

# FIELD NOTES

## OF RETRACEMENT OF

A Part of the Supai Road Survey

from Station 739+55.7 to Station 920+53.2

in Sec. 6, T. 31 N., R. 1 E.

in Sec. 1, T. 31 N., R. 1 W.

and in Secs. 36, 35, 34 and 27, T. 32 N., R. 1 W. (Unsurv.)

## AND OF THE SURVEY OF

That Portion of the Boundary of the Grand Canyon National Park which is Parallel to, and 40 chs. S. 45° W. from, the Supai Road Survey through

Sections 26, 23, 22, 21, 16, 17, 8, 7 and 6

T. 31 N., R. 1 E.

Sections 1 and 2

T. 31 N., R. 1 W.

Sections 35, 34, 33, 28, 29, 20 and 19

T. 32 N., R. 1 W., (Unsurv.)

and

Sections 24, 23, 22 and 15

T. 32 N., R. 2 W.

(Unsurveyed Portion)

Of the Gila and Salt River Base and Meridian,

In the State of Arizona

### EXECUTED BY

Sidney E. Blout, U.S. Cadastral Engineer

In the capacity of U. S. Surveyor, under Special Instructions dated January 31, 1928, issued by the District Cadastral Engineer to govern surveys included in Group No. 145 Arizona, which were approved by the Commissioner of the General Land Office, February 16, 1928, and Assignment Instructions dated \_\_\_\_\_, 1928.

Retracement and Survey commenced October 5, 1928.

Retracement and Survey completed November 7, 1928.

3906

3906

# INDEX DIAGRAM.

Township ..... , Range .....

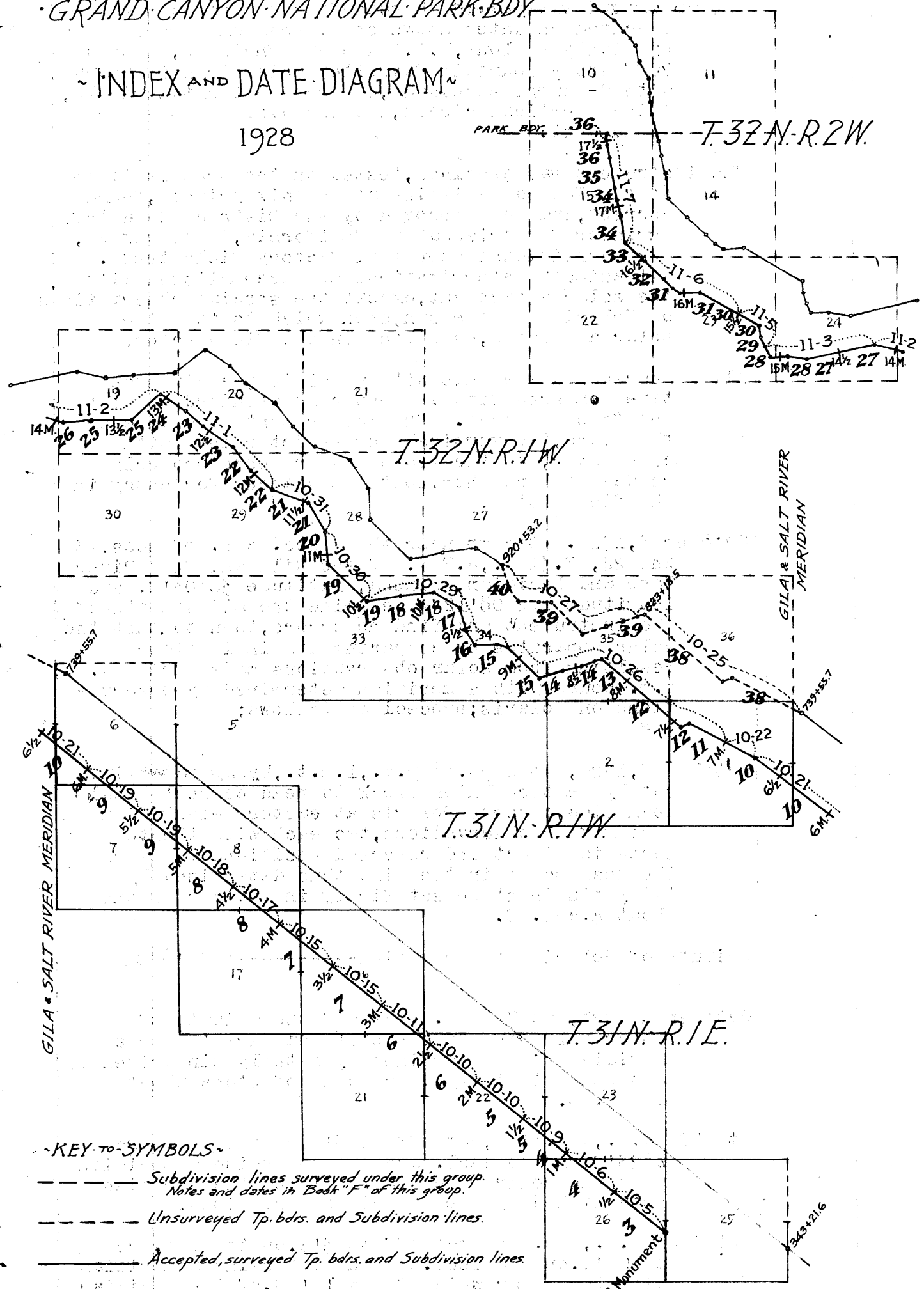
6	5	4	3	2	1
7	8	9	10	11	12
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Book "H"  
GROUP 145 - ARIZONA

BOOK 3906

GRAND CANYON NATIONAL PARK BDY.

INDEX AND DATE DIAGRAM  
1928



KEY TO SYMBOLS

- Subdivision lines surveyed under this group. Notes and dates in Book "F" of this group.
- - - Unsurveyed Tp. bdrs. and Subdivision lines.
- Accepted, surveyed Tp. bdrs. and Subdivision lines.
- Subdivision lines resurveyed under this group. Notes and dates in Book "I" of this group.
- Tp. bdrs. and Subdivision lines resurveyed under this group. Notes and dates in Book "J" of this group.
- Boundary of Grand Canyon National Park surveyed by Sidney E. Blout, U.S. Cadastral Engineer, in October & November 1928, under this group. Notes herein on pages shown on diagram.
- Supai Road (unconstructed) as surveyed and staked in 1925 by U.S. Bureau of Public Roads.
- - - Supai Road Survey (1925) retraced by Sidney E. Blout, U.S. Cadastral Engineer, in October 1928, under this group. Notes herein on pages shown on diagram.

The survey and retracements hereinafter described was executed on dates shown on diagram on page 1 hereof by Sidney E Blout, U.S. Cadastral Engineer, using a Buff "Rocky Mountain Favorite" solar transit No. 9940 with U-shaped standards,  $4\frac{1}{2}$  inch horizontal circle, 4 inch vertical circle, and improved Smith solar attachment.

The instrument was examined, tested on the true meridian at the Federal Building at Phoenix Arizona, found correct, and was approved by the District Cadastral Engineer for Arizona and California, September 28, 1928 conditional upon satisfactory field tests. All azimuth determinations are accomplished with the solar attachment, except the special observations on Polaris and the sun, upon which to test the solar apparatus, as stated in the field notes.

All measurements are made with a Lallie 5-chain steel tape compared with a Chesterman standard steel tape and found correct. The measurements are made on the slope, the vertical angles determined with a clinometer, and the slope measurements properly reduced to true horizontal distances for entry in the field notes.

October 3, 1928. At camp near the  $\frac{1}{4}$  sec. cor. of secs. 23 and 24, T. 31 N., R. 2 E. of the Gila and Salt River Base and Meridian, Arizona, latitude  $36^{\circ}03'N.$  and longitude  $112^{\circ}06'12''W.$ , examine the adjustments of the instrument and find no errors, then to test the solar apparatus by comparing its indications resulting from solar observations made during a.m., p.m. hours with a meridian determined by observations on Polaris; proceed as follows;

October 3, 1928, At  $6^h50.4^m$  p.m., l.m.t., by watch which is set by Western Union clock to read correct local mean time, observe Polaris at eastern elongation making four observations, two each with the telescope in direct and reversed positions and mark the mean point in the line thus determined by a tally pin in stake set firmly in mound of stone about 4 chs. S.

Azimuth of Polaris at elongation----- $1^{\circ}20'8''E.$

October 4, 1928, at  $7^h30^m$  a.m. lay off the azimuth of Polaris  $1^{\circ}220''$  to the east and mark the true meridian thus determined by a tally pin driven in a stake set firmly in a mound of stone about 4 chs. S.

At  $8^h0^m$  a.m., app. time, set off  $36^{\circ}3'N.$  on the lat. arc  $4^{\circ}23'S.$  on the decl. arc and determine a meridian with the solar which falls  $1'$  E. of the meridian established by the Polaris observations.

At  $4^h0^m$  p.m., app. time set off  $36^{\circ}3'N.$  on the lat. arc,  $4^{\circ}30\frac{1}{2}'S.$  on the decl. arc and determine a meridian with the solar which falls  $1\frac{1}{2}'$  W. of the meridian determined by the Polaris observations.

As all the solar observations, made during the usual hours of solar work come within  $1\frac{1}{2}'$  of the true meridian established by the Polaris observations conclude that the adjustments of the instrument are satisfactory.

Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to Supai Road Survey in T.31 N., R.1 E.)

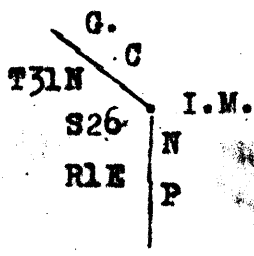
COCK 8900

Chains

The following notes describe the survey of an amended portion of the boundaries of the Grand Canyon National Park, beginning at the point of intersection of a line run in a northwesterly direction, from a temporary point 40 chains S45°W. of station No. 343+21.6 on the center line of the Supai Road Survey parallel to the center line of said road survey as mapped and staked by the Bureau of Public Roads during the field season of 1925, with the first meridional subdivision line of T.31 N., R.1 E.; thence running in a northwesterly direction, following a line which is a duplicate of the center line of said road survey, to an intersection with the line between sections 10 and 15, T.32 N., R.2 W.

Locate the initial monument of this survey as follows; Beginning at station No. 343+21.6 on center line of the Supai Road Survey, which is a pine stake 2 ins. sq. driven firmly in the ground, tack centered with reference stake driven alongside marked with crayon 343+21.6. latitude 36°02'28"W. and longitude 112°13'45"W.; run S45°W. and at 40.00 chs. set temp. stake, thence from temp. stake run N51°50'W on blank line parallel to the center line of the Supai Road Survey and at 62.98 chs. intersect first meridional subdivision line of T.31 N., R.1 E. at a point 5.34 chs. S0°2'W. of the 1/4 sec. cor. of secs. 25 and 26, described in Book 1181.; At point of intersection, establish the initial monument of the survey as follows;

Set an iron post 3 ft. long, 3 ins. in diam. 26 ins. in the ground for initial monument of the Grand Canyon National Park Boundary Survey marked on brass cap



1928

from which

- A juniper 16 ins. in diam. bears N38 1/2°E. 128 lks. dist., marked G.C.N.P. IM BT.
- A juniper 16 ins. in diam. bears S22 1/2°E. 145 lks. dist., marked G.C.N.P. IM BT.
- A pinion 8 ins. in diam. bears S58 1/2°W. 59 lks. dist., marked G.C.N.P. IM BT.
- A juniper 14 ins. in diam. bears N35°W. 109 lks. dist., marked G.C.N.P. IM BT.

Thence

N 51°50'W. on true line on 1st. mile of G.C.N.P. bdry. Over rolling sandy mesa land, slopes SE. thru. heavy timber and undergrowth, thru Sec. 26, T.31N., R.1E.

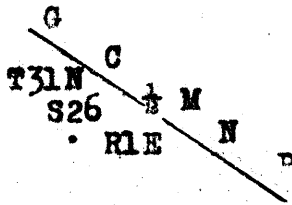
25.00  
 40.00

Descend slightly over SW. slope.  
 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for 1/4 mile mon., marked on brass cap.

Survey of Part of  
Grand Canyon National Park Bdy.

(Parallel to Supai Road Survey in T.31 N., R.1 E.)

Chains



1928

from which

- A pinion 8 ins. in diam. bears N44°E. 61 lks. dist., marked G.C.N.P.  $\frac{1}{2}$ M BT.
- A pinion 8 ins. in diam. bears N32 $\frac{1}{2}$ °W. 34 lks. dist., marked G.C.N.P.  $\frac{1}{2}$ M BT.
- A pinion 8 ins. in diam. bears N62°W. 36 lks. dist., marked G.C.N.P.  $\frac{1}{2}$ M BT.

Note; this mon. is in N. edge of sagebrush flat at head of draw course S.

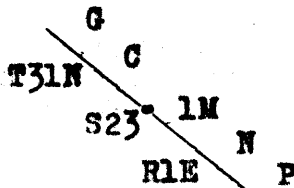
Leave head of draw over rolling land slopes S.

55.00 Leave S. slope., thence over SE. slope.

73.50 Point of intersection of subdivision line bet. secs. 23 and 26, T31N., R1E.; Closing cor. of said secs. established at this point as described in Book I.

Enter sec. 23.

80.00 Set an iron post 3 ft. long 3 ins. in diam. 24 ins. in the ground for the 1 mile mon., marked on brass cap



1928

from which

- A juniper 8 ins. in diam. bears N14 $\frac{1}{2}$ °E. 17 lks. dist., marked G.C.N.P. 1M BT.
- A juniper 8 ins. in diam. bears S6 $\frac{1}{2}$ °E. 19 lks. dist., marked G.C.N.P. 1M BT.
- A juniper 8 ins. in diam. bears N0°30'W. 54 lks. dist., marked G.C.N.P. 1M BT.
- A juniper 8 ins. in diam. bears N58 $\frac{1}{2}$ °W. 23 lks. dist., marked G.C.N.P. 1M BT.

