WR-35
Rev. 8/23/13

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

API 47 - 051 - 02020 County Marshall District Franklin
Quad New Martinsville 7.5' Pad Name Lily Field/Pool Name
Farm name Ula F. Nelson Well Number Weller 4HM
Operator (as registered with the OOG) Tug Hill Operating, LLC
Address 380 Southpointe Boulevard, Plaza II, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,398,635.48 Easting 516,584.07
Landing Point of Curve Northing 4,397,378.04 Easting 516,729.17
Bottom Hole Northing 4,396,004.13 Easting 517,530.31

Elevation (ft) 1272.6' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type □ Deviated □ Horizontal ■ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework □ Stimulate

Well Type □ Brine Disposal □ CBM ■ Gas □ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion □ Single ■ Multiple Fluids Produced ■ Brine ■Gas ■ NGL □ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud □Fresh Water Intermediate hole ■ Air □ Mud □ Fresh Water □ Brine
Production hole □ Air ■ Mud □ Fresh Water □ Brine

Mud Type(s) and Additive(s)
SOBM; Base oil, osmotic inhibitor, weighting agent, viscosifier, emulsifier, hardness buffer, fluid loss additive, LCM, Shale inhibitor, de-foamer, soaping agent, coagulant, flocculant; specific additives per WSSP and Permit.

Date permit issued 6/14/2018 Date drilling commenced 1/25/2019 Date drilling ceased 2/16/2019
Date completion activities began 4/28/2019 Date completion activities ceased 9/10/2019
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 70' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft N Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: Jim Nicholson 6/22/2020

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API 47- 051 - 02020 Farm name Ula F. Nelson Well number Weller 4HM

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	36"	30"	120'	NEW	94.5#	N/A	Y
Surface	17 1/2"	13 3/8"	982'	NEW	54.5#	N/A	Y
Coal	17 1/2"	13 3/8"	982'	NEW	54.5#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,724'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	13,374'	NEW	20#	N/A	Y
Tubing		2 3/8"	6,687'	NEW	4.7#	N/A	
Packer type and depth set							

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor	A		15.6	1.19		0	8
Surface	A	1012	15.6	1.19	1223	0	8
Coal	A	1012	15.6	1.19	1223	0	8
Intermediate 1	A	789	15.6	1.19	1087	0	8
Intermediate 2							
Intermediate 3							
Production	A	3244	14.5	1.17	3780	0	8
Tubing							

Drillers TD (ft) 13,403' Loggers TD (ft) n/a

Deepest formation penetrated Marcellus Plug back to (ft) n/a

Plug back procedure n/a

Kick off depth (ft) 7,585'

Check all wireline logs run ☐ caliper ☐ density ■ deviated/directional ☐ induction ☐ neutron ☐ resistivity ■ gamma ray ☐ temperature ☐ sonic

Well cored ☐ Yes ■ No Conventional Sidewall Were cuttings collected ■ Yes ☐ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING 3 centralizers on surface casing at equal distance

Intermediate - 1 centralizer every other joint

Production - one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ■ No DETAILS

WERE TRACERS USED ☐ Yes ■ No TYPE OF TRACER(S) USED

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API 47- 051 - 02020 Farm name Ula F. Nelson Well number Weller 4HM

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	*see attached				

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
	attached							

Please insert additional pages as applicable.

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Page ___ of ___

API 47- 051 - 02020 Farm name Ula F. Nelson Well number Weller 4HM

PRODUCING FORMATION(S)	DEPTHS			
Marcellus	6505' - 6556'	TVD	8150' - 13423'	MD

Please insert additional pages as applicable.

GAS TEST □ Build up □ Drawdown ■ Open Flow OIL TEST ■ Flow □ Pump

SHUT-IN PRESSURE Surface 1132 psi Bottom Hole ____ psi DURATION OF TEST 24 hrs

OPEN FLOW	Gas	Oil	NGL	Water	GAS MEASURED BY
	0 mcfpd	0 bpd	0 bpd	600 bpd	□ Estimated ■ Orifice □ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
	0		0		
*attached					

Please insert additional pages as applicable.

