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west virginia department of environmental protection

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

Harold D. Ward, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Monday, March 1, 2021  
PERMIT MODIFICATION APPROVAL  
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC  
380 SOUTHPOINTE BOULEVARD, PLAZA II  
SUITE 200  
CANONSBURG, PA 15317

Re: Permit Modification Approval for KNOB CREEK N-1HM  
47-051-02278-00-00

**Lateral Extension Approved**

TUG HILL OPERATING, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

A blue ink signature of James A. Martin, Chief. The signature is written in a cursive style and is positioned above the name and title.

James A. Martin  
Chief

Operator's Well Number: KNOB CREEK N-1HM  
Farm Name: DAVID LEE FRANKLIN  
U.S. WELL NUMBER: 47-051-02278-00-00  
Horizontal 6A New Drill  
Date Modification Issued: 03/01/2021

Promoting a healthy environment.



February 12, 2021

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WADE STANSBERRY  
WV DEP OFFICE OF OIL & GAS  
601 57<sup>TH</sup> STREET SE  
CHARLESTON, WV 25304-2345

**VIA USPS**

**RE: Knob Creek N-1HM API # 47-051-02278 (H6A Permit Modification)  
Meade District, Marshall County, WV**

Dear Wade:

Tug Hill Operating, LLC is submitting a permit modification for its permitted well, Knob Creek N-1HM to add 12,509' to the lateral length. Therefore, enclosed please find the following:

- Modified WW-6B with changes highlighted in yellow
- Updated well plat
- Updated WW-6A1 information
- Updated Site Safety Plan (The only information that has changed is the contact information for the Inspector at the contact list at the end of the Plan).

If you have any questions or need any additional information, please do not hesitate to call me on (304) 376-0111. Thank you for attention to this matter, it is greatly appreciated.

Sincerely,

AMY MORRIS  
PERMIT SPECIALIST-APPALACHIA REGION  
TUG HILL OPERATING, LLC

Enclosures

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      Meade      Glen Easton 7.5'  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: Knob Creek N-1HM      Well Pad Name: Knob Creek

3) Farm Name/Surface Owner: David Lee Franklin      Public Road Access: St. Joseph Road - CR 21

4) Elevation, current ground: 737'      Elevation, proposed post-construction: 737'

5) Well Type (a) Gas  Oil  Underground Storage   
Other \_\_\_\_\_

(b) If Gas Shallow  Deep \_\_\_\_\_  
Horizontal  \_\_\_\_\_

6) Existing Pad: Yes or No Yes

*JL*  
10/29/2020

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus is the target formation at a depth of 6187' - 6238', thickness of 51' and an anticipated approximate pressure of 3800 psi.

8) Proposed Total Vertical Depth: 6,338'

9) Formation at Total Vertical Depth: Onondaga

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10) Proposed Total Measured Depth: 19,814'

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11) Proposed Horizontal Leg Length: 13,029.41'

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12) Approximate Fresh Water Strata Depths: 70'; 380'

13) Method to Determine Fresh Water Depths: Use shallow offset wells to determine deepest freshwater, or determine using pre-drill tests, testing while drilling or petrophysical evaluation of resistivity.

14) Approximate Saltwater Depths: 1,740'

15) Approximate Coal Seam Depths: Sewickley Coal - 292' and Pittsburgh Coal - 374'

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

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	13 3/8"	NEW	J55	54.5#	480'	480'	683ft^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	480'	480'	683ft^3(CTS)
Intermediate	9 5/8"	NEW	J55	36#	2,303'	2,303'	745ft^3(CTS)
Production	5 1/2"	NEW	P110	20#	19,814'	19,814'	5,050ft^3(CTS)
Tubing	2 3/8"	NEW	N80	4.7#	6,349'		
Liners							

*Jo*  
10/29/2020

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	13 3/8"	17.5"	.33	2,740	2,192	SEE #24	1.2
Coal	13 3/8"	17.5"	.33	2,740	2,192	SEE #24	1.2
Intermediate	9 5/8"	12 1/4"	.352	3,520	2,816	SEE #24	1.19
Production	5 1/2"	8 7/8" _ 8 3/4"	.361	12,640	10,112	SEE #24	1.17/1.19
Tubing	2 3/8"		.19	11,200	8,960		
Liners							

**PACKERS**

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

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WW-6B  
(10/14)

API NO. 47- 051 - 02278  
OPERATOR WELL NO. Knob Creek N-1HM  
Well Pad Name: Knob Creek

*JM*  
*10/29/2020*

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

Drill through the Marcellus tagging less than 100' from the top of the Onondaga to get depths and log data. Plug back to proposed kick off point. Drill the horizontal section to planned and proposed TD. Run casing and cement to surface. Run Bond Log from app. 60 deg to surface. Make clean out run and stimulate.

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

Well to completed with approximately 32,500,000 lb. proppant and 585,000 barrels of water.  
Max rate = 80bpm; max psi = 9,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.93 acres

22) Area to be disturbed for well pad only, less access road (acres): 5.55 acres

23) Describe centralizer placement for each casing string:

Will run 3 centralizers on surface casing at equal distance. Intermediate 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:

Sfc - Premium NE-1 + 2% CaCl; Int1 - Premium NE-1 + 1.5% CaCL + Flake; Int2 - Lead: Premium NE-1 + 5% BA-90 + .85% R-3 + 3% KCl + .75 gals/100sk FP-13L + 1% MPA-170 Tail; Premium NE-1 + .1% R-3 + 5% KCl + 1% CD-32 + .4% FL-52 +.2% ASA-301 + .6% Sodium Metasilicate; Kick Plug - Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L; Prod - Lead: 50:50 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .75 gal/100sk FP-13L Tail: 25:75 (Poz:Class H) + .3% R-3 + .3% MPA-250 + .375 gal/100sk FP-13L

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.

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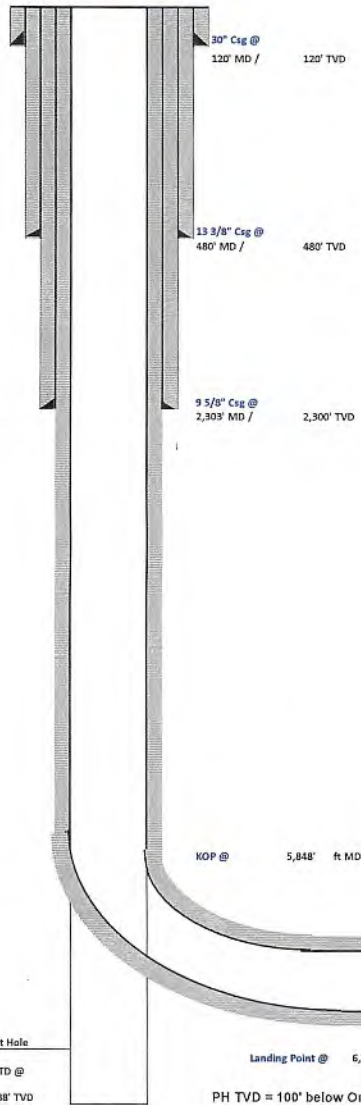
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\*Note: Attach additional sheets as needed.



WELL NAME: Knob Creek N-1HM  
 STATE: WV COUNTY: Marshall  
 DISTRICT: Meade  
 DF Elev: 737' GL Elev: 737'  
 TD: 19,814'  
 TH Latitude: 39.76997999  
 TH Longitude: -80.70558415  
 BH Latitude: 39.80159512  
 BH Longitude: -80.73431294



FORMATION TOPS	
Formation	Depth TVD
Deepest Fresh Water	380
Sewickley Coal	292
Pittsburgh Coal	374
Big Lime	1681
Weir	1982
Berea	2167
Gordon	2430
Rhinestreet	5544
Genesee/Burkett	6056
Tully	6085
Hamilton	6119
Marcellus	6187
Landing Depth	6222
Onondaga	6238
Pilot Hole Depth	6338

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	17.5	13 3/8	480'	480'	54.5	J55	Surface
Intermediate 1	12 1/4	9 5/8	2,303'	2,300'	36	J55	Surface
Production	8 7/8 x 8 3/4	5 1/2	19,814'	5,995'	20	CYHP110	Surface

CEMENT SUMMARY				DRILLING DETAILS	
	Sacks	Class	Density	Fluid Type	Centralizer Notes
Conductor	338	A	15.6	Air	None
Surface	661	A	15.6	Air	3 Centralizers at equal distance
Intermediate 1	784	A	15	Air	1 Centralizer every other jt
Production	4,646	A	14.5	Air / SOBMM	1 every other joint in lateral; 1 per joint in curve; 1 every other jt to sfc

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*Handwritten signature and date: 10/29/2020*

Pilot Hole  
 PH TD @ 6,338' TVD  
 Landing Point @ 6,787' MD / 6,222' TVD  
 PH TVD = 100' below Onondaga Top

Lateral TD @ 19,814' ft MD  
 5,995' ft TVD



**Tug Hill Operating, LLC Casing and Cement Program**

**Knob Creek N-1HM**

**Casing**

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	13 3/8"	J55	17 1/2"	480'	CTS
Intermediate	9 5/8"	J55	12 1/4"	2,303'	CTS
Production	5 1/2"	CYHP110	8 7/8 x 8 3/4"	19,814'	CTS

**Cement**

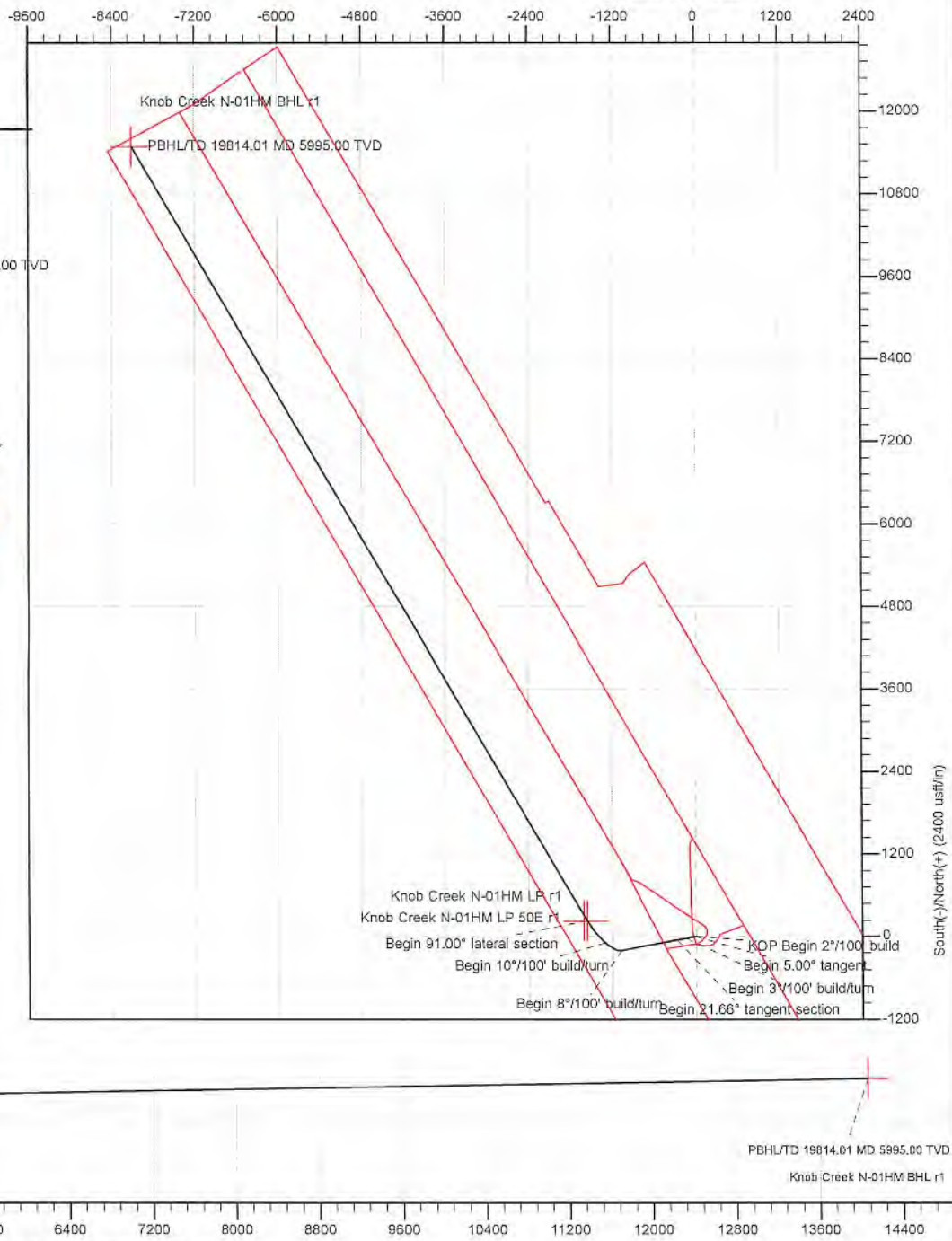
- Conductor: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Conductor Cement mixed at 15.6 ppg, Y=1.2
- Surface: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2
- Intermediate: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.19
- Kick Off Plug: Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L - KOP Plug
- 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 = 1.19

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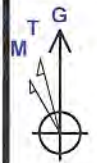
Well: Knob Creek N-01HM (slot A)  
 Site: Knob Creek  
 Project: Marshall County, West Virginia.  
 Design: rev2

West(-)/East(+) (2400 usf/in)



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2"/100' build
3	1550.00	5.00	259.18	1549.68	-2.05	-10.71	2.00	259.180	-4.50	Begin 5.00" tangent
4	3108.24	5.00	259.18	3100.00	-27.51	-143.93	0.00	0.000	60.52	Begin 3"/100' build/turn
5	3661.55	21.66	259.18	3638.45	-51.46	-269.24	3.00	-0.005	113.20	Begin 21.66" tangent section
6	5849.27	21.66	259.18	5671.71	-203.10	-1062.33	0.00	0.000	446.61	
7	6342.64	50.00	311.05	6075.64	-91.65	-1303.90	8.00	71.441	676.96	Begin 10"/100' build/turn
8	6787.00	91.00	329.81	6221.99	228.34	-1556.77	10.00	27.342	1084.20	Begin 91.00" lateral section
9	19814.01	91.00	329.81	5995.00	11486.70	-8106.63	0.00	0.000	4059.23	PBHL/TD 19814.01 MD 5995.00 TVD



Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD83 West Virginia - HARN  
 Ellipsoid: GRS 1980  
 Zone: Zone 17N (84 W to 78 W)

Magnetic Field  
 Strength: 52139.9nT  
 Dip Angle: 66.92°  
 Date: 9/18/2017  
 Model: IGRF2015

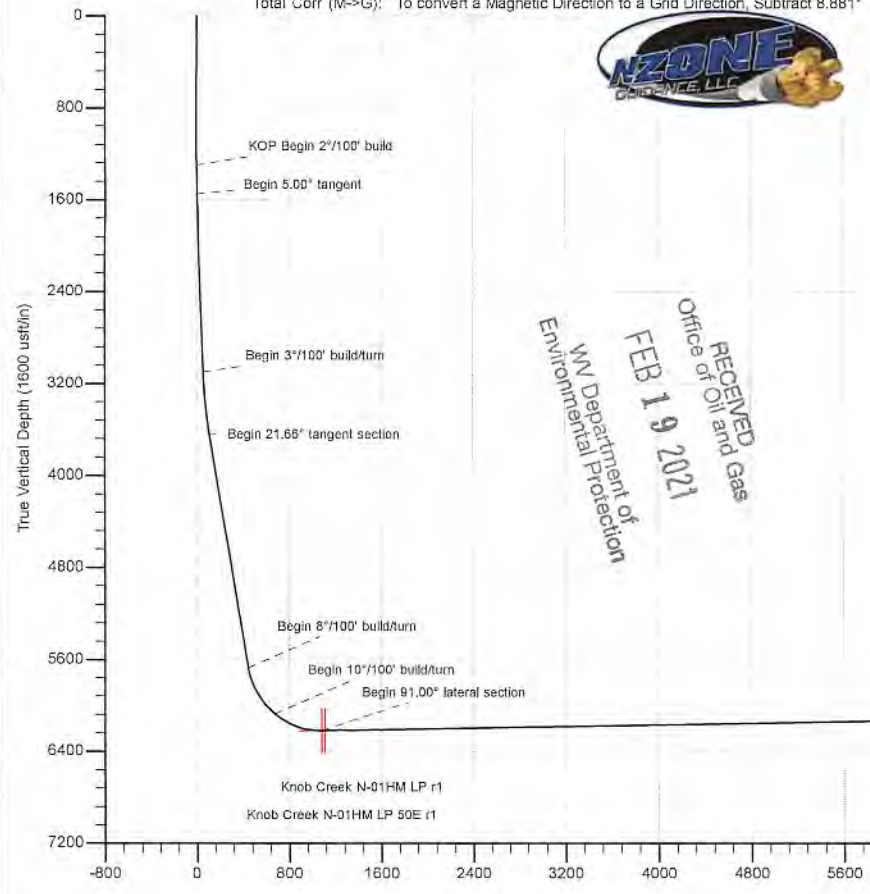
System Datum: Mean Sea Level  
 Depth Reference: GL=737 @ 737.00usft  
 Surface location

