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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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Wednesday, March 11, 2020  
WELL WORK PERMIT  
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC  
380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Re: Permit approval for HUDSON S-11HU  
47-051-02296-00-00

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

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

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

James A. Martin  
Chief

Operator's Well Number: HUDSON S-11HU  
Farm Name: CNX LAND LLC  
U.S. WELL NUMBER: 47-051-02296-00-00  
Horizontal 6A New Drill  
Date Issued: 3/11/2020

# PERMIT CONDITIONS

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

## CONDITIONS

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

## PERMIT CONDITIONS

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to [DEPOOGNotify@wv.gov](mailto:DEPOOGNotify@wv.gov).



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

Randall M. Albert, Chairman  
dep.wv.gov

February 19, 2020

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

RE: Application for Deep Well Permit – API #47-051-02296

COMPANY: Tug Hill Operating, LLC

FARM: CNX Land, LLC Hudson S-11HU

COUNTY: Marshall DISTRICT: Meade QUAD: Glen Easton

The deep well review of the application for the above company is **Approved to drill to Trenton for Point Pleasant completion.**

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

1. Comments to Notice of Deviation filed? No
2. Provided a certified copy of duly acknowledged and recorded consent and easement form from all surface owners? Yes
3. Provided a tabulation of all deep wells within one mile of the proposed location, including the API number of all deep wells: \*\*yes; Docket 292-292 Exception Location Hearing
4. Provided a plat showing that the proposed location is a distance of 400+ feet from the nearest lease line or unit boundary with the exception of the toe which is 250 feet from the nearest lease line or unit boundary and showing the following wells drilled to or capable of producing from the objective formation within 3,000 feet of the proposed location.

Sincerely,

A handwritten signature in blue ink that reads 'Susan Rose'.

Susan Rose  
Administrator

WW-6B  
(04/15)

4705 09296

API NO. 47-051 -  
OPERATOR WELL NO. Hudson S-11HU  
Well Pad Name: Hudson

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

1) Well Operator: Tug Hill Operating, LLC  
Operator ID: 494510851 County: Marshall District: Meade Quadrangle: Glen Easton 7.5'

2) Operator's Well Number: Hudson S-11HU Well Pad Name: Hudson

3) Farm Name/Surface Owner: CNX Land, LLC Public Road Access: Roberts Ridge Road (CR 21)

4) Elevation, current ground: 1370' Elevation, proposed post-construction: 1344.81'

5) Well Type (a) Gas  Oil  Underground Storage

Other

(b) If Gas Shallow  Deep

Horizontal

6) Existing Pad: Yes or No No

*ju*  
2/4/2020

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):

Point Pleasant is the target formation at a depth of 11,751' - 11,618' - thickness of 133' and anticipated pressure of approx. 9500 psi.

8) Proposed Total Vertical Depth: 11,901'

9) Formation at Total Vertical Depth: Trenton, plug back to Reedsville

10) Proposed Total Measured Depth: 25,096'

11) Proposed Horizontal Leg Length: 12,340.11'

12) Approximate Fresh Water Strata Depths: 70' ; 978'

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

14) Approximate Saltwater Depths: 2,167'

15) Approximate Coal Seam Depths: Sewickley Coal - 886' ; Pittsburgh Coal - 972'

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: Marshall County Coal Co./Marshall County Mine

Depth: 1059' TVD and 291' subsea level

Seam: Pittsburgh #8

Owner: Murray Energy / Consolidated Coal Co.

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WW-6B  
(04/15)

API NO. 47-051 -  
OPERATOR WELL NO. Hudson S-11HU  
Well Pad Name: Hudson

18) CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	NEW	BW	BW	120'	120'	259FT^3(CTS)
Fresh Water	20"	NEW	J55	106.5#	1070'	1070'	1,719FT^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	2804'	2804'	1,977FT^3(CTS)
Intermediate	9 5/8"	NEW	HPP110	47#	11,080'	11,080'	3,609FT^3(CTS)
Production	5 1/2"	NEW	P110	23#	25,096'	25,096'	5,937FT^3(CTS)
Tubing	2 7/8"	NEW	P110	6.5#		11,648'	
Liners							

*ju 9/12/19*

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	20"	26"	.5	2,410	1,928	SEE # 24	1.2
Coal	13 3/8"	17 1/2"	.38	2,740	2,192	SEE #24	1.2
Intermediate	9 5/8"	12 1/4"	.472	10,730	6,968	SEE #24	1.99
Production	5 1/2"	8 1/2"	.415	16,510	10,864	SEE #24	1.18
Tubing	2 7/8"			11,385	11,624		
Liners							

PACKERS

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

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WW-6B  
(10/14)

**4705102296**  
API NO. 47- 051 - \_\_\_\_\_  
OPERATOR WELL NO. Hudson S-11HU  
Well Pad Name: Hudson

*JW*  
*2/4/2020*

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

Drill through the Point Pleasant and TD Pilot Hole 150' into the Trenton. Log vertical section and run a solid cement plug back to proposed KOP (11,148'). Drill curve and lateral per proposed well plan, run and cement production casing. Perform CBL from 60 deg to surface, make cleanout run, and stimulate.

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

Well to be completed with approximately 30,845,000 lb proppant and 476,886 bbl of water. Max rate = 80 bpm; max psi = 12,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 22.94 acres

22) Area to be disturbed for well pad only, less access road (acres): 6.18 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 third joint. Production casing will have one centralizer every third joint in lateral, one centralizer every joint through curve, one centralizer every third joint to surface.

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

\*See Attachment

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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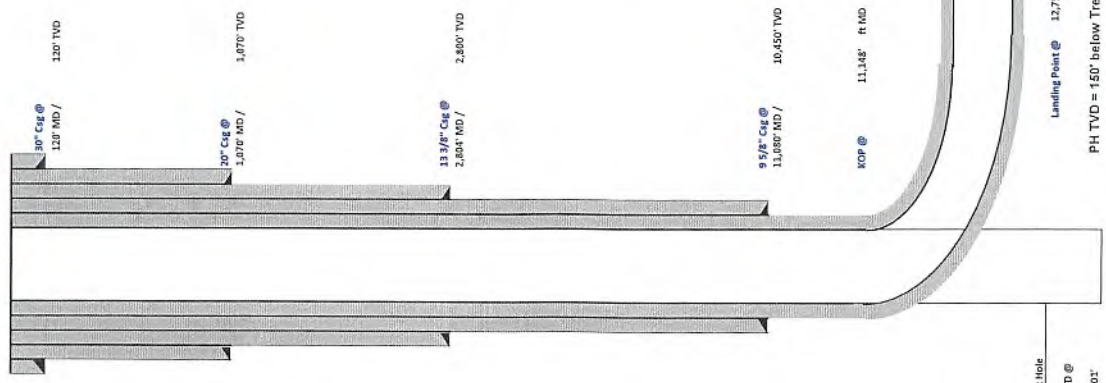
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\*Note: Attach additional sheets as needed.



WELL NAME: Hudson S-11HU COUNTY: Marshall  
 STATE: WV DISTRICT: Meade  
 DF Elev: 1,344' GL Elev: 1,344'  
 TD: 25,096'  
 TH Latitude: 39.8287  
 TH Longitude: -80.677714  
 BH Latitude: 39.8009505  
 BH Longitude: -80.66096958



Formation	Depth TVD
Deepest Fresh Water	978'
Sawiskley Coal	886'
Pittsburgh Coal	972'
Big Lime	2,067'
Berea	2,685'
Tully	6,631'
Mircellus	6,744'
Onondaga	6,796'
Silina	7,519'
Lockport	8,528'
Utica	11,850'
Point Pleasant	11,618'
Landing Depth	11,668'
Trenton	11,751'
Pilot Hole TD	11,901'

CASING SUMMARY						
Type	Hole Size (in)	Csg Size (in)	Depth (MD)	Depth (TVD)	Weight (lb/ft)	Grade
Conductor	36	30	120'	120'	BW	Top of Cement Surface
Surface	26	20	1,070'	1,070'	J55	Surface
Intermediate 1	17 1/2	13 3/8	2,804'	2,800'	J55	Surface
Intermediate 2	12 1/4	9 5/8	11,080'	10,450'	HCP310	Surface
Production	8 1/2	5 1/2	25,096'	11,885'	HCP310	Surface

CEMENT SUMMARY				DRILLING DETAILS	
Sacks	Class	Density	Fluid Type	Centralizer Notes	
388	A	15.6	Air	None	
1,894	A	15.6	Air	3 Centralizers at equal distance	
2,143	A	15	Air	1 Centralizer every other ft	
2,994	A	14.5	Air	1 Centralizer every other ft	
5,263	A	15	Air / SOBMM	1 every other joint in bleed; 1 per joint in curve; 1 every other ft to etc.	

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Lateral TD @ 25,096' ft MD  
 11,885' ft TVD

*AS*  
 9/12/19

Landing Point @ 12,758' MD / 11,668' TVD

PH TVD = 150' below Trenton Top

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4705 02296

4705102296



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

**Hudson S-11HU**

**Casing**

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	20"	J55	26"	1,070'	CTS
Intermediate 1	13 3/8"	J55	17 1/2"	2,804'	CTS
Intermediate 2	9 5/8"	HPP110	12 1/4"	11,080'	CTS
Production	5 1/2"	HCP110	8 1/2"	25,096'	CTS

**Cement**

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

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

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

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

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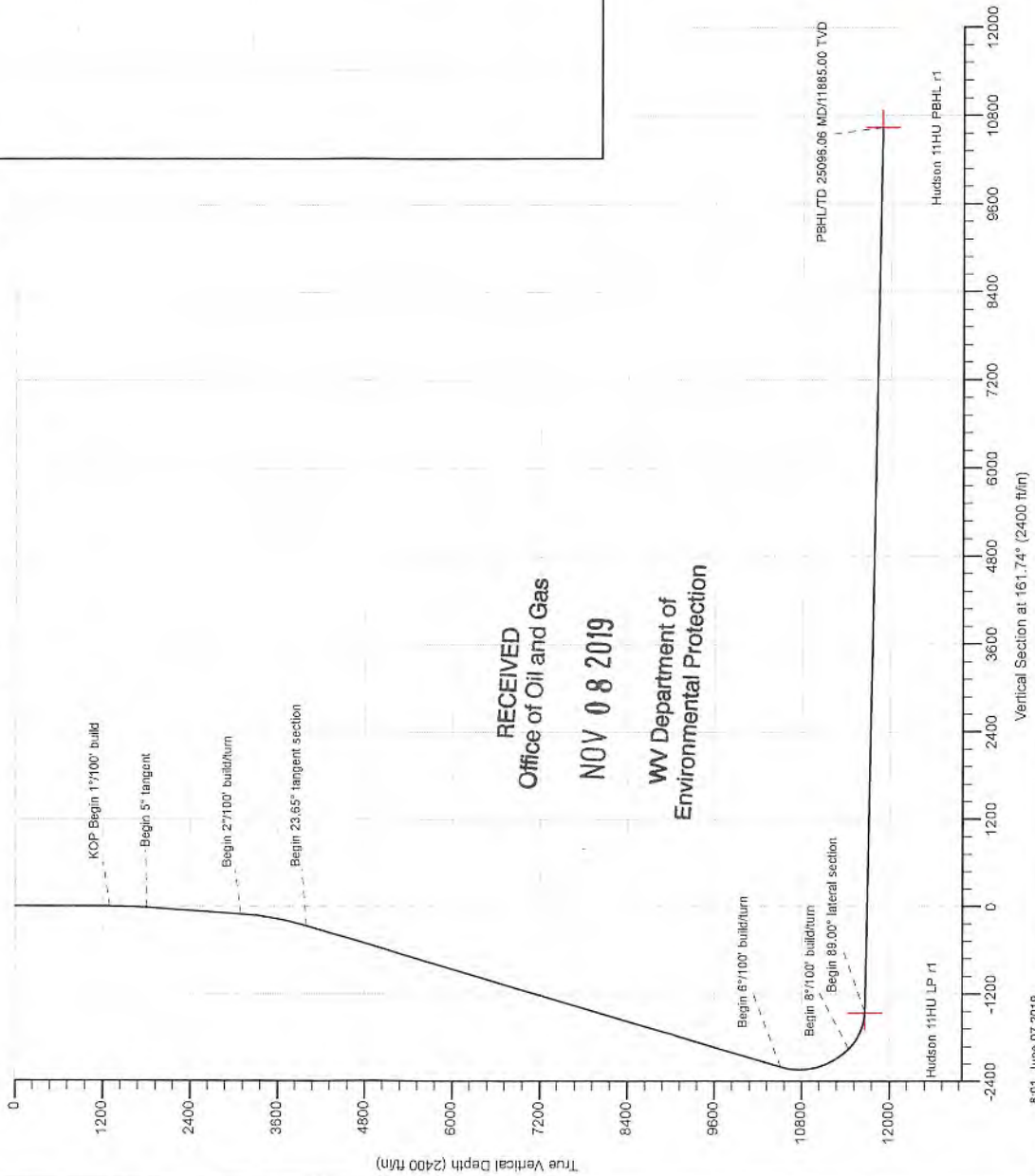


Well: Hudson S-11 HU (slot B)  
 Site: Hudson Alt North  
 Project: Marshall County, West Virginia  
 Design: rev2

Rig:

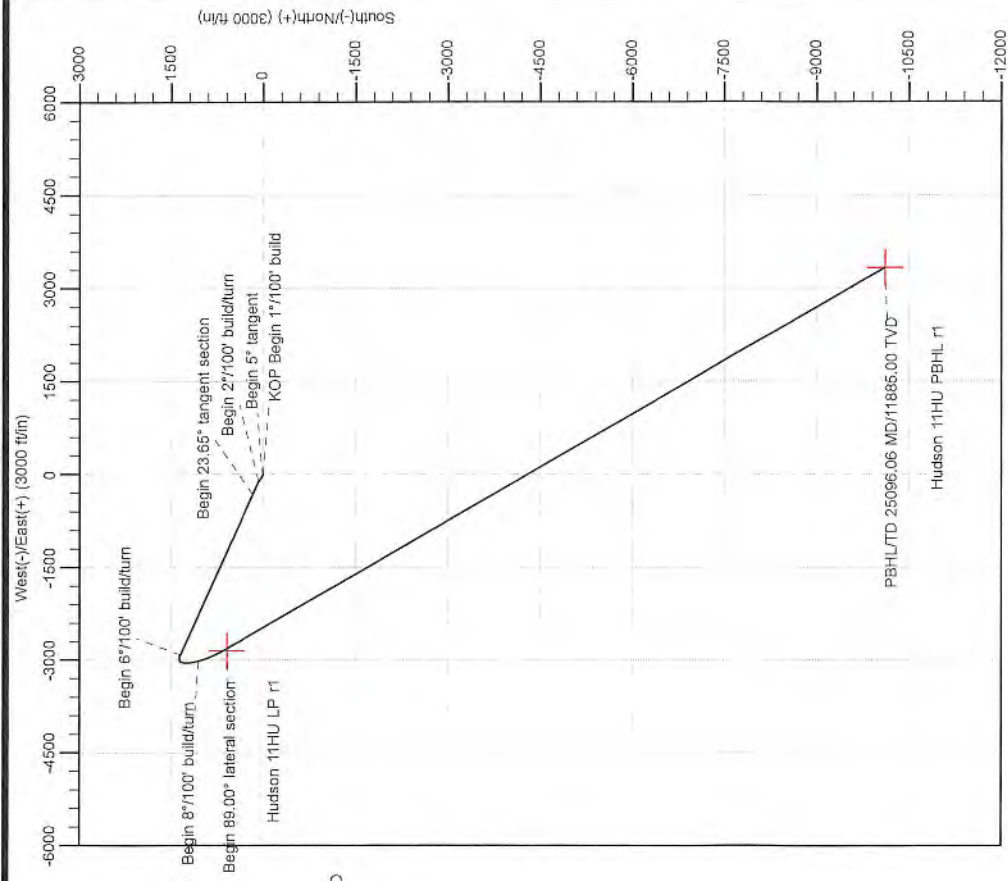
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+EAW	Dleg	TFace	VSec	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 1°/100' build
3	1800.00	5.00	302.98	1798.37	11.87	-18.29	1.00	302.980	-17.00	Begin 5° tangent
4	3105.60	5.00	302.98	3100.00	73.81	-113.74	2.00	0.000	-105.74	Begin 2°/100' build
5	4041.60	23.65	294.45	4002.95	174.52	-320.71	0.00	-10.864	-266.33	Begin 23.65° tangent section
6	11148.15	23.65	294.45	10512.61	1354.53	-2815.91	0.00	0.000	-2200.22	Begin 6°/100' build
7	12186.11	45.00	164.40	11449.04	1057.50	-3016.89	8.00	-142.305	-1949.70	Begin 8°/100' build
8	12758.18	88.99	150.13	11568.10	589.56	-2808.87	8.00	-20.125	-1440.15	Begin 89.00° lateral section
9	25096.07	88.99	150.13	11885.00	-10107.26	3335.60	0.00	0.000	0643.44	PBHLTD 25096.06 MD/11885.00 TVD



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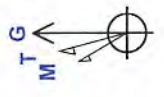
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Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD83 West Virginia - HARN  
 Ellipsoid: GRS 1980  
 Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level  
 Depth Reference: GL @ 1344.25ft  
 Northing: 14464525.24  
 Easting: 1732302.13  
 Latitude: 39.82870000  
 Longitude: -80.67271400

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.968°



Azimuths to Grid North  
 True North: -0.21°  
 Magnetic North: -8.97°  
 Magnetic Field  
 Strength: 52041.8nT  
 Dip Angle: 66.86°  
 Date: 6/30/2018  
 Model: IGRF2015



4705 02296

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

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

## Data Sources Reviewed:

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

Contacted Devin Ducoeur 724-705-0444, [dducoeur@dpslandservices.com](mailto:dducoeur@dpslandservices.com) DPS GIS (08/02/2019) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it as the best publicly available. See attached map he provided.

## Request maps for:

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

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

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

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Permit well - Hudson S-11HU

Wells within 500' Buffer

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

4705102296

API Number	Operator Name	Total Depth	Perforated Fms	Producing zones not perforated	Is this well "known or reasonably expected to penetrate a depth that could be within the range of Fracture propagation"? 1000' is max limit I would assign to wells that might be within in range of fracture propagation	Comments
4705101964	Tug Hill Operating	n/a	n/a	n/a	No, state records indicate this as a Marcellus permit.	This well is misplaced on the map as the true location is farther to the southwest and out of the buffer zone.
4705140023	Unknown	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Marcellus well.	State records are incomplete
4705130448	Manufacturers Light & Heat	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Marcellus well.	State records are incomplete. Well was plugged 9/20/1963

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4705102296

WV Department of Environmental Protection  
Well: County = 51 Permit = 01964

Location Information - View Map  
COUNTY PERMIT NO DISTRICT QUAD IN QUAD IN LAT DEG LONG DEG UTM  
01010101 010101 010101 010101 010101 010101 010101 010101 010101 010101

Bottom Hole Location Information  
WELL DEPTH FEET DATE TIME  
01010101 010101 010101 010101

Owner Information  
OWNER COMPANY NAME ADDRESS STREET CITY STATE ZIP PERMIT NO  
01010101 010101 010101 010101 010101 010101 010101 010101

Completion Information  
WELL DEPTH FEET DATE TIME FIELD DEPTH FEET DEPTH FEET INITIAL CLASS FINAL CLASS TYPE NO COMPLETION TVD THIS WELL FEET NO COMPLETION TVD THIS WELL FEET NO COMPLETION TVD THIS WELL FEET

There is no Pay data for this well  
There is no Production Gas data for this well  
There is no Production Oil data for this well \*\* some operators may have reported NGL under Oil  
There is no Production NGL data for this well \*\* some operators may have reported NGL under Oil  
There is no Production Water data for this well  
There is no Stratigraphy data for this well  
There is no Wellbore (E-Log) data for this well  
There is no Plugging data for this well  
There is no Sample data for this well

WV Department of Environmental Protection  
Well: County = 51 Permit = 40023

Location Information - View Map  
COUNTY PERMIT NO DISTRICT QUAD IN QUAD IN LAT DEG LONG DEG UTM  
01010101 010101 010101 010101 010101 010101 010101 010101 010101 010101

Bottom Hole Location Information  
WELL DEPTH FEET DATE TIME  
01010101 010101 010101 010101

Owner Information  
OWNER COMPANY NAME ADDRESS STREET CITY STATE ZIP PERMIT NO  
01010101 010101 010101 010101 010101 010101 010101 010101

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There is no Plugging data for this well  
There is no Sample data for this well

WV Department of Environmental Protection  
Well: County = 51 Permit = 30448

Location Information - View Map  
COUNTY PERMIT NO DISTRICT QUAD IN QUAD IN LAT DEG LONG DEG UTM  
01010101 010101 010101 010101 010101 010101 010101 010101 010101 010101

