

1549

1549

4-671

FIELD NOTES
GENERAL LAND OFFICE.

11/23

Unworked S.K.

Dec. 1901-

Of the recovery of the
Fourth Standard Parallel South
- Through -
Ranges Nos. 19, 20 and 21 East
- of the
Gila and Salt River Basins and Meridian
- in the
Territory of Arizona,

As surveyed by
Philip Cortzen,
U. S. Deputy Surveyor,

Under his contract No. 87,
Dated August 24, 1901.

Survey commenced October 26, 1901.
Survey completed October 28, 1901.

Index.

S. 20 S., R. 21 E.

31	32	33	34	35	36
16	14	12	10		7

4th Standard Parallel S.

S. 20 S., R. 20 E.

31	32	33	34	35	36
32	29	27	24	22	20

4th Standard Parallel S.

S. 20 S., R. 19 E.

31	32	33	34	35	36
					38

4th Standard Parallel S.

Note:

From private surveys recently made by myself and other surveyors, along the Fourth Standard Parallel South, through Rs 19, 20 and 21 E, I found the same is out of limits in alignment and measurements, therefore I find it necessary for the proper prosecution of my surveys under contract No. 87, dated August 24, 1901, to resurvey said standard through Rs 20 and 21, E, and part of R. 19

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Index

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4 th Standard South:				
Through R. 21 East				7
"	"	20	"	20
"	"	19	"	38

Recovery of the Smith Standard Parallel South,
Chains

Survey commenced October 26, 1901,
and executed with a W. & L. G. Tinsley
light mountain transit No. 4607,
with Burt's solar attachment.

The instrument was examined and
tested on the true meridian at Tucson
and found correct, and was approved
by the surveyor general for Arizona.

I begin at the standard cor. of Sp. 20
and 21 S., Rs 21 and 22 E., which
is a stone, marked and witnessed, as
described by the surveyor general.

In order to test the solar apparatus
by comparing the results of observations
on the sun made during a meridian
run hours, with a true meridian
determined by observations on Polaris,
I proceed as follows: At 3.³⁰ p m,
local mean time, I set off 31° 38'

through Range 21 East.
Chains

on the lat are, $12^{\circ} 28'$ on the decl
are, and mark the meridian thus
determined with the solar by a
cross on a stone, firmly set in the
ground, 5 chs N of the instrument.

At $4^{h} 55^{m}$ a m, local mean time,
I observe Polaris at ~~western~~ ^{eastern} elonga-
tion, in accordance with instructions
in the manual, and mark the
line thus determined by a tack
down in a wooden plug set in the
ground, 5 chs N of my position.

October 27, 1901.

October 27, 1901. At $7^{h} 50^{m}$ a m, I
lay off the azimuth of Polaris $10^{\circ} 26'$
to the east and mark the true
meridian thus determined by cutting
a small groove in the stone set last

Recovery of the Fourth Standard Parallel South
 Chelms

running, on which the true meridian falls 0.5' ins east of the mark determined by the solar

At 9^h 30^m a.m. I set off 31° 38' on the lat. arc, 12° 41' on the decl. arc, and mark the meridian determined with the solar by a cross on the stand already set, 5 chs N of my station. This mark falls 0.9' ins east of the true meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for the true meridian with sufficient accuracy, therefore I conclude that the adjustments of the instrument are satisfactory. The mag. bearing of the true meridian at 9^h 30^m a.m. is N 13° 37' W the angle thus

Through Range 21 East-Continued.

Chains

determined, reduced by the table,
page 100, gives the mean mag.
drel. $12^{\circ} 34'$ east

From the standard ev above described,
Brunn

West, on S. bay. sec. 36.

Over level and rolling land

Through dense undergrowth.

3.00 Dry wash, 30 lbs. wide, course S.
Westerly.

23.50 Dry wash, 50 lbs. wide, course S.
Westerly.

39.40 Road to Tombstone, bears N. Easterly
and S. Westerly.

Difference between measurements of 4000
chs., by two sets of chains, is 20 chs.,
position of middle point

By 1st set, 4010 chs.

