



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DB Hydro Station Names: PBF-3 PBF-4 PBF-5	DB Hydro Site Name: LYTAL LYTAL LYTAL	Date of Field Work: 19-sep-17
Party Chief: Giammarco	Field Book: Misc 6Z Pages 69-71	Prepared by: H. Ehmke

SITE SPECIFIC DATA

Site Benchmark: PBF 345	Benchmark Elevation (NAVD88) 20.001	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) +1.516
Reference Elevation(s) (NAVD88): PBF-3 GWFL1 El. 23.86 PBF-4 GWFL2 El. 24.20 PBF-5 GWFL3 El. 22.11	Existing Brass Tag Elevation (Datum): PBF-3 None PBF-4 None PBF-5 None	Calibration/Observation Port Elevations (NAVD88): PBF-3 GWFL1 El. 23.86 El. 23.86 El. 23.86 PBF-4 GWFL2 El. 24.21 El. 24.21 El. 24.21 PBF-5 GWFL3 Not Applicable
Ground Elevation (NAVD88): NW Corner El. 18.4 NE Corner El. 18.3 SW Corner El. 18.0 SE Corner El. 18.1	Pad Elevation (NAVD88): NW Corner El. 19.95 NE Corner El. 19.96 SW Corner El. 19.96 SE Corner El. 19.97	


GEOGRAPHIC DATA

Section 6	Township 44 South	Range 43 East	
Well or Benchmark	Latitude: 26°40'34.819"	Longitude: 80°06'12.630"	Source: OPUS Solution
	State Plane Coordinates	Northing (Y) = 852549.391	Easting (X) = 948920.159

Notes:
OPUS – Online Positioning User Service
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

NGS Benchmark
 "MF41"
 PID: AD8183
 Latitude: **26°40'39.67483"**
 Longitude: **80°06'14.15549"**
 El. **20.581** NAVD88
 El. **22.103** NGVD29



SFWMD Site Benchmark
 "PBF345"
 Latitude: **26°40'34.819"**
 Longitude: **80°06'12.630"**
 El. **20.001** NAVD88
 El. **21.523** NGVD29

Station: LYTAL Well Site
 Site: PBF-3
 Site: PBF-4
 Site: PBF-5
 Latitude: **26°40'34.81"**
 Longitude: **80°06'12.62"**

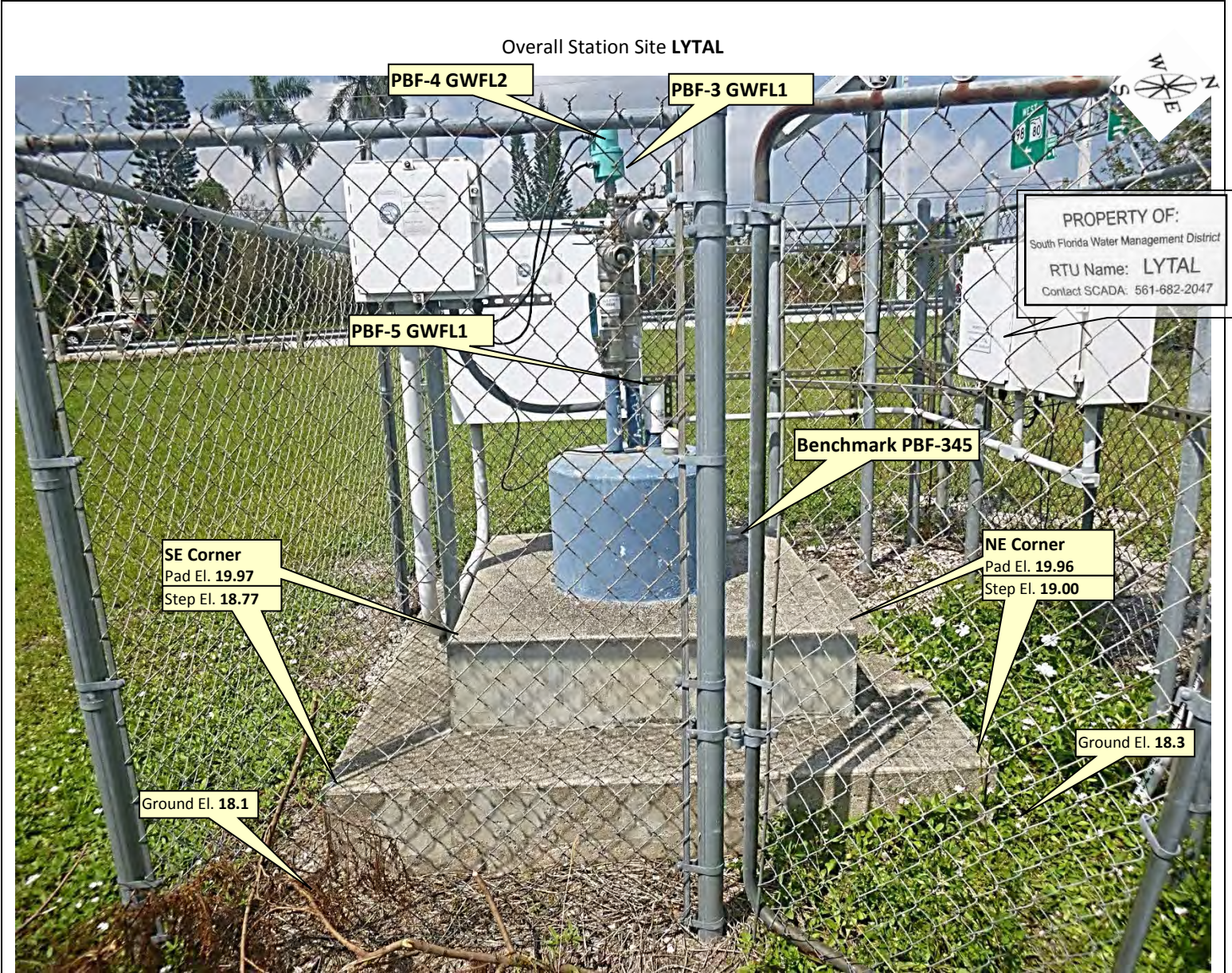


Not to scale (esri product)



