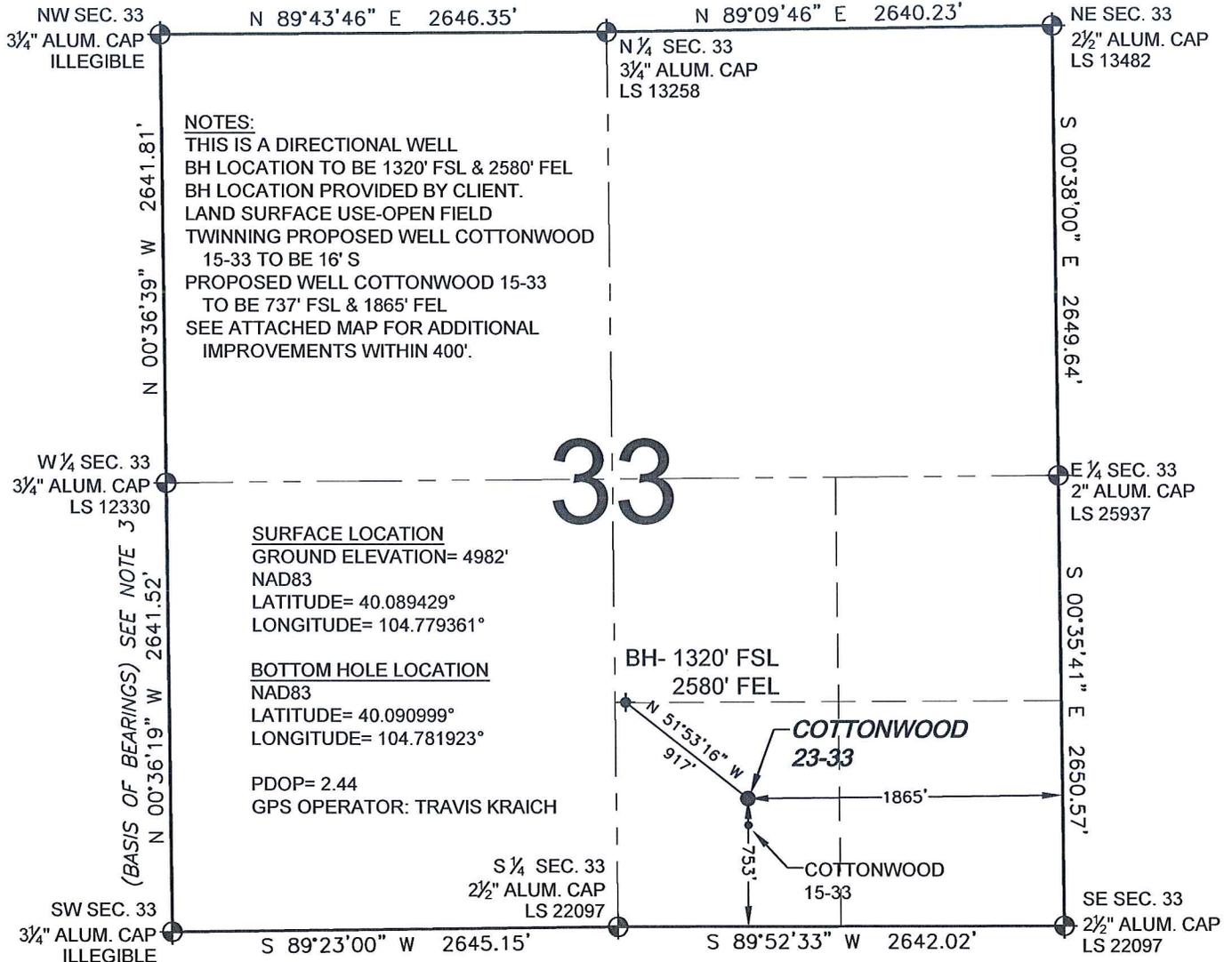


# WELL LOCATION CERTIFICATE: COTTONWOOD 23-33

SECTION 33, TOWNSHIP 2 NORTH, RANGE 66 WEST, 6TH P.M.



**NOTES:**  
 THIS IS A DIRECTIONAL WELL  
 BH LOCATION TO BE 1320' FSL & 2580' FEL  
 BH LOCATION PROVIDED BY CLIENT.  
 LAND SURFACE USE-OPEN FIELD  
 TWINNING PROPOSED WELL COTTONWOOD  
 15-33 TO BE 16' S  
 PROPOSED WELL COTTONWOOD 15-33  
 TO BE 737' FSL & 1865' FEL  
 SEE ATTACHED MAP FOR ADDITIONAL  
 IMPROVEMENTS WITHIN 400'.

SURFACE LOCATION  
 GROUND ELEVATION= 4982'  
 NAD83  
 LATITUDE= 40.089429°  
 LONGITUDE= 104.779361°

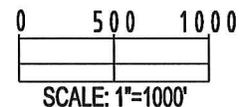
BOTTOM HOLE LOCATION  
 NAD83  
 LATITUDE= 40.090999°  
 LONGITUDE= 104.781923°

PDOP= 2.44  
 GPS OPERATOR: TRAVIS KRAICH

WELL **COTTONWOOD 23-33** TO BE LOCATED 753' FSL AND 1865' FEL, SECTION 33, T2N, R66W OF THE 6th P.M.