By 2nd set, 3990 chs.; the mean of which is

Resurvey of the Smith Standard Parallel Survey
Chains

40.00 Set a granite stone, 18x10x6 ins., 12 ins.
in the ground, for standard $\frac{1}{4}$ sec. cor.,
marked S.C. $\frac{1}{4}$ 36 on N. face, and raise
a mound of stone, 2 ft. base, $1\frac{1}{2}$ ft. high,
N. of cor. to be impracticable.

44.67

45.00

Road bears Northwily and Southwily.
Difference between measurements of 65.15
chs., by two sets of chainmen, is 10 chs.;
position of middle point,
By 1st set, 65.20 chs.

By 2nd set, 65.10 chs.; the mean of which is

65.15 Intersect E. bdy. of the San Juan de
las Bequillas y Nogales Private Land
Grant, at a point from which the 27
mile corner monument of grant bears
N. $10^{\circ}02'$ N., 15.55 chs. dist.

Set a granite stone, 18x12x8 ins., 12 ins.
in the ground, for standard closing cor.
of frach. sec. 36, marked C.C. on E,

Through Range 21 E-Continued.

Chains

S. C. 36 on N., and S. J. ^{DLB} & N. on W.
 pins; and raise a mound of stones,
 2 ft. base, 1 1/2 ft. high, E. of ea. Pits
 impracticable.

Ground, level and rolling.

Soil, gravelly and rocky; old and
 4th rate.

No timber; undergrowth; *Trisetum* and
 mesquite.

Dense undergrowth, 65.15 chs.

Plumer across the grant on a blank
 line.

Difference between measurements of
 155.00 chs., by two sets of chainmen, is
~~20~~ ²⁰ chs.; position of middle point

By 1st set, 155.¹⁰20 chs.

By 2nd set, 154.90 chs.; that mean of
 which is

155.00

Intersect N. bdy. of the Sun Grant

Resurvey of the Smith Standard Parallel South
Chains

de las Biguillas y Negales Private
Land Grant, at a point from which
the 22 $\frac{1}{2}$ mile corner monument of
grant bears S $0^{\circ} 02' E$, 71 lks. dist.

Set a redwood post, 3 ft. long, 4 ins.
sq., with marked stone, 24 ins. in the
ground, for standard closing cor. of
parcel, sec. 34, marked C. C. on the
S. C. S 34 on N, and S. J. D. L. B. & N on E.
faers; dig pits, 24 x 18 x 12 ins, cross-
wise on each line, N. W. and S. E., 3 ft.
and W of post, 7 ft. dist., and raise a
mound of earth 4 ft. base, 2 ft. high,
W of cor.

Plumce Point

N, on S. bdy. sec. 34.

Over level and rolling land.

Through scattering mesquite.

Difference between measurements of

Through Range 21 East - Continued.

Chains

19.85 chs., by two sets of chains, is
2 chs., position of middle point

By 1st set, 19.84 chs.

By 2nd set, 19.86 chs.; the mean of which is

19.85 At this point set a rounded post, 3
ft. long, 4 ins. sq., with marked stones,
24 ins. in the ground, for standard
cor. of secs. 33 and 34, marked

S. E. of P. 20 S., R. 21 E. on N.,

S. 34 on E., and

S 33 on W. faces; with 3 grooves on E.

and W. ^{edges} faces; dig pits 24 x 18 x 12 ins,
crosswise on each line, E. and W., 3 ft.,
and N. of post, 7 ft. dist.; and raise

a mound of earth, 4 ft. base, 2 ft. high,
N. of cor.

Land, level and rolling.

Soil, gravelly; and and 3rd rate.

No timber; undergrowth, scattering

Resurvey of the Smith Standard Parallel Survey

Charles

resurveyed.

N. on S. lay sec 33.

Over level land.

10.00 Entered dense undergrowth bears N. westerly and S. Westerly.

Difference between measurements of 4000 chs. by two sets of chainmen, is 8 chs.; position of middle point

By 1st set 3996 chs.

By 2nd set 4004 chs.; the mean of which is

4000 Set a redwood post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for standard $\frac{1}{4}$ sec. cor., marked S. & $\frac{1}{4}$ S 33 on N. face; dig pits 18 x 18 x 12 ins., E. and W. of post, 3 ft. dist., and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N.

