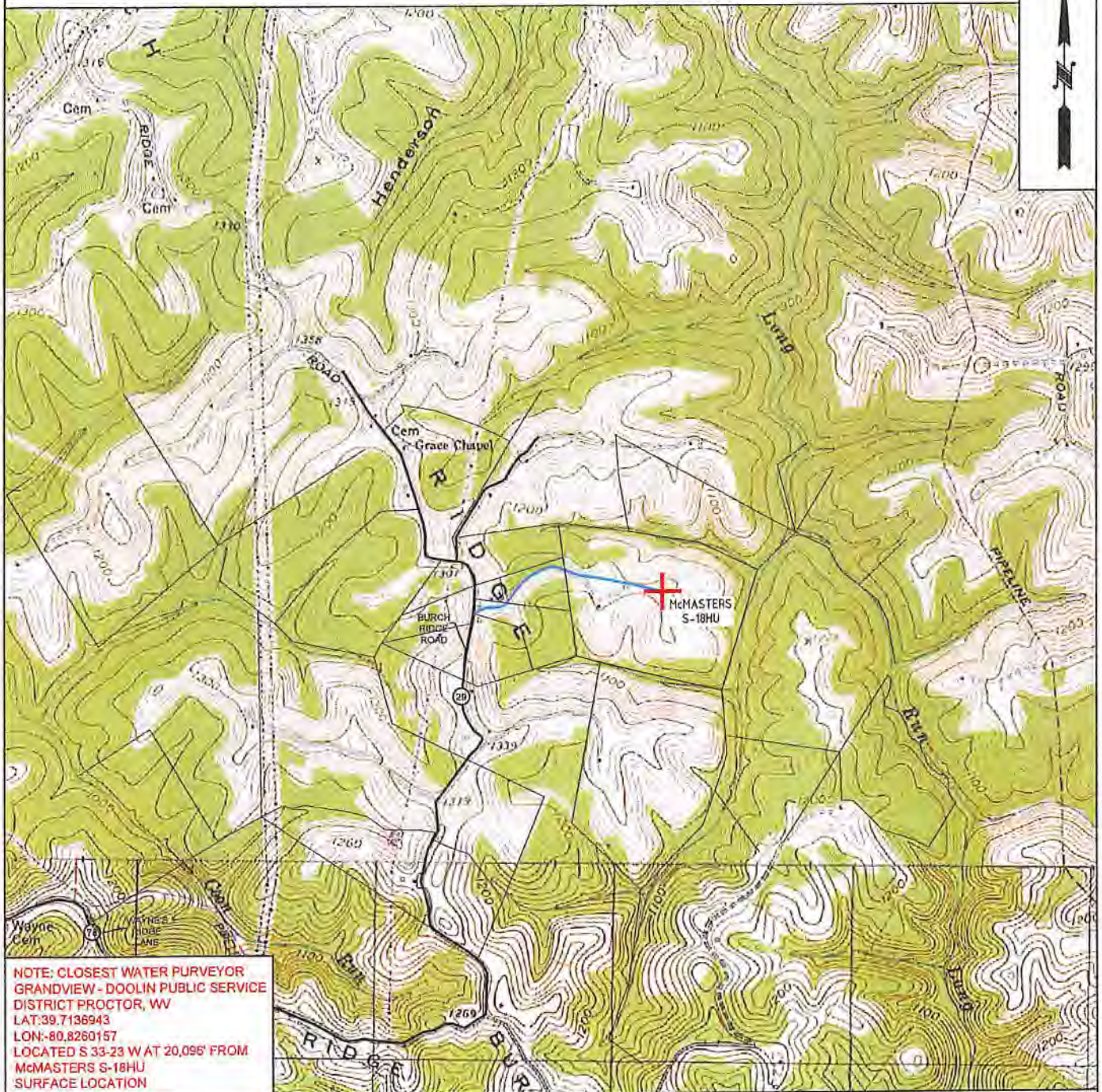


WW-9

# PROPOSED McMASTERS S-18HU

SUPPLEMENT PG 2



NOTE: CLOSEST WATER PURVEYOR  
GRANDVIEW - DOOLIN PUBLIC SERVICE  
DISTRICT PROCTOR, WV  
LAT: 39.7136943  
LON: -80.8260157  
LOCATED S 33-23 W AT 20,096' FROM  
McMASTERS S-18HU  
SURFACE LOCATION



