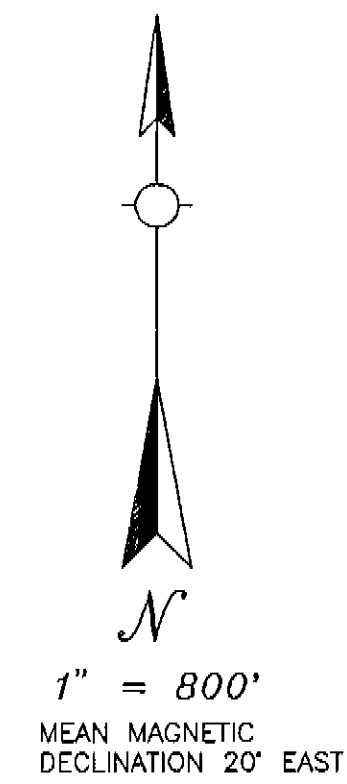


8-27-96
 P.O. Box 100
 No. for AFFIDAVIT OF
 COLLECTION MF #062772



- NOTES**
- THE "CERTIFIED RECORD OF LAND CORNER MONUMENTATION" FORMS AS REFERENCED TO THIS MAP OF SURVEY AND THE NOTES SHOWN ON THE MAP SHOULD BE CONSIDERED A SUBSTANTIAL PART OF THIS MAP AS THEY CONTAIN INFORMATION PERTAINING TO THIS SURVEY.
 - DATES OF SURVEY: 10/23/93 TO 7/31/95
 - BEARING TREES WERE MEASURED AT BREAST HEIGHT FOR ITS DIAMETER, BEARINGS WERE TO THE HEAD OF A NAIL IN WHICH SECURES A 1/2" BRASS DISC STAMPED "L MILLER PLS 2513" OR AS INDICATED. THE DISTANCE IS TO BE CONSIDERED TO THE CENTER OF THE TREE AT ITS ROOT CROWN. A NAIL WAS PLACED AT THE SIDE OF THE TREE AT THE ROOT CROWN FOR APPROXIMATE DISTANCE. BLAZING AND SCRIBING WERE CONDUCTED AS APPROPRIATE FOR THE TREE SIZE.
 - GUIDELINES WERE OBSERVED PER THE MANUAL OF SURVEYING INSTRUCTIONS 1973. ALSO THE OREGON REVISED STATUTES WERE FOLLOWED. THE UNION COUNTY SURVEYOR'S RECOMMENDATIONS WERE OBSERVED. TREE SPECIES NOTED BY U.S.F.S. PROJECT C.O.R. WERE USED IN PLACE OF AN ANALYSIS OF THE SPECIES.
 - MEASUREMENTS FOR (GRIFFIN) AND (THATCHER) SHOWN IN CHAINS
 - INSTRUMENTS USED:

TRIMBLE 4000ST GPS SYSTEM	FIELD CREW:
LEICA 200 GPS SYSTEM	LINDA L. MILLER, PLS, PROJECT MANAGER
LEITZ SET 4 TOTAL STATION	RUSSELL AVERY, CE, PLS, CONSULTANT
WILD T-1A THEODOLITE	ORAN L. MILLER, SURVEY TECHNICIAN
	RUS FRATZKE, SURVEY TECHNICIAN
	MIKE DELEPHENE, BRUSHING LINE

