

FM-FPL.gen

Identifi cation\_Inf ormati on:

Citati on:

Citati on\_Inf ormati on:

Originator: Robert J. Bills(comp.)

Originator: U. S. Army Engineer District, Jacksonville (ed.)

Publi cation\_Date: Unpubli shed materi al

Publi cation\_Ti me: Unknown

Title: S. F. W. M. D. FORT MYERS FLORIDA POWER & LIGHT POWER

PLANT DEEP WATER INJECTION WELL

Editi on: 1

Series\_Inf ormati on:

Publi cation\_Inf ormati on:

Publi cation\_Pl ace: Not publi shed

Publi sher: None

Onl i ne\_Li nkage: bbills@cte.cc

Larger\_Work\_Citati on:

Citati on\_Inf ormati on:

Series\_Inf ormati on:

Publi cation\_Inf ormati on:

Descripti on:

Abstract:

South Florida Water Management District  
Fort Myers Florida Power & Light Power Plant Deep  
Water Injection Well

## Purpose

Purpose:

To establish NAVD 88 and NGVD 29 elevations on the  
well and on the well reference benchmark.

Ti me\_Period\_of\_Content:

Ti me\_Period\_Inf ormati on:

Si ngl e\_Date/Ti me:

Cal endar\_Date: 20050126

Ti me\_of\_Day: 17000000

Range\_of\_Dates/Ti mes:

Mul ti pl e\_Dates/Ti mes:

Currentness\_Reference: Date and time of field work

Status:

Progress: Complete

Mai ntenance\_and\_Update\_Frequency: Unknown

Spati al\_Domai n:

Boundi ng\_Coordi nates:

West\_Boundi ng\_Coordi nate: -081° 46' 54. 75"

East\_Boundi ng\_Coordi nate: -081° 46' 54. 75"

North\_Boundi ng\_Coordi nate: +26° 41' 45. 13"

South\_Boundi ng\_Coordi nate: +26° 41' 45. 13"

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: None

Theme\_Keyword: Record Survey

Theme\_Keyword: Well Site

Pl ace:

Pl ace\_Keyword\_Thesaurus: None

Pl ace\_Keyword: S. F. W. M. D. FORT MYERS FLORIDA POWER & LIGHT

POWER PLANT DEEP WATER INJECTION WELL

Pl ace\_Keyword: Sec. 35, Twp. 43 S., Rge 25 E.

Pl ace\_Keyword: Lee County, Florida

Pl ace\_Keyword\_Thesaurus: Geographi c Names Inf ormati on System

Pl ace\_Keyword: Florida

Pl ace\_Keyword: Lee County

Stratum:

Tempor al :

Access\_Const rai nts:

Berni e Ti bbl e

(239) 693 4390 Offi ce

FM-FPL.gen

(239) 849 3532 Cell

Use\_Constraints: None

Point\_of\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Elbia Ebanks

Contact\_Organization: South Florida Water Management

District

Contact\_Organization\_Primary:

Contact\_Address:

Address\_Type: mailing and physical address

Address: 3301 Gun Club Road

City: West Palm Beach

State\_or\_Province: Florida

Postal\_Code: 33406-4680

Country: USA

Contact\_Voice\_Telephone: (561) 753 2400 ex 4717

Hours\_of\_Service: 8:00 am to 5:00 pm EST

Security\_Information:

Cross\_Reference:

Citation\_Information:

Series\_Information:

Publication\_Information:

Data\_Quality\_Information:

Attribute\_Accuracy:

Attribute\_Accuracy\_Report:

## Equipment Used

This survey was prepared using GPS and Leveling instruments. The horizontal location of the benchmark was performed using GPS.

The vertical data was collected using a Topcon DL 102 Level.

Coordinates are based on the Florida State Plane Coordinate System, West Zone, NAD 83/90. Elevations are based on NAVD 88.

Logical\_Consistency\_Report:

Horizontal data was established using sub-meter GPS equipment. Vertical data was established using control points 175 D 14 and Buckingham RM 2.

Coordinates are based on the Florida State Plane Coordinate System, **West Zone, NAD 83/90.** Elevations are based on NAVD 88.

Completeness\_Report:

## Project Results

Horizontal location taken at the benchmark.

Lat. +26° 41' 45.13"

Long. -081° 46' 54.75"

N 858681'

E 727383' **NAD83/90 West Zone**

Site Benchmark.

INJ BM 03 is a standard U.S. Army Corps of Engineers brass disc, bearing INJ BM 03 2004 JAX DIST SFWMD, set in a 10" round concrete monument (poured in place, with a magnet placed nearby).

To reach from the intersection of I-75 and S.R. 80, go east along S.R. 80, 2 miles to the Florida Power & Light power plant. Benchmark and deep water injection well are located through Gate # 3. First sign in at Gate #2, once inside, security will escort to benchmark and well site. Benchmark is located 50' southeast of the well and 2' west of the top of bank of a canal.

United States Department of the Interior Geologic Survey Quadrangle map -- FORT MYERS (1987)

Benchmark INJ BM 03 - 10.94' NAVD 88; 12.09' NGVD 29

North bolt of injection well - 12.29' NAVD 88; 13.44' NGVD

29

Posi ti onal \_Accu racy:

**Horizontal**

Hori zontal \_Posi ti onal \_Accu racy:

Hori zontal \_Posi ti onal \_Accu racy\_Report:

The hori zontal posi ti on of the bench mark INJ BM 03, was establi shed using a di fferen ti al, subme ter, wide area augmen ta ti on sys tem, GPS, using Coast

Guard

and FAA beacons for cor re cted posi ti on ing (Trim ble Geoexpl o rer CE with Beacon on a Belt) in ac cordance with the Flo ri da Mi ni mum Tech ni cal Stan dards

(Chapter

61G17-6).

Quan ti ta ti ve\_Hori zontal \_Posi ti onal \_Accu racy\_Assessment:

Hori zontal \_Posi ti onal \_Accu racy\_Val ue: 1 me ter

Hori zontal \_Posi ti onal \_Accu racy\_Expl ana ti on: The

in ten ded posi ti onal ac cu racy for this sur vey is 1 me ter.

