



## **SURVEYOR'S REPORT**

**Specific Purpose Survey of the  
United States Geological Survey  
Recorder Well G-3620  
in  
Miami-Dade County, Florida**

**Prepared for:**

### **South Florida Water Management District**

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**Prepared by:**

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Florida Professional Surveyor and Mapper  
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State of Florida

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Field Date: April 02, 2019  
Report Date: June 20, 2019

INSPIRED BEYOND MEASURE • SINCE 1898

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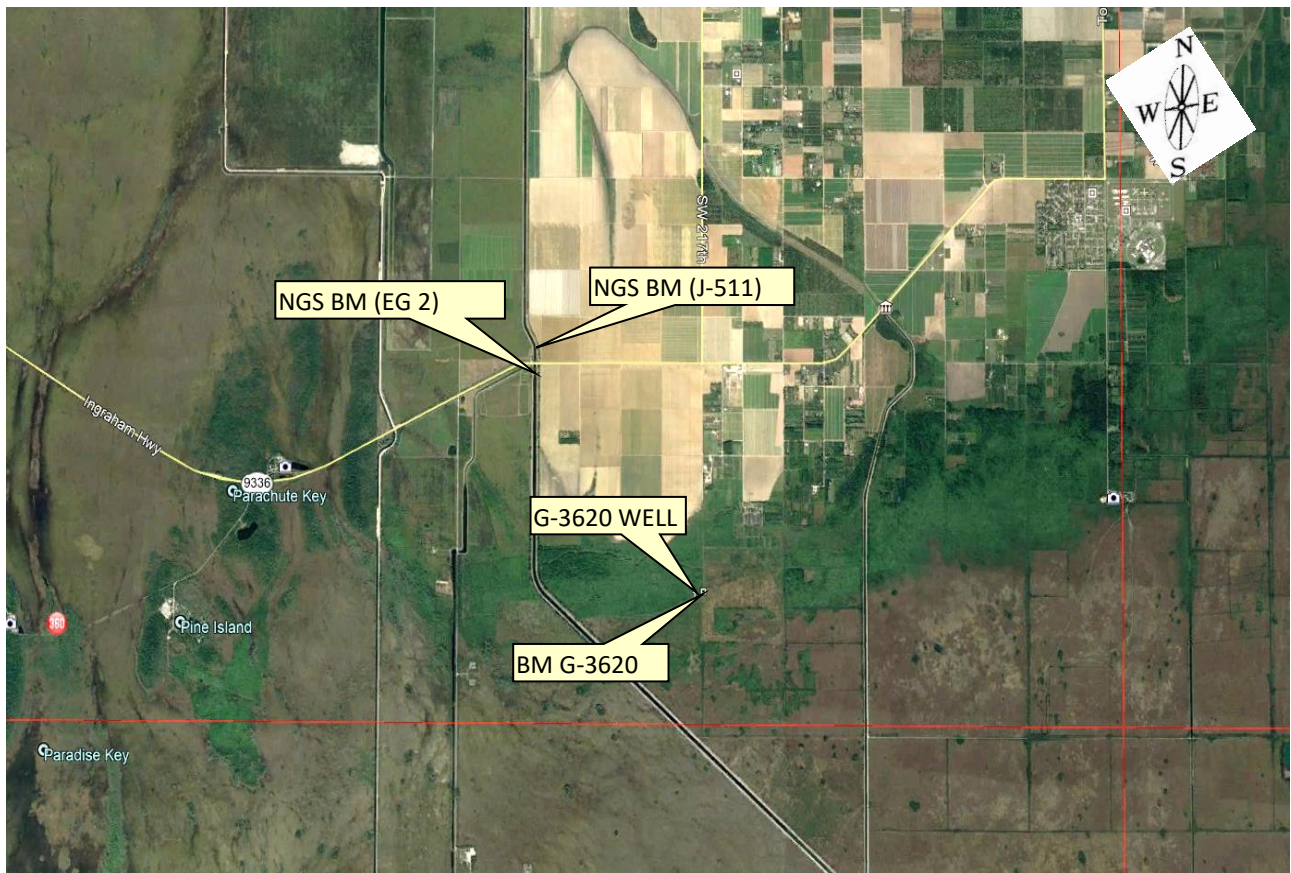
## SURVEYOR'S REPORT

### PURPOSE

The purpose of this survey is to set an Elevation Reference Mark (Benchmark) being a mag nail and washer and to establish a North American Vertical Datum of 1988 (NAVD 88) elevation on said Benchmark and on an additional Reference Point with a Brass plate, both at United States Geological Survey Well **G-3620**.

### LOCATION OF PROJECT

The United States Geological Survey's Recorder Well **G-3620** is located in Section 16, Township 58 South, Range 38 East, Miami-Dade County, Florida.



**General Location (Intended Display scale is "Not to Scale")**

## SURVEYOR'S REPORT

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### **PROJECT VERTICAL DATUM**

The project vertical datum is the North American Vertical Datum (NAVD) of 1988.

To convert the NAVD 88 elevation to the National Geodetic Vertical Datum of 1929 at station **G-3620 add 1.58'**. These values are based on Corpscon 6.0.1 a US. 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 US. Army Corps of Engineers South Atlantic Division, Jacksonville Fl.

### **PROJECT HORIZONTAL DATUM**

The project horizontal datum is the North American Datum 83 (NAD 83(2011)) (EPOCH:2010.0000).

### **LEVELING METHODS**

The leveling for this project was performed in accordance with standard survey practice using conventional third order methods, techniques and equipment.

The allowable error (.05  $\sqrt{\text{miles}}$ ) on this project meets or exceeds third order closures as required by SFWMD for this project per executed SOW for 4600003705-WO04 and discussions with SFWMD. A level loop was run from the NGS Benchmark EG 2, through the well site, and to the NGS Benchmark J-511. The measurements were collected using an Automatic Level and were hand written in Biscayne Engineering Co, Inc. Field Book 2995 pages 66-75, dated June 04, 2019, reduced and adjusted electronically. Additional data was manually recorded in the field book.

### **GPS METHODS**

Latitude and Longitude for Benchmark G-3620 were established by observing a 3-minute session of GPS data on April 02, 2019, using a Trimble R-8-S and The Florida Permanent Reference Network (FPRN). The FPRN network consists of nearly 100 Continuously Operating Reference Stations (CORS) located throughout Florida.


### **EQUIPMENT USED**

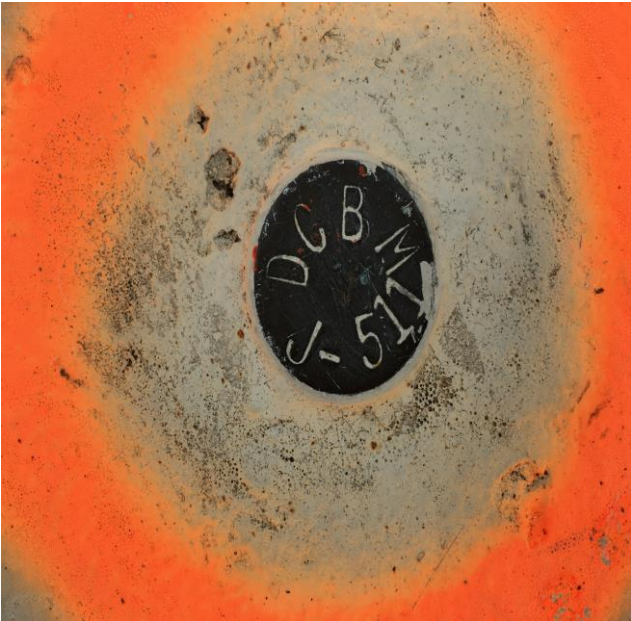
- Trimble GPS unit R-8-S, Serial Number 5625R066118.
- TOPCON DL-502 digital level Serial Number 512386 and a folding bar code rod.
- TOPCON Total Station ES 103, Serial Number ZQ000748.
- TOPCON Auto-level ATG3, Serial Number 5F9515.