Through Range 21 East. - Continued.

Chains

of cor.

Difference between measurements of
8000 chs., by two sets of chainmen, is
10 chs.; position of middle point

By 1st set, 79.95 chs.

By 2nd set, 80.05 chs., the mean of which is

8000 Set a rounded post, 3 ft. long, 4 ins. sq.,
with marked stone, 24 ins. in the
ground, for standard cor. of sres. 32
and 33, marked

S. C. 3, 20 S, R. 21, E. 7,

S 33 on E. and

S 32 on N. faces; with 2 grooves on E.

and 2 grooves on N. faces; dig pits

24 x 18 x 12 ins., E. and N., 3 ft., and N.

of post, 7 ft. dist. and raise a

mound of earth, 4 ft. base, 2 ft.

high, N. of cor.

Land, level and gently rolling.

Resurvey of the Smith Standard Parallel South,

Chain

Soil, gravelly; 2nd rate.

No timber; undergrowth, sage, grass-
mound and mesquite.

Dense undergrowth, 70.00 chs.

Wet, on S. bdy. sec. 32.

Overrolling land.

Through dense undergrowth.

20.90 Old road, bears N. Westward and S.
easterly.

Difference between measurements of
40.00 chs, by two sets of chainmen, is
4 chs; position of middle point.

By 1st set, 39.98 chs.

By 2nd set, 40.02 chs.; the mean of
which is

40.00 Set a redwood post, 3 ft. long, 4 ins.
sq., with marked stone, 24 ins. in
the ground, for standard $\frac{1}{4}$ sec. cor,

Strong Range 21 East. - Continued.

Chains

marked S. C. $\frac{1}{4}$ S 32, on N. face;
dig pits 18x18x12 ins., E. and W. of
post, 3 ft. dist., and raise a mound
of earth, $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, N.
of ev.

Difference between measurements of
8,000 chs., by two sets of chains, is
12 chs., position of middle point.

By 1st set, 8,006 chs.

By 2nd set, 7994 chs.; the mean of
which is

8,000 Set a redwood post, 3 ft. long, 4 ins.
sq., with marked stone, 24 ins. in the
ground, for standard ev. of sics.
31 and 32, marked

S. C., S. 20 S., R. 21 on N.

S. 32 on E., and

S. 31 on W. face; with 4 grooves on E.
and 2 grooves on W. face; from which a

Resurvey of the Smith Standard Parallel Smith
Chains.

mesquite, 5 ins. diam, bears N., $23^{\circ} 40' E.$,
92 lbs. dist, marked S. 20 S., R. 21 E.,
S. 32, B. 7.

A mesquite, 6 ins. diam, bears N., $30^{\circ} 40'$,
marked S. 20 S., R. 21 E., S. 31, B. 7.

Land, rolling.

Soil, gravelly; bad rate.

No timber; undergrowth, sage, grass-
weed and mesquite.

hence undergrowth, 8000 chs.

West on S. bdy. sec. 31.

Over rolling land.

Through arse undergrowth.

3.00 Center of draw, 2 chs. wide, course N.
Easterly.

Difference between measurements
of 4000 chs., by two sets of chains,
is 12 lbs.; position of middle point

Through Range 21 East - continued.

Chains

By 1st set, 89.94 chs.

By 2nd set, 40.06 chs.; the mean of which is

40.00 Set a redwood post, 3 ft. long, 4 ins. sq., with marked stone, 24 ins. in the ground, for standard $\frac{1}{4}$ sec. cor., marked S.C. $\frac{1}{4}$ S. 31 on N. face; dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth, $3\frac{1}{2}$ ft. base, 2 ft. high, N. of cor.

Difference between measurements of 80.00 chs., by two sets of chainsman, is 12 chs.; position of middle point

By 1st set, 79.94 chs.

