

CERTIFICATE OF SURVEYOR:

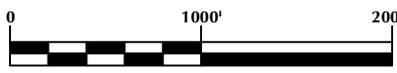
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Randall K. French
 RANDALL K. FRENCH
 PROFESSIONAL LAND SURVEYOR
 COLORADO REGISTRATION NUMBER 38512
 11/21/17

NOTICE: ACCORDING TO COLORADO STATE LAW YOU MUST TAKE 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 THE DATE ON THE CERTIFICATION SHOWN HEREON.

WELLBORE CONTINUES INTO SECTION 20

NOTE: MAGNETIC NORTH IS CURRENT AS OF 10/27/2017. MAGNETIC NORTH CHANGES WEST 0'06" PER YEAR.



SCALE: 1" = 1000'

NOTES:

- ▲ INDICATES SECTION CORNER.
- INDICATES CALCULATED CORNER.
- ELEVATION BASED ON NAVD88 (GEOID 12B).
- BASIS OF BEARING DERIVED FROM COLORADO COORDINATE SYSTEM OF 1983 NORTH ZONE.
- ALL MEASURED DISTANCES ARE GRID.
- COMBINED SCALE FACTOR: .99972920 CALCULATED FROM THE S. 1/4 CORNER OF SECTION 8, T1N, R65W.
- OPERATOR: MARC RITT / PDOP = 1.6.
- SEE ADDENDUM TO WELL LOCATION CERTIFICATE FOR EXISTING IMPROVEMENTS WITHIN 500' OF THE WELL PAD.
- WELL FOOTAGES ARE MEASURED AT RIGHT ANGLES TO THE SECTION LINES.
- THE BOTTOM OF HOLE BEARS S00°25'14"E, 12739' FROM THE HEEL LOCATION.

WELL PAD - ENGLISH FARMS 8-10HZ

ENGLISH FARMS 8-12HZ
 WELL LOCATION CERTIFICATE
 292' FSL & 2306' FEL SWSE (SURFACE)
 LOCATED IN SECTION 8
 50' FNL & 2348' FEL NWNE (HEEL)
 LOCATED IN SECTION 17
 2179' FNL & 2378' FEL SWNE (BOTTOM)
 LOCATED IN SECTION 29
 T1N, R65W, 6TH P.M.
 WELD COUNTY, COLORADO

Kerr-McGee Oil & Gas Onshore L.P.
 1099 18th Street
 Denver, Colorado 80202



CONSULTING, LLC

SHERIDAN OFFICE: 1095 Saberton Avenue, Sheridan, Wyoming 82801, Phone 307-674-0609
 LOVELAND OFFICE: 1635 Foxtrail Drive, Suite 204, Loveland, Colorado 80538, Phone 970-776-4331

DRAFTED BY: LMO	CHECKED BY: RKF	SHEET NO: 1 1 OF 3
DATE DRAFTED: 11/21/17	DATE SURVEYED: 7/24/17	
REVISED:	FILE NAME: 17-119	

T1N, R65W

N. 1/4 COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
L.S. NO. 25937

MATCH LINE
SEE SHEET 1

NE. COR.
SEC. 20, T1N, R65W
FOUND 2 1/2" ALUM. CAP
L.S. NO. 19585

NW. COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
L.S. NO. 25937

S 89°01'25" W 2604.36' (M)

S 89°01'45" W 2603.49' (M)

N 00°03'27" W
1325.56' (M)

SURFACE LOCATION: NAD 83
GROUND ELEVATION= 4944.9'
LATITUDE= 40.059553°
LONGITUDE= -104.686729°
LATITUDE= 40°03'34.392"
LONGITUDE= -104°41'12.224"
HEEL LOCATION: NAD 83
LATITUDE= 40.058616°
LONGITUDE= -104.686882°
LATITUDE= 40°03'31.016"
LONGITUDE= -104°41'12.775"
BOTTOM HOLE LOCATION: NAD 83
LATITUDE= 40.023646°
LONGITUDE= -104.686965°
LATITUDE= 40°01'25.126"
LONGITUDE= -104°41'13.074"

N 00°20'04" W
2666.89' (M)

S 00°25'14" E 12739' GRID
S 00°06'18" W TRUE
S 07°59'14" E MAGNETIC

31'32" 7°34"

N 00°36'51" W 2682.48' (M)



N. 1/16 COR.
SEC. 19 & SEC. 20
T1N, R65W
FOUND 2 1/2" ALUM. CAP
ILLEGIBLE

N 00°04'07" W
1325.44' (M)

