



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

Tuesday, September 24, 2019
WELL WORK PERMIT
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC
380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Re: Permit approval for MICHTER N-9HU
47-051-02220-00-00

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: MICHTER N-9HU
Farm Name: LARRY W. DUNLAP, ET AL
U.S. WELL NUMBER: 47-051-02220-00-00
Horizontal 6A New Drill
Date Issued: 9/24/2019

Promoting a healthy environment.

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

1. 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 well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water 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.

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, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.
-



west virginia department of environmental protection

Oil and Gas Conservation Commission
601 57th Street SE, Charleston, WV 25304
304-926-0499 Ext 1274

Barry K. Lay, Chairman
dep.wv.gov

September 12, 2019

Department of Environmental Protection
Office of Oil and Gas
Charleston, WV 25304

RE: Application for Deep Well Permit – API #47-051-02220

COMPANY: Tug Hill Operating, LLC

FARM: Larry W. Dunlap, et ux Michter N-9HU

COUNTY: Marshall DISTRICT: Franklin QUAD: Powhatan Point

The deep well review of the application for the above company is **Approved to drill to the Trenton for Point Pleasant completion. Pooling Docket No. 284-280**

The applicant has complied with the provision of Chapter 22C-9, of the Code of West Virginia, nineteen hundred and thirty-one (1931), as amended, Oil and Gas Conservation Commission as follows:

1. Comments to Notice of Deviation filed? Yes; withdrawn prior to hearing being set
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: **yes, Docket 284-280
4. Provided a plat showing that the proposed location is a distance of 400 feet from the nearest lease line or unit boundary with the exception of the heel which is 332 feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

** Michter N-6HU 47-051-02206; Michter N-7HU 47-051-02207, Michter N-8HU 47-051-02219, MND 6 HHS 47-051-01732; MND20AU 47-051-02011; MND20BU 47-051-02012, MND20CU 47-051-02013, Old Crow N-19HU 47-051-02190; Old Crow N-20HU 47-051-02191, Old Crow N-18HU 47-051-02123; Old Crow N-17HU 47-051-02122; Bryan N-14HU 47-051-02031; Bryan N-13HU 47-051-02030; Bryan N-12HU 47-051-02029; Woodford -10HU 47-051-02152; Woodford-9HU 47-051-02150; Woodford-8HU 47-051-02149; Woodford-7HU 47-051-02147; Woodford-6HU 47-051-02143

Sincerely,



Susan Rose
Administrator



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

1) Well Operator: Tug Hill Operating, LLC 494510851 Marshall Franklin Powhatan Point 7
Operator ID County District Quadrangle

2) Operator's Well Number: Michter N-9HU Well Pad Name: Michter

3) Farm Name/Surface Owner: Larry W. Dunlap, et ux Public Road Access: Rines Ridge Road (County Route 76)

4) Elevation, current ground: 1136.00' Elevation, proposed post-construction: 1127.11'

5) Well Type (a) Gas Oil _____ Underground Storage _____
Other _____

(b) If Gas Shallow _____ Deep _____
Horizontal _____

ju
6/5/19

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Point Pleasant is the target formation at a depth of 10,926' - 11,047', thickness of 121' and anticipated pressure of approx. 9,500 psi

8) Proposed Total Vertical Depth: 11,197'

9) Formation at Total Vertical Depth: Trenton

10) Proposed Total Measured Depth: 25,542'

11) Proposed Horizontal Leg Length: 13,275.04'

12) Approximate Fresh Water Strata Depths: 718'

13) Method to Determine Fresh Water Depths: Offset well reports or noticeable flow at the flowline or when need to start soaping

14) Approximate Saltwater Depths: 1740'

15) Approximate Coal Seam Depths: Sewickly Coal - 614' and Pittsburgh Coal - 712'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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	BW	BW	120'	120'	259FT^3(CTS)
Fresh Water	20"	NEW	J55	94#	810'	810'	1,327ft^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	2,600'	2,600'	1,835ft^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	10,539'	10,539'	3,430ft^3(CTS)
Production	5 1/2"	NEW	P110	23#	25,542'	25,542'	6,030ft^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,550'	
Liners							

JW 6/5/19

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"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	20"	26"	.5	2,410	1,928	SEE #24	1.2
Coal	13 3/8"	17 1/2"	.38	2,740	2,192	SEE#24	1.2
Intermediate	9 5/8"	12 1/4"	.472	10,730	6,968	SEE#24	1.99
Production	5 1/2"	8 1/2"	.415	13,580	10,864	SEE#24	1.17/1.19
Tubing	2 7/8"			14,530	11,624		
Liners							

PACKERS

Kind:	N/A			
Sizes:	N/A			
Depths Set:	N/A			

WW-6B
(10/14)

API NO. 47-051 - 02220
OPERATOR WELL NO. Michter N-9HU
Well Pad Name: Michter

M
6/5/19

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

Drill through the Point Pleasant and TD Pilot Hole 150' into the Trenton. Log vertical section and run a solid cement plug back to proposed KOP. Drill curve and lateral per proposed well plan, run and cement production casing. Perform CBL from 60 deg to surface, make cleanout run, and stimulate.

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

Well to be completed with approximately 33,181,300 lb proppant and 513,007 bbl of water. Max rate = 80 bpm; max psi = 9,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 21.11 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.49 acres

23) Describe centralizer placement for each casing string:

Will run 3 centralizers on surface casing at equal distance. Intermediate strings will have 1 centralizer every other joint. Production casing will have one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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

*See Attached

25) Proposed borehole conditioning procedures:

Will circulate a minimum of 3 hours at TD, short trip to curve, circulate bottoms up, check for flow, POOH

*Note: Attach additional sheets as needed.



WELL NAME: Michter N-9HU COUNTY: Marshall
 STATE: WV DISTRICT: Franklin
 DF Elev: 1,130' GI Elev: 1,130'
 TD: 25,542'
 TH Latitude: 39.80296476
 TH Longitude: -80.7975323
 BH Latitude: 39.83846242
 BH Longitude: -80.83287993

30" Csg @ 120' TVD / 120' TVD

20" Csg @ 810' TVD / 810' TVD

13 3/8" Csg @ 2,600' TVD / 2,600' TVD

9 5/8" Csg @ 10,539' MD / 9,827' TVD

KOP @ 11,050' ft MD

Pilot Hole PH TD @ 11,197'

Landing Point @ 2,269' MD / 10,976' TVD

PH TVD = 150' below Trenton Top

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CASING SUMMARY

Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade	Top of Cement
Conductor	36	30	120'	120'	BW	BW	Surface
Surface	26	20	810'	810'	106.5	J55	Surface
Intermediate 1	17 1/2	13 3/8	2,600'	2,600'	54.5	J55	Surface
Intermediate 2	12 1/4	9 5/8	10,539'	9,827'	47	HPP110	Surface
Production	8 1/2	5 1/2	25,542'	10,745'	23	HCP110	Surface

CEMENT SUMMARY

Sacks	Class	Density	Fluid Type	Centralizer Notes
338	A	15.6	Air	None
1,430	A	15.6	Air	3 Centralizers at equal distance
1,989	A	15	Air	1 Centralizer every other jt
2,806	A	14.5	Air	1 Centralizer every other jt
5,216	A	15	Air / SOBM	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc

DRILLING DETAILS

FORMATION TOPS

Formation	Depth (TVD)
Deepest Fresh Water	718'
Sewickley Coal	614'
Pittsburgh Coal	712'
Big Lime	2,056'
Berea	2,570'
Tully	6,228'
Marcellus	6,289'
Onondaga	6,343'
Salina	7,035'
Lockport	8,047'
Utica	10,675'
Point Pleasant	10,926'
Landing Depth	10,976'
Trenton	11,047'
Pilot Hole TD	11,197'

Handwritten signature and date: 6/11/19

Lateral TD @ 25,542' ft MD
 10,745' ft TVD



Tug Hill Operating, LLC Casing and Cement Program

Michter N-9HU

Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	20"	J55	26"	810'	CTS
Intermediate 1	13 3/8"	J55	17 1/2"	2,600'	CTS
Intermediate 2	9 5/8"	HPP110	12 1/4"	10,539'	CTS
Production	5 1/2"	HCP110	8 1/2"	25,542'	CTS

Cement

Surface: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2

Intermediate 1: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.2

Intermediate 2: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.99

Production: 50:50 Poz: Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170, 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L – Production Cement mixed at 15.2ppg, Y= 1.18

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SI-02220



Well: Michter N-09HU (F)
Site: Michter
Project: Marshall County, West Virginia.
Design: rev1



Azimuths to Grid North
 True North: 0.13°
 Magnetic North: -8.79°
 Magnetic Field
 Strength: 52089.05nT
 Dip Angle: 66.91°
 Date: 5/12/2018
 Model: IGRF2015

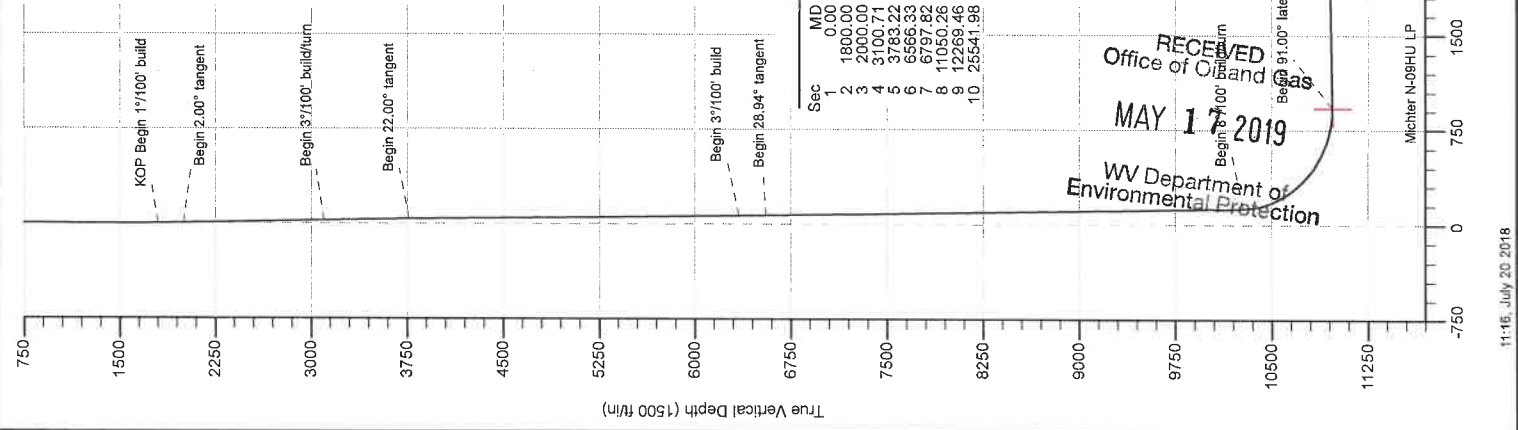
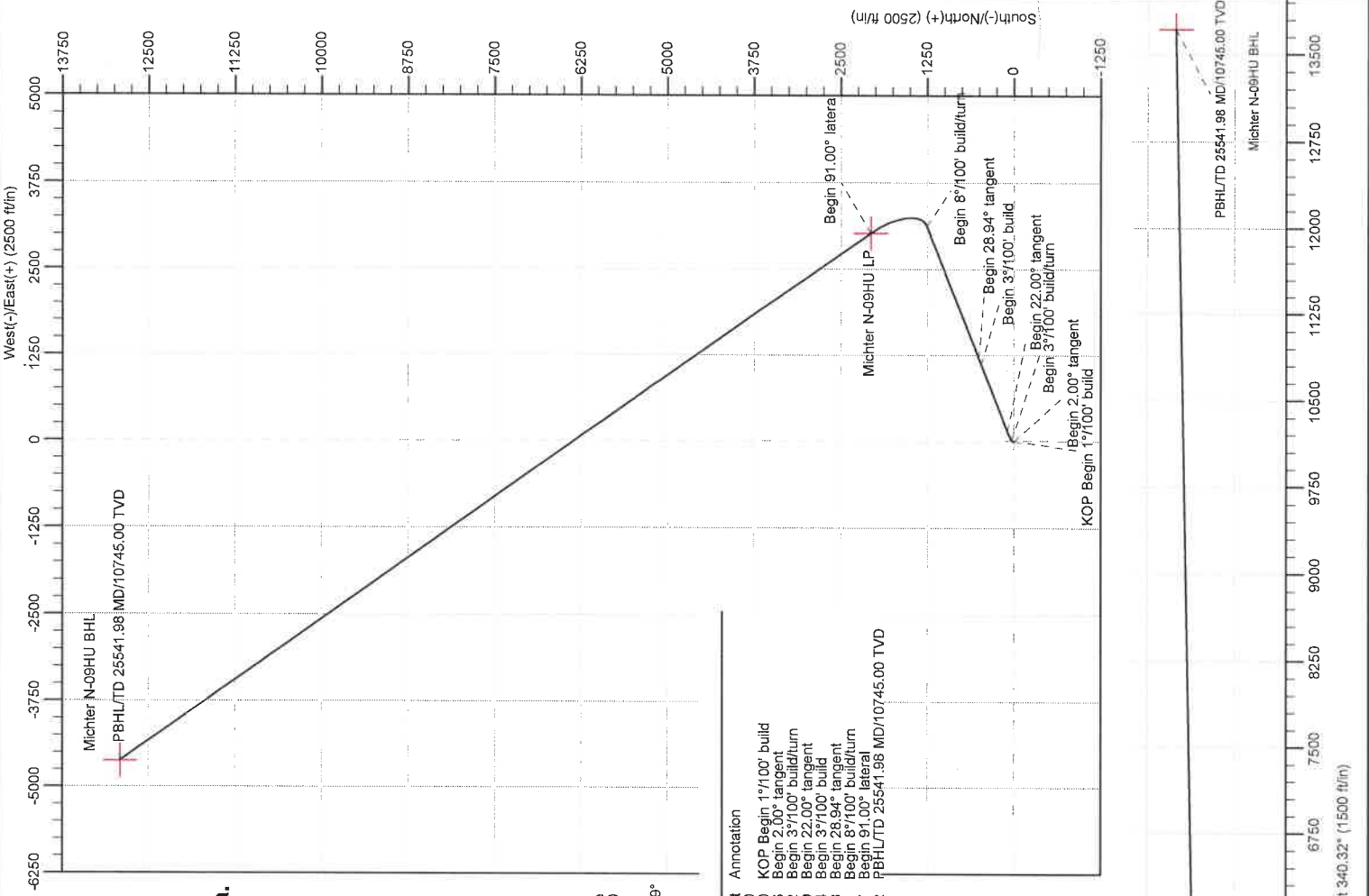
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARN
 Ellipsoid: GRS 1990
 Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level
 Depth Reference: GL @ 1130.00ft
 Northing 14455090.52 Easting 1697280.59
 Latitude 39.80296476 Longitude -80.79755230
 Total Corr (M->G):

To convert a Magnetic Direction to a Grid Direction, Subtract 8.79°

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1°/100' build
2	1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00	Begin 2.00° tangent
3	2000.00	2.00	30.00	1999.96	3.02	1.75	1.00	30.00	2.26	Begin 3°/100' build/turn
4	3100.71	2.00	30.00	3100.00	36.29	20.95	0.00	0.00	27.12	Begin 22.00° tangent
5	3783.22	2.00	68.69	3764.54	93.67	147.35	3.00	42.02	38.59	Begin 3°/100' build
6	6566.33	22.00	68.69	6344.99	472.56	1118.64	0.00	0.00	68.34	Begin 28.94° tangent
7	6797.82	28.94	68.69	6563.85	508.72	1211.33	3.00	-0.01	71.18	Begin 8°/100' build/turn
8	11050.26	28.94	68.69	10275.11	1256.74	3128.61	0.00	0.00	130.01	Begin 91.00° lateral
9	12269.46	91.00	324.83	10976.00	2068.36	3026.37	8.00	-101.71	928.67	PBHLTD 25541.98 MD/10745.00 TVD
10	25541.98	91.00	324.83	10745.00	12915.80	-4618.20	0.00	0.00	3716.62	PBHLTD 25541.98 MD/10745.00 TVD



Area of Review

SI-02220

Sources of information to Support 35CSR8 - 5.11: 9.3 et seq.

Description of process to identify potential pathways for well communication during hydraulic fracturing activities.

Data Sources Reviewed:

1. IHS Well Data service: Public nationwide data service that pulls directly from State agency Oil and Gas databases
2. Farm Maps
3. Topo Maps: Recent and older (contact WVGES)
4. Check with DPS

Contacted Devin Ducoeur 724-705-0444, dducoeur@dpslandservices.com DPS GIS (07/02/2018) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it as the best publicly available. See attached map he provided.

Request maps for:

1. Wellbore with IHS All Wells Layer
2. Map with Farm lines overlain and any well spots identified on Farm Maps
3. More recent (1970s vintage) topos and older topos

Discussion with Phil Dinterman WVGES GIS Department (7/15/2016)

- WVGES has plotted every well spot they have access to and are aware of with that contains a coordinate. 30000, 70000, and 90000 series wells are available via the WVGES online map. Some locations aren't great due to vintage and manipulation of maps through time
- 30000 series – any well drilled prior to 1929 – APIs were not assigned to original wells
- 70000 series – Well spots pulled from old Farm line maps that the WVGES has access to
- 90000 series – Any sources that the WVGES has access that shows a well spot but has no additional supporting information. DEP does not have 90000 series on their maps.
- There can be duplication between wells in the 3 series
- Phil indicated that other Operators are providing a screenshot of the WVGES map with their planned well and using that for permits

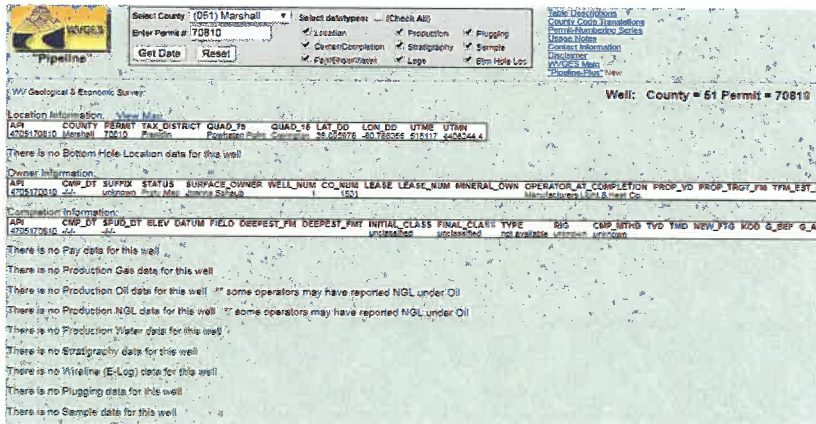
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Permit well - Michter N-9HU

Wells within 500' Buffer

Note: Well spots depicted on Area of Review map (page 3) are derived from State held coordinates. The spots may differ from those depicted on the Well Plat because the Plat locations represent actual field surveyed locations. Please refer to the Plat for surveyed well spots

API Number	Operator Name	Total Depth	Perforated Fms	Producing zones not perforated	Is this well "known or reasonably expected to penetrate a depth that could be within the range of Fracture propagation"? 1000' is max limit I would assign to wells that might be within in range of fracture propagation	Comments
4705170810	Manufacturers Light and Heat	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Point Pleasant well.	State records are incomplete
4705130144	Manufacturers Light and Heat	1835'	Salt Sands (U	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Plugged : 11/25/1940
4705101761	HG Energy II, Appalachia, LLC	5,765' TVD, 15,653' TMD	Marcellus	None	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Producing Marcellus well
4705101762	HG Energy II, Appalachia, LLC	5,940' TVD, 16,756' TMD	Marcellus	None	No, the well is not deep enough to be within the expected fracture propagation from a Point Pleasant stimulation.	Producing Marcellus well



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page 2

Well: County = 61 Permit = 30144

WV Geological & Economic Survey

Location Information: View Map

AP# COUNTY PERMIT TAX DISTRICT QUAD 76 QUAD 12 LAY JOB LON EOL UTM# UTM#

470213144 Marston 2014 630764 040213144 2014 630764 040213144

There is no Bottom Hole Location data for this well

Owner Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213144 11/6/2014 040213144 040213144 040213144 1531 040213144 040213144 Manufacturing Lease & Prod Co Manufacturing Lease & Prod Co

Completion Information

AP# CMP DT SPD DT BLY DATUM FIELD DEEPERT_FTH DEEPERT_FTH INITIAL_CLASS FINAL_CLASS TYPE RIG DCP_MTHD YD YAD NEW_FTH YAD NEW_FTH RIG_ID

470213144 11/6/2014 040213144 040213144 040213144 1531 040213144 040213144 1531 040213144 040213144 040213144 040213144

Production Gas Information: Volumes in MCF - 2011 to 2012

AP# PRODUCTION_OPERATOR PROJ_YEAR ANL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECF

470213144 HD Energy Appalachia LLC 2011 410.300 0 0 0 0 0 0 0 0 0 0 0

Well: County = 61 Permit = 30144

WV Geological & Economic Survey

Location Information: View Map

AP# COUNTY PERMIT TAX DISTRICT QUAD 76 QUAD 12 LAY JOB LON EOL UTM# UTM#

470213144 Marston 2014 630764 040213144 2014 630764 040213144

Bottom Hole Location Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213144 11/6/2014 040213144 040213144 040213144 1531 040213144 040213144 1531 040213144 040213144 040213144 040213144

Owner Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213144 11/6/2014 040213144 040213144 040213144 1531 040213144 040213144 1531 040213144 040213144 040213144 040213144

Completion Information

AP# CMP DT SPD DT BLY DATUM FIELD DEEPERT_FTH DEEPERT_FTH INITIAL_CLASS FINAL_CLASS TYPE RIG DCP_MTHD YD YAD NEW_FTH YAD NEW_FTH RIG_ID

470213144 11/6/2014 040213144 040213144 040213144 1531 040213144 040213144 1531 040213144 040213144 040213144 040213144

Production Gas Information: Volumes in MCF - 2011 to 2012

AP# PRODUCTION_OPERATOR PROJ_YEAR ANL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECF

470213144 HD Energy Appalachia LLC 2011 410.300 0 0 0 0 0 0 0 0 0 0 0

Well: County = 61 Permit = 01761

WV Geological & Economic Survey

Location Information: View Map

AP# COUNTY PERMIT TAX DISTRICT QUAD 76 QUAD 12 LAY JOB LON EOL UTM# UTM#

470213174 Marston 1761 01761 01761 01761 01761 01761 01761 01761

Bottom Hole Location Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213174 11/22/2014 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761

Owner Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213174 11/22/2014 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761

Completion Information

AP# CMP DT SPD DT BLY DATUM FIELD DEEPERT_FTH DEEPERT_FTH INITIAL_CLASS FINAL_CLASS TYPE RIG DCP_MTHD YD YAD NEW_FTH YAD NEW_FTH RIG_ID

470213174 11/22/2014 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761

Production Gas Information: Volumes in MCF - 2011 to 2012

AP# PRODUCTION_OPERATOR PROJ_YEAR ANL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECF

470213174 HD Energy Appalachia LLC 2011 410.300 0 0 0 0 0 0 0 0 0 0 0

Well: County = 61 Permit = 01761

WV Geological & Economic Survey

Location Information: View Map

AP# COUNTY PERMIT TAX DISTRICT QUAD 76 QUAD 12 LAY JOB LON EOL UTM# UTM#

470213174 Marston 1761 01761 01761 01761 01761 01761 01761 01761

Bottom Hole Location Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213174 11/22/2014 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761

Owner Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213174 11/22/2014 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761

Completion Information

AP# CMP DT SPD DT BLY DATUM FIELD DEEPERT_FTH DEEPERT_FTH INITIAL_CLASS FINAL_CLASS TYPE RIG DCP_MTHD YD YAD NEW_FTH YAD NEW_FTH RIG_ID

470213174 11/22/2014 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761 01761

Production Gas Information: Volumes in MCF - 2011 to 2012

AP# PRODUCTION_OPERATOR PROJ_YEAR ANL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECF

470213174 HD Energy Appalachia LLC 2011 410.300 0 0 0 0 0 0 0 0 0 0 0

Well: County = 61 Permit = 01762

WV Geological & Economic Survey

Location Information: View Map

AP# COUNTY PERMIT TAX DISTRICT QUAD 76 QUAD 12 LAY JOB LON EOL UTM# UTM#

470213176 Marston 176 01762 01762 01762 01762 01762 01762 01762

Bottom Hole Location Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213176 11/22/2014 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762

Owner Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213176 11/22/2014 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762

Completion Information

AP# CMP DT SPD DT BLY DATUM FIELD DEEPERT_FTH DEEPERT_FTH INITIAL_CLASS FINAL_CLASS TYPE RIG DCP_MTHD YD YAD NEW_FTH YAD NEW_FTH RIG_ID

470213176 11/22/2014 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762

Production Gas Information: Volumes in MCF - 2011 to 2012

AP# PRODUCTION_OPERATOR PROJ_YEAR ANL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECF

470213176 HD Energy Appalachia LLC 2011 436.600 0 0 0 0 0 0 0 0 0 0 0

Well: County = 61 Permit = 01762

WV Geological & Economic Survey

Location Information: View Map

AP# COUNTY PERMIT TAX DISTRICT QUAD 76 QUAD 12 LAY JOB LON EOL UTM# UTM#

470213176 Marston 176 01762 01762 01762 01762 01762 01762 01762

Bottom Hole Location Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213176 11/22/2014 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762

Owner Information

AP# DEP DT SUPER STATUS SURFACE_OWNER WELL_NUM COLLUM LEASE LEASE_NUM MINERAL_OWN OPERATOR AT COMPLETION PROJ_YD PROJ_FTH YD

470213176 11/22/2014 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762

Completion Information

AP# CMP DT SPD DT BLY DATUM FIELD DEEPERT_FTH DEEPERT_FTH INITIAL_CLASS FINAL_CLASS TYPE RIG DCP_MTHD YD YAD NEW_FTH YAD NEW_FTH RIG_ID

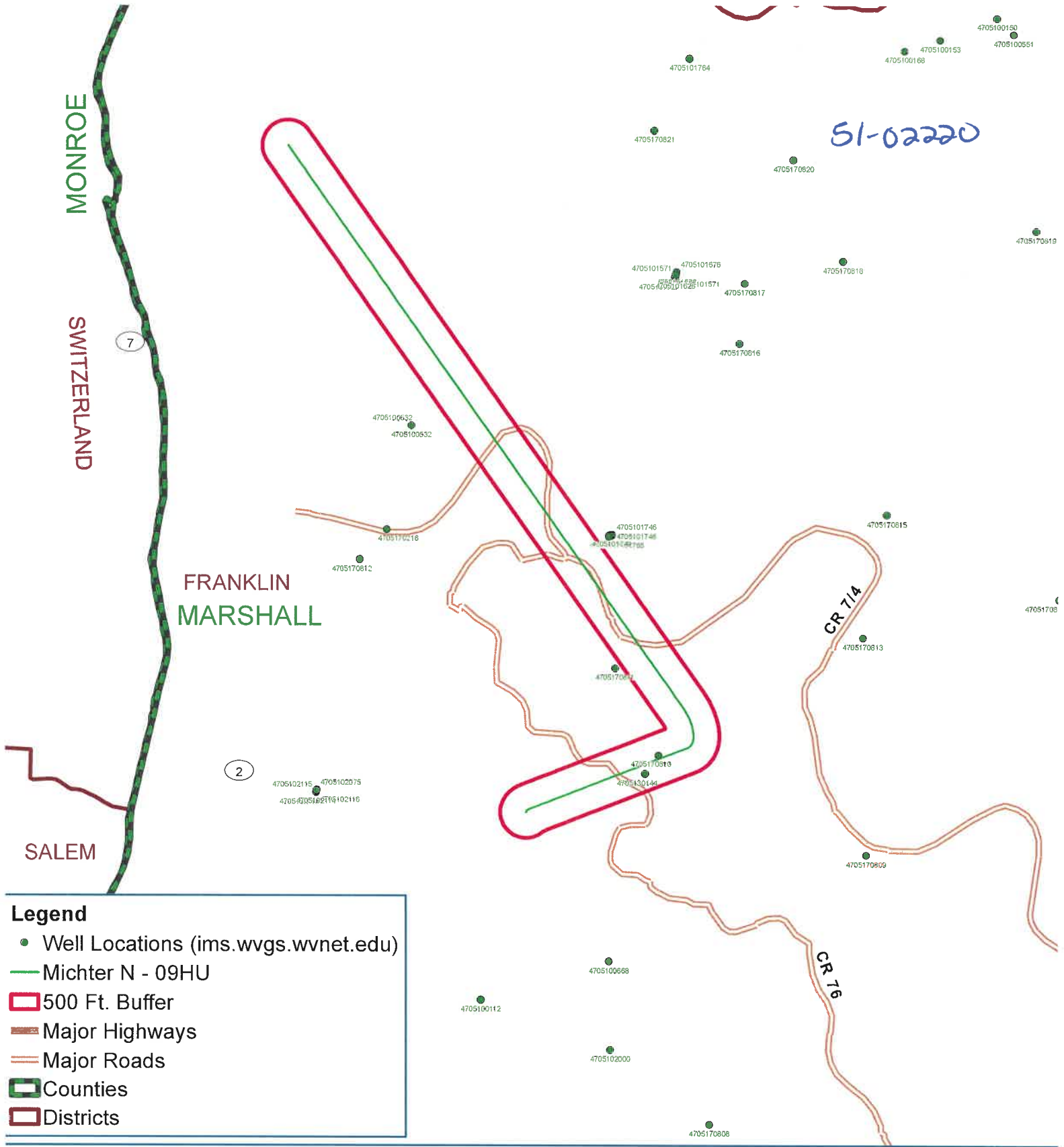
470213176 11/22/2014 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762 01762

Production Gas Information: Volumes in MCF - 2011 to 2012

AP# PRODUCTION_OPERATOR PROJ_YEAR ANL JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DECF

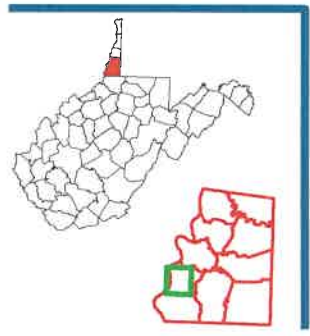
470213176 HD Energy Appalachia LLC 2011 436.600 0 0 0 0 0 0 0 0 0 0 0





Legend

- Well Locations (ims.wvgs.wvnet.edu)
- Michter N - 09HU
- 500 Ft. Buffer
- Major Highways
- Major Roads
- Counties
- Districts



Michter N - 09HU

Franklin District

Marshall County, WV



Map Created: January 15, 2019

Notes:
All locations are approximate and are for visualization purposes only.



Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Michter N-09HU (F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1130.00ft
Project:	Marshall County, West Virginia.	MD Reference:	GL @ 1130.00ft
Site:	Michter	North Reference:	Grid
Well:	Michter N-09HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Project	Marshall County, West Virginia.		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 West Virginia - HARN		
Map Zone:	Zone 17N (84 W to 78 W)		

Site	Michter				
Site Position:		Northing:	14,454,962.42 usft	Latitude:	39.80272253
From:	Lat/Long	Easting:	1,697,325.45 usft	Longitude:	-80.79737330
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	Michter N-09HU (F)					
Well Position	+N/-S	0.00 ft	Northing:	14,455,050.52 usft	Latitude:	39.80296476
	+E/-W	0.00 ft	Easting:	1,697,280.59 usft	Longitude:	-80.79753230
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	1,130.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/12/2018	-8.66	66.91	52,088.96938793

Design	rev1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	340.32

Plan Survey Tool Program	Date	7/20/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	25,541.98 rev1 (Original Hole)	MWD MWD - Standard	

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Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Michter N-09HU (F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1130.00ft
Project:	Marshall County, West Virginia.	MD Reference:	GL @ 1130.00ft
Site:	Michter	North Reference:	Grid
Well:	Michter N-09HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Plan Sections											
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00		
2,000.00	2.00	30.00	1,999.96	3.02	1.75	1.00	1.00	0.00	30.00		
3,100.71	2.00	30.00	3,100.00	36.29	20.95	0.00	0.00	0.00	0.00		
3,783.22	22.00	68.69	3,764.54	93.67	147.35	3.00	2.93	5.67	42.02		
6,566.33	22.00	68.69	6,344.99	472.56	1,118.64	0.00	0.00	0.00	0.00		
6,797.82	28.94	68.69	6,553.85	508.72	1,211.33	3.00	3.00	0.00	-0.01		
11,050.26	28.94	68.69	10,275.11	1,256.74	3,128.61	0.00	0.00	0.00	0.00		
12,269.46	91.00	324.83	10,976.00	2,068.36	3,026.37	8.00	5.09	-8.52	-101.71	Michter N-09HU LP	
25,541.98	91.00	324.83	10,745.00	12,915.80	-4,618.20	0.00	0.00	0.00	0.00	Michter N-09HU BHL	

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Planning Report - Geographic

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Michter N-09HU (F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1130.00ft
Project:	Marshall County, West Virginia.	MD Reference:	GL @ 1130.00ft
Site:	Michter	North Reference:	Grid
Well:	Michter N-09HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

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WV Department of
Environmental Protection

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
100.00	0.00	0.00	100.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
200.00	0.00	0.00	200.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
300.00	0.00	0.00	300.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
400.00	0.00	0.00	400.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
500.00	0.00	0.00	500.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
600.00	0.00	0.00	600.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
700.00	0.00	0.00	700.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
800.00	0.00	0.00	800.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
900.00	0.00	0.00	900.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,455,050.52	1,697,280.59	39.80296476	-80.79753230
KOP Begin 1°/100' build									
1,900.00	1.00	30.00	1,899.99	0.76	0.44	14,455,051.28	1,697,281.03	39.80296683	-80.79753074
2,000.00	2.00	30.00	1,999.96	3.02	1.75	14,455,053.55	1,697,282.34	39.80297305	-80.79752606
Begin 2.00° tangent									
2,100.00	2.00	30.00	2,099.90	6.05	3.49	14,455,056.57	1,697,284.08	39.80298134	-80.79751983
2,200.00	2.00	30.00	2,199.84	9.07	5.24	14,455,059.59	1,697,285.83	39.80298963	-80.79751359
2,300.00	2.00	30.00	2,299.78	12.09	6.98	14,455,062.61	1,697,287.57	39.80299792	-80.79750735
2,400.00	2.00	30.00	2,399.72	15.11	8.73	14,455,065.64	1,697,289.32	39.80300621	-80.79750111
2,500.00	2.00	30.00	2,499.65	18.13	10.47	14,455,068.66	1,697,291.06	39.80301450	-80.79749488
2,600.00	2.00	30.00	2,599.59	21.16	12.22	14,455,071.68	1,697,292.81	39.80302279	-80.79748864
2,700.00	2.00	30.00	2,699.53	24.18	13.96	14,455,074.70	1,697,294.55	39.80303108	-80.79748240
2,800.00	2.00	30.00	2,799.47	27.20	15.70	14,455,077.73	1,697,296.30	39.80303937	-80.79747616
2,900.00	2.00	30.00	2,899.41	30.22	17.45	14,455,080.75	1,697,298.04	39.80304766	-80.79746993
3,000.00	2.00	30.00	2,999.35	33.25	19.19	14,455,083.77	1,697,299.79	39.80305595	-80.79746369
3,100.00	2.00	30.00	3,099.29	36.27	20.94	14,455,086.79	1,697,301.53	39.80306424	-80.79745745
3,100.71	2.00	30.00	3,100.00	36.29	20.95	14,455,086.81	1,697,301.54	39.80306429	-80.79745741
Begin 3°/100' build/turn									
3,200.00	4.66	55.35	3,199.12	40.09	25.14	14,455,090.61	1,697,305.73	39.80307469	-80.79744247
3,300.00	7.58	61.90	3,298.54	45.50	34.30	14,455,096.03	1,697,314.89	39.80308952	-80.79740980
3,400.00	10.55	64.80	3,397.28	52.51	48.41	14,455,103.04	1,697,329.00	39.80310867	-80.79735952
3,500.00	13.53	66.43	3,495.07	61.09	67.42	14,455,111.61	1,697,348.01	39.80313211	-80.79729177
3,600.00	16.52	67.49	3,591.64	71.21	91.28	14,455,121.74	1,697,371.87	39.80315976	-80.79720673
3,700.00	19.51	68.22	3,686.73	82.85	119.92	14,455,133.38	1,697,400.51	39.80319155	-80.79710465
3,783.22	22.00	68.69	3,764.54	93.67	147.35	14,455,144.20	1,697,427.94	39.80322110	-80.79700690
Begin 22.00° tangent									
3,800.00	22.00	68.69	3,780.10	95.96	153.21	14,455,146.48	1,697,433.80	39.80322734	-80.79698603
3,900.00	22.00	68.69	3,872.82	109.57	188.11	14,455,160.10	1,697,468.70	39.80326451	-80.79686166
4,000.00	22.00	68.69	3,965.53	123.19	223.01	14,455,173.71	1,697,503.60	39.80330167	-80.79673728
4,100.00	22.00	68.69	4,058.25	136.80	257.91	14,455,187.32	1,697,538.50	39.80333884	-80.79661291
4,200.00	22.00	68.69	4,150.97	150.41	292.80	14,455,200.94	1,697,573.40	39.80337601	-80.79648854
4,300.00	22.00	68.69	4,243.69	164.03	327.70	14,455,214.55	1,697,608.30	39.80341318	-80.79636417
4,400.00	22.00	68.69	4,336.41	177.64	362.60	14,455,228.16	1,697,643.20	39.80345035	-80.79623980
4,500.00	22.00	68.69	4,429.13	191.25	397.50	14,455,241.78	1,697,678.09	39.80348752	-80.79611543
4,600.00	22.00	68.69	4,521.84	204.87	432.40	14,455,255.39	1,697,712.99	39.80352469	-80.79599105
4,700.00	22.00	68.69	4,614.56	218.48	467.30	14,455,269.01	1,697,747.89	39.80356186	-80.79586668



Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Michter N-09HU (F)
Company:	Tug Hill Operating LLC	TVD Reference:	GL @ 1130.00ft
Project:	Marshall County, West Virginia.	MD Reference:	GL @ 1130.00ft
Site:	Michter	North Reference:	Grid
Well:	Michter N-09HU (F)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
25,541.98	91.00	324.83	10,745.00	12,915.80	-4,618.20	14,467,966.30	1,692,662.40	39.83846242	-80.81387993
PBHL/TD 25541.98 MD/10745.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Michter N-09HU BHL - hit/miss target - Shape - Point	0.00	0.00	10,745.00	12,915.80	-4,618.20	14,467,966.30	1,692,662.40	39.83846242	-80.81387993
Michter N-09HU LP - plan hits target center - Point	0.00	0.00	10,976.00	2,068.36	3,026.37	14,457,118.88	1,700,306.96	39.80862572	-80.78673925

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,800.00	1,800.00	0.00	0.00	KOP	Begin 1°/100' build
2,000.00	1,999.96	3.02	1.75		Begin 2.00° tangent
3,100.71	3,100.00	36.29	20.95		Begin 3°/100' build/turn
3,783.22	3,764.54	93.67	147.35		Begin 22.00° tangent
6,566.33	6,344.99	472.56	1,118.64		Begin 3°/100' build
6,797.82	6,553.85	508.72	1,211.33		Begin 28.94° tangent
11,050.26	10,275.11	1,256.74	3,128.61		Begin 8°/100' build/turn
12,269.46	10,976.00	2,068.36	3,026.37		Begin 91.00° lateral
25,541.98	10,745.00	12,915.80	-4,618.20		PBHL/TD 25541.98 MD/10745.00 TVD

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WW-9
(4/16)

API Number 47 - 051 -
Operator's Well No. Michter N-9HU

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC OP Code 494510851

Watershed (HUC 10) Fish Creek Quadrangle New Martinsville 7.5'

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: AST Tanks with proper containment will be used for staging fresh water for frac and flow back water

Will a synthetic liner be used in the pit? Yes No If so, what ml.? AST Tanks will be used with proper contain

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number UIC 2459, UIC 965, UIC 359, UIC 2D0732540, UIC 2D0732523)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes - For Vertical and Horizontal Drilling

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Air for vertical / Oil for Horizontal

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base

Additives to be used in drilling medium? Barite for weight

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All drill cuttings to be disposed of in a Landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? Wetzel County Sanitary Landfill (SWF-1021 / WV0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1386426)

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto 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 or imprisonment.

Company Official Signature Jim Pancake

Company Official (Typed Name) Jim Pancake

Company Official Title VP Geosciences

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MAY 17 2019
WV Department of
Environmental Protection

Subscribed and sworn before me this 5 day of FEBRUARY, 2019

Maureen A Stead

Notary Public

My commission expires 1/28/23

Commonwealth of Pennsylvania - Notary Seal
MAUREEN A STEAD - Notary Public
Washington County
My Commission Expires Jan 28, 2023
Commission Number 1259926

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 21.11 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Orchard Grass	12
Spring Oats	96	Ladino	3
		White Clover	2

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]
Comments:

Title: Oil and Gas Inspector Date: 2/7/19
Field Reviewed? (2) Yes () No



Well Site Safety Plan

Tug Hill Operating, LLC

JW
2/7/19

Well Name: Michter N-9HU

Pad Location: Michter
Marshall County, West Virginia

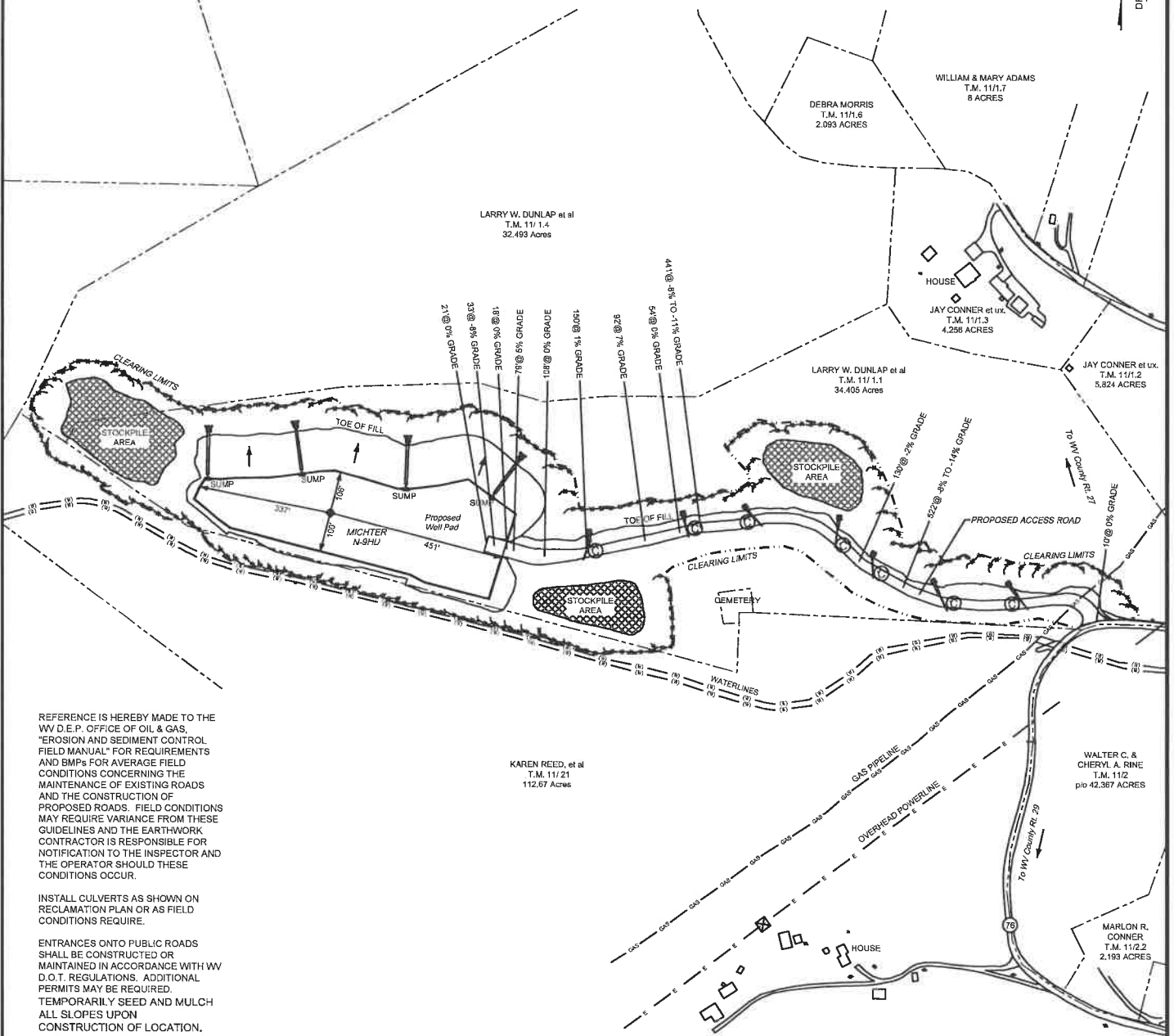
UTM (meters), NAD83, Zone 17:

NORTHING - 4,405,908.21

EASTING - 517,332.16

February 2019

DRAWING NOT TO SCALE



REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.

INSTALL CULVERTS AS SHOWN ON RECLAMATION PLAN OR AS FIELD CONDITIONS REQUIRE.

ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED. TEMPORARILY SEED AND MULCH ALL SLOPES UPON CONSTRUCTION OF LOCATION.

ALL CUT AND FILL SLOPES ARE 2H : 1V SLOPE.

ALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASHINGS ARE TO UTILIZED DOWN SLOPE OF SITE AND STRUCTURES TO ACT AS A CONTROL BARRIER IF AVAILABLE.

KAREN REED, et al
T.M. 11/21
112.67 Acres

WALTER C. & CHERYL A. RINE
T.M. 11/2
p/o 42,367 ACRES

MARLON R. CONNER
T.M. 11/2.2
2,193 ACRES

LEGEND

Note:

- ⊙— Denotes proposed culvert with appropriate sediment outlet control (Rip Rap splash pad).
- Silt Fence and or Sediment and Erosion Control Measure.
- Surface Boundary

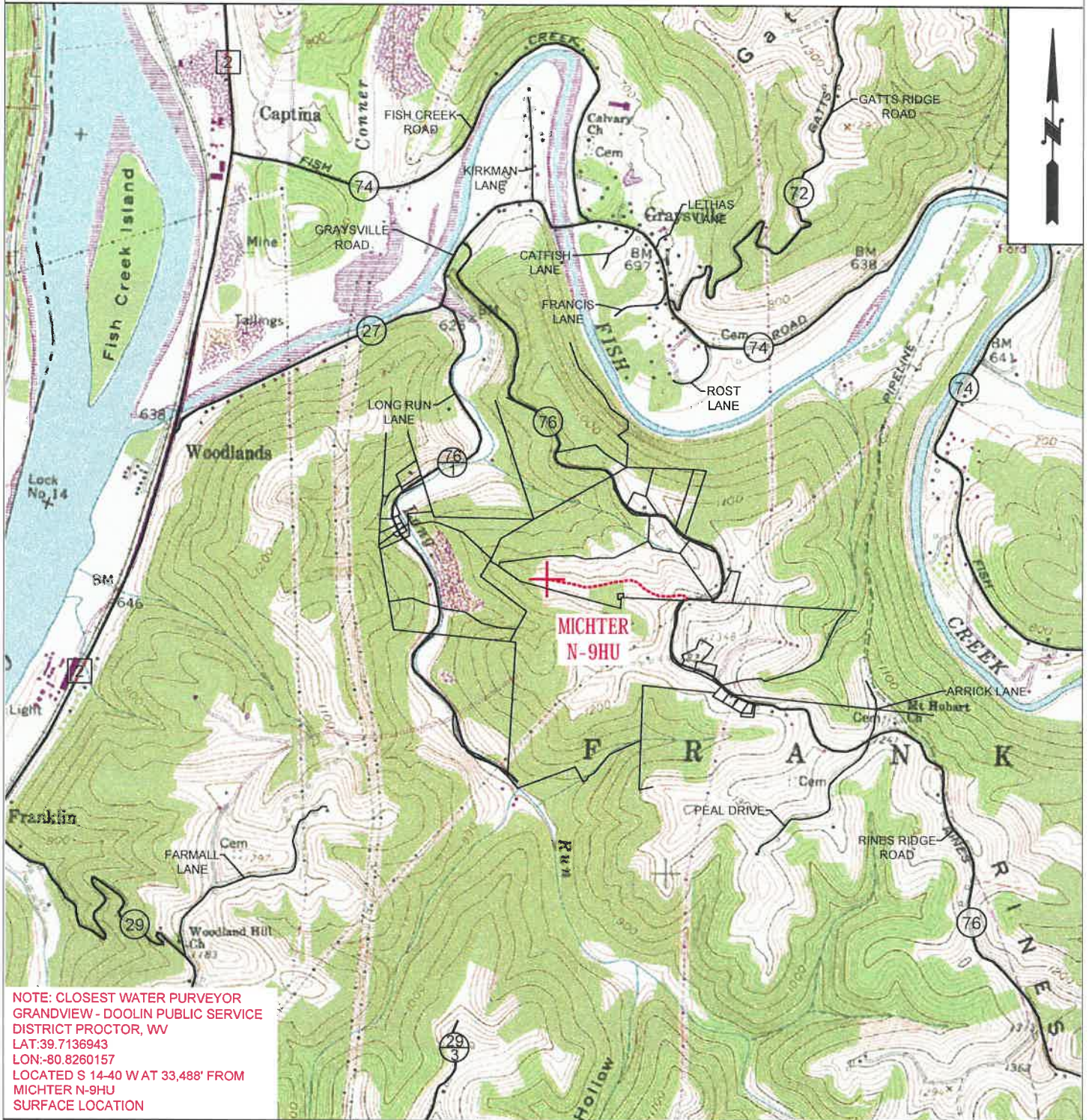
RECEIVED
Office of Oil and Gas
MAY 17 2019
WV Department of
Environmental Protection

DATE: 2-4-2019


PROJECT NO: 494510851

DRAWN BY: J.A.H.