By 2nd set, 80.06 chs.; the mean of which is

80.00 Set a sandstone, 18 x 10 x 6 ins., 12 ins. in the ground, for standard cor. of Sp. 20 S., Rs. 20 and 21 E., marked

Resurvey of the Smith Standard Parallel Survey
Chains

S. C. on N., with 6 grooves on N., E.,
and W. faces; dig pits 30 x 24 x 12
ins., crosswise on each line, E. and
W., 4 ft., and N. of stone, 8 ft. dist.,
and raise a mound of earth, 5 ft.
base, 2 1/2 ft. high, N. of cor.

Land, rolling.

Soil, gravelly, and water.

No timber; undergrowth, sage,
grass and mesquite.

Dense undergrowth 8000 chs.

October 27, 1901.

General Description.

200

This line runs over level, rolling
and mountainous land. Part
of this line runs through the
San Juan de los Riquillas of

Through Kungi 21 East - Concluded.

Chains

Nogales fertile land grant. Sp. 20
 S, N 21 E is level and rolling,
 and covered with scrubgrowth.
 A great portion of this Sp is
 covered by the San Juan de
 las Biquillas y Nogales grant.

Philip Cochran

U.S. Deputy Surveyor

Resurvey of the Smith Standard Parallel Survey

Chains

October 28, 1901. At 7^h 40^m a.m.
 l.m.t., I set off $31^{\circ}38'$ on the lat.
 arc; 13° on the decl. arc, and
 determine a true meridian with
 the solar, at the standard error of
 1/2 sec of 1/2 second, as heretofore described,
 Thence South,

West, on S. half sec. 36.

Over rolling land.

Through dense undergrowth.

17.00 Center of draw, 3 chs wide, corner
 N. Easterly.

52.42 Road, bears N. Easterly and S.
 Westerly.

Difference between measurement
 of 40.00 chs., by two sets of chain
 is 2 chs., position of middle point

By 1st set, 40.01 chs.

By 2nd set, 39.99 chs., the mean of

Through Runge 20 East.

Chains

which is

4000. Set a redwood post, 3 ft. long, 4 ins. sq., with marked stones, 24 ins. in the ground, for standard $\frac{1}{4}$ sec. cor., ^{marked} S. C., $\frac{1}{4}$ S 36 on N. face, dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth, 3 $\frac{1}{2}$ ft. base, $\frac{1}{2}$ ft. high, N. of cor.

4600. Wash, 40 lbs wide, course N. easterly. Difference between measurements of 8000 chs., by two sets of chainmen, is 6 lbs., position of middle point
By 1st set, 8003 chs.

By 2nd set, 7997 chs., the mean of which is

8000. Set a redwood post, 3 ft long, 4 ins. sq., with marked stones, 24 ins. in the ground, for standard cor. of secs 35 and 36, marked
S. C., Sec 35, Sec 36, on N.

Resurvey of the Fourth Standard Parallel Section
Chains

S 36 on E. and

S 35 on W. faces, with 1 groove on E.
and 5 grooves on W. ^{Edges} ~~faces~~; big pits
24 x 18 x 12 ins, cross wise on each line,
E. and W.; 3 ft. and N. of last, 5 ft.
dist, and raise or mound of earth
4 ft. base 2 ft. high, N. of cor.

Land level and rolling.

Soil, gravelly; Bad and Bad rats.

No timber; undergrowth, sage, broom
and mosquito.

Dense undergrowth, 8000 lbs.

Wrote on S. bdy. sec. 36.

Over level and rolling land.

Through dense undergrowth.

Difference between measurements of
4000 lbs. by two sets of chains, is 4
lbs. position of middle point

through Range 20 E - continuing.
Chains

By 1st set, 4002 chs.

By 2nd set, 3998 chs, the mean of which is

4000 Set a redwood post, 3 ft long, 4 ins. sq., with marked stone, 24 ins. in the ground, for standard $\frac{1}{4}$ sec. cor. marked S. $\frac{1}{4}$ S. 35 on N. face, dig pits 18 x 18 x 12 ins. E and W of post, 3 ft. dist., and raise a mound of earth 5 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, N. of cor.

47.20 Old road, bears N. Westwardly and S. Easterly.

Difference between measurements of 8000 chs. by two sets of chainmen is 14 chs, position of middle point

By 1st set, 7993 chs.