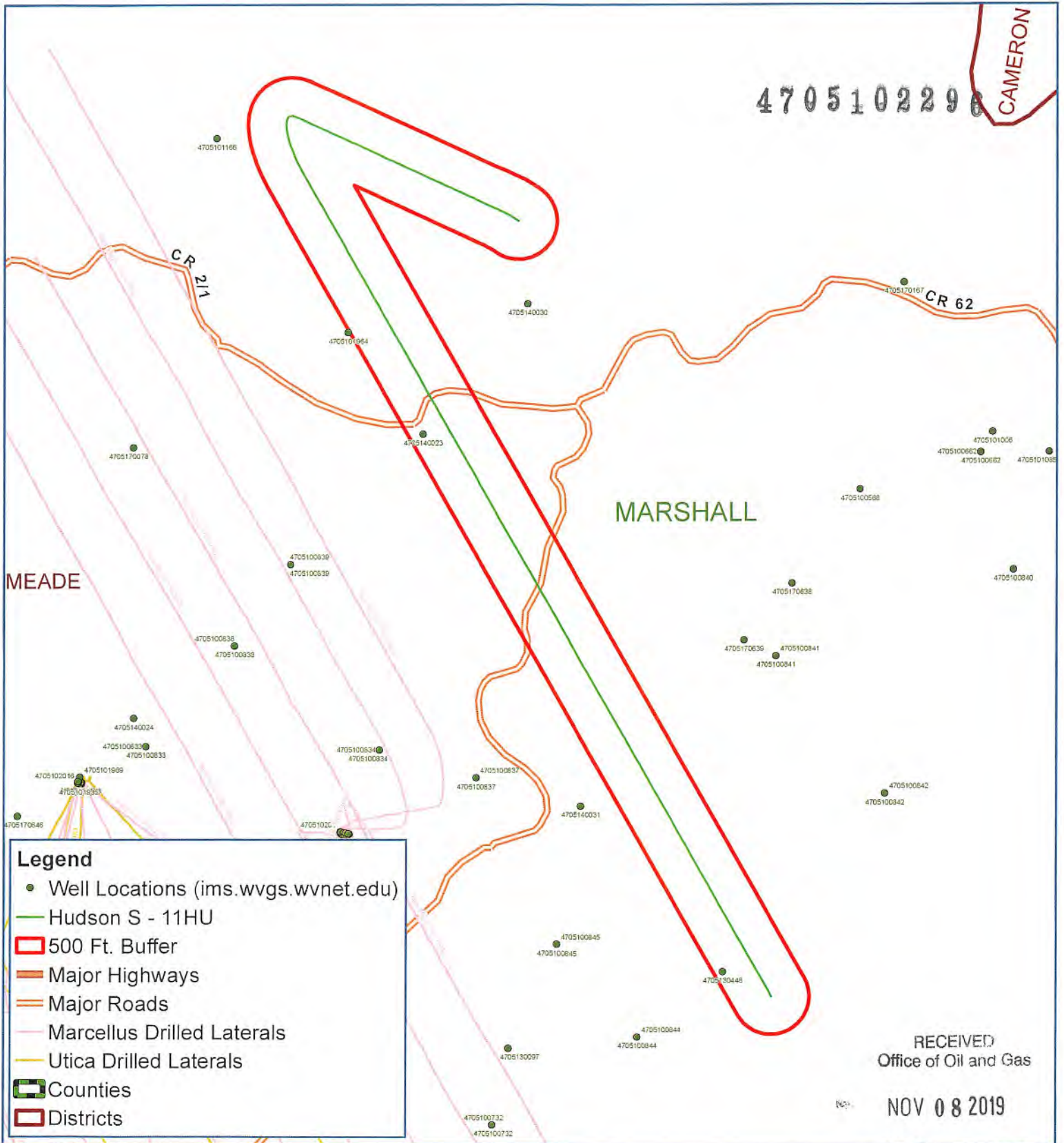
Bottom Hole Location Information  
WELL DEPTH FEET DATE TIME  
01010101 010101 010101 010101

Owner Information  
OWNER COMPANY NAME ADDRESS STREET CITY STATE ZIP PERMIT NO  
01010101 010101 010101 010101 010101 010101 010101 010101

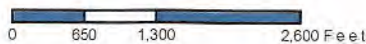
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There is no Sample data for this well

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# Hudson S - 11HU Meade District Marshall County, WV



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

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Map Prepared by:





Planning Report - Geographic

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Hudson S-11 HU (slot B)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1344.25ft
<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<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>	Hudson Alt North				
<b>Site Position:</b>		<b>Northing:</b>	14,464,552.10 usft	<b>Latitude:</b>	39.82877400
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,732,278.45 usft	<b>Longitude:</b>	-80.67279800
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.210 °

<b>Well</b>	Hudson S-11 HU (slot B)					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,464,525.24 usft	<b>Latitude:</b>	39.82870000
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	1,732,302.13 usft	<b>Longitude:</b>	-80.67271400
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	1,344.25 ft

<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	9/30/2018	-8.759	66.877	52,041.82074763

<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	161.74

<b>Plan Survey Tool Program</b>	<b>Date</b>	6/7/2019		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	25,096.07 rev2 (Original Hole)	MWD	
			MWD - Standard	

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Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,800.00	5.00	302.98	1,799.37	11.87	-18.29	1.00	1.00	0.00	302.980	
3,105.60	5.00	302.98	3,100.00	73.81	-113.74	0.00	0.00	0.00	0.000	
4,041.60	23.65	294.45	4,002.96	174.62	-320.71	2.00	1.99	-0.91	-10.684	
11,148.15	23.65	294.45	10,512.61	1,354.63	-2,915.91	0.00	0.00	0.00	0.000	
12,186.11	45.00	164.40	11,449.04	1,057.50	-3,016.89	6.00	2.06	-12.53	-142.305	
12,758.18	88.99	150.13	11,668.10	589.56	-2,808.87	8.00	7.69	-2.50	-20.125	
25,096.07	88.99	150.13	11,885.00	-10,107.26	3,335.60	0.00	0.00	0.00	0.000	Hudson 11HU PBHL r



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<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1344.25ft
<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
100.00	0.00	0.00	100.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
200.00	0.00	0.00	200.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
300.00	0.00	0.00	300.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
400.00	0.00	0.00	400.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
500.00	0.00	0.00	500.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
600.00	0.00	0.00	600.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
700.00	0.00	0.00	700.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
800.00	0.00	0.00	800.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
900.00	0.00	0.00	900.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,464,525.24	1,732,302.13	39.82870000	-80.67271400	
<b>KOP Begin 1°/100' build</b>										
1,400.00	1.00	302.98	1,399.99	0.48	-0.73	14,464,525.71	1,732,301.40	39.82870131	-80.67271660	
1,500.00	2.00	302.98	1,499.96	1.90	-2.93	14,464,527.14	1,732,299.20	39.82870525	-80.67272440	
1,600.00	3.00	302.98	1,599.86	4.27	-6.59	14,464,529.51	1,732,295.55	39.82871181	-80.67273741	
1,700.00	4.00	302.98	1,699.68	7.60	-11.71	14,464,532.84	1,732,290.42	39.82872098	-80.67275560	
1,800.00	5.00	302.98	1,799.37	11.87	-18.29	14,464,537.11	1,732,283.84	39.82873278	-80.67277899	
<b>Begin 5° tangent</b>										
1,900.00	5.00	302.98	1,898.99	16.61	-25.60	14,464,541.85	1,732,276.53	39.82874588	-80.67280497	
2,000.00	5.00	302.98	1,998.60	21.36	-32.91	14,464,546.60	1,732,269.22	39.82875898	-80.67283095	
2,100.00	5.00	302.98	2,098.22	26.10	-40.22	14,464,551.34	1,732,261.91	39.82877209	-80.67285693	
2,200.00	5.00	302.98	2,197.84	30.85	-47.53	14,464,556.08	1,732,254.60	39.82878519	-80.67288291	
2,300.00	5.00	302.98	2,297.46	35.59	-54.85	14,464,560.83	1,732,247.29	39.82879829	-80.67290889	
2,400.00	5.00	302.98	2,397.08	40.33	-62.16	14,464,565.57	1,732,239.98	39.82881139	-80.67293487	
2,500.00	5.00	302.98	2,496.70	45.08	-69.47	14,464,570.32	1,732,232.66	39.82882449	-80.67296084	
2,600.00	5.00	302.98	2,596.32	49.82	-76.78	14,464,575.06	1,732,225.35	39.82883760	-80.67298682	
2,700.00	5.00	302.98	2,695.94	54.57	-84.09	14,464,579.81	1,732,218.04	39.82885070	-80.67301280	
2,800.00	5.00	302.98	2,795.56	59.31	-91.40	14,464,584.55	1,732,210.73	39.82886380	-80.67303878	
2,900.00	5.00	302.98	2,895.18	64.06	-98.71	14,464,589.29	1,732,203.42	39.82887690	-80.67306476	
3,000.00	5.00	302.98	2,994.80	68.80	-106.02	14,464,594.04	1,732,196.11	39.82889001	-80.67309074	
3,100.00	5.00	302.98	3,094.42	73.54	-113.33	14,464,598.78	1,732,188.80	39.82890311	-80.67311672	
3,105.60	5.00	302.98	3,100.00	73.81	-113.74	14,464,599.05	1,732,188.39	39.82890384	-80.67311818	
<b>Begin 2°/100' build/turn</b>										
3,200.00	6.86	300.05	3,193.89	78.87	-122.08	14,464,604.11	1,732,180.05	39.82891783	-80.67314780	
3,300.00	8.85	298.29	3,292.94	85.51	-134.03	14,464,610.75	1,732,168.11	39.82893619	-80.67319026	
3,400.00	10.84	297.18	3,391.47	93.46	-149.17	14,464,618.69	1,732,152.97	39.82895815	-80.67324409	
3,500.00	12.83	296.40	3,489.34	102.69	-167.48	14,464,627.93	1,732,134.65	39.82898370	-80.67330921	
3,600.00	14.83	295.84	3,586.43	113.21	-188.95	14,464,638.45	1,732,113.18	39.82901279	-80.67338554	
3,700.00	16.83	295.40	3,682.63	124.99	-213.55	14,464,650.23	1,732,088.59	39.82904541	-80.67347299	
3,800.00	18.82	295.05	3,777.83	138.04	-241.24	14,464,663.27	1,732,060.89	39.82908150	-80.67357146	
3,900.00	20.82	294.77	3,871.90	152.32	-271.99	14,464,677.55	1,732,030.14	39.82912102	-80.67368082	
4,000.00	22.82	294.54	3,964.73	167.82	-305.78	14,464,693.06	1,731,996.36	39.82916393	-80.67380094	
4,041.60	23.65	294.45	4,002.96	174.62	-320.71	14,464,699.86	1,731,981.42	39.82918277	-80.67385405	
<b>Begin 23.65° tangent section</b>										
4,100.00	23.65	294.45	4,056.45	184.32	-342.04	14,464,709.56	1,731,960.10	39.82920961	-80.67392988	
4,200.00	23.65	294.45	4,148.05	200.92	-378.56	14,464,726.16	1,731,923.58	39.82925557	-80.67405974	
4,300.00	23.65	294.45	4,239.65	217.53	-415.07	14,464,742.77	1,731,887.06	39.82930154	-80.67418960	
4,400.00	23.65	294.45	4,331.25	234.13	-451.59	14,464,759.37	1,731,850.54	39.82934750	-80.67431946	
4,500.00	23.65	294.45	4,422.85	250.74	-488.11	14,464,775.97	1,731,814.02	39.82939347	-80.67444932	
4,600.00	23.65	294.45	4,514.45	267.34	-524.63	14,464,792.58	1,731,777.50	39.82943943	-80.67457918	
4,700.00	23.65	294.45	4,606.05	283.94	-561.15	14,464,809.18	1,731,740.99	39.82948540	-80.67470903	



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<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,800.00	23.65	294.45	4,697.66	300.55	-597.67	14,464,825.79	1,731,704.47	39.82953136	-80.67483889	
4,900.00	23.65	294.45	4,789.26	317.15	-634.18	14,464,842.39	1,731,667.95	39.82957733	-80.67496675	
5,000.00	23.65	294.45	4,880.86	333.76	-670.70	14,464,859.00	1,731,631.43	39.82962329	-80.67509861	
5,100.00	23.65	294.45	4,972.46	350.36	-707.22	14,464,875.60	1,731,594.91	39.82966925	-80.67522847	
5,200.00	23.65	294.45	5,064.06	366.97	-743.74	14,464,892.21	1,731,558.39	39.82971522	-80.67535833	
5,300.00	23.65	294.45	5,155.66	383.57	-780.26	14,464,908.81	1,731,521.88	39.82976118	-80.67548819	
5,400.00	23.65	294.45	5,247.26	400.18	-816.78	14,464,925.41	1,731,485.36	39.82980715	-80.67561805	
5,500.00	23.65	294.45	5,338.86	416.78	-853.29	14,464,942.02	1,731,448.84	39.82985311	-80.67574791	
5,600.00	23.65	294.45	5,430.46	433.39	-889.81	14,464,958.62	1,731,412.32	39.82989907	-80.67587777	
5,700.00	23.65	294.45	5,522.06	449.99	-926.33	14,464,975.23	1,731,375.80	39.82994503	-80.67600763	
5,800.00	23.65	294.45	5,613.66	466.59	-962.85	14,464,991.83	1,731,339.28	39.82999100	-80.67613749	
5,900.00	23.65	294.45	5,705.26	483.20	-999.37	14,465,008.44	1,731,302.77	39.83003696	-80.67626735	
6,000.00	23.65	294.45	5,796.86	499.80	-1,035.89	14,465,025.04	1,731,266.25	39.83008292	-80.67639721	
6,100.00	23.65	294.45	5,888.46	516.41	-1,072.41	14,465,041.65	1,731,229.73	39.83012889	-80.67652707	
6,200.00	23.65	294.45	5,980.07	533.01	-1,108.92	14,465,058.25	1,731,193.21	39.83017485	-80.67665693	
6,300.00	23.65	294.45	6,071.67	549.62	-1,145.44	14,465,074.85	1,731,156.69	39.83022081	-80.67678680	
6,400.00	23.65	294.45	6,163.27	566.22	-1,181.96	14,465,091.46	1,731,120.17	39.83026677	-80.67691666	
6,500.00	23.65	294.45	6,254.87	582.83	-1,218.48	14,465,108.06	1,731,083.66	39.83031273	-80.67704652	
6,600.00	23.65	294.45	6,346.47	599.43	-1,255.00	14,465,124.67	1,731,047.14	39.83035870	-80.67717638	
6,700.00	23.65	294.45	6,438.07	616.03	-1,291.52	14,465,141.27	1,731,010.62	39.83040466	-80.67730624	
6,800.00	23.65	294.45	6,529.67	632.64	-1,328.03	14,465,157.88	1,730,974.10	39.83045062	-80.67743611	
6,900.00	23.65	294.45	6,621.27	649.24	-1,364.55	14,465,174.48	1,730,937.58	39.83049658	-80.67756597	
7,000.00	23.65	294.45	6,712.87	665.85	-1,401.07	14,465,191.09	1,730,901.06	39.83054254	-80.67769583	
7,100.00	23.65	294.45	6,804.47	682.45	-1,437.59	14,465,207.69	1,730,864.55	39.83058850	-80.67782569	
7,200.00	23.65	294.45	6,896.07	699.06	-1,474.11	14,465,224.30	1,730,828.03	39.83063446	-80.67795556	
7,300.00	23.65	294.45	6,987.67	715.66	-1,510.63	14,465,240.90	1,730,791.51	39.83068042	-80.67808542	
7,400.00	23.65	294.45	7,079.27	732.27	-1,547.14	14,465,257.50	1,730,754.99	39.83072638	-80.67821528	
7,500.00	23.65	294.45	7,170.88	748.87	-1,583.66	14,465,274.11	1,730,718.47	39.83077234	-80.67834515	
7,600.00	23.65	294.45	7,262.48	765.48	-1,620.18	14,465,290.71	1,730,681.95	39.83081830	-80.67847501	
7,700.00	23.65	294.45	7,354.08	782.08	-1,656.70	14,465,307.32	1,730,645.44	39.83086427	-80.67860487	
7,800.00	23.65	294.45	7,445.68	798.68	-1,693.22	14,465,323.92	1,730,608.92	39.83091023	-80.67873474	
7,900.00	23.65	294.45	7,537.28	815.29	-1,729.74	14,465,340.53	1,730,572.40	39.83095618	-80.67886460	
8,000.00	23.65	294.45	7,628.88	831.89	-1,766.25	14,465,357.13	1,730,535.88	39.83100214	-80.67899447	
8,100.00	23.65	294.45	7,720.48	848.50	-1,802.77	14,465,373.74	1,730,499.36	39.83104810	-80.67912433	
8,200.00	23.65	294.45	7,812.08	865.10	-1,839.29	14,465,390.34	1,730,462.84	39.83109406	-80.67925420	
8,300.00	23.65	294.45	7,903.68	881.71	-1,875.81	14,465,406.94	1,730,426.33	39.83114002	-80.67938406	
8,400.00	23.65	294.45	7,995.28	898.31	-1,912.33	14,465,423.55	1,730,389.81	39.83118598	-80.67951393	
8,500.00	23.65	294.45	8,086.88	914.92	-1,948.85	14,465,440.15	1,730,353.29	39.83123194	-80.67964379	
8,600.00	23.65	294.45	8,178.48	931.52	-1,985.37	14,465,456.76	1,730,316.77	39.83127790	-80.67977366	
8,700.00	23.65	294.45	8,270.08	948.12	-2,021.88	14,465,473.36	1,730,280.25	39.83132386	-80.67990352	
8,800.00	23.65	294.45	8,361.69	964.73	-2,058.40	14,465,489.97	1,730,243.73	39.83136982	-80.68003339	
8,900.00	23.65	294.45	8,453.29	981.33	-2,094.92	14,465,506.57	1,730,207.22	39.83141578	-80.68016325	
9,000.00	23.65	294.45	8,544.89	997.94	-2,131.44	14,465,523.18	1,730,170.70	39.83146173	-80.68029312	
9,100.00	23.65	294.45	8,636.49	1,014.54	-2,167.96	14,465,539.78	1,730,134.18	39.83150769	-80.68042299	
9,200.00	23.65	294.45	8,728.09	1,031.15	-2,204.48	14,465,556.38	1,730,097.66	39.83155365	-80.68055285	
9,300.00	23.65	294.45	8,819.69	1,047.75	-2,240.99	14,465,572.99	1,730,061.14	39.83159961	-80.68068272	
9,400.00	23.65	294.45	8,911.29	1,064.36	-2,277.51	14,465,589.59	1,730,024.62	39.83164556	-80.68081259	
9,500.00	23.65	294.45	9,002.89	1,080.96	-2,314.03	14,465,606.20	1,729,988.11	39.83169152	-80.68094245	
9,600.00	23.65	294.45	9,094.49	1,097.57	-2,350.55	14,465,622.80	1,729,951.59	39.83173748	-80.68107232	
9,700.00	23.65	294.45	9,186.09	1,114.17	-2,387.07	14,465,639.41	1,729,915.07	39.83178344	-80.68120219	
9,800.00	23.65	294.45	9,277.69	1,130.77	-2,423.59	14,465,656.01	1,729,878.55	39.83182939	-80.68133206	
9,900.00	23.65	294.45	9,369.29	1,147.38	-2,460.10	14,465,672.62	1,729,842.03	39.83187535	-80.68146192	
10,000.00	23.65	294.45	9,460.89	1,163.98	-2,496.62	14,465,689.22	1,729,805.51	39.83192131	-80.68159179	
10,100.00	23.65	294.45	9,552.49	1,180.59	-2,533.14	14,465,705.83	1,729,769.00	39.83196726	-80.68172166	
10,200.00	23.65	294.45	9,644.10	1,197.19	-2,569.66	14,465,722.43	1,729,732.48	39.83201322	-80.68185153	



