SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DB Hydro Station Name: **IWA-MZL**	DB Hydro Site Name: **IWAMZL**	Agency: **WMD**	Date of Field Work: **26-oct-17**
Party Chief: **Wise**	Field Book: **Misc 7E**	Pages **26-29**	Prepared by: **H. Ehmke**

SITE SPECIFIC DATA

Site Benchmark: **IWAMZL**	Benchmark Elevation (NAVD88) **6.163**	Corpscon 6.0.1 Conversion Factor (*NAVD88 to NGVD29*) **+1.175**

Reference Elevation(s) (*NAVD88*): **IWA-MZL (GW1) El. 9.45**	Existing Brass Tag Elevation (Datum): **None**	Calibration Port Elevation(s) (*NAVD88*): **Not Applicable**

Ground Elevation (NAVD88): North side El. **5.7** East side El. **5.7** West side El. **5.7** South side El. **5.7**	Pad Elevation (NAVD88): North side El. **6.14** East side El. **6.13** West side El. **6.12** South side El. **6.14**

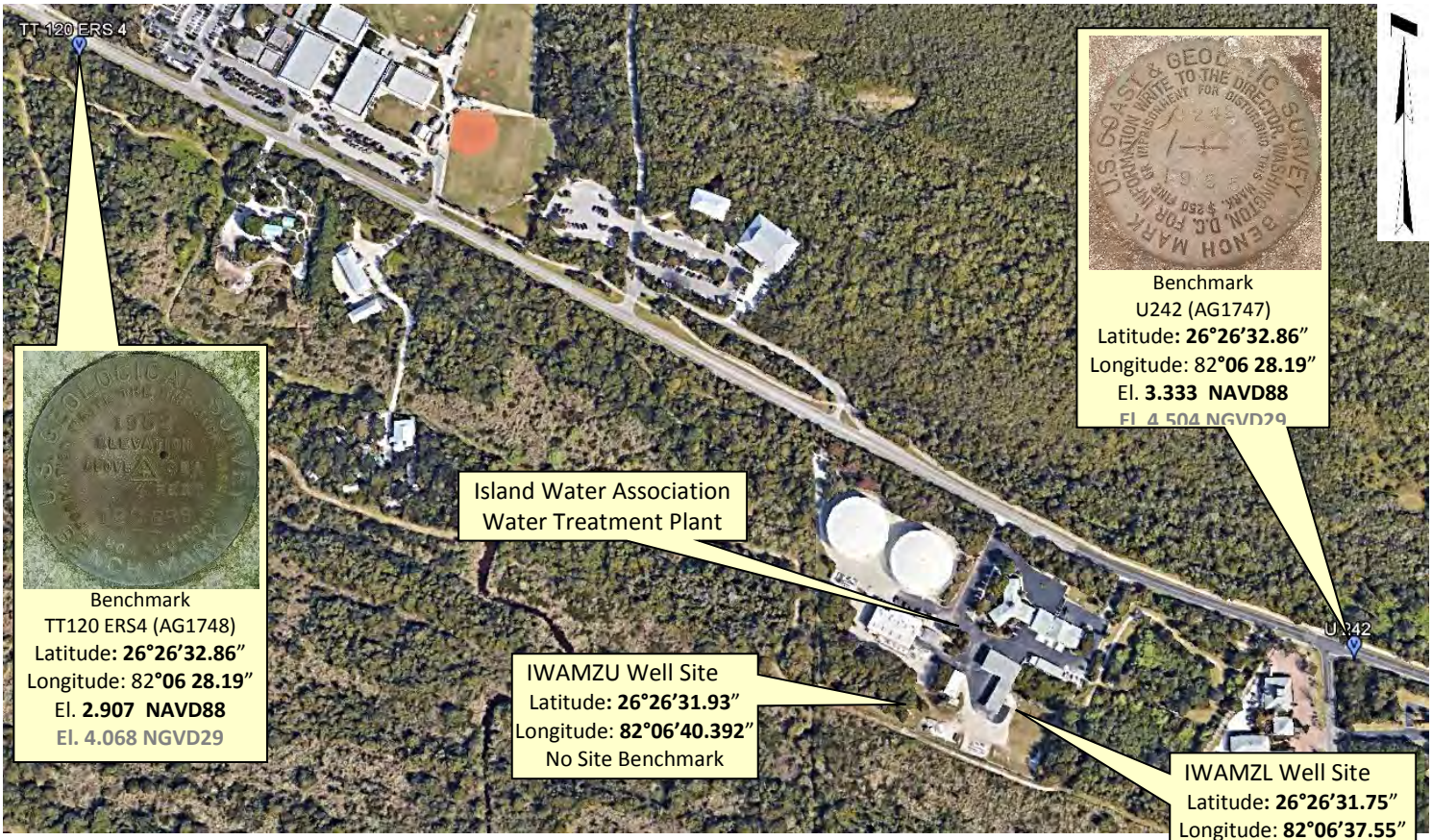
GEOOGRAPHIC DATA

Section **21**	Township **46** South		Range **22** East
Benchmark	Latitude: **26°26'31.746"**	Longitude: **82°06'37.554"**	Source: **OPUS Solution**

Notes:
OPUS – Online Positioning User Service provided by the National Geodetic Survey (NGS)
NAVD88 – North American Vertical Datum of 1988
NGVD29- National Geodetic Vertical Datum of 1929
Corpscon 6.0.1 - A U.S. Army Corps of Engineers Engineering Research and Development Center Topographic Engineering Center Alexandria, Virginia Windows-based program to convert coordinates and elevations between datum's using vertcon05.txt and vertcon05.05 files supplied by the U.S. Army Corps of Engineers South Atlantic Division, Jacksonville Fl.

PICTURES

Aerial Overall Site



Benchmark
TT120 ERS4 (AG1748)
Latitude: **26°26'32.86"**
Longitude: 82**°06 28.19"**
El. **2.907 NAVD88**
El. 4.068 NGVD29

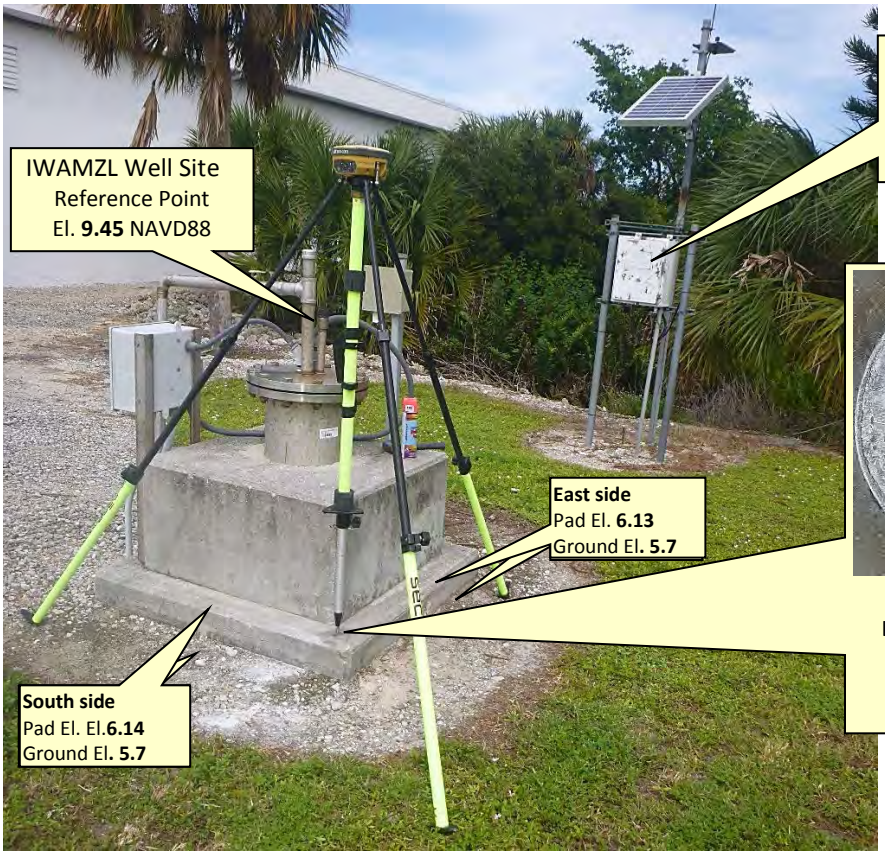
Benchmark
U242 (AG1747)
Latitude: **26°26'32.86"**
Longitude: 82**°06 28.19"**
El. **3.333 NAVD88**
El. 4.504 NGVD29

Not to scale (Google Earth product)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

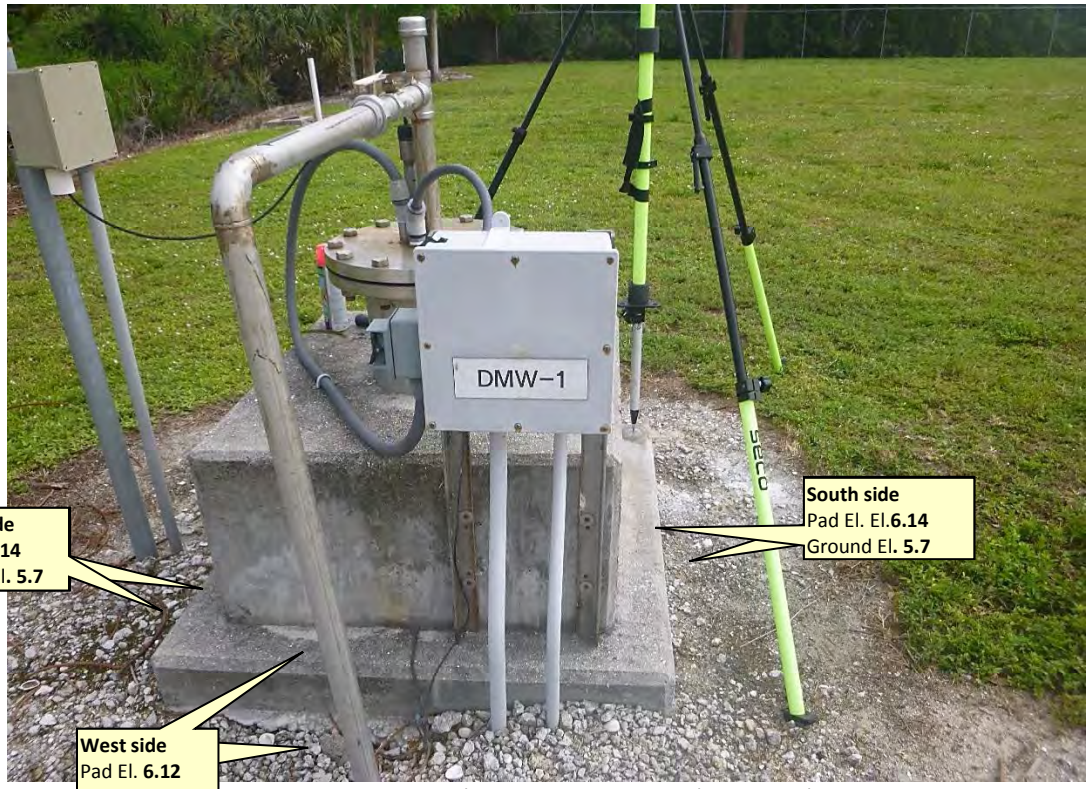
IWAMZL Overall Well Site



Benchmark "**IWAMZL**"
Latitude**: 26°26'31.7828**"
Longitude: **82°06 37.53**"
El. **6.163 NAVD88**
El. 7.329 NGVD29