Northing	Easting	Latitude	Longitude
14443111.53	1723144.16	39.76897999	-80.70558415

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.881°



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Planning Report - Geographic

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<b>Database:</b>	DB_Jul2216dt_v14 It	<b>Local Co-ordinate Reference:</b>	Well Knob Creek N-01HM (slot A)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL=737 @ 737.00usft
<b>Project:</b>	Marshall County, West Virginia.	<b>MD Reference:</b>	GL=737 @ 737.00usft
<b>Site:</b>	Knob Creek	<b>North Reference:</b>	Grid
<b>Well:</b>	Knob Creek N-01HM (slot A)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

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

<b>Site</b>	Knob Creek				
<b>Site Position:</b>		<b>Northing:</b>	14,443,053.74 usft	<b>Latitude:</b>	39.76982148
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,723,120.29 usft	<b>Longitude:</b>	-80.70566975
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.188 °

<b>Well</b>	Knob Creek N-01HM (slot A)					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	14,443,111.53 usft	<b>Latitude:</b>	39.76997999
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	1,723,144.16 usft	<b>Longitude:</b>	-80.70558415
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	737.00 usft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	9/18/2017	-8.692	66.922	52,139.89565422

<b>Design</b>	rev2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	324.79

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/11/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	19,814.01 rev2 (Original Hole)	MWD	
			MWD - Standard	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,550.00	5.00	259.18	1,549.68	-2.05	-10.71	2.00	2.00	0.00	259.180	
3,106.24	5.00	259.18	3,100.00	-27.51	-143.93	0.00	0.00	0.00	0.000	
3,661.55	21.66	259.18	3,638.45	-51.46	-269.24	3.00	3.00	0.00	-0.005	
5,849.27	21.66	259.18	5,671.71	-203.10	-1,062.33	0.00	0.00	0.00	0.000	
6,342.64	50.00	311.05	6,075.64	-91.65	-1,303.90	8.00	5.74	10.51	71.441	
6,787.00	91.00	329.81	6,221.99	228.34	-1,556.77	10.00	9.23	4.22	27.342	
19,814.01	91.00	329.81	5,995.00	11,486.70	-8,106.63	0.00	0.00	0.00	0.000	Knob Creek N-01HM



Planning Report - Geographic

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<b>Database:</b>	DB_Jul2216dt_v14 lt	<b>Local Co-ordinate Reference:</b>	Well Knob Creek N-01HM (slot A)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL=737 @ 737.00usft
<b>Project:</b>	Marshall County, West Virginia.	<b>MD Reference:</b>	GL=737 @ 737.00usft
<b>Site:</b>	Knob Creek	<b>North Reference:</b>	Grid
<b>Well:</b>	Knob Creek N-01HM (slot A)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
100.00	0.00	0.00	100.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
200.00	0.00	0.00	200.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
300.00	0.00	0.00	300.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
400.00	0.00	0.00	400.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
500.00	0.00	0.00	500.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
600.00	0.00	0.00	600.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
700.00	0.00	0.00	700.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
800.00	0.00	0.00	800.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
900.00	0.00	0.00	900.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,443,111.53	1,723,144.16	39.76997999	-80.70558415	
<b>KOP Begin 2°/100' build</b>										
1,400.00	2.00	259.18	1,399.98	-0.33	-1.71	14,443,111.21	1,723,142.44	39.76997911	-80.70559025	
1,500.00	4.00	259.18	1,499.84	-1.31	-6.85	14,443,110.22	1,723,137.30	39.76997646	-80.70560856	
1,550.00	5.00	259.18	1,549.68	-2.05	-10.71	14,443,109.49	1,723,133.45	39.76997447	-80.70562228	
<b>Begin 5.00° tangent</b>										
1,600.00	5.00	259.18	1,599.49	-2.86	-14.99	14,443,108.67	1,723,129.17	39.76997226	-80.70563752	
1,700.00	5.00	259.18	1,699.11	-4.50	-23.55	14,443,107.03	1,723,120.61	39.76996784	-80.70566801	
1,800.00	5.00	259.18	1,798.73	-6.14	-32.11	14,443,105.40	1,723,112.05	39.76996343	-80.70569849	
1,900.00	5.00	259.18	1,898.35	-7.77	-40.67	14,443,103.76	1,723,103.49	39.76995901	-80.70572898	
2,000.00	5.00	259.18	1,997.97	-9.41	-49.23	14,443,102.12	1,723,094.93	39.76995460	-80.70575946	
2,100.00	5.00	259.18	2,097.59	-11.05	-57.79	14,443,100.49	1,723,086.37	39.76995018	-80.70578995	
2,200.00	5.00	259.18	2,197.21	-12.68	-66.35	14,443,098.85	1,723,077.81	39.76994576	-80.70582043	
2,300.00	5.00	259.18	2,296.83	-14.32	-74.91	14,443,097.22	1,723,069.25	39.76994135	-80.70585092	
2,400.00	5.00	259.18	2,396.45	-15.95	-83.47	14,443,095.58	1,723,060.69	39.76993693	-80.70588140	
2,500.00	5.00	259.18	2,496.07	-17.59	-92.03	14,443,093.94	1,723,052.12	39.76993252	-80.70591189	
2,600.00	5.00	259.18	2,595.69	-19.23	-100.59	14,443,092.31	1,723,043.56	39.76992810	-80.70594237	
2,700.00	5.00	259.18	2,695.31	-20.86	-109.15	14,443,090.67	1,723,035.00	39.76992368	-80.70597286	
2,800.00	5.00	259.18	2,794.93	-22.50	-117.72	14,443,089.03	1,723,026.44	39.76991927	-80.70600334	
2,900.00	5.00	259.18	2,894.55	-24.13	-126.28	14,443,087.40	1,723,017.88	39.76991485	-80.70603383	
3,000.00	5.00	259.18	2,994.17	-25.77	-134.84	14,443,085.76	1,723,009.32	39.76991044	-80.70606431	
3,100.00	5.00	259.18	3,093.78	-27.41	-143.40	14,443,084.13	1,723,000.76	39.76990602	-80.70609480	
3,106.24	5.00	259.18	3,100.00	-27.51	-143.93	14,443,084.02	1,723,000.23	39.76990574	-80.70609670	
<b>Begin 3°/100' build/turn</b>										
3,200.00	7.81	259.18	3,193.17	-29.47	-154.21	14,443,082.06	1,722,989.95	39.76990044	-80.70613329	
3,300.00	10.81	259.18	3,291.84	-32.51	-170.10	14,443,079.02	1,722,974.06	39.76989224	-80.70618988	
3,400.00	13.81	259.18	3,389.53	-36.51	-191.04	14,443,075.02	1,722,953.12	39.76988144	-80.70626446	
3,500.00	16.81	259.18	3,485.96	-41.47	-216.98	14,443,070.06	1,722,927.18	39.76986805	-80.70635682	
3,600.00	19.81	259.18	3,580.89	-47.37	-247.84	14,443,064.16	1,722,896.32	39.76985213	-80.70646671	
3,661.55	21.66	259.18	3,638.45	-51.46	-269.24	14,443,060.07	1,722,874.92	39.76984108	-80.70654293	
3,661.62	21.66	259.18	3,638.51	-51.47	-269.27	14,443,060.06	1,722,874.89	39.76984107	-80.70654302	
<b>Begin 21.66° tangent section</b>										
3,700.00	21.66	259.18	3,674.18	-54.13	-283.18	14,443,057.40	1,722,860.98	39.76983389	-80.70659257	
3,800.00	21.66	259.18	3,767.12	-61.06	-319.43	14,443,050.47	1,722,824.73	39.76981518	-80.70672166	
3,900.00	21.66	259.18	3,860.06	-67.99	-355.68	14,443,043.54	1,722,788.47	39.76979647	-80.70685076	
4,000.00	21.66	259.18	3,953.00	-74.92	-391.94	14,443,036.61	1,722,752.22	39.76977776	-80.70697985	
4,100.00	21.66	259.18	4,045.94	-81.85	-428.19	14,443,029.68	1,722,715.97	39.76975906	-80.70710894	
4,200.00	21.66	259.18	4,138.88	-88.78	-464.44	14,443,022.75	1,722,679.72	39.76974035	-80.70723804	
4,300.00	21.66	259.18	4,231.82	-95.72	-500.69	14,443,015.82	1,722,643.47	39.76972164	-80.70736713	
4,400.00	21.66	259.18	4,324.76	-102.65	-536.94	14,443,008.89	1,722,607.21	39.76970293	-80.70749623	
4,500.00	21.66	259.18	4,417.70	-109.58	-573.20	14,443,001.96	1,722,570.96	39.76968422	-80.70762532	



Planning Report - Geographic

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Database:	DB_Jul2216dt_v14 lt	Local Co-ordinate Reference:	Well Knob Creek N-01HM (slot A)
Company:	Tug Hill Operating LLC	TVD Reference:	GL=737 @ 737.00ust
Project:	Marshall County, West Virginia.	MD Reference:	GL=737 @ 737.00ust
Site:	Knob Creek	North Reference:	Grid
Well:	Knob Creek N-01HM (slot A)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,800.00	21.66	259.18	4,510.64	-116.51	-609.45	14,442,995.02	1,722,534.71	39.76966551	-80.70775442	
4,700.00	21.66	259.18	4,603.58	-123.44	-645.70	14,442,988.09	1,722,498.46	39.76964680	-80.70788351	
4,800.00	21.66	259.18	4,696.52	-130.37	-681.95	14,442,981.16	1,722,462.21	39.76962809	-80.70801261	
4,900.00	21.66	259.18	4,789.46	-137.30	-718.20	14,442,974.23	1,722,425.95	39.76960938	-80.70814170	
5,000.00	21.66	259.18	4,882.40	-144.23	-754.46	14,442,967.30	1,722,389.70	39.76959067	-80.70827079	
5,100.00	21.66	259.18	4,975.34	-151.16	-790.71	14,442,960.37	1,722,353.45	39.76957196	-80.70839989	
5,200.00	21.66	259.18	5,068.28	-158.09	-826.96	14,442,953.44	1,722,317.20	39.76955325	-80.70852898	
5,300.00	21.66	259.18	5,161.22	-165.03	-863.21	14,442,946.51	1,722,280.95	39.76953454	-80.70865807	
5,400.00	21.66	259.18	5,254.16	-171.96	-899.46	14,442,939.58	1,722,244.69	39.76951583	-80.70878717	
5,500.00	21.66	259.18	5,347.10	-178.89	-935.72	14,442,932.65	1,722,208.44	39.76949712	-80.70891626	
5,600.00	21.66	259.18	5,440.04	-185.82	-971.97	14,442,925.71	1,722,172.19	39.76947841	-80.70904536	
5,700.00	21.66	259.18	5,532.97	-192.75	-1,008.22	14,442,918.78	1,722,135.94	39.76945970	-80.70917445	
5,800.00	21.66	259.18	5,625.91	-199.68	-1,044.47	14,442,911.85	1,722,099.69	39.76944099	-80.70930354	
5,848.02	21.66	259.18	5,670.54	-203.01	-1,061.88	14,442,908.52	1,722,082.28	39.76943200	-80.70936553	
<b>Begin 8°/100' build/tum</b>										
5,849.27	21.66	259.18	5,671.71	-203.10	-1,062.33	14,442,908.44	1,722,081.82	39.76943177	-80.70936715	
5,900.00	23.26	268.96	5,718.60	-205.04	-1,081.55	14,442,906.50	1,722,062.61	39.76942661	-80.70943556	
6,000.00	27.83	284.28	5,808.91	-199.63	-1,123.98	14,442,911.90	1,722,020.18	39.76944184	-80.70958649	
6,100.00	33.62	295.14	5,894.90	-182.08	-1,171.74	14,442,929.45	1,721,972.42	39.76949044	-80.70975625	
6,200.00	40.10	302.99	5,974.91	-152.74	-1,223.90	14,442,958.79	1,721,920.26	39.76957149	-80.70994155	
6,300.00	46.98	308.92	6,047.38	-112.17	-1,279.45	14,442,999.36	1,721,864.71	39.76968339	-80.71013877	
6,342.64	50.00	311.05	6,075.64	-91.65	-1,303.90	14,443,019.88	1,721,840.26	39.76973997	-80.71022555	
6,342.67	50.00	311.05	6,075.66	-91.63	-1,303.92	14,443,019.90	1,721,840.24	39.76974002	-80.71022562	
<b>Begin 10°/100' build/tum</b>										
6,400.00	55.14	314.26	6,110.50	-80.77	-1,337.35	14,443,050.76	1,721,806.81	39.76982507	-80.71034425	
6,500.00	64.27	319.00	6,160.91	2.01	-1,396.44	14,443,113.55	1,721,747.72	39.76999802	-80.71055380	
6,600.00	73.53	323.05	6,196.89	74.51	-1,454.96	14,443,186.04	1,721,689.20	39.77019763	-80.71076123	
6,700.00	82.86	326.74	6,217.33	154.52	-1,511.13	14,443,266.05	1,721,633.02	39.77041785	-80.71096023	
6,787.00	91.00	329.81	6,221.99	228.34	-1,556.77	14,443,339.87	1,721,587.39	39.77082099	-80.71112178	
6,787.02	91.00	329.81	6,221.99	228.36	-1,556.78	14,443,339.89	1,721,587.38	39.77062105	-80.71112182	
<b>Begin 91.00° lateral section</b>										
6,800.00	91.00	329.81	6,221.77	239.58	-1,563.30	14,443,351.11	1,721,580.85	39.77065191	-80.71114492	
6,900.00	91.00	329.81	6,220.02	326.00	-1,613.58	14,443,437.53	1,721,530.57	39.77088970	-80.71132286	
7,000.00	91.00	329.81	6,216.28	412.42	-1,663.86	14,443,523.96	1,721,480.30	39.77112749	-80.71150081	
7,100.00	91.00	329.81	6,216.54	498.85	-1,714.14	14,443,610.38	1,721,430.02	39.77136527	-80.71167876	
7,200.00	91.00	329.81	6,214.80	585.27	-1,764.42	14,443,696.80	1,721,379.74	39.77160306	-80.71185671	
7,300.00	91.00	329.81	6,213.05	671.69	-1,814.70	14,443,783.23	1,721,329.46	39.77184084	-80.71203466	
7,400.00	91.00	329.81	6,211.31	758.12	-1,864.98	14,443,869.65	1,721,279.18	39.77207863	-80.71221261	
7,500.00	91.00	329.81	6,209.57	844.54	-1,915.26	14,443,956.07	1,721,228.90	39.77231641	-80.71239056	
7,600.00	91.00	329.81	6,207.83	930.96	-1,965.54	14,444,042.50	1,721,178.62	39.77255420	-80.71256851	
7,700.00	91.00	329.81	6,206.08	1,017.39	-2,015.82	14,444,128.92	1,721,128.34	39.77279198	-80.71274647	
7,800.00	91.00	329.81	6,204.34	1,103.81	-2,066.10	14,444,215.34	1,721,078.06	39.77302977	-80.71292442	
7,900.00	91.00	329.81	6,202.60	1,190.23	-2,116.37	14,444,301.77	1,721,027.78	39.77326755	-80.71310238	
8,000.00	91.00	329.81	6,200.86	1,276.66	-2,166.65	14,444,388.19	1,720,977.50	39.77350533	-80.71328034	
8,100.00	91.00	329.81	6,199.11	1,363.08	-2,216.93	14,444,474.61	1,720,927.23	39.77374312	-80.71345830	
8,200.00	91.00	329.81	6,197.37	1,449.50	-2,267.21	14,444,561.04	1,720,876.95	39.77398090	-80.71363626	
8,300.00	91.00	329.81	6,195.63	1,535.93	-2,317.49	14,444,647.46	1,720,826.67	39.77421868	-80.71381422	
8,400.00	91.00	329.81	6,193.89	1,622.35	-2,367.77	14,444,733.88	1,720,776.39	39.77445646	-80.71399218	
8,500.00	91.00	329.81	6,192.14	1,708.77	-2,418.05	14,444,820.30	1,720,726.11	39.77469425	-80.71417015	
8,600.00	91.00	329.81	6,190.40	1,795.19	-2,468.33	14,444,906.73	1,720,675.83	39.77493203	-80.71434811	
8,700.00	91.00	329.81	6,188.66	1,881.62	-2,518.61	14,444,993.15	1,720,625.55	39.77516981	-80.71452608	
8,800.00	91.00	329.81	6,186.92	1,968.04	-2,568.89	14,445,079.57	1,720,575.27	39.77540759	-80.71470405	
8,900.00	91.00	329.81	6,185.17	2,054.46	-2,619.17	14,445,166.00	1,720,524.99	39.77564537	-80.71488202	
9,000.00	91.00	329.81	6,183.43	2,140.89	-2,669.45	14,445,252.42	1,720,474.71	39.77588315	-80.71505999	



