pad Name:	Antoni	0 1206

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

I) Well Operator: HG Energy	II Appalachia, L	494519932	Harrison	Grant	West Milford 7.5'
i) well operator.	N. I	Operator ID	County	District	Quadrangle
2) Operator's Well Number: Ar	ntonio 1206 S-10	H Well P	ad Name: Ante	onio 1206	
3) Farm Name/Surface Owner:	HG Energy II Appalach	ia, LLC Public R	oad Access: H	lackers Cre	ek Rd @ SR 19
4) Elevation, current ground:	1364' El	evation, propose	d post-construc	tion: 1350	'
5) Well Type (a) Gas X Other	Oil	Ur	derground Stor	rage	400
(b)If Gas Sha	allow x	Deep		- Indiana in the same	
Но	rizontal X				50W
6) Existing Pad: Yes or No No					1/23/2020
8) Proposed Total Vertical Dep 9) Formation at Total Vertical I	A A II	6			
9) Formation at Total Vertical I		8			
10) Proposed Total Measured D	Depth: 27,405'				
11) Proposed Horizontal Leg L	ength: 18,307'				
12) Approximate Fresh Water S	Strata Depths:	135', 480', 63	7', 731'		
13) Method to Determine Fresh	Water Depuis.	Nearest offset v			
14) Approximate Saltwater Dep	oths: No saltwater of	depths found on WR	35's for offset wells	, salt water exp	pected to be below elevation
15) Approximate Coal Seam D	epths: 623', 1010	0' to 1015'			
16) Approximate Depth to Poss			: None		
17) Does Proposed well location directly overlying or adjacent to		ms Yes	1	No X	
(a) If Yes, provide Mine Info	: Name:				-
	Depth:				
	Seam:				
	Owner:				

Office of Cil and Gas

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WW-6B (04/15) API NO. 47- OPERATOR WELL NO. Antonio 1206 S-10H
Well Pad Name: Antonio 1206

### 18)

### CASING AND TUBING PROGRAM

ТҮРЕ	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1100'	1100'	40% excess,CTS
Intermediate 1	13 3/8"	NEW	J-55	68	2200'	2200'	40% excess,CTS
Intermediate 2	9 5/8"	NEW	J-55	40	3000'	3000'	40% excess tail, CTS
Production	5 1/2"	NEW	P-110	23	27405'	27405'	20% excess tail, CTS
Tubing							
Liners							

5DW 1/23/2020

ТҮРЕ	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	24"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate1	13 3/8"	17 1/2"	.480	3450		Type 1/Class A	Lead 40% excess, Tail 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Lead 40% excess, Tail 0% Excess Lea
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/ClassA	20% excess yield = 1.19, tail yield 1.94.0
Tubing							
Liners							

### **PACKERS**

Kind:		
Sizes:		
Depths Set:		

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OPERATOR WELL NO. Antonio 1206 S-10H

Well Pad Name: Antonio 1206

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7252 feet. Drill horizontal leg to estimated 18,307' lateral length, 27,405' TMD. Hydraulically fracture stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ECP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500 psi.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 68.187 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 11.058 acres
- 23) Describe centralizer placement for each casing string:

No centralizers will be used with conductor casting. Freshwater - centralized every 3 joints to surface.

Coal - Bow Spring on every joint, will also be running ACP for isolating storage zone
intermedate - Bow Spring on every joint, will also be running ACP for isolating storage zone
intermedate - Bow Spring on that 2 joints then every third joint to 100° from surface.

Production - Run 1 spiral centralizer every 5 joints from the top of the curve to surface. Run 1 spiral centralizer every 3 joints from the 1st 5.5° long joint to the top of the curve.

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

Conductor -N/A, Casing to be diffied in w/ Dual Riciary Rig.
Frish Water 1-56 ppg PNEL -1 95 between Zeld 40 Excess Yield = 1.20, CTS
Intermediate 1 - 1.ead: 154 ppg PNEL -1 95 between Zeld 40 Excess / Tail: 153 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 153 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 153 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 153 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 153 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 153 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 154 ppg PNEL -1 2.5% bwoc Call (AV Excess / Tail: 154 ppg PNEL -1 2.5% bwoc MPA TO

25) Proposed borehole conditioning procedures:

Conductor - Ensure the hole is clean at TD.
Fresh Water - Once casing is at setting depth, circulate a minimum of one hole volume with Fresh Water prior to pumping cement.
Coal - Once casing is at setting depth, circulate and condition at TD. Circulate a minimum of one hole volume prior to pumping cement.
Intermediate - Once casing is at setting depth, Circulate and condition mut at TD. Circulate a minimum of one hole volume prior to pumping cement.
Production - Once on bottomTD With casing, circulate and condition mud at TD. Circulate a minimum of one hole volume prior to pumping cement.
Production - Once on bottomTD With casing, circulate at max silcoweble pump rate for at less 2t bottoms with our or until returns prior pressures indicate the hole is clean. Circulate a minimum of one hole volume prior to pumping cement.

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\*Note: Attach additional sheets as needed.

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### Antonio 1206 Well Pad (N-1H, N-2H, N-3H, N-4H, N-5H) <u>Cement Additives</u>

	Material Type	Material Description	CAS#			
		Premium NE-1 is a	Ingredient name	9	6	CAS number
		portland cement with	Portland cement	9	0 - 100	65997-15-1
		early compressive	Calcium oxide Magnesium oxide		- 5 - 5	1305-78-8 1309-48-4
emium NE-1	Portland Cement	strength properties.	Crystalline silica: Quartz (SiO2)		.1-1	14808-60-7
		Commonly called gel, it is				
		a clay material used as a	Ingredient name		%	CAS number
		cement extender and to	bentonite Crystalline silica: Quartz (SiO2)		90 - 100 5 - 10	1302-78-9 14808-60-7
		control excessive free water.	Graduite since. Godfic (SIO2)		h - 10	14808-00-7
ntonite	Extender	WESSEL.				
		A powdered, flaked or			F	
		pelletized material used	Ingredient name		%	CAS number
		to decrease thickening time and increase the rate	Calcium chloride		90 - 100	10043-52-4
		of strength development				
cium Chloride	Accelerator	20 20 20 20 20 20 20 20 20 20 20 20 20 2				
		Graded (3/8 to 3/4 inch)	ingredient name		%	CAS number
		cellophane flakes used as	No hazardous ingredient		***	OAS HUITIDE!
Plake	Variable (1997)	a lost circulation material.	L W L ZOSTO TO			
Flake	Lost Circulation					
		ED_131 is a close limited				
		FP-13L is a clear liquid organic phosphate				
		antifoaming agent used in	francisco de la constanta de l		Ter	
		cementing operations. It	Ingredient name		%	CAS number
		is very effective minimizing air	Tributyl phosphate		90 - 100	126-73-8
		entrapment and				
		preventing foaming				
		tendencies of latex				
13L	Foam Preventer	systems.				
V-2			Ingradiant name		Tay	loss western
		Used to retard cement	Ingredient name Sucrose		90 - 100	CAS number
nulated Sugar	Retarder	returns at surface.	Saul Vac		ao - 100	57-50-1
		A proprietary product				
		that provides expansive properties and Improves				
		bonding at low to	Ingredient name		%	CAS number
		moderate	Calcium magnesium oxide		90 - 100	37247-91-9
						01671-01-0
		temperatures.				
1						
1		temperatures.  Multi-purpose polymer additive used to control				
1		Multi-purpose polymer	Ingredient name		%	CAS number
		Multi-purpose polymer additive used to control	Ingredient name No házardous ingredient		%	CAS number
-1 PA-170	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss,			%	CAS number
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.			%	CAS number
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas			%	CAS number
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with			%	CAS number
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be	No hazardous ingredient			
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2)		% 5-10	CAS number
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be	No hazardous ingredient Ingredient name	0	%	
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	ОП	% 5-10	CAS number 14808-60-7
	Gas Migration	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cernent, Pozzolan can be used to create lightweight cernent slurries used as either a filler slurry or a sulfate resistant completion	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	Office	% 5-10	CAS number 14808-60-7
A-170		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	Office of	% 5-10	CAS number 14808-60-7
A-170	Gas Migration  Base	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cernent, Pozzolan can be used to create lightweight cernent slurries used as either a filler slurry or a sulfate resistant completion	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	Office of Oil	% 5-10	CAS number 14808-60-7
<b>-1</b> 70		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cernent, Pozzolan can be used to create lightweight cernent slurries used as either a filler slurry or a sulfate resistant completion	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	Office of Oil an	% 5-10	CAS number 14808-60-7
<b>-1</b> 70		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	FCFIVED of Oil and	% 5-10 1-5	CAS number 14808-50-7 1305-78-8
<b>-1</b> 70		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry	No hazardous ingredient  Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	of Ovant o	% 5-10	CAS number 14808-60-7
<b>\-17</b> 0		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide	Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	FCFIVED of Oil and	% 5 - 10 1 - 5	CAS number 14808-60-7 1305-78-8
-170		Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic acid salt	of Ovant o	% 5 - 10 1 - 5	CAS number 14808-60-7 1305-78-8
A-170	Base	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide	of Ovant o	% 5 - 10 1 - 5 % 40 - 50	CAS number 14808-60-7 1305-78-8  CAS number Trade secret.
A-170 (Fly Ash)	Base	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic acid salt  Ingredient name 2-Butoxvethanol	of Ovant o	% 5 - 10 1 - 5 % 40 - 50	CAS number 14808-60-7 1305-78-8  CAS number Trade secret.
A-170 (Fly Ash)	Base	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend the slurry thickening time.	Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic ecid salt  Ingredient name 2-Butoxyethanol Proprietary surfactant	of Ovant o	% 5 - 10 1 - 5 % 40 - 50 %	CAS number 14808-60-7 1305-78-8  CAS number Trade secret.  CAS number 111-76-2 Trade secret.
	Base	Multi-purpose polymer additive used to control free fluid, fluid loss, rheology, and gas migration.  A synthetic pozzolan, (primarily Silicon Dioxide). When blended with cement, Pozzolan can be used to create lightweight cement slurries used as either a filler slurry or a sulfate resistant completion cement.  A low temperature retarder used in a wide range of slurry formulations to extend	Ingredient name Crystalline silica: Quartz (SiO2) Calcium oxide  Ingredient name Organic acid salt  Ingredient name 2-Butoxvethanol	of Ovant o	% 5 - 10 1 - 5 40 - 50	CAS number 14808-60-7 1305-78-8  CAS number Trade secret.  CAS number

		The same of the hadronia			d Long String	8.5" Hole - Cemented Long String 5-1/2" 23# P-110 HP CDC HTQ		:	7252' TVD / 9098'	LP @ 725	
		X	<b>*</b>	×		7260	Onondaga	×	*	×	_×
				12.5ppg SOBM	7252	27405	(Production)		8.5" Lateral	woji	- W
			CTS	11.5ppq-	7260	7081	Marcellus				
	cement.	top of the curve.	Tail Yield=1.94		7081	6972	Hamilton				
	<	1st 5.5" long joint to the	20% Excess		6972	6864	Tully Limestone				
	minimum of one hole	every 3 joints from the	bwoc ASCA1 + 0.5% bwoc MPA170	OCDIV	6864	6854	Burkett	CDCHIC			
	pre		_	12.5ppg	6854	6783	West River	P-110 HP	8.5" Curve		
	returns and pump		0.35% bwoc R3 + 0.75	11.5ppg-	6783	6751	Middlesex	23#		×	×
rate for at   Production casing = 0.415"	allowable pump rate for at		MPA170		6751	6651	Cashaqua			,	
n/TD with	Once on bottom/TD with casing, circulate at max		EC1 + 0.75 gal/sk FP13L + 0.3% bwoc		6651	6395	Rhinestreet				
		surface.	bwoc R3 + 1% bwoc	Ī							
		top of the curve to	Lead: 14.5 ppg	SOBM	4525	4505	Benson		8.5 Vertical		
		every 5 joints from the		9.0ppg	3448	3438	Balltown		O FILL COLLEGE		
		Dun 1 eniral centralizer			3224	3204	Speechley			×	×
ment.	pumping cement.		zelo% Excess. C18		3000	0	Intermediate 2				
prior to Burst=3900 psi	hole volume prior to	surface	CaCl CTS	rolymer	2601 / 2931	2591 / 2891	Bayard / Warren			×	×
	Circulate a minimum of one	joint to 100' form	ppg PNE-1 + 2.5% bwoc	Salt	2527	2515	5th Sand	J-55 BTC	12.25"		
ate and Intermediate casing = 0.395"	depth, Circulate and	Bow Spring on first 2	2.5% bwoc CaCl	AIR / KCL	2272 / 2385	2232 / 2272	Gordon Stray / Gordon				
at setting	Once casing is at setting		Lead: 15.4 ppg PNE-1 +		2157 / 2200	2095 / 2182	Fifty / Thirty Foot			×	×
t.	cement.	storage zone*	zero% Excess. CTS		2200	0	Intermediate 1			<b>*</b>	
	minimum of one hole volume prior to pumping	ACP for isolating	ppg PNE-1 + 2.5% bwoc CaCl	Polymer	1770 / 2050	1658 / 1985	Injun / Gantz (Storage)	J-55 BTC	17.20	×	×
Circulate a wall thickness	condition at TD. Circulate a	"will also be running	40% Excess / Tail: 15.9	Salt	10/0/1000	10001 1000	rimeral rime	13-3/8" 68#	17 5"		
	Once casing is at setting depth, Circulate and	Bow Spring on every	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl	AIR / KCI	1575 / 1658	1555 / 1506	ittle/Rig lime				
	pumping cement.		Yield=1.20 / CTS		1100	0	Surface / FW			×	×
	of one hole volume with	joints to surface	40% Excess	AIR	1015	1010	Coal	94# J-55	24"	<b>×</b>	×
at setting a minimum   Surface casing = 0.438" wall	Once casing is at setting depth, circulate a minimum		15.6 ppg PNE-1 + 3%		135, 480, 637, 731	0	Fresh Water				
is clean at Conductor casing = 0.5" wall thickness.	Ensure the hole is clean at TD.	NIA	N/A, Casing to be drilled in w/ Dual Rotary Rig	AIR	120	0	Conductor	30" 157.5# LS	30"	×	×
NING COMMENTS	CONDITIONING	CENTRALIZERS	CEMENT	MUD	BASE	TOP	GEOLOGY	CASING	HOLE	DIAGRAM	WELLBORE DIAGRAM
14203754.97N 1825548.86E	1203754.97N	14	픋	S-10H BHL	1206 S		3°	159.798°		3	Azm
14220929.14N 1819229.21E	1220929.141	14	Ö	S-10H LP	1206 S			1350'		evation	<b>Ground Elevation</b>
14220504.1N 1815573.55E	4220504.1N	1	于	S-10H SHL	1206 S						
W/Panagrani	ounty, WV	Harrison County, WV						L	3		
office of Oli and Bas	S-10H ale Horizont	1206 S-10H Marcellus Shale Horizontal						ENERGY OF	m (		

### PROPOSAL TO DRILL WITHIN DOMINION TRANSMISSION STORAGE FIELD

FIELD/ZONES:

