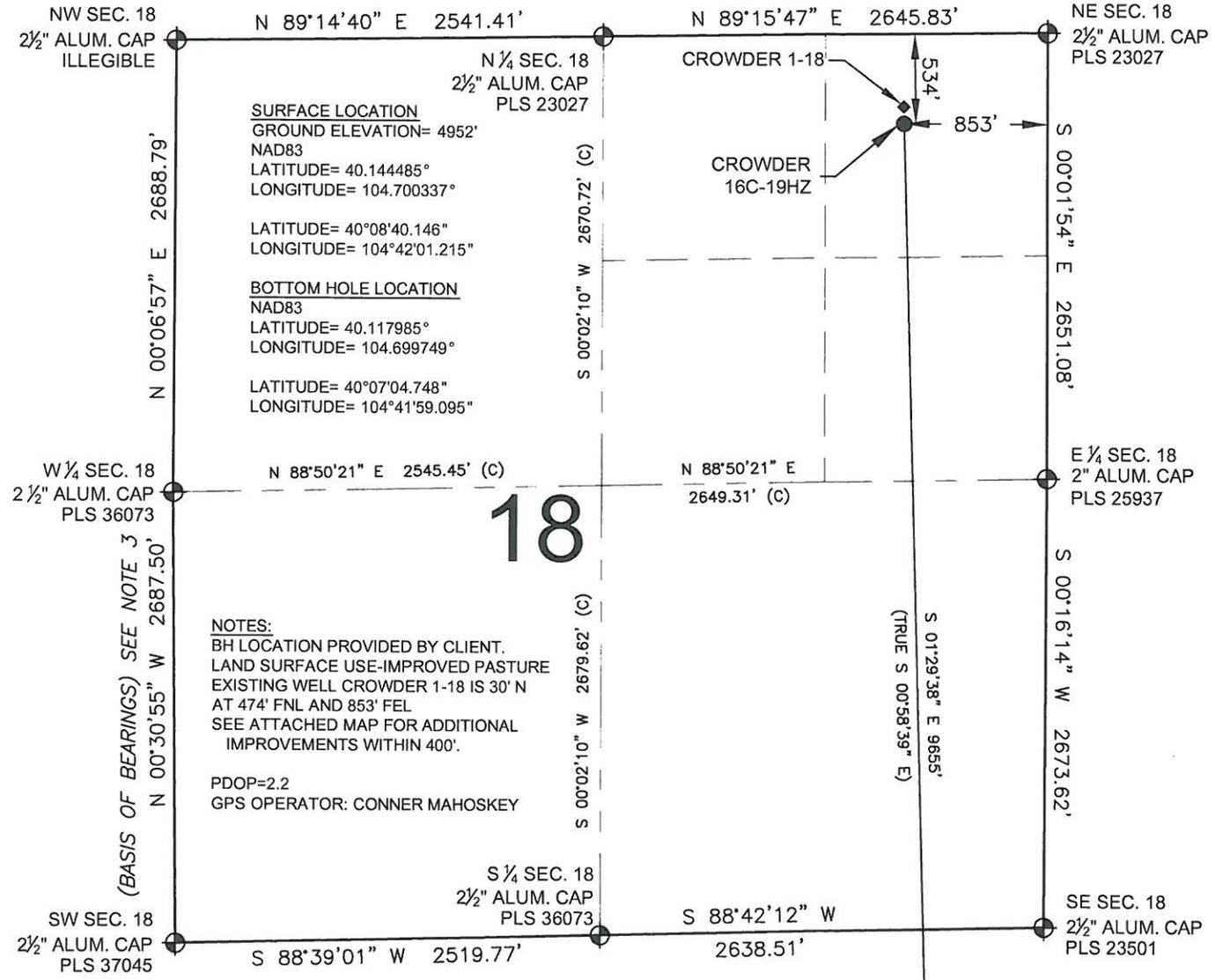


WELL LOCATION CERTIFICATE: CROWDER 16C-19HZ

SECTION 18, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



SURFACE LOCATION
 GROUND ELEVATION= 4952'
 NAD83
 LATITUDE= 40.144485°
 LONGITUDE= 104.700337°

LATITUDE= 40°08'40.146"
 LONGITUDE= 104°42'01.215"

BOTTOM HOLE LOCATION
 NAD83
 LATITUDE= 40.117985°
 LONGITUDE= 104.699749°

LATITUDE= 40°07'04.748"
 LONGITUDE= 104°41'59.095"

NOTES:
 BH LOCATION PROVIDED BY CLIENT.
 LAND SURFACE USE-IMPROVED PASTURE
 EXISTING WELL CROWDER 1-18 IS 30' N
 AT 474' FNL AND 853' FEL
 SEE ATTACHED MAP FOR ADDITIONAL
 IMPROVEMENTS WITHIN 400'.

