

East Bdy. T. 30, N., R. 3, W. Page 3

(Fract) " " T. 31, N., R. 3, W. " 17
" " " T. 32, N., R. 3, W. " 31

J. C. Dobbins
U.S. Dep. Surv.

1698

BOOK 1698

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FIELD NOTES
GENERAL LAND OFFICE.

1698

BOOK 1698

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BOOK 1698

1

Field Notes
of the survey
of the
East Boundary of Tps. 30
and 31 N., R. 3, W. and
Tract East Boundary
of T. 32, N., R. 3, W.
of the
Gila and Salt River Meridian,
in the
Territory of Arizona
as surveyed by
James C. Debbins
U.S. Depy. Surveyor
under his
Contract No. 71, Ariz.,
dated June 13th 1900.
June 28th to 30, 1901
Survey commenced Sept. 4th 1900.
Survey completed Sept. 27th 1900.

E. Bdy. T. 20, N., R. 3, St.

- chs. I began at the Tp. cor. of Tps. 29 and 30, N., Rs. 2 and 3, St. which was established by Carl R. Candle.
- Thence through sage, chico, cholla, scrub lysen and oak brush.
- North bet. secs. 31 and 36 over a level flat.
- 10.00 Descending abruptly over broken ground to level flat 8 chs. wide.
- 16.00 Supai-Williams trail brs. $N 65^{\circ} W$ and $S 86^{\circ} E$.
- 18.00 Right bank of flat. Ascending abruptly.
- 36.00 Abrupt ascent over broken ground.
- 39.00 Top of ridge brs. E and St. Descending over broken ground.
- 40.00 Set a limestone $24 \times 11 \times 5$ ins. 12 ins. in ground for $\frac{1}{4}$ sec. cor. bet. secs. 31 and 36. Mark on St face $\frac{1}{4}$ S for sec. 36, with mound of stone 3 ft.

E. Bdy. T. 30 N., R. 3, Ot

- chs. base, $2\frac{1}{2}$ ft. high; 5 ft. W of cor.
 Pits impracticable. Descending
 over rocky, brushy ground.
- 41.50 Right bank of draw, course E.
- 45.00 Left bank of draw.
- 49.00 Top of hill 25 ft. high.
- 55.00 Right bank of draw, course $N 86^{\circ} E$.
- 65.00 Left bank of draw;
- 68.00 Top of hill 20 ft. high.
- 69.00 Right bank of draw, course $N 85^{\circ} E$.
- 71.00 Left bank of draw.
- 75.00 Top of long slope. Descending gently N.
- 80.00 Set a lime stone $24 \times 10 \times 5$ ins. 12
 ins. in ground for cor. of secs.
 25, 30, 31 and 36 which I mark
 with 1 notch on S and 5 notches
 on N edges; Dig pits $18 \times 18 \times 12$ ins.
 in each sec. $5\frac{1}{2}$ ft. dist. Raise a
 mound of earth 4 ft. base, 2 ft.
 high, 6 ft. W of cor.

E. Bdy. T. 30. N., R. 3, W.

chs. Land mountainous and level.
Soil stony and lean, 2nd and 4th
rate.
Timber, cedar scattered.
Mountainous land and dense un-
dergrowth, 80.00 chs.

North bet. secs. 25 and 30, de-
scending through sage, chico,
cholla and oak brush.

1.00 Right bank of draw, course $N 10^{\circ} E$.
over broken ground.

35.00 Left bank of draw. ascending
over broken ground.

40.00 Set a limestone $30 \times 10 \times 4$ ins. 22
ins. in ground for $\frac{1}{4}$ sec. cor. bet.
secs. 25 and 30. Mark on N face
 $\frac{1}{4}$ S. for sec. 25. Build mound of
stone 2 ft. base, $1\frac{1}{2}$ ft. high, 5 ft.
W. of cor.

E. Bdy T. 20, N. R. 3, St.

chs.

48.00 Top of slope, T hence over level ground.

66.00 Descending.

80.00 Set a limestone 18 x 12 x 6 ins. 12 ins. in ground for cor. of secs. 24, 25, 19 and 30; I mark 2 notches on S and 4 notches on N edges. Raise a mound of stone 2 ft. base, 1½ ft. high, 5-ft. St. of cor. Pits impracticable.

