



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

U.S.G.S. Station Name: G-2697	U.S.G.S. Station Number: 260242080101101	Agency: SFWMD	Date of Field Work: 09/19/19
Party Chief: T. AVERY	Field Book: SFWMD #1	Page(s): 15-17	Report Prepared by: DEWBERRY

SITE SPECIFIC DATA

Site Benchmark: G-2697	Benchmark Elevation(s) (NAVD88): 13.87 feet	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) + 1.60 feet	
Well Reference Elevation (NAVD88): 11.75	Ground Elevation (NAVD88): 10.30	Pad Elevation (NAVD88): N/A	

GEOGRAPHIC DATA

Section 05	Township 51 SOUTH	Range 42 EAST
Well Latitude: 26°02'44.99"N	Well Longitude: 80°10'05.63"W	Location Source: AVERAGED FPRN & TRIMBLE VRSNOW RTK
State Plane Coordinates:	Northing (Y) = 623218'	Easting (X) = 929262'

Notes: 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

Benchmark "G-2697"
 Latitude: **26°02'45.2"**
 Longitude: **80°10'05.2"**
 NAVD88 EL = **13.87 FEET**

Well Site
 Latitude: **26°02'44.9"**
 Longitude: **80°10'05.6"**

Not to scale (GoogleEarth product)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

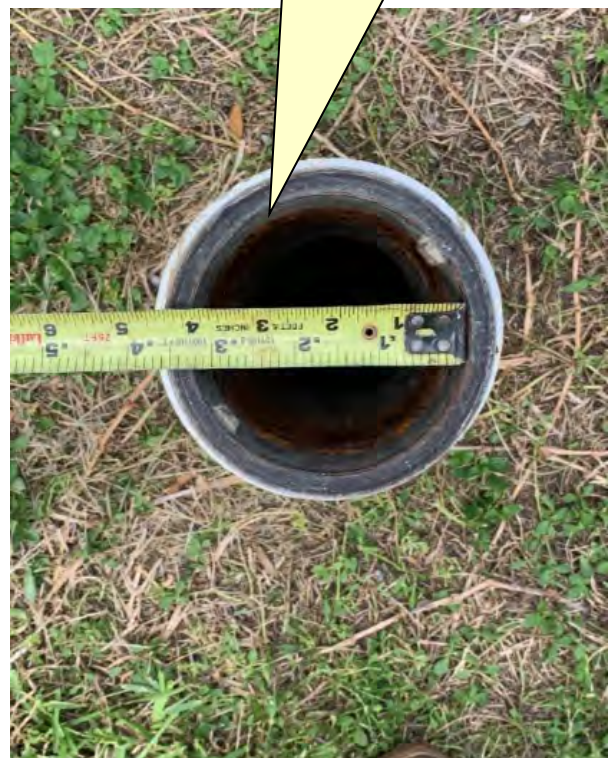
Well Site and Well Head



Well: 4" Metal well head in PVC casing
Reference Point: Top of metal well head

Reference Point El. =
11.75 feet NAVD88

Distance to water =
-11.60 feet from reference point
(09/19/19 at 02:45 PM)