DOMINION FINK/KENNEDY/LOST CREEK-GANTZ SAND

WELL NAME: Antonio 1206

Well # Antonio 1206 S-10H

DISTRICT/COUNTY/STATE: Grant/Harrison/WV

Submitted

JOSH HINTON HG ENERGY, LLC

DATE 1/27/2020

**Dominion Energy Transmission** 

**Dominion Energy Transmission** 

### Comments:

HG Energy has submitted this Casing & Cementing diagram and Drilling Plan to Dominion Transmission for Review. This signed document acknowledges that Dominion has reviewed the proposed casing program and the well's location within the Fink/Kennedy/Lost Creek storage field. This acknowledgement also confirms the proposed casing program is accurate to the proper storage zone as provided by HG Energy, LLC

API N	0. 47				
0	PERATO	R WELL	NO.	Antonio	1206 S-10H
٧	Veli Pad	Name:	Antoni	1208	

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

1) Well Operat	or: HG Energy	II Appalachia,	494519932	Harrison	Grant	West Milford 7.5'
.,			Operator ID	County	District	Quadrangle
2) Operator's V	Well Number: An	tonio 1206 S-10	H Well Pad	Name: Anton	io 1206	
3) Farm Name	/Surface Owner:	HG Energy II Appalaci	Public Roa	d Access: Had	ckers Cree	k Rd @ SR 19
4) Elevation, co	urrent ground:	1364' E	evation, proposed	post-construction	on: <u>1350'</u>	
5) Well Type	(a) Gas X	Oil	Unde	erground Storag	ge	
	Other					
	<b>\-,</b>	llow X	Deep			
0711 7		rizontal X				
,	i: Yes or No No	) Doubles Autio	instad Thislenges	, and Essential De		
	•		ipated Thickness a Inticipated pressure	-	essure(s):	·
8) Proposed To	otal Vertical Dept	h: 7252'				
9) Formation a	t Total Vertical D	epth: Marcellus				
10) Proposed 7	Total Measured De	epth: 27,405'				
11) Proposed F	Iorizontal Leg Le	ngth: 18,307'				
12) Approxima	ate Fresh Water S	trata Depths:	135', 480', 637',	731'		
13) Method to	Determine Fresh	Water Depths:	Nearest offset wel	l data		
14) Approxima	ite Saltwater Dep	ths: No saltwater of	lepths found on WR35's	for offset wells, sa	ilt water expe	cted to be below elevation
15) Approxima	ate Coal Seam De	pths: 623', 1010	)' to 1015'		and the state of t	
16) Approxima	ate Depth to Possi	ible Void (coal m	ine, karst, other):	None		
· •	osed well location ing or adjacent to		ms Yes	No	x	
(a) If Yes, pro	ovide Mine Info:	Name:				
		Depth:				
		Seam:				
RECEIVED Office of Oil and	Ga <b>s</b>	Owner:				
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WW-6B	
(04/15)	

API NO. 47-\_\_\_\_
OPERATOR WELL NO. Antonio 1206 S-10H
Well Pad Name: Antonio 1206

### 18)

### CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	New	LS	157.5	120'	120'	Drilled In
Fresh Water/Coal	20"	NEW	J-55	94	1100'	1100'	40% excess,CTS
Intermediate 1	13 3/8"	NEW	J-55	68	2200'	2200'	40% excess,CTS
Intermediate 2	9 5/8"	NEW	J-55	40	3000'	3000'	40% excess tail, CTS
Production	5 1/2"	NEW	P-110	23	27405'	27405'	20% excess tail, CTS
Tubing							
Liners				100Minutes and 100 Minutes and			

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	30"	.500				Drilled In
Fresh Water/Coal	20"	24"	.438	2110	1200	Type 1, Class A	40 % excess yield = 1.20, CTS
Intermediate 1	13 3/8"	17 1/2"	.480	3450 🗸		Type 1/Class A	Lead 40% excess, Tell 0% excess
Intermediate 2	9 5/8"	12 1/4"	.395	3950		Type 1/Class A	Load 40% excess, Tail 0% Excess Lea
Production	5 1/2"	8 1/2"	.415	16240	12500	Type 1/CiassA	20% excess yield = 1.10, tail yield 1.54
Tubing							
Liners			HITTOIRE AND THE WHITE HE WAS A				

### PACKERS

Kind:	
Sizes:	
Depths Set:	

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MV Department of Environmental Protection

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API	NO. 47			
	<b>OPERATO</b>	R WELL	NO.	Antonio 1206 S-10H
	Well Dad	Name:	Antoni	o 1206

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

Drill the vertical depth to the Marcellus at an estimated total vertical depth of approximately 7252 feet. Drill horizontal leg to estimated 18,307' lateral length, 27,405' TMD. Hydraulically fracture stimulate and be capable of producing from the Marcellus Formation. Should we encounter an unanticipated void in the coal, we will install a minimum of 20' of casing below the void but not more than 100' below the void, set a basket and grout to surface. We plan to run an ECP above the Gantz/Dominion Storage interval to aid in sealing off and isolating the storage interval.

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

The stimulation will be completed with multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals. See attached list. Maximum pressure not to exceed 12,500

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 68.187 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 11.058 acres
- 23) Describe centralizer placement for each casing string:

25) Describe centralizer placement for each casing string.
No contratteres will be used with constactor centry. Programmer - constances every 2 juints as sustines. Programmer - constances every 2 juints as sustines. Court a Server Reprince on every 2 juint has be servedup ACIP for including alonses zone formanisme - feer displace on every 2 juint Server as the profession of the server and server as a server as

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

24) Beseties an content additives associated with each content type.
Conductor 4NA, Casing to be diffed in wif Datal Relative Ying - 1.25, core countries of the Part of th

25) Proposed borehole conditioning procedures:

Concation - Ensure the hole is clean at TD.  The Whiter-Choc caship is at esting depth, circulate a enhancer of one help volume with Prosit Viblaer-prior to paraging ceremat.  Doi: - Care caship is at esting depth, circulate and considers of TD. Circulate a enhancer of one hole volume pair to paraging ceremat.  The Care caship is at esting depth, Circulate and considers of TD. Circulate an enhancer pair to paraging ceremat.  Production - Choc caship is at esting depth, Circulate and considers and are to the constant of each pair depth paraging ceremat.  Production - Choc on british TD with caship, devokales is now observed pump rate for at least 2th britishs up, or until returns and pump preserved indicate the hole is close. Circulate  Production - Choc on british TD with caship, devokales is now observed pump rate for at least 2th britishs up, or until returns and pump preserved indicate the hole is close. Circulate	
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MAY Department of Environmental Protection

	1815573.55E	1819229.21E	1825548.86E	NG COMMENTS	clean at Conductor casing = 0.5" wall		t setting Surface casing = 0.438" wall	_	ent.	t setting e and Intermediate casing = 0.480"		umping grand	tsetting	e and Intermediate casing = 0.395"		rior to Burst=3950 psi	lant.				TD with	ate for at Production casing = 0.415"	p, or until wall thickness	-	late a schedules may be changed to hole due to hole conditions				***********		TD @ +/-7252' TVD
1206 S-10H Marcellus Shale Horizontal Harrison County, WV	14220504.1N 1815573.55E	14220929.14N 1819229.21E	14203754.97N 1825548.86E	CONDITIONING	Ensure the hole is clean at TD.		Once casing is at setting depth, circulate a minimum	of one hole votume with	pumping cement.		condition at TD, Circulate a minimum of one hole	volume prior to pumping cement.	Once casing is at setting		Circulate a minimum of one	hole volume prior to	pumping cement.	hr.	0		Once on bottom/TD with	allowable pump rate for at	least 2x bottoms up, or until	be	ar is clean. Circulate a	>	cement	o programa de la constitución de	dabet -		Jessie I B TOGGE )
1206 Marcellus Sh Harrison (		-	1	CENTRALIZERS	NIA			Centralized every 3 joints to surface		Bow Spring on every	"will also be running	slorage zone*		Bow Spring on first 2	Joints then every third joint to 100' form	surface		Run 1 spiral centralizer	every 5 joints from the	top of the curve to surface.					Run 1 spiral centralizer every 3 joints from the	1st 5.5" long joint to the	top of the curve.				V
	-	٥.	II.	CEMENT	N/A, Casing to be drilled in w/ Dual Rotary Rig		15.6 ppg PNE-1 + 3%	bwoc CaCl 40% Excess	Yield=1.20 / CTS	Lead: 15.4 ppg PNE-1 + 2.5% bwoc CaCl	40% Excess / Tail: 15.9 ppg PNE-1 + 2.5% bwoc	CaCl zero% Excess. CTS	Lead: 15.4 ppg PNE-1 +	2.5% bwoc CaCl	40% Excess / Tall: 15.9	CaCl	Zero% Excess. CIS		Land: 44 E and	POZ:PNE-1 + 0.3%	EC1 + 0.75 gal/sk	MPA170	Tail: 14.8 ppg PNE-1 +	gal/sk FP13L + 50%	bwoc ASCA1 + 0.5%		Lead Yield=1.19	CTS			V
	1206 S-10H SHL	1206 S-10H LP	1206 S-10H BHI	MUD	AIR			AIR		AIR / KCI		royme		AIR / KCI	Saft	Polymer			9.0ppg	SOBM			11.5000-	12.5ppg	SOBM			44 Knnd.	12.5ppg	Mados	<b>\</b>
	1206 S	1206	1206 S	BASE	100	120	135, 480, 637, 731	1015	1100	1676 / 1669	1770 / 2050	2200	2157 / 2200	2272/2385	2527	2601 / 2931	3000	3224	3448	4525	6651	6751	6783	6854	6864	6972	7081	7260	7252		Long String
				TOP		•	0	1010	0	4666 / 4600	1658 / 1985	) .	2095 / 2182	2232 / 2272	2515	2591 / 2891	0	3204	3438	4505	6395	6651	6751	6783	6854	6864	6972	7081	27405	7260	8.5" Hole - Cemented Long String
			8°	GEOLOGY		Conductor	Fresh Water	Coal	Surface / FW	owi I vidioliti	Injun / Gantz (Storage)	Intermediate 1	Fifty / Thirty Foot	Gordon Stray / Gordon	5th Sand	Bayard / Warren	Intermediate 2	Speechley	Balltown	Benson	Rhinestreet	Cashaqua	Middlesex	West River	Burkett	Tully Limestone	Hamilton	Marcellus	(Production)	Onondaga	8.8
Line Grand		1350'	159.798°	CASING	30" 157.5#			20" 94# J-55		1	13-3/8" 68# J-55 BTC	1			9-5/8" 40# J-55 BTC								5-1/2"	P-110 HP	CDC HTQ						<
ū				HOLE	30.			24"			17.5"				12.25"				8.5" Vertical					8.5" Curve					8.5" Lateral		LP @ 7252' TVD / 9098'
		Ground Elevation	Azm	WELLBORE DIAGRAM		*		×	×		×		×			×		×			1	, e <sup>-1</sup> :	×	, mg.	5,11		1 / - V			×	LP @ 7252

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VE	Jo .		ANTONIO 1.	AINTOINIO 1200 SOUTH DIVIT AIND PROPOSED		chicalina	- with 110			
ט	API	COUNTY	FARM	OPERATOR NAME	FORMATION NAME	WELL TYPE	DVT	STATUS	LATITUDE	LONGITUDE
1	4703300038	HARRISON	B Swisher 2 CW417	Dominion Energy Transmission, Inc.	Gordon Stray	Storage	2350	ACTIVE	39.126611	-80.354494
2	4703300297	HARRISON	West	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1868	ACTIVE	39.135172	-80.374098
3	4703300301	HARRISON	John M McWhorter	Trio Petroleum Corporation	Hampshire Grp	Gas	2375	PLUGGED	39.129015	-80.376251
4	4703300306	HARRISON	A L West	Dominion Energy Transmission Inc.	Hampshire Grp	Gas	2340	ACTIVE	39.136607	-80.378501
5	4703300311	HARRISON	G Manley Curry	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2020	ACTIVE	39.139325	-80,362560
9	4703300313	HARRISON	A L West	Dominion Energy Transmission Inc.	Gantz	Storage	1956	ACTIVE	39.137413	-80.382384
7	4703300314	HARRISON	J M McWhorter	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2185	PLUGGED	39.139183	-80.370227
00	4703300325	HARRISON	Curry	Dominion Energy Transmission, Inc.	Hampshire Grp	Storage	1729	ACTIVE	39.143102	-80.362213
6	4703300330	HARRISON	P A Davisson	Dominion Energy Transmission, Inc.	Gantz	Storage	1983	ACTIVE	39.136911	-80,367064
01	4703300339	HARRISON	Alton Bell CW-333	Dominion Energy Transmission, Inc.	Gantz	Storage	1959	ACTIVE	39.158620	-80.376275
11	4703300347	HARRISON	Herman Nixon	Dominion Energy Transmission, Inc.	not available	not available		ABANDONED	39.122387	-80.361419
12	4703300355	HARRISON	Fred H Smith CW-334	Dominion Energy Transmission, Inc.	Gantz	Storage	2012	ACTIVE	39.158950	-80.372286
13	4703300363	HARRISON	A Bell	Dominion Energy Transmission Inc.	Thirty-foot	Storage	2150	PLUGGED	39.158029	-80.381243
14	4703300399	HARRISON	L Davisson	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2042	PLUGGED	39.144408	-80.364636
15	4703300547	HARRISON	Maude Davisson	Dominion Energy Transmission, Inc.	Benson	Gas	4530	ACTIVE	39.144146	-80,372692
9	4703300579	HARRISON	Ode Bright	Dominion Energy Transmission Inc.	Benson	Gas	4595	ACTIVE	39,137253	-80,380576
7	4703300595	HARRISON	C E Snider	Dominion Energy Transmission Inc.	Benson	Gas	4620	ACTIVE	39.153667	-80,389060
00	4703300610	HARRISON	David H Nutter	Dominion Energy Transmission, Inc.	Benson	Gas	4412	ACTIVE	39.136470	-80.369890
9	4703300629	HARRISON	C Earl Snider	Dominion Energy Transmission Inc.	Thirty-foot	Storage	1949	ACTIVE	39.155591	-80.386677
00	4703300631	HARRISON	C E Hickman	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2094	ACTIVE	39.150163	-80.390145
11	4703300633	HARRISON	Flossie Davisson	Dominion Energy Transmission, Inc.	Gordon	Storage	1814	ACTIVE	39.147967	-80.376397
12	4703300634	HARRISON	Nora Davisson	Dominion Energy Transmission, Inc.	Fifty-foot	Gas	2072	ABANDONED	39.142236	-80.376677
33	4703300635	HARRISON	C W Snider CW231	Dominion Energy Transmission, Inc.	Gordon	Storage	1946	ACTIVE	39.152100	-80.386365
4	4703300639	HARRISON	Sophia McWhorter	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2121	ACTIVE	39.132963	-80.356778
5	4703300644	HARRISON	P M White	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1825	ACTIVE	39.129169	-80.380402
26	4703300645	HARRISON	N A McWhorter	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	2050	ACTIVE	39.131083	-80.362021
27	4703300650	HARRISON	S McWhorter CW312	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1892	ACTIVE	39.128533	-80.363342
28	4703300651	HARRISON	Allen M Dyer CW320	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2050	ACTIVE	39.139952	-80.364713
29	4703300725	HARRISON	W E Ware CW325	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	1985	ACTIVE	39,142666	-80.360350
30	4703300743	HARRISON	Petitto Brothers Inc	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1988	ACTIVE	39.151385	-80.379306
31	4703300765	HARRISON	L Gifford CW331	Dominion Energy Transmission, Inc.	Fifth	Storage	2495	PLUGGED	39.154858	-80.368549
0	COTOCCOTA	HABBICON	OCC.WO35-:211	Dominion Engray Transmission Inc	Eifty-foot	Chorage	0000	ACTIVE	20172119	759585 08-

