

Identification_Information:

Citation:

**Consul-Tech
Surveying and
Mapping**

Citation_Information:

Originator: Robert J. Bills(comp.)
Originator: U. S. Army Engineer District, Jacksonville (ed.)
Publication_Date: Unpublished material
Publication_Time: Unknown
Title: S. F. W. M. D. Well HF-7
Edition: 1
Series_Information:
Publication_Information:
Publication_Place: Not published
Publisher: None
Online_Linkage: bbills@cte.cc
Larger_Work_Citation:
Citation_Information:
Series_Information:
Publication_Information:

Description:

Abstract:

South Florida Water Management District
Well HF-7

Purpose

Purpose:

To establish NAVD 88 and NGVD 29 elevations on the well platform at the reference mark. Also establish a nearby site benchmark.

Supplemental_Information:

Gates may be locked.
Bob Roth
Barron Collier Company
(239) 657-2337
(239) 658-6060
There is a lock on the well.
See point of contact for key.

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:
Calendar_Date: 20030311
Time_of_Day: 17000000
Range_of_Dates/Times:
Multiple_Dates/Times:

Survey Date

Currentness_Reference: Date and time of field work

Status:

Progress: Complete
Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -081°31' 36.01"
East_Bounding_Coordinate: -081°31' 36.01"
North_Bounding_Coordinate: +26°23' 51.13"
South_Bounding_Coordinate: +26°23' 51.13"

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
Theme_Keyword: Record Survey
Theme_Keyword: Well Site

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: S. F. W. M. D. Well HF-7
Place_Keyword: Sec. 09, Twp. 47 S., Rge 28 E.
Place_Keyword: Collier County, Florida
Place_Keyword_Thesaurus: Geographic Names Information System
Place_Keyword: Florida
Place_Keyword: Collier County

Stratum:

Temporal:

Access_Constraints: None

Use_Constraints: None

Point_of_Contact:

Contact_Information:

HF-7. gen

Tim Howard

Contact_Person_Primary:
Contact_Person: Tim Howard
Contact_Organization: South Florida Water Management

District, Big Cypress Basin

Contact_Organization_Primary:
Contact_Address:
Address_Type: mailing and physical address
Address: 6167 Janes Lane
City: Naples
State_or_Province: Florida
Postal_Code: 34109
Country: USA
Contact_Voice_Telephone: (239) 597 1505
Hours_of_Service: 8:00 am to 5:00 pm EST

Security_Information:

Cross_Reference:

Citation_Information:
Series_Information:
Publication_Information:

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

Equipment Used

This survey was prepared using GPS and Leveling instruments. The horizontal locations of the well and benchmark was performed using GPS. The vertical data was collected using a Wild NA2 Level. Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 83/90. Elevations are based on NAVD 88 and NGVD 29.

Logical_Consistency_Report:

Horizontal data was established using sub-meter GPS equipment. Vertical data was established using NGS control points Y 534 and X 534. Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 83/90. Elevations are based on NAVD 88 and NGVD 29.

Completeness_Report:

Project Results

Horizontal location taken at approximate center of well.
Lat. +26°23' 51.13"
Long. -081°31' 36.01"
N 750534'
E 483767'
MP -- No mark on platform.
RP -- Top of 2" PVC marked 24.64
23.57' (NAVD 88)
24.88' (NGVD 29) Based on NGS NGVD 29 adjustment of CERP vertical network.
No staff gage
Site Benchmark.
"COLL-45" is a standard U.S. Army Corps of Engineers brass disc, bearing COLL-45 2003 JAX DIST SFWMD, set in a 10" round concrete monument (poured in place, with a magnet placed nearby).
From the intersection of SR 29 and CR 846 (Immokalee road); Go south along CR-846 8.0 miles to the intersection with Oil Well grade. Go north along Oil Well grade 0.8 mile to an east-west dirt road. Go east 0.5 miles to a 90 degree bend to the north. Go north 1.1 miles to an equipment barn. Go west along a dirt road 0.6 mile to a Jeep Trail running north. Go north along Jeep trail 430 feet to a small clearing; Follow clearing southwest 100 feet, to COLL-45.
United States Department of the Interior Geological Survey
Quadrangle map -- CORKSCREW
horizontal location.
Lat. +26°23' 49.69"
Long. -081°31' 34.85"
N 750388'
E 483871'
elevations.