By 2nd set, 8007 chs, the mean of which is

8000 Set a redwood post, 3 ft long, 4 ins. sq.

Resurvey of the Fourth Standard Parallel Survey
Chains

with marked stones, 24 ins. in the
ground, for standard cor. of secs 34
and 35 marked

S. C. Sec S. R. 20 E. on N.

S 35 on E, and

S 34 on W. faces, with 2 grooves on
E and 4 grooves on W. faces, dig
pits 24x18x12 ins. crosswise on each
line, E. and W. 3 ft, and N. of post, 7
ft dist, and raise a mound of earth
4 ft base, 2 ft high, N. of cor.

Land, rolling and level.

Soil, gravelly; 2nd and 3rd rates.

Not timber, undergrowth, mosquitos, ticks
and sage.

Minor undergrowth, 8000 lbs.

West, on S. by. sec 34.

Over rolling land.

Through Bangor 20 East - Continued.

Chains

Through dense undergrowth.

13.04 Middle of draw, 4 chs wide, course N.
easterly.

13.60 Dry wash, 10 lbs wide, course N.
easterly.

20.50 Dry wash, 100 lbs wide, course N.
easterly.

Difference between measurements of
40.00 chs by two sets of chainmen, is
12 lbs, position of middle point

By 1st set 39.94 chs.

By 2nd set, 40.06 chs, the mean of
which is

40.00 Set a redwood post, 3 ft long, 4 ins. sq,
with marked staves, 24 ins. in the
ground, for standard $\frac{1}{4}$ sec. cor.,
marked S.C. $\frac{1}{4}$ S. 34 on N. face, stig
posts 18x18x12, ins. E. and W. of post, 3
ft. dist, and raise a mound of earth,

Accuracy of the South Standard Parallel South,
Chambers

- 3 1/2 ft. base, 1 1/2 ft. high, N. of cor.
- 5000 Middle of draw 2 chs wide, course N.
easterly.
- 56.50 Dry wash from Birly draw 20 chs wide,
course N. Easterly.
- 57.00 Enter Birly draw, course N. Easterly.
- 74.00 Cross draw, and ascend mesa.
- 79.00 Top of mesa, base N. Easterly and S. Westerly.
- Difference between measurements of
8000 chs, by two sets of Chambers, is 16
chs. position of middle point
By 1st set 8008 chs.
By 2nd set 7992 chs, the mean of which
is
- 8000 Set a redwood post, 3 ft. long, 4 ins. dia,
with marked stave, 24 ins, in the ground,
for standard, cor. of secs. 33 and 34
marked
S. C. Sec 3, Sec 4 on N.

Through Range 20 East - Continued.

Chains

S 34 on E. end

S 33 on W. face, with 3 grooves on E. and W. faces, dig pits $24 \times 18 \times 12$ in, crosswise on each line, E. and W. 3 ft, and N. of post, 5 ft. dist, and raise a mound of earth, 4 ft. base, 2 ft high, N. of cor.

Land level and rolling.

Soil, gravelly; and natv.

No timber, undergrowth, mesquite, sage and tobacco.

Dense undergrowth, 8,000 ch.

West on S. bdy. sec. 33.

Over rolling land.

Through dense undergrowth,

11.00 Descend from mesa.

12.00 Enter draw, course N. Easterly.

28.00 Leave draw.

Resurvey of the Fourth Standard Parallel South,

Difference between measurements of
4000 chs., by two sets of chains, is 8
chs. position of middle point

By 1st set, 4004 chs.

By 2nd set, 3996 chs., the mean of which is

4000 Set a pine post, 3 ft long, 4 ins sq, with
marked stone, 24 ins. in the ground, for
standard $\frac{1}{4}$ sec. cor., marked S. C. 4733 on
N. face; dig pits 18 x 18 x 2 ins, E. and W.
of post, 3 ft. dist., and raise a mound
of earth $3\frac{1}{2}$ ft. base, 2 ft high, N. of cor.

57.00 Enter draw course Northerly.

65.00 Leave draw

7000 Draw, 2 chs. wide, course N. easterly.

Difference between measurements of 8000
chs., by two sets of chains, is 16 chs.
position of middle point

By 1st set, 7992 chs.