**SURVEYOR'S REPORT**

**VERTICAL CONTROL POINT**


The Vertical Control point utilized and set as part of this survey is the:

<b>NGS BM EG 2</b>						
25° 24' 13.19" (N)	80° 33' 29.56" (W)		9.11 ft.	(NAVD88)	2.78 m	Published
			<p>LOCATED 103.2 FEET EAST OF THE WEST END OF THE CONCRETE BRIDGE GUARDRAIL. 23.2 FEET NORTH OF THE APPROXIMATE CENTERLINE OF SW. 376<sup>TH</sup> STREET (STATE ROAD 27) AND 4.5 FEET WEST OF THE EAST END OF THE CONCRETE BRIDGE GUARDRAIL.</p>			

<b>NGS BM J-511</b>						
25° 24' 10.10" (N)	80° 33' 29.86" (W)		7.44 ft.	(NAVD88)	2.27 m	Published
			<p>LOCATED IN DAM STRUCTURE OF L-31-N LEVEE. 300'+- SOUTH OF SR #9336</p> <p>BRASS BAR IN THE NORTHEAST CORNER OF CONCRETE ABUTMENT OF DAM STRUCTURE.</p>			

**SURVEYOR'S REPORT**

**BM: G-3620 (Set as part of this survey)**

25° 23' 07.61" (N)	80° 32' 29.52" (W)	2.112 ft.	(NAVD88)	0.644 m	Level run
		3.687 ft.	(NGVD29)	1.124 m	Converted
		1.58 ft. (conversion factor)			
		<p><b>SET CONCRETE MONUMENT AND ALUMINUM DISK STAMPED "S.F.W.M.D."</b></p>			

Field Book 2981, Page 50

SET	BS	ICED	HI	FS	MEAN	ELEV.	B.M. ELEV	DESC.
	5.984						1.392	1.435 (NAVD-88) SEE FB 2995-90
#2	5.228	5.229	<del>6.527</del>					SET IRC BEC 0129
	<del>4.298</del>		6.664					SET CONCRETE MONUMENT ALUM. DISK - S.F.W.M.D.
#3				4.242		<del>2.112</del>		
				4.552	4.552	2.112		
				4.348				
R.M. 1				4.072		<del>2.763</del>		FND 1/2" IP - REF. MARKER
				5.852	3.854	2.810		
				5.632				
				1.382				
"M.P." MEASURING PT. - WELL G-3620				1.168	1.169	<del>3.452</del>		MEASURING PT. - WELL G-3620 TARGET ON ALUM. PLATE ON TOP OF B.S.
				0.952		3.495		
R.M. 2				4.360		<del>2.442</del>		FND 1/2" IP - REF. MARKER
				4.199	4.199	2.465		
				4.039				
				2.008				
R.M. 3				2.512	2.915	<del>3.780</del>		FND 1/2" IP - REF. MARKER
				2.512		3.749		
				2.821				
SHAKE	2.800							
	2.493	2.692	<del>6.990</del>					
	2.583		6.441					
#4				4.767		<del>1.675</del>		SET IRC BEC 0129
1.052				4.725	4.725	1.716		
				4.682				

**PROJECT RESULTS**

Overall Site



(Oblique not to scale)

## SURVEYOR'S REPORT

### Tabular Form

Reference and Ground Elevations:			
Well	Ground Elevation	Reference Elevation	Comments
G-3620	1.835 ft.	5.495 ft.	Top of 10" PVC PIPE
Well diameter		Casing material	DTW
10"		Metal	5.05 ft. (04/02/1919 at 10:30 AM)

USGS Published: (Per USGS Report Site #: 252312080320301 G-3620) (NGVD29)			
Well	Ground Elevation	Reference Elevation	Comments
G-3620	-	7.04 ft.	Top of Base

Source & Site Benchmark	NAVD88 (Published)	NGVD29	NGVD29 (Corpscon 6.0.1)
EG 2(M-DC)	9.11 ft.		10.691 ft.
J-511 (M-DC)	7.44 ft.		9.021 ft
G-3620 (SFWMD)	2.112 ft. (Measured)		3.687 ft.

### Well Photos and Diagrams



## SURVEYOR'S REPORT

### Well Photos and Diagrams (Continued)



### Surveyor's Notes:

1. All measurements herein are in United States Survey feet and decimal thereof, unless otherwise specified.
2. Underground utilities were not located as part of this survey.
3. This survey report or copies thereof are not valid without the original signature and seal of a Florida licensed Surveyor and Mapper.
4. Additions or deletions to this survey report by other than the signing party (or parties) is prohibited without written consent of the signing party (or parties).
5. To convert from NAVD 88 to NGVD 29 add 1.58 feet. This value is based on 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.
6. Date of last field work: June 04, 2019, BEC job No. 03-86445.
7. SFWMD Data records (on file at the District's headquarters):
  - A. Electronic Data files:
    - Miscellaneous picture files
  - B. Conventional reporting
    - Field Book: 2995 pages 66-75

## SURVEYOR'S REPORT

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### Abbreviations:

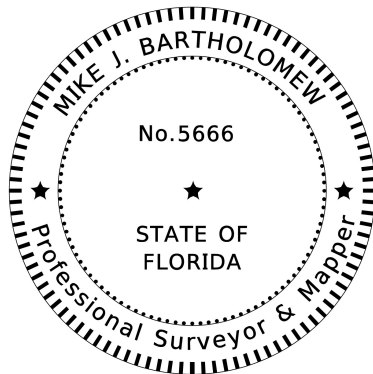
<b>EI.</b>	-	Elevation
<b>DTW</b>	-	Distance to the water table inside the well
<b>M-DC</b>	-	Miami-Dade County
<b>NAVD 88</b>	-	North American Vertical Datum of 1988
<b>NGVD 29</b>	-	National Geodetic Vertical Datum of 1929
<b>NGS</b>	-	National Geodetic Survey
<b>PSM</b>	-	Professional Surveyor & Mapper
<b>PID</b>	-	Permanent Identifiers
<b>SFWMD</b>	-	South Florida Water Management District
<b>USGS</b>	-	United States Geological Survey
<b>BEC</b>	-	Biscayne Engineering Company, Inc.

### SURVEYOR'S CERTIFICATION

In my professional opinion this Specific Purpose Survey meets applicable portions of the Standards of Practice set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J-17, Florida Administrative Code. This report is prepared for the sole and specific use of the South Florida Water Management District and is not assignable.