HF-7. gen

20.49' (NAVD 88)

21.80' (NGVD 29) Based on NGS NGVD 29 adjustment of CERP vertical network.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal

Horizontal_Positional_Accuracy_Report:

The horizontal position of the well HF-7 and benchmark COLL-45, was established using a differential, submeter, wide area augmentation system, GPS, using Coast Guard and FAA beacons for corrected positioning (Trimble Geoexplorer CE with Beacon on a Belt) in accordance with the Florida Minimum Technical Standards (Chapter 61G17-6).

Quantitative_Horizontal_Positional_Accuracy_Assessment:

Horizontal_Positional_Accuracy_Value: 1 meter

Horizontal_Positional_Accuracy_Explanation: The intended positional accuracy for this survey is 1 meter.

Vertical_Positional_Accuracy:

Level Line

Vertical_Positional_Accuracy_Report:

A level line was run originating on BM Y 534 with an NAVD 88 elevation, running through COLL-49, COLL-46, COLL-45 and terminating on BM X 534 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6). The level line was also readjusted using the values from the NGS NGVD 29 adjustment of the CERP vertical network.

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.020 m

Vertical_Positional_Accuracy_Explanation: NAVD 88 level run, 0.020 m closure in 13,976 m, max. allowed 0.045 m (MTS)

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.021 m

Vertical_Positional_Accuracy_Explanation: NGVD 29 level run, 0.021 m closure in 13,976 m, max. allowed 0.045 m (MTS)

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Series_Information:

Publication_Information:

Larger_Work_Citation:

Citation_Information:

Series_Information:

Publication_Information:

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Range_of_Dates/Times:

Multiple_Dates/Times:

Process_Step:

Process_Description:

The horizontal work was performed using Trimble Geoexplorer CE with Beacon on a Belt GPS. The level line was performed using a Wild NA2 level. Three wire methodology was used.

Process_Date: 20030311

Process_Time: 17000000

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Organization_Primary:

Contact_Address:

Spatial_Data_Organization_Information:

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Planar:

Map_Projection:

Albers_Conical_Equal_Area:

Azimuthal_Equidistant:

- HF-7. gen
- Equi di stant_Coni c:
- Equi rectangul ar:
- General_Verti cal _Near-si ded_Perspecti ve:
- Gnomoni c:
- Lambert_Azi muthal _Equal _Area:
- Lambert_Conformal _Coni c:
- Mercator:
- Modi fi ed_Stereographi c_for_Al aska:
- Mi l l er_Cyl i ndri cal :
- Obl i que_Mercator:
- Obl i que_Li ne_Poi nt:
- Orthographi c:
- Pol ar_Stereographi c:
- Pol yconi c:
- Robi nson:
- Si nusoi dal :
- van_der_Gri nten:
- Space_Obl i que_Mercator_(Landsat):
- Stereographi c:
- Transverse_Mercator:
- van_der_Gri nten:
- Gri d_Coordi nate_System:
- Uni versal _Transverse_Mercator:
- Transverse_Mercator:
- Uni versal _Pol ar_Stereographi c:
- Pol ar_Stereographi c:
- State_Pl ane_Coordi nate_System:
- Lambert_Conformal _Coni c:
- Transverse_Mercator:
- Obl i que_Mercator:
- Obl i que_Li ne_Poi nt:
- Pol yconi c:
- ARC_Coordi nate_System:
- Equi rectangul ar:
- Azi muthal _Equi di stant:
- Local _Pl anar:
- Pl anar_Coordi nate_I nformati on:
- Coordi nate_Representati on:
- Di stance_and_Beari ng_Representati on:
- Local :
- Geodeti c_Model :
- Verti cal _Coordi nate_System_Defi ni ti on:
- Al ti tude_System_Defi ni ti on:
- Depth_System_Defi ni ti on:
- Enti ty_and_Attri bute_I nformati on:
- Detai led_Descri pti on:
- Enti ty_Type:
- Attri bute:
- Attri bute_Domai n_Val ues:
- Attri bute_Val ue_Accuracy_I nformati on:
- Overvi ew_Descri pti on:
- Di stri buti on_I nformati on:
- Di stri butor:
- Contact_I nformati on:
- Contact_Person_Pri mary:
- Contact_Organi zati on_Pri mary:
- Contact_Address:
- Standard_Order_Process:
- Di gi tal _Form:
- Di gi tal _Transfer_I nformati on:
- Di gi tal _Transfer_Opti on:
- Onl i ne_Opti on:
- Computer_Contact_I nformati on:
- Network_Address:
- Di al up_I nstructi ons:
- OffLi ne_Opti on:
- Recordi ng_Capaci ty:
- Avai l abl e_Ti me_Peri od:
- Ti me_Peri od_I nformati on:
- Si ngl e_Date/Ti me:

HF-7. gen

Range_of_Dates/Times:

Multiple_Dates/Times:

Metadata_Reference_Information:

Metadata_Date: 20030325

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Joseph S. Boggs

Contact_Organization: Consul-Tech Surveying & Mapping

Contact_Organization_Primary:

Contact_Position: Project Surveyor

Contact_Address:

Address_Type: mailing and physical address

Address: 24831 Old 41 Road

City: Bonita Springs

State_or_Province: Florida

Postal_Code: 34135

Country: USA

Contact_Voice_Telephone: (239) 947-0266

Contact_Facsimile_Telephone: (239) 947-1323

Contact_Electronic_Mail_Address: j.boggs@cte.cc

Hours_of_Service: 8:00 am to 5:00 pm EST

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: Local time

Metadata_Security_Information:

S.F.W.M.D. Well – HF-7



Consul-Tech Surveying & Mapping, Inc.

Date of Survey: March 10, 2003

Looking: Westerly

S.F.W.M.D. Well – HF-7



Consul-Tech Surveying & Mapping, Inc.

Date of Survey: March 10, 2003

Looking: Southerly

S.F.W.M.D. Well – HF-7



Consul-Tech Surveying & Mapping, Inc.

Date of Survey: March 10, 2003

Looking: Southerly

S.F.W.M.D. Well – HF-7



Consul-Tech Surveying & Mapping, Inc.

Date of Survey: March 10, 2003

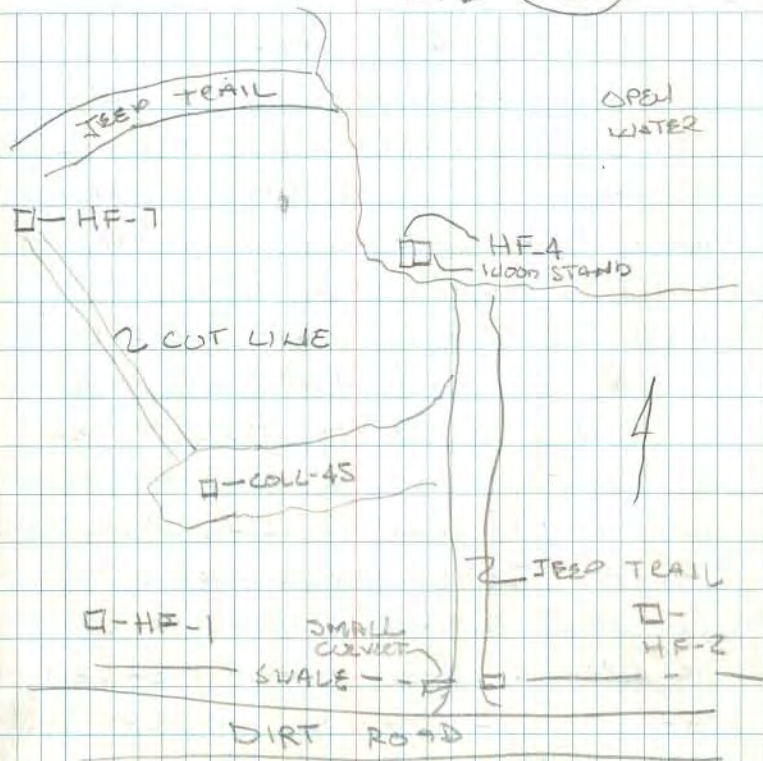
C. ROSE / R. BILLS 2/27/03

COLL-45 / HF4 + HF7

LOCATION: FROM THE INTX SR-29 AND CR-846 (IMMOKALEE RD) GO SOUTH ALONG CR-846 8.0 MI +/- TO OIL WELL GRADE AND GO NORTH ALONG OILWELL GRADE 0.8 MI TO AN EAST WEST DIRT ROAD. GO EAST 0.5 MI +/- AND TURN NORTH AND GO 1.1 MI +/- TO AN EQUIPMENT BARN GO WEST 0.6 MI +/- TO A JEEP TRAIL GOING NORTH. GO NORTH APPROX 500 FEET TO HF4 AT THE SOUTH EDGE OF A CLEARING. COLL-45 IS A STANDARD US ARMY CORP OF ENGINEER BRASS DISC, FROM HF4 GO SOUTH ALONG SAID JEEP TRAIL 70 FEET +/- TO A SMALL CLEARING GOING SOUTH-WEST, FOLLOW CLEARING APPROX. 100' TO MON. COLL-45 APPROX 0.5' ABOVE GROUND. FROM COLL-45 GO NORTH-NORTHWEST 160' +/- TO HF-7.

