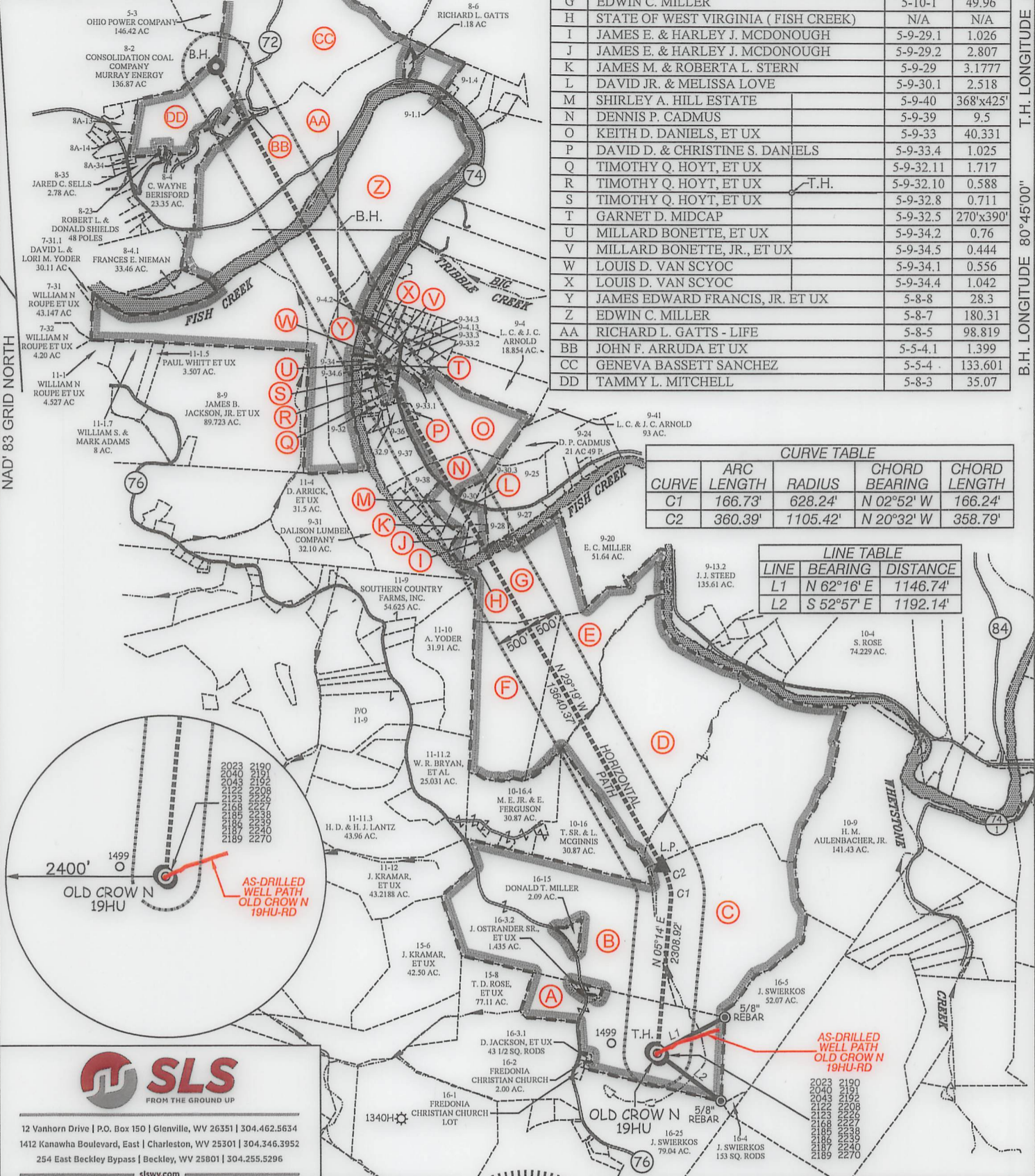


**OLD CROW N LEASE
WELL 19HU
TUG HILL OPERATING**

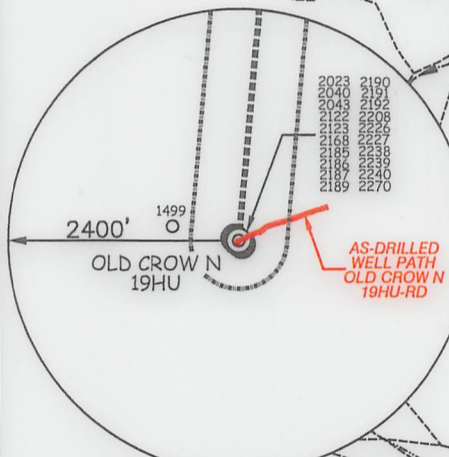
B.H. LATITUDE 39°50'00"
T.H. LATITUDE 39°47'30"