By 2nd set, 8008 chs.; the mean of which

through Range 20 East - Continued.

is

8000

Set a granite stone, $18 \times 8 \times 6$ ins., 12 ins. in the ground, for standard cor. of sec. 32 and 33, marked S. C. on N. with 4 grooves on E. and 2 grooves on W. faces; dig pits $24 \times 18 \times 12$ ins. crosswise on each line, E. and W. 3 ft. and N. of stone, 4 ft. dist, and raised mound of earth 4 ft. base, 2 ft. high, N. of cor.

Land level, rolling and broken.

Soil, gravelly; 2nd and 3rd water.

No timber; undergrowth, tsetse and mosquito.

Dense undergrowth, 8000 chs.

West, on S. 1/2, sec. 32.

Level and broken land.

Through dense undergrowth.

Resurvey of the Smith Standard Parallel Survey

- 6 hours
26.00 Draw, 2 chs wide, course N. Easterly,
33.00 Small adobe house, bars 12 chs. N.
35.00 Gulch, 10 chs wide, course Northerly.
Difference between measurements of 4000
chs. by two sets of chainment is 7 chs.,
position of middle point
By 1st set, 4003 chs.
By 2nd set, 39.96 chs., the mean of
which is
4000 Set a granite stone, 18 x 8 x 5 ins., 12 ins.
in the ground, for standard $\frac{1}{4}$ sec.
cor, marked S. $\frac{1}{4}$ sec and N. face, dig
pits 18 x 18 x 12 ins, E. and W. of post, 3
ft dist., and raise a mound of earth $3\frac{1}{2}$
ft base, $1\frac{1}{2}$ ft high, N. of cor.
5000 Draw, 2 chs. wide, course N. Easterly.
53.00 Descend from mesa.
6000 Enter Babocomari valley
74.00 Road, bars N. Easterly and S. Westerly.

Through Range 20 East - continued.

Chains

Difference between measurements of
8000 chs., by two sets of chains, is
8 chs., position of middle point

By 1st set 8004 chs.

By 2nd set 7996 chs., the mean of
which is

8000 Set a redwood post, 3 ft long, 4 ins.
sq., with marked stave, 24 ins. in the
ground, for standard cor. of 32^o 31
and 32 marked

S. C. 20, S. R. 20 E. 1st N.

S 32 on E. end

S 31 on W. face, with 5 grooves on E. and
1 groove on W. face; chg. pits 24 x 18 x 12
ins. crosswise on each line, E. and
W., 3 ft., and N. of post, 7 ft. dist. and
raise a mound of earth, 4 ft. base, 2
ft. high, N. of cor.

Land, rolling, broken and level.

Boundary of the Smith Standard Parallel South
Chains

Soil, sandy and gravelly; 1st and 3rd
rate.

No timber, undergrowth, mesquite,
briars and sage.

Raise undergrowth; 8000 lbs.

West on S. ldy. see 31.

Over level land.

0.80 Road bars N. Easterly and S. Westerly.

32.20 Pine fence bars N. Easterly and S.
Westerly.

Difference between measurements of
4000 lbs. by two sets of chains, is 10
lbs. position of middle point

By 1st set, 4000 lbs.

By 2nd set, 39.95 lbs. the mean of which is

4000

2

Set a granite stone, 12 x 10 x 8 ins, 12 ins.
in the ground, for standard $\frac{1}{4}$ sec. cor,
marked S.C. 731 on N. face; dig pits

Through Range 20 Cont. Continued.

Chains

- 18x18x12 ins, E. and W. of stone, 3 ft. dist., and raise a mound of earth, 3½ ft. base, 1½ ft. high, N. of cor.
- 54.00 Benchmark from Ft. Huachuca, bears N. Westerly and S. Easterly.
- 55.00 Adobe house, bears 2 chs. N.
- 56.40 Huachuca Station, bears 4 chs. N.
- 56.42 Baboquivari creek, 20 chs. wide, course N. Easterly.
- 58.70 Wire fence, bears N. Easterly and S. Westerly.
- 60.00 Bradquart's Saloon, bears 1 ch. S.
- 63.90 Middle of single track of the Arizona and New Mexico Railroad, bears N. 64½° E. and S. 64½° W.
- 64.85 Middle of side track, bears N. 56° E. and S. 56° W.
- 65.00 House, bears 4 chs. S.
- 66.00 Road, bears N. Easterly and S. Westerly.