Land mountainous and level.

Soil stony and lean; 2nd and 4th rate.

Timber, scattered cedar.

Mountainous land and dense undergrowth, 80.00 chs.

September 4, 1900.

E. Bdy T. 30 N. R. 3, St.

- chs. North bet. secs 24 and 19. Continue descending over level ground through sage, cholla, and scrub-hysson brush.
- 18.50 Edge of wide draw.
- 25.00 Bottom of draw, course E. Ascending.
- 38.00 Top of ridge. Course E and St.
- 39.00 Commence descending. Drainage N and St.
- 40.00 Set a lime stone $26 \times 6 \times 6$ ins. 19 ins. in ground for $\frac{1}{4}$ sec. cor. bet. secs. 19 and 24; Mark on St. face $\frac{1}{4}$ S. for sec. 24. Raise a mound of stone 3 ft. base and 3 ft. high. 5-ft. St of cor. Descending abruptly.
- 41.00 Bottom of draw, course N 46° E. Ascending gradually.
- 47.00 Ascending abruptly.
- 50.00 Top of steep slope 25 ft. high. Ascending along ridge, course E.

E. Bdy T. 30 N. R. 30 E

- 54.00 Top of rocky point.
- 56.00 Descending.
- 60.00 Cross head of rocky draw 50 lbs wide and commence ascending.
- 66.00 Top of point, course E.
- 68.00 Commence ascending over rocky ground.
- 70.00 Bottom of small draw, course E. Ascending over rocky, broken ground.
- 73.00 Top of steep, rocky point. course E.
- 76.00 Bottom of draw, course E.
- 80.00 Set a lime stone 24 x 8 x 8 ins. 18 ins. in ground for cor. of secs. 13, 18, 19 and 24, marked with 3 notches on N and S edges.
 Raise a mound of stone 4 ft. base, 3 ft. high, 5 ft. S of cor. Land, mountainous and level. Soil, stony and lean; 2nd and

E. Bdy. T. 20 N., R. 3 W.

chs. 4th rate.

Timber, scattered cedars.

Mountainous land and dense undergrowth 80.00 chs.

North bet. secs. 13 and 18. Ascending through chico, cholla, scrub hysen and sage brush.

6.00 Top of ridge, course N. W.

6.50 Commence descending.

11.00 Bottom of draw. Course N 45° E.

Ascending over rocky, broken ground.

19.00 Top of ridge.

22.00 Enter wide flat.

38.00 Ascending.

40.00 Set a sand stone 30x10x10 ins.

15 ins. in ground for $\frac{1}{4}$ sec. cor.

bet. secs. 13 and 18. Mark $\frac{1}{4}$ S. on

W. face for sec. 13; Raise a md.

E. Day 7, 30, N., R. 3, T.

Chs. of stone 4 ft. base, 2 ft. high, 5 ft. N. of cor.

Continue ascending.

42.00 Left bank of small wash, banks 5 ft. high, course S. 89° N.

45.00 Right bank of wash. Banks 4 ft. high. Ascending.

49.00 Top of slope over level ground.

51.00 Descending.

56.00 Bottom of wide draw, course E. Ascending along breaks of draw.

72.00 Top of flat ridge, drainage N.

80.00 Set a lime stone 20 x 6 x 4 ins. 18 ins. in ground for cor. to secs.

7, 12, 13 and 18, marked with 4 notches on S and 2 notches on N edges; Dug pits 18 x 18 x 12 ins. in each sec; 5½ ft. dist.

Raise a mound of earth 4 ft. base 2 ft. high, 6 ft. N. of cor.

E. Bdy. T. 30, N., R. 3, Ot.

chs. Land mountainous and level.

Soil stony and lean; 2nd and 4th rate.

Timber, scattered cedar.

Mountainous land and dense undergrowth 80.00 chs.

September 5, 1900.

North bet. secs. 7 and 12:

Continue on flat ridge through dense growth of cholla, sage, chico and scrub hysen.