LEGEND

- SET 2" O.D. X 30" GALVNEEDLEMAN PIPE WITH 2" ALUMINUM CAP. (STAMPED AS SHOWN HEREON) WITH MAGNET AND FLARED ENDS. IN A MOUND OF STONES WITH 3" FT. BASE. (UNLESS OTHERWISE NOTED ON CERTIFIED RECORD OF LAND CORNER MONUMENTATION).
- SET BY P.G. GRIFFIN, DID NOT SEARCH FOR
- FOUND 2 1/2" DIA. BRASS CAP IN STAINLESS STEEL POST, IN COLLAR OF STONE, SET BY P.G. GRIFFIN
- FOUND 3" ALUMINUM CAP ON 2 1/2" ALUMINUM PIPE STAMPED: "TSS R41E 1/4 S161S15 1985, OPLS 991"
- FOUND USACE BRASS CAP SECURED IN BOUNDER. "BOTTLE 973". (GPS 50, POINT #116)
- SET AS INDICATED, OR LINE TREE (BLAZED)
- SURVEYED LINE
- PROJECTION LINES
- RECORD BEARING AND DISTANCE AS RETURNED BY PHILLIP G. GRIFFIN, BLM CADASTRAL SURVEYOR, DURING THE COURSE OF HIS DEPENDENT RESURVEY CONDUCTED IN 1990-1992, GROUP NO. 1000 & 1484
- RECORD AND BEARING DISTANCE AS RETURNED BY HENRY M. THATCHER, U.S. DEPUTY SURVEYOR, IN 1879 UNDER GLO CONTRACT NO.320
- DRAW
- CLIFF OR LARGE ROCK OUTCROPPING
- RIM
- RIDGE TOP OR CLIFF
- MEANDER FENCE - OLD
- GPS CONTROL - SET 5/8" X 30" REBAR WITH 1-1/2" ALUM CAP MARKED "L MILLER, PLS 2513 1993" AND GPS NUMBER AS DESIGNATED
- GPS CONTROL - SET HUB WITH TACK

- NFSL NATIONAL FOREST SYSTEM LANDS
- BLM LANDS MANAGED BY USDA, BUREAU OF LAND MANAGEMENT
- PVT PRIVATE LANDS
- MARKED FOREST BOUNDARY WITH STEEL FENCE POSTS AND FOREST BOUNDARY SIGNS AT MAXIMUM INTERVALS OF 300 FEET.

SURVEYORS NARRATIVE

THIS SURVEY WAS PERFORMED UNDER CONTRACT FROM THE WALLOWA-WHITMAN NATIONAL FOREST FOR THE PURPOSE OF MARKING AND POSTING THE FOREST BOUNDARY IN SECTIONS 14, 15, 22, AND 23, T55S, R41E, W.M., UNION COUNTY, OREGON.

IN ORDER TO PERFORM THIS SURVEY A CONTROL TRAVERSE WAS SURVEYED USING GPS OBSERVATIONS AT FOUND RE-ESTABLISHED MONUMENTS AS SHOWN HEREON, AND AT SECONDARY CONTROL POINTS SET PER THIS SURVEY. SOLAR OBSERVATIONS WERE TAKEN FROM THE SECONDARY CONTROL POINTS TO THE ONE-QUARTER CORNER MONUMENTS. CENTER ONE-QUARTER POSITIONS WERE THEN ACCURATELY COMPUTED.

THE ONE-QUARTER CORNERS WERE RE-ESTABLISHED FROM PREVIOUS SURVEYS. I SUBDIVIDED THE SECTIONS AND MONUMENTED THE APPROPRIATE CORNERS TO DELINEATE THE NATIONAL FOREST SYSTEMS LANDS FROM THE PRIVATE LANDS. THE PROPERTY LINES WERE POSTED WITH STEEL POSTS AND BOUNDARY SIGNS SET AT MAXIMUM INTERVALS OF 300 FEET.

INDIVIDUAL CLOSED TRAVERSE LOOPS WERE SURVEYED AND CLOSING INTO THE GPS CONTROL WERE NECESSARY. A LEITZ SET 4 TOTAL STATION WAS USED TO OBTAIN MEASUREMENTS AND RECORDED WITH A HP 10S DATA COLLECTOR FOR FIELD SET MONUMENTS FROM THE SURVEY CONTROL.

THE CONTROL WORK WAS PERFORMED IN THE YEAR OF 1993 BY VARIOUS PERSONNEL USING SIX TRIMBLE 4000 ST GPS, RECEIVERS FROM MENSHA CORPORATION. MILLER LAND SURVEYING COMPANY REDUCED THE BASELINE MEASUREMENTS AND COMPUTED GEODETIC COORDINATE ON AN ASSUMED DATUM IN SURVEYORS FEET.

