

ORIGINAL

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FIELD NOTES
OF THE
DEPENDENT RESURVEY
OF
THE NORTH BOUNDARY
AND
A PORTION OF THE EAST BOUNDARY,
TOWNSHIP 29 NORTH, RANGE 7 EAST,
OF THE GILA AND SALT RIVER MERIDIAN,
IN THE STATE OF ARIZONA

EXECUTED BY

Jones Curtiss, Cadastral Surveyor

Under Special Instructions dated and approved February 10, 2009, which provided for the surveys included under Group No. 1059, and assignment instructions dated February 10, 2009.

Survey commenced April 8, 2009

Survey completed July 30, 2009

INDEX DIAGRAM

TOWNSHIP 29 NORTH RANGE 7 EAST
GILA AND SALT RIVER MERIDIAN, ARIZONA

4	5	5	6	6	7
6	5	4	3	2	1 8
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

T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona

CHAINS

The following field notes describe the dependent resurvey of the north boundary and a portion of the east boundary, Township 29 North, Range 7 East, Gila and Salt River Meridian, Arizona.

The history of surveys pertaining to this survey is as follows:

Dupree R. Averill surveyed portions of the east and north boundaries, Township 29 North, Range 6 East, in 1931. Dupree R. Averill surveyed a portion of the east boundary and the north boundary, Township 29 North, Range 7 East, in 1931.

The survey was executed in accordance with the specifications as set forth in the Manual of Instructions for the Survey of the Public Lands of the United States, 1973, and the Special Instructions dated February 10, 2009, for Group Number 1059, Arizona.

The true meridian direction and length of all lines were determined by real kinematic global positioning system observations using Trimble Navigation 5700 model receivers.

Preliminary to the resurvey, the lines of the prior surveys were retraced and search was made for all corners and other calls of record. Lost corners were reestablished and remonumented as the proportionate positions based on the official record. The retracement data were thoroughly verified and only the true line field notes are given herein.

Geodetic control was derived from Global Positioning System (GPS), static observations post processed by National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS) FERNO MESA, FLAGSTAFF 5, and NAU FLAGSTAFF. The NAD83 (CORS96) (EPOCH:2002) geographic position of the northeast corner of the township is as follows:

Latitude: 35°56'02.81" N. Longitude: 111°35'11.71" W.

The mean magnetic declination is 11 1/2° E.

**Dependent Resurvey of the North Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>Restoring the survey executed by Dupree R. Averill, in 1931</p> <hr/>
	<p>Beginning at the cor. of Tps. 29 and 30 N., Rs. 6 and 7 E., monumented with an iron post, 3 ins. diam., firmly set, 3 ins. below the surface of the ground, with brass cap mkd. T30N R6E R7E S36 S31 S1 S6 T29N 1931.</p> <p>Uncover the iron post to be set flush with the surface of the ground and add the marks 2009 to the brass cap.</p> <p>Cor. is located 76 lks. S. of abandoned Arizona State Highway 64, with remains of asphalt pavement, 18 ft. wide, bears N. 70° E. and S. 70° W.</p> <p>N. 89°57' E., bet. secs. 6 and 31.</p> <p>Over rugged and broken land, along the N. slope of Gray Mountain.</p>
25.47	<p>The 1/4 sec. cor. of secs. 6 and 31, monumented with an iron post, 1 in. diam., firmly set, projecting 36 ins. above ground and in a mound of stone, 5 ft. base, 2 ft. high, with brass cap mkd. 1/4 S31 S6 1931.</p> <p>from which the remains of the orig. bearing trees</p> <p style="padding-left: 40px;">Two dead piñons, one, 14 ins. diam., with illegible marks on open blaze and the other, 9 ins. diam., mkd. 1/4 S6 BT on open blaze, both lying loose nearby; unable to determined their orig. positions.</p> <p>Add the marks T30N R7E T29N 2009 to the brass cap.</p> <p>From this cor. point, an iron post, 2 1/2 ins. diam., bears N. 2°56' W., 10.22 chs. dist., firmly set, projecting 6 ins. above ground, with a brass cap mkd. US DEPT OF AGRICULTURE ELEVATION 768+22.34 5991.58 FEET 1934 BUREAU OF PUBLIC ROADS.</p> <hr/> <p>S. 89°58' E., beginning new measurement.</p> <p>Over rugged and broken land.</p>
39.90	<p>The cor. of secs. 5, 6, 31 and 32, monumented with an iron post, 2 ins. diam., firmly set, projecting 19 ins. above ground and in a mound of stone, 3 ft. base, 1 ft. high, with brass cap mkd. T30N R7E S31 S32 S6 S5 T29N 1931.</p>