Planning Report - Geographic

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Hudson S-11 HU (slot B)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1344.25ft
<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,300.00	23.65	294.45	9,735.70	1,213.80	-2,606.18	14,465,739.03	1,729,695.96	39.83205918	-80.68198140	
10,400.00	23.65	294.45	9,827.30	1,230.40	-2,642.70	14,465,755.64	1,729,659.44	39.83210513	-80.68221126	
10,500.00	23.65	294.45	9,918.90	1,247.01	-2,679.21	14,465,772.24	1,729,622.92	39.83215109	-80.68224113	
10,600.00	23.65	294.45	10,010.50	1,263.61	-2,715.73	14,465,788.85	1,729,586.40	39.83219705	-80.68237100	
10,700.00	23.65	294.45	10,102.10	1,280.22	-2,752.25	14,465,805.45	1,729,549.89	39.83224300	-80.68250087	
10,800.00	23.65	294.45	10,193.70	1,296.82	-2,788.77	14,465,822.06	1,729,513.37	39.83228896	-80.68263074	
10,900.00	23.65	294.45	10,285.30	1,313.42	-2,825.29	14,465,838.66	1,729,476.85	39.83233491	-80.68276061	
11,000.00	23.65	294.45	10,376.90	1,330.03	-2,861.81	14,465,855.27	1,729,440.33	39.83238087	-80.68289048	
11,100.00	23.65	294.45	10,468.50	1,346.63	-2,898.33	14,465,871.87	1,729,403.81	39.83242682	-80.68302035	
11,148.15	23.65	294.45	10,512.61	1,354.63	-2,915.91	14,465,879.87	1,729,386.23	39.83244895	-80.68308289	
<b>Begin 6°/100' build/tum</b>										
11,200.00	21.27	289.20	10,560.53	1,362.03	-2,934.26	14,465,887.26	1,729,367.88	39.83246945	-80.68314816	
11,300.00	17.31	275.46	10,654.94	1,369.42	-2,966.23	14,465,894.65	1,729,335.91	39.83249005	-80.68326194	
11,400.00	14.74	255.66	10,751.12	1,367.68	-2,993.39	14,465,892.92	1,729,308.75	39.83248555	-80.68335870	
11,500.00	14.34	231.65	10,848.01	1,356.84	-3,015.44	14,465,882.07	1,729,286.69	39.83245598	-80.68343740	
11,600.00	16.26	209.94	10,944.54	1,337.01	-3,032.15	14,465,862.25	1,729,269.98	39.83240169	-80.68349718	
11,700.00	19.84	194.28	11,039.66	1,308.41	-3,043.34	14,465,833.65	1,729,258.80	39.83232327	-80.68353736	
11,800.00	24.36	183.72	11,132.33	1,271.36	-3,048.87	14,465,796.59	1,729,253.27	39.83222156	-80.68355753	
11,900.00	29.38	176.44	11,221.53	1,226.25	-3,048.68	14,465,751.49	1,729,253.45	39.83209769	-80.68355745	
12,000.00	34.70	171.18	11,306.28	1,173.59	-3,042.79	14,465,698.83	1,729,259.35	39.83195302	-80.68353712	
12,100.00	40.19	167.18	11,385.66	1,113.95	-3,031.25	14,465,639.19	1,729,270.88	39.83178912	-80.68349678	
12,186.11	45.00	164.40	11,449.04	1,057.50	-3,016.89	14,465,582.74	1,729,285.25	39.83163395	-80.68344633	
<b>Begin 8°/100' build/tum</b>										
12,200.00	46.04	163.87	11,458.77	1,047.97	-3,014.18	14,465,573.21	1,729,287.96	39.83160775	-80.68343680	
12,300.00	53.63	160.52	11,523.23	975.32	-2,990.72	14,465,500.56	1,729,311.42	39.83140802	-80.68335414	
12,400.00	61.28	157.77	11,576.99	896.65	-2,960.66	14,465,421.89	1,729,341.48	39.83119167	-80.68324805	
12,500.00	68.99	155.40	11,619.01	813.48	-2,924.58	14,465,338.72	1,729,377.56	39.83096292	-80.68312059	
12,600.00	76.73	153.27	11,648.47	727.44	-2,883.19	14,465,252.68	1,729,418.95	39.83072623	-80.68297425	
12,700.00	84.48	151.26	11,664.78	640.20	-2,837.30	14,465,165.44	1,729,464.84	39.83048620	-80.68281188	
12,758.18	88.99	150.13	11,668.10	589.56	-2,808.87	14,465,114.80	1,729,493.27	39.83034686	-80.68271128	
<b>Begin 89.00° lateral section</b>										
12,800.00	88.99	150.13	11,668.83	553.30	-2,788.04	14,465,078.54	1,729,514.09	39.83024708	-80.68263755	
12,900.00	88.99	150.13	11,670.59	466.60	-2,738.24	14,464,991.84	1,729,563.89	39.83000850	-80.68246126	
13,000.00	88.99	150.13	11,672.35	379.90	-2,688.44	14,464,905.14	1,729,613.70	39.82976992	-80.68228497	
13,100.00	88.99	150.13	11,674.11	293.21	-2,638.64	14,464,818.44	1,729,663.50	39.82953134	-80.68210868	
13,200.00	88.99	150.13	11,675.86	206.51	-2,588.84	14,464,731.75	1,729,713.30	39.82929276	-80.68193239	
13,300.00	88.99	150.13	11,677.62	119.81	-2,539.04	14,464,645.05	1,729,763.10	39.82905418	-80.68175610	
13,400.00	88.99	150.13	11,679.38	33.11	-2,489.23	14,464,558.35	1,729,812.90	39.82881560	-80.68157981	
13,500.00	88.99	150.13	11,681.14	-53.59	-2,439.43	14,464,471.65	1,729,862.70	39.82857702	-80.68140353	
13,600.00	88.99	150.13	11,682.90	-140.29	-2,389.63	14,464,384.95	1,729,912.51	39.82833843	-80.68122724	
13,700.00	88.99	150.13	11,684.65	-226.99	-2,339.83	14,464,298.25	1,729,962.31	39.82809985	-80.68105096	
13,800.00	88.99	150.13	11,686.41	-313.69	-2,290.03	14,464,211.55	1,730,012.11	39.82786127	-80.68087468	
13,900.00	88.99	150.13	11,688.17	-400.39	-2,240.23	14,464,124.85	1,730,061.91	39.82762289	-80.68069840	
14,000.00	88.99	150.13	11,689.93	-487.08	-2,190.42	14,464,038.16	1,730,111.71	39.82738410	-80.68052212	
14,100.00	88.99	150.13	11,691.69	-573.78	-2,140.62	14,463,951.46	1,730,161.51	39.82714552	-80.68034584	
14,200.00	88.99	150.13	11,693.44	-660.48	-2,090.82	14,463,864.76	1,730,211.32	39.82690694	-80.68016956	
14,300.00	88.99	150.13	11,695.20	-747.18	-2,041.02	14,463,778.06	1,730,261.12	39.82666835	-80.67999329	
14,400.00	88.99	150.13	11,696.96	-833.88	-1,991.22	14,463,691.36	1,730,310.92	39.82642977	-80.67981701	
14,500.00	88.99	150.13	11,698.72	-920.58	-1,941.42	14,463,604.66	1,730,360.72	39.82619118	-80.67964074	
14,600.00	88.99	150.13	11,700.48	-1,007.28	-1,891.61	14,463,517.96	1,730,410.52	39.82595260	-80.67946447	
14,700.00	88.99	150.13	11,702.23	-1,093.98	-1,841.81	14,463,431.26	1,730,460.32	39.82571401	-80.67928820	
14,800.00	88.99	150.13	11,703.99	-1,180.68	-1,792.01	14,463,344.57	1,730,510.12	39.82547543	-80.67911193	
14,900.00	88.99	150.13	11,705.75	-1,267.38	-1,742.21	14,463,257.87	1,730,559.93	39.82523684	-80.67893566	
15,000.00	88.99	150.13	11,707.51	-1,354.07	-1,692.41	14,463,171.17	1,730,609.73	39.82499826	-80.67875939	



Planning Report - Geographic

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Hudson S-11 HU (slot B)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1344.25ft
<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
15,100.00	88.99	150.13	11,709.27	-1,440.77	-1,642.61	14,463,084.47	1,730,659.53	39.82475967	-80.67858312	
15,200.00	88.99	150.13	11,711.02	-1,527.47	-1,592.80	14,462,997.77	1,730,709.33	39.82452108	-80.67840686	
15,300.00	88.99	150.13	11,712.78	-1,614.17	-1,543.00	14,462,911.07	1,730,759.13	39.82428250	-80.67823060	
15,400.00	88.99	150.13	11,714.54	-1,700.87	-1,493.20	14,462,824.37	1,730,808.93	39.82404391	-80.67805433	
15,500.00	88.99	150.13	11,716.30	-1,787.57	-1,443.40	14,462,737.67	1,730,858.74	39.82380532	-80.67787807	
15,600.00	88.99	150.13	11,718.06	-1,874.27	-1,393.60	14,462,650.98	1,730,908.54	39.82356673	-80.67770181	
15,700.00	88.99	150.13	11,719.81	-1,960.97	-1,343.80	14,462,564.28	1,730,958.34	39.82332815	-80.67752555	
15,800.00	88.99	150.13	11,721.57	-2,047.67	-1,293.99	14,462,477.58	1,731,008.14	39.82308956	-80.67734930	
15,900.00	88.99	150.13	11,723.33	-2,134.36	-1,244.19	14,462,390.88	1,731,057.94	39.82285097	-80.67717304	
16,000.00	88.99	150.13	11,725.09	-2,221.06	-1,194.39	14,462,304.18	1,731,107.74	39.82261238	-80.67699678	
16,100.00	88.99	150.13	11,726.85	-2,307.76	-1,144.59	14,462,217.48	1,731,157.54	39.82237379	-80.67682053	
16,200.00	88.99	150.13	11,728.60	-2,394.46	-1,094.79	14,462,130.78	1,731,207.35	39.82213520	-80.67664428	
16,300.00	88.99	150.13	11,730.36	-2,481.16	-1,044.99	14,462,044.08	1,731,257.15	39.82189661	-80.67646803	
16,400.00	88.99	150.13	11,732.12	-2,567.86	-995.19	14,461,957.39	1,731,306.95	39.82165802	-80.67629178	
16,500.00	88.99	150.13	11,733.88	-2,654.56	-945.38	14,461,870.69	1,731,356.75	39.82141194	-80.67611553	
16,600.00	88.99	150.13	11,735.64	-2,741.26	-895.58	14,461,783.99	1,731,406.55	39.82118084	-80.67593928	
16,700.00	88.99	150.13	11,737.39	-2,827.96	-845.78	14,461,697.29	1,731,456.35	39.82094225	-80.67576303	
16,800.00	88.99	150.13	11,739.15	-2,914.66	-795.98	14,461,610.59	1,731,506.16	39.82070366	-80.67558679	
16,900.00	88.99	150.13	11,740.91	-3,001.35	-746.18	14,461,523.89	1,731,555.96	39.82046507	-80.67541054	
17,000.00	88.99	150.13	11,742.67	-3,088.05	-696.38	14,461,437.19	1,731,605.76	39.82022648	-80.67523430	
17,100.00	88.99	150.13	11,744.43	-3,174.75	-646.57	14,461,350.49	1,731,655.56	39.81998789	-80.67505806	
17,200.00	88.99	150.13	11,746.18	-3,261.45	-596.77	14,461,263.80	1,731,705.36	39.81974929	-80.67488182	
17,300.00	88.99	150.13	11,747.94	-3,348.15	-546.97	14,461,177.10	1,731,755.16	39.81951070	-80.67470558	
17,400.00	88.99	150.13	11,749.70	-3,434.85	-497.17	14,461,090.40	1,731,804.96	39.81927211	-80.67452934	
17,500.00	88.99	150.13	11,751.46	-3,521.55	-447.37	14,461,003.70	1,731,854.77	39.81903352	-80.67435310	
17,600.00	88.99	150.13	11,753.22	-3,608.25	-397.57	14,460,917.00	1,731,904.57	39.81879492	-80.67417687	
17,700.00	88.99	150.13	11,754.97	-3,694.95	-347.76	14,460,830.30	1,731,954.37	39.81855633	-80.67400063	
17,800.00	88.99	150.13	11,756.73	-3,781.64	-297.96	14,460,743.60	1,732,004.17	39.81831774	-80.67382440	
17,900.00	88.99	150.13	11,758.49	-3,868.34	-248.16	14,460,656.90	1,732,053.97	39.81807914	-80.67364817	
18,000.00	88.99	150.13	11,760.25	-3,955.04	-198.36	14,460,570.20	1,732,103.77	39.81784055	-80.67347194	
18,100.00	88.99	150.13	11,762.01	-4,041.74	-148.56	14,460,483.51	1,732,153.58	39.81760195	-80.67329571	
18,200.00	88.99	150.13	11,763.77	-4,128.44	-98.76	14,460,396.81	1,732,203.38	39.81736336	-80.67311948	
18,300.00	88.99	150.13	11,765.52	-4,215.14	-48.95	14,460,310.11	1,732,253.18	39.81712476	-80.67294325	
18,400.00	88.99	150.13	11,767.28	-4,301.84	0.85	14,460,223.41	1,732,302.98	39.81688617	-80.67276702	
18,500.00	88.99	150.13	11,769.04	-4,388.54	50.65	14,460,136.71	1,732,352.78	39.81664757	-80.67259080	
18,600.00	88.99	150.13	11,770.80	-4,475.24	100.45	14,460,050.01	1,732,402.58	39.81640898	-80.67241458	
18,700.00	88.99	150.13	11,772.56	-4,561.94	150.25	14,459,963.31	1,732,452.38	39.81617038	-80.67223835	
18,800.00	88.99	150.13	11,774.31	-4,648.63	200.05	14,459,876.61	1,732,502.19	39.81593178	-80.67206213	
18,900.00	88.99	150.13	11,776.07	-4,735.33	249.86	14,459,789.92	1,732,551.99	39.81569319	-80.67188591	
19,000.00	88.99	150.13	11,777.83	-4,822.03	299.66	14,459,703.22	1,732,601.79	39.81545459	-80.67170969	
19,100.00	88.99	150.13	11,779.59	-4,908.73	349.46	14,459,616.52	1,732,651.59	39.81521599	-80.67153348	
19,200.00	88.99	150.13	11,781.35	-4,995.43	399.26	14,459,529.82	1,732,701.39	39.81497740	-80.67135726	
19,300.00	88.99	150.13	11,783.10	-5,082.13	449.06	14,459,443.12	1,732,751.19	39.81473880	-80.67118105	
19,400.00	88.99	150.13	11,784.86	-5,168.83	498.86	14,459,356.42	1,732,801.00	39.81450020	-80.67100483	
19,500.00	88.99	150.13	11,786.62	-5,255.53	548.67	14,459,269.72	1,732,850.80	39.81426160	-80.67082862	
19,600.00	88.99	150.13	11,788.38	-5,342.23	598.47	14,459,183.02	1,732,900.60	39.81402300	-80.67065241	
19,700.00	88.99	150.13	11,790.14	-5,428.92	648.27	14,459,096.33	1,732,950.40	39.81378441	-80.67047620	
19,800.00	88.99	150.13	11,791.89	-5,515.62	698.07	14,459,009.63	1,733,000.20	39.81354581	-80.67029999	
19,900.00	88.99	150.13	11,793.65	-5,602.32	747.87	14,458,922.93	1,733,050.00	39.81330721	-80.67012378	
20,000.00	88.99	150.13	11,795.41	-5,689.02	797.67	14,458,836.23	1,733,099.80	39.81306861	-80.66994757	
20,100.00	88.99	150.13	11,797.17	-5,775.72	847.48	14,458,749.53	1,733,149.61	39.81283001	-80.66977137	
20,200.00	88.99	150.13	11,798.93	-5,862.42	897.28	14,458,662.83	1,733,199.41	39.81259141	-80.66959516	
20,300.00	88.99	150.13	11,800.68	-5,949.12	947.08	14,458,576.13	1,733,249.21	39.81235281	-80.66941896	
20,400.00	88.99	150.13	11,802.44	-6,035.82	996.88	14,458,489.43	1,733,299.01	39.81211421	-80.66924276	
20,500.00	88.99	150.13	11,804.20	-6,122.52	1,046.68	14,458,402.74	1,733,348.81	39.81187560	-80.66906656	



Planning Report - Geographic

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Hudson S-11 HU (slot B)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1344.25ft
<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
20,600.00	88.99	150.13	11,805.96	-6,209.21	1,096.48	14,458,316.04	1,733,398.61	39.81163700	-80.66889036	
20,700.00	88.99	150.13	11,807.72	-6,295.91	1,146.29	14,458,229.34	1,733,448.42	39.81139840	-80.66871416	
20,800.00	88.99	150.13	11,809.47	-6,382.61	1,196.09	14,458,142.64	1,733,498.22	39.81115980	-80.66853797	
20,900.00	88.99	150.13	11,811.23	-6,469.31	1,245.89	14,458,055.94	1,733,548.02	39.81092120	-80.66836177	
21,000.00	88.99	150.13	11,812.99	-6,556.01	1,295.69	14,457,969.24	1,733,597.82	39.81068260	-80.66818558	
21,100.00	88.99	150.13	11,814.75	-6,642.71	1,345.49	14,457,882.54	1,733,647.62	39.81044399	-80.66800938	
21,200.00	88.99	150.13	11,816.51	-6,729.41	1,395.29	14,457,795.84	1,733,697.42	39.81020539	-80.66783319	
21,300.00	88.99	150.13	11,818.26	-6,816.11	1,445.10	14,457,709.15	1,733,747.22	39.80996679	-80.66765700	
21,400.00	88.99	150.13	11,820.02	-6,902.81	1,494.90	14,457,622.45	1,733,797.03	39.80972818	-80.66748081	
21,500.00	88.99	150.13	11,821.78	-6,989.51	1,544.70	14,457,535.75	1,733,846.83	39.80948958	-80.66730462	
21,600.00	88.99	150.13	11,823.54	-7,076.20	1,594.50	14,457,449.05	1,733,896.63	39.80925098	-80.66712843	
21,700.00	88.99	150.13	11,825.30	-7,162.90	1,644.30	14,457,362.35	1,733,946.43	39.80901237	-80.66695225	
21,800.00	88.99	150.13	11,827.05	-7,249.60	1,694.10	14,457,275.65	1,733,996.23	39.80877377	-80.66677606	
21,900.00	88.99	150.13	11,828.81	-7,336.30	1,743.91	14,457,188.95	1,734,046.03	39.80853516	-80.66659988	
22,000.00	88.99	150.13	11,830.57	-7,423.00	1,793.71	14,457,102.25	1,734,095.84	39.80829656	-80.66642370	
22,100.00	88.99	150.13	11,832.33	-7,509.70	1,843.51	14,457,015.56	1,734,145.64	39.80805795	-80.66624752	
22,200.00	88.99	150.13	11,834.09	-7,596.40	1,893.31	14,456,928.86	1,734,195.44	39.80781935	-80.66607134	
22,300.00	88.99	150.13	11,835.84	-7,683.10	1,943.11	14,456,842.16	1,734,245.24	39.80758074	-80.66589516	
22,400.00	88.99	150.13	11,837.60	-7,769.80	1,992.91	14,456,755.46	1,734,295.04	39.80734213	-80.66571898	
22,500.00	88.99	150.13	11,839.36	-7,856.49	2,042.71	14,456,668.76	1,734,344.84	39.80710353	-80.66554281	
22,600.00	88.99	150.13	11,841.12	-7,943.19	2,092.52	14,456,582.06	1,734,394.64	39.80686492	-80.66536664	
22,700.00	88.99	150.13	11,842.88	-8,029.89	2,142.32	14,456,495.36	1,734,444.45	39.80662631	-80.66519046	
22,800.00	88.99	150.13	11,844.63	-8,116.59	2,192.12	14,456,408.66	1,734,494.25	39.80638771	-80.66501428	
22,900.00	88.99	150.13	11,846.39	-8,203.29	2,241.92	14,456,321.97	1,734,544.05	39.80614910	-80.66483811	
23,000.00	88.99	150.13	11,848.15	-8,289.99	2,291.72	14,456,235.27	1,734,593.85	39.80591049	-80.66466194	
23,100.00	88.99	150.13	11,849.91	-8,376.69	2,341.52	14,456,148.57	1,734,643.65	39.80567188	-80.66448577	
23,200.00	88.99	150.13	11,851.67	-8,463.39	2,391.33	14,456,061.87	1,734,693.45	39.80543327	-80.66430961	
23,300.00	88.99	150.13	11,853.42	-8,550.09	2,441.13	14,455,975.17	1,734,743.26	39.80519467	-80.66413344	
23,400.00	88.99	150.13	11,855.18	-8,636.79	2,490.93	14,455,888.47	1,734,793.06	39.80495606	-80.66395727	
23,500.00	88.99	150.13	11,856.94	-8,723.48	2,540.73	14,455,801.77	1,734,842.86	39.80471745	-80.66378111	
23,600.00	88.99	150.13	11,858.70	-8,810.18	2,590.53	14,455,715.07	1,734,892.66	39.80447884	-80.66360495	
23,700.00	88.99	150.13	11,860.46	-8,896.88	2,640.33	14,455,628.38	1,734,942.46	39.80424023	-80.66342879	
23,800.00	88.99	150.13	11,862.21	-8,983.58	2,690.14	14,455,541.68	1,734,992.26	39.80400162	-80.66325263	
23,900.00	88.99	150.13	11,863.97	-9,070.28	2,739.94	14,455,454.98	1,735,042.06	39.80376301	-80.66307647	
24,000.00	88.99	150.13	11,865.73	-9,156.98	2,789.74	14,455,368.28	1,735,091.87	39.80352440	-80.66290031	
24,100.00	88.99	150.13	11,867.49	-9,243.68	2,839.54	14,455,281.58	1,735,141.67	39.80328579	-80.66272415	
24,200.00	88.99	150.13	11,869.25	-9,330.38	2,889.34	14,455,194.88	1,735,191.47	39.80304718	-80.66254800	
24,300.00	88.99	150.13	11,871.01	-9,417.08	2,939.14	14,455,108.18	1,735,241.27	39.80280857	-80.66237184	
24,400.00	88.99	150.13	11,872.76	-9,503.77	2,988.95	14,455,021.48	1,735,291.07	39.80256995	-80.66219569	
24,500.00	88.99	150.13	11,874.52	-9,590.47	3,038.75	14,454,934.78	1,735,340.87	39.80233134	-80.66201954	
24,600.00	88.99	150.13	11,876.28	-9,677.17	3,088.55	14,454,848.09	1,735,390.68	39.80209273	-80.66184339	
24,700.00	88.99	150.13	11,878.04	-9,763.87	3,138.35	14,454,761.39	1,735,440.48	39.80185412	-80.66166724	
24,800.00	88.99	150.13	11,879.80	-9,850.57	3,188.15	14,454,674.69	1,735,490.28	39.80161550	-80.66149109	
24,900.00	88.99	150.13	11,881.55	-9,937.27	3,237.95	14,454,587.99	1,735,540.08	39.80137689	-80.66131494	
25,000.00	88.99	150.13	11,883.31	-10,023.97	3,287.76	14,454,501.29	1,735,589.88	39.80113828	-80.66113828	
25,096.06	88.99	150.13	11,885.00	-10,107.25	3,335.60	14,454,418.01	1,735,637.72	39.80090907	-80.66096959	
<b>PBHL/TD 25096.06 MD/11885.00 TVD</b>										
25,096.07	88.99	150.13	11,885.00	-10,107.26	3,335.60	14,454,418.00	1,735,637.72	39.80090905	-80.66096958	

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Planning Report - Geographic

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Hudson S-11 HU (slot B)
<b>Company:</b>	Tug Hill Operating LLC	<b>TVD Reference:</b>	GL @ 1344.25ft
<b>Project:</b>	Marshall County, West Virginia	<b>MD Reference:</b>	GL @ 1344.25ft
<b>Site:</b>	Hudson Alt North	<b>North Reference:</b>	Grid
<b>Well:</b>	Hudson S-11 HU (slot B)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev2		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Hudson 11HU LP r1	0.00	0.00	11,668.25	595.65	-2,843.73	14,465,120.89	1,729,458.41	39.83036393	-80.68283536
- plan misses target center by 27.29ft at 12735.84ft MD (11667.37 TVD, 608.96 N, -2819.92 E)									
- Point									
Hudson 11HU PBHL r1	0.00	0.00	11,885.00	-10,107.26	3,335.60	14,454,418.00	1,735,637.72	39.80090905	-80.66096958
- plan hits target center									
- Point									

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
		(ft)	(ft)		
1,300.00	1,300.00	0.00	0.00	KOP Begin 1°/100' build	
1,800.00	1,799.37	11.87	-18.29	Begin 5° tangent	
3,105.60	3,100.00	73.81	-113.74	Begin 2°/100' build/turn	
4,041.60	4,002.96	174.62	-320.71	Begin 23.65° tangent section	
11,148.15	10,512.61	1,354.63	-2,915.91	Begin 6°/100' build/turn	
12,186.11	11,449.04	1,057.50	-3,016.89	Begin 8°/100' build/turn	
12,758.18	11,668.10	589.56	-2,808.87	Begin 89.00° lateral section	
25,096.06	11,885.00	-10,107.25	3,335.60	PBHL/TD 25096.06 MD/11885.00 TVD	