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	HERBERT M. AULENBACHER, JR.	5-10-3	225.50	
E	WILLIAM A. PRASCIK, ET AL	5-10-2	52.00	
F	ALVIN A. YODER	5-10-17	57.28	
G	EDWIN C. MILLER	5-10-1	49.96	
H	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A	
I	JAMES E. & HARLEY J. MCDONOUGH	5-9-29.1	1.026	
J	JAMES E. & HARLEY J. MCDONOUGH	5-9-29.2	2.807	
K	JAMES M. & ROBERTA L. STERN	5-9-29	3.1777	
L	DAVID JR. & MELISSA LOVE	5-9-30.1	2.518	
M	SHIRLEY A. HILL ESTATE	5-9-40	368'x425'	
N	DENNIS P. CADMUS	5-9-39	9.5	
O	KEITH D. DANIELS, ET UX	5-9-33	40.331	
P	DAVID D. & CHRISTINE S. DANIELS	5-9-33.4	1.025	
Q	TIMOTHY Q. HOYT, ET UX	5-9-32.11	1.717	
R	TIMOTHY Q. HOYT, ET UX	T.H.	5-9-32.10	0.588
S	TIMOTHY Q. HOYT, ET UX	5-9-32.8	0.711	
T	GARNET D. MIDCAP	5-9-32.5	270'x390'	
U	MILLARD BONETTE, ET UX	5-9-34.2	0.76	
V	MILLARD BONETTE, JR., ET UX	5-9-34.5	0.444	
W	LOUIS D. VAN SCYOC	5-9-34.1	0.556	
X	LOUIS D. VAN SCYOC	5-9-34.4	1.042	
Y	JAMES EDWARD FRANCIS, JR. ET UX	5-8-8	28.3	
Z	EDWIN C. MILLER	5-8-7	180.31	
AA	RICHARD L. GATTS - LIFE	5-8-5	98.819	
BB	JOHN F. ARRUDA ET UX	5-5-4.1	1.399	
CC	GENEVA BASSETT SANCHEZ	5-5-4	133.601	
DD	TAMMY L. MITCHELL	5-8-3	35.07	



CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	166.73'	628.24'	N 02°52' W	166.24'
C2	360.39'	1105.42'	N 20°32' W	358.79'

LINE TABLE		
LINE	BEARING	DISTANCE
L1	N 62°16' E	1146.74'
L2	S 52°57' E	1192.14'



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

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'83 S.P.C.(FT)	N. 468,146.92	E. 1,613,548.58	
NAD'83 GEO.	LAT-(N) 39.778452	LONG-(W) 80.762986	
NAD'83 UTM (M)	N. 4,403,194.88	E. 520,296.67	
LANDING POINT			
NAD'83 S.P.C.(FT)	N. 470,948.2	E. 1,613,625.0	
NAD'83 GEO.	LAT-(N) 39.786145	LONG-(W) 80.762854	
NAD'83 UTM (M)	N. 4,404,048.7	E. 520,305.7	
BOTTOM HOLE			
NAD'83 S.P.C.(FT)	N. 482,841.4	E. 1,606,945.8	
NAD'83 GEO.	LAT-(N) 39.818532	LONG-(W) 80.787226	
NAD'83 UTM (M)	N. 4,407,638.0	E. 518,210.3	



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

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	
SURFACE OWNER (SEE TABLE)	
LEASE # (SEE WW-6A1)	

SCALE 1" = 2000' FILE NO. 8796P19HU(3HM-REV3).dwg
 OLD CROW NORTH 3HM REV3
 DATE MARCH 4, 2020
 OPERATORS WELL NO. OLD CROW N-19HU
 API WELL NO. 47-051-02270mwp
 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

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"
COUNTY NAME
PERMIT

10,456' B.H.

3,650' T.H.

**OLD CROW N LEASE
WELL 19HU
TUG HILL OPERATING**

T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°50'00"

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

NAD'83 S.P.C.(FT)	N. 468,146.92	E. 1,613,548.58
NAD'83 GEO.	LAT-(N) 39.778452	LONG-(W) 80.762986
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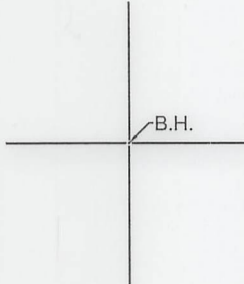
LANDING POINT

NAD'83 S.P.C.(FT)	N. 470,948.2	E. 1,613,625.0
NAD'83 GEO.	LAT-(N) 39.786145	LONG-(W) 80.762854
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BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 482,841.4	E. 1,606,945.8
NAD'83 GEO.	LAT-(N) 39.818532	LONG-(W) 80.787226
NAD'83 UTM (M)	N. 4,407,638.0	E. 518,210.3

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"
4,814' T.H.
5,392' B.H.