Looking Northerly (Obliaue Not to scale (26-oct-17)

IWAMZL Overall



Looking Easterly (Obliaue Not to scale (26-oct-17)

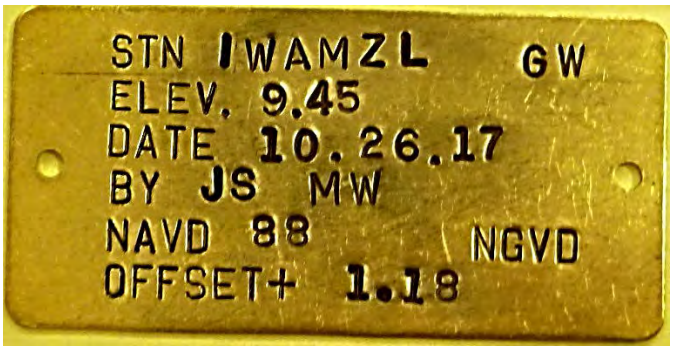
IWAMZL Well Reference Point

Looking Northwesterly (Obliaue Not to scale (26-oct-17)

RTU Inside Door

Looking Northwesterly (Obliaue Not to scale (26-oct-17)

NAVD88 Brass Tag (to be added)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DB Hydro Station Name: **IWA-MZU**	DB Hydro Site Name: **IWAMZU**	Agency: **WMD**	Date of Field Work: **26-oct-17**
Party Chief: **Wise**	Field Book: **Misc 7E**	Page(s) **26-29**	Prepared by: **H. Ehmke**

SITE SPECIFIC DATA

Site Benchmark: **IWAMZL**	Benchmark Elevation (NAVD88) **6.163**	Corpscon 6.0.1 Conversion Factor (*NAVD88 to NGVD29*) **+1.175**

Reference Elevation(s) (*NAVD88*): **IWA-MZU (GW1) El. 5.80**	Existing Brass Tag Elevation (Datum): **None**	Calibration Port Elevation(s) (*NAVD88*): **5..81**

Ground Elevation (NAVD88): North side El. **3.9** East side El. **4.0** West side El. **3.9** South side El. **4.0**	Pad Elevation (NAVD88): North side El. **4.46** East side El. **4.47** West side El. **4.48** South side El. **4.48**

GEOOGRAPHIC DATA

Section **21**	Township **46** South		Range **22** East
Well	Latitude: **26°26'31.93"**	Longitude: **82°06'40.392"**	Source: **Scaled from Google Earth**

Notes:

OPUS – Online Positioning User Service provided by the National Geodetic Survey (NGS)

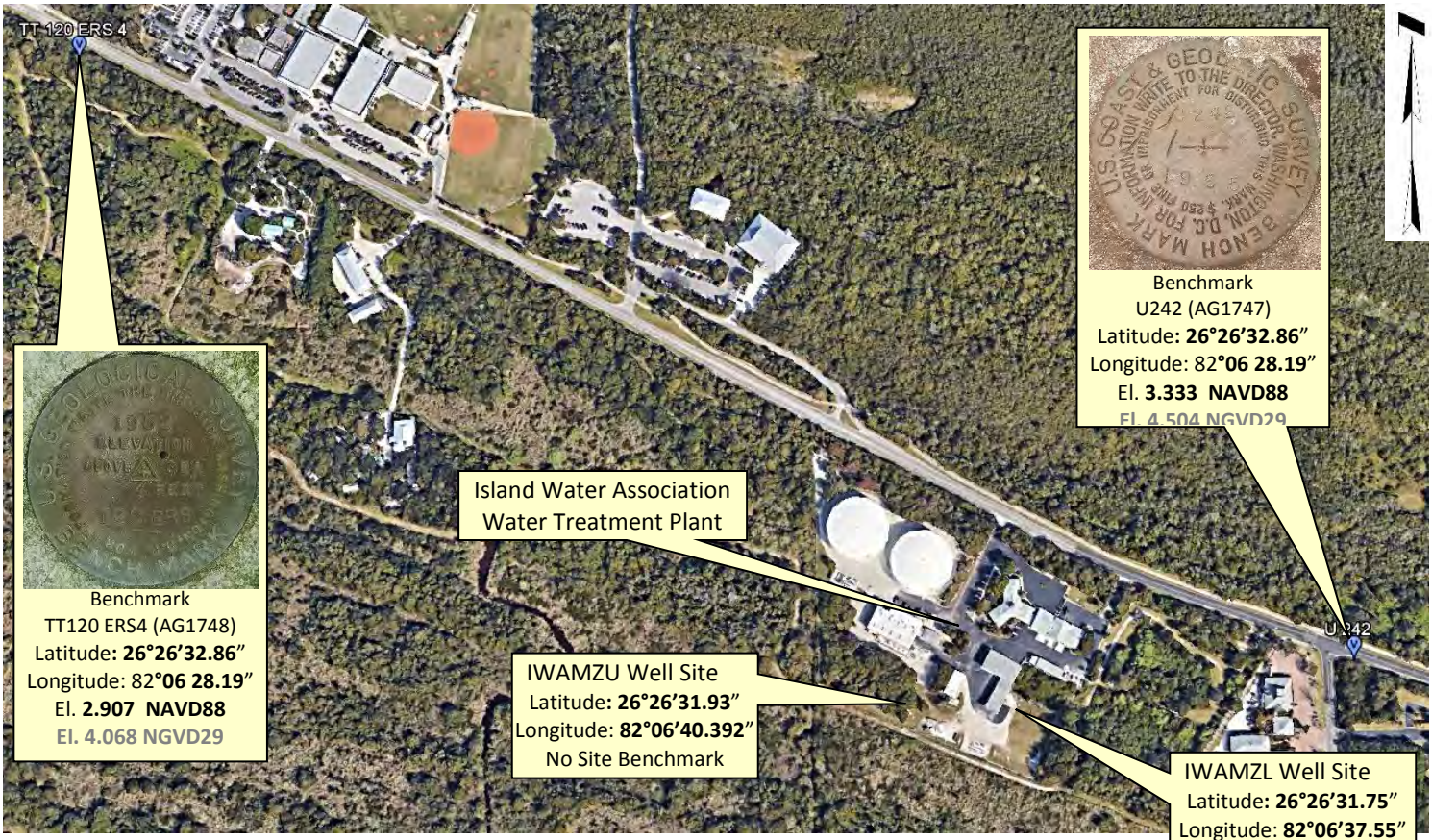
NAVD88 – North American Vertical Datum of 1988

NGVD29- National Geodetic Vertical Datum of 1929

Corpscon 6.0.1 - A U.S. Army Corps of Engineers Engineering Research and Development Center Topographic Engineering Center Alexandria, Virginia Windows-based program to convert coordinates and elevations between datum's using vertcon05.txt and vertcon05.05 files supplied by the U.S. Army Corps of Engineers South Atlantic Division, Jacksonville Fl.

PICTURES

Aerial Overall Site



Benchmark
TT120 ERS4 (AG1748)
Latitude: **26°26'32.86"**
Longitude: 82**°06 28.19"**
El. **2.907 NAVD88**
El. 4.068 NGVD29

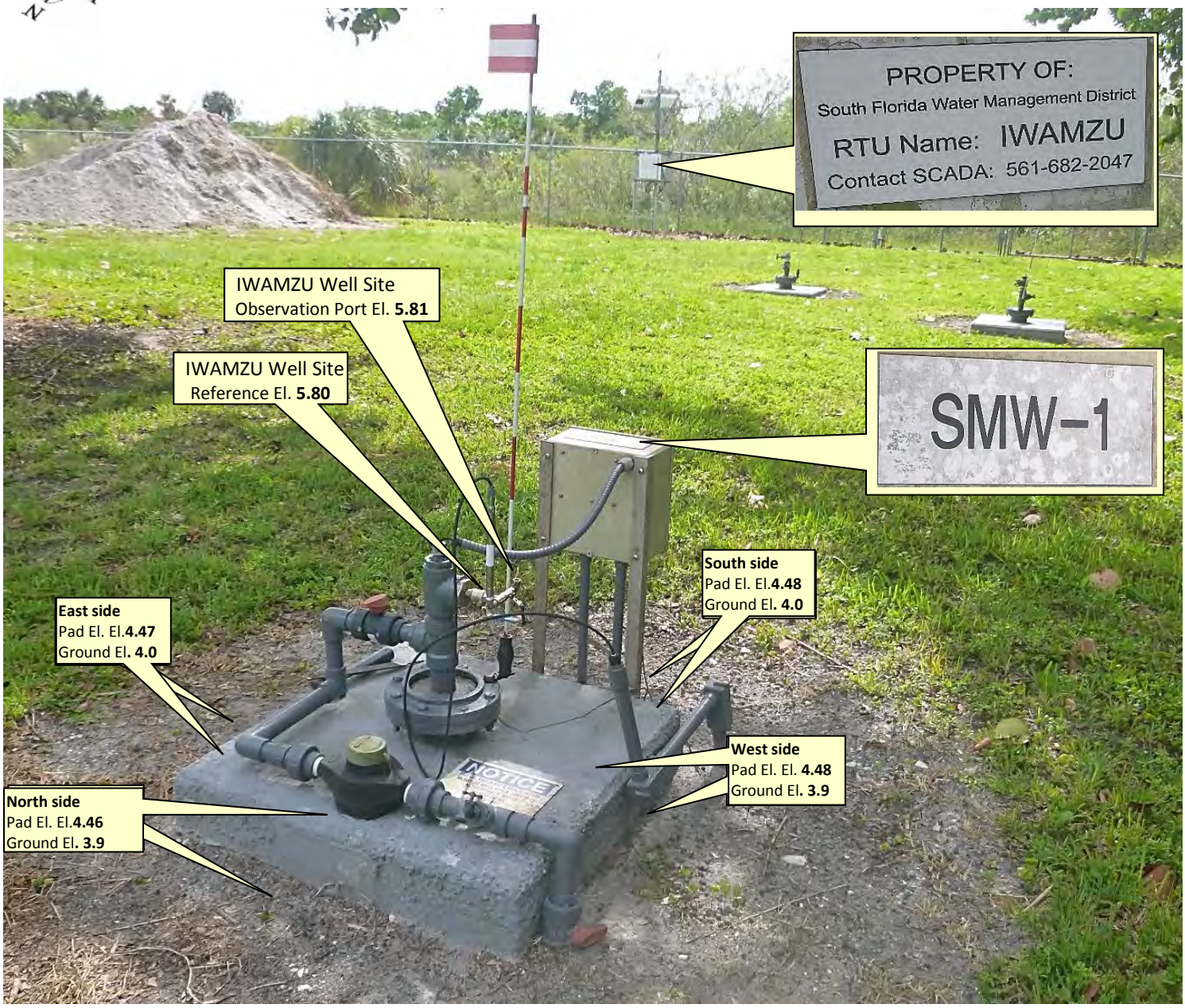
Benchmark
U242 (AG1747)
Latitude: **26°26'32.86"**
Longitude: 82**°06 28.19"**
El. **3.333 NAVD88**
El. 4.504 NGVD29

