

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

JUN 3-1914

JUL 2-1915

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 85

SITUATED IN THE

COCONINO NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

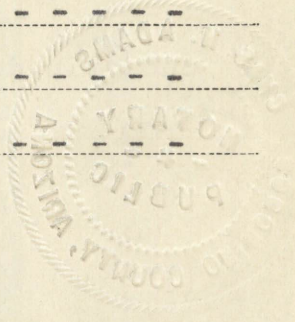
in

Section 13, surveyed, Township 21 N., Range 7 E.

of the

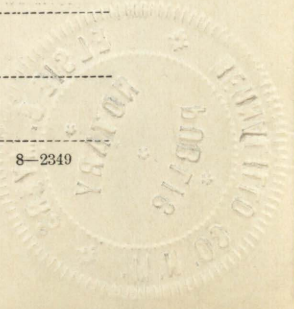
Gila and Salt River Base and Meridian.

ARIZONA



Survey executed by W. H. Finigan, Forest Service Surveyor.
Under special instructions dated August 8, 1913
Survey commenced October 14, 1913
Survey completed October 15, 1913
Under Acts of June 11, 1906 and March 4, 1913.

Applicant for listing C. A. Greenlaw
Residence Flagstaff, Arizona.
Application No. 67, dated August 29, 1908
List No. 3-2100, dated October 23, 1912
Applicant for survey C. A. Greenlaw
Residence Flagstaff, Arizona.
H. E. No. 021090, dated March 18, 1913.
Land district Phoenix, Arizona.



OATH OF ASSISTANTS

We hereby certify that we assisted W. H. Finigan,
Forest Service Surveyor. in surveying all those
parts or portions of Homestead Entry Survey No. 85, in
--surveyed Section 13, Township 21 N., Range 7 E.,
--surveyed Section --, Township --, Range --,

of the G. & S. R. P. meridian, State of Arizona., which
are represented in the following field notes as having been
surveyed by him and under his direction; and that said sur-
vey 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 fur-
nished by the United States Surveyor General for Arizona.

W. A. Power Chairman

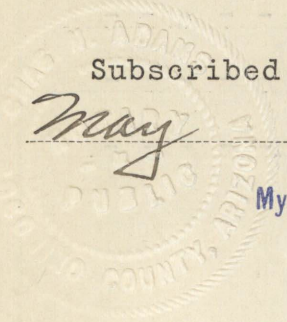
A. B. Day Chairman

Subscribed and sworn to before me this 28th day of
May, 1914.

Chas. H. Adams

My Commission expires Aug. 12, 1916

NOTARY PUBLIC



OATH OF SURVEYOR

I W. H. Finigan, Forest Service Surveyor, do solemnly swear
that, in strict conformity with the special instructions of
the United States Surveyor General for Arizona, dated
August 8, 1913, and the laws of the United States, I have
well, faithfully, and truly, in my own proper person, sur-
veyed a tract of land ~~upon the application of~~ embraced in
List, No. 3-2100, dated October 23, 1912, for
Patent, under the Act of June 11, 1906,
the same to be known as Homestead Entry Survey No. 85,
situated within the COCONINO National Forest, in
--surveyed Section 13, Township 21 N., Range 7 E., and
--surveyed Section --, Township --, Range --,

of the G. & S. R. P. meridian, Arizona, and the
related retracements and resurveys and section subdivisions,
which are represented in the following field notes as having
been surveyed by me; and I further solemnly swear that all
the corners of said survey have been established and perpet-
uated in strict accordance with the stated special instruc-
tions, and in the specific manner described in the field
notes, and that the following are the original field notes
of such survey.

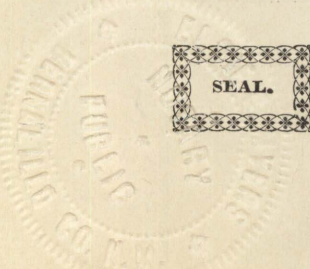
W. H. Finigan
Forest Service Surveyor

Subscribed and sworn to before me this 26th day of
May, 1914.

