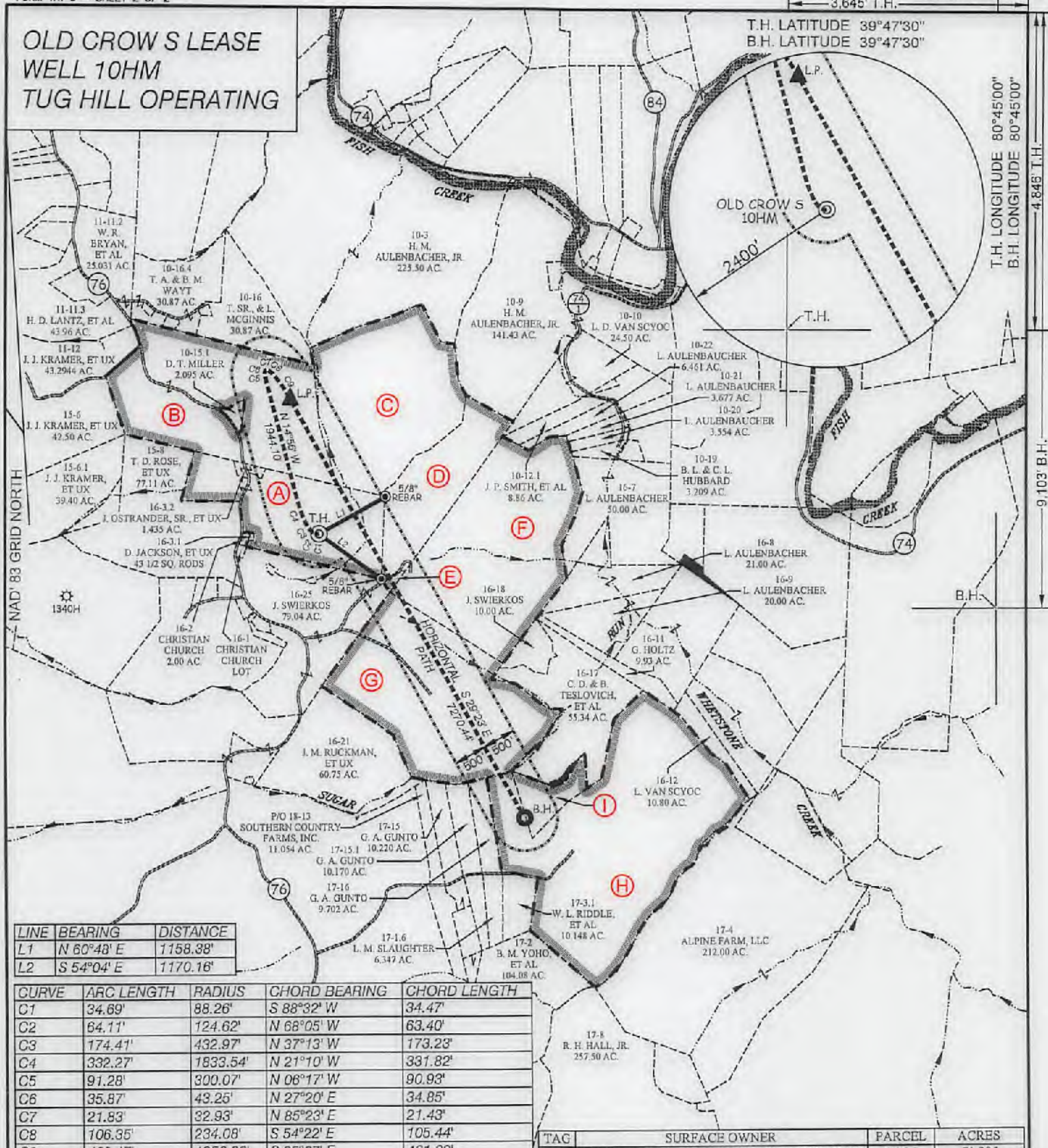


**OLD CROW S LEASE
WELL 10HM
TUG HILL OPERATING**



LINE	BEARING	DISTANCE
L1	N 60°48' E	1158.38'
L2	S 54°04' E	1170.16'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	34.69'	88.26'	S 88°32' W	34.47'
C2	64.11'	124.62'	N 68°05' W	63.40'
C3	174.41'	432.97'	N 37°13' W	173.23'
C4	332.27'	1833.54'	N 21°10' W	331.82'
C5	91.28'	300.07'	N 06°17' W	90.93'
C6	35.87'	43.25'	N 27°20' E	34.85'
C7	21.83'	32.93'	N 85°23' E	21.43'
C8	106.35'	234.08'	S 54°22' E	105.44'
C9	462.17'	1950.28'	S 35°07' E	461.09'