Not to scale (Google Earth product)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

IWAMZU Overall Well Site

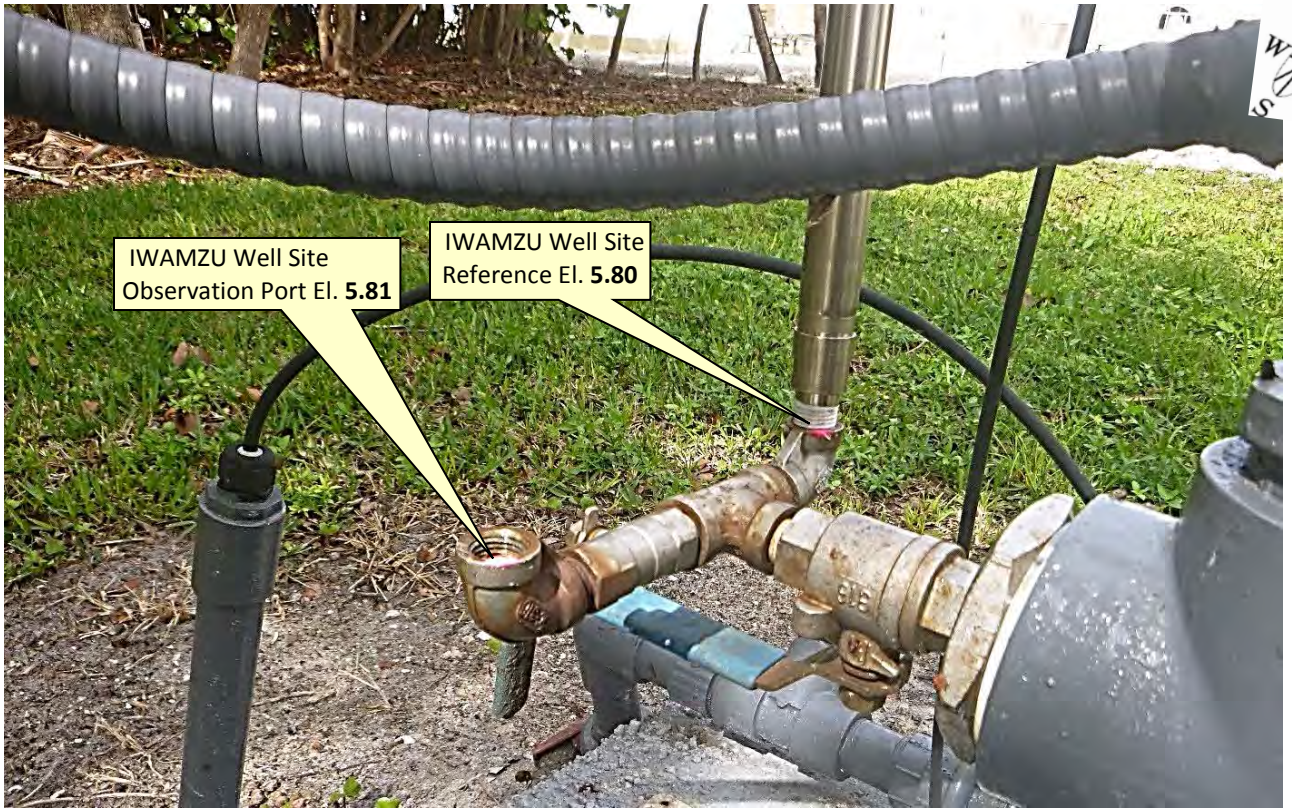


Looking Southerly (Obliaue Not to scale (30-oct-17)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

IWAMZU Measuring Points



Looking Northwesterly (Obliaue Not to scale (30-oct-17)

RTU Inside Door

Looking Southerly (Obliaue Not to scale (30-oct-17)

NAVD88 Brass Tag (to be added)

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DESIGNATION: **IWAMZL**	PROJECT: **IWAMZL Well site**
ESTABLISHED BY: **SOUTH FLORIDA WATER MANAGEMENT DISTRICT** RECOVERED BY:	SURVEYOR: **Michael Wise** DATE: **26-oct-17**

GEOGRAPHIC POSITION

SECTION **21**	TOWNSHIP **46** SOUTH	RANGE **22** EAST
COUNTY: **Lee**	NAME OF QUADRANGLE: **Sanibel** GEOGRAPHIC INDEX OF QUAD: **2017**	

HORIZONTAL DATUM: 1927 (**1983**) Other___ *(circle one)* ZONE (E) or W

VERTICAL DATUM: MSL 1929 (**1988**) Other ____ *(circle one)*

VERTICAL ACCURACY: 1 2 (3)

STATE PLANE COORDINATE	(N) Y= **767969.698**	(E) X= **292809.700**	NAVD 88 EL. **6.163** NGVD 29 EL. **7.329**

CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): **+1.175**

LATITUDE: **26°26'31.7828"**	LONGITUDE: **82°06'37.53"**

RECOVERY DATA

Stamping: **IWAMZL B·M 2017**

To Reach: From the intersection of Causeway Boulevard and Periwinkle Way in Sanibel, go west on Periwinkle Way, 2.7 miles to Tarpon Bay Road; turn right onto Tarpon Bay Road and go North, 0.3 of a mile to Sanibel Captiva Road; turn left onto Sanibel Captiva Road and go Westerly 2 miles to the second entrance to Island Water Association, Inc. Water Treatment Plant; turn left at the second water plant entrance (paved). Proceed westerly 120 feet to an automated gate and call box (call box and red phone); After calling and gaining access proceed 150 feet to a "T" intersection; Turn left and proceed 70 feet to an "L" shaped storage building on a raised area; Turn right, proceed southerly to the south side of "L" shaped building along the pavement area continue 75 feet around the "L" shaped building to the back side of building and end of pavement, and station location 21 feet from the edge of pavement and well site.

The station is South Florida Water Management District aluminum survey disk grouted into the southeast corner of the concrete well pad, stamped "IWAMZL B·M 2017."

NGS SOURCE BENCHMARK: **U242** (AG1747) and **TT20 ERS4** (AG1747)

FIELD BOOK: **Misc 7E** PAGES **26-29**

PICTURES

Overall Site

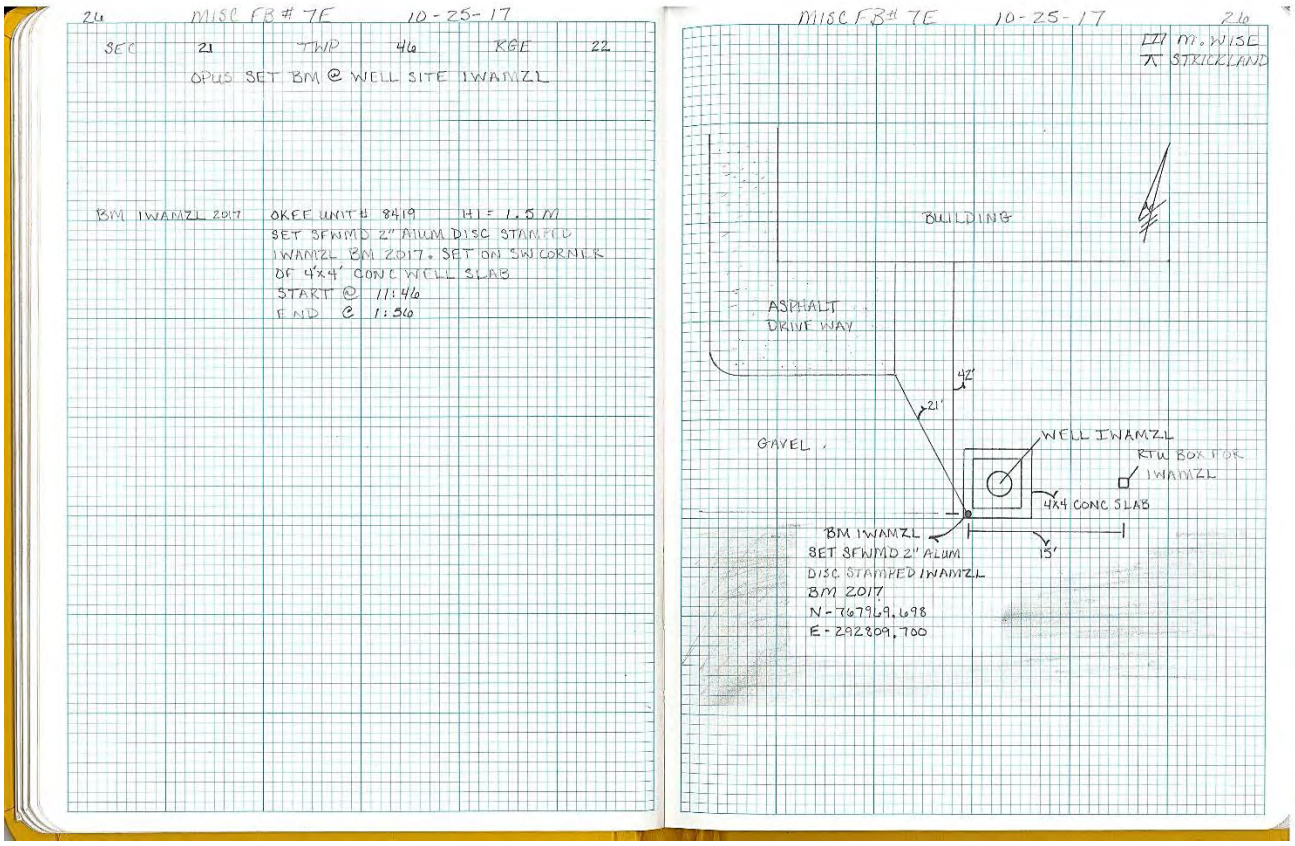
Aluminum cap stamped "**IWAMZL B·M 2017**"
El. **6.163** NAVD88
El. 7.329 NGVD29

