



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Site Name: LFAKBB			Date of Field Work: 15-aug-12																						
Party Chief: Ebanks		Field Book: SCADA 8		Page 60																					
Site Benchmarks: X505 (AJ6638) POF27BM POF28 BM		Benchmark Elevation (NAVD88) 57.461 (17.514m) 61.651 (Stamped 61.68) 62.586 (Stamped 62.62)		Corpscon 6.0.1 Conversion Factor (NAVD88 to NGVD29) X505 +1.204 POF 27 +1.204 POF 28 +1.204																					
Reference Elevation(s)			Existing Tag Elevation (Datum):		Calibration Port Elevation(s) (NAVD88):																				
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Well</th> <th style="text-align: left;">NAVD88</th> <th style="text-align: left;">NGVD29 (Tagged)</th> </tr> </thead> <tbody> <tr> <td>POF27L (GW1)</td> <td>64.48</td> <td>65.68</td> </tr> <tr> <td>POF27U (GW2)</td> <td>63.81</td> <td>65.01</td> </tr> <tr> <td>POF28U (GW3)</td> <td>64.611</td> <td>65.815</td> </tr> <tr> <td>POF28L (GW4)</td> <td>65.281</td> <td>66.485</td> </tr> </tbody> </table>			Well	NAVD88	NGVD29 (Tagged)	POF27L (GW1)	64.48	65.68	POF27U (GW2)	63.81	65.01	POF28U (GW3)	64.611	65.815	POF28L (GW4)	65.281	66.485	<table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>None</td> </tr> <tr> <td>None</td> </tr> <tr> <td>None</td> </tr> <tr> <td>None</td> </tr> </tbody> </table>		None	None	None	None	<table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>Not Applicable</td> </tr> </tbody> </table>	Not Applicable
Well	NAVD88	NGVD29 (Tagged)																							
POF27L (GW1)	64.48	65.68																							
POF27U (GW2)	63.81	65.01																							
POF28U (GW3)	64.611	65.815																							
POF28L (GW4)	65.281	66.485																							
None																									
None																									
None																									
None																									
Not Applicable																									
Ground Elevation (NAVD88): Not Available			Pad Elevation (NAVD88): Not Available																						
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Well</th> <th style="text-align: left;">Latitude:</th> <th style="text-align: left;">Longitude:</th> </tr> </thead> <tbody> <tr> <td>POF 27</td> <td>27° 58' 36.68"N</td> <td>81° 22' 21.21"W</td> </tr> <tr> <td>POF 28</td> <td>27° 58' 36.17"N</td> <td>81° 22' 20.32"W (taken from Google Earth)</td> </tr> </tbody> </table>						Well	Latitude:	Longitude:	POF 27	27° 58' 36.68"N	81° 22' 21.21"W	POF 28	27° 58' 36.17"N	81° 22' 20.32"W (taken from Google Earth)											
Well	Latitude:	Longitude:																							
POF 27	27° 58' 36.68"N	81° 22' 21.21"W																							
POF 28	27° 58' 36.17"N	81° 22' 20.32"W (taken from Google Earth)																							

