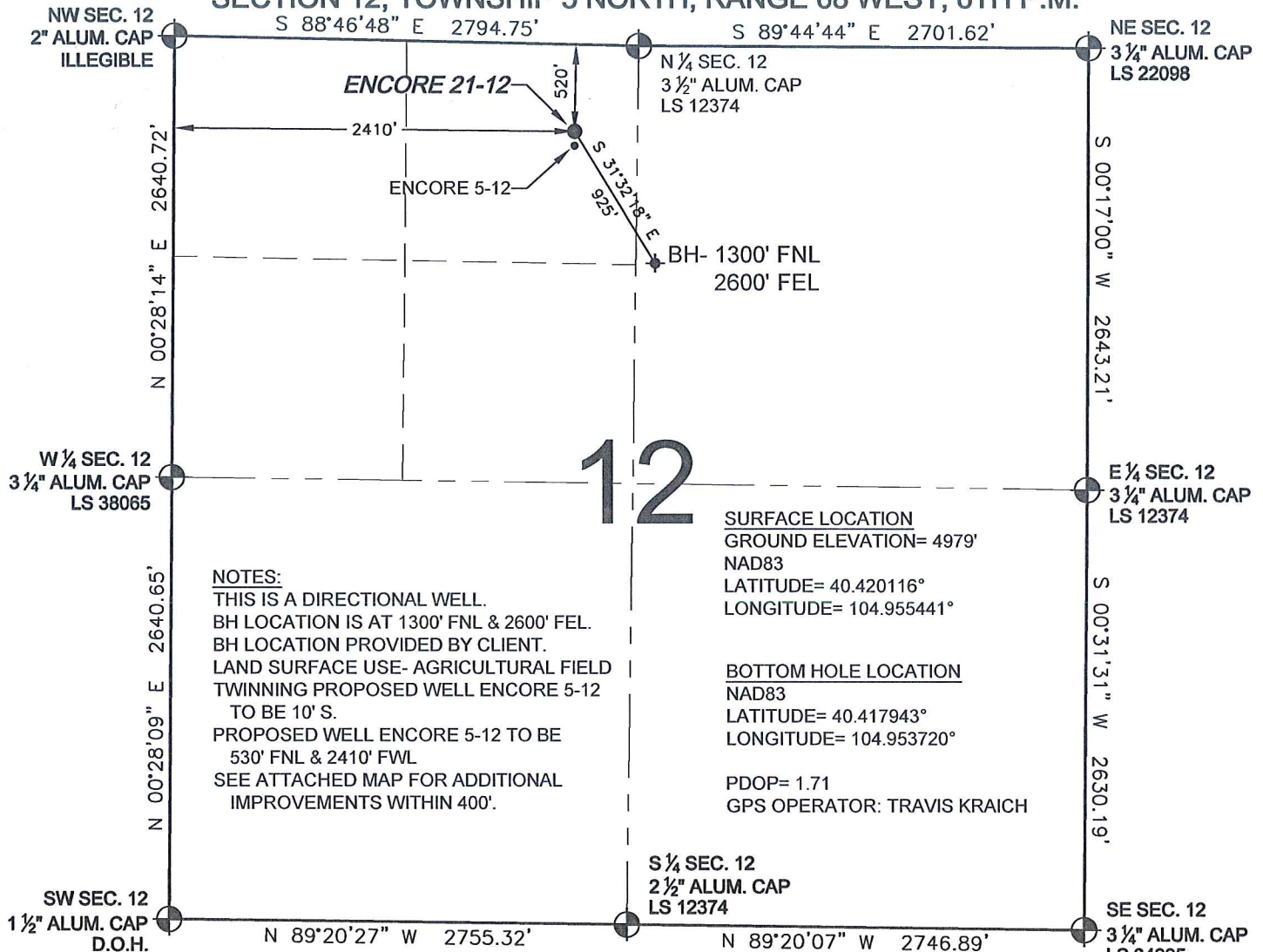


WELL LOCATION CERTIFICATE: ENCORE 21-12

SECTION 12, TOWNSHIP 5 NORTH, RANGE 68 WEST, 6TH P.M.



NOTES:

THIS IS A DIRECTIONAL WELL.
BH LOCATION IS AT 1300' FNL & 2600' FEL.
BH LOCATION PROVIDED BY CLIENT.
LAND SURFACE USE- AGRICULTURAL FIELD
TWINNING PROPOSED WELL ENCORE 5-12
TO BE 10' S.
PROPOSED WELL ENCORE 5-12 TO BE
530' FNL & 2410' FWL
SEE ATTACHED MAP FOR ADDITIONAL
IMPROVEMENTS WITHIN 400'.

SURFACE LOCATION

GROUND ELEVATION= 4979'
NAD83
LATITUDE= 40.420116°
LONGITUDE= 104.955441°

BOTTOM HOLE LOCATION

NAD83
LATITUDE= 40.417943°
LONGITUDE= 104.953720°

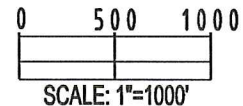
PDOP= 1.71

GPS OPERATOR: TRAVIS KRAICH

WELL ENCORE 21-12 TO BE LOCATED 520' FNL AND 2410' FWL, SECTION 12, T5N, R68W OF THE 6th P.M.

LEGEND

⊕ = EXISTING MONUMENT ⊕ = BOTTOM HOLE BH = BOTTOM HOLE
● = PROPOSED WELL ⊕ = EXISTING WELL



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.

