

**ORIGINAL**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FIELD NOTES

OF THE

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DEPENDENT RESURVEY

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OF

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A PORTION OF THE ARIZONA-NEW MEXICO STATE LINE

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BETWEEN THE 53 MILE POST AND

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AN ANGLE POINT ON THE 57TH MILE,

---

UNSURVEYED TOWNSHIPS 32 AND 33 NORTH, RANGE 31 EAST,

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Of the Gila and Salt River Meridian,  
In the State of Arizona

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EXECUTED BY

Leonard R. Sandoval, Cadastral Surveyor

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Under Special Instructions dated and approved September 9, 1999, which provided for the surveys included under Group Number 844 and assignment instructions dated September 9, 1999.

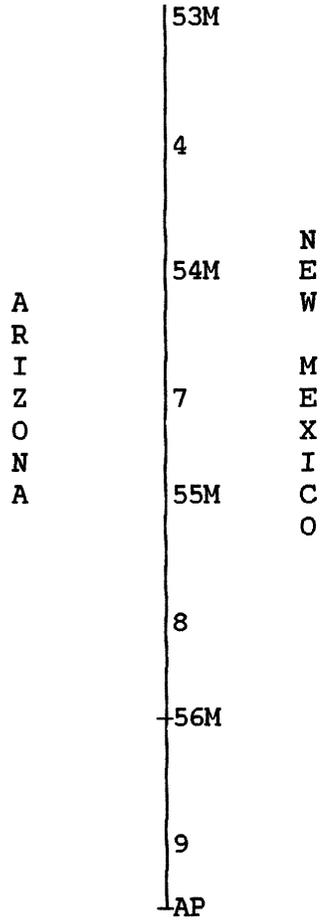
Survey Commenced May 23, 2001

Survey Completed July 15, 2002

INDEX DIAGRAM

UNSURVEYED TOWNSHIPS 32 and 33 NORTH, RANGE 31 EAST,

GILA AND SALT RIVER MERIDIAN, ARIZONA



## Unsurveyed Tps. 32 &amp; 33 N., R. 31 E., Gila and Salt River Meridian, Arizona

CHAINS	<p>The following field notes describe the dependent resurvey of a portion of the Arizona-New Mexico State Line between the 53 Mile Post and an angle point on the 57th mile, unsurveyed Tps. 32 and 33 N., R. 31 E., Gila and Salt River Meridian, Arizona.</p> <p>The Arizona-New Mexico State Line was surveyed by Chandler Robbins in 1875. A portion of the Arizona-New Mexico State Line between an angle point on the 57th mile and the 63 Mile Post was dependently resurveyed by William F. Olver and Robert L. Harper in 1992-93, under Group No. 871, NM.</p> <p>The survey was executed in accordance with the specifications as set forth in the <u>Manual of Instructions for the Survey of the Public Lands of the United States, 1973</u>, the Special Instructions dated September 9, 1999, for Group No. 844, Arizona.</p> <p>Preliminary to the resurvey, the lines of the original survey were retraced and search was made for all corners and other calls of the record. Identified corners were remonumented in their original positions; lost corners were restored and monumented at proportionate positions based on the original record. The retracement data were thoroughly verified and only the true line field notes are given herein.</p> <p>The true meridian directions and lengths of all lines were determined by real time kinematic and static global positioning system observations using Trimble 4400, 4700 and 5700 model receivers.</p> <p>Geodetic control was derived from first order or better U. S. Coast and Geodetic Survey triangulation stations "BEAUTIFUL 1951" and "LOHALI 1951", as published by the National Geodetic Survey, NAD83(1992). The geographic position of the 53 Mile Post is as follows:</p> <p>Latitude: 36°14'08.25" N. Longitude: 109°02'45.29" W.</p> <p>The mean magnetic declination is 11 1/2° E.</p>
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Book 5663

Dependent Resurvey of a Portion of the Arizona-New Mexico State Line  
Between the 53 Mile Post and an Angle Point on the 57th Mile,  
Unsurveyed Tps. 32 & 33 N., R. 31 E., Gila and Salt River Meridian, Arizona