Note: From this point station No. 437+58 on center line of the Supai Road Survey bears N45°E. 40.00 chs. dist.

Land rolling.  
Soil sandy loam 3rd. rate.  
Timber, cedar, pinion, and juniper.  
Undergrowth, sage-brush.

N 51°50'W. on true line on 2nd. mile of G.C.N.P. Bdy. Over rolling sandy mesa land through scattering timber and brush undergrowth, thru sec. 23, T.31N., R.1E.

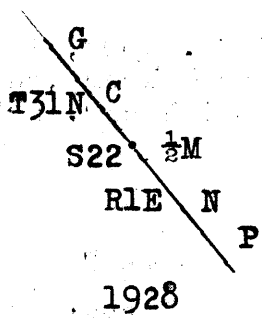
16.00 Leave scattering timber bears N. and S. Enter heavy timber.

19.00 Drain course S.; leave timber bears N. and S. Enter sagebrush flat

Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to the Supai Road Survey in T.31 N., R.1 E.)

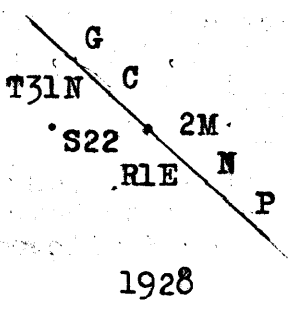
Chains

21.63 Point of intersection of subdivision line bet. secs. 22 and 23, T.31 N., R.1 E.; Closing cor. of said secs. established at this point as described in Book "I".  
 Enter sec. 22 bed.  
 25.00 West edge of sagebrush flat bears N. and S.; Enter heavy timber.  
 Ascend 29 ft. over E. slope.  
 40.00 Top of low rocky spur bears S.; enter rolling land. Set an iron post 3 ft. long, 1 in. in diam. 18 ins. in the ground to bedrock, supported in a mound of stone for 1/2 mile mon., marked on brass cap



from which

A juniper 6 ins. in diam. bears  $N41\frac{1}{2}^{\circ}E$ . 30 lks. dist., marked G.C.N.P.  $\frac{1}{2}M$  BT.  
 A pinion 8 ins. in diam. bears  $N86\frac{1}{4}^{\circ}W$ . 33 lks. dist., marked G.C.N.P.  $\frac{1}{2}M$  BT.  
 55.00 Descend 23 ft. over rolling NW. slope.  
 71.00 Drain course SW.  
 Ascend over rolling land slopes SE.  
 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 10 ins. in the ground to bedrock supported in a mound of stone for 2 mile mon., marked on brass cap



from which

A juniper 6 ins. in diam. bears  $N84\frac{1}{2}^{\circ}E$ . 30 lks. dist., marked G.C.N.P. 2M BT.  
 A juniper 14 ins. in diam. bears  $N6^{\circ}E$ . 100 lks. dist., marked G.C.N.P. 2M BT.  
 A pinion 8 ins. in diam. bears  $S4^{\circ}W$ . 81 lks. dist., marked G.C.N.P. 2M BT.  
 A pinion 10 ins. in diam. bears  $N78\frac{1}{4}^{\circ}W$ . 76 lks. dist., marked G.C.N.P. 2M BT.

Land rolling.  
 Soil stony 4 th. rate.  
 Timber, cedar, pinion, and juniper.  
 Undergrowth, sagebrush.

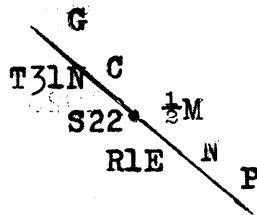
Survey of Part of  
Grand Canyon National Park Bdy.

(Parallel to Supai Road Survey in T.31 N., R.1 E.)

Chains

N 51°50'W. on true line on 3rd. mile of G.C.N.P. bdy.  
Over rolling stony land thru scattering timber and brush  
undergrowth, thru sec. 22, T. 31 N., R. 1 E.

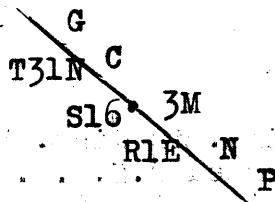
- 5.00 Descend 29 ft. over SW. slope.
- 11.00 Leave scattering timber bears N. and S.; Enter heavy timber.
- 18.00 Top of low spur bears SW.
- 21.00 Drain course SW.  
Leave heavy timber bears NE. and SW.; Enter scattering timber.
- 22.00 Ascend 23 ft. over SE. slope.  
Top of low spur bears SW. thence over rolling stony land.  
Leave scattering timber bears NE. and S.; Enter heavy timber.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam. 6 ins. in the ground to bedrock, supported in a mound of stone for 1/2 mile mon., marked on brass cap



1928

from which

- A pinion 12 ins. in diam. bears N49 1/2° E. 33 lks. dist., marked G.C.N.P. 1/2M BT.
- A pinion 8 ins. in diam. bears S22° W. 70 lks. dist., marked G.C.N.P. 1/2M BT.
- 43.52 Point of intersection of subdivision line bet. secs. 21 and 22, T31N., R1E.; Closing cor. of said secs. established at this point as described in Book "I" Enter sec. 21.
- 43.80 Point of intersection of subdivision line bet. secs. 16 and 21, T31N., R1E.; Closing cor. of said secs. established at this point as described in Book "I" Enter sec. 16.
- 52.00 Drain course SW.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 18 ins. in the ground to bedrock, supported in a mound of stone for 3 mile mon., marked on brass cap



1928

from which

- A pinion 8 ins. in diam. bears N67° E. 23 lks. dist., marked G.C.N.P. 3M BT.
- A juniper 8 ins. in diam. bears N45° E. 105 lks. dist., marked G.C.N.P. 3M BT.
- A juniper 8 ins. in diam. bears S63 1/2° W. 70 lks. dist., marked G.C.N.P. 3M BT.
- A pinion 10 ins. in diam. bears N13° W. 26 lks. dist., marked G.C.N.P. 3M BT.

Land, rolling.  
Soil, stony 4 th. pate.



Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to Supai Road Survey in T.31 N., R.1 E.)

BOOK 8996

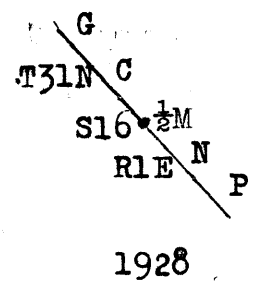
Chains

Timber, cedar, pinion, and juniper.  
Undergrowth, sagebrush.

Note: From the 3 mile mon., station No. 543+10 on center line of the Supai road Survey bears N45°E. 40.00 chs. dist.

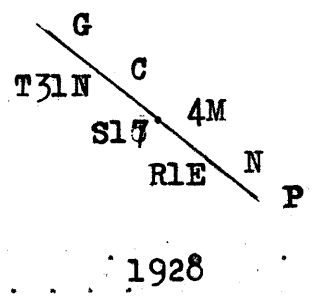
N 51°50'W. on true line on 4th. mile of G.C.N.P. bdy.  
Over rolling stony mesa land slopes SW. thru. heavy timber  
and undergrowth, thru sec. 16, T.31N., R.1E.

- 23.00 Drain course S.  
Leave heavy timber bears N. and S.; Enter scattering timber.
- 35.00 Leave scattering timber bears N. and S.; Enter heavy timber.
- 40.00 Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in the ground to bedrock, supported in a mound of stone for 1/2 mile mon., marked on brass cap



from which

- A juniper 8 ins. in diam. bears S46 1/4°W. 40 lks. dist., marked G.C.N.P. 1/2 M BT.
- A juniper 8 ins. in diam. bears N19°W. 12 lks. dist., marked G.C.N.P. 1/2 M BT.
- 52.00 Drain course W.
- 65.38 Point of intersection of subdivision line bet. secs. 16 and 17, T31N., R1E.; Closing cor. of said secs. established at this point as described in Book 1. Enter sec. 17. 1/2 M BT.
- 72.10 Forest Service telephone line from Grand Canyon Arizona to Supai Indian School bears N60°W. and S60°E.
- 80.00 Set an iron post 3 ft. long, 3 ins. in diam. 26 ins. in the ground for 4 mile mon., marked on brass cap



from which

- A juniper 8 ins. in diam. bears S21°E. 22 lks. dist., marked G.C.N.P. 4M BT.
- A pinion 8 ins. in diam. bears S16 1/4°W. 28 lks. dist., marked G.C.N.P. 4M BT.
- A juniper 20 ins. in diam. bears S23 1/2°W. 59 lks. dist. marked G.C.N.P. 4M BT.
- A juniper 8 ins. in diam. bears S60 1/4°W. 93 lks. dist., marked G.C.N.P. 4M BT.

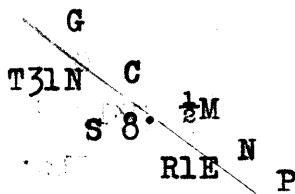
Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to Supai Road Survey in T.31 N., R.1 E.)

Chains

Land, rolling mesa.  
Soil, stony 4 th. rate.  
Timber, cedar, pinion, and juniper.  
Undergrowth, sagebrush.

Note: From 4 mile man, station No. 595+90 on center line of the  
Supai Road Survey bears N45°E. 40.00 chs. dist.

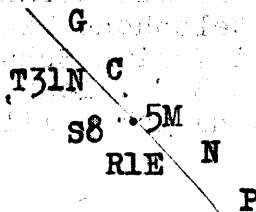
13.21 N 51°50'W. on true line on 5th. mile of G.C.N.P. bdry.  
Over rolling stony mesa land, slopes SW, thru heavy timber  
and undergrowth, thru sec. 17, T.31N., R.1E.  
Point of intersection of subdivision line bet. secs. 8  
and 17. T.31N., R.1E.; Closing cor. of said secs.  
established at this point as described in Book 11-  
Enter sec. 8. 1801.  
19.50 Drain course SW.  
40.00 Set an iron post 3 ft. long, 1 in. in diam. 24 ins. in the  
ground to bedrock, supported in a mound of stone  
for 1/2 mile man, marked on brass cap



1928

from which

A pinion 6 ins. in diam. bears N45°E. 9 lks. dist.,  
marked G.C.N.P. 1/2M BT.  
A juniper 8 ins. in diam. bears S11 1/4°W. 48 lks. dist.,  
marked G.C.N.P. 1/2M BT.  
67.57 Drain course SW.  
80.00 Set an iron post 3 ft. long, 3 ins. in diam. 18 ins. in  
the ground to bedrock, supported in a mound of  
stone for .5 mile man, marked on brass cap



1928

from which

A pinion 8 ins. in diam. bears N47 1/2°E. 13 lks. dist.,  
marked G.C.N.P. 5M BT.  
A pinion 10 ins. in diam. bears S2 1/2°E. 30 lks. dist.,  
marked G.C.N.P. 5M BT.  
A pinion 8 ins. in diam. bears S43 3/4°W. 57 lks. dist.,  
marked G.C.N.P. 5M BT.  
A pinion 8 ins. in diam. bears N57 1/2°W. 49 lks. dist.,  
marked G.C.N.P. 5M BT.

Land, rolling mesa.  
Soil, stony 3 rd. and 4 th. rate.  
Timber, cedar, pinion, and juniper.  
Undergrowth, sagebrush.

Survey of Part of  
Grand Canyon National Park Bdy.

(Parallel to Supai Road Survey in T.31 N., R.1 E.)

BOOK 3906

Chains

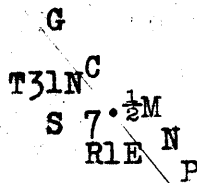
From the 5th. Mile monument.,  
N 51°50'W. on true line on 6th. mile of G.C.N.P. Bdy.  
Over rolling stony land thru heavy timber and brush  
undergrowth.

7.98 Point of intersection of Subdivision line bet. secs.  
7 and 8., T31N., R1E.; Closing cor. of said secs.  
established at this point as described in Book "I" Enter sec. 7 ed.

8.00 Heather Wash, course SW.

25.60 Drain course SW.

40.00 Set an iron post 3 ft. long, 1 in. in diam., 8 ins. in  
the ground to bedrock, supported in a mound of  
stone for 1/2 mile mon., marked on brass cap



1928

from which

A juniper 8 ins. in diam. bears N46°E. 31 lks. dist.,  
marked G.C.N.P. 1/2 M BT.

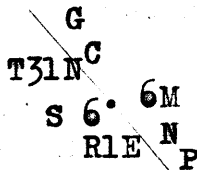
A juniper 14 ins. in diam. bears S31 1/2°W. 64 lks. dist.  
marked G.C.N.P. 1/2 M BT.

Note: From this cor.; Station No. 674+95 on center line  
of the Supai Road Survey bears N45°E. 40.00 chs.  
dist.

43.00 Drain course SW.

64.37 Point of intersection of Subdivision line bet. secs. 6  
and 7., T31N., R1E.; Closing cor. of said secs. est-  
ablished at this point as described in Book "I" Enter sec. 6.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. over cross  
(x) on exposed bedrock supported in a mound of  
stone for 6 mile monument, marked on brass cap



1928

from which

A juniper 6 ins. in diam. bears N73 1/2°E. 33 lks. dist.,  
marked G.C.N.P. 6M BT.

A juniper 8 ins. in diam. bears N33°E. 52 lks. dist.,  
marked G.C.N.P. 6M BT.

A juniper 6 ins. in diam. bears S8 1/4°E. 65 lks. dist.,  
marked G.C.N.P. 6M BT.