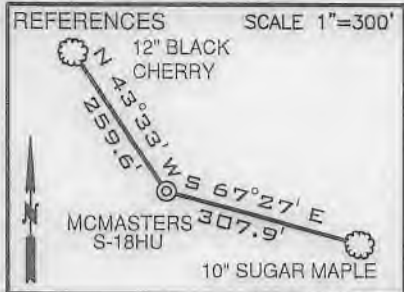
**TUG HILL**  
OPERATING

OPERATOR **494510851**  
TUG HILL OPERATING, LLC  
380 SOUTHPOINTE BLVD  
SUITE 200  
CANONSBURG, PA 15317

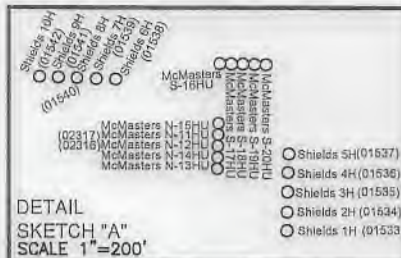
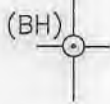
TOPO SECTION	LEASE NAME
POWHATAN POINT 7.5'	McMASTERS
SCALE:	DATE:
1" = 2000'	DATE: 1-7-2020

MCMASTERS LEASE  
WELL S-18HU  
543.5974± ACRES

TOP HOLE LATITUDE: 39°47'30"  
BOTTOM HOLE LATITUDE: 39°45'00"



LINE	BEARING	DISTANCE
L1	N 74°08' W	1427.81'
L2	S 39°48' W	1357.95'
L3	N 10.57' E	139.89'
L4	N 01°15' E	519.51'



(BH) BOTTOM HOLE LONGITUDE: 80°45'00"  
(TH) TOP HOLE LONGITUDE: 80°45'00"

(TH) 11,007'

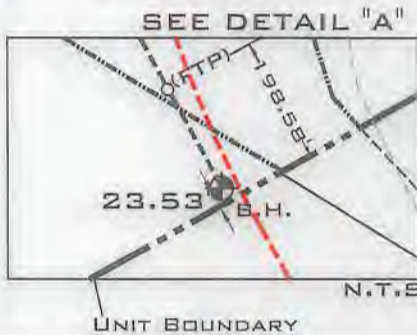
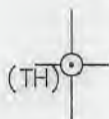


SURFACE HOLE UTM. NAD83, ZONE 17 IN METERS	
N)	4,401,175.23
E)	518,204.59
LANDING POINT 1 UTM. NAD83, ZONE 17 IN METERS	
N)	4,401,187.90
E)	518,350.88
BOTTOM HOLE UTM. NAD83, ZONE 17 IN METERS	
N)	4,399,359.73
E)	519,390.07

(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

LEGEND

- LEASED TRACTS
- SURFACE TRACTS
- WELL LATERAL
- POINT PLEASANT LEGS
- UNIT BOUNDARY
- LEASE # (SEE 6A1 FORM)
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT



CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 14°38' E	24.94'	26.55'	25.97'
C2	S 89°28' E	17.58'	17.45'	18.42'
C3	S 51°15' E	51.52'	155.08'	51.76'
C4	S 39°47' E	116.48'	887.02'	116.56'
C5	S 33°16' E	384.02'	3563.86'	384.20'
C6	S 29°39' E	235.10'	6680.01'	235.11'

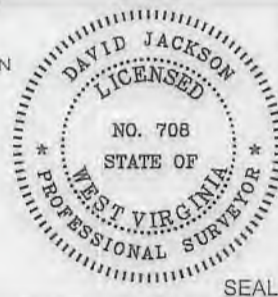
- NOTES
- BORE PATH BASED ON GRID NORTH.
  - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 825' OF PAD CENTER WERE FOUND.
  - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2019. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
  - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
  - ALL DEEP WELLS SHOWN ON THIS PLAT.
  - BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCCAMEY & CHILCOTE, P.C. FILE 0058304, 0401147

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

*David L Jackson*

P.S. 708

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



SEAL



FILE NUMBER \_\_\_\_\_  
DRAWING NUMBER: MCMASTERS S-18HU\_REV2  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1/200  
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING  
GRADE GPS

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

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

DATE: JANUARY 27, 2020  
REVISED DATE: JULY 29, 2020  
OPERATORS WELL NO. MCMASTERS S-18HU  
API WELL NO. 47-051-02339 **DEEP H&A**  
STATE COUNTY PERMIT