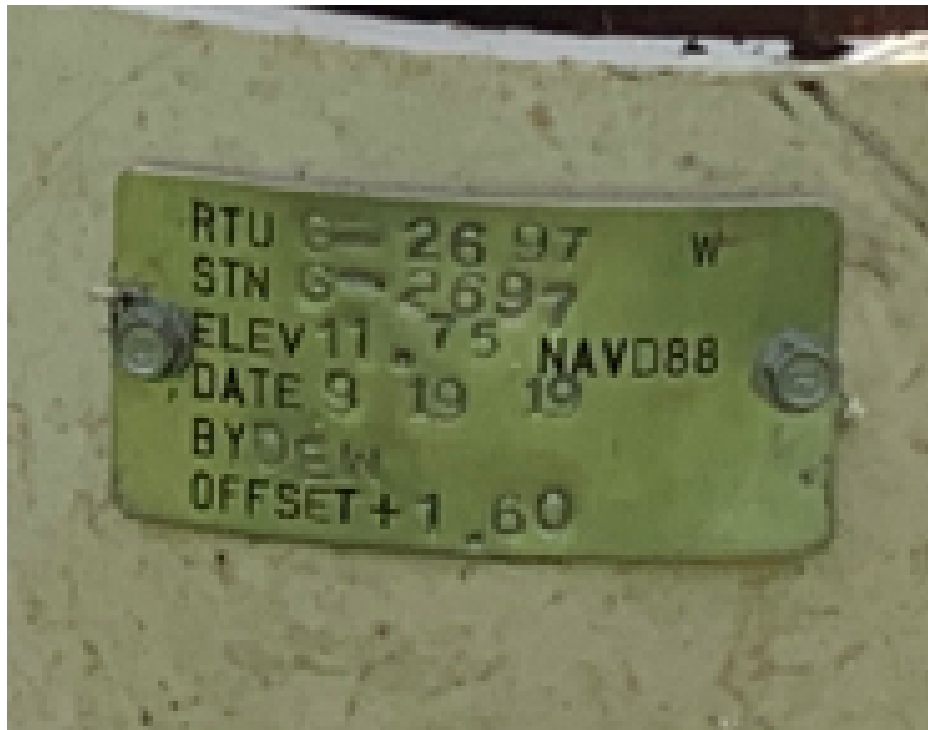




SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

New Aluminum Tag





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

USGS RMs

NOTE: THERE ARE NO USGS REFERENCE MONUMENTS IN THE VICINITY OF WELL G-2697.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Site Benchmark



Site BM: G2697



Latitude: 26°02'45.2"
Longitude: 80°10'05.2"
NAVD88 EL = 13.87 FEET





Source Benchmarks



NGS Benchmark "BRO 1" (AD5877)



Latitude: **26°03'21.4"**
Longitude: **80°08'07.3"**
NAVD88 EL = 3.75 FEET



South Florida Water Management District Benchmark Datasheet

Designation: **G-2697** Project Name: **USGS Ph 2, BROWARD** Type: **V** State Plane Zone: **FL East**
 Stamping: **G2697 2019** Field Book Name: **W212** Field Book Page: **60**
 Established By: **DEWBERRY / WHIDDEN** Recovered By: **N/A** Recovery Date: **N/A**
 Surveyor: **WILLIAM D. DONLEY** Established Date: **11/15/19** Status: **New**

GEOGRAPHIC POSITION INFORMATION

Section: 5	Township: 51 SOUTH	Range: 42 EAST
County: BROWARD	Quadrangle: FORT LAUDERDALE SOUTH	Quad Index: 1702
NAD83 Adj. Year: 2011	Vertical Datum: NAVD1988	Horizontal Datum: NAD1983
NAVD88 Elevation (feet): 13.87	NGVD29 Elevation (feet): 15.474	NGS Source BM(s): BRO 1
NAVD88 Class: N/A	NGVD29 Class: N/A	NGS PID(s): AD5877
NAVD88 Order: 3	NGVD29 Order: N/A	2022 Elevation: N/A
		Other Elevation: N/A
		Other Elevation Type: N/A
		NGS NAVD88 Elev (ft): 3.75
		NGS NAVD88 Elev (m): 1.14
		NGS 2022 Elev (ft): N/A

CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): (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)

Vertical Datum Offset: + **1.60** Actual NGS Elevation or ngvd29.txt file: **N/A** OPUS Ortho Height: **N/A**
 Northing (Y) (feet): **623236.1** Easting (X) (feet): **929299.4** Source of Latitude & Longitude: **AVERAGED FPRN & TRIMBLE VRSNOW RTK**
 Latitude: **26** **2** **45.16** Longitude: **80** **10** **5.21**
 DD° MM' SS" DD° MM' SS"
 Latitude (Decimal Degrees): **26.045878** Longitude (Decimal Degrees): **-80.168114**

RECOVERY DATA

How to Reach: **1. FROM FL-848/STIRLING RD, HEAD SOUTH ON N 33RD AVE/N PARK RD FOR 0.3 MI**
2. TURN LEFT ONTO N 37TH ST, CONTINUE 0.2 MI
3. TURN LEFT ONTO N 32ND AVE, CONTINUE 499 FEET
4. TURN RIGHT ONTO N 39TH ST, CONTINUE 0.3 MI TO EMERALD HILLS LAKES PARK & DOG PARK GATED ENTRANCE ON THE LEFT
5. THE MARK IS APPROXIMATELY 443 FEET NORTHEAST OF SAID PARK GATE

