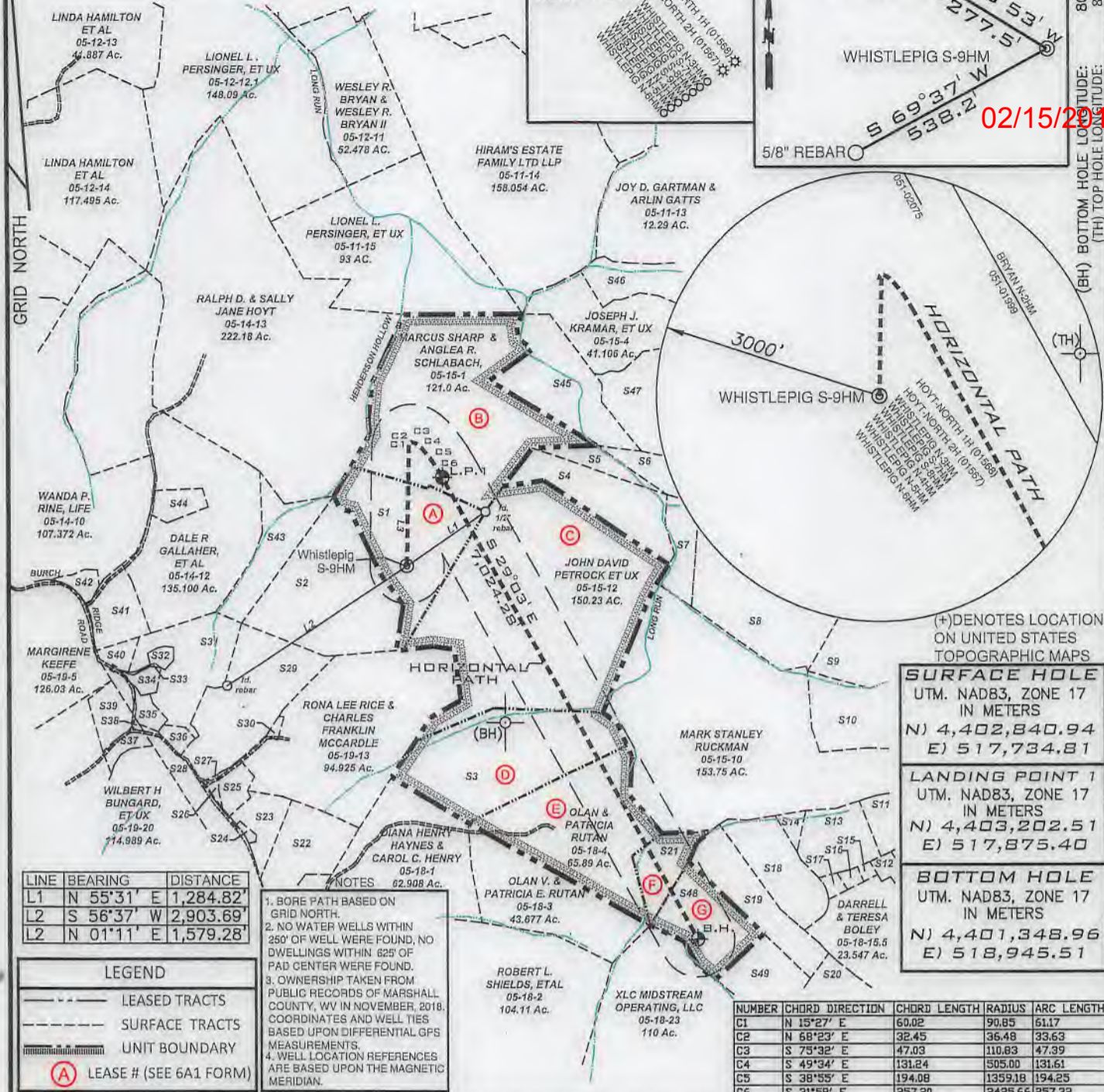
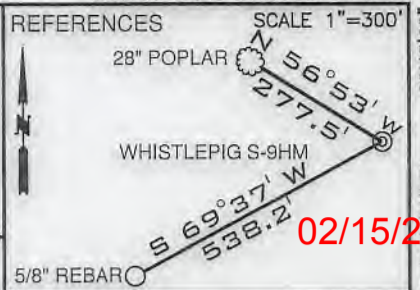
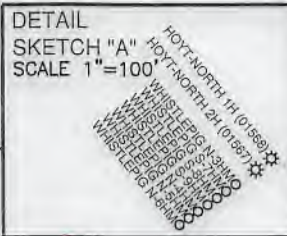


WHISTLEPIG LEASE WELL S-9HM 485.85± ACRES

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



(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,402,840.94
E) 517,734.81

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,403,202.51
E) 517,875.40

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,401,348.96
E) 518,945.51

LINE	BEARING	DISTANCE
L1	N 55°31' E	1,284.82'
L2	S 56°37' W	2,903.69'
L2	N 01°11' E	1,579.28'

- NOTES
- BORE PATH BASED ON GRID NORTH.
 - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN NOVEMBER, 2018. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.