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4705 02295

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(4/16)  
NOV 08 2019

API Number 47 - 051 - \_\_\_\_\_  
Operator's Well No. Hudson S-11HU

WV Department of  
Environmental Protection

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC OP Code 494510851

Watershed (HUC 10) Grave Creek Quadrangle Glen Easton 7.5'

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

Will a pit be used? Yes  No

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

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

Additives to be used in drilling medium? Barite for weight

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

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

-Landfill or offsite name/permit number? Wetzel County Sanitary Landfill (SWF-1021 / WV0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1356426)

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

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

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature James Pancake

Company Official (Typed Name) James Pancake

Company Official Title Vice President - Geoscience

Subscribed and sworn before me this 5th day of September, 20 19

My commission expires 2-10-2020

Notary Public  
COMMONWEALTH OF PENNSYLVANIA  
NOTARIAL SEAL  
Chester Arthur West IV, Notary Public  
Pine Twp., Allegheny County  
My Commission Expires Feb. 10, 2020  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Form WW-9

Operator's Well No. Hudson S-11HU

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 22.94 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

**Temporary**

**Permanent**

Seed Type	lbs/acre
Annual Ryegrass	40
Spring Oats	96

Seed Type	lbs/acre
Orchard Grass	12
Ladino	3
White Clover	2

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Jim Nicholas*

Comments: \_\_\_\_\_

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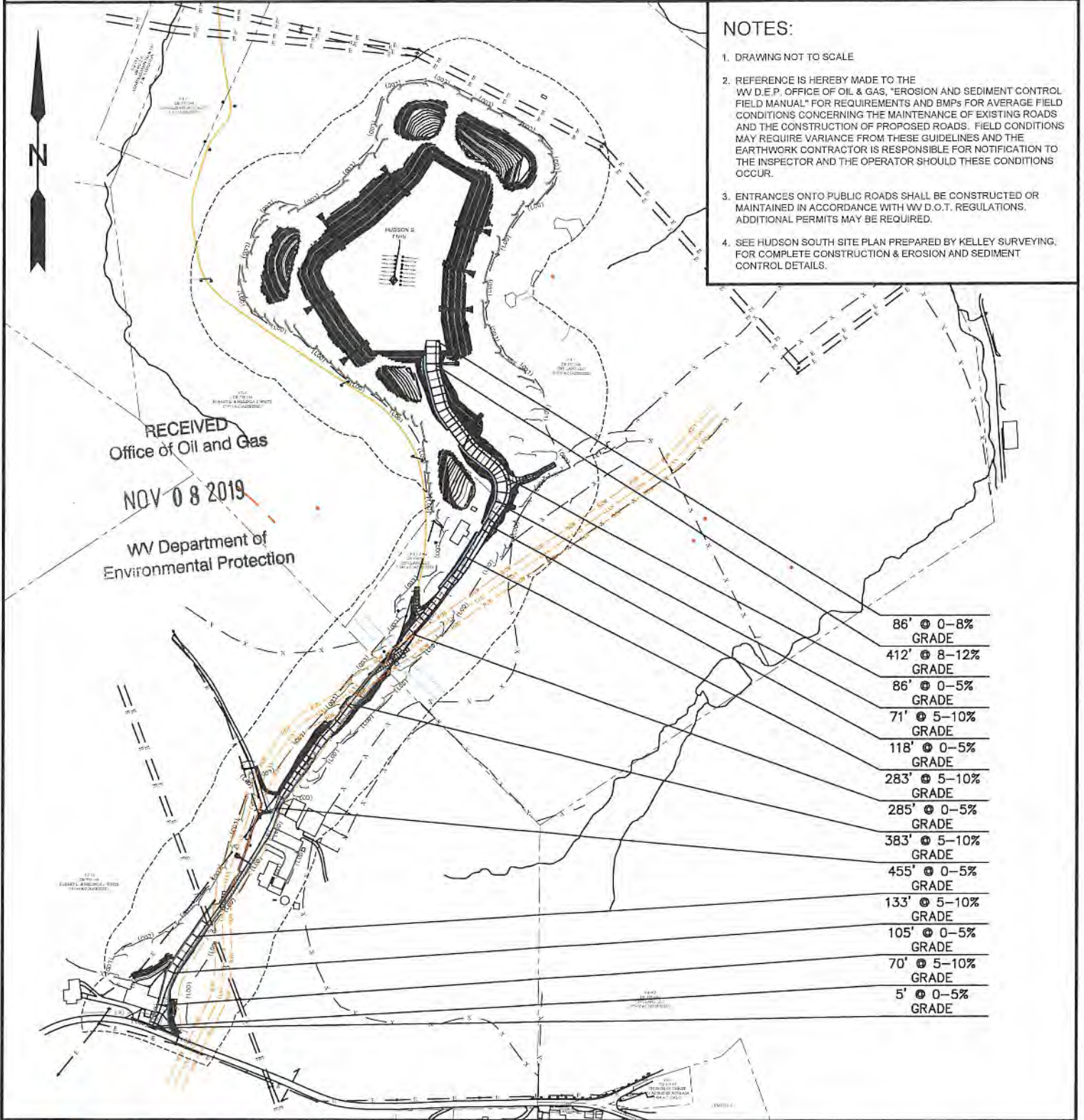
Title: Oil and Gas Inspector

Date: 9/12/19

Field Reviewed?  Yes

No

# PROPOSED HUDSON S - 11HU



**NOTES:**

1. DRAWING NOT TO SCALE
2. REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.
3. ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.
4. SEE HUDSON SOUTH SITE PLAN PREPARED BY KELLEY SURVEYING. FOR COMPLETE CONSTRUCTION & EROSION AND SEDIMENT CONTROL DETAILS.

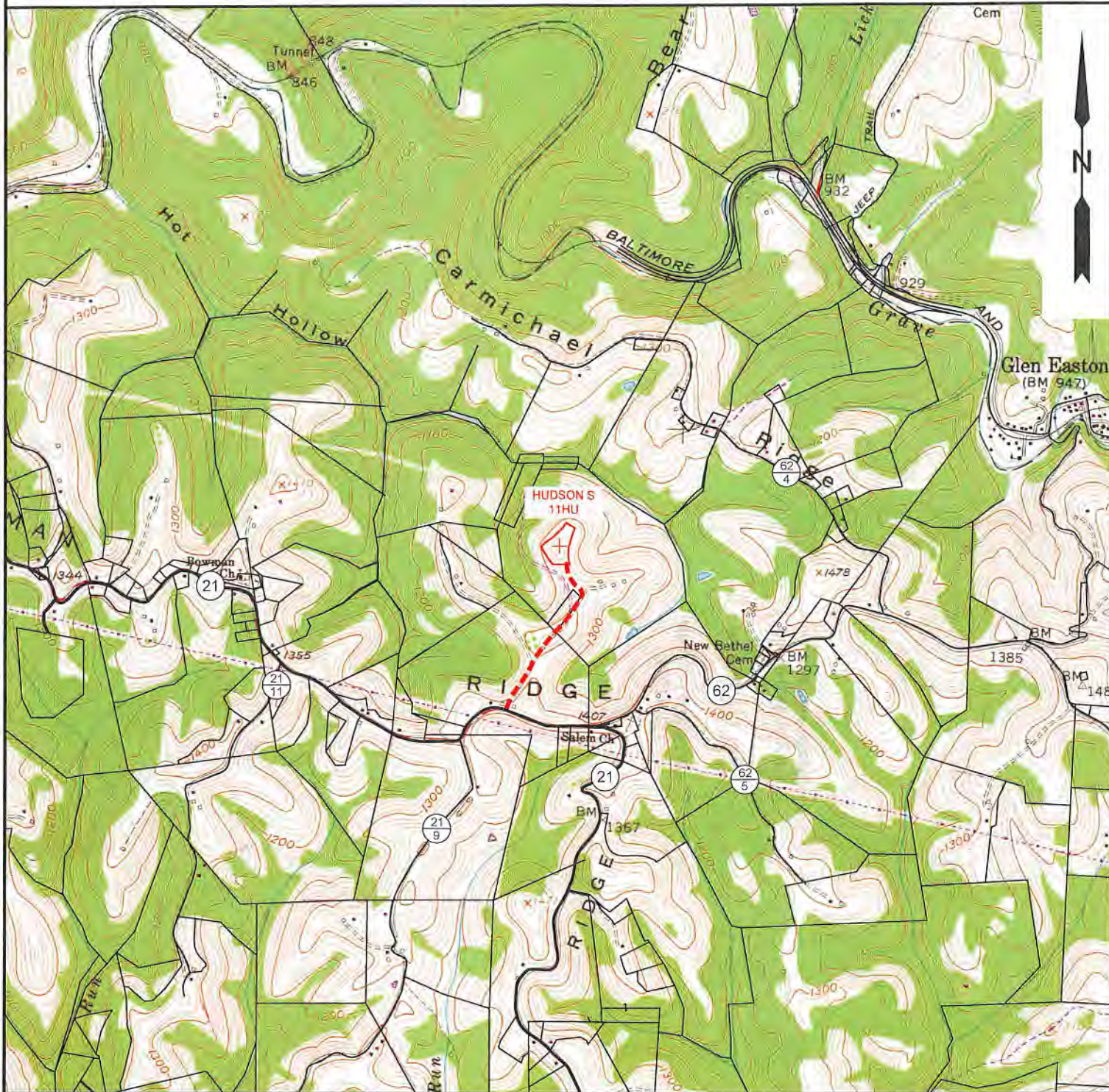
**SLS**  
Land & Energy Development  
Solutions from the ground up.  
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26031 • (304) 462-5634  
www.slsww.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8911	08/23/19	NONE

**TUG HILL**  
OPERATING



# PROPOSED HUDSON S - 11HU



NOTE: CLOSEST WATER PURVEYOR  
 CITY OF CAMERON - FRANK WALKER RESERVOIR  
 CAMDEN, WV

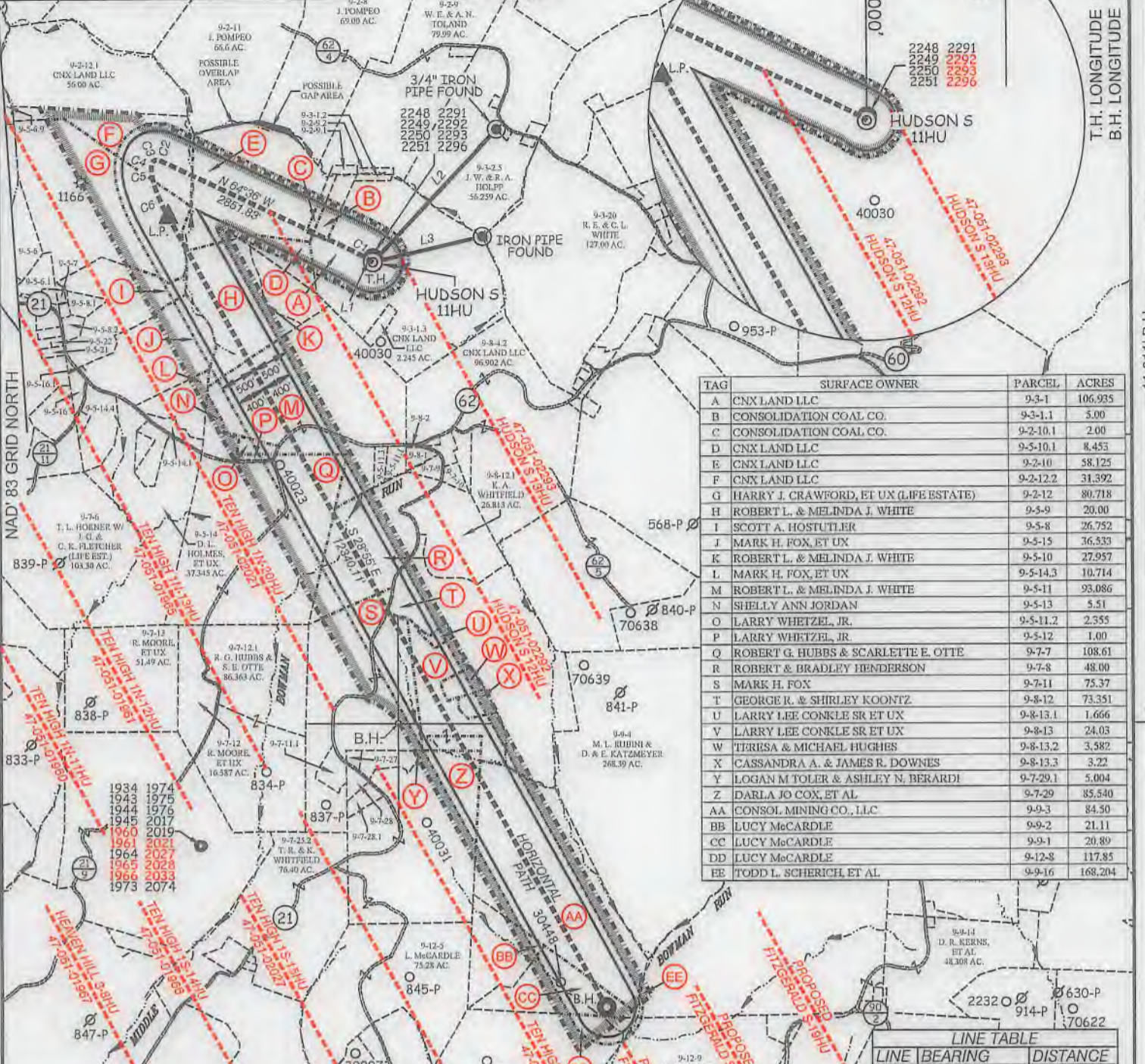
LAT: 39.829865  
 LON: -80.573724  
 LOCATED: N 89°55'26" E AT 27,779.45' FROM THE CENTER OF HUDSON S WELL PAD LOCATION.

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 Land & Energy Development  
*Solutions from the ground up.*  
 P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634  
 www.slsww.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8911	08/23/2019	1" = 2000'

**TUG HILL**  
 OPERATING

**HUDSON S LEASE  
UTICA UNIT - 511.34 AC ±  
WELL 11HU  
TUG HILL OPERATING**



TAG	SURFACE OWNER	PARCEL	ACRES
A	CNX LAND LLC	9-3-1	106.935
B	CONSOLIDATION COAL CO.	9-3-1.1	5.00
C	CONSOLIDATION COAL CO.	9-2-10.1	2.00
D	CNX LAND LLC	9-5-10.1	8.453
E	CNX LAND LLC	9-2-10	58.125
F	CNX LAND LLC	9-2-12.2	31.392
G	HARRY J. CRAWFORD, ET UX (LIFE ESTATE)	9-2-12	80.718
H	ROBERT L. & MELINDA J. WHITE	9-5-9	20.00
I	SCOTT A. HOSTUTLER	9-5-8	26.752
J	MARK H. FOX, ET UX	9-5-15	36.533
K	ROBERT L. & MELINDA J. WHITE	9-5-10	27.957
L	MARK H. FOX, ET UX	9-5-14.3	10.714
M	ROBERT L. & MELINDA J. WHITE	9-5-11	93.086
N	SHELLY ANN JORDAN	9-5-13	5.51
O	LARRY WHETZEL, JR.	9-5-11.2	2.355
P	LARRY WHETZEL, JR.	9-5-12	1.00
Q	ROBERT G. HUBBS & SCARLETT E. OTTE	9-7-7	108.61
R	ROBERT & BRADLEY HENDERSON	9-7-8	48.00
S	MARK H. FOX	9-7-11	75.37
T	GEORGE R. & SHIRLEY KOONTZ	9-8-12	73.351
U	LARRY LEE CONKLE SR ET UX	9-8-13.1	1.666
V	LARRY LEE CONKLE SR ET UX	9-8-13	24.03
W	TERRISA & MICHAEL HUGHES	9-8-13.2	3.582
X	CASSANDRA A. & JAMES R. DOWNES	9-8-13.3	3.22
Y	LOGAN M TOLER & ASHLEY N. BERARDI	9-7-29.1	5.004
Z	DARLA JO COX, ET AL	9-7-29	85.540
AA	CONSOL MINING CO., LLC	9-9-3	84.50
BB	LUCY McCARDLE	9-9-2	21.11
CC	LUCY McCARDLE	9-9-1	20.89
DD	LUCY McCARDLE	9-12-8	117.85
EE	TODD L. SCHERICH, ET AL	9-9-16	168.204

**LINE TABLE**

LINE	BEARING	DISTANCE
L1	N 56°04' W	135.64'
L2	N 43°17' E	2489.96'
L3	N 76°53' E	1546.87'

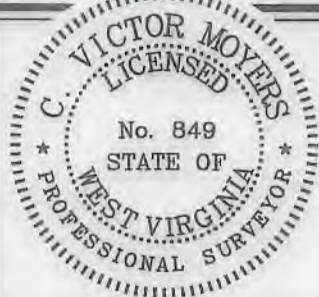
**CURVE TABLE**

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	148.82'	434.88'	N 70°56' W	148.10'
C2	184.32'	204.54'	S 73°46' W	178.15'
C3	175.12'	272.59'	S 25°45' W	172.12'
C4	234.45'	606.87'	S 02°10' E	232.99'
C5	291.82'	1041.98'	S 21°11' E	290.87'



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.348.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295  
sfsww.com

P.S. 849 *C. Victor Moyers*



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

**LEGEND**

- UNIT BOUNDARY
- LEASED TRACTS INSIDE
- UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA
- WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)  
 NAD83 S.P.C.(FT) N. 486,104.49 E. 1,639,156.22  
 NAD83 GEO. LAT-(N) 39.828700 LONG-(W) 80.672714  
 NAD83 UTM (M) N. 4,408,796.11 E. 528,006.75  
**LANDING POINT**  
 NAD83 S.P.C.(FT) N. 486,741.1 E. 1,636,356.7  
 NAD83 GEO. LAT-(N) 39.830347 LONG-(W) 80.682711  
 NAD83 UTM (M) N. 4,408,975.8 E. 527,150.6  
**BOTTOM HOLE**  
 NAD83 S.P.C.(FT) N. 475,939.5 E. 1,642,323.5  
 NAD83 GEO. LAT-(N) 39.800909 LONG-(W) 80.660970  
 NAD83 UTM (M) N. 4,405,715.4 E. 529,023.4

SCALE 1" = 2000' FILE NO. 8911P11HUR4.dwg  
 HUDSON S-11HU REV2  
 DATE AUGUST 23, 2019  
 REVISED 10/18/19, 11/07/19, 01/08/20, 01/27/20  
 OPERATORS WELL NO. HUDSON S-11HU  
 API WELL NO. 47-051-02296  
 NO. STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 H6A

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

10,106' B.H. 1,698' T.H. 39°50'00" T.H. LATITUDE 39°50'00" B.H. LATITUDE 80°40'00" T.H. LONGITUDE 80°37'30" B.H. LONGITUDE 11,811' B.H.

**HUDSON S LEASE  
UTICA UNIT - 511.34 AC ±  
WELL 11HU  
TUG HILL OPERATING**

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

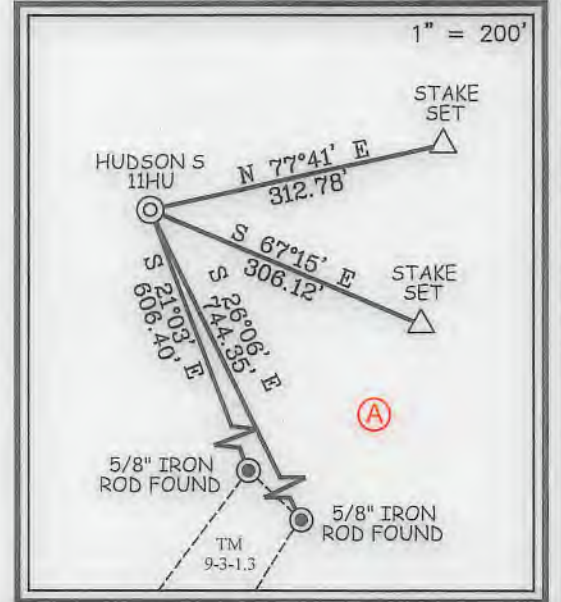
T.H. LONGITUDE 80°40'00"  
B.H. LONGITUDE 80°37'30"

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-2-9.1	CONSOLIDATION COAL CO.	1.00
9-2-9.2	CONSOLIDATION COAL CO.	1.00
9-3-1.2	CONSOLIDATION COAL CO.	1.00
9-5-6	NANCY L. SNYDER (LIFE ESTATE)	82.858
9-5-6.1	JON B. CRAWFORD	4.679
9-5-6.9	CNX LAND CO. LLC	22.39
9-5-7	ME CHURCH	81.5 POLES (6 AC. ASSD)
9-5-8.1	ISACC McKINNEY, ET UX	2.875
9-5-8.2	MISTY CROW W/ ROBERT & ELSIE WHETZEL (LIFE ESTATE)	1.973
9-5-11.1	MARK H. FOX	2.619
9-5-11.3	MARK H. FOX	1.94
9-5-13	SHELLY ANN JORDAN	5.51
9-5-14.1	SAVANNA N & MATTHEW WEST	2.819
9-5-14.4	BETTY R. OTT	10.501
9-5-16	LARRY L. CONKLE, JR.	2.365
9-5-16.1	SCOTT A. HOSTUTLER	0.142
9-5-21	RALPH E. WELLMAN, ET UX	1.00
9-5-22	RALPH E. WELLMAN, ET UX	0.5
9-7-9	CNX LAND CO. LLC	2.00
9-7-10	DONALD M. & THERESA L. HARRIS	3.00
9-7-11.1	WV DEPT. OF HIGHWAYS	3.63
9-7-27	LOGAN M TOLER & ASHLEY N. BERARDI	1.005
9-7-28	VICTOR & CLAIRE CAMERON	1.983
9-7-28.1	NATHAN WILLIAMS	2.768
9-8-1	CNX LAND CO. LLC	2.908
9-8-2	CNX LAND CO. LLC	6000 SQ. FT.