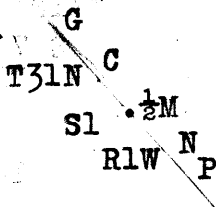
A pinion 8 ins. in diam. bears S55°W. 73 lks. dist.,  
marked G.C.N.P. 6M BT.

Land, rolling mesa.  
Soil, stony 3 rd. and 4 th. rate.  
Timber, cedar, pinion, and juniper.  
Undergrowth, sagebrush.

Survey of Part of  
Grand Canyon National Park Bdy.

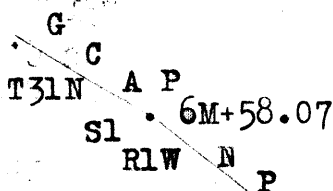
(Parallel to Supai Road Survey in T<sub>s</sub>.31 N., R<sub>s</sub>.1 E., and 1 W.)

Chains	From the 6th. mile monument. Along the 7th. mile of the G.C.N.P. Bdry. Over rolling stony land, thru. heavy timber and brush undergrowth, thro sec. 6, T. 31N., R. 1E. N 51°50'W. (58.07 chs.)
19.00	Drain course SW.
28.71	Point of intersection of Range line, (Gila and Salt River Meridian), bet. Tps. 31 N., Rs. 1 E. and 1 W. Closing cor. of said townships established at this point as described in Book "J" Enter sec. 1, T. 31N., R. 1W.
30.95	Forest Service telephone line from Grand Canyon Arizona to the Supai Indian school bears N. and S.
40.00	Set an iron post 3 ft. long 1 in. in diam. 26 ins. in the ground for $\frac{1}{2}$ mile mon., marked on brass cap



from which

	A pinion 6 ins. in diam. bears N79°E. 44 lks. dist., marked G.C.N.P. $\frac{1}{2}$ M BT.
	A pinion 10 ins. in diam. bears S44°W. 68 lks. dist., marked G.C.N.P. $\frac{1}{2}$ M BT.
40.50	Forest Service telephone line from Grand Canyon Arizona to the Supai Indian school bears N60°W. and S60°E.
55.00	East edge of sagebrush flat bears NW. and SE., drains NW. Leave heavy timber bears N. and S.; Enter scattering timber.
58.07	Set an iron post 3 ft. long, 1 in. in diam. 18 ins. in the ground to bedrock, supported in a mound of stone for angle point No. 6M+58.07 chs., marked on brass cap



from which

	A juniper 6 ins. in diam. bears N86 $\frac{1}{2}$ °E. 87 lks. dist., marked G.C.N.P. AP 6M+58.07
	A juniper 30 ins. in diam. bears S14°W. 100 lks. dist., marked G.C.N.P. AP 6M+58.07
	Note: From this point Station No. 739+55.7 on center line of the Supai Road Survey bears N45°E. 40.00 chs. dist.
	Thence N 64°26'W. (21.93 chs.)
68.00	West edge of sagebrush flat bears NW. and SE.; Leave scattering timber bears N. and S. Enter heavy timber
73.00	East edge of draw bears NE. and SW. ; Leave timber.
75.00	Ravine 5 lks. wide in center of draw course SW.
77.00	West edge of draw bears NE. and SW. Enter heavy timber bears N. and SW.
80.00	Set an iron post 3 ft. long, 3 ins. in diam., 14 ins. in the ground to bedrock, supported in a mound of

Survey of Part of

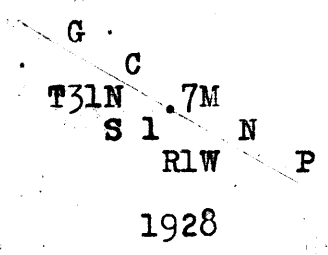
Grand Canyon National Park Bdy.

BOOK 3906

(Parallel to Supai Road Survey in T. 31 N., R. 1 W.)

Chains.

stone for 7 mile mon., marked on brass cap



from which

- A juniper 16 ins. in diam. bears  $N1\frac{1}{2}^{\circ}W$ . 39 lks. dist., marked G.C.N.P. 7M BT.
- A juniper 6 ins. in diam. bears  $N21^{\circ}W$ . 34 lks. dist., marked G.C.N.P. 7M BT.
- A juniper 8 ins. in diam. bears  $S7\frac{1}{2}^{\circ}E$ . 53 lks. dist., marked G.C.N.P. 7M BT.
- A juniper 12 ins. in diam. bears  $S73^{\circ}W$ . 41 lks. dist., marked G.C.N.P. 7M BT.

Land rolling.  
 Soil, stony 3 rd. and 4th. rate.  
 Timber, cedar, pinion, and juniper.  
 Undergrowth, sagebrush.

From the 7th. mile monument  
 Along the 8th. mile of the G.C.N. Park Bdy.  
 Over rolling stony mesa land, thru. heavy timber and scattering undergrowth, thru sec. 1, T. 31 N., R. 1 W.  
 $N 64^{\circ}26'W$ . (29.16 chs.)

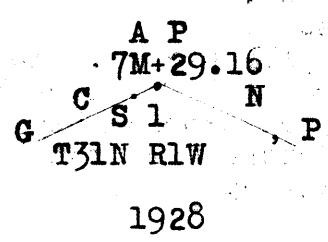
15.00

East edge of sagebrush flat bears N. and S.; leave heavy timber bears NE. and SW.

Enter scattering timber.

29.16

Set an iron post 3 ft. long, 1 in. in diam. 18 ins. in the ground to bedrock, supported in a mound of stone for Angle Point of Park Bdy. 7M+29.16, marked on brass cap.



from which

- A juniper 12 ins. in diam. bears  $N83^{\circ}W$ . 28 lks. dist. marked G.C.N.P. 7M+29.16 AP BT.
- A pinion 6 ins. in diam. bears  $N11\frac{1}{2}^{\circ}W$ . 160 lks. dist., marked G.C.N.P. 7M+29.16 AP BT.

Thence  $S 62^{\circ}41'W$ . (5.33 chs.)

32.00

Old road from Grand Canyon Arizona to Havasu Canyon bears N. and S.

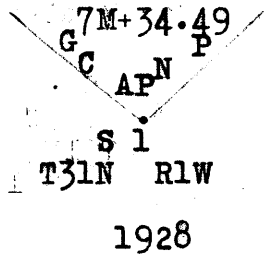
34.25

Forest Service telephone line from Grand Canyon Arizona to the Supai Indian school bears N. and S.

34.49

Set an iron post 3 ft. long, 1 in. in diam. 6 ins. in the ground to bedrock, supported in a mound of stone for Angle Point of Park Bdy. 7M+34.49 marked on brass cap.

Chains



from which

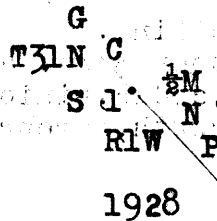
A juniper 12 ins. in diam. bears N10°W. 160 lks. dist.,  
marked AP G.C.N.P. 7M+34.49 BT.

A juniper 8 ins. in diam. bears S31½°E. 12 lks. dist.,  
marked AP. G.C.N.P. 7M+34.49 BT.

Thence

N51°09'W. (5.51 chs.)

40.00 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
ground for ½ mile mon., marked on brass cap



from which

A juniper 10 ins. in diam. bears N65½°E. 30 lks. dist.,  
marked G.C.N.P. 8M BT.

A juniper 6 ins. in diam. bears S13½°W. 30 lks. dist.,  
marked G.C.N.P. 8M BT.

Thence

N51°09'W. (40.00 chs.)

42.57 Point of intersection of Subdivision line bet. secs. 1  
and 2, T31N., R. 1 W.; Closing cor. of said secs.  
established at this point as described in Book "J"

Enter sec. 2 described.

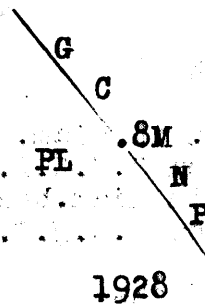
59.24 Point of intersection of Township line bet. Ts. 31 and  
32 N., R. 1 W.; Closing cor. of said Tps.  
established at this point as described in Book "J"

Enter sec. 35, T. 32 N., R. 1 W., unsurv.

67.40 Ravine course S.

Ascend gradually over E. slope.

80.00 Set an iron post 3 ft. long 3 ins. in diam. over cross  
(x) on exposed bedrock, supported in a mound  
of stone for the 8 mile monument, marked on  
brass cap



from which

A pinion 10 ins. in diam. bears N41½°W. 117 lks. dist.,  
marked G.C.N.P. 8M BT.

A pinion 6 ins. in diam. bears S89½°W. 118 lks. dist.,  
marked G.C.N.P. 8M BT.

A juniper 10 ins. in diam. bears S78½°W. 140 lks. dist.,  
marked G.C.N.P. 8M BT.

A juniper 6 ins. in diam. bears S10°W. 196 lks. dist.  
marked G.C.N.P. 8M BT.

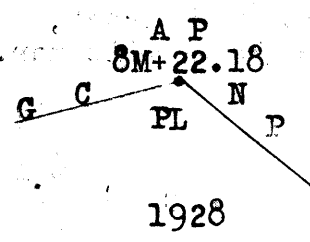
Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to Supai Road Survey) in T.32 N., R.1 W.)

BOOK 8908

Chains

Land, rolling.  
 Soil, stony 3 rd. and 4 th. rate.  
 Timber, cedar, pinion, and juniper.  
 Undergrowth, sagebrush.

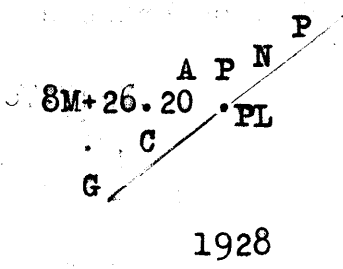
From the 8th. Mile monument.,  
 Along the 9th. mile of the G.C.N.Park Bdy.  
 Over rolling stony land slopes E.thru.scattering timber  
 and undergrowth.  
 N 51°09'W. (22.18 chs.)  
 3.70 Old road from Grand Canyon Arizona to Havasupai Indian  
 Reservation bears NW. and SE. in ravine course  
 SE.  
 Ascend gradually  
 4.82 U.S.G.S.BM, elevation 6412 ft. bears S.16 lks. dist.  
 12.00 Leave scattering timber bears NW. and SE.  
 Enter heavy timber.  
 22.18 Set an iron post 3 ft. long, 1 in. in diam.26 ins. in  
 the ground for Angle Point of Park boundary  
 8M+22.18 marked on brass cap



from which

A juniper 6 ins. in diam.bears N84½°E.28 lks. dist.,  
 marked G.C.N.P.AP 8M+22.18 BT.  
 A juniper 14 ins. in diam.bears S24½°W.68 lks. dist.,  
 marked G.C.N.P. AP. 8M+22.18 BT.

Thence  
 S 67°38'W. (4.02 chs.)  
 Over rolling land.  
 26.20 Set an iron post 3 ft. long, 1 in. in diam.16 ins. in the  
 ground to bedrock, supported in a mound of  
 stone for Angle Point of Park bdy., 8M+26.20  
 marked on brass cap



from which

A pinion 6 ins. in diam. bears N5½°E. 111 lks. dist.,  
 .marked G.C.N.P.AP 8M+26.20 BT.  
 A juniper 14 ins. in diam. bears S28½°W. 63 lks. dist.,  
 .marked G.C.N.P. AP 8M+26.20 BT.

Note From this point Station No.820+86.3 on center line of  
 the Supai Road Survey bears N45°E. 40.00 chs.  
 dist.

Thence  
 S 67°35'W. (9.43 chs.)

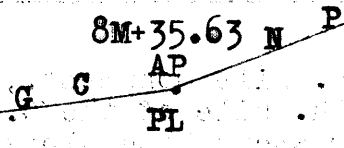
Survey of Part of  
Grand Canyon National Park Bdy.

(Parallel to the Supai Road Survey in T. 32 N., R. 1 W.)

Chains

35.63

Set an iron post 3 ft. long 1 in. in diam. 14 ins. in the ground to bedrock supported in a mound of stone for Angle Point of Park Bdy., 8M+35.63 marked on brass cap



1928

from which

A pinion 6 ins. in diam. bears S31½°W. 65 lks. dist., marked G.C.N.P. AP 8M+35.63 BT.

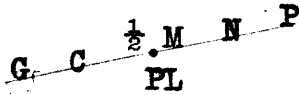
A pinion 18 ins. in diam. bears N34½°W. 64 lks. dist., marked G.C.N.P. AP 8M+35.63 BT.

Thence

S 78°30'W. (4.37 chs.)

40.00

Set an iron post 3 ft. long 1 in. in diam. 6 ins. in the ground to bedrock, supported in a mound of stone for ½ mile mon. marked on brass cap



1928

from which

A pinion 6 ins. in diam. bears N50½°E. 26 lks. dist., marked G.C.N.P. ½M BT.

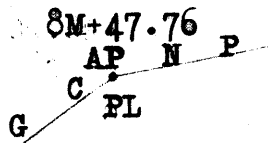
A juniper 6 ins. in diam. bears S8°W. 18 lks. dist., marked G.C.N.P. ½M BT.

Thence

S 78°30'W. (7.76 chs.)

47.76

Set an iron post 3 ft. long, 1 in. in diam. 6 ins. in the ground to bedrock supported in a mound of stone for Angle Point 8M+47.76 chs. of Park Bdy. marked on brass cap



1928

from which

A pinion 6 ins. in diam. bears N62½°W. 53 lks. dist., marked G.C.N.P. AP 8M+47.76 BT.

A pinion 6 ins. in diam. bears S2½°E. 73 lks. dist., marked G.C.N.P. AP 8M+47.76 BT.

Thence

S64°34'W. (13.22 chs.)

Over rolling stony land.

60.98

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for Angle Point, 8M+60.98 chs. of Park Bdy. marked on brass cap



Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey in T.32N.R.1W.)