Planning Report - Geographic

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Office of Oil and Gas  
FEB 19 2021  
WV Department of  
Environmental Protection

Database: DB\_Jul2216dt\_v14 lt  
Company: Tug Hill Operating LLC  
Project: Marshall County, West Virginia.  
Site: Knob Creek  
Well: Knob Creek N-01HM (slot A)  
Wellbore: Original Hole  
Design: rev2

Local Co-ordinate Reference: Well Knob Creek N-01HM (slot A)  
TVD Reference: GL=737 @ 737.00usft  
MD Reference: GL=737 @ 737.00usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,100.00	91.00	329.81	6,181.69	2,227.71	-2,719.72	14,445,338.84	1,720,424.43	39.77612093	-80.71523796
9,200.00	91.00	329.81	6,179.95	2,313.73	-2,770.00	14,445,425.27	1,720,374.15	39.77635871	-80.71541593
9,300.00	91.00	329.81	6,178.20	2,400.16	-2,820.28	14,445,511.69	1,720,323.88	39.77659649	-80.71559391
9,400.00	91.00	329.81	6,176.46	2,486.58	-2,870.56	14,445,598.11	1,720,273.60	39.77683427	-80.71577188
9,500.00	91.00	329.81	6,174.72	2,573.00	-2,920.84	14,445,684.54	1,720,223.32	39.77707205	-80.71594986
9,600.00	91.00	329.81	6,172.98	2,659.43	-2,971.12	14,445,770.96	1,720,173.04	39.77730983	-80.71612784
9,700.00	91.00	329.81	6,171.23	2,745.85	-3,021.40	14,445,857.38	1,720,122.76	39.77754761	-80.71630582
9,800.00	91.00	329.81	6,169.49	2,832.27	-3,071.68	14,445,943.81	1,720,072.48	39.77778539	-80.71648380
9,900.00	91.00	329.81	6,167.75	2,918.70	-3,121.96	14,446,030.23	1,720,022.20	39.77802316	-80.71666178
10,000.00	91.00	329.81	6,166.01	3,005.12	-3,172.24	14,446,116.65	1,719,971.92	39.77826094	-80.71683976
10,100.00	91.00	329.81	6,164.26	3,091.54	-3,222.52	14,446,203.08	1,719,921.64	39.77849872	-80.71701774
10,200.00	91.00	329.81	6,162.52	3,177.97	-3,272.79	14,446,289.50	1,719,871.36	39.77873650	-80.71719573
10,300.00	91.00	329.81	6,160.78	3,264.39	-3,323.07	14,446,375.92	1,719,821.08	39.77897427	-80.71737372
10,400.00	91.00	329.81	6,159.04	3,350.81	-3,373.35	14,446,462.35	1,719,770.81	39.77921205	-80.71755170
10,500.00	91.00	329.81	6,157.29	3,437.24	-3,423.63	14,446,548.77	1,719,720.53	39.77944983	-80.71772969
10,600.00	91.00	329.81	6,155.55	3,523.66	-3,473.91	14,446,635.19	1,719,670.25	39.77968760	-80.71790768
10,700.00	91.00	329.81	6,153.81	3,610.08	-3,524.19	14,446,721.62	1,719,619.97	39.77992538	-80.71808567
10,800.00	91.00	329.81	6,152.07	3,696.51	-3,574.47	14,446,808.04	1,719,569.69	39.78016315	-80.71826367
10,900.00	91.00	329.81	6,150.32	3,782.93	-3,624.75	14,446,894.46	1,719,519.41	39.78040093	-80.71844166
11,000.00	91.00	329.81	6,148.58	3,869.35	-3,675.03	14,446,980.89	1,719,469.13	39.78063871	-80.71861965
11,100.00	91.00	329.81	6,146.84	3,955.78	-3,725.31	14,447,067.31	1,719,418.85	39.78087648	-80.71879765
11,200.00	91.00	329.81	6,145.10	4,042.20	-3,775.59	14,447,153.73	1,719,368.57	39.78111425	-80.71897565
11,300.00	91.00	329.81	6,143.35	4,128.62	-3,825.87	14,447,240.15	1,719,318.29	39.78135203	-80.71915365
11,400.00	91.00	329.81	6,141.61	4,215.05	-3,876.14	14,447,326.58	1,719,268.01	39.78158980	-80.71933165
11,500.00	91.00	329.81	6,139.87	4,301.47	-3,926.42	14,447,413.00	1,719,217.73	39.78182758	-80.71950965
11,600.00	91.00	329.81	6,138.13	4,387.89	-3,976.70	14,447,499.42	1,719,167.46	39.78206535	-80.71968765
11,700.00	91.00	329.81	6,136.38	4,474.31	-4,026.98	14,447,585.85	1,719,117.18	39.78230312	-80.71986565
11,800.00	91.00	329.81	6,134.64	4,560.74	-4,077.26	14,447,672.27	1,719,066.90	39.78254090	-80.72004366
11,900.00	91.00	329.81	6,132.90	4,647.16	-4,127.54	14,447,758.69	1,719,016.62	39.78277867	-80.72022166
12,000.00	91.00	329.81	6,131.16	4,733.58	-4,177.82	14,447,845.12	1,718,966.34	39.78301644	-80.72039967
12,100.00	91.00	329.81	6,129.41	4,820.01	-4,228.10	14,447,931.54	1,718,916.06	39.78325421	-80.72057768
12,200.00	91.00	329.81	6,127.67	4,906.43	-4,278.38	14,448,017.96	1,718,865.78	39.78349198	-80.72075569
12,300.00	91.00	329.81	6,125.93	4,992.85	-4,328.66	14,448,104.39	1,718,815.50	39.78372976	-80.72093370
12,400.00	91.00	329.81	6,124.19	5,079.28	-4,378.94	14,448,190.81	1,718,765.22	39.78396753	-80.72111171
12,500.00	91.00	329.81	6,122.44	5,165.70	-4,429.21	14,448,277.23	1,718,714.94	39.78420530	-80.72128972
12,600.00	91.00	329.81	6,120.70	5,252.12	-4,479.49	14,448,363.66	1,718,664.66	39.78444307	-80.72146774
12,700.00	91.00	329.81	6,118.96	5,338.55	-4,529.77	14,448,450.08	1,718,614.39	39.78468084	-80.72164575
12,800.00	91.00	329.81	6,117.22	5,424.97	-4,580.05	14,448,536.50	1,718,564.11	39.78491861	-80.72182377
12,900.00	91.00	329.81	6,115.47	5,511.39	-4,630.33	14,448,622.93	1,718,513.83	39.78515638	-80.72200179
13,000.00	91.00	329.81	6,113.73	5,597.82	-4,680.61	14,448,709.35	1,718,463.55	39.78539415	-80.72217981
13,100.00	91.00	329.81	6,111.99	5,684.24	-4,730.89	14,448,795.77	1,718,413.27	39.78563192	-80.72235783
13,200.00	91.00	329.81	6,110.25	5,770.66	-4,781.17	14,448,882.20	1,718,362.99	39.78586969	-80.72253585
13,300.00	91.00	329.81	6,108.51	5,857.09	-4,831.45	14,448,968.62	1,718,312.71	39.78610745	-80.72271387
13,400.00	91.00	329.81	6,106.76	5,943.51	-4,881.73	14,449,055.04	1,718,262.43	39.78634522	-80.72289190
13,500.00	91.00	329.81	6,105.02	6,029.93	-4,932.01	14,449,141.47	1,718,212.15	39.78658299	-80.72306992
13,600.00	91.00	329.81	6,103.28	6,116.36	-4,982.29	14,449,227.89	1,718,161.87	39.78682076	-80.72324795
13,700.00	91.00	329.81	6,101.54	6,202.78	-5,032.56	14,449,314.31	1,718,111.59	39.78705853	-80.72342598
13,800.00	91.00	329.81	6,099.79	6,289.20	-5,082.84	14,449,400.74	1,718,061.31	39.78729629	-80.72360401
13,900.00	91.00	329.81	6,098.05	6,375.63	-5,133.12	14,449,487.16	1,718,011.04	39.78753406	-80.72378204
14,000.00	91.00	329.81	6,096.31	6,462.05	-5,183.40	14,449,573.58	1,717,960.76	39.78777183	-80.72396007
14,100.00	91.00	329.81	6,094.57	6,548.47	-5,233.68	14,449,660.01	1,717,910.48	39.78800959	-80.72413810
14,200.00	91.00	329.81	6,092.82	6,634.90	-5,283.96	14,449,746.43	1,717,860.20	39.78824736	-80.72431614
14,300.00	91.00	329.81	6,091.08	6,721.32	-5,334.24	14,449,832.85	1,717,809.92	39.78848513	-80.72449417
14,400.00	91.00	329.81	6,089.34	6,807.74	-5,384.52	14,449,919.27	1,717,759.64	39.78872289	-80.72467221
14,500.00	91.00	329.81	6,087.60	6,894.17	-5,434.80	14,450,005.70	1,717,709.36	39.78896066	-80.72485025



Planning Report - Geographic

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<b>Database:</b>	DB_Jul2216dt_v14 lt	<b>Local Co-ordinate Reference:</b>	Well Knob Creek N-01HM (slot A)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL=737 @ 737.00usft
<b>Project:</b>	Marshall County, West Virginia,	<b>MD Reference:</b>	GL=737 @ 737.00usft
<b>Site:</b>	Knob Creek	<b>North Reference:</b>	Grid
<b>Well:</b>	Knob Creek N-01HM (slot A)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
14,600.00	91.00	329.81	6,085.85	6,980.59	-5,485.08	14,450,092.12	1,717,659.08	39.78919842	-80.72502828	
14,700.00	91.00	329.81	6,084.11	7,067.01	-5,535.36	14,450,178.54	1,717,608.80	39.78943619	-80.72520632	
14,800.00	91.00	329.81	6,082.37	7,153.43	-5,585.63	14,450,264.97	1,717,558.52	39.78967395	-80.72538437	
14,900.00	91.00	329.81	6,080.63	7,239.86	-5,635.91	14,450,351.39	1,717,508.24	39.78991171	-80.72556241	
15,000.00	91.00	329.81	6,078.88	7,326.28	-5,686.19	14,450,437.81	1,717,457.97	39.79014948	-80.72574045	
15,100.00	91.00	329.81	6,077.14	7,412.70	-5,736.47	14,450,524.24	1,717,407.69	39.79038724	-80.72591850	
15,200.00	91.00	329.81	6,075.40	7,499.13	-5,786.75	14,450,610.66	1,717,357.41	39.79062501	-80.72609654	
15,300.00	91.00	329.81	6,073.66	7,585.55	-5,837.03	14,450,697.08	1,717,307.13	39.79086277	-80.72627459	
15,400.00	91.00	329.81	6,071.91	7,671.97	-5,887.31	14,450,783.51	1,717,256.85	39.79110053	-80.72645264	
15,500.00	91.00	329.81	6,070.17	7,758.40	-5,937.59	14,450,869.93	1,717,206.57	39.79133829	-80.72663069	
15,600.00	91.00	329.81	6,068.43	7,844.82	-5,987.87	14,450,956.35	1,717,156.29	39.79157606	-80.72680874	
15,700.00	91.00	329.81	6,066.69	7,931.24	-6,038.15	14,451,042.78	1,717,106.01	39.79181382	-80.72698679	
15,800.00	91.00	329.81	6,064.94	8,017.67	-6,088.43	14,451,129.20	1,717,055.73	39.79205158	-80.72716485	
15,900.00	91.00	329.81	6,063.20	8,104.09	-6,138.70	14,451,215.62	1,717,005.45	39.79228934	-80.72734290	
16,000.00	91.00	329.81	6,061.46	8,190.51	-6,188.98	14,451,302.05	1,716,955.17	39.79252710	-80.72752096	
16,100.00	91.00	329.81	6,059.72	8,276.94	-6,239.26	14,451,388.47	1,716,904.89	39.79276486	-80.72769901	
16,200.00	91.00	329.81	6,057.97	8,363.36	-6,289.54	14,451,474.89	1,716,854.62	39.79300262	-80.72787707	
16,300.00	91.00	329.81	6,056.23	8,449.78	-6,339.82	14,451,561.32	1,716,804.34	39.79324038	-80.72805513	
16,400.00	91.00	329.81	6,054.49	8,536.21	-6,390.10	14,451,647.74	1,716,754.06	39.79347814	-80.72823319	
16,500.00	91.00	329.81	6,052.75	8,622.63	-6,440.38	14,451,734.16	1,716,703.78	39.79371590	-80.72841126	
16,600.00	91.00	329.81	6,051.00	8,709.05	-6,490.66	14,451,820.59	1,716,653.50	39.79395366	-80.72858932	
16,700.00	91.00	329.81	6,049.26	8,795.48	-6,540.94	14,451,907.01	1,716,603.22	39.79419142	-80.72876738	
16,800.00	91.00	329.81	6,047.52	8,881.90	-6,591.22	14,451,993.43	1,716,552.94	39.79442918	-80.72894545	
16,900.00	91.00	329.81	6,045.78	8,968.32	-6,641.50	14,452,079.86	1,716,502.66	39.79466694	-80.72912352	
17,000.00	91.00	329.81	6,044.03	9,054.75	-6,691.78	14,452,166.28	1,716,452.38	39.79490470	-80.72930158	
17,100.00	91.00	329.81	6,042.29	9,141.17	-6,742.05	14,452,252.70	1,716,402.10	39.79514246	-80.72947965	
17,200.00	91.00	329.81	6,040.55	9,227.59	-6,792.33	14,452,339.13	1,716,351.82	39.79538021	-80.72965772	
17,300.00	91.00	329.81	6,038.81	9,314.02	-6,842.61	14,452,425.55	1,716,301.55	39.79561797	-80.72983580	
17,400.00	91.00	329.81	6,037.06	9,400.44	-6,892.89	14,452,511.97	1,716,251.27	39.79585573	-80.73001387	
17,500.00	91.00	329.81	6,035.32	9,486.86	-6,943.17	14,452,598.39	1,716,200.99	39.79609349	-80.73019194	
17,600.00	91.00	329.81	6,033.58	9,573.28	-6,993.45	14,452,684.82	1,716,150.71	39.79633124	-80.73037002	
17,700.00	91.00	329.81	6,031.84	9,659.71	-7,043.73	14,452,771.24	1,716,100.43	39.79656900	-80.73054810	
17,800.00	91.00	329.81	6,030.09	9,746.13	-7,094.01	14,452,857.66	1,716,050.15	39.79680676	-80.73072617	
17,900.00	91.00	329.81	6,028.35	9,832.55	-7,144.29	14,452,944.09	1,715,999.87	39.79704451	-80.73090425	
18,000.00	91.00	329.81	6,026.61	9,918.98	-7,194.57	14,453,030.51	1,715,949.59	39.79728227	-80.73108233	
18,100.00	91.00	329.81	6,024.87	10,005.40	-7,244.85	14,453,116.93	1,715,899.31	39.79752002	-80.73126042	
18,200.00	91.00	329.81	6,023.12	10,091.82	-7,295.12	14,453,203.36	1,715,849.03	39.79775778	-80.73143850	
18,300.00	91.00	329.81	6,021.38	10,178.25	-7,345.40	14,453,289.78	1,715,798.75	39.79799553	-80.73161658	
18,400.00	91.00	329.81	6,019.64	10,264.67	-7,395.68	14,453,376.20	1,715,748.47	39.79823329	-80.73179467	
18,500.00	91.00	329.81	6,017.90	10,351.09	-7,445.96	14,453,462.63	1,715,698.20	39.79847104	-80.73197276	
18,600.00	91.00	329.81	6,016.15	10,437.52	-7,496.24	14,453,549.05	1,715,647.92	39.79870879	-80.73215084	
18,700.00	91.00	329.81	6,014.41	10,523.94	-7,546.52	14,453,635.47	1,715,597.64	39.79894655	-80.73232893	
18,800.00	91.00	329.81	6,012.67	10,610.36	-7,596.80	14,453,721.90	1,715,547.36	39.79918430	-80.73250702	
18,900.00	91.00	329.81	6,010.93	10,696.79	-7,647.08	14,453,808.32	1,715,497.08	39.79942205	-80.73268511	
19,000.00	91.00	329.81	6,009.18	10,783.21	-7,697.36	14,453,894.74	1,715,446.80	39.79965981	-80.73286321	
19,100.00	91.00	329.81	6,007.44	10,869.63	-7,747.64	14,453,981.17	1,715,396.52	39.79989756	-80.73304130	
19,200.00	91.00	329.81	6,005.70	10,956.06	-7,797.92	14,454,067.59	1,715,346.24	39.80013531	-80.73321940	
19,300.00	91.00	329.81	6,003.96	11,042.48	-7,848.20	14,454,154.01	1,715,295.96	39.80037306	-80.73339749	
19,400.00	91.00	329.81	6,002.21	11,128.90	-7,898.47	14,454,240.44	1,715,245.68	39.80061081	-80.73357559	
19,500.00	91.00	329.81	6,000.47	11,215.33	-7,948.75	14,454,326.86	1,715,195.40	39.80084857	-80.73375369	
19,600.00	91.00	329.81	5,998.73	11,301.75	-7,999.03	14,454,413.28	1,715,145.13	39.80108632	-80.73393179	
19,700.00	91.00	329.81	5,996.99	11,388.17	-8,049.31	14,454,499.71	1,715,094.85	39.80132407	-80.73410989	
19,800.00	91.00	329.81	5,995.24	11,474.60	-8,099.59	14,454,586.13	1,715,044.57	39.80156182	-80.73428799	