CHAINS	
	<p>Restoring the Survey Executed by Chandler Robbins in 1875</p> <hr style="width: 20%; margin: auto;"/> <p>Beginning at the 53 Mile Post, monumented with a sandstone, 12 x 9 ins., firmly set, projecting 9 ins. above ground. in an embedded mound of stone, 2 1/2 ft. base, mkd. NM on east face, 32L on south face, ARIZ on west face, and 53 on north face.</p> <p>from which the remains of the original bearing trees</p> <p style="padding-left: 40px;">A ponderosa pine stump, 33 ins. diam., 12 ins. high, bears N. 16 1/2° E., 1.05 chs. dist., with no visible marks or blaze. (Record: N. 18°12' E., 103 1/2 lks. dist.)</p> <p style="padding-left: 40px;">A ponderosa pine stump, 32 ins. diam., 16 ins. high, bears N. 80° E., 28 1/2 lks. dist., with scribe marks BT visible on opened healed blaze. (Record: 27 lks. dist.)</p> <p style="padding-left: 40px;">A ponderosa pine stump, 27 ins. diam., 12 ins. high, bears N. 84° W., 1.33 chs. dist., with scribe marks BT visible on opened healed blaze. (Record: N. 87°10' W., 181 lks. dist.)</p> <p>At the corner point</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <div style="text-align: center;"> <p>53M AZ   NM 2001</p> </div> <p>Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <p>Bury the original stone, 15 ins. long, alongside.</p> <p>S. 0°12' W., on the 54th mile of the Arizona-New Mexico State Line.</p> <p>Over rolling and broken land.</p>
13.80	Graded road, 20 ft. wide, bears E. and W.
15.60	Remnant of a line tree on the 54th mile of the Arizona-New Mexico State Line, a ponderosa pine stump, 30 ins. diam., 12 ins. high, with no visible hack marks: this line tree now becomes an angle point. Impractical to remonument. (Record: 15.54 chs.)

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CHAINS	
	<p>from which</p> <p>A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears S. 89°30' E., 20.0 ft. dist., with brass cap mkd. AP NM RM 20.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <p>A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears N. 89°30' W., 20.0 ft. dist., with brass cap mkd. AP AZ RM 20.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>S. 0°16' W., beginning new measurement.</p>
4.53	<p>Remnant of a line tree on the 54th mile of the Arizona-New Mexico State Line, a ponderosa pine stump, 32 ins. diam., 12 ins. high, with no visible hack marks: this line tree now becomes an angle point. Impractical to remonument. (Record: 4.54 chs.)</p> <p>from which</p> <p>A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears East, 20.0 ft. dist., with brass cap mkd. AP NM RM 20.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <p>A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears West, 20.0 ft. dist., with brass cap mkd. AP AZ RM 20.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>S. 0°06' E., beginning new measurement.</p>
4.15	<p>Creek, 15 ft. wide, 5 ft. high banks, flows NW. (Record: 4.12 chs.)</p>
12.60	<p>Power line, bears ENE and WSW.</p>

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 Between the 53 Mile Post and an Angle Point on the 57th Mile,  
 Unsurveyed Tps. 32 & 33 N., R. 31 E., Gila and Salt River Meridian, Arizona

CHAINS	
14.87	<p>Remnant of a line tree on the 54th mile of the Arizona-New Mexico State Line, a ponderosa pine stump, 14 ins. diam., 14 ins. high, with no visible hack marks: this line tree now becomes an angle point. (Record: 14.92 chs.)</p> <p>Remove the stump and at the corner point</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground with brass cap mkd.</p> <p style="text-align: center;">AP AZ   NM 2001</p> <p>Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>S. 0°07' W., beginning new measurement.</p>
9.20	Navajo Route 8080, a graded road, 20 ft. wide, bears ENE and WSW.
12.70	Graded road, 20 ft. wide, bears E. and W.
14.20	Trail road, bears ESE and WNW.
23.65	Woven wire and barbed wire fence, bears E. and W.; thence enter Yellow Valley.
26.65	Creek, 15 ft. wide, 1 ft. deep, flows NW.
45.03	<p>Point for the 54 Mile Post, at proportionate dist.; there is no remaining evidence of the original cor.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">54M AZ   NM 2002</p> <p>Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p>

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Between the 53 Mile Post and an Angle Point on the 57th Mile,  
Unsurveyed Tps. 32 & 33 N., R. 31 E., Gila and Salt River Meridian, Arizona