**Dependent Resurvey of the North Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>from which the remaining orig. bearing trees</p> <p style="padding-left: 40px;">A dead piñon, 7 ins. diam., bears S. 13 1/4° E., 2.30 chs. dist., mkd. T29N R7E S5 BT on open blaze. (Record: S. 12°45' E., 232 lks.)</p> <p style="padding-left: 40px;">A dead piñon, 10 ins. diam., bears N. 78 1/2° W., 90 lks. dist., mkd. T30N R7E S31 BT on open blaze. (Record: N. 81°15' W., 92 lks.)</p> <p>Add the marks 2009 to the brass cap.</p> <p>Cor. is located on a steep, rocky, E. slope of a mesa.</p> <hr/> <p>N. 89°51' E., bet. secs. 5 and 32.</p> <p>Over rugged and broken land, along the N. slope of Gray Mountain.</p>
40.04	<p>The 1/4 sec. cor. of secs. 5 and 32, monumented with an iron post, 1 in. diam., firmly set, projecting 36 ins. above ground and in a supporting mound of stone, 3 ft. base, to top, with brass cap mkd. 1/4 S32 S5 1931.</p> <p>Add the marks T30N R7E T29N 2009 to the brass cap.</p> <p>Cor. is located on a steep, rocky, NE slope of a mesa.</p> <hr/> <p>S. 89°55' E., beginning new measurement.</p> <p>Over rugged and broken land.</p>
40.06	<p>The cor. of secs. 4, 5, 32 and 33, monumented with an iron post, 2 ins. diam., firmly set, projecting 9 ins. above ground, encircled with a collar of stone, with brass cap mkd. T30N R7E S32 S33 S5 S4 T29N 1931.</p> <p>Add the marks 2009 to the brass cap.</p> <p>Cor. is located on a steep, rocky, N. slope of a mesa.</p> <hr/> <p>N. 89°59' E., bet. secs. 4 and 33.</p> <p>Over rugged and broken land, along the N. slope of Gray Mountain.</p>
40.13	<p>The 1/4 sec. cor. of secs. 4 and 33, monumented with an iron post, 1 in. diam., firmly set, projecting 12 ins. above ground and in a mound of stone, 3 ft. base, to top, with brass cap mkd. 1/4 S33 S4 1931.</p>

