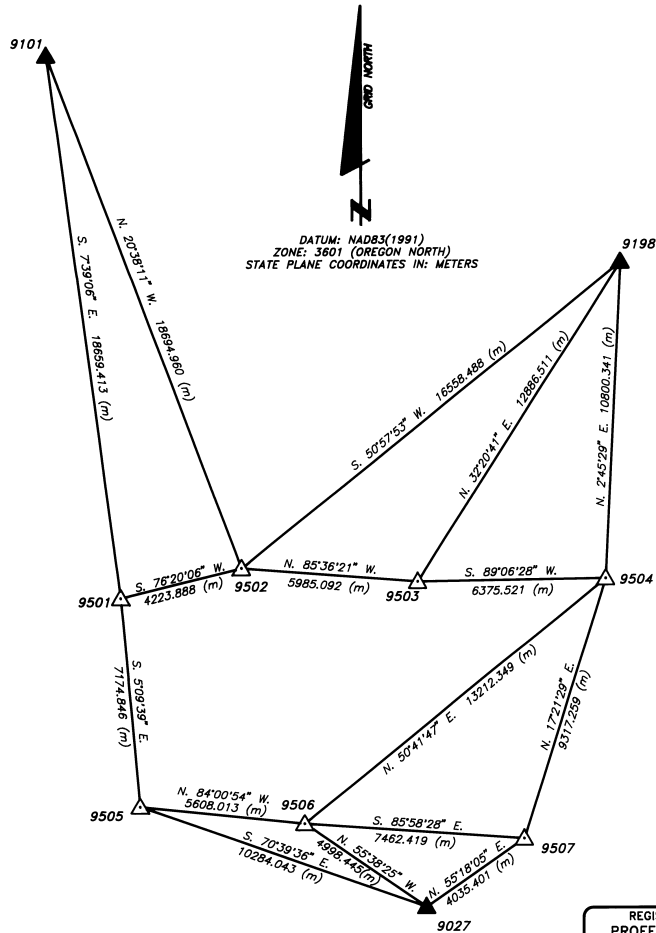


**BASSEY & SEVENMILE CREEK GPS CONTROL SURVEY  
FOR  
UMATILLA NATIONAL FOREST  
LOCATED IN  
TOWNSHIP 1 SOUTH, RANGES 32, 33 & 34 EAST,  
AND  
TOWNSHIP 2 SOUTH, RANGE 34 EAST,  
WILLAMETTE MERIDIAN  
UMATILLA COUNTY, OREGON  
JUNE - SEPTEMBER, 1995**



DATUM: NAD83(1991)  
ZONE: 3601 (OREGON NORTH)  
STATE PLANE COORDINATES IN: METERS

**NARRATIVE:**

THE PURPOSE OF THIS SURVEY WAS TO PROVIDE BOTH HORIZONTAL AND VERTICAL CONTROL FOR UPDATING U.S. GEOLOGICAL SURVEY'S 7 1/2 MINUTE QUADRANGLE MAPS BASSEY CREEK AND SEVENMILE CREEK.

THE SURVEY WAS CONDUCTED USING FEDERAL GEODETIC CONTROL COMMITTEE (FGCC) ORDER C, SECOND ORDER, CLASS 1 GPS SURVEY SPECIFICATIONS. ALL COORDINATES PROVIDED ARE NAD83(1991) VALUES BASED ON THE OREGON HIGH PRECISION GPS CONTROL NETWORK.

THE EQUIPMENT USED WAS THREE TRIMBLE 4000SSE, DUAL FREQUENCY, RECEIVERS WITH EXTERNAL L1 & L2 GEODETIC ANTENNAS, NIKON TRIBRACHS, AND STANDARD SURVEY TRIPODS. THE ANTENNA HEIGHTS WERE MEASURED USING WILD'S HEIGHT HOOK SYSTEM.

