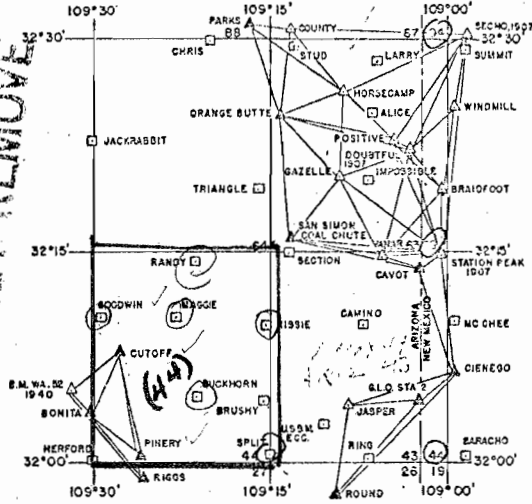


SAN SIMON QUAD & VICINITY

43 44
ARIZONA & N. MEXICO
63 69

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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Solid symbols (A) represents U.S. Coast and Geodetic stations.
Open squares (□) represents Supplemental stations (unadjusted).

ARIZONA & NEW MEXICO TRIANGULATION
THIRD-ORDER
BOWIE, SAN SIMON, COCHISE HEAD, and VANAR 15-minute QUADRANGLES
By: A. E. Lety, 1948
Books: PH 81(a-d) & PH 82 (a-j)
North American Datum of 1927
1/18/52 saw GMS 1-21-52

Third-order triangulation was extended from U.S. Coast and Geodetic Survey stations on the BOWIE, SAN SIMON, COCHISE HEAD, and VANAR 15-minute quadrangles by A. E. Lety in 1948 for the purpose of photo control.

The third-order net was adjusted by a method of Least Squares and based on the published values for the U.S. Coast and Geodetic Survey stations used.

The Supplemental stations were not adjusted but are shown to indicate the area covered. Positions of supplemental stations were computed from some U.S. Coast and Geodetic Survey stations which are not listed.

For additional stations in the vicinity see U.S.G.S. multilith list for GRAHAM, COCHISE and PIKA COUNTIES by L. D. Jenkins, 1940.

The U.S. Geological Survey triangulation listed herein was adjusted to agree with the latest available 1927 N.A.D. positions published by the U.S. Coast and Geodetic Survey for the following stations:

STATION NAME	LATITUDE	LONGITUDE	C.&G.S. DESC. BOOK NUMBER	ELEVATION in ft. by U.S.G.S.
Bonita	32°03'58.699"	109°30'23.348"	671	4726.381
Cavot	32°13'41.486"	109°02'50.926"	261	4095.4
Cienega	32°06'29.245"	108°59'39.747"	261	5741.7
Cutoff	32°08'18.997"	109°28'01.628"	671	5969.8
GLO Sta. 2	32°04'46.935"	109°02'53.015"	261	3867.2
Orange Butte	32°24'48.093"	109°14'23.696"	882	5250.3

STATION NAME	LATITUDE	LONGITUDE	C.&G.S. DESC. BOOK NUMBER	ELEVATION in ft. by U.S.G.S.
Pinery	32°00'26.455"	109°26'21.368"	671	5020.5
Farks	32°31'12.420"	109°17'05.038"	882	4185.7
Riggs	31°58'54.602"	109°26'00.955"	671	5340.5
Round	31°57'16.381"	109°09'36.061"	671	5254.6
San Simon Coal Chute	32°16'07.088"	109°13'27.231"	882	3614.3

B.W. "WA 52 1940" Cochise County Arizona (45)
W. J. Thomas 1927 N.A.D.

A U.S.G.S. level bench mark described in multilith list of Dos Cabezas Quadrangle as follows:

"Dos Cabezas, 2.35 mi. SE. along the Wonderland of Rocks rd., 100 ft. E. of junction formed by Bowie rd. to NE., on top of concrete monument extending 8-inches above the ground; standard tablet stamped "WA 52 1940". (4743.454)"

Located about 17 mi. (airline) S. of Bowie in the SE. corner of a T-rd. junction at sign reading "BOWIE 21 MILES - WILLCOX 25".

STATION MARK: Standard tablet, stamped "WA 52 1940", set in the top of a concrete post.

