



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

SCADA RTU Station Name: N/A	DB Hydro Station Name: P-49	DB Hydro Site Name: P-49	Agency: USGS	Date of Field Work: 09-MAY-16
Party Chief: Strickland	Field Book: MISC 6Y	Page(s) 42-44		Prepared by: H. Ehmke

SITE SPECIFIC DATA

Site Benchmark: P49 2016	Benchmark Elevation (NAVD88) 103.329	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) +1.178
Reference Elevation(s) (NAVD88): 107.075	Existing Brass Tag Elevation (Datum): None	Calibration Port Elevation(s) (NAVD88): N/A
Ground Elevation (NAVD88):	Pad Elevation (NAVD88):	

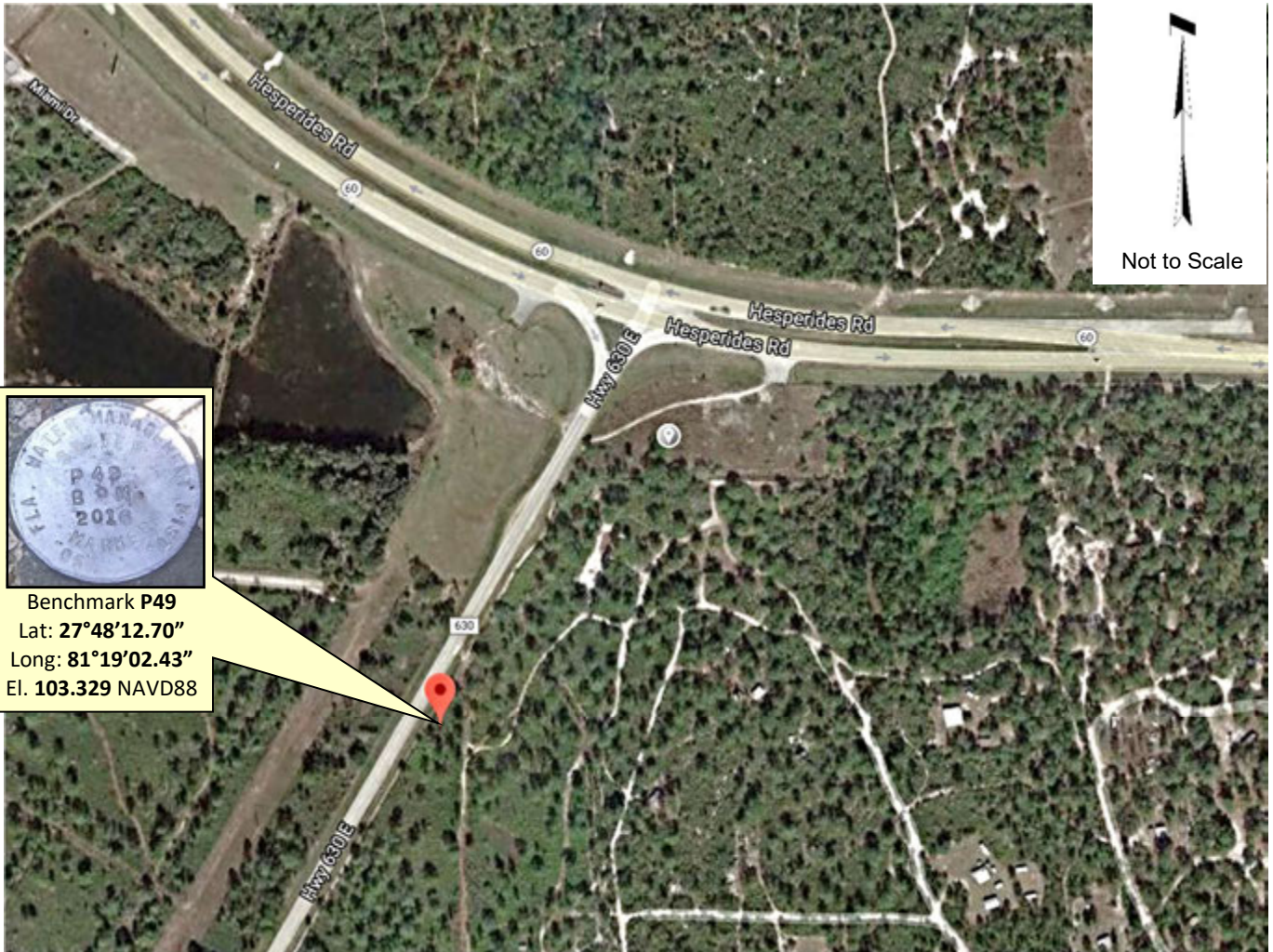
GEOGRAPHIC DATA

Section 9	Township 31 South	Range 30 East	
Benchmark	Latitude: 27°48'12.70"	Longitude: 81°19'02.43"	Source: Scaled pick point aerial esri product
	State Plane Coordinates	Northing (Y) = 1261408.8	Easting (X) = 553577.9

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



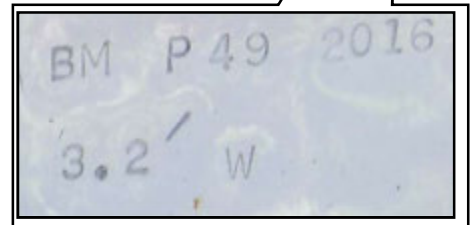
Benchmark **P49**
 Lat: **27°48'12.70"**
 Long: **81°19'02.43"**
 El. **103.329** NAVD88



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

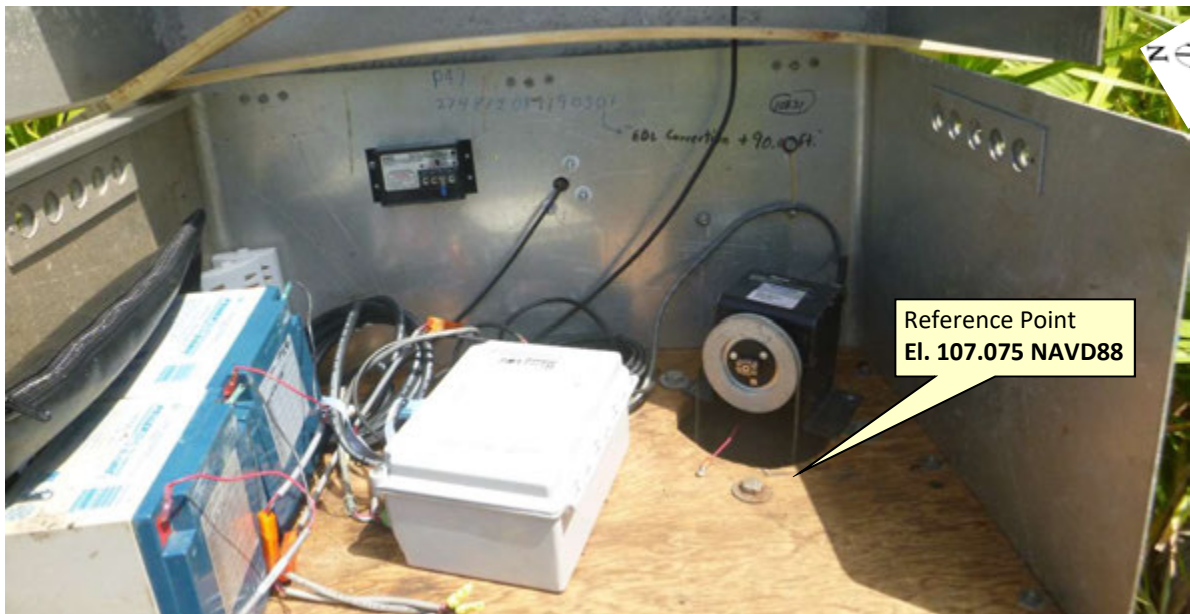
Rev. 1/16

P-49 Well Overall



Looking Easterly (oblique not to scale) (09-may-16)

Well Head



Reference Point
El. 107.075 NAVD88

Looking Easterly (oblique not to scale) (09-may-16)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Reference Point (Closeup)



Looking Easterly (oblique not to scale) (09-may-16)

Note: the 3/4-inch plywood platform is not level, see below.