Elsie C. Myers
Notary Public



My Commission expires April 20, 1915.



U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 85

SITUATED IN THE **COCONINO** NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

In Section 13 , -surveyed, Township 21 N., Range 7 E.

of the

Gila and Salt River Base and Meridian.

State of

ARIZONA

Applicant for listing

Residence

Application No. , dated , 19

List No. , dated , 19

Applicant for survey

Residence

H. E. No. , dated , 19

Land District

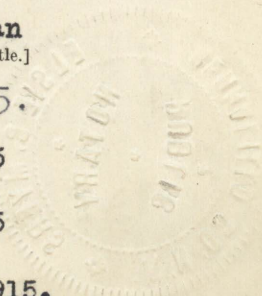
Survey executed by **Charles D. Hodson, Surveyor - Draftsman**
[Forest Service Title.]

Under special instructions dated June 2 , 1915.

Survey commenced (1/4 cor. restored) September 22 , 1915

Survey completed September 22 , 1915

Under Acts of June 11, 1906 and March 4, 1915.



82

OATH OF ASSISTANTS

We hereby certify that we assisted **Charles D. Hodson,**
Surveyor - Draftsman in ~~surveying all those~~
restoring 1/4 cor. ^[Forest Service Title] bet. secs. 13 and 14, T. 21 N., R. 7 E. in connection with
~~parts or portions of~~ Homestead Entry Survey No. **85**, in the State
of **Arizona**, which are represented in the following 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 estab-
lished, according to the instructions furnished by the United States
Surveyor General for **Arizona.**

Note: It would have been very expensive and inconvenient to appear before an officer to administer oaths to Assistants; hence, they were taken by the Surveyor.

Nouglas Ernest, Chairman
Bud Owens, Chairman

Subscribed and sworn to before me this **1st.** day of
Oct
October, 19**15**.

Charles D Hodson

Surveyor-Draftsman

OATH OF SURVEYOR

I, **Charles D. Hodson,** **Surveyor - Draftsman**
[Forest Service Title.]

do solemnly swear that, in strict conformity with the special instruc-
tions of the United States Surveyor General for **Arizona**, dated
June 2, 19**15**, and the laws of the United States, I have
well, faithfully, and truly, in my own proper person, ~~surveyed a tract~~
~~of land~~ restored the **1/4 cor. bet. secs. 13 and 14, T. 21 N., R. 7 E.**

, No. , dated , 19 , for
, under the Act of , 19 ,
the same to be known as Homestead Entry Survey No. ,
situated within the **COCONINO** National Forest, in
~~--~~ surveyed Section **13**, Township **21 N.**, Range **7 E.**, and
surveyed Section , Township , Range ,

of the **G. and S. R. B. and** meridian, **Arizona**, and the
related retracements and resurveys and section subdivisions, which are
represented in the following field notes as having been surveyed by me;
and I further solemnly swear that all the corners of said survey have been
established and perpetuated in strict accordance with the stated special
instructions, and in the specific manner described in the field notes,
and that the following are the original field notes of such survey.

Charles D Hodson

Surveyor - Draftsman
[Forest Service Title.]

Subscribed and sworn to before me this *eight* day of
October, 19**15**.

Elmer C. Meyer

Notary Public



8-2349

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains Applicant for listing, C. A. Greenlaw; Application No. 67, dated August 29, 1908; List No. 3-2100, dated October 23, 1912; Serial No. 021090, made in the Phoenix Land Office by C. A. Greenlaw on March 18, 1913.

Surveyed under special instructions from the Surveyor General for Arizona, dated August 8, 1913, and designated as Homestead Entry Survey No. 85.

Situated in Sec. 13, surveyed T. 21 N., R. 7 E. of the Gila and Salt River Base and Meridian, in the Coconino National Forest, Arizona.

Surveyed under the Acts of June 11, 1906, March 4, 1913, and March 4, 1915.

This survey was executed with a W. and L. E. Gurley light mountain transit equipped with a Burt solar attachment.