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

NAD'83 S.P.C.(FT)	N. 486,104.49	E. 1,639,156.22
NAD'83 GEO.	LAT-(N) 39.828700	LONG-(W) 80.672714
NAD'83 UTM (M)	N. 4,408,796.11	E. 528,006.75
<b>LANDING POINT</b>		
NAD'83 S.P.C.(FT)	N. 486,741.1	E. 1,636,356.7
NAD'83 GEO.	LAT-(N) 39.830347	LONG-(W) 80.682711
NAD'83 UTM (M)	N. 4,408,975.8	E. 527,150.6
<b>BOTTOM HOLE</b>		
NAD'83 S.P.C.(FT)	N. 475,939.5	E. 1,642,323.5
NAD'83 GEO.	LAT-(N) 39.800909	LONG-(W) 80.660970
NAD'83 UTM (M)	N. 4,405,715.4	E. 529,023.4

**REFERENCES**



**NOTES ON SURVEY**

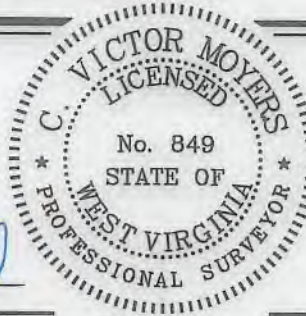
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'
- PROPOSED LATERAL OR TOP HOLE OF HUDSON S-11HU (47-051-02296) IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF HUDSON S-12HU (47-051-02292), HUDSON S-13HU (47-051-02293), TEN HIGH 1N-13HU (47-051-01965), TEN HIGH 1N-20HU (47-051-02021), TEN HIGH 1S-16HU (47-051-02028), TEN HIGH 1S-17HU (47-051-02033), PROPOSED FITZGERALD S-17HU, PROPOSED FITZGERALD S-18HU, PROPOSED FITZGERALD S-19HU.



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slsw.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. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE AUGUST 23, 20 19  
REVISED 10/18/19, 11/07/19, 01/08/20, 01/27/20  
OPERATORS WELL NO. HUDSON S-11HU  
API WELL NO. 47 - 051 - 02296 <sup>H6A</sup>  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8911P11HUR4.dwg  
HUDSON S-11HU 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: GROUND = 1,370.20' ELEVATION PROPOSED = 1,344.81' WATERSHED GRAVE CREEK (HUC 10)  
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER CNX LAND LLC ACREAGE 106.935±  
ROYALTY OWNER CHARLENE L. BAKER, ET AL ACREAGE 106.935±

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 POINT PLEASANT  
ESTIMATED DEPTH TVD: 11,901' / TMD: 25,096'

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 ADDRESS CHARLESTON, WV 25313

COUNTY NAME  
PERMIT

**HUDSON S LEASE  
UTICA UNIT - 511.34 AC ±  
WELL 11HU  
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slswv.com

NO.	Lease ID	Tags	Parcel	Grantor, Lessor, Etc.	Deed Book/Page	
1	10*26041	A	9-3-1	FREDDIE C WHITE AND VIOLET L WHITE, ET AL	728	527
2	10*26047	B	9-3-1.1	ROBERT D BLAKE AND ATHENA LIBERTY BLAKE, ET AL	863	138
3	10*26711	C	9-2-10.1	CNX GAS COMPANY LLC	1039	1
4	10*26001	D	9-5-10.1	FREDDIE C WHITE AND VIOLET L WHITE	655	555
5	10*26001	E	9-2-10	FREDDIE C WHITE AND VIOLET L WHITE	655	555
6	10*26000	F	9-2-12.2	HARRY J CRAWFORD AND DONNA JEAN CRAWFORD, LIFE ESTATE, ET AL	661	156
7	10*26000	G	9-2-12	HARRY J CRAWFORD AND DONNA JEAN CRAWFORD, LIFE ESTATE, ET AL	661	156
8	10*26001	H	9-5-9	FREDDIE C WHITE AND VIOLET L WHITE	655	555
9	10*19206	I	9-5-8	SCOTT A HOSTUTLER	724	208
10	10*19005	J	9-5-15	MARK H. FOX AND RETTA J. FOX, HIS WIFE	687	598
11	10*26001	K	9-5-10	FREDDIE C WHITE AND VIOLET L WHITE	655	555
12	10*19005	L	9-5-14.3	MARK H. FOX AND RETTA J. FOX, HIS WIFE	687	598
13	10*24424	M	9-5-11	THE FAYE A SKOEN REVOCABLE TRUST, ET AL	1024	291
14	10*26002	N	9-5-13	GEORGIA JORDAN LIFE ESTATE AND SHELLY ANN JORDAN REMAINDERMAN	687	616
15	10*24424	O	9-5-11.2	THE FAYE A SKOEN REVOCABLE TRUST, ET AL	1024	291
16	10*47051.188.0	P	9-5-12	LARRY J WHETZEL JR	869	216
17	10*15503	Q	9-7-7	ROBERT HUBBS	677	521
18	10*26003	R	9-7-8	ROBERT HENDERSON AND DEBRA HENDERSON, HUSBAND & WIFE, AND BRADLEY HENDERSON	697	215
19	10*47051.094.0	S	9-7-11	MARK H FOX	864	163
20	10*47051.208.0	T	9-8-12	SHIRLEY KOONTZ POA KELLI KOONTZ BENJINE	869	222
21	10*28169	U	9-8-13.1	LARRY L CONKLE AND DONNA D CONKLE, HUSBAND AND WIFE	N/A	N/A
22	10*28169	V	9-8-13	LARRY L CONKLE AND DONNA D CONKLE, HUSBAND AND WIFE	N/A	N/A
23	10*47051.150.1	W	9-8-13.2	MICHAEL J HUGHES & TERESA A HUGHES	866	309
24	10*28169	X	9-8-13.3	LARRY L CONKLE AND DONNA D CONKLE, HUSBAND AND WIFE	N/A	N/A
25	10*15524	Y	9-7-29.1	CAROL J ANDERSON ETAL	901	563
26	10*15524	Z	9-7-29	CAROL J ANDERSON ETAL	901	563
27	10*47051.304.0	AA	9-9-3	UNITED BANK INC	905	5
28	10*23386	BB	9-9-2	UNK HEIRS OF EDITH CARMICHAEL BY HERMAN LANTZ, ESQ AS SPEC COMMISSIONER	1008	68
29	10*23386	CC	9-9-1	UNK HEIRS OF EDITH CARMICHAEL BY HERMAN LANTZ, ESQ AS SPEC COMMISSIONER	1008	68
30	10*47051.289.1	DD	9-12-8	JANICE M HIXSON AND HARRY C HIXSON, ET AL	898	461
31	10*19987	EE	9-9-16	LESLEY D BALLA, ET AL	955	103

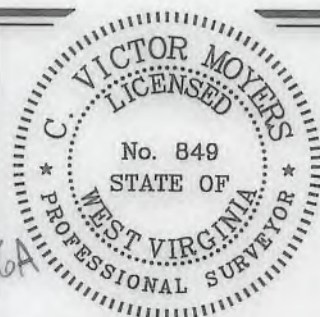
FILE NO. 8911P11HUR4.dwg  
HUDSON S-11HU REV2

DATE AUGUST 23, 20 19

REVISED 10/18/19, 11/07/19, 01/08/20, 01/27/20

OPERATORS WELL NO. HUDSON S-11HU

API WELL NO. 47 — 051 — 02296  
STATE COUNTY PERMIT



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



P.S.  
849

*C. Victor Moyers*

WELL OPERATOR TUG HILL OPERATING, LLC  
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500  
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER  
ADDRESS CT CORPORATION SYSTEM  
5400 D BIG TYLER ROAD  
CHARLESTON, WV 25313

COUNTY NAME

PERMIT

4705102296

Lease ID	Parcel	Trge	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment		
10*26041	9-3-1	A	FREDDIE C WHITE AND VIOLET L WHITE	CHESEAPEAKE APPALACHIA LLC	1/8+	728	527	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cheapeake Appalachia LLC to Statoil USA Onshore Properties Inc: 27/386	Statoil USA Onshore Properties Inc to Chevron USA Inc: 30/427	Cheapeake Appalachia LLC to Chevron USA Inc: 30/461	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26044	9-3-1	A	JOYCE A WALLACE	CHEVRON USA INC	1/8+	863	296	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26047	9-3-1	A	ROBERT D BLAKE AND ATHENA LIBERTY BLAKE	CHEVRON USA INC	1/8+	863	138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26048	9-3-1	A	LOIS J ELIAS AND LOUIS J ELIAS	CHEVRON USA INC	1/8+	861	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26049	9-3-1	A	MARRY H HUBBS	CHEVRON USA INC	1/8+	863	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26050	9-3-1	A	BERNARD O CROW AND KAREN S CROW	CHEVRON USA INC	1/8+	863	627	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26051	9-3-1	A	ROBERT W KIDNER	CHEVRON USA INC	1/8+	863	644	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26052	9-3-1	A	BETTY J BLAKE	CHEVRON USA INC	1/8+	863	545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26053	9-3-1	A	ANTHONY T MOORE	CHEVRON USA INC	1/8+	854	343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26054	9-3-1	A	HIRAM YERNON MOORE	CHEVRON USA INC	1/8+	854	353	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26055	9-3-1	A	LARRY W MOORE SR	CHEVRON USA INC	1/8+	854	348	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26056	9-3-1	A	RONALD W MOORE	CHEVRON USA INC	1/8+	854	338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26057	9-3-1	A	JOHN PURDY AND BRENDA S PURDY	CHEVRON USA INC	1/8+	854	420	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26058	9-3-1	A	CAROLE J WOOD	CHEVRON USA INC	1/8+	854	415	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26059	9-3-1	A	TERRY L BLAKE	CHEVRON USA INC	1/8+	854	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26060	9-3-1	A	ROBERT C BLAKE AND LYN BLAKE	CHEVRON USA INC	1/8+	854	333	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

10*26061	9-3-1	A	RODNEY W AND LINDA L HUBBS	CHEVRON USA INC	1/8+	854	435	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26062	9-3-1	A	SHANNON ROGER AND LORRAINE HUBBS	CHEVRON USA INC	1/8+	854	233	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26063	9-3-1	A	PATTY L RINE AND FLOYD D RINE	CHEVRON USA INC	1/8+	854	238	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26064	9-3-1	A	CATHARINE LEE BLAKE	CHEVRON USA INC	1/8+	853	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26065	9-3-1	A	DENNIS F MOORE JOLENE A MOORE	CHEVRON USA INC	1/8+	857	646	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26066	9-3-1	A	DANNY E AND MARVA L BEYSER	CHEVRON USA INC	1/8+	858	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26067	9-3-1	A	DONALD DEAN BEYSER	CHEVRON USA INC	1/8+	858	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26068	9-3-1	A	GARY F BLAKE AND DORIS E BLAKE	CHEVRON USA INC	1/8+	858	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26069	9-3-1	A	MARILYN SUE REILLY	CHEVRON USA INC	1/8+	857	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26070	9-3-1	A	MARY W HOLMES	CHEVRON USA INC	1/8+	857	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26071	9-3-1	A	CHARLENE LORRAINE BAKER	CHEVRON USA INC	1/8+	857	607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26072	9-3-1	A	JAMES L BLAKE	CHEVRON USA INC	1/8+	857	616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26073	9-3-1	A	DARLENE L BEYSER	CHEVRON USA INC	1/8+	860	176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26074	9-3-1	A	RANDYLYN MOORE AKA RANDY MOORE	CHEVRON USA INC	1/8+	860	166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26075	9-3-1	A	BETTY JOHANN CECIL	CHEVRON USA INC	1/8+	860	119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26076	9-3-1	A	DORIS IMOGENE GARRISON	CHEVRON USA INC	1/8+	860	114	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26077	9-3-1	A	DOROTHY J AND ROBERT M BLAKE	CHEVRON USA INC	1/8+	860	104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

10*26078	9-3-1	A	VELMA RUTH HARRIS	CHEVRON USA INC	1/8+	860	228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26079	9-3-1	A	MARY OPRESSA HARRIS LOUDEN	CHEVRON USA INC	1/8+	860	109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26080	9-3-1	A	SHARON DIANE HOLMES MAH AND WILLIAM HENRY JAHN III - W/H	CHEVRON USA INC	1/8+	860	217	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26081	9-3-1	A	CYNTHIA JEAN AND EDDIE W WILSON	CHEVRON USA INC	1/8+	861	545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26082	9-3-1	A	BRIAN C AND SARA M LUTZ	CHEVRON USA INC	1/8+	861	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26083	9-3-1	A	WILLIAM S BLAKE JR	CHEVRON USA INC	1/8+	861	535	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26084	9-3-1	A	CNETHIA A AND JAMES O DAVIDSON	CHEVRON USA INC	1/8+	889	46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26085	9-3-1	A	CLYDE R AND JANA HIGGINS	CHEVRON USA INC	1/8+	861	508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26086	9-3-1	A	DELMAS W AND ROSE HIGGINS	CHEVRON USA INC	1/8+	861	503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26087	9-3-1	A	JERRY L AND DENISE HIGGINS	CHEVRON USA INC	1/8+	861	526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26088	9-3-1	A	SHIRL W AND DOMS HIGGINS	CHEVRON USA INC	1/8+	861	540	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26089	9-3-1	A	ALVA L AND SHIRLEY HIGGINS	CHEVRON USA INC	1/8+	861	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26090	9-3-1	A	H DEAN AND KAREN HIGGINS	CHEVRON USA INC	1/8+	861	516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26091	9-3-1	A	JOLENE M MANN	CHEVRON USA INC	1/8+	864	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26092	9-3-1	A	SHAWN J AND SARAH E CREWS	CHEVRON USA INC	1/8+	864	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26093	9-3-1	A	JOYCE HOLMES CONE AND WILLIAM CONE - W/H	CHEVRON USA INC	1/8+	861	493	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26094	9-3-1	A	MARK L CURRY	CHEVRON USA INC	1/8+	865	102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

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10*26095	9-3-1	A	CHRISTINA C MUNSON	CHEVRON USA INC	1/8+	865	107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26097	9-3-1	A	DAVID L BEYSER	CHEVRON USA INC	1/8+	865	173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26098	9-3-1	A	KIMBERLY J HOLDER	CHEVRON USA INC	1/8+	867	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26099	9-3-1	A	CAROL TROWBRIDGE ET VIR	CHEVRON USA INC	1/8+	866	138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26100	9-3-1	A	JOSEPH L AND ROSE MARIE MAUPIN	CHEVRON USA INC	1/8+	866	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26120	9-3-1	A	JAMES D AND LINDA D YOCUM	CHEVRON USA INC	1/8+	884	635	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26121	9-3-1	A	BETTY BRWNER	CHEVRON USA INC	1/8+	871	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26236	9-3-1	A	GERALD W QUIGLEY AND VICKI L QUIGLEY	CHEVRON USA INC	1/8+	884	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26237	9-3-1	A	FREDA L CAMPBELL	CHEVRON USA INC	1/8+	889	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26238	9-3-1	A	MARSHA L MERGER	CHEVRON USA INC	1/8+	883	639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26287	9-3-1	A	IVAN R AND MARY A BLAKE	CHEVRON USA INC	1/8+	888	542	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26288	9-3-1	A	REBECCA L BLAKE	CHEVRON USA INC	1/8+	888	571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26289	9-3-1	A	DIANETTA B BLAKE FROMHART	CHEVRON USA INC	1/8+	888	574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26291	9-3-1	A	BARBARA A BLAKE MASON	CHEVRON USA INC	1/8+	901	125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26292	9-3-1	A	JUDITH L BLAKE	CHEVRON USA INC	1/8+	882	329	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26293	9-3-1	A	JAY C CURRY	CHEVRON USA INC	1/8+	882	433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26294	9-3-1	A	JOAN A GIEGER	CHEVRON USA INC	1/8+	880	509	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95



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10*26295	9-3-1	A	ARTHUR LEE WARRICK	CHEVRON USA INC	1/8+	880	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26296	9-3-1	A	CARL G CALDWELL	CHEVRON USA INC	1/8+	883	530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26297	9-3-1	A	DIANA L MCKINNEY	CHEVRON USA INC	1/8+	885	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26298	9-3-1	A	JANE HENDRICKSON	CHEVRON USA INC	1/8+	886	429	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26299	9-3-1	A	BETTY WILKINSON DANIEL A MCVANE AIF	CHEVRON USA INC	1/8+	886	432	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26300	9-3-1	A	JILL LOH HENNEN BARNETT	CHEVRON USA INC	1/8+	886	439	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*27180	9-3-1	A	TAMALA SCOLLICK	TH EXPLORATION LLC	1/8+	1053	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27181	9-3-1	A	CRYSTAL THOMAS	TH EXPLORATION LLC	1/8+	1052	648	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27703	9-3-1	A	DOROTHY MAXIMINE MOORE TRUST	TH EXPLORATION LLC	1/8+	1061	255	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26044	9-3-1.1	B	JOYCE A WALLACE	CHEVRON USA INC	1/8+	863	296	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26047	9-3-1.1	B	ROBERT D BLAKE AND ATHENA LIBERTY BLAKE	CHEVRON USA INC	1/8+	863	138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26048	9-3-1.1	B	LOIS J ELIAS AND LOUIS J ELIAS	CHEVRON USA INC	1/8+	861	599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26049	9-3-1.1	B	MARY H HUBBS	CHEVRON USA INC	1/8+	863	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26050	9-3-1.1	B	BERNARD O CROW AND KAREN S CROW	CHEVRON USA INC	1/8+	863	627	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26051	9-3-1.1	B	ROBERT W KIDNER	CHEVRON USA INC	1/8+	863	644	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26052	9-3-1.1	B	BETTY J BLAKE	CHEVRON USA INC	1/8+	863	545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26053	9-3-1.1	B	ANTHONY T MOORE	CHEVRON USA INC	1/8+	854	343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26054	9-3-1.1	B	HIRAM VERNON MOORE	CHEVRON USA INC	1/8+	854	353	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26055	9-3-1.1	B	LARRY W MOORE SR	CHEVRON USA INC	1/8+	854	348	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

10*26056	9-3-1.1	B	RONALD W MOORE	CHEVRON USA INC	1/8+	854	338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95	
10*26057	9-3-1.1	B	JOHN PURDY AND BRENDA S PURDY	CHEVRON USA INC	1/8+	854	420	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26058	9-3-1.1	B	CAROLE J WOOD	CHEVRON USA INC	1/8+	854	415	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26059	9-3-1.1	B	TERRY L BLAKE	CHEVRON USA INC	1/8+	854	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26060	9-3-1.1	B	ROBERT C BLAKE AND LYNN BLAKE	CHEVRON USA INC	1/8+	854	333	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26061	9-3-1.1	B	RODNEY W AND LINDA L HUBBS	CHEVRON USA INC	1/8+	854	435	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26062	9-3-1.1	B	SHANNON ROGER AND LORRAINE HUBBS	CHEVRON USA INC	1/8+	854	233	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26063	9-3-1.1	B	PATTY L HINE AND FLOYD D HINE	CHEVRON USA INC	1/8+	854	238	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26064	9-3-1.1	B	CATHARINE LEE BLAKE	CHEVRON USA INC	1/8+	853	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26065	9-3-1.1	B	DENNIS F MOORE JOLENE A MOORE	CHEVRON USA INC	1/8+	857	646	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26066	9-3-1.1	B	DANNY E AND MARVA L BEYSER	CHEVRON USA INC	1/8+	858	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26067	9-3-1.1	B	DONALD DEAN BEYSER	CHEVRON USA INC	1/8+	858	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26068	9-3-1.1	B	GARY E BLAKE AND DONIS E BLAKE	CHEVRON USA INC	1/8+	858	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26069	9-3-1.1	B	MARILYN SUE REILLEY	CHEVRON USA INC	1/8+	857	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26070	9-3-1.1	B	MARY W HOLMES	CHEVRON USA INC	1/8+	857	602	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26071	9-3-1.1	B	CHARLENE LORRAINE BAKER	CHEVRON USA INC	1/8+	857	607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26072	9-3-1.1	B	JAMES L BLAKE	CHEVRON USA INC	1/8+	857	616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

10*26073	9-3-1.1	B	DARLENE L BEYSER	CHEVRON USA INC	1/8+	860	176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26074	9-3-1.1	B	RANDI'YUN MOORE AKA RANDY MOORE	CHEVRON USA INC	1/8+	860	166	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26075	9-3-1.1	B	BETTY JOANN CECIL	CHEVRON USA INC	1/8+	860	119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26076	9-3-1.1	B	DORIS IMOGENE GARRISON	CHEVRON USA INC	1/8+	860	114	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26077	9-3-1.1	B	DOROTHY / AND ROBERT M BLAKE	CHEVRON USA INC	1/8+	860	104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26078	9-3-1.1	B	VELMA RUTH HARRIS	CHEVRON USA INC	1/8+	860	228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26079	9-3-1.1	B	MARY ODESSA HARRIS LOUDEN	CHEVRON USA INC	1/8+	860	109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26080	9-3-1.1	B	SHARON DIANE HOLMES JAHN AND WILLIAM HENRY JAHN III - W/H	CHEVRON USA INC	1/8+	860	217	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26081	9-3-1.1	B	CYNTHIA JEAN AND EDDIE W WILSON	CHEVRON USA INC	1/8+	861	545	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26082	9-3-1.1	B	BRIAN C AND SARAA M LUTZ	CHEVRON USA INC	1/8+	861	550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26083	9-3-1.1	B	WILLIAM S BLAKE JR	CHEVRON USA INC	1/8+	861	535	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26084	9-3-1.1	B	CYNTHIA A AND JAMES O DAVIDSON	CHEVRON USA INC	1/8+	869	46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26085	9-3-1.1	B	CYDE R AND JANA HIGGINS	CHEVRON USA INC	1/8+	861	508	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26086	9-3-1.1	B	DELMAS W AND ROSE HIGGINS	CHEVRON USA INC	1/8+	861	503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26087	9-3-1.1	B	JERRY L AND DENISE HIGGINS	CHEVRON USA INC	1/8+	861	526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26088	9-3-1.1	B	SHIRL W AND DORIS HIGGINS	CHEVRON USA INC	1/8+	861	540	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95
10*26089	9-3-1.1	B	ALVA L AND SHIRLEY HIGGINS	CHEVRON USA INC	1/8+	861	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 4/9/95