LOCATION ELEVATION 1207.50' WATERSHED (HUC 10) FISH CREEK (HUC-10)  
DISTRICT FRANKLIN COUNTY MARSHALL  
QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER ROBERT L. SHIELDS, ET AL ACREAGE 104.11  
OIL & GAS ROYALTY OWNER ROBERT L. SHIELDS, ET AL LEASE ACREAGE 104.11  
PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_  
PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE (SPECIFY) \_\_\_\_\_  
PLUG & ABANDON \_\_\_ CLEAN OUT & REPLUG \_\_\_

TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,448' TMD: 18,590'  
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM  
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

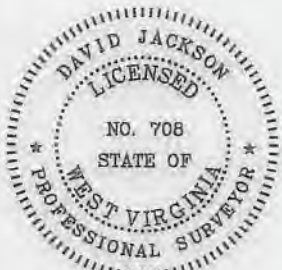
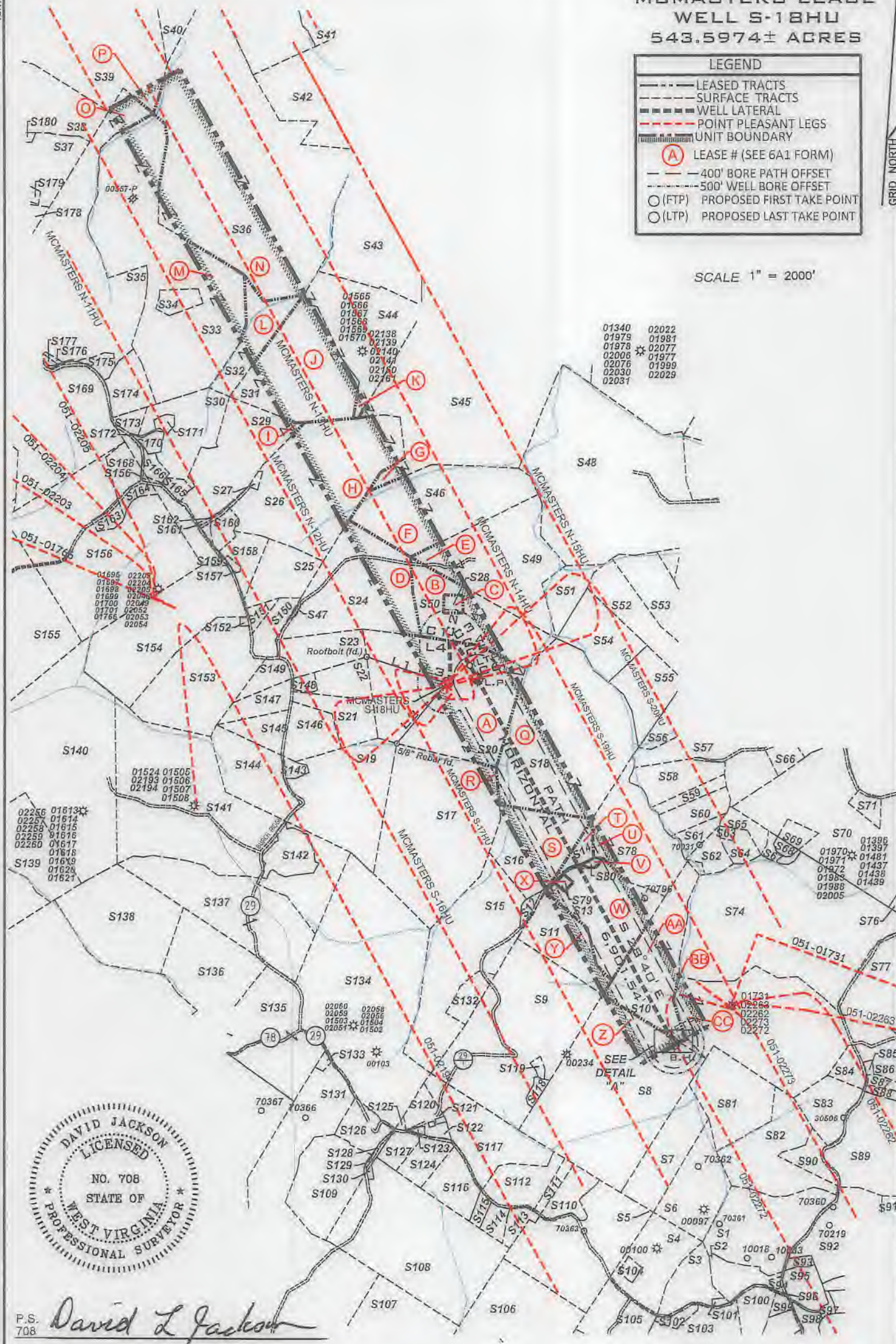
COUNTY NAME PERMIT