Latitude 32°05'37.599" Longitude 109°32'01.618"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Cutoff (C&GS)	231°40'03.7"	51°42'11.2"	3,904,0929	4.982
Pinery (C&GS)	317°00'31.7"	137°03'32.3"	4,117,1615	8.138
Bonita (C&GS)	319°45'38.3"	139°46'30.5"	3,600,9966	2.479
Riggs (C&GS)	322°39'10.1"	142°42'21.4"	4,193,3610	9.699

BRAIDFOOT Hidalgo County New Mexico (69)
A. E. Lety 1948 1927 N.A.D.

Located about 13 mi. (airline) ENE. of San Simon and 27 mi. ESE. of Braidfoot Ranch, on highest point of a high, rocky top, 2 ft. E. of a large cedar tree.

STATION MARK and SIGNAL: White flag over red X-targets, 8.6 ft. NE. of chiseled cross on top of high, granite boulder.

V.A. ELEVATION: 5572 feet (ground)

Latitude 32°19'48.582" Longitude 109°00'48.291"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Vanar	37°37'15.7"	217°34'46.1"	4,079,5391	7.463
Positive	137°31'51.1"	317°29'55.8"	3,921,3539	5.195
Doubtful	140°56'01.9"	320°54'39.6"	3,804,7053	3.963
Windmill	191°19'32.7"	11°20'12.6"	3,595,4498	6.152
Station Peak	357°01'22.7"	177°01'32.8"	3,980,9152	5.947

COUNTY Graham, Greenlee County Line Arizona (87)
W. J. Thomas 1948 1927 N.A.D.

Located about 17.5 mi. (airline) N. of San Simon about midway on a N-S. ridge, which is approximately 3 mi. in length, and on the third hump from the base. Also on the Graham and Greenlee County Line.

To reach from Bowie P.O., drive N. across tracks 0.2 mi.; thence north-easterly on middle fork 12.2 mi. to rd. forks; continue straight ahead on S. side of adobe forks 1.3 mi. to rd. forks; thence 3.6 mi. on main traveled rd., left fork to T-junction with rd. and ditch; keep on main traveled rd. (N.) 1.7 mi. to rd. forks; thence straight ahead 4.0 mi. to gate and a N-S. fence line across Old Camp Canyon; turn N. onto a dim, rocky track rd. along fence line and follow to end; leave track and cross fence and follow along to a small ridge, which runs E-W. joining the large N-S. ridge. Leave fence line (about 3/4 mi. from track) and follow E-W. ridge to top to point where it joins N-S. ridge and station.

STATION MARK: Standard tablet, stamped "COUNTY 1948", cemented in boulder.

REP. MARK NO. 1: Standard R.M. tablet, stamped "COUNTY NO 1 1948", cemented in boulder, 34.94 ft. from station mark in true azimuth 356°06".

REP. MARK NO. 2: Standard R.M. tablet, stamped "COUNTY NO 2 1948", cemented in boulder, 46.57 ft. from station mark in true azimuth 82°15".

V.A. ELEVATION: 4837.3 feet

Latitude 32°31'13.237" Longitude 109°13'25.205"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Orange Butte (C&GS)	7°20'27.1"	187°19'55.7"	4,077,7837	7.433
Farks, (C&GS)	89°45'54.0"	269°43'55.8"	3,758,7256	5.565
Secho	273°59'06.9"	94°07'12.9"	4,373,3339	14.899
Horsecamp	322°33'53.6"	142°36'20.7"	4,070,7156	7.312

2. SAN SIMON QUADRANGLE AND VICINITY

ARIZONA & NEW MEXICO

LOUHPUL: Cochise County Arizona (63)
T. M. Bannon 1907 1927 N.A.D.
A. E. Letey 1948

HORSECAMP (Cont'd) Cochise County Arizona (63)
A. E. Letey 1948 1927 N.A.D.

Described in Bulletin 440 pag. 15 as follows:

"On the highest point of the Horseshoe Mountains on the south side of Doubtful Canyon, about 3 miles south of T. M. Bannon's (Horseshoe) ranch, which is the nearest water; 7 miles south of Summit station on the Arizona and New Mexico Railway, and 12 miles northwest of Steins Pass station on the Southern Pacific Railroad. The boundary line between New Mexico and Arizona passes over the mountains somewhere near the station.

