

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ORIGINAL

FIELD NOTES

OF

THE DEPENDENT RESURVEY OF

A PORTION OF THE SOUTH BOUNDARY,
TOWNSHIP 41 SOUTH, RANGE 17 WEST

AND

A PORTION OF THE SUBDIVISIONAL LINES

IN

TOWNSHIP 42 SOUTH, RANGE 17 WEST,

OF THE SALT LAKE MERIDIAN,

IN THE STATE OF UTAH

EXECUTED BY

Dale A. Graff
Cadastral Surveyor

Under special instructions dated **March 07, 2008**, approved **March 07, 2008**, which provided for the surveys included under Group Number **992**, Utah, and assignment instructions dated **March 07, 2008**.

Survey commenced **June 11, 2008**
Survey completed **October 30, 2008**

INDEX DIAGRAM

Township 42 South, Range 17 West

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

T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

The following field notes describe the dependent resurvey of a portion of the south boundary of T. 41 S., R. 17 W. and a portion of the subdivisional lines, in T. 42 S., R. 17 W., Salt Lake Meridian, Utah.

History of Surveys

| Surveyed by | Retr. or Resurveyed by | | |
|------------------------------------|-------------------------------|--------------------------------|------|
| SOUTH BOUNDARY | | | |
| All J.H. Winwood & H.L. Chamberlin | 1909 | | |
| EAST BOUNDARY | | | |
| Portion J. Gorlinski | 1870 | | |
| All M.H. Dalley | 1900 | M.H. Dalley | 1900 |
| All | | J.H. Winwood & H.L. Chamberlin | 1909 |
| All | | G.B. Hatch | 1968 |
| Portion | | R.A. Zaninovich | 1990 |
| WEST BOUNDARY | | | |
| All J.H. Winwood & H.L. Chamberlin | 1909 | | |
| Portion | | D.A. Graff | 2009 |
| NORTH BOUNDARY | | | |
| All J.H. Winwood & H.L. Chamberlin | 1909 | | |
| Portion | | R.A. Zaninovich | 1990 |
| SUBDIVISION | | | |
| All J.H. Winwood & H.L. Chamberlin | 1909 | | |
| Portion | | R.A. Zaninovich | 1990 |
| Portion | | D.A. Graff | 2009 |

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 March 07, 2008, for Group No. 992, Utah.

The direction of the lines was determined by references to true meridians, established by Global Positioning System (GPS) utilizing Real-Time Kinematic (RTK) techniques throughout the survey. The positional accuracy of this survey complies with the *Standards and Guidelines for Cadastral Surveys Using Global Positioning System Methods*, dated May 9, 2001, Version 1.0. Trimble model 5800 GPS receivers were used for field collection. Cadastral Automated Plat Drafting (CAPD) software was the primary software utilized for project calculations.

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.

T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

Cadastral Control Network was derived from GPS static observations, post processed by the National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS); NVLM AMS WT FACILITY CORS ARP, ECHO ECHO_BRGN_NV1999 CORS ARP, FRED FREDONIA CORS ARP.

The geographic positions for the corners listed below, as determined by direct RTK methods from the National Geodetic Survey OPUS solution are as follows:

The corner of sections 1, 2, 11 and 12, Township 42 South, Range 17 West, Salt Lake Meridian, Utah.

Latitude $37^{\circ}09'12.401''$ N., Longitude $113^{\circ}42'57.343''$ W.,
N.A.D.83, Network Accuracy = 0.200 meters at 95% confidence.

The corner of sections 14, 15, 22, and 23, Township 42 South, Range 17 West, Salt Lake Meridian, Utah.

Latitude $37^{\circ}07'27.974''$ N., Longitude $113^{\circ}44'02.335''$ W.,
N.A.D.83, Network Accuracy = 0.200 meters at 95% confidence.

DEPENDENT RESURVEY OF A PORTION OF THE SOUTH BOUNDARY,
T. 41 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

CHAINS

Dependent Resurvey of a Portion of the South Boundary,
T. 41 S., R. 17 W., Salt Lake Meridian, Utah

Reestablishment of the Survey Executed by
J.H. Winwood & H.L. Chamberlin in 1909.