The distances were measured with a 400 link steel tape directly on the slope and the slope angles determined with a clinometer.

The courses of this survey were deflected from the true meridian as determined by solar observation.

October 15, 1913, at 2h. 20m. p.m., l.m.t., I set transit at cor. No. 5 and observe the altitude of the sun for azimuth. Lat. $35^{\circ} 13' N.$ Long. $111^{\circ} 35' 33'' W.$

Telescope direct, sun bisected alt. $32^{\circ} 51'$ angle right from reference point, $174^{\circ} 40'$. Therefore reference point bears N. $53^{\circ} 08' E.$

Telescope reversed sun bisected alt. $32^{\circ} 20'$, angle right from reference point $175^{\circ} 27'$.

Bearing of reference point is, therefore, N. $53^{\circ} 08' E.$

On the azimuth corresponding to the above I test the

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains on Burt solar attachment and find the same to be in
 -0300 readjustment.

October 14, 1913.

Beginning at the cor. secs. 11, 12, 13 and 14, which is
 a tuffa stone 8 x 10 x 10 ins. above ground, chiseled
 1 groove on E. face and 4 grooves on S. face; witnessed
 as described by the Surveyor General.

Thence South on random line bet. secs. 13 and 14, at
 . 26.30 chs. wire fence on S. side road and N. of right
 of way of A. T. & S. F., and at 40.54 chs. fall 43.05
 lks. west of the position for 1/4 sec. cor. bet. secs.
 13 and 14, which I determine by running N. 59° W.,
 377 lks. from a 30 in. pine, scribed 1/4 S. 13. I
 check this position by course and distance to the
 stump of the other witness tree, which has fallen but
 on which the marks are visible. Therefore, the line
 from the 1/4 sec. cor. of secs. 13 and 14 to cor. secs.
 11, 12, 13 and 14, is N. 0° 37' W., 40.54 chs. I re-
 turn on true line and establish 1/16 sec. cor. at 20.27
 chs.

W. H. Finigan.

Charles D. Hodson, Surveyor - Draftsman.

September 22, 1915.

Restoration of 1/4 cor. bet. secs. 13 and 14, T. 21 N.,
 R. 7 E. in connection with H. E. S. 85.
 Instrument used, Buff and Buff transit No. 9700-6.
 Adjustments of transit were tested and necessary cor-
 rections made.

Distances were measured directly on the slope with an 800

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains, 31 link Lufkin steel tape, and reduced to the horizontal with a clinometer.

September 22, 1915.

At the point for 1/4 cor. bet. secs. 13 and 14, determined by running N. 59° W. 377 lks. from a 30 in. pine tree, marked 1/4 S 13 B T, and check this position by measuring from the stump of the other witness tree, a 30 in. pine which has fallen but still bears the witness marks to the 1/4 sec. cor. Set a sandstone 20 x 12 x 8 ins., 15 ins. in the ground, over a small stone marked with a cross, chiseled 1/4 on W. face,

and dig pits 24 x 24 x 12 ins. North and South of cor., 4 ft. dist.; and raise a mound of earth 4 ft. base, 1-1/2 ft. high, W. of cor. No other bearings than trees previously marked for witnesses to this cor. available.

Charles D. Hodson

Surveyor - Draftsman.

W. H. Finigan,

October 14, 1913.

I return to the cor. secs. 11, 12, 13 and 14, heretofore described, and run S. 89° 47' E. on a random line bet.

secs. 12 and 13, at 24 lks. wire fence, and at 40.29 chs. fall 33.5 lks. North of 1/4 sec. cor. bet. secs.

12 and 13, which is a porphyry stone 6 x 6 x 5 ins. above ground, marked and witnessed as described by the

Surveyor General. Therefore, true line is S. 89° 18' E., 40.29 chs. I return on true line and at 35.25 chs.

establish position of the NW. cor. of patented H. E.

No. 012943, and at 39.79 chs. position of cor. No. 1.

