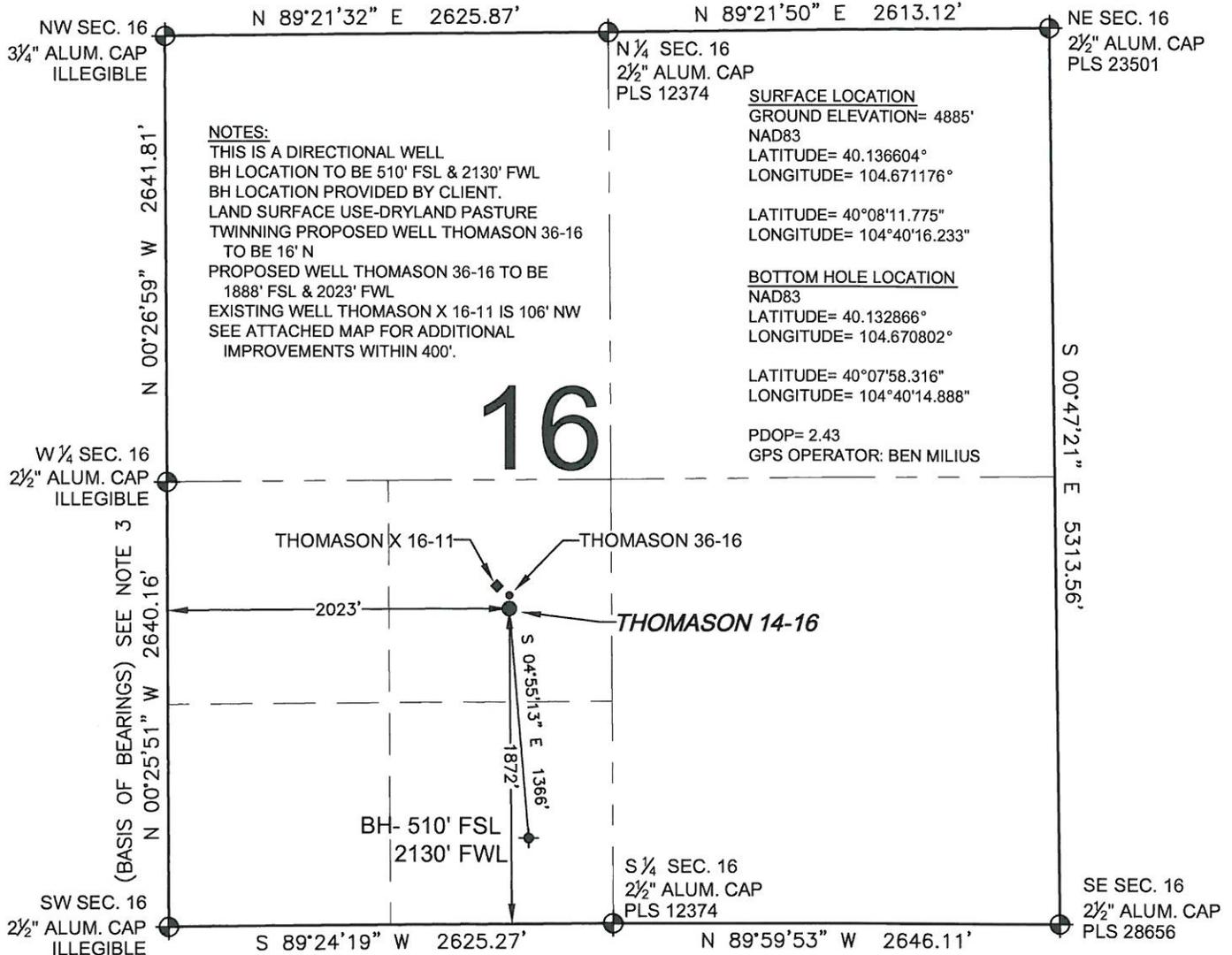


WELL LOCATION CERTIFICATE: THOMASON 14-16

SECTION 16, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



NOTES:

THIS IS A DIRECTIONAL WELL
 BH LOCATION TO BE 510' FSL & 2130' FWL
 BH LOCATION PROVIDED BY CLIENT.
 LAND SURFACE USE-DRYLAND PASTURE
 TWINNING PROPOSED WELL THOMASON 36-16
 TO BE 16' N
 PROPOSED WELL THOMASON 36-16 TO BE
 1888' FSL & 2023' FWL
 EXISTING WELL THOMASON X 16-11 IS 106' NW
 SEE ATTACHED MAP FOR ADDITIONAL
 IMPROVEMENTS WITHIN 400'.

SURFACE LOCATION
 GROUND ELEVATION= 4885'
 NAD83
 LATITUDE= 40.136604°
 LONGITUDE= 104.671176°

 LATITUDE= 40°08'11.775"
 LONGITUDE= 104°40'16.233"

BOTTOM HOLE LOCATION
 NAD83
 LATITUDE= 40.132866°
 LONGITUDE= 104.670802°

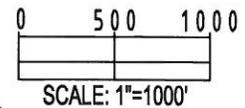
 LATITUDE= 40°07'58.316"
 LONGITUDE= 104°40'14.888"

 PDOP= 2.43
 GPS OPERATOR: BEN MILIUS

WELL **THOMASON 14-16** TO BE LOCATED 1872' FSL AND 2023' FWL, SECTION 16, T2N, R65W OF THE 6th P.M.

LEGEND

- ⊕ = EXISTING MONUMENT ◆ = BOTTOM HOLE BH = BOTTOM HOLE
- = PROPOSED WELL ◆ = EXISTING WELL



NOTES:

- THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
- 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
- THE BEARINGS SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND ON THE FIELD DATE BELOW.
- DISTANCES SHOWN ARE AT GROUND LEVEL, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED AT A PERPENDICULAR TO SECTION LINES.

I, JERRY F. HARCEK JR., A LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO DO HEREBY CERTIFY TO **KERR-MCGEE OIL & GAS ONSHORE LP**, THAT THE SURVEY AND WELL LOCATION CERTIFICATE SHOWN HEREON WERE DONE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT THE DRAWING SHOWN HEREON ACCURATELY DEPICTS THE PROPOSED LOCATION OF THE WELL **THOMASON 14-16**. THIS CERTIFICATE DOES NOT REPRESENT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT AS DEFINED BY C.R.S. 38-51-102 AND CANNOT BE RELIED UPON TO DETERMINE OWNERSHIP.

JERRY F. HARCEK JR., PLS 34997
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC



PREPARED BY: PFS Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 10-27-10	WELL NAME: THOMASON 14-16
	DRAWING DATE: 12-03-10	SURFACE LOCATION: WELD COUNTY, COLORADO
BY: SMF	NE 1/4 SW 1/4, SEC. 16, T2N, R65W	

NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THIS SAID DATE OF THIS CERTIFICATION SHOWN HEREON.