



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DB Hydro Station Name: LOTELA		DB Hydro Site Name: LOTELA	Date of Field Work: 21-jun-17
Party Chief: Strickland		Field Book: Misc 7B	Page 68
Site Benchmark: Tell 5		Benchmark Elevation (NAVD88) 88.64	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) +0.984
Reference Elevation(s) (NAVD88): 91.76		Existing Tag Elevation (Datum): 92.72 4 24 05 EE & COON INC.	Calibration Port Elevation(s) (NAVD88): Not applicable
Ground Elevation (NAVD88): 88.0			Pad Elevation (NAVD88): Not applicable
Latitude: 27°35'28.357"			Longitude: 81°26'07.586"

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

Overall Site



PROPERTY OF:
South Florida Water Management District
RTU Name: LOTELO
Contact SCADA: 561-682-2047



Aluminum cap
stamped "BM TELL5"
EI. 88.64 NAVD88
EI. 89.61 NGVD29

Natural Ground
EI. 88.0 NAVD88

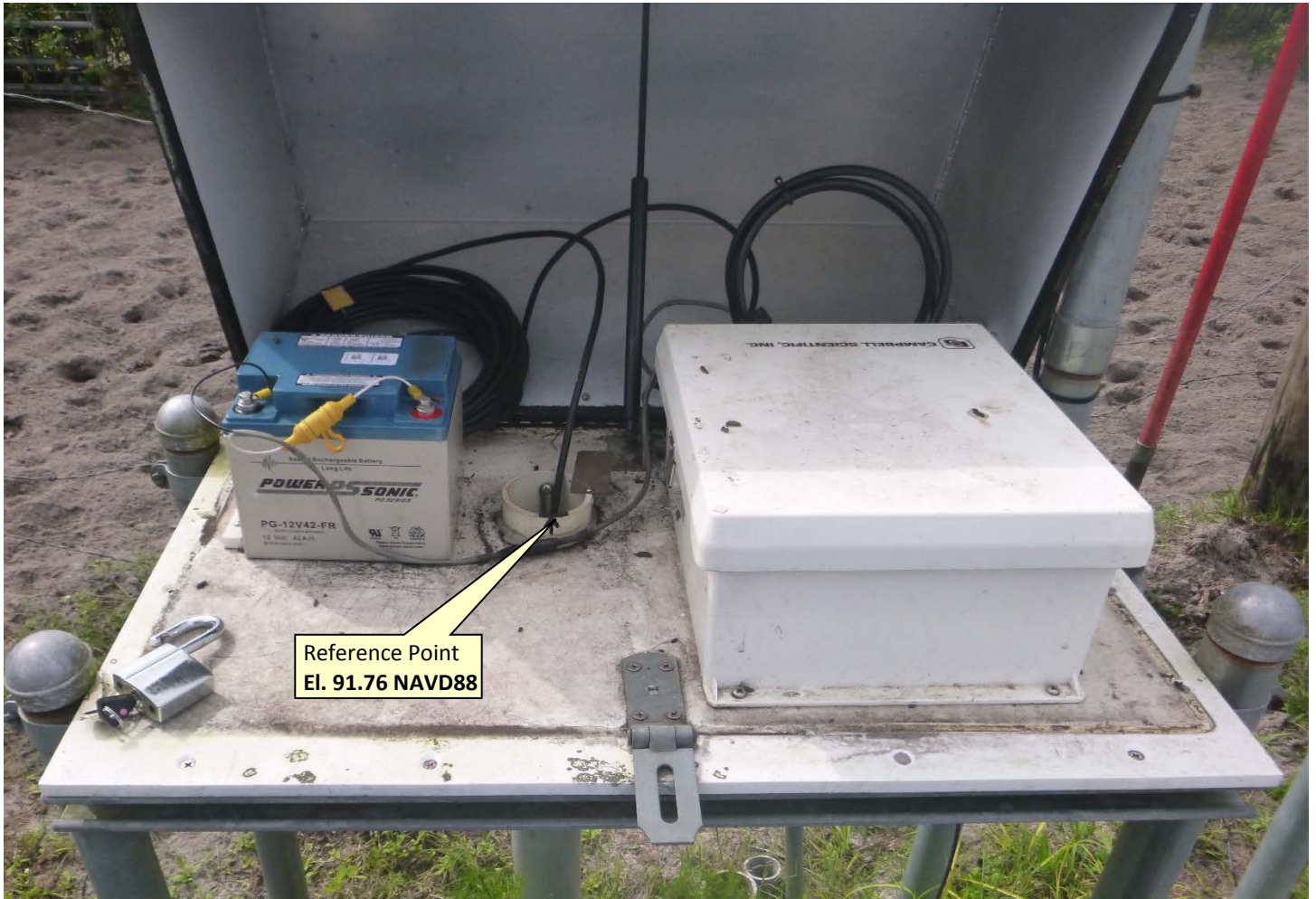
Looking Westerly (Not to scale) (21-jun-17)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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Well Head