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains I return to the 1/4 sec. cor. bet. secs. 12 and 13, and run South on random line through the center of sec. 13 and at 80.05 chs. fall 46.5 lks. W. of the 1/4 sec.

cor. bet. secs. 13 and 24, which is a post 2 x 3 x 24 ins. above ground, marked and witnessed as described by the Surveyor General. Therefore, true line bears

N. 0° 20' W., 80.05 chs. I return on true line and at 40.00 and 60.00 chs. establish points for future reference.

Lat. at 12 M. at 1/4 sec. cor. bet. secs. 13 and 14 by

Burt solar 35° 12' 30" N. and 8 x 8 x 8

stone marked with a cross, placed 1/4 on W. base

I return to the 1/4 sec. cor. bet. secs. 13 and 14 and run

S. 89° 54' E. on random line through the center of sec.

13 and at 80.28 chs. fall 28 lks. South of position

for 1/4 sec. cor. bet. secs. 13 and 18, T. 21 N., R. 7

and 8 E., which is a fence post at the intersection of

N. and S., and E. and W. fence. The original stake

has disappeared, but the position of the corner has

been perpetuated by the fence intersection, which is

verified by two witness trees, which are found to be

as described by the Surveyor General. Therefore, true

line is S. 89° 54' W., 80.28 chs.

described and run S. 89° 54' W. on a random line bet.

I return on true line and at 40.17 chs. intersect the

N. and S. 1/4 sec. line through the center of sec. 13

at S. 0° 20' E. 40.00 chs. from the 1/4 sec. cor. bet.

secs. 12 and 13; thereby locating the position for the

1/4 sec. cor. in the center of sec. 13.

I return to the 1/16 sec. cor. on line bet. cor. secs.

11, 12, 13 and 14; and 1/4 sec. cor. bet. secs. 13 and

14 and run East on a random line through the center of

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains

the NW. 1/4 of sec. 13, at 7.99 chs. wire fence S. side road and N. side right of way, and at 40.19 chs. fall 23.5 lks. N. of the opposite 1/16 sec. cor. which I locate on the meridional 1/4 sec. line through center sec. 13 midway bet. the 1/4 sec. cor. bet. secs. 12 and 13 and the center 1/4 sec. cor. of sec. 13. Therefore the true line is N. 89° 40' W., 40.19 chs. I return on the true line and at 33.91 chs. locate position for cor. No. 4 and at 35.17 chs. locate the SW. cor. of patented H. E. No. 012943 and cor. No. 3 of this survey.

October 15, 1913.

Beginning at cor. No. 1.

A sandstone 24 x 10 x 6 ins. set 14 ins. in ground over stone marked +, chiseled 1 - H E S 85 on SE. face, C C on S. face and 4 grooves on S. face; raise a mound of stone 2 ft. base, 1-1/2 ft. high, 3-1/2 ft. dist. South of cor.; whence:

A pine 26 ins. dia., scribed 1 H E S 85 C C B T, bears S. 28° 25' W., 101 lks.

A pine 18 ins. dia., scribed 1 H E S 85 C C B T, bears S. 48° 34' E., 74.5 lks.

Cor. secs. 11, 12, 13 and 14, heretofore described, bears N. 89° 18' W., 50 lks.

Cor. No. 1 of List, which is a malpais stone 12 x 8 x 6 ins. above ground, marked and witnessed as described in field notes of listing survey, bears S. 89° 18' E., 23 lks. I destroy this cor.

Mag. Va. at 10 a.m., 14° 35' E. Mean Mag. Va. 14° 36' E.

Lat. 35° 13' N., Long. 111° 35' 33" W., as per instructions from the Surveyor General.

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains 1.26 To a pine 16 ins. dia., scribed 3 H E S 85 B T,
bears N. 32° 39' W., 301 lks.

Position for cor. No. 4 of List, which has been
destroyed, but which I determine by measure-
ment from witness trees which are as described
in field notes of listing survey, bears N. 37°
08' W., 57 lks. Destroy witness trees.

Lat. at 12M. by Burt solar 35° 13' N.