FAST STATIC, CARRIER PHASE MEASUREMENTS AND DATA PROCESSING WAS USED ON ALL BASELINE MEASUREMENTS AND THE BASELINES WERE EVALUATED BY EXAMINATION OF STATISTICAL QUALITY INDICATORS AND LOOP CLOSURE ANALYSIS. THE BASELINES WERE THEN ADJUSTED IN A LEAST SQUARES ADJUSTMENT PROGRAM USING THE THREE EXISTING GPS CONTROL POINTS (9027 = BIRCH 1916, 9101 = PENDLETON, AND 9198 = BIG HILL 1916) AS FIXED CONTROL BOTH HORIZONTALLY (LATITUDE & LONGITUDE) AND VERTICALLY (ELLIPSOID HEIGHT). THE COORDINATES OF POINTS 9101 AND 9198 WERE ESTABLISHED BY THE NATIONAL GEODETIC SURVEY AND THE COORDINATES OF POINT 9027 WAS ESTABLISHED BY DAVID EVANS AND ASSOCIATES WORKING UNDER CONTRACT TO THE USDA-FOREST SERVICE ON A 1990 ORTHO-PHOTO CONTROL PROJECT FOR THE UMATILLA AND WALLOWA-WHITMAN NATIONAL FORESTS.

COMPUTER SOFTWARE USED IN THIS SURVEY CONSISTED OF TRIMBLE NAVIGATION'S GPSURVEY (VERSION 2.00) SOFTWARE SUITE WHICH WAS USED FOR ALL PROCESSING. NATIONAL GEODETIC SURVEY'S GEOD90 WAS USED TO INTERPOLATE THE GEOD SEPERATIONS FOR EACH STATION.

DATUM: NAD83(1991)  
STATE PLANE COORDINATES: 3601 OREGON NORTH ZONE (METERS)

NO.	LATITUDE	LONGITUDE	NORTHING(m)	EASTING(m)	ELLIPSOID HEIGHT(m)	GEOD SEPARATION(m)	ORTHOMETRIC HEIGHT(m)	CONVERGENCE	SCALE FACTOR
9027	45°24'11.57646" N	118°37'17.40022" W	194578.223	2647043.725	1381.284	-17.640	1398.934	1'19'55.941"	0.999902940
9101	45°40'01.47543" N	118°46'38.96035" W	223723.052	2634210.132	383.279	-19.746	403.025	1'13'17.691"	0.999932392
9198	45°35'58.22343" N	118°31'48.55294" W	216656.186	2653660.866	1150.453	-18.455	1168.908	1'23'49.155"	0.999922822
9501	45°30'00.82833" N	118°45'02.70063" W	205229.782	2636694.614	474.143	-18.905	493.048	1'14'25.957"	0.999911296
9502	45°30'30.22351" N	118°41'52.65760" W	206227.649	2640798.940	490.220	-18.759	508.949	1'16'40.733"	0.999912130
9503	45°30'10.98995" N	118°37'18.29191" W	205789.082	2646766.439	544.893	-18.405	563.298	1'19'55.309"	0.999911582
9504	45°30'09.28025" N	118°32'24.60142" W	205868.355	2653141.187	1140.184	-18.004	1158.188	1'23'23.590"	0.999911534
9505	45°28'08.94781" N	118°44'40.12957" W	198084.023	2637340.011	918.000	-18.338	936.338	1'14'41.864"	0.999905428
9506	45°25'48.00447" N	118°40'24.17061" W	197499.277	2642917.455	1082.025	-18.018	1100.043	1'17'43.486"	0.999904916
9507	45°25'23.44527" N	118°34'42.36067" W	196975.471	2650361.463	1256.116	-17.681	1273.797	1'21'45.893"	0.999904425

**9027**  
BIRCH 1916 (SECTION 12, T. 2 S., R. 33 E.)

FOUND A 3 1/4" BRASS CAP SET IN CONCRETE FLUSH WITH THE GROUND, MARKED AS SHOWN.

**9101**  
PENDLETON 1963 (SECTION 11, T. 2 N., R. 32 E.)

FOUND A 3 1/4" BRASS CAP SET IN CONCRETE PROJECTING 2" OUT OF THE GROUND, MARKED AS SHOWN.

**9198**  
BIG HILL 1916 (SECTION 2, T. 1 N., R. 34 E.)

FOUND A 3 1/2" BRASS CAP SET IN CONCRETE FLUSH WITH THE GROUND, MARKED AS SHOWN.