4703300808 HARRISON 4703300809 HARRISON 4703300809 HARRISON	Charles R Sutton							
HARRISON	Citation is particul	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4579	ACTIVE	39.141189	-80.362910
HARRISON	Lloyd Stout CW330	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Storage	2160	ACTIVE	39.152853	-80.372851
HABBICON	Lloyd Stout CW234	Dominion Energy Transmission, Inc.	Mid Devonian	not available	4793	PLUGGED	39,155225	-80.378746
HANNISON	N A McWhorter	Dominion Energy Transmission, Inc.	Benson	Storage	4400	ACTIVE	39.130759	-80.365169
HARRISON	L Prince CW213	Dominion Energy Transmission, Inc.	Thirty-foot	Storage	1974	ACTIVE	39.131201	-80.378911
HARRISON	N E Davisson	Dominion Energy Transmission, Inc.	Brallier	Gas	4989	ACTIVE	39.148180	-80.378194
4703302163 HARRISON	N McWhorten	Dominion Energy Transmission, Inc.	not available	Storage	î	ACTIVE	39,134829	-80.360453
4703302342 HARRISON	N A McWhorter	Dominion Energy Transmission, Inc.	Benson	Gas	4440	ACTIVE	39.132628	-80,364331
4703304027 HARRISON	Jack Shock etux 2	Ross & Wharton Gas Company, Inc.	Benson	Gas	4400	ACTIVE	39,125018	-80.377732
4703304058 HARRISON	Jack Shock etux 3	Ross & Wharton Gas Company, Inc.	Greenland Gap Fm	Gas	5102	ACTIVE	39.127194	-80.373262
4703304634 HARRISON	Rudy L McWhorter	Dominion Energy Transmission, Inc.	Benson	Gas	4551	ACTIVE	39.140605	-80.374607
4703304742 HARRISON	Robert Nelson Rector	Dominion Energy Transmission, Inc.	Hampshire Grp	not available	3183	PLUGGED	39.148072	-80.368972
4703304802 HARRISON	Vernon D Cochran Jr	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4641	ACTIVE	39.120647	-80.356801
4703304803 HARRISON	Chas R/F L Sutton	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4426	ACTIVE	39.122550	-80.352193
4703304813 HARRISON	Charles R & Franklin L Sutton	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4440	ACTIVE	39.128841	-80.360416
4703305562 HARRISON	William F & Mary A Reel	Dominion Energy Transmission, Inc.	Benson	Gas	4600	ACTIVE	39.133568	-80.380312
4703305736 HARRISON	Rudy L McWhorter	Dominion Energy Transmission, Inc.	Benson	Gas	4700	ACTIVE	39.141141	-80.370130
4703330820 HARRISON	E F Randolph	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4200	UNKNOWN	39.12103	-80.352489
4703331897 HARRISON	W M West CW275	Dominion Energy Transmission, Inc.	Gordon	not available	2492	UNKNOWN	39.140902	-80.378922
4703331899 HARRISON	JN Rector	Dominion Energy Transmission, Inc.	not available	not available	4390	PLUGGED	39.147409	-80.365129
4703331901 HARRISON	SJ Davisson	Dominion Energy Transmission, Inc.	Thirty-foot	not available	2330	PLUGGED	39.154343	-80,365053
4703331904 HARRISON	B Swisher CW420	Dominion Energy Transmission, Inc.	Fifty-foot	Storage	2190	ACTIVE	39.132479	-80.354236
4703373731 HARRISON	Hazel Kieffer	Dominion Energy Transmission, Inc.		Gas	4530	ACTIVE	39.146203	-80.383580
4704101757 LEWIS	Fleming Howell	Dominion Energy Transmission, Inc.	Benson	Gas	4585	ACTIVE	39.116432	-80.369601
4704102969 LEWIS	M Edmonds cw-212	Dominion Energy Transmission, Inc.	Thirty-foot	Observation	2067	ACTIVE	39.119406	-80.376628
4704105056 LEWIS	Franklin Hicks	Dominion Energy Transmission, Inc.	Misc Sands-BNSN/BRLR	Gas	4287	ACTIVE	39.115377	-80.352876
4704105224 LEWIS	Rose Ann & John Hunter Kolb	Dominion Energy Transmission, Inc.	Greenland Gap Fm	Gas	4450	ACTIVE	39.116102	-80.357902

# SOURCE: WVGES DATASET (2017) and WVDEP WEBSITE



WW Date Environments

API Number 47 -	
Operator's Well No.	Antonio 1206 S-10H

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

### FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name HG Energy II Appalachia, LLC	OP Code 494501907
The Control of the Co	angle West Milford 7.5'
Do you anticipate using more than 5,000 bbls of water to complete the prop	osed well work? Yes V No
Will a pit be used? Yes No V	
If so, please describe anticipated pit waste: NA	
Will a synthetic liner be used in the pit? Yes No	If so, what ml.?
Proposed Disposal Method For Treated Pit Wastes:	Sow
Land Application	50W
Underground Injection (UIC Permit Number_	
Reuse (at API Number TBD - At next anticipated well	
Off Site Disposal (Supply form WW-9 for dispo	sal location)
Will closed loop system be used? If so, describe: Yes, cuttings and fluids will be collected	in a closed loop system, re-used or hauled to an approved disposal site or landfill.
Drilling medium anticipated for this well (vertical and horizontal)? Air, free	shwater, oil based, etc. Verlical - Air, Air/KCL, SOBM, Horizontal - SOBM
-If oil based, what type? Synthetic, petroleum, etc. Synthetic	
Additives to be used in drilling medium? Water, Soap, KCI, Barite, Base Oil, W	etting Agents
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc	Approved Landfill
-If left in pit and plan to solidify what medium will be used? (cem	ent, lime, sawdust) NA
-Landfill or offsite name/permit number? See Attached	-
Permittee shall provide written notice to the Office of Oil and Gas of any low West Virginia solid waste facility. The notice shall be provided within 24 how where it was properly disposed.	
I certify that I understand and agree to the terms and conditions of on August 1, 2005, by the Office of Oil and Gas of the West Virginia Depar provisions of the permit are enforceable by law. Violations of any term of law or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined a application form and all attachments thereto and that, based on my incontaining the information, I believe that the information is true, accurate penalties for submitting false information, including the possibility of fine of	tment of Environmental Protection. I understand that the r condition of the general permit and/or other applicable and am familiar with the information submitted on this quiry of those individuals immediately responsible for e, and complete. I am aware that there are significant
Company Official Signature Diane White	RECTIVED
Company Official (Typed Name) Diane White	Officerof Orland Gas
Company Official Title Agent	J/M 8 0 2020
Subscribed and sworn before me this 23rd day of January	, 20 20
Con 1 L. Roy 1	
My commission expires 7 31 2022	Notary Public  OFFICIAL SEAL STATE OF WEST VIRGINIA NOTARY PUBLIC CASSIDY A. BOARDMAN
	5301 13th Ave Vienna, WV 2610 My Commission Expires July 31, 2

Proposed Revegetation Treat	tment: Acres Disturb	oed 68.187 Preve	egetation pH _	
Lime	3 Tons/acre or to	correct to pH 6.5		
Fertilizer type10	-20-20			
Fertilizer amount_		500 lbs/acre		
<sub>Mulch</sub> Hay		2 Tons/acre		
		Seed Mixtures		
Te	emporary		Permaner	nt
Seed Type	lbs/acre	Seed T	ype	lbs/acre
Tall Fescue	40	Tall Fescue		40
Ladino Clover	5	Ladino Clove	r	5
Attach: Maps(s) of road, location, pit provided). If water from the p acreage, of the land applicati	t and proposed area f pit will be land appli on area.	or land application (unless engineered ed, include dimensions (L x W x D) of sheet.	plans including	g this info have been mensions (L x W), and a
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## Cuttings Disposal/Site Water

Cuttings -Haul off Company:

Eap Industries, Inc. DOT # 0876278 1875 Smith Two State Rd. Atlasburg, PA 15004 1-888-284-5227

Waste Management 200 Rangos Lana Washington, PA 15301 724-222-3272

Environmental Coordination Services & Recycling (ECS&R) E297 US Highway 19 Cochranton, PA 16914 814-425-7778

### Disposal Locations:

Apex Environnemental, LLC Permit # 06-08488 11 County Road 78 Amsterdam, OH 48908 740-548-4889

Westmoreland Waste, LLC Fermit # 1,00277 111 Conner Lane Belle Vernon, PA 15012 724-929-7694

Sycamore Landfill Inc. Fermit #R80-079001 05-2010 4301 Sycamore Ridge Road Hurricane, WV 25526 304-562-2611

Max Environnemental Technologies, Inc. Facility Permit # PAD004895146 / 901071 283 Max Lane Yukon, PA 25968 724-722-3500

Max Environnemental Technologies, Inc. Facility Permit # PADOS087072 / 201359 200 Max Drive Bulger, PA 15018 724-796-1571

Waste Management Kelly Run Permit # 100663 1901 Park Side Drive Elizabeth, PA 16087 412-364-7669

Wasta Management South Hills (Arnoni) Permit # 100582 8100 Hill Road Library, PA 15129 724-848-7018 412-884-7569

Waste Management Arden Fermit # 100172 200 Rangos Lane Washington, PA 15301 724-222-3272

Waste Management Meadowfill Permit # 1032 1.458 Dawson Drive Bridgeport, WV 26330

Brooks County Landfill Permit # SWF-108-97 / WV 0109029 Rd 2 Box 410 Colliers, WV 26035 304-748-0014 Office of Oil and Cas

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WW Denariment of Environment List Protection

Wetzel County Landfill Permit # SWF-1021-97 / WV 0109186 Rt 1 Box 158A New Martinaville, WV 26035 804-465-3800

Energy Solutions, LLC Permit # UT 2500249 428 West 200 South Suite 200 Salt Lake City, UT 84101

Energy Solutions Services, Inc. Permit # R-78006-L24 1,560 Bear Creak Road Oak Ridge, TN 97880

Northern A-1 Environnemental Services Permit ID MID020906814 2947 US 121 North, PO Box 1030 Kalkaska, MI 49646 281-268-9961

### Water Haul off Companies:

Dynamic Structures, Clear Creek DCT #720485 8790 State Route 7 New Waterford, OH 44445 830-892-0164

Nabors Completion & Production Services Co. PO Box 976682 Dalles, TX 75997-5682

Select Energy Services, LLC FO Box 208997 Dallas, TX 75320-8997

Nuverra Environmental Solutions 11942 Veterans Memorial Highway Masontown, WV 26542

Mustang Olifield Services LLC PO Box 739 St. Ciairsville, OH 43950

Wilson's Outdoor Services, LLC 456 Cracraft Road Washington, PA 15801

### Disposal Locations:

Solidification
Waste Management, Arden Landfill Permit # 100172
200 Rangos Lane
Washington, PA 15301
724-225-1589

Solidification/Incineration
Soil Remediation, Inc. Permit # 02-20758
6065 Arrel-Smith Road
Lowelville, OH 44486
880-586-6825

Adams #1 (Buckeye Brine, LLC) Permit # 84-091-2-7177 29986 Airport Road Coshooton, OH 49812 740-575-4484 512-478-6545 CMS of Dalaware Inc. DBA CMS Olifield Serv 301 Commerce Orive Moorestown, NJ 08057

Force, Inc. 1980 Rts. 286 Hwy. E, Suite 202 Indiana, PA 15701

Solo Construction P.O. Box 544 St. Mary's, WV 26170

Equipment Transport 1 Tyler Court Carlisle, PA 17018

Myers Well Service, \_\_\_ 2001 Ballpark Court Export, PA 15682

Burna Drilling & Excavating 618 Crabappia Road P.O. Box Wind Ridge, PA 16880

Nichlos 1-A (SWIW #18) Permit # 8862 300 Cherrington Pkwy, Suite 200 Coraopolis, PA 16108 412-829-7275

Groselle (SWIW #34) Permit # 4096 Rt. 88 Garrettsville, OH 719-276-4816

Kemble 1-D Well Permit # 8780 7675 East Pike Norwich, Oh 42767 614-648-8898 740-796-6495 Adams #2 (Buckeye Brine, LLC) 2205 Westover Road Austin TX 78708 Permit # 34-081-2-7178 740-575-4484 612-478-6645

Adams #2 (Buckeye Brîne, LLC) Permit #24-031-2-7241-00-00 2680 Exposition, Sulte 117 Austin, TX 78703 612-478-6545

Mozena #1 Well (SWIW # 18) Permit # 84-157-2-5511-00-00 6867 E. State Street Newcomerstown, OH 48882 740-768-8966

Goff SWD #1 (SWIW # 27) Permit # 84-119-2-8776-000 300 Cherrington Pkwy, Suite 200 Coreopolis, PA 15108 412-829-7275

SOS D#1 (SWIW #12) Permit # 84-059-2-4202-00-00 Silcor Olifield Services, Inc. 2959 Hubbard Road Youngstown, PH 44505

Dudley #1 UIC (SWIW #1)
Permit # 84-121-2-2459-00-00
Select Energy Services, LLC
7694 S. Pleasants Hwy
St. Marys, WV 26170
804-669-2652

OH UIC #1 Bu keys UIC Barnesville 1 & 2 CNX Gas Con...any, LLC 1000 Consol Energy Drive Permit # 84-018-2-0609-00-00 Permit # 34-013-2-0614-00-00 804-828-6668

US Steele 11386 Permit # 47-001-00561 200 Evergreen Drive Waynesburg, PA 15730 804-828-6568

Chapin #7 UIC (SWIW #7) Permit # 84-083-2-4187-00-00 Elkhead Gas& Oil Company 12163 Merne Rd. NE Newark, OH 48055 740-768-8966

Office of Oil and cas

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WWDepartment of Environaclust Figuresian

### HG Energy II Appalachia, LLC

# **Site Safety Plan**

Antonio 1206 Well Pad 5279 Duck Creek Road Lost Creek Harrison County, WV 26385

September 2019: Version 1

For Submission to
West Virginia Department of Environmental Protection,
Office of Oil and Gas