Reference Point
El. 91.76 NAVD88

Old tag and Reference point



Reference Point
El. 91.76 NAVD88

Old NGVD29 Brass Tag Close-up (*to be removed*)



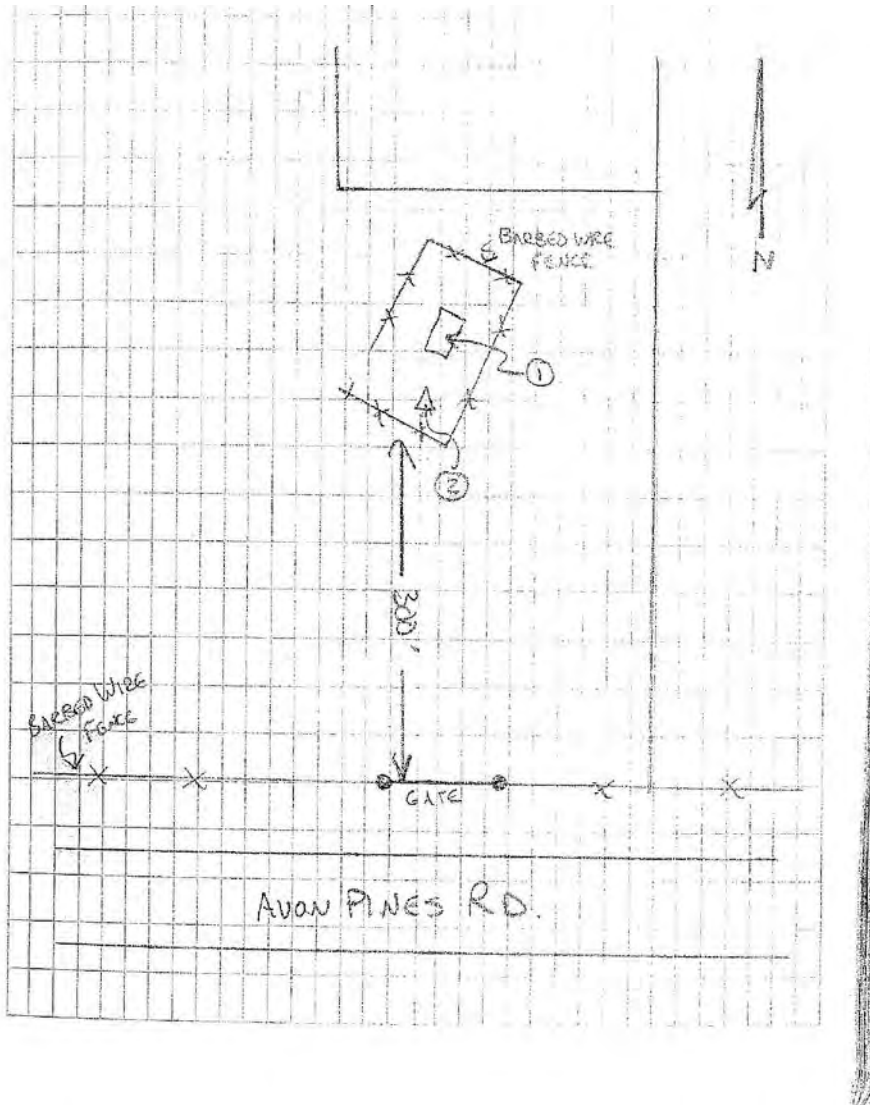
New NAVD88 Brass Tag Close-up (*to be added*)