CHAINS	
	<p>Cor. is located 2.80 chs. N. of a wash, 15 ft. wide, 1 1/2 ft. deep, drains W. (Record: 2.50 chs., Enter meadow or vega, bears E. and W.)</p> <hr/> <p>S. 0°07' W., on the 55th mile of the Arizona-New Mexico State Line.</p> <p>Over gently rolling land, in Yellow Valley.</p>
31.63	Barbed wire fence, 5 strands, bears SE and NW; thence leave Yellow Valley.
31.80	Trail road, bears SE and NW; thence over rolling and broken land, on ascent.
71.84	<p>The line tree on the 55th mile of the Arizona-New Mexico State Line, a root hole, with a decayed fallen ponderosa pine, 19 ins. diam., lying alongside, with 1 hack mark visible on top face of log: this point now becomes an angle point. (Record: 71.80 chs.)</p> <p>At the corner point</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">AP AZ   NM 2001</p> <p>Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <hr style="width: 20%; margin: auto;"/> <p>South, beginning new measurement.</p>
8.22	<p>Point for the 55 Mile Post, at proportionate dist.: found the original sandstone, 16 x 5 x 18 ins. long, lying loose nearby, mkd. ARIZ, NM, 55 and 32WL on four opposing faces; there is no remaining evidence of the original bearing trees.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p>

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CHAINS	
	55M AZ   NM 2002
	<p>Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <p>Bury the original stone alongside the stainless steel post.</p> <hr/> <p>South, on the 56th mile of the Arizona-New Mexico State Line.</p> <p>Over rolling and broken land, continuing on ascent.</p>
1.30	<p>Remnant of a line tree on the 56th mile of the Arizona-New Mexico State Line, a ponderosa pine stump, 20 ins. diam., 18 ins. high, with no visible hack marks: this line tree now becomes an angle point. Impractical to remonument. (Record: 1.30 chs.)</p> <p>from which</p> <p style="padding-left: 40px;">A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears S. 40°00' E., 50.0 ft. dist., with brass cap mkd. AP NM RM 50.0 FT. TO COR. 2002 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <p style="padding-left: 40px;">A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears N. 40°00' W., 40.0 ft. dist., with brass cap mkd. AP AZ RM 40.0 FT. TO COR. 2002 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <hr style="width: 20%; margin: 0 auto;"/> <p style="padding-left: 40px;">S. 0°04' W., beginning new measurement.</p>
78.38	<p>Point for the 56 Mile Post, at proportionate dist.; there is no remaining evidence of the original cor.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">           56M            AZ   NM            2002         </p> <p>Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p>

Dependent Resurvey of a Portion of the Arizona-New Mexico State Line  
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CHAINS	
	Set a steel fence post nearby.
	Cor. is located 30 lks. N. of a bladed road, 22 ft. wide, bears NE and SW.
	<hr/> S. 0°04' W., on the 57th mile of the Arizona-New Mexico State Line.
	Over broken land, on steep ascent.
5.40	Bladed road, 20 ft. wide, bears ENE and WSW.
10.20	Narrow rocky ridge, bears ENE and WSW; thence begin descent. (Record: 10.00 chs.)
16.70	Wash, 20 ft. wide, 3 ft. deep, drains WSW; thence over rolling land, on ascent. (Record: Brook, 16.50 chs.)
27.01	Remnant of a line tree on the 57th mile of the Arizona-New Mexico State Line, a ponderosa pine stump, 31 ins. diam., 30 ins. high, with hack marks on the N. and S. sides and hack marks on opposite sides of the fallen trunk: this line tree now becomes an angle point. Impractical to remonument. (Record: 27.12 chs.)
	from which
	A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears N. 45°00' E., 25.0 ft. dist., with brass cap mkd. AP NM RM 25.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.
	A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears N. 45°00' W., 25.0 ft. dist., with brass cap mkd. AP AZ RM 25.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.
	Cor is located 60 lks. N. of a bladed road, 19 ft. wide, bears SE and NW.
	<hr/> S. 1°49' E., beginning new measurement.