SIGNAL and STATION MARK: Cairn with cross cut in solid rock under it.

REFERENCE MARK: Tablet set in solid rock, 7.2 ft. south of center."

NOTE by A.E.L., 1948: Station found as described. Located about 12.5 mi. (airline) NE. of San Simon.

STATION MARK: Cross chiseled in rock.

REFERENCE MARK: Existing tablet, stamped "6507", cemented in solid rock, 7.2 ft. from station mark in true azimuth 343°20'.

V.A. ELEVATION: 6519.3 feet (H.M.)

Latitude 32°22'29.329" Longitude 109°03'22.060"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Vanar	12°52'19.6"	192°51'12.2"	4.1714073	9.221
Gazelle	70 58 32.6	250 55 22.0	3.9935434	6.122
Orange Butte, (C&GS)	103 55 59.9	283 50 05.5	4.2507319	11.068
Positive	126 39 51.5	306 39 18.5	3.3037314	1.250
Secho	208 29 41.1	28 32 22.6	4.2165237	10.230
Windmill	231 24 38.3	51 26 40.5	3.8823955	4.740
Braidfoot	320 54 39.6	140 56 01.9	3.8047053	3.963
Station Peak	342 41 09.2	162 42 41.6	4.1817341	9.441

GAZELLE Cochise County Arizona (63)
W. J. Thomas 1948 1927 N.A.D.

Located about 6.5 mi. (airline) NE. of San Simon, on SE. one and highest point of an isolated group of hills.

To reach from San Simon P.O., drive E. on main highway for 1.5 mi. turn N. off highway onto gravel rd.; drive 0.3 mi. to R.R. underpass; continue on main traveled rd. (surviving R.) for 0.6 mi. to a cattle-guard and T-rd. N.; turn N. and drive 2.5 mi. to where main traveled rd. curves E. and a dirt track rd. goes straight ahead; turn E. on main rd. and continue for 4.8 mi. (rd. borders toward an isolated group of hills) to a concrete dam in wash to left of rd. and E.T.T.; leave truck and pack to hill immediately to W. onto top and station. About 30-minute pack.

STATION MARK: Standard tablet, stamped "GAZELLE 1948", cemented in boulder.

REF. MARK NO. 1: Standard R.M. tablet, stamped "GAZELLE NO 1 1948", cemented in boulder, 42.87 ft. from station mark in true azimuth 10°06'.

REF. MARK NO. 2: Standard R.M. tablet, stamped "GAZELLE NO 2 1948", cemented in boulder, 26.21 ft. from station mark in true azimuth 276°56'.

V.A. ELEVATION: 4962.7 feet

Latitude 32°20'44.926" Longitude 109°09'18.252"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
San Simon Coal Chute (C&GS)	37°17'35.1"	217°15'22.0"	4.0316027	6.683
Orange Butte, (C&GS)	133 11 36.5	313 08 54.9	4.0393228	6.803
Horseshoe	184 00 50.3	4 01 04.7	4.0013611	6.233
Positive	240 07 39.6	60 10 17.2	3.9481722	5.515
Doubtful	250 55 22.0	70 58 32.6	3.9935434	6.122
Station Peak	309 10 27.7	129 15 10.4	4.2519344	11.099
Vanar	331 51 02.2	151 53 05.1	4.1057845	7.927

HORSECAMP Cochise County Arizona (63)
A. E. Letey 1948 1927 N.A.D.

Located about 12.5 mi. (airline) NNE. of San Simon, on a mountain top between Horseshoe Canyon and Tule Wall Canyon.

To reach from Bowie P.O., drive N. across tracks 0.2 mi.; thence NE. on middle fork 12.2 mi. to rd. forks; continue straight ahead on S. side of adobe shack 1.3 mi. to rd. forks; thence 3.6 mi. on main traveled rd. (always left fork) to T-junction with rd. and ditch; keep on main traveled rd. (E.) 1.7 mi. to rd. forks; thence straight ahead 4.0 mi. to gate and fence across Old Camp Canyon; continue through Old Camp Canyon 7.9 mi. to windmill and shack; turn right on dirt tracks about 100 yds. W. of shack and go around base of hill in southwesterly direction 1.4 mi. to old Horseshoe and E.T.T. Pack S. for 1 mi. to high point and station. A 45-minute pack.