Planning Report - Geographic

<b>Database:</b>	DB_Jul2216dt_v14 lt	<b>Local Co-ordinate Reference:</b>	Well Knob Creek N-01HM (slot A)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL=737 @ 737.00usft
<b>Project:</b>	Marshall County, West Virginia.	<b>MD Reference:</b>	GL=737 @ 737.00usft
<b>Site:</b>	Knob Creek	<b>North Reference:</b>	Grid
<b>Well:</b>	Knob Creek N-01HM (slot A)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
19,814.01	91.00	329.81	5,995.00	11,486.70	-8,106.63	14,454,598.23	1,715,037.52	39.80159512	-80.73431294
PBHL/TD 19814.01 MD 5995.00 TVD									

Design Targets										
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Knob Creek N-01HM BH	- plan hits target center	0.00	0.00	5,995.00	11,486.70	-8,106.63	14,454,598.23	1,715,037.52	39.80159512	-80.73431294
	- Point									
Knob Creek N-01HM LP	- plan misses target center by 0.13usft at 6786.95usft MD (6221.99 TVD, 228.30 N, -1556.74 E)	0.00	0.00	6,222.00	228.37	-1,556.63	14,443,339.90	1,721,587.53	39.77062108	-80.71112130
	- Point									
Knob Creek N-01HM LP	- plan misses target center by 43.09usft at 6812.10usft MD (6221.56 TVD, 250.03 N, -1569.39 E)	0.00	0.01	6,222.00	228.37	-1,606.63	14,443,339.90	1,721,537.52	39.77062152	-80.71129925
	- Point									

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,300.00	1,300.00	0.00	0.00	KOP Begin 2°/100' build	
1,550.00	1,549.68	-2.05	-10.71	Begin 5.00° tangent	
3,106.24	3,100.00	-27.51	-143.93	Begin 3°/100' build/turn	
3,661.62	3,638.51	-51.47	-269.27	Begin 21.66° tangent section	
5,848.02	5,670.54	-203.01	-1,061.88	Begin 8°/100' build/turn	
6,342.67	6,075.66	-91.63	-1,303.92	Begin 10°/100' build/turn	
6,787.02	6,221.99	228.36	-1,556.78	Begin 91.00° lateral section	
19,814.01	5,995.00	11,486.70	-8,106.63	PBHL/TD 19814.01 MD 5995.00 TVD	

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# Well Site Safety Plan

## Tug Hill Operating, LLC

*per 10/29/2020*

Well Name: Knob Creek N-1HM

Pad Location: Knob Creek Pad

Mars hall County, West Virginia

UTM (meters), NAD83, Zone 17:

Northing: 4,402,269.20

Easting: 525,215.39

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October 2020

**KNOB CREEK N LEASE  
WELL 1HM  
TUG HILL OPERATING**

T.H. LATITUDE 39°47'30"  
B.H. LATITUDE 39°50'00"

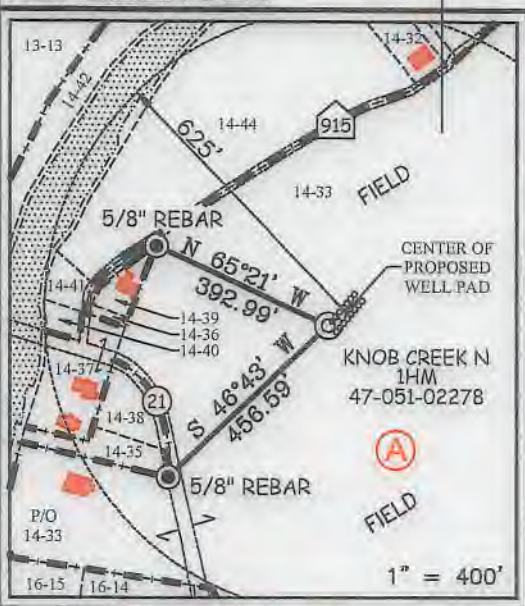
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

NAD'83 S.P.C.(FT)	N. 464,839.63	E. 1,629,638.52
NAD'83 GEO.	LAT-(N) 39.769980	LONG-(W) 80.705564
NAD'83 UTM (M)	N. 4,402,269.20	E. 525,215.39
<b>LANDING POINT</b>		
NAD'83 S.P.C.(FT)	N. 465,094.1	E. 1,628,085.3
NAD'83 GEO.	LAT-(N) 39.770621	LONG-(W) 80.711122
NAD'83 UTM (M)	N. 4,402,338.8	E. 524,740.9
<b>BOTTOM HOLE</b>		
NAD'83 S.P.C.(FT)	N. 476,464.1	E. 1,621,722.3
NAD'83 GEO.	LAT-(N) 39.801595	LONG-(W) 80.734313
NAD'83 UTM (M)	N. 4,405,770.4	E. 522,744.5

**NOTES ON SURVEY**

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- SEE REFERENCES FOR DWELLINGS LOCATED WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- BASED ON WV DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.

**REFERENCES**



MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-6-1.2	CONSOLIDATION COAL COMPANY, MURRAY ENERGY	2.722
9-10-7	DAVID & PAMELA SCHIMMEL	1.00
9-10-8	BRENT ALLEN CONNER	2.00
9-10-14	WILLIAM MCCONNELL	15.00
9-10-16	WILLIAM D. MCCONNELL	0.859
9-11-1	GERALD F. PADLOW	1.033
9-13-9	ARTHUR L. MOORE	50 X 100 SQ.FT.
9-13-10	ARTHUR L. MOORE	3.96
9-13-12.1	ROBERT T. & BARBARA A. ANKROM	2.632
9-13-13.1	THOMAS JOHN FOX	0.827
9-13-14	MARGARET K. FOX - LIFE	3.00
9-13-16	IVAN H. & MARGARET A. RICHMOND	21.334
9-13-22.1	HENRY, JR. & BARBARA DICK	11.82
9-13-22.2	EUGENE A. SCHERRER	0.925
9-13-23	MARGARET FOX - LIFE	1.52
9-14-1.2	KENNETH N. & TERESA A. SMERTNECK	1.02
9-14-11.3	PATRICK J. SCHELLHASE - TRUST	23.424
9-14-28	CHARLES R. SCHELLHASE, ET UX	3.029
9-14-29	ANDREW FASOULETOS, ET UX	0.209
9-14-29.1	ANDREW FASOULETOS, ET UX	1.171
9-14-30	WILLIAM C. GROFT, ET UX	0.35
9-14-31	WILFORD F. NELSON, JR., ET UX	0.954
9-14-32	TWILA C. COFFIELD	0.583
9-14-32.1	TWILA C. COFFIELD	0.184
9-14-35	PAUL G. FOX	0.338
9-14-36	MARGARET FOX - LIFE	1600 SQ. FT.
9-14-38	MARGARET FOX - LIFE	0.631
9-14-39	MARGARET FOX - LIFE	8675 SQ. FT.
9-14-40	MARGARET FOX - LIFE	19,560 SQ. FT.
9-14-41	MARGARET FOX - LIFE	9165 SQ. FT.
9-14-42	JOHN C. LAGOS, ET UX	1.87
9-14-43	JAMES G. FOX	0.66
9-14-44	DAVID LEE FRANKLIN	2.913
9-14-44.1	GEORGE R. TAYLOR, ET UX	4.423
9-14-45	GEORGE R. TAYLOR, ET UX	10.98
9-14-46	MARGARET K. FOX - LIFE	18,888
9-14-47	MICHAEL L. & CHERYL J. ACREE	0.355
9-14-48	MICHAEL L. & CHERYL J. ACREE	0.473
9-14-49	MICHAEL L. & CHERYL J. ACREE	0.118
9-14-50	RONALD MARSH	0.707
9-14-51	GEORGE R. TAYLOR, ET UX	1.621
9-14-52	JAMES E. PEELMAN	0.439
9-14-53	JAMES E. PEELMAN	0.555
9-14-54	RICHARD L. HARVETH, ET UX	1.649
9-16-14	LYNN CAMP METHODIST CHURCH	0.762
9-16-15	RONALD R. YOUNG, ET UX - LIFE	52.02
9-16-15.1	ERIC J. YOUNG	1.98

T.H. LONGITUDE 80°40'00"  
B.H. LONGITUDE 80°42'30"

7,900' T.H.

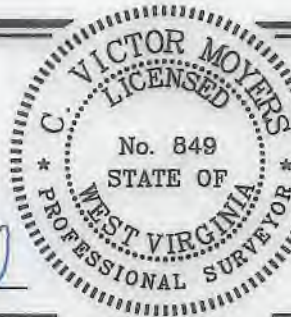
11,561' B.H.



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.8634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
250 East Beckley Bypass | Beckley, WV 26801 | 304.355.5296  
slsvv.com

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

P.S. *C. Victor Moyers*  
849



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JULY 22, 20 18

REVISED 09-30-2019, 08-28-2020, 10-29-2020

OPERATORS WELL NO. KNOB CREEK N-1HM

API WELL NO. 47 - 051 - 02278  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8789P1HMR3.dwg  
KNOB CREEK N-1HM-REV2

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

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



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

LOCATION: ELEVATION 737.50' WATERSHED FISH CREEK (HUC 10)

DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER DAVID LEE FRANKLIN ACREAGE 65.824±

ROYALTY OWNER DAVID LEE FRANKLIN, ET AL - SEE WW-6A1 ACREAGE 65.824±

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION MARCELLUS

ESTIMATED DEPTH TVD: 6,338' / TMD: 19,814'

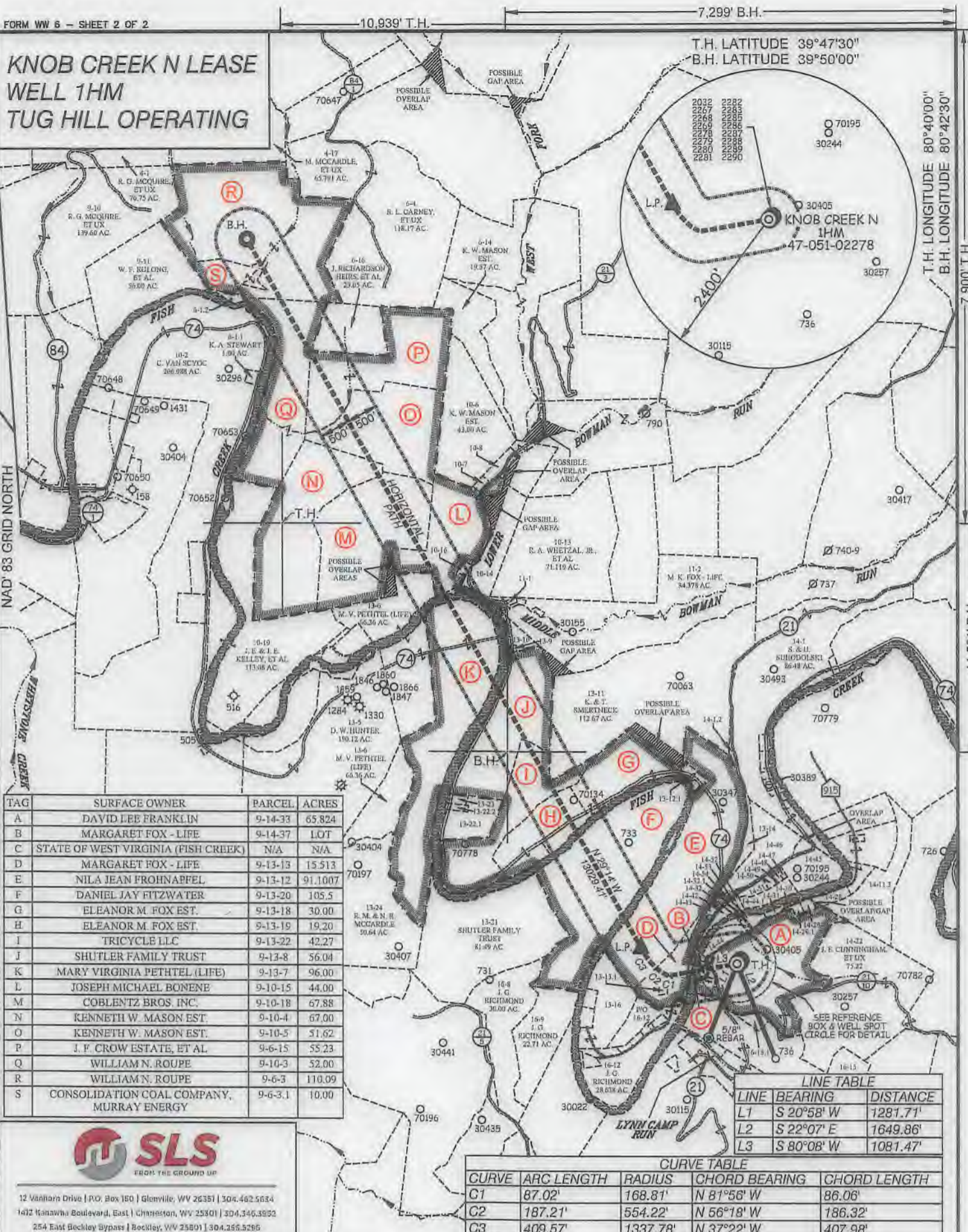
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD  
FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME

PERMIT



**Knob Creek N Lease  
Well 1HM  
Tug Hill Operating**



TAG	SURFACE OWNER	PARCEL	ACRES
A	DAVID LEE FRANKLIN	9-14-33	65.824
B	MARGARET FOX - LIFE	9-14-37	LOT
C	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
D	MARGARET FOX - LIFE	9-13-13	15.513
E	NILA JEAN FROHNAPFEL	9-13-12	91.1007
F	DANIEL JAY FITZWATER	9-13-20	105.5
G	ELEANOR M. FOX EST.	9-13-18	30.00
H	ELEANOR M. FOX EST.	9-13-19	19.20
I	TRICYCLE LLC	9-13-22	42.27
J	SHUTLER FAMILY TRUST	9-13-8	56.04
K	MARY VIRGINIA PETHTEL (LIFE)	9-13-7	96.00
L	JOSEPH MICHAEL BONENE	9-10-15	44.00
M	COBLENTZ BROS. INC.	9-10-18	67.88
N	KENNETH W. MASON EST.	9-10-4	67.00
O	KENNETH W. MASON EST.	9-10-5	51.62
P	J. F. CROW ESTATE, ET AL.	9-6-15	55.23
Q	WILLIAM N. ROUPE	9-10-3	52.00
R	WILLIAM N. ROUPE	9-6-3	110.09
S	CONSOLIDATION COAL COMPANY, MURRAY ENERGY	9-6-3.1	10.00

LINE	BEARING	DISTANCE
L1	S 20°58' W	1287.71'
L2	S 22°07' E	1649.86'
L3	S 80°08' W	1081.47'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	87.02'	168.81'	N 81°56' W	86.06'
C2	187.21'	554.22'	N 56°18' W	186.32'
C3	409.57'	1337.78'	N 37°22' W	407.98'



12 Vanhorn Drive | P.O. Box 150 | Glenview, WV 26351 | 304.462.5634  
 1402 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295  
 slsvw.com

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'83 S.P.C.(FT)	N. 464,839.63	E. 1,629,638.52	
NAD'83 GEO.	LAT-(N) 39.769980	LONG-(W) 80.705584	
NAD'83 UTM (M)	N. 4,402,269.20	E. 525,215.99	
LANDING POINT			
NAD'83 S.P.C.(FT)	N. 485,094.1	E. 1,628,085.3	
NAD'83 GEO.	LAT-(N) 39.770621	LONG-(W) 80.711122	
NAD'83 UTM (M)	N. 4,402,338.8	E. 524,740.9	
BOTTOM HOLE			
NAD'83 S.P.C.(FT)	N. 476,464.1	E. 1,621,722.3	
NAD'83 GEO.	LAT-(N) 39.801595	LONG-(W) 80.734313	
NAD'83 UTM (M)	N. 4,405,770.4	E. 522,744.5	



