ORIGINAL

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FIELD NOTES

OF THE

DEPENDENT RESURVEY					
OF A PORTION OF THE ARIZONA-UTAH STATE LINE					
BETWEEN THE 238 MILE AND 250 MILE POST,					
UNSURVEYED TOWNSHIPS 41 NORTH, RANGES 24, 25 AND 26 EAST					
Of the Gila and Salt River Meridian,					
In the State of <u>Arizona</u>					
EXECUTED BY					
Jones Curtiss, Cadastral Surveyor					

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

Survey Commenced May 22, 2000
Survey Completed November 5, 2002

INDEX DIAGRAM

UNSURVEYED TOWNSHIPS 41 NORTH , RANGES 24, 25 AND 26 EAST ,
GILA AND SALT RIVER MERIDIAN, ARIZONA

UTAH

											19 250	
4	5	5	6	7	7	8	9	10	11	12	13	

ARIZONA

Unsurveyed

Tps. 41 N., Rs. 24, 25 and 26 E., Gila and Salt River Meridian, Arizona

CHAINS

The following field notes describes the dependent resurvey of a portion of the Arizona-Utah State Line between the 238 mile and 250 mile post, unsurveyed Townships 41 North, Ranges 24, 25 and 26 East, Gila and Salt River Meridian, Arizona.

The west boundary of the Navajo Indian Reservation was originally surveyed by Ehud N. Darling in 1869 and dependently resurveyed by Loyd E. Sechrist in 1919-20 and is identified, where possible, for historical purposes only. The Arizona-Utah State Line was originally surveyed by Howard B. Carpenter in 1901 and a portion was dependently resurveyed by Robert C. Yundt in 1953.

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>, and the Special Instructions dated September 9, 1999, for Group No. 844, Arizona.

The true meridian direction and length of all lines were determined by real time kinematic and static global positioning system observations using Trimble 4400 and 4700 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 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 or better U. S. Coast and Geodetic Survey triangulation stations "BEAUTIFUL 1951" and "COMB 1951", as published by the National Geodetic Survey, NAD83(1992). The geographic position of the 238 mile post is as follows:

Latitude: 36°59′53.87" N. Longitude: 109°45′02.31" W.

The mean magnetic declination is 12° E.

CHAINS

Restoring the survey executed by Howard B. Carpenter, in 1901 and the dependent resurvey executed by Robert C. Yundt, in 1953

Beginning at the 238th mile post of the Arizona-Utah State Line, monumented with a chiseled hole, 1 in. diam., 2 ins. deep, in sandstone bedrock, in the center of a mound of stone, 3 ft. base, 1 ft. high.

from which the original bearing tree

The north fork of a forked juniper, 12 ins. diam., bears S. 22 1/4° E., 1.10 chs. dist., with scribe marks ARIZ 238M BT visible on partially healed blaze. (Record: S. 24°57′ E., 108 lks.)

At the corner point

Set a brass tablet, 3 1/4 ins. diam., 2 1/2 ins. stem, cemented in place, in a drill hole, in sandstone bedrock, with top mkd.

238M UTAH
ARIZ

Deposit a magnet in a 1 \times 1 \times 2 ins. white colored plastic case in the drill hole beneath the brass tablet.

Raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.

S. 89°57' E., on the 239th mile of the Arizona-Utah State Line.

Over rolling and broken land.

- 19.40 Graded road, 15 ft. wide, bears ENE and WSW.
- 37.80 The center of a circular log and dirt hogan, 22 ft. diam., bears South, 7 lks. dist.
- The NW cor. of a wood framed house, 18 ft. square, bears South, 2.25 chs. dist.
- 42.60 The center of an octagonal wood framed hogan, 19 ft. diam., bears South, 70 lks. dist.

CHAINS

79.95

The 239th mile post of the Arizona-Utah State Line, monumented with a chiseled hole, 1 in. diam., 2 ins. deep, in sandstone bedrock, in the center of a mound of stone, 3 ft. base, 2 1/2 ft. high.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in sandstone bedrock, with brass cap mkd.

239M UTAH

ARIZ 2000

Deposit a magnet in a $1 \times 1 \times 2$ 5/8 ins. white colored plastic case beneath the stainless steel post.

Raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.

East, on the 240th mile of the Arizona-Utah State Line.

Over broken land through sandstone bedrock.