STATION MARK: Standard tablet, stamped "HORSECAMP 1948", cemented in boulder.

REF. MARK NO. 1: Standard R.M. tablet, stamped "HORSECAMP NO 1 1948", cemented in boulder, 11.78 ft. from station mark in true azimuth 240°31'.

REF. MARK NO. 2: Standard R.M. tablet, stamped "HORSECAMP NO 2 1948", cemented in boulder, 29.61 ft. from station mark in true azimuth 340°26'.

V.A. ELEVATION: 5526.9 feet

Latitude 32°26'09.791" Longitude 109°08'51.372"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Gazelle	4°01'04.7"	184°00'50.3"	4.0013611	6.233
Orange Butte, (C&GS)	73 51 40.5	253 48 42.1	3.9561653	5.617
Parks (C&GS)	125 54 36.5	305 50 11.5	4.2016120	9.895
County	142 36 20.7	322 33 23.6	4.0707156	7.312
Secho	244 58 58.3	65 02 36.7	4.2508664	11.283
Positive	308 37 15.0	128 39 38.4	3.9518695	5.562

JASPER Cochise County Arizona (43)
A. E. Letey 1948 1927 N.A.D.

Located about 15.5 mi. (airline) SE. of San Simon, at a dirt reservoir and water hole. Station is at western edge of dirt reservoir.

STATION MARK and SIGNAL: Well casing under windmill tower.

Latitude 32°04'26.421" Longitude 109°08'31.014"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Round (C&GS)	7°20'55.4"	187°20'21.0"	4.1265604	8.299
Clonaga (C&GS)	254 46 04.8	74 50 47.1	4.1524408	8.970
GLO Sta. 2 (C&GS)	265 53 52.1	85 56 51.6	3.9487611	5.522

POSITIVE Cochise County Arizona (63)
A. E. Letey 1948 1927 N.A.D.

Located about 12 mi. (airline) NE. of San Simon on high dark mountain top at heads of Old Horseshoe Canyon and Little Doubtful Canyon. Station is 2 ft. lower than highest point of mountain and 74 ft. W. of small dried cedar.

To reach from San Simon, drive E. on Highway 86 for 3.1 mi. to State Highway Checking Station; then left (N.) 0.6 mi. on gravel rd. to gate on right; pass through gate and follow main-traveled rd. in easterly direction for 7.9 mi. to adobe shack and windmill in West Doubtful Canyon; continue 2.1 mi. to forks; take left fork (NE.) thence NW. for 2.5 mi. to adobe shack and windmill in Little Doubtful Canyon; continue up canyon 0.7 mi.; then 0.3 mi. on dirt tracks to the right and E.T.T. Pack up steep canyon on the right (N.) about 0.6 mi. to saddle in ridge top; thence left (NW.) along ridge top about 0.6 mi. to high, dark mountain top and station. A 1 1/2-hr. pack.

STATION MARK: Standard tablet, stamped "POSITIVE 1948", cemented in lava outcrop.

REF. MARK NO. 1: Standard R.M. tablet, stamped "POSITIVE NO 1 1948", cemented in lava outcrop, 26.19 ft. from station mark in true azimuth 16°28'.

REF. MARK NO. 2: Standard R.M. tablet, stamped "POSITIVE NO 2 1948", cemented in lava outcrop, 25.74 ft. from station mark in true azimuth 298°25'.

V.A. ELEVATION: 6400.9 feet

Latitude 32°23'08.337" Longitude 109°04'23.820"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Gazelle	60°10'17.2"	240°07'39.6"	3.9481722	5.515
Orange Butte, (C&GS)	101 08 02.7	281 02 41.2	4.2041560	9.927
Horseshoe	128 39 38.4	308 37 15.0	3.9518695	5.562
Secho	215 30 19.6	35 33 34.2	4.2121813	10.128
Doubtful	306 39 18.5	126 39 51.5	3.3037314	1.250
Braidfoot	317 29 55.8	127 31 51.1	3.9213539	5.185
Station Peak	338 39 09.8	158 41 15.2	4.2269975	10.480

SECHO Hidalgo County New Mexico (93)
T. M. Bannon 1907 1927 N.A.D.
A. E. Letey 1948

Described in Bulletin 440 page 25 as follows:

"On highest of the low isolated hills about 3 miles east of the Arizona and New Mexico Railway and about 4 miles northeast of the section house at Summit station, about halfway between Lordsburg, N. Mex., and Duncan, Ariz.