GPS CONTROL: FIELD DATA WAS COLLECTED NOVEMBER 19, 1993 USING SIX TRIMBLE 4000ST GPS RECEIVERS PER 4 ONE HOUR SESSIONS. DATA WAS ADJUSTED USING TRIMBLE'S TRIMNET PLUS VERSION 92.11A ADJUSTMENT SOFTWARE. NO EXTERNAL CONSTRAINTS IN HORIZONTAL OR VERTICAL CONTROL WERE USED. DATA OUTPUT IN THE NAD 83 DATUM, OREGON NORTH ZONE. COORDINATES ARE NOT STATE PLANE COORDINATES DUE TO LACK OF EXTERNAL TIES. LOOP CLOSURES WERE PERFORMED ON THE UNADJUSTED RAW DATA WITH RESULTANT CLOSURES OF BETWEEN 1.32 AND 5.37 PPM. I REDUCED THE BASELINE MEASUREMENTS AND COMPUTED GEODETIC COORDINATES ON AN ASSUMED DATUM IN SURVEYORS FEET.

POSITIONAL CONTROL FOR THIS SURVEY IN ADDITION TO THE GPS CONTROL NETWORK IS PROVIDED BY A CLOSED TRAVERSE NETWORK, EXCEEDING 1:10,000 CLOSURE REQUIREMENT IN THIS CONTRACT. FIELD NOTES AND COMPUTATIONS ARE ON FILE IN THE OFFICE OF MILLER LAND SURVEYING COMPANY, BEND, OREGON.

ALL FIELD WORK COMPLETED JULY 31, 1995.

BASIS OF BEARINGS:

DETERMINED BY GPS OBSERVATIONS AND SOLAR OBSERVATIONS.
 GPS102 TO GPS50 BOTTLE, GROUND AZIMUTH = 174°39'12" 8332.73 FT
 GRID AZIMUTH = 176°39'59"
 MEAN CONVERGENCE = -0200'25"
 MEAN PROJECT FACTOR FOR GRID DISTANCE: 0.999791901

HISTORY OF SURVEYS:

HENRY M. THATCHER, U.S. DEPUTY SURVEYOR, SURVEYED THE EAST, WEST, AND NORTH BOUNDARIES AND SUBDIVISION LINES IN 1879 UNDER GLO CONTRACT NO. 320

PHILIP G. GRIFFIN, BLM CADASTRAL SURVEYOR, DEPENDENT RESURVEY CONDUCTED IN 1990 TO 1992, GROUP NO. 1000 & 1484

1985 GREG BLACKMAN, PLS 991, REMONUMENTATION

UNION COUNTY SURVEYOR
 Date Received 2-2-96
 Date Filed 2-5-96
 R. Robinson, Deputy
 File No. 006-1996

REGISTERED PROFESSIONAL LAND SURVEYOR
 Linda L. Miller
 OREGON
 JULY 26, 1991
 LINDA LEE MILLER, PLS
 2513

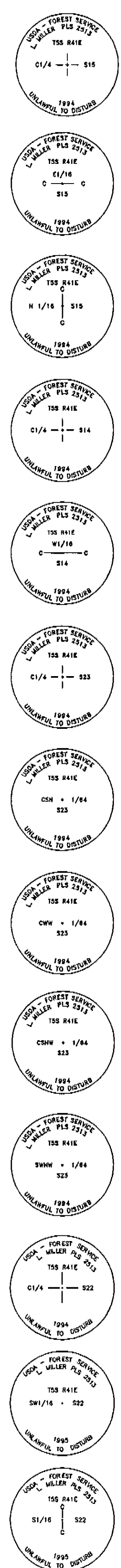
CERTIFICATE OF SURVEY

I, LINDA LEE MILLER, A REGISTERED LAND SURVEYOR IN THE STATE OF OREGON, DO HEREBY CERTIFY THAT THIS PLAN AND THE NOTES HEREON ARE A CORRECT REPRESENTATION OF A SURVEY I PERFORMED AT THE REQUEST OF THE UNION FOREST SERVICE IN ACCORDANCE WITH THE STATUTES OF THE STATE OF OREGON AND WITH THE ARTICLES OF MY CONTRACT NUMBER 53-04M3-3-0121.