Field Notes (FB MISC 6Y page 44)

LINE	STATION	EL	BM EL
LINE 2	STK 177		
PK 1	14/50	104.879	
BM	51	103.51	
PK 1	52	104.879	
BM	51	103.51	
REF MARK	53	107.075	
BM	51/54	103.509	

DATE: 05-09-16
 TIME: 10:00 AM
 LOCATION: 107.075 NAVD88
 REF MARK FOR WELL P-49 ATED AS PLYWOOD AND 1/2"

NOTE: REF MARK FOR WELL P-49 ATED AS PLYWOOD AND 1/2"

5/4" Plywood Platform
 6" 1/2" STEEL PIPE
 107.075
 P-49 WELL
 6" 1/2"



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

SEC	TRIP	RGE	
	ESTABLISH NAVD 88 EL @ USGS WELL P49		
STA / PT#		EL	BM EL
BM 1			90.45 NAVD 88
BM 11		101.604	101.66
	NOTE ELEVS DO NOT AGREE WILL CONTINUE LINE SOUTH TO INDLK DIS NOT FD USGS		
PK1 14		104.879	
PK2 27		116.49	
INDLK 28		119.199	119.237
	DB = 6179.81	DF = 6143.66	
	DIFF = 0.38	TOTAL = 12323.47	

EQUIP USED DINI LEVEL SN=771295
& BAR CODE ROD

MI STRICKLAND
K CLANTON

COMMENTS

BM D 686 2007 FL DEP SS ROD GOOD COND

BM KR 122 RESET 1974 US COAST & GEODETIC SURVEY
BRASS DISK IN CONC FD GOOD COND.

PK1 SET PK NAIL IN SE SIDE of CR 630 IN PAINTED
WHITE LINE & PROJECTED PATH TO WELL P49

PK2 SET PK NAIL IN SE SIDE of CR 630 IN PAINTED
WHITE LINE 165' NE of TRAIL of FLORIDA FOREST SERVICE
& FIRE TOWER & BEING INDLK GROUND WATER WELL DRIVEWAY

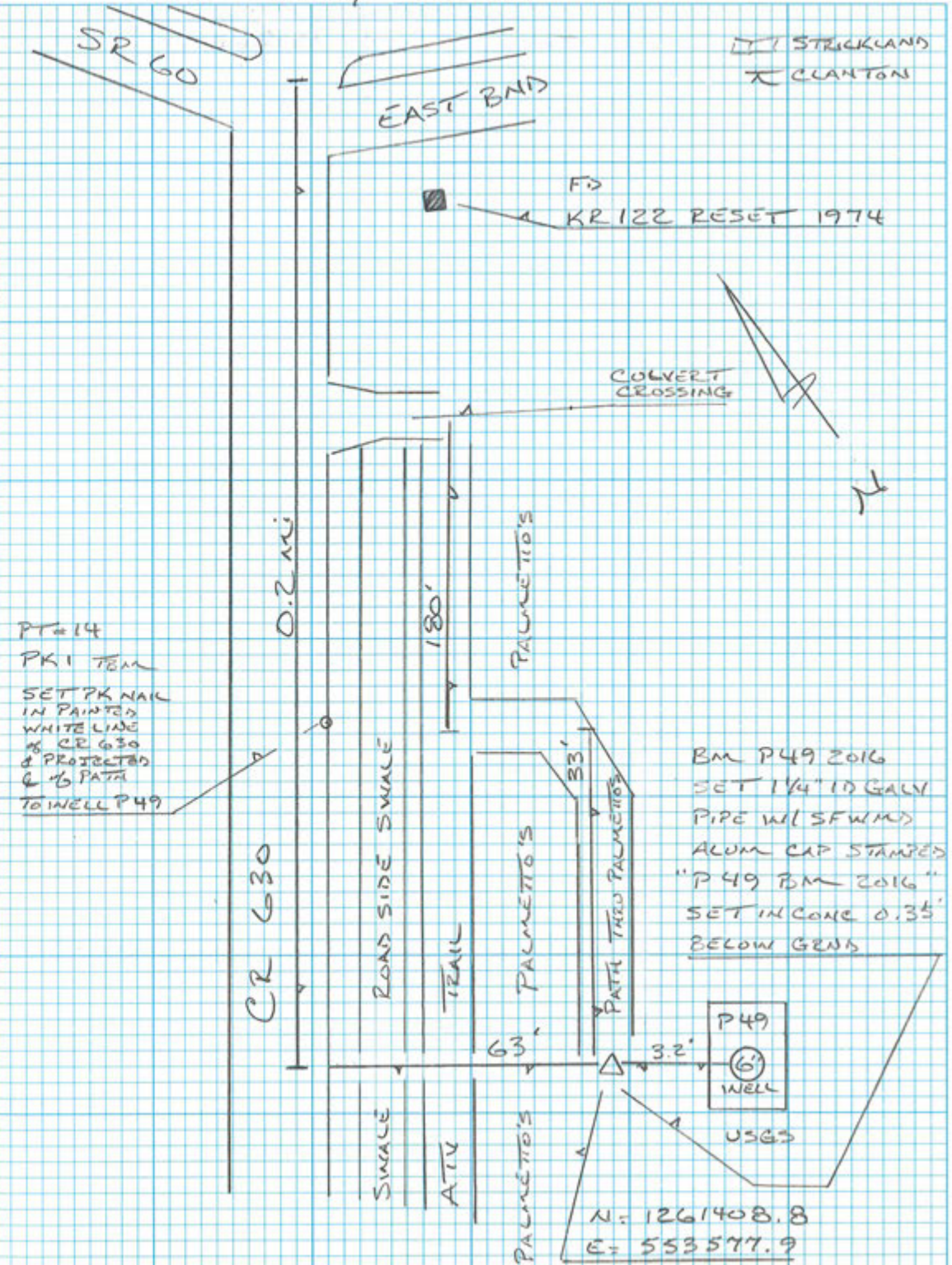
INDLK FND RIZ SPIKE IN WEST SIDE of 13" PINE TREE
SEE PG-4 THIS BOOK

SEC

TWP

RGE

P49 BM 2016 SKETCH



SEC	TWP	RGE
CONT'D FROM PG-42 & 43		
LINE 2		
STA / PTE	EL	BM EL
PK1 14/50	104.879	
BM 51	103.31	
PK1 52	104.879	
BM 51	103.31	
REFMK 53	107.075	
BM 51/54	103.309	

LIT STRICKLAND
& CLANTON

DINI LEVEL USED

PK1 PK NAIL IN WHITE PAINTED LINE of CR 630
PROJECTED PATH TO WELL P-49

BM P 49 2016 BM SET 1 1/4" ID x 36" LONG GALV PIPE
W/ SFWMD ALUM CAP STAMPED "P49 BM 2016" SET IN
CONC 0.35' BELOW GRND 3.2' WESTELY of 6" STEEL WELL
CASING 63' ELY of THE SE EDGE of PAVEMENT CR 630
E 0.2 MI SLY of SR 60 @ USGS WELL P-49

BM P 49

REF MARK FOR WELL P-49 ATOP of PLYWOOD L.M.P.