PROPOSED MICHTER N-9HU



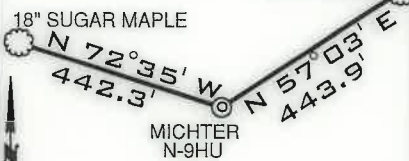
NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE
DISTRICT PROCTOR, WV
LAT:39.7136943
LON:-80.8260157
LOCATED S 14-40 W AT 33,488' FROM
MICHTER N-9HU
SURFACE LOCATION

 TUG HILL OPERATING	OPERATOR	494510851	TOPO SECTION	LEASE NAME
	TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		POWHATAN POINT 7.5'	MICHTER
			SCALE: 1" = 2000'	DATE: DATE: 2-4-2019

**MICHTER LEASE
WELL N-9HU
424.1534±
ACRES**

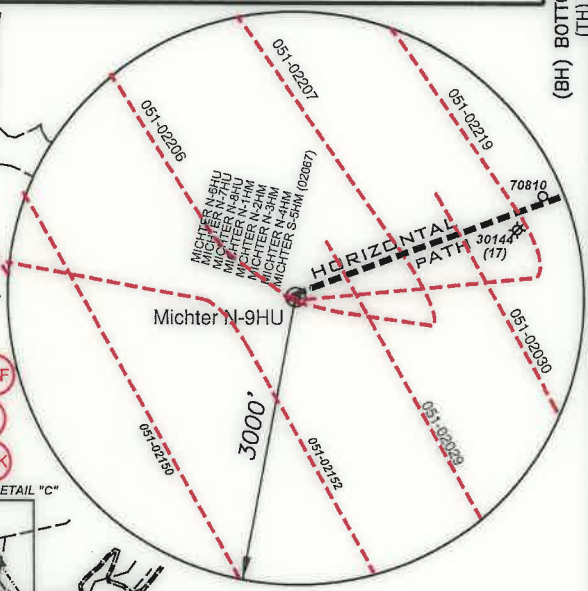
(BH) 6,291'
TOP HOLE LATITUDE: 39°50'00"
BOTTOM HOLE LATITUDE: 39°52'30"

REFERENCES SCALE 1"=200'
30" POPLAR



- DETAIL SKETCH "A" SCALE 1"=200'
- MICHTER N-6HU
 - MICHTER N-7HU
 - MICHTER N-8HU
 - MICHTER N-9HU
 - MICHTER N-10HU
 - MICHTER N-11HU
 - MICHTER N-12HU
 - MICHTER N-13HU
 - MICHTER N-14HU
 - MICHTER S-5HM (02067)

(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS



- NOTES
- BORE PATH BASED ON GRID NORTH.
 - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 - ALL DEEP WELLS WITHIN 3,000' OF LATERAL ARE SHOWN ON PLAT.

- LEGEND
- LEASE TRACTS
 - SURFACE TRACTS
 - WELL LATERAL
 - POINT PLEASANT LEGS
 - 400' BORE PATH OFFSET
 - 500' WELL BORE OFFSET
 - UNIT BOUNDARY
 - (A) LEASE # (SEE 6A1 FORM)
 - FORCED POOLED TRACTS

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 89° 24' E	31.89'	111.33'	32.01'
C2	N 86° 24' E	107.20'	454.08'	107.20'
C3	N 84° 47' E	116.59'	187.43'	116.59'
C4	N 76° 28' E	114.46'	285.41'	115.24'
C5	N 05° 51' W	182.73'	580.95'	183.29'
C6	N 11° 25' W	112.95'	171.12'	112.95'
C7	N 30° 02' W	217.16'	147.14'	217.17'

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,405,908.21
E) 517,332.16

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,406,538.65
E) 518,254.60

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,409,844.95
E) 515,924.53

LINE	BEARING	DISTANCE
L1	N 72° 18' W	829.46'
L2	N 78° 46' E	1891.09'
L3	N 30° 57' E	41.92'
L4	N 69° 39' E	3201.18'

FILE NUMBER _____

DRAWING NUMBER MICHTER_N-9HU_REV1

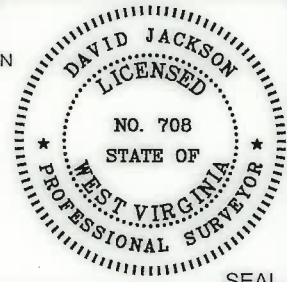
SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
GRADE GPS

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

David L Jackson



JACKSON SURVEYING INC.
P.O. Box 1460
Clarksburg, WV 26302
304-623-5851



WVDEP
OFFICE OF OIL & GAS
601 57TH STREET, SE
CHARLESTON, WV 25304

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

LOCATION ELEVATION 1127.11' WATERSHED (HUC 10) FISH CREEK

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER LARRY W. DUNLAP, ET AL ACREAGE 34.405

OIL & GAS ROYALTY OWNER LARRY W. DUNLAP, ET AL LEASE ACREAGE 441.4405

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) _____

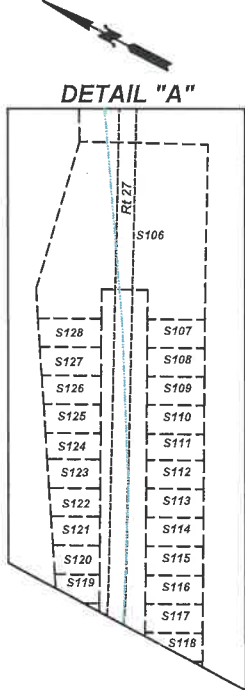
TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,197' TMD: 25,542'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME
PERMIT

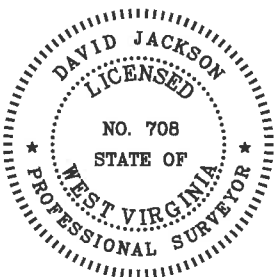
form ww6

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**



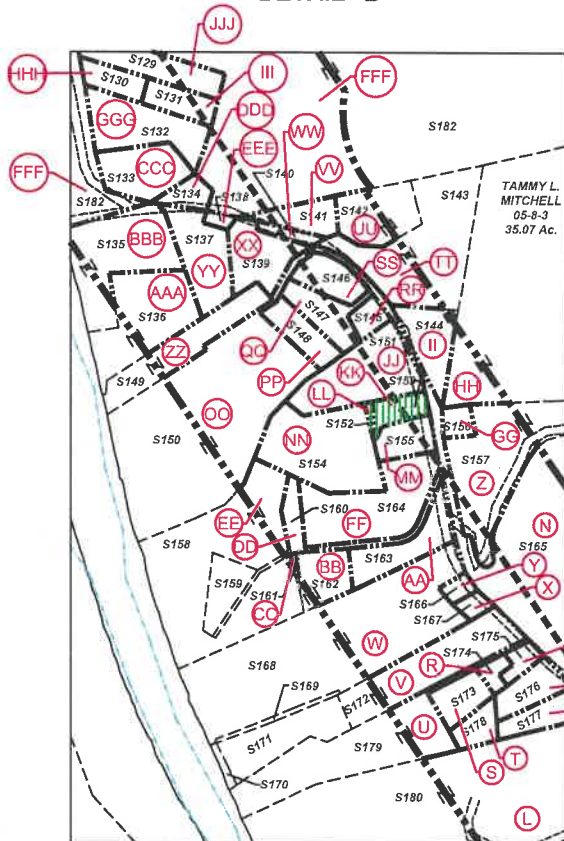
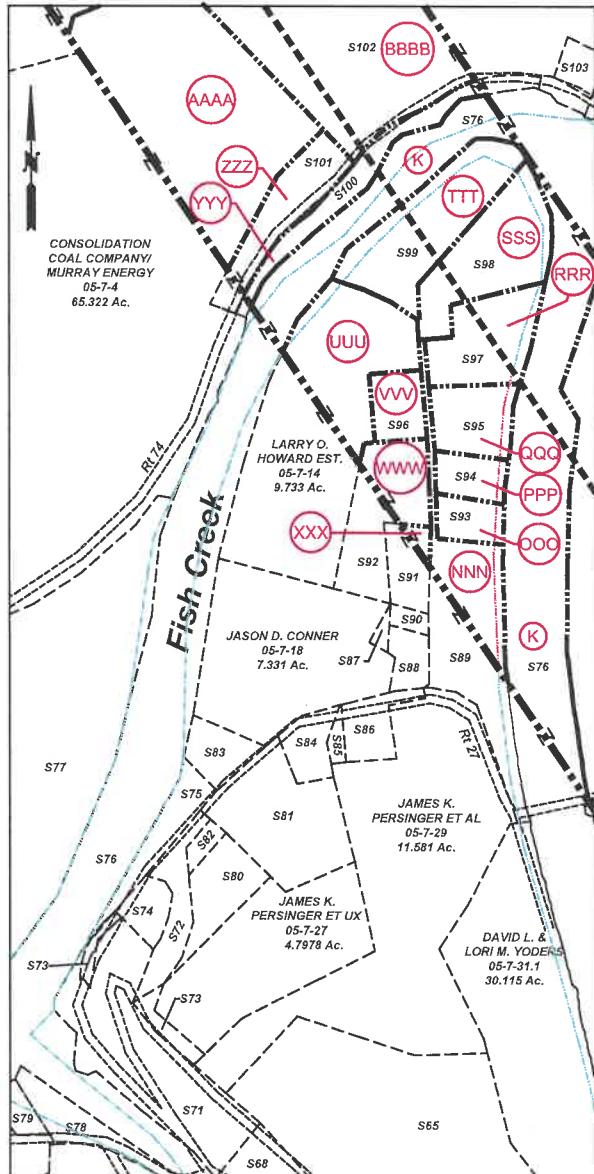
FORCED POOLED TRACTS

NOTE: OF S153 AND OF S152 ARE FORCED POOLED TRACTS.



P.S.
708

David L Jackson



S1-02220
H6/L



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47 - 051- 02220

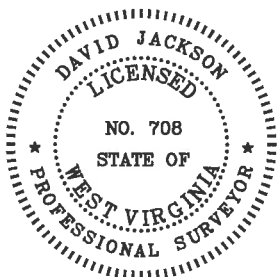
WELL PLAT
PAGE 2 OF 10
DATE: 07/23/2019
REVISED DATE:
08/08/2019

form ww6

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S1	05-11-21	Karen Reed, et al	112.67
S2	05-12-10	Consolidation Coal Company/ Murray Energy c/o Land Dept	13.76
S3	05-12-10.1	Consolidation Coal Company/ Murray Energy	38.48
S4	05-07-42.4	Lionel & Mary Lee Persinger	0.94
S5	05-07-42.3	Joshua David Hartley	0.886
S6	05-07-42.2	Steven & Rhonda Lloyd	0.85
S7	05-07-44	Crystal B. Darrah	1.726
S8	05-07-42	Tracy M. Kesterson	0.54
S9	05-07-42.5	Matthew V. Conner, et al	3.791
S10	05-07-41	James A. Wade	1.00
S11	05-12-09	Lionel & Mary Lee Persinger	10.15
S12	05-07-42.1	Lionel L. & Mary Lee Persinger	5.99
S13	05-07-35	Samuel L. Persinger	10.708
S14	05-07-36	John Persinger	4.329
S15	05-07-38	John K. Persinger, et ux	2.65
S16	05-07-37	John K. Persinger, et ux	0.133
S17	05-07-43.3	M. Frank Mason	0.327
S18	05-7B-48	Cassidy Rain Carpenter	1.325
S19	05-7B-49	Cassidy Rain Carpenter	1.1441
S20	05-07-3.3	WV Economic Development Authority	65.2077
S21	05-07-3.4	WV Economic Development Authority	56.3496
S22	05-07-01	U.S. of America	50.0
S23	05-07-3.5	Wheeling Power Company	1.5004
S24	05-06-3.1	Ohio Power Company	28.9966
S25	05-06-10	Ohio Power Company	241.858
S26	05-06-16	Appalacian Power CP	0.61
S27	05-11-1.4	Larry Dunlap, et al	32.493
S28	05-06-18	CII Carbon, LLC	0.2754
S29	05-06-12	CII Carbon, LLC	0.43458
S30	05-06-09	CII Carbon, LLC	1.15
S31	05-06-13	CII Carbon, LLC	0.318
S32	05-06-14	CII Carbon, LLC	1.408
S33	05-06-7	CII Carbon, LLC	12.454
S34	05-06-11	Consolidation Coal Company/ Murray Energy	1.05
S35	05-06-08	CII Carbon, LLC	2.727
S36	05-06-15	CII Carbon, LLC	2.522
S37	05-06-01	Consolidation Coal Company/ Murray Energy	7.99
S38	05-06-06	Consolidation Coal Company/ Murray Energy	18.50
S39	05-06-05	Consolidation Coal Company/ Murray Energy	17.159
S40	05-06-04	Consolidation Coal Company/ Murray Energy	5.47
S41	05-07-09	Norman Thomas Jackson et al	0.25
S42	05-8A-02	Graysville Cemetery Association	1.76
S43	05-8A-01	Calvary M.E. Church	2.0
S44	05-8A-03	Calvary M.E. Church	0.259
S45	05-08-23	Robert L. Shields & Donald L. Shields	0.3
S46	P/O 05-08-4	Cemetery	0.305
S47	05-11-01	William N. & Virginia A. Roupe	4.527
S48	05-11-1.6	Debra Morris	2.093
S49	05-11-1.7	William S. & Mary K. Adams	8.00
S50	05-11-1.3	Jay A. Conner, et ux	4.256
S51	05-11-1.5	Paul & Sandy Witt	3.507
S52	05-11-1.2	Jay A. Conner, et ux	5.824
S53	05-08-9.1	Scott E. Jackson, Tammy S. South & Marion Jackson	1.957
S54	05-11-02	Walter C. & Cheryl A. Rine	42.36
S55	05-11-2.2	Joshua Myers	2.193
S56	05-11-2.1	Walter C. & Cheryl A. Rine	1.19
S57	05-11-20	David E. Gray	0.69
S58	05-11-19	David E. Gray	0.532
S59	05-11-03	Kevin R. Corley, et ux	13.18
S60	05-11-17	Kevin R. Corley, et ux	36.13
S61	05-11-14	Hiram's Estate Family, LTD LLP	158.054
S62	05-11-1.1	Larry W. Dunlap, et al	34.405
S63	05-07-33	William N. Roupe	24.60
S64	05-07-32	William N. & Virginia A. Roupe	4.2

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S65	05-07-31	William N. Roupe, et ux	43.147
S66	05-07-31.4	Grandview-Doolen PSD	0.23
S67	05-07-31.2	William N. Roupe, et ux	3.304
S68	05-07-34	WV DOH	10.88
S69	05-07-31.3	William N. & Virginia A. Roupe	0.230
S70	05-07-43.2	M. Frank Mason	1.36
S71	05-07-26	James A. Wade	7.80
S72	05-07-23.1	WV DOH	2.37
S73	05-07-25	WV DOH	0.50
S74	05-07-24	James A. Wade	0.578
S75	05-07-45	Robert L. Henry (Life) & Jeffrey S. Henry	0.65
S76	K Fish Creek	State of WV	16.97 ^{Calc.}
S77	05-07-3.2	Ohio Power Company	45.5348
S78	05-07-35.1	Lionel L. & Mary Lee Persinger	0.812
S79	05-07-36.1	Lionel L. & Mary Lee Persinger	0.5579
S80	05-07-23	Arlie E. Powell	1.435
S81	05-07-27.1	Mark L. Riter, et ux	3.427
S82	05-07-23.2	Robert L. Henry (Life) & Jeffrey S. Henry	0.256
S83	05-07-21	Aaron S. Meyer	1.775
S84	05-07-22	Jesus & Mary Bustamante	0.782
S85	05-07-28.1	Jesus & Mary Bustamante	0.200
S86	05-07-28	Thelma M. Roupe	0.940
S87	05-07-18.1	Debora L. Bennett	0.13
S88	05-07-17	Debora L. Bennett	0.614
S89	NNN 05-07-15	William Roupe, et ux	6.631
S90	05-07-16	Debora L. Bennett	0.235
S91	XXX 05-07-14.2	Robert L. Eyley, Sr. & Jessica L. Bennett	0.998
S92	WWW 05-07-14.3	Steven H. Howard	2.669
S93	OOO 05-07-15.1	Woodland Hills Recreation Club	1.016
S94	PPP 05-07-13	Woodland Hills Recreation Club	1.109
S95	05-07-12	Carol A. & Shelva G. Smith	2.01
S96	VVV 05-07-14.1	Larry O. Howard, Est.	1.00
S97	RRR 05-07-11	Roy S. & Cynthia M. Meadows	2.90
S98	SSS 05-07-10.1	Sandra Kay Beymer & Chad M. Wright	4.237
S99	TTT 05-07-10	Darren Edward Thacker	4.737
S100	YYY 05-07-5.1	George A. Knuth	2.95
S101	ZZZ 05-07-05	CNX Gas Company, LLC	1.407
S102	BBB 05-07-06	CNX Gas Company, LLC	21.171
S103	05-07-07	Consolidation Coal Company/ Murray Energy	1.00
S104	05-07-02	Consolidation Coal Company/ Murray Energy	46.46
S105	EEEE 05-06-03	Ohio Power Co.	281.046
S106	05-7B-01	Patricia L. Robinson	1.257
S107	05-7B-47	Daniel D. Robinson, et ux	0.1148
S108	05-7B-46	Daniel D. Robinson, et ux	0.1148
S109	05-7B-45	Daniel D. & Mary E. Robinson	0.1148
S110	05-7B-44	Daniel D. & Mary E. Robinson	0.1148
S111	05-7B-43	Teresa & Thomas Gouldsberry	0.1148
S112	05-7B-42	Teresa & Thomas Gouldsberry	0.1194
S113	05-7B-41	Teresa & Thomas Gouldsberry	0.1148
S114	05-7B-40	Teresa & Thomas Gouldsberry	0.1148
S115	05-7B-39	Teresa & Thomas Gouldsberry	0.1148
S116	05-7B-38	Teresa & Thomas Gouldsberry	0.1148
S117	05-7B-37	Teresa & Thomas Gouldsberry	0.1148
S118	05-7B-36	Albert J. Anderson, Jr.	0.1148
S119	05-7B-11	Teresa & Thomas Gouldsberry	0.1159
S120	05-7B-10	Teresa & Thomas Gouldsberry	0.1199
S121	05-7B-09	Teresa & Thomas Gouldsberry	0.1240
S122	05-7B-08	Teresa & Thomas Gouldsberry	0.1286
S123	05-7B-07	Teresa & Thomas Gouldsberry	0.1331
S124	05-7B-06	Teresa & Thomas Gouldsberry	0.1377
S125	05-7B-05	Daniel D. & Mary E. Robinson	0.1418
S126	05-7B-04	Daniel D. & Mary E. Robinson	0.1458
S127	05-7B-03	Daniel D. Robinson, et ux	0.1504
S128	05-7B-02	Daniel D. Robinson, et ux	0.1550
S129	JJJ 05-8A-04	Cheryl A. & Tammie D. Persinger	1.07
S130	HHH 05-8A-05	Cheryl A. & Tammie D. Persinger	0.50
S131	III 05-8A-06	Cheryl A. & Tammie D. Persinger	0.48
S132	GGG 05-8A-07	Anne C. Klem	1.40
S133	CCC 05-8A-08	John Joseph Goudy	1.0
S134	DDD 05-8A-09	Kevin W. Wallace	0.323
S135	BBB 05-8A-15	Kevin R. Morris	2.06
S136	AAA 05-8A-16	John David Fromhart	2.0
S137	YY 05-8A-17	Isaac Luke Vansycoc	1.44
S138	EEE 05-8A-55	H. G. Energy II Appalachia, LLC	0.10
S139	XX 05-8A-19	Mary Catherine Brooks	1.0
S140	WW 05-8A-20	Milton Christopher White	0.19
S141	VV 05-8A-11	Gloria Jean White & Milton Christopher White	0.525
S142	UU 05-8A-12	Mary D. Ruckman	1.137
S143	TT 05-8A-13	Matthew Ruckman	2.993
S144	II 05-8A-14	Board of Education	0.86



P.S. 708

David L Jackson

SI-02220
H6A

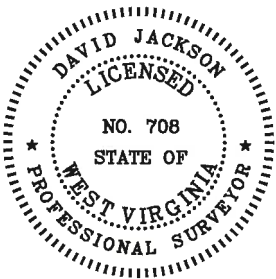


OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: _____

WELL PLAT
PAGE 3 OF 10
DATE: 07/23/2019
REVISED DATE:
08/08/2019

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S145	RR 05-8A-25	Whitney Woods	0.29
S146	SS 05-8A-22	Whitney Woods	0.715
S147	QQ 05-8A-23	Danny Lee & Leona May Darrah	0.738
S148	PP 05-8A-24	Clarence Paul Siburt, Hrs	0.653
S149	ZZ 05-8A-26	Albert James Anderson, Jr.	1.605
S150	OO 05-8A-27	Mary J. Siburt	8.296
S151	JJ 05-8A-28	Norman G. Johnson-Life	2.0
S152	LL 05-8A-30	Randall Keith Keener, et ux	0.059
S153	KK 05-8A-29	Catherine P. Rine	0.394
S154	NN 05-8A-31	Randall K. Keener, et ux	2.346
S155	MM 05-8A-32	Jonathan David Bopp	0.580
S156	GG 05-8A-34	Norman G. Johnson, et ux	0.255
S157	Z 05-8A-35	Jared C. Sills	2.780
S158	EE 05-8A-39	Barbara L. Daniels & Elaine Wills	3.223
S159	05-8A-40	Barbara L. Daniels & Elaine Wills	0.627
S160	DD 05-8A-38	William J. Gamble, et ux	0.35
S161	CC 05-8A-41	William J. Gamble, et ux	0.046
S162	BB 05-8A-37	William J. Gamble, et ux	0.706
S163	AA 05-8A-36	William J. Gamble, et ux	1.031
S164	FF 05-8A-33	Elaine Wills & Jeffrey D. Brooks	2.517
S165	N 05-8-04	C. Wayne Berisford	23.355
S166	Y 05-8A-43	Charles G. Stein & Eva A. Wade	0.17
S167	X 05-8A-44	Charles G. Stein & Eva A. Wade	0.18
S168	W 05-8A-42	Robert M. White	7.23
S169	05-8A-49	Raymand A. Jr. & Larriette Scott	0.159
S170	05-8A-45	Raymand A. Jr. & Larriette Scott	0.305
S171	05-8A-46	Barbara L. Rose & Mary L. Rose	1.5
S172	V 05-8A-48	Raymond A. Jr. & Larriette Scott	2.12
S173	S 05-8A-52	Barbara L. Rose & Mary L. Rose	0.59
S174	R 05-8A-51	Lucretia M. Harrison	0.210
S175	Q 05-8A-50	Lucretia M. Harrison	0.277
S176	P 05-8A-54	David D. & Christine S. Daniels	0.68
S177	O 05-8A-54.1	David D. & Christine S. Daniels	0.69
S178	T 05-8A-53	Frances E. Nieman	0.422
S179	U 05-8A-47	Barbara L. Rose & Mary L. Rose	3.0
S180	L 05-08-4.1	Frances E. Nieman	33.461
S181	05-07-39	Lionel L. Persinger, et ux	57.00
S182	FFF 05-08-02	Consolidation Coal Company/ Murray Energy	136.587



