

# WELL LOCATION CERTIFICATE: HARRIS 38N-18HZ

SECTION 19, TOWNSHIP 3 NORTH, RANGE 66 WEST, 6TH P.M.

BH- 400' FNL  
505' FEL

NW SEC. 19  
2 1/2" ALUM. CAP  
ILLEGIBLE

N 88°22'08" E 2712.75'

N 88°22'22" E 2618.63'

NE SEC. 19  
3/4" ALUM. CAP  
PLS 22098

N 1/4 SEC. 19  
2 1/2" ALUM. CAP  
PLS 23500

SURFACE LOCATION  
GROUND ELEVATION= 4867'  
NAD83  
LATITUDE= 40.205366°  
LONGITUDE= 104.813753°

LATITUDE= 40°12'19.317"  
LONGITUDE= 104°48'49.512"

BOTTOM HOLE LOCATION  
NAD83  
LATITUDE= 40.230890°  
LONGITUDE= 104.812556°

LATITUDE= 40°13'51.204"  
LONGITUDE= 104°48'45.202"

S 00°05'26" E 2639.86'

N 01°36'55" E 9304'  
(TRUE N 02°03'32" E)

S 00°49'07" E 2652.55'

N 00°01'11" W 2625.98'

# 19

W 1/4 SEC. 19  
3/4" ALUM. CAP  
PLS 13155

N 88°39'48" E 2715.65'

N 89°00'22" E 1335.67'

N 88°18'45" E 1316.40'

E 1/4 SEC. 19  
2 1/2" ALUM. CAP  
PLS 27269

C 1/4 SEC. 19  
2 1/2" ALUM. CAP  
PLS 13482

C-E 1/16 SEC. 19  
3/4" ALUM. CAP  
PLS 34995

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

PDOP= 1.5  
GPS OPERATOR: BEN HARDENBERGH

(BASIS OF BEARINGS) SEE NOTE 3  
N 00°38'22" E 2626.04'

S 00°32'42" E 2630.06'

S 00°49'26" E 2634.77'

HARRIS 38N-18HZ

880'

861'

SW SEC. 19  
3/4" ALUM. CAP  
PLS 13155

S 88°46'26" W 2769.87'

S 88°45'58" W 2664.79'

SE SEC. 19  
2 1/2" ALUM. CAP  
ILLEGIBLE

WELL HARRIS 38N-18HZ TO BE LOCATED 880' FSL AND 861' FEL

## LEGEND

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

0 500 1000

SCALE: 1"=1000'

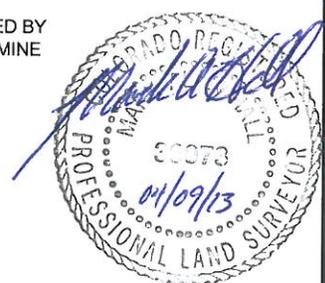


## NOTES:

- 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



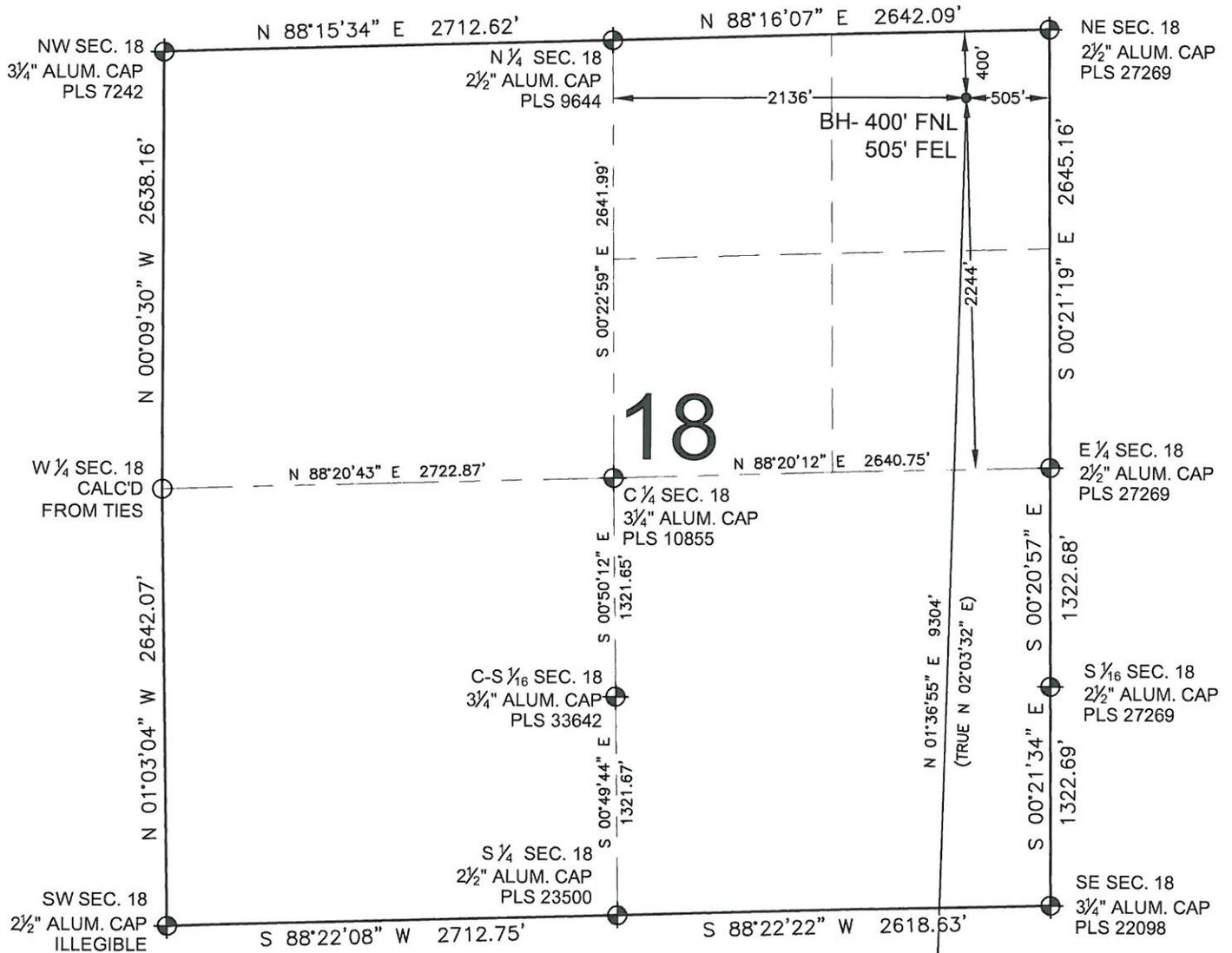
SHEET 1 OF 2

PREPARED BY:  Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 03-18-13	SURFACE LOCATION: SE 1/4 SE 1/4, SEC. 19, T3N, R66W, 6TH P.M. WELD COUNTY, COLORADO
	DRAWING DATE: 04-08-13	
BY: SMF	CHECKED: JAH	

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: HARRIS 38N-18HZ

SECTION 18, TOWNSHIP 3 NORTH, RANGE 66 WEST, 6TH P.M.



### LEGEND

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

### NOTES:

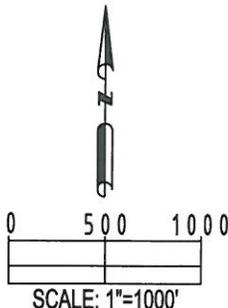
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SHEET 2 OF 2

HARRIS 38N-18HZ



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



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