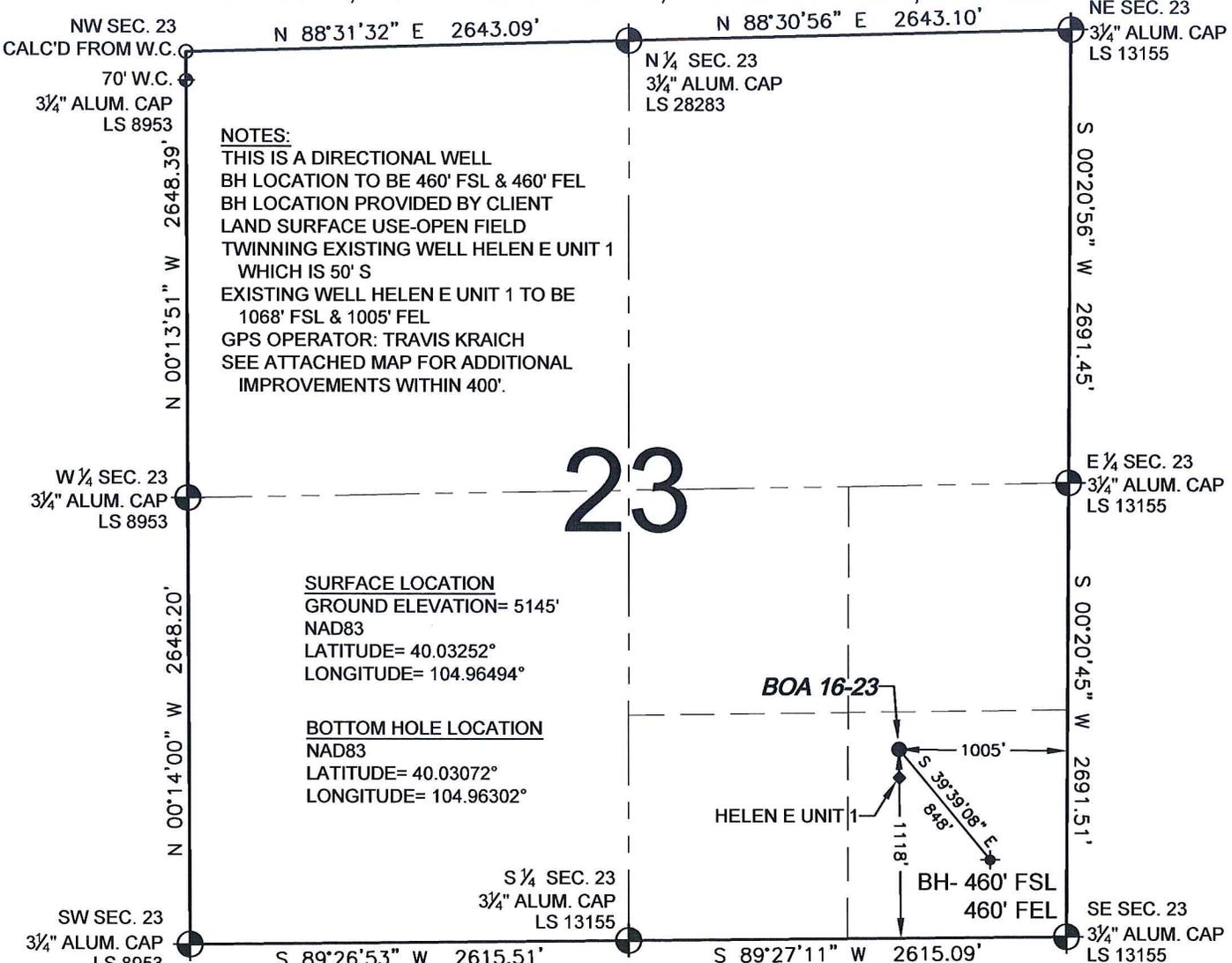


WELL LOCATION CERTIFICATE: BOA 16-23

SECTION 23, TOWNSHIP 1 NORTH, RANGE 68 WEST, 6TH P.M.