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01



Wise, Michael

From: opus <opus@ngs.noaa.gov>
Sent: Wednesday, June 21, 2017 1:46 PM
To: Wise, Michael
Subject: OPUS solution : TELL5_BM.tps OP1498067081031

FILE: TELL5_BM.tps OP1498067081031

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

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

USER: mwise@sfwmd.gov DATE: June 21, 2017
RINEX FILE: tell172o.17o TIME: 17:46:02 UTC

SOFTWARE: page5 1603.24 master92.pl 160321 START: 2017/06/21 14:14:00
EPHEMERIS: igu19543.eph [ultra-rapid] STOP: 2017/06/21 16:24:00
NAV FILE: brdc1720.17n OBS USED: 5435 / 5878 : 92%
ANT NAME: TPSHIPER_V NONE # FIXED AMB: 39 / 49 : 80%
ARP HEIGHT: 2.0 OVERALL RMS: 0.025(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2017.4703)

X:	842438.398(m)	0.120(m)	842437.598(m)	0.120(m)
Y:	-5593763.881(m)	0.061(m)	-5593762.310(m)	0.061(m)
Z:	2936432.186(m)	0.034(m)	2936432.018(m)	0.034(m)

LAT:	27 35 28.35694	0.011(m)	27 35 28.37728	0.011(m)
E LON:	278 33 52.41416	0.110(m)	278 33 52.39386	0.110(m)
W LON:	81 26 7.58584	0.110(m)	81 26 7.60614	0.110(m)
EL HGT:	0.894(m)	0.078(m)	-0.666(m)	0.078(m)
ORTHO HGT:	27.023(m)	0.133(m)	[NAVD88 (Computed using GEOID12B)]	

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 17) SPC (0901 FL E)

Northing (Y) [meters]	3051995.614	360986.800	N-1184337.526
Easting (X) [meters]	457025.674	157011.006	E- 515126.942
Convergence [degrees]	-0.20168176	-0.20168176	
Point Scale	0.99962280	0.99996398	
Combined Factor	0.99962266	0.99996384	

US NATIONAL GRID DESIGNATOR: 17RML5702551995(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DL2756	FLC5 CARD SOUND 5 CORS ARP	N252553.839	W0802801.043	257992.9
DI3564	CCV6 CAPE CANAVERAL 6 CORS ARP	N282735.827	W0803243.702	130104.4
DE6352	ZJX1 JACKSONVILLE 1 CORS ARP	N304155.872	W0815429.445	347459.1

NEAREST NGS PUBLISHED CONTROL POINT

AF6101	R 115	N273559.	W0812706.	1859.0
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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.

SEC	20	TWP	33	RGE	29
ESTABLISH NAVD 88 EL @ LOTELA G.W. WELL					
STA	+	HI	-	ELEV	BM EL
BM	4.96	93.60			88.64 NAVD 88
GRND			4.8	88.0	
REF			1.84	91.76	
BM	4.96			88.64	88.64

