

ORIGINAL

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

FIELD NOTES  
OF THE  
SUBDIVISION OF SECTION 29,  
AND THE SURVEY OF THE MEANDERS OF  
THE PRESENT LEFT BANK OF THE COLORADO RIVER  
IN SECTION 29  
TOWNSHIP 16 SOUTH, RANGE 22 EAST,  
OF THE SAN BERNARDINO MERIDIAN,  
IN THE STATE OF ARIZONA.

**EXECUTED BY**

**Gordon R. Bubel, Cadastral Surveyor**

Under Special Instructions dated, approved July 9, 2013, which provided for the surveys included under Group No. 1120, and assignment instructions dated July 9, 2013.

**Survey commenced July 24, 2013**

**Survey completed July 31, 2013**

### INDEX DIAGRAM

TOWNSHIP 16 SOUTH      RANGE 22 EAST  
SAN BERNARDINO MERIDIAN, ARIZONA

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## T. 16 S., R. 22 E., San Bernardino Meridian, Arizona

## CHAINS

The following field notes describe the subdivision section 29 and the survey of the meanders of the present left bank of the Colorado River in section 29, Township 16 South, Range 22 East, San Bernardino Meridian, Arizona.

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

The history of surveys pertaining to this survey is as follows: Robert C. Yundt dependently resurveyed portions of the subdivisional lines, subdivided section 29 and meandered the left bank of the Colorado River through section 29, in 1959-1960. Paul G. Bauer and Robert C. Yundt, dependently resurveyed portions of the subdivisional lines, subdivided section 28 and meandered the left bank of the Colorado River through the W. 1/2 of section 28. In 2012 Gordon R. Bubel dependently resurveyed a portion of the subdivisional lines and subdivision of section lines in section 28, performed a metes-and-bounds survey in section 28 and meandered the left bank of the Colorado River in a portion of section 28.

The survey was executed in accordance with the specifications as set forth in the Manual of Surveying Instructions for the Survey of the Public Lands of the United States, 1973, and the Special Instructions dated July 9, 2013, for Group Number 1120, Arizona.

The true meridian direction and length of all lines were determined by real time kinematic global positioning system observations using Trimble Navigation R8 and 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. Identified corners were remonumented in their original positions. Lost corners were reestablished and remonumented at 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 first order U. S. Geological Survey triangulation station FEDER RESET, as published by the National Geodetic Survey. The NAD 83 (1992) geographic position of the S. 1/16 section corner of sections 28 and 29, is as follows:

Latitude: 32°43'56.56" N.                      Longitude: 114°39'55.48" W.

The mean magnetic declination is 11 1/4° E.

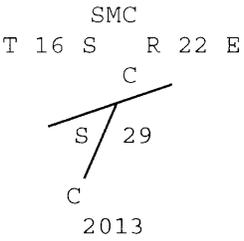
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Subdivision of Section 29  
T. 16 S., R. 22 E., San Bernardino Meridian, Arizona

CHAINS	
	<p>Restoring the subdivision of sec. 29 executed by Robert C. Yundt, in 1959-1960</p> <hr/>
	<p>Beginning at the center S. 1/16 sec. cor. of sec. 29, monumented with an iron post, 1 ins. diam., firmly set, 3 ins. below the surface, with brass cap mkd. USBR C S 1/16 S29 C 1960.</p>
	<p>From this cor. the intersection of graded farm roads extending N. S. E. and W., bears N. 70°27' E., 36 lks. dist.</p>
	<p>From this same cor., a wooden power pole, bears S. 61°10' E., 11 lks. dist.</p>
	<p>North, on record bearing, on the N. and S. center line of sec. 29.</p>
	<p>Across level cultivated land.</p>
0.55	<p>Enter cotton field, edge bears S. 40° W. and N. 40° E., for 30 lks., thence N.</p>
8.15	<p>Leave cotton field, edge bears N. 50° W. and S. 50° E. for 30 lks., thence S.</p>
8.85	<p>Graded farm road, bear S. 50° E. and N. 50° W., thence enter dense brush.</p>
11.95	<p>Point for the 1960 special meander cor., at record dist., on the 1960 left bank of the Colorado River, there is no remaining evidence of the 1960 cor.</p>
	<p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 18 ins. in the ground, over a steel fence post, (60 ins. long, driven 50 ins. in the ground), with brass cap mkd.</p>
	<p style="text-align: center;">SMC T16S R22E C S   29 C 2013</p>
	<p>Deposit a magnet, in a white plastic case, at the base of the stainless steel post.</p>
	<p>Encircle the cor., with concrete remains of an irrigation canal and set a steel fence post alongside and S. of cor.</p> <hr/>