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



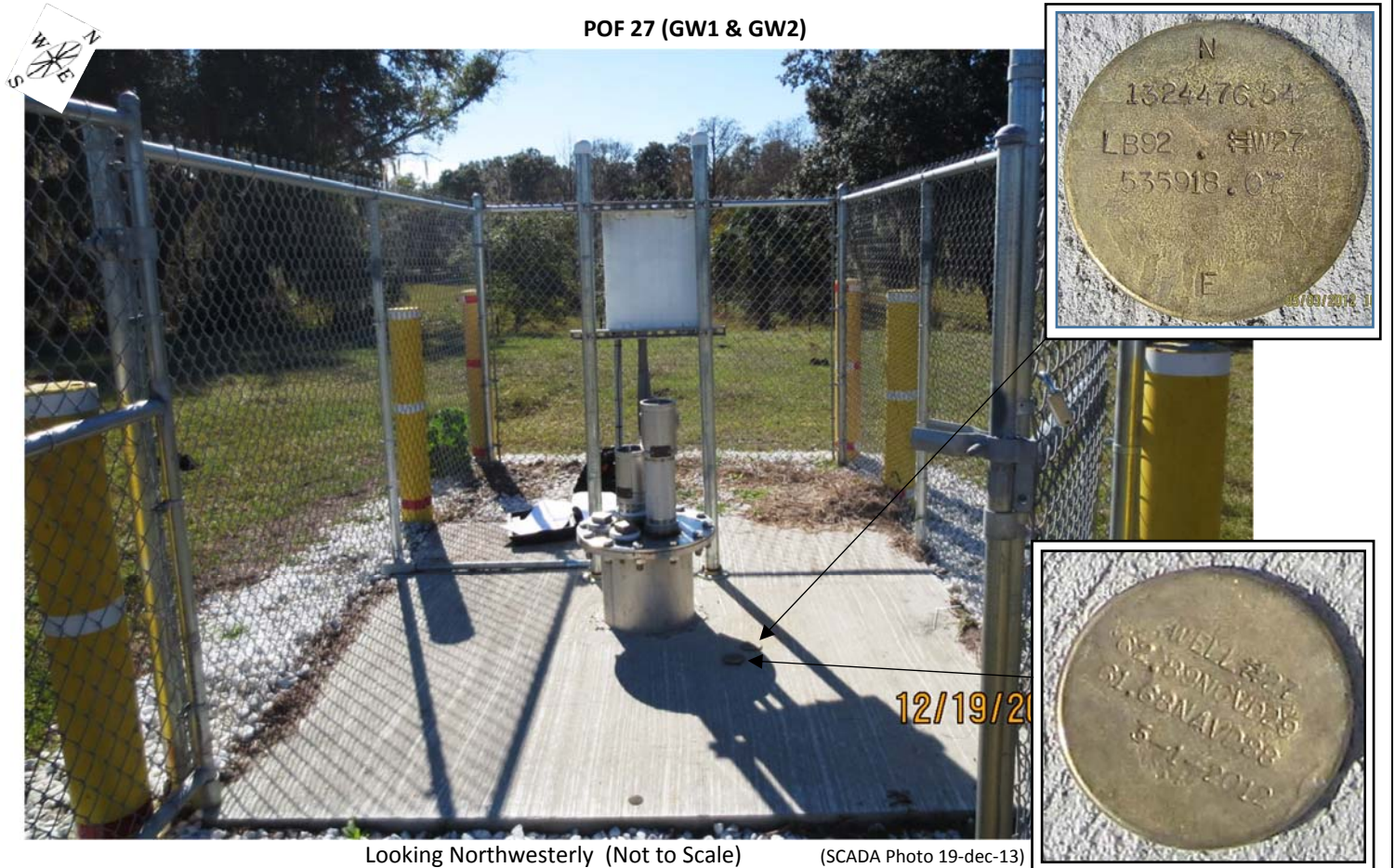
Looking Southwesterly (Not to Scale) (SCADA photo dated 03-may-12)



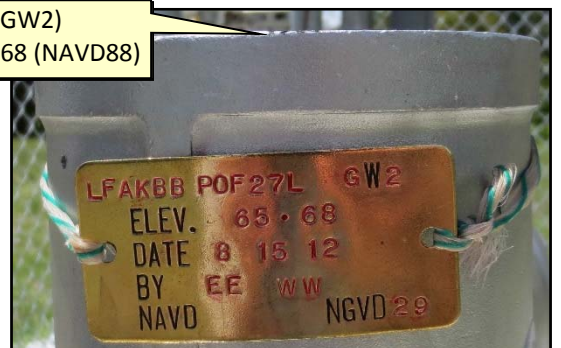
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

POF 27 (GW1 & GW2)



POF 27L (GW2)
Ref. El. 65.68 (NAVD88)



Looking Northwest (Not to Scale)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