Description/Notes: **2" ALUMINUM SFWMD DISK SET IN A POURED IN PLACE CONCRETE MONUMENT, LOCATED APPROXIMATELY 19 FEET SOUTH OF THE NORTHERLY WALL AND 8 FEET WEST OF THE EASTERLY WALL**

Notable Landmarks: **EMERALD HILLS LAKES PARK & DOG PARK**

Other Source Benchmarks: **N/A**

PICTURES

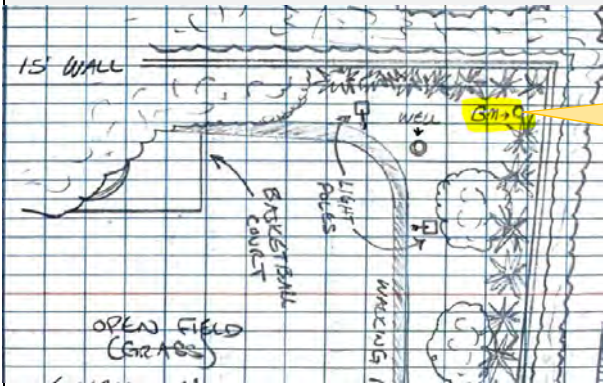
Aerial View of Overall Site



NOT TO SCALE. AERIAL FROM GOOGLE EARTH.

PICTURES

Site Sketch





"BRO 1" Benchmark Datasheet (1 of 3)

