

**OLD CROW S LEASE
WELL 16HM
TUG HILL OPERATING**

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
5-10-5	WILLIAM F. RULONG, ET AL	27.50
5-10-6	WILLIAM F. RULONG, ET AL	P/O ACRE
5-10-7	WILLIAM F. RULONG, ET AL	22.872
5-10-8	WILLIAM F. RULONG, ET AL	70.6672
5-10-12.1	JOHN PAUL SMITH, JR., ET AL	8.86
5-10-13.1	DAVID LEE QUIGLEY, JR.	2.88
5-10-19	BRADLEY L. & CONNIE L. HUBBARD	3.209
5-10-20	LOUIS AULENBACHER	3.554
5-10-21	LOUIS AULENBACHER	3.677
5-10-22	LOUIS AULENBACHER	6.461
5-16-10	FRANK P. LAUTAR EST.	5.00

6,512' B.H. A.D. 3,604' T.H. A.D.

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. 468,106.97	E. 1,613,593.34
NAD'83 GEO.	LAT-(N) 39.778344	LONG-(W) 80.762825
NAD'83 UTM (M)	N. 4,403,182.94	E. 520,310.51

LANDING POINT

NAD'83 S.P.C.(FT)	N. 471,051.3	E. 1,617,759.4
NAD'83 GEO.	LAT-(N) 39.786586	LONG-(W) 80.748149
NAD'83 UTM (M)	N. 4,404,101.1	E. 521,564.7

BOTTOM HOLE

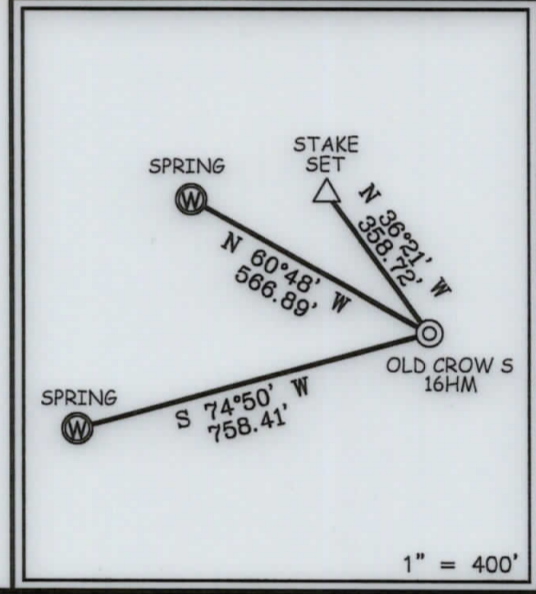
NAD'83 S.P.C.(FT)	N. 462,747.4	E. 1,622,344.8
NAD'83 GEO.	LAT-(N) 39.763965	LONG-(W) 80.731428
NAD'83 UTM (M)	N. 4,401,594.7	E. 523,004.0

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°42'30"
4,853' T.H. A.D.
10,088' B.H. A.D.

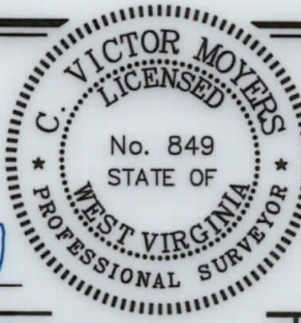
NOTES ON SURVEY

1. 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.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'
3. AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
4. PLAT UPDATED TO SHOW AS-DRILLED PATH.

REFERENCES



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slsvv.com



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. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JUNE 10, 2020
REVISED _____, 20____
OPERATORS WELL NO. OLD CROW S-16HM
API WELL NO. 47 - 051 - 2187
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P16HMAD.dwg
OLD CROW NORTH 16HM REV1
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 INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X

