

10,817' B.H.

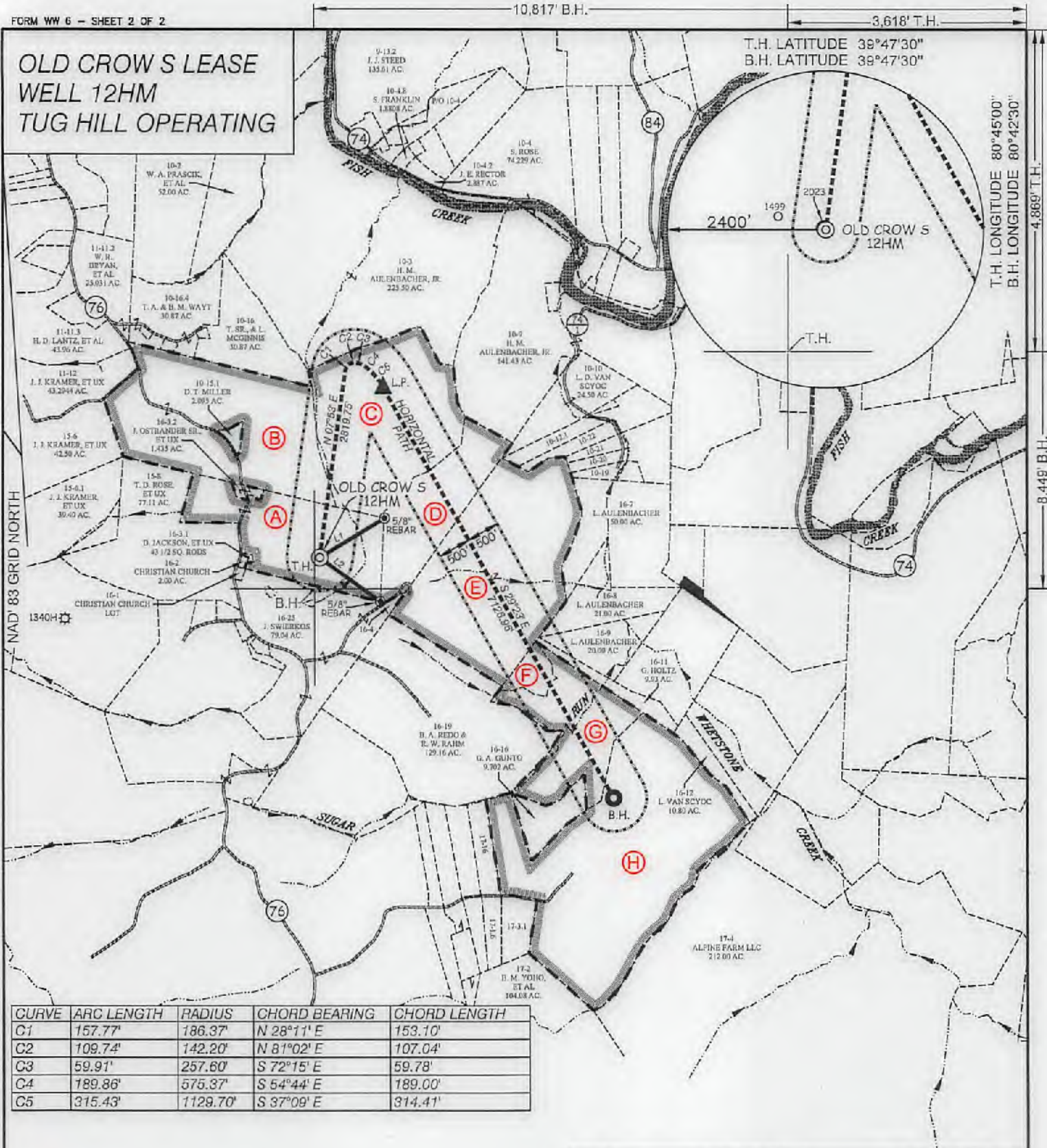
3,618' T.H.

**OLD CROW S LEASE  
WELL 12HM  
TUG HILL OPERATING**

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

T.H. LONGITUDE 80°45'00"  
B.H. LONGITUDE 80°42'30"

NAD 83 GRID NORTH



CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	157.77'	186.37'	N 28°11' E	153.10'
C2	109.74'	142.20'	N 81°02' E	107.04'
C3	59.91'	257.60'	S 72°15' E	59.78'
C4	189.86'	575.37'	S 54°44' E	189.00'
C5	315.43'	1129.70'	S 37°09' E	314.41'

TAG	SURFACE OWNER	PARCEL	ACRES
A	DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO	5-16-3	71.205
B	PAUL ANDREW & DEBRA A. RINE	5-10-15	120.805
C	JOHN SWIERKOS	5-10-14	100.00
D	JOHN SWIERKOS	5-16-5	52.07
E	JOHN SWIERKOS	5-16-6	134.05
F	JOHN SWIERKOS	5-16-18	10.00
G	CARA DAVIS & BRIAN TESLOVICH, ET AL	5-16-17	55.34
H	SOUTHERN COUNTRY FARMS, INC.	5-17-3	190.132

LINE	BEARING	DISTANCE
L1	N 59°06' E	1147.14'
L2	S 54°15' E	1134.36'



