

THACKER LAND CO. LEASE

1,947.04 ACRES±

WELL NO. WV 512821

EXISTING WELL LATITUDE 37° 37' 30"
A.P.I. #47-059-1909
STATE PLANE COORDINATES (SOUTH ZONE) 47-059-0352
N. 219,099
E. 1,673,615
LAT=(N) 37.59626
LONG=(W) 82.12651

WELL NO. WV 512821
STATE PLANE COORDINATES (SOUTH ZONE)

N. 219,122
E. 1,673,582

LAT=(N) 37.59633
LONG=(W) 82.12663
NAD83 UTM
N 416 16 36.72
E 400 55 6.57

HEARTWOOD FORESTLAND FUND
1,795.90 ACRES±

MAUCHLINVILLE BRANCH
LEASE & SURFACE BOUNDARY RUNS GENERALLY WITH THE RIDGE

GRAPEVINE LAND COMPANY ET AL
180 ACRES±

GRAPEVINE LAND COMPANY ET AL
576.02 ACRES±

BOTTOM HOLE
WELL NO. WV 512821
STATE PLANE COORDINATES (SOUTH ZONE)

N. 215,632
E. 1,673,840

LAT=(N) 37.58675
LONG=(W) 82.12559

REFERENCES

NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 09/04/09.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 364 PAGE 361.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF MINGO COUNTY, JULY 2009.
5. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 05, 20 10

OPERATORS WELL NO. WV 512821

API WELL NO. 47-059-02155H
STATE WV COUNTY MINGO PERMIT CANCELLED

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 3914P512821R (283-69)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 1000'

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: ELEVATION 736' WATERSHED THACKER CREEK

DISTRICT MAGNOLIA COUNTY MINGO QUADRANGLE MATEWAN 7.5'

SURFACE OWNER HEARTWOOD FORESTLAND FUND ACREAGE 143.76±

ROYALTY OWNER PLUM CREEK TIMBERLANDS, ET AL LEASE ACREAGE 1,947.04±

PROPOSED WORK: LEASE NO. 080566

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 LOWER HURON
ESTIMATED DEPTH 4,190' (TOTAL VERTICAL DEPTH)

WELL OPERATOR EQT PRODUCTION COMPANY DESIGNATED AGENT REX C. RAY

ADDRESS 1710 PENNSYLVANIA AVENUE ADDRESS 1710 PENNSYLVANIA AVENUE
CHARLESTON, WV 25302 CHARLESTON, WV 25302

11/16/2012

LONGITUDE 82° 07' 30"
10,430'