

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ORIGINAL

FIELD NOTES

OF

THE DEPENDENT RESURVEY OF

A PORTION OF THE SUBDIVISIONAL LINES,

A PORTION OF THE SUBDIVISION OF SECTION 21,

AND

A METES-AND-BOUNDS SURVEY IN SECTION 21,

OF

TOWNSHIP 36 SOUTH, RANGE 22 EAST,

OF THE SALT LAKE MERIDIAN
IN THE STATE OF UTAH

EXECUTED BY

Scott A. Burkhardt
Cadastral Surveyor

Under Special Instructions dated and approved ***July 1, 2013***, which provided for the surveys included under Group Number ***1228***, and Assignment Instructions dated ***July 1, 2013***.

Survey Commenced, ***July 2, 2013***
Survey Completed, ***July 2, 2013***

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TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

The following field notes are those of the dependent resurvey of a portion of the subdivisional lines and the subdivision of section 21, and a metes-and-bounds survey in section 21, in T. 36 S., R. 22 E., Salt Lake Meridian, Utah.

HISTORY OF SURVEYS

Surveyed by		Retr. or Resurveyed by	
SOUTH BOUNDARY			
All	A.P. Hanson	1907	
Portion		J.L. Thomas	1979
Portion		G. Kohlerschmidt	2004
EAST BOUNDARY (Colorado Guide Meridian)			
All	F. Dickert	1878	
Portion		A.P. Hanson	1907
Portion		D.B. Miller & J.C. Thoma	1912
Portion		J.L. Thomas	1979
Portion		S.A. Burkhardt	2009
WEST BOUNDARY			
All	D.B. Miller & J.C. Thoma	1912	
Portion		C.F. Moore	1929
Portion		S.A. Burkhardt	2009-10
NORTH BOUNDARY (Seventh Standard Parallel South)			
Portion	F. Dickert	1878	
All	D.B. Miller & J.C. Thoma	1912	D.B. Miller & J.C. Thoma 1912
Portion		S.A. Burkhardt	2009-10
SUBDIVISION			
Portion	A.P. Hanson	1907	
Portion	D.B. Miller & J.C. Thoma	1912	D.B. Miller & J.C. Thoma 1912
Portion	R.C. Yundt	1947	R.C. Yundt 1947
Portion		J.L. Thomas	1979
Portion		R.A. Zaninovich	1984
Portion		G. Kohlerschmidt	2004-05
Portion		S.A. Burkhardt	2009-10

TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

The survey was executed in accordance with the specifications set forth in the Manual of Surveying Instructions, 2009, and the Special Instructions for Group No. 1228, dated July 1, 2013.

The direction of each line is with reference to the true meridian, determined by Global Positioning System (GPS) utilizing Real-Time Kinematic (RTK) techniques throughout the survey. The positional accuracy of this survey complies with the *Standards for the Positional Accuracy of Cadastral Surveys when using Global Navigation Satellite Systems (GNSS)*, dated February 23, 2009. Trimble model R8 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 a 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 GPS static observations, post processed by the National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS): DI3419 P012 MONTICELLOUT2006 CORS ARP, DH6916 MC04 MESA CNTY 04 COOP CORS ARP, and DO2634 CTI4 COMPASSTOOLS4CRNR CORS ARP.

The geographic position of the 1/4 section corner of sections 16 and 21, T. 36S., R. 22E., as determined by direct RTK methods from the National Geodetic Survey OPUS solution, is as follows:

Latitude: **37°38'59.951" N.**,
Longitude: **109°30'11.524" W.**, N.A.D. 83 (2011), EPOCH: 2010.000,
Network Accuracy = 0.200 meter at 95% confidence.

The geographic position of the 1/4 section corner of sections 20 and 21, T. 36S., R. 22E., as determined by direct RTK methods from the National Geodetic Survey OPUS solution, is as follows:

Latitude: **37°38'33.816" N.**,
Longitude: **109°30'44.388" W.**, N.A.D. 83 (2011), EPOCH: 2010.00,
Network Accuracy = 0.200 meter at 95% confidence.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 36 S., R. 22 E., Salt Lake Meridian, Utah

The Reestablishment of the Survey Executed
By Miller and Thoma in 1912, and Resurveys Executed by
Zaninovich in 1984, and Burkhardt in 2009-10

Beginning at the S 1/16 section corner of sections 20 and 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 4 inches above the ground, with aluminum cap marked as described in the official record of the 1984 survey.

N. 0°12.9' E., between sections 20 and 21.

- 19.999** The 1/4 section corner of sections 20 and 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 6 inches above the ground, witnessed by a mound of stone west of the corner, with aluminum cap marked as described in the official record of the 1984 resurvey.

From which the 1984 bearing tree:

A pinon, 11 inches diameter, bears S. 45°00.0' W., 14 links distance, marked 1/4 S BT.