SI-02220 H64

P.S. 708

David L Jackson



**TUG HILL
OPERATING**

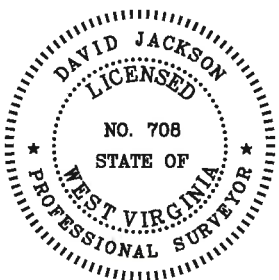
OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: _____

WELL PLAT
PAGE 4 OF 10
DATE: 07/23/2019
REVISED DATE:
08/08/2019

form wv6

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**

Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Deed Book/Page
10*47051.089.0	A	5-11-1.1	LARRY W DUNLAP AND BARBARA E DUNLAP	854 148
10*22667	B	5-11-21	REBEKAH DRAYER ELDRIDGE AND CHRISTOPHER ELDRIDGE	850 157
10*22773	B	5-11-21	CHRISTA DRAYER STALEY AND JOSHUA STALEY	851 3
10*22777	B	5-11-21	BOYD BUESKING	850 159
10*22780	B	5-11-21	BRENDA FAYE THOMAS PETRACK	850 161
10*22786	B	5-11-21	GUY YATES	848 206
10*22787	B	5-11-21	GAIL ANN YATES WOOD AND WESLEY J WOOD	848 208
10*22788	B	5-11-21	GENIE SUE THOMAS HOLMES AND JOHN I HOLMES	848 204
10*22801	B	5-11-21	BOYD DAIL YATES JR AND MARLA YATES	848 210
10*22808	B	5-11-21	SHIRLEY YATES HARTSELL AND FREDDIE LEE HARTSELL	848 212
10*22810	B	5-11-21	CLYDE V. & KAREN S REED	864 190
10*47051.089.0	C	5-11-1.4	LARRY W DUNLAP AND BARBARA E DUNLAP	864 148
10*19167	D	5-11-1.2	JAY A CONNER PATTY LOUISE CONNER	724 156
10*19167	E	5-11-1.3	JAY A CONNER PATTY LOUISE CONNER	724 156
10*22500	F	5-11-1.6	DEBRA MORRIS	797 617
10*19174	G	5-11-1.7	WILLIAMS ADAMS MARY K ADAMS	711 318
10*19168	H	5-11-1.5	PAUL WHITT AND SANDY WHITT	715 565
10*47051.105.0	I	5-8-9	JAMES B JACKSON JR AND MARION L JACKSON	859 478
10*21546	J	5-8-7	EDWIN C MILLER AND KIMBERLY ANN MILLER	957 257
Q09196000	K	Fish Creek - State of WV	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	865 558
TH19101	L	5-8-4.1	FRANCES E. NIEMAN	685 288
CVX946510	M	5-8-5	NICOLE GATTS-SFX	899 470
CVX947093	M	5-8-5	RICHARD J. GATTS	899 479
CVX947094	M	5-8-5	LOIS ZWOLENSKY-SFX	899 476
CVX866629	N	5-8-4	FRANCES E NIEMAN ET AL	685 283
Q092215000	O	5-8A-54.1	DAVID D DANIELS AND CHRISTINE S DANIELS	869 354
Q097976001	O	5-8A-54.1	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	O	5-8A-54.1	LORNA MARIE LEW	890 602
Q097976005	O	5-8A-54.1	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	O	5-8A-54.1	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	O	5-8A-54.1	CHARLES EDWIN BLUE IV	890 316
Q099899000	O	5-8A-54.1	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
Q092215000	P	5-8A-54	DAVID D DANIELS AND CHRISTINE S DANIELS	869 354
Q097976001	P	5-8A-54	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	P	5-8A-54	LORNA MARIE LEW	890 602
Q097976005	P	5-8A-54	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	P	5-8A-54	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	P	5-8A-54	CHARLES EDWIN BLUE IV	890 316
Q099899000	P	5-8A-54	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
Q097976001	Q	5-8A-50	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	Q	5-8A-50	LORNA MARIE LEW	890 602
Q097976005	Q	5-8A-50	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	Q	5-8A-50	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	Q	5-8A-50	CHARLES EDWIN BLUE IV	890 316
Q099899000	Q	5-8A-50	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
Q097976001	R	5-8A-51	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	R	5-8A-51	LORNA MARIE LEW	890 602
Q097976005	R	5-8A-51	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	R	5-8A-51	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	R	5-8A-51	CHARLES EDWIN BLUE IV	890 316
Q099899000	R	5-8A-51	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
Q097976001	S	5-8A-52	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	S	5-8A-52	LORNA MARIE LEW	890 602
Q097976005	S	5-8A-52	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	S	5-8A-52	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	S	5-8A-52	CHARLES EDWIN BLUE IV	890 316
Q099899000	S	5-8A-52	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
Q097976001	T	5-8A-53	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	T	5-8A-53	LORNA MARIE LEW	890 602
Q097976005	T	5-8A-53	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	T	5-8A-53	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	T	5-8A-53	CHARLES EDWIN BLUE IV	890 316
Q099899000	T	5-8A-53	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
TH19101	T	5-8A-53	FRANCES E. NIEMAN	685 288
Q097976001	U	5-8A-47	SARA B ANDERSON AND ARTHUR A ANDERSON	890 310
Q097976004	U	5-8A-47	LORNA MARIE LEW	890 602
Q097976005	U	5-8A-47	MARJORIE B KIDD AND ROBERT C KIDD	890 596
Q097976006	U	5-8A-47	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890 599
Q097976007	U	5-8A-47	CHARLES EDWIN BLUE IV	890 316
Q099899000	U	5-8A-47	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898 584
10*26704	V	5-8A-48	Southeastern Guide Dogs Inc.	PENDING PENDING
N/A	V	5-8A-48	COURTNEY D. HALL, SINGLE	N/A N/A
N/A	V	5-8A-48	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A N/A
Q097976001	V	5-8A-48	Sara B. Anderson and Arthur A. Anderson, wife and husband	890-310 310
Q097976001	V	5-8A-48	Sara B. Anderson and Arthur A. Anderson, wife and husband	890-310 310
Q097976004	V	5-8A-48	Lorna Marie Lew	890-602 602
Q097976004	V	5-8A-48	Lorna Marie Lew	890-602 602
Q097976005	V	5-8A-48	MARJORIE B KIDD AND ROBERT C KIDD	890-596 596
Q097976006	V	5-8A-48	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890-599 599
Q097976007	V	5-8A-48	CHARLES EDWIN BLUE IV	890-316 316



P.S. 708

David L Jackson

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OPERATING**

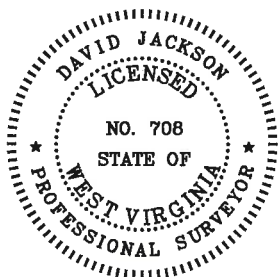
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WELL PLAT
PAGE 5 OF 10
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form ww6

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**

Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Deed Book	Page
N/A	W	5-8A-42	ROBERT M. WHITE AND DIANE WHITE	N/A	N/A
Q097976001	W	5-8A-42	SARA B ANDERSON AND ARTHUR A ANDERSON	890	310
Q097976004	W	5-8A-42	LORNA MARIE LEW	890	602
Q097976005	W	5-8A-42	MARJORIE B KIDD AND ROBERT C KIDD	890	596
Q097976006	W	5-8A-42	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	890	599
Q097976007	W	5-8A-42	CHARLES EDWIN BLUE IV	890	316
Q099899000	W	5-8A-42	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	898	584
10*25351	X	5-8A-44	BRIAN EDWIN LEMASTERS AND BEVERLY J LEMASTERS	PENDING	
10*25698	X	5-8A-44	KENNETH AND DAWN E MORRIS	1033	129
10*25723	X	5-8A-44	BRYCE AND EDNA M ULBRICH	1035	156
10*25724	X	5-8A-44	BLYE ULBRICH AND JAMES JENSHKE	1035	154
10*25725	X	5-8A-44	H JAY ULBRICH	1035	152
10*25726	X	5-8A-44	MARILYN AND RODNEY N CHALMERS	1035	150
10*25752	X	5-8A-44	DEBRA ANN AND EARLV BUTCHER	1033	315
10*26437	X	5-8A-44	MARY L PARRIOTT	1035	148
10*26438	X	5-8A-44	JANICE AND DONALD CROOK	1034	583
10*26439	X	5-8A-44	NANCY LOUISE SNYDER	1034	588
10*26704	X	5-8A-44	SOUTHEASTERN GUIDE DOGS INC	PENDING	
N/A	X	5-8A-44	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A	N/A
PENDING	X	5-8A-44	VICTORIA A. PAKROVSKY AND STEPHEN W. PAKROVSKY, WIFE AND HUSBAND	890-599	599
Q097976003	X	5-8A-44	CHARLES G. STEIN AND EVA A. STEIN F/K/A EVA A. WADE, HUSBAND AND WIFE	821-28	28
Q097976001	X	5-8A-44	SARA B. ANDERSON AND ARTHUR A. ANDERSON, WIFE AND HUSBAND	890-310	310
Q097976004	X	5-8A-44	LORNA MARIE LEW	890-602	602
Q097976005	X	5-8A-44	MARJORIE B. KIDD AND ROBERT C. KIDD, WIFE AND HUSBAND	890-596	596
Q097976007	X	5-8A-44	CHARLES EDWIN BLUE, IV, DEALING IN HIS SOLE AND SEPARATE PROPERTY	890-316	316
10*25351	Y	5-8A-43	BRIAN EDWIN LEMASTERS AND BEVERLY J LEMASTERS	PENDING	
10*25698	Y	5-8A-43	KENNETH AND DAWN E MORRIS	1033	129
10*25723	Y	5-8A-43	BRYCE AND EDNA M ULBRICH	1035	156
10*25724	Y	5-8A-43	BLYE ULBRICH AND JAMES JENSHKE	1035	154
10*25725	Y	5-8A-43	H JAY ULBRICH	1035	152
10*25726	Y	5-8A-43	MARILYN AND RODNEY N CHALMERS	1035	150
10*25752	Y	5-8A-43	DEBRA ANN AND EARLV BUTCHER	1033	315
10*26437	Y	5-8A-43	MARY L PARRIOTT	1035	148
10*26438	Y	5-8A-43	JANICE AND DONALD CROOK	1034	583
10*26439	Y	5-8A-43	NANCY LOUISE SNYDER	1034	588
10*26704	Y	5-8A-43	SOUTHEASTERN GUIDE DOGS INC	PENDING	
N/A	Y	5-8A-43	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A	N/A
Q097976003	Y	5-8A-43	Charles G. Stein and Eva A. Stein F/K/A Eva A. Wade, husband and wife	821	28
Q097976001	Y	5-8A-43	Sara B. Anderson and Arthur A. Anderson, wife and husband	890	310
Q097976004	Y	5-8A-43	Lorna Marie Lew	890	602
Q097976005	Y	5-8A-43	MARJORIE B. KIDD AND ROBERT C. KIDD, WIFE AND HUSBAND	890	596
Q097976006	Y	5-8A-43	Victoria A. Pakrovsky and Stephen W. Pakrovsky, wife and husband	890	599
Q097976007	Y	5-8A-43	CHARLES EDWIN BLUE, IV, DEALING IN HIS SOLE AND SEPARATE PROPERTY	890	316
10*26024	Z	5-8A-35	WILLIAM MCGLUMPHY	752	370
10*25698	AA	5-8A-36	KENNETH AND DAWN E MORRIS	1033	129
10*25752	AA	5-8A-36	DEBRA ANN AND EARLV BUTCHER	1033	315
10*26438	AA	5-8A-36	JANICE AND DONALD CROOK	1034	583
10*26439	AA	5-8A-36	NANCY LOUISE SNYDER	1034	588
N/A	AA	5-8A-36	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A	N/A
Q078626001	AA	5-8A-36	LUCILLE E. WINGROVE	810	80
Q078626002	AA	5-8A-36	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808	303
Q078626003	AA	5-8A-36	JUNE MORRIS, A WIDOW	808	301
Q078626004	AA	5-8A-36	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808	309
Q078626005	AA	5-8A-36		808	305
Q078626009	AA	5-8A-36	H. JAY ULBRICH, A SINGLE MAN	819	309
Q078626010	AA	5-8A-36	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820	506
Q078626011	AA	5-8A-36	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819	305
Q078626012	AA	5-8A-36	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819	307
Q078626013	AA	5-8A-36	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819	303
Q078626017	AA	5-8A-36	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820	516
Q078626023	AA	5-8A-36	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825	298
Q078626025	AA	5-8A-36	COURTNEY D. HALL, SINGLE	829	147
Q078626026	AA	5-8A-36	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829	127
Q078626036	AA	5-8A-36	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832	588
10*25698	BB	5-8A-37	KENNETH AND DAWN E MORRIS	1033	129
10*25752	BB	5-8A-37	DEBRA ANN AND EARLV BUTCHER	1033	315
10*26438	BB	5-8A-37	JANICE AND DONALD CROOK	1034	583
10*26439	BB	5-8A-37	NANCY LOUISE SNYDER	1034	588
N/A	BB	5-8A-37	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A	N/A
Q078626001	BB	5-8A-37	LUCILLE E. WINGROVE, A WIDOW	810	80
Q078626002	BB	5-8A-37	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808	303
Q078626003	BB	5-8A-37	JUNE MORRIS, A WIDOW	808	301
Q078626004	BB	5-8A-37	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808	309
Q078626005	BB	5-8A-37		808	305
Q078626009	BB	5-8A-37	H. JAY ULBRICH, A SINGLE MAN	819	309
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Q078626013	BB	5-8A-37	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819	303
Q078626017	BB	5-8A-37	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820	516



P.S. 708

David L Jackson

SI-02220
HQA



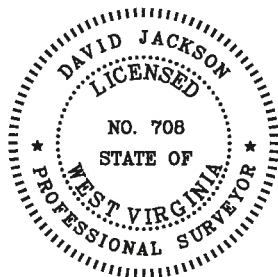
**TUG HILL
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OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
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WELL PLAT
PAGE 6 OF 10
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Q078626025	BB	5-8A-37	COURTNEY D. HALL, SINGLE	829 147
Q078626026	BB	5-8A-37	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626036	BB	5-8A-37	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
10*25698	CC	5-8A-41	KENNETH AND DAWN E MORRIS	1033 129
10*25752	CC	5-8A-41	DEBRA ANN AND EARLV BUTCHER	1033 315
10*26438	CC	5-8A-41	JANICE AND DONALD CROOK	1034 583
10*26439	CC	5-8A-41	NANCY LOUISE SNYDER	1034 588
N/A	CC	5-8A-41	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A N/A
Q078626001	CC	5-8A-41	LUCILLE E. WINGROVE, A WIDOW	810 80
Q078626002	CC	5-8A-41	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626003	CC	5-8A-41	JUNE MORRIS, A WIDOW	808 301
Q078626004	CC	5-8A-41	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	CC	5-8A-41	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
Q078626009	CC	5-8A-41	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	CC	5-8A-41	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820 506
Q078626011	CC	5-8A-41	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305
Q078626012	CC	5-8A-41	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	CC	5-8A-41	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626017	CC	5-8A-41	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
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10*25752	DD	5-8A-38	DEBRA ANN AND EARLV BUTCHER	1033 315
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Q078626005	DD	5-8A-38	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
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Q078626012	DD	5-8A-38	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	DD	5-8A-38	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626017	DD	5-8A-38	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
Q078626023	DD	5-8A-38	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825 298
Q078626025	DD	5-8A-38	COURTNEY D. HALL, SINGLE	829 147
Q078626026	DD	5-8A-38	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626036	DD	5-8A-38	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
10*25698	EE	5-8A-39	KENNETH AND DAWN E MORRIS	1033 129
10*25752	EE	5-8A-39	DEBRA ANN AND EARLV BUTCHER	1033 315
10*26438	EE	5-8A-39	JANICE AND DONALD CROOK	1034 583
10*26439	EE	5-8A-39	NANCY LOUISE SNYDER	1034 588
N/A	EE	5-8A-39	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A N/A
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Q078626002	EE	5-8A-39	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626003	EE	5-8A-39	JUNE MORRIS, A WIDOW	808 301
Q078626004	EE	5-8A-39	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	EE	5-8A-39	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
Q078626006	EE	5-8A-39	BARBARA F. DANIELS, WIDOW	813 246
Q078626007	EE	5-8A-39	JEFFREY BROOKS, SINGLE	813 540
Q078626008	EE	5-8A-39	ELAINE WILLS, SINGLE	813 542
Q078626009	EE	5-8A-39	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	EE	5-8A-39	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820 506
Q078626011	EE	5-8A-39	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305
Q078626012	EE	5-8A-39	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	EE	5-8A-39	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626017	EE	5-8A-39	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
Q078626023	EE	5-8A-39	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825 298
Q078626025	EE	5-8A-39	COURTNEY D. HALL, SINGLE	829 147
Q078626026	EE	5-8A-39	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626036	EE	5-8A-39	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
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10*25752	FF	5-8A-33	DEBRA ANN AND EARLV BUTCHER	1033 315
10*26438	FF	5-8A-33	JANICE AND DONALD CROOK	1034 583
10*26439	FF	5-8A-33	NANCY LOUISE SNYDER	1034 588
N/A	FF	5-8A-33	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A N/A
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Q078626002	FF	5-8A-33	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626003	FF	5-8A-33	JUNE MORRIS, A WIDOW	808 301
Q078626004	FF	5-8A-33	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	FF	5-8A-33	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
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Q078626011	FF	5-8A-33	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305



P.S. 708

David L Jackson

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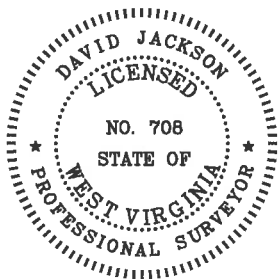
**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #:

WELL PLAT
PAGE 7 OF 10
DATE: 07/23/2019
REVISED DATE:
08/08/2019

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**

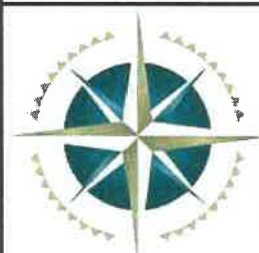
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Q078626013	FF	5-8A-33	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626017	FF	5-8A-33	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
Q078626023	FF	5-8A-33	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825 298
Q078626025	FF	5-8A-33	COURTNEY D. HALL, SINGLE	829 147
Q078626026	FF	5-8A-33	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626036	FF	5-8A-33	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
Q095637000	GG	5-8A-34	NORMAN GALE JOHNSON AND WONETTA VIRGINIA JOHNSON ET AL	878 370
Q081033000	HH	5-8-3	TAMMY L MITCHELL ET VIR	816 176
Q092606000	II	5-8A-14	THE BOARD OF EDUCATION OF COUNTY OF MARSHALL	896 501
Q095637000	JJ	5-8A-28	NORMAN GALE JOHNSON AND WONETTA VIRGINIA JOHNSON ET AL	878 370
N/A	KK	5-8A-29	ROBERT F. RYAN	N/A N/A
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N/A	LL	5-8A-30	ROBERT F. RYAN	N/A N/A
PENDING	MM	5-8A-32	JOHN E. BOPP AND JOYCE L. BOPP, HIS WIFE	711 298
10*25698	NN	5-8A-31	KENNETH AND DAWN E MORRIS	1033 129
10*25752	NN	5-8A-31	DEBRA ANN AND EARL V BUTCHER	1033 315
10*26438	NN	5-8A-31	JANICE AND DONALD CROOK	1034 583
10*26439	NN	5-8A-31	NANCY LOUISE SNYDER	1034 588
N/A	NN	5-8A-31	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A N/A
Q078626001	NN	5-8A-31	LUCILLE E. WINGROVE, A WIDOW	810 80
Q078626002	NN	5-8A-31	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626003	NN	5-8A-31	JUNE MORRIS, A WIDOW	808 301
Q078626004	NN	5-8A-31	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	NN	5-8A-31	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
Q078626009	NN	5-8A-31	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	NN	5-8A-31	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820 506
Q078626011	NN	5-8A-31	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305
Q078626012	NN	5-8A-31	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	NN	5-8A-31	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626017	NN	5-8A-31	Southeastern Guide. Dogs Inc., Titus Herman CEO	820 516
Q078626023	NN	5-8A-31	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825 298
Q078626025	NN	5-8A-31	COURTNEY D. HALL, SINGLE	829 147
Q078626026	NN	5-8A-31	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626036	NN	5-8A-31	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
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Q076644000	XX	5-8A-19 F/K/A 5-8A-21	JAMES B MIDCAP AND DIANA K MIDCAP	803 336
Q078626001	XX	5-8A-19 F/K/A 5-8A-18	LUCILLE E. WINGROVE, A WIDOW	810 80
Q078626002	XX	5-8A-19 F/K/A 5-8A-18	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626003	XX	5-8A-19 F/K/A 5-8A-18	JUNE MORRIS, A WIDOW	808 301
Q078626004	XX	5-8A-19 F/K/A 5-8A-18	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	XX	5-8A-19 F/K/A 5-8A-18	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
Q078626009	XX	5-8A-19 F/K/A 5-8A-18	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	XX	5-8A-19 F/K/A 5-8A-18	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820 506
Q078626011	XX	5-8A-19 F/K/A 5-8A-18	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305
Q078626012	XX	5-8A-19 F/K/A 5-8A-18	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	XX	5-8A-19 F/K/A 5-8A-18	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626014	XX	5-8A-19 F/K/A 5-8A-18	HARRY LEROY PARRIOTT AND NANCY S. PARRIOTT, HUSBAND AND WIFE	820 508
Q078626015	XX	5-8A-19 F/K/A 5-8A-18	DEBORAH D. MERCER AND CALVIN P. MERCER, WIFE AND HUSBAND	821 22
Q078626016	XX	5-8A-19 F/K/A 5-8A-18	BRIAN EDWIN LEMASTERS AND BEVERLY J. LEMASTERS, HUSBAND AND WIFE	821 24
Q078626017	XX	5-8A-19 F/K/A 5-8A-18	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
Q078626018	XX	5-8A-19 F/K/A 5-8A-18	KIMBERLY D. LAKE, A SINGLE WOMAN	825 272
Q078626019	XX	5-8A-19 F/K/A 5-8A-18	FRANCIS O. HALL A/K/A ORNETTA PARRIOTT, WIDOW	825 258
Q078626020	XX	5-8A-19 F/K/A 5-8A-18	TRUDY B. SAMPSON AND DANNY SAMPSON, WIFE AND HUSBAND	825 260
Q078626021	XX	5-8A-19 F/K/A 5-8A-18	MARY L. PARRIOTT, A WIDOW	827 164
Q078626022	XX	5-8A-19 F/K/A 5-8A-18	TIMOTHY SCOTT LEMASTERS AND AMY C. LEMASTERS, HUSBAND AND WIFE	827 162
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Q078626025	XX	5-8A-19 F/K/A 5-8A-18	COURTNEY D. HALL, SINGLE	829 147
Q078626026	XX	5-8A-19 F/K/A 5-8A-18	BLASÉ JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626027	XX	5-8A-19 F/K/A 5-8A-18	BETTY JANE PARRIOTT, WIDOW	828 265
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P.S. 708