SPCS ARE NAD83 / FLA EAST / FEET
OBTAINED USING TRIMBLE GEO EXPLORER CE
SER# 42440 14618 WITH A BEACON ON A
BELT

516-20



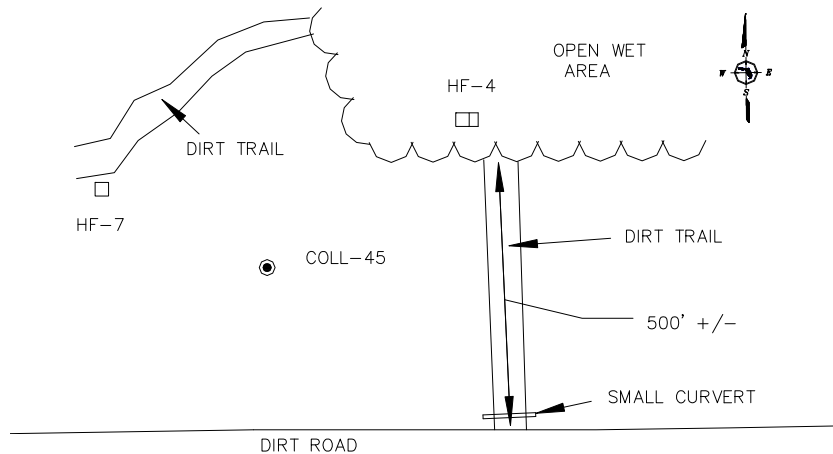
HF-4 N 750504.9 (LF)
E 483961.8 (LF)
HF-7 N 750533.9 (LF)
E 483766.8 (LF)
COLL-45 N 750387.9 (LF)
E 483871.4 (LF)

MAGNET PLACED 6" EAST OF COLL-45
COMPLETED @ 2:00 PM



COUNTY COLLIER		PROJECT WELL SITES		DESIGNATION COLL-45	
SECTION 09		TOWNSHIP 47 SOUTH		RANGE 28 EAST	
GEOGRAPHIC INDEX OF QUAD Florida					
Established by Consul-Tech Surveying and Mapping, inc.			NAME OF QUADRANGLE CORKSCREW		
SURVEYOR <u>Joseph S. Boggs</u> DATE <u>3 / 10 / 2003</u>			FIELD BOOK <u>516-5</u> PAGE 24 20		
HORIZONTAL DATUM: 83/90 ZONE EAST					
VERTICAL DATUM: NAVD 88 & NGVD 29 (Based on NGS adjustment of CERP vertical network)					
CONTROL ACCURACY: HORIZONTAL SUB-METER VERTICAL 3 rd Order 20.492					
STATE PLANE COORDINATES Feet		X=483871		Y=750388	
				EL.= 20.49 ' (NAVD 88)	
				EL.= 21.80 ' (NGVD 29)	
LATITUDE 26°23'49.69" N			LONGITUDE 081°31'34.85" W 21.804		
DESCRIPTION					
To Reach: From the intersection of SR-29 and CR-846: Go south along CR-846 8.0 miles to the intersection with Oil Well grade. Go north along Oil Well grade 0.8 mile to an east-west dirt road. Go east 0.5 miles to a 90 degree bend to the north. Go north 1.1 miles to an equipment barn. Go west along a dirt road 0.6 mile to a Jeep Trail running north. Go north along Jeep trail 430 feet to a small clearing; Follow clearing southwest 100 feet, to COLL-45.					
COLL-45 is a 10" round concrete monument (formed in place with a magnet placed nearby) with a standard Army Corps of Engineers brass disk, bearing "COLL-45 2003 JAX. DIST. SFWMD"					