Chains

G 8M+60.98

C AP N P

PL

1928

from which

- A pinion 8 ins. in diam. bears  $N9\frac{1}{2}^{\circ}W$ . 125 lks. dist., marked G.C.N.P. AP 8M+60.98 BT.
- A pinion 8 ins. in diam. bears South 101 lks. dist., marked G.C.N.P. AP 8M+60.98 BT.

Thence

N  $45^{\circ}10'W$ . (19.02 chs.)

Through scattering timber.

68.00 Draw 500 lks. wide course SE.

70.00 Leave scattering timber bears N. and S.

Enter heavy timber.

Ascend 29 ft. over NE. slope.

75.00 Top of ascent. thence over rolling land.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 26 ins. in the ground for the 9 Mile monument, marked on brass cap

G

C

PL

9M

N

P

1928

from which

- A juniper 12 ins. in diam. bears  $N34^{\circ}E$ . 68 lks. dist., marked G.C.N.P. 9M BT.
- A juniper 6 ins. in diam. bears  $S9\frac{1}{2}^{\circ}E$ . 97 lks. dist. marked G.C.N.P. 9M BT.
- A pinion 8 ins. in diam. bears  $S76^{\circ}W$ . 53 lks. dist., marked G.C.N.P. 9M BT.
- A juniper 12 ins. in diam. bears  $N21^{\circ}W$ . 78 lks. dist., marked G.C.N.P. 9M BT.

Land, rolling.

Soil, stony 3 rd and 4 th. rate.

Timber, cedar, pinion, and juniper.

Undergrowth, sagebrush.

From the 9th Mile mon.

Along the 10th. mile of G.C.N. Park Bdy.

Over rolling stony land thru heavy timber and brush undergrowth.

N  $45^{\circ}10'W$ . (10.16 chs.)

10.16 Set an iron post 3 ft. long 1 in. in diam. 28 ins. in the ground for Angle Point 9M+10.16 chs. of Park Bdy. marked on brass cap

9M+10.16

G C AP

PL

N

P

1928

Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to the Supai Road Survey. in T.32N.,R.1W.)

Chains

from which

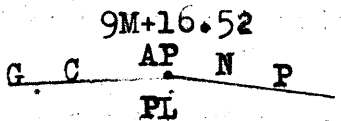
- A pinion 8 ins. in diam. bears N15°W. 31 lks. dist., marked G.C.N.P. AP 9M+10.16 BT.
- A pinion 6 ins. in diam. bears S32½°E. 115 lks. dist., marked G.C.N.P. AP 9M+10.16 BT.

Note; From this point, Station 891+18 on center line of the Supai Road Survey, bears N45°E. 40.00 chs. dist.

Thence  
 N 82°30'W. (6.36 chs.)

Over rolling stony land thru scattering timber and undergrowth.

- 16.52 Set an iron post 3 ft. long 1 in. in diam. 28 ins. in the ground for Angle Point, 9M+16.52 chs. of Park Bdy., marked on brass cap



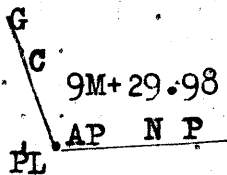
1928

from which

- A juniper 6 ins. in diam. bears N69°E. 195 lks. dist., marked G.C.N.P. AP 9M+16.52 BT.
- A juniper 6 ins. in diam. bears S20½°W. 39 lks. dist., marked G.C.N.P. AP 9M+16.52 BT.

Thence  
 S 89°59'W. (13.46 chs.)

- 29.98 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for Angle Point, 9M+29.98 chs. of Park Bdy., marked on brass cap



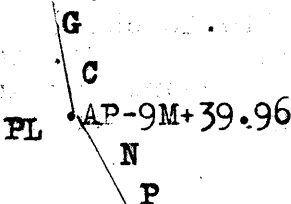
1928

from which

- A pinion 6 ins. in diam. bears N36½°W. 57 lks. dist., marked G.C.N.P. AP 9M+29.98 BT.
- A pinion 8 ins. in diam. bears S11½°W. 89 lks. dist., marked G.C.N.P. AP 9M+29.98 BT.

Thence  
 N 32°54'W. (9.98 chs.)

- 39.96 Set an iron post 3 ft. long, 1 in. in diam. 12 ins. in the ground to bedrock supported in a mound of stone for Angle point 9M+39.96 chs. of Park Bdy. marked on brass cap



1928

from which

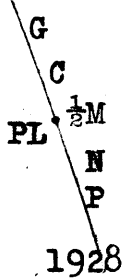
Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey. in T.32N.R.1W.)

Chains

A pinion 8 ins. in diam. bears  $N56\frac{1}{2}^{\circ}E.$  278 lks. dist.,  
marked G.C.N.P. AP 9M+39.96 BT.  
A pinion 4 ins. in diam. bears  $S30^{\circ}E.$  77 lks. dist.,  
marked G.C.N.P. AP 9M+39.96 BT.

Thence  
 $N 14^{\circ}28'W.$  (0.04 chs.)

40.00 Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in  
the ground to bedrock, supported in a mound of  
stone for  $\frac{1}{2}$  mile Monument of Park Bdy., marked  
on brass cap

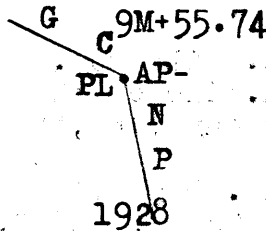


from which

A pinion 4 ins. in diam. bears  $S81^{\circ}E.$  63 lks. dist.,  
marked G.C.N.P.  $\frac{1}{2}M$  BT.  
A juniper 16 ins. in diam. bears  $S79\frac{1}{2}^{\circ}W.$  170 lks. dist.,  
marked G.C.N.P.  $\frac{1}{2}M$  BT.

Thence  
 $N 14^{\circ}28'W.$  (15.74 chs.)

Over rolling stony mesa land thru. scattering timber and  
undergrowth.  
55.74 Set an iron post 3 ft. long, 1 in. in diam. 18 ins. in the  
ground to bedrock, supported in a mound of  
stone for Angle Point, 9M+55.74 chs. of Park  
Bdy. marked on brass cap



from which

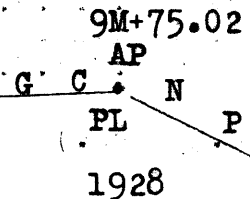
A pinion 10 ins. in diam. bears  $N88\frac{1}{2}^{\circ}E.$  72 lks. dist.,  
marked G.C.N.P. AP 9M+55.74 BT.  
A juniper 8 ins. in diam. bears  $N51^{\circ}W.$  28 lks. dist.,  
marked G.C.N.P. AP 9M+55.74 BT.

Thence  
 $N 63^{\circ}50'W.$  (19.28 chs.)

60.80 Ravine course N.  
Leave scattering timber bears N. and S.; Enter heavy  
timber.

61.60 Telephone line from Grand Canyon Arizona to the Supai  
Indian School bears NE. and SW.

75.02 Set an iron post 3 ft. long, 1 in. in diam. 24 ins. in  
the ground for Angle Point, 9M+75.02 chs. of  
Park Bdy., marked on brass cap



from which

Chains

A juniper 18 ins. in diam. bears  $N62\frac{1}{2}^{\circ}E.136$  lks. dist.,  
marked G.C.N.P. AP 9M+75.02 BT.

A juniper 6 ins. in diam. bears  $S18^{\circ}E.83$  lks. dist.,  
marked G.C.N.P. AP 9M+75.02 BT.

Thence

S  $85^{\circ}20'W.$  (4.98 chs.)

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 18 ins. in  
the ground to bedrock, supported in a mound of  
stone for the 10 Mile monument of Park Bdy.,  
marked on brass cap

G C 10M N P  
PL

1928

from which

A juniper 8 ins. in diam. bears  $N29\frac{1}{4}^{\circ}E.102$  lks. dist.,  
marked G.C.N.P. 10M BT.

A pinion 6 ins. in diam. bears  $S82\frac{1}{2}^{\circ}E.59$  lks. dist.,  
marked G.C.N.P. 10M BT.

A juniper 6 ins. in diam. bears  $S8\frac{1}{4}^{\circ}W.9$  lks. dist.,  
marked G.C.N.P. 10M BT.

A juniper 6 ins. in diam. bears  $N42^{\circ}W.59$  lks. dist.,  
marked G.C.N.P. 10M BT.

Land, rolling.

Soil, stony 3 rd. and 4 th. rate.

Timber, cedar, juniper, and pinion.

Undergrowth, sage and juniper brush.

From the 10th. Mile mon.

Along the 11th. mile of the G.C.N. Park Bdy.

Over rolling stony land, thru heavy timber and undergrowth.

S  $85^{\circ}20'W.$  (15.29 chs.)

7.40 Leave timber bears N. and S.

Enter sagebrush flat.

15.29 Set an iron post 3 ft. long, 1 in. in diam. 16 ins. in the  
ground to bedrock, supported in a mound of  
stone for Angle Point 10M+15.29 of Park Bdy.  
marked on brass cap

10M+15.29

G C AP N P  
PL

1928

from which

A juniper 12 ins. in diam. bears  $N72\frac{1}{4}^{\circ}E.270$  lks. dist.,  
marked G.C.N.P. AP 10M+15.29 BT.

A pinion 10 ins. in diam. bears  $S80\frac{1}{2}^{\circ}E.180$  lks. dist.,  
marked G.C.N.P. AP 10M+15.29 BT.

Thence

S  $77^{\circ}54'W.$  (24.55 chs.)

23.00 Draw course N.

Road in draw bears N. and S.

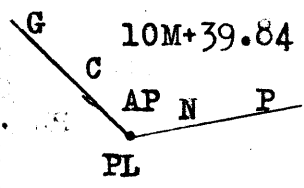
33.00 Leave sagebrush flat bears N. and S.

Enter scattering timber.

39.84 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in  
the ground for Angle Point 10M+39.84 chs. of  
Park Bdy., marked on brass cap

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey in T.32 N.R.1W.)

Chains



1928

from which

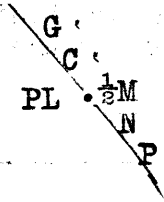
- A pinion 6 ins. in diam. bears  $N2\frac{1}{2}^{\circ}E.$  104 lks. dist., marked G.C.N.P. AP 10M+39.84 BT.
- A pinion 8 ins. in diam. bears  $S34\frac{1}{2}^{\circ}E.$  165 lks. dist., marked G.C.N.P. AP 10M+39.84 BT.

Note; From this point Station 962+41.8 on the center line of the Supai Road Survey bears  $N45^{\circ}E.$  40.00 chs. dist.

Thence  
 $N 45^{\circ}41'W.$  (0.16 chs.)  
Over rolling land.

40.00

Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for  $\frac{1}{2}$  mile monument, marked on brass cap



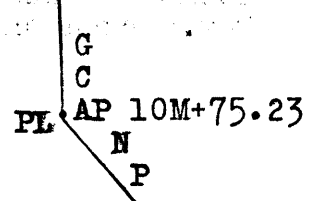
1928

from which

- A pinion 6 ins. in diam. bears  $N27^{\circ}E.$  33 lks. dist., marked  $\frac{1}{2}M$  BT.
- A pinion 8 ins. in diam. bears  $S89\frac{1}{2}^{\circ}W.$  34 lks. dist., marked  $\frac{1}{2}M$  BT.

Thence  
 $N 45^{\circ}41'W.$  (35.23 chs.)  
Over rolling stony land slopes NW. thru heavy timber.  
Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in the ground to bedrock, supported in a mound of stone for Angle Point 10M+75.23 chs. of Park Bdy., marked on brass cap

75.23



1928

from which

- A juniper 16 ins. in diam. bears  $N57\frac{1}{2}^{\circ}E.$  48 lks. dist., marked G.C.N.P. AP 10M+75.23 BT.
- A pinion 6 ins. in diam. bears  $S5\frac{1}{2}^{\circ}E.$  84 lks. dist., marked G.C.N.P. AP 10M+75.23 BT.

Thence  
 $N 0^{\circ}34'W.$  (4.77 chs.)

80.00

Set an iron post 3 ft. long, 3 ins. in diam. 4 ins. in the ground to bedrock, supported in a mound of stone for the 11 Mile Mon. of Park Bdy., marked on brass cap

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey. in T.32 N. R.1W.)

Chains

G  
C  
PL .11M  
N  
P

1928

from which

A juniper 8 ins. in diam. bears  $N14\frac{1}{2}^{\circ}E$ . 74 lks. dist.,  
marked G.C.N.P. 11M BT.

A pinion 6 ins. in diam. bears  $S37^{\circ}E$ . 79 lks. dist.,  
marked G.C.N.P. 11M BT.

A pinion 8 ins. in diam. bears  $S47\frac{1}{2}^{\circ}W$ . 51 lks. dist.,  
marked G.C.N.P. 11M BT.

A juniper 16 ins. in diam. bears  $N79^{\circ}W$ . 82 lks. dist.,  
marked G.C.N.P. 11M BT.

Center of dam 150 lks. long across Pasture Wash bears  
 $N35^{\circ}E$ . 250 lks. dist. Reservoir formed by dam  
contains a small quantity of stagnant water.

Land, rolling.

Soil, stony 3 rd. and 4 th. rate.

Timber, cedar, juniper, and pinion.

Undergrowth, sage and juniper brush.

From the 11th. Mile mon.

Along the 12th. mile of the G.C.N. Park Bdy.

Over rolling stony land thru. heavy timber and scattering  
undergrowth.N  $0^{\circ}34'W$ . (14.12 chs)

Descend approx. 10 ft. over NW. slope.

1.50 Pasture Wash 20 lks. wide course SW. ; Leave timber

Ascend gradually over SE. slope.

