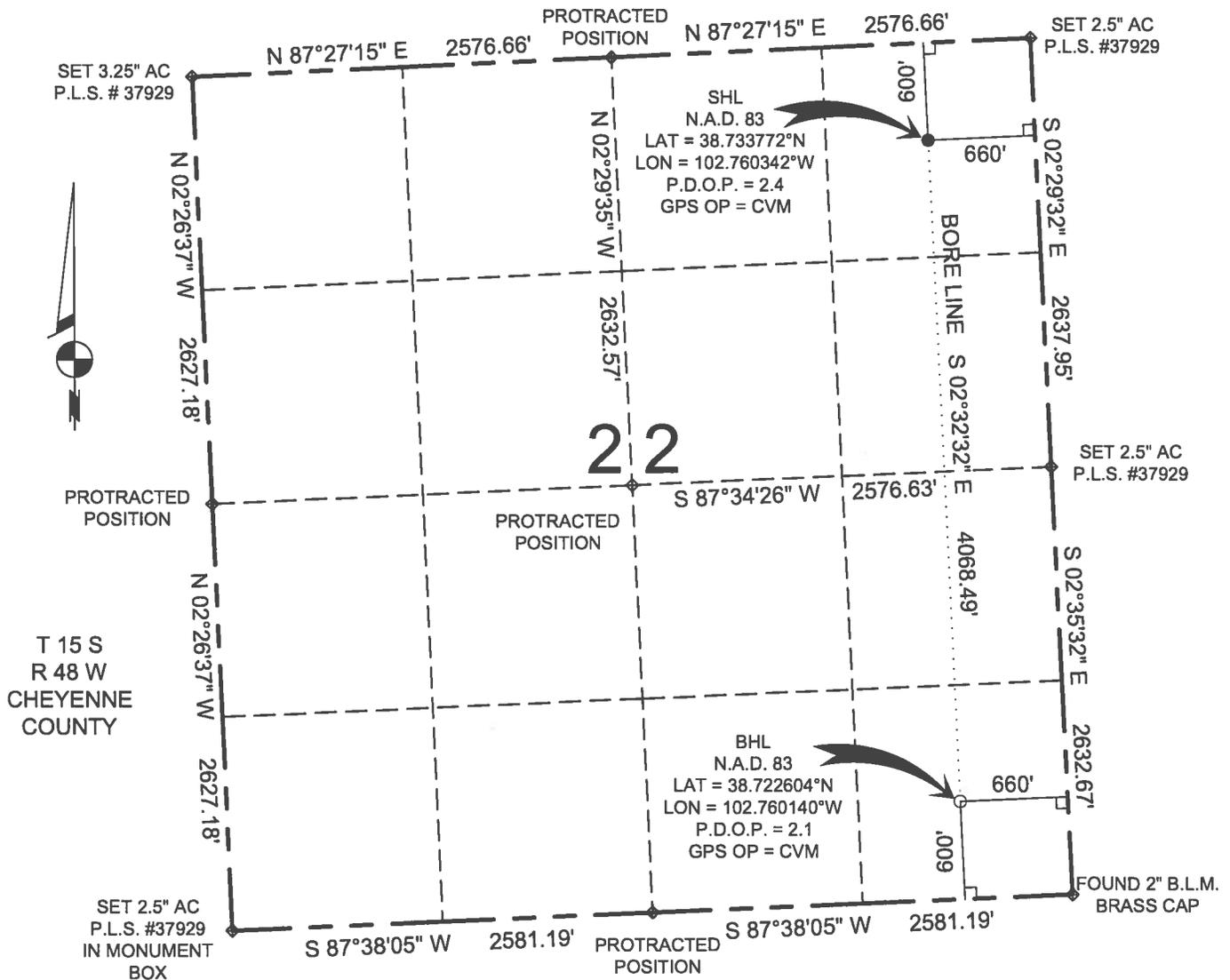


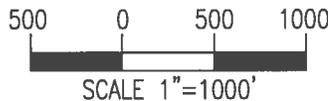
LOCATION PLAT HEART 22-15-48 #1H



WELL: HEART 22-15-48 #1H TO BE LOCATED 600' FNL AND 660' FEL IN SECTION 22, TOWNSHIP 15 SOUTH, RANGE 48 WEST OF THE 6TH P.M.
 LOCATION FALLS IN: NATURAL GROUND GROUND ELEVATION N.A.V.D. 88 = 4273.1' IMPROVEMENTS: NONE WITHIN 400' OF LOCATION.

LEGEND:

- ⊕ SECTION CORNER (AS NOTED)
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION



NOTES:

1. THIS SURVEY WAS DONE BY GPS METHODS
2. ELEVATIONS SHOWN AT THE WELL HEAD, AS WELL AS HORIZONTAL CONTROL, ARE BASED ON GPS-RTK VALUES DERIVED FROM DOING 2-HOUR STATIC GPS SESSIONS AND REDUCTIONS USING O.P.U.S. SOLUTIONS. VERTICAL = NAVD88 HORIZONTAL = NAD83/92
3. THE BEARINGS AS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND IN THE FIELD DATE BELOW.
4. DISTANCES SHOWN ARE AT GROUND LEVEL, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED AT A PERPENDICULAR TO SECTION LINES.

CERTIFIED TO:

CHAMA OIL & MINERALS LLC THAT THE SURVEY AND WELL LOCATION CERTIFICATE SHOWN HEREON WAS DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE DRAWING SHOWN HEREON ACCURATELY DEPICTS THE PROPOSED LOCATION OF THE WELL HEART 22-15-48 #1H THIS CERTIFICATE DOES NOT REPRESENT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.



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DATE OF FIELD WORK: 05/14/13
 DATE OF COMPLETION: 05/24/13
 PROJECT NUMBER: 501-13-099