



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DB Hydro Station Name: L-6433 L-6436	DB Hydro Site Name: LMMW LMMW	Agency: WMD	Date of Field Work: 17-oct-17
Party Chief: Wise	Field Book: Misc 7E	Pages 21-23	Prepared by: H. Ehmke

SITE SPECIFIC DATA

Site Benchmark: INJ BM 04	Benchmark Elevation (NAVD88) 4.976	Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) +1.188	
Reference Elevation(s) (NAVD88): L-6433 (GW1) EI. 8.73 L-6436 (GW2) EI. 9.11	Existing Brass Tag Elevation (Datum): L-6433 (GW1) 9.784 4-14-10 RH AG L-6436 (GW2) 10.164 4-14-10 RH AG	Calibration Port Elevation(s) (NAVD88): L-6433 (GW1) EI. 8.72 L-6436 (GW2) EI. 9.09	
Ground Elevation at the 4 corner of the concrete pad (NAVD88): L-6433 (GW1) L-643 (GW2) NE Cor. EI. 4.8 SE Cor. EI. 4.7 NE Cor. EI. 4.8 SE Cor. EI. 4.9 NW Cor. EI. 4.8 SW Cor. EI. 4.8 NW Cor. EI. 4.8 SW Cor. EI. 4.9		Concrete pad Elevation at the four corners (NAVD88): L-6433 (GW1) L-6436 (GW2) NE Cor. EI. 4.84 SE Cor. EI. 4.80 NE Cor. EI. 4.89 SE Cor. EI. 4.86 NW Cor. EI. 4.85 SW Cor. EI. 4.82 NW Cor. EI. 4.81 SW Cor. EI. 4.83	

GEOGRAPHIC DATA

Section 18	Township 44 South	Range 23 East	County: Lee		
Station	Latitude	Longitude	Northing (Y)	Easting (X)	Source:
INJ BM 04	26°39'05.840"	82°03'21.455"	843962.83	311260.49	<i>LMMWGW1&2.asc file</i>
L-6433 (GW1)	26°39'05.443"	82°03'21.472"	843922.70	311258.68	<i>LMMWGW1&2.asc file</i>
L-6436 (GW2)	26°39'05.084"	82°03'21.457"	843866.40	311259.67	<i>LMMWGW1&2.asc file</i>

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

Aerial Overall Site



L-6433 (GW1)
 Well Site
 Latitude: 26°39'05.443"
 Longitude: 82°03'21.472"

L-6436 (GW2)
 Well Site
 Latitude: 26°39'05.084"
 Longitude: 82°03'21.457"