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	5-16-4	153 SQ. RODS
F	JOHN SWIERKOS	5-16-6	134.05
G	BETHANY A. REDO & ROBERT W. RAHM	5-16-19	129.16
H	SOUTHERN COUNTRY FARMS, INC.	5-17-3	190.132
I	SOUTHERN COUNTRY FARMS, INC.	5-16-16	9.75

SLS
Land & Energy Development
Solutions from the ground up.
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www.slsurveys.com

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

NAD'83 S.P.C.(FT)	N. 468,115.27	E. 1,613,552.50
NAD'83 GEO.	LAT-(N) 39.778365	LONG-(W) 80.762971
NAD'83 UTM (M)	N. 4,403,185.26	E. 520,298.03

LANDING POINT

NAD'83 S.P.C.(FT)	N. 470,148.3	E. 1,613,111.9
NAD'83 GEO.	LAT-(N) 39.783920	LONG-(W) 80.764640
NAD'83 UTM (M)	N. 4,403,802.4	E. 520,153.4

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 463,813.2	E. 1,616,879.2
NAD'83 GEO.	LAT-(N) 39.786576	LONG-(W) 80.751833
NAD'83 UTM (M)	N. 4,401,890.5	E. 521,272.5



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

P.S. 677 *Gregory A. Smith*

LEGEND

LEASE LINE	— — — — —
SURFACE LINE	— — — — —
WELL LATERAL	— — — — —
OFFSET LINE	— — — — —
TIE LINE	— — — — —
CREEK	— — — — —
ROAD	— — — — —
COUNTY ROUTE	— — — — —
PROPOSED WELL	⊕
EXISTING WELL	⊙
PERMITTED WELL	⊙
TAX MAP-PARCEL	00-00
SURFACE OWNER (SEE TABLE)	(A)
LEASE # (SEE WW-6A1)	

SCALE 1" = 2000' FILE NO. 8796P10HM.dwg

DATE MARCH 6, 20 18

REVISED _____, 20 _____

OPERATORS WELL NO. OLD CROW S-10HM

API WELL NO. 47 — 051 — 02040 H6A

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	ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107	CHARLESTON, WV 25313

COUNTY NAME PERMIT

3,845' T.H. 459' B.H.

**OLD CROW S LEASE
WELL 10HM
TUG HILL OPERATING**

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

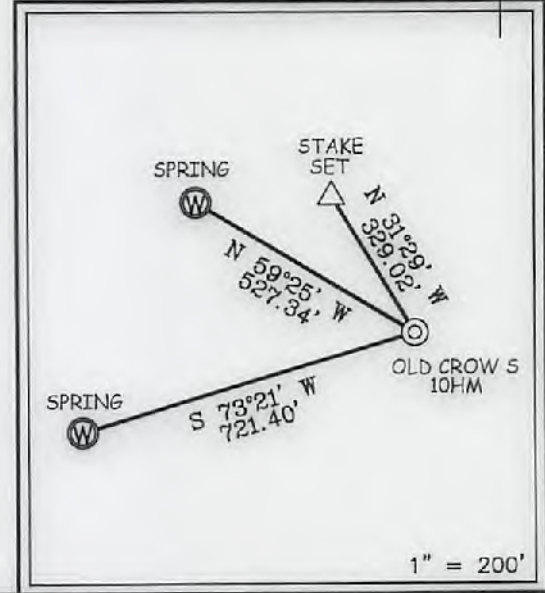
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'83 S.P.C.(FT)	N. 468,115.27	E. 1,613,552.50	
NAD'83 GEO.	LAT-(N) 39.778365	LONG-(W) 80.762971	
NAD'83 UTM (M)	N. 4,403,185.26	E. 520,298.03	
LANDING POINT			
NAD'83 S.P.C.(FT)	N. 470,148.3	E. 1,613,111.9	
NAD'83 GEO.	LAT-(N) 39.783929	LONG-(W) 80.764640	
NAD'83 UTM (M)	N. 4,403,802.4	E. 520,153.4	
BOTTOM HOLE			
NAD'83 S.P.C.(FT)	N. 463,813.2	E. 1,616,679.2	
NAD'83 GEO.	LAT-(N) 39.766676	LONG-(W) 80.751633	
NAD'83 UTM (M)	N. 4,401,890.5	E. 521,272.5	

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"
4,846' T.H.
9,103' B.H.

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



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 MARCH 6, 2018
 REVISED _____, 20____
 OPERATORS WELL NO. OLD CROW S-10HM
 API WELL NO. 47-051-02040
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P10HM.dwg
 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 X LIQUID INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X
 LOCATION: ELEVATION GROUND = 1,286.40' PROPOSED = 1,265.49' 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 X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X 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: 6,689' / TMD: 15,008'

WELL OPERATOR TUG HILL OPERATING, LLC ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107
 DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

COUNTY NAME PERMIT

06/29/2018