10*26090	9-3-1.1	B	H DEAN AND KAREN HIGGINS	CHEVRON USA INC	1/8+	861	516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26091	9-3-1.1	B	JOELENE M MAWEN	CHEVRON USA INC	1/8+	864	55	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26092	9-3-1.1	B	SHAWN J AND SARAH E CREWS	CHEVRON USA INC	1/8+	864	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26093	9-3-1.1	B	JOYCE HOLMES CONE AND WILLIAM CONE - W/H	CHEVRON USA INC	1/8+	861	493	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26094	9-3-1.1	B	MARK L CURRY	CHEVRON USA INC	1/8+	865	102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26095	9-3-1.1	B	CHRISTINA C MUNSON	CHEVRON USA INC	1/8+	865	107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26097	9-3-1.1	B	DAVID L BRYSER	CHEVRON USA INC	1/8+	865	173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26098	9-3-1.1	B	KIMBERLY J HOLDER	CHEVRON USA INC	1/8+	867	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26099	9-3-1.1	B	CAROL TROWBRIDGE ET VIR	CHEVRON USA INC	1/8+	866	138	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26100	9-3-1.1	B	JOSEPH L AND ROSE MARIE MAUPIN	CHEVRON USA INC	1/8+	866	67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26120	9-3-1.1	B	JAMES D AND LINDA D YOCUM	CHEVRON USA INC	1/8+	884	635	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26221	9-3-1.1	B	BETTY BRYSER	CHEVRON USA INC	1/8+	871	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26236	9-3-1.1	B	GERALD W QUIGLEY AND VICKI L QUIGLEY	CHEVRON USA INC	1/8+	884	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26237	9-3-1.1	B	FREDA L CAMPBELL	CHEVRON USA INC	1/8+	889	40	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26238	9-3-1.1	B	MARSHA L MERCER	CHEVRON USA INC	1/8+	883	639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26287	9-3-1.1	B	IVAN R AND MARY A BLAKE	CHEVRON USA INC	1/8+	888	542	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95
10*26288	9-3-1.1	B	REBECCA J BLAKE	CHEVRON USA INC	1/8+	888	571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/95

10*26289	9-3-1.1	B	DIANETTA B BLAKE FROMHART	CHEVRON USA INC	1/8+	888	574	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26291	9-3-1.1	B	BARBARA A BLAKE MASON	CHEVRON USA INC	1/8+	901	125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26292	9-3-1.1	B	JUDITH L BLAKE	CHEVRON USA INC	1/8+	882	329	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26293	9-3-1.1	B	JAY C CURRY	CHEVRON USA INC	1/8+	882	433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26294	9-3-1.1	B	JOAN A GIEGER	CHEVRON USA INC	1/8+	880	509	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26295	9-3-1.1	B	ARTHUR LEE WARYCK	CHEVRON USA INC	1/8+	880	512	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26296	9-3-1.1	B	GARI G CALDWELL	CHEVRON USA INC	1/8+	883	530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26297	9-3-1.1	B	DIANA L MCKINNEY	CHEVRON USA INC	1/8+	885	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26298	9-3-1.1	B	JANE HENDRICKSON	CHEVRON USA INC	1/8+	886	429	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26299	9-3-1.1	B	BETTY WILKINSON DANIEL A MCVANE AIF	CHEVRON USA INC	1/8+	886	432	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26300	9-3-1.1	B	JILL LORI HERNEN BARNETT	CHEVRON USA INC	1/8+	886	439	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH
10*26711	9-3-1.1	B	CNX GAS COMPANY LLC	TH EXPLORATION LLC	1/8+	1059	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27180	9-3-1.1	B	TAMALA SCOLLICK	TH EXPLORATION LLC	1/8+	1053	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27181	9-3-1.1	B	CRYSTAL THOMAS	TH EXPLORATION LLC	1/8+	1052	648	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27298	9-3-1.1	B	DOBROTAH MAXIMNE MOORE TRUST	TH EXPLORATION LLC	1/8+	1061	255	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26711	9-2-10.1	C	CNX GAS COMPANY LLC	TH EXPLORATION LLC	1/8+	1099	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*26001	9-5-10.1	D	FREDDIE C WHITE AND VIOLET L WHITE	TRIENERGY, INC.	1/8+	655	555	N/A	N/A	TriEnergy Inc to AB Resources LLC: 19/6/23	AB Resources LLC to Chief Exploration & Development LLC: 16/6/40	TriEnergy Inc to AB Resources LLC: 16/6/40	TriEnergy Holdings LLC: 21/1/48	TriEnergy Inc to Chief Exploration & Development LLC: 21/1/48	TriEnergy Holdings LLC: 21/1/48	Chief E&D LLC & Radler Resources USA Corp: 6/5/1643 & 21/5/20	AB Resources LLC to Chief E&D LLC & Radler: 2000 LP: 24/3/19	Chief E&D LLC, Chief O/G Enertplus to Chevron USA Inc: 25/1 & 25/105	AB Resources LLC to Chevron USA Inc: 7/56/397	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/3/35	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/9/5
10*26001	9-2-10	E	FREDDIE C WHITE AND VIOLET L WHITE	TRIENERGY, INC.	1/8+	655	555	N/A	N/A	TriEnergy Inc to AB Resources LLC: 16/6/40	AB Resources LLC to Chief Exploration & Development LLC: 16/6/40	TriEnergy Inc to AB Resources LLC: 16/6/40	TriEnergy Holdings LLC: 21/1/48	TriEnergy Inc to Chief Exploration & Development LLC: 21/1/48	Chief E&D LLC & Radler Resources USA Corp: 6/5/1643 & 21/5/20	AB Resources LLC to Chief E&D LLC & Radler: 2000 LP: 24/3/19	Chief E&D LLC, Chief O/G Enertplus to Chevron USA Inc: 25/1 & 25/105	AB Resources LLC to Chevron USA Inc: 7/56/397	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/3/35	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/9/5	
10*26000	9-2-12.2	F	HARRY J CRAWFORD AND DONNA JEAN CRAWFORD, LIFE ESTATE, ET AL	TRIENERGY, INC.	1/8+	651	156	TriEnergy Inc to AB Resources LLC: 20/2/52	AB Resources LLC to Chief Exploration & Development LLC: 6/6/40	TriEnergy Inc to AB Resources LLC: 19/6/23	AB Resources LLC to Chief Exploration & Development LLC: 16/6/40	TriEnergy Inc to TriEnergy Holdings LLC: 21/1/48	TriEnergy Inc to Chief Exploration & Development LLC: 21/1/48	AB Resources LLC to Chief E&D LLC & Radler: 2000 LP: 21/3/19	Chief E&D LLC & Radler Resources USA Corp: 6/5/1643 & 21/5/20	AB Resources LLC to Chief E&D LLC & Radler: 2000 LP: 24/3/19	Chief E&D LLC, Chief O/G Enertplus to Chevron USA Inc: 25/1 & 25/105	AB Resources LLC to Chevron USA Inc: 7/56/397	TriEnergy Holdings LLC & TriEnergy Inc to Chevron USA Inc: 28/3/35	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC: 43/9/5	



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10*26105	9-5-11	M	RICHARD CHRIS BOGATKO	CHEVRON USA INC	1/8+	870	557	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26128	9-5-11	M	WILLIAM A BRUNNER JR AND JOYCE A BRUNNER	CHEVRON USA INC	1/8+	888	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26129	9-5-11	M	MARJORIE JARETTA FAUST	CHEVRON USA INC	1/8+	888	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26167	9-5-11	M	FRANK D DAY	CHEVRON USA INC	1/8+	871	583	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26201	9-5-11	M	IDEN SCOTT MCWHORTER	CHEVRON USA INC	1/8+	888	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26202	9-5-11	M	LOTA JO MITCHELL AND DAVID S MITCHELL	CHEVRON USA INC	1/8+	888	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26306	9-5-11	M	DAVID L BONMAR	CHEVRON USA INC	1/8+	890	475	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26308	9-5-11	M	HARRY A SALO AND BETTY A SALO	CHEVRON USA INC	1/8+	894	395	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26309	9-5-11	M	STEVEN ALAN ARMIGER	CHEVRON USA INC	1/8+	891	69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26310	9-5-11	M	KATHERINE ANN LUONGO FAIRBROTHER	CHEVRON USA INC	1/8+	901	38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26313	9-5-11	M	JOSEPH M DURINSKY	CHEVRON USA INC	1/8+	893	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26314	9-5-11	M	ROBIN KACHELE	CHEVRON USA INC	1/8+	893	180	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26327	9-5-11	M	KATHLEEN ELAINE ALEXANDRA SHIREY	CHEVRON USA INC	1/8+	901	134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26345	9-5-11	M	SHARON LOUISE EVANS	CHEVRON USA INC	1/8+	915	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*26806	9-5-11	M	JASON R FREID	TH EXPLORATION LLC	1/8+	1045	457	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*27483	9-5-11	M	SAH FAUST	CHEVRON USA INC	1/8+	876	490	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95
10*27496	9-5-11	M	RICHARD SCOTT WILLIAMSON	CHEVRON USA INC	1/8+	888	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration I LLC 43/95

10*26101	9-5-11	M	ELEANOR MARGO MORRIS	CHEVRON USA INC	1/8+	882	472	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*27502	9-5-11	M	BARBARA L BYRNE TRUSTEE OF THE JOINT REVOCABLE TRUST AGREEMENT DTD 5/23/2006	CHEVRON USA INC	1/8+	921	610	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*27504	9-5-11	M	INTERNATIONAL WOMENS AIR AND SPACE MUSEUM INC	CHEVRON USA INC	1/8+	907	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*27506	9-5-11	M	FREDERICK ALLEN FAUST	CHEVRON USA INC	1/8+	888	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*27509	9-5-11	M	SANDRA PAPPA BY CYNTHIA HOLSTEIN	CHEVRON USA INC	1/8+	913	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26002	9-5-13	N	GEORGIA JORDAN LIFE ESTATE AND SHELY ANN JORDAN REMAINDERMAN	TRIENERGY HOLDINGS, LLC	1/8+	687	616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*24424	9-5-11.2	O	THE FAIVE A SKODEN REVOCABLE TRUST	TH EXPLORATION LLC	1/8+	1024	291	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*24578	9-5-11.2	O	FRANK E WHITMAN JR AND GAYLE WHITMAN	TH EXPLORATION LLC	1/8+	1026	241	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*22907	9-5-11.2	O	JOSE FAUST	TH EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*22909	9-5-11.2	O	JONATHAN FAUST	TH EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*22911	9-5-11.2	O	DIANE BONAR	TH EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*22913	9-5-11.2	O	MINA BEUROSE BONAR	TH EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*22915	9-5-11.2	O	GARY THOMAS WILLIAMSON JR.	TH EXPLORATION LLC	1/8+	PENDING	PENDING	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26973	9-5-11.2	O	IVA L BONAR	TH EXPLORATION LLC	1/8+	1028	577	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26096	9-5-11.2	O	GRACE LAURA BONAR	CHEVRON USA INC	1/8+	855	198	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26101	9-5-11.2	O	BARBARA LOIS HADLEY	CHEVRON USA INC	1/8+	888	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26102	9-5-11.2	O	JOHN WILLIAM GRAVES AND OLIVIA MAE GRAVE	CHEVRON USA INC	1/8+	871	391	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26103	9-5-11.2	O	ROBERT GLENN BONAR	CHEVRON USA INC	1/8+	888	92	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26104	9-5-11.2	O	JAMES MCPHERSON SCHILLING	CHEVRON USA INC	1/8+	888	202	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26105	9-5-11.2	O	LESTER D FAUST	CHEVRON USA INC	1/8+	870	560	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26106	9-5-11.2	O	RICHARD CHRIS BOGATTO	CHEVRON USA INC	1/8+	870	557	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95
10*26128	9-5-11.2	O	WILLIAM A BRUNNER JR AND JOYCE A BRUNNER	CHEVRON USA INC	1/8+	888	30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 4/9/95



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10*26129	9-5-11.2	0	MARJORIE AURETTA FAUST	CHEVRON USA INC	1/8+	888	10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26167	9-5-11.2	0	FRANK B DAY	CHEVRON USA INC	1/8+	871	583	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26201	9-5-11.2	0	IDEN SCOTT MCWHORTER	CHEVRON USA INC	1/8+	888	21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26202	9-5-11.2	0	LOTTA JO MITCHELL AND DAVID S MITCHELL	CHEVRON USA INC	1/8+	888	27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26306	9-5-11.2	0	DAVID L BONMAR	CHEVRON USA INC	1/8+	890	475	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26308	9-5-11.2	0	HARRY A SALO AND BETTY A SALO	CHEVRON USA INC	1/8+	894	395	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26309	9-5-11.2	0	STEVEN ALAN ARMIGER	CHEVRON USA INC	1/8+	891	69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26310	9-5-11.2	0	KATHERINE ANN LUONGO FAIRBROTHER	CHEVRON USA INC	1/8+	901	38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26313	9-5-11.2	0	JOSEPH M DUBINSKY	CHEVRON USA INC	1/8+	893	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26314	9-5-11.2	0	ROBIN KACHELE	CHEVRON USA INC	1/8+	893	180	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26317	9-5-11.2	0	KATHLEEN ELAINE ALEXANDRA SHREY	CHEVRON USA INC	1/8+	901	134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26345	9-5-11.2	0	SHARON LOUISE EVANS	CHEVRON USA INC	1/8+	915	597	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*26806	9-5-11.2	0	JASON R FRIED	TH EXPLORATION LLC	1/8+	1045	457	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10*27483	9-5-11.2	0	SARI FAUST	CHEVRON USA INC	1/8+	876	490	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*27496	9-5-11.2	0	RICHARD SCOTT WILLIAMSON	CHEVRON USA INC	1/8+	888	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*27501	9-5-11.2	0	ELEANOR MARGO MORRIS	CHEVRON USA INC	1/8+	882	472	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95
10*27502	9-5-11.2	0	BARBARA L BYRNE TRUSTEE OF THE JOINT REVOCABLE TRUST AGREEMENT DTO 5/23/2006	CHEVRON USA INC	1/8+	921	610	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration LLC 43/95

10*272504	9-5-11.2	O	INTERNATIONAL WOMENS AIR AND SPACE MUSEUM INC	CHEVRON USA INC	1/8+	907	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*27506	9-5-11.2	O	FREDERICK ALLEN FAUST	CHEVRON USA INC	1/8+	888	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*27509	9-5-11.2	O	SANDRA PAPPA BY CYNTHIA HOLSTEIN	CHEVRON USA INC	1/8+	913	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.188.0	9-5-11.2	O	LARRY J. HERTZEL JR	TH EXPLORATION LLC	1/8+	869	216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.188.0	9-5-12	P	LARRY J. HERTZEL JR	TH EXPLORATION LLC	1/8+	869	216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*15503	9-7-7	Q	ROBERT HUBBS	CHIEF EXPLORATION & DEVELOPMENT	1/8+	677	521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*26003	9-7-8	R	ROBERT HENDERSON AND DEBRA HENDERSON, HUSBAND & WIFE, AND BRADLEY HENDERSON	AB RESOURCES LLC	1/8+	637	215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.094.0	9-7-21	S	MARK H FOX	TH EXPLORATION LLC	1/8+	864	163	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.208.0	9-8-12	T	SHARLEI KOONITZ POK KELLI KOONITZ BERLINE	TH EXPLORATION LLC	1/8+	869	222	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*28169	9-8-13.1	U	LARRY T CONKLE AND DONNA D CONKLE, HUSBAND AND WIFE	TH EXPLORATION LLC	1/8+	1068	299	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*28169	9-8-13.1	V	LARRY T CONKLE AND DONNA D CONKLE, HUSBAND AND WIFE	TH EXPLORATION LLC	1/8+	1068	299	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.150.1	9-8-13.2	W	MICHAEL J HUGHES & TERESA A HUGHES	TH EXPLORATION LLC	1/8+	866	309	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*28169	9-8-13.3	X	LARRY T CONKLE AND DONNA D CONKLE, HUSBAND AND WIFE	TH EXPLORATION LLC	1/8+	1068	299	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*15524	9-7-29.1	Y	CAROL J ANDERSON ETAL	CHEVRON USA INC	1/8+	901	563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*15524	9-7-29	Z	CAROL J ANDERSON ETAL	CHEVRON USA INC	1/8+	901	563	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.304.0	9-9-3	AA	UNITED BANK INC	TH EXPLORATION LLC	1/8+	905	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*23886	9-9-2	BB	UNK. HEIRS OF EDITH CARMICHAEL BY HERMAN LANTZ, ESQ AS SPEC COMMISSIONER	TH EXPLORATION LLC	1/8+	1008	68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*23886	9-9-1	CC	UNK. HEIRS OF EDITH CARMICHAEL BY HERMAN LANTZ, ESQ AS SPEC COMMISSIONER	TH EXPLORATION LLC	1/8+	1008	68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.289.1	9-12-8	DD	JANICE M HIXSON AND HARRY C HIXSON	TH EXPLORATION LLC	1/8+	898	461	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*47051.289.2	9-12-8	DD	KENNETH D MCMECHEM	TH EXPLORATION LLC	1/8+	898	463	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*19987	9-9-16	EE	LESLEY D BAULA	TH EXPLORATION LLC	1/8+	955	103	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*19988	9-9-16	EE	DIANA D COOLICK	TH EXPLORATION LLC	1/8+	955	105	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*19984	9-9-16	EE	ELAINE A FONTES	TH EXPLORATION LLC	1/8+	960	36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*21117	9-9-16	EE	KELELYN JOHNSON	TH EXPLORATION LLC	1/8+	952	392	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*21322	9-9-16	EE	PHILIP H WANT AND BILLIE A WANT	TH EXPLORATION LLC	1/8+	953	293	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Chevron USA Inc to TH Exploration II LLC & TH Exploration II LLC 43/95
10*22199	9-9-16	EE	DONALD BROOKS WESLEY	BLUE ROAN RESOURCES LLC	1/8+	926	424	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration II LLC 41/405
10*22201	9-9-16	EE	FREDERICK MARWELL YEATER	BLUE ROAN RESOURCES LLC	1/8+	926	422	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration II LLC 41/405
10*22202	9-9-16	EE	MARK DAVID HUNT	BLUE ROAN RESOURCES LLC	1/8+	935	109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration II LLC 41/405
10*22203	9-9-16	EE	MELISSA ELAINE SCHROTH	BLUE ROAN RESOURCES LLC	1/8+	934	471	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration II LLC 41/405
10*22526	9-9-16	EE	BARBARA FURFARI	TH EXPLORATION LLC	1/8+	964	528	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Blue Roan Resources LLC to TH Exploration II LLC 41/405



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 §

Jan Pest  
MARSHALL County 12:43:01 PM  
Instrument No 1404876  
Date Recorded 05/26/2016  
Document Type ASN  
Pages Recorded 20  
Book-Page 36-148  
Recording Fee \$20.00  
Additional \$8.00

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 17th day of May, 2016 (the "Effective Date"), by and between **CHEVRON U.S.A. INC.** (hereinafter "Assignor") and **TH EXPLORATION, LLC** (hereinafter "Assignee") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated May 2, 2016 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

**WHEREAS**, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in **Exhibit "A"**, and as depicted in **Exhibits "A-1"** and "**A-2"**, attached hereto and made a part hereof (hereinafter the "Leases"); and

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

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

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor accepts and reserves from this Assignment the Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia.

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

2. Special Warranty. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered (other than Permitted Encumbrances) its interest in the Conveyed Interests 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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WV Department of  
Environmental Protection

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November 7, 2019

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

RE: Hudson S-11HU

Subject: Marshall County Route 62 and County Route 21 Road Crossing Letter

Dear Laura:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Marshall County Route 62 and County Route 21 in the area reflected on the Hudson S-11HU well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes and is not currently aware of any recorded document that would suggest an ownership other than THO.

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

Sincerely,

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

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

Date of Notice Certification: 10/15/2019

API No. 47- 051

Operator's Well No. Hudson.S-11HU

Well Pad Name: Hudson

**Notice has been given:**

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

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>4,408,796.11</u>
County: <u>Marshall</u>	Northing: <u>528,006.75</u>
District: <u>Meade</u>	Public Road Access: <u>Roberts Ridge Road (CR 21)</u>
Quadrangle: <u>Glen Easton 7.5'</u>	Generally used farm name: <u>CNX Land, LLC</u>
Watershed: <u>Grave Creek (HUC 10)</u>	

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

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 40px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p style="text-align: center;"><b>OOG OFFICE USE ONLY</b></p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
<p>RECEIVED Office of Oil and Gas <b>NOV 08 2019</b></p> <p>WV Department of Environmental Protection</p>	

**Required Attachments:**

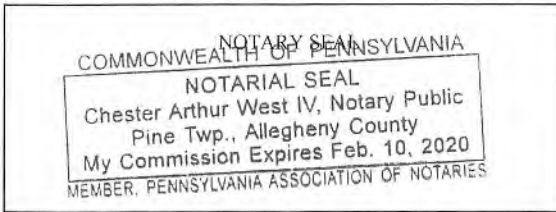
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication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

6705 02278

**Certification of Notice is hereby given:**

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

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



Subscribed and sworn before me this 18<sup>th</sup> day of OCTOBER 2019.