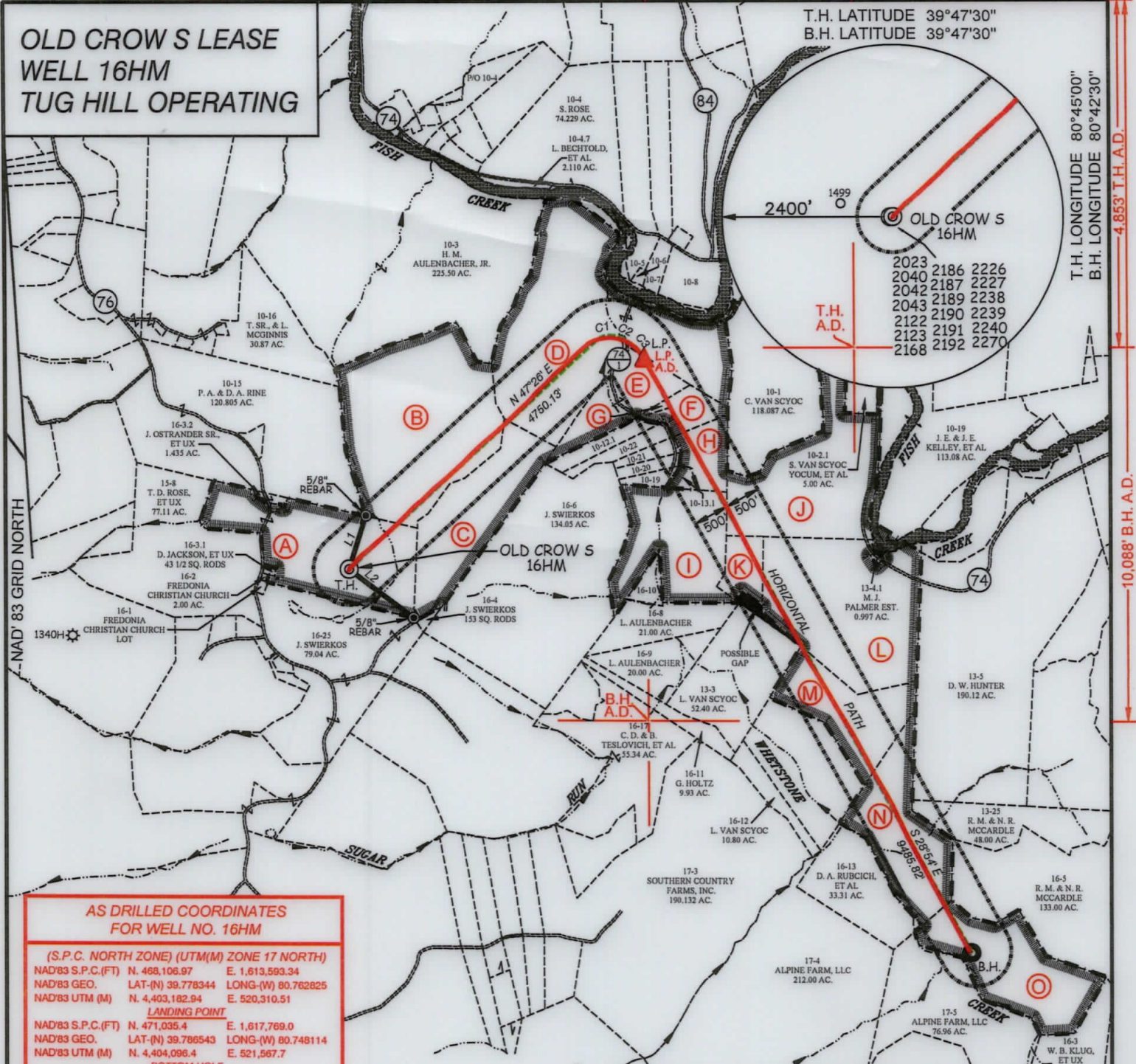
LOCATION:
ELEVATION 1,265' WATERSHED TRIBUTARY OF FISH CREEK (HUC-10)
DISTRICT FRANKLIN COUNTY MARSHALL QUADRANGLE POWHATAN POINT 7.5'
SURFACE OWNER DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO ACREAGE 71.205±
ROYALTY OWNER DONNA VIVIAN YOHO, ET AL ACREAGE 71.205±
PROPOSED WORK:
DRILL X CONVERT _____ DRILL 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: 6,784' / TMD: 18,460.34'

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

08/27/2021

**OLD CROW S LEASE
WELL 16HM
TUG HILL OPERATING**



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B.H. LONGITUDE 80°42'30"
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2023	2186	2226
2040	2187	2227
2042	2187	2227
2043	2189	2238
2122	2190	2239
2123	2191	2240
2168	2192	2270

AS DRILLED COORDINATES FOR WELL NO. 16HM

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NAD'83 UTM (M)	N. 4,403,182.94	E. 520,310.51

LANDING POINT

NAD'83 S.P.C.(FT)	N. 471,035.4	E. 1,617,769.0
NAD'83 GEO.	LAT-(N) 39.786543	LONG-(W) 80.748114
NAD'83 UTM (M)	N. 4,404,096.4	E. 521,567.7

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 462,750.6	E. 1,622,325.4
NAD'83 GEO.	LAT-(N) 39.763973	LONG-(W) 80.731497
NAD'83 UTM (M)	N. 4,401,595.5	E. 522,998.0

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	255.25'	291.86'	N 73°28' E	247.19'
C2	250.87'	494.87'	S 66°19' E	248.19'
C3	316.19'	788.90'	S 40°20' E	314.08'

LEGEND

AS DRILLED ———

PROPOSED - - - - -

TAG	SURFACE OWNER	PARCEL	ACRES
A	DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO	5-16-3	71.205
B	JOHN SWIERKOS	5-10-14	100.00
C	JOHN SWIERKOS	5-16-5	52.07
D	HERBERT M. AULENBACHER, JR.	5-10-9	141.43
E	LOUIS DELBERT VAN SCYOC	5-10-10	24.50
F	JOSEPH LEE CROW	5-10-12	11.279
G	JOSEPH LEE CROW	5-10-11	130'x310'
H	JOSEPH LEE CROW	5-10-13	12.18
I	LOUIS AULENBACHER	5-16-7	50.00
J	CAROL VAN SCYOC	9-10-2	207.988
K	SYLVIA I. VAN SCYOC, ET AL	P/O 9-13-2	41.5
L	LOUIS AULENBACHER	9-13-4	100.191
M	SYLVIA I. VAN SCYOC, ET AL	9-13-2	41.5
N	ROBERT N. & NANCY R. MCCARDLE	9-16-1	46.80
O	ROBERT N. & NANCY R. MCCARDLE	9-16-2	53.40

12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
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P.S. 849 *C. Victor Moyers*

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. 8796P16HMAD.dwg
OLD CROW NORTH 16HM REV1

DATE JUNE 10, 2020
REVISED _____, 20____

OPERATORS WELL NO. OLD CROW S-16HM

API WELL NO. 47 — 051 — 2187

NO. STATE COUNTY PERMIT

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

DIANNA STAMPER
CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

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