# MCMASTERS LEASE WELL S-18HU 543.5974± ACRES

**LEGEND**

- LEASED TRACTS
- - - SURFACE TRACTS
- WELL LATERAL
- - - POINT PLEASANT LEGS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)
- - - 400' BORE PATH OFFSET
- - - 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT

SCALE 1" = 2000'



P.S. *David L Jackson*  
708



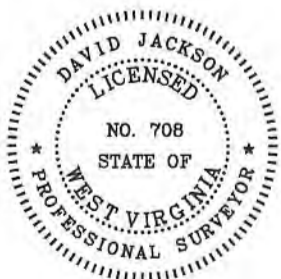
**TUG HILL**  
OPERATING

OPERATOR'S  
WELL #: MCMASTERS S-18HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API #: 47-051-02339

WELL PLAT  
PAGE 2 OF 4  
DATE: 01/27/20  
REVISED: 07/29/2020

**MCMASTERS LEASE  
WELL S-18HU  
543.5974± ACRES**

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S1	05-23-11.1	John H. & Sonya D. Holliday	46.482
S2	05-23-11.4	Kenneth L. Lemons, Trustee for Jeffery G. Hudson	10.879
S3	05-23-13	Linda D. Greathouse	14.24
S4	05-23-9.2	Linda D. Greathouse	25.58
S5	05-23-14	Dominion Transmission Inc.	59.5
S6	05-23-9.3	Linda D. Greathouse	17.5
S7	05-23-08	Carl David & Suzanne L. Guseman	29.5
S8 Z	05-23-05	Daniel D. Rhyand	118.5
S9	05-23-04	Abe J. Hochstetler	100.7
S10 AA	05-23-06	James A. Channing Et Al	48.0
S11 Y	05-23-03	Abe J. Hochstetler	50.0
S12	05-23-2.1	William L. & Janice M. Wayne	2,364
S13 W	05-18-21	Curtis E. & Michelle J. Hall	43.119
S14 T	05-18-21.1	Rodney & Rhonda Jackson	5.47
S15	05-23-02	Danielle D. Lilley	77.636
S16 S	05-18-22	Rodney & Rhonda Jackson	30.345
S17 R	05-18-24	Duane Brunn	102.0
S18 Q	05-18-23	XCL Midstream Operating LLC	110.0
S19	05-19-18	Mark E. Yoho Et Ux	55.948
S20 A	05-18-02	Robert L. Shields Et Al	104.11
S21	05-19-17	Mark A. Yoho	15.263
S22	05-19-16	Robert L. Shields & Donald Shields	11.612
S23	05-19-14	James & Sherry Beegle	18.356
S24 D	05-18-1	Diana Henry Haynes & Carol C. Henry	62.908
S25	05-19-30	Ernie & Tammy Anderson	19.037
S26 H	05-19-13	Rona Lee Rice & Charles Franklin McCardle	94.925
S27	05-19-13.1	Donald Shields	0.800
S28 C	05-18-3.1	Nikki L. & Jonathan Stevens	2.223
S29 I	05-19-8	CNX Gas Company LLC	40.0
S30	05-19-7	Olan V. Ruten Et Ux	32.4801
S31 J	05-14-15	Robert L. Shields Et Al	53.0
S32 L	05-14-14	Robert L. Shields Et Al	29.05
S33 M	05-14-12	Dale R. Galleher Et Al	135.100
S34	05-14-12.1	Henry Wilson Plunkert Jr.	5.0
S35 O	05-14-10	Wanda P. Rine, Life	126.03
S36 N	05-14-13	Ralph D. & Sally Jane Hoyt	222.18
S37	05-14-9.2	Maria T. Flores	25.0
