



This survey was made at my request for National Forest management purposes Vitton

Maggie Pittman, Acting Forest Supervisor

lagh

Date

-6-11

### PURPOSE OF SURVEY

THE PURPOSE OF THIS SURVEY IS TO RETRACE AND MARK THE BOUNDARIES OF AN EXISTING PARCEL, DISTINGUISHING BETWEEN NATIONAL FOREST SYSTEM LANDS AND PRIVATE LANDS AND NO DIVISION OF LAND IS HEREBY CREATED, EXEMPTING THIS SURVEY FROM SUBDIVISION REVIEW, SEC. 76-3-207, MCA.

### LEGAL DESCRIPTION OF PRIVATE OWNERSHIP:

NE1/4, SE1/4, NE1/4SW1/4, SE1/4, SW1/4, SW1/4SW1/4, E1/2NW1/4 SECTION 9, T28N, R30W, P. M. MT

#### LEGAL DESCRIPTION OF NATIONAL FOREST SYSTEM LANDS: NW1/4SW1/4, W1/2NW1/4, SECTION 9, T28N, R30W P. M. MT

### HISTORY OF SURVEY

1893 SURVEY OF THE OF THE 7TH STANDARD PARALLEL NORTH BY DANIEL P. MUMBRUE 1898 REESTABLISHMENT OF THE 7TH STANDARD PARALLEL NORTH BY PAUL S. A. BICKEL 1900 SURVEY OF THE LIBBY CREEK GUIDE MERIDIAN BY BURTON S. ADAMS 1900 SURVEY OF THE SOUTH AND EAST BOUNDARIES OF TOWNSHIPS 27 & 28 NORTH, RANGE 30 WEST BY BURTON S. ADAMS 1900 SUBDIVISION OF FRACTIONAL TOWNSHIP 28 NORTH, RANGE 30 WEST BY BURTON S. ADAMS

1964 BLM REMONUMENTATION OF CERTAIN CORNERS IN TOWNSHIP 28 NORTH, RANGE 30 WEST BY RICHARD L. LARIMER AND HAROLD W. GRUSING

### METHOD OF SURVEY

GPS RTK USING TRIMBLE 5800 ROVER AND 5700 BASE, POST PROCESSED AGAINST THE CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS) IN MISSOULA AND KALISPELL, MT AND SPOKANE, WA AND A 3 SECOND TOTAL STATION TO THE CONTROLLING CORNERS USING CLOSED TRAVERSE PROCEDURES. THE DATA WAS ADJUSTED USING STARNET LEAST SQUARES ADJUSTMENT PROGRAM

## BASIS OF BEARING

ALL BEARINGS ARE BASED UPON THE GEODETIC MERIDIAN OBTAINED THROUGH GPS OBSERVATIONS FOR PROJECT CONTROL. A LOCAL COORDINATE SYSTEM WAS ESTABLISHED WITH THE ORIGIN AT THE N 1/4 OF SECTION 9. GEODETIC BEARINGS ARE EQUAL TO LOCAL PLANE BEARINGS ON RADIAL LINES EXTENDING FROM THIS ORIGIN.

## GEODETIC POSITION: N 1/4 SECTION 9

THE NAD 83 (CORS 96) (EPOCH: 2002.0000) LATITUDE AND LONGITUDE WAS DETERMINED BY POST PROCESSING A SURVEY GRADE (TRIMBLE 5700) GLOBAL POSITIONING SYSTEM (GPS) DATA FILE USING THE NATIONAL GEODETIC SURVEY (NGS) ON-LINE POSITIONING SERVICE (OPUS). THE FILE WAS PROCESSED WITH RESPECT TO CORS STATIONS SPOKANE, FLATHEAD AND MISSOULA. THROUGH REAL TIME KINEMATIC OBSERVATION (RTK), THE POSITION IS ESTIMATED TO BE WITHIN 7CM AT 95% CONFIDENCE RELATIVE TO THE NATIONAL SPATIAL REFERENCE SYSTEM (NSRS)

# SURVEYOR'S NOTES

CONTROL SURVEYED BY: T. HOMMEL, S. BOYER DATE OF FIELD WORK: 10/2010 DRAWN BY: T. HOMMEL 10/13/2010 CHECKED BY: S. BOYER CORNERS SET AND BOUNDARY MARKED UNDER A CO-OP SURVEY BETWEEN USFS KOOTENAI NF AND PLUM CREEK TIMBER CO .: CONTRACTOR KOOTENAI SURVEYORS INC.

## SURVEYOR'S CERTIFICATE:

CERTIFICATE OF SURVEY NO. 4040

I hereby certify that I am a registered land surveyor in the state of Montana, that the survey shown on this Certificate of Survey has been prepared in accordance with the Montana Code Annotated (Sections 76-3-101 through 76-3-625) and the Lincoln County regulations adopted pursuant thereto.

Date Steven A. Boyer, Montana Reg. No. 9750LS GISTER NO SURVE CERTIFICATE OF EXAMINING SURVEYOR Date Date Ronald A. Pearson, Reg. No. 9008LS Lincoln County Examining Official STATE OF MONTANA County of Lincoln Filed on the <u>7</u> day of <u>anuary</u> 2011. A.D., at <u>2:05</u> o'clock <u>p</u>m. mmy County Clefk and Recorder Deputy Insturment Record No. 23065

SHEET 1 OF 1

NO SCALE