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Last date of Survey  
June 07,2019



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Mike Bartholomew, PSM, President  
Florida Professional Surveyor and Mapper  
License Number 5666  
State of Florida  
Biscayne Engineering Company, Inc. LB No 0129  
529 West Flagler Street, Miami, FL. 33130  
Tel (305) 324-7671



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

DESIGNATION: G-3620		PROJECT: G-3620	
ESTABLISHED BY: SOUTH FLORIDA WATER MANAGEMENT DISTRICT		SURVEYOR: Mike Bartholomew	
RECOVERED BY: BISCAYNE ENGINEERING CO.		DATE: 06/2019	
<b>GEOGRAPHIC POSITION</b>			
SECTION 16	TOWNSHIP 58 SOUTH	RANGE 38 EAST	
COUNTY: MIAMI-DADE	NAME OF QUADRANGLE: ROYAL PALM RANGER STATION GEOGRAPHIC INDEX OF QUAD:		
HORIZONTAL DATUM: 1927 <b>(1983)</b> 2022 Other _____ (circle one) ZONE <b>(E)</b> or W			
VERTICAL DATUM: MSL 1929 <b>(1988)</b> 2022 Other _____ (circle one)			
VERTICAL ACCURACY: 1 2 <b>(3)</b>			
STATE PLANE COORDINATE	(N) Y= 382596.973	(E) X= 807526.0005	NAVD 88 EL. 2.112 NGVD 29 EL. 3.69
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.) ACTUAL NGS or (ngvd29.txt file) OPUS Ortho Height			
LATITUDE: 25 ° 23' 07.61 " (N)		LONGITUDE: 80 ° 32' 29.52" (W) (Source) GPS RTK (FPRN)	
<b>RECOVERY DATA</b>			
Stamping: G-3620 BEC 0129			
To Reach:			
NOTABLE LAND MARKS:			
MDC-SOURCE BENCHMARKS: EG 2, J-511			
FIELD BOOK PAGE 2981-50			
<b>PICTURES</b>			
Aerial Overall Site			
NOT TO SCALE (Google Earth product)			



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

## Overall Site

**G-3620 Well Site**  
Latitude: **25° 23' 07.61"**  
Longitude: **80° 32' 29.52"**  
Reference elevation  
5.495' (NAVD88)



**Benchmark "G-3620"**  
El. 2.112' (NAVD88)

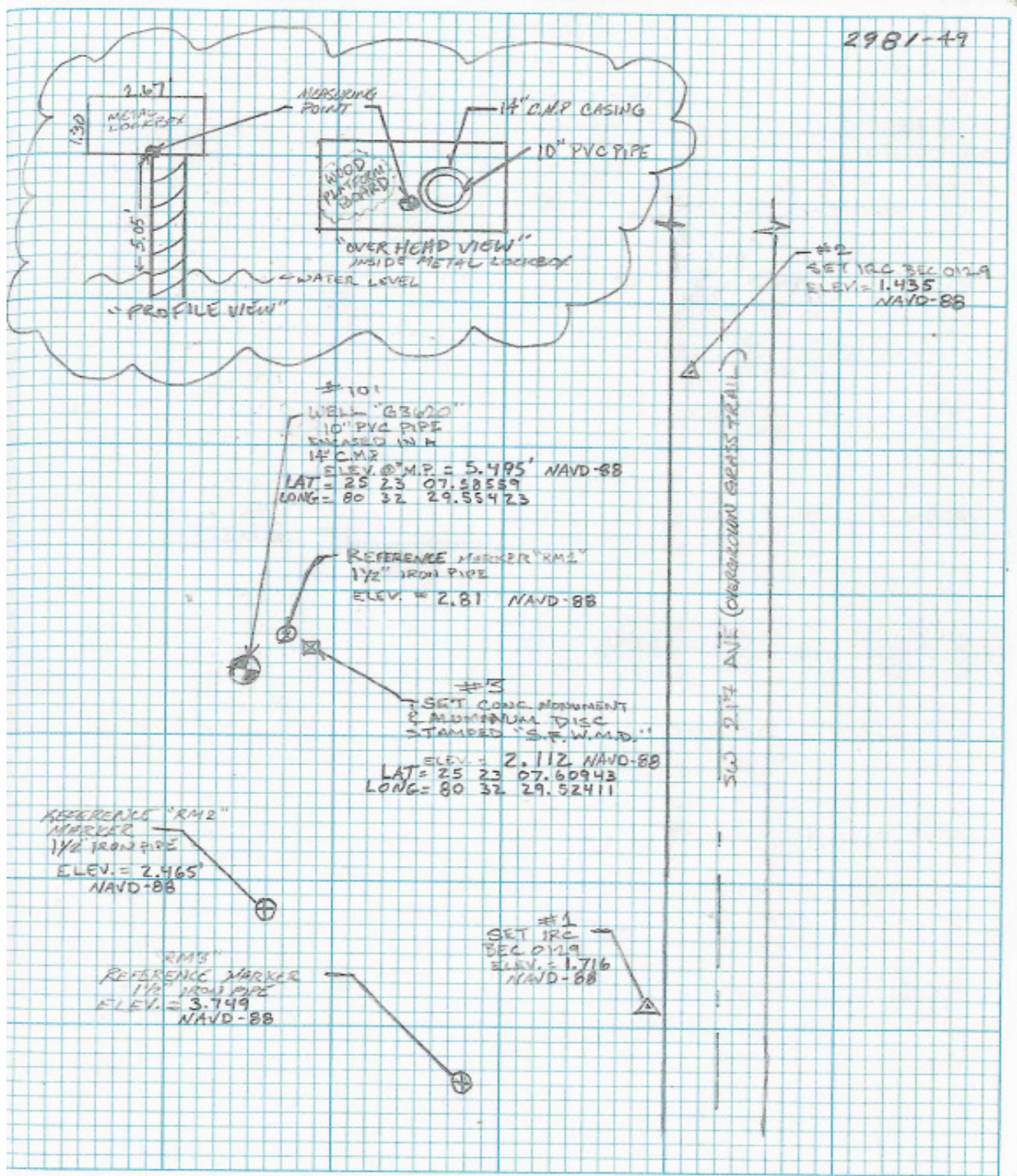
(Oblique not to scale)



# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

## SKETCH



# Office

## Project

26 June 2019

### INPUT

Geographic, NAD83  
Vertical - NAVD88, U.S. Feet

### OUTPUT

Geographic, NAD83  
Vertical - NGVD29 (Custom), U.S. Feet

---

## BM G-3620

1/1

**Latitude:** 25 23 07.61  
**Longitude:** 80 32 29.52  
**Elevation/Z:** 2.112

**Latitude:** 25 23 07.61000  
**Longitude:** 80 32 29.52000  
**Elevation/Z:** 3.687

---

Remark:

# Office

## Project

21 June 2019

### INPUT

Geographic, NAD83  
Vertical - NAVD88, U.S. Feet

### OUTPUT

Geographic, NAD83  
Vertical - NGVD29 (Custom), U.S. Feet

---

## G-3620 Well

1/1

**Latitude:** 25 23 07.59  
**Longitude:** 80 32 29.55  
**Elevation/Z:** 5.495

**Latitude:** 25 23 07.59000  
**Longitude:** 80 32 29.55000  
**Elevation/Z:** 7.070

---

Remark:

A. GORTES  
 T. GONZALEZ  
 S. DAVIS  
 04-01-19  
 TAMPAL R10  
 FILE: B6655-03620

BEC# 03-BIGASS  
 S.F.W.M.D  
 MOUNTAIN DAKE WELLS

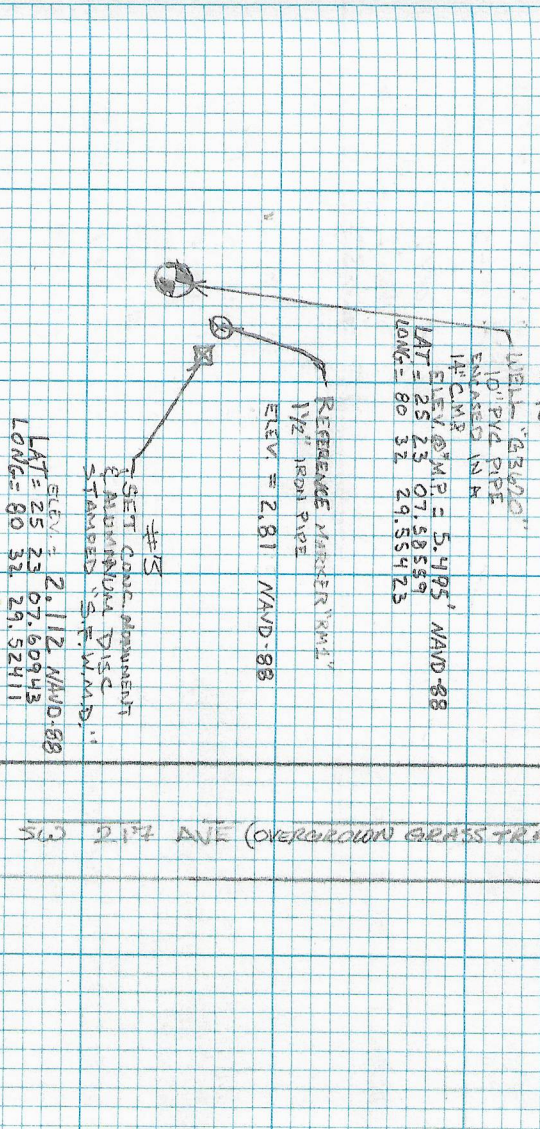
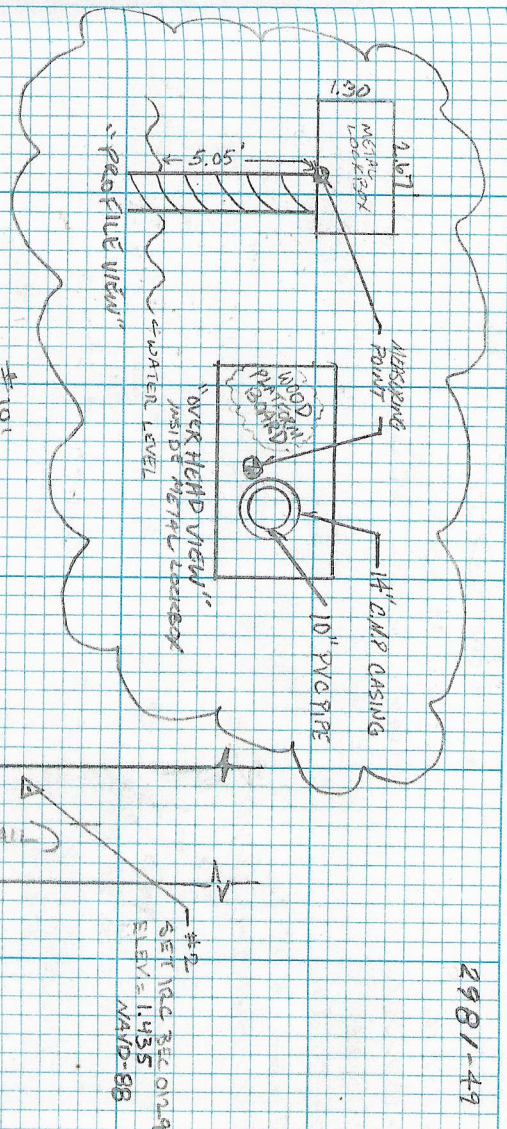
GPS - CORRECTION  
 WELL 03620

~~R-10 @ #1  
 HT: 4.58'  
 SET IRC BEC 0129 VOID  
 FAST STATIC - START TIME: 10:19 AM  
 END TIME: 12:19 PM  
 DURATION = 2.0 HRS~~

~~R-10 @ #2  
 HT: 4.58'  
 SET IRC BEC 0129 VOID  
 FAST STATIC - START TIME: 9:45 AM (04-03-F) NO  
 END TIME: 11:45 AM (04-03-F) NO  
 DURATION = 2.0 HRS~~

FFRN''  
 R10 = 1200R  
 HT = 4.58'  
 BASE @ 10METERS

PT #	DESC.
1	SET IRC BEC 0129
2	SET IRC BEC 0129
3	SET MONUMENT - ALUM DISC 100 CODE
100	WELL ANTENNA
101	WELL 03620' - CENTER OF 10" PVC PIPE
R.M. 1	FND 1 1/2" IP
R.M. 2	FND 1 1/2" IP
R.M. 3	FND 1 1/2" IP





BEARER-BLASS  
S.F.M. M.D  
KIMM-DARDE WELLS  
G-3620

4 CORNERS  
7 BOUNDARY  
ST. DINE  
04-02-19  
TARGET R10  
FILE: BLASS-35620

SET	RES	WORD	HI	FS	MEAN
#1	5.983	5.229	<del>6.477</del> 6.664	4.762	4.552
#2	5.228			4.552	4.343
#3	4.273			4.072	5.854
RM 1				5.852	5.637
				1.382	1.169
				1.168	
				0.957	
RM 2				4.360	4.199
				4.199	4.039
RM 3				3.093	2.915
				2.915	2.821
SHAKE	2.800	2.692	<del>6.4915</del> 6.4911	4.767	4.725
	2.693			4.725	4.685
#1	2.585				4.725
#1					4.685

"M.D"  
MEASURING  
POINT LABEL  
G8620

ELEV.

BM ELEV

DESS C.

<del>2.069</del> 2.112	4.392	1.435 (NAND-88) SEE FB 2995-90	SET IRCL BEC 0129
<del>2.767</del> 2.810			FND 1/2" IP-REF MARKER
<del>5.457</del> 5.495			MEASURING PT. - WELLS G3620 TARGET ON WOOD PLATE END AND TOP OF PIPE
<del>2.444</del> 2.465			FND 1/2" IP-REF MARKER
<del>3.795</del> 3.749			FND 1/2" IP-REF MARKER
<del>1.675</del> 1.716			SET IRCL BEC 0129

H. GORTS  
P. GARDNER  
S. DINE  
06-04-19  
FILE: 86445-2A

BEC 403 - BUDGET  
S. F. W. N. D.  
MARI DRIVE WEIGS  
WELL G-3620

BENEFIT ROLL

BMUS	BS	HT	DIST.	AS	DIST.
J-511	4.928	12.302	172.44		
EG 21-1 J-504-1	<b>NAVD88</b>			3.257	159.28
SHAKE	<del>1.80</del> 1.89	11.005	367.45		
T.P.H			6.101		342.45
SHAKE	4.902	9.806	277.20		
T.P.2			5.575		284.78
SHAKE	5.659	10.090	306.63		
T.P.3			5.971		300.82
SHAKE	5.786	9.905	308.66		
T.P.4			4.690		280.48
SHAKE	5.713	10.928	314.27		
T.P.5			4.038		244.53

ELEN.