**Level Line**

Ver ti cal \_Posi ti onal \_Accu racy:

Ver ti cal \_Posi ti onal \_Accu racy\_Report:

A level line was run ori gi na ti ng on BM "I75 D 14"

with an

NAVD 88 ele va ti on, run ning through BM "INJ BM 03"

and

ter mi na ti ng on BM "Buck ing ham RM 2". A level line was then run ori gi na ti ng on BM "INJ BM 03" with an NAVD 88 ele va ti on, run ning through the North bolt on

the

in jec ti on well ter mi na ti ng on BM "INJ BM 03", in ac cordance with Flo ri da Mi ni mum Tech ni cal Stan dards (Chapter 61G17-6).

from

The level line was also readjusted using the values the NGS NGVD 29 ad just ment of the CERP ver ti cal net work

Quan ti ta ti ve\_Ver ti cal \_Posi ti onal \_Accu racy\_Assessment:

Ver ti cal \_Posi ti onal \_Accu racy\_Val ue: -0.016 me ter

Ver ti cal \_Posi ti onal \_Accu racy\_Expl ana ti on: NAVD 88

level run, 0.016 me ter clo sure in 9,252 me ters, max. al lowed 0.034 me ter (MTS)

Quan ti ta ti ve\_Ver ti cal \_Posi ti onal \_Accu racy\_Assessment:

Ver ti cal \_Posi ti onal \_Accu racy\_Expl ana ti on: NGVD 29

level run, 0.025 me ter clo sure in 9,252 me ters, max. al lowed 0.034 me ter (MTS)

Li ne age:

Source\_In for ma ti on:

Source\_Ci ta ti on:

Ci ta ti on\_In for ma ti on:

Se ri es\_In for ma ti on:

Pub li ca ti on\_In for ma ti on:

Lar ger\_Work\_Ci ta ti on:

Ci ta ti on\_In for ma ti on:

Se ri es\_In for ma ti on:

Pub li ca ti on\_In for ma ti on:

Source\_Ti me\_Per i od\_of\_Content:

Ti me\_Per i od\_In for ma ti on:

Si ngle\_Date/Ti me:

Range\_of\_Dates/Ti mes:

Mul ti ple\_Dates/Ti mes:

Process\_Step:

Process\_Descrip ti on:

The hori zontal work was per formed using Trim ble Geoexpl o rer CE with Beacon on a Belt GPS.

The level line was per formed using a Topcon DL 102

level .

Three wire methodology was used.

FM-FPL. gen  
 Process\_Date: 20050126  
 Process\_Time: 17000000  
 Process\_Contact:  
     Contact\_Information:  
         Contact\_Person\_Primary:  
         Contact\_Organization\_Primary:  
         Contact\_Address:  
 Spatial\_Data\_Organization\_Information:  
     Spatial\_Reference\_Information:  
         Horizontal\_Coordinate\_System\_Definition:  
             Geographic:  
             Planar:  
                 Map\_Projection:  
                     Albers\_Conical\_Equal\_Area:  
                     Azimuthal\_Equidistant:  
                     Equidistant\_Conic:  
                     Equiangular:  
                     General\_Vertical\_Near-sidereal\_Perspective:  
                     Gnomonic:  
                     Lambert\_Azimuthal\_Equal\_Area:  
                     Lambert\_Conformal\_Conic:  
                     Mercator:  
                     Modified\_Stereographic\_for\_Alaska:  
                     Miller\_Cylindrical:  
                     Oblique\_Mercator:  
                         Oblique\_Line\_Point:  
                     Orthographic:  
                     Polar\_Stereographic:  
                     Polyconic:  
                     Robinson:  
                     Sinusoidal:  
                     van\_der\_Grinten:  
                     Space\_Oblique\_Mercator\_(Landsat):  
                     Stereographic:  
                     Transverse\_Mercator:  
                     van\_der\_Grinten:  
                 Grid\_Coordinate\_System:  
                     Universal\_Transverse\_Mercator:  
                         Transverse\_Mercator:  
                     Universal\_Polar\_Stereographic:  
                         Polar\_Stereographic:  
                     State\_Plane\_Coordinate\_System:  
                         Lambert\_Conformal\_Conic:  
                         Transverse\_Mercator:  
                         Oblique\_Mercator:  
                             Oblique\_Line\_Point:  
                         Polyconic:  
                     ARC\_Coordinate\_System:  
                         Equiangular:  
                         Azimuthal\_Equidistant:  
                 Local\_Planar:  
                 Planar\_Coordinate\_Information:  
                     Coordinate\_Representation:  
                     Distance\_and\_Bearing\_Representation:  
                 Local:  
                 Geodetic\_Model:  
                 Vertical\_Coordinate\_System\_Definition:  
                     Altitude\_System\_Definition:  
                     Depth\_System\_Definition:  
 Entity\_and\_Attribute\_Information:  
     Detailed\_Description:  
         Entity\_Type:  
         Attribute:

FM-FPL. gen  
 Attribute\_Domain\_Values:  
 Attribute\_Value\_Accuracy\_Information:  
 Overview\_Description:  
 Distribution\_Information:  
 Distributor:  
   Contact\_Information:  
     Contact\_Person\_Primary:  
     Contact\_Organization\_Primary:  
     Contact\_Address:  
 Standard\_Order\_Process:  
   Digital\_Form:  
     Digital\_Transfer\_Information:  
     Digital\_Transfer\_Option:  
       Online\_Option:  
         Computer\_Contact\_Information:  
           Network\_Address:  
           Dialup\_Instructions:  
         Offline\_Option:  
           Recording\_Capacity:  
 Available\_Time\_Period:  
   Time\_Period\_Information:  
     Single\_Date/Time:  
     Range\_of\_Dates/Times:  
     Multiple\_Dates/Times:  
 Metadata\_Reference\_Information:  
   Metadata\_Date: 20050207  
   Metadata\_Contact:  
     Contact\_Information:  
       Contact\_Person\_Primary:  
         Contact\_Person: Joseph S. Boggs  
         Contact\_Organization: Consul-Tech Surveying &  
           Contact\_Organization\_Primary:  
           Contact\_Position: Project Surveyor  
           Contact\_Address:  
             Address\_Type: mailing and physical address  
             Address: 24831 Old 41 Road  
             City: Bonita Springs  
             State\_or\_Province: Florida  
             Postal\_Code: 34135  
             Country: USA  
           Contact\_Voice\_Telephone: (239) 947-0266  
           Contact\_Facsimile\_Telephone: (239) 947-1323  
           Contact\_Electronic\_Mail\_Address: j.boggs@cte.cc  
           Hours\_of\_Service: 8:00 am to 5:00 pm EST  
   Metadata\_Standard\_Name: FGDC Content Standards for Digital Geospatial  
 Metadata  
   Metadata\_Standard\_Version: FGDC-STD-001-1998  
   Metadata\_Time\_Convention: Local time  
   Metadata\_Security\_Information:

**Joseph S. Boggs**  
**Consul-Tech**  
**Survey &**  
**Mapping Inc.**

# S.F.W.M.D. Injection Well – Fort Myers FPL Plant

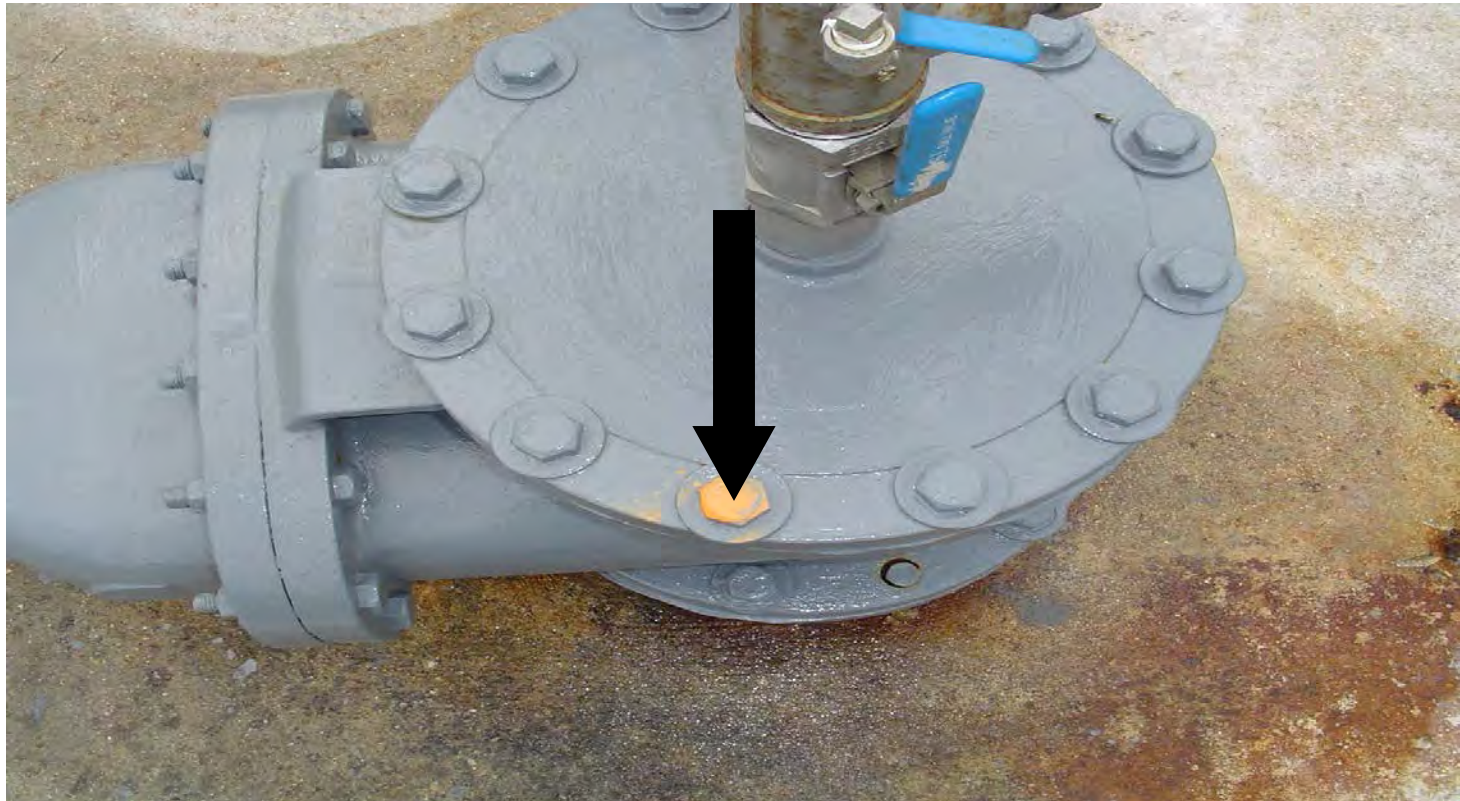


Consul-Tech Surveying & Mapping, Inc.

Date of Survey: January 25, 2005

Looking: Northwest

# S.F.W.M.D. Injection Well Reference Point – Fort Myers FPL Plant



- Consul-Tech Surveying & Mapping, Inc.
- Date of Survey: March 21, 2005
- Looking: South at Injection Well

# S.F.W.M.D. Injection Well – Fort Myers FPL Plant



Consul-Tech Surveying & Mapping, Inc.

Date of Survey: January 25, 2005

Looking: Southeast



# S.F.W.M.D. Injection Well – Fort Myers FPL Plant



Consul-Tech Surveying & Mapping, Inc.

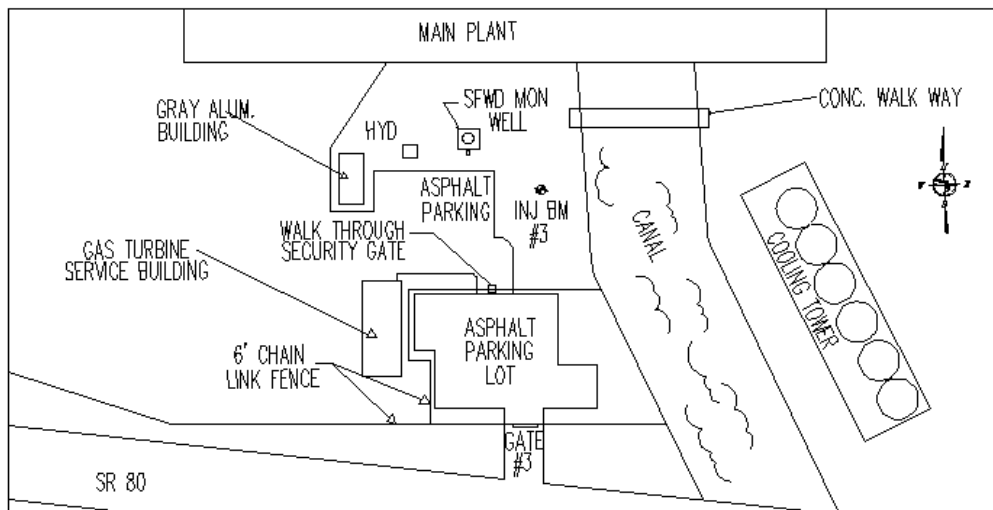
Date of Survey: January 25, 2005

Looking: At “INJ BM 03 2005”