Resurvey of the Fourth Standard Parallel Survey

6 nails

66.10 Iron Gumbles grave, bears 1 ch. N.

66.56 Telegraph line, bears N. $64\frac{1}{2}^{\circ}$ E. and
S. $64\frac{1}{2}^{\circ}$ W.7.00 Gravel Babson's valley and ascend
mesa.

71.00 Road, bears N. Westerly and S. Easterly.

75.00 Enter draw, corner S. Easterly.

Difference between measurements of
8.000 chs. by two sets of chainmen, is 8
chs. position of middle point.By 1st set, 79.96 chs.By 2nd set, 80.04 chs. the mean of
which is80.00 Set a granite stone, 18 x 10 x 8 ins. 12 ins
in the ground, for standard cor. of
Sp. 20 S, Res 19 and 20 E, marked
S. C. on N, with 6 grooves on N. E. and
N. faces, dig pits 30 x 24 x 12 ins, corners
on each line E. and W. 4 ft. and N. of

Through Range 20 East. - Continued.

Chains

stone, 8 ft. dist. and raise a mound of earth, 5 ft. base, 2 1/2 ft. high, N. of cor.

Ground level and rolling.

Soil, sandy loam and gravelly. 1st, 2nd, and 3rd rates.

Natural underground, scattering mesquite.

General Description.

This line runs over level, rolling and broken land, through dense mesquite, sugar, and tesota underground. Sp 20 S, 16 20 E, is level and rolling and covered with dense underground. The Babocomari valley traverses this Sp.

Resurvey of the Smith Standard Parallel South

Railroad stations of the Archaena
and Brookline of the Arizona
and New Mexico Railroad, are
situated in this M^o. Part of this
M^o is covered by the San Ignacio
del Baboconari land grant. There
are a number of settlers living in
the M^o.

Philip Conzen
U.S. Deputy Surveyor.

Through Range to East - concluded.

Resurvey of the Fourth Standard Parallel South

Chains West on S. bdy. see. 36.

Over level and rolling land.

6.00 Level draw course S. Easterly.

10.00 Kean's house, bears 10 chs. S.

20.00 Enter dense mesquite undergrowth,
bears Northw. and Southw.

Difference between measurements of
40.00 chs. by two sets of Chammans, is
4 chs. portion of middle point

By 1st set, 39.98 chs.

By 2nd set, 40.02 chs. the mean of
which is

40.00. Set a granite stone 18x10x6 ins, 12 ins.
in the ground, for standard $\frac{1}{4}$ sec.

ev. marked S. $\frac{1}{4}$ 36 on N. face, dig
pits 18x18x12 ins. E. and W. of stone,

3 ft. dist. and raise a mound of earth,

3 $\frac{1}{2}$ ft. base 1 $\frac{1}{2}$ ft. high, N. of ev.

49.00 Level dense mesquite bears N. Easterly.

Through Range 19 East.

Chains

and S. Westerly.

Difference between measurements of
8000 chs. by two sets of chains, is 12
chs, position of middle point

By 1st set, 79.94 chs.

By 2nd set, 8006 chs, the mean of
which is

8000

Set a granite stone, 18 x 10 x 6 ins, 12
ins in the ground, for standard cor.
of secs. 35 and 36, marked S. C. on N.
with 1 groove on E. and 5 grooves on
W. faces; dig pits 24 x 18 x 12 ins,
crosswise on each line, E. and W.
3 ft, and N. of posts, 8 ft. dist. and
raise a mound of earth, 4 ft. base,
2 ft. high, N. of cor.

Land, level and rolling.

Soil, gravelly; 2nd rate.

No timber; undergrowth, mesquite.