LEGEND

- LEASED TRACTS
- SURFACE TRACTS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

NUMBER	CHORD	DIRECTION	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 15°27' E		60.02	90.85	61.17
C2	N 68°23' E		32.45	36.48	33.63
C3	S 75°32' E		47.03	110.83	47.39
C4	S 49°34' E		131.24	505.00	131.61
C5	S 38°55' E		194.08	1359.18	194.25
C6	S 31°58' E		257.20	2425.66	257.32

FILE NUMBER _____

DRAWING NUMBER WHISTLEPIG S-9HM REV 0

SCALE 1" = 2000'

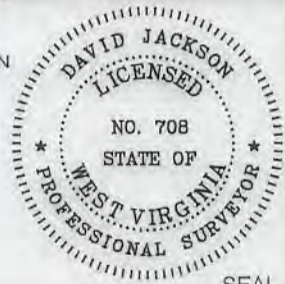
MINIMUM DEGREE OF ACCURACY 1/200

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

David L Jackson



JACKSON SURVEYING INC.
P.O. Box 1460
Clarksburg, WV 26302
304-623-5851

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

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION ELEVATION 1,367.4' WATERSHED (HUC 10) FISH CREEK
DISTRICT FRANKLIN COUNTY MARSHALL
QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 Form

SURFACE OWNER ROBERT L. & REBECCA SHIELDS & DONALD SHIELDS ACREAGE 49.0
OIL & GAS ROYALTY OWNER ROBERT L. & REBECCA SHIELDS & DONALD SHIELDS LEASE ACREAGE 49.0
PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) _____

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD: 6,689' TMD: 14,290'

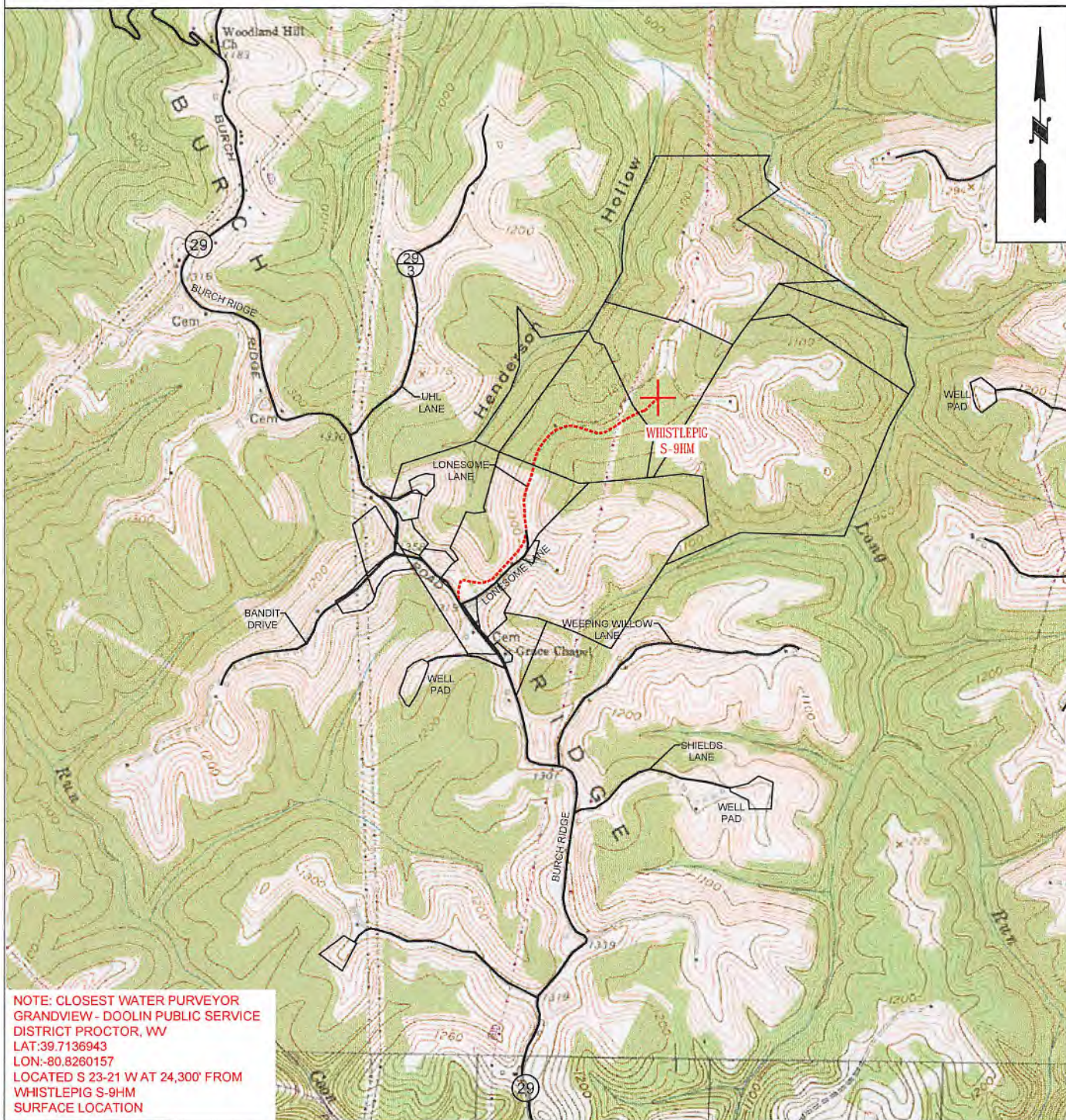
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107 CHARLESTON, WV 25313

COUNTY NAME
PERMIT

WW-9

PROPOSED WHISTLEPIG S-9HM

SUPPLEMENT PG 2



NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE
DISTRICT PROCTOR, WW
LAT: 39.7136943
LON: -80.8260157
LOCATED S 23-21 W AT 24,300' FROM
WHISTLEPIG S-9HM
SURFACE LOCATION



TUG HILL
OPERATING

OPERATOR	494510851	TOPO SECTION	LEASE NAME
TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317		POWHATAN POINT 7.5'	WHISTLEPIG
		SCALE:	DATE:
		1" = 2000'	DATE: 11-28-2018