

(BOTTOM HOLE: 80°39'14.7")

LON: -80°40'32.3"

2525'

LAT: 39°37'30"

LON: 80°40'00"

1 - Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1983).

2 - Surface owners and adjoiners information obtained from the Wetzel County Assessor's tax records.

3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

SURVEY NOTES

UTM Coordinates (Zone 17N-NAD 1983)

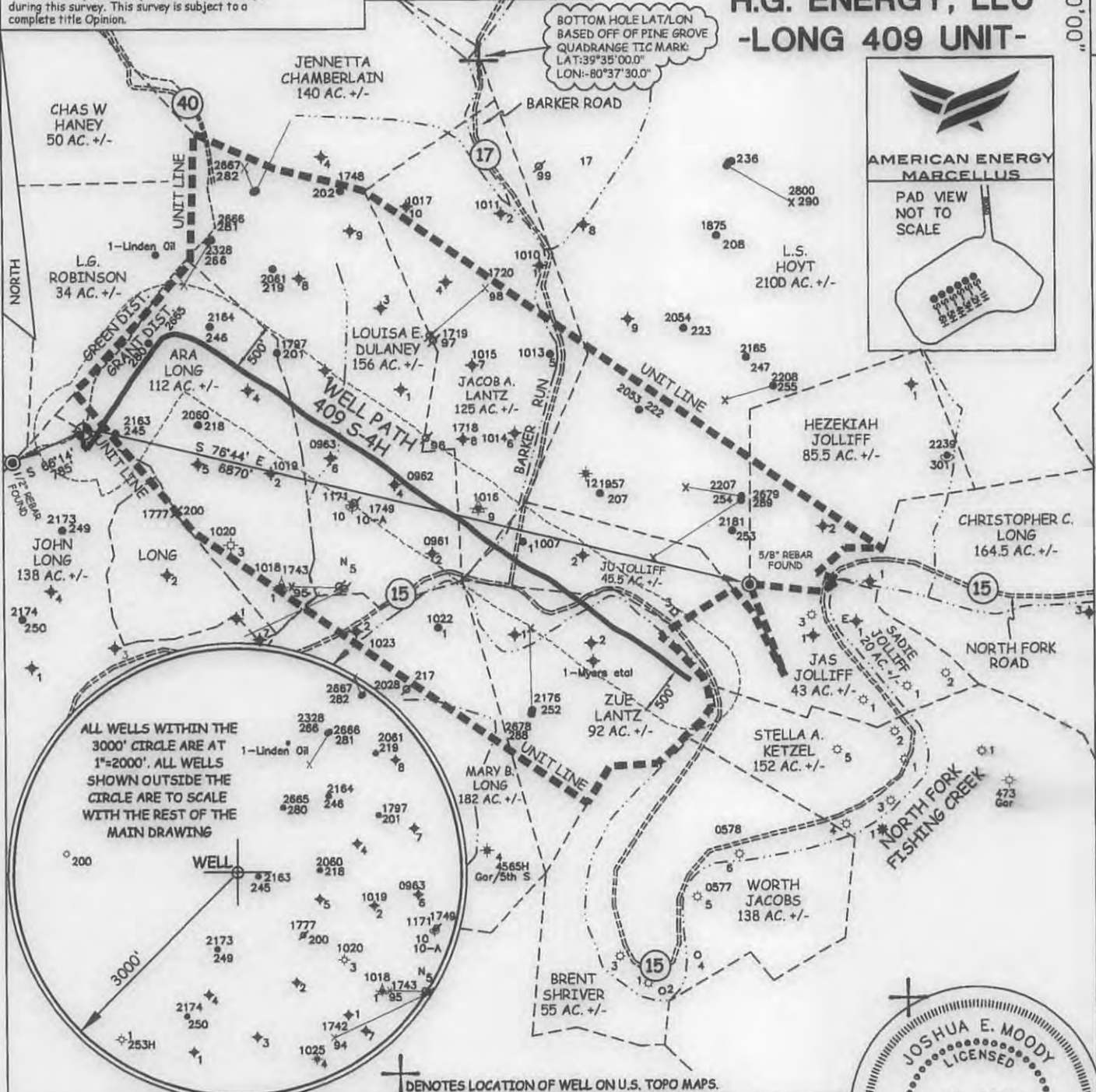
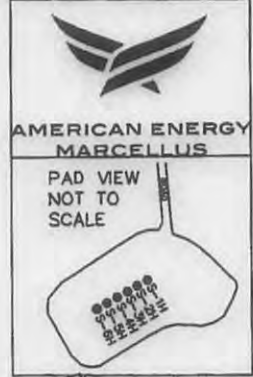
Surface N-4,381,630m.
E-527,871m.

Bottom Hole N-4,380,857m.
E-529,725m.

LOCATION REFERENCES

NAD 1983
N 80°30' W 260' UTILITY POLE
N 46°39' E 222' SPIKE

MAP OF H.G. ENERGY, LLC -LONG 409 UNIT-



JOB # 12-025
DRAWING # 12HG409FOLDER
SCALE 1" = 1500'
MINIMUM DEGREE OF ACCURACY SUB-METER
PROVEN SOURCE OF ELEV. 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 REGULATIONS ISSUED AND PERSCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.



**WEST VIRGINIA DEPARTMENT
OF ENVIRONMENTAL PROTECTION,
OFFICE OF OIL AND GAS**

MOODY LAND SURVEYING, LLC
ST. MARYS, WV 26170



WEST VIRGINIA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

JOSHUA E. MOODY, P.S. 2020
DATE 12/08/14
OPERATOR'S WELL # 409 S-4H

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL HORIZONTAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1340' WATERSHED NORTH FOR, FISHING CREEK API WELL # 47 - 103 -
 DISTRICT GRANT COUNTY WETZEL STATE 47 COUNTY 103 PERMIT
 QUADRANGLE PINE GROVE 7.5'

SURFACE OWNER FRANCIS D. & FREEDA M. BROWN (surface hole) ACREAGE 103 ACRES +/-
 OIL & GAS ROYALTY OWNER ROBERT B. MYERS ET AL LEASE ACREAGE 580 ACRES +/-
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
 OTHER PHYSICAL CHANGE IN WELL (SPECIFY) AS DRILLED LOCATION
 PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD= 7,355.71' MD= 13,759'
 WELL OPERATOR AMERICAN ENERGY-MARCELLUS DESIGNATED AGENT BRANDON MCKINLEY
 ADDRESS 3501 NW 63rd STREET ADDRESS 3501 NW 63rd STREET
OKLAHOMA CITY, OK 73116 OKLAHOMA CITY, OK 73116

LEASE # 31950-50 et al

14,992'

LAT: 39°35'01.9"

(BOTTOM HOLE: 80°34'36.6")

COUNTY NAME PERMIT