**Dependent Resurvey of the North Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>Add the marks T30N R7E T29N 2009 to the brass cap.</p> <hr style="width: 30%; margin: auto;"/> <p>East, beginning new measurement.</p> <p>Over rugged and broken land.</p>
27.69	S. right-of-way fence of Arizona State Highway 64, barbed wire, 4 strand, parallels highway.
30.59	Arizona State Highway 64, asphalt pavement, 40 ft. wide, bears S. 60° E. and N. 60° W.
33.40	N. right-of-way fence of Arizona State Highway 64, barbed wire, 4 strand, parallels highway.
39.98	<p>The cor. of secs. 3, 4, 33 and 34, monumented with an iron post, 2 ins. diam., firmly set, projecting 13 ins. above ground, with a mound of stone, 3 ft. base, 2 ft. high, W. of cor., with brass cap mkd. T30N R7E S33 S34 S4 S3 T29N 1931.</p> <p>Add the marks 2009 to the brass cap.</p> <hr style="width: 30%; margin: auto;"/> <p>S. 89°59' E., bet. secs. 3 and 34.</p> <p>Over rolling land.</p>
40.00	<p>The 1/4 sec. cor. of secs. 3 and 34, monumented with an iron post, 1 in. diam., firmly set, projecting 11 ins. above ground, with a mound of stone, 3 ft. base, 1 ft. high, N. of cor., with brass cap mkd. 1/4 S34 S3 1931.</p> <p>Add the marks T30N R7E T29N 2009 to the brass cap.</p> <hr style="width: 30%; margin: auto;"/> <p>S. 89°59' E., beginning new measurement.</p> <p>Over rolling land.</p>
39.99	<p>The cor. of secs. 2, 3, 34 and 35, monumented with an iron post, 2 ins. diam., firmly set, projecting 16 ins. above ground and in a supporting mound of stone, 4 ft. base, 1 ft. high, with brass cap mkd. T30N R7E S34 S35 S3 S2 T29N 1931.</p> <p>Add the marks 2009 to the brass cap.</p> <hr style="width: 30%; margin: auto;"/> <p>S. 89°59' E., bet. secs. 2 and 35.</p> <p>Over rolling land.</p>

**Dependent Resurvey of the North Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona**

CHAINS	
39.96	<p>The 1/4 sec. cor. of secs. 2 and 35, monumented with an iron post, 1 in. diam., firmly set, projecting 20 ins. above ground and in a supporting mound of stone, 4 ft. base, to top, with brass cap mkd. 1/4 S35 S2 1931.</p> <p>Add the marks T30N R7E T29N 2009 to the brass cap.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>East, beginning new measurement.</p> <p>Over rugged and broken land.</p>
20.70	<p>W. rim of the Little Colorado River canyon, top of a sandstone ledge, bears N. 10° E. and S. 10° W.</p>
35.70	<p>E. rim of the Little Colorado River canyon, top of a sandstone ledge, bears North and South.</p>
39.98	<p>The cor. of secs. 1, 2, 35 and 36, monumented with an iron post, 2 ins. diam., firmly set, projecting 30 ins. above ground and in a supporting mound of stone, 4 ft. base, 2 ft. high, with brass cap mkd. T30N R7E S35 S36 S2 S1 T29N 1931.</p> <p>Add the marks 2009 to the brass cap.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>S. 89°59' E., bet. secs. 1 and 36.</p> <p>Over rolling land.</p>
40.00	<p>The 1/4 sec. cor. of secs. 1 and 36, determined at the center of a mound of stone, 5 ft. base, 2 ft. high, and is accepted as the best available evidence of the position of the orig. cor. There is no remaining evidence of chiseled X mark, on the exposed bedrock, at the base of the mound of stone.</p> <p>At the corner point</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 14 ins. in the ground and in a mound of stone, 5 ft. base, to top, with brass cap mkd.</p> <div style="text-align: center; margin: 10px 0;"> <p>T 30 N R 7 E</p> <p>S 36</p> <p>1/4 ———</p> <p>S 1</p> <p>T 29 N</p> <p>2009</p> </div> <p>Deposit a magnet, in a white plastic case, at the base of the stainless steel post.</p>

**Dependent Resurvey of the North Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona**

CHAINS

Cor. is located 10 lks. N. of the N. rim of the Little Colorado River canyon, top of a sandstone ledge, bears East and West.

S. 89°59' E., beginning new measurement.

Over rolling and broken land, along the N. rim of the Little Colorado River canyon.

39.94

The cor. of Tps. 29 and 30 N., R. 7 E. only, monumented with an iron post, 3 ins. diam., firmly set, projecting 30 ins. above ground and in a supporting mound of stone, 4 ft. base, to top, with brass cap mkd. T30N R7E R8E S36 S1 T29N 1931. The field note record incorrectly shows this cor. marked as the cor. of four townships.

Add the marks 2009 to the brass cap.