Beginning at the corner of sections 35 and 36 only, T. 41 S., R. 17 W., monumented with an iron post, 3 ins. diameter, firmly set, projecting 13 ins. above ground, with brass cap marked as described in the official record of the 1909 survey.

From which the point of intersection and the true point for the closing corner of sections 1 and 2 bears N. 89°59' E., 0.58 chains based on the official record of the 1990 resurvey, not monumented.

From this corner, an angle point in a barbed wire fence line bears north, 7 links distance, with fence lines extending north and meandering southeast.

Corner is located on a moderate northeast facing slope on rocky open ground.

N. 89°59.1' W. along the south boundary of section 35.

39.222 The 1/4 section corner of section 2 only, at midpoint between the closing corners.

Set an aluminum post, 30 ins. long, 2 1/2 ins. diameter, 5 ins. in the ground to bedrock in a crack between 2 boulders, with brass cap marked:

T41S R17W
1/4
 S 2
 T42S
 2008

Raise a mound of stone around aluminum post, 3 ft. base to top of aluminum cap.

Deposit a Deep-1 magnet at base of aluminum post and set a steel fence post alongside.

Corner is located in open level rocky ground, near the west edge of a large rock outcrop that is part of a bluff on the south side of the Santa Clara River.

DEPENDENT RESURVEY OF A PORTION OF THE SOUTH BOUNDARY,
T. 41 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

CHAINS

40.031 The 1/4 section corner of section 35 only, T. 41 S., R. 17 W., monumented with an iron post, 1 in. diameter, firmly set, projecting 8 ins. above ground, with brass cap marked as described in the official record of the 1909 survey, and witnessed by a mound of stone, 4 ft. base, 2 ft. high, north of corner.

Corner previously functioned as the 1/4 section of sections 2 and 35, remove marks for section 2 and add the year 2008.

The edge of a bluff on the south side of Santa Clara creek bears north approximately 136 links distance, bluff bears east and west.

Corner is located on a moderate north facing slope on rocky open ground.

N. 89°59.0' W., beginning new measurement.

38.996 The closing corner of sections 2 and 3, monumented with an iron post, 2 ins. diameter, firmly set, projecting 10 ins. above a mound of stone, 2 1/2 base, 1 1/2 ft. high, with brass cap marked as described in the official record of the 1909 survey, and witnessed by a mound of stone, 2 1/2 ft. base, 2 1/2 ft. high, 7 links south of corner.

Corner is located on a slight southeast facing slope among large rocks and scattered juniper timber.

40.051 The corner of sections 34 and 35 only, T. 41 S., R. 17 W., monumented with an iron post, 3 ins. diameter, firmly set, projecting 12 ins. above a mound of stone, 2 1/2 ft. base, 11 ins. high, with brass cap marked as described in the official record of the 1909 survey, and witnessed by a mound of stone, 2 1/2 ft. base, 3 ft. high, 4 links west of corner,.

Corner is located on a moderate east facing slope on rocky and sandy ground.

Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 42 S., R. 17 W., Salt Lake Meridian, Utah

Reestablishment of the Survey Executed by
J.H. Winwood & H.L. Chamberlin in 1909.

From the corner of sections 13, 14, 23, and 24, monumented with an iron post, 2 ins. diameter, firmly set, projecting 15 ins. above ground, with brass cap marked as described in the official record of the 1909 survey.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

CHAINS

Set a steel fence post alongside iron post.

A wooden fence corner bears east of corner, 1 link distance, barbed wire fence lines with wood fence posts, extends north and west.

Corner is located in rolling hills of loose sandy, gravel and among low sagebrush.

N. 0°04.6' E., between sections 13 and 14.

- 40.016** The 1/4 section corner of sections 13 and 14, monumented with an iron post, 1 in. diameter, firmly set, projecting 4 ins. above ground, with brass cap marked as described in the official record of the 1909 survey.