3.10 Road from Pasture Wash Ranger Station to Grand Canyon  
Ariz. bears NE. and SW.

7.00 Enter heavy timber bears NE. and SW.

14.12 Set an iron post 3 ft. long, 1 in. in diam. 14 ins. in the  
ground to bedrock, supported in a mound of  
stone for Angle Point, 11M+14.12 chs. of Park  
Bdy. marked on brass cap

G  
C  
PL AP 11M+14.12  
N  
P

1928

from which

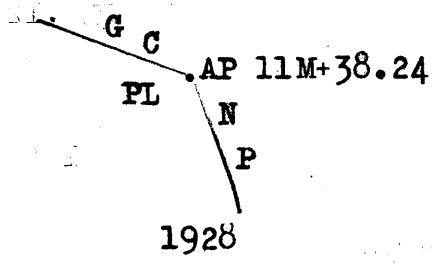
A juniper 6 ins. in diam. bears  $N46^{\circ}W$ . 98 lks. dist.,  
marked G.C.N.P. AP 11M+14.12 BT.

A pinion 6 ins. in diam. bears  $S61^{\circ}E$ . 51 lks. dist.,  
marked G.C.N.P. AP 11M+14.12 BT.

Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to the Supai Road Survey in T.32N.,R.1W.)

Chains

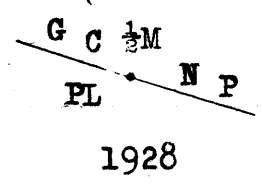
Thence  
 N 32°50'W. (24.12 chs.)  
 Over rolling land slopes SW.  
 Drain course S.  
 23.30  
 38.24 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in  
 the ground for Angle Point, 11M+38.24 chs. of  
 Park Bdy., marked on brass cap



from which

A pinion 10 ins. in diam. bears N38½°E. 72 lks. dist.,  
 marked G.C.N.P. AP 11M+38.24 BT.  
 A juniper 6 ins. in diam. bears S12°E. 88 lks. dist.,  
 marked G.C.N.P. AP 11M+38.24 BT.

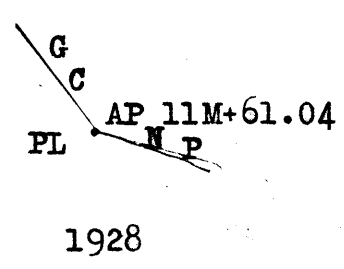
Thence  
 N 68°08'W. (1.76 chs.)  
 Over rolling stony land.  
 40.00 Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in  
 the ground for ½ Mile Mon. of Park Bdy. marked  
 on brass cap



from which

A juniper 6 ins. in diam. bears N18½°E. 48 lks. dist.,  
 marked G.C.N.P. ½M BT.  
 A pinion 6 ins. in diam. bears S19°E. 47 lks. dist.,  
 marked G.C.N.P. ½M BT.

Thence  
 N 68°08'W. (21.04 chs.)  
 Over rolling stony land on mesa thru heavy timber.  
 61.04 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
 ground for Angle Point, 11M+61.04 chs. of Park  
 Bdy. marked on brass cap



from which

A juniper 10 ins. in diam. bears N51°E. 36 lks. dist.,  
 marked G.C.N.P. AP 11M+61.04 BT.  
 A juniper 8 ins. in diam. bears S1½°W. 114 lks. dist.,  
 marked G.C.N.P. AP 11M+61.04 BT.

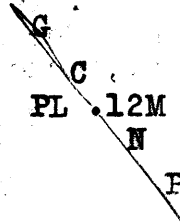
Note: From this point, Station No. 1028+15.8 on the center  
 line of the Supai Road Survey bears N45°E.  
 40.00 chs. dist.

Thence  
 N 45°10'W. (18.96 chs.)

Survey of Part of  
(Grand Canyon National Park Bdy.)  
(Parallel to the Supai Road Survey. in T.32N.,R.1W.)

Chains

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 28 ins. in the ground for the 12th. Mile monument of Park Bdy., marked on brass cap



1928

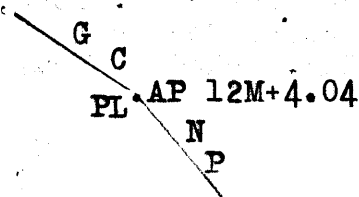
from which

- A juniper 12 ins. in diam. bears  $N7\frac{1}{2}^{\circ}E$ . 59 lks. dist., marked G.C.N.P. 12M BT.
- A juniper 8 ins. in diam. bears  $N27\frac{1}{2}^{\circ}W$ . 111 lks. dist. marked G.C.N.P. 12M BT.
- A juniper 8 ins. in diam. bears  $N72^{\circ}W$ . 60 lks. dist., marked G.C.N.P. 12M BT.
- A juniper 10 ins. in diam. bears  $N88\frac{1}{4}^{\circ}W$ . 39 lks. dist., marked G.C.N.P. 12M. BT.

Land, rolling.  
Soil, stony 3rd. and 4th. rate.  
Timber, cedar, pinion, and juniper.  
Undergrowth, scrub juniper and sagebrush.

From the 12th. Mile mon.  
Along the 13th. mile of the G.C.N. Park Bdy.  
Over rolling stony land, thru heavy timber and brush undergrowth.

4.04  $N 45^{\circ}10'W$ . (4.04 chs.)  
Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for Angle Point, 12M+4.04 chs. of Park Bdy. marked on brass cap



1928

from which

- A pinion 10 ins. in diam. bears  $N2\frac{1}{2}^{\circ}E$ . 119 lks. dist., marked G.C.N.P. AP 12M+4.04 BT.
- A pinion 10 ins. in diam. bears  $S26^{\circ}W$ . 120 lks. dist., marked G.C.N.P. AP 12M+4.04 BT.

Thence

12.00  $N 55^{\circ}37'W$ . (16.45 chs.)  
Over sagebrush flat slopes SW. thru scattering timber  
Leave sagebrush flat and scattering timber bears NE. and SW.

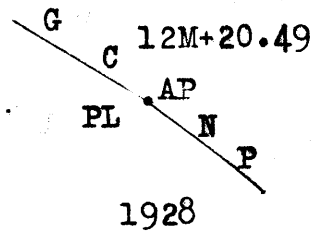
20.49 Enter heavy timber on SE. slope.  
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the ground for Angle Point, 12M+20.49 of Park Bdy., marked on brass cap



Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to the Supai Road Survey in T.32 N., R.1W.)

BOOK 8806

Chains

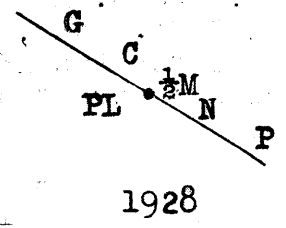


from which

A juniper 6 ins. in diam. bears  $N9\frac{1}{2}^{\circ}E$ . 102 lks. dist.,  
 marked G.C.N.P. AP 12M+20.49 BT.  
 A pinion 12 ins. in diam. bears  $S32\frac{1}{2}^{\circ}W$ . 44 lks. dist.,  
 marked G.C.N.P. AP 12M+20.49 BT.

Thence  
 $N 58^{\circ}32'W$ . (19.51 chs.)  
 Over rolling land slopes NW.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in  
 the ground for  $\frac{1}{2}$  Mile monument of Park Bdy.,  
 marked on brass cap

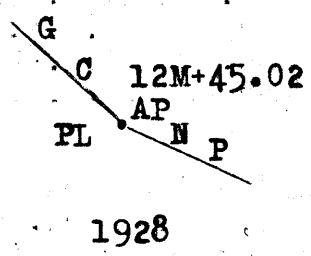


from which

A juniper 10 ins. in diam. bears  $N22\frac{1}{2}^{\circ}E$ . 71 lks. dist.,  
 marked G.C.N.P.  $\frac{1}{2}M$  BT.  
 A juniper 8 ins. in diam. bears  $S24\frac{1}{2}^{\circ}W$ . 138 lks. dist.,  
 marked G.C.N.P.  $\frac{1}{2}M$  BT.

Thence  
 $N 58^{\circ}32'W$ . (5.02 chs.)

45.02 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
 ground for Angle point, 12M+45.02 chs. of Park  
 Bdy. marked on brass cap



from which

A pinion 8 ins. in diam. bears  $N2\frac{1}{2}^{\circ}W$ . 142 lks. dist.,  
 marked G.C.N.P. AP 12M+45.02 BT.  
 A juniper 6 ins. in diam. bears  $S57^{\circ}E$ . 349 lks. dist.,  
 marked G.C.N.P. AP 12M+45.02 BT.

Thence  
 $N 45^{\circ}18'W$ . (18.25 chs.)  
 Over rolling land slopes SW. in sagebrush flat.

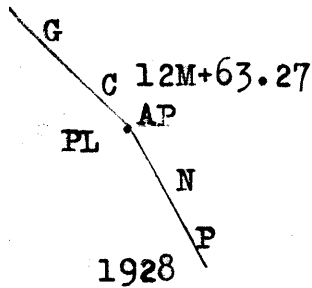
47.50 Old road from Grand Canyon Arizona to Haya-supai Canyon  
 bears NE. and SW.

59.00 Wash 6 lks. wide course SW.

63.27 Set an iron post 3 ft. long, 1 in. in diam. 6 ins. in the  
 ground to bedrock, supported in a mound of stone  
 for Angle Point, 12M+63.27 chs. of Park Bdy. marked  
 on brass cap

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey. in T.32N, R.1W.)

Chains



from which

A juniper 16 ins. in diam. bears  $N6^{\circ}W.38$  lks. dist.,  
marked G.C.N.P. AP 12M+63.27 BT.

A pinion 6 ins. in diam. bears  $S5\frac{1}{2}^{\circ}W.31$  lks. dist.,  
marked G.C.N.P. AP 12M+63.27 BT.

Thence

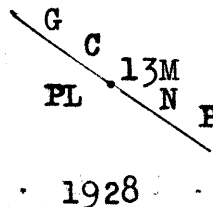
$N 54^{\circ}57'W.$  (16.73 chs.)

Over stony land.

75.00 Draw 4.00 chs. wide course S.

Old road bears N. and S. in center of draw.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 28 ins. in  
the ground for the 13th. Mile monument of Park  
Bdy. marked on brass cap



from which

A juniper 6 ins. in diam. bears  $N63\frac{1}{2}^{\circ}E.44$  lks. dist.,  
marked G.C.N.P. 13M BT.

A pinion 6 ins. in diam. bears  $S23\frac{1}{4}^{\circ}E.64$  lks. dist.,  
marked G.C.N.P. 13M BT.

A pinion 8 ins. in diam. bears  $S89^{\circ}W.62$  lks. dist.,  
marked G.C.N.P. 13M BT.

A pinion 8 ins. in diam. bears  $N22^{\circ}W.65$  lks. dist.,  
marked G.C.N.P. 13M BT.

Land rolling mesa.

Soil, stony 3 rd. and 4 th. rate.

Timber, cedar, pinion, and juniper.

Undergrowth, juniper and sage brush.

From the 13th. Mile mon.

Along the 14th. mile of the G.C.N. Park Bdy.

Over rolling stony land, slopes E. thru. heavy timber and  
brush undergrowth.

$N 54^{\circ}57'W.$  (3.13 chs.)

Ascend gradually

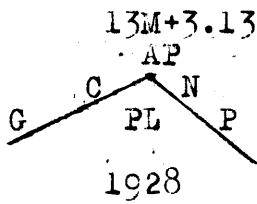
3.13 Set an iron post 3 ft. long, 1 in. in diam. 12 ins. in  
the ground to bedrock, supported in a mound of  
stone for Angle Point, 13M+3.13 chs. of Park Bdy.  
marked on brass cap

Grand Canyon National Park Bdy.

BOOK 2006

(Parallel to the Supai Road Survey in T.32 N., R.1W.)

chains



from which

A juniper, 6 ins. in diam., bears N.49 $\frac{1}{2}$ °E., 63 lks. dist., marked G C N P AP 13M+3.13 BT

A juniper, 12 ins. in diam., bears S. 9°W., 110 lks. dist., marked G C N P AP 13M+3.13 BT

Note: From this A.P., station No. 1095+49.3 on center line of Supai Road Survey bears N.45° 3'E., 39.84 chs.

Thence

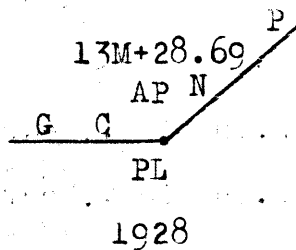
S.50° 3'W., (25.56 chs.)

Over level land, thru scattering timber.

13.00 Leave timber, bears NE. and SW.

23.40 Enter heavy timber, bears NE. and SW.

28.69 Set an iron post, 3 ft. long, 1 in. in diam., 6 ins. in the ground to bedrock, supported in a mound of stone, for Angle Point 13M+28.69 chs. of Park Bdy., marked on brass cap



from which

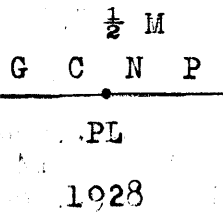
A juniper, 16 ins. in diam., bears N.72°E., 31 lks. dist., marked G C N P AP 13M+28.69 BT

A juniper, 8 ins. in diam., bears S.15°W., 74 lks. dist., marked G C N P AP 13M+28.69 BT

Thence

West (11.31 chs.)

40.00 Set an iron post, 3 ft. long, 1 in. in diam., 14 ins. in the ground to bedrock, supported in a mound of stone, for  $\frac{1}{4}$  mile monument of Park Bdy., marked on brass cap



from which

A juniper, 14 ins. in diam., bears N.21°W., 55 lks. dist., marked G C N P  $\frac{1}{2}$ M BT.