LINDA LEE MILLER
 PROFESSIONAL LAND SURVEYOR
 OREGON LICENSE NO. 2513

MONUMENTS SET AND ACCESSORIES:

- 139 CENTER 1/4 SECTION 15
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE, 6" DIA., BEARS S88°31'20"E, 23.3 FT., SCRIBED: X BT
 A DOUGLAS FIR, 7" DIA., BEARS S03°23'05"W, 19.6 FT., SCRIBED: C 1/4 S15 BT
 A WHITE FIR, 6" DIA., BEARS S44°18'50"W, 25.0 FT., SCRIBED: X BT
 A DOUGLAS FIR, 12" DIA., BEARS N09°39'55"W, 5.0 FT., SCRIBED: C1/4 S15 BT
- 140 CENTER EAST 1/16 SECTION 15
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A WHITE FIR, 10" DIA., BEARS N52°33'W, 12.5 FT., SCRIBED: CE 1/16 S15 BT
 A WHITE FIR, 7" DIA., BEARS S42°23'W, 23.0 FT., SCRIBED: CE 1/16 S15 BT
- 228 CENTER NORTH 1/16 SECTION 15
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE, 12" DIA., BEARS N24°28'E, 35.9 FT., SCRIBED: CN 1/16 S15 BT
 A DOUGLAS FIR, 12" DIA., BEARS S45°49'W, 46.7 FT., SCRIBED: CN 1/16 S15 BT
- 305 CENTER 1/4 SECTION 14
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE, 6" DIA., BEARS S51°44'W, 51.2 FT., SCRIBED: C1/4 S14 BT
 A PONDEROSA PINE, 11" DIA., BEARS S31°47'E, 45.2 FT., SCRIBED: C1/4 S14 BT
 A PONDEROSA PINE, 18" DIA., BEARS N75°34'E, 32.8 FT., SCRIBED: C1/4 S14 BT
 A PONDEROSA PINE, 18" DIA., BEARS N26°37'W, 18.3 FT., SCRIBED: C1/4 S14 BT
- 309 CENTER WEST 1/16 SECTION 14
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE, 16" DIA., BEARS S86°20'E, 33.4 FT., SCRIBED: 1/16 CW S14 BT
 A PONDEROSA PINE, 19" DIA., BEARS S02°40'W, 32.2 FT., SCRIBED: 1/16 CW S14 BT
- 806 CENTER 1/4 SECTION 23
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A DOUGLAS FIR, 15" DIA., BEARS S16°28'27"W, 54.6 FT., SCRIBED: C1/4 S23 BT
 A DOUGLAS FIR, 16" DIA., BEARS S78°59'02"W, 35.7 FT., SCRIBED: C1/4 S23 BT
 A PONDEROSA PINE, 6" DIA., BEARS N20°35'52"E, 24.0 FT., SCRIBED: C1/4 S23 BT
 A DOUGLAS FIR, 14" DIA., BEARS S58°23'03"E, 111.8 FT., SCRIBED: C1/4 S23 BT
- 825 CENTER SOUTH NORTH 1/64 SECTION 23
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 CORNER POSITION FALLS IN THE CENTER OF A 14" DIA. WESTERN LARCH TREE. SCRIBED ON THE NORTH SIDE OF TREE: "CSN 1/64 S23 COR" WITH BOTTOM OF BLAZE 3 FT ABOVE ROOT CROWN. PLACED 1/2" BRASS DISC STAMPED: "L MILLER PLS 2513" AT BOTTOM OF BLAZE. ON SOUTH SIDE OF TREE PLACED AN 8" SPIKE JUST ABOVE ROOT CROWN. PLACED LAND SURVEY MONUMENT (54-9) SIGNS ON BOTH NORTH AND SOUTH SIDES OF CORNER TREE AND PAINTED 6" RED BAND ABOVE SIGNS.