BM P 49



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

DESIGNATION: P49	PROJECT: P-49 USGS Well Site
ESTABLISHED BY: SOUTH FLORIDA WATER MANAGEMENT DISTRICT	SURVEYOR: STRICKLAND
RECOVERED BY:	DATE: 09-may-16

GEOGRAPHIC POSITION

SECTION 9	TOWNSHIP 31 SOUTH	RANGE 30 EAST
COUNTY: POLK	NAME OF QUADRANGLE: LAKE WEOHYAKAPKA SE GEOGRAPHIC INDEX OF QUAD: 3111	
HORIZONTAL DATUM: 1927 (1983) 2022 Other _____ (circle one) ZONE (E) or W		
VERTICAL DATUM: MSL 1929 (1988) 2022 Other _____ (circle one)		
VERTICAL ACCURACY: 1 2 (3)		
STATE PLANE COORDINATE	(N) Y= 1261408.8	(E) X= 553577.9 NAVD 88 EL. 103.329 NGVD 29 EL 104.533

CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): **+1.178**

(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: **27°48'12.70" (N)** LONGITUDE: **81°19'02.43" (W) (Source)**

RECOVERY DATA

Stamping: **P49 BM 2016**

To reach: From the intersection of United States Highway 27 (US 27) and State Road 60 (SR 60) in Lake Wales Florida; Proceed east on SR 60 for 19.5 miles to the junction of County Road 630 (CR 630) on the right; Turn right on to CR 630 and proceed southwest 0.2 mile to station location on the left.

The station is located 63 feet east of the east edge of pavement of CR 630; 213 feet south of the centerline of a culvert crossing on the east side of CR 630 (driveway to nowhere). A180 feet south from culvert crossing is a path through the palmettos access to well P-49; make your way through path to where it turns south and 33 feet south again is the mark and well P-49); 3.2 feet westerly of USGS well P-49 having a witness sign attached to well pipe.

The station is a 1-¼ inch (inside diameter) x 36-inch long galvanized pipe set in concrete with a SFWMD aluminum cap stamped p49 2016 bm. 0.35' below ground.

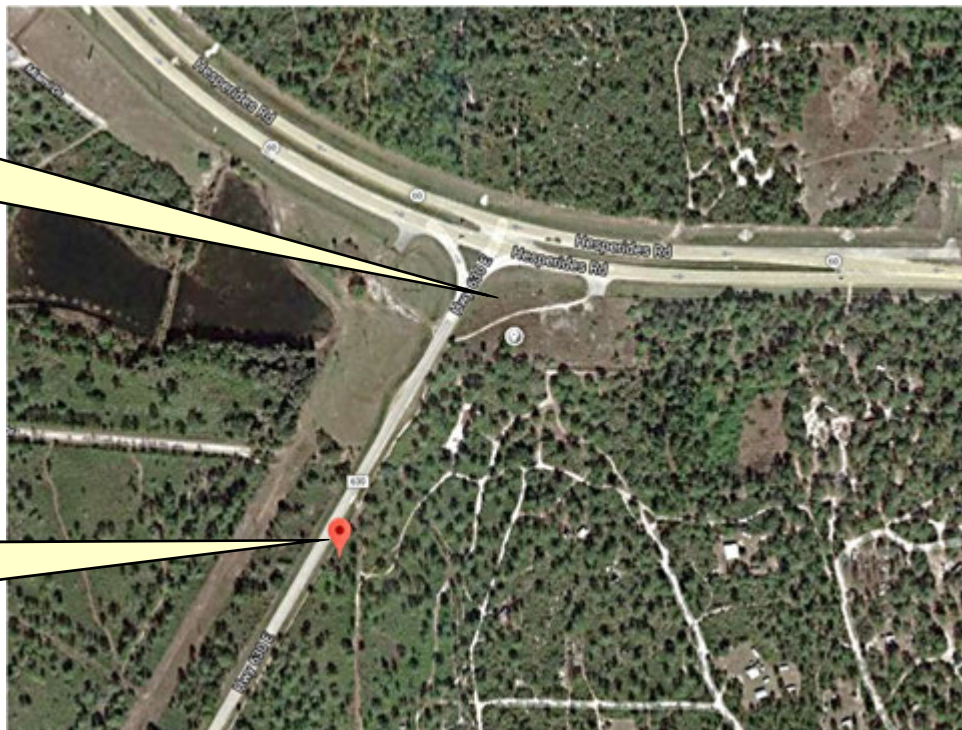
NOTABLE LAND MARKS:

NGS-SOURCE BENCHMARK: **D 686 (DJ8315)**

FIELD BOOK **MISC 6Y PAGES 42-44**

PICTURES

Aerial Overall Site



Benchmark **KR122**
RESET (AF6111)
 Lat: **27°48'20"**
 Long: **81°18'56"**
 El. **101.663 NAVD88**

Benchmark **P49**
 Lat: **27°48'12.70"**
 Long: **81°19'02.43"**
 El. **103.329 NAVD88**



Not to Scale



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

NGS Source Benchmarks



Benchmark **D 686 (DJ8315)**
Lat: **27°48'53"**
Long: **81°19'32"**
El. **90.449** NAVD88 (Published)