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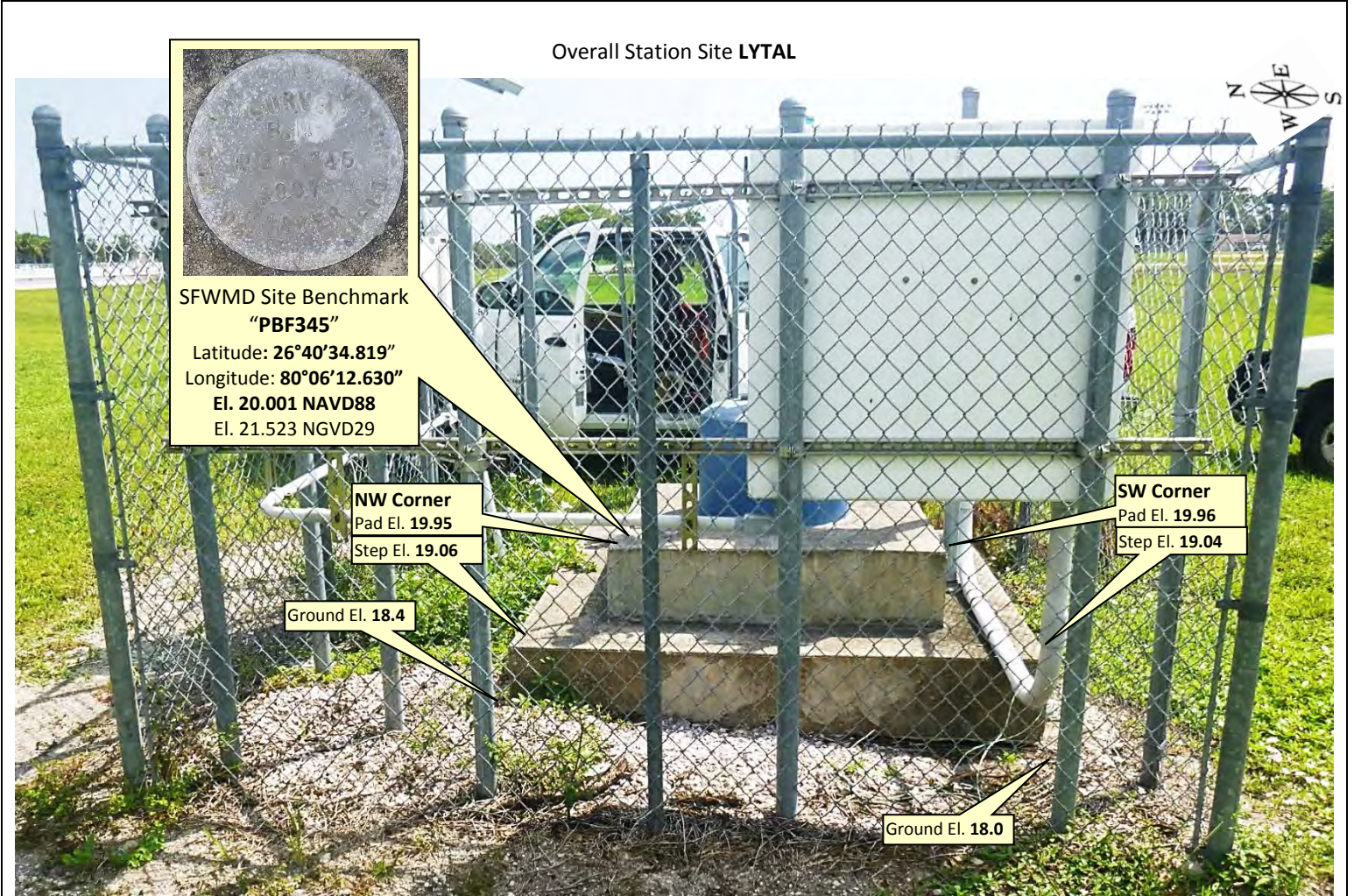


Looking Westerly (oblique not to scale) (19-sep-17)



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Overall Station Site LYTAL

SFWMD Site Benchmark
"PBF345"

Latitude: 26°40'34.819"
Longitude: 80°06'12.630"
El. 20.001 NAVD88
El. 21.523 NGVD29

NW Corner
Pad El. 19.95
Step El. 19.06

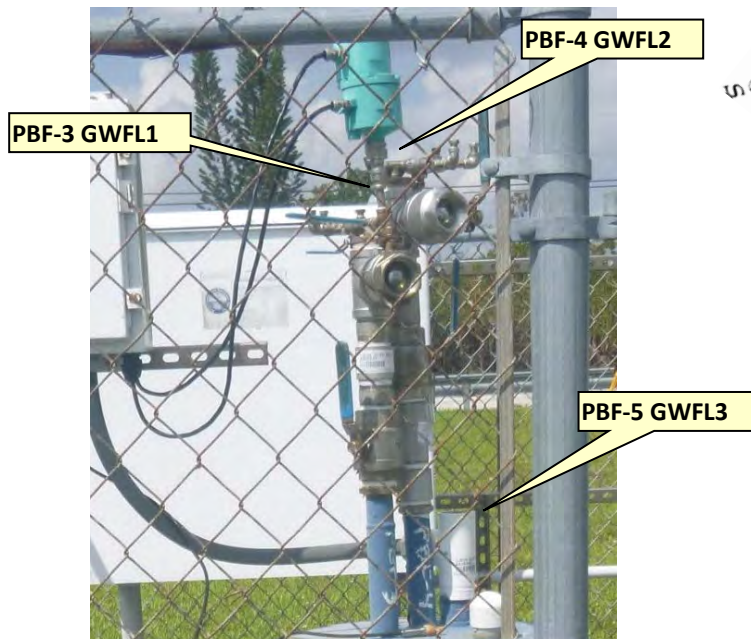
SW Corner
Pad El. 19.96
Step El. 19.04

Ground El. 18.4

Ground El. 18.0

Looking Easterly (oblique not to scale) (19-sep-17)