Set a steel fence post alongside.

Corner is located in a barbed wire fence line, extends north and south, and among rolling broken hills of loose sand and rock outcrops.

N. 0°04.4' E., beginning new measurement.

- 39.891** The corner of sections 11, 12, 13, and 14, monumented with an iron post, 2 ins. diameter, firmly set, projecting 8 ins. above ground, with brass cap marked as described in the official record of the 1909 survey.

Set a steel fence post alongside.

Corner is located in a barbed wire fence line, extends north and south, and on near level ground among low desert vegetation.

From the corner of sections 13, 14, 23, and 24.

S. 89°54.3' W., between sections 14 and 23.

- 39.796** The 1/4 section corner of sections 14 and 23, monumented with an iron post, 1 in. diameter, firmly set, projecting 7 ins. above ground, with brass cap marked as described in the official record of the 1909 survey.

Set a steel fence post alongside.

Corner is located in a barbed wire fence line, extends east and west, and among rolling broken hills of loose sand and rock outcrops.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

CHAINS

S. 89°53.6' W., beginning new measurement.

- 39.887 The corner of sections 14, 15, 22, and 23, monumented with an iron post, 2 in. diameter, firmly set, projecting 12 ins. above ground, in a mound of stone, 2 1/2 ft. base, 8 inches high, with brass cap marked as described in the official record of the 1909 survey.

Rehabilitated mound of stone around iron post, 2 1/2 ft. base to top of brass cap and set a steel fence post alongside.

Corner is located in a barbed wire fence line, extends east and west, and among rolling hills and low desert vegetation on the north side of a small drainage, 4 links wide, drains east.

N. 0°00.5' W., between sections 14 and 15.

- 40.013 The 1/4 section corner of sections 14 and 15, at proportionate distance, there is no remaining evidence of the original corner position. Point falls on a steep south facing slope in area of massive erosion and slope failure where it is impossible to establish a permanent monument, not monumented.

- 80.026 The corner of sections 10, 11, 14 and 15, monumented with an iron post, 2 ins. diameter, firmly set, projecting 12 ins. above ground, with brass cap marked as described in the official record of the 1909 survey and witnessed by a mound of stone, 2 1/2 ft. base, 2 ft high, 6 links west of corner.

Raise a mound of stone around iron post, 2 ft. base to top of brass cap and set a steel fence post alongside.

Corner is located on northwesterly facing slope in open rocky ground.

From the corner of sections 11, 12, 13, and 14.

S. 89°58.6' W., between sections 11 and 14.

- 39.872 The 1/4 section corner of sections 11 and 14, monumented with an iron post, 1 in. diameter, firmly set, projecting 20 ins. above a mound of stone, 2 1/2 ft. base, 6 inches high, with brass cap marked as described in the official record of the 1909 survey, and witnessed by a mound of stone, 2 1/2 ft. base, 1 1/2 ft. high, north of corner. This mound is used to rehabilitate mound of stone around iron post, 3 ft. base to top of brass cap.

Set a steel fence post alongside.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

CHAINS

Corner is located on near level ground among low desert vegetation.

S. 89°59.4' W., beginning new measurement.

39.912 The corner of sections 10, 11, 14 and 15.

N. 0°01.6' W., between sections 10 and 11.

40.205 The 1/4 section corner of sections 10 and 11, monumented with an iron post, 1 in. diameter, firmly set, projecting 12 inches above ground, with brass cap marked as described in the official record of the 1909 survey.

Raise a mound of stone around iron post, 2 1/2 ft. base to top of brass cap and set a steel fence post alongside.

Corner is located on a southeast facing slope on open rocky ground.

N. 0°00.4' W., beginning new measurement.

39.975 The corner of sections 2, 3, 10, and 11, monumented with an iron post, 2 ins. diameter, firmly set, projecting 26 ins. above ground, in a mound of stone, 2 1/2 ft. base, 1 1/2 ft. high, with brass cap marked as described in the official record of the 1909 survey and witnessed by a mound of stone, 2 1/2 ft. base, 2 ft. high, 6 links west of corner.