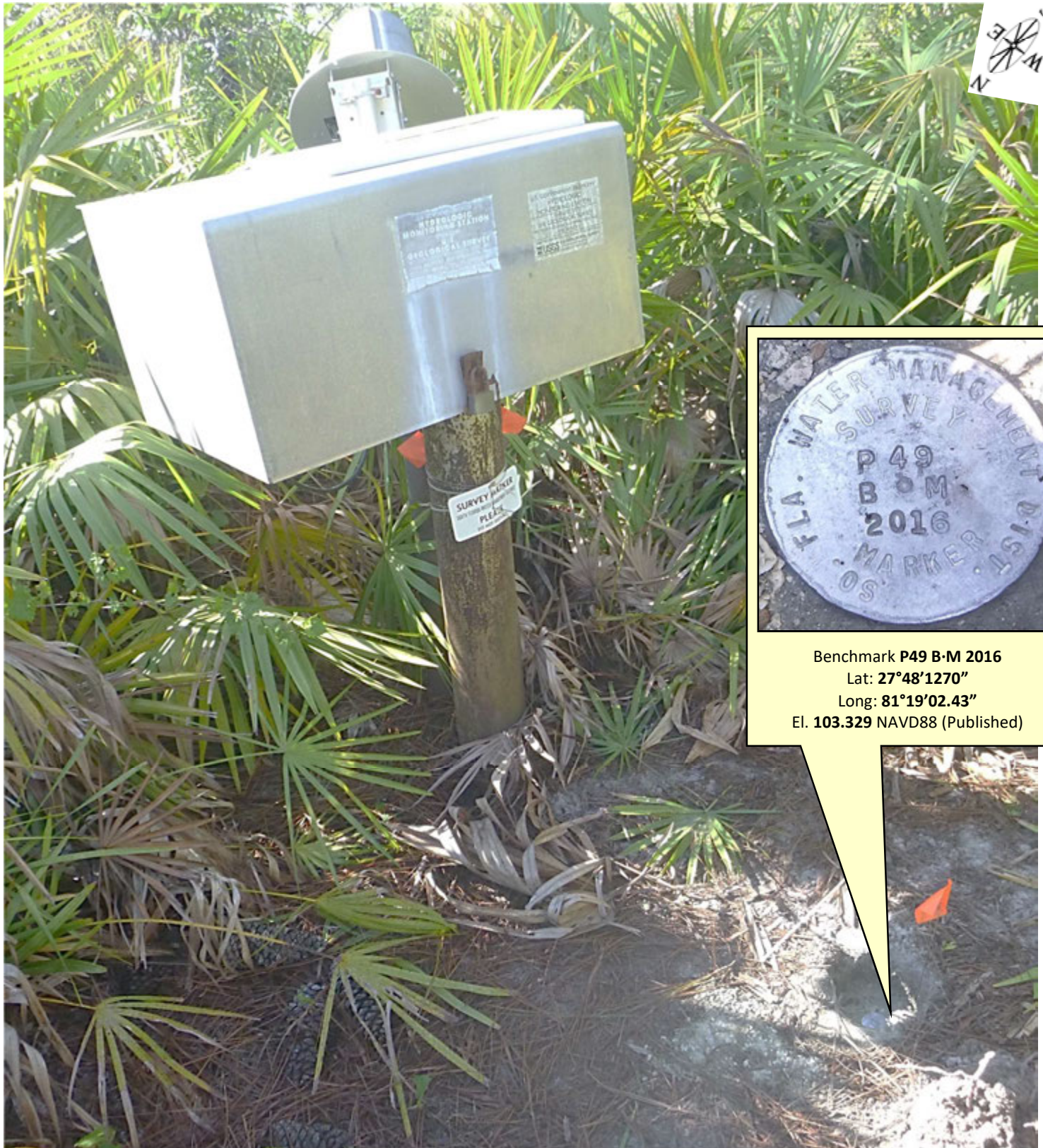
Benchmark **KR122 RESET (AF6111)**
Lat: **27°48'20"**
Long: **81°18'56"**
El. **101.663** NAVD88 (Published)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

Overall Site



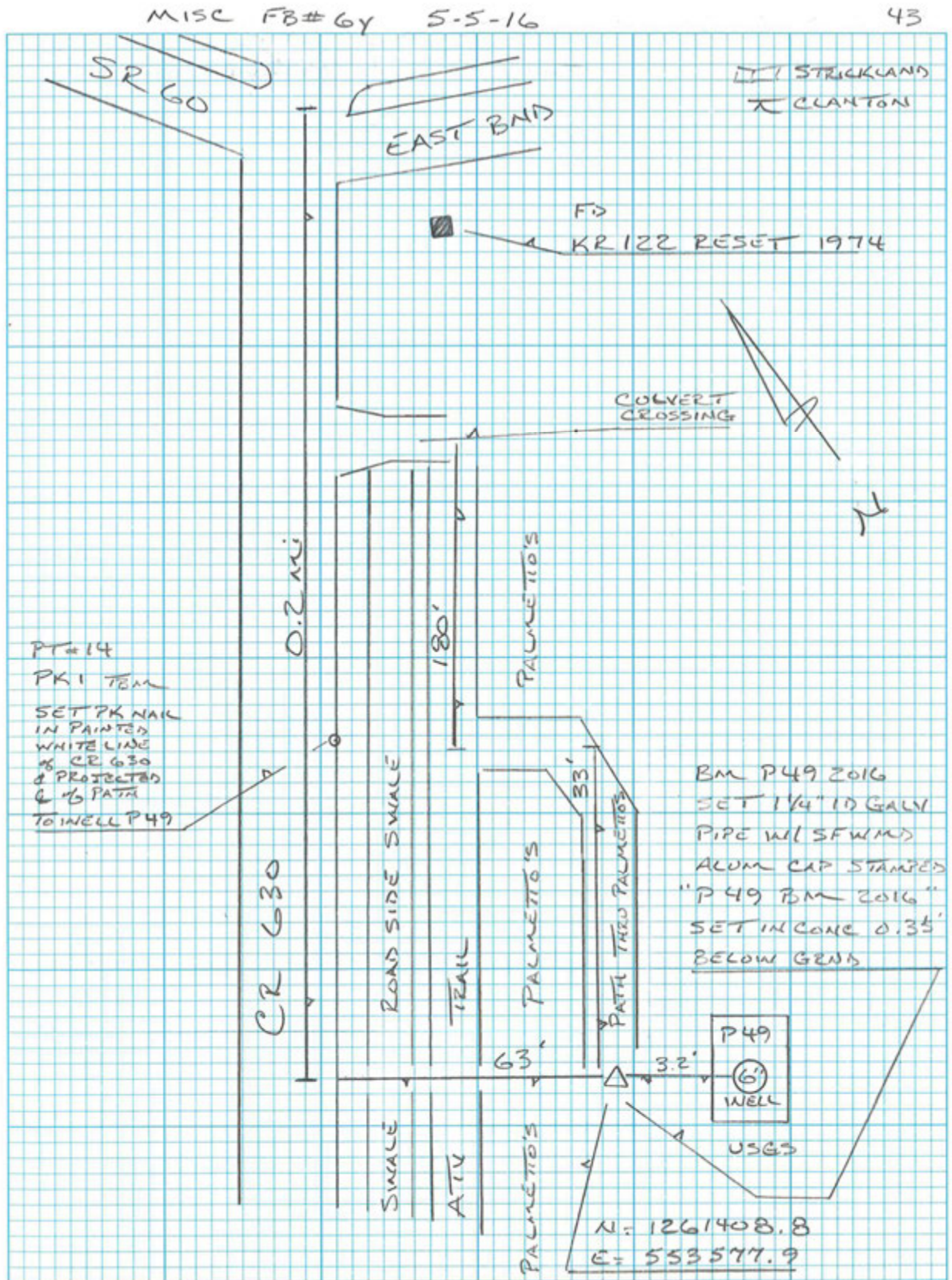
Benchmark P49 B-M 2016
Lat: 27°48'1270"
Long: 81°19'02.43"
El. 103.329 NAVD88 (Published)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/18

Field Notes (FB MISC6Y page 43)



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: [P49.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: -0.03900 ft
Σ BS Distances: 6179.800 ft
Σ FS Distances: 6143.670 ft
Run Length: 12323.470 ft
Reduction: Adjusted Values