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

P.S. 849 *C. Victor Moyers*

LEGEND	
LEASE LINE	
SURFACE LINE	
WELL LATERAL	
OFFSET LINE	
TIE LINE	
CREEK	
ROAD	
COUNTY ROUTE	
PROPOSED WELL	
EXISTING WELL	
PERMITTED WELL	
TAX MAP-PARCEL	00-00
SURFACE OWNER (SEE TABLE)	(A)
LEASE # (SEE WW-6A1)	

SCALE 1" = 2000' FILE NO. 8789P1HMR3.dwg  
 KNOB CREEK N-1HM-REV2  
 DATE JULY 22, 20 18  
 REVISED 09-30-2019, 08-28-2020, 10-29-2020  
 OPERATORS WELL NO. KNOB CREEK N-1HM  
 API WELL NO. 47 - 051 - 02278  
 STATE COUNTY PERMIT

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

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

COUNTY NAME PERMIT

**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

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Office of Oil and Gas

FEB 19 2021

WV Department of  
Environmental Protection

**\*Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act.**

**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. Morris *Amy L. Morris*  
 Its: Permitting Specialist - Appalachia Region

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*47051.219.1	9-14-33	A	DAVID LEE FRANKLIN	TH EXPLORATION LLC	1/8+	874	312	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*47051.219.1	9-14-37	B	DAVID LEE FRANKLIN	TH EXPLORATION LLC	1/8+	937	385	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18298	9-14-37	B	MAUREEN GREGG	TH EXPLORATION LLC	1/8+	929	273	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18300	9-14-37	B	ROBERT W ODOM AND CASSANDRA L ODOM	TH EXPLORATION LLC	1/8+	929	283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18805	9-14-37	B	CINDY STEVENS TOZIER	TH EXPLORATION LLC	1/8+	937	628	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19689	9-14-37	B	EDMOND TURGEON JR AND CATHY STEVENS TURGEON	TH EXPLORATION LLC	1/8+	944	156	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19938	9-14-37	B	JOHN H STEVENS AND LYNDA L STEVENS	TH EXPLORATION LLC	1/8+	949	144	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19937	9-14-37	B	JAMES D STEVENS AND DOROTHY M STEVENS	TH EXPLORATION LLC	1/8+	949	151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23458	FISH CREEK	C	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	TH EXPLORATION LLC	1/8+	1019	373	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18732	9-13-13	D	SHERRILL M LEAVERS AND JAMES H LEAVERS	TH EXPLORATION LLC	1/8+	938	245	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18734	9-13-13	D	KENNETH EMERY AND MARTHA L EMERY	TH EXPLORATION LLC	1/8+	938	247	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18735	9-13-13	D	DIANE E AND DENNIS P FOWLER	TH EXPLORATION LLC	1/8+	938	243	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18736	9-13-13	D	DOROTHY JEAN HUSTON AND KENNETH HUSTON	TH EXPLORATION LLC	1/8+	938	221	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19401	9-13-13	D	JOYCE A WILSON AND D MURPHY WILSON	TH EXPLORATION LLC	1/8+	940	346	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19402	9-13-13	D	HOWARD G AND CLARA J RICHMOND	TH EXPLORATION LLC	1/8+	940	348	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19474	9-13-13	D	EDGAR ALLEN RICHMOND	TH EXPLORATION LLC	1/8+	941	318	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19475	9-13-13	D	ARDETH L PIPER AND PAUL E PIPER	TH EXPLORATION LLC	1/8+	941	316	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19481	9-13-13	D	WILLIAM EMERY	TH EXPLORATION LLC	1/8+	941	314	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19674	9-13-13	D	DEBRA SHORT AND RODNEY SHORT	TH EXPLORATION LLC	1/8+	944	337	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19675	9-13-13	D	BARBARA C LEISHMAN AND DANNY K LEISHMAN	TH EXPLORATION LLC	1/8+	944	432	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19714	9-13-13	D	DAVID A ROBINSON AND PATRICIA A ROBINSON	TH EXPLORATION LLC	1/8+	944	434	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19868	9-13-13	D	TERRY J STREAM AND JOHN T STREAM	TH EXPLORATION LLC	1/8+	945	580	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19869	9-13-13	D	SHIRLEY J DUFFY	TH EXPLORATION LLC	1/8+	945	578	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19870	9-13-13	D	DORIS L MASTERS AND ROY N MASTERS	TH EXPLORATION LLC	1/8+	945	576	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21027	9-13-13	D	MARY D LING	TH EXPLORATION LLC	1/8+	951	126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21087	9-13-13	D	THOMAS E DODD AND ANITA M DODD	TH EXPLORATION LLC	1/8+	951	124	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21088	9-13-13	D	DONALD E WEST AND MARTHA E WEST	TH EXPLORATION LLC	1/8+	951	122	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21104	9-13-13	D	LARRY W BAILEY AND MARSHA K BAILEY	TH EXPLORATION LLC	1/8+	951	131	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21105	9-13-13	D	THE CALVIN O WILLIAMS & PATSY S WILLIAMS REVOCABLE LIVING TRUST	TH EXPLORATION LLC	1/8+	951	137	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21107	9-13-13	D	RONALD L WEST	TH EXPLORATION LLC	1/8+	951	135	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21108	9-13-13	D	SANDRA A WHITE	TH EXPLORATION LLC	1/8+	951	140	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21491	9-13-13	D	DARLENA BRY AND LEE V BRY	TH EXPLORATION LLC	1/8+	957	290	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21507	9-13-13	D	DONALD FURLONG AND LISA K FURLONG	TH EXPLORATION LLC	1/8+	951	128	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21838	9-13-13	D	FIRST PRESBYTERIAN CHURCH OF CLARKSBURG	TH EXPLORATION LLC	1/8+	959	625	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21956	9-13-13	D	THEODORE F MASLOWSKI AND ANITA MASLOWSKI	TH EXPLORATION LLC	1/8+	960	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21963	9-13-13	D	LINDA R JANSSEN AND DENNIS D JANSSEN	TH EXPLORATION LLC	1/8+	960	28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21964	9-13-13	D	WILLIAM R DODD AND SHIRLEY A DODD	TH EXPLORATION LLC	1/8+	960	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21983	9-13-13	D	OPAL V BUCKMASTER	TH EXPLORATION LLC	1/8+	953	497	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22113	9-13-13	D	SYLVIA D WEST	TH EXPLORATION LLC	1/8+	962	224	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22117	9-13-13	D	DEBORAH L WROBEL AND GREGORY G WROBEL	TH EXPLORATION LLC	1/8+	961	354	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22119	9-13-13	D	JAMES S RICHMOND	TH EXPLORATION LLC	1/8+	953	499	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22121	9-13-13	D	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	TH EXPLORATION LLC	1/8+	961	352	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22377	9-13-13	D	MONTY W BAILEY AND MARTHA E BAILEY	TH EXPLORATION LLC	1/8+	962	226	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22378	9-13-13	D	KEVIN R RICHMOND AND VALERIE L RICHMOND	TH EXPLORATION LLC	1/8+	962	228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22458	9-13-13	D	JAMES RICHMOND AND CINDY L RICHMOND	TH EXPLORATION LLC	1/8+	963	132	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22463	9-13-13	D	STEVEN R MCCLINTOCK	TH EXPLORATION LLC	1/8+	964	458	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22517	9-13-13	D	PHYLLIS M RADER	TH EXPLORATION LLC	1/8+	964	456	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22545	9-13-13	D	JANICE L MASLOWSKI AND FLOYD F MECHLING	TH EXPLORATION LLC	1/8+	968	9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23140	9-13-13	D	MELISSA JENKINS	TH EXPLORATION LLC	1/8+	984	86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23144	9-13-13	D	MARGARET A WALTERS	TH EXPLORATION LLC	1/8+	984	84	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23145	9-13-13	D	WILLIAM BENNETT	TH EXPLORATION LLC	1/8+	984	82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23146	9-13-13	D	RETA I GRIFFIN AND MARTIN A GRIFFIN	TH EXPLORATION LLC	1/8+	984	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23154	9-13-13	D	CAROLYN FAY BENNETT	TH EXPLORATION LLC	1/8+	984	78	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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WV Department of  
Environmental Protection

Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*23188	9-13-13	D	LISA MCMANUS	TH EXPLORATION LLC	1/8+	984 530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23299	9-13-13	D	PATRICIA L BECK	TH EXPLORATION LLC	1/8+	988 19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23312	9-13-13	D	DONNA M CARTER	TH EXPLORATION LLC	1/8+	988 17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23559	9-13-13	D	ROBERT TOOMBS WRIGHT MONTAGUE BY DAVID C WHITE, ESQ, GUARDIAN AT LITEM	TH EXPLORATION LLC	1/8+	1009 249	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23577	9-13-13	D	JOHN WILLIAM MACKENZIE MONTAGUE BY DAVID C WHITE, ESQ, GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009 253	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23578	9-13-13	D	DUDLEY PORTER THAYER MONTAGUE JR BY DAVID C WHITE, ESQ, GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009 251	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24740	9-13-13	D	*RICARDO THOMAS MAYA	TH EXPLORATION LLC	1/8+	1025 614	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*25442	9-13-13	D	SARAH BETH PREWITT ET AL	TH EXPLORATION LLC	1/8+	1033 297	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27947	9-13-13	D	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1063 568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24858	9-13-12	E	NILA JEAN FROHNAPFEL	TH EXPLORATION LLC	1/8+	1028 119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*17193	9-13-20	F	JOHN PAUL RICHMOND ICARD	CHESAPEAKE APPALACHIA LLC	1/8+	716 12	N/A	N/A	Chesapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 29/325	Statoil USA Onshore Properties Inc to SWN Exchange Titleholder LLC: 33/424	Cert of Merger of SWN Exchange Titleholder LLC to SWN Production Company LLC: 19/624	Chesapeake Appalachia LLC to SWN Production Co. LLC: 33/110	SWN Production Company LLC to TH Exploration LLC: 41/256	Statoil USA Onshore Properties Inc to TH Exploration LLC: 41/238
10*18351	9-13-20	F	MARK ALLEN LENENBERG	TH EXPLORATION LLC	1/8+	931 399	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18456	9-13-20	F	DANIEL J FITZWATER	TH EXPLORATION LLC	1/8+	933 180	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18469	9-13-20	F	THOMAS RICHMOND YOUNG ANITA A YOUNG	TH EXPLORATION LLC	1/8+	933 151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18470	9-13-20	F	CHERYL STEFFEN AND GREGORY STEFFEN	TH EXPLORATION LLC	1/8+	933 148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18471	9-13-20	F	MORGAN C GUMP AND MARY J GUMP	TH EXPLORATION LLC	1/8+	942 210	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18472	9-13-20	F	LEIGH A DURRAH	TH EXPLORATION LLC	1/8+	933 136	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18524	9-13-20	F	DAVID A GUMP AND BETTY J GUMP	TH EXPLORATION LLC	1/8+	933 597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18527	9-13-20	F	ANN TURNER YOUNG SHRIVER	TH EXPLORATION LLC	1/8+	933 589	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18967	9-13-20	F	NATALIE GIBBS	TH EXPLORATION LLC	1/8+	941 266	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19349	9-13-20	F	MARJOLEA A DEBOLD	TH EXPLORATION LLC	1/8+	932 409	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19516	9-13-20	F	JAMES E NICHOLAS AND BEVERLY D NICHOLAS	TH EXPLORATION LLC	1/8+	944 366	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19883	9-13-20	F	JILL A WILLIAMS AND TERRY L WILLIAMS	TH EXPLORATION LLC	1/8+	948 547	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19885	9-13-20	F	NANCY L RICHMOND AND GREGORY RICHMOND	TH EXPLORATION LLC	1/8+	948 549	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19886	9-13-20	F	MARK A RICHMOND & LISA D RICHMOND	TH EXPLORATION LLC	1/8+	948 543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19887	9-13-20	F	ELIZABETH S SCOVELL & JONATHAN A SCOVELL	TH EXPLORATION LLC	1/8+	948 545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19892	9-13-20	F	REX B FISHER AND DEBORAH FISHER	TH EXPLORATION LLC	1/8+	948 292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21012	9-13-20	F	TIMOTHY R RICHMOND II AND BRANDI N RICHMOND	TH EXPLORATION LLC	1/8+	951 149	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21014	9-13-20	F	JAMES P MCLAUGHLIN & ALICE W MCLAUGHLIN	TH EXPLORATION LLC	1/8+	946 29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21015	9-13-20	F	ROBERT L MCLAUGHLIN	TH EXPLORATION LLC	1/8+	946 339	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21485	9-13-20	F	ROBERT R FISHER AND AUDREY L IRVIN	TH EXPLORATION LLC	1/8+	942 572	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21504	9-13-20	F	PAULETA LINDA CHEATHAM AND CARL WOHLERS	TH EXPLORATION LLC	1/8+	951 142	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21598	9-13-20	F	THE MILDRED Y MILLS TRUST JULY 5TH 2007	TH EXPLORATION LLC	1/8+	954 332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21709	9-13-20	F	THOMAS YOUNG AND JANE CLAIRE YOUNG	TH EXPLORATION LLC	1/8+	959 350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21710	9-13-20	F	PENELOPE A JONES	TH EXPLORATION LLC	1/8+	959 355	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22863	9-13-20	F	JAMES H CAMPBELL	TH EXPLORATION LLC	1/8+	977 55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22864	9-13-20	F	MARGARET R DONOFRIO	TH EXPLORATION LLC	1/8+	977 53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23164	9-13-20	F	J C AND MARY RICHMOND	TG STILES	1/8+	63 154	N/A	N/A	Hope Natural Gas Company to AM Snider and Dane M Snider dba Hundred Gas Company: 446/186	Hundred Gas Company to Carl D Perkins: 451/132 & 451/418	Carl D Perkins to Perkins Oil and Gas Inc: 583/72	Perkins Oil & Gas Inc to Stone Energy Corporation: 26/322	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21
10*23190	9-13-20	F	NELSON RICHMOND ET AL	TH EXPLORATION LLC	1/8+	979 191	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27947	9-13-20	F	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1063 568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18351	9-13-18	G	MARK ALLEN LENENBERG	TH EXPLORATION LLC	1/8+	931 399	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment
10*18469	9-13-18	G	THOMAS RICHMOND YOUNG ANITA A YOUNG	TH EXPLORATION LLC	1/8+	933 151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18470	9-13-18	G	CHERYL STEFFEN AND GREGORY STEFFEN	TH EXPLORATION LLC	1/8+	933 148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18527	9-13-18	G	ANN TURNER YOUNG SHRIVER	TH EXPLORATION LLC	1/8+	933 589	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18694	9-13-18	G	PEGGY A GOULDSBERRY AND JOSEPH W GOULDSBERRY	TH EXPLORATION LLC	1/8+	938 283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18695	9-13-18	G	JOSEPH S EMERY	TH EXPLORATION LLC	1/8+	938 572	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18696	9-13-18	G	CHARLES E EMERY AND DEBBIE EMERY	TH EXPLORATION LLC	1/8+	938 280	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18697	9-13-18	G	CHRISTAL L RINE AND JOHN O RINE	TH EXPLORATION LLC	1/8+	938 499	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18698	9-13-18	G	LORETTA K CONNER AND OBERT L CONNER	TH EXPLORATION LLC	1/8+	938 490	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18699	9-13-18	G	JAMIE A LANTZ AND JAMES L LANTZ	TH EXPLORATION LLC	1/8+	938 286	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18700	9-13-18	G	NOVA PAYNE	TH EXPLORATION LLC	1/8+	938 488	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18701	9-13-18	G	SHERRI J ANDERSON AND GEORGE C ANDERSON	TH EXPLORATION LLC	1/8+	938 277	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18702	9-13-18	G	JOHN W NICE JR	TH EXPLORATION LLC	1/8+	938 496	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24467	9-13-18	G	GREGORY W FRITZMAN	TH EXPLORATION LLC	1/8+	1059 232	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18714	9-13-18	G	LARRY J RICHARDSON AND D MARGARET RICHARDSON	TH EXPLORATION LLC	1/8+	938 543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18715	9-13-18	G	MARY ANN CROW RICHARDSON	TH EXPLORATION LLC	1/8+	938 546	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18716	9-13-18	G	MARCIA J MECHLING AND DENNIS J MECHLING	TH EXPLORATION LLC	1/8+	938 549	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18717	9-13-18	G	RACHEL E AND ALLAN L SHEASLEY	TH EXPLORATION LLC	1/8+	938 552	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18718	9-13-18	G	PEGGY L STEWART AND DEWEY R STEWART	TH EXPLORATION LLC	1/8+	938 555	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18719	9-13-18	G	DONNA M CROW	TH EXPLORATION LLC	1/8+	938 504	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18829	9-13-18	G	CAROL A SAVOY	TH EXPLORATION LLC	1/8+	937 620	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18958	9-13-18	G	NANCY L GABLER	TH EXPLORATION LLC	1/8+	941 259	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18959	9-13-18	G	SALLY L DUNMIRE AND DAVID W DUNMIRE	TH EXPLORATION LLC	1/8+	941 270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18967	9-13-18	G	NATALIE GIBBS	TH EXPLORATION LLC	1/8+	941 266	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19461	9-13-18	G	KELLY OCONNOR	TH EXPLORATION LLC	1/8+	942 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19611	9-13-18	G	JOHN H EMERY AND JANET M EMERY	TH EXPLORATION LLC	1/8+	944 201	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19612	9-13-18	G	MARY JANE HYDE AND HARRY K HYDE	TH EXPLORATION LLC	1/8+	944 198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19832	9-13-18	G	DOWNIE E EMERY JR AND ELAINE EMERY	TH EXPLORATION LLC	1/8+	945 619	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19834	9-13-18	G	STEVEN D BEAKLEY	TH EXPLORATION LLC	1/8+	945 613	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19835	9-13-18	G	BARBARA JEAN SAMAJ AND ANDREW J SAMAJ	TH EXPLORATION LLC	1/8+	945 616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19883	9-13-18	G	JILL A WILLIAMS AND TERRY L WILLIAMS	TH EXPLORATION LLC	1/8+	948 547	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19885	9-13-18	G	NANCY L RICHMOND AND GREGORY RICHMOND	TH EXPLORATION LLC	1/8+	948 549	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19886	9-13-18	G	MARK A RICHMOND & LISA D RICHMOND	TH EXPLORATION LLC	1/8+	948 543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19887	9-13-18	G	ELIZABETH S SCOVELL & JONATHAN A SCOVELL	TH EXPLORATION LLC	1/8+	948 545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19981	9-13-18	G	WILLIAM G EMERY	TH EXPLORATION LLC	1/8+	948 206	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21012	9-13-18	G	TIMOTHY R RICHMOND II AND BRANDI N RICHMOND	TH EXPLORATION LLC	1/8+	951 149	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21051	9-13-18	G	JAMES S NEPERENY AND PHOBE A NEPERENY	TH EXPLORATION LLC	1/8+	966 501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21139	9-13-18	G	JOHN C BAKER JR AND TRACIE L BAKER	TH EXPLORATION LLC	1/8+	952 167	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21251	9-13-18	G	GREGORY R BAKER AND TRACEY L BAKER	TH EXPLORATION LLC	1/8+	953 62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21318	9-13-18	G	LINDA D GORDON AND JOHN L GORDON	TH EXPLORATION LLC	1/8+	944 204	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21341	9-13-18	G	RITA M BAKER	TH EXPLORATION LLC	1/8+	953 225	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21598	9-13-18	G	THE MILDRED Y MILLS TRUST JULY 5TH 2007	TH EXPLORATION LLC	1/8+	954 332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21613	9-13-18	G	ROBERT MATTHEW KEDWARD	TH EXPLORATION LLC	1/8+	959 462	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21614	9-13-18	G	NICOLE RAE BRACHER-MUSTY AND JASON BRACHER-MUSTY	TH EXPLORATION LLC	1/8+	959 464	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21709	9-13-18	G	THOMAS YOUNG AND JANE CLAIRE YOUNG	TH EXPLORATION LLC	1/8+	959 350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21710	9-13-18	G	PENELOPE A JONES	TH EXPLORATION LLC	1/8+	959 355	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22002	9-13-18	G	DAVID E EMERY SR	TH EXPLORATION LLC	1/8+	953 223	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22038	9-13-18	G	SANDRA C SHAFFER AND RONALD G SHAFFER	TH EXPLORATION LLC	1/8+	954 334	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22271	9-13-18	G	MARY ANN CROW RICHARDSON LT ETAL	TH EXPLORATION LLC	1/8+	988 60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22415	9-13-18	G	PAUL A YOUNG	TH EXPLORATION LLC	1/8+	963 344	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22497	9-13-18	G	BRANDON C CANFIELD	TH EXPLORATION LLC	1/8+	966 622	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23190	9-13-18	G	COUNTY OF MARSHALL GENERAL RECEIVER FOR MARSHALL COUNTY	TH EXPLORATION LLC	1/8+	979 191	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23250	9-13-18	G	BUENA WELLMAN ET AL C/O HERMAN LANTZ, SPECIAL COMMISSIONER	TH EXPLORATION LLC	1/8+	979 189	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*27947	9-13-18	G	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1063 568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18351	9-13-19	H	MARK ALLEN LENENBERG	TH EXPLORATION LLC	1/8+	931 399	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18469	9-13-19	H	THOMAS RICHMOND YOUNG ANITA A YOUNG	TH EXPLORATION LLC	1/8+	933 151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18470	9-13-19	H	CHERYL STEFFEN AND GREGORY STEFFEN	TH EXPLORATION LLC	1/8+	933 148	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18527	9-13-19	H	ANN TURNER YOUNG SHRIVER	TH EXPLORATION LLC	1/8+	933 589	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18694	9-13-19	H	PEGGY A GOULDSBERRY AND JOSEPH W GOULDSBERRY	TH EXPLORATION LLC	1/8+	938 283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18695	9-13-19	H	JOSEPH S EMERY	TH EXPLORATION LLC	1/8+	938 572	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18696	9-13-19	H	CHARLES E EMERY AND DEBBIE EMERY	TH EXPLORATION LLC	1/8+	938 280	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18697	9-13-19	H	CHRISTAL L RINE AND JOHN O RINE	TH EXPLORATION LLC	1/8+	938 499	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18698	9-13-19	H	LORETTA K CONNER AND OBERT L CONNER	TH EXPLORATION LLC	1/8+	938 490	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18699	9-13-19	H	JAMIE A LANTZ AND JAMES L LANTZ	TH EXPLORATION LLC	1/8+	938 286	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18700	9-13-19	H	NOVA PAYNE	TH EXPLORATION LLC	1/8+	938 488	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18701	9-13-19	H	SHERRI J ANDERSON AND GEORGE C ANDERSON	TH EXPLORATION LLC	1/8+	938 277	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18702	9-13-19	H	JOHN W NICE JR	TH EXPLORATION LLC	1/8+	938 496	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18714	9-13-19	H	LARRY J RICHARDSON AND D MARGARET RICHARDSON	TH EXPLORATION LLC	1/8+	938 543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18715	9-13-19	H	MARY ANN CROW RICHARDSON	TH EXPLORATION LLC	1/8+	938 546	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18716	9-13-19	H	MARCIA J MECHLING AND DENNIS J MECHLING	TH EXPLORATION LLC	1/8+	938 549	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18717	9-13-19	H	RACHEL E AND ALLAN L SHEASLEY	TH EXPLORATION LLC	1/8+	938 552	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18718	9-13-19	H	PEGGY L STEWART AND DEWEY R STEWART	TH EXPLORATION LLC	1/8+	938 555	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18719	9-13-19	H	DONNA M CROW	TH EXPLORATION LLC	1/8+	938 504	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18829	9-13-19	H	CAROL A SAVOY	TH EXPLORATION LLC	1/8+	937 620	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18958	9-13-19	H	NANCY L GABLER	TH EXPLORATION LLC	1/8+	941 259	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18959	9-13-19	H	SALLY L DUNMIRE AND DAVID W DUNMIRE	TH EXPLORATION LLC	1/8+	941 270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18967	9-13-19	H	NATALIE GIBBS	TH EXPLORATION LLC	1/8+	941 266	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19461	9-13-19	H	KELLY OCONNOR	TH EXPLORATION LLC	1/8+	942 569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19516	9-13-19	H	JAMES E NICHOLAS AND BEVERLY D NICHOLAS	TH EXPLORATION LLC	1/8+	944 366	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19611	9-13-19	H	JOHN H EMERY AND JANET M EMERY	TH EXPLORATION LLC	1/8+	944 201	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19612	9-13-19	H	MARY JANE HYDE AND HARRY K HYDE	TH EXPLORATION LLC	1/8+	944 198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19613	9-13-19	H	SHEILA LYNN GARRISON	TH EXPLORATION LLC	1/8+	944 196	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19832	9-13-19	H	DOWNTON E EMERY JR AND ELAINE EMERY	TH EXPLORATION LLC	1/8+	945 619	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19834	9-13-19	H	STEVEN D BEAKLEY	TH EXPLORATION LLC	1/8+	945 613	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19835	9-13-19	H	BARBARA JEAN SAMAJ AND ANDREW J SAMAJ	TH EXPLORATION LLC	1/8+	945 616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19892	9-13-19	H	REX B FISHER AND DEBORAH FISHER	TH EXPLORATION LLC	1/8+	948 292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19981	9-13-19	H	WILLIAM G EMERY	TH EXPLORATION LLC	1/8+	948 206	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21014	9-13-19	H	JAMES P MCLAUGHLIN & ALICE W MCLAUGHLIN	TH EXPLORATION LLC	1/8+	946 29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21015	9-13-19	H	ROBERT L MCLAUGHLIN	TH EXPLORATION LLC	1/8+	946 339	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21051	9-13-19	H	JAMES S NEPERENY AND PHOBE A NEPERENY	TH EXPLORATION LLC	1/8+	966 501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21139	9-13-19	H	JOHN C BAKER JR AND TRACIE L BAKER	TH EXPLORATION LLC	1/8+	952 167	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21251	9-13-19	H	GREGORY R BAKER AND TRACEY L BAKER	TH EXPLORATION LLC	1/8+	953 62	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21318	9-13-19	H	LINDA D GORDON AND JOHN L GORDON	TH EXPLORATION LLC	1/8+	944 204	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21341	9-13-19	H	RITA M BAKER	TH EXPLORATION LLC	1/8+	953 225	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21485	9-13-19	H	ROBERT R FISHER AND AUDREY L IRVIN	TH EXPLORATION LLC	1/8+	942 572	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21504	9-13-19	H	PAULETA LINDA CHEATHAM AND CARL WOHLERS	TH EXPLORATION LLC	1/8+	951 142	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21598	9-13-19	H	THE MILDRED Y MILLS TRUST JULY 5TH 2007	TH EXPLORATION LLC	1/8+	954 332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21613	9-13-19	H	ROBERT MATTHEW KEDWARD	TH EXPLORATION LLC	1/8+	959 462	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21614	9-13-19	H	NICOLE RAE BRACHER-MUSTY AND JASON BRACHER-MUSTY	TH EXPLORATION LLC	1/8+	959 464	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21709	9-13-19	H	THOMAS YOUNG AND JANE CLAIRE YOUNG	TH EXPLORATION LLC	1/8+	959 350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21710	9-13-19	H	PENELOPE A JONES	TH EXPLORATION LLC	1/8+	959 355	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22002	9-13-19	H	DAVID E EMERY SR	TH EXPLORATION LLC	1/8+	953 223	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22038	9-13-19	H	SANDRA C SHAFFER AND RONALD G SHAFFER	TH EXPLORATION LLC	1/8+	954 334	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22271	9-13-19	H	MARY ANN CROW RICHARDSON LT ETAL	TH EXPLORATION LLC	1/8+	988 60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22415	9-13-19	H	PAUL A YOUNG	TH EXPLORATION LLC	1/8+	963 344	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22497	9-13-19	H	BRANDON C CANFIELD	TH EXPLORATION LLC	1/8+	966 622	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22863	9-13-19	H	JAMES H CAMPBELL	TH EXPLORATION LLC	1/8+	977 55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*22864	9-13-19	H	MARGARET R DONOFRIO	TH EXPLORATION LLC	1/8+	977 53	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*23190	9-13-19	H	COUNTY OF MARSHALL GENERAL RECEIVER FOR MARSHALL COUNTY	TH EXPLORATION LLC	1/8+	979 191	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*23250	9-13-19	H	BUENA WELLMAN ET AL C/O HERMAN LANTZ, SPECIAL COMMISSIONER	TH EXPLORATION LLC	1/8+	979 189	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*24467	9-13-19	H	GREGORY W FRITZMAN	TH EXPLORATION LLC	1/8+	1059 232	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*27947	9-13-19	H	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1063 568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*29453	9-13-22	I	TRICYCLE, LLC	TH EXPLORATION LLC	1/8+	1096 307	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*27247	9-13-22	I	DANIEL R AND JOANNA L JOHNSON	TH EXPLORATION LLC	1/8+	1053 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*27248	9-13-22	I	NILA K & THOMAS R MOWDER	TH EXPLORATION LLC	1/8+	1053 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*27835	9-13-22	I	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1058 124	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*28267	9-13-22	I	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1062 266	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*29963	9-13-22	I	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1101 34	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*28299	9-13-8	J	ROBERT LEE SHUTLER AND PATRICIA A. SHULER, TRUSTEES OF THE SHUTLER FAMILY TRUST	TH EXPLORATION LLC	1/8+	1070 425	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*31303	9-13-7	K	MARY V PETHTEL AND FRANK E PETHTEL	CENTRAL MICHIGAN EXPLORATION LLC	1/8+	668 525	N/A	N/A	N/A	N/A	N/A	Central Michigan Exploration LLC to Stone Energy Corp.: 21/288 & 21/356	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21	
10*31304	9-13-7	K	MARY V PETHTEL AND FRANK E PETHTEL	CENTRAL MICHIGAN EXPLORATION LLC	1/8+	672 171	N/A	N/A	N/A	N/A	N/A	Central Michigan Exploration LLC to Stone Energy Corp.: 21/288 & 21/356	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21	
10*31305	9-13-7	K	MARY V PETHTEL AND FRANK E PETHTEL	CENTRAL MICHIGAN EXPLORATION LLC	1/8+	677 401	N/A	N/A	N/A	N/A	N/A	Central Michigan Exploration LLC to Stone Energy Corp.: 38/54	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21	
10*31309	9-13-7	K	RICHARD CUNNINGHAM	STONE ENERGY CORPORATION	1/8+	870 122	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21	
10*31310	9-13-7	K	SUSAN WALKER	STONE ENERGY CORPORATION	1/8+	870 139	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21	
10*31311	9-13-7	K	LINDA DANLEY	STONE ENERGY CORPORATION	1/8+	870 141	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corporation to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21	
10*15735	9-10-15	L	JOSEPH MICHAEL BONENE	TH EXPLORATION LLC	1/8+	928 560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*17383	9-10-18	M	JACQUES ROY	TH EXPLORATION LLC	1/8+	919 631	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*17385	9-10-18	M	GABRIEL ARTHUR KRAUSE ROY	TH EXPLORATION LLC	1/8+	919 633	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*17386	9-10-18	M	LYNNE MERYL KRAUSE	TH EXPLORATION LLC	1/8+	919 629	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*17387	9-10-18	M	JACINTHE KRAUSE-ROY	TH EXPLORATION LLC	1/8+	919 636	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*15504	9-10-4	N	JAMES MASON ET AL	AB RESOURCES	1/8+	692 461	N/A	N/A	N/A	N/A	N/A	AB Resources LLC to Chevron USA Inc: 756/397	Chevron to Stone Energy 33/325	Stone Energy Corp to EQT Production Company: 38/75	EQT Production Company to TH Exploration LLC: 48/21
10*19749	9-10-4	N	JOHN CALVERT	TH EXPLORATION LLC	1/8+	944 428	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*19750	9-10-4	N	DELORES J MYERS	TH EXPLORATION LLC	1/8+	944 430	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*19824	9-10-4	N	ROBERT BRADLEY HIGGINS	TH EXPLORATION LLC	1/8+	946 57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*19972	9-10-4	N	ALBERT J WARSINKY AIF ELLEN K NYLES	TH EXPLORATION LLC	1/8+	948 209	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*27947	9-10-4	N	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8/	1063 568	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

