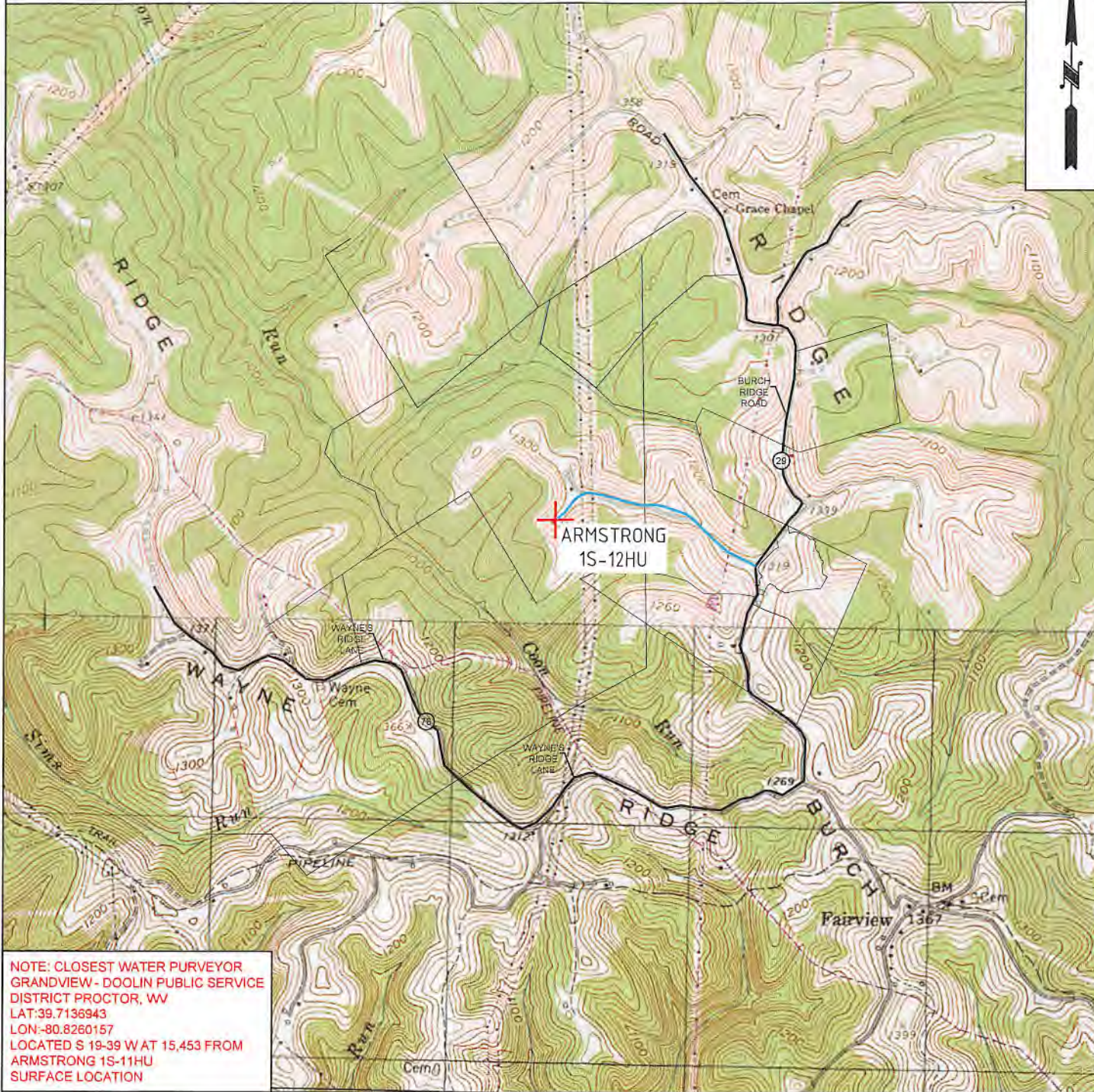


JUL 26 2019

WW-9

# PROPOSED ARMSTRONG S-12HU

WV Department of Environmental Protection SUPPLEMENT PG 2



NOTE: CLOSEST WATER PURVEYOR  
GRANDVIEW - DOOLIN PUBLIC SERVICE  
DISTRICT PROCTOR, WV  
LAT: 39.7136943  
LON: -80.8260157  
LOCATED S 19-39 W AT 15,453 FROM  
ARMSTRONG 1S-11HU  
SURFACE LOCATION