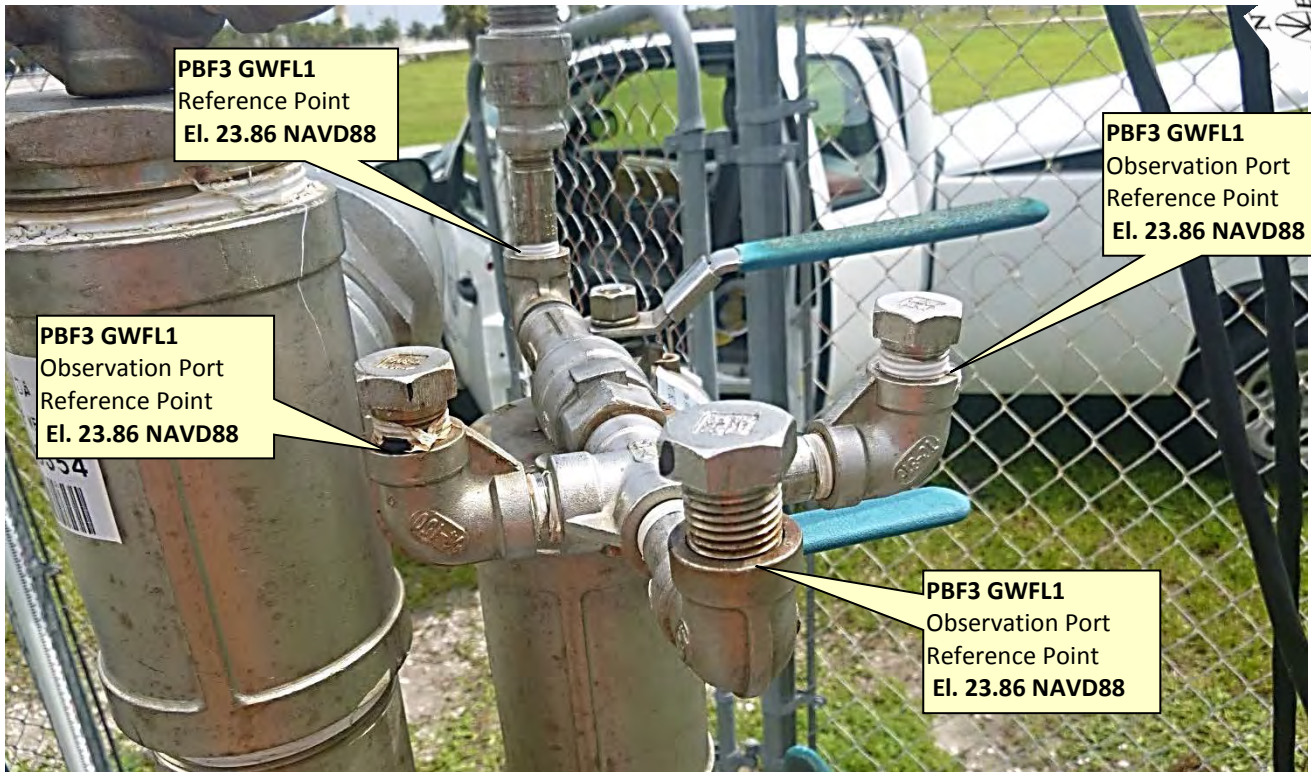
PBF-3, PBF-4 & PBF-5 Well Heads



Looking Westerly (oblique not to scale) (19-sep-17)