David L Jackson

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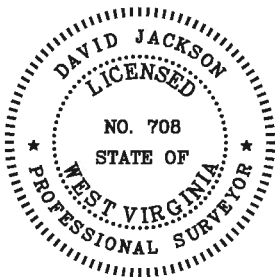
**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: _____

WELL PLAT
PAGE 8 OF 10
DATE: 07/23/2019
REVISED DATE:
08/08/2019

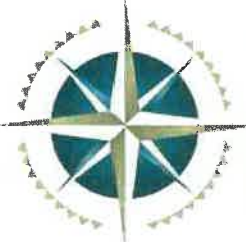
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WELL N-9HU
424.1534± ACRES**

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10*26438	YY	5-BA-17	JANICE AND DONALD CROOK	1034 583
10*26439	YY	5-BA-17	NANCY LOUISE SNYDER	1034 588
N/A	YY	5-BA-17	SHRINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	N/A N/A
Q078626001	YY	5-BA-17	LUCILLE E. WINGROVE, A WIDOW	810 80
Q078626002	YY	5-BA-17	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626003	YY	5-BA-17	JUNE MORRIS, A WIDOW	808 301
Q078626004	YY	5-BA-17	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	YY	5-BA-17	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
Q078626009	YY	5-BA-17	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	YY	5-BA-17	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820 506
Q078626011	YY	5-BA-17	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305
Q078626012	YY	5-BA-17	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	YY	5-BA-17	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
Q078626014	YY	5-BA-17	HARRY LEROY PARRIOTT AND NANCY S. PARRIOTT, HUSBAND AND WIFE	820 508
Q078626015	YY	5-BA-17	DEBORAH D. MERCER AND CALVIN P. MERCER, WIFE AND HUSBAND	821 22
Q078626016	YY	5-BA-17	BRIAN EDWIN LEMASTERS AND BEVERLY J. LEMASTERS, HUSBAND AND WIFE	821 24
Q078626017	YY	5-BA-17	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
Q078626018	YY	5-BA-17	KIMBERLY D LAKE	825 272
Q078626019	YY	5-BA-17	FRANCIS O. HALLA/K/A ORNETTA PARRIOTT, WIDOW	825 258
Q078626020	YY	5-BA-17	TRUDY B. SAMPSON AND DANNY SAMPSON, WIFE AND HUSBAND	825 260
Q078626021	YY	5-BA-17	MARY L. PARRIOTT, A WIDOW	827 164
Q078626022	YY	5-BA-17	TIMOTHY SCOTT LEMASTERS AND AMY C. LEMASTERS, HUSBAND AND WIFE	827 162
Q078626023	YY	5-BA-17	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825 298
Q078626025	YY	5-BA-17	COURTNEY D. HALL, SINGLE	829 147
Q078626026	YY	5-BA-17	BLASE JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626027	YY	5-BA-17	BETTY JANE PARRIOTT, WIDOW	828 265
Q078626028	YY	5-BA-17	PATRICIA PARRIOTT, A WIDOW	828 270
Q078626036	YY	5-BA-17	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
Q078626037	YY	5-BA-17	Debra Ann Butcher and Earl V. Butcher, wife and husband	839 215
Q076869000	ZZ	5-BA-26	EDWARD DAVID KNUTH AND KATHY JO KNUTH	803 598
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Q077358002	AAA	5-BA-16	JUNE MORRIS, WIDOW	829 26
Q078626002	AAA	5-BA-16	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	808 303
Q078626004	AAA	5-BA-16	NANCY L. SNYDER, A/K/A NANCY WINGROVE SNYDER, A WIDOW	808 309
Q078626005	AAA	5-BA-16	JANICE R. CROOK, A/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	808 305
Q078626009	AAA	5-BA-16	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	AAA	5-BA-16	MARILYN ULBRICH CHALMERS AND ROD N. CHALMERS, WIFE AND HUSBAND	820 506
Q078626011	AAA	5-BA-16	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	819 305
Q078626012	AAA	5-BA-16	JUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	819 307
Q078626013	AAA	5-BA-16	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	819 303
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Q078626017	AAA	5-BA-16	SOUTHEASTERN GUIDE DOGS INC., TITUS HERMAN CEO	820 516
Q078626018	AAA	5-BA-16	KIMBERLY D LAKE	825 272
Q078626019	AAA	5-BA-16	FRANCIS O. HALLA/K/A ORNETTA PARRIOTT, WIDOW	825 258
Q078626020	AAA	5-BA-16	TRUDY B. SAMPSON AND DANNY SAMPSON, WIFE AND HUSBAND	825 260
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Q078626022	AAA	5-BA-16	TIMOTHY SCOTT LEMASTERS AND AMY C. LEMASTERS, HUSBAND AND WIFE	827 162
Q078626023	AAA	5-BA-16	BRYCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	825 298
Q078626025	AAA	5-BA-16	COURTNEY D. HALL, SINGLE	829 147
Q078626026	AAA	5-BA-16	BLASE JOSEPH ULCAK JR., A SINGLE MAN	829 127
Q078626027	AAA	5-BA-16	BETTY JANE PARRIOTT, WIDOW	828 265
Q078626028	AAA	5-BA-16	PATRICIA PARRIOTT, A WIDOW	828 270
Q078626036	AAA	5-BA-16	MARTHA FRANCES ULCAK, A SINGLE WOMAN	832 588
N/A	BBB	5-BA-15	SHRINERS HOSPITALS FOR CHILDREN	N/A N/A
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Q076636003	YYY	5-7-5.1	ALAN GREGORY SCHMITT & LINDA LEE SCHMITT	813 538
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Q076636005	YYY	5-7-5.1	SAMUEL O. COEN JR.	816 259
Q076636006	YYY	5-7-5.1	MARK ALAN DELBRUGGE & PATRICIA A. DELBRUGGE	820 512
Q076636007	YYY	5-7-5.1	WALTER L. DELBRUGGE JR. & NORA L. DELBRUGGE	820 510
Q076636008	YYY	5-7-5.1	WILLIAM D. MARTIN & ANDREA R. MARTIN	819 298
Q076636009	YYY	5-7-5.1	KIMBERLY ANN DELBRUGGE DECREASE & VINCENT J. DECREASE	825 349
Q076636010	YYY	5-7-5.1	SUZANNE Q. PAVLIC AKA SUZANNE DELBRUGGE PAVLIC	825 262
Q076636011	YYY	5-7-5.1	MARGARET LYNN DELBRUGGE WATSON & JAMES W. WATSON	825 264
Q076636012	YYY	5-7-5.1	JANE LOU WILLIAMS AKA JANE LOU DELBRUGGE WILLIAMS & LAURENCE P. WILLIAMS	825 289
Q076636013	YYY	5-7-5.1	BEATRICE J. SCHMITT	828 292
Q078626009	BBB	5-BA-15	H. JAY ULBRICH, A SINGLE MAN	819 309
Q078626010	BBB	5-BA-15	MARILYN ULBRICH CHALMERS AND ROD N. CHAMBERS	820 506
Q078626011	BBB	5-BA-15	BLYE ULBRICH JENSCHKE AND JIM JENSCHKE	819 305
Q078626012	BBB	5-BA-15	JUSTIN SMITH	819 307
Q078626013	BBB	5-BA-15	ROBERT LEE SMITH AND BETSY K. SMITH	819 303
Q078626014	BBB	5-BA-15	HARRY LEROY PARRIOTT AND NANCY S. PARRIOTT	820 508
Q078626015	BBB	5-BA-15	DEBORAH D. MERCER AND CALVIN P. MERCER	821 22
Q078626016	BBB	5-BA-15	BRIAN EDWIN LEMASTERS ET UX	821 24
Q078626018	BBB	5-BA-15	KIMBERLY D LAKE	825 272



P.S. 708 *David L Jackson*

SI-02200



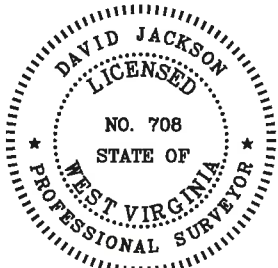
**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: _____

WELL PLAT
PAGE 9 OF 10
DATE: 07/23/2019
**REVISED DATE:
08/08/2019**

**MICHTER LEASE
WELL N-9HU
424.1534± ACRES**

Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Deed Book/Page
Q078626020	RRR	5-8A-15	TRUDY B SAMPSON ET VIR	825 260
Q078626021	BBB	5-8A-15	MARY L PARRIOTT	827 164
Q078626022	BBB	5-8A-15	TIMOTHY SCOTT LEMASTERS AND AMY C LEMASTERS	827 162
Q078626023	BBB	5-8A-15	BRYCE E ULBRICH AND EDNA M ULBRICH	825 298
Q078626025	BBB	5-8A-15	COURTNEY D. HALL, SINGLE	829 147
Q078626026	BBB	5-8A-15	BLASE JOSEPH ULCAK JR	829 127
Q078626027	BBB	5-8A-15	BETTY JANE PARRIOTT, WIDOW	828 265
Q078626028	BBB	5-8A-15	PATRICIA PARRIOTT	828 270
Q078626029	BBB	5-8A-15	SOUTHEASTERN GUIDE DOGS INC	828 305
Q078626030	BBB	5-8A-15	FRANCES O HALLAKA ORNETTA PARRIOTT	839 133
Q078626032	BBB	5-8A-15	KENNETH MORRIS AND DAWN E MORRIS	829 43
Q078626033	BBB	5-8A-15	LUCILLE E WINGROVE	829 45
Q078626034	BBB	5-8A-15	JANICE R CROOK AKA JANICE WINGROVE CROOK AND DONALD P CROOK	831 60
Q078626035	BBB	5-8A-15	NANCY L SNYDER AKA NANCY WINGROVE SNYDER	831 56
Q078626036	BBB	5-8A-15	MARTHA FRANCES ULCAK	832 588
Q078626037	BBB	5-8A-15	DEBRA ANN BUTCHER AND EARL V BUTCHER	839 215
	YYY	5-7-5.1	GEORGE A. KNUTH	819 298
Q076643000	CCC	5-8A-8	JOHN JOSEPH GOUDY	803 341
Q083716000	DDD	5-8A-9	KEVIN W. WALLANCE, A MARRIED MAN DEALING IN HIS SOLE AND SEPARATE PROPERTY	836 463
Q076644000	EEE	5-8A-55	JAMES B MIDCAP AND DIANA K MIDCAP	803 336
PENDING	FFF	5-8-2	CNX GAS COMPANY LLC	1039 1
Q083704000	GGG	5-8A-7	ANNE C KLEM	719 352
Q083677000	HHH	5-8A-5	JOHN K PERSINGER AND DEBRA K PERSINGER	711 300
083689000	III	5-8A-6	CLAYTON LEE PERSINGER AND LETTIE LEE PERSINGER	714 97
Q083689000	JJJ	5-8A-4	Clayton Lee Persinger and Lettie Lee Persinger	842 363
Q079730000	KKK	5-8A-3	GRAYSVILLE CALVARY UNITED METHODIST CHURCH	811 646
Q079727000	LLL	5-8A-2	GRAYSVILLE CALVARY UNITED METHODIST CHURCH	811 646
Q079727000	MNN	5-8A-1	GRAYSVILLE CALVARY UNITED METHODIST CHURCH	811 642
624124	NNN	5-7-15	KIRKMAN, CASPER SANFORD; KIRKMAN, LILLIAN E	311 390
624133	OOO	5-7-15.1	ELLIOTT, FRANK & MARTHA	311 467
624134	PPP	5-7-13	KATHRYN VENNON ET AL	311 467
Q075462000	QQQ	5-7-12	EDWIN C. MILLER & KIMBERLY ANN MILLER	797 646
PENDING	RRR	5-7-11	MELVIN E DINGER & LENA M DINGER	712 588
624123	SSS	5-7-10.1	WILKINSON, RAYMOND M & ELSIE M	311 379
624123	TTT	5-7-10	WILKINSON, RAYMOND M & ELSIE M	311 379
Q097218000	UUU	5-7-14	LACY MIDCAP ET AL	311 324
Q097218000	VVV	5-7-14.1	LACY MIDCAP ET AL	311 324
Q097218000	WWW	5-7-14.3	LACY MIDCAP ET AL	311 324
Q097218000	XXX	5-7-14.2	LACY MIDCAP ET AL	311 324
Q090257000	ZZZ	5-7-5	KNUTH, GEORGE A & KELLY A	671 385
624083	AAAA	5-7-4	GATTS, LLOYD Q & MARY WOLFE	290 94
Q076636004	BBBB	5-7-6	CYNTHIA JEAN WARD & DALE P. WARD	816 261
Q076636006	BBBB	5-7-6	MARK ALAN DELBRUGGE & PATRICIA A. DELBRUGGE	820 512
Q076636007	BBBB	5-7-6	WALTER L. DELBRUGGE JR & NORA L. DELBRUGGE	820 510
Q076636008	BBBB	5-7-6	WILLIAM D. MARTIN & ANDREA R. MARTIN	819 298
Q076636009	BBBB	5-7-6	KIMBERLY ANN DELBRUGGE DECREASE & VINCENT J. DECREASE	825 349
Q076636010	BBBB	5-7-6	SUZANNE Q. PAVLIC AKA SUZANNE DELBRUGGE PAVLIC	825 262
Q076636011	BBBB	5-7-6	MARGARET LYNN DELBRUGGE WATSON & JAMES W. WATSON	825 264
Q076636012	BBBB	5-7-6	JANE LOU WILLIAMS AKA JANE LOU DELBRUGGE WILLIAMS & LAURENCE P. WILLIAMS	825 288
Q076636013	BBBB	5-7-6	BEATRICE J. SCHMITT	828 292
Q076636014	BBBB	5-7-6	BRUCE SCOTT SCHMITT & JERRI MARIE BLANEY	806 335
Q076636015	BBBB	5-7-6	ALAN GREGORY SCHMITT & LINDA LEE SCHMITT	808 315
Q076636016	BBBB	5-7-6	SAMUEL O. COEN JR.	813 255
Q090257000	BBBB	5-7-6	KNUTH, GEORGE A & KELLY A	671 385
624081	CCCC	5-6-4	COX, HANNAHO & J FRANK	290 110
624074	DDDD	5-6-3.1	GATTS, ALICE	282 394
624080	DDDD	5-6-3.1	GATTS, ELIZABETH R J & HARLEY	290 97
Q074011003	DDDD	5-6-3.1	JOSEPH MOORE NEAL	859 512
Q074011005	DDDD	5-6-3.1	ANN ALEXANDER	853 310
Q074011006	DDDD	5-6-3.1	FRANCES GALE NEAL	851 218
Q074011007	DDDD	5-6-3.1	SUSAN WITTEN NEAL MYERS ET AL	815 375
Q074011008	DDDD	5-6-3.1	JANE WITTEN VOTH	853 306
Q074011013	DDDD	5-6-3.1	MARY WITTEN NEAL WISEMAN	851 216
624074	EEEE	5-6-3	GATTS, ALICE	282 394
624080	EEEE	5-6-3	GATTS, ELIZABETH R J & HARLEY	290 97
624083	EEEE	5-6-3	GATTS, LLOYD Q & MARY WOLFE	290 94
624150	EEEE	5-6-3	RINE, GW & BESSIE J	313 200
Q074011002	EEEE	5-6-3	DOROTHY ANN NEAL	851 396
Q074011003	EEEE	5-6-3	JOSEPH MOORE NEAL	859 512
Q074011004	EEEE	5-6-3	MARGERY J. WITTEN	851 398
Q074011005	EEEE	5-6-3	ANN ALEXANDER	853 310
Q074011006	EEEE	5-6-3	FRANCES GALE NEAL	851 218
Q074011007	EEEE	5-6-3	SUSAN WITTEN NEAL MYERS ET AL	815 375
Q074011008	EEEE	5-6-3	JANE WITTEN VOTH	853 306
Q074011013	EEEE	5-6-3	MARY WITTEN NEAL WISEMAN	851 216
624080	FFFF	5-6-5	GATTS, ELIZABETH R J & HARLEY	290 97
624073	GGGG	5-6-6	STEGNER, FREDERICK J; STEIGNER, ANNA KATHERYNE	282 61
Q090311000	GGGG	5-6-6	ASHLAND OIL & REFINING CO.	277 490
Q090311000	HHHH	5-6-1	ASHLAND OIL & REFINING CO.	277 490



P.S. 708 *David L Jackson*

51-02220



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Michter N-9HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: _____

WELL PLAT
PAGE 10 OF 10
DATE: 07/23/2019
REVISED DATE:
08/08/2019

**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
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*See attached pages

**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: Tug Hill Operating, LLC
 By: Amy L. Miller *Amy Miller*
 Its: Permitting Specialist - Appalachia Region

RECEIVED
Office of Oil and Gas

AUG 05 2019

WV Department of
Environmental Protection

Deacons

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*47051.0890.0	5-11-1.1	A	LARRY W DUNLAP AND BARBARA EDUNLAP	TH EXPLORATION LLC	1/8+	854 148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22667	5-11-21	B	REBEKAH DRAVER ELDORGE AND CHRISTOPHER ELDORGE	NOBLE ENERGY INC	1/8+	850 157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22773	5-11-21	B	CHRISTA DRAVER STALEY AND JOSHUA STALEY	NOBLE ENERGY INC	1/8+	851 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22777	5-11-21	B	BOYD BUESKING	NOBLE ENERGY INC	1/8+	850 159	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22780	5-11-21	B	BRENDA FAYE THOMAS PETRACK	NOBLE ENERGY INC	1/8+	850 161	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22786	5-11-21	B	GUY YATES	NOBLE ENERGY INC	1/8+	848 206	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22787	5-11-21	B	GAIL ANN YATES WOOD AND WESLEY J WOOD	NOBLE ENERGY INC	1/8+	848 208	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22788	5-11-21	B	GENIE SUE THOMAS HOLMES AND JOHN L HOLMES	NOBLE ENERGY INC	1/8+	848 204	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22801	5-11-21	B	BOND DAL YATES JR AND MARLA YATES	NOBLE ENERGY INC	1/8+	848 210	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 41/298
10*22808	5-11-21	B	SHIRLEY YATES HARTSELL AND REDDIE LEE HARTSELL	NOBLE ENERGY INC	1/8+	848 212	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia LLC 98/286
10*22810	5-11-21	B	CLYDE V. & KAREN S REED	NOBLE ENERGY INC	1/8+	864 190	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 98/286
10*47051.0890.0	5-11-1.4	C	LARRY W DUNLAP AND BARBARA E DUNLAP	TH EXPLORATION LLC	1/8+	864 148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19167	5-11-1.2	D	JAY A CONNER PATTY LOUISE CONNER	CHESSAPEAKE APPALACHIA LLC	1/8+	724 156	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 40/127
10*19167	5-11-1.3	E	JAY A CONNER PATTY LOUISE CONNER	CHESSAPEAKE APPALACHIA LLC	1/8+	724 156	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia LLC 98/286
10*22860	5-11-1.6	F	DEBRA MORRIS	NOBLE ENERGY INC	1/8+	797 617	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 98/286
10*19174	5-11-1.7	G	WILLIAM S ADAMS MARY K ADAMS	THENERGY HOLDINGS, LLC	1/8+	711 318	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 40/127
10*19168	5-11-1.5	H	PAUL WHITT AND SANDY WHITT	CHESSAPEAKE APPALACHIA LLC	1/8+	715 585	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 40/127
10*47051.1195.0	5-8-9	I	JAMES B JACKSON JR AND MARGON L JACKSON	TH EXPLORATION LLC	1/8+	859 478	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia LLC 98/286
10*21946	5-8-7	J	EDWIN C MILLER AND KIBBERLY ANN MILLER	TH EXPLORATION LLC	1/8+	957 257	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia LLC 98/286
0091960000	Fish Creek - State of WV	K	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	NOBLE ENERGY INC	1/8+	855 558	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	HG Energy II Appalachia LLC to TH Exploration LLC 98/286

TH19101	5-8-4.1	L	FRANCES E. NIEMAN	AB RESOURCES LLC	1/8+	695	288	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AB Resources & NPRA LLC to Chief Exploration & Development LLC & Enerplus Resources Development LLC & Radler 2000 LP*	24/666	USA Inc; 25/705	AB Resources LLC to Chevron USA Inc;	40/227	TH Exploration LLC to HG Energy II Appalachia, LLC	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC						
CV949510	5-8-5	M	NICOLE GATTIS-SEK	CHEVRON U.S.A., INC	1/8+	699	470	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to HG Energy II Appalachia, LLC	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC						
CV9497093	5-8-5	M	RICHARD J. GATTS	CHEVRON USA INC	1/8+	699	479	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to HG Energy II Appalachia, LLC	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC						
CV9497094	5-8-5	M	LOIS ZWOLENSKY-SFK	CHEVRON U.S.A., INC	1/8+	699	476	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to HG Energy II Appalachia, LLC	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC						
CV8866529	5-8-4	N	FRANCES E. NIEMAN ET AL.	AB RESOURCES LLC	1/8+	685	283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AB Resources & NPRA Chief O&G LLC, Radler 2000 & Enerplus Resources LLC to Chief Exploration & Development LLC & Radler 2000 LP* Chevron USA Inc	USA Inc; 25/705	AB Resources LLC to Chevron USA Inc;	756/997	AB Resources LLC to TH Exploration LLC;	40/227	TH Exploration LLC to HG Energy II Appalachia, LLC	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC
Q092215000	5-8A-54.1	O	DAVID D DANIELS AND CHRISTINE S DANIELS	NOBLE ENERGY INC	1/8+	669	354	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC; 39/313	CNX Gas Company LLC to Noble Energy Inc; 37/169	Noble Energy Inc to HG Energy II Appalachia, LLC; 39/1	34/392	Noble Energy Inc to HG Energy II Appalachia, LLC; M8	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC;		
Q097976001	5-8A-54.1	O	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	690	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC; 38/409	CNX Gas Company LLC to Noble Energy Inc; 37/169	Noble Energy Inc to HG Energy II Appalachia, LLC; 39/1	34/392	Noble Energy Inc to HG Energy II Appalachia, LLC; M8	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC;		
Q097976004	5-8A-54.1	O	LORNA MARIE LEW	NOBLE ENERGY INC	1/8+	690	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC; 38/409	CNX Gas Company LLC to Noble Energy Inc; 37/169	Noble Energy Inc to HG Energy II Appalachia, LLC; 39/1	34/392	Noble Energy Inc to HG Energy II Appalachia, LLC; M8	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC;		
Q097976005	5-8A-54.1	O	MARJORIE B RIDD AND ROBERT C RIDD	NOBLE ENERGY INC	1/8+	690	596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC; 38/409	CNX Gas Company LLC to Noble Energy Inc; 37/169	Noble Energy Inc to HG Energy II Appalachia, LLC; 39/1	34/392	Noble Energy Inc to HG Energy II Appalachia, LLC; M8	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC;		
Q097976006	5-8A-54.1	O	VICTORIA A PARKOVSKY AND STEPHEN W PARKOVSKY	NOBLE ENERGY INC	1/8+	690	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC; 38/409	CNX Gas Company LLC to Noble Energy Inc; 37/169	Noble Energy Inc to HG Energy II Appalachia, LLC; 39/1	34/392	Noble Energy Inc to HG Energy II Appalachia, LLC; M8	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC;		
Q097976007	5-8A-54.1	O	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	690	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC; 38/409	CNX Gas Company LLC to Noble Energy Inc; 37/169	Noble Energy Inc to HG Energy II Appalachia, LLC; 39/1	34/392	Noble Energy Inc to HG Energy II Appalachia, LLC; M8	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC;		