OPERATOR	494510851	TOPO SECTION	LEASE NAME
TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		POWHATAN POINT 7.5'	ARMSTRONG
		SCALE:	DATE:
		1" = 2000'	DATE: 07-16-2019

# ARMSTRONG LEASE WELL 1S-12HU 551.5786± ACRES

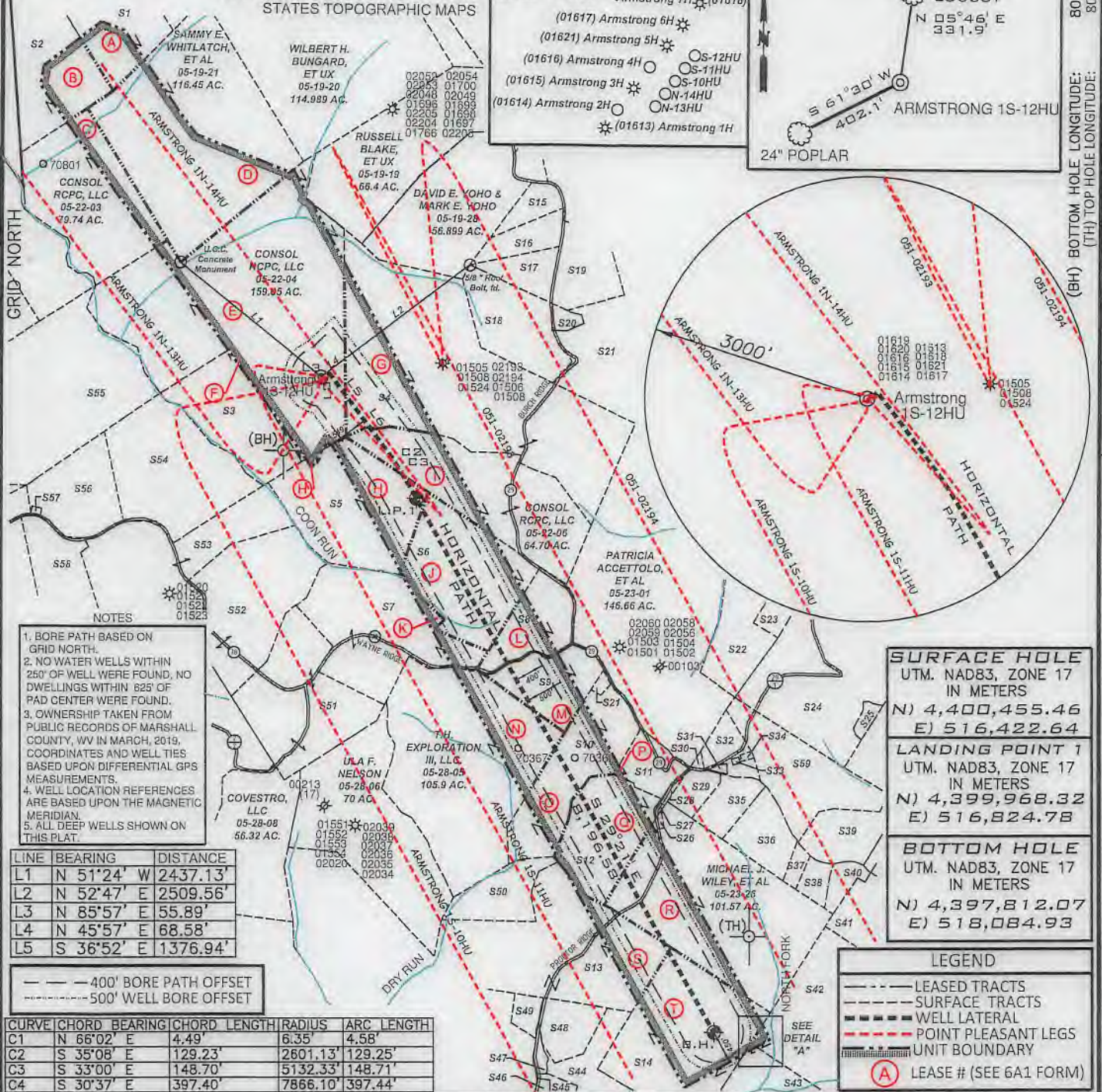
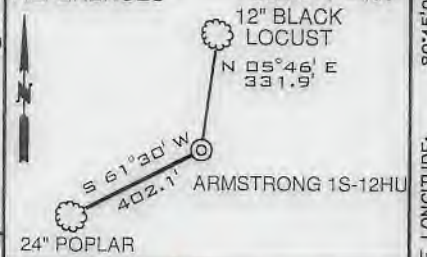
(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