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 ENCORE 21-12. 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

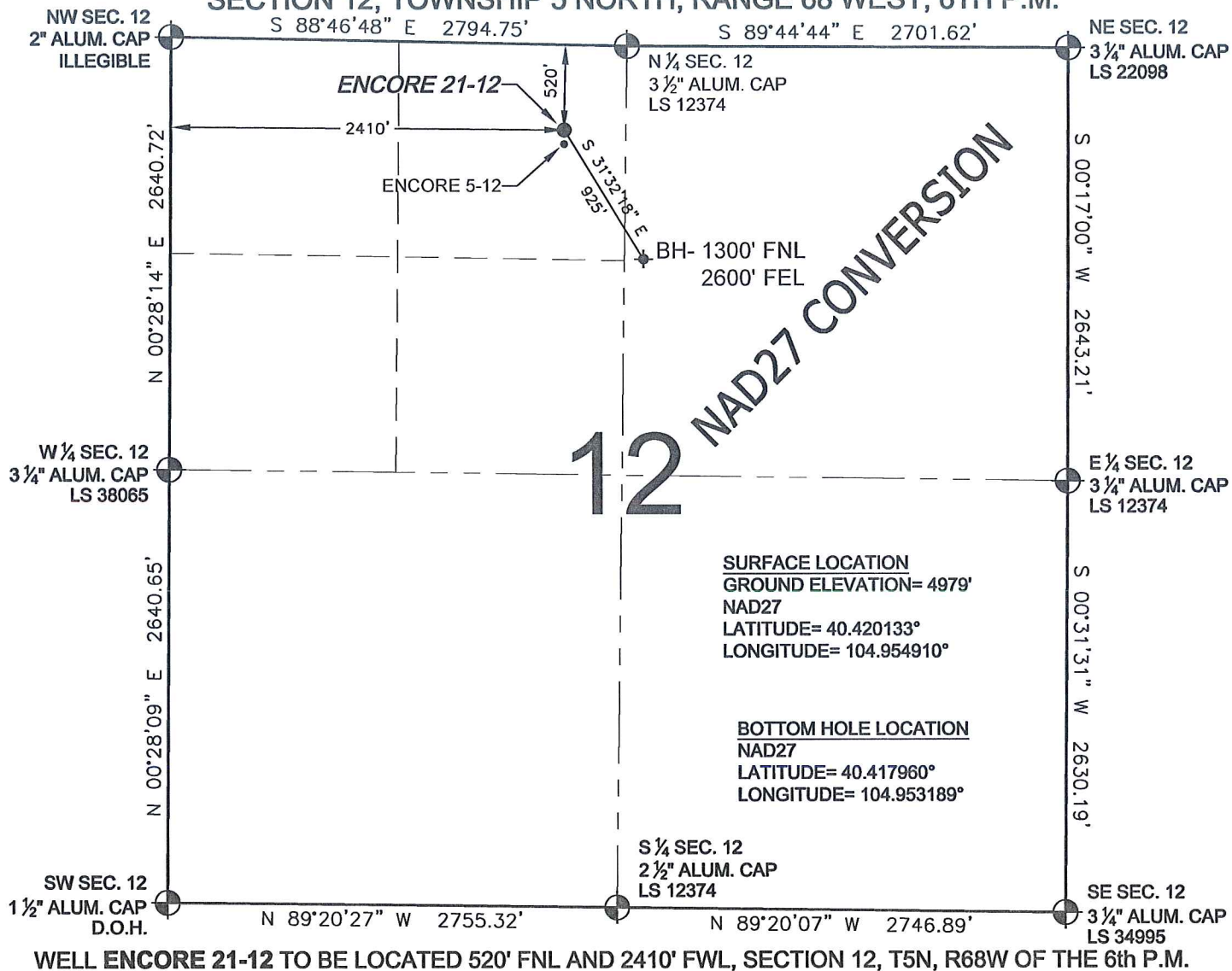


PREPARED BY:	FIELD DATE:	WELL NAME:
PFS	02-10-10	ENCORE 21-12
Petroleum Field Services, LLC	DRAWING DATE:	SURFACE LOCATION:
1801 W. 13th Ave.	02-11-10	LARIMER COUNTY, COLORADO
Denver, CO 80204	BY:	NE 1/4 NW 1/4, SEC. 12, T5N, R68W
	SMF	

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 12, TOWNSHIP 5 NORTH, RANGE 68 WEST, 6TH P.M.



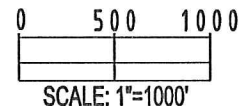
NOTES:

- THIS SURVEY WAS DONE BY GPS METHODS AND CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215 (PDOP VALUE IS LESS THAN 6.0, LATITUDE AND LONGITUDE ARE ACCURATE TO 5 DECIMAL PLACES, AND GPS OBSERVATIONS ARE DIFFERENTIAL AND DONE BY QUALIFIED PERSONNEL.)
- 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
 = BOTTOM HOLE
 BH = BOTTOM HOLE
 = PROPOSED WELL
 = EXISTING WELL

NOTE: LATITUDE AND LONGITUDE SHOWN WERE CONVERTED FROM NAD83 USING CORPSCON 6.0 (PROGRAM). PFS DOES NOT WARRANT OR GUARANTEE THEIR ACCURACY.



PREPARED BY: Petroleum Field Services, LLC 1801 W. 13th Ave. Denver, CO 80204	FIELD DATE: 02-10-10	WELL NAME: ENCORE 21-12
	DRAWING DATE: 02-11-10	SURFACE LOCATION: LARIMER COUNTY, COLORADO
	BY: SMF	NE 1/4 NW 1/4, SEC. 12, T5N, R68W

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.