

# WELL LOCATION CERTIFICATE: PETTINGER 2N-18HZ

SECTION 18, TOWNSHIP 1 NORTH, RANGE 65 WEST, 6TH P.M.

NW SEC. 18  
2" ALUM. CAP  
PLS 25937

N ¼ SEC. 18  
3 ¾" ALUM. CAP  
PLS 25937

BH- 1' FNL  
1950' FEL

NE SEC. 18  
2" ALUM. CAP  
PLS 25937

**NOTES:**  
BH LOCATION PROVIDED BY CLIENT.  
LAND SURFACE USE-RANGELAND  
SEE ATTACHED MAP FOR ADDITIONAL  
IMPROVEMENTS WITHIN 400'.

PDOP= 1.9  
GPS OPERATOR: OWEN MCKEE

# 18

W ¼ SEC. 18  
3 ¾" ALUM. CAP  
PLS 27269

N 88°57'07" E 2654.66'

C ¼ SEC. 18  
2 ½" ALUM. CAP  
PLS 29414

N 88°57'33" E 2651.89'

E ¼ SEC. 18  
3 ¾" ALUM. CAP  
PLS 27269

SURFACE LOCATION  
GROUND ELEVATION= 4997'  
NAD83  
LATITUDE= 40.045527°  
LONGITUDE= 104.703053°

LATITUDE= 40°02'43.896"  
LONGITUDE= 104°42'10.992"

BOTTOM HOLE LOCATION  
NAD83  
LATITUDE= 40.058699°  
LONGITUDE= 104.704009°

LATITUDE= 40°03'31.316"  
LONGITUDE= 104°42'14.433"

**PETTINGER  
2N-18HZ**

S ¼ SEC. 18  
2 ½" ALUM. CAP  
PLS 28656

N 03°42'25" W 4806'  
(TRUE N 03°11'29" W)

S 00°24'51" E 2650.17'  
(BASIS OF BEARINGS) SEE NOTE 3

SW SEC. 18  
2 ½" ALUM. CAP  
PLS 28656

S 89°06'17" W 2657.50'

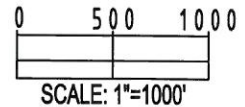
S 88°59'28" W 2652.25'

SE SEC. 18  
2" ALUM. CAP  
PLS 25937

WELL **PETTINGER 2N-18HZ** TO BE LOCATED 495' FSL AND 1673' FEL

**LEGEND**

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



**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: 03-18-13	SURFACE LOCATION: SW 1/4 SE 1/4, SEC. 18, T1N, R65W, 6TH P.M. WELD COUNTY, COLORADO
	DRAWING DATE: 06-28-13	
BY: CLM	CHECKED: TJN	

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.