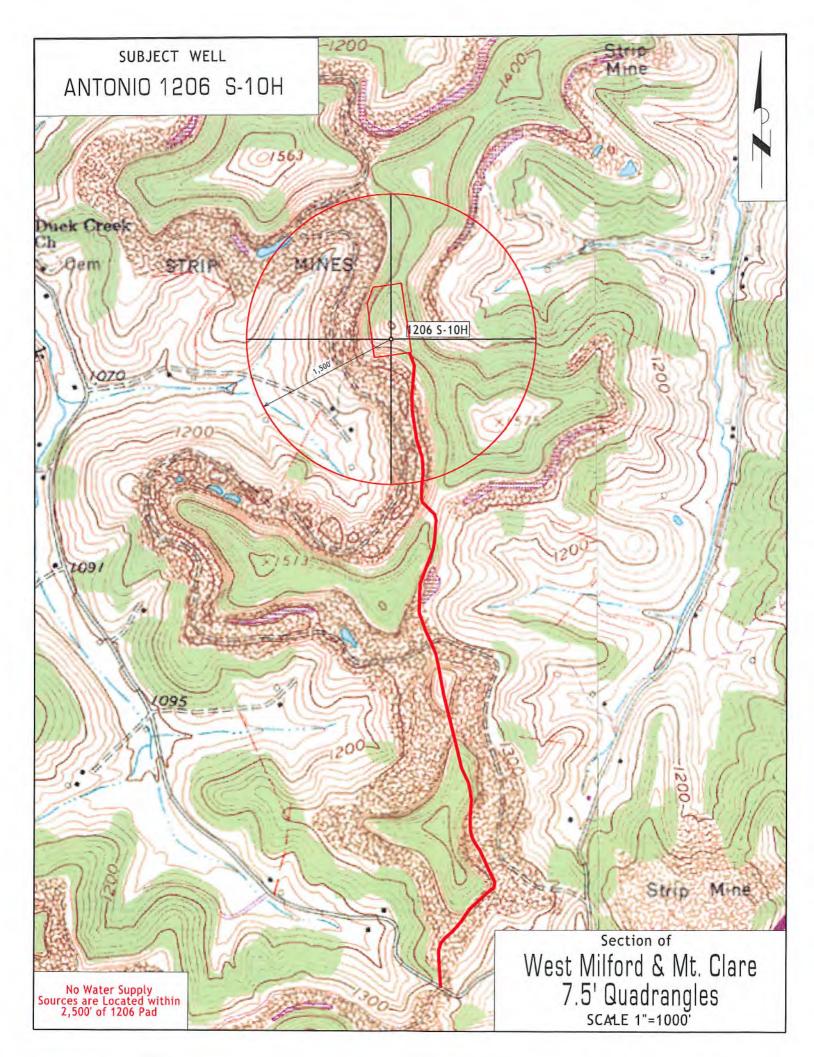
HG Energy II Appalachia, LLC

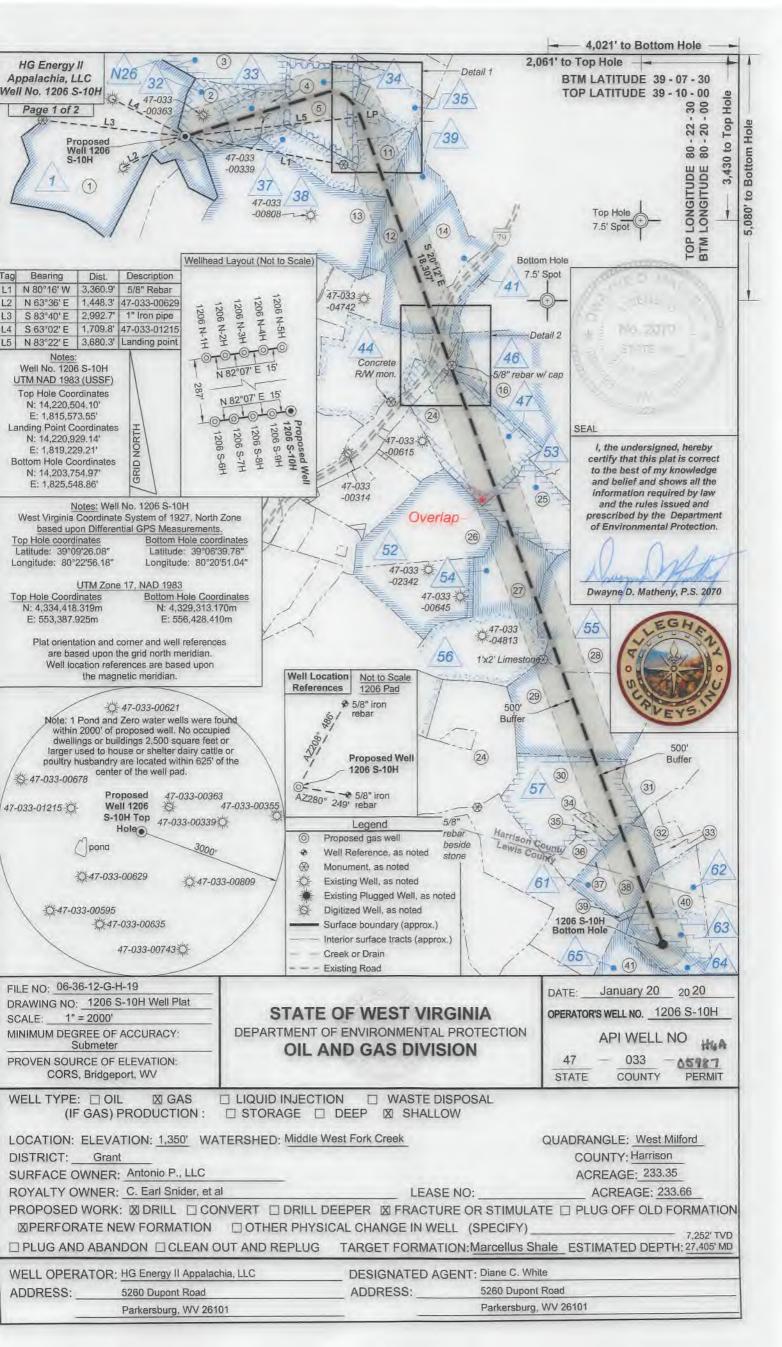
5/20/2020

5260 Dupont Road

Parkersburg, WV 26101







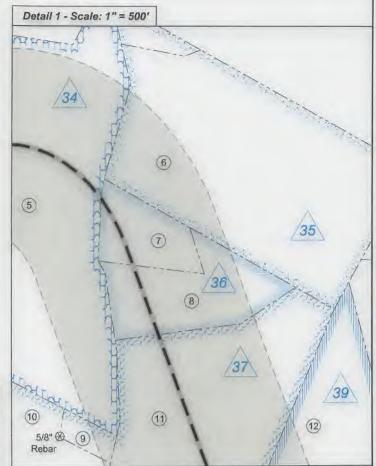
HG Energy II Appalachia, LLC Well No. 1206 S-10H

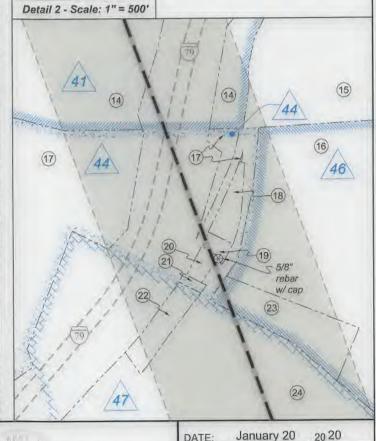
Page 1 of 2



ID	Lease
1	C. Earl Snider, et al
32	Alton Bell, et al
33	Alton Bell
34	Marcella R. Bond, et al
35	Mary E. Kennedy, et al
36	J.C. McWhorter, et al
37	Lillie Gifford, et al
38	Lloyd Stout, et al
39	S.J. Davisson
41	J.N. Rector, et al
44	Lucy Davisson
46	Willa E. Ware, et al
47	G. Manley Currey, et al
52	N.A. McWhorter, et al
53	G. Manley Currey, et al
54	Sopha McWhorter, et al
55	B. Swisher, et ux
56	Sopha McWhorter, et al
57	Alcinda B. Jackson, et vir
61	Ella Goodwin, et al
62	A.S. Holbert
63	N.J. Melton
64	N.J. Melton
65	B.B. Curtis, et al
N26	Marcella R. Bond, et al

		Harrison County - Grant Outside District		
No.	TM / Par	Owner	Bk / Pg	Ac.
1	426 / 71	Antonio P., LLC	1503 / 291	233.35
2	426 / 72	Charles R. & Franklin L. Sutton	1301 / 98	30,00
3	426 / 63	Charles R. & Franklin L. Sutton	1301 / 98	51.33
4	426 / 73	Charles R. & Franklin L. Sutton	1301 / 98	22.96
5	426 / 74	Harriet June Ferree	1514 / 480	60.30
6	426 / 77	Kenneth E. Rigdon	1569 / 903	28.26
7	426 / 75	Dale & Lepha Ables, et al	F119 / 565	3.00
8	426 / 76	Frances Phares, et al	W166 / 606	7.00
9	446 / 4.1	Johnny & Emmalie Maxwell	1453 / 980	0.98
10	446 / 4	Bob R. Blankenship	1310 / 740	27.67
11	446 / 5	Kathy D. Bennett	W184 / 51	20.38
12	446 / 6	Robert N. Rector	1621 / 719	49.33
13	446 / 3	Antonio P., LLC	1503 / 291	200.00
14	446 / 24	Robert N. Rector	1621 / 719	82.90
15	446 / 28.2	David D. Vanhorn, et al	W177 / 92	42.66
16	446 / 38	Sandra J. Hogsed	1257 / 137	70.16
17	446 / 34	David & Daniel Curry	1451 / 987	97.41
18	446 / 34.1	Corey Alan Rudder	1537 / 200	0.79
19	446 / 34.2	Corey Alan Rudder	1537 / 200	0.29
20	446 / 34.4	Sheila K. Frazier	1536 / 1056	0.38
21	446 / 36.1	Sarah M. Hogsed	1434 / 1034	0.15
22	446 / 48.1	Karen Stronsider	F118 / 483	0.75
23	446 / 37	Sandra J. Hogsed	1123 / 956	3.00
24	446 / 48	Charles R. & Franklin L. Sutton	/	88.00
25	446 / 19	Charles R. & Franklin L. Sutton	1284 / 75	63.00
26	466 / 18	Charles R. & Franklin L. Sutton	1420 / 1107	82.50
27	466 / 38	Charles R. & Franklin L. Sutton	1342 / 1173	123.00
28	467 / 29.1	Charles R. & Franklin L. Sutton	1170 / 396	129.6
29	466 / 56	Charles R. & Franklin L. Sutton	1170 / 396	110.00
30	466 / 71	Joyce A. & Vernon D. Cochran, Jr.	1253 / 240	91.79
31	467 / 49	Charles R. & Franklin L. Sutton	1234 / 635	105.17
32	487 / 2	Mark Hutson	1410 / 156	10.17
33	487 / 10	Donley W. & Mark Hutson	1410 / 164	6.85
34	466 / 71.1	Tracy L. Hebb	1417 / 782	4.16
35	466 / 71.2	Tracy L. Smith	1358 / 1193	5.00
		Lewis County - Hackers Creek District		
No.	TM / Par	Owner	Bk/Pg	Ac.
36	9C / 48	Everet Randolph	W28 / 236	12.11
37	10C / 22	Leonard C. & Cynthia L. Riley	/	1.00
38	9C / 41	Elizabeth J. Hicks	W26 / 481	47.37
39	10C / 19	Myrtle B. Arbogast	W17 / 218	1.20
40	10C/2	Myrtle B. Arbogast	W17 / 218	78.64
41	10C/4	Myrtle B. Arbogast	W17 / 218	48.90





Parkersburg, WV 26101

FILE NO: 06-36-12-G-H-19
DRAWING NO: 1206 S-10H Well Plat
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY:
Submeter

PROVEN SOURCE OF ELEVATION: CORS, Bridgeport, WV

Parkersburg, WV 26101

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

OPERATOR	S WELL NO.	1206 S-10H
	API WEI	LL NO HAR
47	- 033	- 05967
STATE	COUN,	TY PERMIT

WELL TYPE: ☐ OIL ☐ GAS ☐ LIQUID INJECTION (IF GAS) PRODUCTION: ☐ STORAGE ☐ D		
LOCATION: ELEVATION: 1,350' WATERSHED: Middle West DISTRICT: Grant SURFACE OWNER: Antonio P., LLC	st Fork Creek	QUADRANGLE: West Milford COUNTY: Harrison ACREAGE: 233.35
ROYALTY OWNER: C. Earl Snider, et al	LEASE NO:	ACREAGE: 233.66
PROPOSED WORK: ☑ DRILL ☐ CONVERT ☐ DRILL DEE ☑ PERFORATE NEW FORMATION ☐ OTHER PHYSICA ☐ PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG	AL CHANGE IN WELL (SPECIF	Y) 7,252' TVD
WELL OPERATOR: HG Energy II Appalachia, LLC ADDRESS: 5260 Dupont Road	DESIGNATED AGENT: Diane C. ADDRESS: 5260 Du	White pont Road

### INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE Chapter 22, Article 6A, Section 5(a)(5) IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or				
Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page

\*\*See Attached Sheets\*\*

### Acknowledgement of Possible Permitting/Approval In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

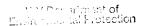
The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator:	HG Energy II A	Appalachia, LLC	
By:	Diane White	Diane White	
Its:	Accountant		

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Page 1 of

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# HG Energy II Appalachia, LLC Antonio 1206 S-10H Lease Chain