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

DETAIL SKETCH "A" (01619) Armstrong 8H  
SCALE 1"=200'

(01620) Armstrong 9H  
(01619) Armstrong 8H  
Armstrong 7H (01618)  
(01617) Armstrong 6H  
(01621) Armstrong 5H  
(01616) Armstrong 4H  
(01615) Armstrong 3H  
(01614) Armstrong 2H  
OS-12HU  
OS-11HU  
OS-10HU  
ON-14HU  
ON-13HU  
\*(01613) Armstrong 1H

### REFERENCES



- 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.

LINE	BEARING	DISTANCE
L1	N 51°24' W	2437.13'
L2	N 52°47' E	2509.56'
L3	N 85°57' E	55.89'
L4	N 45°57' E	68.58'
L5	S 36°52' E	1376.94'

--- 400' BORE PATH OFFSET  
- - - - 500' WELL BORE OFFSET

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 66°02' E	4.49'	6.35'	4.58'
C2	S 35°08' E	129.23'	2601.13'	129.25'
C3	S 33°00' E	148.70'	5132.33'	148.71'
C4	S 30°37' E	397.40'	7866.10'	397.44'

**SURFACE HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,400,455.46  
E) 516,422.64

**LANDING POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,399,968.32  
E) 516,824.78

**BOTTOM HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,397,812.07  
E) 518,084.93

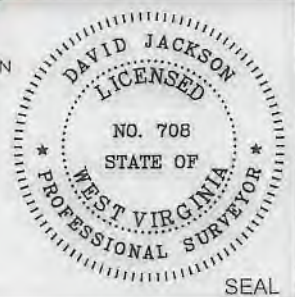
**LEGEND**

- LEASE TRACTS
- - - SURFACE TRACTS
- - - WELL LATERAL
- - - POINT PLEASANT LEGS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

FILE NUMBER \_\_\_\_\_  
DRAWING NUMBER: ARMSTRONG 1S-12HU\_REV1  
SCALE: 1" = 2000'  
MINIMUM DEGREE OF ACCURACY: 1/200  
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING  
GRADE GPS

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

P.S. 706 *David L Jackson*



JACKSON SURVEYING INC.  
P.O. Box 1460  
Clarksburg, WV 26302  
304-623-6851



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

DATE: JULY 22, 2019  
OPERATORS WELL NO. Armstrong 1S-12HU  
API WELL NO. 47-051-02258  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS") PRODUCTION X STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
LOCATION ELEVATION 1279.12' WATERSHED (HUC 10) FRENCH CREEK - OHIO RIVER  
DISTRICT FRANKLIN COUNTY MARSHALL  
QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 Form

SURFACE OWNER CONSOL RCPC, LLC. ACREAGE 159.05  
OIL & GAS ROYALTY OWNER CONSOL RCPC, LLC. LEASE ACREAGE 159.05  
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: 11,417' TMD: 20,119'  
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER  
CT CORPORATION SYSTEM  
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD  
FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME  
PERMIT