 A 5/8" X 30" REBAR, 26" INTO GROUND WITH 2" ALUMINUM CAP MARKED: L MILLER RM-1994 PLS 2513
 BEARS: S88°47'15"W, 50.24 FT. AND
 S01°05'29"W, 50.00 FT.
- 823 CENTER WEST WEST 1/64 SECTION 23
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A DOUGLAS FIR, 12" DIA., BEARS S45°25'W, 30.0 FT., SCRIBED: CW 1/64 S23 BT
 A DOUGLAS FIR, 22" DIA., BEARS N40°30'E, 18.4 FT., SCRIBED: CW 1/64 S23 BT
- 829 CENTER SOUTH NORTHWEST 1/64 SECTION 23
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE, 24" DIA., BEARS N05°25'E, 35.9 FT., SCRIBED: CSNW 1/64 S23 BT
 A DOUGLAS FIR, 18" DIA., BEARS S02°30'W, 9.3 FT., SCRIBED: CSNW 1/64 S23 BT
- 833 CENTER SOUTH WEST 1/64 SECTION 23
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE, 12" DIA., BEARS N27°21'25"E, 56.1 FT., SCRIBED: SNW 1/64 S23 BT
 A DOUGLAS FIR, 18" DIA., BEARS S34°07'05"W, 58.0 FT., SCRIBED: SNW 1/64 S23 BT
- 677 CENTER 1/4 SECTION 22
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A 5/8" X 30" REBAR, 29" INTO GROUND WITH 2" ALUMINUM CAP BEARS N56°38'27"E, 50.39 FT. MARKED:
 "L MILLER PLS 2513, C 1/4 S22 RM 50.4 FT."
 AN ASPEN, 15" DIA., BEARS S80°25'W, 28.9 FT., SCRIBED: C 1/4 S22 BT
 A COTTONWOOD 18" DIA., BEARS N21°42'W, 11.6 FT., SCRIBED: C 1/4 S22 BT
 A PONDEROSA PINE 4" DIA., BEARS S81°55'E, 24.9 FT., SCRIBED: XBT
- 970 CENTER SOUTH WEST 1/16 SECTION 22
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A PONDEROSA PINE 18" DIA., BEARS S25°25'E, 28.6 FT., SCRIBED: SW 1/16 S22 BT
 A PONDEROSA PINE 24" DIA., BEARS S24°38'W, 11.0 FT., SCRIBED: SW 1/16 S22 BT
- 678 CENTER SOUTH 1/16 SECTION 22
 AT POSITION DETERMINED BY SURVEY. SET MONUMENT AS DESCRIBED HEREON, FROM WHICH:
 A DOUGLAS FIR, 14" DIA., BEARS S60°03'00"E, 35.2 FT., SCRIBED: S 1/16 CS S22 BT
 A DOUGLAS FIR, 16" DIA., BEARS S80°55'27"W, 14.0 FT., SCRIBED: S 1/16 CS S22 BT



CADASTRAL SURVEY
 Catherine Creek II
 Sections 14, 15, 22, 23, T55S, R41E, W.M.
 Union County, Oregon
 For: U.S.F.S. Wallowa-Whitman National Forest
 Contract No. 53-04M3-3-0121

MILLER LAND SURVEYING CO.
 - Professional Land Surveying -
 P.O. BOX 3
 Bend, Oregon 97709
 (541) 389-4116

DRAWN BY: DJT/PAM
CHECKED BY: LLM
DATE: 8/31/95
REVISIONS: 1/3/96 LLM 1/11/96 LLM 1/29/96 LLM
SCALE: 1" = 800'
PROJECT: 226-94 DWG: 226-93T
SHEET 1 OF 1