SIGNAL and STATION MARK: A cairn 7 feet in diameter and 7 1/2 feet high; hole drilled in solid rock under cairn."

CONTINUED ON PAGE 3.

SAN SIMON QUADRANGLE AND VICINITY

SECHO (Cont'd) Hidalgo County New Mexico (93)
 T. M. Bannon 1907 1927 N.A.D.
 A. E. Lety 1948

NOTE by A.E.L., 1948: Station found as described except the station mark described as hole drilled in solid rock under cairn was found to be a standard U.S.G.S. tablet, (with no stamped markings) cemented in solid rock.

Station is located about 22 mi. (airline) NE. of San Simon.

V.A. ELEVATION: 4879.9 feet

Latitude 32°30'18.961" Longitude 108°58'21.168"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Station Peak	6°36'14.7"	186°35'06.1"	4.4649021	18.124
Windmill	11 04 15.1	191 03 36.0	3.9953780	6.148
Doubtful	28 32 22.6	208 29 41.1	4.2165237	10.230
Positive	35 33 34.2	215 30 19.6	4.2121813	10.128
Horsecamp	65 02 36.7	244 56 58.3	4.2590864	11.283
County	94 07 12.9	273 59 06.9	4.3739399	14.699

STATION PEAK Hidalgo County New Mexico (44)
 T. M. Bannon 1907 1927 N.A.D.
 A. E. Lety 1948

Described in Bulletin 440 page 26 as follows:

*On a sharp, conical peak about 1 mile north of Steins Pass station on Southern Pacific Railroad, from which railroad station the peak is visible.

SIGNAL and STATION MARK: Large rock monument and cross chiseled on solid rock under it.

REFERENCE MARK: A triangulation tablet cemented into solid rock, 32.8 feet south of center.*

NOTE by A.E.L., 1948: Station found as described. Chiseled cross is quite faint. Tablet stamped "5494", is 32.8 feet from station in true azimuth 349°13'.

Located about 13 mi. (airline) ESE. of San Simon.

V.A. ELEVATION: 5491.7 feet

Latitude 32°14'38.307" Longitude 109°00'29.306"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Cavot (C&GS)	64°44'30.8"	244°43'15.2"	3.6127954	2.548
Vanar	90 19 43.4	270 17 03.8	3.8936742	4.864
San Simon Coal	97 42 23.9	277 35 28.8	4.3127127	12.766
Chute (C&GS)	129 15 10.4	309 10 27.7	4.2519344	11.099
Gazelle	158 41 15.2	338 39 09.8	4.2269375	10.480
Positive	162 42 41.6	342 41 09.2	4.1817341	9.442
Doubtful	177 01 32.8	357 01 22.7	3.9809152	5.947
Braidfoot	186 35 06.1	6 36 14.7	4.4649021	18.124
Secho	186 35 06.1	6 36 14.7	4.4649021	18.124
Cienega (C&GS)	355 04 12.7	175 04 39.0	4.1795458	9.395

VANAR Cochise County Arizona (43)
 A. E. Lety 1948 1927 N.A.D.

Located on highest point on group of hills 8 mi. (airline) ESE. of San Simon and 2.5 mi. W. of Arizona-New Mexico line. Station is 25.5 ft. SE. of dried cedar.

STATION MARK and SIGNAL: White flag over white X-targets 5.2 ft. NE. of chiseled cross on granite boulder.