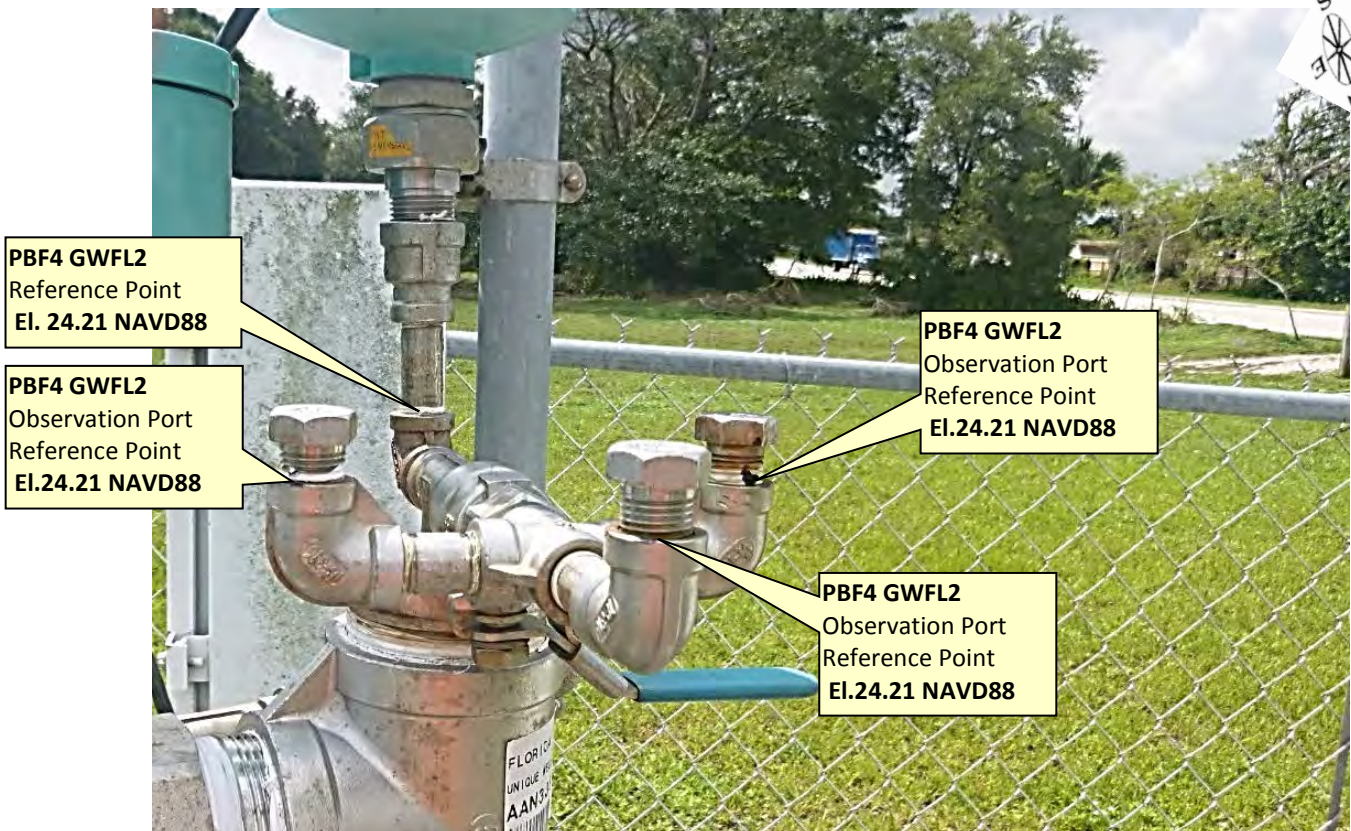


PBF-3 GWFL1



Looking Easterly (oblique not to scale) (19-sep-17)

PBF-4 GWFL2



Looking Southerly (oblique not to scale) (19-sep-17)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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PBF-5 GWFL3



Looking Southerly (oblique not to scale) (19-sep-17)

PBF-3 GWFL1 New NAVD88 Brass Tag and Reference Point Close-up (to be added)

PBF3 GWFL1
Reference Point
El. 23.86 NAVD88



Looking Southerly (oblique not to scale) (19-sep-17)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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PBF-4 GWFL2 New NAVD88 Brass Tag Close-up (to be added)



PBF-5 GWFL3 New NAVD88 Brass Tag Close-up (to be added)





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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RTU Inside Panel



Looking Northerly (oblique not to scale) (14-jul-15)

Not a part of the 19-sep-17 work shown for informational purposes only



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DESIGNATION: PBF345	PROJECT: LYDAL Well Site
ESTABLISHED BY: SOUTH FLORIDA WATER MANAGEMENT DISTRICT RECOVERED BY:	SURVEYOR: Ebanks DATE: 28-apr-97

GEOGRAPHIC POSITION

SECTION 6	TOWNSHIP 44 SOUTH	RANGE 43 EAST
COUNTY: Palm Beach	NAME OF QUADRANGLE: Palm Beach GEOGRAPHIC INDEX OF QUAD: 2201	
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)=	E (X)=
CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): +1.516		NAVD 88 EL. 20.001 NGVD 29 EL. 21.523
LATITUDE: 26° 40' 34.81"		LONGITUDE: 80° 06' 12.62"

RECOVERY DATA

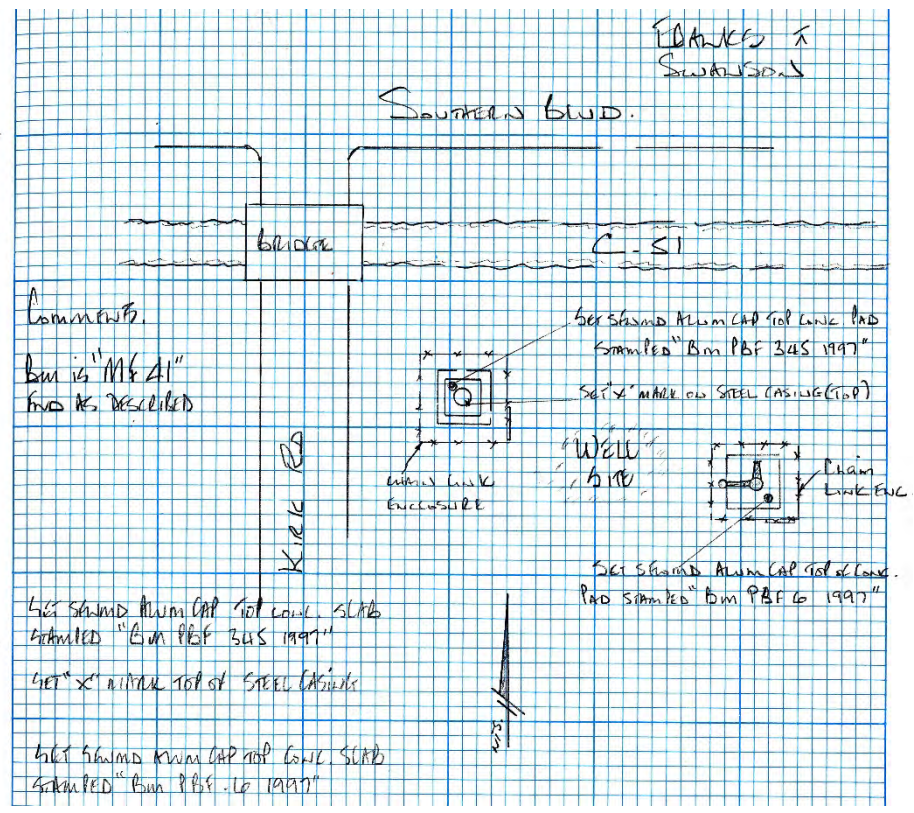
Stamping: PBF 345 1997
To Locate: From the intersection of Southern Boulevard (State Road 80) and Kirk Road, go South on Kirk Road 480 feet to a gate opening on the left; turn left and go thru the gate and bear Northeasterly 100 feet more or less to LYDAL well site and station location.
NOTABLE LAND MARKS:
NGS SOURCE BENCHMARK: MF41 (AD8183)
FIELD BOOK PBCoWells 6 PAGES 1 and 2

SKETCH

Aluminum cap stamped
"PBF345 1997"
 El. 20.001 NAVD88
 El. 21.523 NGVD29



Looking Westerly oblique picture
 Not to Scale (07-jun-10)