LMMW RTU

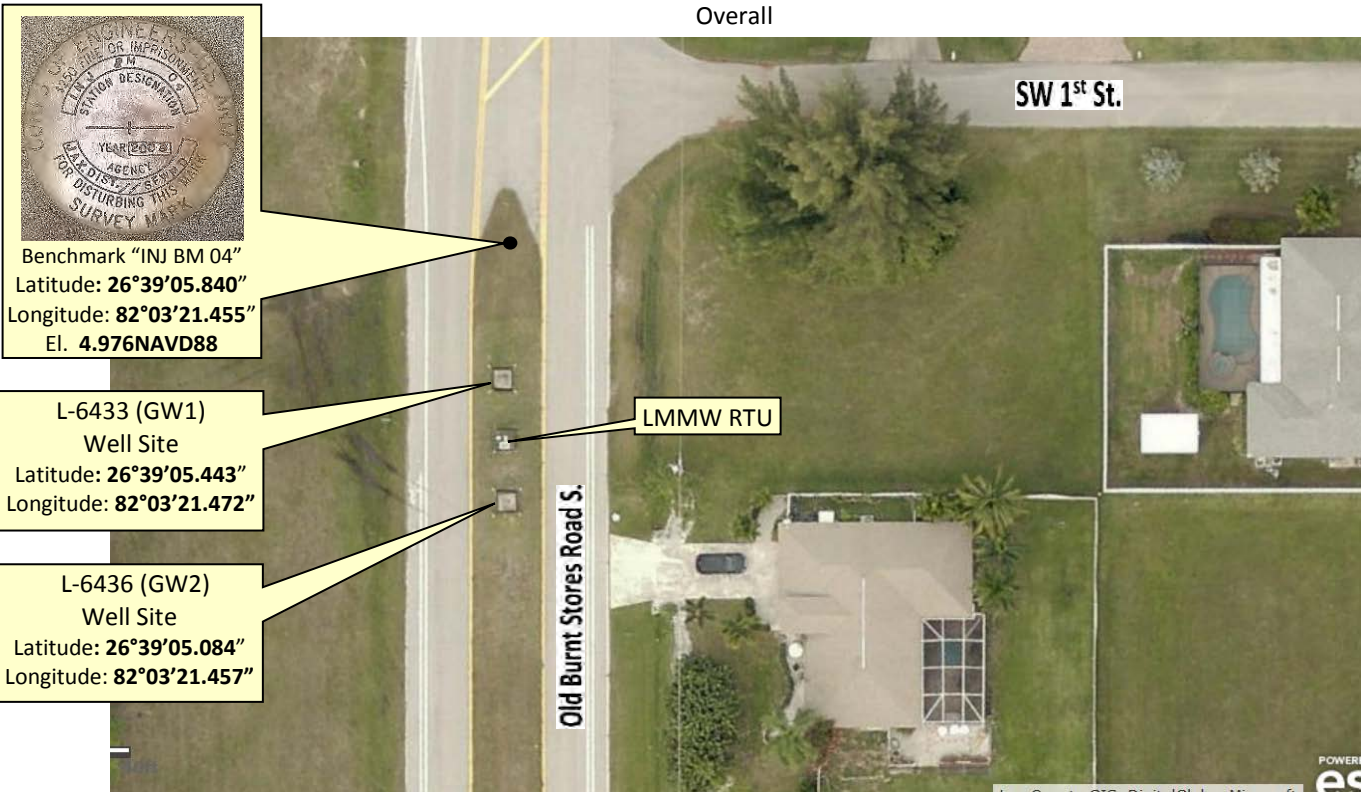
Not to scale (esri product)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