79.95

The 240th mile post of the Arizona-Utah State Line, monumented with a chiseled hole, 1 in. diam., 2 ins. deep, in fractured sandstone bedrock, in the center of a mound of stone, 4 ft. base, 2 ft. high.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in sandstone bedrock, with brass cap mkd.

240M UTAH ARIZ

2000

Deposit a magnet in a 1 \times 1 \times 2 5/8 ins. white colored plastic case beneath the stainless steel post.

Raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.

S. 89°57' E., on the 241st mile of the Arizona-Utah State Line.

Over broken to rugged land across canyons and sandstone bedrock.

	s. 24, 25 and 26 East, Gila and Salt River Meridian, Arizona				
7.00	W. edge of Hosteen Tso Canyon, bears NNE and SSW, descend steep cliff.				
29.80	E. edge of Hosteen Tso Canyon, bears N. and S., continue over rugged land.				
41.30	W. edge of canyon, bears N. and S., descend steep cliff, continue over broken land across Chinle Creek.				
67.60	Chinle Creek, 35 ft. wide, 7 ft. deep, drains NNE.				
76.50	E. edge of canyon, bears SE and NW, continue over broken land.				
79.61	Point for the 241st mile post of the Arizona-Utah State Line, at proportionate dist.; there is no remaining evidence of the original cor.				
	Set a brass tablet, 3 1/4 ins. diam., 2 1/2 ins. stem, cemented in place, in a drill hole, in sandstone bedrock, with top mkd.				
	241M UTAH				
	ARIZ 2002				
	Deposit a magnet in a 1 x 1 x 2 ins. white colored plastic case in the drill hole beneath the brass tablet.				
	S. 89°57' E, on the 242nd mile of the Arizona-Utah State Line.				
	Over broken to rugged land.				
3.30	Top of mesa, bears SE and NW, continue over rolling and broken land.				
36.90	Trail road, bears NE and SW.				
79.61	The 242nd mile post of the Arizona-Utah State Line, determined at the W. side of the original mound of stone, 3 ft. base, 2 ft. high, with a sandstone, 28 X 17 X 6 ins., lying loose alongside, mkd. UTAH on one side and ARIZ on the other side, 242M on one face and 37NL on the other face; this is accepted as the best available evidence of the 1901 cor. position.				
	At the corner point				
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.				

CHAINS	
	242M UTAH
	ARIZ 2000
	Deposit a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.
	Bury the original stone alongside the stainless steel post.
	S. 89°59' E., on the 243rd mile of the Arizona-Utah State Line.
	Over rolling land through sandstone bedrock.
76.16	The NE cor. of a brick house, 21 x 15 ft., bears South, 18 lks. dist., long side bears S.
79.97	The 243rd mile post of the Arizona-Utah State Line, monumented with the 1953 iron rod, 10 ins. long, 5/8 in. diam., firmly set, projecting 2 ins. above ground, in the center of a scattered mound of stone, 3 ft. base, 2 ft. high.
	At the corner point
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in sandstone bedrock, with brass cap mkd.
	243M UTAH
	ARIZ
	2000 from which
	The SE cor. of a wood framed house, 36 X 24 ft., bears N. 4 3/4° E., 98 lks. dist., long side bears N.
	Deposit the iron rod inside and a magnet in a 1 x 1 x 2 5/8 ins. white colored plastic case beneath the stainless steel post.
	Raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.
	S. 89°58' E., on the 244th mile of the Arizona-Utah State Line.
	Over rolling land through sandstone bedrock.

CHAINS 11.80

The cor. of Tps. 43 S., Rs. 20 and 21 E., Salt Lake Meridian, Utah, monumented with an iron post, 2 1/2 ins. diam., firmly set, flush in a mound of stone, 3 ft. base, 2 1/2 ft. high, with brass cap mkd.

T43S R2OE R21E S36 | S31 ARIZ 1953

51.80

The 1/4 sec. cor. of sec. 31 only, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, flush in a mound of stone, 3 ft. base, 2 1/2 ft. high, with brass cap mkd.

1/4 S31

ARIZ
1953

80.01

Point for the 244th mile post of the Arizona-Utah State Line, at proportionate dist., there is no remaining evidence of the original cor.

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.

244M UTAH ARIZ 2002

Deposit a magnet in a 1 x 1 x 2 ins. white colored plastic case beneath the stainless steel post.

S. 89°58' E., on the 245th mile of the Arizona-Utah State Line.

Over rolling land through sandstone.