The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.12.3
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER 18, 2017
AD8183 *****
AD8183 DESIGNATION - MF 41
AD8183 PID - AD8183
AD8183 STATE/COUNTY- FL/PALM BEACH
AD8183 COUNTRY - US
AD8183 USGS QUAD - PALM BEACH (1983)
AD8183
AD8183 *CURRENT SURVEY CONTROL
AD8183
AD8183* NAD 83(2011) POSITION- 26 40 39.67483(N) 080 06 14.15549(W) ADJUSTED
AD8183* NAD 83(2011) ELLIP HT- -19.919 (meters) (06/27/12) ADJUSTED
AD8183* NAD 83(2011) EPOCH - 2010.00
AD8183* NAVD 88 ORTHO HEIGHT - 6.273 (meters) 20.58 (feet) ADJUSTED
AD8183
AD8183 GEOID HEIGHT - -26.223 (meters) GEOID12B
AD8183 NAD 83(2011) X - 980,124.739 (meters) COMP
AD8183 NAD 83(2011) Y - -5,618,137.962 (meters) COMP
AD8183 NAD 83(2011) Z - 2,846,341.084 (meters) COMP
AD8183 LAPLACE CORR - -3.83 (seconds) DEFLEC12B
AD8183 DYNAMIC HEIGHT - 6.263 (meters) 20.55 (feet) COMP
AD8183 MODELED GRAVITY - 979,118.5 (mgal) NAVD 88
AD8183
AD8183 VERT ORDER - FIRST CLASS II
AD8183
AD8183 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AD8183 Standards:
AD8183 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AD8183 Horiz Ellip SD_N SD_E SD_h (unitless)
AD8183 -----
AD8183 NETWORK 2.04 4.06 0.81 0.86 2.07 0.07364402
AD8183 -----
AD8183 Click here for local accuracies and other accuracy information.
AD8183
AD8183
AD8183.The horizontal coordinates were established by GPS observations
AD8183.and adjusted by the National Geodetic Survey in June 2012.
AD8183
AD8183.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has
AD8183.been affixed to the stable North American tectonic plate. See
AD8183.NA2011 for more information.
AD8183
AD8183.The horizontal coordinates are valid at the epoch date displayed above
AD8183.which is a decimal equivalence of Year/Month/Day.
AD8183
AD8183.The orthometric height was determined by differential leveling and
AD8183.adjusted by the NATIONAL GEODETIC SURVEY
AD8183.in January 2014.
AD8183
AD8183.Significant digits in the geoid height do not necessarily reflect accuracy.

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AD8183.GEOID12B height accuracy estimate available [here](#).

AD8183

AD8183.The X, Y, and Z were computed from the position and the ellipsoidal ht.

AD8183

AD8183.The Laplace correction was computed from DEFLEC12B derived deflections.

AD8183

AD8183.The ellipsoidal height was determined by GPS observations

AD8183.and is referenced to NAD 83.

AD8183

AD8183.The dynamic height is computed by dividing the NAVD 88

AD8183.geopotential number by the normal gravity value computed on the

AD8183.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

AD8183.degrees latitude (g = 980.6199 gals.).

AD8183

AD8183.The modeled gravity was interpolated from observed gravity values.

AD8183

AD8183. The following values were computed from the NAD 83(2011) position.

AD8183

AD8183;		North	East	Units	Scale Factor	Converg.
AD8183;SPC FL E	-	260,006.742	289,188.224	MT	1.00003935	+0 24 08.4
AD8183;SPC FL E	-	853,038.79	948,778.36	sFT	1.00003935	+0 24 08.4
AD8183;UTM 17	-	2,951,050.010	589,157.793	MT	0.99969814	+0 24 08.4

AD8183

AD8183! - Elev Factor x Scale Factor = Combined Factor

AD8183!SPC FL E - 1.00000313 x 1.00003935 = 1.00004248

AD8183!UTM 17 - 1.00000313 x 0.99969814 = 0.99970127

AD8183

AD8183_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK8915751050 (NAD 83)

AD8183

SUPERSEDED SURVEY CONTROL

AD8183

AD8183	NAD 83(2007)-	26 40 39.67498(N)	080 06 14.15607(W)	AD(2002.00)	0
AD8183	ELLIP H (02/10/07)	-19.898 (m)		GP(2002.00)	
AD8183	NAD 83(1999)-	26 40 39.67574(N)	080 06 14.15513(W)	AD()	1
AD8183	ELLIP H (07/06/01)	-19.944 (m)		GP()	4 2
AD8183	NAD 83(1990)-	26 40 39.67522(N)	080 06 14.15324(W)	AD()	1
AD8183	ELLIP H (08/13/93)	-19.930 (m)		GP()	4 1
AD8183	NAD 83(1990)-	26 40 39.67442(N)	080 06 14.15411(W)	AD()	1
AD8183	ELLIP H (03/31/93)	-19.916 (m)		GP()	4 1
AD8183	NAVD 88 (09/04/92)	6.275 (m)	20.59 (f)	SUPERSEDED	1 2
AD8183	NGVD 29	6.74 (m)	22.1 (f)	LEVELING	3
AD8183	NGVD 29 (09/01/92)	6.737 (m)	22.10 (f)	ADJUSTED	1 2

AD8183

AD8183.Superseded values are not recommended for survey control.

AD8183

AD8183.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AD8183.See file [dsdata.pdf](#) to determine how the superseded data were derived.

AD8183

AD8183_MARKER: DB = BENCH MARK DISK

AD8183_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

AD8183_STAMPING: MF 41 1954 JACKSONVILLE

AD8183_MARK LOGO: USE

AD8183_PROJECTION: FLUSH

AD8183_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

AD8183_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

AD8183+STABILITY: SURFACE MOTION

AD8183_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AD8183+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007

AD8183

AD8183 HISTORY - Date Condition Report By

AD8183 HISTORY - 1954 MONUMENTED USE
 AD8183 HISTORY - 19910810 GOOD ADRGS
 AD8183 HISTORY - 19920317 GOOD NGS
 AD8183 HISTORY - 20011109 GOOD USPSQD
 AD8183 HISTORY - 20030304 GOOD USPSQD
 AD8183 HISTORY - 20040419 GOOD USPSQD
 AD8183 HISTORY - 20041117 GOOD FLDEP
 AD8183 HISTORY - 20050423 GOOD USPSQD
 AD8183 HISTORY - 20071101 GOOD GCT

AD8183

AD8183 STATION DESCRIPTION

AD8183

AD8183'DESCRIBED BY ADR GEODETIC SERVICES 1991

AD8183'TO REACH THE STATION FROM THE INTERSECTION OF SOUTHERN BOULEVARD
 AD8183'(STATE ROUTE 80, US ROUTE 98) AND MILITARY TRAIL (STATE ROUTE 809) IN
 AD8183'WEST PALM BEACH, GO EAST ON SOUTHERN BOULEVARD FOR 0.5 MI (0.80 KM)
 AD8183'TO KIRK ROAD AND THE STATION IN THE NORTHWEST CORNER OF THE
 AD8183'INTERSECTION.