BUY. ELEN. (UND. 88)

DESC.

7.444

- FOD BRASS DISC 110 CAL  
STAMPED F-511

9.115

← KIRKWOOD →

- BM CHECK  
FOD BRASS DISC STAMPED  
F-504-1

4.905

4.451

4.119

5.215

5.840

5 PINE CREEK  
08-04-19

REC# 07-86445  
S. F. W. M. D.  
MAMI DADE WELLS  
WELL 'G-3620'

BENCH (201) (CONT.)

	BS	HI	DIST	FS	DIST
BLKS	BS	HI	DIST	FS	DIST
SPACE	5.371	11.211	254.30		
T.P.C				5.787	312.96
SPACE	4.957	10.381	374.28		
T.P.7				5.108	276.39
SPACE	5.919	11.192	277.69		
T.P.8				4.859	297.37
SPACE	4.926	11.259	321.26		
T.P.9				5.173	266.44
SPACE	4.438	10.524	188.16		
T.P.10				4.620	253.63
SPACE	3.929	9.834	214.01		
T.1				5.157	258.97

2995-67

ELEV	BM ELEV	DESC.
5.424		
5.273		
6.333		
6.086		
5.905		
4.834		

SHAKE CORNER  
06-04-19

BECH 03-86415  
S.F. CO. M.D.  
M/MU1 DROC DETAILS  
WELL 13-5620

BENCH ROD (GARY)

	BS	WI	DIST	FS	DIST
SHAKE	5.797	10.401	259.05		
T2				4.857	282.81
SHAKE	4.060	9.640	267.39		
T5				5.124	270.00
SHAKE	4.311	8.717	293.60		
T4				3.503	274.57
SHAKE	4.339	9.477	268.57		
T5				5.128	285.30
SHAKE	5.579	9.779	240.26		
T6				6.263	359.87
SHAKE	3.853	7.371	276.24		
T7				5.218	198.06

2995-68

ELEV.	BM ELEV.	DESC.
5.574		
4.406		
5.139		
4.200		
3.518		
2.153		

REC#03-86445  
S.F. W. M.D.  
MINI DRUG WELLS  
WELL "G".

BENCH RUN (CONT)

	B5	HI	DIST	FS	DIST.
BMS					
SHAKE	2.460	6.673	45.90		
T8				4.017	58.63
SHAKE	4.527	42.31	6.522		
T9				4.614	84.02
SHAKE	4.386	43.95	4.294		
				3.677	81.53
SHAKE	4.139	6.756	75.33		
T10				4.158	54.79
SHAKE	3.608	229.13	6.205		
#1				3.253	142.31
	4.496	7.418	105.74		
#2				5.562	70.64

2925-69

ELBN	BM. ELBN	DEEC
1.996		
1.908		
2.617		
2.598		
2.922		
1.856		

CAMP AREA  
06-04-19

REC #03-86445  
S. F. W. L. M. D  
MIRAM / DABE WELLS  
WELL 0-3420

	BS	HI	DIST	FS	DIST
SPAKE #3	4.461	6.317	214.93	4.050	258.91
SPAKE #4	3.852	6.120	238.88	3.678	215.88
SPAKE #5	3.882	4.324	106.96	4.889	188.19

REF BOOK  
2991-49

2995-40

ELEV	BM ELEV.	DESC.
2.267		
2.442		
1.435		

1.38  
- DERIVED FROM OPUS  
DESCRIPTION  
← ERK 0055 →

- SET W.C. REC 0129  
REF. E.R. 2991-49

A. COATES  
 D. GONZALEZ  
 S. DIAZ  
 C. LEAL

REC # 03-80445  
 F, LD, M, D  
 MYM, D, DAVE, DEZL, S  
 WELZ "G-3620"

06-07-19

FILE: 86445-CA  
 TRAP # 2  
 BIN # 1

BENCH RUN

TR #	BS	MC	DIST	ES	DIST
TR # 1	5.101	6.536	354.03	4.345	249.80
TR # 2	3.889	6.080	270.34	4.216	329.92
TR # 3	4.306	6.140	248.82	3.553	196.88
TR # 4	3.506	6.164	131.23	3.796	57.81
TR # 5	4.224	6.592	115.16	4.174	140.03
TR # 6	4.387	6.806	72.87	3.910	58.10

2995-71

TR #	BM	ELAN	DESC.
1.435			
2.191			
1.864			
1.614			
2.368			
1.419			
1.886			

-SET W.R.C REC 0124  
 PT # 2. REF. F.B. 2991 REC 29

BRUCE COBBL		SEC # 03-86445			
06.07.15		S.F.W. N.D.			
FILE: 86445-C1		MINI-DWDE WELLS			
TRIMBLE DWD1		WELL G-3620			
	BENCH	RUN (GANT)			
EDMS	BS	HI	DIST	FS	DIST
SHAKE	4.258	7.124	53.67		
T.P.#7				3.995	137.60
SHAKE	4.667	7.798	252.07		
T.P.#8				2.874	226.47
SHAKE	4.937	9.911	134.03		
T.P.#9				5.647	233.14
SHAKE	5.052	9.313	196.75		
T.P.#10				4.404	199.03
SHAKE	4.899	9.815	211.15		
T.P.#11				5.878	281.13
SHAKE	5.5E1	9.466	232.51		
				4.645	225.62

2945-72

ELEV	BM ELEV.	DE SC.
3.131		
4.924		
4.264		
4.914		
3.935		
4.822		



SKATE LEGAL  
06-07-19

FILE: B6445-C1  
LINES: 2

BIC #103-B6445  
H. F. W. M. D.  
MAY 11 - DATE WELLS  
WELL G-3600

TRIMBLE DMSI

BENCH RUN (CONT.)