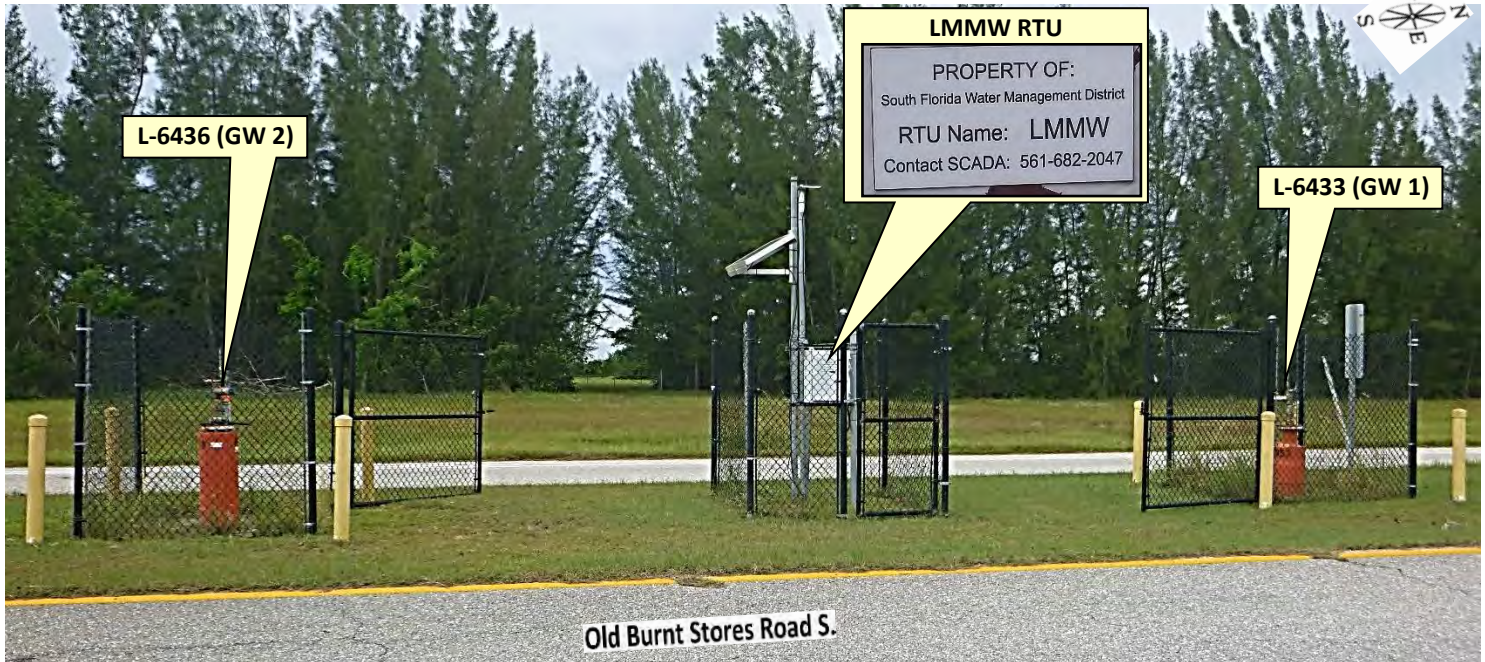
Rev. 1/16

Overall



Looking Southerly (oblique not to scale) (20-jun-17)

L-6433 (GW-1), LMMW RTU & L-6436 (GW2) Overall Site



Looking Westerly (oblique not to scale) (17-oct-17)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

L-6433 (GW 1) LM3353 M1

L-6433 (GW1)
Observation Port
Reference Point
El. 8.72 NAVD88

L-6433 (GW1)
Reference Point
El. 8.73 NAVD88



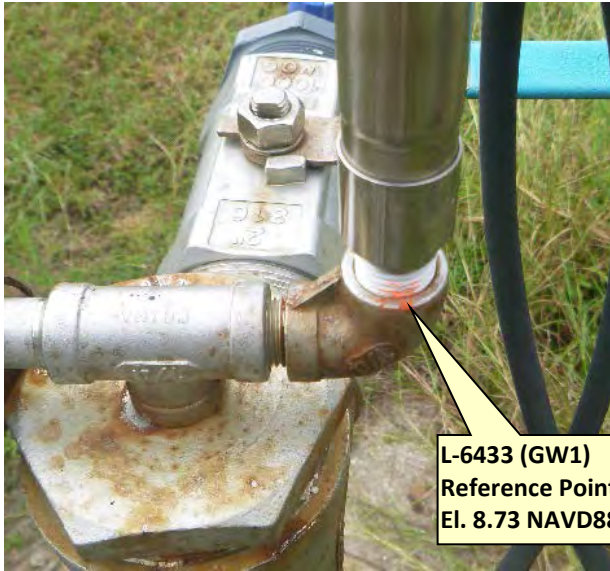
Looking Southerly (oblique not to scale) (17-oct-17)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

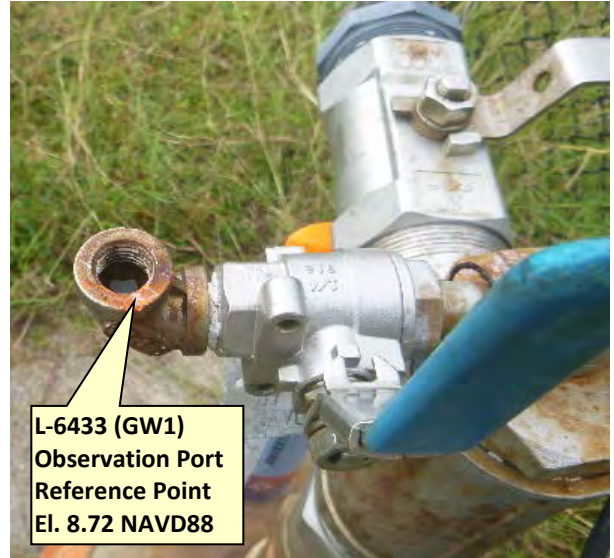
L-6433 (GW 1) Reference Point



L-6433 (GW1)
Reference Point
El. 8.73 NAVD88

Looking Southerly (oblique not to scale) (17-oct-17)

L-6433 (GW 1) Observation Port



L-6433 (GW1)
Observation Port
Reference Point
El. 8.72 NAVD88

Looking Southerly (oblique not to scale) (17-oct-17)