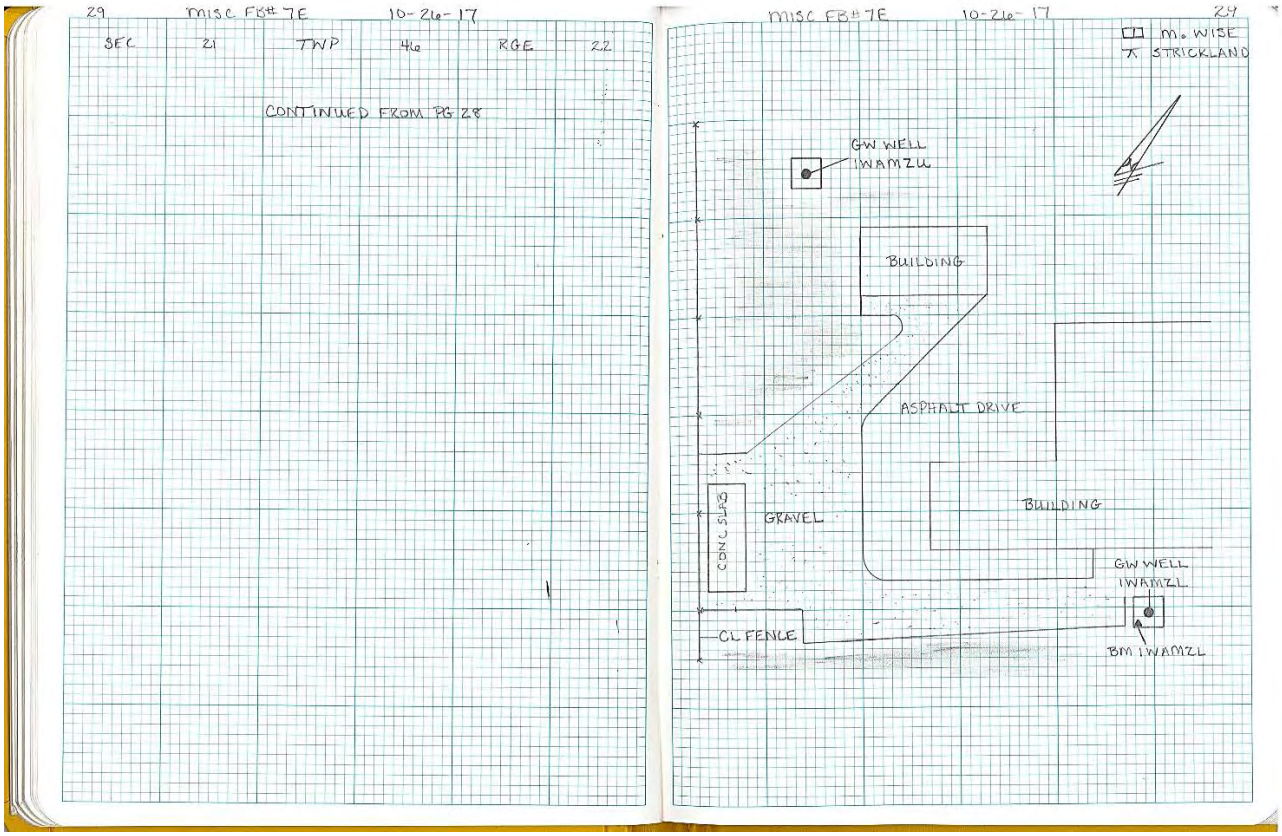
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Looking Northerly (Oblique not to scale 26-oct-17)

SKETCH (Field Book Misc 7E pages 26 & 29





The NGS Data Sheet

See file dsdata.pdf for more information about the datasheet.