Thence S. 89° 40' E.

Over level ground along S. bdy. of patented H. E.
No. 012943.

1.26 To wire fence.

1.26 Cor. No. 4.

A sandstone 24 x 6 x 6 ins. set 14 ins. in ground,
over stone marked +, chiseled 4 - H E S 85 on side
facing claim; raise mound of stone 2 ft. base, 1-1/2
ft. high, 3-1/2 ft. dist. within claim; whence:

A pine 30 ins. dia., scribed 4 H E S 85 B T,
bears S. 55° 43' W., 282 lks.

A pine 30 ins. dia., scribed 4 H E S 85 B T,
bears N. 26° 53' W., 146 lks.

Cor. No. 3 of List, which is a malpais stone

4 x 6 x 6 ins. above ground, marked and wit-
nessed as described in field notes of listing
survey, bears N. 53° 08' E., 79 lks. De-
stroy same.

Thence S. 53° 08' W.

Over level ground, along wire fence and North side
of road.
7.17 To cor. No. 5.

Chains. A sandstone 24 x 10 x 6 ins., set 14 ins. in ground, over stone marked +, chiseled 5. - H.E.S 85 on side facing claim. No witness objects within a reasonable distance, therefore dig pits 24 x 24 x 12 ins. crosswise on lines, 8 ft. dist.; and raise mound of earth 4 ft. base, 2 ft. high, 3-1/2 ft. dist., within claim; whence:

Cor. No. 2 of List, which is a malpais stone

4 x 10 x 6 ins. above ground, marked and

witnessed as described in field notes of

listing survey, bears S. 53° 08' W., 26 lks.

Destroy same.

Cor. wire fence bears S. 55° W., 27 lks.

Thence N. 0° 37' W. Over level ground 50 lks. E. of and parallel to line bet. secs. 13 and 14, inside of wire fence 15 lks.

12.60 To wire fence, bears E. and W.

24.60 To cor. No. 1, the place of beginning.

AREA

Total area of H. E. S. No. 85 10.43 acres

IMPROVEMENTS

The improvements on this claim consist of about 1/2 mile of wire fence, partly outside of claim, of claimant herein.

Value ----- \$ 50.00

DESCRIPTION

This claim consists of a level piece of land with a deep soil well adapted to agricultural purposes.

COCONINO NATIONAL FOREST

STATE OF ARIZONA

Chains Considerable commercial timber on claim.
 Rainfall is depended upon to raise crops, and claimant has about 4.5 acres under cultivation, the remainder being good pasture land.
 No mineral shows on surface and it is apparently non-mineral in character.

ADJOINING CLAIMS

This survey is bounded on the E. by patented claim of C. A. Greenlaw, H. E. No. 012943, embracing NE/4 NW/4 NW/4, E/2 NW/4 NW/4 NW/4, SE/4 NW/4 NW/4, and E/2 SW/4 NW/4 NW/4 of sec. 13; on the North, the patented claim of Eben L. Greenlaw, embracing the SW/4 of sec. 12; on the West, by patented H. E. No. 0137 of Sumpter M. Grisson, embracing E/2 NE/4 and E/2 SE/4 of sec. 14, separated from this survey by a 50 lk. road reservation. This claim is located about 2 miles in an Easterly direction from Flagstaff, which is readily reached by a good wagon road which adjoins this survey on the South.

TRAVERSE.

Course	Dist.	N	S	E	W
S. 89° 18' E.	4.54		0.06	4.54	
S. 0° 35' E.	20.24		20.24	0.21	
S. 89° 40' E.	1.26		0.01	1.26	
S. 53° 08' W.	7.17		4.30		5.73
N. 0° 37' W.	24.60	24.60			0.26
	57.81	24.60	24.61	6.01	5.99
			24.60	5.99	
Error in Lat. and Dep.			.01	.02	

Closing error 1:2381.

Survey completed October 15, 1913.

Any discrepancy between these field notes and those of the listing survey is due to error in the latter.