AD8183'THE STATION IS WEST 2.61 FT (0.80 M) FROM A 6 INCH SQUARE CONCRETE
 AD8183'MARKER, EAST 5.72 FT (1.74 M) FROM THE NORTHEAST CORNER OF CONCRETE
 AD8183'POWER POLE 6-7820-6057-0-6, AND SOUTH 3.38 FT (1.03 M) FROM A NAIL
 AD8183'AND TIN TAB IN A POWER POLE.

AD8183

AD8183 STATION RECOVERY (1992)

AD8183

AD8183'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992

AD8183'IN WEST PALM BEACH, AT THE INTERSECTION OF U.S. HIGHWAY 98 (SOUTHERN
 AD8183'BOULEVARD) AND KIRK ROAD, 12.2 M (40.0 FT) WEST OF AND LEVEL WITH THE
 AD8183'CENTER OF AN ENTRANCE ROAD TO THE 391ST BOMB GROUP HEADQUARTERS AND
 AD8183'EXTENDED CENTER OF THE ROAD, 10.5 M (34.4 FT) NORTH OF THE CENTERLINE
 AD8183'OF THE WESTBOUND LANES OF THE HIGHWAY, 1.7 M (5.6 FT) EAST-NORTHEAST
 AD8183'OF A UTILITY POLE, 1.1 M (3.6 FT) SOUTH OF A T-JUNCTION UTILITY POLE
 AD8183'WITH A GUY CABLE AND WITNESS SIGN ATTACHED, 0.7 M (2.3 FT) WEST OF A
 AD8183'RIGHT-OF-WAY MARKER, AND THE MONUMENT IS FLUSH WITH THE GROUND
 AD8183'SURFACE.

AD8183

AD8183 STATION RECOVERY (2001)

AD8183

AD8183'RECOVERY NOTE BY US POWER SQUADRON 2001 (AAS)

AD8183'RECOVERED IN GOOD CONDITION.

AD8183

AD8183 STATION RECOVERY (2003)

AD8183

AD8183'RECOVERY NOTE BY US POWER SQUADRON 2003 (AAS)

AD8183'RECOVERED IN GOOD CONDITION.

AD8183

AD8183 STATION RECOVERY (2004)

AD8183

AD8183'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)

AD8183'RECOVERED IN GOOD CONDITION.

AD8183

AD8183 STATION RECOVERY (2004)

AD8183

AD8183'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)

AD8183'RECOVERED IN GOOD CONDITION.

AD8183'

AD8183'NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
 AD8183'MONUMENT.

AD8183

AD8183 STATION RECOVERY (2005)

AD8183

AD8183'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)

AD8183'RECOVERED IN GOOD CONDITION.

AD8183

AD8183

STATION RECOVERY (2007)

AD8183

AD8183'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)

AD8183'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:03

SEC 6 TWP 44 RGE 43

WELLS PBF 3,4&5

STATION LYTAL WELL SITE PROVIDE NEW NAVD 88 AT WELL, VERIFY EXISTING BENCH MARK, ESTABLISH NEW REFERENCE ELEVATIONS, ESTABLISH ELEVATIONS AT FOUR CORNERS OF WELL PAD, ESTABLISH ELEVATIONS AT NATURAL GROUND AT THE FOUR CORNERS OF THE WELL PAD, TAKE A STATIC ON SITE BENCH

REF. NGS DATA SHEET, S.F.W.M.D BENCH MARK DESCRIPTION SHEET, ELVIE'S FIELD NOTES, LOCATION & SITE MAP

RAPID STATIC SITE BM PBF 345

W.P.B G.P.S. UNIT 5378

BEGN TIME 8:42 a.m

END TIME 10:4 AM

HEIGHT 6.56

PHOTOS

- 1) SITE AFFIRMATION
- 2) SITE BENCH MARK
- 3) EAST LOOKING WEST
- 4) SOUTH LOOKING NORTH
- 5) WEST LOOKING EAST
- 6) NORTH LOOKING SOUTH
- 7) PBF 3
- 8) PBF 4
- 9) PBF 5
- 10) PBF 3 REF & OBSERVATION
- 11) PBF 4 REF. & OBSERVATION
- 12) PBF 5
- 13) PBF 5 W/TEMP TAG
- 14) PBF 4 W/TEMP TAG
- 15) PBF 3 W/TEMP TAG