L-6436 (GW 2) LM3479 M2



L-6436 (GW2)
Observation Port
Reference Point
El. 9.09 NAVD88

L-6436 (GW2)
Reference Point
El. 9.11 NAVD88

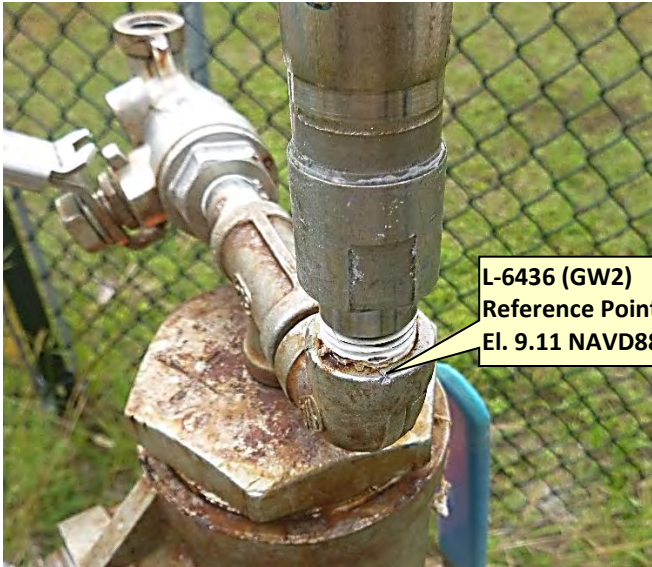
Looking Southerly (oblique not to scale) (17-oct-17)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

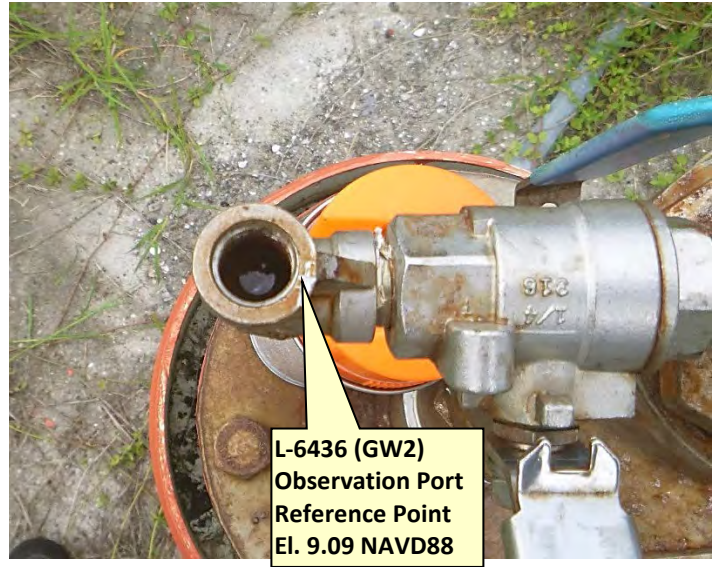
Rev. 1/16

L-6436 (GW 2) Reference Point



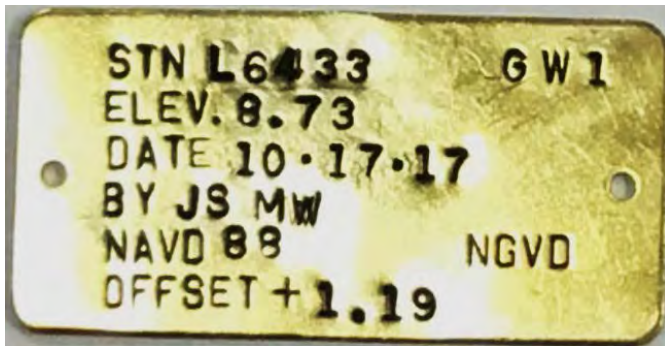
Looking Southerly (oblique not to scale) (17-oct-17)

L-6436 (GW 2) Observation Port



Looking Southerly (oblique not to scale) (17-oct-17)

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



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





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

DESIGNATION: INJ BM 04 2004	PROJECT: LMMW Well Site
ESTABLISHED BY: CONSUL-TECH	SURVEYOR: Hudson
RECOVERED BY: SOUTH FLORIDA WATER MANAGEMENT DISTRICT	DATE: 14-apr-10