Create	Point ID	BS	IS	FS	Δ Elevation	Raw Elevation	Correction	Adj. Elevation	Type	Distance	Description
<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/> 8.74000 ft			0.00000 ft	90.450 ft	0.00000 ft	90.450 ft ▲	Benchmark	249.380 ft	D686 3
<input type="checkbox"/>	2			<input checked="" type="checkbox"/> 3.16700 ft	5.57300 ft	96.023 ft	0.00161 ft	96.025 ft	Computed	243.600 ft	3
	2	<input checked="" type="checkbox"/> 5.11100 ft								253.870 ft	3
<input type="checkbox"/>	3			<input checked="" type="checkbox"/> 3.45800 ft	1.65300 ft	97.676 ft	0.00327 ft	97.679 ft	Computed	248.230 ft	3
	3	<input checked="" type="checkbox"/> 5.52800 ft								249.970 ft	3
<input type="checkbox"/>	4			<input checked="" type="checkbox"/> 4.43500 ft	1.09300 ft	98.769 ft	0.00491 ft	98.774 ft	Computed	248.000 ft	3
	4	<input checked="" type="checkbox"/> 5.84600 ft								246.780 ft	3
<input type="checkbox"/>	5			<input checked="" type="checkbox"/> 4.49400 ft	1.35200 ft	100.121 ft	0.00649 ft	100.127 ft	Computed	241.630 ft	3
	5	<input checked="" type="checkbox"/> 5.28600 ft								248.620 ft	3
<input type="checkbox"/>	6			<input checked="" type="checkbox"/> 4.20500 ft	1.08100 ft	101.202 ft	0.00811 ft	101.210 ft	Computed	246.460 ft	3
	6	<input checked="" type="checkbox"/> 4.87400 ft								254.690 ft	3

<input type="checkbox"/>	7		<input checked="" type="checkbox"/> 5.07400 ft	-0.20000 ft	101.002 ft	0.00979 ft	101.012 ft	Computed	248.360 ft	3
	7	<input checked="" type="checkbox"/> 5.29500 ft							247.800 ft	3
<input type="checkbox"/>	8		<input checked="" type="checkbox"/> 5.32800 ft	-0.03300 ft	100.969 ft	0.01143 ft	100.980 ft	Computed	250.360 ft	3
	8	<input checked="" type="checkbox"/> 5.76700 ft							252.760 ft	3
<input type="checkbox"/>	9		<input checked="" type="checkbox"/> 5.54200 ft	0.22500 ft	101.194 ft	0.01310 ft	101.207 ft	Computed	250.890 ft	3
	9	<input checked="" type="checkbox"/> 8.50900 ft							240.520 ft	3
<input type="checkbox"/>	10		<input checked="" type="checkbox"/> 5.55000 ft	2.95900 ft	104.153 ft	0.01465 ft	104.168 ft	Computed	242.910 ft	3
	10	<input checked="" type="checkbox"/> 2.22500 ft							50.520 ft	3
<input type="checkbox"/>	11		<input checked="" type="checkbox"/> 4.77400 ft	-2.54900 ft	101.604 ft	0.01472 ft	101.619 ft	Computed	49.970 ft	KR122 3
	11	<input checked="" type="checkbox"/> 5.27400 ft							123.160 ft	KR122 3
<input type="checkbox"/>	12		<input checked="" type="checkbox"/> 4.73200 ft	0.54200 ft	102.146 ft	0.01513 ft	102.161 ft	Computed	128.150 ft	3
	12	<input checked="" type="checkbox"/> 7.25300 ft							239.470 ft	3
<input type="checkbox"/>	13		<input checked="" type="checkbox"/> 4.64300 ft	2.61000 ft	104.756 ft	0.01659 ft	104.773 ft	Computed	230.250 ft	3
	13	<input checked="" type="checkbox"/> 4.80600 ft							124.050 ft	3
<input type="checkbox"/>	14		<input checked="" type="checkbox"/> 4.68200 ft	0.12400 ft	104.880 ft	0.01701 ft	104.897 ft	Computed	125.980 ft	PK1 3
	14	<input checked="" type="checkbox"/> 6.56800 ft							251.440 ft	PK1 3
<input type="checkbox"/>	15		<input checked="" type="checkbox"/> 3.76400 ft	2.80400 ft	107.684 ft	0.01860 ft	107.703 ft	Computed	238.620 ft	3
	15	<input checked="" type="checkbox"/> 5.89300 ft							249.930 ft	3
<input type="checkbox"/>	16		<input checked="" type="checkbox"/> 4.09600 ft	1.79700 ft	109.481 ft	0.02017 ft	109.501 ft	Computed	238.550 ft	3
	16	<input checked="" type="checkbox"/> 5.94800 ft							251.020 ft	3
<input type="checkbox"/>	17		<input checked="" type="checkbox"/> 3.90000 ft	2.04800 ft	111.529 ft	0.02180 ft	111.551 ft	Computed	244.290 ft	3
	17	<input checked="" type="checkbox"/> 5.91300 ft							250.230 ft	3
<input type="checkbox"/>	18		<input checked="" type="checkbox"/> 3.55900 ft	2.35400 ft	113.883 ft	0.02345 ft	113.906 ft	Computed	250.200 ft	3
	18	<input checked="" type="checkbox"/> 5.89400 ft							250.460 ft	3
<input type="checkbox"/>	19		<input checked="" type="checkbox"/> 4.03800 ft	1.85600 ft	115.739 ft	0.02513 ft	115.764 ft	Computed	252.760 ft	3
	19	<input checked="" type="checkbox"/> 5.11900 ft							246.420 ft	3
<input type="checkbox"/>	20			0.77200 ft	116.511 ft	0.02677 ft	116.538 ft	Computed		3

			✔ 4.34700 ft							252.460 ft	
	20	✔ 4.77500 ft								250.160 ft	3
<input type="checkbox"/>	21		✔ 4.66600 ft	0.10900 ft	116.620 ft	0.02845 ft	116.648 ft	Computed		253.810 ft	3
	21	✔ 4.76900 ft								248.030 ft	3
<input type="checkbox"/>	22		✔ 4.84700 ft	-0.07800 ft	116.542 ft	0.03009 ft	116.572 ft	Computed		250.100 ft	3
	22	✔ 4.69500 ft								253.480 ft	3
<input type="checkbox"/>	23		✔ 4.84000 ft	-0.14500 ft	116.397 ft	0.03180 ft	116.429 ft	Computed		254.170 ft	3
	23	✔ 5.01100 ft								249.340 ft	3
<input type="checkbox"/>	24		✔ 4.20700 ft	0.80400 ft	117.201 ft	0.03344 ft	117.234 ft	Computed		248.520 ft	3
	24	✔ 4.05700 ft								247.340 ft	3
<input type="checkbox"/>	25		✔ 4.49200 ft	-0.43500 ft	116.766 ft	0.03507 ft	116.801 ft	Computed		249.930 ft	3
	25	✔ 4.59700 ft								247.800 ft	3
<input type="checkbox"/>	26		✔ 4.35600 ft	0.24100 ft	117.007 ft	0.03674 ft	117.044 ft	Computed		254.820 ft	3
	26	✔ 4.82200 ft								246.260 ft	3
<input type="checkbox"/>	27		✔ 5.34000 ft	-0.51800 ft	116.489 ft	0.03839 ft	116.527 ft	Computed		252.490 ft	PK2 3
	27	✔ 5.11500 ft								156.300 ft	PK2 3
✔	28		✔ 2.40600 ft	2.70900 ft	119.198 ft	0.03900 ft	119.237 ft ▲	Benchmark		148.160 ft	INDLK 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
1-28 (E1)	Enabled	28.74800 ft	0.03900 ft	28.78700 ft	27	12323.470 ft	147.69000 ft	118.94200 ft	0.06335 ft