<b>COUNTY LEE</b>		<b>PROJECT DEEP WATER INJECTION WELL SITE</b>		<b>DESIGNATION INJ BM O3 2004</b>	
<b>SECTION 35</b>		<b>TOWNSHIP 43 SOUTH</b>		<b>RANGE 25 EAST</b>	
<b>GEOGRAPHIC INDEX OF QUAD Florida</b>					
Established by Consul-Tech Surveying and Mapping, inc.			NAME OF QUADRANGLE FORT MYERS (1987)		
SURVEYOR <u>Joseph S. Boggs</u> DATE <u>1/26/05</u>			FIELD BOOK <u>516-8</u> PAGE <u>24</u>		
HORIZONTAL DATUM: <b>83/90</b> ZONE WEST					
VERTICAL DATUM: NAVD 88 & NGVD 29 (Based on NGS adjustment of CERP vertical network)					
CONTROL ACCURACY: HORIZONTAL SUB-METER				VERTICAL 3 <sup>rd</sup> Order	
STATE PLANE COORDINATES Feet		N=858681		E=727383	
				EL.=10.94 (NAVD 88)	
				EL.=12.09 (NGVD 29)	
LATITUDE 26°41'45.13" N			LONGITUDE 081°46'54.75" W		
<b>DESCRIPTION</b>					
To reach from the intersection of I-75 and S.R. 80, go east along S.R. 80, 2 miles to the Florida Power & Light power plant. Benchmark and deep water injection well are located through Gate # 3. First sign in at Gate #2, once inside, security will escort to benchmatk and well site. Benchmark is located 50' southeast of the well and 2' west of the top of bank of a canal.					

SKETCH





# The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,  Retrieval Date = JANUARY  8, 2016
AD6152 *****
AD6152 DESIGNATION -  I75 D 14
AD6152 PID          -  AD6152
AD6152 STATE/COUNTY-  FL/LEE
AD6152 COUNTRY      -  US
AD6152 USGS QUAD    -  FORT MYERS (1987)
AD6152
AD6152                      *CURRENT SURVEY CONTROL
AD6152
AD6152* NAD 83(1986) POSITION- 26 40 23.      (N) 081 47 58.      (W)  SCALED
AD6152* NAVD 88 ORTHO HEIGHT -    5.052 (meters)      16.57 (feet) ADJUSTED
AD6152
AD6152 GEOID HEIGHT   -      -24.311 (meters)                      GEOID12B
AD6152 DYNAMIC HEIGHT -           5.044 (meters)      16.55 (feet) COMP
AD6152 MODELED GRAVITY -    979,072.7 (mgal)                      NAVD 88
AD6152
AD6152 VERT ORDER    -  SECOND    CLASS II
AD6152
AD6152.The horizontal coordinates were scaled from a topographic map and have
AD6152.an estimated accuracy of +/- 6 seconds.
AD6152.
AD6152.The orthometric height was determined by differential leveling and
AD6152.adjusted by the NATIONAL GEODETIC SURVEY
AD6152.in June 1991.
AD6152
AD6152.Significant digits in the geoid height do not necessarily reflect accuracy.
AD6152.GEOID12B height accuracy estimate available here.
AD6152
AD6152.The dynamic height is computed by dividing the NAVD 88
AD6152.geopotential number by the normal gravity value computed on the
AD6152.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD6152.degrees latitude (g = 980.6199 gals.).
AD6152
AD6152.The modeled gravity was interpolated from observed gravity values.
AD6152
AD6152;
AD6152;          North      East      Units  Estimated Accuracy
AD6152;SPC FL W   -   259,200.    219,960.    MT   (+/- 180 meters Scaled)
AD6152
AD6152                      SUPERSEDED SURVEY CONTROL
AD6152
AD6152 NGVD 29 (09/01/92)    5.397 (m)      17.71 (f) ADJUSTED    2 2
AD6152
AD6152.Superseded values are not recommended for survey control.
AD6152
AD6152.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD6152.See file dsdata.txt to determine how the superseded data were derived.
AD6152
AD6152_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK204504(NAD 83)
AD6152

```

AD6152\_MARKER: DD = SURVEY DISK  
AD6152\_SETTING: 30 = SET IN A LIGHT STRUCTURE  
AD6152\_SP\_SET: CONCRETE HEADWALL  
AD6152\_STAMPING: BM I75 D14  
AD6152\_MARK LOGO: FLDT  
AD6152\_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY

AD6152  
AD6152 HISTORY - Date Condition Report By  
AD6152 HISTORY - 1981 MONUMENTED FLDT  
AD6152 HISTORY - 20011102 GOOD USPSQD

AD6152

AD6152 STATION DESCRIPTION

AD6152

AD6152'DESCRIBED BY FLORIDA DEPARTMENT OF TRANSPORTATION 1981

AD6152'6.6 MI NE FROM FORT MYERS.

AD6152'FROM THE INTERSECTION OF INTERSTATE ROUTE 75 AND STATE ROAD 82, ABOUT  
AD6152'4.0 MILES EAST OF FORT MYERS, GO NORTHERLY ON INTERSTATE ROUTE 75 FOR  
AD6152'ABOUT 2.6 MILES TO THE MARK. IT IS SET IN THE TOP CENTER OF THE EAST  
AD6152'CONCRETE HEADWALL OF A BOX CULVERT UNDER THE NORTHBOUND LANES, 53.3  
AD6152'FEET EAST OF THE CENTER OF THE NORTHBOUND LANES.

AD6152

AD6152 STATION RECOVERY (2001)

AD6152

AD6152'RECOVERY NOTE BY US POWER SQUADRON 2001 (MDB)

AD6152'RECOVERED IN GOOD CONDITION.

\*\*\* retrieval complete.

Elapsed Time = 00:00:01

# The NGS Data Sheet

See file [dsdata.txt](#) for more information about the datasheet.

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,  Retrieval Date = JANUARY  8, 2016
AD1414 *****
AD1414 DESIGNATION -  BUCKINGHAM RM 2
AD1414 PID          -  AD1414
AD1414 STATE/COUNTY-  FL/LEE
AD1414 COUNTRY      -  US
AD1414 USGS QUAD    -  FORT MYERS (1987)
AD1414
AD1414                      *CURRENT SURVEY CONTROL
AD1414
AD1414* NAD 83(1986) POSITION- 26 40 38.12 (N) 081 45 35.25 (W) HD_HELD1
AD1414* NAVD 88 ORTHO HEIGHT - 4.495 (meters) 14.75 (feet) ADJUSTED
AD1414
AD1414 GEOID HEIGHT - -24.365 (meters) GEOID12B
AD1414 DYNAMIC HEIGHT - 4.488 (meters) 14.72 (feet) COMP
AD1414 MODELED GRAVITY - 979,071.4 (mgal) NAVD 88
AD1414
AD1414 VERT ORDER -  FIRST CLASS II
AD1414
AD1414.The horizontal coordinates were determined by differentially corrected
AD1414.hand held GPS observations or other comparable positioning techniques
AD1414.and have an estimated accuracy of +/- 3 meters.
AD1414.
AD1414.The orthometric height was determined by differential leveling and
AD1414.adjusted by the NATIONAL GEODETIC SURVEY
AD1414.in May 2003.
AD1414
AD1414.No vertical observational check was made to the station.
AD1414
AD1414.Significant digits in the geoid height do not necessarily reflect accuracy.
AD1414.GEOID12B height accuracy estimate available here.
AD1414
AD1414.The dynamic height is computed by dividing the NAVD 88
AD1414.geopotential number by the normal gravity value computed on the
AD1414.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD1414.degrees latitude (g = 980.6199 gals.).
AD1414
AD1414.The modeled gravity was interpolated from observed gravity values.
AD1414
AD1414;
AD1414;          North          East          Units  Estimated Accuracy
AD1414;SPC FL W  -  259,668.3    223,908.2    MT    (+/- 3 meters HH1 GPS)
AD1414
AD1414                      SUPERSEDED SURVEY CONTROL
AD1414
AD1414 NAVD 88 (09/04/92)  4.492 (m) 14.74 (f) SUPERSEDED 1 2
AD1414 NAVD 88 (06/15/91)  4.492 (m) 14.74 (f) SUPERSEDED 1 2
AD1414 NGVD 29 (??/??/92)  4.852 (m) 15.92 (f) SUPERSEDED 1 2
AD1414 NGVD 29 (09/01/92)  4.852 (m) 15.92 (f) ADJUSTED 1 2
AD1414
AD1414.Superseded values are not recommended for survey control.