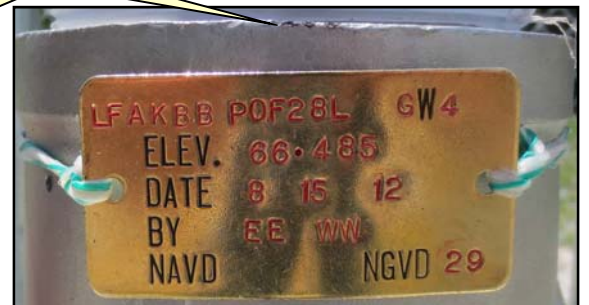
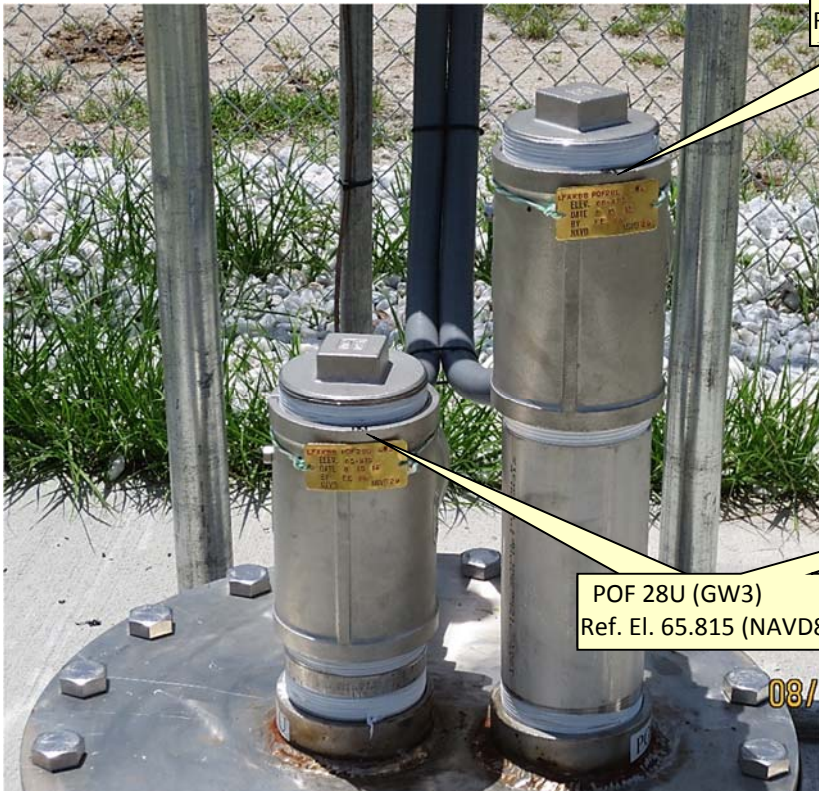
POF 28 (GW3 & GW4)



Looking Southwesterly (Not to Scale) (SCADA Photo 19-dec-13 Well head revised)

POF 28

POF 28L (GW4)
Ref. El. 66.485



POF 28U (GW3)
Ref. El. 65.815 (NAVD88)



Looking Southwesterly (Not to Scale)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

NGS Source Benchmark



Looking Northwesternly



NGS X505 (AJ6638)

El. 57.461 (17.514m) NAVD88

El. 58.66 NGVD29 (FLDEP)

El. 58.674 NGVD29 (Corpscon 6.0.1) (NAVD88 +1.204)



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 1/16

Field Notes

SCADA FB#08 8-15-12
 HCU 12 TWP 29 Rge 29 Ebanks
 Wickings

Establish REF elevation for FLORIDIAN
 WELLS on West Side C-37 near Radio
 TOWER (North of Bridge over C-37)

HTA	+	HT.I.	-	Elev	Remarks
BM X-525	1.86	60.65		58.46	IND (29) Grad.
TP.			0.20	60.32	
	7.26	67.58			
TP.			3.05	64.53	
	4.65	69.18			
Well #28 BM			5.395	63.785	60 backsight in concrete pad (63.83)
POF 28 L	✓	2.695		66.485	
POF 28 U.	✓	3.365		65.215	60 backsight
Well #27 BM			6.33	62.85	(62.89)
POF 27 L	✓	3.50		65.68	
POF 27 U	✓	4.17		65.01	
					<u>RT</u>
POF 27 U.	3.90	68.91			
POF 27 L			3.23	65.68	

HTA FB#08 8-15-12 (60)

RT Levels Cont'd

HTA	+	HT.I.	-	Elev	Remarks
		68.91	6.05	62.86	
Well #27 BM			3.09	65.82	
POF 28 U			2.425	66.485	
POF 28 L					
Well Site 27 BM.			5.12	63.79	
TP.			4.375	64.535	
	3.10	67.635			
TP.			7.08	60.355	
	0.61	60.965			
BM X-525			2.31	58.655	(58.66)