GEOGRAPHIC POSITION

SECTION 18	TOWNSHIP 44 SOUTH	RANGE 23 EAST
COUNTY Lee	NAME OF QUADRANGLE: MATLACHA GEOGRAPHIC INDEX OF QUAD: 2217	
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)= 843962.83	E (X)=311260.49
		NAVD 88 EL. 4.976 NGVD 29 EL. 6.161 NGVD 29 EL. 6.164 CORPSCON
CORPSCON 6.0.1 CONVERSION FACTOR (NAVD88 TO NGVD29): +1.188		
LATITUDE: 26°39'05.84" N		LONGITUDE: 082°03'21.46" W

RECOVERY DATA

Stamping: INJ BM 04 2004
To Reach: From the junction of Interstate 75 (I-75) and Pine Island Road (State Road 78), go west on Pine Island Road 15.6 miles to Burnt Store Road (State Road 765); turn right (north) onto Burnt Store Road and go north 1.0 mile to Embers Road; turn left (west) onto Embers Road and go west 1 mile to Old Burnt Store Road; turn left (south) onto Old Burnt Store Road, 0.1 of a mile to South Florida Water Management District's well site LMMW (L-6433 GW1 and L-6436 GW-2) and station location. Station is a bronze Corps of Engineers disk stamped "INJ BM 04 2004." In a NGS Class "C" concrete monument.
NGS SOURCE BENCHMARKS: B240 (AG1603) and Z240 (AG1599)
FIELD BOOK MISC 7E PAGE 23

PICTURES



Overall Site



**Bronze C.of E. Disk
stamped "INJ BM 04"
El. 4.976 NAVD88
El. 6.161 NGVD29**

Looking Southerly Oblizue Not to Scale (19-oct-17)