11.82

The cor. of secs. 31 and 32, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, monumented with an iron post, 2 1/2 ins. diam., firmly set, flush in a mound of stone, 4 ft. base, 2 1/2 ft. high, with brass cap mkd.

	s. 24, 25 and 26 East, Gila and Salt River Meridian, Arizona			
CHAINS	T43S R21E S31 S32			
	ARIZ			
	1953			
51.85	The 1/4 sec. cor. of sec. 32 only, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 6 ins. above ground, with brass cap mkd.			
	1/4 S32			
	ARIZ 1953			
62.03	The NW Cor. of the 1920 resurvey of the W. bdy. of the 1868 Executive Order Navajo Indian Reservation, bears South, 4.60 chs. dist., monumented with an iron post, 3 ins. diam., firmly set, projecting 13 ins. above ground, in a scattered mound of stone, with brass cap mkd. NWC NIR 1920. Remove and destroy the iron post, the memorial stone from beneath and the mound of stone.			
70.39	Trail road, bears N. and S.			
80.01	The 245th mile post of the Arizona-Utah State Line, monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 6 ins. above ground, with a mound of stone, 3 ft. base, 1 1/2 ft. high, E., with brass cap mkd.			
	245M UTAH			
	ARIZ 1953			
	Add the marks 2000 on the brass cap.			
	N. 89°15' E., on the 246th mile of the Arizona-Utah State Line.			
	Over rolling land.			
51.83	The 1/4 sec. cor. of sec. 33 only, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 5 ins. above ground, with a mound of stone, 3 ft. base, 1 ft. high, N., with brass cap mkd.			

	2. 24, 25 and 26 East, Gila and Salt River Meridian, Arizona		
CHAINS	1/4 S33		
	ARIZ 1953		
65.51	A brass tablet, 3 ins. diam., set in a concrete and plastic pipe collar, 6 1/2 ins. diam., bears North, 1 1/2 lks. dist., set flush with the surface of the ground, with top mkd. B.I.A. ROADS EL. 4974.26 1980, witnessed by angle irons nearby, N. and S.		
65.53	W. right-of-way fence of U. S. Highway 191, barbed wire, 5 strands, parallels highway.		
67.43	U. S. Highway 191, asphalt pavement, 35 ft. wide, bears SSE and NNW.		
69.35	E. right-of-way fence of U. S. Highway 191, barbed wire, 5 strands, parallels highway.		
69.36	A brass tablet, 3 ins. diam. set in a concrete and plastic pipe collar, 6 1/2 ins. diam., bears North, 1 1/2 lks. dist., set flush with the surface of the ground, with top mkd. B.I.A. ROADS EL. 4964.96 1980, witnessed by angle irons nearby, N. and S.		
80.01	Point for the 246th mile post of the Arizona-Utah State Line, at proportionate dist.; there is no remaining evidence of the original cor.		
i	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.		
	246M UTAH		
	ARIZ 2002		
	Deposit a magnet in a 1 x 1 x 2 ins. white colored plastic case beneath the stainless steel post.		
	N. 89°15' E., on the 247th mile of the Arizona-Utah State Line.		
	Over rolling land.		
11.83	The cor. of secs. 33 and 34, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, flush in a mound of stone, 3 ft. base, 1 ft. high, with brass cap mkd.		

	1 - 24, 25 and 26 East, Gila and Salt River Meridian, Arrizona			
CHAINS	T43S R21E S33 S34			
	ARIZ 1953			
51.84	The 1/4 sec. cor. of sec. 34 only, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 8 ins. above ground, encircled by an embedded collar of stone, with brass cap mkd.			
	1/4 S34			
	ARIZ 1953			
66.50	Navajo Route 5058, a graded road, 16 ft. wide, bears ENE and WSW.			
80.01	Point for the 247th mile post of the Arizona-Utah State Line, at proportionate dist.; there is no remaining evidence of the original cor.			
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.			
	247M UTAH			
	ARIZ 2002			
	Deposit a magnet in a 1 x 1 x 2 ins. white colored plastic case beneath the stainless steel post.			
	N. 89°15' E., on the 248th mile of the Arizona-Utah State Line.			
	Over rolling land.			
11.82	The cor. of secs. 34 and 35, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 3 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, flush in a mound of stone, 3 ft. base, 1/2 ft. high, with brass cap mkd.			
	T43S R21E S34 S35			
	ARIZ 1953			