Drilling Contractor Nabors Drilling USA
Address 505 West Greens Road, Suite 1000 City Houston State TX Zip 77067

Logging Company n/a
Address ____ City ____ State ____ Zip ____

Cementing Company Halliburton Energy Services, Inc.
Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317

Stimulating Company Halliburton Energy Services, Inc.
Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317
Please insert additional pages as applicable.

Completed by Amy L. Miller Telephone 304-376-0111
Signature Amy L. Miller Title Permitting Specialist Date 5-15-2020

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

Weller 4HM

PEFORATION RECORD

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	6/23/2019	13026	13179	48	Marcellus
2	6/23/2019	12850	13004	48	Marcellus
3	6/24/2019	12675	12828	48	Marcellus
4	6/24/2019	12499	12652	48	Marcellus
5	6/25/2019	12323	12477	48	Marcellus
6	6/25/2019	12148	12301	48	Marcellus
7	6/26/2019	11972	12126	48	Marcellus
8	6/26/2019	11797	11950	48	Marcellus
9	6/27/2019	11621	11775	48	Marcellus
10	6/27/2019	11446	11599	48	Marcellus
11	6/27/2019	11270	11424	48	Marcellus
12	6/28/2019	11095	11248	48	Marcellus
13	6/28/2019	10919	11073	48	Marcellus
14	6/28/2019	10744	10897	48	Marcellus
15	6/29/2019	10568	10722	48	Marcellus
16	6/29/2019	10393	10546	48	Marcellus
17	6/30/2019	10217	10371	48	Marcellus
18	6/30/2019	10042	10195	48	Marcellus
19	7/1/2019	9866	10020	48	Marcellus
20	7/1/2019	9691	9844	48	Marcellus
21	7/1/2019	9515	9669	48	Marcellus
22	7/2/2019	9340	9493	48	Marcellus
23	7/2/2019	9164	9318	48	Marcellus
24	7/3/2019	8989	9142	48	Marcellus
25	7/3/2019	8813	8967	48	Marcellus
26	7/4/2019	8638	8791	48	Marcellus
27	7/4/2019	8462	8616	48	Marcellus
28	7/5/2019	8287	8440	48	Marcellus
29	7/6/2019	8111	8265	48	Marcellus

Weller 4HM

STIMULATION INFORMATION PER STAGE

Stage No.	Ave. Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	89.7	7234	4696	4024	440510	9254	0
2	88.8	7219	4993	3623	441050	8238	0
3	86.7	7057	5307	4179	440520	8605	0
4	88.8	7346	5013	4180	441240	8638	0
5	89	7152	5104	4194	441370	9364	0
6	89.4	7262	5236	4040	442050	8255	0
7	88.5	7171	5164	3309	440520	8391	0
8	87.7	7036	5248	4479	442260	8379	0
9	85.5	6910	5252	4224	441010	8220	0
10	87.5	6906	5505	4119	441090	8753	0
11	87.5	6992	5627	4597	438870	8856	0
12	89.6	6997	5148	4486	442170	8047	0
13	87	7001	5396	4904	433205	8554	0
14	87.3	6905	5519	3162	455025	8839	0
15	87.9	6726	5225	4872	442860	8964	0
16	89.5	6510	5609	3720	441610	9210	0
17	89.2	6626	5621	4483	440410	7948	0
18	87.3	6460	5299	4636	440160	8514	0
19	89.3	6778	5682	3655	431255	10342	0
20	88.7	6310	5764	4463	441210	9879	0
21	89.7	6701	4934	4058	439650	9395	0
22	87.5	6447	5665	3643	438470	9824	0
23	87.1	6353	5140	3722	443130	10990	0
24	87.8	6475	5345	4366	439330	10041	0
25	88.1	6622	5475	4683	435270	9571	0
26	89.3	6261	5421	4529	432980	9424	0
27	87.5	6160	5212	3619	441870	9890	0
28	89	6308	5200	5141	439680	9312	0
29	89.6	6341	5236	4774	399620	9238	0