A juniper, 6 ins. in diam., bears S.9 $\frac{1}{2}$ °W., 81 lks. dist., marked G C N P  $\frac{1}{2}$ M BT

Thence

West (16.88 chs.)

Over rolling land, sloping SW.

56.88 Set an iron post, 3 ft. long, 1 in. in diam., 28 ins. in the ground, for Angle Point 13M+56.88 chs. of Park Bdy., marked on brass cap

Survey of Part of

Grand Canyon National Park Bdy.

(Parallel to the Supai Road Survey in Ts. 32 N., Rs. 1 and 2 W.)

chains

13M+56.88



1928

from which

A juniper, 6 ins. in diam., bears N. 82° W., 40 lks. dist., marked G C N P AP 13M+56.88 BT

A juniper, 12 ins. in diam., bears S. 34° W., 47 lks. dist., marked G C N P AP 13M+56.88 BT

Thence

S. 82° 30' W., (20.29 chs.)

Over rolling mesa land, thru heavy timber.

77.17 Set an iron post, 3 ft. long, 1 in. in diam., over a cross (X) on exposed bedrock, supported in a mound of stone, for Angle Point 13M+77.17 chs. of Park Bdy., marked on brass cap.

13M+77.17



1928

from which

A juniper, 6 ins. in diam., bears N. 54 1/2° W., 54 lks. dist., marked G C N P AP 13M+77.17 BT

A juniper, 6 ins. in diam., bears S. 35 1/2° E., 43 lks. dist., marked G C N P AP 13M+77.17 BT

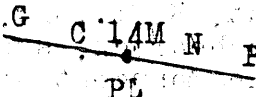
Thence

N. 79° 21' W., (2.83 chs. to 14 M. mon.)

78.45 Theoretical point of intersection of Park bdy. with the unsurveyed range line bet. Ts. 32 N., Rs. 1 and 2 W.

Enter T. 32 N., R. 2 W. in SE 1/4 of sec. 24, unsurv.

80.00 Set an iron post, 3 ft. long, 3 ins. in diam., 12 ins. in the ground to bedrock, supported in a mound of stone, for 14 mile monument of Park Bdy., marked on brass cap



1928

from which

A juniper, 6 ins. in diam., bears N. 61° E., 28 lks. dist., marked G C N P 14M BT

A juniper, 18 ins. in diam., bears S. 41° E., 71 lks. dist., marked G C N P 14M BT

A juniper, 8 ins. in diam., bears S. 48° W., 16 lks. dist., marked G C N P 14M BT

A juniper, 6 ins. in diam., bears N. 45 1/2° W., 54 lks. dist., marked G C N P 14M BT

Land, rolling and level.

Soil, stony, 3rd and 4th rate.

Timber, juniper, cedar and pinion.

Undergrowth, scrub cedar and pinion.

Survey of Part of Grand Canyon National Park Bdy. (Parallel to the Supai Road Survey. in T.32 N., R.2 W.)

ECCOR 2006

Chains

From the 14th. Mile mon. Along the 15th. mile of the G.C.N. Park Bdy. Over rolling stony land, thru heavy timber and brush undergrowth.

N 79°21'W. (15.74 chs.)

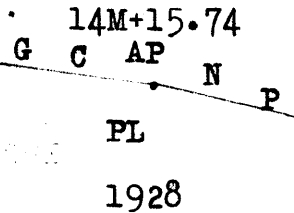
Over SW. slope.

11.02 Ravine course NW.

Ascend approx. 10 ft. over NE. slope.

15.50 Brush fence on top of low hill bears NE. and SW.

15.74 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for Angle Point, 14M+15.74 chs. of Park Bdy. marked on brass cap



from which

A juniper 12 ins. in diam. bears N39½°W. 82 lks. dist., marked G.C.N.P. AP 14M+15.74 BT.

A juniper 6 ins. in diam. bears S54½°W. 39 lks. dist., marked G.C.N.P. AP 14M+15.74

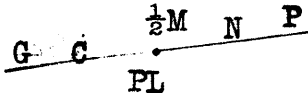
Thence

S 78°02'W. (24.26 chs.)

Descend gradually over NW. slope.

32.80 Ravine course S45°W.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 2 ins. in the ground to bedrock, supported in a mound of stone for ½ Mile monument of Park Bdy., marked on brass cap



1928

from which

A juniper 6 ins. in diam. bears N39½°W. 37 lks. dist., marked G.C.N.P. ½M BT.

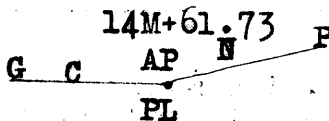
A juniper 12 ins. in diam. bears S49½°W. 61 lks. dist., marked G.C.N.P. ½M.BT.

Thence

S 78°02'W (21.73 chs.)

61.00 Draw course S45°W.

61.73 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for Angle Point, 14M+61.73 chs. of Park Bdy. marked on brass cap



1928

from which

Survey of Part of  
Grand Canyon National Park Bdy.

(Parallel to the Supai Road Survey in T.32N.R.2W.)

## Chains

A juniper 6 ins. in diam. bears  $N18\frac{1}{2}^{\circ}W$ . 82 lks. dist.,  
marked G.C.N.P. AP 14M+61.73 BT.

A pinion 6 ins. in diam. bears  $S5\frac{1}{2}^{\circ}E$ . 51 lks. dist.,  
marked G.C.N.P. AP 14M+61.73 BT.

Thence

$N 82^{\circ}59'W$ . (14.01 chs.)

Over rolling S. slope of mesa.

75.74 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
ground for Angle Point, 14M+75.74 chs. of Park  
Bdy., marked on brass cap

14M+75.74

G C AP N P  
PL

1928

from which

A pinion 8 ins. in diam. bears  $N9^{\circ}E$ . 67 lks. dist.,  
marked G.C.N.P. AP 14M+75.74 BT.

A juniper 18 ins. in diam. bears  $S29\frac{1}{4}^{\circ}W$ . 82 lks. dist.,  
marked G.C.N.P. 14M+75.74 BT.

Thence

$S 89^{\circ}59'W$ . (4.26 chs.)

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 28 ins. in  
the ground for the 15 Mile monument of Park  
bdry. marked on brass cap.

G C 15M N P  
PL

1928

from which

A juniper 20 ins. in diam. bears  $N6\frac{3}{4}^{\circ}E$ . 137 lks. dist.,  
marked G.C.N.P. 15M BT.

A juniper 6 ins. in diam. bears  $S79\frac{1}{4}^{\circ}E$ . 40 lks. dist.,  
marked G.C.N.P. 15M BT.

A juniper 10 ins. in diam. bears  $S40\frac{1}{2}^{\circ}W$ . 42 lks. dist.,  
marked G.C.N.P. 15M BT.

A juniper 8 ins. in diam. bears  $N74\frac{1}{2}^{\circ}W$ . 61 lks. dist.,  
marked G.C.N.P. 15M BT.

Land, rolling mesa

Soil, stony 3 rd. and 4 th. rate.

Timber, cedar, pinion, and juniper.

Undergrowth, juniper, cedar, and sagebrush.

From the 15th. Mile mon.

Along the 16th. mile of the G.C.N. Park Bdy.

Over rolling stony land thru. heavy timber and brush  
undergrowth

$S 89^{\circ}59'W$ . (7.01 chs.)

Ascend 30 ft. over SE. slope.

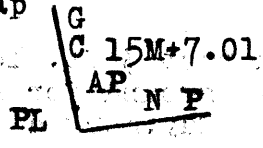
7.01 Set an iron post 3 ft. long, 1 in. in diam. 22 ins. in the

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey in T.32N.,R.2W.)

BOOK 3906

Chains

ground for Angle Point, 15M+7.01 chs. of Park Bdy.  
marked on brass cap



1928

from which

A juniper 8 ins. in diam. bears N53 $\frac{1}{2}$ °E. 34 lks. dist.,  
marked G.C.N.P. AP 15M+7.01 BT.

A juniper 8 ins. in diam. bears S4 $\frac{1}{2}$ °W. 16 lks. dist.,  
marked G.C.N.P. AP 15M+ 7.01 BT.

Note: From this point, Station No. 1202+06 on center line  
of the Supai Road Survey Bears N45°05'E. 39.52  
chs. dist.

Thence

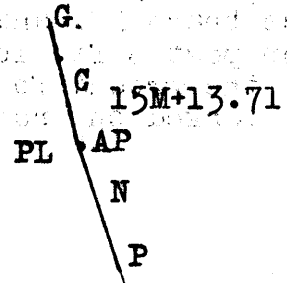
N 22°19'W. (6.70 chs.)

Descend 23 ft. over NW. slope.

Ravine course SW.

12.19  
13.71

Set an iron post 3 ft. long, 1 in. in diam. 22 ins. in the  
ground to bedrock, supported in a mound of  
stone for Angle Point, 15M+13.71 chs. of Park  
Bdy. marked on brass cap



1928

from which

A juniper 14 ins. in diam. bears N6 $\frac{1}{2}$ °W. 34 lks. dist.,  
marked G.C.N.P. AP 15M+13.71 BT.

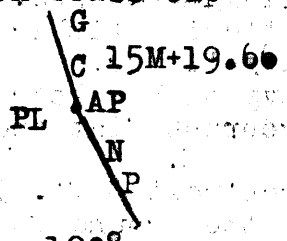
A juniper 12 ins. in diam. bears S40°W. 30 lks. dist.,  
marked G.C.N.P. AP. 15M+13.71 BT.

Thence

N 18°19'W. (5.95 chs.)

19.66

Set an iron post 3 ft. long, 1 in. in diam. 8 ins. in the  
ground to bedrock, supported in a mound of  
stone for Angle Point, 15M+19.66 chs. of Park  
bdy. marked on brass cap



1928

from which

A juniper 6 ins. in diam. bears S40 $\frac{1}{2}$ °E. 33 lks. dist.,  
marked G.C.N.P. AP 15M+19.66 BT.

A pinion 10 ins. in diam. bears S34 $\frac{1}{2}$ °W. 91 lks. dist.,  
marked G.C.N.P. AP 15M+19.66 BT.

Thence

N 3°47'W. (6.40 chs.)

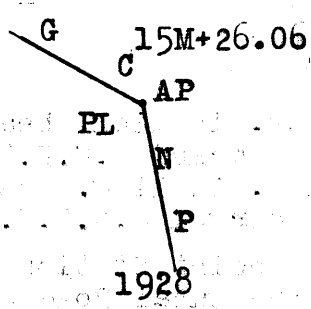
23.70

Ravine course S.

Survey of Part of Grand Canyon National Park Bdy. (Parallel to the Supai Road Survey. in T.32N.,R.2W.)

Chains

26.06 Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in the ground for Angle Point, 15M+26.06 chs. of Park Bdy. marked on brass cap



from which

A pinion 12 ins. in diam. bears N70°E. 12 lks. dist., marked G.C.N.P. AP 15M+26.06 BT.

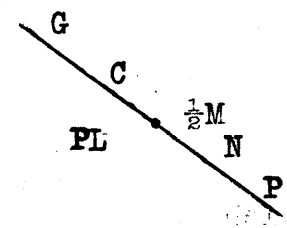
A juniper 12 ins. in diam. bears S7½°E. 34 lks. dist., marked G.C.N.P. AP 15M+26.06 BT.

Thence N 61°10'W. (13.94 chs.)

Over rolling stony mesa thru heavy timber.

36.80 Brush fence bears NE. and SW.

40.00 Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in the ground for ½ Mile monument of Park Bdy. marked on brass cap



1928

from which

A juniper 6 ins. in diam. bears N65½°E. 61 lks. dist., marked G.C.N.P. ½M BT.

A juniper 12 ins. in diam. bears S1½°E. 48 lks. dist., marked G.C.N.P. ½M BT.

Thence N 61°10'W. (26.25 chs.)

Over rolling mesa thru scattering timber.

49.00 Leave scattering timber bears NW. and SE.

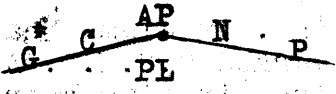
Enter heavy timber.

54.00 Leave heavy timber bears N. and S.

Enter sagebrush flat and scattering timber bears NW. and SE.

68.25 Set an iron post 3 ft. long, 1 in. in diam. 20 ins. in the ground for Angle Point, 15M+68.25 chs. of Park Bdy. marked on brass cap

15M+68.25



1928

from which

A pinion 12 ins. in diam. bears N5½°E. 407 lks. dist., marked G.C.N.P. AP 15M+68.25 BT.

A juniper 8 ins. in diam. bears S2½°E. 140 lks. dist., marked G.C.N.P. AP 15M+68.25 BT



310

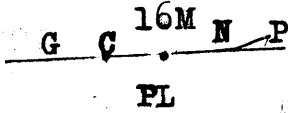
BOOK 3908

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey, in T.32N.,R.2W.)

Chains

80.00

Thence  
S 85°30'W (11.75 chs.)  
Set an iron post 3 ft. long, 3 ins. in diam. 26 ins. in the  
ground for the 16 Mile monument of Park Bdy.  
marked on brass cap



1928

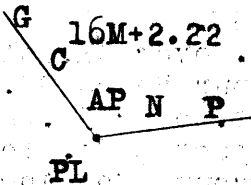
from which

- A juniper 8 ins. in diam. bears N67½°E. 46 lks. dist.,  
marked G.C.N.P. 16M BT.
- A juniper 8 ins. in diam. bears S72½°E. 36 lks. dist.,  
marked G.C.N.P. 16M BT.
- A juniper 8 ins. in diam. bears S88½°W. 82 lks. dist.,  
marked G.C.N.P. 16M BT.
- A juniper 10 ins. in diam. bears S65½°W. 14 lks. dist.,  
marked G.C.N.P. 16M BT.

