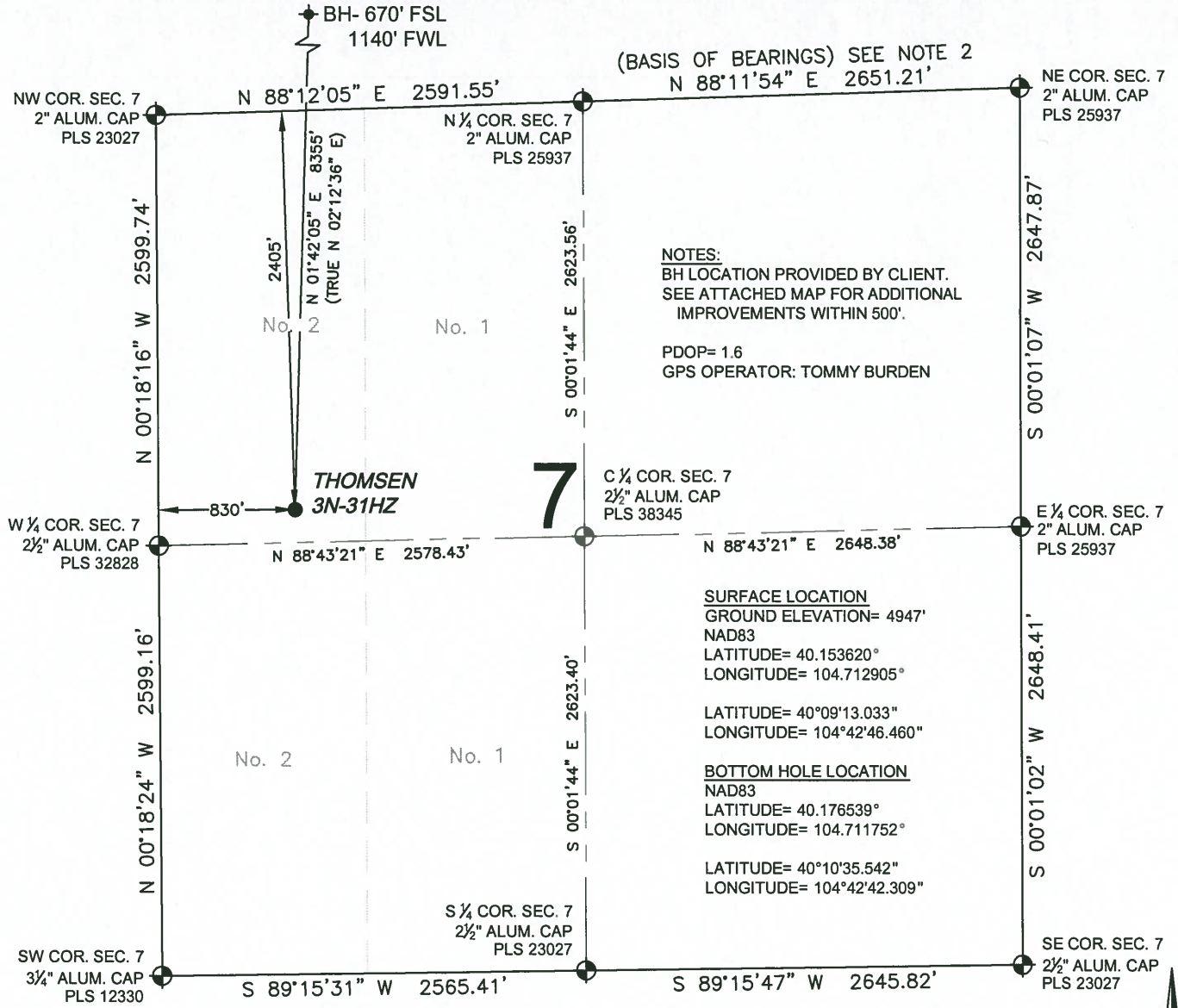


WELL LOCATION CERTIFICATE: THOMSEN 3N-31HZ

SECTION 7, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



(BASIS OF BEARINGS) SEE NOTE 2
N 88°11'54" E 2651.21'

NOTES:
BH LOCATION PROVIDED BY CLIENT.
SEE ATTACHED MAP FOR ADDITIONAL
IMPROVEMENTS WITHIN 500'.