V.A. ELEVATION: 4329 feet (Ground)

Latitude 32°14'39.667" Longitude 109°05'28.337"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
San Simon Coal	102°09'33.7"	282°05'18.1"	4.1079278	7.967
Chute (C&GS)	151 53 05.1	331 51 02.2	4.1057845	7.927
Gazelle	192 51 12.2	12 52 19.6	4.1714073	9.221
Doubtful	217 34 46.1	37 37 15.7	4.0795391	7.463
Braidfoot	270 17 03.8	90 19 43.4	3.8936742	4.864
Station Peak	270 17 03.8	90 19 43.4	3.8936742	4.864
Cavot (C&GS)	293 29 23.1	113 30 47.0	3.6526502	2.792

WINDMILL Hidalgo County New Mexico (68)
 A. E. Lety 1948 1927 N.A.D.

Located about 18 mi. (airline) NE. of San Simon and 4 mi. S. of R.R. (Lordsburg-Duncan line) maintenance station "Summit". Station is center of windmill 33 ft. W. of center of low circular water tank.

STATION MARK and SIGNAL: Center of windmill

ELEVATION: 4251.6 feet (Ground)

NOTE: Elevation determined by differential level line run with transit from U.S.G.S. BM "16 LC 1948" to windmill and return. Closure -0.6 feet.

WINDMILL (Cont'd) Hidalgo County New Mexico (68)
 A. E. Lety 1948 1927 N.A.D.

Latitude 32°25'03.728" Longitude 108°59'33.880"

To Station	Azimuth	Back Azimuth	Log Meters	Miles
Braidfoot	11°20'12.6"	191°19'32.7"	3.9956498	6.152
Doubtful	51 26 40.5	231 24 38.3	3.8823955	4.740
Secho	191 03 36.0	11 04 15.1	3.9953780	6.148

The following listed stations are supplemental and unadjusted:

ALICE Cochise County Arizona (63)
 W. J. Thomas 1948 1927 N.A.D.

Located about 12 mi. (airline) NE. of San Simon, about 50 ft. N. of highest point on rim of a table top mtn.

STATION MARK and SIGNAL: Center of cairn.

V.A. ELEVATION: 5637 feet (Ground at cairn).

Latitude 32°24'52.10" Longitude 109°06'44.51"

BORACHO Hidalgo County New Mexico (43)
 A. E. Lety 1948 1927 N.A.D.

Located about 2 1/2 mi. (airline) SE. of San Simon and 4.5 mi. ESE. of Cienega Ranch, on top of an E-W. ridge. Station is at W. tip of ridge 150 yds. W. of high spot and 12 ft. lower. There is a cedar tree 50 ft. to the S., a small cedar 100 ft. to the E. and another cedar 65 ft. to the NE.

STATION MARK: Cross chiseled in rock.

V.A. ELEVATION: 5191 feet

Latitude 32°00'27.88" Longitude 108°58'29.55"

BRUSHY Cochise County Arizona (44)
 W. J. Thomas 1948 1927 N.A.D.

Located about 13 mi. (airline) S. of San Simon and 1.5 mi. SW. of the Willie Roze Mine, on a high, rocky E-W. ridge.

STATION MARK: Nail driven into rock under cairn.

V.A. ELEVATION: 5957 feet

Latitude 32°04'35.11" Longitude 109°15'51.06"

BUCKHORN Cochise County Arizona (44)
 W. J. Thomas 1948 1927 N.A.D.

Located about 18 mi. (airline) SE. of Bowie, and about 3 mi. (airline) SE. of the highest point of Wood Mtn., on top between the heads of Emigrant Canyon and Buckhorn Basin, on highest point and in crevice of a large split boulder.

STATION MARK and SIGNAL: X-target on pole.

V.A. ELEVATION: 6649 feet

Latitude 32°04'51.07" Longitude 109°21'31.245"

CAMINO Cochise County Arizona (43)
 A. E. Lety 1948 1927 N.A.D.

Located about 9.5 mi. (airline) SE. of San Simon, 0.75 mi. S. of farm house, 205 ft. E. of trail crossroads and 2.8 ft. S. of E-W. fence line.

STATION MARK and SIGNAL: Copper nail with washer in wooden stake.

No V.A. ELEVATION determined

Latitude 32°09'47.80" Longitude 109°07'21.56"

CHRIS Graham County Arizona (64)
 W. J. Thomas 1948 1927 N.A.D.

Located about 15 mi. (airline) NE. of Bowie on a small knoll, about 1000 ft. S. of ranch buildings and water tank.