Land, rolling mesa.  
Soil, sandy and stony 3 rd. and 4 th. rate.  
Timber, cedar, pinion, and juniper.  
Undergrowth, scrub cedar, juniper, and sagebrush.

From the 16th. Mile mon.,  
Along the 17th. mile of the G.C.N. Park Bdy.  
Over rolling land, thru scattering timber and brush  
undergrowth.

2.22 S 85°30'W. (2.22 chs.)  
Set an iron post 3 ft. long, 1 in. in diam. 26 ins. in the  
ground for Angle Point, 16M+2.22 chs. of Park  
Bdy. marked on brass cap



1928

from which

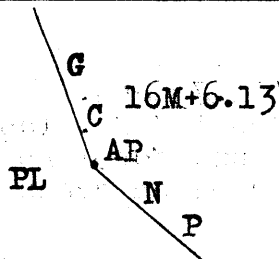
- A juniper 8 ins. in diam. bears S33°E. 111 lks. dist.,  
marked G.C.N.P. AP 16M+2.22 BT.
- A juniper 6 ins. in diam. bears S39½°W. 20 lks. dist.,  
marked G.C.N.P. AP 16M+2.22 BT.

Thence  
N 51°07'W. (3.91 chs.)

- 4.25 Enter valley bears NE. and SW.  
Drain course SW.
- 5.80 Dim road bears NE. and SW.
- 6.13 West side of valley, bears NE. and SW.  
Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
ground for Angle Point, 16M+6.13 chs. of Park  
Bdy. marked on brass cap

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey. in T. 32 N., R. 2 W.)

Chains



1928

from which

A pinion 10 ins. in diam. bears  $N37^{\circ}W$ . 322 lks. dist.,  
marked G.C.N.P. AP 16M+6.13 BT.  
A pinion 8 ins. in diam. bears  $S72^{\circ}W$ . 188 lks. dist.,  
marked G.C.N.P. AP 16M+6.13 BT.

Thence

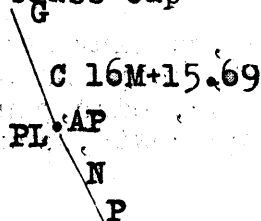
N  $39^{\circ}11'W$ . (9.56 chs.)

Leave valley bears NE. and SW.

Ascend 40 ft. over SE. slope thru scattering timber.

15.69 Top of hill bears NE. and SW.

Set an iron post 3 ft. long, 1 in. in diam. 18 ins. in the  
ground to bedrock, supported in a mound of  
stone for Angle Point, 16M+15.69 chs., of Park  
Bdy. marked on brass cap



1928

from which

A juniper 14 ins. in diam. bears  $N28^{\circ}E$ . 139 lks. dist.,  
marked G.C.N.P. AP 16M+15.69 BT.  
A juniper 14 ins. in diam. bears  $S73^{\circ}W$ . 96 lks. dist.,  
marked G.C.N.P. 16M+15.69 BT.

Thence

N  $37^{\circ}46'W$ . (22.54 chs.)

Descend 40 ft. over NW. slope.

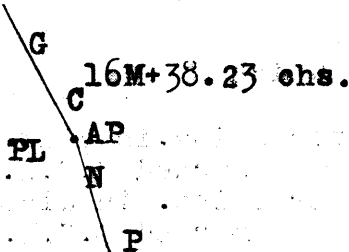
27.00 Draw course SW.

Ascend 40 ft. over SE. slope.

34.00 Top of low spur bears SW.

Descend 20 ft. over NW. slope.

38.23 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
ground for Angle Point, 16M+38.23 chs. of Park  
Bdy. marked on brass cap



1928

from which

A juniper 6 ins. in diam. bears  $N52^{\circ}E$ . 39 lks. dist.,  
marked G.C.N.P. AP 16M+38.23 BT.  
A juniper 6 ins. in diam. bears  $S24^{\circ}W$ . 145 lks. dist.,  
marked G.C.N.P. AP 16M+38.23 BT.

Thence

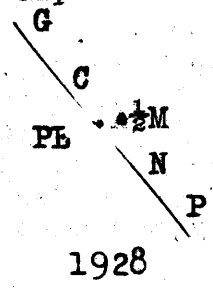
N  $43^{\circ}25'W$ . (1.77 chs.)

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey. in T.32N.,R.2W.)

33 BOOK 3906

Chains

40.00 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for  $\frac{1}{2}$  mile monument of Park Bdy. marked on brass cap



from which

A juniper 18 ins. in diam. bears  $N42\frac{1}{2}^{\circ}E.47$  lks. dist., marked G.C.N.P.  $\frac{1}{2}$  M.BT.

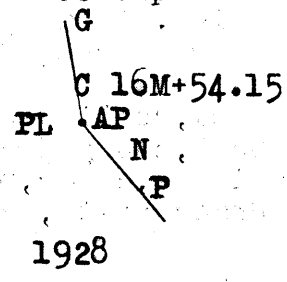
A juniper 16 ins. in diam. bears  $S17^{\circ}E.46$  lks. dist., marked G.C.N.P.  $\frac{1}{2}$  M.BT.

Thence  
 $N43^{\circ}25'W.$  (14.15 chs.)  
Over NW. slope  
Ascend 25 ft.

42.10 Ravine course SW.

52.00 Drain course SW.

54.15 Set an iron post 3 ft. long, 1 in. in diam. 24 ins. in the ground for Angle Point, 16M+54.15 chs. of Park Bdy. marked on brass cap



from which

A pinion 6 ins. in diam. bears  $N1\frac{1}{2}^{\circ}E.28$  lks. dist., marked G.C.N.P. AP 16M+54.15 BT.

A pinion 8 ins. in diam. bears  $S40^{\circ}W.59$  lks. dist., marked G.C.N.P. AP 16M+54.15 BT.

Thence  
 $N6^{\circ}25'W.$  (18.50 chs.)  
Over sagebrush flat thru scattering timber.

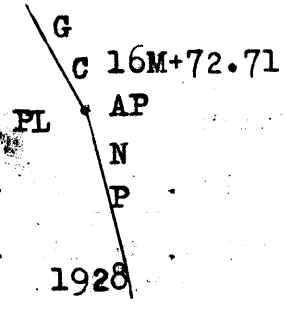
62.00 Leave sagebrush flat and scattering timber bears NE. and SW.

Descend 29 ft. over NW. slope thru heavy timber.

70.00 Ravine course SW.

Ascend 50 ft. over SE. slope.

72.71 Set an iron post 3 ft. long, 1 in. in diam. 8 ins. in the ground to bedrock, supported in a mound of stone for Angle Point, 16M+72.71 chs. of Park Bdy. marked on brass cap



from which

A pinion 8 ins. in diam. bears  $N56\frac{1}{2}^{\circ}E.120$  lks. dist.,

## Survey of Part of

Grand Canyon National Park Bdy.

(Parallel to the Supai Road Survey, in T.32N.,R.2W.)

Chains

marked G.C.N.P. AP 16M+72.71 BT.  
 A pinion 8 ins. in diam. bears S84 $\frac{1}{2}$ °W. 89 lks. dist.;  
 marked G.C.N.P. AP 16M+72.71 BT.

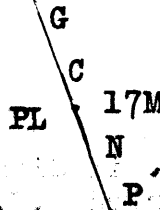
Thence

N 18°23'W. (7.29 chs.)

79.00 Top of low spur bears SW.

Descend gradually over rolling land.

80.00 Set an iron post 3 ft. long, 3 ins. in diam. 14 ins. in the ground to bedrock, supported in a mound of stone for the 17 Mile monument of Park Bdy, marked on brass cap



1928

from which

A juniper 8 ins. in diam. bears N84°E. 47 lks. dist.,  
 marked G.C.N.P. 17M BT.

A juniper 8 ins. in diam. bears N31 $\frac{1}{2}$ °E. 86 lks. dist.,  
 marked G.C.N.P. 17M BT.

A juniper 6 ins. in diam. bears S55 $\frac{1}{2}$ °W. 33 lks. dist.,  
 marked G.C.N.P. 17M BT.

A juniper 8 ins. in diam. bears N42 $\frac{1}{2}$ °W. 39 lks. dist.,  
 marked G.C.N.P. 17M BT.

Land, rolling mesa.

Soil, stony 3 rd. and 4 th. rate.

Timber, cedar, pinion, and juniper.

Undergrowth, scrub cedar, juniper, and sagebrush.

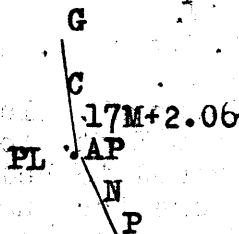
From the 17th. Mile mon.

Along the 18th. mile of the G.C.N. Park Bdy.

Over rolling mesa land, thru heavy timber and undergrowth

N 18°23'W (2.06 chs.)

2.06 Set an iron post 3 ft. long 1 in. in diam. 28 ins. in the ground for Angle Point, 17M+2.06 chs. of Park Bdy. marked on brass cap



1928

from which

A juniper 18 ins. in diam. bears N57 $\frac{1}{2}$ °E. 21 lks. dist.,  
 marked G.C.N.P. AP 17M+2.06 BT.

A juniper 10 ins. in diam. bears S55°W. 101 lks. dist.,  
 marked G.C.N.P. AP 17M+2.06 BT.

Thence

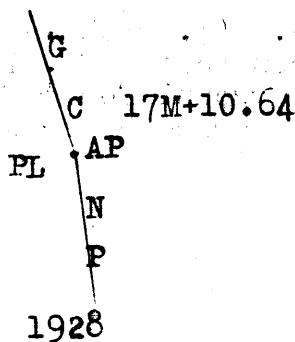
N 3°52'W. (8.58 chs.)

Over NW. slope thru heavy timber

10.64 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for Angle Point, 17M+10.64 chs on Park Bdy. marked on brass cap

Survey of Part of  
Grand Canyon National Park Bdy.  
(Parallel to the Supai Road Survey. in T.32 N., R.2 W.)

Chains



from which

A pinion 10 ins. in diam. bears  $N41\frac{1}{2}^{\circ}E$ . 48 lks. dist.,  
marked G.C.N.P. AP 17M+10.64 BT.

A pinion 10 ins. in diam. bears  $S36^{\circ}W$ . 91 lks. dist.,  
marked G.C.N.P. AP 17M+10.64 BT.

Thence

$N 14^{\circ}09'W$ . (18.72 chs.)

Ascend 50 ft. over SE. slope thru heavy timber.

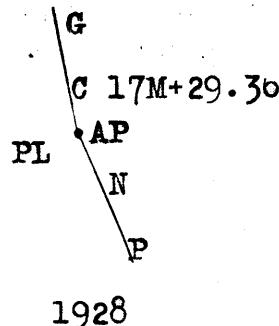
25.00

Top of spur bears SW.

Descend 45 ft.

29.30

Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
ground for Angle Point, 17M+29.30 chs. of Park  
Bdy. marked on brass cap



from which

A juniper 10 ins. in diam. bears  $N84\frac{1}{2}^{\circ}E$ . 39 lks. dist.,  
marked G.C.N.P. AP 17M+29.30 BT.

A juniper 10 ins. in diam. bears  $S62\frac{1}{2}^{\circ}W$ . 94 lks. dist.,  
marked G.C.N.P. AP 17M+29.30 BT.

Thence

$N 9^{\circ}39'W$ . (7.55 chs.)

29.90

Ravine course SW.

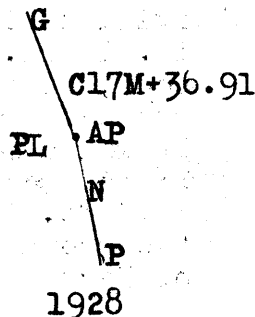
35.00

Ravine course SW.

Ascend gradually over SE. slope.

30.91

Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the  
ground for Angle Point, 17M+30.91 chs. of  
Park Bdy. marked on brass cap



from which

A juniper 8 ins. in diam. bears  $N56^{\circ}E$ . 44 lks. dist.,  
marked G.C.N.P. AP 17M+36.91 BT.

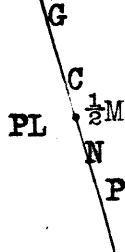
A juniper 8 ins. in diam. bears  $S57^{\circ}W$ . 38 lks. dist.,  
marked G.C.N.P. AP 17M+36.91 BT.

Thence

Survey of Part of  
 Grand Canyon National Park Bdy.  
 (Parallel to the Supai Road Survey. in T.32N.,R.2W.)

Chains

40.00 N 15°07'W. (3.09 chs.)  
 Set an iron post 3 ft. long, 1 in. in diam. 28 ins. in the ground for  $\frac{1}{2}$  Mile monument of the Park Bdy. marked on brass cap



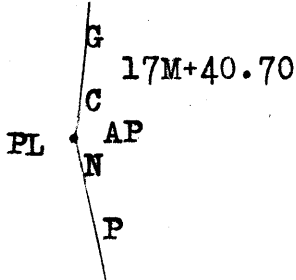
1928

from which

- A juniper 8 ins. in diam. bears S70°E. 41 lks. dist., marked G.C.N.P.  $\frac{1}{2}$  M. BT.
- A pinion 18 ins. in diam. bears S33°W. 41 lks. dist., marked G.C.N.P.  $\frac{1}{2}$  M. BT.

Thence  
 N 15°07'W. (0.70 chs.)  
 Over rolling land.

40.70 Set an iron post 3 ft. long 1 in. in diam. 18 ins. in the ground to bedrock, supported in a mound of stone for Angle Point, 17M+40.70 chs. of Park Bdy. marked on brass cap



1928

from which

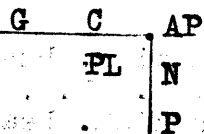
- A juniper 10 ins. in diam. bears N53°E. 42 lks. dist., marked G.C.N.P. AP 17M+40.70 BT.
- A juniper 10 ins. in diam. bears S74 $\frac{1}{2}$ °W. 22 lks. dist., marked G.C.N.P. AP 17M+40.70 BT.