Dependent Resurvey of a Portion of the East Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona

Restoring the survey executed by
Dupree R. Averill, in 1931

From the 1/4 sec. cor. of sec. 1 only, T. 29 N., R. 7 E., monumented with an iron post, 1 in. diam., firmly set, projecting 16 ins. above ground, bent at ground level, with brass cap mkd. 1/4 S1 1931.

At the corner point

Straighten and reset the iron post, 36 ins. long, 20 ins. in the ground and in mound of stone, 2 ft. base, to top, with brass cap remarked to read

T 29 N
R 7 E R 8 E
1/4 |
S 1 |

2009
1931

Deposit a magnet, in a white plastic case, at the base of the iron post.

N. 0°02' W., on E. bdy. of sec. 1.

Over rolling and broken land.

**Dependent Resurvey of a Portion of the East Boundary,
T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona**

CHAINS	<p>9.70 S. rim of the Little Colorado River canyon, top of a sandstone ledge, bears N. 55° E. and S. 55° W.</p> <p>24.50 S. rim of a vertical sandstone cliff, in the Little Colorado River canyon, approximately 700 ft. high, bears S. 60° E. and N. 60° W., thence ascend out of the canyon.</p> <p>29.10 N. rim of the Little Colorado River canyon, top of a sandstone ledge, bears East and West, thence over rolling land.</p> <p>39.99 The cor. of Tps. 29 and 30 N., R. 7 E. only, hereinbefore described.</p> <hr/> <p align="center">GENERAL DESCRIPTION</p> <hr/> <p>The area resurveyed is located approximately eleven miles west of Cameron, Arizona, within the Navajo Indian Reservation. The terrain is rugged and broken, along the N. slope of Gray Mountain to rolling and broken along the Little Colorado River canyon. The main drainage is the Little Colorado River, draining northwesterly.</p> <p>The elevation varies from 5000 to 6200 feet above sea level. The soil is mostly sandy and sandy clay with areas of sandstone outcrops, ledges and cliffs. The timber is piñon and juniper. The undergrowth consists of cacti, greasewood, and native grasses.</p> <p>Principal access to the area is Arizona State Highway 64, entering the township in section 1 and then parallels the north boundary. There are several livestock grazing areas. There is no mining activity in the area surveyed.</p> <p>The mean magnetic declination of 11 1/2° E. was derived from computer program GEOMAGIX, utilizing the World Magnetic Model for Epoch 2005 for the dates of survey.</p> <hr/>
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**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

FIELD ASSISTANTS

NAMES	CAPACITY
Fabian Yazzie	Cadastral Surveyor in Training
Nelson Kinsel	Surveying Technician
Daniel Bryan	Engineering Technician
Barney Woodie	Engineering Technician

CERTIFICATE OF SURVEY

I, Jones Curtiss, Cadastral Surveyor, HEREBY CERTIFY upon honor, that in pursuance of special instructions bearing date of the 10th day of February, 2009, I have dependently resurveyed the north boundary and a portion of the east boundary, T. 29 N., R. 7 E., of the Gila and Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me and under my direction. Said survey has been made in strict conformity with said special instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, 1973, and in specific manner described in the foregoing field notes.

September 30, 2009
(Date)

Jones Curtiss
(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT
Phoenix, Arizona

The foregoing field notes of the dependent resurvey of the north boundary and a portion of the east boundary, T. 29 N., R. 7 E., Gila and Salt River Meridian, in the State of Arizona, executed by Jones Curtiss, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

11/3/2009
(Date)

Paul F. Moss
Acting (Chief Cadastral Surveyor of Arizona)

~~CERTIFICATE OF TRANSCRIPT~~

~~I CERTIFY That the foregoing transcript of the field notes of the above described surveys in T. 29 N., R. 7 E., Gila and Salt River Meridian, Arizona, is a true copy of the original field notes.~~

~~_____
(Date)~~

~~_____
(Chief Cadastral Surveyor of Arizona)~~