**9501**  
FENCE 1995 (SECTION 1, T. 1 S., R. 32 E.)

SET IN THE CENTER TOP OF A WOOD FENCE POST CORNER, A 5/8" THREAD BY 12" LONG BOLT, WITH TWO WASHERS, A 2 1/2" FLASHER AND A NUT, MARKED AS SHOWN.

**9502**  
BIN 1995 (SECTION 5, T. 1 S., R. 33 E.)

THIS POINT WAS ESTABLISHED AT THE CENTER OF AN OLD 16' DIAMETER GRAIN BIN FOUNDATION LOCATED WEST OF SPRING HOLLOW ROAD, APPROXIMATELY 0.1 MILES NORTHWESTERLY OF THE JUNCTION OF SPRING HOLLOW AND MC KAY CREEK ROADS.

**9503**  
N.F. MC KAY 1995 (SECTION 1, T. 1 S., R. 33 E.)

SET A 5/8" BY 36" REBAR, WITH A 3 1/4" ALUMINUM CAP, FLUSH WITH THE GROUND, MARKED AS SHOWN.

**9504**  
ANDERSON 1995 (SECTION 3, T. 1 S., R. 34 E.)

SET A 5/8" BY 24" REBAR, WITH A 3 1/4" ALUMINUM CAP, FLUSH WITH THE GROUND, MARKED AS SHOWN.

**9505**  
ROCKY RIDGE 1995 (SECTION 31, T. 1 S., R. 33 E.)

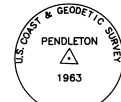
SET A 5/8" BY 7" REBAR, WITH A 3 1/4" ALUMINUM CAP, IN CONCRETE FLUSH WITH THE GROUND, MARKED AS SHOWN.

**9506**  
FORTH 1995 (SECTION 34, T. 1 S., R. 33 E.)

SET IN THE CENTER OF A DIRT ROAD, A 5/8" BY 17" REBAR, WITH A 3 1/4" ALUMINUM CAP, FLUSH WITH THE GROUND, MARKED AS SHOWN.

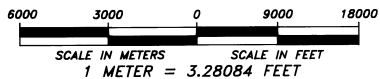
**9507**  
BASSEY CR. 1995 (SECTION 5, T. 2 S., R. 34 E.)

SET A 5/8" BY 24" REBAR, WITH A 3 1/4" ALUMINUM CAP, FLUSH WITH THE GROUND, MARKED AS SHOWN.



- LEGEND**
- ▲ EXISTING GPS CONTROL POINT
  - △ NEW GPS CONTROL POINT
  - (m) METERS

SCALE: 1 INCH = 3000 METERS



REGISTERED PROFESSIONAL LAND SURVEYOR  
*David A. Schlaich*  
OREGON  
JULY 16, 1987  
DAVID A. SCHLAICH  
2308  
RENEWS 06/30/96

REVIEWED BY:  
*Dennis L. Daylord* 11/16/95  
SIGNATURE DATE  
I CERTIFY THAT THIS SURVEY WAS PERFORMED AT THE REQUEST OF THE UMATILLA NATIONAL FOREST SUPERVISOR  
*John P. Klui* 11/17/95  
SIGNATURE DATE

I, DAVID A. SCHLAICH, A REGISTERED LAND SURVEYOR IN THE STATE OF OREGON, HEREBY CERTIFY THAT THIS PLAT AND THE NOTES HEREON ARE A TRUE AND CORRECT REPRESENTATION OF A GPS CONTROL SURVEY I CONDUCTED IN JUNE THROUGH SEPTEMBER, 1995, AT THE REQUEST OF THE UMATILLA NATIONAL FOREST, IN ACCORDANCE WITH THE STATUTES OF THE STATE OF OREGON.

DAVID A. SCHLAICH -- RLS 2308  
UMATILLA NATIONAL FOREST  
257 S.W. HALEY AVENUE  
PENDLETON, OREGON 97801  
PHONE: (541) 278-3747

Umatilla County Surveyor  
Date: 11-95  
*John P. Klui*  
No. 95-205-6