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10*15504	9-10-5	O	JAMES MASON ET AL	AB RESOURCES	1/8+	692 461	N/A	N/A	N/A	N/A	AB Resources LLC & NPAR LLC to Chief Exploration & Development LLC & Radler 2000 LP: 24/490	Chief Exploration & Development LLC, Chief O&G LLC, Radler 2000 LP & Enerplus Resources Corp to Chevron USA Inc: 25/1	AB Resources LLC to Chevron USA Inc: 756/397	Chevron USA Inc to TH Exploration LLC: 36/148
10*15510	9-6-15	P	ELAINE PHELPS ET VIR	TRIENERGY HOLDINGS, LLC	1/8+	718 326	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15511	9-6-15	P	DAVID E CROW	TRIENERGY HOLDINGS, LLC	1/8+	718 376	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 25/463	NPAR LLC to Chevron USA Inc: 26/269	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15512	9-6-15	P	FRANCES COFFEY	TRIENERGY HOLDINGS, LLC	1/8+	718 378	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15513	9-6-15	P	KAY KEYES	TRIENERGY HOLDINGS, LLC	1/8+	718 330	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15514	9-6-15	P	L PAUL CROW	TRIENERGY HOLDINGS, LLC	1/8+	718 336	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15515	9-6-15	P	DESIRE L CROW	TRIENERGY HOLDINGS, LLC	1/8+	718 334	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15516	9-6-15	P	ROSE MARIE KIELCZEWSKI	TRIENERGY HOLDINGS, LLC	1/8+	718 354	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15517	9-6-15	P	DIANNE GELLNER & GARY GELLNER	TRIENERGY HOLDINGS, LLC	1/8+	718 345	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 24/430	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15518	9-6-15	P	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	TH EXPLORATION LLC	1/8+	718 347	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*15519	9-6-15	P	JOHN CROW	TRIENERGY HOLDINGS, LLC	1/8+	726 580	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 25/449	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*15520	9-6-15	P	TIMOTHY CROW	TRIENERGY HOLDINGS, LLC	1/8+	726 582	N/A	N/A	N/A	N/A	TriEnergy Holdings LLC to NPAR LLC: 25/449	NPAR LLC to Chevron USA Inc: 756/332	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/356	Chevron USA Inc to TH Exploration LLC: 36/148
10*47051.123.1	9-6-15	P	LLOYD G BAKER	TH EXPLORATION LLC	1/8+	865 389	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23561	9-10-3	Q	VINCENT PATRELLO AND AMANDA PATRELLO	TH EXPLORATION LLC	1/8+	988 97	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23562	9-10-3	Q	WILLIAM B ROUPE AND KATHERINE A ROUPE	TH EXPLORATION LLC	1/8+	988 94	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23563	9-10-3	Q	WILLIAM N ROUPE AND VIRGINIA A ROUPE	TH EXPLORATION LLC	1/8+	1009 317	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23564	9-10-3	Q	CHRISTOPHER A ROUPE AND KARI S ROUPE	TH EXPLORATION LLC	1/8+	988 100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18839	9-6-3	R	MARGARET DARLENE DUTTON	TH EXPLORATION LLC	1/8+	937 607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18840	9-6-3	R	JAY HAROLD DUTTON AND JANICE L DUTTON	TH EXPLORATION LLC	1/8+	937 609	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*18841	9-6-3	R	THEODORE FRANCIS DUTTON AND PHYLLIS JEAN DUTTON	TH EXPLORATION LLC	1/8+	937	612	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19000	9-6-3	R	KENNETH M MCCARDLE AND DELORES MCCARDLE	CHEVRON USA INC	1/8+	789	154	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19013	9-6-3	R	SUSAN JANE MULLEN AND RICHARD S MULLEN	CHEVRON USA INC	1/8+	789	147	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19014	9-6-3	R	JAMES F CARMICHAEL	CHEVRON USA INC	1/8+	793	366	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19015	9-6-3	R	SUSAN J CARMICHAEL	CHEVRON USA INC	1/8+	793	433	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19016	9-6-3	R	JOHN LINDSEY DERROW	CHEVRON USA INC	1/8+	795	351	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19019	9-6-3	R	CATHERINE HUMMEL	CHEVRON USA INC	1/8+	797	602	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19020	9-6-3	R	DURWOOD WRIGHT BY CATHERINE HUMMEL AIF	CHEVRON USA INC	1/8+	796	191	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19022	9-6-3	R	BETTY L ELMER	CHEVRON USA INC	1/8+	803	240	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19023	9-6-3	R	DARLENE K ALBORN	CHEVRON USA INC	1/8+	803	573	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19024	9-6-3	R	MARLENE F WAGMILLER	CHEVRON USA INC	1/8+	803	567	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19025	9-6-3	R	ELLEN G KIRKBRIDE	CHEVRON USA INC	1/8+	804	615	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19028	9-6-3	R	ELMER DEAN EVANS	CHEVRON USA INC	1/8+	805	8	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19062	9-6-3	R	BRENDA WOOD	CHEVRON USA INC	1/8+	818	151	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19064	9-6-3	R	JODY KORN	CHEVRON USA INC	1/8+	818	137	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19194	9-6-3	R	CHARLES D DERROW II	CHEVRON USA INC	1/8+	781	230	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19195	9-6-3	R	DAVID DERROW	CHEVRON USA INC	1/8+	781	237	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19196	9-6-3	R	JAMES W DERROW	CHEVRON USA INC	1/8+	781	223	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127

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10*19197	9-6-3	R	THOMAS J DERROW	CHEVRON USA INC	1/8+	781	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19198	9-6-3	R	SAMUEL W DERROW	CHEVRON USA INC	1/8+	781	251	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19199	9-6-3	R	CHRISTIE S MITCHELL	CHEVRON USA INC	1/8+	781	277	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19200	9-6-3	R	KATHLEEN A KELLEY	CHEVRON USA INC	1/8+	781	300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19208	9-6-3	R	MICHAEL E DERROW JR	CHEVRON USA INC	1/8+	786	146	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19215	9-6-3	R	JOSEPH R DERROW	CHEVRON USA INC	1/8+	786	350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19262	9-6-3	R	BARBARA L MCGAHA	CHEVRON USA INC	1/8+	787	400	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19263	9-6-3	R	WILLIAM POLEN	CHEVRON USA INC	1/8+	788	224	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19264	9-6-3	R	HOWARD E SPEAR AIF PATTIE S MADRID	CHEVRON USA INC	1/8+	788	219	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19265	9-6-3	R	BETTY L STARKEY	CHEVRON USA INC	1/8+	788	384	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19266	9-6-3	R	DALE ADORIN SALSBERY	CHEVRON USA INC	1/8+	791	66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19267	9-6-3	R	REGINA KAY ST GEORGE AND FRED ST GEOGRE	CHEVRON USA INC	1/8+	788	379	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19268	9-6-3	R	ANITA STANLEY	CHEVRON USA INC	1/8+	790	99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19269	9-6-3	R	LINDA D MAYO RONALD A MAYO	CHEVRON USA INC	1/8+	789	501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19270	9-6-3	R	FORREST STARKEY DODA STARKEY	CHEVRON USA INC	1/8+	790	110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19271	9-6-3	R	JANICE M HIXSON AND HARRY C HIXSON	CHEVRON USA INC	1/8+	790	208	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19272	9-6-3	R	JOHN M SALSBERY	CHEVRON USA INC	1/8+	792	218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19273	9-6-3	R	JODIE R MORRIS JOHN MORRIS	CHEVRON USA INC	1/8+	790	188	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127

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10*19274	9-6-3	R	ETHEL E STARKEY	CHEVRON USA INC	1/8+	790 203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19275	9-6-3	R	TRACY M SALSBERY	CHEVRON USA INC	1/8+	791 165	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19276	9-6-3	R	SANDRA LEE KNAPSKI JOHN KNAPSKI	CHEVRON USA INC	1/8+	790 193	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19277	9-6-3	R	GINGER L SALSBERY	CHEVRON USA INC	1/8+	790 198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19278	9-6-3	R	DELLA J COVERDALE TOM COVERDALE	CHEVRON USA INC	1/8+	790 213	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19279	9-6-3	R	CALLENE M PETERSON	CHEVRON USA INC	1/8+	789 342	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19280	9-6-3	R	BRENT LEE STARKEY	CHEVRON USA INC	1/8+	789 357	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19281	9-6-3	R	MAUREEN C COOPER	CHEVRON USA INC	1/8+	790 218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19282	9-6-3	R	KENNETH D MCMECHEN	CHEVRON USA INC	1/8+	789 337	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19283	9-6-3	R	SARAH SISLEY ROBERT W SISLEY	CHEVRON USA INC	1/8+	789 332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19284	9-6-3	R	REXENA A CUNNINGHAM	CHEVRON USA INC	1/8+	790 157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19285	9-6-3	R	CARALOTTA J GIBSON	CHEVRON USA INC	1/8+	792 251	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19286	9-6-3	R	ELAINE M KENNER JACK KENNER	CHEVRON USA INC	1/8+	792 256	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19287	9-6-3	R	DEBBIE MAE MOORE	CHEVRON USA INC	1/8+	792 234	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19288	9-6-3	R	REGINA F HAUGHT DANIEL HAUGHT	CHEVRON USA INC	1/8+	792 174	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19289	9-6-3	R	RUIEANN HORSFALL	CHEVRON USA INC	1/8+	793 447	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19290	9-6-3	R	RICHARD CECIL LUTISHIA CECIL	CHEVRON USA INC	1/8+	795 399	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19291	9-6-3	R	JO ANN HYNDMAN ROBERT HYNDMAN	CHEVRON USA INC	1/8+	800 203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127

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10*19292	9-6-3	R	CHARLES M STARKEY TRUST THELMA B STARKEY, SOLE TRUSTEE	CHEVRON USA INC	1/8+	800 223	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*21007	9-6-3	R	SANDRA EILEEN WORKMAN RUSH AND JAMES EARL RUSH	TH EXPLORATION LLC	1/8+	951 638	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21008	9-6-3	R	DALE EDWARD WORKMAN	TH EXPLORATION LLC	1/8+	949 343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21581	9-6-3	R	DAVID CARMICHAEL	TH EXPLORATION LLC	1/8+	957 402	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21582	9-6-3	R	GARY CARMICHAEL	TH EXPLORATION LLC	1/8+	957 393	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22327	9-6-3	R	NANCY WHITLATCH	TH EXPLORATION LLC	1/8+	962 551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23915	9-6-3	R	GENERAL RECEIVER OF MARSHALL COUNTY ATTN: BERNIE TWIGG	TH EXPLORATION LLC	1/8+	1011 523	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24718	9-6-3	R	DOUGLAS G DERROW	TH EXPLORATION LLC	1/8+	1027 598	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24786	9-6-3	R	HADEN W DERROW	TH EXPLORATION LLC	1/8+	1027 600	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24788	9-6-3	R	MICHAEL W DERROW	TH EXPLORATION LLC	1/8+	1027 596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24959	9-6-3	R	CODY S DERROW	TH EXPLORATION LLC	1/8+	1028 626	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24960	9-6-3	R	CHARLES S DERROW	TH EXPLORATION LLC	1/8+	1028 624	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*25289	9-6-3	R	SHERRY KAY RISHER	TH EXPLORATION LLC	1/8+	1030 152	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*25499	9-6-3	R	THOMAS G DERROW AND DOROTHY DERROW	TH EXPLORATION LLC	1/8+	1033 134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26369	9-6-3	R	WILLIAM N ROUPE AND VIRGINIA A ROUPE	CHEVRON USA INC	1/8+	1026 35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26370	9-6-3	R	VINCENT PATRELLO AND AMANDA PATRELLO	CHEVRON USA INC	1/8+	1026 37	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26371	9-6-3	R	WILLIAM B ROUPE AND KATHERINE A ROUPE	CHEVRON USA INC	1/8+	1026 39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26372	9-6-3	R	CHRISTOPHER A ROUPE AND KARI S ROUPE	CHEVRON USA INC	1/8+	1026 33	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26491	9-6-3	R	MATTHEW ROY FURBEE	TH EXPLORATION LLC	1/8+	1037 438	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26740	9-6-3	R	*TIMOTHY SEAN GRIFFIN	TH EXPLORATION LLC	1/8+	1038 190	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27159	9-6-3	R	*CHRISTOPHER FURBEE AND KATIE FURBEE	TH EXPLORATION LLC	1/8+	1047 438	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28148	9-6-3	R	MADALYN DERROW	TH EXPLORATION LLC	1/8+	1067 320	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28333	9-6-3	R	DOUGLAS S SINGER	TH EXPLORATION LLC	1/8+	1070 430	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28470	9-6-3	R	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1072 157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28566	9-6-3	R	JODY L JAMES	TH EXPLORATION LLC	1/8+	1072 42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28632	9-6-3	R	RANDY D ROBINSON	CHEVRON USA INC	1/8+	976 256	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 45/92
10*28635	9-6-3	R	JEFFREY D ROBINSON EY UX	CHEVRON USA INC	1/8+	976 253	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 45/92
10*28636	9-6-3	R	MARK A ROBINSON	CHEVRON USA INC	1/8+	986 517	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 45/92
10*28940	9-6-3	R	*BRANDY R LOVERA	TH EXPLORATION LLC	1/8+	1078 24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28942	9-6-3	R	*BRIAN L FURBEE	TH EXPLORATION LLC	1/8+	1078 21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*28944	9-6-3	R	*GREGORY D FURBEE	TH EXPLORATION LLC	1/8+	1078	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28946	9-6-3	R	*EDMOND J FURBEE	TH EXPLORATION LLC	1/8+	1078	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*31354	9-6-3	R	THOMAS MICHAEL GRIFFIN	STONE ENERGY CORPORATION	1/8+	870	128	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31358	9-6-3	R	THE DERROW FAMILY IRREVOCABLE TRUST	STONE ENERGY CORPORATION	1/8+	874	500	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31375	9-6-3	R	SONDRA S. MENENDEZ	STONE ENERGY CORPORATION	1/8+	864	565	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31376	9-6-3	R	JOSEPH MARK MENENDEZ	STONE ENERGY CORPORATION	1/8+	868	440	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31407	9-6-3	R	RUTH FLINNER	STONE ENERGY CORPORATION	1/8+	870	132	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31408	9-6-3	R	CATHERINE E. GRIFFIN	STONE ENERGY CORPORATION	1/8+	889	13	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31409	9-6-3	R	VICKY JO GRIFFIN AKA VICKIE JO GRIFFIN	STONE ENERGY CORPORATION	1/8+	870	134	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*18839	9-6-3.1	S	MARGARET DARLENE DUTTON	TH EXPLORATION LLC	1/8+	937	607	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18840	9-6-3.1	S	JAY HAROLD DUTTON AND JANICE L DUTTON	TH EXPLORATION LLC	1/8+	937	609	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*18841	9-6-3.1	S	THEODORE FRANCIS DUTTON AND PHYLLIS JEAN DUTTON	TH EXPLORATION LLC	1/8+	937	612	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*19000	9-6-3.1	S	KENNETH M MCCARDLE AND DELORES MCCARDLE	CHEVRON USA INC	1/8+	789	154	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19013	9-6-3.1	S	SUSAN JANE MULLEN AND RICHARD S MULLEN	CHEVRON USA INC	1/8+	789	147	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19014	9-6-3.1	S	JAMES F CARMICHAEL	CHEVRON USA INC	1/8+	793	366	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19015	9-6-3.1	S	SUSAN J CARMICHAEL	CHEVRON USA INC	1/8+	793	433	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19016	9-6-3.1	S	JOHN LINDSEY DERROW	CHEVRON USA INC	1/8+	795	351	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19019	9-6-3.1	S	CATHERINE HUMMEL	CHEVRON USA INC	1/8+	797	602	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19020	9-6-3.1	S	DURWOOD WRIGHT BY CATHERINE HUMMEL AIF	CHEVRON USA INC	1/8+	796	191	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127

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10*19022	9-6-3.1	S	BETTY L ELMER	CHEVRON USA INC	1/8+	803	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19023	9-6-3.1	S	DARLENE K ALBORN	CHEVRON USA INC	1/8+	803	573	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19024	9-6-3.1	S	MARLENE F WAGMILLER	CHEVRON USA INC	1/8+	803	567	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19025	9-6-3.1	S	ELLEN G KIRKBRIDE	CHEVRON USA INC	1/8+	804	615	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19028	9-6-3.1	S	ELMER DEAN EVANS	CHEVRON USA INC	1/8+	805	8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19062	9-6-3.1	S	BRENDA WOOD	CHEVRON USA INC	1/8+	818	151	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19064	9-6-3.1	S	JODY KORN	CHEVRON USA INC	1/8+	818	137	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19194	9-6-3.1	S	CHARLES D DERROW II	CHEVRON USA INC	1/8+	781	230	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19195	9-6-3.1	S	DAVID DERROW	CHEVRON USA INC	1/8+	781	237	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19196	9-6-3.1	S	JAMES W DERROW	CHEVRON USA INC	1/8+	781	223	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19197	9-6-3.1	S	THOMAS J DERROW	CHEVRON USA INC	1/8+	781	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19198	9-6-3.1	S	SAMUEL W DERROW	CHEVRON USA INC	1/8+	781	251	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19199	9-6-3.1	S	CHRISTIE S MITCHELL	CHEVRON USA INC	1/8+	781	277	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19200	9-6-3.1	S	KATHLEEN A KELLEY	CHEVRON USA INC	1/8+	781	300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19208	9-6-3.1	S	MICHAEL E DERROW JR	CHEVRON USA INC	1/8+	786	146	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19215	9-6-3.1	S	JOSEPH R DERROW	CHEVRON USA INC	1/8+	786	350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19262	9-6-3.1	S	BARBARA L MCGAHA	CHEVRON USA INC	1/8+	787	400	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19263	9-6-3.1	S	WILLIAM POLEN	CHEVRON USA INC	1/8+	788	224	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127