W. H. Frisgum
 Forest Service Surveyor.

Chains

Contains considerable commercial timber on claim. Rainfall is dependent upon to raise crops, and claimant has about 40 acres under cultivation, the remainder being good pasture land. No mineral shows on surface and it is apparently non-mineral in character.

ADJOINING CLAIMS

This survey is bounded on the E. by patented claim of C. A. Greenlaw, H. M. No. 01243, embracing NW 1/4 NW 1/4, E 1/2 NW 1/4 NW 1/4, SW 1/4 NW 1/4 NW 1/4, and E 1/2 SW 1/4 NW 1/4 of sec. 13; on the North, the patented claim of Eben L. Greenlaw, embracing the SW 1/4 of sec. 13; on the West, by patented H. M. No. 0137 of Sumner M. Grison, embracing E 1/2 NW 1/4 and E 1/2 SW 1/4 of sec. 14, separated from this survey by a 30 ft. road reservation. This claim is located about 2 miles in an easterly direction from Flagstaff, which is readily reached by a good wagon road which adjoins this survey on the South.

TRAVELER.

Course	Dist.	N	S	E	W
S. 89° 18' E.	4.84		0.06	4.84	
S. 0° 33' E.	20.24		20.24	0.21	
S. 89° 40' E.	1.28		0.01	1.28	
S. 83° 08' W.	7.17		4.30		5.73
N. 0° 37' W.	24.60	24.60			0.28
	27.01	24.60	24.61	6.01	6.93
		24.60	24.60	6.93	
			0.01	0.01	

Error in Lat. and Dep.

Closing error 1:2881.

Survey completed October 15, 1913.

Any discrepancy between these field notes and those of the listing survey is due to error in the latter.

Forest Service Surveyor.

Observation at 2:30 P.M. Oct. 15, 1913. Lat. 35° 13' N.

∠ rt. Ref. pt. to Sun.	Obs. alt. sun.	Pos. sun	
174°40'	32° 51'	+	Telescope direct.
175°27'	32° 20'	+	" reversed
Obs. alt. 32°51'	Decl. App. noon Greenwich	8°23'37.2"	✓
Dif. refrac. 1' 32"	Dif. 9hr. 50 min.	9' 5.27"	✓
True alt. 32°49' 28"	Decl. at 2:20 P.M.	8°32'42.47"	✓

sin. 8°32'40"	9.1719503 ✓	Tan. 35°13'	9.8487174 ✓
cos 35°13'	9.9122099 ✓	tan. 32°49'30"	9.8096094 ✓
	9.2597404 ✓		9.6583268 ✓
cos 32°49'30"	9.9244500 ✓		.45533 ✓
	9.3352904 ✓		.21642 ✓
	.21642 ✓		.67175 = 47°48' ✓

∠ left to Ref. Pt. = 174°40' ✓
 Course to Ref. Pt. N. 53° 08' E. ✓

Obs. alt. 32°20'		tan. 35°13'	9.8487174 ✓
Refrac. 1'32"		tan. 32°18'30"	9.8009763 ✓
True alt. 32°18'28"			9.6496937 ✓

sin. 8°32'40"	9.1719503 ✓		.44637 ✓
cos. 35°13'	9.9122099 ✓		.21517 ✓
cos. 32°18'30"	9.2597404 ✓		.66154 = 48°35' ✓
cos. 32°18'30"	9.9269513 ✓	∠ left to ref. pt. = 175°27' ✓	
	9.3327891 ✓	Course to Ref. pt. N. = 53°08' E. ✓	
	.21517 ✓		

T. A.

5 wk. Genis.
Copy Not sent to Com. of L.O.

4-669

- DIRECTIONS.—1. Carry out the area figures to three decimals, and all other calculations to two decimals only.
 2. In balancing Lat. and Dep. do not obliterate or change the original figures; put the corrected footing in red ink. Do not change the footing of the original figures, but put below them the corrected footing in red ink. The corrected figure or figures above in red ink. Do not change the footing of the original figures, but put below them the corrected footing in red ink. The corrections for balancing fallings should be proportional to the lengths of the lines.
 3. In calculations of fallings take result to nearest hundredth. In calculations of N. and S. areas drop all after second decimal. Surveyors are advised to use the Standard Field Tables issued by G. L. O.