34		33	32	<b>1206</b> Tract
LC066665		LC066627	LC066828	LEGACY LEASE NUMBER
12-0426-0074-0000		12-0426-0073-0000	12-0426-0072-0000	ТАХ МАР
Q100640000		Q100876000	Q100892000	LEASE NUMBER
DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  CNX GAS COMPANY LLC  DOMINION TRANSMISSION, INC.  CNX GAS COMPANY LLC  CNX GAS COMPANY LLC	MARCELLA R. BOND AND H. D. BOND, HER HUSBAND HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CONG TRANSMISSION CORPORATION	ACLION BELL, SINGLE HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CING TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CINX GAS COMPANY LLC DOMINION TRANSMISSION, INC. CINX GAS COMPANY LLC COX GAS COMPANY LLC DOMINION TRANSMISSION, INC. DOMINION TRANSMISSION, INC. DOMINION TRANSMISSION, INC. DOMINION TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC.	ALTON BELL, SINGLE; MARCELLA R. BOND AND KARLEY D. BOND, HER HUSBAND; MARY E. KENNEDY, WIDOW; DORSEY C. KENNEDY AND VELMA ICE KENNEDY, HIS WIFE; LELA K. RUMBLE, WIDOW; MARTHA F. WILSON, WIDOW; HARRY W. KENNEDY AND LILLIAN KENNEDY, HIS WIFE; JOHN L. KENNEDY AND REVA B. KENNEDY, HIS WIFE; SUE K. SWISHER, WIDOW; KATHRYN BUTLER AND THURMAN BUTLER, HER HUSBAND; EVA WOLFE AND LYNN B. WOLFE, HER HUSBAND; S. G. KENNEDY AND JESSIE L. KENNEDY, HIS WIFE HOPE NATURAL GAS COMPANY CONSOLIDATED GAS TRANSMISSION CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CONSOLIDATED GAS TRANSMISSION, INC. CINX GAS COMPANY LLC DOMINION TRANSMISSION, INC. CONS GAS COMPANY LLC DOMINION TRANSMISSION, INC. DOMINION TRANSMISSION, INC. DOMINION TRANSMISSION, INC. DOMINION TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC.	GRANTOR/LESSOR
CNX GAS COMPANY LLC  CNX GAS COMPANY LLC  NOBLE ENERGY, INC.  CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.  NOBLE ENERGY, INC.	HOPE NATURAL GAS COMPANY  CONSOLIDATED GAS SUPPLY CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION  CNG TRANSMISSION CORPORATION  DOMINION TRANSMISSION, INC.	HOPE IN AL URAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CONG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CIX GAS COMPANY LLC NOBLE ENERGY, INC. CIX GAS COMPANY LLC AND NOBLE ENERGY, INC. NOBLE ENERGY, INC. HG ENERGY II APPALACHIA, LLC DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC	HOPE NATURAL GAS COMPANY CONSOLIDATED GAS SUPPLY CORPORATION CONSOLIDATED GAS TRANSMISSION CORPORATION CNIG TRANSMISSION CORPORATION DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC NOBLE ENERGY, INC. CNX GAS COMPANY LLC AND NOBLE ENERGY, INC. HG ENERGY II APPALACHIA, LLC DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC HG ENERGY II APPALACHIA, LLC	GRANTEE/LESSEE
MEMORADUM FARMOUT AGREEMENT FIRST AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT LIMITED PARTIAL ASSIGNMENT (50%) PARTIAL ASSIGNMENT (32%) ASSIGNMENT	NOT LESS THAN 1/8  CONFIRMATORY DEED  ASSIGNMENT  MERGER/NAME CHANGE  MERGER/NAME CHANGE	CONFIRMATORY DEED  ASSIGNMENT  MERGER/NAME CHANGE  MERGER/NAME CHANGE  MEMORANDUM FARMOUT AGREEMENT  LIMITED PARTIAL ASSIGNMENT (50%)  PARTIAL ASSIGNMENT (32%)  ASSIGNMENT  ASSIGNMENT  ASSIGNMENT  MERGER/NAME CHANGE  SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT  THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	NOT LESS THAN 1/8 CONFIRMATORY DEED ASSIGNMENT MERGER/NAME CHANGE MEMORANDUM FARMOUT AGREEMENT LIMITED PARTIAL ASSIGNMENT (32%) PARTIAL ASSIGNMENT (32%) ASSIGNMENT ASSIGNMENT ASSIGNMENT ASSIGNMENT ASSIGNMENT TO MEMORANDUM OF FARMOUT AGREEMENT THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT FARMOUT AGREEMENT	ROYALTY
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							12-0426-0076-0000	12-0426-0075-0000																		12-0426-0064-0000	12-0426-0077-0000														
							Q100967000	01000																		Q100840000	21200														
DOMINION ENERGY TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY	HELBING, HER HUSBAND	FOI STROM HER HUSBAND: AND FDNA HELBING AND KARLR.	CAIN. HIS WIFE: SHERMAN CAIN, FIS WIFE, SOFTING AND CHARLES	MCWHORTER AND OKLA MCWHORTER, HIS WIFE; IDAN AND CAIN,	DOMINION ENERGY TRANSMISSION, INC.		DOMINION ENERGY TRANSMISSION, INC.	NOBLE ENERGY, INC.	NOBLE ENERGY INC.	DOMINION TRANSMISSION INC	CNY GAS COMPANY II C	CNX GAS COMPANY LLC	DOMINION ENERGY IRANSMISSION, INC.		DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY	KENNEDY AND JESSIE L. KENNEDY. HIS WIFE	PHISBAND: EVA WOLEE AND LYNN B WOLEE HER HISBAND: S G	MARTHA E. WILCOX, WIDOW; LELA K. RUMBLE, WIDOW; SUE K.	HIS WIFE; JOHN L. KENNEDY AND REVA B. KENNEDY, HIS WIFE;	KENNEDY, HIS WIFE; HARRY W. KENNEDY AND LILLIAN A. KENNEDY,	MARY E. KENNEDY, WIDOW; DORSEY C. KENNEDY AND VELMA ICE	DOMINION ENERGY TRANSMISSION, INC.		DOMINION ENERGY TRANSMISSION, INC.	DOMINION INANSMISSION, INC.	DOMINION TRANSMISSION INC
HG ENERGY II APPALACHIA, LLC	HG ENERGY II APPALACHIA, LLC	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY				HG ENERGY II APPALACHIA, LLC		HG ENERGY II APPALACHIA, LLC	I O LICINO I I SI	HG ENERGY II APPAI ACHIA	DOMINION ENERGY TRANSMISSION, INC.	NORI F ENERGY INC	NOBLE ENERGY, INC.	CNX GAS COMPANY LEC		CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY						HG ENERGY II APPALACHIA, LLC		HG ENERGY II APPALACHIA, LLC	COMMISSION CHEROL HERBONISSION INC.	DOMINION ENERGY TRANSMISSION, INC.
FARMOUT AGREEMENT	FARMOUT AGREEMENT	ASSIGNMENT	MERGER/NAME CHANGE	ASSIGNMENT	PARTIAL ASSIGNMENT (32%)	LIMITED PARTIAL ASSIGNMENT (50%)	MEMORANDUM FARMOUT AGREEMENT	MERGER/NAME CHANGE	MERGER/NAME CHANGE	ASSIGNMENT	CONFIRMATORY DEED	NOT LESS THAN 1/8				FARMOUT AGREEMENT	THIRD AMENDMENT TO MEMORANDUM OF	FARMOUT AGREEMENT	SECOND AMENDMENT TO MEMORANDUM OF	ASSIGNMENT	MERGER/NAME CHANGE	ASSIGNMENT	PARTIAI ASSIGNMENT (32%)	TANKOO AGREEMENT (50%)	FIRST AMENDMENT TO MEMORANDUM OF	MEMORANDUM FARMOUT AGREEMENT	MERGER/NAME CHANGE	MERGER/NAME CHANGE	ASSIGNMENT	CONFIRMATORY DEED	NOT LESS THAN 1/8						FARMOUT AGREEMENT	THIRD AMENDMENT TO MEMORANDUM OF	FARMOUT AGREEMENT	SECOND AMENDMENT TO MEMORANDUM OF	MERGER/NAME CHANGE
1621	1601	1600	WVSOS	1584	1576	1543	1522	58	51	1136	903	781				1791	1631	1601		1600	WVSOS	1584	1576	15/13	1504	1522	58	51	1136	903	782						1621		1601		WVSOS
1295	581	692		942	125	1235	33	362	795	250	179	51				7.25	200	581		692		942	125	1235	201	33	362	795	250	179	<u>&amp;</u> _						1295		581		

692	Глоат	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.			-	_
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.			_	
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	4100021000	12-0446-0006-0002	EC021400	27
491	1524	FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION ENERGY TRANSMISSION, INC.	0100331000	12-0446-0006-0000	0001460	3
		FIRST AMENDMENT TO MEMORANDUM OF						
33	1522	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.			_	
362	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.					
795	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION				
179	903	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY			_	
375	202	ASSIGNMENT	HOPE NATURAL GAS COMPANY	THE MANUFACTURERS LIGHT AND HEAT COMPANY				
				TRI-STATE GAS COMPANY, WHEELING NATURAL GAS COMPANY AND				
434	139	NOT LESS THAN 1/8	TRI-STATE GAS COMPANY	S. J. DAVISSON				
581	1601	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
		SECOND AMENDMENT TO MEMORANDUM OF						
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.				
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.				
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
491	1524	FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION ENERGY TRANSMISSION, INC.	Q100622000	12-0446-0003-0000	LC017324	38
		FIRST AMENDMENT TO MEMORANDUM OF						
33	1522	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.				
362	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION				
795	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION				
179	903	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION					
331	192	NOT LESS THAN 1/8	HOPE NATURAL GAS COMPANY	LLOYD STOUT AND MAY STOUT, HIS WIFE				
220	LEWIS 736	ASSIGNMENT (68%)	HG ENERGY II APPALACHIA, LLC					
1295	1621	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
		THIRD AMENDMENT TO MEMORANDUM OF						
581	1601	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
		SECOND AMENDMENT TO MEMORANDUM OF						
	SOSAM	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ON, INC.				
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
491	1524	FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.				
33	77CT	MEMORANDOM FARMOOT AGREEMENT	CNX GAS COMPANT LLC	DOMINION I KANSWISSION, INC.	-	12-0446-0005-0000		
295	1533	MENGER/NAIVE CHANGE	CAN CAS CONDANY IIC.	CN	Q100893000	12-0446-0004-0001	LC066829	37
795	5 2	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CORPORATION		12-0446-0004-0000		
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION					
1/9	903	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY				
14	28/	NOI LESS I HAN 1/8	HOPE NATURAL GAS CUMPANY					
<u>.</u>	1			DLFE, HER HUSBAND; S. G. KENNEDY AND				
				WIDOW; KATHRYN BUTLER AND THURMAN BUTLER, HER HUSBAND;				
	9			JOHN L. KENNEDY AND REVA B. KENNEDY, HIS WIFE; SUE K. SWISHER,				
Frotection				WIDOW; HARRY W. KENNEDY AND LILLIAN A. KENNEDY, HIS WIFE;				
rt of				I. KENNEDY, HIS WIFE; LELA RUMBLE, WIDOW; MARTHA E. WILCOX,				
ָר <u>נ</u>	JAN OU			SINGLE: MARY E. KENNEDY, WIDOW; DORSEY C. KENNEDY AND VELMA				
გგი <b>ე</b>	.) >			LILLIE GIFFORD, WIDOW: DORA GIFFORD, SINGLE; PEARL GIFFORD,	-			

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							LC084263															LC066681																LC021469												
						12-0440-0037-0000	12-0446-0038-0000	12 0446 0030 0000												(11 46 ac not assessed)	and p/o WV Div. of Highways	12-0446-0034-0004	12-0446-0034-0002	12-0446-0034-0001	12-0446-0034-0000										12-0446-0026-0001	12-0446-0024-0005	12-0446-0024-0004	12-0446-0024-0003	12-0446-0024-0002	12-0446-0024-0001	12-0446-0024-0000									
							Q100951000															Q100800000																Q101114000												
G. MANLEY CURRY AND MARY GEORGIA CURRY, HIS WIFE HOPE NATURAL GAS COMPANY		DOMINION ENERGY TRANSMISSION INC	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION		WILLA E. WARE AND JOHN P. WARE, HER HUSBAND; AND THE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	DOMINION ENERGY INCIDENTIAL INCIDENTIAL INC.	DOMINION ENERGY TRANSMISSION INC	DOMINION TRANSMISSION, INC.	NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY	LUCY DAVISSON	DOMINION ENERGY TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.		NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY	THE MANUFACTURERS LIGHT AND HEAT COMPANY	TRI-STATE GAS COMPANY, WHEELING NATURAL GAS COMPANY AND	J. N. RECTOR AND JULIA E. RECTOR	DOMINION ENERGY TRANSMISSION, INC.	DOMINION ENERGY TRANSMISSION, INC.	- 1.	DOMINION ENERGY TRANSMISSION, INC.
CONSOLIDATED GAS SUPPLY CORPORATION	TOPE MATIENAL CAS COMPANY	HG ENERGY II APPALACHIA. LLC	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION		HG ENERGY II APPALACHIA, LLC	HG ENERGY II APPALACHIA, LLC		HG ENERGY II APPALACHIA. LLC	DOMINION ENERGY TRANSMISSION, INC.	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY I RANSMISSION, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY	HG ENERGY II APPALACHIA, LLC	HG ENERGY II APPALACHIA, LLC		HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY		TRI-STATE GAS COMPANY	HG ENERGY II APPALACHIA, LLC	_		HG ENERGY II APPALACHIA, LLC
CONFIRMATORY DEED	NOT LESS THAN 1/8	THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	FARMOUT AGREEMENT	MERGER/NAME CHANGE	ASSIGNMENT	ASSIGNMENT	PARTIAL ASSIGNMENT (32%)	LIMITED PARTIAL ASSIGNMENT (50%)	MEMORANDUM FARMOUT AGREEMENT	MERGER/NAME CHANGE	MERGER/NAME CHANGE	ASSIGNMENT	NOT LESS THAN 1/8		ASSIGNMENT (68%)	FARMOUT AGREEMENT	THIRD AMENDMENT TO MEMORANDUM OF	FARMOUT AGREEMENT	MERGER/NAME CHANGE	ASSIGNIFICATION	MERGER/NAME CHANGE	ASSIGNMENT	PARTIAL ASSIGNMENT (32%)	LIMITED PARTIAL ASSIGNMENT (50%)	MEMORANDUM FARMOUT AGREEMENT	MERGER/NAME CHANGE	MERGER/NAME CHANGE	ASSIGNMENT	CONFIRMATORY DEED	NOT LESS THAN 1/8	FARMOUT AGREEMENT	THIRD AMENDMENT TO MEMORANDUM OF	SECOND AMENDMENT TO MEMORANDUM OF	ASSIGNMENT	MERGER/NAME CHANGE	ASSIGNMENT	PARTIAL ASSIGNMENT (32%)	LIMITED PARTIAL ASSIGNMENT (50%)	MEMORANDUM FARMOUT AGREEMENT	MERGER/NAME CHANGE	MERGER/NAME CHANGE	ASSIGNMENT	CONFIRMATORY DEED	ASSIGNMENT		NOT LESS THAN 1/8	ASSIGNMENT (68%)	FARMOUT AGREEMENT	THIRD AMENDMENT TO MEMORANDUM OF	FARMOUT AGREEMENT
903	779	1621	1601	WVSOS	1600	1584	1576	1543	1522	58	51	1136	1011		LEWIS 736	1621		1601	COCAM	1000T	WVSUS	1584	15/6	1543	1522	58	51	1136	903	776	1621	TOOT	1601	1600	WVSOS	1584	1576	1543	1522	58	51	1136	903	202		139	LEWIS 736	1621		1601
179	77	1295	581		692	942	125	1235	33	362	795	250	167		220	1295		581		032	6	942	225	1235	33	362	795	250	179	207	1295	100	n 0	692		942	125	1235	33	362	795	250	179	375		432	220	1295		581

			Clay of the College Clay of the Clay	DOMINION HONOSINISSICIA, INC.	_			
33	1522	MEMORANDIJM FARMOLIT AGREEMENT	CNY GAS COMPANY II C	C				
363	4 87	MERGER/NAME CHANGE	CNG IRANSWISSION CORPORATION	CORPORATION	Totection			
795	51	MERGER/NAME CHANGE	CNIC TRANSMISSION CORPORATION		nient of			
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	OLIDATED GAS SUPPLY CORPORATION	)			
86	985	NOT LESS THAN 1/8	CONSOLIDATED GAS SUPPLY CORPORATION	WOMAN; BRIGHT J. MICWHORTER AND VIRGINIA H. MICWHORTER, HIS	2 6 6659			
					>			
1295	1621	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.	il and Gas	Of the		
		THIRD AMENDMENT TO MEMORANDUM OF				חוו		
581	1601	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.					
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.				
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC		12-0466-0037-0000		
491	1524	FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	0 Q100615000	12-0466-0036-0000	LC008034	52
		FIRST AMENDMENT TO MEMORANDUM OF				12-0466-0018-0000		
33	1522	MEMORANDUM OF FARMOUT AGREEMENT	CNX GAS COMPANY LLC					
362	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.					
795	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	RATION				
509	1138	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	RPORATION				
179	903	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	ANY				
75	203	ASSIGNMENT	HOPE NATURAL GAS COMPANY	MPANY				
403	133	ASSIGNMENT	THE CARTER OIL COMPANY					
489	122	NOT LESS THAN 1/8	O. D. HARRINGTON	N.A. MCWHORTER AND ELIZA MCWHORTER				
1295	1621	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
		THIRD AMENDMENT TO MEMORANDUM OF						
581	1601	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.	_			
		SECOND AMENDMENT TO MEMORANDUM OF						
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	ON, INC.				
	1584	ASSIGNMENT	NOBLE ENERGY, INC.					
	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ON, INC.	0 0100495000	12-0466-0019-0000	LC066761	53
	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.					
	1522	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC					
	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.					
	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	RATION				
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	RPORATION				
	903	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION					
	779	NOT LESS THAN 1/8	HOPE NATURAL GAS COMPANY	CURRY, HIS WIFE				
	1621	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
100	1001	THIRD AMENDMENT TO MEMORANDUM OF	HG ENERGY II AFFALACHIA, LLC	DOMINION ENERGY I KANSMISSION, INC.				
F 0 1	1601	SECOND AMENDMENT TO MEMORANDUM OF						
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC					
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	•			
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.	_	12-0446-0048-0001		
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.		Q100806000	12-0446-0048-0000	LC066762	47
491	1524	FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.	-			
		FIRST AMENDMENT TO MEMORANDUM OF	CITY OF TO COLLEGE THE COLLEGE					
33	1522	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC					
362	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION INC	1				
795	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION		_	-	-	_