OPUS FOUND BM TELLS NO YR
 OREE UNIT 8425 HI = 2M
 START @ 10:14 AM
 END @ 12:24 PM

STRICKLAND
 WISE

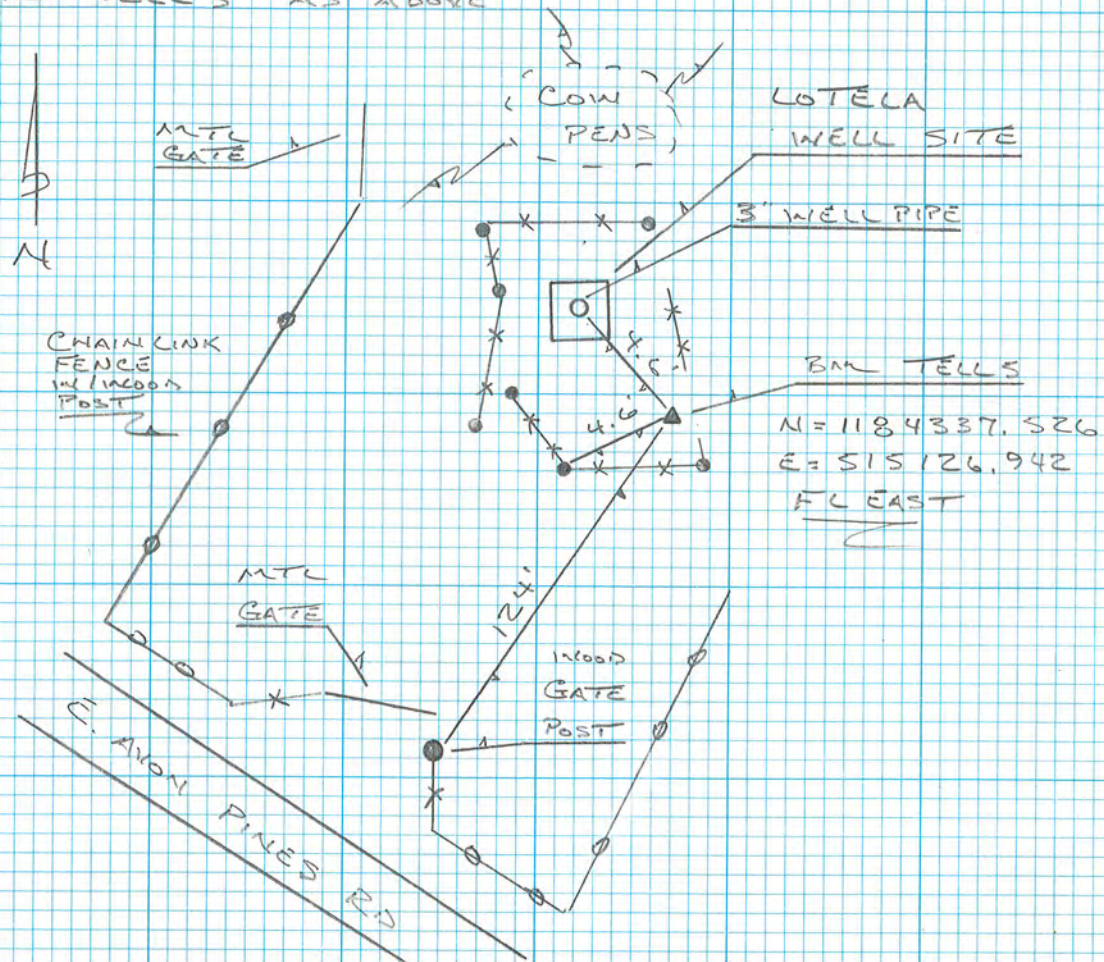
COMMENTS

BM TELLS NO YEAR FID SEWERS ALONG CAP IN CONC IN THE SE CORNER OF FENCED WELL AREA 0.4' BELOW GROUND FID GOOD COND

GROUND @ WELL

REF MARK  A TOP OF 3" PVC PIPE WLY SIDE

BM TELLS AS ABOVE



Office

Project

21 June 2017

INPUT

State Plane, flhpgn - Florida HPGN
0901 - Florida East, U.S. Feet
Vertical - NAVD88, U.S. Feet