Corner is located in gently-rolling, sandy ground, with scattered juniper trees and sagebrush.

N. 0°12.3' E., beginning new measurement.

- 39.989** The corner of sections 16, 17, 20, and 21, monumented with an iron post, 2 inches diameter, firmly set, projecting 11 inches above a mound of stone, 2 feet diameter base, 1 foot high, with brass cap marked as described in the official record of the 1912 survey.

From which the remaining 1912 bearing trees:

A juniper, 15 inches diameter, bears N. 26°49.8' E., 56 links distance, marked with undecipherable markings except "BT".

A pinon, 6 inches diameter, bears S. 52°44.7' E., 15 links distance, marked with undecipherable markings except "BT".

A pinon, 10 inches diameter, bears N. 52°30.8' W., 77 links distance, marked with undecipherable markings except "BT".

From the 1/4 section corner of sections 16 and 21, monumented with an iron post, 1 inch diameter, firmly set, projecting 11 inches above the ground, with brass cap marked as described in the official record of the 1912 survey.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

From which the remaining 1912 bearing tree:

A juniper, 12 inches diameter, bears S. 33 3/4° E., 74 1/2 links distance, marked 1/4 S21 BT.

Corner is located in a fence corner, with fence lines extending east and south; with scattered juniper trees.

S. 89°53.3' W., between sections 16 and 21.

39.916 The corner of sections 16, 17, 20, and 21.

Dependent Resurvey of a Portion of the Subdivision of Section 21,
T. 36 S., R. 22 E., Salt Lake Meridian, Utah

The Reestablishment of the Survey Executed by Zaninovich in 1984,
and the Resurveys Executed by Kohlerschmidt in 2004-05
and Burkhardt in 2009-10

From the center 1/4 section corner of section 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 7 inches above the ground, with aluminum cap marked as described in the official record of the 1984 resurvey, with a steel fence post east of the corner.

Corner is located in a fallow, previously-cultivated field.

N. 0°07.1' E., on the N. and S. centerline of section 21.

40.082 The 1/4 section corner of sections 16 and 21.

From the center 1/4 section corner of section 21.

S. 89°59.7' W., on the E. and W. centerline of section 21.

19.989 The center W 1/16 section corner of section 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 5 inches above the ground, with aluminum cap marked as described in the official record of the 1984 resurvey.

From the corner, a 5-strand smooth wire fence extends south, and a 3-strand barbed wire fence extends east.

Corner is located on gently rolling ground, with scattered pinon and juniper trees.

N. 89°57.0' W., beginning new measurement.

6.674 Intersect line 9-1 of shooting range parcel. Not monumented.

15.593 Intersect line 3-4 of shooting range parcel. Not monumented.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISION OF SECTION 21,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

19.991 The 1/4 section corner of sections 20 and 21.

From the SW 1/16 section corner of section 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 7 inches above ground, with aluminum cap marked as described in the official record of the 1984 resurvey.

N. 0°10.1' E., along the N. and S. centerline of SW 1/4 of section 21.

20.016 The center W 1/16 section corner of section 21.

From the SW 1/16 section corner of section 21.

N. 89°54.1' W., along the E. and W. centerline of SW 1/4 of section 21.

20.008 The S 1/16 section corner of sections 20 and 21.

Metes-and-Bounds Survey in Section 21,
T. 36 S., R. 22 E., Salt Lake Meridian, Utah

NOTE: This metes-and-bounds survey delineates the exterior extent of the proposed Blanding Shooting Range. The southern portion of this parcel has been informally used as a shooting range for many years. In order to accommodate longer distances for rifle sighting, the area was enlarged to the north. The locations for the angle points were determined by BLM personnel from the Moab and Monticello field offices based on topography, cultural site locations, and shooting range requirements. The southwesterly terminus of the shooting range is intended to be coincident with the northeasterly boundary of the right-of-way of Brushy Basin Road (San Juan County Road B268), defined as being 33 ft. from the road centerline. The road centerline was determined by measurement of the paved surface of the roadway at the time of the survey.

From the point selected for angle point no. 1.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 27 inches in the ground, with a magnet at base, with aluminum cap, marked

T36S R22E

S 21

AP1

2013

Set a steel fence post north of the corner.

METES-AND-BOUNDS SURVEY IN SECTION 21,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

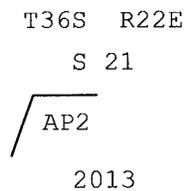
From the corner, the 1/4 section corner of sections 20 and 21 bears S.40°05.7'W., 14.111 chains distance.

Corner is located at the corner of a proposed fence line.

Thence, **N. 89° 08.5' W.**, on line 1-2.