**ARMSTRONG LEASE  
WELL 1S-12HU  
551.5786± ACRES**



Number	TAX MAP--PARCEL	SURFACE OWNER	ACRES
S1	A 05-19-3	Milton R. & Linda L. Neal	72.01
S2	B 05-19-22	George A. Knuth & Kelly A. Knuth	71.0
S3	F 05-22-17	Consol RCPC, LLC	37.5
S4	G 05-22-5	Consol RCPC, LLC	134.425
S5	H 05-22-10	T.H. Exploration III, LLC.	58.40
S6	J 05-22-8	T.H. Exploration III, LLC.	48.44
S7	K 05-22-9	T.H. Exploration III, LLC.	63.44
S8	L 05-22-7.1	XcL Midstream Operating, LLC. & Atinum Marcellus I, LLC.	20.68
S9	M 05-22-7	Patricia Accettolo, et al	25.02
S10	O 05-23-28	Gregg D. Minor	39.43
S11	P 05-23-28.2	Tammac Holdings Corp.	10.8
S12	Q 05-23-27	Michael J. Wiley, et al	33.140
S13	S 05-26-2	Edwin Booth Anderson & Mark W. Booth	67.5
S14	T 05-26-5	Michael J. Wiley, et al	65.0
S15	05-19-27	David E. Yoho & Mark E. Yoho	7.041
S16	05-19-26	Roger J. & Beth E. James	9.977
S17	05-19-25	David E. Yoho & Mark E. Yoho	9.976
S18	05-19-18.2	Paul V. & Carol Neely	32.672
S19	05-19-24	Mark E. Yoho	15.436
S20	05-19-18.1	Mark E. Yoho, et ux	2.57
S21	05-19-18	Mark E. Yoho, et ux	55.948
S22	05-23-2	Daniel J. & Danielle D. Lilley	70.0
S23	05-23-2.2	Jessica N. & Andrew L. Jones	7.636
S24	05-23-4	Abe J. Hochstetler	100.7
S25	05-23-4.1	XcL Midstream Operating, LLC	2.16
S26	05-23-25	Arthur A. Wiley	0.43
S27	05-23-24	Michael J. Wiley, et al	0.25
S28	05-23-23	Michael J. Wiley, et al	1.0
S29	05-23-22	Daniel D. Rhyand & Laurel R. Greene	6.25
S30	05-23-29	James Wiley	0.25
S31	05-23-21	Mark A. Yoho & Mark E. Yoho	0.588
S32	05-23-18.1	Mark A. Yoho	7.8
S33	05-23-20	Christian Church	0.19
S34	05-23-19	Doty Cemetery	1.0
S35	05-23-17.1	Curtis E. Hall et ux	10.051
S36	05-23-17.2	Dick Rowan, Jr & Carol J. Rowan	14.920
S37	05-23-17.4	Tammy D. Meadows	2.605
S38	05-23-17	Tammy & Thomas E. Brown	4.62
S39	05-23-16	Roy Friend Yoho, Sr.	18.03
S40	05-23-17.3	William & Katherine Flewelling	5.018
S41	05-23-14	Dominion Transmission Inc.	59.5
S42	U 05-26-7	Dominion Transmission Inc.	71.0
S43	V 05-26-6	Heartwood Forestland Fund VII LP	36.17
S44	05-26-4.4	Otis F. & Glenda M. Rush	39.436
S45	05-26-4.1	Otis S. Rush, et ux	12.188
S46	05-26-4.3	Crystal & Randolph F. Matask	2.253
S47	05-26-4.2	Otis S. Rush, et ux	1.58
S48	05-26-4.6	Otis F. Rush, Jr.	12.268
S49	05-26-4	James R. & Melody Anderson	3.887
S50	05-26-1	Edwin Booth Anderson & Mark W. Booth	12.94
S51	05-28-4	T.H. Exploration III, LLC.	48.44
S52	05-22-11	T.H. Exploration III, LLC.	55.65
S53	05-22-12	T.H. Exploration III, LLC.	61.49
S54	05-22-16	Edward R. Yoho, Jr.	57
S55	05-22-18	Edward R. Yoho, Jr.	77.13
S56	05-22-15	Edward R. Yoho, Jr.	25.5
S57	05-22-14	Consol RCPC, LLC	0.3
S58	05-22-13	John M. Moore, Teresa R. Moore & Andrea S. Moore	40.57
S59	05-23-18	Abe J. Hochstetler	35.38



P.S. 708

*David L Jackson*



**TUG HILL**  
OPERATING

OPERATOR'S  
WELL #: Armstrong 1S-12HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV

WELL PLAT  
PAGE 2 OF 4  
DATE: 07/22/2019

**ARMSTRONG LEASE  
WELL 1S-12HU  
551.5786± ACRES**

Lease No.	Tags	Parcel	Grantor, Lessor, Etc.	Book	Page
10*14023	A	5-19-3	MILTON R NEAL AND LINDA L NEAL	665	503
10*14581	B	5-19-22	CAROL BORDNER	693	609
10*14582	B	5-19-22	DALE F MCINTIRE	694	104
10*14583	B	5-19-22	BRADLEY DEMENT AKA BRADLEY F DEMENT	694	79
10*14584	B	5-19-22	RAY F MCINTIRE AKA FRANCIS RAY MCINTIRE	693	620
10*14585	B	5-19-22	WILBUR L BLAND	694	543
10*14586	B	5-19-22	CAROLYN MCINTIRE HICKERSON	694	546
10*14587	B	5-19-22	CHERYL FIDLER	694	550
10*14588	B	5-19-22	LLOYD E MCINTYRE II	694	565
10*14589	B	5-19-22	BETTY JEAN HARBOUR	694	569
10*14590	B	5-19-22	CHARLES HARBOUR CAROL J HARBOUR	694	540
10*14591	B	5-19-22	JUDY L MCINTIRE	694	553
10*14592	B	5-19-22	NORA JEAN TRUEX	696	639
10*14593	B	5-19-22	KEITH MCINTYRE AND TAMMY MCINTYRE	696	17
10*14594	B	5-19-22	KAREN M ECKELBERRY	696	13
10*14595	B	5-19-22	JUDY A ADAMS	696	643
10*14596	B	5-19-22	MARY LEE LOWE	696	9
10*14597	B	5-19-22	JACKIE MCINTIRE STEPHANIE A CRISS, POA	702	218
10*14598	B	5-19-22	GEORGE A KNUTH	741	523
10*14599	B	5-19-22	ESTATE OF KATHRYN G NOFFSINGER MICHAEL E MCINTIRE, GUARDIAN	839	522
10*14600	B	5-19-22	PAMELA HARTZLER	839	525
10*14601	B	5-19-22	TERRY MCINTIRE	840	158
10*14608	C	5-22-3	CHESTNUT HOLDINGS INC	827	560
10*14100	D	5-19-21	SAMMY WHITLATCH	665	369
10*14101	D	5-19-21	RICHARD WHITLATCH	665	366
10*14102	D	5-19-21	GLORIA A TERRILL	698	633
10*14103	D	5-19-21	ROSE R & JAMES N DAUGHERTY	698	635
10*14104	D	5-19-21	GLENNA & DALE ANDERSON	698	625
10*14105	D	5-19-21	WENDELL & CAROLYN RINE	698	627
10*14106	D	5-19-21	GARY E RINE	698	629
10*14107	D	5-19-21	ARCHIE WAYNE WHIPKEY	698	631
10*14108	D	5-19-21	LOIS M MYERS	698	637
10*14033	E	5-22-4	LAMOYNE BAKER	665	554
10*14034	E	5-22-4	LAWRENCE C AND LORRAINE J MCWHORTER	665	391
10*14035	E	5-22-4	PEGGY MAE WHITE	695	446
10*14036	E	5-22-4	WILDA WINTERS	701	579
10*14037	E	5-22-4	JUDITH L CHAMBERS	701	577
10*14039	E	5-22-4	CHESTNUT HOLDINGS LLC	827	554
10*14507	F	5-22-17	MARY THERESA SOLEAU AND THOMAS SOLEAU	749	524
10*14508	F	5-22-17	JEAN W FOSTER	752	200
10*14509	F	5-22-17	JAMES ROBERT WELLS	752	202
10*14510	F	5-22-17	MARY AGNES CARROLL	749	528
10*14511	F	5-22-17	ELIZABETH JANE KELLER	754	242
10*14513	F	5-22-17	CAROLYN LYNN PORTER	767	256
10*14514	F	5-22-17	CHARLES ARTHUR WELLS	768	494
10*14515	F	5-22-17	JERRY TODD WELLS	773	572
10*14516	F	5-22-17	JAMES NESBITT WELLS BY JOANIE WELLS AIF	773	570
10*14517	F	5-22-17	CARL W BACH JR	852	250
10*14518	F	5-22-17	RAE ELLEN FLOYD AND KENNETH FLOYD	854	599
10*14519	F	5-22-17	DOUGLAS M BACH	854	597



P.S. 708 *David L Jackson*

 <p><b>TUG HILL OPERATING</b></p>	OPERATOR'S	<p><b>WELL PLAT</b> <b>PAGE 3 OF 4</b> <b>DATE: 07/22/2019</b></p>	
	WELL #:		<i>Armstrong 1S-12HU</i>
	DISTRICT:		<i>Franklin</i>
	COUNTY:		<i>Marshall</i>
STATE:		<i>WV</i>	