## Subdivision of Section 29

T. 16 S., R. 22 E., San Bernardino Meridian, Arizona

CHAINS	
	<p>N. 8°29' E., beginning new measurement, on the division of accretion line, determined utilizing the proportionate shore line method.</p> <p>Note:___ The zero accretion point east, in sec. 28, was computed using the intersection of the 2012 record meanders of the left bank of the Colorado River with the 1961 record meanders of the left bank of the Colorado River. The zero accretion point west, in sec. 29, was computed using the intersection of the 2013 meanders (hereinafter described) and the 2013 informal traverse of the left bank of the Colorado River with the 1959-60 record meanders of the left bank of the Colorado River in sec. 29.</p> <p>Through dense arrow weed.</p>
4.82	<p>Point for the special meander cor. at intersection with the present ordinary high water mark on the left bank of the Colorado River.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.</p> <div style="text-align: center;">  </div> <p>Deposit a magnet, in a white plastic case, at the base of the stainless steel post.</p> <p>Set a steel fence post, 1 lk. S. of cor.</p> <p>Cor. is located at the margin between arrow weeds and reeds.</p> <hr/> <p>From the S. 1/16 sec. cor. of secs. 28 and 29, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 1 in. above ground, witnessed by a steel fence post set alongside, with brass cap mkd. T16S R22E S1/16 S29 S28 2012.</p> <p>S. 89°59' W., on the E. and W. center line of the SE 1/4 of sec. 29.</p> <p>Across level cultivated land.</p>
17.60	<p>Power line, bears N. 20° E. and S. 20° W., for 3 lks. dist., thence W.</p>

Subdivision of Section 29  
T. 16 S., R. 22 E., San Bernardino Meridian, Arizona

CHAINS	
17.90	Graded farm road, 8 ft. wide, 4 ft. below cultivated fields. bears N. and S.
18.13	<p>Point selected for a witness cor.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 28 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">WP T 16 S R 22 E</p> <p style="text-align: center;">S ——— S S 29 2013</p> <p>Deposit a magnet, in a white plastic case, at the base of the stainless steel post.</p> <p>Cor. is located on an agricultural berm, (3 ft. wide, 4 ft. above cultivated fields), extends N. and W.</p>
19.95	<p>Point for the SE 1/16 sec. cor. of sec. 29, at intersection with the N. and S. center line of the SE 1/4 of sec. 29, there is no remaining evidence of the cor. set in 1960.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 28 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">T 16 S R 29 E SE 1/16 S 29</p> <p style="text-align: center;">2013</p> <p>Deposit a magnet, in a white plastic case, at the base of the stainless steel post.</p> <p>Set a steel fence post alongside and N. of the cor.</p> <p>Cor. is located on an agricultural berm, (3 ft. wide, 4 ft. above cultivated fields), extends E. and W., and underneath a power line extending E. and W.</p> <p>From this cor., the E. 1/16 sec. cor. of secs. 29 and 32, bears South, 20.00 chs. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, 12 ins. below the surface, with brass cap mkd. T16S R22E E1/16 S29 S32 1960.</p> <p>Cor. is located beneath a power line, on the S. edge of a raised farm road, both bear E. and W.</p>
39.90	The center S. 1/16 sec. cor. of sec. 29.