BUS	BS	HI	DIST	IS	DIST.
SKATE	5.740	10.562	306.92		
T.P. #13				4.924	288.06
SKATE	5.886	9.464	336.15		
T.P. #14				4.302	254.82
SKATE	5.070	10.232	265.68		
T.P. #15				4.120	350.26
SKATE	4.923	11.034	210.07		
T.P. #16				4.751	286.42
SKATE	4.902	11.191	328.21		
T.P. #17				5.653	319.39
SKATE	4.839	9.844	302.79		
T.P. #18				4.680	289.54

ELEV	BK ELEV	DESC.
5.5748		
5.162		
6.112		
6.283		
5.538		
5.196		

SHANE CREW  
06-07-19

FILE: BEH45 C1  
LINE: 18

TRIMBLE D111

BECH#03 86445  
E. F. CO. M. D  
MIAMI DADE WELLS  
WELL "G-3620"

BENCH RUN (CONT)

BMS	BS	HI	DIST	FS	TDIST
SHARE	5.4308	10.634	319.00		
T.P.#19				4.647	360.69
SHARE	4.796	10.784	320.87		
T.P.#20				5.431	357.84
SHARE	3.910	9.263	307.87		
T.P.#21				4.562	327.16
SHARE	4.767	9.468	308.23		
T.P.#22				4.774	311.25
SHARE	5.147	9.840	336.78		
T.P.#23				3.667	364.37
SHARE	6.263	12.457	338.94		
T.P.#24				1.420	34.55

2905.74

ELEV.	RM ELEV	DESC.
5.987		
5.355		
2.901		
4.694		
6.174		
11.016		

CRIME OPEN  
06-07-19

FILE: 86445-01  
LINE: 2

TRIMBLE DATA

BGC #03 86445  
S. F. W. M. S  
MOUNTED DRUG WELLS  
WELL "A-3620"

BENCH RUN (CONT)

TIME BS HI DIST FS DIST

5 MARK 1.335 12.35 72.25

5511 4.869 77.56

5 MARK 4.830 12.32 132.61

5511 3.144 203.21

NAV D88

2995-75

ELEV. BM ELEV. DESC.

7482 7.444 - FIND BEAST DISC IN CORNER  
OF WELLS WITH STAMP  
"SIN"

9.156 9.111 - FIND BEAST DISC IN CORNER  
OF WELLS WITH STAMP  
"SIN"

← LK: 0.045 →

# The NGS Data Sheet

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

PROGRAM = datasheet95, VERSION = 8.12.5.3

1 National Geodetic Survey, Retrieval Date = JUNE 18, 2019

AB2362 \*\*\*\*\*

AB2362 DESIGNATION - EG 2

AB2362 PID - AB2362

AB2362 STATE/COUNTY- FL/MIAMI-DADE

AB2362 COUNTRY - US

AB2362 USGS QUAD - ROYAL PALM RANGER STATION (1979)

AB2362

AB2362 \*CURRENT SURVEY CONTROL

AB2362

AB2362\* NAD 83(2011) POSITION- 25 24 13.19499(N) 080 33 29.56502(W) ADJUSTED

AB2362\* NAD 83(2011) ELLIP HT- -21.737 (meters) (06/27/12) ADJUSTED

AB2362\* NAD 83(2011) EPOCH - 2010.00

AB2362\* [NAVD 88](#) ORTHO HEIGHT - 2.777 (meters) 9.11 (feet) ADJUSTED

AB2362

AB2362 GEOID HEIGHT - -24.526 (meters) GEOID12B

AB2362 NAD 83(2011) X - 945,714.486 (meters) COMP

AB2362 NAD 83(2011) Y - -5,686,854.818 (meters) COMP

AB2362 NAD 83(2011) Z - 2,719,525.040 (meters) COMP

AB2362 LAPLACE CORR - -2.83 (seconds) DEFLEC12B

AB2362 DYNAMIC HEIGHT - 2.773 (meters) 9.10 (feet) COMP

AB2362 MODELED GRAVITY - 978,980.6 (mgal) NAVD 88

AB2362

AB2362 VERT ORDER - FIRST CLASS II

AB2362

AB2362 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

AB2362 Standards:

	FGDC (95% conf, cm)		Standard deviation (cm)			CorrNE
	Horiz	Ellip	SD_N	SD_E	SD_h	(unitless)

AB2362	-----	-----	-----	-----	-----	-----	
AB2362	NETWORK	3.28	4.70	1.35	1.33	2.40	-0.02810539
AB2362	-----	-----	-----	-----	-----	-----	

AB2362 Click [here](#) for local accuracies and other accuracy information.

AB2362

AB2362

AB2362.The horizontal coordinates were established by GPS observations

AB2362.and adjusted by the National Geodetic Survey in June 2012.

AB2362

AB2362.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

AB2362.been affixed to the stable North American tectonic plate. See

AB2362.[NA2011](#) for more information.

AB2362

AB2362.The horizontal coordinates are valid at the epoch date displayed above

AB2362.which is a decimal equivalence of Year/Month/Day.

AB2362

AB2362.The orthometric height was determined by differential leveling and

AB2362.adjusted by the NATIONAL GEODETIC SURVEY

AB2362.in April 1996.

AB2362

AB2362.Significant digits in the geoid height do not necessarily reflect accuracy.  
AB2362.GE0ID12B height accuracy estimate available [here](#).

AB2362

AB2362.[Photographs](#) are available for this station.

AB2362

AB2362.The X, Y, and Z were computed from the position and the ellipsoidal ht.  
AB2362

AB2362.The Laplace correction was computed from DEFLEC12B derived deflections.  
AB2362

AB2362.The ellipsoidal height was determined by GPS observations  
AB2362.and is referenced to NAD 83.

AB2362

AB2362.The dynamic height is computed by dividing the NAVD 88  
AB2362.geopotential number by the normal gravity value computed on the  
AB2362.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45  
AB2362.degrees latitude (g = 980.6199 gals.).

AB2362

AB2362.The modeled gravity was interpolated from observed gravity values.

AB2362

AB2362. The following values were computed from the NAD 83(2011) position.

AB2362

AB2362;		North	East	Units	Scale	Factor	Converg.
AB2362;SPC FL E	-	118,628.231	244,449.338	MT	0.99996557	+0 11	22.3
AB2362;SPC FL E	-	389,199.45	801,997.54	sFT	0.99996557	+0 11	22.3
AB2362;UTM 17	-	2,809,719.737	544,434.172	MT	0.99962438	+0 11	22.3

AB2362

AB2362! - Elev Factor x Scale Factor = Combined Factor

AB2362!SPC FL E - 1.00000342 x 0.99996557 = 0.99996899

AB2362!UTM 17 - 1.00000342 x 0.99962438 = 0.99962779

AB2362

AB2362\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ4443409719(NAD 83)

AB2362

SUPERSEDED SURVEY CONTROL

AB2362

AB2362	NAD 83(2007)-	25 24 13.19515(N)	080 33 29.56550(W)	AD(2002.00)	0
AB2362	ELLIP H (02/10/07)	-21.723 (m)		GP(2002.00)	
AB2362	NAD 83(1999)-	25 24 13.19519(N)	080 33 29.56555(W)	AD( )	1
AB2362	ELLIP H (12/12/02)	-21.711 (m)		GP( )	4 1
AB2362	NAVD 88	2.78 (m)	9.1 (f)	LEVELING	3

AB2362

AB2362.Superseded values are not recommended for survey control.

AB2362

AB2362.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AB2362.See file [dsdata.pdf](#) to determine how the superseded data were derived.