WELLER 4HM

LITHOLOGY/FORMATION	TOP DEPTH IN FT/ Name TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUQANTITY AND TYPE OF FLUID
Maxton	1958	2053	1968	2069	Sandstone
Big Lime	2053	2108	2069	2128	Limestone
Big Injun	2108	2410	2128	2456	Sandstone
Weir	2410	2593	2456	2666	Sandstone
Berea	2593	2903	2666	3062	Sandstone
Gordon	2903	2963	3062	3143	Sandstone
Fifty Foot	2963	3541	3143	3924	Sandstone
Speechley	3541	4932	3924	5806	Sandstone
Benson	4932	5308	5806	6307	Sandstone
Alexander	5308	5898	6307	7093	Siltstone
Rhinestreet	5898	5302	7093	6299	Black shale
Middlesex	5302	5361	6299	6377	Black shale
Geneseo/Burkett	5361	5381	6377	6404	Black shale
Tully	5381	5405	6404	6435	Limestone
Hamilton	5405	5432	6435	6471	Grey shale
Marcellus	5432	-	6471	-	Black shale

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/23/2019
Job End Date:	7/6/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02020-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Weller 4HM
Latitude:	39.73750000
Longitude:	-80.80650000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,549
Total Base Water Volume (gal):	11,222,921
Total Base Non Water Volume:	0

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	87.44717	Density = 8.34
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.54479	

OilPerm A	Halliburton	Non-ionic Surfactant					
				Listed Below			
Sand-Premium White-30/50	Halliburton	Proppant					
				Listed Below			
LEGEND(TM) LD-7750W	MultiChem	Scale Control					
				Listed Below			
FDP-S1296-17	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
MC MX 8-4743	MultiChem	Additive					
				Listed Below			
Sand-Premium White-40/70	Halliburton	Proppant					
				Listed Below			
HYDROCHLORIC ACID	Halliburton	Solvent					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
LD-2950	MultiChem	Friction Reducer					

				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Crystalline silica, quartz	14808-60-7	100.00000	11.89180	
			Hydrochloric acid	7647-01-0	15.00000	0.32201	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02344	
			Sodium nitrate	7631-99-4	60.00000	0.02217	
			Methanol	67-56-1	100.00000	0.00590	
			Poly(oxy-1,2-ethanediyl), alpha-tridecyl-omega-hydroxy-, branched	69011-36-5	1.00000	0.00078	
			Ethoxylated alcohols	Proprietary	1.00000	0.00078	
			Phosphoric Acid Salt	Proprietary	5.00000	0.00044	
			Sodium chloride	7647-14-5	5.00000	0.00044	
			Ethanol	64-17-5	60.00000	0.00036	
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00018	
			Oxyalkylated nonyl phenolic resin	Proprietary	30.00000	0.00018	
			Mixture of dimer and trimer fatty acids of indefinite compostion derived from tall oil	61790-12-3	30.00000	0.00017	
			Modified thiourea polymer	Proprietary	30.00000	0.00017	
			Oxyalkylated phenolic resin	Proprietary	10.00000	0.00006	
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00003	
			Naphthalene	91-20-3	5.00000	0.00003	
			Propargyl alcohol	107-19-7	5.00000	0.00003	
			Ethoxylated alcohols	Proprietary	5.00000	0.00003	
			Hexadecene	629-73-2	5.00000	0.00003	
			Formaldehyde	50-00-0	0.10000	0.00001	

			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00001	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

TUG HILL OPERATING

Well: Weller 4HM (A)
Site: Lily/Weller
Project: Marshall County, West Virginia.
Design: rev1
Rig: Nabors B28

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1326.00	0.00	0.00	1326.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 3°/100' build
3	1659.33	10.00	225.00	1657.64	-20.52	-20.52	3.00	225.00	12.37	Begin 3°/100' build/turn
4	2859.19	41.51	173.45	2733.35	-505.20	-49.78	3.00	-62.02	458.61	Begin 41.51° tangent
5	7620.40	41.51	173.45	6298.94	-3639.84	310.30	0.00	0.00	3530.34	Begin 8°/100' build/turn
6	7740.64	50.00	167.12	6382.81	-3724.52	325.15	8.00	-30.35	3615.05	Begin 10°/100' build/turn
7	8160.57	89.00	150.00	6528.00	-4079.14	472.64	10.00	-26.10	3998.65	Begin 89.00° lateral
8	13421.14	89.00	150.00	6620.00	-8634.18	3102.62	0.00	0.00	9174.71	PBHL/TD

ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Annotation
153.00	0.32	251.93	153.00	-0.13	-0.41	-0.01	MWD surveys
13373.00	87.60	150.92	6553.81	-8589.37	3080.17	9124.95	Survey @ 13373.00 MD 6553.81 TVD
13423.00	87.60	150.92	6555.90	-8633.03	3104.45	9174.24	Survey projected to 13423.00 MD 6555.90 TVD

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

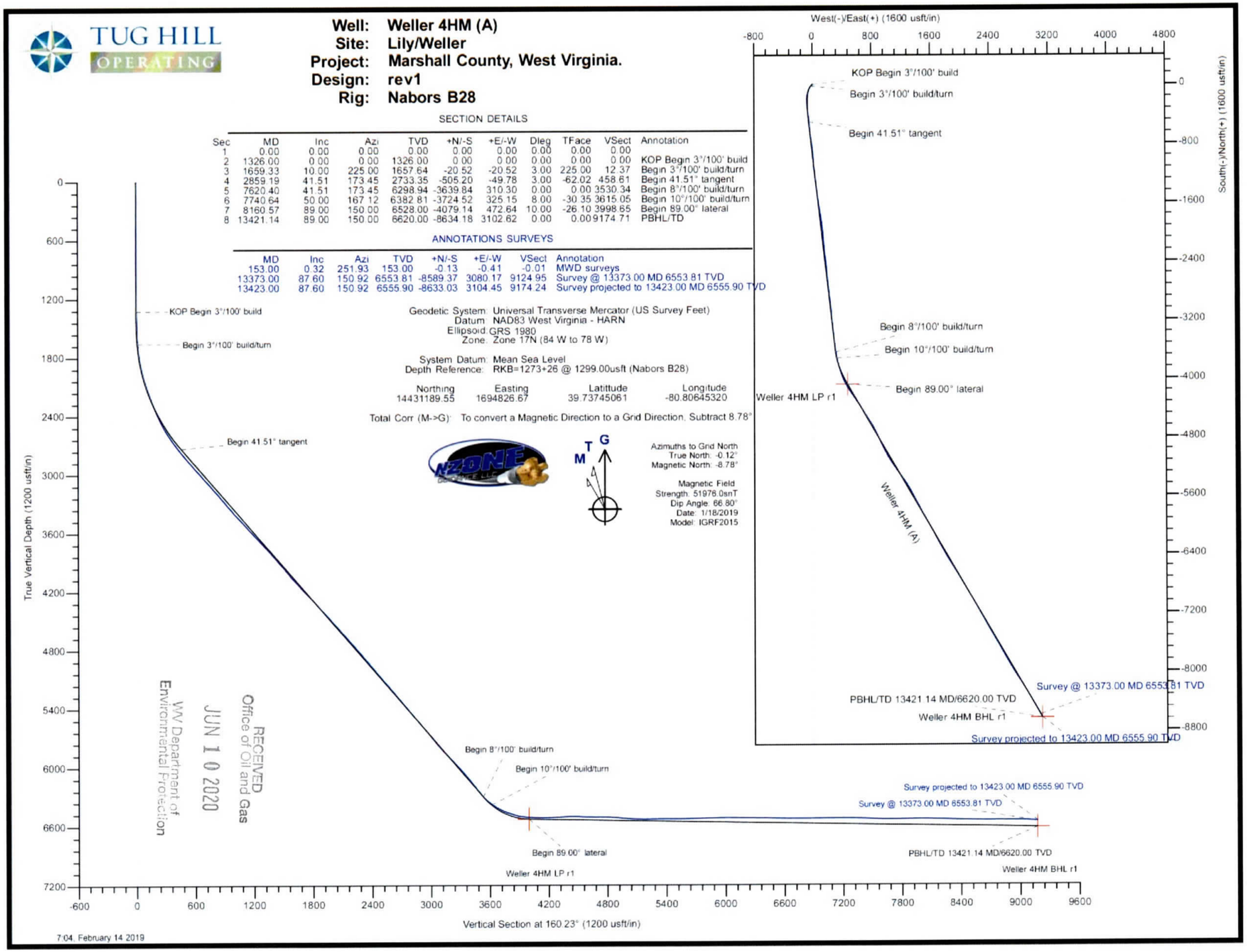
System Datum: Mean Sea Level
Depth Reference: RKB=1273+26 @ 1299.00usft (Nabors B28)

