

2278

Book E

BOOK 2278

2278

# FIELD NOTES

OF THE SURVEY OF THE

North Boundary Line of P. R. 21 E.

2278

2278

Of the *G. S. R. B. S.* Meridian,  
*Arizona*

AS SURVEYED BY

*Hugh J. Suttal*, United States Deputy Surveyor,

Under his Contract No. *163*, dated *May 16*, 19*10*

Survey commenced *Dec 5*, 19*10*

Survey completed *Dec 5*, 19*10*

2278

2278

*Nov*

BOOK 2278

NAMES AND DUTIES OF ASSISTANTS.

— *See Book A.*

Blank lined area for recording names and duties of assistants.

BOOK 2278

# INDEX DIAGRAM.

Township 70<sup>o</sup> 20, Range 21<sup>e</sup>

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

*Don Juan de los Riquillos y M. M. S.*  
*John Grant*

Meanders Page .....

*In*

*See Book*

WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Chainman.*  
\_\_\_\_\_, *Chainman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 19 \_\_\_\_\_ }



WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Moundman.*  
\_\_\_\_\_, *Moundman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 19 \_\_\_\_\_ }



WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Axman.*  
\_\_\_\_\_, *Axman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 19 \_\_\_\_\_ }



I, \_\_\_\_\_, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, *Flagman.*

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 19 \_\_\_\_\_ }



## North boundary of Fract. T. 20 S., R. 21 E.

Chains. Knowing my instr. to be in adjustment from tests made Dec. 3 & 4 as desc. in the Subs. of the 1900  
 From the corner of Tps. 19 and 20 S., Rs. 20 and 21 E., a granite stone, 8x7x4 ins. above ground, properly marked and witnessed as described by the Surveyor General,  
 I run East on a true line bet. secs. 31 and 6 through greasewood underbrush.

33.50 Edge of Mesa bears N. and S., descend.

35.50 Foot of descent, bears N. and S.

40.00 Set a Basaltic stone, 12x7x6 ins., 8 ins. in the ground for the  $\frac{1}{4}$  sec. cor., mkd.  $\frac{1}{4}$  on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high; N. of cor.

80.00 Set a granite stone, 14x6x6 ins., 10 ins. in the ground for the cor. of secs. 5, 6, 31 and 32, mkd. with 1 notch on the W. and 5 notches on the E. edge, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor.  
 Land rolling. Soil 2nd rate. Greasewood underbrush.

Dec. 5th:- At this corner I set off 22°19' $\frac{1}{2}$ ' S. on the decl. arc and at 11h.50m. a. m. l. m. t., obs. the sun on the mer., the resulting lat. is 31°43' N.

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 East on a true line bet. secs. 5 and 32 over rolling ground, through greasewood and mesquite brush.

40.00 Set a granite stone, 12x7x6 ins., 8 ins. in the ground for the  $\frac{1}{4}$  sec. cor., mkd.  $\frac{1}{4}$  on N. face, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, N. of cor.

80.00 Set a porphyry stone, 15x8x6 ins., 10 ins. in the ground for the cor. of secs. 4, 5, 32 and 33, mkd. with 2 notches on the W. and 4 notches on the E. face and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor.  
 Land rolling. Soil 2nd rate. Greasewood and mesquite underbrush, 80.00 chs.

Dec. 5th:- At 3h, p. m., l. m. t., I set off 22°20' S. on the decl. arc, 58°17' on the co-lat. arc, and determine a mer. with the solar at this cor.

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 East on a true line bet. <sup>fracl</sup>secs. 4 and 33 over rolling ground through greasewood brush.

5.60 Intersect the W. bdy. of the San Juan de las Boquillas y Nogales Private Land Grant at a point whence the 16 $\frac{1}{2}$  Mile corner bears S. 15°39' E. 12.38 chs. dist., which cor. is a porphyry stone, 6x20x6 ins. above ground, properly marked and witnessed as described by the Surveyor General.

Set a porphyry stone, 15x9x9 ins., 10 ins. in the ground for the closing corner of fract. secs. 33 and 4, mkd. CC on W. with 6 grooves on the N. and S. faces, and raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high, W. of cor.

Land rolling. Soil 2nd rate. Greasewood brush.

Dec. 5th, 1910.  
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T. 20 S. R. 21 E.

Table of Latitudes and Departures.

Bdy.	Course.	Dists.	N.	S.	E.	W.
	East	165.60			165.60	
	S. 15° 39' E.	95.01		91.49	25.63	
	S. 10° 02' E.	396.66		390.60	69.11	
	West	259.85				259.85
	North	480.00	480.00			
	Convergency				.16	
			480.00	482.09	260.50	259.85

Excess southings, 2.09 chs.  
 Excess Eastings, .65 "

GENERAL DESCRIPTION.

This township is rough and broken. A considerable number of cattle graze on it. The grass is very good. Practically no cultivation is being carried on in it. The Southern Pacific traverses the Northern part.

*Henry J. Durval*  
 U. S. D. S.

*For*

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

*See Book M*

BOOK 2278

A list of the names of the individuals employed by .....

....., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of .....

showing the respective capacities in which they acted:

- ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Axman.*
- ....., *Axman.*
- ....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....

....., United States Deputy Surveyor, in surveying all those parts or portions of the .....

..... of the .....

..... meridian, ..... of ....., which 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 .....

- ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Axman.*
- ....., *Axman.*
- ....., *Flagman.*

Subscribed and sworn to before me this ..... }  
day of ....., 19 .....



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

BOOK 2278

See Book M

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, 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 \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which 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 survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

United States Deputy Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Phoenix, Ariz. July 13, 1912

The foregoing field notes of the survey of the four North Boundary of the P. & G. R. I. E. Salt and Salt Pits and Meridian, Arizona

executed by Hugh J. Dural, M.D., under his contract No. 163, dated May 16, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Frank Ingalls  
United States Surveyor General.

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.

United States Surveyor General.