PDOP= 1.6
GPS OPERATOR: TOMMY BURDEN

C ¼ COR. SEC. 7
2½" ALUM. CAP
PLS 38345

SURFACE LOCATION
GROUND ELEVATION= 4947'
NAD83
LATITUDE= 40.153620°
LONGITUDE= 104.712905°

LATITUDE= 40°09'13.033"
LONGITUDE= 104°42'46.460"

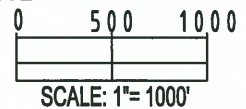
BOTTOM HOLE LOCATION
NAD83
LATITUDE= 40.176539°
LONGITUDE= 104.711752°

LATITUDE= 40°10'35.542"
LONGITUDE= 104°42'42.309"

WELL THOMSEN 3N-31HZ TO BE LOCATED 2405' FNL AND 830' FWL

LEGEND

- ⊕ = EXISTING MONUMENT
- ⬤ = PROPOSED WELL
- BH = BOTTOM HOLE
- ⬥ = BOTTOM HOLE
- ⬤ = EXISTING WELL
- = CALCULATED POSITION

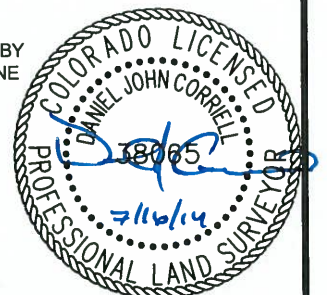


NOTES:

- THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
- BEARINGS AND DISTANCE SHOWN HEREON ARE GRID AND BASED ON THE COLORADO STATE PLANE COORDINATE SYSTEM, NAD 83/2011 BETWEEN MONUMENTS AS LABELED HEREON AND ELEVATIONS SHOWN ARE NAVD 88, AS DERIVED BY GPS OBSERVATIONS.
- GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES.
- ALL LINES SHOWN THAT ARE WITHOUT DIMENSION SHOULD BE CONSIDERED SCALED AND ONLY REPRESENT A GRAPHICAL DEPICTION OF THE APPROXIMATE LOCATION OF SAID LINE.

I, DANIEL JOHN CORRIELL, 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.