SKETCH





The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,      Retrieval Date = DECEMBER 14, 2015
AJ7589 *****
AJ7589 DESIGNATION - Y 534
AJ7589 PID - AJ7589
AJ7589 STATE/COUNTY- FL/COLLIER
AJ7589 COUNTRY - US
AJ7589 USGS QUAD - CORKSCREW SE (1973)
AJ7589
AJ7589 *CURRENT SURVEY CONTROL
AJ7589
AJ7589* NAD 83(2011) POSITION- 26 21 59.59180(N) 081 30 19.73540(W) ADJUSTED
AJ7589* NAD 83(2011) ELLIP HT- -17.666 (meters) (06/27/12) ADJUSTED
AJ7589* NAD 83(2011) EPOCH - 2010.00
AJ7589* NAVD 88 ORTHO HEIGHT - 6.608 (meters) 21.68 (feet) ADJUSTED
AJ7589
AJ7589 NAD 83(2011) X - 844,690.355 (meters) COMP
AJ7589 NAD 83(2011) Y - -5,655,656.764 (meters) COMP
AJ7589 NAD 83(2011) Z - 2,815,497.591 (meters) COMP
AJ7589 LAPLACE CORR - -0.92 (seconds) DEFLEC12B
AJ7589 GEOID HEIGHT - -24.269 (meters) GEOID12B
AJ7589 DYNAMIC HEIGHT - 6.597 (meters) 21.64 (feet) COMP
AJ7589 MODELED GRAVITY - 979,050.6 (mgal) NAVD 88
AJ7589
AJ7589 VERT ORDER - FIRST CLASS II
AJ7589
AJ7589 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AJ7589 Standards:
AJ7589 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AJ7589 Horiz Ellip SD_N SD_E SD_h (unitless)
AJ7589 -----
AJ7589 NETWORK 2.53 3.49 1.00 1.05 1.78 -0.23416737
AJ7589 -----
AJ7589 Click here for local accuracies and other accuracy information.
AJ7589
AJ7589
AJ7589.The horizontal coordinates were established by GPS observations
AJ7589.and adjusted by the National Geodetic Survey in June 2012.
AJ7589
AJ7589.NAD 83(2011) refers to NAD 83 coordinates where the reference
AJ7589.frame has been affixed to the stable North American tectonic plate. See
AJ7589.NA2011 for more information.
AJ7589
AJ7589.The horizontal coordinates are valid at the epoch date displayed above
AJ7589.which is a decimal equivalence of Year/Month/Day.
AJ7589
AJ7589.The orthometric height was determined by differential leveling and
AJ7589.adjusted by the NATIONAL GEODETIC SURVEY
AJ7589.in February 2002.
AJ7589
AJ7589.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ7589.GEOID12B height accuracy estimate available here.
AJ7589
AJ7589.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7589
AJ7589.The Laplace correction was computed from DEFLEC12B derived deflections.
AJ7589

```

AJ7589.The ellipsoidal height was determined by GPS observations
AJ7589.and is referenced to NAD 83.

AJ7589

AJ7589.The dynamic height is computed by dividing the NAVD 88
AJ7589.geopotential number by the normal gravity value computed on the
AJ7589.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ7589.degrees latitude (g = 980.6199 gals.).

AJ7589

AJ7589.The modeled gravity was interpolated from observed gravity values.

AJ7589

AJ7589. The following values were computed from the NAD 83(2011) position.

AJ7589

AJ7589;		North	East	Units	Scale	Factor	Converg.
AJ7589;SPC FL E	-	225,322.023	149,552.949	MT	0.99997259	-0 13	28.2
AJ7589;SPC FL E	-	739,244.00	490,658.30	sFT	0.99997259	-0 13	28.2
AJ7589;UTM 17	-	2,916,377.125	449,570.162	MT	0.99963140	-0 13	28.2
AJ7589!	-	Elev Factor	x	Scale Factor	=	Combined Factor	