OUTPUT

Geographic, flhpgn - Florida HPGN
Vertical - NGVD29 (Custom), U.S. Feet

LOTELA

1/1

Northing/Y: 1184339.55

Easting/X: 515126.15

Elevation/Z: 0

Convergence: -0 12 06.05858

Scale Factor: 0.999963980

Combined Factor: 0.999968070

Latitude: 27 35 28.37695

Longitude: 81 26 07.59472

Elevation/Z: 0.984

Remark:

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

DBHYDRO | by station

STATION INFORMATION

Station	LOTELA
Site	LOTELA
Type	WELL
Latitude (ddmmss.sss)	273529.118
Longitude (ddmmss.sss)	812607.247
X Coord (ft) NAD83	515157.678
Y Coord (ft) NAD83	1184414.28
County	Highlands
Basin	ARBUCKLE CREEK
Section	20
Township	33
Range	29
Show Map	Google Map
Well Info	Info
Description	GROUNDWATER WELL AT LAKE LOTELO NEAR AVON PARK
Notes	
Nearby Stations	Nearby Stations
Attachments	Show Attachments

Query returned 1 station record(s).

Get Time Series Data

REGISTRATION WORKSHEET - LOTELA Addendum

Site Name: **LOTELA** Today's Date: **4/29/2017** Type Recorder: **[REDACTED]**
 Activity: **Addendum** Effective Date: **[REDACTED]** Start Date of Data : **[REDACTED]**
 Customer: **Steve Krupa** Bus. Area: **5720** Agency: **SFWMD** Internal Order: **[REDACTED]**
 Project Manager: **Howard Ehmke** Bus. Area: **Survey & Mapping** Agency: **SFWMD** Fund: **[REDACTED]**
 Contract #: **[REDACTED]**
 Project Name: **[REDACTED]** Legal Mandate: **[REDACTED]**

Short Common Name / Description: **[REDACTED]**

Proj. Mgr. Notes: This addendum was performed to add NAVD 88 surveying data for the reference elevation. To convert to NGVD 29 add +0.984ft.

Site Directions: From the intersection of US27/US98 and SR64 in the town of Avon Park, take SR64 East towards the Avon Park Air force Base for approximately 3.4 miles to an intersection where SR64 bears to the left and Avon Pines Road goes to the right. Proceed on Avon Pines Road for 1.6 miles and monitoring site should be visible in the pasture on the left.

Site Address (if any): **[REDACTED]**

Transportation: **[REDACTED]** Lock type or combination: **Abloy S** # **[REDACTED]**

Recorder Location/Purpose: **[REDACTED]** Structure Type: **[REDACTED]**

Array ID Configuration table attached **[REDACTED]**

SURVEY INFORMATION

B.M. Elevation: **88.64 ft** Date: **3/30/2005** Stamp: **BM TELL5**
 Agency: **SFWMD** Type: **ALUM** Datum: **NAVD 88**

Benchmark Location/ Description: Marker is an aluminum disk, stamped "South Florida Water Management District Survey Marker " BM TELL5".

COMMUNICATIONS INFORMATION

Communications System: **[REDACTED]** Loggernet Server: **[REDACTED]** Loggernet IP Address: **[REDACTED]**
 Tower: **[REDACTED]** Communication Type: **[REDACTED]** R.F. Code/Modem Address: **[REDACTED]** R.F. Access Point: **[REDACTED]**
 Phone Number: **[REDACTED]**
 RTU Address: **[REDACTED]** Gateways: **[REDACTED]** **[REDACTED]** **[REDACTED]** **[REDACTED]**

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	LOTELA	91.76	3/30/2005	91.76			88.64	NAVD 88	Black mark on top of PVC well pipe.

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

COORDINATE INFORMATION

Item/Parm	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin	County	Description
GW1	27 35 28.35	81 26 07.59	515126.94	1184338	20	33	29			Highlands	