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CHAINS	
0.99	<p>Remnant of a line tree on the 57th mile of the Arizona-New Mexico State Line, a ponderosa pine stump, 24 ins. diam., 30 ins. high, with faint hack marks visible on S. side: this line tree now becomes an angle point. Impractical to remonument. (Record: 0.92 ch.)</p> <p>from which</p> <p>A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 24 ins. in the ground, for a reference monument, bears S. 45°00' E., 20.0 ft. dist., with brass cap mkd. AP NM RM 20.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <p>A stainless steel post, 28 ins. long, 2 1/2 ins. diam., set 15 ins. in the ground, to bedrock, supported in a mound of stone, 3 ft. base, to top, for a reference monument, bears N. 45°00' W., 20.0 ft. dist., with brass cap mkd. AP AZ RM 20.0 FT. TO COR. 2001 and an arrow pointing to the cor. Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.</p> <hr/> <p>S. 0°06' W., beginning new measurement.</p>
14.40	<p>Remnant of a line tree on the 57th mile of the Arizona-New Mexico State Line, a ponderosa stump, 31 ins. diam., 24 ins. high, with hack marks visible on nearby portions of the fallen and rotted trunk: this line tree is serving as an angle point. Impractical to remonument. (Record: 13.56 chs.)</p> <p>from which the 1993 reference monuments</p> <p>A stainless steel post, 2 1/2 ins. diam., firmly set, projecting 2 ins. above ground, bears S. 45°00' E., 10.0 ft. dist., with brass cap mkd. AP NM RM 10.0 FT. TO COR. 1993 and an arrow pointing to the cor.</p> <p>A stainless steel post, 2 1/2 ins. diam., firmly set, projecting 3 ins. above ground, bears N. 45°00' W., 10.0 ft. dist., with brass cap mkd. AP AZ RM 10.0 FT. TO COR. 1993 and an arrow pointing to the cor.</p> <hr/>

Unsurveyed Tps. 32 & 33 N., R. 31 E., Gila and Salt River Meridian, Arizona

CHAINS	GENERAL DESCRIPTION
	<p>The area surveyed is about 5 miles east of the community of Wheatfields, Arizona, on the Navajo Indian Reservation. The area is located in the western foothills of the Chuska Mountains. The land varies from gently rolling in the small valleys to rolling and broken in the hills. Drainage is westerly, with a few flowing creeks being present.</p> <p>The elevation varies from 7400 to 8700 feet above sea level. The soil is sandy and gravelly clay with rock outcrops. The timber consists primarily of second growth ponderosa pine, blue spruce, piñon, juniper, Gambel's oak and aspen. Undergrowth consists of various brush and native grasses.</p> <p>The main access to the area is provided by Navajo Route 8080, a graded road, which crosses the State Line. There are several scattered pastures for grazing livestock. There is no evidence of any current mining activity.</p> <p>The mean magnetic declination of 11 1/2° E. was derived from the computer program GEOMAGIX utilizing the Regional Magnetic Field Model for Epoch 2000 for the dates of survey.</p>

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## FIELD ASSISTANTS

NAMES	CAPACITY
William F. Olver	Cadastral Surveyor
James L. Werdel	Cadastral Surveyor
Daniel Bryan	Engineering Technician
Wilfred Chee	Engineering Technician
Edward Clarke	Engineering Technician
Reuben Mason	Engineering Technician
Barney Woodie	Engineering Technician

CERTIFICATE OF SURVEY

I, Leonard R. Sandoval, Cadastral Surveyor, HEREBY CERTIFY upon honor that, in pursuance of Special Instructions bearing date of the 9th day of September, 1999, I have dependently resurveyed a portion of the Arizona-New Mexico State Line between the 53 Mile Post and an angle point on the 57th mile, unsurveyed Townships 32 and 33 North, Range 31 East, 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; and that said surveys have 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.

5/12/03  
(Date)

Leonard R. Sandoval  
(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT  
Arizona State Office  
Phoenix, Arizona

The foregoing field notes of the dependent resurvey of a portion of the Arizona-New Mexico State Line between the 53 Mile Post and an angle point on the 57th mile, unsurveyed Townships 32 and 33 North, Range 31 East, Gila and Salt River Meridian, Arizona, executed by Leonard R. Sandoval, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

July 14, 2003  
(Date)

Lenny D. Rownter  
(Chief Cadastral Surveyor of Arizona)

~~CERTIFICATE OF TRANSCRIPT~~

~~I CERTIFY that the foregoing transcript of the field notes of the above-described surveys in unsurveyed Tps. 32 and 33 N., R. 31 E., Gila and Salt River Meridian, Arizona, is a true copy of the original field notes.~~

~~\_\_\_\_\_  
(Date)~~

~~\_\_\_\_\_  
(Chief Cadastral Surveyor of Arizona)~~