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PROGRAM = datasheet95, VERSION = 8.12.1
1         National Geodetic Survey,   Retrieval Date = JUNE 30, 2017
 AG1747 ***********************************************************************
 AG1747  DESIGNATION -  U 242
 AG1747  PID         -  AG1747
 AG1747  STATE/COUNTY-  FL/LEE
 AG1747  COUNTRY     -  US
 AG1747  USGS QUAD   -  SANIBEL (1987)
 AG1747
 AG1747                         *CURRENT SURVEY CONTROL
 AG1747  ______________________________________________________________________
 AG1747* NAD 83(1986) POSITION- 26 26 32.91    (N) 082 06 28.05    (W)    HD HELD1
 AG1747* NAVD 88 ORTHO HEIGHT -      1.016 (meters)         3.33   (feet) ADJUSTED
 AG1747  ______________________________________________________________________
 AG1747  GEOID HEIGHT    -        -23.537 (meters)                       GEOID12B
 AG1747  DYNAMIC HEIGHT  -          1.015 (meters)         3.33   (feet) COMP
 AG1747  MODELED GRAVITY -    979,076.3   (mgal)                         NAVD 88
 AG1747
 AG1747  VERT ORDER      -  FIRST     CLASS I
 AG1747
 AG1747.The horizontal coordinates were determined by differentially corrected
 AG1747.hand held GPS observations or other comparable positioning techniques
 AG1747.and have an estimated accuracy of +/- 3 meters.
 AG1747.
 AG1747.The orthometric height was determined by differential leveling and
 AG1747.adjusted by the NATIONAL GEODETIC SURVEY
 AG1747.in June 1991.
 AG1747
 AG1747.Significant digits in the geoid height do not necessarily reflect accuracy.
 AG1747.GEOID12B height accuracy estimate available here.
 AG1747
 AG1747.Photographs are available for this station.
 AG1747
 AG1747.The dynamic height is computed by dividing the NAVD 88
 AG1747.geopotential number by the normal gravity value computed on the
 AG1747.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AG1747.degrees latitude (g = 980.6199 gals.).
 AG1747
 AG1747.The modeled gravity was interpolated from observed gravity values.
 AG1747
 AG1747;                    North         East     Units  Estimated Accuracy
 AG1747;SPC FL W     -   233,638.9     189,249.5     MT  (+/- 3 meters HH1 GPS)
 AG1747
 AG1747_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLK8954925162(NAD 83)
 AG1747
 AG1747                             SUPERSEDED SURVEY CONTROL
 AG1747
 AG1747  NGVD 29 (??/??/92)    1.373   (m)             4.50    (f) ADJ UNCH    1 1
 AG1747
 AG1747.Superseded values are not recommended for survey control.
 AG1747
```

AG1747.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AG1747.See file dsdata.pdf to determine how the superseded data were derived.
AG1747
AG1747_MARKER: DB = BENCH MARK DISK
AG1747_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AG1747_STAMPING: U 242 1965
AG1747_MARK LOGO: CGS
AG1747_PROJECTION: FLUSH
AG1747_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AG1747_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AG1747+STABILITY: SURFACE MOTION
AG1747_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
AG1747+SATELLITE: SATELLITE OBSERVATIONS - January 08, 2016
AG1747

AG1747	HISTORY	- Date	Condition	Report By
AG1747	HISTORY	- 1965	MONUMENTED	CGS
AG1747	HISTORY	- 1974	GOOD	NGS
AG1747	HISTORY	- 1983	GOOD	LOCSUR
AG1747	HISTORY	- 1987	GOOD	USPSQD
AG1747	HISTORY	- 1989	GOOD	USPSQD
AG1747	HISTORY	- 1990	GOOD	USPSQD
AG1747	HISTORY	- 19960120	GOOD	USPSQD
AG1747	HISTORY	- 19980220	GOOD	USPSQD
AG1747	HISTORY	- 20020814	GOOD	USPSQD
AG1747	HISTORY	- 20040310	GOOD	USPSQD
AG1747	HISTORY	- 20060209	GOOD	USPSQD
AG1747	HISTORY	- 20081002	GOOD	FLDEP
AG1747	HISTORY	- 20151130	GOOD	INDIV
AG1747	HISTORY	- 20160108	GOOD	GEOCAC

AG1747
AG1747 STATION DESCRIPTION
AG1747
AG1747'DESCRIBED BY COAST AND GEODETIC SURVEY 1965
AG1747'5.8 MI W FROM SANIBEL.
AG1747'ABOUT 3.85 MILES WEST ALONG PERIWINKLE WAY FROM THE POST OFFICE
AG1747'AT SANIBEL, THENCE 2.0 MILES NORTH AND WEST ALONG STATE HIGHWAY
AG1747'S 867, ALONG SANIBEL ISLAND, IN SECTION 21, R 22 E, T 46 S, 0.6
AG1747'MILE EAST OF THE SANIBEL ELEMENTARY SCHOOL, NEAR THE JUNCTION
AG1747'OF RABBIT ROAD, 61 FEET EAST OF THE CENTER LINE OF RABBIT ROAD,
AG1747'34 FEET SOUTH OF THE CENTER LINE OF THE HIGHWAY, 50.3 FEET
AG1747'NORTHWEST OF THE NORTHWEST CORNER OF THE SANIBEL FIRE CONTROL
AG1747'BUILDING, 41 FEET WEST OF THE CENTER LINE OF THE DRIVE LEADING
AG1747'TO THE FIRE HOUSE AND ABOUT 0.5 FOOT ABOVE THE LEVEL OF THE
AG1747'HIGHWAY.
AG1747
AG1747 STATION RECOVERY (1974)
AG1747
AG1747'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1974
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (1983)
AG1747
AG1747'RECOVERY NOTE BY LOCAL SURVEYOR (INDIVIDUAL OR FIRM) 1983
AG1747'STATION IS AT GROUND LEVEL. STATION IS LOCATED ON SANIBEL ISLAND, FL.
AG1747'FROM POST OFFICE GO NORTH ON TARPON BAY RD. 1.000' TURN LEFT ON
AG1747'SANIBEL-CAPTIVA RD. GO WEST 1-3/4 MILES. STATION IS ON THE SOUTH SIDE
AG1747'48 FEET EAST OF RABBIT RD AND 19 FEET SOUTH OF THE EDGE OF THE
AG1747'PAVEMENT OF SANIBEL-CAPTIVA RD. STATION IS 46' NORTHWEST OF THE
AG1747'NORTHWEST CORNER OF A SMALL UNUSED FIRE STATION. WITNESS POST IS
AG1747'INTACT.

AG1747
AG1747 STATION RECOVERY (1987)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 1987 (KMH)
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (1989)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 1989 (ASK)
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (1990)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 1990 (ASK)
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (1996)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 1996
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (1998)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 1998
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (2002)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 2002 (JHS)
AG1747'PREVIOUS DESCRIPTION ADEQUATE WITH THE FOLLOING EXCEPTIONS. STATION
AG1747'IS 63' EAST OF CENTERLINE OF RABBIT ROAD AND 32' SOUTH OF THE
AG1747'CENTERLINE OF SANIBEL-CAPTIVA ROAD. FIRE STATION IS NO LONGER THERE.
AG1747'WITNESS POST INTACT.
AG1747
AG1747 STATION RECOVERY (2004)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 2004 (YN)
AG1747'RECOVERED AS DESCRIBED.
AG1747
AG1747 STATION RECOVERY (2006)
AG1747
AG1747'RECOVERY NOTE BY US POWER SQUADRON 2006 (EGH)
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (2008)
AG1747
AG1747'RECOVERY NOTE BY FL DEPT OF ENV PRO 2008 (JLM)
AG1747'THE MARK IS ABOUT 7.4 MI (11.9 KM) SOUTHEAST OF CAPTIVA, 5.3 MI (8.5
AG1747'KM) WEST OF SANIBEL, 5.1 MI (8.2 KM) EAST-SOUTHEAST OF WULFERT, IN
AG1747'SECTION 2, TOWNSHIP 46 SOUTH, RANGE 21 EAST.
AG1747'
AG1747'TO REACH THE MARK FROM THE JUNCTION OF CAUSEWAY ROAD NORTH AND
AG1747'PERIWINKLE WAY, IN SANIBEL, GO SOUTHWEST ON PERIWINKLE WAY (MAIN
AG1747'STREET) FOR 2.55 MI (4.1 KM) TO THE JUNCTION OF PALM RIDGE ROAD ON THE
AG1747'RIGHT, BEAR RIGHT ON PALM RIDGE ROAD AND GO NORTHWEST FOR 0.35 MI (0.6
AG1747'KM) TO THE INTERSECTION OF TARPON BAY ROAD (AT THE FOUR WAY STOP
AG1747'SIGN). CONTINUE WESTERLY ON CAPTIVA BOULEVARD FOR 1.75 MI (2.8 KM) TO
AG1747'THE MARK ON THE LEFT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT
AG1747'FLUSH WITH THE GROUND AND LEVEL WITH CAPTIVA BOULEVARD.
AG1747'

AG1747'LOCATED 64.5 FT (19.7 M) EAST OF THE CENTERLINE OF RABBIT ROAD, 42.7
AG1747'FT (13.0 M) WEST OF THE EAST END OF A METAL GUARDRAIL, 32.5 FT (9.9 M)
AG1747'SOUTH OF THE CENTERLINE OF CAPTIVA BOULEVARD, 4.0 FT (1.2 M) SOUTH OF
AG1747'A METAL GUARDRAIL AND 1.0 FT (0.3 M) NORTH OF A METAL WITNESS POST.
AG1747'
AG1747'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
AG1747'MONUMENT.
AG1747
AG1747 STATION RECOVERY (2015)
AG1747
AG1747'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2015 (KW)
AG1747'RECOVERED IN GOOD CONDITION.
AG1747
AG1747 STATION RECOVERY (2016)
AG1747
AG1747'RECOVERY NOTE BY GEOCACHING 2016 (RLM)
AG1747'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02

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 10, 2016
 AG1748 ***********************************************************************
 AG1748  DESIGNATION -  TT 120 ERS 4
 AG1748  PID         -  AG1748
 AG1748  STATE/COUNTY-  FL/LEE
 AG1748  COUNTRY     -  US
 AG1748  USGS QUAD   -  SANIBEL (1987)
 AG1748
 AG1748                        *CURRENT SURVEY CONTROL
 AG1748  ______________________________________________________________________
 AG1748* NAD 83(1986) POSITION- 26 26 48.86   (N) 082 07 05.01   (W)    HD_HELD1
 AG1748* NAVD 88 ORTHO HEIGHT -     0.886 (meters)        2.91   (feet) ADJUSTED
 AG1748  ______________________________________________________________________
 AG1748  GEOID HEIGHT    -       -23.531 (meters)                      GEOID12B
 AG1748  DYNAMIC HEIGHT  -         0.885 (meters)       2.90   (feet) COMP
 AG1748  MODELED GRAVITY -   979,077.0   (mgal)                        NAVD 88
 AG1748
 AG1748  VERT ORDER      -  FIRST     CLASS I
 AG1748
 AG1748.The horizontal coordinates were determined by differentially corrected
 AG1748.hand held GPS observations or other comparable positioning techniques
 AG1748.and have an estimated accuracy of +/- 3 meters.
 AG1748.
 AG1748.The orthometric height was determined by differential leveling and
 AG1748.adjusted by the NATIONAL GEODETIC SURVEY
 AG1748.in June 1991.
 AG1748
 AG1748.Significant digits in the geoid height do not necessarily reflect accuracy.
 AG1748.GEOID12B height accuracy estimate available here.
 AG1748
 AG1748.The dynamic height is computed by dividing the NAVD 88
 AG1748.geopotential number by the normal gravity value computed on the
 AG1748.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AG1748.degrees latitude (g = 980.6199 gals.).
 AG1748
 AG1748.The modeled gravity was interpolated from observed gravity values.
 AG1748
 AG1748;                   North         East     Units  Estimated Accuracy
 AG1748;SPC FL W     -   234,130.6     188,226.0     MT  (+/- 3 meters HH1 GPS)
 AG1748
 AG1748                          SUPERSEDED SURVEY CONTROL
 AG1748
 AG1748  NGVD 29 (??/??/92)    1.24   (m)             4.1    (f) COMPUTED    1 1
 AG1748
 AG1748.Superseded values are not recommended for survey control.
 AG1748
 AG1748.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AG1748.See file dsdata.txt to determine how the superseded data were derived.
 AG1748
 AG1748_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RLK8852925661(NAD 83)
 AG1748
 AG1748_MARKER: DB = BENCH MARK DISK
 AG1748_SETTING: 9 = SET IN PREFABRICATED CONCRETE POST IMBEDDED IN GROUND
 AG1748_STAMPING: TT 120 ERS 4 1952
```

```
AG1748_MARK LOGO: USGS
AG1748_PROJECTION: FLUSH
AG1748_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AG1748_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AG1748_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
AG1748+SATELLITE: SATELLITE OBSERVATIONS - October 31, 2008
AG1748
AG1748  HISTORY     - Date     Condition        Report By
AG1748  HISTORY     - 1952     MONUMENTED       USGS
AG1748  HISTORY     - 1965     GOOD             CGS
AG1748  HISTORY     - 1989     GOOD             USPSQD
AG1748  HISTORY     - 1990     GOOD             USPSQD
AG1748  HISTORY     - 19960114 MARK NOT FOUND   USPSQD
AG1748  HISTORY     - 20040329 GOOD             USPSQD
AG1748  HISTORY     - 20060209 GOOD             USPSQD
AG1748  HISTORY     - 20081031 GOOD             FLDEP
AG1748  HISTORY     - 20081031 GOOD             FLDEP
AG1748
AG1748                          STATION DESCRIPTION
AG1748
AG1748'DESCRIBED BY COAST AND GEODETIC SURVEY 1965
AG1748'6.6 MI W FROM SANIBEL.
AG1748'ABOUT 3.85 MILES WEST ALONG PERIWINKLE WAY FROM THE POST OFFICE
AG1748'AT SANIBEL, THENCE 2.7 MILES NORTH AND WEST ALONG STATE HIGHWAY
AG1748'S 867, IN SECTION 21, R 22 E, T 46 S, 392 FEET WEST-NORTHWEST
AG1748'OF THE CENTER LINE OF THE DRIVE LEADING TO THE SANIBEL ELEMENTARY
AG1748'SCHOOL, 24 FEET SOUTH OF A POWER POLE, NEAR A METAL WITNESS
AG1748'POST, ABOUT 1 FOOT ABOVE THE LEVEL OF THE HIGHWAY AND IS A DISK
AG1748'IN THE TOP OF A CONCRETE POST PROJECTING 0.3 FOOT.  ALSO ALONG
AG1748'SANIBEL ISLAND.
AG1748
AG1748                          STATION RECOVERY (1989)
AG1748
AG1748'RECOVERY NOTE BY US POWER SQUADRON 1989 (ASK)
AG1748'RECOVERED IN GOOD CONDITION.
AG1748
AG1748                          STATION RECOVERY (1990)
AG1748
AG1748'RECOVERY NOTE BY US POWER SQUADRON 1990 (ASK)
AG1748'RECOVERED IN GOOD CONDITION.
AG1748
AG1748                          STATION RECOVERY (1996)
AG1748
AG1748'RECOVERY NOTE BY US POWER SQUADRON 1996
AG1748'MARK NOT FOUND.
AG1748
AG1748                          STATION RECOVERY (2004)
AG1748
AG1748'RECOVERY NOTE BY US POWER SQUADRON 2004 (JHS)
AG1748'DESCRIPTION ADEQUATE EXCEPT AS FOLLOWS.  STATION IS 11 FEET SOUTH OF
AG1748'UTILITY POLE AND 18 FEET SOUTH OF SPRINT TELEPHONE BOX NUMBER 2314.
AG1748
AG1748                          STATION RECOVERY (2006)
AG1748
AG1748'RECOVERY NOTE BY US POWER SQUADRON 2006 (EGH)
AG1748'RECOVERED IN GOOD CONDITION.
AG1748
AG1748                          STATION RECOVERY (2008)
AG1748
AG1748'RECOVERY NOTE BY FL DEPT OF ENV PRO 2008 (JLM)
AG1748'THE MARK IS ABOUT 6.8 MI (10.9 KM) SOUTHEAST OF CAPTIVA, 5.9 MI (9.5
AG1748'KM) WEST OF SANIBEL, 4.4 MI (7.1 KM) EAST-SOUTHEAST OF WULFERT, IN
AG1748'SECTION 2, TOWNSHIP 46 SOUTH, RANGE 21 EAST.
AG1748'
```