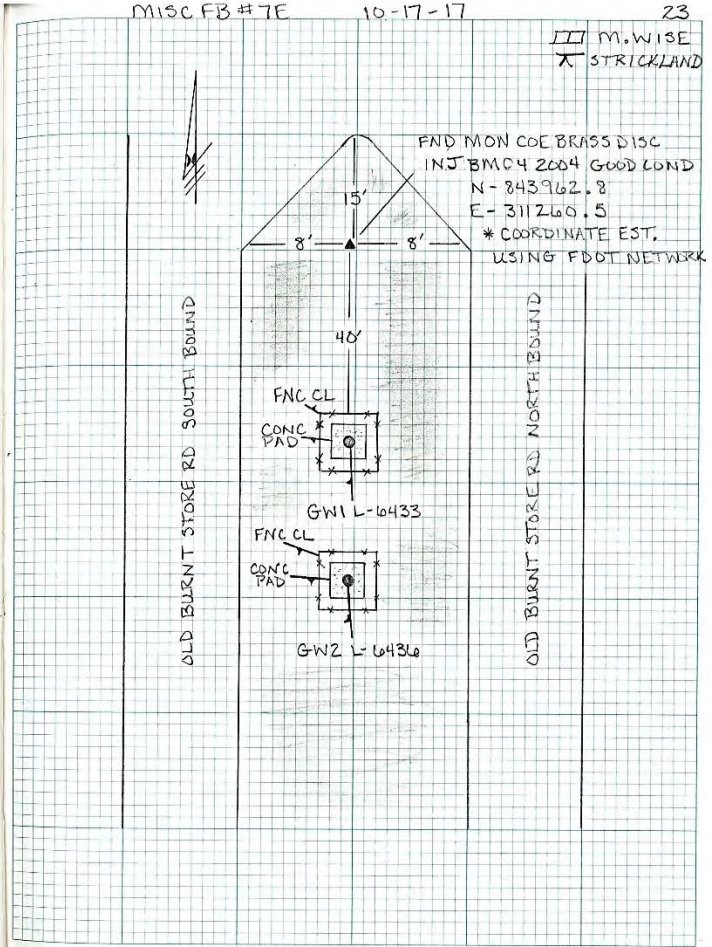


SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Field Book Misc 7E page 23

23	MISC FB#7E	10-17-17			
SEC	18	TWP	44	RGE	23



SEC 18 TWP 44 RGE 23

ESTABLISH NAVD 88 ELEV ON REFERENCE POINTS @ WELL SITE LMMW GW WELLS L-6433 AND L-6436

STA	+	HI	-	ELEV	BM EL
BM	4.85	9.83		4.98	4.976 NAVD 88
GW1 REF PT			1.10	8.73	
GW1 VER PORT			1.11	8.72	
CONC PAD NE			4.99	4.84	
GRND NE			5.0	4.83	
CONC PAD SE			5.03	4.80	
GRND SE			5.1	4.73	
CONC PAD SW			5.01	4.82	
GRND SW			5.0	4.83	
CONC PAD NW			4.98	4.85	
GRND NW			5.0	4.83	
GW2 REF PT			0.72	9.11	
GW2 VER PORT			0.74	9.09	
CONC PAD NE			4.94	4.89	
GRND NE			5.0	4.83	
CONC PAD SE			4.97	4.86	
GRND SE			4.90	4.93	

CONTINUED ON PAGE 22.

M. WISE
 STRICKLAND

BM FND CONCRETE MONUMENT COE BRASS DISC STAMPED INJ BM
D4 2004 GOOD COND
GW1 REF PT IS "V" MARK ON N SIDE OF 1/4 INC STAINLESS STEEL 90
GW1 VER PORT IS "X" MARK ON N SIDE OF 1/4 INC STAINLESS STEEL 90
CONCRETE PAD ON NE SIDE OF WELL
GROUND SHOT ON NE " "
CONCRETE PAD ON SE " "
GROUND SHOT ON SE " "
CONCRETE PAD ON SW " "
GROUND SHOT ON SW " "
CONCRETE PAD ON NW " "
GROUND SHOT ON NW " "
GW2 REF PT IS "V" MARK ON N SIDE OF 1/4 INC STAINLESS STEEL 90
GW2 VER PORT IS "X" MARK ON N SIDE OF 1/4 INC STAINLESS STEEL 90
CONCRETE PAD ON NE SIDE OF WELL
GROUND SHOT ON NE " "
CONCRETE PAD ON SE " "
GROUND SHOT ON SE " "

SEC 18 TWP 44 RGE 23

CONTINUED FROM PAGE 21

STA	+	HI	-	ELEV	BM EL
CONC PAD SW		9.83	5.00	4.83	
GRND SW			4.90	4.93	
CONC PAD NW			5.02	4.81	
GRND NW			5.0	4.83	
BM			4.85	4.98	4.98 NAYD 88

SKETCH ON PAGE 23

M. WISE
 STRICKLAND

CONCRETE PAD ON SW SIDE OF WELL
 GROUND SHOT ON SW "
 CONCRETE PAD ON NW "
 GROUND SHOT ON NW "
 BM FND CONCRETE MONUMENT COE BRASS DISC STAMPED
 INJ BM 04 2004 GOOD COND