Run - 1 (N1) Reduced Coordinates

Point ID	Status	Elevation
1	Enabled	90.45000 ft
28	Enabled	119.23700 ft

Run - 2 Raw Observations

Raw Misclosure: 0.00100 ft
 Σ BS Distances: 89.300 ft

Σ FS Distances: 89.300 ft
 Run Length: 178.600 ft
 Reduction: Adjusted Values

Create	Point ID	BS	IS	FS	Δ Elevation	Raw Elevation	Correction	Adj. Elevation	Type	Distance	Description
<input checked="" type="checkbox"/>	50	3.74200 ft			0.00000 ft	104.897 ft	0.00000 ft	104.897 ft	Benchmark	57.480 ft	PK1 3
<input checked="" type="checkbox"/>	51			5.31000 ft	-1.56800 ft	103.329 ft	-0.00050 ft	103.329 ft	Computed	31.790 ft	BMP49 3
	51	5.45400 ft								31.820 ft	BMP49 3
<input checked="" type="checkbox"/>	52			3.88500 ft	1.56900 ft	104.898 ft	-0.00100 ft	104.897 ft	Benchmark	57.510 ft	PK1 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
50-51 (E2)	Enabled	-1.56800 ft	-0.00050 ft	-1.56850 ft	1	89.270 ft	3.74200 ft	5.31000 ft	0.00233 ft
51-52 (E3)	Enabled	1.56900 ft	-0.00050 ft	1.56850 ft	1	89.330 ft	5.45400 ft	3.88500 ft	0.00233 ft

Run - 2 (N2) Reduced Coordinates

Point ID	Status	Elevation
50	Enabled	104.89700 ft
52	Enabled	104.89700 ft

Run - 10001 Raw Observations

Raw Misclosure: ?
 Σ BS Distances: 31.820 ft
 Σ FS Distances: 32.050 ft
 Run Length: 63.870 ft
 Reduction: Adjusted Values

Create	Point ID	BS	IS	FS	Δ Elevation	Raw Elevation	Correction	Adj. Elevation	Type	Distance	Description
<input checked="" type="checkbox"/>	51	5.45400 ft			0.00000 ft	103.329 ft	-0.00050 ft	103.329 ft	Computed	31.820 ft	BMP49 3
<input checked="" type="checkbox"/>	53			1.68900 ft	3.76500 ft	107.094 ft	-0.00050 ft	107.094 ft	Computed	32.050 ft	REFMK 3
<input checked="" type="checkbox"/>	54	5.45400 ft			0.00000 ft	103.329 ft	-0.00050 ft	103.329 ft	Computed	31.790 ft	BMP49 3

Run - 10001 (N3) Reduced Observations

Observation	Status	Raw Δ Elevation	Correction	Final Δ Elevation	Setups	Length	Σ BS Readings	Σ FS Readings	Std. Error
51-53 (E4)	Enabled	3.76500 ft	0.00000 ft	3.76500 ft	1	63.870 ft	5.45400 ft	1.68900 ft	0.00167 ft
	Enabled	0.00000 ft	0.00000 ft	0.00000 ft	1		5.45400 ft	5.45400 ft	0.00166 ft

 51-54 (E5)						63.610 ft			
---	--	--	--	--	--	--------------	--	--	--

Date: 5/10/2016 8:35:10 AM	Project:	Trimble Business Center
----------------------------	----------	-------------------------

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 = DECEMBER 13, 2019

DJ8315 *****

DJ8315 DESIGNATION - D 686

DJ8315 PID - DJ8315

DJ8315 STATE/COUNTY- FL/POLK

DJ8315 COUNTRY - US

DJ8315 USGS QUAD - LAKE WEOHYAKAPKA SE (1993)

DJ8315

DJ8315 *CURRENT SURVEY CONTROL

DJ8315

DJ8315* NAD 83(1986) POSITION- 27 48 53. (N) 081 19 32. (W) SCALED

DJ8315* [NAVD 88](#) ORTHO HEIGHT - 27.569 (meters) 90.45 (feet) ADJUSTED

DJ8315

DJ8315 GEOID HEIGHT - -26.898 (meters) GEOID18

DJ8315 DYNAMIC HEIGHT - 27.528 (meters) 90.31 (feet) COMP

DJ8315 MODELED GRAVITY - 979,138.2 (mgal) NAVD 88

DJ8315

DJ8315 VERT ORDER - FIRST CLASS II

DJ8315

DJ8315.The horizontal coordinates were scaled from a map and have

DJ8315.an estimated accuracy of +/- 6 seconds.

DJ8315.

DJ8315.The orthometric height was determined by differential leveling and

DJ8315.adjusted by the NATIONAL GEODETIC SURVEY

DJ8315.in May 2008.

DJ8315

DJ8315.Significant digits in the geoid height do not necessarily reflect accuracy.

DJ8315.GEOID18 height accuracy estimate available [here](#).

DJ8315

DJ8315.Click [here](#) to see if photographs exist for this station.

DJ8315

DJ8315.The dynamic height is computed by dividing the NAVD 88

DJ8315.geopotential number by the normal gravity value computed on the

DJ8315.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DJ8315.degrees latitude (g = 980.6199 gals.).

DJ8315

DJ8315.The modeled gravity was interpolated from observed gravity values.

DJ8315

DJ8315; North East Units Estimated Accuracy

DJ8315;SPC FL W - 385,860. 266,450. MT (+/- 180 meters Scaled)

DJ8315

DJ8315_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML679767(NAD 83)

DJ8315

DJ8315 SUPERSEDED SURVEY CONTROL

DJ8315

DJ8315.No superseded survey control is available for this station.

DJ8315

DJ8315_MARKER: F = FLANGE-ENCASED ROD

DJ8315_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)

DJ8315_STAMPING: D 686 2007

DJ8315_MARK LOGO: NGS

DJ8315_PROJECTION: FLUSH

DJ8315_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

DJ8315_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

DJ8315_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DJ8315+SATELLITE: SATELLITE OBSERVATIONS - April 11, 2007

DJ8315_ROD/PIPE-DEPTH: 6.2 meters

DJ8315

DJ8315	HISTORY	- Date	Condition	Report By
--------	---------	--------	-----------	-----------

DJ8315	HISTORY	- 20070411	MONUMENTED	FLDEP
--------	---------	------------	------------	-------

DJ8315

DJ8315 STATION DESCRIPTION

DJ8315

DJ8315'DESCRIBED BY FL DEPT OF ENV PRO 2007 (BPJ)

DJ8315'THE MARK IS ABOUT 16.8 MI EAST OF LAKE WALES, IN SECTION 4, TOWNSHIP

DJ8315'31 SOUTH, RANGE 30 EAST.