40.00 Set a lime stone 20 x 10 x 6 ins.

12 ins. in ground for $\frac{1}{4}$ sec. cor.

bet. sec. 7 and 12: Mark on Ot.

face $\frac{1}{4}$ S. for sec. 12: Dug pits-

18 x 18 x 12 ins. N and S. of cor. 4 ft

dist; Raise a mound of earth 3 $\frac{1}{2}$ ft. base, 1 $\frac{1}{2}$ ft. high, 5 ft. Ot. of

cor. Descending.

E. Bdy T. 30, N., R. 3, Ot.

chs.

48.00 End of slope, Enter flat basin.

60.50 Ascending gradually.

72.00 Top of slope. Commence descending

80.00 Set a limestone 18x10x8 ins. 12 ins. in ground for cor. of secs.

1, 6, 7 and 12; Mark with one notch on N and 5 notches on S.

edges; Dig pits 18x18x12 ins. in each sec. Raise mound of earth 4 ft. base, 2 ft. high, 6 ft.

at cor.

Land, level and rolling.

Soil stony and loam; 2nd and 4th rate.

Timber, scattered cedar.

Dense under growth 80.00 chs.

North lot. secs. 1 and 6.

Continue slight descent through chico, scrub hyson and sage

E. Bdy T. 30, N. R. 3, St.

chs. brush.

26.00 Bottom of slope. Enter undulating flat.

40.00 Set a lime stone $18 \times 10 \times 8$ ins.

12 ins. in ground for $\frac{1}{4}$ sec. cor.

bet. secs. 1 and 6, Mark on St.

face $\frac{1}{4}$ S for sec. 1. Dig pits

$18 \times 12 \times 12$ ins. N and S. of cor. 4

ft. dist. Raise a mound of

earth $3\frac{1}{2}$ ft. base, $1\frac{1}{2}$ ft. high, 5-

ft. N. of cor. Continue on flat.

60.00 Top of small hill.

Descending.

65.00 Bottom of wash. Course S 44° N.

Ascending.

80.00 Set a limestone $20 \times 14 \times 8$ ins.

in ground for cor. of Tps. 30 and

31, N. R. 2 and 3, St. G & S. R. B.

& M. Mark 6 notches on each

edge. Raise a mound of stone

E. Bdy. T. 30, N., R. 3, ~~W.~~ S.

Chs. 4 ft. base, 3 ft. high, 6 ft. ~~W.~~ of
cor. Pite Impunctabile

From the cor. Crs. $N 16^{\circ} 30' W.$

94 lks. dist., a cedar tree 14 ins.
in diam. I mark B. T. T. 31, N.,
R. 3, W. S. 36.

$S 35^{\circ} W.$ 1.42 Chs. dist. a cedar
tree 16 ins. in diam. which I
mark B. T. T. 30, N., R. 3, W. S. 1.

$N 46^{\circ} 30' E.$ 1.97 Chs. dist. a cedar
tree 18 ins. in diam. which I
mark B. T. T. 31, N., R. 2, W. S. 31.

$S 9^{\circ} E.$ 33 lks. dist. a cedar tree
14 ins. in diam. which I mark
B. T. T. 31, N., R. 2, W. S. 6.

Land, level and rolling.

Soil stony and lean. 2nd and
4th rate.

Timber, scattered cedar.

Dense under growth and

E. Bdy T. 30, N., R. 3, St.

chs. cedar 80.00 chs.

September 6, 1900.

E. Bdy T. 31, N. R. 3, W.

- chs. North bet. secs. 31 and 36., T. 31, N.
 R. 2 and 3, W., over level rocky
 ground, through cedar, chice,
 cholla, scrub hysen and sage
 brush.
- 2.00 Descending abruptly.
- 10.00 Bottom of wide draw, course
 N 45° W. Ascending.
- 36.00 Commence descending.
- 40.00 Set a lime rock 28 x 16 x 6 ins., 20
 ins. in ground for $\frac{1}{4}$ sec. cor. bet.
 secs. 31 and 36; Dig pits 18 x 18 x 12
 ins. N and S of cor. 4 ft. dist.
 Raise a mound of earth 3 $\frac{1}{2}$ ft.
 base, 1 $\frac{1}{2}$ ft. high, 5 ft. W. of cor.
 Continue on broken, rocky, brushy
 ground.
- 62.00 Breaks of Cataract Cañon rim.
 Descending over broken, rocky,
 brushy ground.