**LEGEND**

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



**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
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.

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 **COTTONWOOD 23-33**. 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

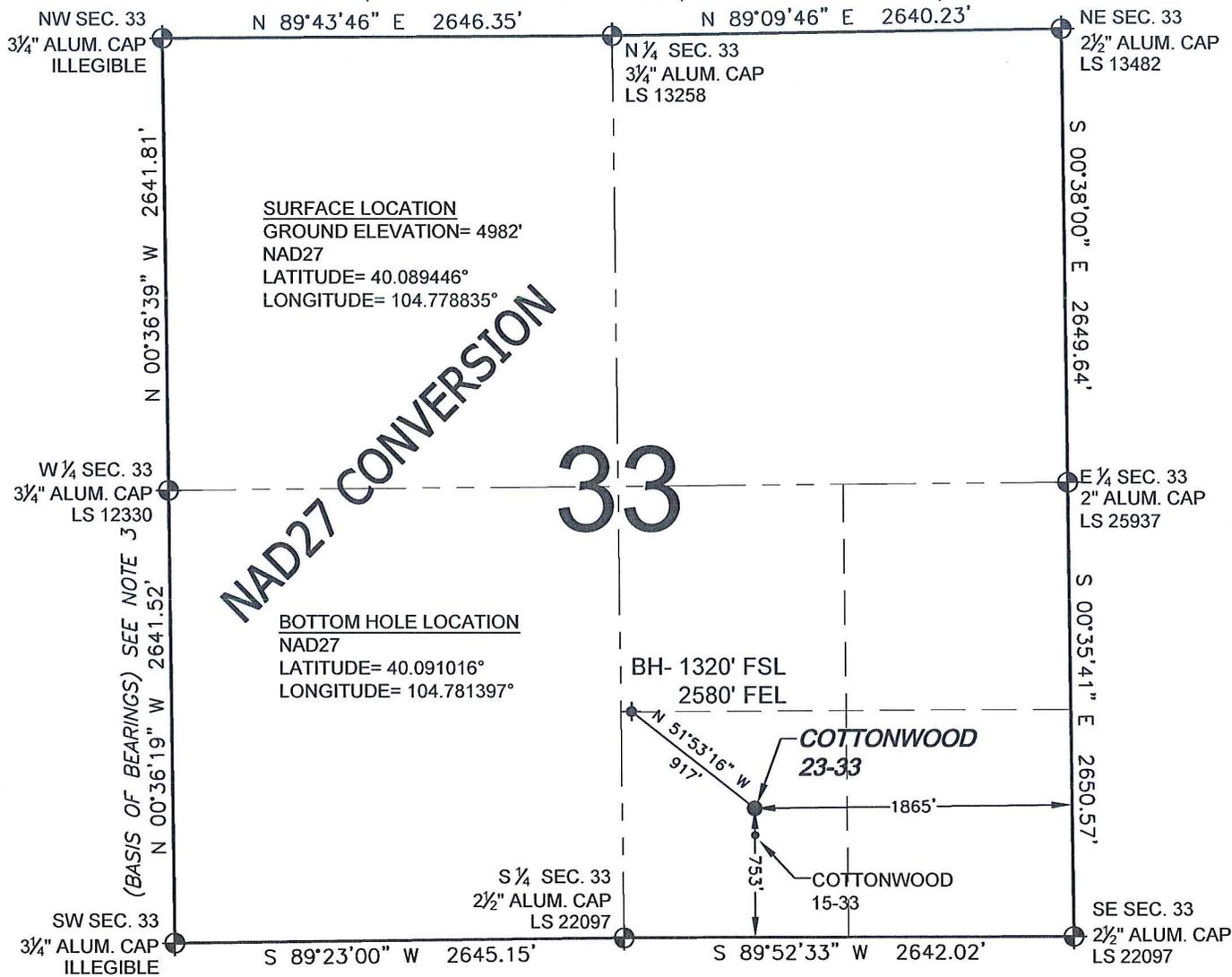


PREPARED BY:  Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 01-15-10	WELL NAME: COTTONWOOD 23-33
	DRAWING DATE: 01-20-10	SURFACE LOCATION: WELD COUNTY, COLORADO
BY: SMF	SW 1/4 SE 1/4, SEC. 33, T2N, R66W	

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 33, TOWNSHIP 2 NORTH, RANGE 66 WEST, 6TH P.M.



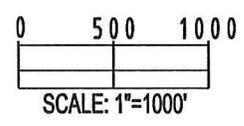
WELL **COTTONWOOD 23-33** TO BE LOCATED 753' FSL AND 1865' FEL, SECTION 33, T2N, R66W OF THE 6th P.M.

- 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.

**LEGEND**

- ⊕ = EXISTING MONUMENT
- ⊙ = PROPOSED WELL
- ⊕ (with dot) = BOTTOM HOLE
- ⊙ (with dot) = 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:  <b>PFS</b> Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 01-15-10	WELL NAME: COTTONWOOD 23-33
	DRAWING DATE: 01-20-10	SURFACE LOCATION: WELD COUNTY, COLORADO
	BY: SMF	SW 1/4 SE 1/4, SEC. 33, T2N, R66W

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.