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.12.5.4
1      National Geodetic Survey, Retrieval Date = OCTOBER 22, 2019
AD5877 *****
AD5877 DESIGNATION - BRO 1
AD5877 PID - AD5877
AD5877 STATE/COUNTY- FL/BROWARD
AD5877 COUNTRY - US
AD5877 USGS QUAD - FORT LAUDERDALE SOUT (1994)
AD5877
AD5877 *CURRENT SURVEY CONTROL
AD5877
AD5877* NAD 83(1986) POSITION- 26 03 21.4 (N) 080 08 07.3 (W) HD_HELD2
AD5877* NAVD 88 ORTHO HEIGHT - 1.144 (meters) 3.75 (feet) ADJUSTED
AD5877
AD5877 GEOID HEIGHT - -25.678 (meters) GEOID18
AD5877 DYNAMIC HEIGHT - 1.142 (meters) 3.75 (feet) COMP
AD5877 MODELED GRAVITY - 979,052.8 (mgal) NAVD 88
AD5877
AD5877 VERT ORDER - SECOND CLASS I
AD5877
AD5877.The horizontal coordinates were established by autonomous hand held GPS
AD5877.observations and have an estimated accuracy of +/- 10 meters.
AD5877.
AD5877.The orthometric height was determined by differential leveling and
AD5877.adjusted by the NATIONAL GEODETIC SURVEY
AD5877.in June 1991.
AD5877
AD5877.Significant digits in the geoid height do not necessarily reflect accuracy.
AD5877.GEOID18 height accuracy estimate available here.
AD5877
AD5877.Click here to see if photographs exist for this station.
AD5877
AD5877.The dynamic height is computed by dividing the NAVD 88
AD5877.geopotential number by the normal gravity value computed on the
AD5877.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD5877.degrees latitude (g = 980.6199 gals.).
AD5877
AD5877.The modeled gravity was interpolated from observed gravity values.
AD5877
AD5877; North East Units Estimated Accuracy
AD5877;SPC FL E - 191,099. 286,522. MT (+/- 10 meters HH2 GPS)
AD5877
AD5877_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ8649282166(NAD 83)
AD5877
AD5877 SUPERSEDED SURVEY CONTROL
AD5877
AD5877 NGVD 29 (09/01/92) 1.634 (m) 5.36 (f) ADJUSTED 2 1
AD5877
AD5877.Superseded values are not recommended for survey control.
AD5877
AD5877.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

```




SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

"BRO 1" Benchmark Datasheet (2 of 3)

AD5877. See file [dsdata.pdf](#) to determine how the superseded data were derived.

AD5877

AD5877_MARKER: DD = SURVEY DISK

AD5877_SETTING: 35 = SET IN A MAT FOUNDATION OR CONCRETE SLAB OTHER THAN

AD5877+WITH SETTING: PAVEMENT

AD5877_SP_SET: WATER MAIN FOUNDATION

AD5877_STAMPING: BRO 1 1981 BSM

AD5877_MARK LOGO: FLDNR

AD5877_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AD5877+STABILITY: SURFACE MOTION

AD5877_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AD5877+SATELLITE: SATELLITE OBSERVATIONS - August 01, 2008

AD5877

AD5877	HISTORY	- Date	Condition	Report By
AD5877	HISTORY	- 1981	MONUMENTED	FLDNR
AD5877	HISTORY	- 1990	GOOD	USPSQD
AD5877	HISTORY	- 1990	GOOD	USPSQD
AD5877	HISTORY	- 19910618	GOOD	USPSQD
AD5877	HISTORY	- 19980715	GOOD	USPSQD
AD5877	HISTORY	- 19980312	GOOD	USPSQD
AD5877	HISTORY	- 20021029	GOOD	USPSQD
AD5877	HISTORY	- 20080801	GOOD	MAPTEC
AD5877	HISTORY	- 20091224	GOOD	INDIV
AD5877	HISTORY	- 20170311	GOOD	USPSQD

AD5877

STATION DESCRIPTION

AD5877

AD5877'DESCRIBED BY FL DEPT OF NAT RES 1981

AD5877'IN DANIA.