S38	05-12-21	Edward L. Gibson-Life	73.436
S39 P	05-12-14	Linda Hamilton Et Al	117.495
S40	05-12-12.1	Linda L. Persinger Et Ux	148.09
S41	05-12-11	Wesley R. Bryan & Wesley R. Bryan II	52.478
S42	05-11-15	Lionel L. Persinger Ex Ux	93.0
S43	05-15-01	Marcus Sharp & Angela R. Schlabach	121.0
S44 K	05-15-15	Robert L. Shields Et Al	49.02
S45 G	05-15-12	John David Petrock & Thomas Andrew Petrock	150.23
S46 F	05-15-11	Diana Henry Haynes & Carol Henry	65.59
S47	05-18-1.1	Charles F. & Diana L. Haynes	0.392
S48	05-15-10	Mark Stanley Ruckman	153.75
S49 E	05-18-04	Olan & Patricia Rutan	65.89
S50 B	05-18-03	Olan V. & Patricia E. Rutan	43.677
S51	05-18-05	Terry Melott	8.14
S52	05-18-15.3	Charles Yeater	26.44
S53	05-18-15.4	Edward Lee Burge, Jr.	22.34
S54	05-18-06	Charles Yeater	26.0
S55	05-18-07	Charles Yeater	24.22
S56	05-18-16	Charles Yeater	17.768
S57	05-18-13	Southern Sountry Farms Inc.	11.054
S58	05-18-59	Southern Country Farms Inc.	15.79
S59	05-18-30	Mary & Daniel Robinson	5.46
S60	05-18-13.10	Carl Berg	10.88
S61	05-18-29	Carl G. Berg	5.319
S62	05-18-31	Kenneth E. Rastall	6.94
S63	05-18-32.1	Lori D. Carpenter	5.545
S64	05-18-32	Kenneth E. Rastall	5.335
S65	05-18-13.8	Lori D. Carpenter	5.545
S66	05-18-33	Sandra & Glenn Whisler	5.343
S67	05-17-12	James & Jill C. Corley	3.33
S68	05-17-12.1	Williams Ohio Valley Midstream LLC	1.67
S69	05-17-10.5	Williams Ohio Valley Midstream LLC	4.24
S70	05-17-10	James A. Corley Et Al	92.61
S71	05-17-10.1	James A. & Jill C. Corley	4.51
S72	05-17-9.1	Jeri J. White	1.0
S73	05-17-9.2	Jeri J. White	7.136
S74 BB	05-17-11	Kenneth N. Corley Et Ux	120.0
S75	05-17-9.4	Vicki L. Bowen	60.3
S76	05-17-9.3	James A. & Corley Et Ux	12.478
S77	05-17-11.1	Randy W. Francis Et Ux	67.0
S78 U	05-18-20	Wayne E. Channing Et Al	75.6
S79 X	05-18-21.2	David P. Lassan	1.0
S80 V	05-18-21.3	Stone Hill Minerals Holdings, LLC	0.811
S81	05-23-8.1	William & Virginia Roupe	34.0
S82	05-24-5.4	Thomas V. Tuttle Et Ux	38.244
S83	05-24-5.5	Sonny & Linda Lou Tagg	17.194
S84	05-23.7.2	Florella Lou Weigand	6.354
S85	05-23-7.1	Florella Lou Weigand	0.549
S86 CC	P/O 05-23-7	Terry E. Simms Et Ux	123.097
S87	05-24-5.1	James D. Watkins Et Ux	4.6
S88	05-24-5.2	James D. Watkins Et Ux	3.151
S89	05-24-5	Robert C. Francis Et Ux (Life)	145.78
S90	05-24-3.1	T.H. Exploration II LLC	5.50