AB2362

AB2362\_MARKER: DD = SURVEY DISK

AB2362\_SETTING: 36 = SET IN A MASSIVE STRUCTURE

AB2362\_SP\_SET: BRIDGE CURB

AB2362\_STAMPING: EG 2

AB2362\_MARK LOGO: FLSRD

AB2362\_MAGNETIC: N = NO MAGNETIC MATERIAL

AB2362\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AB2362\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AB2362+SATELLITE: SATELLITE OBSERVATIONS - February 16, 2019

AB2362

AB2362 HISTORY - Date Condition Report By

AB2362 HISTORY - UNK MONUMENTED FLDT

AB2362	HISTORY	- 19940916	GOOD	FLDEP
AB2362	HISTORY	- 20020523	GOOD	MAPTEC
AB2362	HISTORY	- 20030930	GOOD	WEIDEN
AB2362	HISTORY	- 20081002	GOOD	GCT
AB2362	HISTORY	- 20091209	GOOD	DCPWD
AB2362	HISTORY	- 20120614	GOOD	INDIV
AB2362	HISTORY	- 20150410	GOOD	WANTGP
AB2362	HISTORY	- 20151021	GOOD	GEOCAC
AB2362	HISTORY	- 20170620	GOOD	WANTGP
AB2362	HISTORY	- 20190216	GOOD	GPI

AB2362

AB2362 STATION DESCRIPTION

AB2362

AB2362'DESCRIBED BY FL DEPT OF ENV PRO 1994 (LGB)

AB2362'THE MARK IS ABOUT 5.7 MI (9.2 KM) SOUTHWEST OF FLORIDA CITY IN SECTION  
 AB2362'6, TOWNSHIP 58 SOUTH, RANGE 38 EAST. TO REACH THE MARK FROM THE  
 AB2362'INTERSECTION OF U.S. HIGHWAY 1 AND PALM DRIVE (SW. 3 STREET) IN  
 AB2362'FLORIDA CITY, GO WEST ON PALM DRIVE (STATE ROAD 27, SW. 3 STREET) FOR  
 AB2362'1.7 MI (2.7 KM) TO THE INTERSECTION OF TOWER ROAD (SW. 192 AVENUE) ,  
 AB2362'TURN LEFT ON TOWER ROAD (STATE ROAD 27, SW 192 AVENUE) AND GO SOUTH  
 AB2362'FOR 2.1 MI (3.4 KM) TO THE JUNCTION OF SW. 376 STREET (STATE ROAD 27)  
 AB2362'ON THE RIGHT, TURN RIGHT ON SW. 376 STREET (STATE ROAD 27) AND GO WEST  
 AB2362'FOR 4.05 MI (6.52 KM) TO A BRIDGE WITH A WATER CONTROL GATE AND THE  
 AB2362'MARK ON THE RIGHT, SET FLUSH IN THE NORTHEAST CORNER OF THE BRIDGE  
 AB2362'CURB AND 1.2 FT (0.4 M) ABOVE THE LEVEL OF SW. 376 STREET (STATE ROAD  
 AB2362'27) . LOCATED 103.2 FT (31.5 M) EAST OF THE WEST END OF THE CONCRETE  
 AB2362'BRIDGE GAURDRAIL, 23.2 FT (7.1 M) NORTH OF THE APPROXIMATE CENTERLINE  
 AB2362'OF SW. 376 STREET (STATE ROAD 27) AND 4.5 FT (1.4 M) WEST OF THE EAST  
 AB2362'END OF THE CONCRETE BRIDGE GAURDRAIL.

AB2362

AB2362 STATION RECOVERY (2002)

AB2362

AB2362'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)

AB2362'RECOVERED AS DESCRIBED.

AB2362'

AB2362

AB2362 STATION RECOVERY (2003)

AB2362

AB2362'RECOVERY NOTE BY WEIDENER SURVEYING AND MAPPING 2003 (MM)

AB2362'RECOVERED AS DESCRIBED

AB2362

AB2362 STATION RECOVERY (2008)

AB2362

AB2362'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2008

AB2362'RECOVERED IN GOOD CONDITION.

AB2362

AB2362 STATION RECOVERY (2009)

AB2362

AB2362'RECOVERY NOTE BY DADE COUNTY PUBLIC WORKS DEPARTMENT 2009 (MJW)

AB2362'RECOVERED IN GOOD CONDITION.

AB2362

AB2362 STATION RECOVERY (2012)

AB2362

AB2362'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2012 (SU)

AB2362'RECOVERED AS DESCRIBED

AB2362

AB2362 STATION RECOVERY (2015)

AB2362

AB2362'RECOVERY NOTE BY WANTMAN GROUP INC 2015 (JM)  
AB2362'RECOVERED IN GOOD CONDITION.  
AB2362  
AB2362 STATION RECOVERY (2015)  
AB2362  
AB2362'RECOVERY NOTE BY GEOCACHING 2015 (KEN)  
AB2362'RECOVERED IN GOOD CONDITION.  
AB2362  
AB2362 STATION RECOVERY (2017)  
AB2362  
AB2362'RECOVERY NOTE BY WANTMAN GROUP INC 2017 (JM)  
AB2362'RECOVERED IN GOOD CONDITION.  
AB2362  
AB2362 STATION RECOVERY (2019)  
AB2362  
AB2362'RECOVERY NOTE BY GREENMAN PEDERSEN INCORPORATED 2019 (LJB)  
AB2362'RECOVERED IN GOOD CONDITION.

\*\*\* retrieval complete.  
Elapsed Time = 00:00:04

# The NGS Data Sheet

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

PROGRAM = datasheet95, VERSION = 8.12.5.3

1 National Geodetic Survey, Retrieval Date = JUNE 18, 2019

AB2361 \*\*\*\*\*

AB2361 DESIGNATION - J 511

AB2361 PID - AB2361

AB2361 STATE/COUNTY- FL/MIAMI-DADE

AB2361 COUNTRY - US

AB2361 USGS QUAD - ROYAL PALM RANGER STATION (1979)

AB2361

AB2361 \*CURRENT SURVEY CONTROL

AB2361

AB2361\* NAD 83(1986) POSITION- 25 24 09.9 (N) 080 33 29.8 (W) HD\_HELD2

AB2361\* [NAVD 88](#) ORTHO HEIGHT - 2.269 (meters) 7.44 (feet) ADJUSTED

AB2361

AB2361 GEOID HEIGHT - -24.524 (meters) GEOID12B

AB2361 DYNAMIC HEIGHT - 2.266 (meters) 7.43 (feet) COMP

AB2361 MODELED GRAVITY - 978,980.6 (mgal) NAVD 88

AB2361

AB2361 VERT ORDER - FIRST CLASS II

AB2361

AB2361.The horizontal coordinates were established by autonomous hand held GPS

AB2361.observations and have an estimated accuracy of +/- 10 meters.

AB2361.

AB2361.The orthometric height was determined by differential leveling and

AB2361.adjusted by the NATIONAL GEODETIC SURVEY

AB2361.in April 1996.

AB2361

AB2361.Significant digits in the geoid height do not necessarily reflect accuracy.

AB2361.GEOID12B height accuracy estimate available [here](#).

AB2361

AB2361.[Photographs](#) are available for this station.

AB2361

AB2361.The dynamic height is computed by dividing the NAVD 88

AB2361.geopotential number by the normal gravity value computed on the

AB2361.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AB2361.degrees latitude (g = 980.6199 gals.).

AB2361

AB2361.The modeled gravity was interpolated from observed gravity values.

AB2361

AB2361; North East Units Estimated Accuracy

AB2361;SPC FL E - 118,527. 244,443. MT (+/- 10 meters HH2 GPS)

AB2361

AB2361\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNJ4442709618(NAD 83)

AB2361

AB2361 SUPERSEDED SURVEY CONTROL

AB2361

AB2361.No superseded survey control is available for this station.