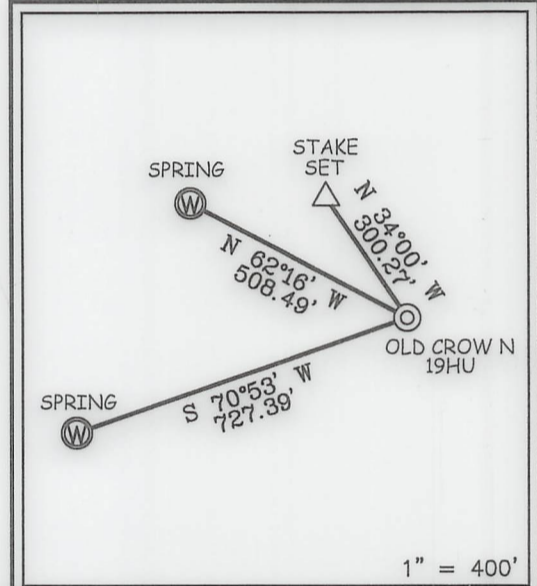


NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS OR DWELLINGS ≥ 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- BASED ON WV DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.
- THIS WELL PLAT PERTAINS TO A RE-PERMIT OF A PREVIOUSLY PROPOSED OLD CROW N-19HU, THAT WAS PARTIALLY DRILLED AND PLUGGED, AS SHOWN HEREON AND IDENTIFIED AS AN AS-DRILLED PATH. THIS CURRENT PROPOSED LATERAL RETAINS THE NAME OF THE PREVIOUSLY PERMITTED OLD CROW N-19HU LATERAL, HOWEVER THESE DESIGN PLANS INTEGRATE A NEW TOP HOLE LOCATION AS WELL AS PARTIAL LATERAL DESIGN OF A PREVIOUSLY PROPOSED OLD CROW N-03HM. THE TARGET FORMATION OF THIS PROPOSED OLD CROW N-19HU LATERAL IS MARCELLUS AND NOT POINT PLEASANT, AS PREVIOUSLY PERMITTED.
- ALL AS-DRILLED, LATERAL DESIGN AND RE-PERMIT INFORMATION PROVIDED TO SLS BY TUG HILL OPERATING, LLC.

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
5-8A-13	LETHA I. RUCKMAN	2.993
5-8A-14	BOARD OF EDUCATION	137 SQ RODS
5-8A-34	NORMAN G. JOHNSON ET UX - LIFE	11,123 SQ. FT.
5-9-1.1	FRANK C. CLARK	0.52
5-9-1.4	SHELDON R. RUCKMAN ET AL - LIFE	4.49
5-9-4.2	LINDA J. SIMMONS	0.80
5-9-4.13	SAMUEL LEE CANTERBURY, ET UX	0.9284
5-9-25	DELBERT K. & LINDA K. MYERS	14.49
5-9-27	JOHN F. KAZEMKA	4.02
5-9-28	WILLIAM N. & DOLORES E. MCDONOUGH - LIFE	4.01
5-9-30	MATTHEW B. GRIFFITH	2.708
5-9-30.3	MATTHEW B. GRIFFITH	0.82
5-9-32	SANDRA J. BONNETTE	2.321
5-9-32.9	LIONEL E. HENRY, SR., ET AL	1.269
5-9-33.1	DANIELS FAMILY TRUST	1
5-9-33.2	DANIELS FAMILY TRUST	1.534
5-9-33.3	RALPH EARL DUNLAP - LIFE	0.50
5-9-34	LOUIS D. & PATRICIA L. VAN SCYOC	0.850
5-9-34.3	SANDRA J. BONNETTE	1.988
5-9-34.6	EARL B. SUTER, JR., ET UX	0.085
5-9-36	FRANK T. & ANNA M. WALKER	PARCEL
5-9-37	FRANK T. & ANNA M. WALKER	10.857
5-9-38	SHIRLEY A. HILL EST.	3.331

REFERENCES

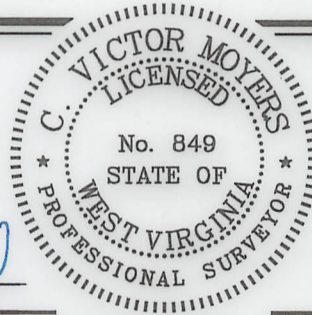


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254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slsvv.com

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 MARCH 4, 20 20
REVISED _____
OPERATORS WELL NO. OLD CROW N-19HU
API WELL NO. 47-051-02270MDD
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P19HU(3HM-REV3).dwg
OLD CROW NORTH 3HM REV3
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 LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: GROUND = 1,288.00' 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: 6,727' / TMD: 21,418'

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