23

MISC FB# 7E

10-17-17

SEC

18

TWP

44

RGE

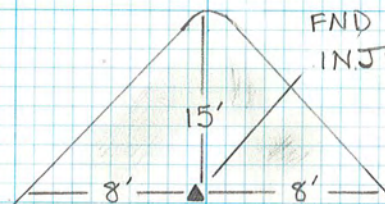
23

MISC FB #7E

10-17-17

23

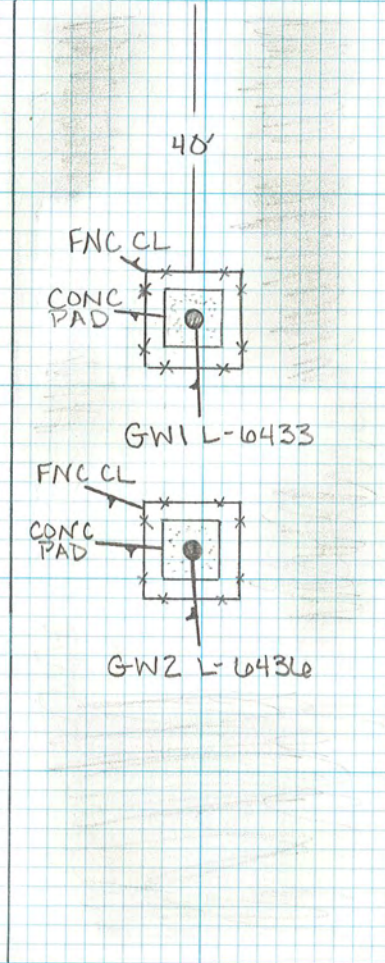
M. WISE
STRICKLAND



FND MON COE BRASS DISC
INJ BMO4 2004 GOOD COND
N-843962.8
E-311260.5
* COORDINATE EST.
USING FDOT NETWORK

OLD BURNT STORE RD SOUTH BOUND

OLD BURNT STORE RD NORTH BOUND



Office

Project

2 March 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

LMMW

1/1

Latitude: 26 39 05.87
Longitude: 82 03 21.38
Elevation/Z: 0

Northing/Y: 843965.750
Easting/X: 311267.340
Elevation/Z: 1.188
Convergence: -0 28 25.32141
Scale Factor: 1.000077566
Combined Factor: 1.000081246

Remark:

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

DBHYDRO | by station

STATION INFORMATION

Station	L-6433
Site	LMMW
Type	WELL
Latitude (ddmmss.sss)	263859.249
Longitude (ddmmss.sss)	820319.326
X Coord (ft) NAD83	311448.17
Y Coord (ft) NAD83	843295.51
County	Lee
Basin	CAPE CORAL COASTAL
Section	18
Township	44
Range	23
Show Map	Google Map
Well Info	Info
Description	LM-3353, SITE M
Notes	
Nearby Stations	Nearby Stations
Attachments	Show Attachments

Query returned 1 station record(s).

Get Sample Data

Get Time Series Data

DBHYDRO | by station

STATION INFORMATION

Station	L-6436
Site	LMMW
Type	WELL
Latitude (ddmmss.sss)	263907.248
Longitude (ddmmss.sss)	820320.326
X Coord (ft) NAD83	311364.107
Y Coord (ft) NAD83	844104.065
County	Lee
Basin	CAPE CORAL COASTAL
Section	7
Township	44
Range	23
Show Map	Google Map
Well Info	Info
Description	LM-3479, SITE M
Notes	
Nearby Stations	Nearby Stations
Attachments	Show Attachments

Query returned 1 station record(s).

Get Sample Data

Get Time Series Data

REGISTRATION WORKSHEET - LMMW Addendum

Site Name: **LMMW** Today's Date: **6/18/2010** Type Recorder:
 Activity: **Addendum** Effective Date: **7/30/2009** Start Date of Data :
 Customer: **Steve Krupa** Bus. Area: **2542** Agency: **250** Internal Order:
 Project Manager: **H.Ehmke** Bus. Area: **Survey/Eng.** Agency: **SFWMD** Fund:
 Contract #:
 Project Name: Legal Mandate:

Short Common Name / Description:

Proj. Mgr. Notes: This addendum was performed to add NAVD 88 surveying data for the reference elevation. To convert to NGVD 29 add +1.188

Site Directions: TO BURNT STORE ROAD; TURN RIGHT AND GO NORTH TO CEITUS PARKWAY (THE FIRST STREET ON THE LEFT); GO WEST ALONG CEITUS PARKWAY WHICH TURNS INTO OLD BURNT STORE ROAD; GO NORTH ALONG OLD BURNT STORE ROAD; WELLS ARE LOCATED IN THE MEDIAN JUST BEFORE THE ROAD TURNS INTO TWO LANES.

Site Address (if any):

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

Recorder Location/Purpose: **Water Control Structure (Flow Site)** Structure Type:

Array ID Configuration table attached

SURVEY INFORMATION

B.M. Elevation: **4.976** Date: Stamp: **INJ BM 04 2004**
 Agency: **USACE** Type: **BRASS** Datum: **NAVD 88**

Benchmark Location/ Description: BENCHMARK IS 40 FEET NORTH OF THE NORTHERN MOST WELL.

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	L-6433	8.73	10/17/2017	9.73		4.8	4.976	NAVD88	top of 90degree elbow
GW2	L-6436	9.11	10/17/2017	9.11		4.8	4.976	NAVD 88	top of 90 degree elbow

Sensor	GW Land Elevation	Depth of Well	Meas Pt Above BM	Type of Well	GW Sensor location											
GW1																
GW2																

ADDITIONAL GPS INFORMATION

Item/Parc	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin	County	Description
GW1	26 39 05.443	82 03 21.472			18	44	23			Lee	
GW2	26 39 05.084	82 03 21.457			18	44	23			Lee	