DJ8315'

DJ8315'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 27 AND STATE

DJ8315'ROAD 60 IN LAKE WALES, GO EAST ON STATE ROAD 60 FOR 17.5 MI TO THE

DJ8315'JUNCTION OF KISSIMMEE SHORES ROAD ON THE LEFT, CONTINUE SOUTHEAST ON

DJ8315'STATE ROAD 60 FOR 1.25 MI TO THE MARK ON THE LEFT, A STAINLESS STEEL

DJ8315'ROD DRIVEN TO REFUSAL AT A DEPTH OF 20.3 FT WITH AN NGS LOGO CAP FLUSH

DJ8315'WITH THE GROUND AND ABOUT 3.0 FT BELOW THE LEVEL OF STATE ROAD 60, THE

DJ8315'DATUM POINT IS RECESSED 0.6 FT BELOW THE LEVEL OF THE NGS LOGO CAP.

DJ8315'

DJ8315'LOCATED 75.0 FT NORTHEAST OF THE APPROXIMATE CENTERLINE OF STATE ROAD

DJ8315'60 WESTBOUND, 1.8 FT SOUTHWEST OF A BARB WIRE FENCE AND 1.6 FT

DJ8315'SOUTHWEST OF A CARSONITE WITNESS POST.

DJ8315'

DJ8315'NOTE A MAGNET WAS PLACED INSIDE OF THE NGS LOGO CAP.

DJ8315'

DJ8315'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.

*** retrieval complete.

Elapsed Time = 00:00:01

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 = DECEMBER 13, 2019

AF6111 *****

AF6111 DESIGNATION - KR 122 RESET

AF6111 PID - AF6111

AF6111 STATE/COUNTY- FL/POLK

AF6111 COUNTRY - US

AF6111 USGS QUAD - LAKE WEOHYAKAPKA SE (1993)

AF6111

AF6111 *CURRENT SURVEY CONTROL

AF6111

AF6111* NAD 83(1986) POSITION- 27 48 20. (N) 081 18 56. (W) SCALED

AF6111* [NAVD 88](#) ORTHO HEIGHT - 30.987 (meters) 101.66 (feet) ADJUSTED

AF6111

AF6111 GEOID HEIGHT - -26.880 (meters) GEOID18

AF6111 DYNAMIC HEIGHT - 30.941 (meters) 101.51 (feet) COMP

AF6111 MODELED GRAVITY - 979,138.2 (mgal) NAVD 88

AF6111

AF6111 VERT ORDER - FIRST CLASS II

AF6111

AF6111.The horizontal coordinates were scaled from a map and have

AF6111.an estimated accuracy of +/- 6 seconds.

AF6111.

AF6111.The orthometric height was determined by differential leveling and

AF6111.adjusted by the NATIONAL GEODETIC SURVEY

AF6111.in June 1991.

AF6111

AF6111.Significant digits in the geoid height do not necessarily reflect accuracy.

AF6111.GEOID18 height accuracy estimate available [here](#).

AF6111

AF6111.Click [here](#) to see if photographs exist for this station.

AF6111

AF6111.The dynamic height is computed by dividing the NAVD 88

AF6111.geopotential number by the normal gravity value computed on the

AF6111.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AF6111.degrees latitude (g = 980.6199 gals.).

AF6111

AF6111.The modeled gravity was interpolated from observed gravity values.

AF6111

AF6111; North East Units Estimated Accuracy

AF6111;SPC FL W - 384,850. 267,440. MT (+/- 180 meters Scaled)

AF6111

AF6111_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML689757(NAD 83)

AF6111

AF6111 SUPERSEDED SURVEY CONTROL

AF6111

AF6111 NGVD 29 (09/01/92) 31.354 (m) 102.87 (f) ADJUSTED 2 1

AF6111

AF6111.Superseded values are not recommended for survey control.

AF6111

AF6111.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AF6111.See file [dsdata.pdf](#) to determine how the superseded data were derived.

AF6111

AF6111_MARKER: DS = TRIANGULATION STATION DISK

AF6111_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AF6111_STAMPING: KR 122 RESET 1974

AF6111_MARK LOGO: NGS
 AF6111_PROJECTION: FLUSH
 AF6111_MAGNETIC: N = NO MAGNETIC MATERIAL
 AF6111_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AF6111+STABILITY: SURFACE MOTION
 AF6111_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AF6111+SATELLITE: SATELLITE OBSERVATIONS - April 14, 2007

AF6111
 AF6111 HISTORY - Date Condition Report By
 AF6111 HISTORY - 1974 MONUMENTED NGS
 AF6111 HISTORY - 1983 GOOD FLDNR
 AF6111 HISTORY - 19970122 GOOD USPSQD
 AF6111 HISTORY - 20010118 GOOD FLDEP
 AF6111 HISTORY - 20030403 GOOD FLDEP
 AF6111 HISTORY - 20070414 GOOD FLDEP

AF6111
 AF6111 STATION DESCRIPTION

AF6111'DESCRIBED BY FL DEPT OF NAT RES 1983
 AF6111'18.25 MI ESE FROM LAKE WALES.
 AF6111'BEGIN AT THE STATE HIGHWAY 60 BRIDGE OVER THE SCL RAILROAD IN LAKE
 AF6111'WALES, GO 18.25 MILES EASTERLY ON HIGHWAY 60 TO THE JUNCTION OF COUNTY
 AF6111'ROAD C 630 AND THE MARK. THE MARK BEARS 117.6 FEET SOUTH OF THE
 AF6111'CENTERLINE OF HIGHWAY 60, 132.75 FEET SOUTHEAST OF THE CENTERLINE OF
 AF6111'C 630, 1.5 FEET WEST OF POWER POLE 17-111, AND 1.7 FEET EAST OF A
 AF6111'METAL WITNESS POST.
 AF6111'THE MARK CAN ALSO BE REACHED BY GOING 7.4 MILES WEST ON HIGHWAY 60
 AF6111'FROM THE BRIDGE OVER THE KISSIMMEE RIVER.
 AF6111'THE MARK IS 3 FT BELOW CENTERLINE OF HIGHWAY.

AF6111
 AF6111 STATION RECOVERY (1997)

AF6111
 AF6111'RECOVERY NOTE BY US POWER SQUADRON 1997
 AF6111'RECOVERED IN GOOD CONDITION.