20

W. 1/4 COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
L.S. NO. 25937

S 89°22'30" W
2616.78' (M)

S 89°22'23" W
2616.46' (M)

E. 1/4 COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
L.S. NO. 25937

CENTER 1/4 COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
L.S. NO. 25937

N 00°03'34" W 2650.83' (M)

N 00°20'43" W
1331.77' (M)

CS. 1/16 COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
P.L.S. NO. 23519

N 00°36'12" W 2676.57' (M)

SW. COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
ILLEGIBLE

S 89°39'07" W 2629.84' (M)

N 00°20'21" W
1331.67' (M)

S. 1/4 COR.
SEC. 20, T1N, R65W
FOUND 2 1/2" ALUM. CAP
L.S. NO. 30462

S 89°39'36" W 2628.63' (M)

SE. COR.
SEC. 20, T1N, R65W
FOUND 2" ALUM. CAP
ILLEGIBLE

MATCH LINE
SEE SHEET 3

WELLBORE CONTINUES
INTO SECTION 29

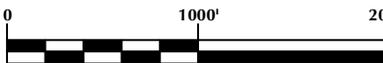
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Randall K. French
38512
PROFESSIONAL LAND SURVEYOR
11/21/17
RANDALL K. FRENCH
PROFESSIONAL LAND SURVEYOR
COLORADO REGISTRATION NUMBER 38512

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NOTE:
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SCALE: 1" = 1000'

NOTES:

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ENGLISH FARMS 8-12HZ
WELL LOCATION CERTIFICATE
292' FSL & 2306' FEL SWSE (SURFACE)
LOCATED IN SECTION 8
50' FNL & 2348' FEL NWNE (HEEL)
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T1N, R65W

N. 1/4 COR.
SEC. 29, T1N, R65W
FOUND 2 1/2" ALUM. CAP
L.S. NO. 30462

MATCH LINE
SEE SHEET 2

NW. COR.
SEC. 29, T1N, R65W
FOUND 2" ALUM. CAP
ILLEGIBLE

NE. COR.
SEC. 29, T1N, R65W
FOUND 2" ALUM. CAP
ILLEGIBLE

N 00°13'34" E 2653.16' (M)

S 89°39'07" W 2629.84' (M)

S 89°39'36" W 2628.63' (M)

31'32" 7°34"

N 00°22'57" W 2649.92' (M)

N 00°01'17" W 2651.70' (C)

2179'

BOTTOM OF HOLE:
2179' FNL & 2378' FEL

264'

854'

1057'

2378'

N 00°22'53" W 2649.93' (M)

W. 1/4 COR.
SEC. 29, T1N, R65W
FOUND 2 1/2" ALUM. CAP
P.L.S. NO. 36060

S 89°37'20" W 2641.31' (C)

S 89°37'20" W 2645.33' (C)

E. 1/4 COR.
SEC. 29, T1N, R65W
FOUND 2" ALUM. CAP
L.S. NO. 25937

29

N 00°13'52" E 2653.27' (M)

N 00°01'17" W 2656.29' (C)

SURFACE LOCATION: NAD 83
GROUND ELEVATION= 4944.9'
LATITUDE= 40.059553°
LONGITUDE= -104.686729°
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LONGITUDE= -104°41'12.224"
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LONGITUDE= -104°41'13.074"

SW. COR.
SEC. 29, T1N, R65W
FOUND 2 1/2" ALUM. CAP
L.S. NO. 23027

S 89°41'23" W 1326.46' (M)

S 89°41'22" W 1326.52' (M)

S 89°29'10" W 1331.04' (M)

S 89°29'13" W 1330.99' (M)

SE. COR.
SEC. 29, T1N, R65W
FOUND 3 1/4" ALUM. CAP
L.S. NO. 23520

W. 1/16 COR.
SEC. 29 & SEC. 32, T1N, R65W
FOUND 2 1/2" ALUM. CAP
L.S. NO. 27269

S. 1/4 COR.
SEC. 29, T1N, R65W
FOUND 3 1/4" ALUM. CAP
L.S. NO. 22098

E. 1/16 COR.
SECS. 29 & 32, T1N, R65W
FOUND 2 1/2" ALUM. CAP
L.S. NO. 23520

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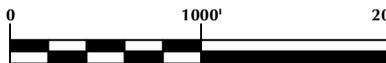
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