E. Bdy T. 31, N., R. 3, St.

chs.

69.00 Rim of left bank of Cataract Cañon, perpendicular wall. Cañon about 2,500 ft. deep.

Set a limestone $20 \times 6 \times 6$ ins. in mound of rock 4 ft. base, 1 ft. high for N.C. to cor to secos. 25, 30, 31 and 36. Mark N.C. and 1 notch on S and 5 notches on N edges; Raise a mound of stone 3 ft. base, 2 ft. high, 5 ft. N. of cor.

The topography of the ground is such that it will not permit the laying of a base line for triangulation on the left bank of Cataract Cañon.

Land badly broken, cut by Cataract and deep side Cañons.

E. Bdy T. 31, N., R. 3, Ot.

chs. Soil rocky, 4th rate.

Timber, scattered cedar, with dense undergrowth of chico, sage, cholla, scrub hyson and cactus.

Mountainous land and dense undergrowth 80.00 chs.

September 7, 1900.

The time from September 8 to September 15 (both inclusive) was spent in getting the line across Cataract Cañon.

September 22, 1900, having moved my camp to the N. side of Cataract Cañon, I set my transit on the second transit point, on right bank of the Cataract - Cañon and take an observation on a flag left by me at the N. C. of secs. 25, 30, 31 and

E. Bdy. T. 31, N, R. 3, St.

Chs. 36, established by me and turning the telescope down so as to see a flag on the transit point established by me on Sept. 15, on the rim of the cañon. I find all the points in line. I measure the angle from this line to the third transit point established by me and find it to be $35^{\circ}58'$, or $S35^{\circ}58' E$. The distance to be 15.15-chs. From the third point I measure the angle from the flag at St. C. to the second point on right bank of cañon and find it to be $138^{\circ}28'$ making the course of the N. C. S. $5^{\circ}34'$ N. Therefore the angles taken in the order of their measurement are $5^{\circ}34'$
 $— 35^{\circ}58' — 138^{\circ}28' = 180^{\circ}00'$

E. Bdy T. 31, N. R. 3, Ot.

chs. I compute the distance across the canon as follows: -

$$\frac{\sin. 138^{\circ} 28'}{\sin. 5^{\circ} 34'} \times \text{Base or } \frac{0.663 \times 15.15}{0.099} = 103.55$$

$$103.55 + 69 = 172.55 \text{ chs.}$$

80.00 The cor. of secs. 25, 30, 31 and 36 falls in Cataract canon.

Land mountainous.

Soil 4th rate.

Timber, none.

Mountainous land 80.00 chs.

North bet. secs. 25 and 30.

40.00 The $\frac{1}{4}$ sec. cor. bet. secs. 25 and 30 falls in Cataract Canon.

80.00 The cor. of secs. 19, 24, 25 and 30 falls in Cataract Canon.

Land mountainous.

Soil 4th rate.

Timber, none.

E. Bdy T. 31, N. R. 3, W.

chs. mountainous land 80.00 chs.

North Sect. secs. 19 and 24, over
rocky broken ground.

8.81 The right bank of Cataract Canon
about 2,500 ft. high, very steep.
Transit point established by
me September 15, 1900.

Set a limestone $30 \times 14 \times 10$ ins.
in mound of rock 15 ins. high,
3 ft. base for N. P. of secs. 19, 24,
25 and 30. I mark 2 notches on S
and N. P. and 4 notches on N edges.

Raise a mound of rock 3 ft. base,
2 ft. high, 5 ft. N of cor.

Ascending over rocky, broken
ground.