P.S. 708

*David L Jackson*



**TUG HILL  
OPERATING**

OPERATOR'S

WELL #: MCMASTERS S-18HU

DISTRICT: Franklin

COUNTY: Marshall

STATE: WV

API #: 47-051-02334

WELL PLAT

PAGE 3 OF 4

DATE: 01/27/20

REVISED: 07/29/2020

**MCMASTERS LEASE  
WELL S-18HU  
543.5974± ACRES**

Lease No.	Tags	Parcel	Lessor	Book	Page
10*14116	A	5-18-2	DONALD SHIELDS, ET AL	669	367
10*14109	B	5-18-3	MARTHA M RUTAN, ET AL	668	636
10*14109	C	5-18-3.1	MARTHA M RUTAN, ET AL	668	636
10*14142	D	5-18-1	BENJAMIN FRANKLIN HENRY, ET AL	718	498
10*19032	E	5-18-4	JAN I ARNOLD AND MARSHA A ARNOLD, ET AL	813	111
10*19018	F	5-15-11	BENJAMIN FRANKLIN HENRY FREDRICK ALLEN HENRY	746	5
10*19337	G	5-15-12	JACK PETROCK AND HATTIE PETROCK	741	68
10*14110	H	5-19-13	RONA LEE MCCARDLE, ET AL	670	472
10*14571	I	5-19-8	MATTHEW S & BRENDA S ANDERSON	840	165
10*14116	J	5-14-15	DONALD SHIELDS, ET AL	669	367
10*14116	K	5-15-15	DONALD SHIELDS, ET AL	669	367
10*14116	L	5-14-14	DONALD SHIELDS, ET AL	669	367
10*14928	M	5-14-12	JOSEPH D. PARRIOTT & NELLIE B. PARRIOTT	660	517
10*14067	N	5-14-13	REVA FRANZE	666	51
10*14420	O	5-14-10	ELLIS V & WANDA P RINE	725	141
10*21769	P	5-12-14	BETTY HAMILTON, ET AL	957	419
10*14030	Q	5-18-23	LOIS V YOHO, ET AL	665	551
10*14295	R	5-18-24	MARK E. YOHO AND MARY YOHO, HUSBAND AND WIFE, ET AL	655	546
10*14022	S	5-18-22	HOWARD N WAYNE SR AND DENISE D WAYNE	665	384
10*22169	T	5-18-21.1	BARBARA KITTLE	954	641
10*21147	U	5-18-20	JAMES A CHANNING & ALICE E CHANNING, ET AL	951	634
Pending	V	5-18-21.3	STONE HILL MINERALS HOLDINGS LLC	1073	56
10*22169	W	5-18-21	BARBARA KITTLE	954	641
10*22169	X	5-18-21.2	BARBARA KITTLE	954	641
10*21415	Y	5-23-3	ABE J HOCHSTETLER AND ANNA E HOCHSTETLER	957	7
10*14847	Z	5-23-5	LETHA RUCKMAN, ET AL	806	270
10*17186	AA	5-23-6	ROBERT J HENRY	708	51
10*14126	BB	5-17-11	SHARON MIDCAP	697	152
10*14140	CC	5-23-7	TERRY E SIMMS AND DEBORAH L SIMMS	666	529