Rehabilitate mound of stone around iron post, 2 1/2 ft. base to top of brass cap and set a steel fence post alongside.

Corner is located on westerly facing slope among scattered juniper timber.

From the corner of sections 1, 2, 11 and 12, monumented with an iron post, 2 in. diameter, firmly set, projecting 12 ins. above a mound of stone, 3 ft. diameter base, 22 inches high, with brass cap marked as described in the official record of the 1909 survey.

Rehabilitate mound of stone around iron post, 3 ft. diameter, 26 ins. high and set a steel fence post in the mound of stone.

Corner is located in a barbed wire fence line with wood fence posts, bears north and south and on flat open ground with exposed bedrock and low growing vegetation.

N. 89°52.4' W., between sections 2 and 11.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

CHAINS

39.902 The 1/4 section corner of sections 2 and 11, monumented with an iron post, 1 in. diameter, firmly set, projecting 11 ins. above ground, with brass cap marked as described in the official record of the 1909 survey and witnessed by a mound of stone, 2 1/2 ft. base, 1 1/2 ft. high, 4 links north of corner

Raise mound of stone around iron post, 1 1/2 ft. base to top of brass cap and set a steel fence post alongside.

Corner is located at head of small drainage, drains easterly, on sandy, rocky ground.

N. 89°54.8' W., beginning new measurement.

39.867 The corner of sections 2, 3, 10, and 11.

N. 0°05.4' E., between sections 2 and 3.

40.075 The 1/4 section corner of sections 2 and 3, monumented with an iron post, 1 in. diameter, firmly set, projecting 12 ins. above ground, in a collar of stone, 2 ft. diameter, with brass cap marked as described in the official record of the 1909 survey and witnessed by a mound of stone, 3 1/2 ft. diameter, 3 ft. high, west of corner.

Corner is located on a moderate east facing slope among large boulders.

N. 0°05.5' E., beginning new measurement.

40.793 The closing corner of sections 2 and 3 only, on the south boundary of township, T. 41 S., R. 17 W., hereinbefore described.

T. 42 S., R. 17 W., SALT LAKE MERIDIAN, UTAH

GENERAL DESCRIPTION

Township 42 South, Range 17 West is located, in part, within the Shivwits Indian Reservation, in southwestern Utah. The nearest town is Ivins, which is located just east of the northeast corner of the township. The average elevation of the resurvey is 3500 feet above sea level.

The township consists of deep drainages and canyons among rolling sand and sandstone hills covered low desert vegetation. The soil ranges from soft and sandy to solid sandstone outcrops and high cliffs. Drainages flow primarily toward the Santa Clara River which flows south through sections 1 and 12.

Access is limited within the township and primarily from the north and west. There are few dirt roads lying within the interior of the reservation.

CERTIFICATE OF SURVEY

I, **Dale A. Graff, Cadastral Surveyor**, HEREBY CERTIFY upon honor, that in pursuance of Special Instructions bearing the date of the 7th day of March, 2008, have **dependently resurveyed a portion of the south boundary of Township 41 South, Range 17 West, and a portion of the subdivisional lines, in Township 42 South, Range 17 West, of the Salt Lake Meridian, in the State of Utah**, which are represented in the foregoing field notes as having been executed by me and under my direction; and that said survey has been made in strict conformity with said Special Instructions, the Manual of Instructions of the Survey of the Public Lands of the United States, and in specific manner described in the foregoing field notes.

07/27/2009

Date

Dale A. Graff

(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT
Salt Lake City, Utah

The foregoing field notes of the **dependent resurvey of a portion of the south boundary of Township 41 South, Range 17 West, and a portion of the subdivisional lines, in Township 42 South, Range 17 West, Salt Lake Meridian, Utah**, executed by **Dale A. Graff, Cadastral Surveyor**, having been critically examined and found correct, are hereby approved.

August 17, 2009

Date

Daniel W. Webb

(Chief Cadastral Surveyor for Utah)

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