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.9.1
1      National Geodetic Survey,  Retrieval Date = OCTOBER  2, 2016
AJ6638 *****
AJ6638 DESIGNATION - X 505
AJ6638 PID - AJ6638
AJ6638 STATE/COUNTY- FL/POLK
AJ6638 COUNTRY - US
AJ6638 USGS QUAD - LAKE WEOHYAKAPKA NE (1972)
AJ6638
AJ6638 *CURRENT SURVEY CONTROL
AJ6638
AJ6638* NAD 83(1986) POSITION- 27 58 31. (N) 081 22 11. (W) SCALED
AJ6638* NAVD 88 ORTHO HEIGHT - 17.514 (meters) 57.46 (feet) ADJUSTED
AJ6638
AJ6638 GEOID HEIGHT - -27.271 (meters) GEOID12B
AJ6638 DYNAMIC HEIGHT - 17.488 (meters) 57.38 (feet) COMP
AJ6638 MODELED GRAVITY - 979,148.3 (mgal) NAVD 88
AJ6638
AJ6638 VERT ORDER - SECOND CLASS I
AJ6638
AJ6638.The horizontal coordinates were scaled from a topographic map and have
AJ6638.an estimated accuracy of +/- 6 seconds.
AJ6638.
AJ6638.The orthometric height was determined by differential leveling and
AJ6638.adjusted by the NATIONAL GEODETIC SURVEY
AJ6638.in April 2004.
AJ6638
AJ6638.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ6638.GEOID12B height accuracy estimate available here.
AJ6638
AJ6638.The dynamic height is computed by dividing the NAVD 88
AJ6638.geopotential number by the normal gravity value computed on the
AJ6638.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6638.degrees latitude (g = 980.6199 gals.).
AJ6638
AJ6638.The modeled gravity was interpolated from observed gravity values.
AJ6638
AJ6638; North East Units Estimated Accuracy
AJ6638;SPC FL W - 403,630. 262,010. MT (+/- 180 meters Scaled)
AJ6638
AJ6638 SUPERSEDED SURVEY CONTROL
AJ6638
AJ6638.No superseded survey control is available for this station.
AJ6638
AJ6638_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML636945(NAD 83)
AJ6638
AJ6638_MARKER: DD = SURVEY DISK
AJ6638_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6638_STAMPING: X 505 2001
AJ6638_MARK LOGO: FLDEP
AJ6638_MAGNETIC: B = BAR MAGNET IMBEDDED IN MONUMENT

```

AJ6638_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AJ6638+STABILITY: SURFACE MOTION
 AJ6638_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
 AJ6638+SATELLITE: SATELLITE OBSERVATIONS - 2001

AJ6638

AJ6638	HISTORY	- Date	Condition	Report By
AJ6638	HISTORY	- 2001	MONUMENTED	FLDEP

AJ6638

AJ6638 STATION DESCRIPTION

AJ6638

AJ6638'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
 AJ6638'THE MARK IS ABOUT 18.0 MI (29.0 KM) EAST-NORTHWEST OF LAKE WALES, IN
 AJ6638'SECTION 12, TOWNSHIP 29 SOUTH, RANGE 29 EAST. TO REACH THE MARK FROM
 AJ6638'THE INTERSECTION OF STATE ROAD 27 AND STATE ROAD 60 IN LAKE WALES, GO
 AJ6638'EAST-SOUTHEAST ON STATE ROAD 60 FOR 7.3 MI (11.7 KM) TO THE JUNCTION
 AJ6638'OF MAMMOTH GROVE ROAD ON THE LEFT, TURN LEFT ON MAMMOTH GROVE ROAD AND
 AJ6638'GO NORTH FOR 2.05 MI (3.30 KM) TO THE JUNCTION OF CAMP MACK ROAD ON
 AJ6638'THE RIGHT, TURN RIGHT ON CAMP MACK ROAD AND GO NORTH FOR 0.25 MI (0.40