Boundary of the Spanish Standard Parallel Survey
 Chain

Small undergrowth, 29.00 chs.

October 29, 1901.

General Description.

This line runs over level and rolling land, through scattering ^{and small} mesquite undergrowth. The line Westward from standard cor of ores 35 and 36, through R 19 E, runs through the San Ygnacio del Babocomari land grant. S of R 20 S, R 19 E, is level and mountainous.

Philip Costigan
 U. S. Deputy Surveyor

Through Range 19 East. - Concluded.

Note: In resurveying the Private Standard Parallel Section through R's 19, 20 and 21 E, I destroyed all the old owners I was able to find.

42
List of Names.

BOOK 1549

A List of the Names of the Individuals
employed by *Philip Conzger*

U. S. Deputy Surveyor, to assist in running, meas-
uring and marking the lines and corners described
in the foregoing Field Notes of the ^{re} survey of the
4th Standard Parallel
South, through Rs. 19-20
and 21 East

of the Gila and Salt River Base and Meridian, in
the Territory of Arizona, showing the respective
capacities in which they acted.

John M. Trauer Chainman.
Cesimiro Barthelmy Chainman.
John L. Mitchell Chainman.
Owen Brown Chainman.
W. W. Miller Axeman.
E. J. Bresliss Axeman.
Chas. Pogue Flagman.

Final Oath of Assistants.

We hereby certify that we assisted *Philip*
Conzzen U. S. Deputy Surveyor, in
 re-surveying all those parts or portions of the *4th*
Standard Parallel
South through R's 19
20 and 21 East

of the Gila and Salt River Base and Meridian, in
 the Territory of Arizona, as are represented in the
 foregoing field notes as having been surveyed by him
 and under his direction; and that said Survey has
 been in all respects, to the best of our knowledge
 and belief, well and faithfully surveyed, and the
 corner monuments established according to the
 instructions furnished by the United States Surveyor
 General for Arizona.

- John M. Trayer* Chairman.
- Benjamin* Chairman.
- John L. Mitchell* Chairman.
- Owen Brown* Chairman.
- W. W. Miller* Axeman.
- Edg. Baseline* Axeman.
- Chas. Poynel* Flagman.

Sworn to and subscribed before me, this *1st*
 day of *November*, 18*91*

Philip Conzzen
 Notary Public.
 U. S. Dep. Sur.
 No Notary available



Final Oath of U. S. Deputy Surveyor.

I, *Philip Conzner*

U. S. Deputy Surveyor, do solemnly swear that in pursuance of a contract received from ^{GEORGE} ~~Royal A.~~ ^{CHRIST} ~~Johnson~~, United States Surveyor-General for Arizona, bearing date of the *24th* day of

August 18*91*, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor-General for Arizona, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts

or portions of the *4th Standard of Parallel South through R's 19-20 & 21 East*

of the Gila and Salt River Base and Meridian, in the Territory of Arizona, as are represented in the foregoing Field Notes as having been surveyed by me and under my direction; and I do further solemnly swear that all the corners of said surveys have been established and perpetuated in strict accordance with the Manual of printed instructions, the special instructions of the United States Surveyor-General for Arizona, and in the specific

45

manner described in the field notes, and that the foregoing are the true Field Notes of such survey; and should any fraud be detected I will suffer the penalty of perjury, under the provisions of an act of Congress approved August 8, 1846.

Philip Conzen
U. S. Deputy Surveyor.

Sworn to and subscribed before me this 30

day of Dec., 1891.

Thomas A. ...
Holroyd ...

BOOK 1549

APPROVAL.

OFFICE OF U. S. SURVEYOR GENERAL,

Tucson, Arizona, Feby. 5, 1902.

The foregoing field notes of survey of
Resurvey of 4th Standard Par. N,
thro Rs. 19-20 & 21 E -----

Gila & Salt River Meridian,

executed by *Philip Contzen, Dep. Sur,* --
 under his *Contract No 87-dated Aug. 24/1901* --

having been critically examined, and the
 necessary corrections and explanations made,
 the said field notes and the surveys they
 describe, are hereby approved.

Aug L H Rice

U. S. Surveyor General for Arizona