**Subdivision of Section 29  
T. 16 S., R. 22 E., San Bernardino Meridian, Arizona**

CHAINS	
	From the SE 1/16 sec. cor. of sec. 29.
	North, on record bearing, on the N. and S. center line of the SE 1/4 of sec. 29.
	Across level cultivated fields.
0.15	Abandoned irrigation canal, 8 ft. wide at bottom, 4 ft. below grade, extends E. and W.
6.80	Graded farm road, bear S. 80° E. and N. 80° W.
7.80	Leave cultivated lands, enter dense brush, edge bears S. 80° E. and N. 80° W.
8.00	Point for the 1960 special meander cor., at record dist., on the 1960 left bank of the Colorado River, there is no remaining evidence of the 1960 cor. Not monumented.
	Continuing measurement, over accreted lands.
13.22	Point for a special meander cor., at intersection with the present left bank of the Colorado River, bears S. 61°57' E. and N. 61°57' W., not monumented.
<hr/> <p><b>Survey of the 2013 Meanders of a Portion of the Present Left Bank of the Colorado River in Section 29, T. 16 S., R. 22 E., San Bernardino Meridian, Arizona</b></p> <hr/>	
<p>Memorandum: The 2013 meanders of the present left bank of the Colorado River supersede the 1959-60 meanders in section 29. The meanders represent the ordinary high water mark.</p> <hr/>	
<p>From the 2012 meander cor. on the line bet. secs. 28 and 29, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 2 ins. above ground, with brass cap mkd. MC T16S R22E S29 S28 2012.</p>	
<p>Thence, downstream with the meanders on the present left bank of the Colorado River.</p>	
<p>Along a low bank, identical with the margin between arrow weed and reed.</p>	
	S. 71°54' W.,            2.72
	S. 79°06' W.,            5.29
	S. 88°13' W.,            3.86

Survey of the 2013 Meanders of a Portion of  
the Present Left Bank of the Colorado River in Section 29,  
T. 16 S., R. 22 E., San Bernardino Meridian, Arizona

CHAINS		
N. 73°11' W.,	7.13	At 5.32 chs. dist. on this course, boat ramp, 15 ft. wide extends N. 15° W.,
N. 61°57' W.,	3.13	At 2.17 chs. dist., on this course, intersect the N. and S. center line of the SE 1/4 of sec. 29.
N. 60°13' W.,	4.01	
N. 71°30' W.,	2.63	
N. 83°51' W.,	8.74	
S. 79°12' W.,	3.80	The special meander cor. of sec. 29. at intersection with N. and S. center line of sec. 29.
GENERAL DESCRIPTION		
<p>The area encompassed by this survey is in the bottomlands of the Colorado River, within the City of Yuma, Az. The present left bank of the Colorado River is the north boundary of the area surveyed, the remaining lands are bounded by agricultural and accreted lands.</p> <p>The mean magnetic declination of 11 1/4° E. was derived from the National Oceanic and Atmospheric Administration, National Geophysical Data Center, magnetic field calculator, utilizing the International Geomagnetic Reference Field model for the dates of survey.</p>		



CERTIFICATE OF SURVEY

I, Gordon R. Bubel, Cadastral Surveyor, HEREBY CERTIFY upon honor, that in pursuance of special instructions bearing date of the 9th day of July, 2013, I have subdivided section 29 and surveyed the meanders of the present left bank of the Colorado River in section 29, Township 16 South, Range 22 East, of the San Bernardino 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 Surveying Instructions for the Survey of the Public Lands of the United States, 2009, and in specific manner described in the foregoing field notes.

SEPT. 25, 2013  
(Date)

Gordon R. Bubel  
(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT  
Phoenix, Arizona

The foregoing field notes of the subdivision of section 29 and the survey of the meanders of the present left bank of the Colorado River in section 29, Township 16 South, Range 22 East, San Bernardino Meridian, in the State of Arizona, executed by Gordon R. Bubel, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

10/18/2013  
(Date)

Stephen K. Hansen  
(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. 16 S., R. 22 E., San Bernardino Meridian, Arizona, is a true copy of the original field notes.~~

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

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