AJ7589!SPC FL E	-	1.00000278	x	0.99997259	=	0.99997537	
AJ7589!UTM 17	-	1.00000278	x	0.99963140	=	0.99963417	

AJ7589

SUPERSEDED SURVEY CONTROL

AJ7589

AJ7589	NAD 83(2007)-	26 21 59.59194(N)	081 30 19.73611(W)	AD(2002.00)	0
AJ7589	ELLIP H (02/10/07)	-17.644 (m)		GP(2002.00)	
AJ7589	NAD 83(1999)-	26 21 59.59204(N)	081 30 19.73618(W)	AD()	1
AJ7589	ELLIP H (12/12/02)	-17.652 (m)		GP()	4 2
AJ7589	NAVD 88 (12/12/02)	6.61 (m)	21.7 (f)	LEVELING	3

AJ7589

AJ7589.Superseded values are not recommended for survey control.

AJ7589

AJ7589.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AJ7589.[See file dsdata.txt](#) to determine how the superseded data were derived.

AJ7589

AJ7589_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK4957016377(NAD 83)

AJ7589

AJ7589_MARKER: F = FLANGE-ENCASED ROD

AJ7589_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)

AJ7589_STAMPING: Y 534 2001 CERP

AJ7589_MARK LOGO: NONE

AJ7589_PROJECTION: RECESSED 14 CENTIMETERS

AJ7589_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

AJ7589_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AJ7589_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AJ7589+SATELLITE: SATELLITE OBSERVATIONS - December 11, 2013

AJ7589_ROD/PIPE-DEPTH: 5.20 meters

AJ7589_SLEEVE-DEPTH : 0.46 meters

AJ7589

AJ7589	HISTORY	-	Date	Condition	Report By
AJ7589	HISTORY	-	20010825	MONUMENTED	LDBLS
AJ7589	HISTORY	-	20020311	GOOD	MAPTEC
AJ7589	HISTORY	-	20060325	GOOD	SUTESO
AJ7589	HISTORY	-	20131211	GOOD	FL-021

AJ7589

STATION DESCRIPTION

AJ7589

AJ7589'DESCRIBED BY LD BRADLEY LAND SURVEYORS 2001 (JCH)

AJ7589'THE MARK IS ABOUT 50.6 KM (31.42 MI) NORTHEAST OF NAPLES, ABOUT 14.2

AJ7589'KM (8.81

AJ7589'MI) SOUTHWEST OF IMMOKALEE, LOCATED IN SECTION 22, TOWNSHIP 47 SOUTH,

AJ7589'RANGE 28

AJ7589'EAST, COLLIER COUNTY, FLORIDA. OWNERSHIP - COLLIER COUNTY

AJ7589'

AJ7589'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 29 AND COUNTY

AJ7589'ROAD 846

AJ7589'IN IMMOKALEE , GO SOUTHWEST ALONG COUNTY ROAD 846 14.2 KM (8.81 MI) TO

DATASHEETS

AJ7589'THE
 AJ7589'MARK ON THE LEFT.
 AJ7589'

AJ7589'THE MARK IS A STAINLESS STEEL ROD 32.00 M (105.0 FT) EAST OF A 36-INCH
 AJ7589'REINFORCED CONCRETE PIPE, 7.80 M (25.6 FT) SOUTH OF THE CENTERLINE OF
 AJ7589'COUNTY
 AJ7589'ROAD 846, 7.56 M (24.8 FT) NORTHWEST OF A WOOD POWER POLE AND 0.91 M
 AJ7589'(3.0 FT)

AJ7589'NORTH OF A CARSONITE WITNESS POST. THE DATUM POINT IS SET 14 CM (0.47
 AJ7589'FT)

AJ7589'BELOW THE LEVEL OF THE GROUND, ABOUT 0.46 M (1.5 FT) BELOW THE LEVEL
 AJ7589'OF THE
 AJ7589'HIGHWAY, BEING THE TOP OF A STAINLESS STEEL ROD DRIVEN 5.20 M (17.06
 AJ7589'FT) TO

AJ7589'REFUSAL AND ENCASED IN A 5-INCH PVC PIPE WITH AN ACCESS COVER.

AJ7589'
 AJ7589'NOTE - A MAGNET WAS PLACED INSIDE THE SLEEVE, BELOW THE ACCESS COVER.

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589'

AJ7589

AJ7589 STATION RECOVERY (2002)

AJ7589

AJ7589'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)

AJ7589'THE MARK IS ABOUT 50.6 KM (31.42 MI) NORTHEAST OF NAPLES, ABOUT 14.2
 AJ7589'KM (8.81