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10*19264	9-6-3.1	S	HOWARD E SPEAR AIF PATTIE S MADRID	CHEVRON USA INC	1/8+	788	219	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19265	9-6-3.1	S	BETTY L STARKEY	CHEVRON USA INC	1/8+	788	384	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19266	9-6-3.1	S	DALE ADORIN SALSBERY	CHEVRON USA INC	1/8+	791	66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19267	9-6-3.1	S	REGINA KAY ST GEORGE AND FRED ST GEOGRE	CHEVRON USA INC	1/8+	788	379	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19268	9-6-3.1	S	ANITA STANLEY	CHEVRON USA INC	1/8+	790	99	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19269	9-6-3.1	S	LINDA D MAYO RONALD A MAYO	CHEVRON USA INC	1/8+	789	501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19270	9-6-3.1	S	FORREST STARKEY DODA STARKEY	CHEVRON USA INC	1/8+	790	110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19271	9-6-3.1	S	JANICE M HIXSON AND HARRY C HIXSON	CHEVRON USA INC	1/8+	790	208	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19272	9-6-3.1	S	JOHN M SALSBERY	CHEVRON USA INC	1/8+	792	218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19273	9-6-3.1	S	JODIE R MORRIS JOHN MORRIS	CHEVRON USA INC	1/8+	790	188	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19274	9-6-3.1	S	ETHEL E STARKEY	CHEVRON USA INC	1/8+	790	203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19275	9-6-3.1	S	TRACY M SALSBERY	CHEVRON USA INC	1/8+	791	165	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19276	9-6-3.1	S	SANDRA LEE KNAPSKI JOHN KNAPSKI	CHEVRON USA INC	1/8+	790	193	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19277	9-6-3.1	S	GINGER L SALSBERY	CHEVRON USA INC	1/8+	790	198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19278	9-6-3.1	S	DELLA J COVERDALE TOM COVERDALE	CHEVRON USA INC	1/8+	790	213	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19279	9-6-3.1	S	CALLENE M PETERSON	CHEVRON USA INC	1/8+	789	342	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19280	9-6-3.1	S	BRENT LEE STARKEY	CHEVRON USA INC	1/8+	789	357	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19281	9-6-3.1	S	MAUREEN C COOPER	CHEVRON USA INC	1/8+	790	218	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127

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10*19282	9-6-3.1	S	KENNETH D MCMECHEN	CHEVRON USA INC	1/8+	789 337	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19283	9-6-3.1	S	SARAH SISLEY ROBERT W SISLEY	CHEVRON USA INC	1/8+	789 332	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19284	9-6-3.1	S	REXENA A CUNNINGHAM	CHEVRON USA INC	1/8+	790 157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19285	9-6-3.1	S	CARALOTTA J GIBSON	CHEVRON USA INC	1/8+	792 251	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19286	9-6-3.1	S	ELAINE M KENNER JACK KENNER	CHEVRON USA INC	1/8+	792 256	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19287	9-6-3.1	S	DEBBIE MAE MOORE	CHEVRON USA INC	1/8+	792 234	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19288	9-6-3.1	S	REGINA F HAUGHT DANIEL HAUGHT	CHEVRON USA INC	1/8+	792 174	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19289	9-6-3.1	S	RUIEANN HORSFALL	CHEVRON USA INC	1/8+	793 447	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19290	9-6-3.1	S	RICHARD CECIL LUTISHIA CECIL	CHEVRON USA INC	1/8+	795 399	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19291	9-6-3.1	S	JO ANN HYNDMAN ROBERT HYNDMAN	CHEVRON USA INC	1/8+	800 203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*19292	9-6-3.1	S	CHARLES M STARKEY TRUST THELMA B STARKEY, SOLE TRUSTEE	CHEVRON USA INC	1/8+	800 223	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 40/127
10*21007	9-6-3.1	S	SANDRA EILEEN WORKMAN RUSH AND JAMES EARL RUSH	TH EXPLORATION LLC	1/8+	951 638	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21008	9-6-3.1	S	DALE EDWARD WORKMAN	TH EXPLORATION LLC	1/8+	949 343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21581	9-6-3.1	S	DAVID CARMICHAEL	TH EXPLORATION LLC	1/8+	957 402	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*21582	9-6-3.1	S	GARY CARMICHAEL	TH EXPLORATION LLC	1/8+	957 393	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*22327	9-6-3.1	S	NANCY WHITLATCH	TH EXPLORATION LLC	1/8+	962 551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23214	9-6-3.1	S	CNX GAS COMPANY LLC	TH EXPLORATION LLC	1/8+	976 340	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*23915	9-6-3.1	S	GENERAL RECEIVER OF MARSHALL COUNTY ATTN: BERNIE TWIGG	TH EXPLORATION LLC	1/8+	1011 523	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24718	9-6-3.1	S	DOUGLAS G DERROW	TH EXPLORATION LLC	1/8+	1027 598	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24786	9-6-3.1	S	HADEN W DERROW	TH EXPLORATION LLC	1/8+	1027 600	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24788	9-6-3.1	S	MICHAEL W DERROW	TH EXPLORATION LLC	1/8+	1027 596	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24959	9-6-3.1	S	CODY S DERROW	TH EXPLORATION LLC	1/8+	1028 626	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*24960	9-6-3.1	S	CHARLES S DERROW	TH EXPLORATION LLC	1/8+	1028 624	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*25289	9-6-3.1	S	SHERRY KAY RISHER	TH EXPLORATION LLC	1/8+	1030 152	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*25499	9-6-3.1	S	THOMAS G DERROW AND DOROTHY DERROW	TH EXPLORATION LLC	1/8+	1033 134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26491	9-6-3.1	S	MATTHEW ROY FURBEE	TH EXPLORATION LLC	1/8+	1037 438	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26740	9-6-3.1	S	*TIMOTHY SEAN GRIFFIN	TH EXPLORATION LLC	1/8+	1038 190	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27159	9-6-3.1	S	*CHRISTOPHER FURBEE AND KATIE FURBEE	TH EXPLORATION LLC	1/8+	1047 438	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28148	9-6-3.1	S	MADALYN DERROW	TH EXPLORATION LLC	1/8+	1067 320	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28333	9-6-3.1	S	DOUGLAS S SINGER	TH EXPLORATION LLC	1/8+	1070 430	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28470	9-6-3.1	S	STONE HILL MINERALS HOLDINGS, LLC	TH EXPLORATION LLC	1/8+	1072 157	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28566	9-6-3.1	S	JODY L JAMES	TH EXPLORATION LLC	1/8+	1072 42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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10*28632	9-6-3.1	S	RANDY D ROBINSON	CHEVRON USA INC	1/8+	976	256	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 45/92
10*28635	9-6-3.1	S	JEFFREY D ROBINSON ET UX	CHEVRON USA INC	1/8+	976	253	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 45/92
10*28636	9-6-3.1	S	MARK A ROBINSON	CHEVRON USA INC	1/8+	986	517	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration LLC: 45/92
10*28940	9-6-3.1	S	*BRANDY R LOVERA	TH EXPLORATION LLC	1/8+	1078	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28942	9-6-3.1	S	*BRIAN L FURBEE	TH EXPLORATION LLC	1/8+	1078	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28944	9-6-3.1	S	*GREGORY D FURBEE	TH EXPLORATION LLC	1/8+	1078	18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*28946	9-6-3.1	S	*EDMOND J FURBEE	TH EXPLORATION LLC	1/8+	1078	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*31354	9-6-3.1	S	THOMAS MICHAEL GRIFFIN	STONE ENERGY CORPORATION	1/8+	870	128	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31358	9-6-3.1	S	THE DERROW FAMILY IRREVOCABLE TRUST	STONE ENERGY CORPORATION	1/8+	874	500	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31375	9-6-3.1	S	SONDRA S. MENENDEZ	STONE ENERGY CORPORATION	1/8+	864	565	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31376	9-6-3.1	S	JOSEPH MARK MENENDEZ	STONE ENERGY CORPORATION	1/8+	868	440	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31407	9-6-3.1	S	RUTH FLINNER	STONE ENERGY CORPORATION	1/8+	870	132	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31408	9-6-3.1	S	CATHERINE E. GRIFFIN	STONE ENERGY CORPORATION	1/8+	889	13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21
10*31409	9-6-3.1	S	VICKY JO GRIFFIN AKA VICKIE JO GRIFFIN	STONE ENERGY CORPORATION	1/8+	870	134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Stone Energy Corp to EQT Production Company: 38/75 EQT Production Company to TH Exploration, LLC: 48/21

\*Co-tenancy utilization – At least 7 mineral owners in tract. At least 75% of the royalty owners have executed a lease on the tract. The interests of the remaining co-tenants were acquired pursuant to the Co-tenancy Modernization and Majority Protection Act.

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**ASSIGNMENT AND CONVEYANCE**

This Assignment and Conveyance (this "*Assignment*") is from STATOIL USA ONSHORE PROPERTIES INC., a Delaware corporation ("*Assignor*"), to TH Exploration, LLC, a Texas limited liability company ("*Assignee*"), and is executed on December 18, 2017 (the "*Effective Date*"). Assignor and Assignee may be referred to herein collectively as the "*Parties*," or individually as a "*Party*." Capitalized terms used herein but not otherwise defined herein (including in Section 3.7) shall have the meanings given such terms in that certain Acreage Trade Agreement between the Assignor and the Assignee dated August 24, 2017 (the "*Acreage Trade Agreement*").

**ARTICLE 1  
ASSIGNMENT OF ASSETS**

**Section 1.1 Assignment.** For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby GRANTS, BARGAINS, ASSIGNS, CONVEYS AND TRANSFERS unto Assignee all of Assignor's right, title and interest in and to (i) the oil and gas leases described in more detail on Exhibit A attached hereto (the "*Leases*") INsofar AND ONLY INsofar as they cover those lands described on Exhibit A (the "*Leasehold Rights*") and (ii) any surface use agreements that relate to such Leasehold Rights (collectively with the Leasehold Rights, the "*Conveyed Assets*").

**TO HAVE AND TO HOLD** the Conveyed Assets, together with all and singular the rights, privileges, contracts and appurtenances, in any way appertaining or belonging thereto, unto Assignee, its successors and assigns, forever, subject, to the terms and conditions of this Assignment.

**Section 1.2 Assignment Subject to Acreage Trade Agreement.** This Assignment is made in accordance with and is subject to the terms, covenants and conditions contained in that certain Acreage Trade Agreement. In the event of a conflict between the provisions of the Acreage Trade Agreement and this Assignment, the provisions of the Acreage Trade Agreement shall control. The execution and delivery of this Assignment by Assignor, and the execution and acceptance of this Assignment by Assignee, shall not operate to release or impair any surviving rights or obligations of either Party with respect to the other under the Acreage Trade Agreement.

**ARTICLE 2  
SPECIAL WARRANTY OF TITLE AND DISCLAIMERS**

**Section 2.1 Special Warranty of Title.** Assignor hereby agrees to warrant and defend Defensible Title to the Leases unto Assignee, its successors and assigns, against every Person whomsoever lawfully claiming or to claim the same or any part thereof by, through or under Assignor or any of its Affiliates, but not otherwise.

**Section 2.2 Disclaimers of Warranties and Representations.**

(a) EXCEPT AS EXPRESSLY REPRESENTED OTHERWISE IN SECTION VI OF THE ACREAGE TRADE AGREEMENT OR THIS ASSIGNMENT, ASSIGNOR MAKES NO, AND HEREBY EXPRESSLY DISCLAIMS, ANY REPRESENTATION OR

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ASSIGNMENT AND BILL OF SALE

This ASSIGNMENT AND BILL OF SALE (this "Assignment") dated as of December 1, 2020 (the "Execution Date"), is made by and between EQT PRODUCTION COMPANY, a Pennsylvania corporation, with an address at 625 Liberty Avenue, Suite 1700, Pittsburgh, Pennsylvania 15222 ("EQT"), and TH EXPLORATION, LLC, a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, Texas 76107 ("TH") pursuant to the terms of that certain Acreage Trade Agreement by and among EQT, TH and TH Exploration II, LLC ("TH II"), dated July 8, 2020 (the "Agreement"). EQT and TH may be referred to herein together as the "Parties", and each individually as a "Party".

RECITALS

WHEREAS, EQT desires to transfer, convey and assign to TH certain of EQT's oil and gas leasehold interests located in Marshall County, West Virginia set forth on Exhibit A attached hereto and incorporated herein ("EQT Leases") in accordance with this Assignment and the Agreement; and

WHEREAS, TH desires to receive from EQT, all of EQT's right, title and interest in and to the EQT Leases in accordance with this Assignment and the Agreement.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein and in the Agreement, the benefits to be derived by each Party hereunder and under the Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I  
DEFINED TERMS

1.1 Definitions. Capitalized terms used herein and not otherwise defined throughout this Assignment shall have the meanings given such terms in the Agreement.

ARTICLE II  
ASSIGNMENT OF ASSETS

2.1 Assignment. Subject to the terms and conditions of this Assignment and the Agreement, EQT does hereby assign, convey and transfer to TH all of the right, title and interest of EQT in and to the following (collectively for purposes of this Assignment, the "EQT Assets"):

- (a) Subject to the conveyance of the Wells Assets from EQT to TH II as described in the Agreement, the EQT Leases and appurtenances thereto (including rights of access and to install facilities), all Hydrocarbons within, produced from, derived from, or sold from the EQT Leases (and all proceeds related thereto), on and after the Valuation Date, and all Surface Contracts including but not limited to those set forth on Exhibit B attached hereto and incorporated herein (the "EQT Surface Contracts") related to the EQT Leases and such Hydrocarbons; and
- (b) Copies of deeds, files and all other ownership information directly related to the acquisition, operations and maintenance of the EQT Leases, lease files for the EQT Leases

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STATE OF WEST VIRGINIA                   §  
   §  
COUNTY OF MARSHALL                   §

**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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STATE OF WEST VIRGINIA §  
§  
COUNTY OF MARSHALL §

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 10<sup>th</sup> day of February, 2020 (the "Effective Date"), by and between CHEVRON U.S.A. INC., a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 (hereinafter "Assignor") and TH EXPLORATION, LLC a Pennsylvania corporation, with an address at 700 Cherrington Parkway, Coraopolis, PA 15108 a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, TX 76107 (hereinafter "Assignee")

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 exclusions; and

WHEREAS, this Assignment is meant to serve, in part, as a correction to certain prior assignments by and between the parties, as more specifically set forth on Exhibit A.

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. 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.

2. Special Warranty. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered its interest in the Leases since the time that Assignor obtained its interests in the Leases. Assignor does covenant, promise and agree, to and with the Assignee, its respective successors and assigns, to forever specially warrant and defend the title to the Leases or portions thereof included under this Assignment, unto the Assignee and its respective successors and assigns, against the lawful claims of Assignor, and all persons claiming, or to claim, the same or any part thereof, by, through or under Assignor.

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ASSIGNMENT AND BILL OF SALE

This ASSIGNMENT AND BILL OF SALE (this "*Assignment*") dated as of December 1, 2020 (the "*Execution Date*"), is made by and between EQT PRODUCTION COMPANY, a Pennsylvania corporation, with an address at 625 Liberty Avenue, Suite 1700, Pittsburgh, Pennsylvania 15222 ("*EQT*"), and TH EXPLORATION, LLC, a Texas limited liability company, with an address at 1320 S. University Drive, Suite 500, Fort Worth, Texas 76107 ("*TH*") pursuant to the terms of that certain Acreage Trade Agreement by and among EQT, TH and TH Exploration II, LLC ("*TH II*"), dated July 8, 2020 (the "*Agreement*"). EQT and TH may be referred to herein together as the "*Parties*", and each individually as a "*Party*".

RECITALS

WHEREAS, EQT desires to transfer, convey and assign to TH certain of EQT's oil and gas leasehold interests located in Marshall County, West Virginia set forth on Exhibit A attached hereto and incorporated herein ("*EQT Leases*") in accordance with this Assignment and the Agreement; and

WHEREAS, TH desires to receive from EQT, all of EQT's right, title and interest in and to the EQT Leases in accordance with this Assignment and the Agreement.

NOW, THEREFORE, for and in consideration of the mutual promises contained herein and in the Agreement, the benefits to be derived by each Party hereunder and under the Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE I  
DEFINED TERMS

1.1 *Definitions.* Capitalized terms used herein and not otherwise defined throughout this Assignment shall have the meanings given such terms in the Agreement.

ARTICLE II  
ASSIGNMENT OF ASSETS

2.1 *Assignment.* Subject to the terms and conditions of this Assignment and the Agreement, EQT does hereby assign, convey and transfer to TH all of the right, title and interest of EQT in and to the following (collectively for purposes of this Assignment, the "*EQT Assets*"):

(a) Subject to the conveyance of the Wells Assets from EQT to TH II as described in the Agreement, the EQT Leases and appurtenances thereto (including rights of access and to install facilities), all Hydrocarbons within, produced from, derived from, or sold from the EQT Leases (and all proceeds related thereto), on and after the Valuation Date, and all Surface Contracts including but not limited to those set forth on Exhibit B attached hereto and incorporated herein (the "*EQT Surface Contracts*") related to the EQT Leases and such Hydrocarbons; and

(b) Copies of deeds, files and all other ownership information directly related to the acquisition, operations and maintenance of the EQT Leases, lease files for the EQT Leases

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