AF6111
 AF6111 STATION RECOVERY (2001)

AF6111
 AF6111'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
 AF6111'THE MARK IS ABOUT 60.8 MI (97.8 KM) NORTH-NORTHWEST OF VERO BEACH,
 AF6111'19.8 MI (31.9 KM) EAST-SOUTHEAST OF LAKE WALES, IN SECTION 10,
 AF6111'TOWNSHIP 31 SOUTH, RANGE 30 EAST. TO REACH THE MARK FROM THE
 AF6111'INTERSECTION OF STATE ROAD 27 AND STATE ROAD 60 IN LAKE WALES, GO
 AF6111'EAST-SOUTHEAST ON STATE ROAD 60 FOR 7.3 MI (11.7 KM) TO THE JUNCTION
 AF6111'OF MAMMOTH GROVE ROAD ON THE LEFT, CONTINUE EAST-SOUTHEAST ON STATE
 AF6111'ROAD 60 FOR 7.85 MI (12.63 KM) TO THE JUNCTION OF SAM KEEN ROAD ON THE
 AF6111'LEFT, CONTINUE EAST-SOUTHEAST ON STATE ROAD 60 FOR 4.5 MI (7.2 KM) TO
 AF6111'THE JUNCTION OF COUNTY ROAD C-630 ON THE RIGHT AND THE MARK ON THE
 AF6111'RIGHT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT PROJECTING 0.6 FT
 AF6111'(18.3 CM) ABOVE THE LEVEL OF THE GROUND AND 3.0 FT (0.9 M) BELOW THE
 AF6111'LEVEL OF STATE ROAD 60. LOCATED 132.7 FT (40.4 M) SOUTHEAST OF THE
 AF6111'CENTERLINE OF COUNTY ROAD 630, 117.6 FT (35.8 M) SOUTH OF THE
 AF6111'CENTERLINE OF STATE ROAD 60, 1.7 FT (0.5 M) EAST OF A METAL WITNESS
 AF6111'POST AND 1.5 FT (0.5 M) WEST OF POWER POLE NUMBER 17-111.

AF6111
 AF6111 STATION RECOVERY (2003)

AF6111
 AF6111'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (BPJ)
 AF6111'RECOVERED AS DESCRIBED.

AF6111
 AF6111 STATION RECOVERY (2007)

AF6111
 AF6111'RECOVERY NOTE BY FL DEPT OF ENV PRO 2007 (BPJ)
 AF6111'RECOVERED AS DESCRIBED.

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







HYDROLOGIC
MONITORING STATION
GEOLOGICAL SURVEY

U.S. GOVERNMENT PROPERTY
HYDROLOGIC
MONITORING STATION
U.S. GEOLOGICAL SURVEY
U.S. DEPARTMENT OF THE
INTERIOR
U.S. GEOLOGICAL SURVEY

SURVEY MARKER
PLEASE
DO NOT REMOVE

SURVEY MARKER

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

PLEASE

DO NOT DISTURB

BM P 49 2016

3.2' W



FLA. WATER SURVEY
P 49
B O M
2016
MARKER DIST.

D 686
2007

CEMENT PORTLAND MARK

MADE IN U.S.A.



D 686
2007

GEODETIC SURVEILLANCE TECHNOLOGICAL MARK

STATION NO. 101



WITNESS POST
PLEASE DO NOT DISTURB NEARBY

S	M
U	A
R	R
V	E
E	E
Y	R


FOR INFO WRITE TO
THE DIRECTOR
NAT'L. GEODETIC SURVEY
DEPT. OF COMMERCE
WASH., D.C.
20230





SURVEY TRIANGULATION STATION
WASHINGTON, D.C. FOR INFORMATION U.S. COAST & GEODETIC SURVEY
NO OTHER MARKS TO BE PLACED HEREIN WITHOUT THE WRITING OF THE COMMISSIONER OF THE COAST AND GEODETIC SURVEY
K R 222

FLA. DEPT. OF
TRANSPORTATION
B M
SURVEY MARKER
PLEASE
DO NOT DISTURB

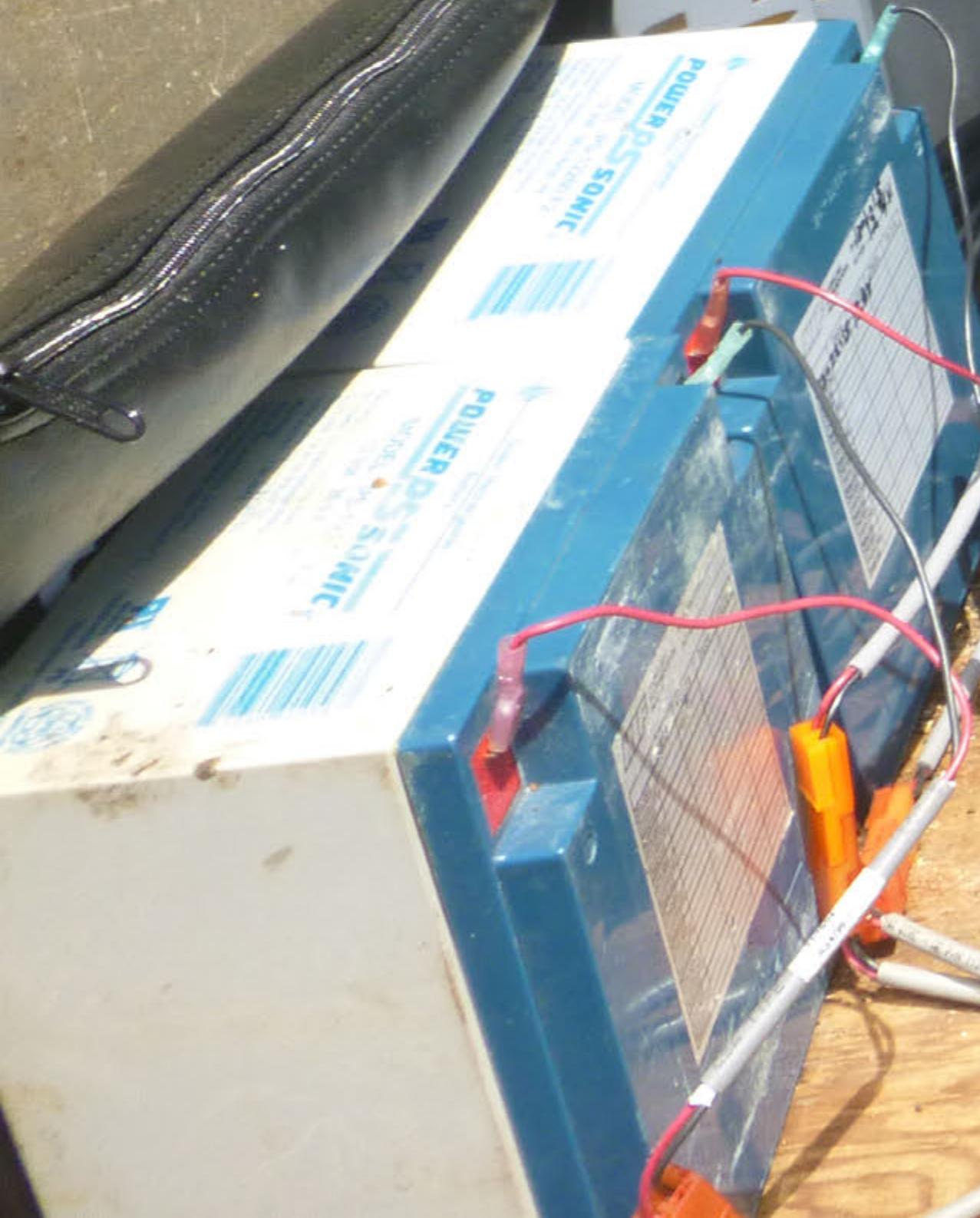
WITNESS
PLEASE
NOT BE
NEAR
SURV
MARKER
IF YOU
ARE
UNSURE
CALL
THE
SURVEY
OFFICE



P49
2748/2089/90301

10831

EDL Correction + 90.0 ft.





AMP

AMP



SURVEY MARKER
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
PLEASE
DO NOT DISTURB

1000/1/2 017/90301

60L Correction + 90.0ft.

10831