C71	9/51	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.		17_0/66_0071_0007		•
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	0100536000	12-0466-0071-0001	10066801	57
33	1522	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.		12-0466-0071-0000		
362	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION				
267	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION				
1/9	903	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY				
19	781	NOT LESS THAN 1/8	HOPE NATURAL GAS COMPANY	ALCINDA BLAKE JACKSON AND M. E. JACKSON, HER HUSBAND				
	-011		חט בואפאטר וו ארדאנאכוווא, נבכ					
1295	1621	FARMOLIT AGREEMENT	HG ENERGY II ADDAI ACHIA II C	DOMINION ENGERGY TRANSMISSION INC				_
180	TOOT	TARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
7		SECOND AMENDMENT TO MEMORANDUM OF						
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	ISSION, INC.				
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC					
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ON, INC.				
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.					
1771	45.CT	PARIVIOU AGREEVIEW	CNX GAS COMPANY LLC	ON, INC.		p/o 12-0466-0038-0000		
<u> </u>	1534	FIRST AMENDMENT TO MEMORANDUM OF			Q100635000	12-0466-0055-000	LC056293	56
33	7757	MEMORANDOM FARMICOLI AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.				
8/6	1457	ASSIGNMENT	DOMINION TRANSMISSION, INC.	DUCTION INC				
278	142/	ASSIGNMENT	DOMINION EXPLORATION & PRODUCTION INC					
200	1437	IVIENGEN/ NAIVIE CHANGE	DOMINION I KANSMISSION, INC.	ON				
263	10	MERGER/NAME CHANGE	CNG IRANSWISSION CORPORATION	CORPORATION				
795	51	MEDGED (NAME CHANGE	CONSOCIONICO GAS INAINSIVISSION COM CINCILON					
250	1136	CONFIRMATORY DEED	CONSCIENTED GAS TRANSMISSION CORPORATION					
98	985	NOT LESS THAN 1/8	CONSOLIDATED GAS SLIPPLY CORPORATION					
_				WOMAN: AND BRIGHT I MCWHORTER AND VIRGINIA H				
				┙				
1295	1621	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
100	TOOT	THIRD ANGENDMENT TO MEMORANDIM OF	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
581	1601	SECOND AMENDMENT TO MEMORANDUM OF						
269	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.				
3	WVSUS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
942	1004	ASSIGNMENT	NOBLE ENERGY, INC.					
23.	1504	ACCIONATION (32/6)	CNX GAS COMPANT LLC AND NOBLE ENERGY, INC.	ON, INC.		12-0467-0029-0001		
125	1576	DARTIAL ASSIGNMENT (20%)	NOBLE ENERGY, INC.		Q100303000	12-0467-0029-0000	LC008492	55
1235	1543	IIMITED PARTIAL ASSIGNMENT (50%)	CIAN GAS COMPANY LEC	ON, INC.		12-0466-0054-0000		
22	1522	MEMORANDI IM EARMOUT AGREEMENT	CHY CAS COMPANY IIC	O <sub>Z</sub>				
367	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION INC	CORFORMION				
795	51	MERGER/NAME CHANGE	CHIC TRANSMISSION CORPORATION					
250	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION					
179	903	CONFIRMATORY DEED	CONSOLIDATED GAS SLIPPLY CORPORATION	NY				
402	204	ASSIGNMENT	HOPE NATURAL GAS COMPANY					
73	121	NOT LESS THAN 1/8	SOUTH PENN OIL COMPANY					
220	LEWIS 736	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC					
1295	1621	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
		THIRD AMENDMENT TO MEMORANDUM OF						
581	1601	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA. LLC	Holissic Land				
		SECOND AMENDMENT TO MEMORANDUM OF		Environmental project				
	SOSAM	MERGER/NAME CHANGE		3703				
692	1600	ASSIGNMENT	HG ENERGY II APPAI ACHIA. LLC	0 0 10.5				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	JAN 3 0 2320				
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ON, INC.	(1000 June	b) 0 12-0400 0000 0000	50000	<u> </u>
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	Cilice of Oil and Cas	0100793000	p/o 12-0466-0038-0000	LC056294	54
491	1524	FARMOUT AGREEMENT	CNX GAS COMPANY LLC	ECEIVED				
		FIRST AMENDMENT TO MEMORANDUM OF			-	_		_

7/5	584	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	-0000	ייני טע־טוטכ־טטטט־טטטט		
154	672	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.				
	SOSAM	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION				
	WVSOS	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				
127	425	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION				
89	294	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY				
272	73	ASSIGNMENT	HOPE NATURAL GAS COMPANY	SOUTH PENN OIL COMPANY				
223	44	NOT LESS THAN 1/8	SOUTH PENN OIL COMPANY	A. S. HOLBERT				
220	LEWIS 736	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
558	LEWIS 734	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
1295	HARRISON 1621	THIRD AMENDMENT TO MEMORANDUM OF						
499	LEWIS 723	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC					
581	HARRISON 1601	SECOND AMENDMENT TO MEMORANDUM OF	7					
692 170	HARRISON 1600 LEWIS 722	ASSIGNMENT	HG ENERGY II APPALACHIA. LLC	NORIE ENERGY INC				
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	ON, INC.				
<u></u>	LEWIS 717	ASSIGNMENT	NOBLE ENERGY, INC.			-		
942	HARRISON 1584	(4.5.7)	CITY OF SOUTH AND LESS THE PROPERTY OF THE PRO	iuo I V				
125 848	HARRISON 1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	ſ		0+0030-0013-0000		
57	LEWIS 684	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	001 Q101125000	04-009C-0041-0001	LC069003	61
1235	HARRISON 1543					04-009C-0041-0000		
33 154	HARRISON 1522 LEWIS 672	MEMORANDUM FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION, INC.				
3	WVSOS	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.	CNG TRANSMISSION CORPORATION				
362	HARRISON 58							
795	HARRISON 51 WVSOS	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION			•	
250 127	HARRISON 1136 LEWIS 425	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SUPPLY CORPORATION				_
68	LEWIS 294	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	HOPE NATURAL GAS COMPANY	,			
170	HARRISON 903	1001 1000 1111111 1/0	I CI L MOI GIAL OUS COMI DIVI	WIFE				
321 275	HARRISON 829	NOT LESS THAN 1/8	HORE NATI RAI GAS COMPANY	ELLA GOODWIN, WIDOW; THOMAS P. BLEIGH AND SUSAN BLEIGH, HIS				
220	LEWIS 736	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
558	LEWIS 734	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.	***			
1	CT ( C) 123	TUIDD AMENDMENT TO MEMORANDI IN OF	ווס בואבווסר וו סו רסבסמוויס, בבע	DOMINION ENERGY INGINISTICIA, INC.				
290	1 FW/S 723	SECOND AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT	HG ENERGY II APPAI ACHIA TIC	DOMINION ENERGY TRANSMISSION INC				
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.				
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	0100647000	04-009C-0048-0000	LC066740	60
125	1576	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DOMINION TRANSMISSION, INC.				
1235	1543	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC				
33	1522	MEMORANDUM OF FARMOUT AGREEMENT	CNX GAS COMPANY LLC	DOMINION TRANSMISSION INC				
362	58	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.					
795	51	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	CONSOLIDATED GAS TRANSMISSION CORPORATION				
220	1136	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	CONSOLIDATED GAS SLIBBLY CORPORATION				
179	903	CONFIRMATORY DEED	CONSOLIDATED GAS SLIPPLY CORPORATION				•	
108	779	NOT LESS THAN 1/8	HODE NATI IRAI GAS COMPANY	BBOOKS BANDOI BH AND MARIE RANDOI BH HIS WIFE				
220	LEWIS 736	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	DOMINION ENERGY TRANSMISSION, INC.				
581	1601	SECOND AMENDMENT TO MEMORANDUM OF	HG ENERGY II ADDAI ACHIA II C	DOMINION ENERGY TRANSMISSION INC				
692	1600	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	NOBLE ENERGY, INC.				
	WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DOMINION TRANSMISSION, INC.				
942	1584	ASSIGNMENT	NOBLE ENERGY, INC.	CNX GAS COMPANY LLC	,vr	7000_T 100_0040_7T	_	-