ZEISS LEVEL
25' ROD

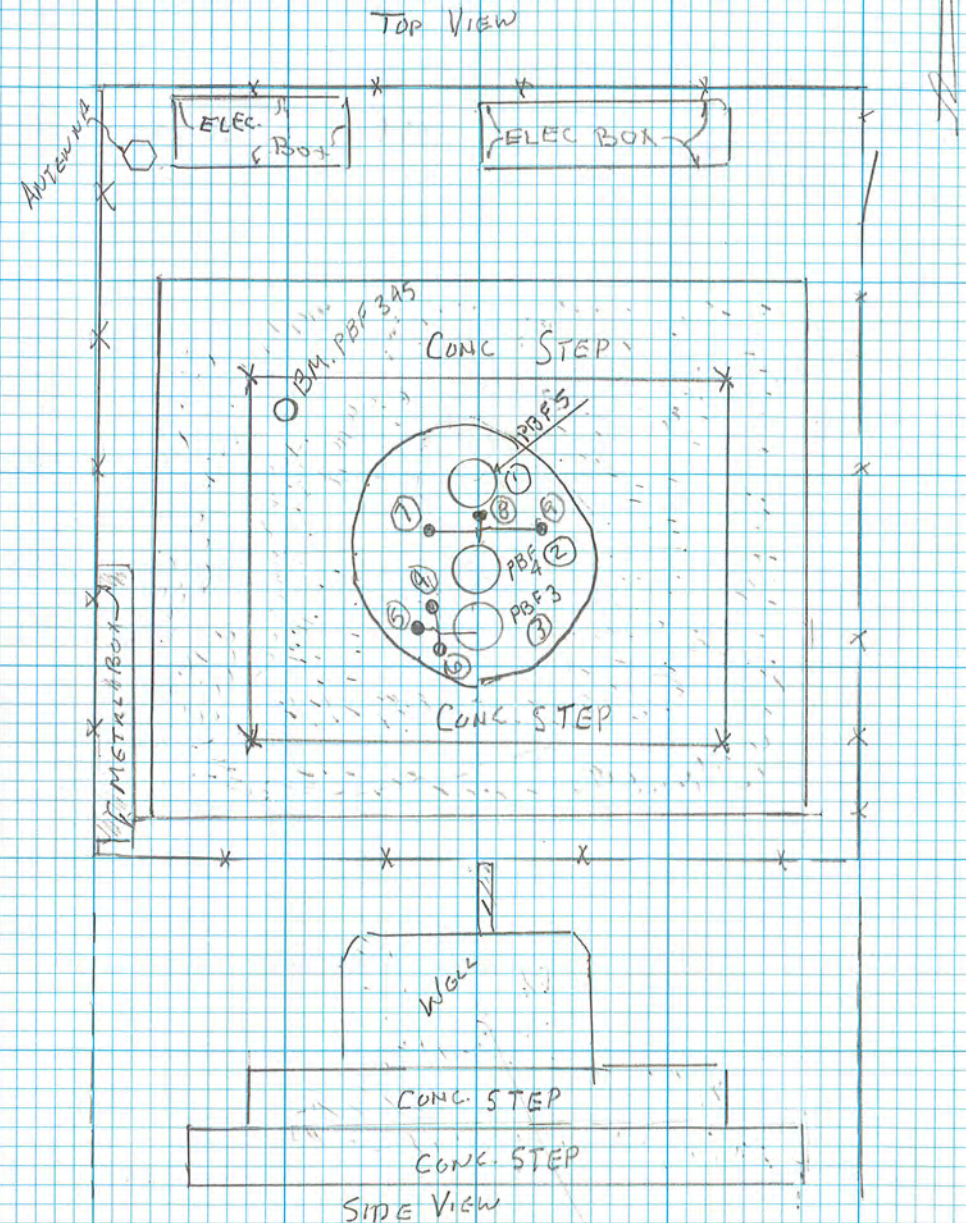
A. GRAMARCO
M. WISE

TOP CON HIPPER V G.P.S.

BY P.D.

2MT ROD

SPECTRA RANGER DATA COLLECTOR
NAVD 88



SEC	6	TWP	44	REF	43
		CONTINUED FROM PLOT VERIFY SITE BENCH			
BM	+	HI		ELEV	
MFA1				20.58	
	7.11	27.69			
			6.60	21.09	
	3.85	24.94			
PBF 345			4.94	20.00	20.001
PBF 345				20.00	
	4.73	24.73			
PT#1			2.62	22.11	PBF5
PT#2			0.53	24.2	PBF4
PT#3			0.87	23.86	PBF3
PT#4			0.87	23.86	PBF3
PT#5			0.87	23.86	PBF3
PT#6			0.87	23.86	PBF3
PT#7			0.52	24.21	PBF4
PT#8			0.52	24.21	PBF4
PT#9			0.52	24.21	PBF4

CONT. PLOT 71

NWD 88

A. GIAMMAREO
M. WISE

COMMENT

FD U.S. CORP. ENG BRASS DISK SET IN CONC. STAMPED M.F. 41 1954

FD S.F.W.M.D ALUMI DISK SET IN SECOND LEVEL CONC. STEP AT THE NORTH WEST CORNER STAMPED B.M. PBF 345 1997

GW FL3 REF

GW FL2 REF

GW FL1 REF

GW FL1 OBS

GW FL1 REF

GW FL1 REF

GW F2 OBS

GW F2 REF

GW F2 REF

SEC 6 TWP 44 RGE 43
LYTAK WELLS
CONT. FROM PG 70

OBTAIN PAD & GROUND
ELEV. AROUND WELL

BM	+	HI	-	ELEV	
	3.29	23.29		20.00	
			3.33	19.96	N.E. COR
			4.29	19.00	STEP
			5.0	18.3	GND
			3.32	19.97	S.E. COR
			4.25	18.77	STEP
			5.20	18.1	GND
			3.33	19.96	S.W. COR
			4.25	19.04	STEP
			5.3	18.0	GND
			3.34	19.95	N.W. COR
			4.23	19.06	STEP
			4.9	18.39	GND

SEE DRAWING
PG 69 MISC F.B 62

ZEISS NI²
26' ROD
NAVD 88
A GIAMMARCO
M. WISE

CONC PAD

CONC PAD

CONC PAD

CONC PAD

From: opus
To: Ehmke, Howard
Subject: OPUS solution : log0919m.tps OP1505914573657
Date: Wednesday, September 20, 2017 9:37:30 AM

FILE: log0919m.tps OP1505914573657

1009 WARNING! No antenna type was selected. No antenna offsets or
1009 pattern will be applied. Coordinates with reduced accuracy
1009 will be returned for the antenna phase center.
1009
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: hehmke@sfwmd.gov DATE: September 20, 2017
RINEX FILE: log0262m.17o TIME: 13:37:10 UTC

SOFTWARE: page5 1603.24 master92.pl 160321 START: 2017/09/19 12:41:00
EPHEMERIS: igu19672.eph [ultra-rapid] STOP: 2017/09/19 14:43:00
NAV FILE: brdc2620.17n OBS USED: 5283 / 5534 : 95%
ANT NAME: NONE NONE # FIXED AMB: 33 / 38 : 87%
ARP HEIGHT: 1.5 OVERALL RMS: 0.017(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.7166)