0099899000	5-8A-54.1	O	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy- FEE)	NOBLE ENERGY INC	1/8+	898	584	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0092215000	5-8A-54	P	DAVID D DANIELS AND CHRISTINE S DANIELS	NOBLE ENERGY INC	1/8+	869	354	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 33/313	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC;	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976001	5-8A-54	P	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	890	310	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976004	5-8A-54	P	LORNA MARIE LEW	NOBLE ENERGY INC	1/8+	890	602	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976005	5-8A-54	P	MARJORIE B KIDD AND ROBERT C KIDD	NOBLE ENERGY INC	1/8+	890	596	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976006	5-8A-54	P	VICTORIA A PAKOVSKY AND STEPHEN W PAKOVSKY	NOBLE ENERGY INC	1/8+	890	599	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976007	5-8A-54	P	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	890	316	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0098899000	5-8A-54	P	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy- FEE)	NOBLE ENERGY INC	1/8+	898	584	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976001	5-8A-50	Q	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	890	310	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC;	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976004	5-8A-50	Q	LORNA MARIE LEW	NOBLE ENERGY INC	1/8+	890	602	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;
0097976005	5-8A-50	Q	MARJORIE B KIDD AND ROBERT C KIDD	NOBLE ENERGY INC	1/8+	890	596	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; 36/409	CXN Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to HG Energy II Appalachia LLC; 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC; MB	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC;

0097976006	5-8A-50	Q	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	NOBLE ENERGY INC	1/8+	890	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia LLC; MB 988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976007	5-8A-50	Q	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	890	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0099899000	5-8A-50	Q	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	NOBLE ENERGY INC	1/8+	898	584	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976001	5-8A-51	R	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	890	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976004	5-8A-51	R	LORNA MARIE LEW	NOBLE ENERGY INC	1/8+	890	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976005	5-8A-51	R	MARGRIE B KIDD AND ROBERT CIDD	NOBLE ENERGY INC	1/8+	890	596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976006	5-8A-51	R	VICTORIA A PAKROVSKY AND STEPHEN W PAKROVSKY	NOBLE ENERGY INC	1/8+	890	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976007	5-8A-51	R	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	890	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0099899000	5-8A-51	R	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	NOBLE ENERGY INC	1/8+	898	584	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976001	5-8A-52	S	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	890	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;
0097976004	5-8A-52	S	LORNA MARIE LEW	NOBLE ENERGY INC	1/8+	890	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC; Inc: 37/159	CXN Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to Appalatchia LLC; 39/1	Noble Energy Inc to HG Energy II Appalatchia, LLC;	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalatchia, LLC;

0097976005	5-8A-52	5	MARJORIE B KIDD AND ROBERT KIDD	NOBLE ENERGY INC	1/8+	890	596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE Energy Inc to CNX Gas Company LLC 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976006	5-8A-52	5	VICTORIA A PARROVSKY AND STEPHEN W PARROVSKY	NOBLE ENERGY INC	1/8+	890	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976007	5-8A-52	5	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	890	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0098989000	5-8A-52	5	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	NOBLE ENERGY INC	1/8+	898	584	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976001	5-8A-53	T	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	890	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976004	5-8A-53	T	LORNA MARIE LEVY	NOBLE ENERGY INC	1/8+	890	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976005	5-8A-53	T	MARGORIE B KIDD AND ROBERT KIDD	NOBLE ENERGY INC	1/8+	890	596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976006	5-8A-53	T	VICTORIA A PARROVSKY AND STEPHEN W PARROVSKY	NOBLE ENERGY INC	1/8+	890	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0097976007	5-8A-53	T	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	890	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
0098989000	5-8A-53	T	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	NOBLE ENERGY INC	1/8+	898	594	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC: 36/409	CNX Gas Company LLC to Noble Energy Inc: 37/169	Noble Energy Inc to Appalachia LLC: 39/1	HG Energy II Appalachia LLC: MB	988/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.	
TH19101	5-8A-53	T	FRANCES E. NIEMAN	AB RESOURCES LLC	1/8+	655	288	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AB Resources & MPAR LLC to Chief Development & Reader 2000 LP: 24/466	Chief Exploration & Development LLC Chief O&G LLC, Reader 2000 & Enerplus Resources USA Corp to Chevron USA Inc: 29/105	AB Resources LLC to Chevron USA Inc: 758/597	Chevron USA Inc to TH Exploration LLC: 40/127	HG Energy II Appalachia LLC: 4/1592	989/286	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy II Appalachia, LLC.

0097376001	5-8A-47	U	SARA B ANDERSON AND ARTHUR A ANDERSON	NOBLE ENERGY INC	1/8+	890	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC	CNX Gas Company LLC to Noble Energy	Noble Energy/II	Noble Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/II	Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;
0097376004	5-8A-47	U	LORNA MARIE LEV	NOBLE ENERGY INC	1/8+	890	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0097376005	5-8A-47	U	MARJORIE B KIDD AND ROBERT C KIDD	NOBLE ENERGY INC	1/8+	890	596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0097376005	5-8A-47	U	VICTORIA A PAROVSKY AND STEPHEN W PAROVSKY	NOBLE ENERGY INC	1/8+	890	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0097376007	5-8A-47	U	CHARLES EDWIN BLUE IV	NOBLE ENERGY INC	1/8+	890	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0098999000	5-8A-47	U	THOMAS DANIEL BLUE AND JOSEPHINE M BLUE (HG Energy - FEE)	NOBLE ENERGY INC	1/8+	898	584	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
10:2670/4	5-8A-48	V	SOUTHEASTERN GUIDE BOOKS INC	TH EXPLORATION LLC	1/8+	1041	157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/II	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
10:2648	5-8A-48	V	COURTNEY D. HALL, SINGLE	TH EXPLORATION LLC	1/8+	1046	485	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/II	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
10:2651/9	5-8A-48	V	SHINNERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	TH EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/II	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0097376001	5-8A-48	V	Sara B. Anderson and Arthur A. Anderson, wife and husband	Noble Energy, Inc.	1/8+	890-310	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0097376004	5-8A-48	V	Lorna Marie Law	Noble Energy, Inc.	1/8+	890-602	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	
0097376004	5-8A-48	V	Lorna Marie Law	Noble Energy, Inc.	1/8+	890-602	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy/Inc to CXN Gas Company LLC;	CNX Gas Company LLC to Noble Energy	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; 39/1	HG Energy/II	Noble Energy/Inc to Appalachia LLC; MB	988/285	Memorandum of Operating Agreement Between TH Exploration LLC and HG Energy/II Appalachia, LLC;	

Q078626025	5-8A-33	FF	COURTNEY D. HALL, SINGLE	NOBLE ENERGY INC.	1/8+	829	147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.
Q078626026	5-8A-33	FF	BLASE, JOSEPH WICKAK JR., A SINGLE MAN	NOBLE ENERGY, INC.	1/8+	829	127	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q078626036	5-8A-33	FF	MARTHA FRANCES ULCAK, A SINGLE WOMAN	NOBLE ENERGY, INC.	1/8+	832	588	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q095637000	5-8A-34	GG	NOMMAN GALE JOHNSON AND WNETTA VIRGINIA JOHNSON ET AL	NOBLE ENERGY INC	1/8+	878	370	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q081033000	5-8-3	HH	TAMMY L MITCHELL ET VIR	NOBLE ENERGY INC	1/8+	815	176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q093609000	5-8A-34	II	THE BOARD OF EDUCATION OF COUNTY OF MARSHALL	NOBLE ENERGY INC	1/8+	896	501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q095637000	5-8A-28	JI	NOMMAN GALE JOHNSON AND WNETTA VIRGINIA JOHNSON ET AL	NOBLE ENERGY INC	1/8+	878	370	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q095637000	5-8A-29	KK	ROBERT F. RYAN	UNLEASD	1/8+	N/A	N/A																												NOBLE ENERGY INC to Exploration LLC.	
Q093178000	5-8A-29	KK	CATHERINE P RINE	NOBLE ENERGY INC	1/8+	871	490	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
9193931	5-8A-30	LL	RANDALL KEITH KERRER ET AL	CHEVRON USA INC	1/8+	775	131	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	TR Energy Holdings LLC & TR Energy Inc to Exploration LLC.	
N/A	5-8A-30	LL	ROBERT F. RYAN	UNLEASD	1/8+	N/A	N/A																												NOBLE ENERGY INC to Exploration LLC.	
PENDING	5-8A-32	MM	JOHN E. BOPP AND JOYCEL BOPP, HIS WIFE	TRENERGY HOLDINGS LLC	1/8+	711	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
10*29696	5-8A-31	NN	KENNETH AND DAWN E MORRIS	THE EXPLORATION LLC	1/8+	1033	129	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
10*29752	5-8A-31	NN	DEBRA ANN AND EARL V BUTCHER	THE EXPLORATION LLC	1/8+	1033	315	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
10*28418	5-8A-31	NN	JAVGE AND DONALD CROOK	THE EXPLORATION LLC	1/8+	1034	383	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
10*28419	5-8A-31	NN	NANCY LOUISE SNYDER	THE EXPLORATION LLC	1/8+	1034	588	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
10*28619	5-8A-31	NN	SHINNERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	THE EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q078626001	5-8A-31	NN	LUCILLE E. WINGROVE, A WIDOW	NOBLE ENERGY INC	1/8+	810	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q078626002	5-8A-31	NN	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	808	303	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	
Q078626003	5-8A-31	NN	JUNE MORRIS, A WIDOW	NOBLE ENERGY INC	1/8+	808	301	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC to Exploration LLC.	

0069869000	5-8A-12	UU	MARY D BUCKMAN	THE ENERGY HOLDINGS LLC	1/8+	765	224	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	THE ENERGY HOLDINGS LLC & THE ENERGY INC TO CHEVRON USA INC; 28/248	CHEVRON USA INC TO NOBLE ENERGY INC & CNX GAS COMPANY LLC; 39/1	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285
0079184000	5-8A-11	VV	GLORIA JEAN WHITE AND MILTON CHRISTOPHER WHITE	NOBLE ENERGY INC	1/8+	805	392	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 39/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0079184000	5-8A-20	WW	GLORIA JEAN WHITE, A WIDOW, AND MILTON CHRISTOPHER WHITE, A SINGLE MAN	NOBLE ENERGY INC	1/8+	805	392	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 36/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
10726498	5-8A-19 F/N/A 5-8A-18	XX	KENNETH AND DAWN E MORRIS	THE EXPLORATION LLC	1/8+	1033	129	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 34/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
10726498	5-8A-19 F/N/A 5-8A-18	XX	DEBRA ANN AND EARL V BUTCHER	THE EXPLORATION LLC	1/8+	1033	315	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 34/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
10726498	5-8A-19 F/N/A 5-8A-18	XX	JANICE AND DONALD GROOM	THE EXPLORATION LLC	1/8+	1034	588	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 34/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
10726498	5-8A-19 F/N/A 5-8A-18	XX	JANICE LOUISE SNYDER	THE EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 34/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
10726498	5-8A-19 F/N/A 5-8A-18	XX	SHINERS HOSPITALS FOR CHILDREN C/O THE NORTHERN TRUST COMPANY	THE EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 34/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0076644000	5-8A-19 F/N/A 5-8A-10	XX	JAMES B MIDCAP AND DIANA K MIDCAP	NOBLE ENERGY INC	1/8+	803	386	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 39/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0076644000	5-8A-19 F/N/A 5-8A-21	XX	JAMES B MIDCAP AND DIANA K MIDCAP	NOBLE ENERGY INC	1/8+	803	386	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 34/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0079628001	5-8A-19 F/N/A 5-8A-18	XX	LUIS E WINGROVE, A WIDOW	NOBLE ENERGY INC	1/8+	810	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 39/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0079628002	5-8A-19 F/N/A 5-8A-18	XX	KENNETH R. MORRIS AND DAWN E. MORRIS, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	805	303	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 39/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0079628003	5-8A-19 F/N/A 5-8A-18	XX	JUNE MORRIS, A WIDOW	NOBLE ENERGY INC	1/8+	808	301	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 39/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	
0079628004	5-8A-19 F/N/A 5-8A-18	XX	NANCY L. SNYDER, A/W/A NANCY WINGROVE SNYDER, A WIDOW	NOBLE ENERGY INC	1/8+	808	309	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOBLE ENERGY INC TO CNX GAS COMPANY LLC; 39/177	CNX GAS COMPANY LLC TO NOBLE ENERGY LLC; 37/169	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	NOBLE ENERGY INC TO APPALACHIA LLC; 39/1	MEMORANDUM OF OPERATING AGREEMENT BETWEEN TH EXPLORATION LLC AND HG ENERGY II APPALACHIA, LLC; 988/285	

0078626005	5-8A-19 F/K/A 5-8A-18	XX	JANICE R. CROOK, M/K/A JANICE WINGROVE CROOK AND DONALD P. CROOK, A WIFE AND HUSBAND	NOBLE ENERGY INC	1/8+	808	305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626009	5-8A-19 F/K/A 5-8A-18	XX	H. JAY ULRICH, A SINGLE MAN	NOBLE ENERGY INC	1/8+	819	309	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626010	5-8A-19 F/K/A 5-8A-18	XX	MARILYN ULBRICH CHALVERS AND ROD N. CHALVERS, WIFE AND HUSBAND	NOBLE ENERGY INC	1/8+	820	506	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626011	5-8A-19 F/K/A 5-8A-18	XX	BLVE ULBRICH JENSCHKE AND JIM JENSCHKE, WIFE AND HUSBAND	NOBLE ENERGY INC	1/8+	819	305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626012	5-8A-19 F/K/A 5-8A-18	XX	IUSTIN SMITH, A/K/A JUSTINE SMITH, A WIDOW	NOBLE ENERGY INC	1/8+	819	307	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626013	5-8A-19 F/K/A 5-8A-18	XX	ROBERT LEE SMITH AND BETSY K. SMITH, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	819	303	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626014	5-8A-19 F/K/A 5-8A-18	XX	HARRY LENOX PARROTT AND MANCE S. PARROTT, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	820	508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626015	5-8A-19 F/K/A 5-8A-18	XX	DEBORAH D. MERGER AND CALVIN P. MERGER, WIFE AND HUSBAND	NOBLE ENERGY INC	1/8+	821	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286
0078626016	5-8A-19 F/K/A 5-8A-18	XX	BRIAN EDWIN LEWISTERS AND BEVERLY J. LEWISTERS, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	821	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 958/286

0078626017	5-8A-19 F/K/A 5-8A-18	XX	SOUTHEASTERN GUIDE DOGS INC, TITUS HERMAN CEO	NOBLE ENERGY INC	1/8+	820	516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626018	5-8A-19 F/K/A 5-8A-18	XX	KIMBERLY D. LAKE, A SINGLE WOMAN	NOBLE ENERGY INC	1/8+	825	272	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626019	5-8A-19 F/K/A 5-8A-18	XX	FRANCIS O. HALL A/K/A ORNETTA PARRIOTT, WIDOW	NOBLE ENERGY INC	1/8+	825	258	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626020	5-8A-19 F/K/A 5-8A-18	XX	TRUDY B. SAMPSON AND DANIV SAMPSON, WIFE AND HUSBAND	NOBLE ENERGY INC	1/8+	825	260	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626021	5-8A-19 F/K/A 5-8A-18	XX	MARY L. PARRIOTT, A WIDOW	NOBLE ENERGY INC	1/8+	827	164	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626022	5-8A-19 F/K/A 5-8A-18	XX	TIMOTHY SCOTT LEMASTERS AND AMY C. LEMASTERS, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	827	162	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626023	5-8A-19 F/K/A 5-8A-18	XX	BRUCE E. ULBRICH AND EDNA M. ULBRICH, HUSBAND AND WIFE	NOBLE ENERGY INC	1/8+	825	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626025	5-8A-19 F/K/A 5-8A-18	XX	COURTNEY D. HALL, SINGLE	NOBLE ENERGY INC	1/8+	829	147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0078626025	5-8A-19 F/K/A 5-8A-18	XX	BLASE JOSEPH ULICKI JR., A SINGLE MAN	NOBLE ENERGY INC	1/8+	829	127	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285

0076636007	5-7-5.1	YYY	WALTER L. DELBRIDGE JR & NORAL L. DELBRIDGE	NOBLE ENERGY INC	1/8+	820	510	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636008	5-7-5.1	YYY	WILLIAM D. MARTIN & ANDREA R. MARTIN	NOBLE ENERGY INC	1/8+	819	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636009	5-7-5.1	YYY	KIMBERLY ANN DELBRIDGE DECREASE & VINCENT J. DECREASE	NOBLE ENERGY INC	1/8+	825	349	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636010	5-7-5.1	YYY	SUZANNE Q. PAULIC AKA SUZANNE DELBRIDGE PAULIC	NOBLE ENERGY INC	1/8+	825	262	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636011	5-7-5.1	YYY	MARGARET VYNN DELBRIDGE WATSON & JAMES W. WATSON	NOBLE ENERGY INC	1/8+	825	264	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636012	5-7-5.1	YYY	JANE LOU WILLIAMS AKA JANE LOU DELBRIDGE WILLIAMS & LAURENCE P. WILLIAMS	NOBLE ENERGY INC	1/8+	825	289	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636013	5-7-5.1	YYY	BEATRICE J. SCHMITT	NOBLE ENERGY INC	1/8+	828	292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636009	5-8A-1.5	BBB	H. JAY ULBRICH, A SINGLE MAN	NOBLE ENERGY INC	1/8+	819	309	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636010	5-8A-1.5	BBB	MARILYN ULBRICH CHALMERS AND ROD N. CHAMBERS	NOBLE ENERGY INC	1/8+	820	506	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636011	5-8A-1.5	BBB	BLVE ULBRICH JENSCHKE AND JIM JENSCHKE	NOBLE ENERGY INC	1/8+	819	305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286
0076636012	5-8A-1.5	BBB	JUSTIN SMITH	NOBLE ENERGY INC	1/8+	819	307	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 968/286

C078626013	5-8A-15	BBB	ROBERT LEE SMITH AND BETSY K SMITH	NOBLE ENERGY INC	1/8+	819	303	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626014	5-8A-15	B9B	HARRY LEROY PARRIOTT AND MARGY S PARRIOTT	NOBLE ENERGY INC	1/8+	820	508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626015	5-8A-15	B8B	DEBORAH D WIERGER AND CLAVIN P WIERGER	NOBLE ENERGY INC	1/8+	821	22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626016	5-8A-15	B8B	BRIAN EDWIN LEMASTERS ET UX	NOBLE ENERGY INC	1/8+	821	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626018	5-8A-15	B5B	KIMBERLY D LAKE	NOBLE ENERGY INC	1/8+	825	272	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626020	5-8A-15	B9B	TRUDY S CAMPSON ET VIR	NOBLE ENERGY INC	1/8+	825	260	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626021	5-8A-15	B5B	MARY T PARRIOTT	NOBLE ENERGY INC	1/8+	827	164	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626022	5-8A-15	B9B	TIMOTHY SCOTT LEMASTERS AND AMY C LEMASTERS	NOBLE ENERGY INC	1/8+	827	162	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626023	5-8A-15	B5B	BRUCE E ULBRICH AND EDNA M ULBRICH	NOBLE ENERGY INC	1/8+	825	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626025	5-8A-15	B8B	COURTNEY D HALL SINGLE	NOBLE ENERGY INC	1/8+	829	147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
C078626026	5-8A-15	B8B	BLASE JOSEPH ULICK JR	NOBLE ENERGY INC	1/8+	829	127	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286

0078626027	5-8A-15	BBB	BETTY JANE PARRIOTT, WIDOW	NOBLE ENERGY INC	1/8+	828	285	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626028	5-8A-15	BBB	PATRICIA PARRIOTT	NOBLE ENERGY INC	1/8+	828	270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626029	5-8A-15	BBB	SOUTHEASTERN GUIDE DOGS INC	NOBLE ENERGY INC	1/8+	828	305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626030	5-8A-15	BBB	FRANCES O HALL AKA ORNETTA PARRIOTT	NOBLE ENERGY INC	1/8+	839	133	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626032	5-8A-15	BBB	KENNETH MORRIS AND DAWN E MORRIS	NOBLE ENERGY INC	1/8+	829	43	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626033	5-8A-15	BBB	LUCILLE WINGROVE	NOBLE ENERGY INC	1/8+	829	45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626034	5-8A-15	BBB	JANICE R CROOK AKA JANICE WINGROVE CROOK AND DONALD P CROOK	NOBLE ENERGY INC	1/8+	831	60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626035	5-8A-15	BBB	NANCY L SNYDER AKA NANCY WINGROVE SNYDER	NOBLE ENERGY INC	1/8+	831	56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 33/574	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626036	5-8A-15	BBB	MARTHA FRANCES ULCOK	NOBLE ENERGY INC	1/8+	832	588	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 34/399	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
0078626037	5-8A-15	BBB	DEBRA ANN BUTCHER AND EARL V BUTCHER	NOBLE ENERGY INC	1/8+	839	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 34/399	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285
5-7-51	YYY		GEORGE A. WINTH	NOBLE ENERGY INC	1/8+	839	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Noble Energy Inc to CNX Gas Company LLC; 34/177	CNX Gas Company LLC to Noble Energy Inc; 37/159	Noble Energy Inc to HG Energy II; Appalachia LLC; 39/1	Noble Energy Inc to Appalachia LLC; MB 34/392	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II; Appalachia, LLC; 988/285

0076649000	5-9A-8	CCC	JOHN JOSEPH GOUDY	NOBLE ENERGY INC	1/8+	803	341		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0083716000	5-9A-9	DDD	KEVIN W. WALLANCE, A MARRIED MAN DEALING IN HIS SOLE AND SEPARATE PROPERTY	TRIEENERGY HOLDINGS LLC	1/8+	836	463																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0076644000	5-9A-55 5-8-2	EEE FFF	JAMES B MIDCAP AND DIANA K MIDCAP CNX GAS COMPANY LLC	NOBLE ENERGY INC TH EXPLORATION LLC	1/8+ 1/8+	803 1039	336 1		N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	N/A N/A	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0083704000	5-9A-7	GGG	ANNE C KLEM	TRIEENERGY HOLDINGS LLC	1/8+	719	352																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0038677000	5-9A-5	HHH	JOHN F PERSINGER AND DERRA K PERSINGER	TRIEENERGY HOLDINGS LLC	1/8+	711	300																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0836699000	5-9A-6	III	CLAYTON LEE PERSINGER AND LETTIE LEE PERSINGER	TRIEENERGY HOLDINGS LLC	1/8+	714	97																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0083698000	5-9A-4	JJJ	CLAYTON LEE PERSINGER AND LETTIE LEE PERSINGER	TRIEENERGY Holdings, LLC	1/8+	842	363																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0079730000	5-9A-3	KKK	GRAYSVILLE CALVARY UNITED METHODIST CHURCH	NOBLE ENERGY INC	1/8+	811	646																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0079727000	5-9A-2	LLL	GRAYSVILLE CALVARY UNITED METHODIST CHURCH	NOBLE ENERGY INC	1/8+	811	646																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
0079727000	5-9A-1	MMM	GRAYSVILLE CALVARY UNITED METHODIST CHURCH	NOBLE ENERGY INC	1/8+	811	642																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
624124	5-7-15	NNN	KIRKMAN, CASPER SANFORD; KIRKMAN, LILLIAN E	THE M A HANNA COMPANY	1/8+	311	390																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286
624133	5-7-15.1	OOO	ELLIOTT, FRANK & MARTHA	THE M A HANNA COMPANY	1/8+	311	467																	Memorandum of Operating Agreement between TH Exploration, LLC and HG Energy II Appalachia, LLC. 989/286