**ARMSTRONG LEASE  
WELL 1S-12HU  
551.5786± ACRES**

Lease No.	Tags	Parcel	Grantor, Lessor, Etc.	Book	Page
10*16471	F	5-22-17	CNX GAS COMPANY LLC	905	155
10*16652	F	5-22-17	MARY JUDITH BRANSON AND MICHAEL L BRANSON	942	35
10*16674	F	5-22-17	CHARLOTTE A KASTELIC	942	37
10*26910	F	5-22-17	BRIDGET S AND DARRELL T GATES	1045	419
10*26940	F	5-22-17	PATRICK N WELLS	1045	413
10*19529	G	5-22-5	CNX GAS COMPANY LLC	733	500
10*14418	H	5-22-10	PPG INDUSTRIES, INC.	878	610
10*16471	I	5-22-6	CNX GAS COMPANY LLC	905	155
10*14418	J	5-22-8	PPG INDUSTRIES, INC.	878	610
10*14418	K	5-22-9	PPG INDUSTRIES, INC.	878	610
10*14418	L	5-22-9	PPG INDUSTRIES, INC.	878	610
10*14128	M	5-22-7	LOUIS J ACCETTOLO & PATRICIA ACCETTOLO	703	280
10*21218	O	5-23-28	GREGG D MINOR	952	647
10*22330	O	5-23-28	GREGG D MINOR	963	156
10*17190	P	5-23-28.2	MARK W. TENNANT CAROLYN L TENNANT	715	570
10*14710	Q	5-23-27	ROBERT L FRIEDLY	800	408
10*19421	Q	5-23-27	CAYCE DAVENPORT FRIEDLY	940	262
10*19721	Q	5-23-27	MARK FRIEDLY AND ANNA FRIEDLY	944	579
10*22019	Q	5-23-27	BARBARIE HILL	960	548
10*22444	Q	5-23-27	MICHELLE E BAKER	963	642
10*22445	Q	5-23-27	MICHAEL J WILEY	963	640
10*22558	Q	5-23-27	JOLINE FRIEDLY REINHART	965	608
10*23817	Q	5-23-27	GENERAL RECEIVER OF MARSHALL COUNTY ATTN: BERNIE TWIGG	1015	149
10*14742	R	5-23-26	SUSAN E GORE	790	505
10*14744	R	5-23-26	THE SAMUEL MILTON SHEETS TRUST PAULINE RUTH SHEETS TRUSTEE	791	637
10*14745	R	5-23-26	RALPH B TAYLOR	794	485
10*17716	R	5-23-26	MICHAEL J AND BARBARA L WILEY	919	638
10*17777	R	5-23-26	MICHELLE E AND ROBERT T BAKER	921	128
10*21420	R	5-23-26	DAVID D BURKETT	957	3
10*21421	R	5-23-26	BRYANNA FLYNN RANKIN	957	5
10*21437	R	5-23-26	REBECCA MCMILLAN AND ROBERT MCMILLAN	957	1
10*21821	R	5-23-26	LINDA K TAYLOR AND RAY P MAGEE	951	631
10*25633	R	5-23-26	CHESTNUT HOLDINGS LLC	1034	546
10*14916	S	5-26-2	MARK W BOOTH	836	110
10*14917	S	5-26-2	EDWIN BOOTH ANDERSON	836	108
10*14742	T	5-26-5	SUSAN E GORE	790	505
10*14744	T	5-26-5	THE SAMUEL MILTON SHEETS TRUST PAULINE RUTH SHEETS TRUSTEE	791	637
10*14745	T	5-26-5	RALPH B TAYLOR	794	485
10*17716	T	5-26-5	MICHAEL J AND BARBARA L WILEY	919	638
10*17777	T	5-26-5	MICHELLE E AND ROBERT T BAKER	921	128
10*21420	T	5-26-5	DAVID D BURKETT	957	3
10*21421	T	5-26-5	BRYANNA FLYNN RANKIN	957	5
10*21437	T	5-26-5	REBECCA MCMILLAN AND ROBERT MCMILLAN	957	1
10*21821	T	5-26-5	LINDA K TAYLOR AND RAY P MAGEE	951	631
10*25633	T	5-26-5	CHESTNUT HOLDINGS LLC	1034	546
10*18343	U	5-26-7	DOMINION ENERGY TRANSMISSION INC	936	79
10*22286	V	5-26-6	VENABLE ROYALTY LTD A TEXAS LIMITED PARTNERSHIP	926	133
10*14304	N	5-28-5	RUTH MAE DULANEY	749	530
10*14305	N	5-28-5	HELEN BOWMAN	749	362
10*14306	N	5-28-5	RANDY GODDARD	759	248
10*14418	N	5-28-5	PPG INDUSTRIES, INC.	878	610



P.S. 708

*David L Jackson*



**TUG HILL  
OPERATING**

OPERATOR'S  
WELL #: Armstrong 1S-12HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV

WELL PLAT  
PAGE 4 OF 4  
DATE: 07/22/2019