AG1748'TO REACH THE MARK FROM THE JUNCTION OF CAUSEWAY ROAD NORTH AND
AG1748'PERIWINKLE WAY IN SANIBEL, GO SOUTHWEST ON PERIWINKLE WAY (MAIN
AG1748'STREET) FOR 2.55 MI (4.1 KM) TO THE JUNCTION OF PALM RIDGE ROAD ON THE
AG1748'RIGHT, BEAR RIGHT ON PALM RIDGE ROAD AND GO NORTHWEST FOR 0.35 MI (0.6
AG1748'KM) TO THE INTERSECTION OF TARPON BAY ROAD (AT THE FOUR WAY STOP
AG1748'SIGN). CONTINUE WESTERLY ON CAPTIVA BOULEVARD FOR 2.5 MI (4.0 KM) TO
AG1748'THE MARK ON THE LEFT, SET IN THE TOP OF A CONCRETE POST PROJECTING 0.3
AG1748'FT (0.1 M) ABOVE THE LEVEL OF THE GROUND AND ABOVE THE LEVEL OF
AG1748'CAPTIVA BOULEVARD.
AG1748'
AG1748'LOCATED 46.0 FT (14.0 M) SOUTHWEST OF THE CENTERLINE OF CAPTIVA
AG1748'BOULEVARD, 17.9 FT (5.5 M) SOUTHWEST OF AN ELECTRICAL JUNCTION BOX
AG1748'NUMBER 2314, 11.5 FT (3.5 M) SOUTH OF A CONCRETE POWER POLE AND 1.2 FT
AG1748'(0.4 M) SOUTHEAST OF A METAL WITNESS POST.
AG1748'
AG1748'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
AG1748'MONUMENT.
AG1748
AG1748 STATION RECOVERY (2008)
AG1748
AG1748'RECOVERY NOTE BY FL DEPT OF ENV PRO 2008 (JLM)
AG1748'THE MARK IS ABOUT 6.8 MI (10.9 KM) SOUTHEAST OF CAPTIVA, 5.9 MI (9.5
AG1748'KM) WEST OF SANIBEL, 4.4 MI (7.1 KM) EAST-SOUTHEAST OF WULFERT, IN
AG1748'SECTION 2, TOWNSHIP 46 SOUTH, RANGE 21 EAST.
AG1748'
AG1748'TO REACH THE MARK FROM THE JUNCTION OF CAUSEWAY ROAD NORTH AND
AG1748'PERIWINKLE WAY IN SANIBEL, GO SOUTHWEST ON PERIWINKLE WAY (MAIN
AG1748'STREET) FOR 2.55 MI (4.1 KM) TO THE JUNCTION OF PALM RIDGE ROAD ON THE
AG1748'RIGHT, BEAR RIGHT ON PALM RIDGE ROAD AND GO NORTHWEST FOR 0.35 MI (0.6
AG1748'KM) TO THE INTERSECTION OF TARPON BAY ROAD (AT THE FOUR WAY STOP
AG1748'SIGN). CONTINUE WESTERLY ON CAPTIVA BOULEVARD FOR 2.5 MI (4.0 KM) TO
AG1748'THE MARK ON THE LEFT, SET IN THE TOP OF A CONCRETE POST PROJECTING 0.3
AG1748'FT (0.1 M) ABOVE THE LEVEL OF THE GROUND AND ABOVE THE LEVEL OF
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AG1748'NUMBER 2314, 11.5 FT (3.5 M) SOUTH OF A CONCRETE POWER POLE AND 1.2 FT
AG1748'(0.4 M) SOUTHEAST OF A METAL WITNESS POST.
AG1748'
AG1748'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
AG1748'MONUMENT.

Project Information		Coordinate System	
Name:		Name:	Default
Size:		Datum:	WGS 1984
Modified:	2/15/2012 8:48:57 AM (UTC:-7)	Zone:	Default
Time zone:	Mountain Standard Time	Geoid:	
Reference number:		Vertical datum:	
Description:			

Level Report

Imported file: IWAMZL2.DAT
Instrument: DiNi
Standard error per kilometer of double leveling: 0.00230 ft
Standard error per turn/station setup: 0.00000 ft
Creation option: Delta elevations
Description usage: Feature codes

Run - 1 Raw Observations

Raw Misclosure: 0.00680 ft
Σ BS Distances: 1949.600 ft
Σ FS Distances: 1857.310 ft
Run Length: 3806.910 ft
Reduction: Adjusted Values

Create	Point ID	BS	IS	FS	Δ Elevation	Raw Elevation	Correction	Adj. Elevation	Type	Distance	Description
☑	1	☑ 5.62520 ft			0.00000 ft	3.330 ft	0.00000 ft	3.330 ft	Benchmark	75.330 ft	U242 3
☐	3			☑ 4.80700 ft	0.81820 ft	4.148 ft	-0.00013 ft	4.148 ft	Computed	92.110 ft	3
	3	☑ 4.90960 ft								221.910 ft	3
☐	4			☑ 5.10410 ft	-0.19450 ft	3.954 ft	-0.00107 ft	3.953 ft	Computed	220.510 ft	3
	4	☑ 4.93750 ft								179.620 ft	3
☐	5			☑ 5.01120 ft	-0.07370 ft	3.880 ft	-0.00169 ft	3.878 ft	Computed	179.380 ft	MAG 3
	5	☑ 5.11120 ft								203.720 ft	MAG 3
☐	6			☑ 5.14170 ft	-0.03050 ft	3.850 ft	-0.00247 ft	3.847 ft	Computed	200.070 ft	3
	6	☑ 5.10480 ft								202.850 ft	3
☐	7			☑ 5.17640 ft	-0.07160 ft	3.778 ft	-0.00325 ft	3.775 ft	Computed	203.150 ft	3
		☑ 3.74110								199.860	

	7	ft								ft	3
☐	8			✓ 4.24430 ft	-0.50320 ft	3.275 ft	-0.00402 ft	3.271 ft	Computed	199.690 ft	3
	8	✓ 4.67980 ft								201.590 ft	3
☐	9			✓ 4.50870 ft	0.17110 ft	3.446 ft	-0.00480 ft	3.441 ft	Computed	201.600 ft	3
	9	✓ 4.39280 ft								197.710 ft	3
☐	10			✓ 4.01860 ft	0.37420 ft	3.820 ft	-0.00555 ft	3.814 ft	Computed	199.150 ft	3
	10	✓ 3.66760 ft								202.700 ft	3
☐	11			✓ 4.19560 ft	-0.52800 ft	3.292 ft	-0.00632 ft	3.286 ft	Computed	199.780 ft	3
	11	✓ 5.43760 ft								193.920 ft	3
☐	12			✓ 4.76980 ft	0.66780 ft	3.960 ft	-0.00670 ft	3.953 ft	Computed	85.220 ft	3
	12	✓ 4.45990 ft								70.390 ft	3
✓	13			✓ 5.50290 ft	-1.04300 ft	2.917 ft	-0.00680 ft	2.910 ft	Benchmark	76.650 ft	120ER 3

Run - 1 (N1) Reduced Observations

Observation	Status	Raw Δ Elevation	Correction	Final Δ Elevation	Setups	Length	Σ BS Readings	Σ FS Readings	Std. Error
1-13 (E1)	Enabled	-0.41320 ft	-0.00680 ft	-0.42000 ft	11	3806.910 ft	52.06710 ft	52.48030 ft	0.03111 ft

Run - 1 (N1) Reduced Coordinates

Point ID	Status	Elevation
1	Enabled	3.33000 ft
13	Enabled	2.91000 ft

Run - 2 Raw Observations

Raw Misclosure: 0.00200 ft
Σ BS Distances: 711.060 ft
Σ FS Distances: 706.850 ft
Run Length: 1417.910 ft
Reduction: Adjusted Values

Create	Point ID	BS	IS	FS	Δ Elevation	Raw Elevation	Correction	Adj. Elevation	Type	Distance	Description
✓	20	✓ 4.96750 ft			0.00000 ft	3.878 ft	0.00000 ft	3.878 ft	Benchmark	154.500 ft	MAG 3
☐	21			✓ 3.71550	1.25200	5.130 ft	-0.00048 ft	5.130 ft	Computed	142.120	3

				ft	ft					ft	
	21	☑ 4.93930 ft								136.580 ft	3
☐	22			☑ 3.51020 ft	1.42910 ft	6.559 ft	-0.00090 ft	6.558 ft	Computed	142.150 ft	3
	22	☑ 5.07960 ft								70.450 ft	3
☐	23			☑ 5.47480 ft	-0.39520 ft	6.164 ft	-0.00100 ft	6.163 ft	Computed	61.730 ft	WAMZL 3
	23	☑ 5.36220 ft								68.940 ft	WAMZL 3
☐	24			☑ 4.96680 ft	0.39540 ft	6.559 ft	-0.00110 ft	6.558 ft	Computed	66.530 ft	3
	24	☑ 3.47650 ft								139.770 ft	3
☐	25			☑ 5.02320 ft	-1.54670 ft	5.013 ft	-0.00152 ft	5.011 ft	Computed	138.460 ft	3
	25	☑ 3.72500 ft								140.820 ft	3
☑	26			☑ 4.85760 ft	-1.13260 ft	3.880 ft	-0.00200 ft	3.878 ft	Benchmark	155.860 ft	MAG 3

Run - 2 (N2) Reduced Observations

Observation	Status	Raw Δ Elevation	Correction	Final Δ Elevation	Setups	Length	Σ BS Readings	Σ FS Readings	Std. Error
20-26 (E2)	Enabled	0.00200 ft	-0.00200 ft	0.00000 ft	6	1417.910 ft	27.55010 ft	27.54810 ft	0.01580 ft

Run - 2 (N2) Reduced Coordinates

Point ID	Status	Elevation
20	Enabled	3.87800 ft
26	Enabled	3.87800 ft

Date: 11/2/2017 8:35:48 AM	Project:	Trimble Business Center

Wise, Michael

From: opus <opus@ngs.noaa.gov>
Sent: Thursday, October 26, 2017 6:29 AM
To: Wise, Michael
Subject: OPUS solution : BM_IWAMZL OP1509013655782

FILE: BM_IWAMZL OP1509013655782

2005 NOTE: The IGS precise and IGS rapid orbits were not available
2005 at processing time. The IGS ultra-rapid orbit was/will be used to
2005 process the data.
2005

NGS OPUS SOLUTION REPORT
==========

All computed coordinate accuracies are listed as peak-to-peak values.
For additional information: https://www.ngs.noaa.gov/OPUS/about.jsp#accuracy