X: 980177.858(m) 0.018(m) 980177.060(m) 0.018(m)
Y: -5618197.078(m) 0.033(m) -5618195.488(m) 0.033(m)
Z: 2846207.665(m) 0.009(m) 2846207.499(m) 0.009(m)

LAT: 26 40 34.81860 0.008(m) 26 40 34.83865 0.008(m)
E LON: 279 53 47.36965 0.015(m) 279 53 47.35108 0.015(m)
W LON: 80 6 12.63035 0.015(m) 80 6 12.64892 0.015(m)
EL HGT: -19.624(m) 0.035(m) -21.221(m) 0.035(m)
ORTHO HGT: 6.597(m) 0.061(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 17) SPC (0901 FL E)

Northing (Y) [meters]	2950900.893	259857.574	Y=852549.3906983332
Easting (X) [meters]	589200.998	289231.443	X=948920.1592424999
Convergence [degrees]	0.40250656	0.40250656	
Point Scale	0.99969823	1.00003944	
Combined Factor	0.99970131	1.00004252	

US NATIONAL GRID DESIGNATOR: 17RNK8920050900(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DE9138	OKCB OKEECHOBEE CORS ARP	N271557.715	W0805119.181	99197.7
DO8520	CN15 GRANDBAHAMCR2011 CORS ARP			141084.2
DF9225	ZMA1 MIAMI WAAS 1 CORS ARP	N254928.585	W0801909.066	96792.4

NEAREST NGS PUBLISHED CONTROL POINT

AD8183	MF 41	N264039.674	W0800614.155	155.3
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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.

Office

Project

18 September 2017

INPUT

Geographic, flhpgn - Florida HPGN
Vertical - NAVD88, U.S. Feet

OUTPUT

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

PBF-3,PBF-4 & PBF-5

1/1

Latitude: 26 40 34.82
Longitude: 80 06 12.64
Elevation/Z: 0

Northing/Y: 852549.525
Easting/X: 948919.283
Elevation/Z: 1.516
Convergence: 0 24 09.01931
Scale Factor: 1.000039440
Combined Factor: 1.000043481

Remark:

Corpscon v6.0.1, U.S. Army Corps of Engineers

DBHYDRO | by station

STATION INFORMATION

Station	PBF-3
Site	LYTAL
Type	SUBSTATION
Latitude (ddmmss.sss)	264034.82
Longitude (ddmmss.sss)	800612.63
X Coord (ft) NAD83	948920.094
Y Coord (ft) NAD83	852549.445
County	Palm Beach
Basin	C-51 EAST
Section	6
Township	44
Range	43
Show Map	Google Map
Well Info	Info
Description	Substation of LYTAL-TW (1050-1252 ft bls)
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Query returned 1 station record(s).

Get Sample Data

Get Time Series Data

DBHYDRO | by station

STATION INFORMATION

Station	PBF-4
Site	LYTAL
Type	SUBSTATION
Latitude (ddmmss.sss)	264034.82
Longitude (ddmmss.sss)	800612.63
X Coord (ft) NAD83	948920.094
Y Coord (ft) NAD83	852549.445
County	Palm Beach
Basin	C-51 EAST
Section	6
Township	44
Range	43
Show Map	Google Map
Well Info	Info
Description	Substation of LYTAL-TW (1360-1510 ft bls)
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Query returned 1 station record(s).

Get Sample Data

Get Time Series Data

DBHYDRO | by station

STATION INFORMATION

Station	PBF-5
Site	LYTAL
Type	SUBSTATION
Latitude (ddmmss.sss)	264034.82
Longitude (ddmmss.sss)	800612.63
X Coord (ft) NAD83	948920.094
Y Coord (ft) NAD83	852549.445
County	Palm Beach
Basin	C-51 EAST
Section	6
Township	44
Range	43
Show Map	Google Map
Well Info	Info
Description	Substation of LYTAL-TW (2340-2490 ft bls)
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Query returned 1 station record(s).

Get Sample Data

Get Time Series Data

REGISTRATION WORKSHEET - LYTAL Addendum

Site Name: **LYTAL** Today's Date: **9/20/2017** Type Recorder: **CR1000**
 Activity: **Addendum** Effective Date: **9/19/2017** Start Date of Data :
 Customer: **Steve Krupa** Bus. Area: **5720** Agency: **SFWMD** Internal Order:
 Project Manager: **Howard Ehmke** Bus. Area: **Survey & Mapping** Agency: **SFWMD** Fund:
 Project Name: Legal Mandate: Contract #:

Short Common Name / Description: **LYTAL**

Proj. Mgr. Notes: This addendum was performed to add NAVD 88 surveying data for the reference elevation. To convert to NGVD 29 add +1.516ft.

Site Directions: The site is located approximately 300 yards east of pumping station S140.

Site Address (if any):

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

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

Array ID Configuration table attached **NO**

SURVEY INFORMATION

B.M. Elevation: **BM PBF345 1997** Date: **4/28/1997** Stamp: **SFWMD**
 Agency: **#REF!** Type: **ALUM** Datum: **NAVD 88**

Benchmark Location/ Description:

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	PBF-3	23.86	9/19/2017	23.86		18.3	20.001	NAVD 88	Top of 1/4" 90 degree stainless steel elbow
GW2	PBF-4	24.2	9/19/2017	24.2		18.3	20.001	NAVD 88	Top of 1/4" 90 degree stainless steel elbow
GW3	PBF-5	22.11	9/19/2017	22.11		18.3	20.001	NAVD 88	Top of 1/4" 90 degree stainless steel 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															
GW2															
GW3															

COORDINATE INFORMATION

Item/Param	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin	County	Description
GW1	26 40 34.82	80 06 12.63			6	44	43	Palm Beach		Palm Beach	
GW2	26 40 34.82	80 06 12.63			6	44	43	Palm Beach		Palm Beach	
GW3	26 40 34.82	80 06 12.63			6	44	43	Palm Beach		Palm Beach	