 AJ6638'KM) TO A CURVE EAST, CONTINUE EAST ON CAMP MACK ROAD FOR 2.3 MI (3.7
 AJ6638'KM) TO THE JUNCTION OF BARNEY KEEN ROAD (BOY SCOUT ROAD) ON THE RIGHT,
 AJ6638'CONTINUE NORTHEASTERLY ON CAMP MACK ROAD FOR 5.35 MI (8.61 KM) TO THE
 AJ6638'ENTRANCE TO LAKE KISSIMMEE STATE PARK ON THE RIGHT, CONTINUE NORTH ON
 AJ6638'CAMP MACK ROAD FOR 0.1 MI (0.2 KM) TO THE JUNCTION OF A SAND ROAD ON
 AJ6638'THE RIGHT, TURN RIGHT ON THE SAND ROAD AND GO NORTHEAST FOR 75.0 FT
 AJ6638'(22.9 M) TO A LOCKED GATE, CONTINUE NORTHEAST ON THE SAND ROAD FOR
 AJ6638'0.35 MI (0.56 KM) TO A Y-JUNCTION, CONTINUE NORTHEAST ON THE SAND ROAD
 AJ6638'FOR 0.25 MI (0.40 KM) TO THE SOUTHWEST END OF A BRIDGE (SPANNING
 AJ6638'KISSIMMEE RIVER CANAL) AND THE MARK ON THE LEFT SET IN THE TOP OF A
 AJ6638'ROUND CONCRETE MONUMENT RECESSED 0.3 FT (9.1 CM) BELOW THE LEVEL OF
 AJ6638'THE GROUND AND 3.0 FT (0.9 M) BELOW THE LEVEL OF THE SAND ROAD.
 AJ6638'LOCATED 67.7 FT (20.6 M) WEST OF THE SOUTHWEST END OF A BRIDGE, 63.1
 AJ6638'FT (19.2 M) NORTHWEST OF THE APPROXIMATE CENTERLINE OF THE DIRT ROAD,
 AJ6638'39.0 FT (11.9 M) NORTH OF POWER POLE NUMBER 21893 WITH 2 GUY WIRES
 AJ6638'ATTACHED, 31.5 FT (9.6 M) SOUTHWEST OF THE APPROXIMATE CENTERLINE OF A
 AJ6638'ROAD ALONG THE CANAL, 19.5 FT (5.9 M) NORTHEAST OF THE WEST FENCE
 AJ6638'CORNER, 1.2 FT (0.4 M) NORTHWEST OF A CARSONITE WITNESS POST AND 1.0
 AJ6638'FT (0.3 M) NORTHWEST OF A BARBWIRE FENCE. NOTE A BAR MAGNET WAS
 AJ6638'IMBEDDED IN THE MONUMENT ON THE SOUTH SIDE, 0.2 FT (6.1 CM) BELOW THE
 AJ6638'TOP OF THE MONUMENT. NOTE FOR KEY CONTACT SOUTH FLORIDA WATER
 AJ6638'MANAGEMENT DISTRICT, PHONE NUMBER 561-686-8800.

*** retrieval complete.

Elapsed Time = 00:00:02

Office

Project

3 October 2016

INPUT

Geographic, flhp gn - Florida HPGN
Vertical - NAVD88, U.S. Feet

OUTPUT

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

POF27

1/4

Latitude: 27 58 36.68
Longitude: 81 22 21.21
Elevation/Z: 0

Northing/Y: 1324473.030
Easting/X: 535919.696
Elevation/Z: 1.204
Convergence: -0 10 29.18857
Scale Factor: 0.999957750
Combined Factor: 0.999961969

POF28

2/4

Latitude: 27 58 36.17
Longitude: 81 22 20.32
Elevation/Z: 0

Northing/Y: 1324421.282
Easting/X: 535999.333
Elevation/Z: 1.204
Convergence: -0 10 28.76811
Scale Factor: 0.999957728
Combined Factor: 0.999961947

POS14

3/4

Latitude: 27 58 34.43
Longitude: 81 22 17.39
Elevation/Z: 0

Northing/Y: 1324244.760
Easting/X: 536261.492
Elevation/Z: 1.204
Convergence: -0 10 27.38361
Scale Factor: 0.999957656
Combined Factor: 0.999961875

POF29

4/4

Latitude: 27 58 34.61
Longitude: 81 22 17.73
Elevation/Z: 0

Northing/Y: 1324263.031
Easting/X: 536231.064
Elevation/Z: 1.204
Convergence: -0 10 27.54414
Scale Factor: 0.999957665
Combined Factor: 0.999961883

Remark:

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