PDOP=2.2
 GPS OPERATOR: CONNER MAHOSKEY

WELL CROWDER 16C-19HZ TO BE LOCATED 534' FNL AND 853' FEL

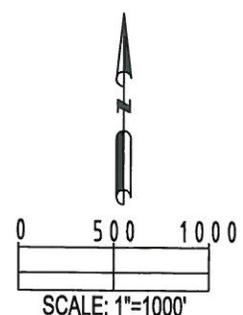
LEGEND

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

- NOTES:**
- THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
 - HORIZONTAL POSITIONS AND ORTHOMETRIC ELEVATIONS SHOWN AT THE WELL HEAD, ARE BASED ON GPS-RTK POSITIONS DERIVED FROM MINIMUM 2-HOUR STATIC OBSERVATIONS CORRECTED BY THE NATIONAL GEODETIC SURVEY ONLINE POSITIONING USER SERVICE, O.P.U.S. DATUM: HORIZONTAL = NAD83/2007, VERTICAL = NAVD88
 - THE BASIS OF BEARINGS ARE STATE PLANE COORDINATE SYSTEM GRID BEARINGS SHOWN HEREON BETWEEN THE DESCRIBED MONUMENTS SHOWN HEREON.
 - GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES.

I, MARK A. HALL, 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. 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.

MARK A. HALL, PLS 36073
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC

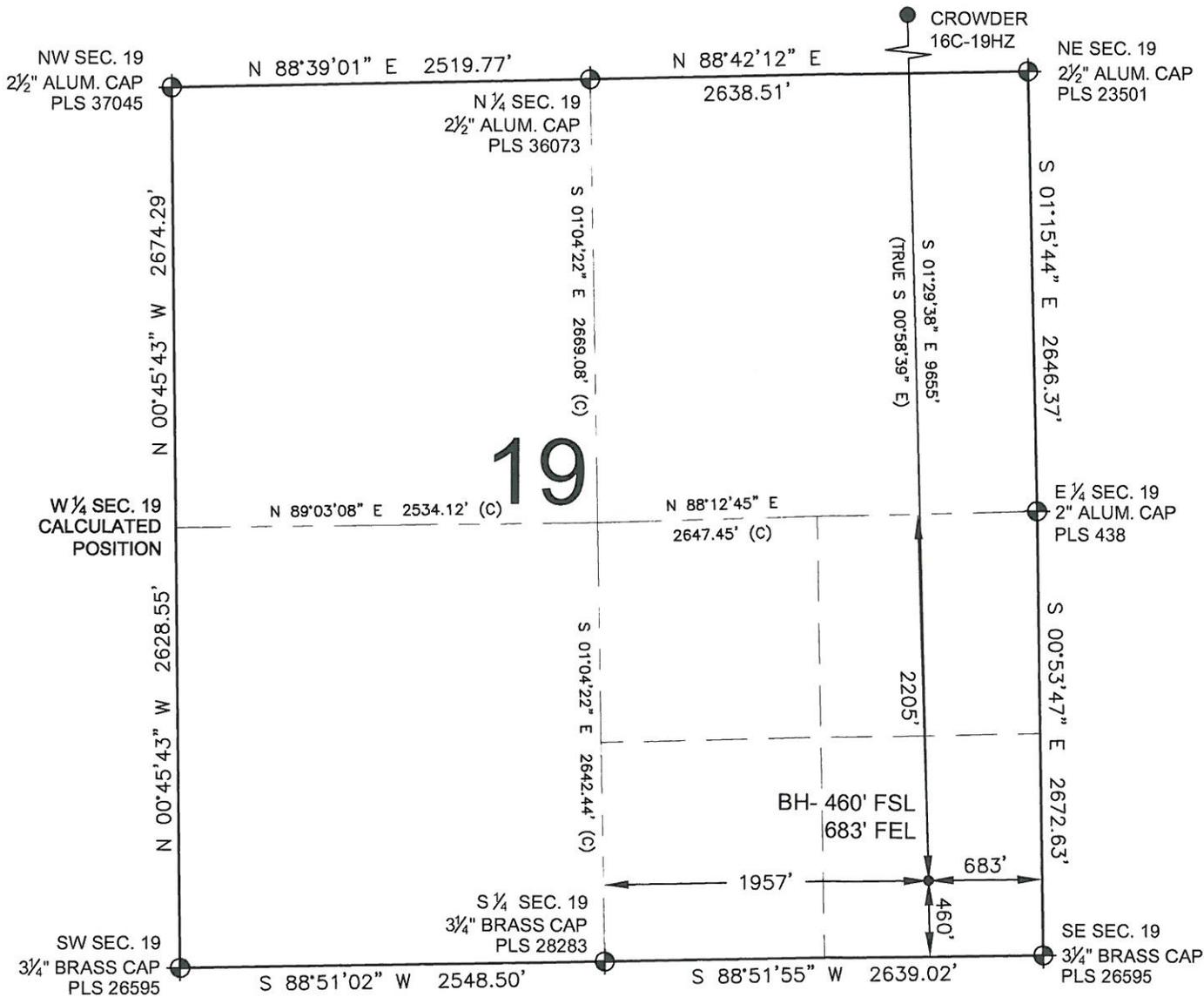


PREPARED BY: PFS Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 03-19-12 DRAWING DATE: 07-08-12	SURFACE LOCATION: NE 1/4 NE 1/4, SEC. 18, T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO
BY: DA	BY: CJG	

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.

WELL LOCATION CERTIFICATE: CROWDER 16C-19HZ

SECTION 19, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



LEGEND

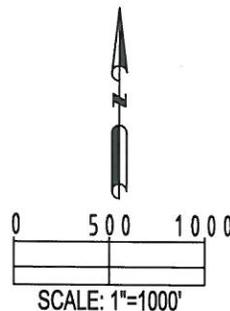
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MARK A. HALL, PLS 36073
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC



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	DRAWING DATE: 07-08-12	BY: DA
WELD COUNTY, COLORADO		

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