AB2361

AB2361\_MARKER: DD = SURVEY DISK



AB2361\_SETTING: 36 = SET IN A MASSIVE STRUCTURE  
AB2361\_SP\_SET: WATER STRUCTURE  
AB2361\_STAMPING: DCBM J-511  
AB2361\_MARK LOGO: FL-025  
AB2361\_MAGNETIC: N = NO MAGNETIC MATERIAL  
AB2361\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL  
AB2361\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR  
AB2361+SATELLITE: SATELLITE OBSERVATIONS - October 21, 2015

AB2361

AB2361	HISTORY	- Date	Condition	Report By
AB2361	HISTORY	- UNK	MONUMENTED	FL-025
AB2361	HISTORY	- 19940916	GOOD	FLDEP
AB2361	HISTORY	- 20010221	GOOD	FLDEP
AB2361	HISTORY	- 20040307	GOOD	FLDEP
AB2361	HISTORY	- 20081002	GOOD	GCT
AB2361	HISTORY	- 20090722	GOOD	DCPW
AB2361	HISTORY	- 20151021	GOOD	GEOCAC

AB2361

AB2361 STATION DESCRIPTION

AB2361

AB2361'DESCRIBED BY FL DEPT OF ENV PRO 1994 (LGB)  
AB2361'THE MARK IS ABOUT 5.7 MI (9.2 KM) SOUTHWEST OF FLORIDA CITY IN SECTION  
AB2361'7, TOWNSHIP 58 SOUTH, RANGE 38 EAST. TO REACH THE MARK FROM THE  
AB2361'INTERSECTION OF U.S. HIGHWAY 1 AND PALM DRIVE (SW. 3 STREET) IN  
AB2361'FLORIDA CITY, GO WEST ON PALM DRIVE (STATE ROAD 27, SW. 3 STREET) FOR  
AB2361'1.7 MI (2.7 KM) TO THE INTERSECTION OF TOWER ROAD (SW. 192 AVENUE) ,  
AB2361'TURN LEFT ON TOWER ROAD (STATE ROAD 27, SW 192 AVENUE) AND GO SOUTH  
AB2361'FOR 2.1 MI (3.4 KM) TO THE JUNCTION OF SW. 376 STREET (STATE ROAD 27)  
AB2361'ON THE RIGHT, TURN RIGHT ON SW. 376 STREET (STATE ROAD 27) AND GO WEST  
AB2361'FOR 4.05 MI (6.52 KM) TO A BRIDGE WITH A WATER CONTROL GATE AND THE  
AB2361'MARK ON THE LEFT, SET FLUSH IN THE NORTHEAST CORNER OF THE HEADWALL OF  
AB2361'THE WATER CONTROL GATE AND LEVEL WITH SW. 376 STREET (STATE ROAD 27)  
AB2361'. LOCATED 285.4 FT (87.0 M) SOUTH OF THE APPROXIMATE CENTERLINE OF SW.  
AB2361'376 STREET (STATE ROAD 27) , 59.6 FT (18.2 M) WEST OF THE APPROXIMATE  
AB2361'CENTERLINE OF A GRAVEL ROAD, 37.5 FT (11.4 M) NORTH OF THE SOUTHEAST  
AB2361'EDGE OF THE GATE AND 2.4 FT (0.7 M) SOUTH OF THE NORTHEAST EDGE OF THE  
AB2361'GATE.

AB2361

AB2361 STATION RECOVERY (2001)

AB2361

AB2361'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)

AB2361'RECOVERED AS DESCRIBED.

AB2361

AB2361 STATION RECOVERY (2004)

AB2361

AB2361'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)

AB2361'THE MARK IS ABOUT 7.0 MI (11.3 KM) SOUTHWEST OF HOMESTEAD, 6.0 MI (9.7  
AB2361'KM) SOUTHWEST OF FLORIDA CITY, IN SECTION 7, TOWNSHIP 58 SOUTH, RANGE  
AB2361'38 EAST.

AB2361'

AB2361'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 1 (SOUTH DIXIE  
AB2361'HIGHWAY) AND PALM DRIVE (STATE HIGHWAY 9336, SOUTHWEST 344TH STREET)  
AB2361'IN FLORIDA CITY, GO WEST ON PALM DRIVE (STATE HIGHWAY 9336, SOUTHWEST  
AB2361'344TH STREET) FOR 1.7 MI (2.7 KM) TO THE JUNCTION OF SOUTHWEST 192TH  
AB2361'AVENUE (TOWER ROAD, STATE HIGHWAY 9336), TURN LEFT ON SOUTHWEST 192TH  
AB2361'AVENUE (TOWER ROAD, STATE HIGHWAY 9336) AND GO SOUTH FOR 2.1 MI (3.4  
AB2361'KM) TO THE JUNCTION OF SOUTHWEST 376TH STREET (STATE HIGHWAY 9336,  
AB2361'INGRAHAM HIGHWAY) ON THE RIGHT, TURN RIGHT ON SOUTHWEST 376TH STREET

AB2361'(STATE HIGHWAY 9336, INGRAHAM HIGHWAY) AND GO WEST FOR 3.95 MI (6.4  
AB2361'KM) TO THE WEST END OF BRIDGE NUMBER 870057 SPANNING CANAL C-111 AND A  
AB2361'LEVEE ROAD ON THE LEFT, TURN LEFT ON THE LEVEE ROAD ON THE WEST SIDE  
AB2361'OF CANAL C-111 AND GO SOUTH FOR 0.05 MI (0.1 KM) TO A WATER STRUCTURE  
AB2361'S177 ON THE LEFT AND THE MARK ON THE LEFT, SET IN THE TOP OF THE  
AB2361'NORTHEAST CORNER OF THE STRUCTURE ABOUT LEVEL WITH THE STRUCTURE ROAD.  
AB2361'LOCATED 19.0 FT (5.8 M) NORTH OF THE APPROXIMATE CENTERLINE OF THE  
AB2361'STRUCTURE ROAD AND 2.0 FT (0.6 M) SOUTH OF THE NORTH END OF THE  
AB2361'NORTHEAST CORNER OF THE STRUCTURE.

AB2361'

AB2361'NOTE FOR KEY CONTACT SOUTH FLORIDA WATER MANAGEMENT DISTRICT AT 2195  
AB2361'NORTHEAST EIGHTH STREET, HOMESTEAD, FL PHONE 305-242-5955.

AB2361

AB2361

STATION RECOVERY (2008)

AB2361

AB2361'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2008

AB2361'RECOVERED IN GOOD CONDITION.

AB2361

AB2361

STATION RECOVERY (2009)

AB2361

AB2361'RECOVERY NOTE BY DOUGLAS COUNTY PUBLIC WORKS 2009 (LER)

AB2361'RECOVERED IN GOOD CONDITION.

AB2361

AB2361

STATION RECOVERY (2015)

AB2361

AB2361'RECOVERY NOTE BY GEOCACHING 2015 (KEN)

AB2361'RECOVERED IN GOOD CONDITION.

\*\*\* retrieval complete.

Elapsed Time = 00:00:03