624134	5-7-13	PPP	KATHRYN VENNON ET AL	THE M A HANNA COMPANY	1/8+	311	467	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc	Noble Energy Inc to Appalachia LLC. 39/1	Noble Energy Inc to Appalachia LLC. 39/1/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/285
0075462000	5-7-12	OOQ	EDWIN C MILLER & KIMBERLY ANN MILLER	NOBLE ENERGY INC	1/8+	797	646	N/A	N/A	N/A	N/A	Noble Energy Inc to CXN Gas Company LLC. 34/167	CNX Gas Company LLC to Noble Energy Inc. 37/169	Noble Energy Inc to Appalachia LLC. 39/1 Appalachia, LLC. 988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286	
PENDING	5-7-11	RRR	MELVIN E DINGER & LENA M DINGER	THE ENERGY HOLDINGS LLC	1/8+	712	558	N/A	N/A			TH Energy Holdings LLC to NPAR LLC. 25/463	NPAR LLC to Chevron USA Inc. 25/759	TH Energy Holdings Inc & TH Energy Inc to TH Exploration LLC. Recording Pending	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286	
624123	5-7-10.1	SSS	WILKINSON, RAMOND M & ELSEF M	CONSOLIDATION COAL COMPANY	1/8+	311	379	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	CNX Gas Company to Appalachia LLC. 909/94	Noble Energy Inc to Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
624123	5-7-10	TTT	WILKINSON, RAMOND M & ELSEF M	CONSOLIDATION COAL COMPANY	1/8+	311	379	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	CNX Gas Company to Appalachia LLC. 909/94	Noble Energy Inc to Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
0097218000	5-7-14	UUU	LACT MIDCAP ET AL	THE M A HANNA COMPANY	1/8+	311	324	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	Noble Energy Inc to Appalachia LLC. 39/1	Noble Energy Inc to Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
0097218000	5-7-14.1	VVV	LACT MIDCAP ET AL	THE M A HANNA COMPANY	1/8+	311	324	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	Appalachia LLC. 39/1	Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
0097218000	5-7-14.3	WWW	LACT MIDCAP ET AL	THE M A HANNA COMPANY	1/8+	311	324	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	Noble Energy Inc to Appalachia LLC. 39/1	Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
0097218000	5-7-14.2	XXX	LACT MIDCAP ET AL	THE M A HANNA COMPANY	1/8+	311	324	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	Noble Energy Inc to Appalachia LLC. 39/1	Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
0090257000	5-7-5	ZZZ	KNUTH, GEORGE A & KELLY A	MCELROY COAL COMPANY	1/8+	671	385	N/A	N/A	N/A	N/A	Consolidation Coal Company, MCELROY Coal Company, Etc to Consol Mining Compy LLC. 811/1	Consol Mining Company to CXN Gas Company LLC. 839/286	CNX Gas Company to Noble Energy Inc.	Noble Energy Inc to Appalachia LLC. 39/1	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286
626083	5-7-4	AAAA	GATTS, LLOYD C & MARY WOJCE	THE M A HANNA COMPANY	1/8+	290	94	N/A	N/A	The M A Hanna Company to Consolidation Coal Company. 315/417	Pittsburgh Consolidation Coal Company Changed Its Resources Inc Etc to Consolidation Coal Company. CB 6/203	66/6/93	CNX Gas Company to Noble Energy Inc.	CNX Gas Company to Appalachia LLC. 39/1	Noble Energy Inc to HG Energy II Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286

0076636004	5-7-6	BB8B	CYNTHIA JEAN WARD & DALE P. WARD	NOBLE ENERGY INC	1/8+	816	261	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 989/289
0076636006	5-7-6	BB8B	MARK ALAN DELBRUGE & PATRICK A. DELBRUGE	NOBLE ENERGY INC	1/8+	820	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636007	5-7-6	BB8B	WALTER L. DELBRUGE JR. & NORAL L. DELBRUGE	NOBLE ENERGY INC	1/8+	820	510	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636008	5-7-6	BB8B	WILLIAM D. MARTIN & ANDREA R. MARTIN	NOBLE ENERGY INC	1/8+	819	298	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636009	5-7-6	BB8B	KIMBERLY ANN DELBRUGE DECREASE & VINCENT J. DECREASE	NOBLE ENERGY INC	1/8+	825	349	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 989/286
0076636010	5-7-6	BB8B	SUZANNE Q. PAULIC AKA SUZANNE DELBRUGE PAULIC	NOBLE ENERGY INC	1/8+	825	262	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636011	5-7-6	BB8B	MARGARET LYNN DELBRUGE WATSON & JAMES W. WATSON	NOBLE ENERGY INC	1/8+	825	264	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636012	5-7-6	BB8B	JANE LOU WILLIAMS AKA JANE LOU DELBRUGE WILLIAMS & LAURENCE P. WILLIAMS	NOBLE ENERGY INC	1/8+	825	289	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636013	5-7-6	BB8B	BEATRICE J. SCHMITT	NOBLE ENERGY INC	1/8+	828	292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 989/289
0076636014	5-7-6	BB8B	BRUCE SCOTT SCHMITT & JERRI MARIE BLANEY	NOBLE ENERGY INC	1/8+	806	335	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286
0076636015	5-7-6	BB8B	ALAN GREGORY SCHMITT & LINDA LEE SCHMITT	NOBLE ENERGY INC	1/8+	808	315	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II, Appalachia, LLC. 988/286

0076686016	5-7-6	8988	SAWULI, O. COHEN JR.	NOBLE ENERGY INC	1/8+	813	255	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia LLC. 988/286
0090257000	5-7-6	8888	KNUHTI, GEORGE A & KELLY A	MCELROY COAL COMPANY	1/8+	671	385	N/A	N/A	N/A	N/A	Consolidation Coal Company, McElroy Coal Company, Etc to Consol Mining Compny Inc. 813/1	Consol Mining Company LLC. 839/286	CNX Gas Company to Noble Energy Inc. 909/94	Noble Energy Inc to HG Energy II Appalachia LLC. 397/1	Noble Energy Inc to HG Energy II Appalachia LLC. 34/392	Noble Energy Inc to HG Energy II Appalachia LLC. 988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia LLC. 988/286					
624081	5-6-4	CCCC	COX, HANNAH O & JFRANK	THE M A HANNA COMPANY	1/8+	290	110	N/A	N/A	N/A	N/A	The M A Hanna Company, Etc to Pittsbuigh Consolidation Coal Company. 315/417	Pittsbuigh Consolidation Coal Resources Inc. Et Al to CNX Gas Company LLC. 646/493	Consolidation Coal Company, CNX Land Resources Inc, Etc to CNX Gas Company LLC. 949/493	CNX Gas Company to Noble Energy Inc. 909/94	Noble Energy Inc to HG Energy II Appalachia LLC. 931/43	Noble Energy Inc to HG Energy II Appalachia LLC. 989/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 989/286					
624074	5-6-3.1	DDDD	GATTS, ALICE	THE M. A. HANNA COMPANY	1/8+	282	394	N/A	N/A	N/A	N/A	The M. A. Hanna Company to Pittsbuigh Consolidation Coal Company. 315/417	Name Change: Pittsbuigh Consolidation Coal Company to Consoliation Coal Company. 6/203	Pittsbuigh Consolidation Coal Company to Consoliation Coal Company. 387/383	Consolidation Coal Resources Inc. Et Al to CNX Gas Company LLC. 646/493	CNX Gas Company LLC to Noble Energy Inc. 752/66	CNX Gas Company LLC to Noble Energy Inc. 809/94	Noble Energy Inc to HG Energy II Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 989/286				
624080	5-6-3.1	DDDD	GATTS, ELIZABETH R. & MARLEY	THE M. A. HANNA COMPANY	1/8+	290	97	N/A	N/A	N/A	N/A	The M. A. Hanna Company to Pittsbuigh Consolidation Coal Company. 315/417	Name Change: Pittsbuigh Consolidation Coal Company to Consoliation Coal Company. 6/203	Pittsbuigh Consolidation Coal Company to Consoliation Coal Company. 387/383	Consolidation Coal Resources Inc. Et Al to CNX Gas Company LLC. 646/493	CNX Gas Company LLC to Noble Energy Inc. 752/66	CNX Gas Company LLC to Noble Energy Inc. 809/94	Noble Energy Inc to HG Energy II Appalachia, LLC. 931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 989/286				
0074011003	5-6-3.1	DDDD	JOSEPH MOORE NEAL	NOBLE ENERGY INC	1/8+	859	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286	
0074011005	5-6-3.1	DDDD	ANN ALEXANDER	NOBLE ENERGY INC	1/8+	853	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286	
0074011006	5-6-3.1	DDDD	FRANCIS GALE NEAL	NOBLE ENERGY INC	1/8+	851	218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 989/286	
0074011007	5-6-3.1	DDDD	SUSAN WITTEN NEAL MYERS ET AL	NOBLE ENERGY INC	1/8+	815	375	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 989/286	
0074011008	5-6-3.1	DDDD	JANE WITTEN VOITH	NOBLE ENERGY INC	1/8+	853	305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 988/286	
0074011013	5-6-3.1	DDDD	MARY WITTEN NEAL WISEMAN	NOBLE ENERGY INC	1/8+	851	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC. 989/286	

624074	5-6-3	EEEE	GATTS, ALICE	THE M. A. HANNA COMPANY	1/8+	282	394	N/A	The M. A. Hanna Company to Pittsburgh Consolidation Coal Company 315/5A17	Name Change: Pittsburgh Consolidation Coal Company 6/203	Pittsburgh Consolidation Coal Company 387/363	Consolidation Coal Company, CNX Land Resources Inc, ET AL to CNX Gas Company LLC 646/639	CNX Gas Company LLC to Noble Energy Inc: 752/66	CNX Gas Company LLC to Noble Energy Inc: 909/94	931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
624080	5-6-3	EEEE	GATTS, ELIZABETH R. J. & MARLEY	THE M. A. HANNA COMPANY	1/8+	290	97	N/A	The M. A. Hanna Company to Pittsburgh Consolidation Coal Company: 315/5A17	Name Change: Pittsburgh Consolidation Coal Company 6/203	Pittsburgh Consolidation Coal Company 387/363	Consolidation Coal Company, CNX Land Resources Inc, ET AL to CNX Gas Company LLC: 646/639	CNX Gas Company LLC to Noble Energy Inc: 752/66	CNX Gas Company LLC to Noble Energy Inc: 909/94	931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
624083	5-6-3	EEEE	GATTS, LLOYD Q. & MARY WOLFE	THE M. A. HANNA COMPANY	1/8+	290	94	N/A	The M. A. Hanna Company to Pittsburgh Consolidation Coal Company: 315/5A17	Name Change: Pittsburgh Consolidation Coal Company 6/203	Pittsburgh Consolidation Coal Company 387/363	Consolidation Coal Company, CNX Land Resources Inc, ET AL to CNX Gas Company LLC: 646/639	CNX Gas Company LLC to Noble Energy Inc: 752/66	CNX Gas Company LLC to Noble Energy Inc: 909/94	931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
624190	5-6-3	EEEE	RINE, G.W. & BRESIE J	PITTSBURGH CONSOLIDATION COAL COMPANY	1/8+	313	200	N/A	N/A	Name Change: Pittsburgh Consolidation Coal Company 6/203	Pittsburgh Consolidation Coal Company to Consolidation Coal Company: 387/363	Consolidation Coal Company, CNX Land Resources Inc, ET AL to CNX Gas Company LLC: 646/639	CNX Gas Company LLC to Noble Energy Inc: 752/66	CNX Gas Company LLC to Noble Energy Inc: 909/94	931/43	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011002	5-6-3	EEEE	DOROTHY ANN NEAL	NOBLE ENERGY INC	1/8+	851	396	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011003	5-6-3	EEEE	JOSEPH MOORE NEAL	NOBLE ENERGY INC	1/8+	859	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011004	5-6-3	EEEE	MARGERIV J. WITTEN	NOBLE ENERGY INC	1/8+	851	398	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011005	5-6-3	EEEE	ANN ALEXANDER	NOBLE ENERGY INC	1/8+	853	310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011006	5-6-3	EEEE	FRANCES GALE NEAL	NOBLE ENERGY INC	1/8+	851	218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011007	5-6-3	EEEE	SUSAN WITTEN NEAL MYERS ET AL	NOBLE ENERGY INC	1/8+	815	375	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286
6074011008	5-6-3	EEEE	JANE WITTEN VOTH	NOBLE ENERGY INC	1/8+	853	306	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC: 958/286

OG7401013	5-6-3	EEEE	MARY WITTEN NEAL WISEMAN	NOBLE ENERGY INC	1/8+	851	216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC.
624080	5-6-5	FFFF	GATTS, ELIZABETH R J & HARLEY	THE M A HANNA COMPANY	1/8+	290	97	N/A	N/A	N/A	N/A	The M A Hanna Company Changed its name to Consolidation Coal Company. CB	Consolidation Coal Company, CNX Land Resources Inc, Etc to CNX Gas Company LLC.	Consolidation Coal Company, CNX Land Resources Inc, Etc to CNX Gas Company LLC.	646/493	909/94	CNX Gas Company to Appalachia, LLC.	331/43	Noble Energy Inc to HG Energy II Appalachia, LLC.	988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC.		
624073	5-6-6	GGGG	STEGNER, FREDRICK J; STEGNER, ANNA KATHERINE	CONSOLIDATION COAL COMPANY	1/8+	282	61	N/A	The M. A. Hanna Company to Pittsburgh Consolidation Coal Company. 315/417	Name Change: Pittsburgh Consolidation Coal Company. 6/203	Pittsburgh Consolidation Coal Company to Pittsburgh Consolidation Coal Company. 387/353	Consolidation Coal Company, CNX Land Resources Inc, Etc to CNX Gas Company LLC.	646/493	CNX Gas Company LLC to Noble Energy Inc. 752/66	CNX Gas Company LLC to Noble Energy Inc. 909/94	CNX Gas Company to Appalachia, LLC.	931/43	Noble Energy Inc to HG Energy II Appalachia, LLC.	988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC.			
OG9031100	5-6-6	GGGG	ASHLAND OIL & REFINING CO.	CONSOLIDATION COAL COMPANY	1/8+	277	490	N/A	The M. A. Hanna Company to Pittsburgh Consolidation Coal Company. 315/417	Name Change: Pittsburgh Consolidation Coal Company. 6/203	Pittsburgh Consolidation Coal Company to Pittsburgh Consolidation Coal Company. 387/353	Consolidation Coal Company, CNX Land Resources Inc, Etc to CNX Gas Company LLC.	646/493	CNX Gas Company LLC to Noble Energy Inc. 752/66	CNX Gas Company LLC to Noble Energy Inc. 909/94	CNX Gas Company to Appalachia, LLC.	931/43	Noble Energy Inc to HG Energy II Appalachia, LLC.	988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC.			
OG9031100	5-6-1	HHHH	ASHLAND OIL & REFINING CO.	THE M A HANNA COMPANY	1/8+	277	490	N/A	N/A	N/A	The M A Hanna Company to Pittsburgh Consolidation Coal Company. 315/417	Consolidation Coal Company, CNX Land Resources Inc, Etc to CNX Gas Company LLC.	646/493	CNX Gas Company LLC to Noble Energy Inc. 752/66	CNX Gas Company LLC to Noble Energy Inc. 909/94	CNX Gas Company to Appalachia, LLC.	931/43	Noble Energy Inc to HG Energy II Appalachia, LLC.	988/286	Memorandum of Operating Agreement between TH Exploration LLC and HG Energy II Appalachia, LLC.			

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MEMORANDUM OF OPERATING AGREEMENT AND FINANCING STATEMENT

This Memorandum of Operating Agreement and Financing Statement (hereinafter referred to as "Memorandum") is executed to be effective concurrently with that certain Operating Agreement (the "Operating Agreement") by and between TH Exploration, LLC, as Operator, and HG Energy II Appalachia, LLC and TH Exploration II, LLC, as Non-Operators, covering, among other things, the development and production of crude oil, natural gas and associated substances from the leases (hereinafter called the "Contract Area") described on Exhibit "A-1" and Exhibit "A-2" attached hereto and owned by Operator and Non-Operator in the respective percentages of shares indicated on Exhibit "A" to the Operating Agreement.

The Operating Agreement contains an Accounting Procedure, along with provisions giving the parties hereto mutual liens and security interests where one or more parties hereto are or may become Debtors to one or more other parties hereto. This Memorandum incorporates by reference all of the terms and conditions of the Operating Agreement, including but not limited to the lien and security interest provisions.

The purpose of this Memorandum is to place third parties on notice of the Operating Agreement, and to secure and perfect the mutual liens and security interests of the parties hereto.

The Operating Agreement specifically provides and the parties do hereby confirm and agree that:

1. The Operator shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of, the Operating Agreement.
2. The liability of the parties under the Operating Agreement shall be several, not joint or collective. Each party shall be responsible only for its obligations and shall be liable only for its proportionate share of costs.
3. Each Non-Operator grants to Operator a lien upon its oil and gas rights, oil and gas leases and mineral interests in the Contract Area, and a security interest in its share of oil and/or gas when extracted and its interest in all fixtures, inventory, personal property and equipment located on or used on the Contract Area and in all its contract rights and receivables related thereto and arising therefrom to secure payment of its present and future share of costs and expenses, together with interest thereon at the rate provided in the Accounting Procedure referred to above. To the extent that Operator has a security interest under the Uniform Commercial Code ("Code") of the state or states in which the Contract Area is located, Operator without prejudice and in addition to all other legal, equitable and contractual remedies which are expressly reserved, shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the rights or security interests for the payment thereof.
4. The Operator grants to Non-Operator a lien and security interest equivalent to that granted to Operator as described in Paragraph 3 above, to secure payment by Operator of its own share of costs and expenses when due.

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Environmental Protection

STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

Marshall County
Jan Pest, Clerk
Instrument 1428356
08/16/2017 @ 12:08:49 PM
ASSIGNMENTS
Book 40 @ Page 127
Pages Recorded 25
Recording Cost \$ 33.00

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 1 day of August, 2017 (the "Effective Date"), by and between CHEVRON U.S.A. INC. (hereinafter "Assignor") and TH EXPLORATION, LLC (hereinafter "Assignee") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated the 1st day of August, 2017 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in **Exhibit "A"**, attached hereto and made a part hereof (hereinafter the "Leases"), less and except certain overriding royalty interests and exclusions; and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below, subject to certain overriding royalty interests and less and except certain exclusions.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor excepts and reserves from this Assignment the following:

A. The Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia, and

B. As to each of the Leases and all oil, gas, and associated hydrocarbons produced, saved and sold thereunder, an overriding royalty interest equal to the difference between 82% and the

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ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "**Assignment**") is made and entered into this 7th day of February, 2019 (the "**Effective Date**"), by and between **CHEVRON U.S.A. INC.** (hereinafter "**Assignor**") and **TH EXPLORATION, LLC** (hereinafter "**Assignee**") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated the 1st day of February, 2019 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in **Exhibit "A"**, attached hereto and made a part hereof (hereinafter the "**Leases**"), less and except certain overriding royalty interests and exclusions; and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below, subject to certain overriding royalty interests and less and except certain exclusions.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. **Assignment.** Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor excepts and reserves from this Assignment the following:

A. The Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia, and

B. Any portion of the Leases set forth in the column entitled "Less and Except" on Exhibit A.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

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ASSIGNMENT AND BILL OF SALE

This **ASSIGNMENT AND BILL OF SALE** (this "Assignment") dated as of February 7, 2019 (the "Signing Date"), but effective from and after 7:00 a.m., Eastern Standard Time on February 1, 2019 (the "Effective Date"), is made by **Chevron U.S.A. Inc.**, a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 ("Chevron" or "Assignor") to **TH Exploration II, LLC** and **TH Exploration, LLC**, Texas limited liability companies, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (collectively "Assignee") and is accepted by Assignee upon the following terms and conditions.

RECITALS

- A. Assignor desires to sell, convey, transfer, assign and deliver to Assignee Assignor's Crawford 1 well and certain related assets, including certain leasehold interests, located in Marshall County, West Virginia.
- B. Through an Acreage Trade Agreement to be executed contemporaneously with this Assignment, Assignor desires to transfer, convey and assign to Assignee certain of Assignor's oil and gas leasehold interests located in Marshall County, West Virginia in exchange for the transfer, conveyance and assignment to Assignor by Assignee certain of Assignee's oil and gas leasehold interests located in Marshall County, West Virginia.
- C. In consideration of the mutual promises set out in this Assignment, including execution of the Acreage Trade Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree to be bound by the terms of this Assignment.

1. DEFINITIONS

1.1 **Definitions.** As used in this Assignment, these words and expressions have the following meanings:

"Acreage Trade Agreement" means that certain Acreage Trade Agreement by and between Chevron U.S.A. Inc. and TH Exploration, LLC with an Effective Date of February 1, 2019 to be contemporaneously executed with this Assignment.

"Act" has the meaning given to such term in Section 9.1(C).

"Affiliate" means any legal entity which controls, is controlled by, or is under common control with, another legal entity. An entity is deemed to "control" another if it owns directly or indirectly at least fifty percent of either of the following: (A) the shares entitled to vote at a general election of directors of such

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HG ENERGY LLC
JEANNE
5260 DUPONT RD
PARKERSBURG WV 26101

STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 29th day of March, 2018 (the "Effective Date"), by and between HG ENERGY II APPALACHIA, LLC, (hereinafter "Assignor") and TH EXPLORATION, LLC (hereinafter "Assignee") pursuant to the terms of that certain Exchange Agreement between the Assignor and the Assignee dated November 1st, 2017 (the "Exchange Agreement"). Capitalized terms used but not defined herein and defined in the Exchange Agreement shall have the meanings given to such terms in the Exchange Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", attached hereto and made a part hereof (hereinafter the "Leases"); and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. Special Warranty. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered (other than Permitted Encumbrances) its interest in the Leases since the time that Assignor obtained its interests in the Leases. Assignor does

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MEMORANDUM OF OPERATING AGREEMENT AND FINANCING STATEMENT

This Memorandum of Operating Agreement and Financing Statement (hereinafter referred to as "Memorandum") is executed to be effective concurrently with that certain Operating Agreement (the "Operating Agreement") by and between TH Exploration, LLC, as Operator, and HG Energy II Appalachia, LLC and TH Exploration II, LLC, as Non-Operators, covering, among other things, the development and production of crude oil, natural gas and associated substances from the leases (hereinafter called the "Contract Area") described on Exhibit "A-1" and Exhibit "A-2" attached hereto and owned by Operator and Non-Operator in the respective percentages of shares indicated on Exhibit "A" to the Operating Agreement.

The Operating Agreement contains an Accounting Procedure, along with provisions giving the parties hereto mutual liens and security interests where one or more parties hereto are or may become Debtors to one or more other parties hereto. This Memorandum incorporates by reference all of the terms and conditions of the Operating Agreement, including but not limited to the lien and security interest provisions.

The purpose of this Memorandum is to place third parties on notice of the Operating Agreement, and to secure and perfect the mutual liens and security interests of the parties hereto.

The Operating Agreement specifically provides and the parties do hereby confirm and agree that:

1. The Operator shall conduct and direct and have full control of all operations on the Contract Area as permitted and required by, and within the limits of, the Operating Agreement.
2. The liability of the parties under the Operating Agreement shall be several, not joint or collective. Each party shall be responsible only for its obligations and shall be liable only for its proportionate share of costs.
3. Each Non-Operator grants to Operator a lien upon its oil and gas rights, oil and gas leases and mineral interests in the Contract Area, and a security interest in its share of oil and/or gas when extracted and its interest in all fixtures, inventory, personal property and equipment located on or used on the Contract Area and in all its contract rights and receivables related thereto and arising therefrom to secure payment of its present and future share of costs and expenses, together with interest thereon at the rate provided in the Accounting Procedure referred to above. To the extent that Operator has a security interest under the Uniform Commercial Code ("Code") of the state or states in which the Contract Area is located, Operator without prejudice and in addition to all other legal, equitable and contractual remedies which are expressly reserved, shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the rights or security interests for the payment thereof.
4. The Operator grants to Non-Operator a lien and security interest equivalent to that granted to Operator as described in Paragraph 3 above, to secure payment by Operator of its own share of costs and expenses when due.

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Marshall County
Jan Pest, Clerk
Instrument 1428356
08/16/2017 @ 12:08:49 PM
ASSIGNMENTS
Book 40 @ Page 127
Pages Recorded 25
Recording Cost \$ 33.00

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 1 day of August, 2017 (the "Effective Date"), by and between CHEVRON U.S.A. INC. (hereinafter "Assignor") and TH EXPLORATION, LLC (hereinafter "Assignee") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated the 1st day of August, 2017 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in **Exhibit "A"**, attached hereto and made a part hereof (hereinafter the "Leases"), less and except certain overriding royalty interests and exclusions; and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below, subject to certain overriding royalty interests and less and except certain exclusions.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor excepts and reserves from this Assignment the following:

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B. As to each of the Leases and all oil, gas, and associated hydrocarbons produced, saved and sold thereunder, an overriding royalty interest equal to the difference between 82% and the

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ASSIGNMENT AND CONVEYANCE

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B. Any portion of the Leases set forth in the column entitled "Less and Except" on Exhibit A.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

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May 9, 2019

WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304
Attention: Laura Adkins

RE: Michter N-9HU

Subject: Marshall County Route 74 and County Route 76 Road Crossing Letter

Dear Laura:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Marshall County Route 74 as well as County Route 76 in the area reflected on the Michter N-9HU well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes and is not currently aware of any recorded document that would suggest an ownership other than THO.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 304-376-0111, or by email at amiller@tug-hilop.com.