*[Signature]* Notary Public

My Commission Expires 2-10-2020

**Oil and Gas Privacy Notice:**

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

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

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

**Date of Notice:** 10/15/2019 **Date Permit Application Filed:** 10/18/2019

**Notice of:**

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

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

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

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice  WSSP Notice  E&S Plan Notice  Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: CNX Land Resources, LLC Attn: Casey Saunders (Well Pad)  
 Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: Robert L. and Melinda J. White (Access Road)  
 Address: 129 Freddie's Lane  
Glen Easton, WV 26039  
 Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: Consolidation Coal Company  
 Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317

COAL OPERATOR

Name: Murray American Energy, Inc. attn: Mason Smith  
 Address: 46226 National Road  
St. Clairsville, OH 43905

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: \*See attached list  
 Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

\*Please attach additional forms if necessary

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**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**Well Location Restrictions**

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

WW-6A  
(8-13)

API NO. 47-0515 - 00000  
OPERATOR WELL NO. Hudson S-11HU  
Well Pad Name: Hudson

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

**Water Well Testing:**

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

**Water Testing Laboratories:**

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

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

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

**Written Comment:**

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

Chief, Office of Oil and Gas  
Department of Environmental Protection  
601 57<sup>th</sup> St. SE  
Charleston, WV 25304  
(304) 926-0450

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

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

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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WW-6A  
(8-13)

API NO. 47-<sup>1705</sup>051  
OPERATOR WELL NO. Hudson S-11HU  
Well Pad Name: Hudson

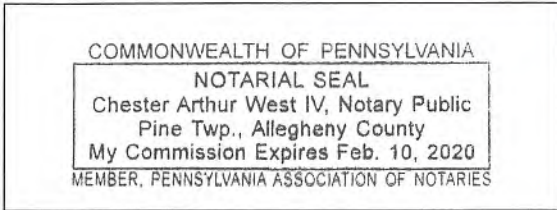
**Notice is hereby given by:**

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

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

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 18 day of OCT, 2019.  
*[Signature]* Notary Public  
My Commission Expires 2-10-2020

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**Exhibit WW-6A****Supplement Pg. 1A**

Tug Hill Operating, LLC  
 380 Southpointe Blvd, Suite 200  
 Cannonsburg, PA 15137

**Residences within Two-Thousand Feet (2,000')**

Well: Hudson S – 11HU  
 District: Meade  
 State: WV

There are four (4) residences, no business or commercial sites, no churches, no schools or no emergency facilities within two-thousand feet (2,000') of the above referenced well location.

<p><b>Residence (#1)</b>            TM 3 Pcl. 1.3            CNX Land LLC  <b>Phone:</b> None Found  <b>Physical Address:</b>            143 Freddies Ln            Proctor, WV 26055  <b>Tax Address:</b>            1000 Consol Energy Dr.            Canonsburg, PA 15317-6506</p>	<p><b>Residence (#2)</b>            TM 5 Pcl. 11            Robert L. &amp; Melinda J. White  <b>Phone:</b> 740-667-3018; 304-845-2703            (Robert Andrew Williams – Reverse Address); 304-845-3756 (Melinda J. White); 304-845-4858 (Robert L. White)  <b>Physical Address:</b>            129 Freddies Ln            Proctor, WV 26055  <b>Tax Address:</b>            129 Freddies Ln            Glen Easton, WV 26039</p>	<p><b>Residence (#3)</b>            TM 5 Pcl. 10            Robert L. &amp; Melinda J. White  <b>Phone:</b> 304-845-0562 (Charlotte A. Streight – Reverse Address)  <b>Physical Address:</b>            443 Freddies Ln            Proctor, WV 26055  <b>Tax Address:</b>            129 Freddies Ln            Glen Easton, WV 26039</p>
<p><b>Residence (#4)</b>            TM 5 Pcl. 10            Robert L. &amp; Melinda J. White  <b>Phone:</b> 304-845-6068; 304-845-3756            (Robert L. White Jr. – Reverse Address);            304-845-3759 (Melinda J. White)  <b>Physical Address:</b>            642 Freddies Ln            Proctor, WV 26055  <b>Tax Address:</b>            129 Freddies Ln            Glen Easton, WV 26039</p>		

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# PROPOSED HUDSON S - 11HU



NOTE: THERE APPEARS TO BE FOUR (4) POSSIBLE WATER SOURCES WITHIN 2,000'.

 <p><b>SLS</b> Land &amp; Energy Development <i>Solutions from the ground up.</i></p> <p>P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634 www.slsww.com</p>	TOPO SECTION:		OPERATOR:	
	GLEN EASTON 7.5'		PREPARED FOR:	
	COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
	MARSHALL	MEADE	380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE	
K.G.M.	8911	08/23/2019	1" = 1000'	



**TUG HILL**  
OPERATING

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

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

**Date of Notice:** 6/4/2019      **Date of Planned Entry:** 6/11/2019

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

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

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

**Notice is hereby provided to:**

SURFACE OWNER(s)

Name: CNX Land Resources, LLC Attn: Casey Saunders (Well Pad)  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317

Name: Robert L. and Melinda J. White (Access Road)  
Address: 129 Freddie's Lane  
Glen Easton, WV 26039

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OWNER OR LESSEE

Name: Consolidation Coal Company  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317

MINERAL OWNER(s)

Name: Charlene L. Baker \*See attached list  
Address: 5523 Roberts Ridge Road  
Moundsville, WV 26041

\*please attach additional forms if necessary

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**Notice is hereby given:**

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

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.82881036; -80.67262857</u>
County: <u>Marshall</u>	Public Road Access: <u>Co. Route 21</u>
District: <u>Meade</u>	Watershed: <u>Grave Creek</u>
Quadrangle: <u>Glen Easton</u>	Generally used farm name: <u>CNX Land Resources, LLC</u>

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

**Notice is hereby given by:**

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

**Oil and Gas Privacy Notice:**

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



**Additional Mineral Owners for Notice****WW-6A3****Hudson Pad**

Black Gold Group  
P.O. Box 85  
Strasburg, OH 44680

Catherine Lee Blake  
101 Tomlinson Ave.  
Moundsville, WV 26041

Ivan R. Blake  
2315 Wolf Run Rd.  
Cameron, WV 26033

Judith L. Blake  
515 Meade Ave.  
Akron, OH 44305

Robert C. Blake  
1400 Third St.  
Moundsville, WV 26041

Terry L. Blake  
213 Birch Ave.  
Moundsville, WV 26041

Betty Joan Cecil  
200 Simmons Dr.  
Moundsville, WV 26041

Bernard R. Crow  
78 Dwight Ave.  
Moundsville, WV 26041

Mark L. Curry  
14 Pilgrims Way  
Bentonville, VA 22610

Lois J. Elias  
17 East Paxton Ave.  
Wheeling, WV 26033

Dorothy J. Harris  
2212 Turkey Run Rd.  
Buckhannon, WV 26201

Jane Lynn Hendrickson  
236 Westwood Dr.  
Circleville, OH 43113

Betty J. Blake  
2 Portsmouth Rd.  
Front Royal, VA 22630

Gary F. Blake  
3801 Needham Rd.  
Mansfield, OH 44904

James L. Blake  
P.O. Box 124  
Farson, WV 82932

Rebecca J. Blake  
1506 6th St.  
Moundsville, WV 26041

Robert D. Blake  
3757 Main St.  
Weirton, WV 26062

William S. Blake Jr.  
P.O. Box 349  
Comfort, WV 25049

Shawn J. Crews  
39 Branch Ln.  
Broadway, NC 27505

Jay C. Curry  
635 Minebanck Rd.  
Middletown, VA 22645

Cynthia A. Davidson  
7079 Hayes Orangeville Road NE  
Burghill, OH 44404

Daunetta B. Fromhart  
1309 Center St.  
Moundsville, WV 26041

Velma Ruth Harris  
3807 Bowman Ridge Rd.  
Glen Easton, WV 26039

Jill Lori Hennen  
2004 Baxter Ave.  
Orlando, FL 32806

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Alva L. Higgins  
4466 Templeton Road NW  
Warren, OH 44481

H. Dean Higgins  
9729 Gladstone Rd.  
North Jackson, OH 44451

Jerry L. Higgins  
3460 Park Avenue Ext.  
Warren, OH 44481

Kimberly J. Holder  
5815 Highway 217  
Erwin, NC 28339

Rodney W. Hubbs  
305 Sentimental Dr.  
Moundsville, WV 26041

Robert W. Kidner  
7757 Hansgrove Ct.  
Dublin, OH 43016

Brian C. Lutz  
364 Roseberry Ln.  
Wheeling, WV 26003

Barbara A. Mason  
363 Ridgeview Lane  
Moundsville, WV 26041

Joseph L. Maupin  
34626 Morning Glory Glen  
Zephyrhills, FL 33541

Christina C. Munson  
14 Pilgrims Way  
Bentonville, VA 22610

Brenda S. Purdy  
1404 Third St.  
Moundsville, WV 26041

Carol J. Trowbridge  
34710 Morning Glory Glen  
Zephyrhills, FL 33541

Carol Jean Wood  
106 Arlington Ave.  
Moundsville, WV 26041

Clyde R. Higgins  
2601 Milton Newton Rd.  
Newton Falls, OH 44444

Delmas W. Higgins  
7316 Elm St.  
Newton Falls, OH 44444

Shirl W. Higgins  
5241 Pritchard Ohltown Rd.  
Newton Falls, OH 44444

Mary H. Hubbs  
17 Hubbs Ln.  
Moundsville, WV 26041

Shannon Roger Hubbs  
27 Bowman Ridge  
Moundsville, WV 26041

Mary O. Louden  
10 Sandy Ave.  
Moundsville, WV 26041

Jolene M. Mann  
494 Longfellow Ave.  
Worthington, OH 43085

Master Mineral Holdings II, L.P.  
P.O. Box 10886  
Midland, TX 79702

Diana L. McKinney  
275 Skyline Dr.  
Moundsville, WV 26041

Potomac Mineral Group LLC  
615 Washington Rd. Ste 201  
Pittsburgh, PA 15228

Patty L. Rine  
801 Benton St.  
Apt. 2204  
Searcy, AR 72143

Cynthia Jean Wilson  
1709 Bennis Church Place  
Virginia Beach, VA 23455

Betty Bryner  
P.O. Box 270  
Bruceton Mills, WV 26525

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Betty Wilkinson  
9271 Barn Swallow Lane  
Marshall, VA 20115

Carl Caldwell  
501 Morgantown Avenue  
Apartment 201  
Barnesville, OH 43713

Doris Garrison  
28 Hickory Avenue  
Moundsville, WV 26041

Crystal Thomas  
1402 Sixth Street  
Moundsville, WV 26041

Arthur Lee Waryck  
912 Tomlinson Avenue  
Glen Dale, WV 26038

Hiram Vernon Moore  
609 Pink Apartment Rd  
Davenport, FL 33837

Larry Vernon Moore, Sr.  
135 Clover Hill Ln  
Newport, VA 24128

Ronald Wayne Moore  
434 Moores Ln  
New Cumberland, WV 26047

Dennis F. Moore  
471 Peal Dr, 104  
Proctor, WV 26055

Anthony T. Moore  
215 Ash Avenue  
Moundsville, WV 26041

Freda L. Campbell  
307 Elizabeth Street  
Glen Dale, WV 26038

James D. Yocum  
5200 NW 31st Avenue  
Apartment B 38  
Ft. Lauderdale, FL 33309

Joan A. Gieger  
621 Pepperdine Avenue  
Edmond, OK 33013

Joyce Elaine Cone  
1831 Old Westminster Pike  
Finksburg, MD 21048

Mary W. Holmes  
197 Spindle Lane  
Moundsville, WV 26041

Marilyn Sue Reilly  
197 Spindle Lane  
Moundsville, WV 26041

Freddie C. White  
RR 1 Box 59A  
Glen Easton, WV 26039

Sharon Diane Jahn  
2802 Spindle Lane  
Bowie, MD 20715

Joyce A. Wallace  
4107 Shoemaker Hollow Road  
New Philadelphia, OH 44663

Tamala Schollick  
112 Jennifer Drive  
Moundsville, WV 26041

Linda G. Moore  
720 3<sup>rd</sup> Avenue  
Apt. 312  
New Cumberland, WV 26047

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WW-6A5  
(1/12)

Operator Well No. Hudson S-12HU

7705 02500

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

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

**Date of Notice:** 10/18/2019      **Date Permit Application Filed:** 10/18/2019

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

CERTIFIED MAIL                                       HAND  
RETURN RECEIPT REQUESTED                                      DELIVERY

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

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

Name: CNX Land Resources, LLC. Attn: Casey Saunders(Well Pad)  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15317

Name: Robert L. and Melinda J. White (Access Road)  
Address: 129 Freddie's Lane  
Glen Easton, WV 26039

**Notice is hereby given:**

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>4,408,796.11</u>
County:	<u>Marshall</u>		Northing:	<u>528,006.75</u>
District:	<u>Meade</u>	Public Road Access:	<u>Roberts Ridge Road (CR 21)</u>	
Quadrangle:	<u>Glen Easton 7.5'</u>	Generally used farm name:	<u>CNX Land, LLC</u>	
Watershed:	<u>Grave Creek (HUC 10)</u>			

**This Notice Shall Include:**

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

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

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

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WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

**Division of Highways**

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

Byrd E. White, III  
Secretary of Transportation

October 18, 2019

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

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

Subject: DOH Permit for the Hudson Pad, Marshall County  
Hudson S-11HU Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2019-0353 issued to Tug Hill Operating for access to the State Road for a well site located off Marshall County Route 21 SLS.

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

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Very Truly Yours,

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

Gary K. Clayton, P.E.  
Regional Maintenance Engineer  
Central Office O&G Coordinator

Cc: Amy Miller  
Tug Hill Operating  
CH, OM, D-6  
File

4705 92202



**PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION**

Well No. Hudson S-11HU

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

RECEIVED  
Office of Oil and Gas

NOV 08 2019

WV Department of  
Environmental Protection

# Hudson Well Site

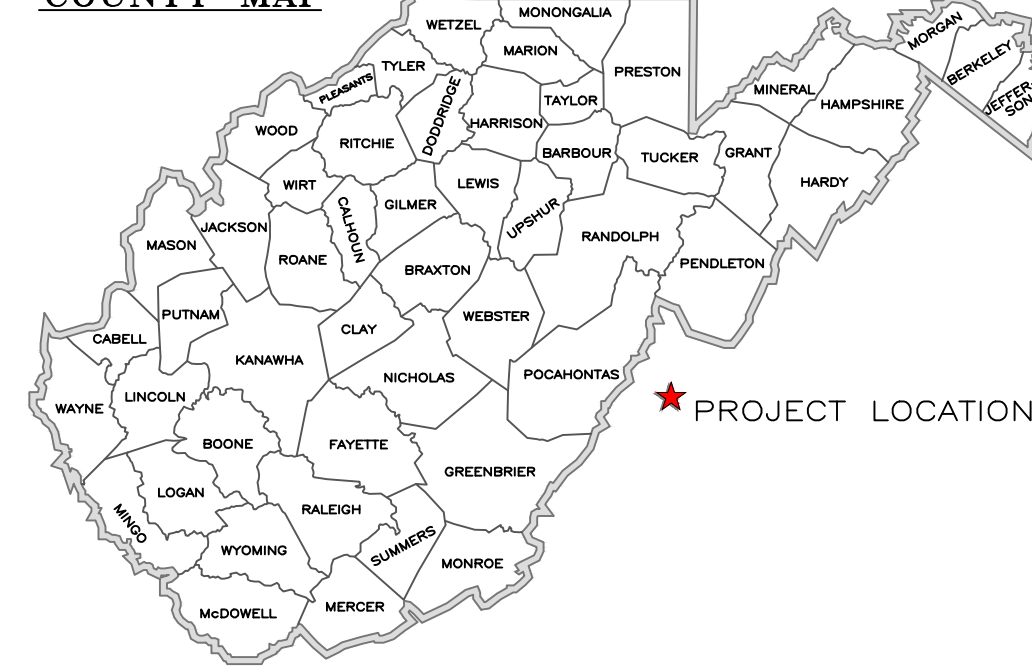
Site Design, Construction Plan, &  
Erosion and Sediment Control Plans

Tug Hill Operating  
Marshall County  
Meade District

Latitude 39.82881036°  
Longitude -80.67262857°  
Grave Creek Watershed

**Pertinent Site Information**  
Hudson Well Site  
Emergency Number: 304-845-1920  
Meade District, Marshall County, WV  
Watershed: Grave Creek Watershed  
Tug Hill Contact Number: 1-817-632-3400

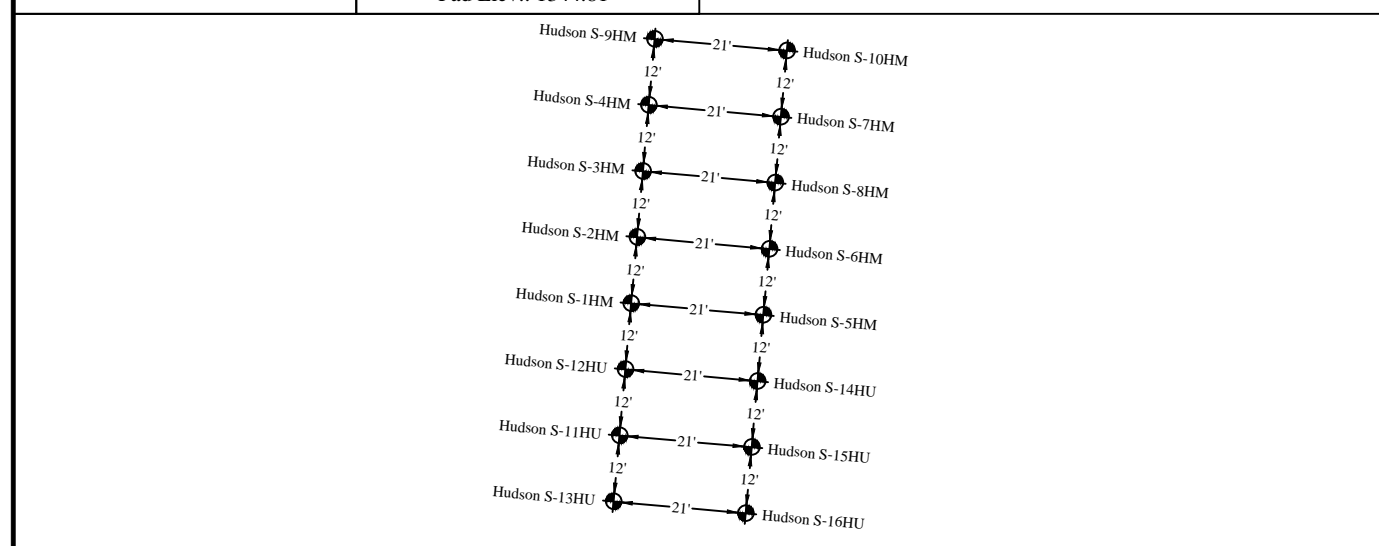
## WEST VIRGINIA COUNTY MAP



**APPROVED**  
**WVDEP OOG**  
WJS 11/4/2019

## Exhibit A: Final Design: Issue for Permitting

Site Entrance	Center of Well Pad
WV-N NAD 83 N: 483847.78 WV-N NAD 83 E: 1638428.01 WV-N NAD 27 N: 483810.94 WV-N NAD 27 E: 1669864.54 Lat. NAD 83: 39.82247902 Lon. NAD 83: -80.67520157 Lat. NAD 27: 39.82240136 Lon. NAD 27: -80.67539549 UTM 17 NAD 83 N: 4408104.89 UTM 17 NAD 83 E: 527796.38	WV-N NAD 83 N: 486144.37 WV-N NAD 83 E: 1639180.73 WV-N NAD 27 N: 486107.52 WV-N NAD 27 E: 1670617.21 Lat. NAD 83: 39.82881036 Lon. NAD 83: -80.67262857 Lat. NAD 27: 39.82873279 Lon. NAD 27: -80.67282278 UTM 17 NAD 83 N: 4408808.39 UTM 17 NAD 83 E: 528014.01 Pad Elev.: 1344.81'



Hudson S-9HM	Hudson S-4HM	Hudson S-3HM	Hudson S-2HM	Hudson S-1HM
WV-N NAD 83 N: 486176.11 WV-N NAD 83 E: 1639162.47 WV-N NAD 27 N: 486139.26 WV-N NAD 27 E: 1670599.94 Lat. NAD 83: 39.82896883 Lon. NAD 83: -80.67269508 Lat. NAD 27: 39.82881927 Lon. NAD 27: -80.67289228 UTM 17 NAD 83 (m) N: 4408817.96 UTM 17 NAD 83 (m) E: 528008.29	WV-N NAD 83 N: 486164.16 WV-N NAD 83 E: 1639161.41 WV-N NAD 27 N: 486127.31 WV-N NAD 27 E: 1670597.88 Lat. NAD 83: 39.82886398 Lon. NAD 83: -80.67269830 Lat. NAD 27: 39.82878642 Lon. NAD 27: -80.67289251 UTM 17 NAD 83 (m) N: 4408814.31 UTM 17 NAD 83 (m) E: 528007.76	WV-N NAD 83 N: 486152.20 WV-N NAD 83 E: 1639160.34 WV-N NAD 27 N: 486115.36 WV-N NAD 27 E: 1670596.82 Lat. NAD 83: 39.82883113 Lon. NAD 83: -80.67270152 Lat. NAD 27: 39.82875357 Lon. NAD 27: -80.67289895 UTM 17 NAD 83 (m) N: 4408810.67 UTM 17 NAD 83 (m) E: 528007.26	WV-N NAD 83 N: 486140.25 WV-N NAD 83 E: 1639159.28 WV-N NAD 27 N: 486103.40 WV-N NAD 27 E: 1670595.76 Lat. NAD 83: 39.82879828 Lon. NAD 83: -80.67270474 Lat. NAD 27: 39.82872072 Lon. NAD 27: -80.67290217 UTM 17 NAD 83 (m) N: 4408807.02 UTM 17 NAD 83 (m) E: 528007.76	WV-N NAD 83 N: 486128.30 WV-N NAD 83 E: 1639158.22 WV-N NAD 27 N: 486091.45 WV-N NAD 27 E: 1670594.70 Lat. NAD 83: 39.82876543 Lon. NAD 83: -80.67270796 Lat. NAD 27: 39.82868787 Lon. NAD 27: -80.67290217 UTM 17 NAD 83 (m) N: 4408803.37 UTM 17 NAD 83 (m) E: 528007.24

Hudson S-12HU	Hudson S-11HU	Hudson S-13HU	Hudson S-10HM	Hudson S-7HM
WV-N NAD 83 N: 486116.35 WV-N NAD 83 E: 1639157.16 WV-N NAD 27 N: 486079.50 WV-N NAD 27 E: 1670593.64 Lat. NAD 83: 39.82873258 Lon. NAD 83: -80.67211919 Lat. NAD 27: 39.82865502 Lon. NAD 27: -80.67290339 UTM 17 NAD 83 (m) N: 4408799.73 UTM 17 NAD 83 (m) E: 528006.97	WV-N NAD 83 N: 486104.39 WV-N NAD 83 E: 1639156.10 WV-N NAD 27 N: 486067.54 WV-N NAD 27 E: 1670592.58 Lat. NAD 83: 39.82869973 Lon. NAD 83: -80.67211441 Lat. NAD 27: 39.82862217 Lon. NAD 27: -80.67290861 UTM 17 NAD 83 (m) N: 4408796.08 UTM 17 NAD 83 (m) E: 528006.71	WV-N NAD 83 N: 486102.44 WV-N NAD 83 E: 1639155.04 WV-N NAD 27 N: 486055.59 WV-N NAD 27 E: 1670591.52 Lat. NAD 83: 39.82866688 Lon. NAD 83: -80.67211763 Lat. NAD 27: 39.82858931 Lon. NAD 27: -80.67291183 UTM 17 NAD 83 (m) N: 4408792.43 UTM 17 NAD 83 (m) E: 528006.45	WV-N NAD 83 N: 486174.25 WV-N NAD 83 E: 1639183.38 WV-N NAD 27 N: 486137.41 WV-N NAD 27 E: 1670618.80 Lat. NAD 83: 39.82889249 Lon. NAD 83: -80.67262952 Lat. NAD 27: 39.82878207 Lon. NAD 27: -80.67281473 UTM 17 NAD 83 (m) N: 4408817.50 UTM 17 NAD 83 (m) E: 528014.67	WV-N NAD 83 N: 486162.30 WV-N NAD 83 E: 1639182.32 WV-N NAD 27 N: 486125.45 WV-N NAD 27 E: 1670618.80 Lat. NAD 83: 39.82885994 Lon. NAD 83: -80.67262574 Lat. NAD 27: 39.82878207 Lon. NAD 27: -80.67281795 UTM 17 NAD 83 (m) N: 4408813.86 UTM 17 NAD 83 (m) E: 528014.41

**Project Contacts**

**Tug Hill Operating**  
Jonathan White - Regulatory Analyst  
724-485-2000 Off. 304-689-7676 Cell  
Geoff Radler - V.P. Production  
817-632-5200 Off.