```

AD1414

AD1414.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AD1414.[See file dsdata.txt](#) to determine how the superseded data were derived.

AD1414

AD1414\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK2440150914(NAD 83)

AD1414

AD1414\_MARKER: DR = REFERENCE MARK DISK

AD1414\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AD1414\_STAMPING: BUCKINGHAM NO 2 1937

AD1414\_MARK LOGO: CGS

AD1414\_MAGNETIC: N = NO MAGNETIC MATERIAL

AD1414\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AD1414+STABILITY: SURFACE MOTION

AD1414\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AD1414+SATELLITE: SATELLITE OBSERVATIONS - April 02, 1992

AD1414

AD1414	HISTORY	- Date	Condition	Report By
AD1414	HISTORY	- 1937	MONUMENTED	CGS
AD1414	HISTORY	- 1960	GOOD	CGS
AD1414	HISTORY	- 1981	GOOD	FLDT
AD1414	HISTORY	- 1985	GOOD	USPSQD
AD1414	HISTORY	- 19920402	GOOD	NGS
AD1414	HISTORY	- 19971023	GOOD	USPSQD

AD1414

AD1414

## STATION DESCRIPTION

AD1414

AD1414'DESCRIBED BY COAST AND GEODETIC SURVEY 1960

AD1414'14.5 MI ESE FROM FORT MYERS.

AD1414'10.1 MILES EAST ALONG STATE HIGHWAY 80 FROM THE POST OFFICE AT FORT

AD1414'MYERS, THENCE 2.6 MILES SOUTH ALONG BUCKINGHAM ROAD (STATE

AD1414'ROAD S 80) THENCE 1.8 MILES WEST ALONG ORANGE RIVER BOULEVARD AT

AD1414'A JUNCTION WITH WILLIAMSON ROAD 55 YARDS EAST OF AN UNPAINTED

AD1414'FRAME HOUSE, 166 FT. NORTH OF THE CENTER LINE OF ORANGE RIVER

AD1414'BOULEVARD 45 FT. EAST OF THE CENTER LINE OF WILLIAMSON ROAD,

AD1414'0.6 FT. EAST OF A STEEL WITNESS POST SET IN THE TOP OF A CONCRETE

AD1414'POST WHICH IS 0.1 FT. BELOW THE TOP OF THE GROUND.

AD1414

AD1414

## STATION RECOVERY (1981)

AD1414

AD1414'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1981

AD1414'RECOVERED IN GOOD CONDITION.

AD1414

AD1414

## STATION RECOVERY (1985)

AD1414

AD1414'RECOVERY NOTE BY US POWER SQUADRON 1985

AD1414'WITNESS POST INTACT. SIGN PAINTED ORANGE. HOUSE IS PAINTED.

AD1414

AD1414

## STATION RECOVERY (1992)

AD1414

AD1414'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992

AD1414'9.0 KM (5.60 MI) EASTERLY ALONG STATE HIGHWAY 80 (PALM BEACH

AD1414'BOULEVARD) FROM CITY HALL IN FORT MYERS, THENCE 4.0 KM (2.50 MI)

AD1414'SOUTHEASTERLY ALONG ORANGE RIVER BOULEVARD, 50.6 M (166.0 FT) NORTH

AD1414'OF THE CENTERLINE OF THE BOULEVARD, 31.8 M (104.3 FT) NORTHWEST OF

AD1414'TRIANGULATION STATION BUCKINGHAM, 13.7 M (44.9 FT) EAST OF THE

AD1414'CENTERLINE OF WILLIAMSON ROAD, 0.6 M (2.0 FT) ABOVE THE LEVEL OF THE

AD1414'ROAD, 0.4 M (1.3 FT) EAST OF A WITNESS POST, AND THE MONUMENT IS

AD1414'RECESSED 0.3 M (1.0 FT) BELOW THE GROUND SURFACE.

AD1414

AD1414

## STATION RECOVERY (1997)

AD1414  
AD1414'RECOVERY NOTE BY US POWER SQUADRON 1997  
AD1414'RECOVERED IN GOOD CONDITION.