USER: mwise@sfwmd.gov DATE: October 26, 2017
RINEX FILE: bm_i298p.17o TIME: 10:28:36 UTC

SOFTWARE: page5 1603.24 master73.pl 160321 START: 2017/10/25 15:46:00
EPHEMERIS: igu19723.eph [ultra-rapid] STOP: 2017/10/25 17:56:00
NAV FILE: brdc2980.17n OBS USED: 5188 / 5707 : 91%
ANT NAME: TPSHIPER_V NONE # FIXED AMB: 36 / 45 : 80%
ARP HEIGHT: 1.5 OVERALL RMS: 0.019(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.8156)

X:	784418.742(m)	0.009(m)	784417.947(m)	0.009(m)
Y:	-5660566.323(m)	0.012(m)	-5660564.740(m)	0.012(m)
Z:	2822998.912(m)	0.010(m)	2822998.735(m)	0.010(m)

LAT:	26 26 31.78280	0.007(m)	26 26 31.80192	0.007(m)
E LON:	277 53 22.47014	0.007(m)	277 53 22.44955	0.007(m)
W LON:	82 6 37.52986	0.007(m)	82 6 37.55045	0.007(m)
EL HGT:	-21.595(m)	0.014(m)	-23.175(m)	0.014(m)
ORTHO HGT:	1.939(m)	0.027(m)	[NAVD88 (Computed using GEOID12B)]	

	UTM COORDINATES (Zone 17)	STATE PLANE COORDINATES (0901 FL E)	
Northing (Y) [meters]	2925129.747	234077.632	N- 767969.698
Easting (X) [meters]	389286.363	89248.575	E- 292809.700
Convergence [degrees]	-0.49451622	-0.49451622	
Point Scale	0.99975133	1.00009256	
Combined Factor	0.99975472	1.00009595	

US NATIONAL GRID DESIGNATOR: 17RLK8928625129(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DF9225	ZMA1 MIAMI WAAS 1 CORS ARP	N254928.585	W0801909.066	191743.0
DI4159	MCD5 MAC DILL AFB 5 CORS ARP	N275059.338	W0823156.335	161480.2
DE9138	OKCB OKEECHOBEE CORS ARP	N271557.715	W0805119.181	154563.9

NEAREST NGS PUBLISHED CONTROL POINT

AG1747	U 242	N262632.91	W0820628.05	264.9

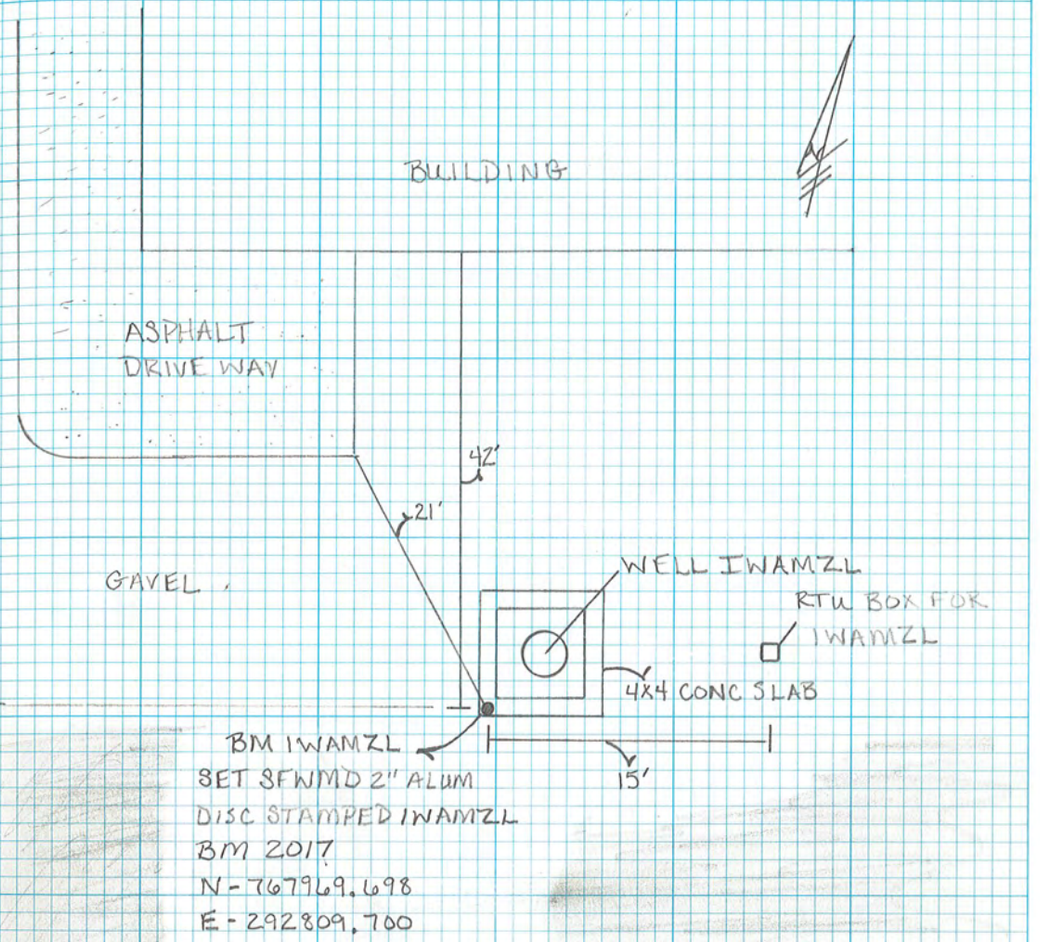
This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.

SEC 21 TWP 46 RGE 22

OPUS SET BM @ WELL SITE IWAMZL

BM IWAMZL 2017 OKEE UNIT # 8419 HI = 1.5 M
SET SFWMD 2" ALUM DISC STAMPED
IWAMZL BM 2017. SET ON SW CORNER
OF 4'x4' CONC WELL SLAB
START @ 11:46
END @ 1:36

M. WISE
STRICKLAND



SEC 21 TWP 46 RGE 22

ESTABLISH NAVD 88 ELEVATIONS @ WELL SITES IWAMZL AND IWAMZLL

FILE NAME: IWAMZLL2

STA	PT#	EL	BM EL
BM U242	1		3.333 NAVD88
MAG	5	3.88	
BM 120ER	13	2.917	2.91
LINE #2			
MAG	20		3.88
BM WAMZL	23	6.166	
MAG	26	3.882	3.88

CONTINUED ON PG 28

EQUIP. USED:
DINI LEVEL SERIAL# 7356H2 (LOANER)
BAR CODE ROD

☐ M. WISE
☒ STRICKLAND

COMMENTS

BM U242 IS FND US C&G SURVEY BRASS DISC STAMPED U242 1965

MAG IS MAG NL SET IN ASPHALT SIDE WALK

BM 120 ER IS FND US GEOLOGICAL SURVEY BRASS DISC STAMPED 1952 120 ERS

MAG SAME AS ABOVE

BM WAMZL IS SET SFWMD 2" ALUM DISC STAMPED IWAMZL BM 2017

MAG SAME AS ABOVE

SEC	21	TWP	46	RGE	22
		CONTINUED FROM PG 27			

STA	+	HI	−	EL	BM EL
BM IWAMZL	4.74	10.903			6.1606 NAVD 88
GW L REF PT			1.45		9.453
CONC PAD N			4.76		6.143
GROUND N			5.20		5.703
CONC PAD E			4.77		6.133
GROUND E			5.20		5.703
CONC PAD S			4.76		6.143
GROUND S			5.20		5.703
CONC PAD W			4.78		6.123
GROUND W			5.20		5.703
GWU REF PT			5.10		5.803
GWU VER PORT			5.09		5.813
CONC PAD N			6.44		4.463
GROUND N			7.0		3.903
CONC PAD E			6.43		4.473
GROUND E			6.9		4.003
CONC PAD S			6.42		4.483
GROUND S			6.90		4.003
CONC PAD W			6.42		4.483
GROUND W			7.0		3.903
BM IWAMZL			4.74		6.166

M. WISE
STRICKLAND

COMMENTS:

BM IWAMZL IS SET SFWMD 2" ALUM DISC STAMPED IWAMZL BM 2017

GWLREF PT IS Y MARK ON S SIDE OF 1" STAINLESS COUPLING

CONCRETE PAD ON N SIDE OF WELL IWAMZL

GROUND SHOT ON N " "

CONCRETE PAD ON E " "

GROUND SHOT ON E " "

CONCRETE PAD ON S " "

GROUND SHOT ON S " "

CONCRETE PAD ON W " "

GROUND SHOT ON W " "

GWU REF PT IS V MARK ON S SIDE ATOP OF 1/4" STAINLESS STEAL ELBOW

GWU VER. PORT IS V MARK ON S SIDE ATOP of 1/4" STAINLESS STEAL ELBOW

CONCRETE PAD ON N SIDE OF WELL IWAMZLL

GROUND SHOT ON N " "

CONCRETE PAD ON E " "

GROUND SHOT ON E " "

CONCRETE PAD ON S " "

GROUND SHOT ON S " "

CONCRETE PAD ON W " "