STATION MARK and SIGNAL: Copper nail with washer in a 2" x 3" stake in ground.

V.A. ELEVATION: 3484 feet

Latitude 32°29'52.92" Longitude 109°20'20.27"

Mexico - 23
 Summit - 1000 - 63
 Alice - 69

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4.
SAN SIMON QUADRANGLE AND VICINITY

QOOLWIN — Cochise County Arizona (44)
W. J. Thomas 1948 1927 N.A.D.

Located about 12 mi. S. of Bowie and about 1 mi. N. of Apache Pass. Station is about 500 ft. N. from point where ridge forks W. and N. The N. ridge ends about 300 ft. beyond station in a sharp drop.

STATION MARK and SIGNAL: Center of cairn.

V.A. ELEVATION: 5939 feet (Ground at cairn)

Latitude 32°10'17.94" Longitude 109°29'37.18"

HERFORD Cochise County Arizona (45)
W. J. Thomas 1948 1927 N.A.D.

Located about 23 mi. S. of Bowie and about 6 mi. W. of the El Dorado School (airline distances).

STATION MARK: Cedar post set in ground.

V.A. ELEVATION: 4737 feet

Latitude 32°00'02.76" Longitude 109°30'22.39"

IMPOSSIBLE Cochise County Arizona (63)
W. J. Thomas 1948 1927 N.A.D.

Located about 8 mi. (airline) NE. of San Simon at N. end and base of high cliffed outcropping.

STATION MARK and SIGNAL: Center of small cairn.

V.A. ELEVATION: 5233 feet (Ground at cairn)

Latitude 32°20'13.48" Longitude 109°06'59.06"

JACKRABBIT Cochise County Arizona (64)
A. E. Letey 1948 1927 N.A.D.

Located about 4 mi. (airline) NNW. of Bowie at a water hole and windmill. Station is 210 ft. ENE. of center of shack and 20 ft. N. of a small bush and end of a fence.

STATION MARK: Copper nail with washer in wooden stake.

ELEVATION: 3725.3 feet (Determined by Spirit Level line run with transit from C. & G.S. level B.M. "D 14 1932" to triangulation station and return.)

Latitude 32°25'08.60" Longitude 109°30'04.01"

LARRY Greenlee County Arizona (63)
W. J. Thomas 1948 1927 N.A.D.

Located about 17 mi. (airline) NE. of San Simon, 5 mi. N. and 2 mi. W. of the Horseshoe Ranch. Station is on SE. end of a double top hill.

STATION MARK and SIGNAL: Center of cairn.

V.A. ELEVATION: 4950 feet (Ground at cairn)

Latitude 32°28'31.24" Longitude 109°06'10.84"

MAGGIE Cochise County Arizona (44)
W. J. Thomas 1948 1927 N.A.D.

Located about 12 mi. (airline) SE. of Bowie, on the El Paso gas line. Station is on the high point of a small group of low hills.

STATION MARK and SIGNAL: Center of small cairn.

V.A. ELEVATION: 4443 feet (Ground at cairn)

Latitude 32°10'15.94" Longitude 109°23'21.01"

McGHSE Hidalgo County New Mexico (43)
A. E. Letey 1948 1927 N.A.D.

Located about 15.5 mi. ESE. of San Simon and 0.3 mi. W. of McGhee mining property, on highest point of mountain in light granite about 80 ft. NE. of a prospect pit.

STATION MARK and SIGNAL: White flag over red X-targets 1.8 ft. N. of a chiseled cross in granite.

V.A. ELEVATION: 5407 feet (Ground)

Latitude 32°10'01.62" Longitude 108°59'37.67"

NISSIE Cochise County Arizona (44)
W. J. Thomas 1948 1927 N.A.D.

Located about 8 mi. (airline) SSW. of San Simon and about 200 ft. S. of rd. Station is on rim and N. edge of a large earth water tank.

STATION MARK: Copper nail with washer in a 2" x 3" stake.

V.A. ELEVATION: 4075 feet

Latitude 32°09'46.64" Longitude 109°15'25.52"

RANDY Cochise County Arizona (44)
W. J. Thomas 1948 1927 N.A.D.