DANIEL JOHN CORRIELL, PLS 38065
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
FOR AND ON BEHALF OF P.F.S., LLC



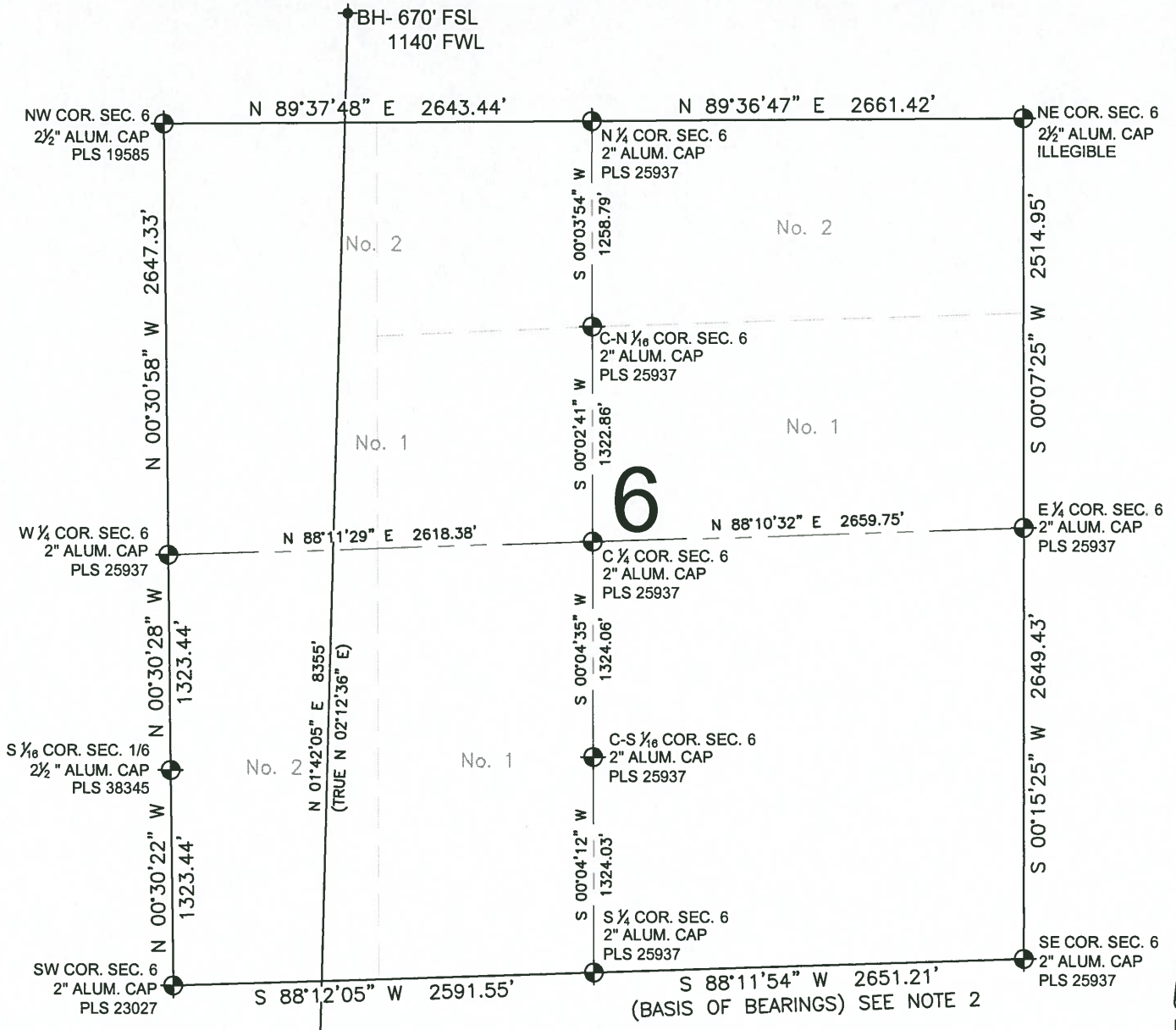
SHEET 1 OF 3

PREPARED BY: Petroleum Field Services, LLC 7536 Hilltop Circle Denver, CO 80221	FIELD DATE: 06-24-14	SURFACE LOCATION: LOT 2, NW 1/4, SEC. 7, T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO
	DRAWING DATE: 07-15-14	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.

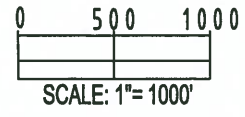
WELL LOCATION CERTIFICATE: THOMSEN 3N-31HZ

SECTION 6, TOWNSHIP 2 NORTH, RANGE 65 WEST, 6TH P.M.



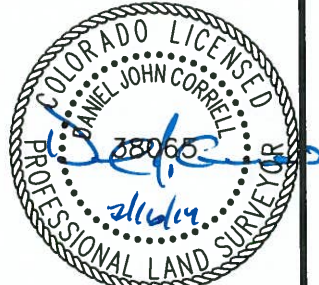
LEGEND

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



- NOTES:
1. THIS FIELD SURVEY CONFORMS TO THE MINIMUM STANDARDS SET BY THE C.O.G.C.C., RULE NO. 215
 2. BEARINGS AND DISTANCE SHOWN HEREON ARE GRID AND BASED ON THE COLORADO STATE PLANE COORDINATE SYSTEM, NAD 83/2011 BETWEEN MONUMENTS AS LABELED HEREON AND ELEVATIONS SHOWN ARE NAVD 88, AS DERIVED BY GPS OBSERVATIONS.
 3. GRID DISTANCES ARE SHOWN, AS MEASURED IN THE FIELD, WITH TIES TO WELLS MEASURED PERPENDICULAR TO SECTION LINES.
 4. ALL LINES SHOWN THAT ARE WITHOUT DIMENSION SHOULD BE CONSIDERED SCALED AND ONLY REPRESENT A GRAPHICAL DEPICTION OF THE APPROXIMATE LOCATION OF SAID LINE.

DANIEL JOHN CORRIELL, PLS 38065
 COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
 FOR AND ON BEHALF OF P.F.S., LLC