\*\*\* retrieval complete.  
Elapsed Time = 00:00:01



sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
pob						16.570	NAVD88						
	9.560 8.340 7.120	8.340	24.910				244.0			D14 IN CONCRETE HEADWALL ON I-75 (AD6152)	1.220	244.0	0.0000
1				5.895 4.670 3.450	4.672	20.238	244.5	-0.0009	20.239		1.223	244.5	-0.0002
	5.815 4.580 3.335	4.577	24.815				248.0				1.240	248.0	-0.0007
2				5.245 3.985 2.730	3.987	20.828	251.5	-0.0009	20.830		1.258	251.5	-0.0002
	6.615 5.350 4.080	5.348	26.176				253.5				1.268	253.5	-0.0002
3				5.885 4.660 3.440	4.662	21.514	244.5	-0.0009	21.517		1.223	244.5	-0.0002
	5.815 4.540 3.265	4.540	26.054				255.0				1.275	255.0	0.0000
4				5.905 4.675 3.455	4.678	21.376	245.0	-0.0009	21.379		1.225	245.0	-0.0007
	5.690 4.440 3.180	4.437	25.813				251.0				1.255	251.0	-0.0007
5				6.655 5.440 4.230	5.442	20.371	242.5	-0.0009	20.375		1.213	242.5	-0.0002
	4.880 3.665 2.450	3.665	24.036				243.0				1.215	243.0	0.0000
6				6.550 5.360 4.165	5.358	18.678	238.5	-0.0008	18.683		1.193	238.5	-0.0002
	4.775 3.515 2.260	3.517	22.195				251.5				1.258	251.5	-0.0002
7				7.290 6.035 4.780	6.035	16.160	251.0	-0.0009	16.166		1.255	251.0	0.0000
	4.485 3.260 2.040	3.262	19.422				244.5				1.223	244.5	-0.0002
8				8.100 6.945 5.790	6.945	12.477	231.0	-0.0008	12.484		1.155	231.0	0.0000
	7.030 5.860 4.680	5.857	18.334				235.0				1.175	235.0	-0.0007



sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	5.000 3.720	4.998	11.602				255.5				1.278	255.5	-0.0002
18				6.230 4.985 3.740	4.985	6.617	249.0	-0.0009	6.631		1.245	249.0	0.0000
	6.270 5.030 3.795	5.032	11.649				247.5				1.238	247.5	-0.0002
19				5.900 4.640 3.370	4.637	7.012	253.0	-0.0009	7.027		1.265	253.0	-0.0007
	6.120 4.860 3.600	4.860	11.872				252.0				1.260	252.0	0.0000
20				5.870 4.610 3.350	4.610	7.262	252.0	-0.0009	7.278		1.260	252.0	0.0000
	6.235 5.010 3.775	5.007	12.269				246.0				1.230	246.0	-0.0007
21				5.750 4.490 3.240	4.493	7.776	251.0	-0.0009	7.793		1.255	251.0	-0.0007
	6.125 4.850 3.575	4.850	12.626				255.0				1.275	255.0	0.0000
22				6.000 4.725 3.450	4.725	7.901	255.0	-0.0009	7.918		1.275	255.0	0.0000
	6.535 5.250 3.970	5.252	13.153				256.5				1.283	256.5	-0.0002
23				4.410 3.190 1.980	3.193	9.960	243.0	-0.0009	9.978		1.215	243.0	-0.0007
	6.545 5.675 4.805	5.675	15.635				174.0				0.870	174.0	0.0000
24				5.895 4.720 3.540	4.718	10.917	235.5	-0.0007	10.936	BM INJ 03	1.178	235.5	-0.0002
	5.630 3.890 2.150	3.890	14.807				348.0				1.740	348.0	0.0000
25				5.250 4.850 4.440	4.847	9.960	81.0	-0.0007	9.980		0.405	81.0	-0.0021
	3.130 1.990 0.850	1.990	11.950				228.0				1.140	228.0	0.0000
26				5.200 4.040	4.040	7.910	232.0	-0.0008	7.931		1.160	232.0	0.0000

sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	6.250 5.000 3.750	5.000	12.910	2.880			250.0				1.250	250.0	0.0000
27				6.340 5.090 3.840	5.090	7.820	250.0	-0.0009	7.841		1.250	250.0	0.0000
	5.980 4.710 3.450	4.713	12.533				253.0				1.265	253.0	-0.0007
28				6.420 5.180 3.940	5.180	7.353	248.0	-0.0009	7.375		1.240	248.0	0.0000
	6.310 5.050 3.800	5.053	12.406				251.0				1.255	251.0	-0.0007
29				6.520 5.255 4.000	5.258	7.148	252.0	-0.0009	7.171		1.260	252.0	-0.0007
	5.490 4.250 3.010	4.250	11.398				248.0				1.240	248.0	0.0000
30				5.690 4.410 3.130	4.410	6.988	256.0	-0.0009	7.012		1.280	256.0	0.0000
	5.570 4.310 3.060	4.313	11.301				251.0				1.255	251.0	-0.0007
31				5.910 4.655 3.400	4.655	6.646	251.0	-0.0009	6.671		1.255	251.0	0.0000
	5.590 4.310 3.040	4.313	10.959				255.0				1.275	255.0	-0.0007
32				3.290 2.030 0.770	2.030	8.929	252.0	-0.0009	8.955		1.260	252.0	0.0000
	10.040 8.830 7.620	8.830	17.759				242.0				1.210	242.0	0.0000
33				2.870 1.575 0.270	1.572	16.187	260.0	-0.0009	16.214		1.300	260.0	-0.0006
	9.110 7.910 6.710	7.910	24.097				240.0				1.200	240.0	0.0000
34				7.280 6.085 4.900	6.088	18.009	238.0	-0.0008	18.037		1.190	238.0	-0.0007
	2.070 1.200 0.320	1.197	19.206				175.0				0.875	175.0	-0.0010



sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	4.150 2.900	4.153	19.570				251.0				1.255	251.0	-0.0007
44				5.460 4.230 3.000	4.230	15.340	246.0	-0.0009	15.376		1.230	246.0	0.0000
	4.750 3.480 2.200	3.477	18.817				255.0				1.275	255.0	-0.0007
45				4.840 3.510 2.190	3.513	15.304	265.0	-0.0009	15.341		1.325	265.0	-0.0006
	5.640 4.400 3.150	4.397	19.701				249.0				1.245	249.0	-0.0007
46				5.590 4.310 3.040	4.313	15.388	255.0	-0.0009	15.426		1.275	255.0	-0.0007
	5.020 3.700 2.390	3.703	19.091				263.0				1.315	263.0	-0.0006
47				4.530 3.350 2.160	3.347	15.744	237.0	-0.0009	15.783		1.185	237.0	-0.0007
	4.830 3.560 2.250	3.547	19.291				258.0				1.290	258.0	-0.0103
48				4.500 3.210 1.930	3.213	16.078	257.0	-0.0009	16.118		1.285	257.0	-0.0006
	5.150 3.700 2.250	3.700	19.778				290.0				1.450	290.0	0.0000
49				5.000 3.900 2.800	3.900	15.878	220.0	-0.0009	15.919		1.100	220.0	0.0000
	5.400 4.130 2.870	4.133	20.011				253.0				1.265	253.0	-0.0007
50				4.930 3.700 2.480	3.703	16.308	245.0	-0.0009	16.349		1.225	245.0	-0.0007
	6.680 5.300 3.930	5.303	21.611				275.0				1.375	275.0	-0.0006
51				6.280 5.090 3.900	5.090	16.521	238.0	-0.0009	16.563		1.190	238.0	0.0000
	5.330 4.110 2.890	4.110	20.631				244.0				1.220	244.0	0.0000
52				4.990 3.670	3.670	16.961	264.0	-0.0009	17.004		1.320	264.0	0.0000

sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	5.550 4.230 2.910	4.230	21.191	2.350			264.0				1.320	264.0	0.0000
53				5.280 4.060 2.840	4.060	17.131	244.0	-0.0009	17.175		1.220	244.0	0.0000
	6.350 5.080 3.820	5.083	22.214				253.0				1.265	253.0	-0.0007
54				6.230 5.030 3.830	5.030	17.184	240.0	-0.0009	17.229		1.200	240.0	0.0000
	6.120 4.790 3.470	4.793	21.977				265.0				1.325	265.0	-0.0006
55				5.340 4.130 2.930	4.133	17.844	241.0	-0.0009	17.890		1.205	241.0	-0.0007
	5.240 3.920 2.620	3.927	21.771				262.0				1.310	262.0	-0.0025
56				5.700 4.500 3.310	4.503	17.268	239.0	-0.0009	17.315		1.195	239.0	-0.0007
	5.300 4.020 2.750	4.023	21.291				255.0				1.275	255.0	-0.0007
57				5.590 4.290 3.000	4.293	16.998	259.0	-0.0009	17.046		1.295	259.0	-0.0006
	6.030 4.760 3.500	4.763	21.761				253.0				1.265	253.0	-0.0007
58				6.100 4.790 3.490	4.793	16.968	261.0	-0.0009	17.017		1.305	261.0	-0.0006
	5.080 3.820 2.560	3.820	20.788				252.0				1.260	252.0	0.0000
59				5.590 4.290 2.990	4.290	16.498	260.0	-0.0009	16.547		1.300	260.0	0.0000
	4.835 3.570 2.315	3.573	20.071				252.0				1.260	252.0	-0.0007
60				5.170 3.890 2.600	3.887	16.184	257.0	-0.0009	16.234		1.285	257.0	-0.0006
	5.000 3.755 2.520	3.758	19.942				248.0				1.240	248.0	-0.0007

sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
61				5.570 4.240 2.910	4.240	15.702	266.0	-0.0009	15.753		1.330	266.0	0.0000
	5.375 4.135 2.905	4.138	19.840				247.0				1.235	247.0	-0.0007
62				5.540 4.195 2.850	4.195	15.645	269.0	-0.0009	15.697		1.345	269.0	0.0000
	5.150 3.910 2.670	3.910	19.555				248.0				1.240	248.0	0.0000
63				6.250 4.855 3.470	4.858	14.697	278.0	-0.0009	14.750	BUCKINGHAM RM 2	1.390	278.0	-0.0006
							30,354.5		in feet			30,354.6	-0.08
							5.749		in miles				in feet
					sq. rt. Of dist. In miles x 0.05' :		0.120		allowable error				
							-0.053		field error				
							0.067		WITHIN MTS				
										BUCK RM 2 RECORD:			14.75



sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	9.560 8.340 7.120	8.340	26.050			17.710	NGVD29			D14 IN CONCRETE HEADWALL ON I-75 (AD6152)	1.220	244.0	0.0000
1				5.895 4.670 3.450	4.672	21.378	244.5	-0.0013	21.379		1.223	244.5	-0.0002
	5.815 4.580 3.335	4.577	25.955				248.0				1.240	248.0	-0.0007
2				5.245 3.985 2.730	3.987	21.968	251.5	-0.0014	21.971		1.258	251.5	-0.0002
	6.615 5.350 4.080	5.348	27.316				253.5				1.268	253.5	-0.0002
3				5.885 4.660 3.440	4.662	22.654	244.5	-0.0014	22.658		1.223	244.5	-0.0002
	5.815 4.540 3.265	4.540	27.194				255.0				1.275	255.0	0.0000
4				5.905 4.675 3.455	4.678	22.516	245.0	-0.0014	22.521		1.225	245.0	-0.0007
	5.690 4.440 3.180	4.437	26.953				251.0				1.255	251.0	-0.0007
5				6.655 5.440 4.230	5.442	21.511	242.5	-0.0013	21.518		1.213	242.5	-0.0002
	4.880 3.665 2.450	3.665	25.176				243.0				1.215	243.0	0.0000
6				6.550 5.360 4.165	5.358	19.818	238.5	-0.0013	19.826		1.193	238.5	-0.0002
	4.775 3.515 2.260	3.517	23.335				251.5				1.258	251.5	-0.0002
7				7.290 6.035 4.780	6.035	17.300	251.0	-0.0014	17.309		1.255	251.0	0.0000
	4.485 3.260 2.040	3.262	20.562				244.5				1.223	244.5	-0.0002
8				8.100 6.945 5.790	6.945	13.617	231.0	-0.0013	13.628		1.155	231.0	0.0000
	7.030 5.860 4.680	5.857	19.474				235.0				1.175	235.0	-0.0007



sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	5.000 3.720	4.998	12.742				255.5				1.278	255.5	-0.0002
18				6.230 4.985 3.740	4.985	7.757	249.0	-0.0014	7.779		1.245	249.0	0.0000
	6.270 5.030 3.795	5.032	12.789				247.5				1.238	247.5	-0.0002
19				5.900 4.640 3.370	4.637	8.152	253.0	-0.0014	8.175		1.265	253.0	-0.0007
	6.120 4.860 3.600	4.860	13.012				252.0				1.260	252.0	0.0000
20				5.870 4.610 3.350	4.610	8.402	252.0	-0.0014	8.427		1.260	252.0	0.0000
	6.235 5.010 3.775	5.007	13.409				246.0				1.230	246.0	-0.0007
21				5.750 4.490 3.240	4.493	8.916	251.0	-0.0014	8.942		1.255	251.0	-0.0007
	6.125 4.850 3.575	4.850	13.766				255.0				1.275	255.0	0.0000
22				6.000 4.725 3.450	4.725	9.041	255.0	-0.0014	9.068		1.275	255.0	0.0000
	6.535 5.250 3.970	5.252	14.293				256.5				1.283	256.5	-0.0002
23				4.410 3.190 1.980	3.193	11.100	243.0	-0.0014	11.129		1.215	243.0	-0.0007
	6.545 5.675 4.805	5.675	16.775				174.0				0.870	174.0	0.0000
24				5.895 4.720 3.540	4.718	12.057	235.5	-0.0011	12.087	BM INJ 03	1.178	235.5	-0.0002
	5.630 3.890 2.150	3.890	15.947				348.0				1.740	348.0	0.0000
25				5.250 4.850 4.440	4.847	11.100	81.0	-0.0012	11.131		0.405	81.0	-0.0021
	3.130 1.990 0.850	1.990	13.090				228.0				1.140	228.0	0.0000
26				5.200 4.040	4.040	9.050	232.0	-0.0013	9.082		1.160	232.0	0.0000





sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	4.150 2.900	4.153	20.710				251.0				1.255	251.0	-0.0007
44				5.460 4.230 3.000	4.230	16.480	246.0	-0.0014	16.537		1.230	246.0	0.0000
	4.750 3.480 2.200	3.477	19.957				255.0				1.275	255.0	-0.0007
45				4.840 3.510 2.190	3.513	16.444	265.0	-0.0014	16.502		1.325	265.0	-0.0006
	5.640 4.400 3.150	4.397	20.841				249.0				1.245	249.0	-0.0007
46				5.590 4.310 3.040	4.313	16.528	255.0	-0.0014	16.587		1.275	255.0	-0.0007
	5.020 3.700 2.390	3.703	20.231				263.0				1.315	263.0	-0.0006
47				4.530 3.350 2.160	3.347	16.884	237.0	-0.0014	16.945		1.185	237.0	-0.0007
	4.830 3.560 2.250	3.547	20.431				258.0				1.290	258.0	-0.0103
48				4.500 3.210 1.930	3.213	17.218	257.0	-0.0014	17.280		1.285	257.0	-0.0006
	5.150 3.700 2.250	3.700	20.918				290.0				1.450	290.0	0.0000
49				5.000 3.900 2.800	3.900	17.018	220.0	-0.0014	17.081		1.100	220.0	0.0000
	5.400 4.130 2.870	4.133	21.151				253.0				1.265	253.0	-0.0007
50				4.930 3.700 2.480	3.703	17.448	245.0	-0.0014	17.513		1.225	245.0	-0.0007
	6.680 5.300 3.930	5.303	22.751				275.0				1.375	275.0	-0.0006
51				6.280 5.090 3.900	5.090	17.661	238.0	-0.0014	17.727		1.190	238.0	0.0000
	5.330 4.110 2.890	4.110	21.771				244.0				1.220	244.0	0.0000
52				4.990 3.670	3.670	18.101	264.0	-0.0014	18.169		1.320	264.0	0.0000

sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
	5.550 4.230 2.910	4.230	22.331	2.350			264.0				1.320	264.0	0.0000
53				5.280 4.060 2.840	4.060	18.271	244.0	-0.0014	18.340		1.220	244.0	0.0000
	6.350 5.080 3.820	5.083	23.354				253.0				1.265	253.0	-0.0007
54				6.230 5.030 3.830	5.030	18.324	240.0	-0.0013	18.394		1.200	240.0	0.0000
	6.120 4.790 3.470	4.793	23.117				265.0				1.325	265.0	-0.0006
55				5.340 4.130 2.930	4.133	18.984	241.0	-0.0014	19.056		1.205	241.0	-0.0007
	5.240 3.920 2.620	3.927	22.911				262.0				1.310	262.0	-0.0025
56				5.700 4.500 3.310	4.503	18.408	239.0	-0.0014	18.481		1.195	239.0	-0.0007
	5.300 4.020 2.750	4.023	22.431				255.0				1.275	255.0	-0.0007
57				5.590 4.290 3.000	4.293	18.138	259.0	-0.0014	18.213		1.295	259.0	-0.0006
	6.030 4.760 3.500	4.763	22.901				253.0				1.265	253.0	-0.0007
58				6.100 4.790 3.490	4.793	18.108	261.0	-0.0014	18.184		1.305	261.0	-0.0006
	5.080 3.820 2.560	3.820	21.928				252.0				1.260	252.0	0.0000
59				5.590 4.290 2.990	4.290	17.638	260.0	-0.0014	17.715		1.300	260.0	0.0000
	4.835 3.570 2.315	3.573	21.211				252.0				1.260	252.0	-0.0007
60				5.170 3.890 2.600	3.887	17.324	257.0	-0.0014	17.403		1.285	257.0	-0.0006
	5.000 3.755 2.520	3.758	21.082				248.0				1.240	248.0	-0.0007

sta	three wire +	mean	hi	three wire -	mean	elevation	distance	ADJ BY DIST	adjust elevation	description	std dev	stdev *2*100	variance
61				5.570 4.240 2.910	4.240	16.842	266.0	-0.0014	16.922		1.330	266.0	0.0000
	5.375 4.135 2.905	4.138	20.980				247.0				1.235	247.0	-0.0007
62				5.540 4.195 2.850	4.195	16.785	269.0	-0.0014	16.867		1.345	269.0	0.0000
	5.150 3.910 2.670	3.910	20.695				248.0				1.240	248.0	0.0000
63				6.250 4.855 3.470	4.858	15.837	278.0	-0.0014	15.920	BUCKINGHAM RM 2	1.390	278.0	-0.0006
							30,354.5		in feet			30,354.6	-0.08
							5.749		in miles				in feet
					sq. rt. Of dist. In miles x 0.05' :		0.120		allowable error				
							-0.083		field error				
							0.037		WITHIN MTS				
										BUCK RM 2 RECORD:			15.92