5.441 Point selected for angle point no. 2.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 9 inches in the ground, to bedrock, with a magnet at base, in a mound of stone, 4 feet diameter, to aluminum cap, marked



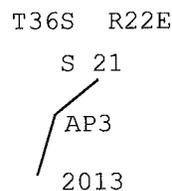
Set a steel fence post northeast of the corner.

Corner is located at the corner of a proposed fence line.

Thence, **S. 16° 12.1' W.**, on line 2-3.

4.812 Point selected for angle point no. 3.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 28 inches in the ground, with a magnet at base, with aluminum cap, marked



Corner is located at the corner of a proposed fence line.

Thence, **S. 18° 28.9' E.**, on line 3-4.

6.600 Intersect the E. and W. centerline of section 21. From this point, the 1/4 section corner of sections 20 and 21 bears N. 89° 57.0' W., 4.398 chains distance. Not monumented.

7.755 Point selected for angle point no. 4.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 28 inches in the ground, with a magnet at base, with aluminum cap,

METES-AND-BOUNDS SURVEY IN SECTION 21,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

marked

T36S R22E
S 21
AP4
2013

Set a steel fence post northwest of the corner.

Corner is located at the corner of a proposed fence line.

Thence, **S. 28° 31.7' E.**, on line 4-5.

6.061 Point selected for angle point no. 5.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 28 inches in the ground, with a magnet at base, with aluminum cap, marked

T36S R22E
S 21
AP5
2013

Set a steel fence post northwest of the corner.

Corner is located at the corner of a proposed fence line.

Thence, **S. 0° 02.0' E.**, on line 5-6.

3.846 Point selected for angle point no. 6, at a point bearing N. 47 3/4° E., 0.500 chains distance from the centerline of paved San Juan County Road 268, bearing S. 42° E. and N. 42° W.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 27 inches in the ground, with a magnet at base, in a collar of stone, with aluminum cap, marked

T36S R22E
S 21
AP6
2013

Set a steel fence post northeast of the corner.

METES-AND-BOUNDS SURVEY IN SECTION 21,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

Thence, **S. 42° 11.7' E.**, on line 6-7, parallel to the centerline of paved San Juan County Road 268.

- 11.355** Point selected for angle point no. 7, at a point bearing N. 42 3/4° E., 0.500 chains distance from the centerline of paved San Juan County Road 268, bearing S. 42° E. and N. 42° W.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 28 inches in the ground, with a magnet at base, with aluminum cap, marked

T36S R22E

S 21

AP7



2013

Set a steel fence post southwest of the corner.

Thence, **N. 2° 28.7' E.**, on line 7-8.

- 5.515** Point selected for angle point no. 8.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 27 inches in the ground, with a magnet at base, with aluminum cap, marked

T36S R22E

S 21

AP8

2013

Set a steel fence post northeast of the corner.

Corner is located at the corner of a proposed fence line, in disturbed ground, west of an area of pinon and juniper trees.

Thence, **N. 14° 11.6' E.**, on line 8-9.

- 4.710** Point selected for angle point no. 9.

Set an aluminum post, 30 inches long, 2 1/2 inches diameter, 26 inches in the ground, with a magnet at base, in a collar of stone, with aluminum cap, marked

METES-AND-BOUNDS SURVEY IN SECTION 21,
TOWNSHIP 36 SOUTH, RANGE 22 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

T36S R22E

S 21

AP9

2013

Set a steel fence post north of the corner.

Corner is located at the corner of a proposed fence line.

Thence, **N. 21° 22.3' W.**, on line 9-1.

- 9.231** Intersect the E. and W. centerline of section 21. From this point, the center W 1/16 section corner of section 21 bears S. 89° 57.0' E., 6.674 chains distance. Not monumented.
- 20.835** Angle point no. 1, the point of beginning.
-

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

Name	Capacity
Phil Freiberg	Survey Technician

CERTIFICATE OF SURVEY

I, **Scott A. Burkhardt, Cadastral Surveyor**, HEREBY CERTIFY upon honor, that in pursuance of Special Instructions bearing the date of **July 1, 2013**, I have **dependently resurveyed a portion of the subdivisional lines and a portion of the subdivision of section 21, and surveyed a metes-and-bounds parcel in section 21, in Township 36 South, Range 22 East, 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 for the Survey of the Public Lands of the United States, and in specific manner described in the foregoing field notes.

12/16/2014

Date

Scott A. Burkhardt

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 subdivisional lines and a portion of the subdivision of section 21, and a metes-and-bounds survey in section 21, in Township 36 South, Range 22 East, Salt Lake Meridian, Utah**, executed by **Scott A. Burkhardt, Cadastral Surveyor**, having been critically examined and found correct, are hereby approved.

December 22, 2014

Date

Daniel W. Webb

Chief Cadastral Surveyor for Utah