AD5877'BEGIN AT THE U.S. HIGHWAY 1 BRIDGE OVER THE DANIA CANAL, GO SOUTH 0.25

AD5877'MILE ON U.S. HIGHWAY 1 TO THE INTERSECTION OF NORTHEAST 2ND ST. GO

AD5877'0.5 MILE EAST ON NORTHEAST 2ND ST TO THE MARK. THE MARK IS SET IN

AD5877'THE NORTHEAST CORNER OF A 9.4-FOOT BY 4.7-FOOT CONCRETE FOUNDATION

AD5877'BOX FOR A WATER METER MAIN. THE MARK BEARS 33.1 FEET SOUTH OF THE

AD5877'CENTERLINE OF NORTHEAST 2ND ST, 59.5 FEET SOUTHEAST OF THE CENTERLINE

AD5877'OF NORTHEAST 5TH AVE, 85 FEET EAST OF THE NORTHEAST CORNER OF THE

AD5877'FENCE AROUND THE PARKING LOT FOR THE DANIA JAI ALAI, AND 19.2 FEET

AD5877'WEST OF THE CENTERLINE OF THE WESTERNMOST DRIVE FOR THE VILLAGE CLUB

AD5877'APARTMENTS.

AD5877'THE MARK IS ABOVE LEVEL WITH GROUND.

AD5877

STATION RECOVERY (1990)

AD5877

AD5877'RECOVERY NOTE BY US POWER SQUADRON 1990 (EM)

AD5877'RECOVERED IN GOOD CONDITION.

AD5877

STATION RECOVERY (1990)

AD5877

AD5877'RECOVERY NOTE BY US POWER SQUADRON 1990 (JHH)

AD5877'RECOVERED IN GOOD CONDITION.

AD5877

STATION RECOVERY (1991)

AD5877

AD5877'RECOVERY NOTE BY US POWER SQUADRON 1991 (JHH)

AD5877'RECOVERED IN GOOD CONDITION.

AD5877

STATION RECOVERY (1995)

AD5877

AD5877'RECOVERY NOTE BY US POWER SQUADRON 1995

AD5877'RECOVERED IN GOOD CONDITION.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

"BRO 1" Benchmark Datasheet (3 of 3)

AD5877
AD5877 STATION RECOVERY (1998)
AD5877
AD5877'RECOVERY NOTE BY US POWER SQUADRON 1998
AD5877'RECOVERED IN GOOD CONDITION.
AD5877
AD5877 STATION RECOVERY (2002)
AD5877
AD5877'RECOVERY NOTE BY US POWER SQUADRON 2002 (AM)
AD5877'RECOVERED IN GOOD CONDITION.
AD5877
AD5877 STATION RECOVERY (2008)
AD5877
AD5877'RECOVERY NOTE BY MAPTECH INCORPORATED 2008 (JML)
AD5877'RECOVERED AS DESCRIBED
AD5877
AD5877 STATION RECOVERY (2009)
AD5877
AD5877'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2009 (ED)
AD5877'RECOVERED IN GOOD CONDITION.
AD5877
AD5877 STATION RECOVERY (2017)
AD5877
AD5877'RECOVERY NOTE BY US POWER SQUADRON 2017 (CAC)
AD5877'RECOVERED IN GOOD CONDITION.

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



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Dewberry Field Notes (1 of 3)

SPECIES: SF-80 SFWMD CA/19/19
 ROVER S/N: 0360 USGS WELLS & BMS 85'
 TRIMBLE NET JOB# 5009999a P. cloudy
 TGS 562 (HI) Horizontal Locations
 SITE 12091 E DEPTH MEASUREMENT-55

PT#	(N)ERR	(E)ERR	(Z)ERR	PT#	DESC.	DURATION
5/0	11	0.098	0.058	0.548	5004	CHK IN 12091 CA 160 SEC
* LOCATED PT # 12005						
5/0	11	0.076	-0.036	0.019	5005	CHK OUT 12091 CA

PT# DESCRIPTION
 12005 MEASURING POINT (MP) #1 (TOP OF WELL HEAD) (NORTH)

DEPTH GAGE WAS USED TO TAKE WATER LEVEL READING @ APPROX 2:45 pm

READING: 11.60' FROM MP TO WATER LINE (WL)

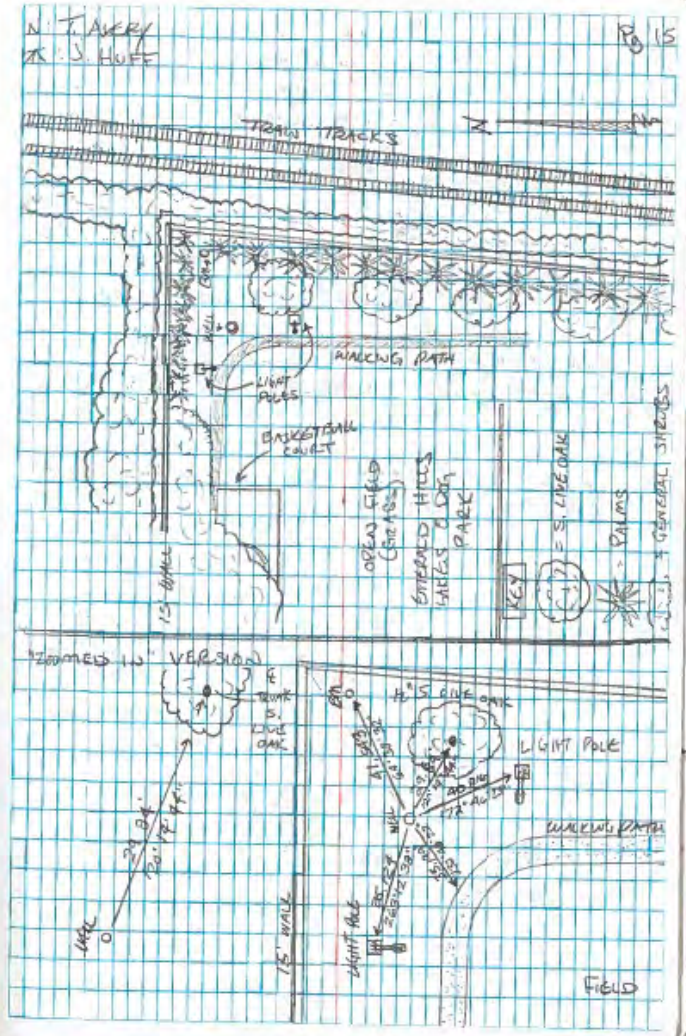
***NOTE**

ACQUAIDAK SITE SKETCH ON PG. 17

09/23/19 * RESULT DUE TO COLLECTOR BEING STOPPED

PT#	(N)ERR	(E)ERR	(Z)ERR	PT#	DESC.	DURATION
3/0	11	-0.009	-0.000	0.120	5014	CHK PT 11 30 SEC
* LOCATED PT #'S 12019-12020						
3/0	11	0.007	0.027	0.113	5015	CHK PT 11 "

PT# DESCRIPTION
 12019 N. SIDE OF METAL WELL HEAD
 12020 N. SIDE OF PVC CASING





Dewberry Field Notes (2 of 3)