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

P.S. 677 *Gregory A. Smith*

**LEGEND**

- LEASE LINE: [Symbol]
- SURFACE LINE: [Symbol]
- WELL LATERAL: [Symbol]
- OFFSET LINE: [Symbol]
- TIE LINE: [Symbol]
- CREEK: [Symbol]
- ROAD: [Symbol]
- COUNTY ROUTE: [Symbol]
- PROPOSED WELL: [Symbol]
- EXISTING WELL: [Symbol]
- PERMITTED WELL: [Symbol]
- TAX MAP-PARCEL: [Symbol]
- SURFACE OWNER (SEE TABLE): [Symbol]
- LEASE # (SEE WW-6A1): [Symbol]

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

NAD'83 S.P.C.(FT)	N. 488,091.30	E. 1,613,579.36
NAD'83 GEO.	LAT-(N) 39.778300	LONG-(W) 80.762874
NAD'83 UTM (M)	N. 4,403,178.09	E. 520,306.93

**LANDING POINT**

NAD'83 S.P.C.(FT)	N. 470,858.1	E. 1,614,545.1
NAD'83 GEO.	LAT-(N) 39.785384	LONG-(W) 80.759566
NAD'83 UTM (M)	N. 4,403,965.0	E. 520,587.5

**BOTTOM HOLE**

NAD'83 S.P.C.(FT)	N. 484,448.5	E. 1,618,042.8
NAD'83 GEO.	LAT-(N) 39.768472	LONG-(W) 80.746814
NAD'83 UTM (M)	N. 4,402,091.0	E. 521,684.7

SCALE 1" = 2000' FILE NO. 8796P12HM.dwg

DATE APRIL 17, 2018

REVISED \_\_\_\_\_, 20\_\_

OPERATORS WELL NO. OLD CROW S-12HM

API WELL NO. 47-051-02043

NO. STATE COUNTY PERMIT

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

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

COUNTY NAME PERMIT

06/29/2018



**OLD CROW S LEASE  
WELL 12HM  
TUG HILL OPERATING**

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

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

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NAD'83 GEO.	LAT-(N) 39.778300	LONG-(W) 80.762874
NAD'83 UTM (M)	N. 4,403,178.09	E. 520,306.33

LANDING POINT

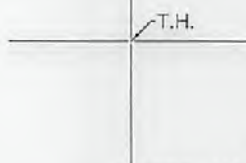
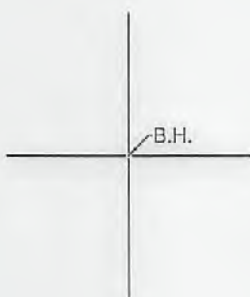
NAD'83 S.P.C. (FT)	N. 470,658.1	E. 1,614,545.1
NAD'83 GEO.	LAT-(N) 39.785984	LONG-(W) 80.759566
NAD'83 UTM (M)	N. 4,403,965.0	E. 520,587.5

BOTTOM HOLE

NAD'83 S.P.C. (FT)	N. 464,448.5	E. 1,618,042.8
NAD'83 GEO.	LAT-(N) 39.768472	LONG-(W) 80.746814
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T.H. LONGITUDE 80°45'00"  
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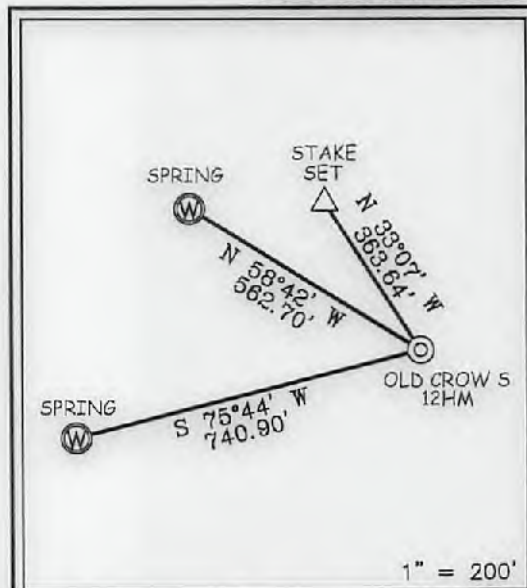
MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
5-10-12.1	JOHN PAUL SMITH, JR., ET AL	3.86
5-10-19	BRADLEY L. & CONNIE L. HUBBARD	3.209
5-10-20	LOUIS AULENBAUCHER	3.554
5-10-21	LOUIS AULENBAUCHER	3.677
5-10-22	LOUIS AULENBAUCHER	5.461
5-16-4	JOHN SWIERKOS	153 SQ. RODS
5-17-1.6	LOLA M. SLAUGHTER	6.347
5-17-3.1	WILBUR L. RIDDLE, ET UX	10.148
5-17-16	GLEN GUNTO	9.702



**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 IS 1"=2000'

**REFERENCES**



1" = 200'



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. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE APRIL 17, 20 18  
REVISED \_\_\_\_\_, 20 \_\_\_\_  
OPERATORS WELL NO. OLD CROW S-12HM  
API WELL NO. 47 - 051 - 02043  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. 8796P12HM.dwg  
SCALE 1" = 2000'  
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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 = 1,284.10' ELEVATION PROPOSED = 1,264.99' WATERSHED TRIBUTARY OF FISH CREEK (HUC-10)  
DISTRICT FRANKLIN COUNTY MARSHALL QUADRANGLE POWHATAN POINT 7.5'

SURFACE OWNER DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO ACREAGE 71.205±  
ROYALTY OWNER DONNA VIVIAN YOHO, ET AL ACREAGE 71.205±

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

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION MARCELLUS  
ESTIMATED DEPTH TVD: 6,699' / TMD: 15,107'

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

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06/29/2018