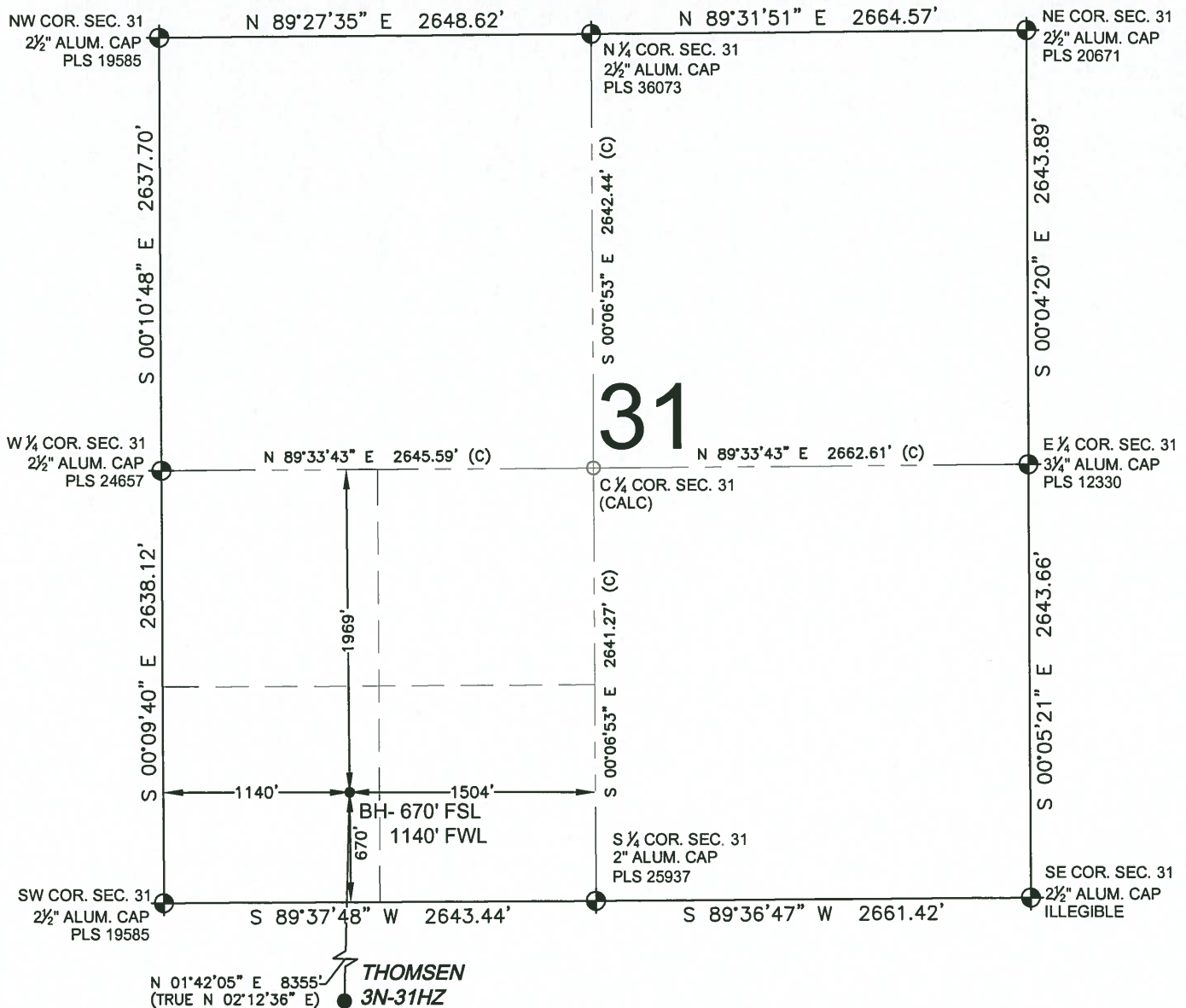
SHEET 2 OF 3

PREPARED BY: Petroleum Field Services, LLC 7535 Hilltop Circle Denver, CO 80221	FIELD DATE: 06-24-14	SURFACE LOCATION: LOT 2, NW 1/4, SEC. 7, T2N, R65W, 6TH P.M.
	DRAWING DATE: 07-15-14	WELD COUNTY, COLORADO
	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: THOMSEN 3N-31HZ

SECTION 31, TOWNSHIP 3 NORTH, RANGE 65 WEST, 6TH P.M.



LEGEND

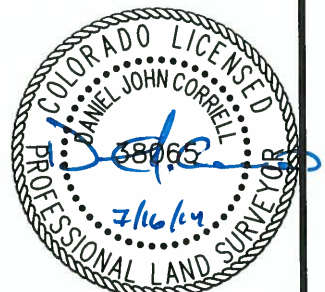
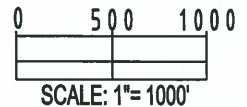
- ⊕ = EXISTING MONUMENT
- ⊙ = PROPOSED WELL
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- ⬤ = BOTTOM HOLE
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NOTES:

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SHEET 3 OF 3

DANIEL JOHN CORRIELL, PLS 38065
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
FOR AND ON BEHALF OF P.F.S., LLC



PREPARED BY: PFS Petroleum Field Services, LLC 7536 Hilltop Circle Denver, CO 80221	FIELD DATE: 06-24-14	SURFACE LOCATION: LOT 2, NW 1/4, SEC. 7, T2N, R65W, 6TH P.M. WELD COUNTY, COLORADO
	DRAWING DATE: 07-15-14	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.