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S91	05-24-6	Terry E. Simms Et Ux	42.84
S92	05-23-10	Terry E. Simms Et Ux	38.95
S93	05-23-11.7	Bryan L. Huggins	1.835
S94	05-23-11.2	Evelyn Hudson	1.154
S95	05-23-11	Roy F. Yoho	9.475
S96	05-23-11.6	T.H. Exploration II, LLC	0.094
S97	05-25-20.2	James M. Zambotti	1.347
S98	05-25-20.3	James A. & Jo C. Estep	4.49
S99	05-23-11.5	Roy F. Yoho	2.25
S100	05-23-11.3	Colin R. Yoho	11.29
S101	05-23-13.1	James R. & Pamela J. Ferrell	0.75
S102	05-23-12	Mark A. Yoho	3.05
S103	05-26-11	Mark A. Yoho	89.25
S104	05-23-9.4	Jackson R. Davis Sr. & Deanna L. Davis	2.087
S105	05-23-9.1	John W. Van Orden Et Ux	23.376
S106	05-26-7	Dominion Transmission, Inc.	71.0
S107	05-26-5	Michael J. Wiley Et Al	65.0
S108	05-23-26	Michael J. Wiley Et Al	101.57
S109	05-23-27	Michael J. Wiley Et Al	33.14
S110	05-23-15	Henry Virginia Ethel Estate	15.5
S111	05-23.16.1	Donald B. Henry	1.97
S112	05-23-18	Roy Friend Yoho Sr.	18.03
S113	05-23-17.3	William & Katherine Flewelling	5.018
S114	05-23-17	Tammy & Thomas E. Brown	4.62
S115	05-23-17.4	Tammy D. Meadows	2.605
S116	05-23-17.2	Dick Rowan Jr. & Carol J. Rowan	14.920
S117	05-23-18	Abe J. Hochstetler	35.38
S118	05-23-4.1	XCL Midstream Operating LLC	2.16
S119	05-23-4.2	XCL Midstream Operating LLC	1.17
S120	05-23-18.1	Mark A. Yoho	7.8
S121	05-23-19	Doty Cemetery	1.0
S122	05-23-20	Christian Church	0.19
S123	05-23-21	Mark A. & Mark E. Yoho	0.588
S124	05-23-17.1	Curtis E. Hall Et Ux	10.051
S125	05-23-29	James Wiley	0.25
S126	05-23-28.2	Mark W. & Carolyn L. Tennant	10.8
S127	05-23-22	Daniel D. Rhyand & Laurel R. Greene	6.25
S128	05-23-23	Michael J. Wiley Et Al	1.0
S129	05-23-24	Michael J. Wiley Et Al	0.25
S130	05-23-25	Arthur A. Wiley	0.43
S131	05-23-28	Gregg D. Minor	39.43
S132	05-23-2.2	Jessica N. & Andrew L. Fox	7.636
S133	05-23-28.1	Troy W. & Erin M. Thomas	1.0
S134	05-23-01	Patricia Accetolo Et Al	146.66
S135	05-22-7.1	T.H. Exploration II LLC & Atinum Marcellus I LLC	20.68
S136	05-22-08	T.H. Exploration III LLC	48.44
S137	05-22-06	CNX Gas Company LLC	64.70
S138	05-22-10	T.H. Exploration III LLC	58.40
S139	05-22-17	CNX Gas Company LLC	37.5
S140	05-22-04	CNX Gas Company LLC	159.05
S141	05-22-05	CNX Gas Company LLC	134.425
S142	05-22-5.1	Williams Ohio Valley Midstream LLC	12.875
S143	05-19-18.1	Mark E. Yoho Et Ux	2.57
S144	05-19-18.2	Paul V. & Carol Neely	32.672
S145	05-19-25	David E. Yoho & Mark E. Yoho	9.976
S146	05-19-24	Mark E. Yoho	15.436
S147	05-19-26	Roger J. & Beth E. James	9.977
S148	05-19-16.1	Robert L. & Rebecca A. Shields	2.307
S149	05-19-27	David E. Yoho & Mark E. Yoho	7.041
S150	05-19-31	Charles F. & Diana L. Haynes	8.779
S151	05-19-30.1	Eric R.W. & Ashley A. Huggins	2.911
S152	05-19-32	Jasper N. Burch Et Al-Trustees	0.397
S153	05-19-28	David E. Yoho & Mark E. Yoho	56.899
S154	05-19-19	Russell Blake Et Ux	66.4
S155	05-19-21	Sammy E. Whitlatch Et Al	116.45
S156	05-19-20	Wilbert H. Bungard Et Ux	114.989
S157	05-19-15	Carly Herran	0.72
S158	05-19-29	Ernie L. & Tammy L. Anderson	10.961
S159	05-19-09	Penny Elaine Ashcraft	10.44
S160	05-19-12	Ernie L. Anderson Et Ux	5.33
S161	05-19-10	Ernie L. Anderson Et Ux	0.8125
S162	05-19-11	Ernie L. Anderson Et Ux	0.08
S163	05-19-20.3	Sidney Harmon	3.715
S164	05-19-20.1	John J. Ebert-Life	3.848
S165	05-19-7.5	Adam T. & Jesse L. Robinson	2.64
S166	05-19-7.1	Robert L. Shields Et Ux	3.399
S168	05-19-20.2	Cassandra L. Harmon	7.448
S169	05-19-05	Margirene Keefe	126.03
S170	05-19-7.2	Olan Rutan	2.783
S171	05-19-7.4	Olan V. Rutan, Et Ux	1.787
S172	05-19-7.3	Olan V. Rutan Et Ux	0.341
S173	05-19-06	Belinda Kay Meadows, Rebecca Ann Shields & Olan V. Rutan	5.1099
S174	05-14-11	Dale R. Gallaher Et Al	12.0
S175	05-14-10.4	Adam R. & Jesse L. Robinson	3.343
S176	05-14-10.2	Ida Belle Rutan-Life, Ralph R. Hoyt	0.495
S177	05-14-10.1	Ida Belle Rutan-Life, Ralph R. Hoyt	0.5
S178	05-14-9.5	Maria T. Flores	6.024
S179	05-14-9.1	Maria T. Flores	2.882
S180	05-12-17	Joni Lyn Leon	0.752



P.S.  
708

*David L Jackson*



**TUG HILL  
OPERATING**

OPERATOR'S  
WELL #: MCMASTERS S-18HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API #: 47-051-02339

**WELL PLAT**  
**PAGE 4 OF 4**  
**DATE: 01/27/20**  
**REVISED: 07/29/2020**