Column   C	137 137 154 57 848 1	1:1	CECOND AMENDMENT TO MEMODANIDI IM OF	HG ENERGY II APPALACHIA, LLC		T <u>s</u>			
CAMPARY   CHAPTER   CAMPARY   CAMP		722	ASSIGNMENT	TITO TATESON II ADDAI ACUIN IIC	OBLE ENERGY, INC.				
LORGERIAN   COMMINION   COMMINION PRINCIPATION   COMMINION PRINCIPATI		WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	OMINION TRANSMISSION, INC.	<u> </u>			
MONE COMPY   CONSTRUCT   CON		717	ASSIGNMENT	NOBLE ENERGY, INC.	VX GAS COMPANY LLC	Ω			
COMPAND   CONTRIPORT   CONTRI		712	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	OMINION TRANSMISSION, INC.	DC	b/o 04-010C-0009-0000		
December		684	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	VX GAS COMPANY LLC		5/5 04 010C 0000 0000	LC009786	ස
TAMOS COUNTY   COMMON TO ADMINISTRATION   COMMON TO ADMINISTRATION   CONTROL ADMINISTRATION		672	MEMORANDUM OF FARMOUT AGREEMENT	CNX GAS COMPANY LLC	OMINION TRANSMISSION, INC.	DC	04 0100 0000		
COMPAND   COMP		651	ASSIGNMENT	DOMINION TRANSMISSION, INC.	OMINION EXPLORATION & PRODUCTION INC	8			
PARK COUNTY   CO0056000   COMMON TRANSCRIPTON, IR.   CONGRADATION   CONGRADATIO		596	ASSIGNMENT	DOMINION EXPLORATION & PRODUCTION INC	OMINION TRANSMISSION, INC.	8			
COMPAND   COMP		WVSOS	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.	NG TRANSMISSION CORPORATION	2			
COMPATE   CONTROL   CONT		WVSOS	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION	₽	8			
COMPANY   COMMON TRANSMISSORY, MC.   COMMON ILLA AND MARKE ERBOR, MC.   COMMON ILLA		425	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	ONSOLIDATED GAS SUPPLY CORPORATION	8			
LANG COUNTY   CADDADON   CADDAD		294	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	OPE NATURAL GAS COMPANY	E			
COMPATE   COMP		/3	ASSIGNMENT	HOPE NATURAL GAS COMPANY	OUTH PENN OIL COMPANY	S			
AMIS COARTY   CADD-SADD   COARMON INCLUSION INC.   COARMON MATERIAL SEGMENT (CANADA COARMON INC.   COARMON IN		73 44	NOT LESS THAN 1/8	SOUTH PENN OIL COMPANY	B. CURTIS AND MARTHA A. CURTIS, HIS WIFE	B.			
LORD POLICY		LEVVIO 700	ASSIGNMENT	HG ENERGY II AFFALACTIA, LLC	OMINION ENERGY I KANSMISSION, INC.	00			
LONG-1742   LONG-1740   COLOMINOT TRANSMISSION, INC.   COLOM	1	1 EWIS 736	ASSIGNMENT	THE ENERGY II ARRAITACHIA, LEC	DIVINION ENERGY TRANSMISSION, INC.	318			
COMPAPA   COMP		72/	THIRD AMENDMENT TO MEMORANDUM OF	HO ENIEBOAN ADDALACHIA IIO		3			
COMPAPER   COMPARED	4	/23	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	בְּוֹס	B			
COMPATA   COUNTY   COMPATA   COMPATA IL AND HOLE FRIEND, MC.   COMPANY I			SECOND AMENDMENT TO MEMORANDUM OF		اعوا ا در آ				
LOSS-FOOD   COMMAND TRANSMISSON, INC.   COMMAND LLA AND MOBILE ENERGY, INC.   COMMAND LLA AND MOBILE ENERG		722	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	0.000	NO			
LONG COUNTY   CHORGE CHERGY, INC.   COMMAND ILLA AND ROBLE ERREGY, I		WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.		8			
LAWIS COUNTY   CADS-6500   COMMINUM TRANSMISSION, INC.   CONDERSITED, INC.   CONDESSANTON, CONDESS		717	ASSIGNMENT	NOBLE ENERGY, INC.	an .		LEWIS COUNTY	LC086/06	2
CO00972   Particolomy   CO009400N Planshinston, IR.   CO004800N, IR.   CO00480N, IR.   C		712	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	0.0		p/o 04-010C-0002-0000	10066706	2
CODERTY   CODERTY   CODAMINON TRANSMISSION, INC.   COMPANY LEAN DOLE ERROR, INC.   COMPANY LEAN DOLE ERROR, INC.   COMPANY LEAN DOLE ERROR, INC.   COMMINION TRANSMISSION, INC.   COMMINION ERROR TRANSMISSION, INC.   COMPANION CORPORATION   COMPONITION COMPONITION CORPORATION   COMPONITION		684	LIMITED PARTIAL ASSIGNMENT (50%)	NOBLE ENERGY, INC.	ee W	CN			
LEWIS COUNTY   COORSEGNO   CONTINUON TRANSMISSON, INC.   CONTINUON ENERGY		672	MEMORANDUM OF FARMOUT AGREEMENT	CNX GAS COMPANY LLC	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	DO			
LOOS-100   COUNTY		WVSOS	MERGER/NAME CHANGE	DOMINION TRANSMISSION, INC.		2			
LO09742   PARTICLASSIGN, INC.   COMMON TRANSMISSION, INC.   GEREGY IN APPALACHIA, LIC.   SCOON AMERINARY TO MEMORANDUM OF MADE EMERGY TRANSMISSION, INC.   COMMON TRANSMISSION, INC.   GEREGY IN APPALACHIA, LIC.   SCOON AMERINARY TO MEMORANDUM OF MADE EMERGY TRANSMISSION, INC.   COMMON TRANSMISSION, INC.   CO		SOSAM	MERGER/NAME CHANGE	CNG TRANSMISSION CORPORATION		81			
LOGS#22   PROFESSION   PROCEEDINGS   PROPARAMILLON   PRANSMISSION, INC.   CONCAGA COMPANY LLC AND NOBLE ENERGY, INC.   ASSIGNMENT (278)   7.12		425	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION	NSOLIDATED GAS SUPPLY CORPORATION	81			
LEWIS COUNTY   COMMINON ITANSMISSON, INC.   COM GAS COMPANY ILC. AND NOBE ENERGY, INC.   ASSIGNMENT (22%)   712		294	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	OPE NATURAL GAS COMPANY	티			
COOSTACE   CONTINUE   COMMINION TRANSMISSION, INC.   COMMINION ENERGY, INC.   COMMINION ENERGY		242	NOT LESS THAN 1/8	HOPE NATURAL GAS COMPANY	. J. MELTON, A WIDOWER	2			
LEWIS COUNTY   COOS-66000   DOMINION TRANSMISSION, INC.   DOMINION REGROY, INC.   DOMINION REGROY, INC.   DOMINION REGROY, INC.   DOMINION REGROY, INC.   MOBILE ENERGY, INC.		LEWIS 736	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	OMINION ENERGY TRANSMISSION, INC.	8			
COOSTACE   PROJECTION   COLORADON, INC.   CON CAS COMPANY LLC. AND NOBLE ENERGY, INC.   ASSIGNMENT (32%)   712		734	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	OMINION ENERGY TRANSMISSION, INC.	8			
ENSIGONNY   COMPANY LC AND NOBLE ENERGY, INC.   CNX AGS COMPANY LC AND NOBLE ENERGY, INC.   ASSIGNMENT (32%)   712		723	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	OMINION ENERGY TRANSMISSION, INC.	DO			
LEWIS COUNTY   CLOOS-46000   DOMINION TRANSMISSION, INC.   CLOW GAS COMPANY LC AND NOBLE ENERGY, INC.   PARTIAL ASSIGNMENT (32%) 712			SECOND AMENDMENT TO MEMORANDUM OF	IN CIRCING II OF OFFICIARY LEV	SOLE CINENCI, INC.	12			
LC009742   LEWIS COUNTY		722	ASSIGNMENT	HG ENERGY II APPAI ACHIA II C	ORI E ENERGY INC				
LEWIS COUNTY   CONSTANT   COUNTY   CO		WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DMINION TRANSMISSION INC	319			
LEWIS COUNTY   COMMINION TRANSMISSION, INC.   CIX GAS COMPANY I.C.		717	ASSIGNMENT	NOBLE ENERGY INC	AN COMPANY IIC		LEWIS COUNTY	FC00073#	8
DOMINION TRANSMISSION, INC.  LEWIS COUNTY  OLIOS46000  DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LIC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LIC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LIC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LIC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LIC.  HG ENERGY II APPALACHIA, LIC.  HG ENERGY II APPALACHIA, LIC.  THIRD AMENDMENT TO MEMORANDUM OF  7.23  N. J. MELLON, VIDOWER  N. J. MELLON, VIDOWER  NOT LESS THAN 1/8  CONSOLIDATED GAS SUPPLY CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION  DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION CORPORATION  CONSOLIDATED GAS TRANSMISSION CORPORATION  DOMINION TRANSMISSION CORPORATION		712	PARTIAL ASSIGNMENT (32%)	CNY GAS COMPANY I I C AND NORI E ENERGY INC.	NA GAS COMPANY LEC		p/o 04-010C-0002-0000	10066734	3
LEWIS COUNTY   COMPANY LIC   DOMINION TRANSMISSION, INC.   OR SAS COMPANY LIC   ADDINION TRANSMISSION, INC.   OR SAS COMPANY LIC   ADDINION TRANSMISSION, INC.   DOMINION ENERGY TRANSMISSION, INC.   DOMINION ENERGY TRANSMISSION, INC.   HIG ENERGY II APPALACHIA, LIC   SASIGNMENT   772	-	770	MICINIONANDON FARMOOT AGREEMENT	CNX GAS COMPANY LLC	OMINION I KANSMISSION, INC.	212			
LEWIS COUNTY   CA00000   DOMINION TRANSMISSION, INC.   CINX GAS COMPANY LLC AND NOBLE ENERGY, INC.   PARTIAL ASSIGNMENT (32%)   712		CZO	MENGER/NAIVE CHANGE	DOMINION IRANSMISSION, INC.	IG TRANSMISSION CORPORATION	3 2			
LC09742 PARIAL ASSIGNMENT (23%)  LEWIS COUNTY  ODMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  DOMINION ENERGY INC.  DOMINION ENERGY INFORMENT  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION		WWGOS	MERGER/NAME CHANGE	CNG IKANSMISSION CORPORATION		2 3			
LC099742 LEWIS COUNTY  OLIOMINION TRANSMISSION, INC.  CIXX GAS COMPANY LLC AND NOBLE ENERGY, INC.  CIXX GAS COMPANY LLC AND NOBLE ENERGY, INC.  DOMINION TRANSMISSION, INC.  DOMINION TRANSMISSION, INC.  NOBLE ENERGY, INC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  FARMOUT AGREEMENT  THIRD AMENDMENT TO MEMORANDUM OF  TABANOUT AGREEMENT  THIRD AMENDMENT TO MEMORANDUM OF  TABANOUT AGREEMENT  THEN AMENDMENT TO MEMORANDUM OF  THEN		425	ASSIGNMENT	CONSOLIDATED GAS TRANSMISSION CORPORATION		18			
LC009742 LEWIS COUNTY  OLOOS46000 CINX GAS COMPANY LLC AND NOBLE ENERGY, INC. CINX GAS COMPANY LLC CINX GAS COMPANY LLC AND NOBLE ENERGY, INC. CINX GAS COMPANY LLC ASSIGNMENT CINX GAS COMPANY LLC AS		294	CONFIRMATORY DEED	CONSOLIDATED GAS SUPPLY CORPORATION	DPE NATURAL GAS COMPANY	िह			
LEWIS COUNTY  LE		243	NOT LESS THAN 1/8	HOPE NATURAL GAS COMPANY	J. MELLON, WIDOWER	Z			
LEWIS COUNTY  CONX GAS COMPANY LLC  CIXX GAS COMPANY LLC  MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  ASSIGNMENT  CIXX GAS COMPANY LLC  MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  ASSIGNMENT  CIXX GAS COMPANY LLC  MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  ASSIGNMENT  TO MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  TO MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  TO MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  TO MERGER/NAME CHANGE  TO MERGER/NAME CHANGE  WVSOS  ASSIGNMENT  TO MERGER/NAME CHA		LEWIS 736	ASSIGNMENT	HG ENERGY II APPALACHIA, LLC	DMINION ENERGY TRANSMISSION, INC.	DO			
LC009742  PARTIAL ASSIGNMENT (32%)  Q100546000  CINX GAS COMPANY LLC AND NOBLE ENERGY, INC.  PARTIAL ASSIGNMENT (32%)  CINX GAS COMPANY LLC  NOBLE ENERGY, INC.  NOBLE ENERGY, INC.  DOMINION TRANSMISSION, INC.  NOBLE ENERGY, INC.  NOBLE ENERGY II APPALACHIA, LLC  DOMINION ENERGY TRANSMISSION, INC.  DOMINION ENERGY TRANSMISSION, INC.  DOMINION ENERGY TRANSMISSION, INC.  HG ENERGY II APPALACHIA, LLC  THIRD AMENDMENT TO MEMORANDUM OF  THIRD AMENDMENT TO MEMORANDUM OF  THIRD AMENDMENT TO MEMORANDUM OF		734	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	DMINION ENERGY TRANSMISSION, INC.	DO			
LC009742    COMPANDED COUNTY   COMMINION TRANSMISSION, INC.   CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.   PARTIAL ASSIGNMENT (32%)   712			THIRD AMENDMENT TO MEMORANDUM OF						
LC009742 PLEWIS COUNTY Q100546000 DOMINION TRANSMISSION, INC. CIXX GAS COMPANY LLC AND NOBLE ENERGY, INC. PARTIAL ASSIGNMENT (32%) 712 CIXX GAS COMPANY LLC NOBLE ENERGY, INC. ASSIGNMENT WVSOS DOMINION TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. ASSIGNMENT WVSOS NOBLE ENERGY, INC. HIG ENERGY II APPALACHIA, LLC GESSIONMENT TO MEMORANITY OF ME	_	723	FARMOUT AGREEMENT	HG ENERGY II APPALACHIA, LLC	OMINION ENERGY TRANSMISSION, INC.	DO			
LC009742 PARTIAL ASSIGNMENT (32%)  CINX GAS COMPANY LLC AND NOBLE ENERGY, INC.  PARTIAL ASSIGNMENT (32%)  CINX GAS COMPANY LLC  CINX GAS COMPANY LLC  CINX GAS COMPANY LLC  MOBILE ENERGY, INC.  DOMINION TRANSMISSION, INC.  DOMINION ENERGY TRANSMISSION, INC.  MERGER/NAME CHANGE  WYSOS		/22/	ASSIGNMENT TO MEMORANDIM OF	HG ENERGY II APPALACHIA, LLC	OBLE ENERGY, INC.	To			
LC009742 LEWIS COUNTY Q100546000 DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC AND NOBLE ENERGY, INC. PARTIAL ASSIGNMENT (32%) 712 CNX GAS COMPANY LLC MOBLE ENERGY, INC. PARTIAL ASSIGNMENT 717		WVSOS	MERGER/NAME CHANGE	DOMINION ENERGY TRANSMISSION, INC.	DMINION TRANSMISSION, INC.	IB			
LC009742 FOR THE COUNTY OLIOS 46000 DOMINION TRANSMISSION, INC. CNX GAS COMPANY LLC AND NOBLE ENERGY, INC. PARTIAL ASSIGNMENT (32%) 712		717	ASSIGNMENT	NOBLE ENERGY, INC.	IX GAS COMPANY LLC	2			
		71/	PARTIAL ASSIGNMENT (32%)	CNX GAS COMPANY LLC AND NOBLE ENERGY, INC.	DMINION TRANSMISSION, INC.		LEWIS COUNTY	LC009742	62

Office of Oil and Gas

JAN \$ 0 2020

Environmental Protection

DOMINION ENERGY TRANSMISSION, INC. DOMINION ENERGY TRANSMISSION, INC. HG ENERGY II APPALACHIA, LLC THIRD AMENDMENT TO MEMORANDUM OF FARMOUT AGREEMENT
ASSIGNMENT 734 LEWIS 736

558 220

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE CERTIFICATION

	e Certification: 12/05/2019		I No. 47		
			erator's We		
		We	ll Pad Nam	e: Antonio	1206 Well Pad
Notice has b	een given:				
	e provisions in West Virginia Code §	22-6A, the Operator has provided	d the require	d parties v	vith the Notice Forms listed
below for the	tract of land as follows:				
State:	West Virginia			387.9	
County:	Harrison	Nor		1418.3	
District:	Grant	Public Road Access:		19 / Hackers	Creek Road
Quadrangle:	West Milford	Generally used farm i	name: Anto	onio	
Watershed:	Middle West Fork Creek				
it has provide information re of giving the requirements Virginia Code	the secretary, shall be verified and she did the owners of the surface describ quired by subsections (b) and (c), sec surface owner notice of entry to surfor subsection (b), section sixteen of § 22-6A-11(b), the applicant shall tenave been completed by the applicant	ed in subdivisions (1), (2) and ( ction sixteen of this article; (ii) that wey pursuant to subsection (a), so this article were waived in write ander proof of and certify to the se	(4), subsection the requirement of the section ten of the section the section the section the section by the section by the section the section that the sectio	on (b), secondernet was of this articular over the contraction of the	ction ten of this article, the deemed satisfied as a resul cle six-a; or (iii) the notice wner; and Pursuant to Wes
that the Oper	West Virginia Code § 22-6A, the Operator has properly served the required CK ALL THAT APPLY		Notice Certif	cation	OOG OFFICE USE ONLY
☐ 1. NOT	ICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIRED SEISMIC ACTIVITY WAS CO			☐ RECEIVED/ NOT REQUIRED
☐ 2. NOT	ICE OF ENTRY FOR PLAT SURV	EY or 🔳 NO PLAT SURVEY V	WAS COND	UCTED	☐ RECEIVED
■ 3. NOT	ICE OF INTENT TO DRILL or	☐ NOTICE NOT REQUIRED NOTICE OF ENTRY FOR PLA WAS CONDUCTED or			☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER BY S (PLEASE ATTACH)	SURFACE (	WNER	
■ 4. NOT	ICE OF PLANNED OPERATION	RECEPTED Office of Cit and Cas			RECEIVED
■ 5. PUB	LIC NOTICE	JAN 8 0 2829			RECEIVED
■ 6. NOT	ICE OF APPLICATION	WM Department of Environmental Protection			RECEIVED

#### **Required Attachments:**

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

#### Certification of Notice is hereby given:

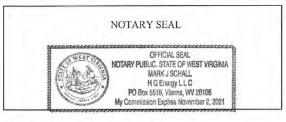
THEREFORE, I Diane White , have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

 Well Operator:
 HG II Appalachia, LLC
 Address:
 5260 Dupont Road

 By:
 Diane White
 Diane White
 Parkersburg, WV 26101

 Its:
 Agent
 Facsimile:
 304-863-3172

 Telephone:
 304-420-1119
 Email:
 dwhite@hgenergyllc.com



Subscribed and sworn before me this 5th day of December, 2019

\_\_ Notary Public

My Commission Expires\_\_\_/

#### Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

Office of Oil and Gas

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WV Dan atment of Environmental Environment

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API NO. 47-4703305987 OPERATOR WELL NO. 1206 S-10H

Well Pad Name: Antonio 1206

## STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the filing date of permit application. Date of Notice: 12/17/19 Date Permit Application Filed: 12/20/19 Notice of: ☐ CERTIFICATE OF APPROVAL FOR THE PERMIT FOR ANY CONSTRUCTION OF AN IMPOUNDMENT OR PIT WELL WORK Delivery method pursuant to West Virginia Code § 22-6A-10(b) REGISTERED METHOD OF DELIVERY THAT REQUIRES A PERSONAL. RECEIPT OR SIGNATURE CONFIRMATION SERVICE MAIL Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the crosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule. ☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to: COAL OWNER OR LESSEE ☑ SURFACE OWNER(s) Name: Antonio PLLC, c/o Mike Ross Name: Antonio PLLC, c/o Mike Ross Address: P. O. Box 219 Address: P. O. Box 219 Coalton, WV 26257 Coalton, WV 26257 Charles R. Sutton ☐ COAL OPERATOR Name: Address: 593 Long Run Road Name: Lost Creek, WV 26385 Address: SURFACE OWNER(s) (Road and/or Other Disturbance) ☐ SURFACE OWNER OF WATER WELL Name: See Above AND/OR WATER PURVEYOR(s) Address: Name: Address: Name: Address: OPERATOR OF ANY NATURAL GAS STORAGE FIELD ☐ SURFACE OWNER(s) (Impoundments or Pits) Dominion Energy Transmission, Inc Attn: Ron Walden Address: 925 White Oaks Blvd Name: See Above Bridgeport, WV 26330 Address: \*Please attach additional forms if necessary FEMALE T 1 1 23

WW-6A (8-13) API NO. 47-\_\_\_\_OPERATOR WELL NO. 1206 S-10H
Well Pad Name: Antonio 1206

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

#### This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57<sup>th</sup> Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting <a href="https://www.dep.wv.gov/oil-and-gas/pages/default.aspx">www.dep.wv.gov/oil-and-gas/pages/default.aspx</a>.

#### **Well Location Restrictions**

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

WW-6A (8-13)

API NO. 47-

OPERATOR WELL NO. 1206 S-10H

Well Pad Name: Antonio 1206

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

#### Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

#### Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

#### Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

#### Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas Department of Environmental Protection 601 57<sup>th</sup> St. SE Charleston, WV 25304

RFCEIVED Office of Oil and Cas

JAN 3 9 2820

(304) 926-0450

WW Copartment of Environment tell Frotection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.

WW-6A (8-13) API NO. 47-\_\_\_\_OPERATOR WELL NO. 1206 S-10H
Well Pad Name: Antonio 1206

#### Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

**Comment Requirements** 

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

#### Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.



