

BOTTOM HOLE: LON: -80°38'42.9"

LON: -80°37'06.3"

9880

LAT: 39°37'30"  
MAP OF  
H.G. ENERGY, LLC  
-CRISWELL 405 UNIT-

LON: 80°35'00"

6425

LAT: 39°36'26.5" BOTTOM HOLE: LAT: 39°37'28.6"

**SURVEY NOTES**

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 1927).

2 - Surface owners & adjoiners information obtained from Wetzel Co. Assessor's Office. Lease names, & line mapping provided by HGE GIS system. Ends of unit lines mapped by MLS LLC & HGE.

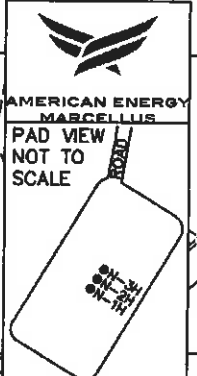
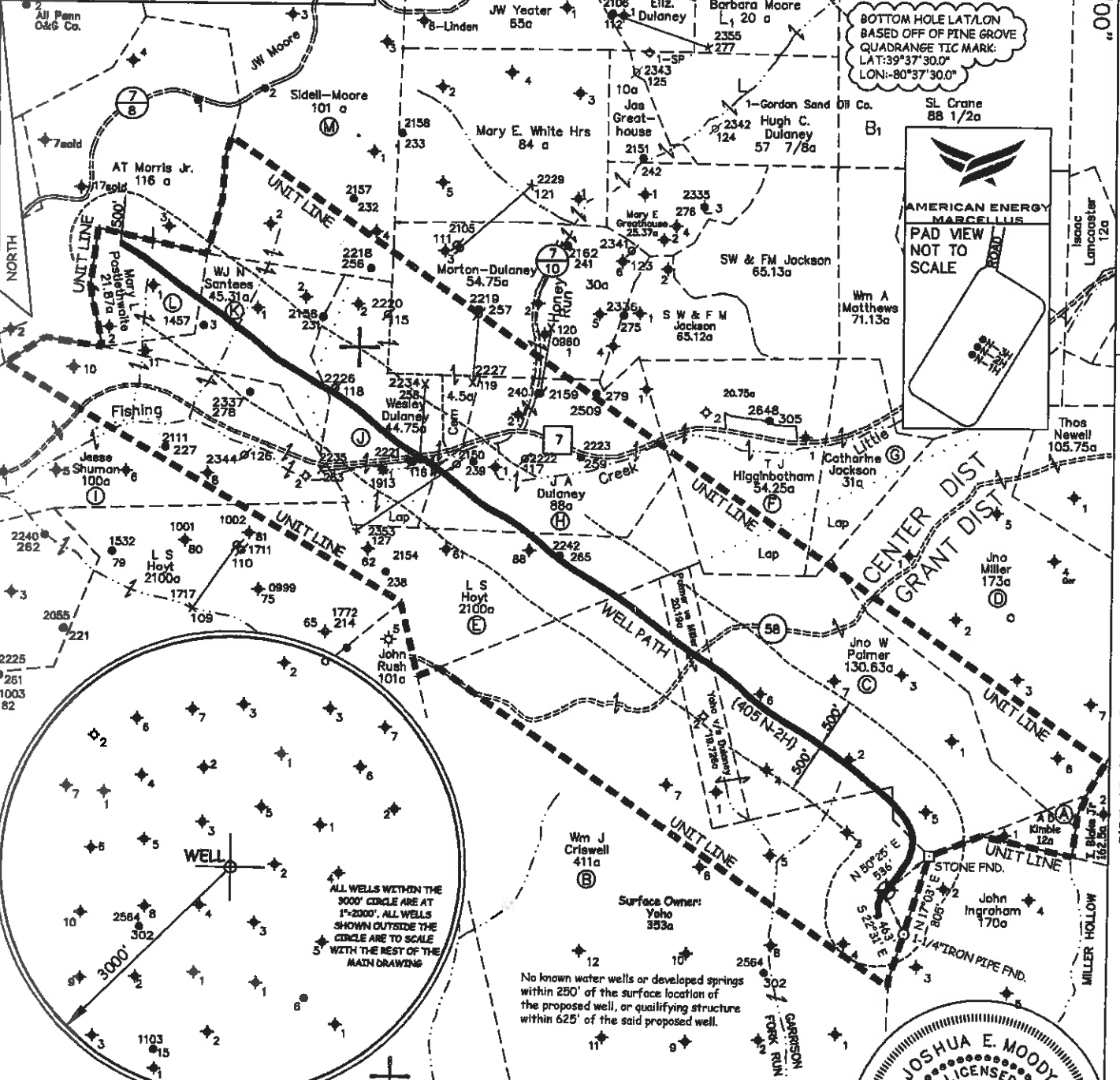
3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

UTM Coordinates  
(Zone 17N-NAD 1983)

Surface N-4,384,258m.  
E-532,775m.

Bottom Hole N-4,386,162m.  
E-530,463m.

UTM 27  
LOCATION REFERENCES  
N 50°25' E 536' STONE FOUND  
S 22°31' E 463' IRON PIPE FOUND

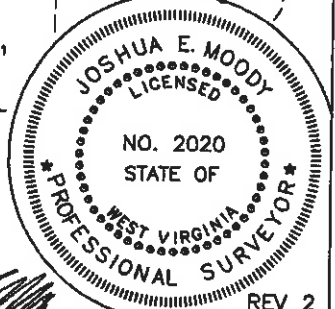


JOB # 13-001  
DRAWING # 13HG405B 406B  
SCALE 1" = 1500'  
MINIMUM DEGREE OF ACCURACY 1/200'  
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS

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



REV 2  
JOSHUA E. MOODY, P.S. 2020  
DATE 10/27/14  
OPERATOR'S WELL # 405 N-2H

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

WELL TYPE: OIL  GAS  LIQUID INJECTION \_\_\_\_\_ WASTE DISPOSAL \_\_\_\_\_ HORIZONTAL   
(IF "GAS") PRODUCTION  STORAGE \_\_\_\_\_ DEEP \_\_\_\_\_ SHALLOW   
LOCATION: ELEVATION 1393' WATERSHED NORTH FOR, FISHING CREEK API WELL # \_\_\_\_\_  
DISTRICT GRANT COUNTY WETZEL 47 - 103 - \_\_\_\_\_  
QUADRANGLE BIG RUN 7.5' STATE COUNTY PERMIT

SURFACE OWNER BERNARD LEE YOHO, JR. (surface hole) ACREAGE 353 ACRES +/-  
OIL & GAS ROYALTY OWNER OXY USA, INC. ET AL. LEASE ACREAGE 490.45 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= 7,522.52' MD= 17,314'  
WELL OPERATOR AMERICAN ENERGY-MARCELLUS RECEIVED  
ADDRESS 3501 NW 63rd STREET Office of Oil & Gas DESIGNATED AGENT BRANDON MCKINLEY  
OKLAHOMA CITY, OK 73116 OKLAHOMA CITY, OK 73116

COUNTY NAME PERMIT