12.57 Transit point and point of Trian-
gulation, descending over rocky,
broken ground through dense brush.

E. Bdy T. 31, N, R 3, It.

- chs.
40.00 Set a lime stone $24 \times 8 \times 6$ ins.
18 ins. in ground for $\frac{1}{4}$ sec. cor.
bet. secs. 19 and 24. Mark on It
face $\frac{1}{4}$ S. per sec. 24; Raise a
mound of stone 2 ft. base, $1\frac{1}{2}$ ft.
high, 5 ft. It of cor.
- 46.00 Bottom of draw brs. N 36° E. No
banks. Ascending.
- 72.00 Top of ridge brs. N 65° E. and S 67°
It. 50 ft. higher than draw.
Descending.
- 76.00 Draw brs. N 50° E. 40 ft. lower
than ridge.
- 80.00 Set a limestone $26 \times 8 \times 8$ ins. 19
ins. in ground for cor. of secs.
13, 18, 19 and 24; I mark with
3 notches on N and S. edges.
Raise a mound of stone 2 ft.
base, $1\frac{1}{2}$ ft. high It. of cor.
Land, ^{is impracticable} mountainous and level.

E. Bdy T. 91, N. R. 3, St.

chs. Soil, stony and loam; 2nd and 4th rate.

Timber, scattered cedar.

Mountainous land and dense undergrowth, 80 chs.

September 22, 1900.

North bet. secs. 18 and 13.

Descending.

16.00 Draw. 25 ft. deep, 50 lbs. wide, brs. N. 52° E.

40.00 Set a limestone $26 \times 10 \times 4$ ins. in mound of stone 4 ft. base, 15 ins. high for $\frac{1}{4}$ sec. cor. bet. sec. 18 and 13. Mark on N. face $\frac{1}{4}$ S for sec. 13 with mound of rock 4 ft. base, 2 ft. high, 5 ft. N of cor. Pile Impt.

40.34 Left bank of Moqui Trail Cañon which is a branch of Cataract.

E. Bdy. T. 31, N. R. 3, W.

chs. Cañon. Course of Banks 1200 or
1500 ft. high.

September 24, 1900

To determine the distance across the cañon I set a flag on line on left bank after projecting the range line to the right bank, the topography of the ground being such that it would not permit the laying of a base line on the left bank.

From the point on the right bank I measure a base line of 19 chs. whence the flag on the left bank brs. $S 10^{\circ} 16' E$. From the flag the N. end of the base line brs. $N 10^{\circ} 16' E$. The angles taken in the order of

E. Bdy T. 31, N. R. 3, 04

chs. their measurement are: -

$$90^{\circ}00', 79^{\circ}44', 10^{\circ}16' = 180^{\circ}00'$$

I compute the distance across the cañon as follows.

$$\frac{\sin 79^{\circ}44' \times 19.00 \text{ or } \frac{.983 \times 19}{175}}{\sin 10^{\circ}16'} = 104.92 \text{ Chs.}$$

$$104.92 + 40.34 = 145.26 \text{ Chs.}$$

80.00 Cor. of secs. 7, 12, 13 and 18 falls in Mequi Trail Cañon which is inaccessible.

Land mountainous.

Soil, none.

Mountainous land, 80.00 chs.

North bet. secs. 7 and 12. over rocky, broken ground.

40.00 $\frac{1}{4}$ sec. cor. bet. secs. 7 and 12 falls in Mequi Trail Cañon, which is inaccessible.

E. Bdy T. 31, N, R. 3, St.

chs. I run South from my angle point 17.50 chs. the right bank of the Mequi Trail Cañon, which is,

47.46 Set a lime stone $30 \times 12 \times 5$ ins. in mound of stone 4 ft. base, 18 ins. high, for St. C. $\frac{1}{4}$ sec. bet. secs. 12 and 7, Mark on St. face $\frac{1}{4}$ P. for sec. 12; Raise mound of stone 3 ft. base, 2 ft. high, 5 ft. St. of cor. Ascending over rocky, broken ground.

65.26 Angle point.

September 25, 1900.

Ascending over rocky broken ground.

80.00 Set a limestone $18 \times 12 \times 6$ ins. 15- ins. in ground for cor. of secs.

E. Bdy T. 31, N, R. 3, N.

Chs. 1, 6, 7 and 12. Mark 1 notch on N and 5 notches on S edges.

Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high, 5 ft. N. of cor.

Land, mountainous and level.

Soil, stony and lean. 2nd and 4th class.

Timber, none.

Mountainous land and dense undergrowth, 8000 chs.

North bet. sec. 1 and 6.

Rolling ground covered with dense growth of chico, cholla, scrub lupen and sage.

40.00 Set a limestone $18 \times 12 \times 6$ ins.

12 ins. in ground for $\frac{1}{4}$ sec. cor.

bet. sec. 1 and 6. Mark on N

face $\frac{1}{4}$ S. for sec. 1. Raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft.

BOOK 1096 27.
E Bdy T. 31, N., R. 3, St.

chs. high, 5 ft. N. of cor.

56.00 Descending. ^{Pits swept}

68.00 Draw 60 lks. wide, course N 40° E.
Ascending.

75.00 Rocky point.

80.00 Set a limestone 30x8x8 ins.

23 ins. in ground for cor. of
Tps. 31 and 32, N., Rs. 2 and 3
St., Mark 6 notches on each
edge; Raise a mound of stone
4 ft. base, 3 ft. high, 8 ft. D. of
cor.

Land, level and rolling.

Soil stony and lean. 2nd and
4th rate.

Timber, scattered cedar.

Dense undergrowth, 80.00 chs.

Deplem Cur 26, 1900.

Tract. E. Bdy T. 32, N., R. 3, N

chs. North bet. sec. 31 and 36, T. 32, N.,
R. 2 and 3, N., Descending, broken,
rocky ground.

11.31 Left bank of Dead Horse Cañon
bank 700 ft. high. Very steep.

To determine the distance
across Dead Horse Cañon. I set
a flag on line on right bank
of cañon, then measure a base
line N $62^{\circ} 26'$ N 18 chs. from the
Twp. cor. to a point where the
flag brs. N $17^{\circ} 29'$ E; From the
flag the N. end of the base
line brs. S $17^{\circ} 29'$ N. Therefore
the angles taken in order of
their measurement are, $62^{\circ} 26' -$
 $100^{\circ} 05' - 17^{\circ} 29' = 180^{\circ} 00'$. I com-
pute the distance across
the cañon as follows:

Tract. E. Bdy T. 32, N. R. 3, St.

$$\text{chs. } \frac{\text{since } 100^{\circ} 05' \times 18 = .985 \times 18 = 59.10 \text{ chs.}}{\text{since } 17^{\circ} 29' \quad .300}$$

- 40.00 The $\frac{1}{4}$ sec. cor. of secs. 31 and 36 falls in Dead Horse Cañon which is inaccessible.
- 59.10 Right bank of Dead Horse Cañon. Ascending over rocky, broken ground.
- 69.86 Left bank of a branch of Dead Horse Cañon 300 ft. deep:
 Set a limestone $26 \times 14 \times 8$ ins. in ground for St. C. for secs. 25, 30, 31 and 36. Mark St. C. and 1 notch on S. edge and 5 notches on N. edge. I raise a mound of stone 3 ft. base, 2 ft. high, 5 ft. N. of cor. Pita Supt
- 80.00 The cor. to secs. 25, 30, 31 and 36 falls in Dead Horse Cañon and is inaccessible.

Frael E. Bdy. T 32 N, R. 3, Ot.

Chs. Land mountainous.

Soil, rocky - 4th rate.

Timber, none.

Mountainous land 80.00 chs.

September 27, 1900.

James C. Robbins

U. S. Deputy Surveyor.

A P P R O V A L .

OFFICE OF THE U.S. SURVEYOR GENERAL.

Phoenix, Arizona.

August 2, 1902.

The foregoing field notes of the survey of East Edyo. of
Tp. 30-31 & 32 N., R. 3 W.
 executed by J. C. Dobbons, D.S.
 under his Contract No. 71 dated June
13, 1900. having been critically
 examined, and the necessary corrections
 and explanations made, they describe,
 are hereby approved.

Wegh H. Price

U.S. Sur. Gen. for Arizona.