Note; From this point Station No. 1327+83.4 on center line of the Supai Road Survey bears N45°E. 39.70 chs. dist.

Thence  
 N 1°27'E. (1.94 chs.)

42.64 Intersect Subdivision line bet. secs. 10 and 15, T32N., R2W 10.91 chs. E. of the  $\frac{1}{4}$  sec. cor. of said secs, which is an iron post 1 in. in diam. projecting 14 ins. above ground, marked on brass cap and witnessed as described in Book "F" of this group. At point of intersection, Set an iron post 3 ft. long, 2 ins. in diam. 28 ins. in the ground for Angle Point, 17M+42.64 chs. of Park Bdy. marked on brass cap

17M+42.64



1928

from which

Survey of Part of

Grand Canyon National Park Bdy.

BOOK 5906

(Paralleled to the Supai Road Survey in T.32N.,R.2W.)

Chains

A juniper 16 ins. in diam. bears N70 $\frac{1}{2}$ °E.17 lks. dist.,  
 marked G.C.N.P. AP 17M+42.64 BT.  
 A pinion 8 ins. in diam. bears S81 $\frac{3}{4}$ °W.17 lks. dist.,  
 marked G.C.N.P. AP 17M+42.64 BT.

From this Angle Point the Park Bdy. extends West thru  
 T.32N.,R.2W. and T.32N.,R.3W., identical  
 with the fourth latitudinal subdivision  
 line of said townships, surveyed under  
 this group as described in Books "F"  
 and "G".

Land, rolling.

Soil, stony 3rd and 4th rate.

Timber, cedar, pinion, and juniper.

Undergrowth, sagebrush, scrub cedar, and pinion.

Retracement of Part of the Supai Road Survey (1925)  
 in T.31 N., R.1 E., T.31 N., R.1 W. & T.32 N., R.1 W.

chains

The Supai Road, in Ts.31 N., Rs.1 and 2 E., and 1 W., Ts.32 N., Rs.1 and 2 W., and Ts.33 N., Rs.2 and 3 W., extends from Grand Canyon, Ariz., at the northern terminus of the Grand Canyon railroad, in a northwesterly direction, following in general the south or left rim of the Grand Canyon of the Colorado River, to the Indian village of Supai, on the Havasupai Indian Reservation in the Havasu or Cataract Canyon.

The center line of this road was mapped, surveyed and staked in 1925 by engineers of the U.S. Bureau of Public Roads, but said road is not constructed at this time.

According to Act of Congress approved February 25, 1927 this road survey controls the location and bearings of the portion of the Grand Canyon National Park boundary surveyed as described in the foregoing notes.

The following notes describe a retracement of the center line of said road survey from station 739+55.7 thereof in the northwest corner of sec.6, T.31 N., R.1 E. to station 920+53.2 in sec.27, T.32 N., R.1 W. unsurveyed; said retracement being required to properly execute the survey of the 8th, 9th, and parts of the 7th and 10th miles of the Park boundary.

-----  
 Station 739+55.7 on center line of the Supai Road Survey is a pine stake, 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside, marked with crayon 739+55.7

Thence

N. 64° 39' W., (record bearing) on random line, on road survey tangent.  
 51.09 (3371.94 ft.) Fall 19 lks. S. 25° 21' W. of station 773+26.6 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked PI 773+26.6

True course and dist. of tangent bet. stations Nos. 739+55.7 and 773+26.6 on road survey are therefore, N. 64° 26' W., 51.09 chs.

Thence

S. 62° 41' W., on random line, on road survey tangent, for distance only, flag on objective station being visible.  
 5.33 (351.78 ft.) Intersect station 776+49.1 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside, marked with crayon PI 776+49.1

True course and dist. of tangent bet. stations Nos. 773+26.6 and 776+49.1 on road survey are therefore, S. 62° 41' W., 5.33 chs.

Thence

N. 51° 31' W., (record bearing) on random line, on road survey tangent.  
 67.69 (4467.54 ft.) Fall 43 lks. S. 38° 29' W. of station 820+86.3 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 820+86.3

True course and dist. of tangent bet. stations Nos. 776+49.1 and 820+86.3 are therefore, N. 51° 09' W., 67.69 chs.

Note: From station 820+86.3 of road survey, U.S.G.S. Bench Mark 6519 on S. rim of Grand Canyon, bears N. 22° 41' W., 10.26 chs. dist.

From station 820+86.3 of road survey, S. 67° 38' W., on random line, on road survey tangent, for distance only, flag on objective station being visible.



Retracement of Part of the Supai Road Survey (1925)  
in T. 32 N., R: 1 W. unsurv.

BOOK 3006

chains 4.02	<p>(265.32 ft.) Intersect station 823+18.5 back and 850+00 ahead, at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside, marked with crayon PI 823+18.5 back 850+00 ahead</p> <p>True course and dist. of tangent bet. stations Nos. 820+86.3 and 823+18.5 on road survey are therefore S.67°38'W., 4.02 chs.</p> <p>Thence S.67°35'W., (record bearing) on random line, on road survey tangent.</p>
9.43	<p>(622.38 ft.) Intersect station 856+22.5 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside, marked with crayon PI 856+22.5</p> <p>True course and dist. of tangent bet. stations Nos. 850+00 and 856+22.5 on road survey are therefore, S.67°35'W., 9.43 chs.</p> <p>Thence S.78°30'W., (record bearing) on random line, on road survey tangent.</p>
12.13	<p>(800.58 ft.) Intersect station 864+22.5 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 864+22.5</p> <p>True course and dist. of tangent bet. stations Nos. 856+22.5 and 864+22.5 are therefore, S.78°30'W., 12.13 chs.</p> <p>Thence S.64°34'W., (record bearing) on random line, on road survey tangent.</p>
13.22	<p>(872.52 ft.) Intersect station 872+93.3 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon 872+93.3</p> <p>True course and dist. of tangent bet. stations Nos. 864+22.5 and 872+93.3 of road survey are therefore, S.64°34'W., 13.22 chs.</p> <p>Thence N.45°10'W., (record bearing) on random line, on road survey tangent.</p>
29.18	<p>(1925.88 ft.) Intersect station 891+18.0 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 891+18.0</p> <p>True course and dist. of tangent bet. stations Nos. 872+93.3 and 891+18.0 are therefore, N.45°10'W., 29.18 chs.</p> <p>Thence N.82°30'W., on random line, on road survey tangent, as marked and staked on the ground.</p>
6.36	<p>(419.76 ft.) Intersect station 895+23.5 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 895+23.5</p> <p>True course and dist. of tangent bet. stations Nos. 891+18.0 and 895+23.5 of road survey are therefore, N.82°30'W., 6.36 chs.</p>

Retracement of Part of the Supai Road Survey (1925)  
in T.32 N., R.1 W. unsurv.

chains	<p>Thence S.89°59'W., on random line, on road survey tangent, as marked and staked on the ground.</p> <p>13.46 (888.36 ft.) Intersect station 904+09.1 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 904+09.1</p> <p>True course and dist. of tangent bet. stations Nos. 895+23.5 and 904+09.1 of road survey are therefore S.89°59'W., 13.46 chs.</p>
9.98	<p>Thence N.32°54'W., (record bearing) on random line, on road survey tangent.</p> <p>(658.68 ft.) Intersect station 910+14.6 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 910+14.6</p> <p>True course and dist. of tangent bet. stations Nos. 904+09.1 and 910+14.6 of road survey are therefore N.32°54'W., 9.98 chs.</p> <p>Deflect 161°34' from the tangent bet. stations Nos. 904+09.1 and 910+14.6 in the direction S.-E.-N.-W.</p>
15.78	<p>Thence N.14°28'W., (record bearing) on random line, on road survey tangent.</p> <p>(1041.48 ft.) Intersect station 920+53.2 at point of intersection of road survey tangents, which is a pine stake 2 ins. sq., driven firmly in the ground and tack centered, with reference stake driven alongside marked with crayon PI 920+53.2</p> <p>True course and dist. of tangent bet. stations Nos. 910+14.6 and 920+53.2 of road survey are therefore N.14°28'W., 15.78 chs.</p>

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GENERAL DESCRIPTION.

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That portion of the boundary of the Grand Canyon National Park which parallels the Supai road survey crosses a rolling mesa country, traversed by low hills and shallow draws and ravines, which head along the south or left rim of the Grand Canyon of the Colorado River, and trend in a southwesterly direction toward the Havasu or Cataract Canyon, a side canyon of the Colorado, into which the drainage of the land on either side of the Park bdy. discharges.

The land to the northeast of the Park bdy. becomes more level as the rim of the canyon is approached, while to the southwest it is the reverse, the draws and ravines becoming deeper and the land more broken.

The land on either side of the Park bdy. throughout its entire length, though heavily timbered with cedar, pinon and juniper, is poorly watered.

The soil is a stony clay loam, varying in depth from a few inches to a foot or more, and can all be classed as 3rd and 4th rate.

There are no settlers residing near the line on either side thereof.

The Forest Service Pasture Wash Ranger Station in sec. 28, T.32 N., R.1 W., unsurveyed, is the only occupied building near the line in the Park.

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Final Field Test of Instruments

Buff Transit No. 9940

November 11, 1928, at the Pasture Wash Ranger Station, near N. bdy. of sec. 28, T. 32 N., R. 1 W., unsurveyed, latitude 36° 8' N., and longitude 112° 23 1/2' W., set up the instrument on the meridian determined by Polaris observation at this point October 16, 1928, as described in Book "J", and proceed to test the solar apparatus as follows:

At 8h. 0m. a.m. app. time, set off 36° 8' N. on the lat. arc, 17° 25 1/2' S. on the decl. arc, and determine a meridian with the solar, which falls 3/4' W. of the true meridian.

At app. noon, with the lat. arc unchanged, observe the sun on the meridian and obtain a reading of 17° 30' S. on the decl. arc, which agrees closely with the computed declination of the sun.

At 3h. 30m. p.m. app. time, with the lat. arc unchanged, set off 17° 31 1/2' S. on the decl. arc and determine a meridian with the solar, which agrees with the true meridian.

As all of the observations made during the usual hours of solar work define positions for meridians which come within 1 1/2' of the true meridian, conclude that the instrument has remained in satisfactory adjustment throughout the surveys on which it was used under instructions of Group 145, Ariz.

A. Lietz Transit No. 6166

November 11, 1928, at the same station, and on the same meridian as described above, test the solar apparatus of A. Lietz Transit No. 6166 as follows:

At 8h. 30m. a.m., app. time, set off 36° 8' N. on the lat. arc, 17° 26 1/2' S. on the decl. arc, and determine a meridian with the solar, which falls 1 1/2' W. of the true meridian.

At 4h. 0m. p.m., app. time, with the lat. arc unchanged, set off 17° 31' S. on the decl. arc, and determine a meridian with the solar, which falls 1' E. of the true meridian.

As all of the observations made during the usual hours of solar work define positions for meridians which come within 1 1/2' of the true meridian, conclude that the instrument has remained in satisfactory adjustment throughout the surveys on which it was used under instructions of Group 145, Arizona.



BOOK 3906

## CERTIFICATE OF UNITED STATES SURVEYOR.

I, Sidney E. Blout U.S. Cadastral Engineer, hereby certify upon honor that, in pursuance of special instructions received from the District Cadastral Engineer, for Group 145, Arizona bearing date of the 31st day of January, 1928, I have well, faithfully, and truly in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, ~~retraced~~ all those parts or portions of the Supai Road Survey (1925) in Ts. 31 N., Rs. 1 E. & 1 W., and T. 32 N., R. 1 W. and surveyed all those parts or portions of the Grand Canyon National Park Boundary paralleling the Supai Road Survey in T. 31 N., R. 1 E., T. 31 N., R. 1 W., T. 32 N., R. 1 W., and T. 32 N., R. 2 W. of the Gila and Salt River Base and Meridian, in the State of Arizona, which are represented in the foregoing field notes <sup>and by diagram on page 1 hereof</sup> as having been executed by me, and under my direction; and that all the corners of said ~~retracement~~ <sup>and survey</sup> have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the District Cadastral Engineer, for Group 145, Arizona and in the specific manner described in the field notes, and that the foregoing are the original field notes of such ~~retracement~~ <sup>and survey</sup>.

Place: Phoenix, Arizona.

Date: April 3, 1929.

*Sidney E. Blout*  
U. S. Cadastral Engineer.

## APPROVAL.

OFFICE OF U. S. SUPERVISOR OF SURVEYS,

Denver, Colo., April 20, 1929.

The foregoing field notes of the ~~retracement~~ of the Supai Road Survey (1925) from Station 739+55.7 to Station 920+53.2, in Sec. 6, T. 31 N., R. 1 E., Sec. 1, T. 31 N., R. 1 W., and Secs. 36, 35, 34 and 27, T. 32 N., R. 1 W. and of the survey of that Portion of the Grand Canyon National Park Boundary which is parallel to, and 40 chs. S. 45° W. from the Supai Road Survey (1925) in Ts. 31 N., Rs. 1 E. & 1 W., and Ts. 32 N., Rs. 1 & 2 W. of the Gila and Salt River Base and Meridian, State of Arizona. executed by Sidney E. Blout, U. S. Cadastral Engineer under his special instructions dated January 31, 1928, for Group 145, Ariz., having been critically examined, and the necessary corrections and explanations made, the said field notes, and the ~~retracement~~ <sup>and survey</sup> they describe, are hereby approved.

*Maud A. Johnson*  
U. S. Supervisor of Surveys.

I certify that the foregoing transcript of the field notes of the above described surveys in

has been correctly copied from the original notes on file in this office.

U. S. Supervisor of Surveys.