TABLING AND CALCULATIONS OF H. E. S. 85 Area

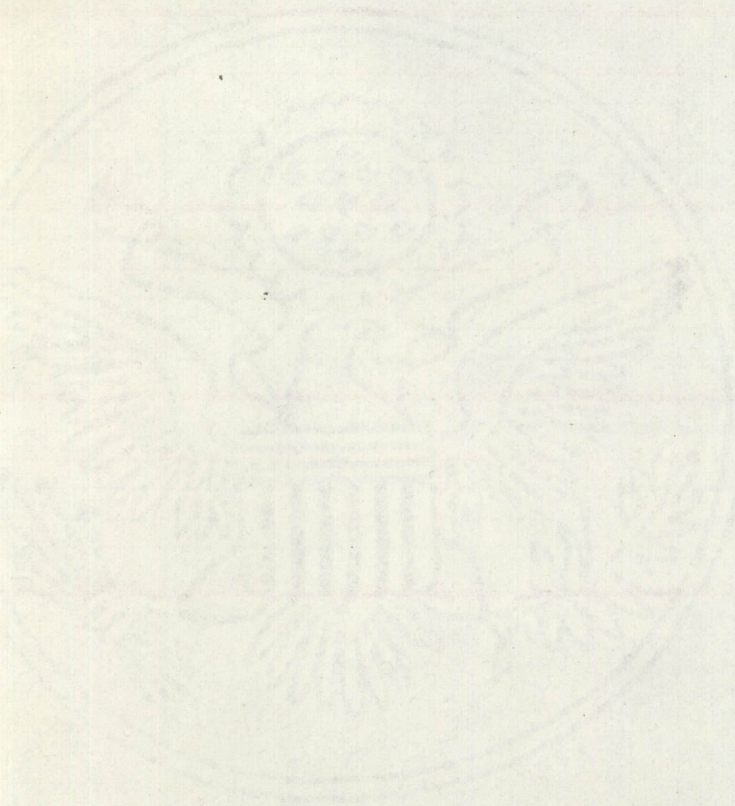
6-96

No.	COURSE	DISTANCE.	LATITUDES.		DEPARTURES.		DOUBLE M. D.	N. AREAS.	S. AREAS.
			NORTH.	SOUTH.	EAST.	WEST.			
1-2	S 89° 18' E	454		006	454		454	027	
2-3	S 0° 35' E	2024		2024	021		928	18783	
3-4	S 89° 40' E	126		001	126		1074	011	
4-5	S 53° 08' W	717		430		573	627	2696	
5-1	N 0° 37' W	2460	2460			026	027		
		5781	2460	2461	601	599	664	21517	
								664	
								2)20853	
								10426 = 10.43 Acres	

T. A.

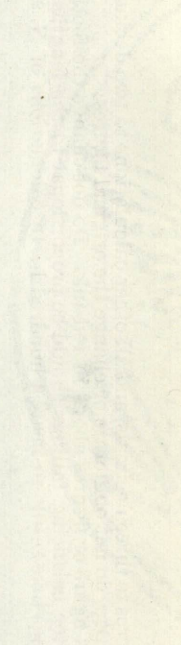
95

96



DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D. C.

UNITED STATES DEPARTMENT OF AGRICULTURE



APPROVAL

Office of the United States Surveyor General,
Phoenix, Arizona,

March 17, 1916 .

The foregoing field notes of Homestead Entry Survey No.

85

C. A. Greenlaw

executed by W. H. Finigan, Forest Service Surveyor

under his special instructions, dated August 8, 1913, and Charles D. Hodson, Surveyor-Draftsman, under instructions dated June 2, 1915, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.



U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described survey in Arizona, has been correctly copied from the original notes on file in this office.

Frank P. Trott,

U. S. Surveyor General.