Northing	Easting	Latitude	Longitude
14431189.55	1694826.67	39.73745061	-80.80645320

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.78°

Azimuths to Grid North
True North: -0.12°
Magnetic North: -8.78°

Magnetic Field
Strength: 51976.0snT
Dip Angle: 66.80°
Date: 1/18/2019
Model: IGRF2015



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Environmental Protection

7:04, February 14 2019

form ww6

PG 2 OF 2

WELLER LEASE
WELL N-4HM
534.388± ACRES

Number	TAX MAP-PARCEL	SURFACE OWNERS	ACRES
S1	27–23	ROBERT F. ROTHLISBERGER	35.77
S2	28–6	ULA F. NELSON	70.00
S3	26–1	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	12.94
S4	26–2	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	67.50
S5	26–4.5	ERIC JAY BOOTH	74.388
S6	26–4	JAMES R. & MELODY A. ANDERSON	3.887
S7	26–4.2	OTIS S. & GLENDA RUSH	1.58
S8	26–4.1	OTIS S. RUSH ET UX.	12.188
S9	26–4.3	CRYSTAL & RANDOPH F. MATASK	2.253
S10	26–4.4	OTIS F. & GLENDA M. RUSH	39.436
S11	26–18	ERIC JAY BOOTH	94.00
S12	26–14	THERESA A. WALTON, TRUSTEE OF ROBERT D. & BONNIE L. OLIVER TRUST	27.56
S13	2–4	EDITH SALEM & LISA G. LARSON	56.25
S14	2–4.1	TYRONE SULTZBACH & RICHARD WOLF	1.00
S15	22–1	PATRICIA ACCETTOLO ET AL.	146.66
S16	23–28.2	MARK W. TENNANT ET AL.	10.80

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,635.37
E) 516,584.20

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,397,392.08
E) 516,728.28

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,396,003.67
E) 517,529.88

DAVID JACKSON
LICENSED
NO. 708
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