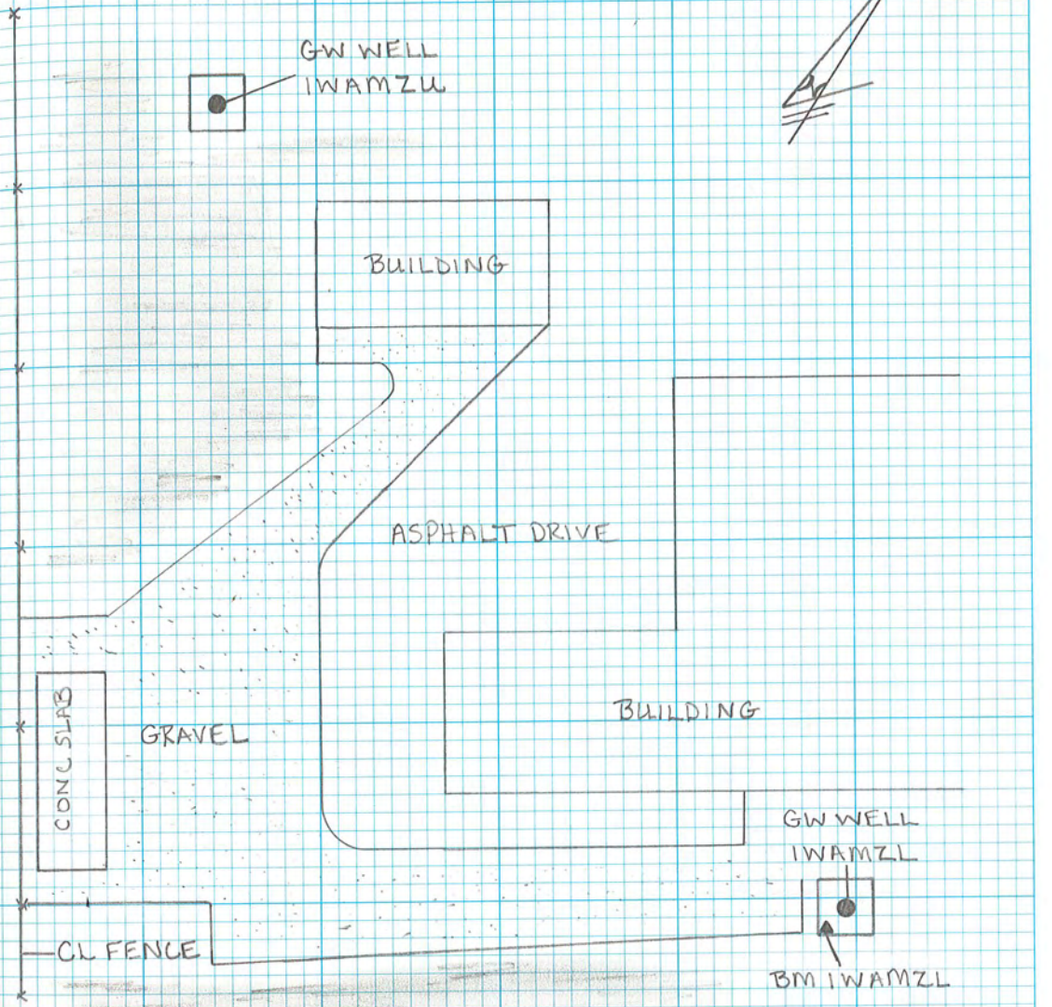
GROUND SHOT ON W " "

BM IWAMZL SAME AS ABOVE

SEC 21 TWP 46 RGE 22

CONTINUED FROM PG 28

M. WISE
STRICKLAND



Office

Project

1 July 2017

INPUT	OUTPUT
Geographic, flhpgn - Florida HPGN	State Plane, flhpgn - Florida HPGN
Vertical - NAVD88, U.S. Feet	0901 - Florida East, U.S. Feet
	Vertical - NGVD29 (Custom), U.S. Feet

IWAMZL

1/2

Latitude:	26 26 31.746	**Northing/Y:**	767966.000
Longitude:	82 06 37.554	**Easting/X:**	292807.472
Elevation/Z:	0	**Elevation/Z:**	1.175
		Convergence:	-0 29 40.26850
		Scale Factor:	1.000092563
		Combined Factor:	1.000096202

IWAMZU

2/2

Latitude:	26 26 31.93	**Northing/Y:**	767986.807
Longitude:	82 06 40.392	**Easting/X:**	292549.651
Elevation/Z:	0	**Elevation/Z:**	1.175
		Convergence:	-0 29 41.53583
		Scale Factor:	1.000092777
		Combined Factor:	1.000096417

Remark:

sfwmd.gov

DBHYDRO | by station

STATION INFORMATION

Station	IWA-MZL
Site	IWAMZL
Type	WELL
Latitude (ddmmss.sss)	262632.006
Longitude (ddmmss.sss)	820635.35
X Coord (ft) NAD83	293008
Y Coord (ft) NAD83	767990.447
County	Lee
Basin	CAPE CORAL COASTAL
Section	2
Township	46
Range	21
Show Map	Google Map
Well Info	Info
Description	Island Water Association WWTP Injection Monitoring Well (Deep)
Travel Info	FROM SANIBEL ISLAND CAUSEWAY, CONTINUE TO THE FOUR WAY STOP. TURN RIGHT ON PERIWINKLE AND FOLLOW IT ... 3651 SANIBEL CAPTIVA RD
Notes	Island Water Assoc.WWTP, Sanibel-Captiva Rd., inside gravel area in plant
Nearby Stations	Nearby Stations
Attachments	Show Attachments

Query returned 1 station record(s).

Get Sample Data | Get Time Series Data

SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
561-686-8800 | 1-800-432-2045 (Florida Only)

sfwmd.gov

DBHYDRO | by station

STATION INFORMATION

Station	IWA-MZU
Site	IWAMZU
Type	WELL
Latitude (ddmmss.sss)	262631.988
Longitude (ddmmss.sss)	820637.568
X Coord (ft) NAD83	292806.41
Y Coord (ft) NAD83	767990.447
County	Lee
Basin	CAPE CORAL COASTAL
Section	2
Township	46
Range	21
Show Map	Google Map
Well Info	Info
Description	Island Water Association WWTP Injection Monitoring Well (Shallow)
Travel Info	FROM SANIBEL ISLAND CAUSEWAY, CONTINUE TO THE FOUR WAY STOP. TURN RIGHT ON PERIWINKLE AND FOLLOW IT ... 3651 SANIBEL CAPTIVA RD
Notes	Island Water Assoc.WWTP, Sanibel-Captiva Rd., inside gravel area in plant
Nearby Stations	Nearby Stations
Attachments	Show Attachments

Query returned 1 station record(s).

Get Sample Data | Get Time Series Data

SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
561-686-8800 | 1-800-432-2045 (Florida Only)

REGISTRATION WORKSHEET - IWAMZL Addendum

Site Name: **IWAMZL** Today's Date: **11/21/2017** Type Recorder: **CR1000**

Activity: **Addendum** Effective Date: **10/26/2017** Start Date of Data :

Customer: **Steve Krupa** Bus. Area: **5720** Agency: **SFWMD** Internal Order:

Fund:

Project Manager: **Howard Ehmke** Bus. Area: **Survey & Mapping** Agency: **SFWMD** Contract #:

Project Name: Legal Mandate:

Short Common Name / Description:	IWA-MZL
Proj. Mgr. Notes:	This addendum was performed to add NAVD 88 surveying data for the reference elevation. To convert to NGVD 29 add +1.175 ft.
Site Directions:	
Site Address (if any):	

Transportation: **Std Vehicle** Lock type or combination: #

Recorder Location/Purpose: **Stand-Alone Recorder (Non-Flow Site)** Structure Type:

Array ID Configuration table attached **NO**

SURVEY INFORMATION

B.M. Elevation: **6.163** Date: **10/26/2017** Stamp: **SFWMD**

Agency: **#REF!** Type: **ALUM** Datum: NAVD 88

Benchmark Location/ Description	From the intersection of Causeway Boulevard and Periwinkle Way in Sanibel, go west on Periwinkle Way, 2.7 miles to Tarpon Bay Road; turn right onto Tarpon Bay Road and go North, 0.3 of a mile to Sanibel Captiva Road; turn left onto Sanibel Captiva Road and go Westerly 2 miles to the second entrance to Island Water Association, Inc. Water Treatment Plant; turn left at the second water plant entrance (paved). Proceed westerly 120 feet to an automated gate and

COMMUNICATIONS INFORMATION

Communications System: Loggernet Server: Loggernet IP Address:

Tower: Communication Type: R.F. Code/Modem Address: R.F. Access Point:

Phone Number:

RTU Address: Gateways:

WELL INFORMATION

Sensor	Customer Ref	Ref Elev	Elev Date	Top of Well	Bottom of Well	Ground Elev	Benchmark Elev	Benchmark Datum	Ref Elevation Location	
GW1	IWA-MZL	9.45	10/26/2017	9.45		5.7	6.163	NAVD 88	Nut below sensor cable	

Sensor	GW Sensor Location Offset	Meas Pt Elevation	GW Land Elevation	Depth of Well	Type of Well	Top of Monitored Interval	Base of Monitored Interval	Parameter Transmitted									
GW1																	

COORDINATE INFORMATION

Item/Parm	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin		County	Description
GW1	26 26 31.78	82 06 37.53			21	46	22				Lee	

REGISTRATION WORKSHEET - IWAMZU Addendum

Site Name: **IWAMZU** Today's Date: **11/21/2017** Type Recorder: **CR1000**

Activity: **Addendum** Effective Date: **10/26/2017** Start Date of Data :

Customer: **Steve Krupa** Bus. Area: **5720** Agency: **SFWMD** Internal Order:

Fund:

Project Manager: **Howard Ehmke** Bus. Area: **Survey & Mapping** Agency: **SFWMD** Contract #:

Project Name: Legal Mandate:

Short Common Name / Description:	IWA-MZL
Proj. Mgr. Notes:	This addendum was performed to add NAVD 88 surveying data for the reference elevation. To convert to NGVD 29 add +1.175 ft.
Site Directions:	
Site Address (if any):	

Transportation: **Std Vehicle** Lock type or combination: #

Recorder Location/Purpose: **Stand-Alone Recorder (Non-Flow Site)** Structure Type:

Array ID Configuration table attached **NO**

SURVEY INFORMATION

B.M. Elevation: **6.163** Date: **10/26/2017** Stamp: **SFWMD**

Agency: **#REF!** Type: **ALUM** Datum: NAVD 88

Benchmark Location/ Description	From the intersection of Causeway Boulevard and Periwinkle Way in Sanibel, go west on Periwinkle Way, 2.7 miles to Tarpon Bay Road; turn right onto Tarpon Bay Road and go North, 0.3 of a mile to Sanibel Captiva Road; turn left onto Sanibel Captiva Road and go Westerly 2 miles to the second entrance to Island Water Association, Inc. Water Treatment Plant; turn left at the second water plant entrance (paved). Proceed westerly 120 feet to an automated gate and

COMMUNICATIONS INFORMATION

Communications System: Loggernet Server: Loggernet IP Address:

Tower: Communication Type: R.F. Code/Modem Address: R.F. Access Point:

Phone Number:

RTU Address: Gateways:

WELL INFORMATION

Sensor	Customer Ref	Ref Elev	Elev Date	Top of Well	Bottom of Well	Ground Elev	Benchmark Elev	Benchmark Datum	Ref Elevation Location	
GW1	IWA-MZU	5.8	10/26/2017	5.8		4	6.163	NAVD 88	Top of 90Degree elbow	

Sensor	GW Sensor Location Offset	Meas Pt Elevation	GW Land Elevation	Depth of Well	Type of Well	Top of Monitored Interval	Base of Monitored Interval	Parameter Transmitted									
GW1																	

COORDINATE INFORMATION

Item/Parm	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin		County	Description
GW1	26 26 31.93	82 06 40.39			21	46	22				Lee	