NOTES:
 THIS IS A DIRECTIONAL WELL
 BH LOCATION TO BE 460' FSL & 460' FEL
 BH LOCATION PROVIDED BY CLIENT
 LAND SURFACE USE-OPEN FIELD
 TWINNING EXISTING WELL HELEN E UNIT 1
 WHICH IS 50' S
 EXISTING WELL HELEN E UNIT 1 TO BE
 1068' FSL & 1005' FEL
 GPS OPERATOR: TRAVIS KRAICH
 SEE ATTACHED MAP FOR ADDITIONAL
 IMPROVEMENTS WITHIN 400'.

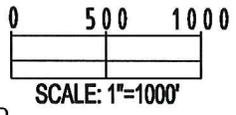
SURFACE LOCATION
 GROUND ELEVATION= 5145'
 NAD83
 LATITUDE= 40.03252°
 LONGITUDE= 104.96494°

BOTTOM HOLE LOCATION
 NAD83
 LATITUDE= 40.03072°
 LONGITUDE= 104.96302°

WELL **BOA 16-23** TO BE LOCATED 1118' FSL AND 1005' FEL, SECTION 23, T1N, R68W OF THE 6th P.M.

LEGEND

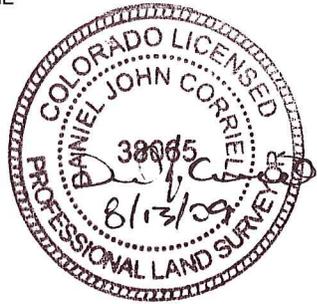
- ⊕ = EXISTING MONUMENT ⊕ = BOTTOM HOLE BH = BOTTOM HOLE
- = PROPOSED WELL ⊕ = EXISTING WELL



- 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 (PDOP VALUE IS LESS THAN 6.0, LATITUDE AND LONGITUDE ARE ACCURATE TO 5 DECIMAL PLACES, AND GPS OBSERVATIONS ARE DIFFERENTIAL AND DONE BY QUALIFIED PERSONNEL.)
 - 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, DANIEL J. CORRIELL, 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 **BOA 16-23**. 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.

DANIEL J. CORRIELL, PLS 38065
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC

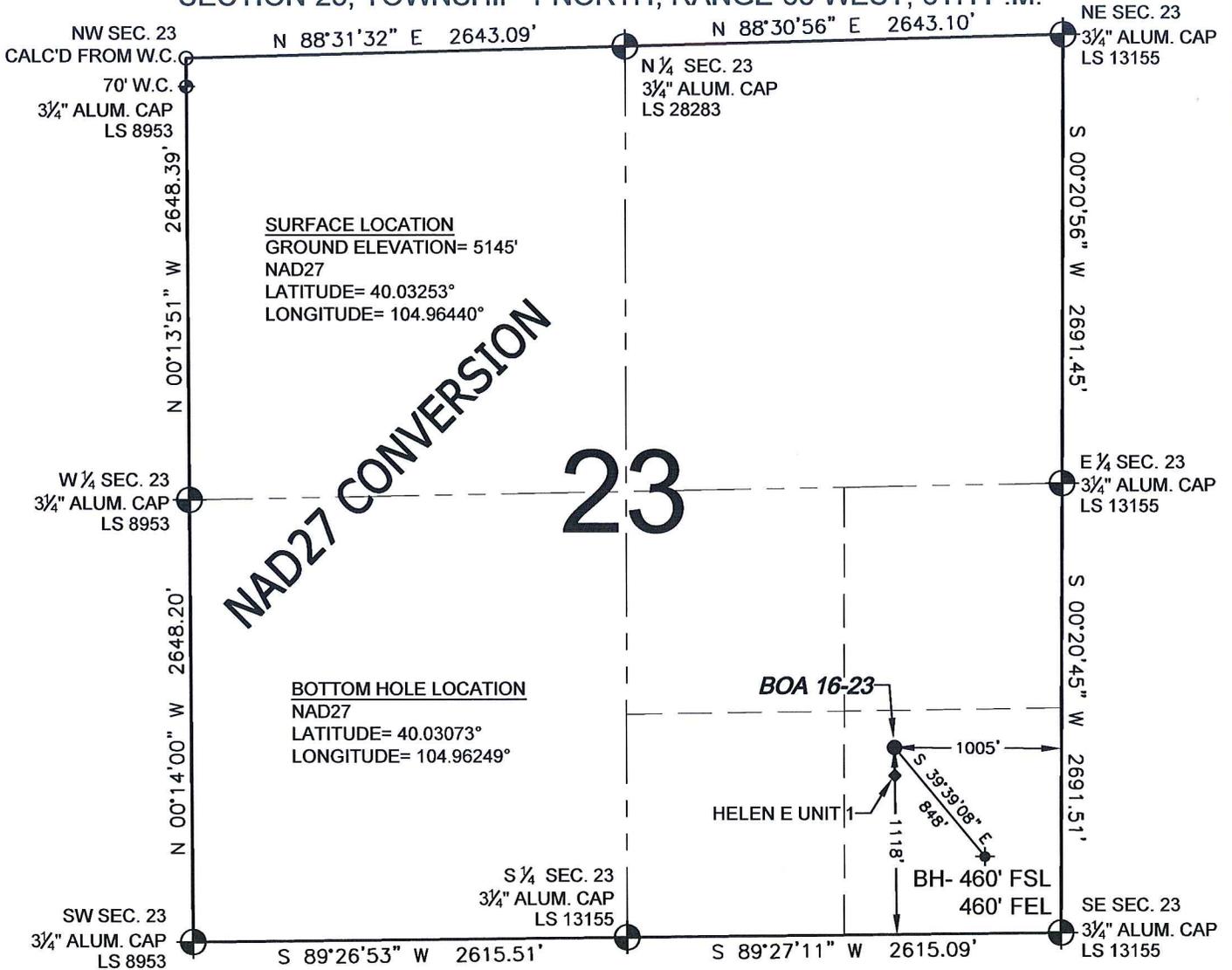


PREPARED BY: 1801 W. 138th Ave. Denver, CO 80204	FIELD DATE: 07-24-09	WELL NAME: BOA 16-23
	DRAWING DATE: 07-29-09	SURFACE LOCATION: BROOMFIELD COUNTY, COLORADO
	BY: SMF	SE 1/4 SE 1/4, SEC. 23, T1N, R68W

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.

EXHIBIT: NAD27 CONVERSION

SECTION 23, TOWNSHIP 1 NORTH, RANGE 68 WEST, 6TH P.M.



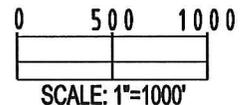
NOTES:

1. THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215 (PDOP VALUE IS LESS THAN 6.0, LATITUDE AND LONGITUDE ARE ACCURATE TO 5 DECIMAL PLACES, AND GPS OBSERVATIONS ARE DIFFERENTIAL AND DONE BY QUALIFIED PERSONNEL.)
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 SHOWN HEREON ARE BASED ON GPS OBSERVATIONS BETWEEN THE MONUMENTS SHOWN HEREON AS FOUND ON 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.

LEGEND

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

NOTE: LATITUDE AND LONGITUDE SHOWN WERE CONVERTED FROM NAD83 USING CORPSCON 6.0 (PROGRAM). PFS DOES NOT WARRANT OR GUARANTEE THEIR ACCURACY.



PREPARED BY: PFS Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 07-24-09	WELL NAME: BOA 16-23
	DRAWING DATE: 07-29-09	SURFACE LOCATION: BROOMFIELD COUNTY, COLORADO
	BY: SMF	SE 1/4 SE 1/4, SEC. 23, T1N, R68W

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.