**Survey and Engineer**  
Kenneth Kelly  
304-338-6985 Off.  
John P. See  
304-442-0220 Off.  
Zachary Summerfield  
304-338-6987 Off.

**Geotechnical Engineer**  
American Geotech. Inc.  
Kimi Patel  
304-340-4277 Off.

**Environmental:**  
Wetland Delineations as provided by Allstar Ecology dated November 6, 2018

**Topographic Information:**  
The topographic information shown herein is based on aerial photography by Blue Mountain Aerial Mapping, Burton, WV

**MISS UTILITY OF WEST VIRGINIA**  
1-800-245-4848  
West Virginia State Law  
Section XIV, Chapter 24-C requires  
that you call two business days  
before  
you dig in the state of West Virginia.  
**IT'S THE LAW**  
Know what's below.  
Call before you dig.

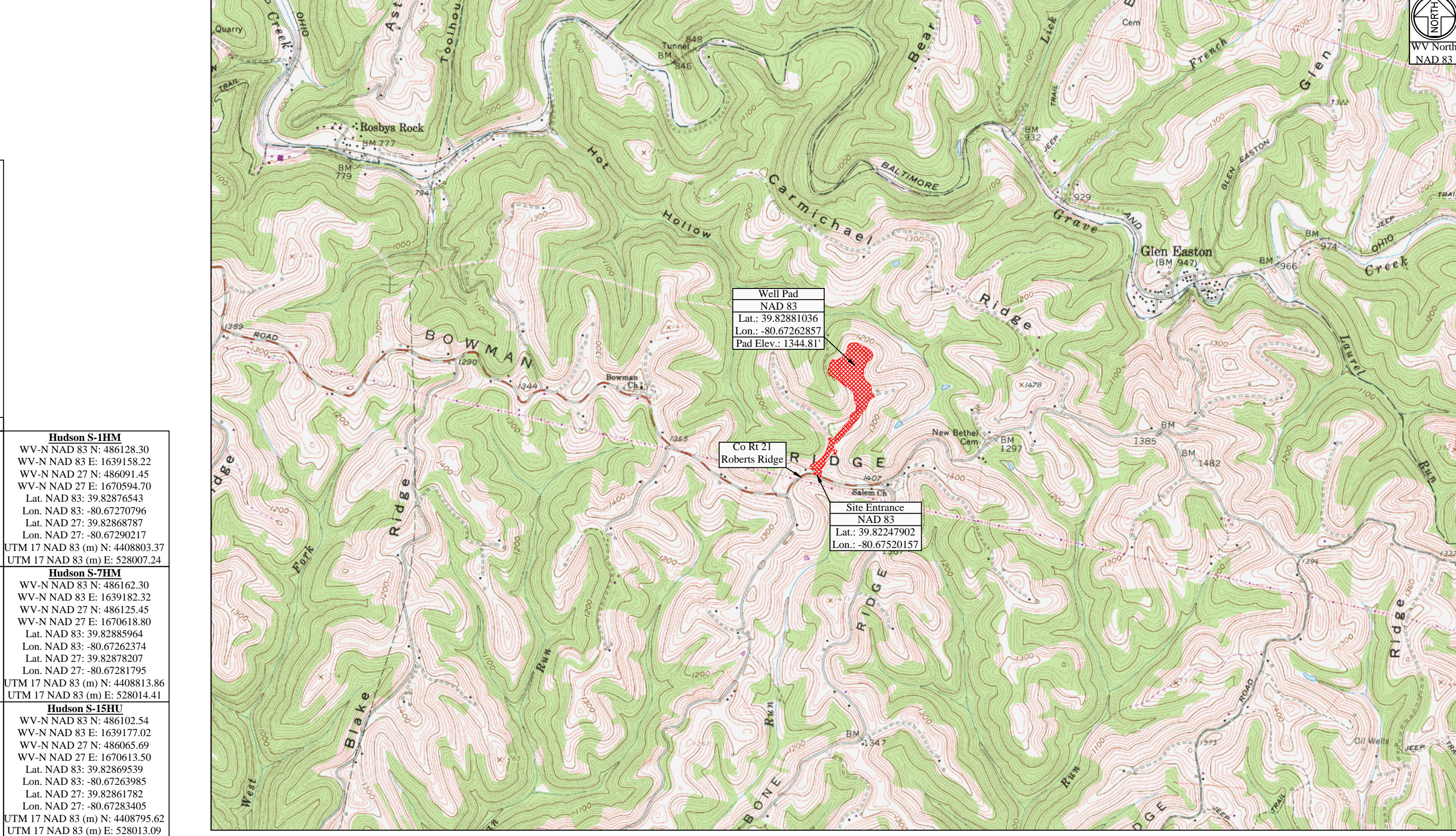
Tug Hill Operating will obtain an Encroachment Permit (Form MM-109) from the WV Department of Transportation, Division of Highways, prior to the commencement of any construction activities

The WV Mines Website was consulted. Previous mining activities are within the AOI.

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

**Floodplain Conditions**

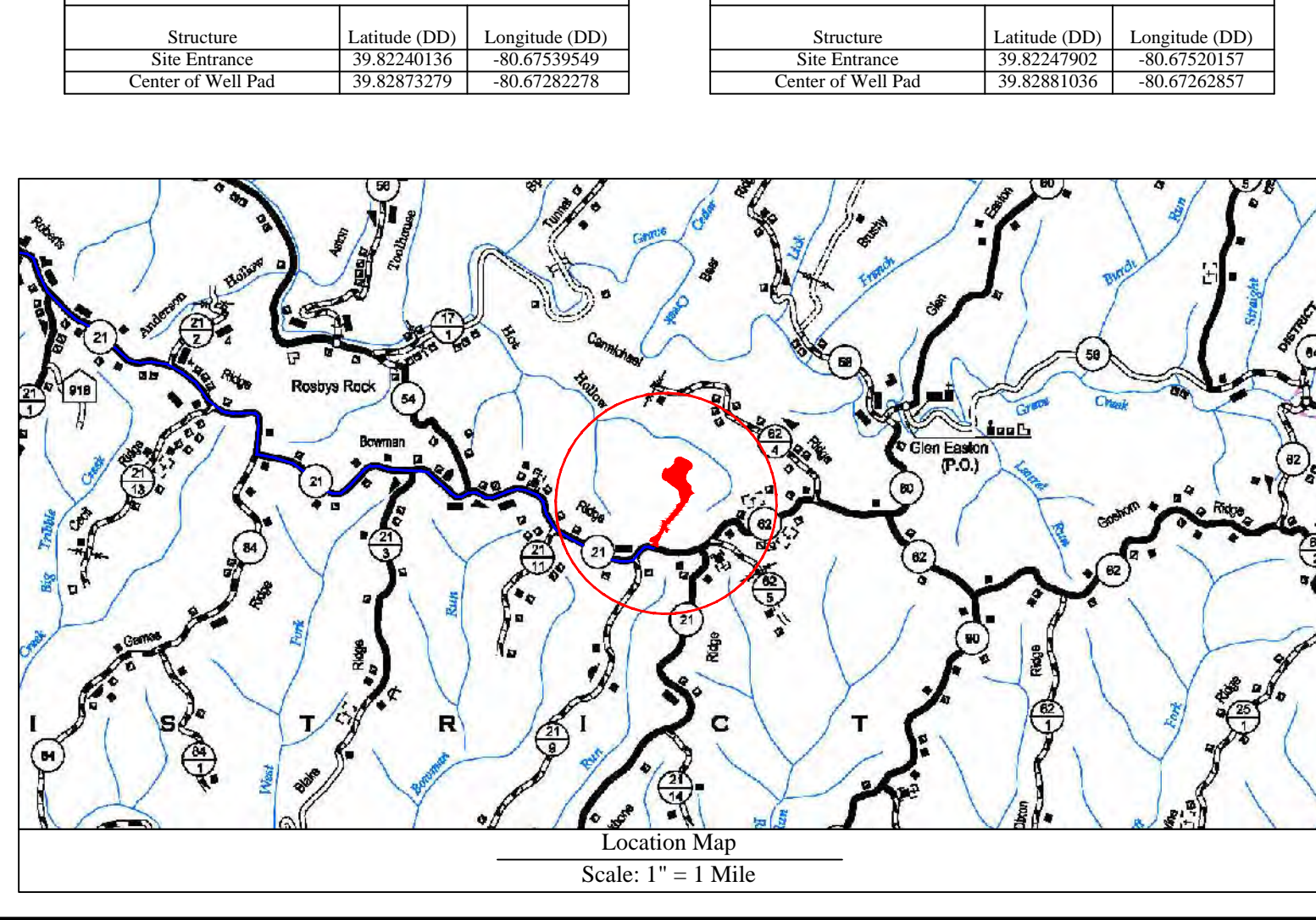
Do site construction activities take place in a floodplain:	NO
Permit needed from county floodplain coordinator:	NO
Flood Hazard Zone:	X
HEC-RAS Study completed:	N/A
Floodplain shown on drawings:	N/A
FIRM Map (Number(s)) for site:	54051C 0175E
Acres of construction in floodplain:	N/A



Site Locations (NAD 27)			Site Locations (NAD 83)		
Structure	Latitude (DD)	Longitude (DD)	Structure	Latitude (DD)	Longitude (DD)
Site Entrance	39.82240136	-80.67539549	Site Entrance	39.82247902	-80.67520157
Center of Well Pad	39.82873279	-80.67282278	Center of Well Pad	39.82881036	-80.67262857

**Approach Routes:**

From the intersection of WV Rt 2 and 12th Street in Moundsville, WV. Travel South on WV Rt 2 for 3.3 mi. Turn Left onto WV Rt 2 Alt (Round Bottom Hill Rd). Follow WV Rt 2 Alt for 1.5 mi. Turn Right onto Co Rt 2 (Lindsey Ln). Follow Co Rt 2 for 1.8 mi. Turn Right onto Co Rt 21 (Roberts Ridge Rd). Follow Co Rt 21 for 8.9 mi. The site entrance will be on the Left (North) side of the road.



**Well Location Restrictions**

All Pad construction complies with the following restrictions.

- \*250' from an existing well or developed spring used for human or domestic animals.
- \*625' from an occupied dwelling or barn greater than 2,500 SF used for poultry or dairy measured from the center of the pad.
- \*300' from the edge of disturbance to a naturally reproducing trout stream.
- \*1,000' of a surface or ground water intake to a public water supply.

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

**Design Certification**

The drawings, construction notes and reference diagrams attached hereto have been prepared in accordance with the West Virginia Code of State Rules, Division of Environmental Protection, Office of Oil and Gas (OC&G).

All Plans, Sheets, and/or Reference Diagrams included in this design constitute a complete set of plans. A complete set of plans is necessary to construct the site in accordance with the design.

Zachary C. Summerfield  
RPE 22214  
Kelly Surveying PLLC  
CO# 004234-00

*Zachary C. Summerfield* Date: 05-30-2019

**Professional Engineer**  
22214  
STATE OF WEST VIRGINIA

**Property Owner Information - Hudson Well Site**  
Meade District - Marshall County

Owner	TM - Parcel	Well Pad	Access Road	Topsoil/Excess	Add. Clearing	Total Disturbed
Robert & Melinda White	5-11	-	1.33	-	2.80	4.13
CNX Land LLC	3-1.3	-	0.25	0.17	0.91	1.33
CNX Land LLC	3-1	6.18	1.36	1.96	7.98	17.48
Site Totals (Ac)						
	6.18	2.94	2.13	11.69		22.94

**Access Road**

Surface Owner	TM - Parcel	Road Length	Type
Robert & Melinda White	5-11	1,307.41'	New Access Road Construction
CNX Land LLC	3-1.3	98.78'	New Access Road Construction
CNX Land LLC	3-1	1,349.06'	New Access Road Construction

**Disturbed Area**

Well Pad Construction	6.18 Ac
Access Road Construction	2.94 Ac
Topsoil / Excess Material	2.13 Ac
Additional Clearing	11.69 Ac
Total Disturbed Area	22.94 Ac

**Additional Information**

Total Wooded Acres Disturbed	0.89 Ac
Total Linear Feet of Access Road	2,755.25'

**Hudson Well Site Quantities**

Description	Cut (CY)	Fill (CY)	Spoil (CY)	Borrow (CY)	Max. Slope	Length of Slope
Well Pad	49,128.82	38,131.40	10,997.12	-	N/A	N/A
Well Pad Access Road	3,854.25	4,098.75	-	244.50	11.81%	293.30'
Well Pad Access Road Widening	6.07	259.95	-	253.88	N/A	N/A
Access Road Tie #1	0.03	201.82	-	201.79	20.14%	75.33'
Access Road Tie #2	6.08	77.74	-	71.66	19.54%	92.87'
Topsoil/Excess Material Stockpile	0.00	14,085.22	-	14,085.22	N/A	N/A
Totals	52,994.95	56,854.88	10,997.12	14,857.05		
Total Spoil (CY) =			3,859.93		(Excess Spoil Capacity)	

**WV State Plane Coordinate System**  
North Zone, NAD 83  
Elevations Based on NAV88  
Established By Survey Grade GPS  
and OPUS Post-Processing

**Project Contacts**

**Tug Hill Operating**  
Jonathan White - Regulatory Analyst  
724-485-2000 Off. 304-689-7676 Cell  
Geoff Radler - V.P. Production  
817-632-5200 Off.

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**Environmental:**  
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Revision Design

Date 05-30-2019

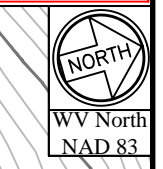
Cover Sheet

Hudson Well Site  
Meade District  
Marshall County, WV

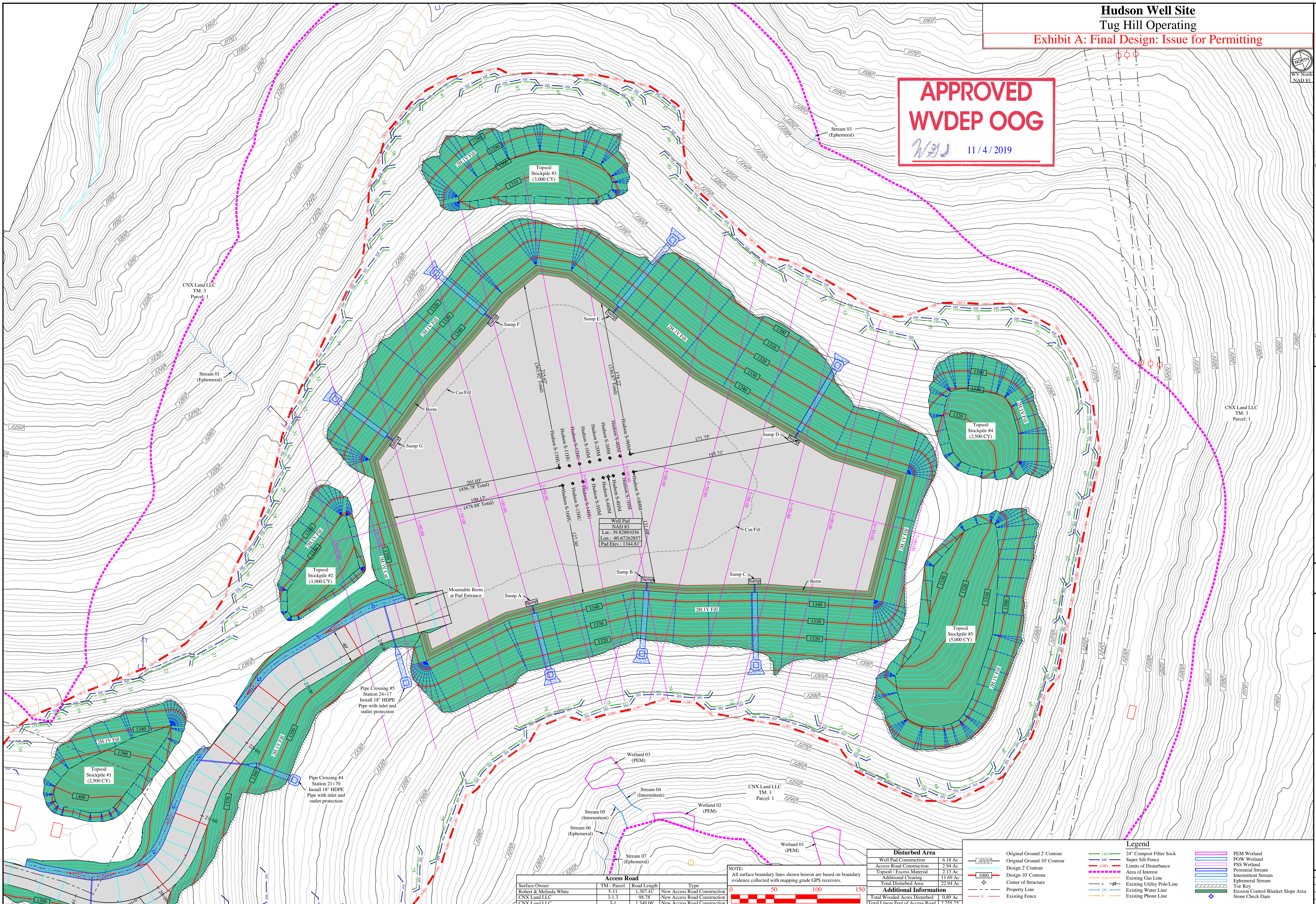
THIS DOCUMENT PREPARED FOR TUG HILL OPERATING

Kelly Surveying  
254  
254  
304-338-6985

Date: 05/30/2019  
Scale: As Shown  
Designed By: ZS  
File No.  
Sheet 1 of 16



**APPROVED**  
**WVDEP OOG**  
WJS 11/4/2019



Revision  
Design  
Date  
05-30-2019



THIS DOCUMENT  
PREPARED FOR  
TUG HILL  
OPERATING



Site Plan  
**Hudson Well Site**  
Meade District  
Marshall County, WV

Date: 05/30/2019  
Scale: As Shown  
Designed By: ZS  
File No.  
Sheet 12 of 16

Access Road			
Surface Owner	TM - Parcel	Road Length	Type
Robert & Melinda White	5-11	1,307.41'	New Access Road Construction
CNX Land LLC	3-1.3	98.78'	New Access Road Construction
CNX Land LLC	3-1	1,349.06'	New Access Road Construction

NOTE:  
All surface boundary lines shown herein are based on boundary evidence collected with mapping grade GPS receivers.



Disturbed Area	
Well Pad Construction	6.18 Ac
Access Road Construction	2.94 Ac
Topsoil / Excess Material	2.13 Ac
Additional Clearing	11.69 Ac
Total Disturbed Area	22.94 Ac
<b>Additional Information</b>	
Total Wooded Acres Disturbed	0.89 Ac
Total Linear Feet of Access Road	2,755.25'

Legend	
Original Ground 2' Contour	Original Ground 10' Contour
Design 2' Contour	Design 10' Contour
Center of Structure	Property Line
Existing Fence	24" Composite Filter Sock
Super Silt Fence	Limits of Disturbance
Area of Interest	Existing Gas Line
Existing Water Line	Existing Utility Pole Line
Existing Phone Line	PEM Wetland
POW Wetland	PSS Wetland
Perennial Stream	Intermittent Stream
Ephemeral Stream	Erosion Control Blanket Slope Area
Toe Key	Stone Check Dam