P.S. 708 David L Jackson

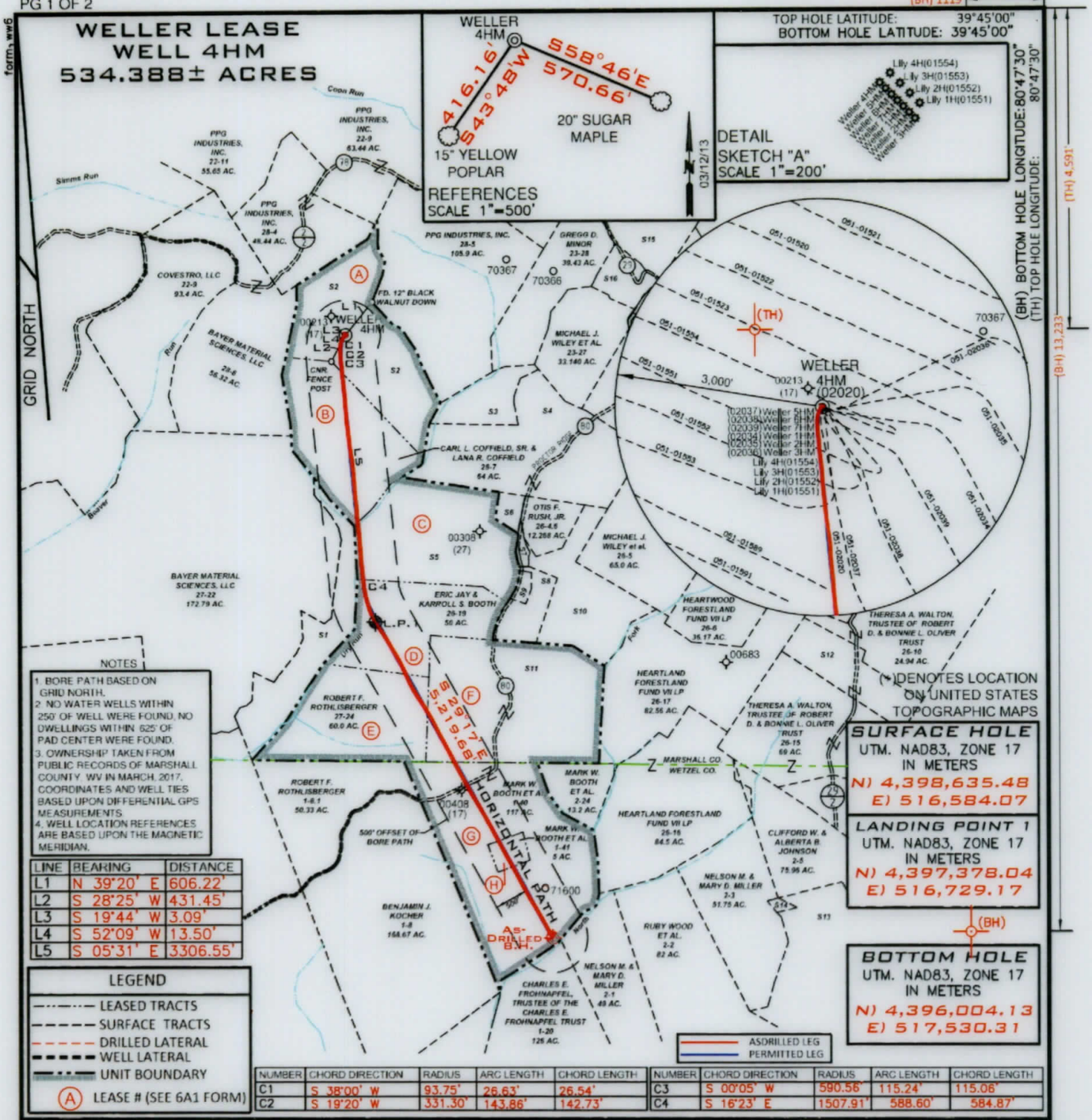
TUG HILL OPERATING

OPERATOR'S
API #: 47-051-02020
WELL #: Weller 4HM
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV

WELL PLAT
PAGE 2 OF 2
DATE: 04/13/2020

form, ww6

WELLER LEASE
WELL 4HM
534.388± ACRES



NOTES

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

LINE	BEARING	DISTANCE
L1	N 39°20' E	606.22'
L2	S 28°25' W	431.45'
L3	S 19°44' W	3.09'
L4	S 52°09' W	13.50'
L5	S 05°31' E	3306.55'

LEGEND

- LEASED TRACTS
- SURFACE TRACTS
- DRILLED LATERAL
- WELL LATERAL
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH	NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C1	S 38°00' W	93.75'	26.63'	26.54'	C3	S 00°05' W	590.56'	115.24'	115.06'
C2	S 19°20' W	331.30'	143.86'	142.73'	C4	S 16°23' E	1507.91'	588.60'	584.87'

(*) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,635.48
E) 516,584.07

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,397,378.04
E) 516,729.17

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,396,004.13
E) 517,530.31

FILE NUMBER

DRAWING NUMBER WELLER_WP_4HM

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING GRADE GPS

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

P.S. 708 David L Jackson

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

DAVID JACKSON LICENSED NO. 708 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

SEAL

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

DATE: April 13 2020

OPERATORS WELL NO. WELLER 4HM

API WELL NO.
47 – 051 – 02020
STATE COUNTY PERMIT

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

LOCATION ELEVATION 1272.5' WATERSHED (HUC 10) French Creek – Ohio River

DISTRICT Franklin COUNTY Marshall

QUADRANGLE New Martinsville 7 1/2' LEASE NUMBER SEE WW-6A1 Royalty Owners

COUNTY NAME PERMIT

SURFACE OWNER Ula F. Nelson ACREAGE 70.0

OIL & GAS ROYALTY OWNER Ula F. Nelson – See WW-6A1 Royalty Owners LEASE ACREAGE 70.0

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) AS-DRILLED
PLUG & ABANDON ___ CLEAN OUT & REPLUG ___

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD: 6,555.90' TMD: 13,423

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

FILE NUMBER

DRAWING NUMBER WELLER_WP_4HM

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING GRADE GPS

P.S. 708

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

Daniel A Jackson

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

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COUNTY NAME PERMIT