CHAINS	
51.82	The 1/4 sec. cor. of sec. 35 only, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 2 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, flush in a mound of stone, 3 ft. base, 1 1/2 ft. high, with brass cap mkd.
	1/4 S35
	ARIZ 1953
80.01	Point for the 248th mile post of the Arizona-Utah State Line, at proportionate dist.; there is no remaining evidence of the original cor.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.
	248M UTAH
	ARIZ 2002
	Deposit a magnet in a 1 x 1 x 2 ins. white colored plastic case beneath the stainless steel post.
	N. 89°15' E., on the 249th mile of the Arizona-Utah State Line.
	Over nearly level land.
11.83	The cor. of secs. 35 and 36, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 5 ins. above ground, with brass cap mkd.
	T43S R21E S35 S36
	ARIZ 1953
15.20	Navajo Route 5058, a graded road, 15 ft. wide, bears ESE and WNW.
51.84	The 1/4 sec. cor. of sec. 36 only, T. 43 S., R. 21 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 7 ins. above ground, with brass cap mkd.

	s. 24, 25 and 26 East, Gila and Salt River Meridian, Arizona
CHAINS	1/4 S36
	ARIZ
	1953
80.01	Point for the 249th mile post of the Arizona-Utah State Line, at proportionate dist.; there is no remaining evidence of the original cor.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.
	249M UTAH
	ARIZ 2002
	Deposit a magnet in a 1 x 1 x 2 ins. white colored plastic case beneath the stainless steel post.
	N. 89°15' E., on the 250th mile of the Arizona-Utah State Line.
	Over nearly level land.
11.83	The cor. of Tps. 43 S., Rs. 21 and 22 E., Salt Lake Meridian, Utah, bears North, 1 1/2 lks. dist., monumented with an iron post, 2 1/2 ins. diam., firmly set, flush with the surface of the ground, with a mound of stone, 3 ft. base, 1 ft. high, N., with brass cap mkd.
	T43S
	R21E R22E S36 S31
	ARIZ 1953
51.85	The 1/4 sec. cor. of sec. 31 only, T. 43 S., R. 22 E., Salt Lake Meridian, Utah, monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 7 ins. above ground, with brass cap mkd.
	1/4 S31
	ARIZ 1953

CHAINS 80.01

The 250th mile post of the Arizona-Utah State Line, monumented with an iron post, 2 1/2 ins. diam., firmly set, projecting 9 ins. above ground, with a sandstone, 72 X 24 X 12 ins., lying loose alongside, in the center of a scattered mound of stone, mkd. UTAH on one side and ARIZ on the other side, 250M on one face and 37N on the other face, with brass cap mkd.

250M UTAH ARIZ 1953

Add the marks 2000 on the brass cap.

Bury the marked stone alongside the iron post.

Raise a mound of stone, 3 ft. base, 2 ft. high, E. of cor.

GENERAL DESCRIPTION

The area surveyed is within the Navajo Indian Reservation, near the community of Mexican Water, Arizona. The terrain is covered with sandy soil and sandstone outcrops, with sandstone hills and sandstone canyons. The land is rolling and broken with some steep shear cliff canyons along Chinle Creek. The principal drainage is Chinle Creek, which crosses the State Line near the 241 mile post and drains northerly.

The elevation varies from 4500 to 5800 feet above sea level. The soil is mostly sandy clay and rocky. Undergrowth principally consists of greasewood, sagebrush, rabbitbrush, and native grasses.

Principal access to the area surveyed is U. S. Highway 191 which crosses the State Line near the 246 mile post and Navajo Route 5058 which crosses the State Line near the 247 mile and 248 mile post. Much of the area is used for grazing livestock. There are numerous permanent homesites through out the area. There is no mining activity in the area.

The mean magnetic declination of 12° E., as derived from the computer program GEOMAGIX utilizing the Regional Magnetic Field Model for Epoch 2000 for the dates of survey.

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

NAMES	CAPACITY
William F. Olver	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, Jones Curtiss, 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-Utah State Line between the 238 mile and 250 mile post, unsurveyed Townships 41 North, Ranges 24, 25 and 26 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 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.

May 15, 2003 fores Eurles (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-Utah State Line between the 238 mile and 250 mile post, unsurveyed Townships 41 North, Ranges 24, 25 and 26 East, Gila and Salt River Meridian, Arizona, executed by Jones Curtiss, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

July (5, 2003 Kenny D. Kavrukar (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. 41 N., Rs. 24, 25 and 26 E., Gila and Salt River Meridian, Arizona, is a true copy of the original field notes.

(Date) (Chief Cadastral Surveyor of Arizona)