Sincerely,

A handwritten signature in blue ink that reads "Amy Miller".

Amy Miller
Permit Specialist – Appalachia Region
Cell 304-376-0111
Email: amiller@tug-hilop.com

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

Date of Notice Certification: 05/09/2019

API No. 47- 051 -
Operator's Well No. Michter N-9HU
Well Pad Name: Michter

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State: <u>West Virginia</u>	UTM NAD 83	Easting: <u>517,332.16</u>
County: <u>Marshall</u>		Northing: <u>4,405,908.21</u>
District: <u>Franklin</u>	Public Road Access: <u>Rines Ridge Road (County Route 76)</u>	
Quadrangle: <u>Powhatan Point 7.5'</u>	Generally used farm name: <u>Larry W. Dunlap and Charles Leroy Dunlap</u>	
Watershed: <u>Fish Creek (HUC 10)</u>		

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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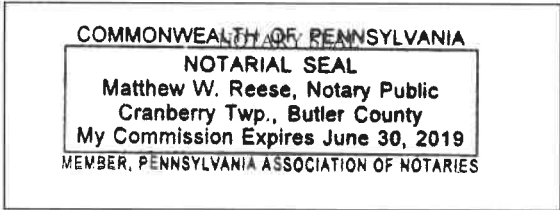
Required Attachments:

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 Amy L. Miller, 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:	<u>Tug Hill Operating, LLC</u>	Address:	<u>380 Southpointe Boulevard, Plaza II, Suite 200</u>
By:	<u>Amy L. Miller <i>[Signature]</i></u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Permitting Specialist</u>	Facsimile:	<u>412-338-2030</u>
Telephone:	<u>724-749-8388</u>	Email:	<u>amiller@tug-hilop.com</u>



Subscribed and sworn before me this 9th day of May, 2019.
[Signature] Notary Public
 My Commission Expires 6-30-2019

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 deprivacyofficer@wv.gov.

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WW-6A
(9-13)

API NO. 47- 051 -
OPERATOR WELL NO. Michter N-9HU
Well Pad Name: Michter

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: 3/23/2019 Date Permit Application Filed: 3/29/2019

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

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 erosion 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:

SURFACE OWNER(s)
Name: Larry W. and Barbara E. Dunlap (Pad and Access Road)
Address: 1549 Irish Ridge Road
Cameron, WV 26033

Name: Karen Sue Reed and Clyde Reed (Well Pad)
Address: 100 Orchard Lane
Moundsville, WV 26041

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Charles Leroy Dunlap (Pad and Access Road)
Address: 21 Gypsy Drive
Moundsville, WV 26041

Name: _____
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: CNX Resources, LLC - Attn: Casey Saunders
Address: 1000 CONSOL Energy Drive
Canonsburg, PA 15318

COAL OPERATOR
Name: _____
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

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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 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

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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

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 57th St. SE
Charleston, WV 25304
(304) 926-0450

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.**

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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 <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> 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.

DEPARTMENT OF
NATURAL RESOURCES
Office of Oil and Gas
MAY 17 2019
EPA
WV Department of
Environment

WW-6A
(8-13)

API NO. 47- 051 - _____
OPERATOR WELL NO. Michter N-9HU
Well Pad Name: Michter

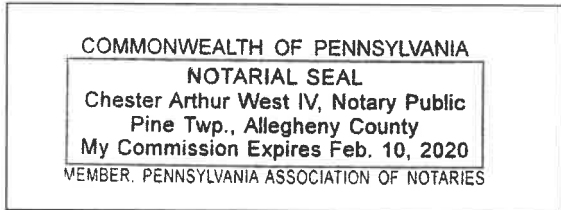
Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hillop.com amy miller

Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030

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 depprivacyofficer@wv.gov.



Subscribed and sworn before me this 26th day of March, 2019.

[Signature] Notary Public

My Commission Expires 2-10-2020

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MAY 17 2019
WV Department of
Environmental Protection

Tug Hill Operating, LLC
 380 Southpointe BLVD, Suite 200
 Canonsburg, PA 15317

WATER WELL REPORT

Well: MICHTER N-9HU
 District: Franklin
 County: Marshall
 State: WV

There appears to be Five (5) possible water sources within 2,000 feet of the above referenced well location.

Topo Spot # 1 TM 11 Par. 1.6 Debra Morris 304-810-0813 1082 Rines Ridge Rd. Proctor, WV 26055	Topo Spot # 2 TM 11 Par. 1.6 Debra Morris 304-810-0813 1082 Rines Ridge Rd. Proctor, WV 26055	Topo Spot # 3 TM 11 Par. 1.7 William S. & Mary K. Adams 330-718-0404 P.O. Box 303 Canfield, OH 44406
Topo Spot # 4 TM 11 Par. 1.3 Jay A. Conner, et ux 304-845-0641 1117 Rine Ridge Rd. Proctor, WV 26055	Topo Spot # 5 TM 11 Par. 21 Karen Reed, et al 304-845-7536 100 Orchard Ln. Moundsville, WV 26041	

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WW-6A

PROPOSED MICHTER N-9HU

SUPPLEMENT PG 1

There appears to be Five (5) possible water sources within 2,000'.



CENTER OF PAD
NAD 1983
LAT: 39.802901
LON: -80.797141

MICHTER
N-9HU

2,000' radius



OPERATOR	494510851	TOPO SECTION	LEASE NAME
TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		POWHATAN POINT 7.5'	MICHTER
		SCALE:	DATE:
		1" = 1000'	DATE: 2-4-2019

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least SEVEN (7) days but no more than FORTY-FIVE (45) days prior to entry

Date of Notice: 1/14/2019 Date of Planned Entry: 1/21/2019

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
REGISTERED MAIL
METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records.

Notice is hereby provided to:

SURFACE OWNER(S)

Name: Larry W. and Barbara E. Dunlap (Pad and Access Road)
Address: 1549 Irish Ridge Road
Cameron, WV 26033
Name: Charles Leroy Dunlap (Pad and Access Road)
Address: 21 Gypsy Drive
Moundsville, WV 26041
Name: Karen Sue Reed and Clyde Reed (Well Pad)
Address: 100 Orchard Lane
Moundsville, WV 26041

COAL OWNER OR LESSEE

Name: CNX Land Resources, LLC Attn: Casey Saunders
Address: 1000 CONSOL Energy Drive
Canonsburg, PA 15317

MINERAL OWNER(S)

Name: Larry W. and Barbara E. Dunlap (see attached list)
Address: 1549 Irish Ridge Road
Cameron, WV 26033

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: West Virginia
County: Marshall
District: Franklin
Quadrangle: Powhatan Point 7.5'
Approx. Latitude & Longitude: 39.8027785; -80.7973528
Public Road Access: Rines Ridge Road (County Route 76)
Watershed: Fish Creek (HUC 10)
Generally used farm name: Larry Dunlap, et al

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hillop.com
Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030

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 depprivacyofficer@wv.gov.

**WW-6A3 NOTICE OF ENTRY FOR PLAT SURVEY
ATTACHMENT #1
WELL: MICTER N-9HU**

Mineral Owners (Well Pad)

Charles Leroy Dunlap
21 Gypsy Drive
Moundsville, WV 26041

Karen Sue Reed and Clyde Reed
100 Orchard Lane
Moundsville, WV 26041

Boyde Buesking
402 Hickory Street
Bloomington, IL 61701

Christian Drayer Staley
6725 Minier Road
Minier, IL 61759

Rebecca Drayer Eldridge
465 Harts Way
Collierville, TN 38017

Gennie Sue Thomas Petrack
704 N. School Street
Normal, IL 61761

Brenda Faye Thomas Petrack
998 Willow Drive
Pittsburgh, PA 15237

Guy Yates
4102 Blacks Road SW
Hebron, OH 43025

Gail Ann Yates Wood
8161 Goldsmith Drive
Reynoldsburg, OH 43068

Shirley Yates Hartsell
2150 Yorkdale Lane
Reynoldsburg, OH 13068

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

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 03/27/2019 **Date Permit Application Filed:** 03/29/2019

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

- CERTIFIED MAIL RETURN RECEIPT REQUESTED
- HAND DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Larry W. and Barbara E. Dunlap
Address: 4549 Irish Ridge Road
Cameron, WV 26033

Name: Karen Sue Ree and Clyde Reed (See attached list)
Address: 100 Orchard Lane
Moundsville, WV 26041

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State:	West Virginia	UTM NAD 83	Easting:	517,332.16
County:	Marshall		Northing:	4,405,908.21
District:	Franklin	Public Road Access:	Rines Ridge Road (County Route 76)	
Quadrangle:	Powhatan Point 7.5'	Generally used farm name:	Larry W. Dunlap and Charles Leroy Dunlap	
Watershed:	Fish Creek (HUC 10)			

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Tug Hill Operating, LLV
Telephone: 724-749-8388
Email: amiller@tug-hillop.com

Address: 380 Southpointe Boulevard, Plaza II, Suite 200
Canonsburg PA 15317
Facsimile: 724-338-2030

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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 of the Office of Oil and Gas 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.

**WW-6A5 Attachment
Michter N-9HU**

Additional Landowner

Charles Leroy Dunlap
21 Gypsy Drive
Moundsville, WV 26041

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Environmental Protection



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

June 19, 2018

Jill M. Newman
Deputy CommissionerJames A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permits for the Michter Well Pad, Marshall County

Michter N-9HU

Dear Mr. Martin,

This well site will be accessed from Permit #06-2018-0480 issued to Tug Hill Operating for access to the State Road for a well site located off of Marshall County Route 76 SLS.

The operator has signed a DISTRICT WIDE 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 January 3, 2012.

Very Truly Yours,

A handwritten signature in blue ink that reads "Gary K. Clayton".

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G CoordinatorCc: Jonathan White
Tug Hill Operating
CH, OM, D-6
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WV Department of
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PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Michter N-9HU

PRODUCT NAME:	CHEMICAL DESCRIPTION:	PRODUCT USE:	HAZARDOUS COMPONENT:
GBW-20C	Hemicellulase Breaker	Breaker - Water	None
ALPHA 1427		Biocide	Glutaraldehyde – CAS#000111-30-8 Quaternary ammonium chloride CAS# 007173-51-5 Alky dimethyl benzyl ammonium Chloride (C12-16) – CAS#068424-85-1 Ethanol – CAS# 000064-17-5 Water – CAS# 007732-18-5
FRAC SAND	Silica Sand (various Mesh sizes)	Proppant	Crystalline silica (quartz) CAS# 14808-60-7
S-8C, Sand	Silica Sand (100 mesh)	Sand	Silica – CAS# 14808-60-7
GW-3LDF		Gellant - Water	Petroleum Distillate Blend – Proprietary, (Not Associated with Diesel Fuel) Guar gum – CAS# 009000-30-0
FRW-18		Friction Reducer	Hydrotreated light distillate CAS# 064742-47-8
Scaletrol		Scale Inhibitor	Ethylene glycol – CAS# 000107-21-1 Diethylene glycol – CAS# 000111-46-6

WEST VIRGINIA COUNTY MAP



APPROVED
WVDEP OOG
10/12/2018

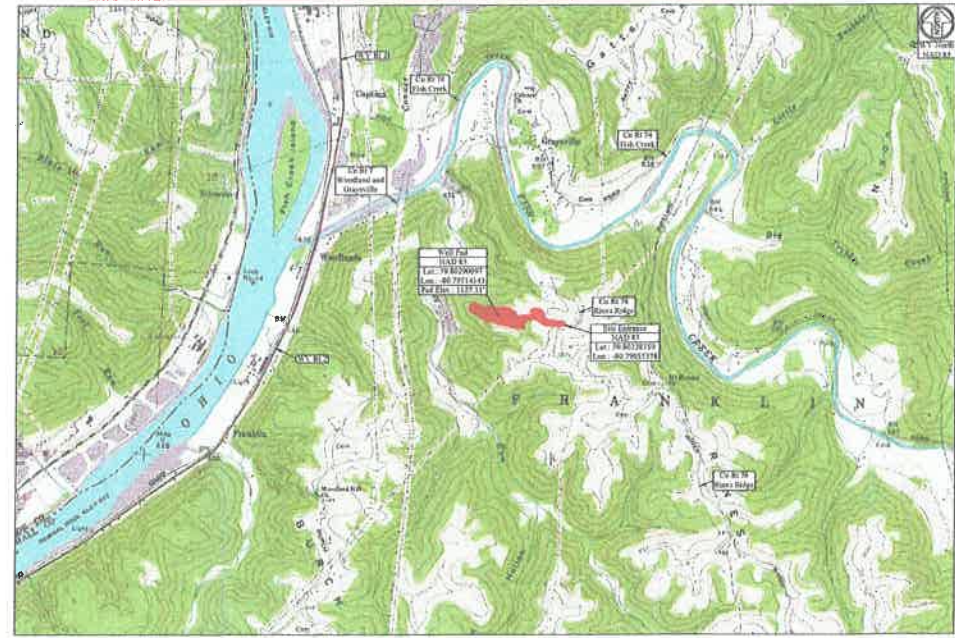
Michter Well Site
Site Design, Construction Plan, &
Erosion and Sediment Control Plans
Tug Hill Operating
Marshall County
Franklin District
Latitude 39.80290097°
Longitude -80.79714143°
Lower Fish Creek Watershed

Pertinent Site
Michter 1
Emergency Num
Franklin District, M
Watershed: Lower Fi
Tug Hill Contact Num

Property Owner Inform

Name	Phone	Address	City/State

Exhibit A: Final Design: Issue for Permitting



WV State Plane Coordinate System
North Zone, NAD 83
Elevations based on NAVD83
Established by Survey Order GPP
and OPIB Point-locating

Access

Structure Owner	MS: 12
Lead Engineer	11/1

Distur

Well	13,000	1.00
Access Road	1,500	1.00
Vehicle	1,000	1.00
Structure	1,000	1.00
Other	1,000	1.00
Total	18,000	5.00

Michter Well

Coordinates	39.80290097	-80.79714143
Well ID	M1-1	
Access Road	1.500	1.000
Vehicle	1.000	1.000
Structure	1.000	1.000
Other	1.000	1.000
Total	6.000	5.000

Michter Well		Michter Well		Michter Well	
WVN NAD 83 N: 477218.42	WVN NAD 83 E: 160520.37	WVN NAD 83 N: 477118.39	WVN NAD 83 E: 1604078.18	WVN NAD 83 N: 477152.30	WVN NAD 83 E: 1603136.24
WVN NAD 27 N: 476962.39	WVN NAD 27 E: 160278.36	WVN NAD 27 N: 477002.36	WVN NAD 27 E: 1602097.19	WVN NAD 27 N: 477002.36	WVN NAD 27 E: 1602097.19
Lat: NAD 83: 39.80290097	Lon: NAD 83: -80.79714143	Lat: NAD 83: 39.80290097	Lon: NAD 83: -80.79714143	Lat: NAD 83: 39.80290097	Lon: NAD 83: -80.79714143
UTM 17 NAD 83 (m) N: 4405993.21	UTM 17 NAD 83 (m) E: 517456.64	UTM 17 NAD 83 (m) N: 4405993.21	UTM 17 NAD 83 (m) E: 517456.64	UTM 17 NAD 83 (m) N: 4405993.21	UTM 17 NAD 83 (m) E: 517456.64

Project Contacts

This Firm's Personnel:
Jonathan White - Regulatory Analyst
724-265-2000 EXT. 304-6970/304
Chris Maden - V.P. Production
817-625-5200 EXT.

Services and Engineer:
Knothe Kelly
304-218-0861 EXT.
John F. For
304-424-2220 EXT.
Zackary Stumstad
304-318-0987 EXT.

Tug Hill Operating, LLC
330 Southside Blvd
Southphoe Plaza II, Suite 208
Charleston, VA 25313

Environmental:
We had Earth Science as provided by Alliance Ecology
4660 Lynch St, #218

Transportation Information:
The geographic information shown herein is based on aerial photography from Blue Mountain Aerial Mapping, Hermit, WV.

MISS UTILITY OF WEST VIRGINIA
1-800-245-8848
4661 Virginia State Ave
Bartonsville, WV, 26031
Call before you dig.
IT'S THE LAW

811
Call before you dig.

Approach Routes:
From the intersection of OH R1 7 and WV R1 2 near New Martinsville, WV. Travel North on WV R1 2 for 13.0 mi. Turn Right onto Co R1 27 (Woodland and Grayville). Follow Co R1 27 for 1.0 mi. Turn Right onto Co R1 76 (Rivers Ridge). Follow Co R1 76 for 1.5 mi. The site entrance will be on the Left (West) side of the road.

Encroachment Permits:
Tug Hill Operating will obtain an Encroachment Permit (Form MM-109) from the WV Department of Transportation, Division of Highways, prior to the commencement of any construction activities.

WV Mines Website:
The WV Mines Website was consulted. Previous (Current) mining activities are within the AOI.

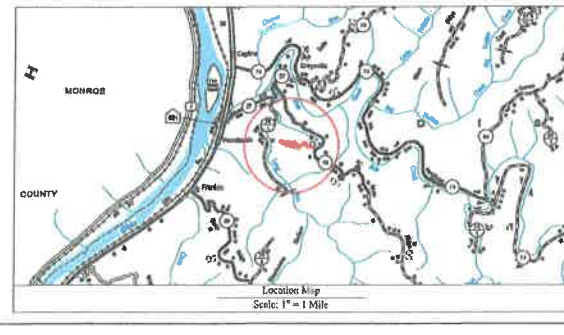
WVDEP Website:
WVDEP Website files show that there are no active and/or abandoned gas wells within the AOI.

Site Locations (NAD 27)

Structure	Latitude (DD)	Longitude (DD)
Site Entrance	39.80290097	-80.79714143
Center of Well Pad	39.80290097	-80.79714143

Site Locations (NAD 83)

Structure	Latitude (DD)	Longitude (DD)
Site Entrance	39.80290097	-80.79714143
Center of Well Pad	39.80290097	-80.79714143



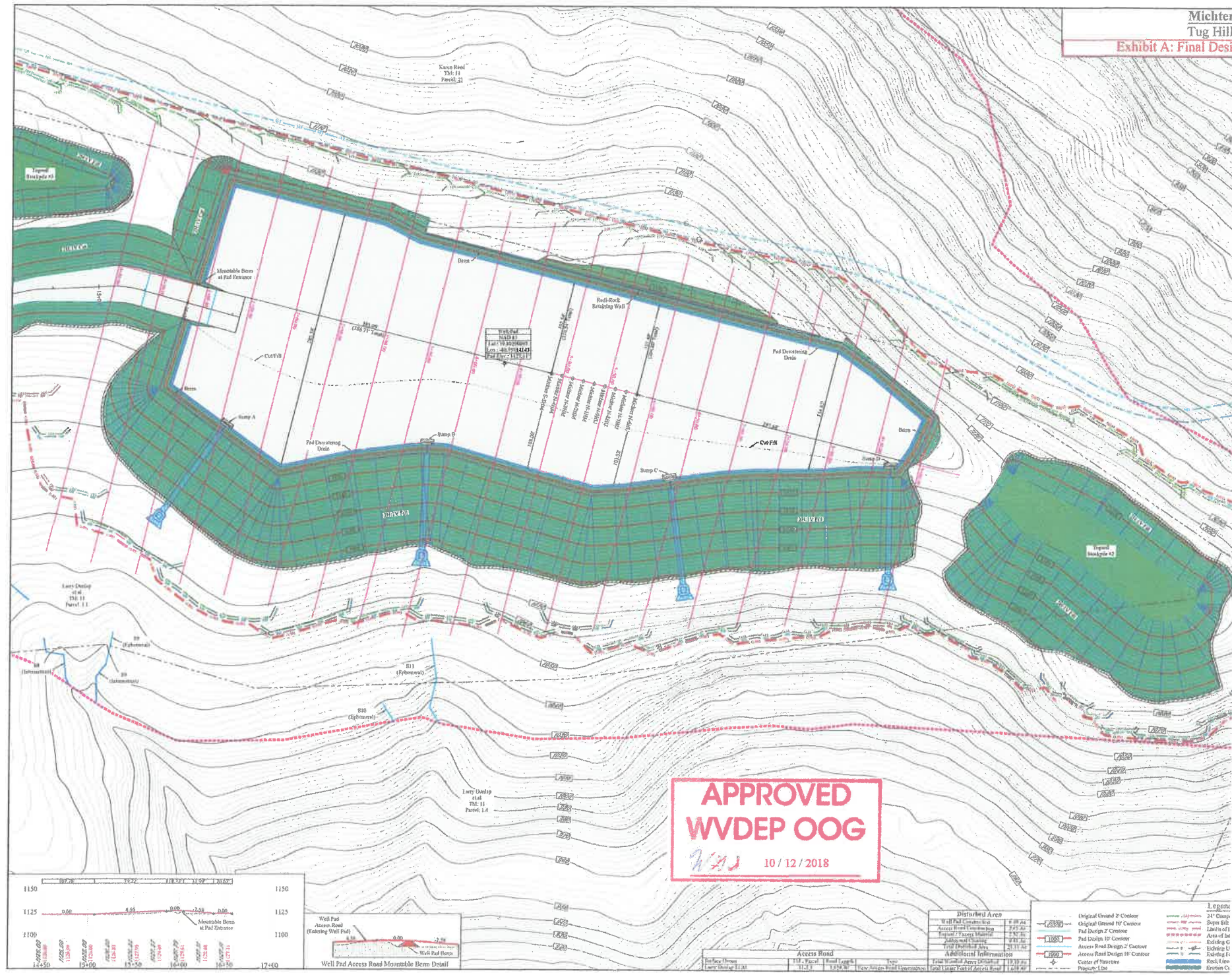
Well Location Restrictions:
All fuel construction equipment within the restrictions.
*12" from an existing well or discolored spring used for human or domestic animals.
*12" from an existing drilling or dump greater than 2,500 SF used for poultry or dairy associated from the center of the pad.
*100' from the edge of disturbance to wetlands, perennial streams, natural or artificial lakes, ponds or reservoirs.
*150' from the edge of disturbance to a naturally occurring wet stream.
*1,000' of a surface or ground water fracture to a public water supply.

(WV) Location Restrictions of WV Code 22-6A-12)

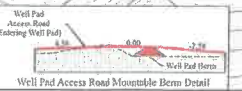
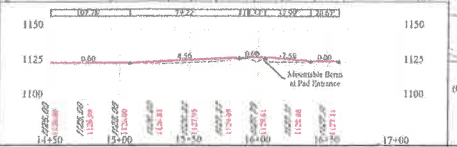
Design Conditions:
The design, construction and maintenance of the well shall conform to the following:
*The well shall conform to the State Code of Building Regulations, Chapter 22-6A-12.
*All flow, check and backflow devices included in this design shall be in accordance with the design.
*The well shall be installed in accordance with the design.
*The well shall be installed in accordance with the design.

Signature: [Signature]
Date: 10/12/2018

Professional Engineer
22214
STATE OF WEST VIRGINIA



APPROVED
WVDEP OOG
WAS 10/12/2018



Access Road	Top	Bottom	Width	Material
14+50 to 15+00	1145.00	1135.00	12.00	Gravel
15+00 to 15+50	1135.00	1125.00	12.00	Gravel
15+50 to 16+00	1125.00	1115.00	12.00	Gravel
16+00 to 16+50	1115.00	1105.00	12.00	Gravel
16+50 to 17+00	1105.00	1095.00	12.00	Gravel

Disturbed Area		Access Road	
Well Pad Construction	10' Buffer Area	Original Ground 2' Contour	Original Ground 2' Contour
Access Road Construction	10' Buffer Area	Pad Design 7' Contour	Pad Design 7' Contour
Disturbed Area	10' Buffer Area	Pad Design 10' Contour	Pad Design 10' Contour
Access Road Construction	10' Buffer Area	Access Road Design 2' Contour	Access Road Design 2' Contour
Disturbed Area	10' Buffer Area	Access Road Design 10' Contour	Access Road Design 10' Contour
Access Road Construction	10' Buffer Area	Center of Pavement	Center of Pavement
Disturbed Area	10' Buffer Area	Proposed Line	Proposed Line