Located about 8.5 mi. (airline) SE. of Bowie, 8 mi. (airline) SW. of San Simon, and about 1 mi. S. of a G.L.O. post stamped "S 35 1913", on the dividing rim of a large twin earth water tank.

STATION MARK: Copper nail with washer in a 2" x 3" stake.

V.A. ELEVATION: 3868 feet

Latitude 32°14'13.87" Longitude 109°21'38.32"

RING Cochise County Arizona (43)
A. E. Letey 1948 1927 N.A.D.

Located about 20 mi. SSE. of San Simon and 4 mi. E. of Portal-Paradise Road Junction. Station is on E. rim of circular earth reservoir. This station will in all probability be disturbed but can be recovered from R.M.'s.

STATION MARK: Copper nail with washer in a wooden stake.

REF. MARK NO. 1: Copper nail with washer on top of post in SE. corner of fence around reservoir, 121.6 ft. from station mark in true azimuth 41°04'30".

REF. MARK NO. 2: Copper nail with washer on top of post in eastern-most corner of fence around reservoir, 36.4 ft. from station mark in true azimuth 282°54".

V.A. ELEVATION: 4234 feet

Latitude 32°00'13.13" Longitude 109°06'58.16"

SECTION Cochise County Arizona (43)
A. E. Letey 1948 1927 N.A.D.

Located about 1.3 mi. S. of San Simon just W. of T-junction of old trail with N-S. rd. Station is 75 ft. W. of section corner.

STATION MARK: Copper nail with washer in a 2" x 2" stake.

ELEVATION: 3621.3 feet. (Determined by Differential Spirit Level line run with transit from U.S.B.M. "3601" (Elev. 3612.3) to triangulation station and return.)

Latitude 32°14'59.08" Longitude 109°13'38.60"

SPLIT Cochise County Arizona (44)
W. J. Thomas 1948 1927 N.A.D.

Located about 18 mi. S. of San Simon and about 0.25 mi. W. of very prominent "Split Rock".

STATION MARK and SIGNAL: Center of small cairn.

V.A. ELEVATION: 6135 feet (Ground at cairn)

Latitude 32°00'34.02" Longitude 109°15'03.13"

STUD Greenlee, Graham County Line Arizona (63)
W. J. Thomas 1948

Located about 16 mi. (airline) N. of San Simon on E. one and highest of a 3-top hill.

STATION MARK: Center of large cairn.

V.A. ELEVATION: 4679.9 feet

Latitude 32°29'35.86" Longitude 109°13'05.99"

NAD 83 VALUES AVAILABLE

SAN SIMON QUADRANGLE AND VICINITY

SUMMIT Hidalgo County New Mexico (69)
A. E. Letey 1948 1927 N.A.D.

Located about 22 mi. (airline) NE. of San Simon and 1 mi. NNE. of R.R. maintenance station "Summit". Station is on highest point of hill in dark boulders surrounded by lighter colored ground.

STATION MARK: Copper nail with washer in wooden stake.

V.A. ELEVATION: 4635 feet

Latitude 32°29'22.46" Longitude 108°58'44.72"

TRIANGLE Cochise County Arizona (64)
W. J. Thomas 1948 1927 N.A.D.

Located about 5 mi. (airline) NW. of San Simon and about 300 ft. S. of the old Triangle Ranch house, now headquarters of the "Range Riders", Dept. of Agriculture.

STATION MARK: Copper nail with washer in a 2" x 3" stake in ground.

V.A. ELEVATION: 3558 feet

Latitude 32°19'45.60" Longitude 109°16'20.07"

U.S.R.M., ECC. Cochise County Arizona (43)
A. E. Letey 1948 1927 N.A.D.

Located about 14.3 mi. S. of Bawtry Highway Checking Station, 0.3 mi. S. of T-junction of trail to the E. with N-S. rd. Station is about 1 mi. N. of U.S.G.S. level bench mark stamped "4454 1907" and is 35 ft. W. of center line of rd.

STATION MARK: Copper nail with washer in wooden stake.

ELEVATION: 4329.0 feet (Determined by Differential Spirit Level line run with transit from U.S.G.S. B.M. "4454 1907" (Elev. 4465.4) to triangulation station and return.)

Latitude 32°03'09.67" Longitude 109°10'53.33"