WW-6A (8-13)

API NO. 47-\_\_\_OPERATOR WELL NO. 1206 S-10H
Well Pad Name: Antonio 1206

Notice is hereby given by:

Well Operator: HG Energy II Appalachia, LLC

Telephone: 304-420-1119

Email: dwhite@hgenergyllc.com Diane White

Address: 5260 Dupont Road
Parkersburg, WV 26101

Facsimile: 304-863-3172

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

OFFICIAL SEAL

NOTARY PUBLIC. STATE OF WEST VIRGINIA

MARK J SCHALL

H G Energy L L C

PO Box 5519, Vienna, W 26105

My Commission Expires November 2, 2021

Subscribed and sworn before me this 17th day of December, 2019

Notary Public

My Commission Expires //

Office of Oil and Gas

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WV Department of Environmental Protestion

WW-6A4 (1/12)

Operator Well No. 1206 S-10H

#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF INTENT TO DRILL

Pursuant to W. Va. Code § 22-6A-16(b), the Notice of Intent to Drill is only required if the notice requirements of W. Va. Code § 22-6A-10(a) have NOT been met or if the Notice of Intent to Drill requirement has NOT been waived in writing by the surface owner.

ate of Notic	Requirement: Notice shall ce: 12/03/2019	Date Permit Ap	plication Filed	: 12/20/2019			
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The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov. F 20 -54

WW-6A5 (1/12)

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS NOTICE OF PLANNED OPERATION

Deliver	y method pursuant to West Virginia C	ode § 2	22-6A-16(c)		
■ C	ERTIFIED MAIL	П	HAND		
	ETURN RECEIPT REQUESTED	_	DELIVERY		
return re the plan required drilling damage (d) The of notic	eceipt requested or hand delivery, give the three operation. The notice required by it to be provided by subsection (b), section of a horizontal well; and (3) A propose is to the surface affected by oil and gas of notices required by this section shall be	this surface this sun ten o ed surface peration given to the things of the ten of the te	ace owner whose land ubsection shall include if this article to a surfa- ace use and compens as to the extent the da to the surface owner a	will be used for de: (1) A copy ace owner whos ation agreemen mages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information is land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
Name:	Antonio PLLC, c/o Mike Ross	-1/	Name:	Charles R. Sutton	
					a d
Address  Notice i	Coalton, WV 26257  is hereby given: It to West Virginia Code § 22-6A-16(c), 1	notice i	Address is hereby given that the	Lost Creek, WV 2	well operator has developed a planned
Notice i	is hereby given: It to West Virginia Code § 22-6A-16(c), ion on the surface owner's land for the put West Virginia Harrison Grant West Milford West Milford	notice i	is hereby given that the of drilling a horizonta  UTM NAD 8  Public Road A	Lost Creek, WV 20 the undersigned vill well on the tra Easting: Northing:	well operator has developed a planned
Notice is Pursuan operation State: County: District: Quadrar Watersh  This No Pursuan to be phorizon surface informa headqua	is hereby given: It to West Virginia Code § 22-6A-16(c), 1 It to West Virginia Code § 22-6A-16(c), 1 It to West Virginia Code § 22-6A-16(c), 1 It to West Virginia It Harrison It Grant It West Milford It Middle West Fork Creek It to West Virginia Code § 22-6A-16(c), 1 It to West Virginia Code § 22-6A-16(b) It to West Virginia Code § 22-6A-10(b) It well; and (3) A proposed surface use affected by oil and gas operations to the	this no to a sand coe externoe obta	is hereby given that the of drilling a horizonta  UTM NAD 8  Public Road A Generally use of the shall include: (1) surface owner whose ompensation agreement the damages are conined from the Secret	Lost Creek, WV 20  the undersigned of le well on the tra  Easting: Northing: Access: Ac farm name:  A copy of this land will be undersigned of the containing anompensable undersy, at the WV	well operator has developed a planned act of land as follows:  553369.8  4334415.8  SR19/Hackers Creek Road  Antonio  code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection
Notice is Pursuan operation State: County: District: Quadrar Watersh  This Not Pursuan to be phorizon surface informate headquagas/pag	is hereby given: It to West Virginia Code § 22-6A-16(c), to on on the surface owner's land for the pure west Virginia Harrison Grant Middle West Fork Creek  Otice Shall Include: It to West Virginia Code § 22-6A-16(c), rovided by W. Va. Code § 22-6A-10(b) tal well; and (3) A proposed surface use affected by oil and gas operations to the tion related to horizontal drilling may be arters, located at 601 57th Street, SE, es/default.aspx.	this no to a sand coe externoe obta	is hereby given that the of drilling a horizonta  UTM NAD 8  Public Road A Generally use of the shall include: (1) surface owner whose ompensation agreement the damages are conined from the Secret	Lost Creek, WV 20 the undersigned of levell on the tra Easting: Northing: Access: Acceps of this land will be undersigned will be undersigned ary, at the WV (304-926-0450)	well operator has developed a planned oct of land as follows:  553369.8  4334415.8  SR19/Hackers Creek Road
Notice is Pursuan operation State: County: District: Quadrar Watersh  This No Pursuan to be phorizon surface informa headqua	is hereby given: It to West Virginia Code § 22-6A-16(c), in on the surface owner's land for the pure west Virginia Harrison Grant Ingle: West Milford Indle West Fork Creek  Otice Shall Include: It to West Virginia Code § 22-6A-16(c), rovided by W. Va. Code § 22-6A-10(b) tal well; and (3) A proposed surface use affected by oil and gas operations to the strion related to horizontal drilling may be arters, located at 601 57th Street, SE, es/default.aspx.  Perator: HG Energy II Appalachia, LLC	this no to a sand coe externoe obta	is hereby given that the of drilling a horizonta  UTM NAD 8  Public Road A Generally use of the surface owner whose owners are compensation agreement the damages are contined from the Secret deston, WV 25304 (continuous continuous	Lost Creek, WV 20  the undersigned of le well on the tra  Easting: Northing: Access: Ac farm name:  A copy of this land will be undersigned of the containing anompensable undersy, at the WV	well operator has developed a planned ct of land as follows:  553369.8  4334415.8  SR19/Hackers Creek Road  Antonio  code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.





# WEST VIRGINIA DEPARTMENT OF TRANSPORTATION Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110 Charleston, West Virginia 25305-0430 • (304) 558-3505

October 18, 2019

Byrd E. White, III Secretary of Transportation/ Commissioner of Highways

> Jimmy Wriston, P. E. Deputy Secretary/ Deputy Commissioner

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57<sup>th</sup> Street, SE Charleston, WV 25304

Subject: DOH Permit for the Antonio 1206 Pad, Harrison County 1206 S-10H Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2018-1374 which has been issued to HG Energy II for access to the State Road for a haul road located off Harrison County Route 19/20 SLS. The haul route will cross Harrison County Route 25/6 by permits 04-2019-0930 & 04-2019-0931.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc:

Diane C. White

HG Energy II CH, OM, D-4

File

Office of Cill and Cas

JAN 3 0 2020

Environment of Environment of Environment to Protection

E.E.O./AFFIRMATIVE ACTION EMPLOYER

## List of Frac Additives by Chemical Name and CAS #

### Antonio 1206 Well Pad (N-1H to N-5H)

Chemical Name	CAS#	Multiple CAS #'s
2 0 1 0 0 10		60554.45.3
Pro Shale Slik 405	Mixture	68551-12-2
		7647-14-5
		12125-02-9
		64742-47-8
Pro Hib II	Mixture	68412-54-4
		68607-28-3
		107-21-1
it.		111-76-2
		67-56-1
		107-19-7
Silica Sand and Ground Sand	Mixture	14808-60-7
		1344-28-1
		1309-37-1
		13463-67-7
Hydrochloric Acid 22 DEG BE	7647-01-0	
PROGEL - 4.5	64742-96-7	
BIO CLEAR 2000	Mixture	25322-68-3
		10222-01-2
SCALE CLEAR SI 112	107-21-1	
PROBREAK 4	Mixture	57-50-1
		107-21-1
Sulfamic Acid	5329-14-6	
PRO - Flow - 102-N	Mixture	67-63-0
		68439-45-2
		2687-96-9
PROGEL - 4	9000-30-0	

# HG 1206 WELL PAD & IMPOUNDMENTS

GRANT DISTRICT HARRISON COUNTY WEST VIRGINIA

APPROVED
WVDEP OOG

1/1/12/2019

-	ja silva	8/	
	CENTER OF 1206	F 15-15-15-15-15-15-15-15-15-15-15-15-15-1	1/4
V -	FRESHWATER	er 1_	3
	IMPOUNDMENT		
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(UNDER SEPA			1
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Company of the Compan		SOUTH	A
1208 WELL PAD ACCESS		N 39,1441759' W 80,3805557' %	7t/1
ROAD (UNDER	100	W 00,3803331	-
SEPARATE			1000
PERMIT)	All the second		1
N 39,149029* W 80,429878*	HG 1206 PAD &	1	1
W 00.423070	IMPOUNDMENTS	100	7
las-	22' WIDE ACCESS	DUCK CREEK	1
The second	ROAD	ROAD	
	The same and	CROSSING	S. 100
	ins. Amakan	N 39,138843*	
		W 80.380611	6
	3	the file	11/2
	4166		7
4	of this	- C-	Whorter

## LOGATION MAP PREPARED FOR HG ENERGY II APPALACHIA, LLC

ETHERET: (500 75-MM TOPOCEMPNE DIAGRANGE) METT MUDBE, WY 2016

5260 DUPONT ROAD PARKERSBURG, WEST VIRGINIA 26101 (304) 420-1100

## PENN ENVIRONMENTAL & REMEDIATION, INC.

111 RYAN COURT PITTSBURGH, PA 15205 (412) 722-1222

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C 315	510
50	2,540
4.276	9.835
5.970	345
12,000	226
	1,200
15:570	14 185
	2.937
	17,742
	20,738
	4,147
	24.885
	3,622
a went	et TOTAL
30.55	
200	34.385
3.270	
region (LF)	1450
	2 901
	5,450
	1,570
	24 437
es (Atrial)	21,955
	9,297
	11,696
	14.161
	11,558
	06.183
	12034
	169
	1395
	1249.74

WELL #	LAT.	LONG.
N-1H	N 39,158096	W 80.382426
N-2H	N 39.158101	W 80.382374
N-3H	N 39.158107	W 80.382321
N-4H	N 39,158112	W 80.382269
N-5H	N 39.158118	W 80,382216
S-6H	N 39.157314	₩ 80.382294
S-7H	N 39.157319	W 80.382242
5-84	N 39.157325	₩ 80.382189
S-SH	N 39.157330	W 80.382137
S-10H	N 39.157336	W 80.382084

	LATITUDE	LONGITUDE
DUCK CREEK ROAD CROSSING	N 39.138843	W 80.380611
1207 WELL PAD ACCESS ROAD ENTRANCE	N 39.152061	W 80.420447
1208 WELL PAD ACCESS ROAD ENTRANCE	N 39.149029	W 80,429878

RECORD	REDORD LOT #	AREA OF LOT	AREA WITHIN LOD
HUBERT E & SANDRA K NEEL	17-12-0445-0005-0000	89.07	0.000
MICKET PETITIO	17-12-0445-0013-0000	132,852	5.957
LELAND J FREEMAN	17-12-0445-0026-0000	15.5508	2.236
CHARLES R SUTTON	17-12-0445-0043-0000	4.655	1.134
TRANSIN I, SUTTON	17-12-0445-0047-0000	72.2783	4.670
RICHARD L HANKINS, JR	17-12-0446-0031-0000	53,1225	3.425
FRANKLIN L. SUTTON	17-12-0446-0039-0001	48,3295	2.713
W JOT & HANNAH M SUFTON	13-12-0446-0040-0000	84.6203	1.709
DUCK CREEK RD	N/A	N/A	0.052
CHARLES NAY	17-12-0446-0039-0000	26,2318	2.16B
CHARLES RALPH & TANKA & SUTTON	17-12-0446-0040-0000	84.6203	2.253
JERI L. 900-ER	17-12-0448-0031-0001	22 6792	1,811
MARY RICHARDS	17-12-0448-0033-0000	47.9334	6.427
WILLIAM LERGY & MRCINA A JENKINS	17-12-0446-0018-0000	78 5856	2,538
WARY RICHARDS	17-12-0445-0018-0001	0.9075	0.197
MARY RICHARDS	17-12-0446-0019-0000	56.5818	2.028
P ANTONO, ILC	17-12-0446-0003-0000	180.7720	1.555
P AVIGUE, U.C	17-12-0446-0002-0000	41.0699	0.668
P WHOND, U.C.	17-12-0426-0071-0000	230.6748	21.148
CHARLES R SUTTON	17-12-0426-0072-0000	31.1173	4.504
JUDITH H RUSSELL	17-12-0425-0021-0000	15.1580	0.701
TOTAL LIMO	OF DISTURBANCE		68 187 A

### (1997) | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 1997 | 199



TITLE SHEET
HG 1206 WELL PAD & IMPOUNDMENTS
GRANT DISTRICT
HARRISON COUNTY, WEST VIRGINIA

HG ENERGY II APPALACHIA, LLC PARKERSBURG, WEST VIRGINIA

APPHONED MEP 09/05/2019
CHECKED MEP 08/30/2019
DRAWN D.A. MFR 08/30/2019
PROJECT No. 4000-PMID:RET
DRAWNED MUNEER
PA00/7871-001

Penn E&R

Plant E&R

Part Example 141 6 Pend 2300, 101

111 KINN DDURF, PRISONOGE, PA 15200

412 1732-1732

CONSTRUCTION SEQUENCE

7A-7C

TITLE SHEET
SITE DEVELOPMENT PLANS
IMPOUNDMENT SECTIONS

ACCESS ROAD SECTIONS

CONSTRUCTION NOTES & DETAILS

RESTORATION FLAN

PROPERTY MAP

. Pror to commencement of any earth disturbance activity including cleaning and grubbing, the registrant shall call West Virginia 811 by dishing 311 or 1-800-245-4348 to identify all utility lines. The registrant also must clearly delineate sensitive areas, inparian forest buffer boundaries, the limits of cleaning, and trees that are to be conserved within the project site, and shall install appropriate barriers where equipment may not be parked, staged, operated or located for any purpose,

SHEET TITLE

 Site access - This is the first land-disturbance activity to take place at the site and should provide BMPs to minimize accelerated elosion and sedimentation from the following areas: entrance to the site, construction routes, and areas designated for equipment or other use at the site including parking, stockpiles.

 Sediment Borriers - Install perimeter BMPs after the construction site is accessed, keeping associated clearing and grubbing limited to only that amount required for installing perimeter BMPs.

 Land Clearing and Grading - Implement clearing and grading only after all downslope E&S BMPs have been constructed and stabilized.

 Surface Stabilization - Apply temporary or permanent stabilization measures immediately to any disturbed areas where work has reached final grade, has been delayed or otherwise temporarily suspended.

 Construction of Buildings, Utilities, and Paving - During construction, install and markain any additional presion and sediment control BMPs, and implement any structural post construction stormwater BMPs that may be required.

 Upon completion of pad grading, compact the pad to grade and begin placement of pad soil cement.

8. Final Stabilization, Topsoiling Trees and Stirubs - After construction is completed, install stabilization BMCs including, permanent seeding, mulching and riprap, and complete implementation of stormwater BMPs in this last construction phase. Stabilize all open areas, including borrow and spoil areas, and remove all temporary BMPs and stabilize any disturbances associated with the removal of the BMP.

WEST VIRGINIA

YOU DIG!

LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SWALL RE IN LOCATING MAINTAINING AND REPLACING AS RECEISARY TO SHAURE CONTINUAL SERVINE