AJ7589'MI) SOUTHWEST OF IMMOKALEE, LOCATED IN SECTION 22, TOWNSHIP 47 SOUTH,
 AJ7589'RANGE 28

AJ7589'EAST, COLLIER COUNTY, FLORIDA. OWNERSHIP - COLLIER COUNTY

AJ7589'

AJ7589'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 29 AND COUNTY

AJ7589'ROAD 846

AJ7589'IN IMMOKALEE , GO SOUTHWEST ALONG COUNTY ROAD 846 14.2 KM (8.81 MI) TO
 AJ7589'THE

AJ7589'MARK ON THE LEFT.

AJ7589'

AJ7589'THE MARK IS A STAINLESS STEEL ROD 32.00 M (105.0 FT) EAST OF A 36-INCH
 AJ7589'REINFORCED CONCRETE PIPE, 7.80 M (25.6 FT) SOUTH OF THE CENTERLINE OF
 AJ7589'COUNTY

AJ7589'ROAD 846, 7.56 M (24.8 FT) NORTHWEST OF A WOOD POWER POLE AND 0.91 M
 AJ7589'(3.0 FT)

AJ7589'NORTH OF A CARSONITE WITNESS POST. THE DATUM POINT IS SET 14 CM (0.47
 AJ7589'FT)

AJ7589'BELOW THE LEVEL OF THE GROUND, ABOUT 0.46 M (1.5 FT) BELOW THE LEVEL
 AJ7589'OF THE

AJ7589'HIGHWAY, BEING THE TOP OF A STAINLESS STEEL ROD DRIVEN 5.20 M (17.06
 AJ7589'FT) TO

AJ7589'REFUSAL AND ENCASED IN A 5-INCH PVC PIPE WITH AN ACCESS COVER.

AJ7589'

AJ7589'NOTE - A MAGNET WAS PLACED INSIDE THE SLEEVE, BELOW THE ACCESS COVER.

AJ7589'

AJ7589'RECOVERED AS DESCRIBED 2002 MAPTECH INC (CP)

AJ7589'

AJ7589'

AJ7589'

AJ7589'
AJ7589'
AJ7589'
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AJ7589'
AJ7589'
AJ7589

STATION RECOVERY (2006)

AJ7589
AJ7589'RECOVERY NOTE BY SURVTECH SOLUTIONS 2006 (BS)
AJ7589'RECOVERED AS DESCRIBED

STATION RECOVERY (2013)

AJ7589
AJ7589'RECOVERY NOTE BY COLLIER COUNTY FLORIDA 2013 (MLB)
AJ7589'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.8
1      National Geodetic Survey,      Retrieval Date = DECEMBER 14, 2015
AJ7583 *****
AJ7583 DESIGNATION - X 534
AJ7583 PID - AJ7583
AJ7583 STATE/COUNTY- FL/COLLIER
AJ7583 COUNTRY - US
AJ7583 USGS QUAD - CORKSCREW SE (1973)
AJ7583
AJ7583 *CURRENT SURVEY CONTROL
AJ7583
AJ7583* NAD 83(2011) POSITION- 26 22 00.02529(N) 081 31 18.68454(W) ADJUSTED
AJ7583* NAD 83(2011) ELLIP HT- -16.974 (meters) (06/27/12) ADJUSTED
AJ7583* NAD 83(2011) EPOCH - 2010.00
AJ7583* NAVD 88 ORTHO HEIGHT - 7.282 (meters) 23.89 (feet) ADJUSTED
AJ7583
AJ7583 NAD 83(2011) X - 843,073.189 (meters) COMP
AJ7583 NAD 83(2011) Y - -5,655,892.694 (meters) COMP
AJ7583 NAD 83(2011) Z - 2,815,509.852 (meters) COMP
AJ7583 LAPLACE CORR - -0.91 (seconds) DEFLEC12B
AJ7583 GEOID HEIGHT - -24.255 (meters) GEOID12B
AJ7583 DYNAMIC HEIGHT - 7.270 (meters) 23.85 (feet) COMP
AJ7583 MODELED GRAVITY - 979,050.3 (mgal) NAVD 88
AJ7583
AJ7583 VERT ORDER - FIRST CLASS II
AJ7583
AJ7583 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AJ7583 Standards:
AJ7583 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AJ7583 Horiz Ellip SD_N SD_E SD_h (unitless)
AJ7583 -----
AJ7583 NETWORK 2.43 3.39 0.97 1.01 1.73 -0.14661406
AJ7583 -----
AJ7583 Click here for local accuracies and other accuracy information.
AJ7583
AJ7583
AJ7583.The horizontal coordinates were established by GPS observations
AJ7583.and adjusted by the National Geodetic Survey in June 2012.
AJ7583
AJ7583.NAD 83(2011) refers to NAD 83 coordinates where the reference
AJ7583.frame has been affixed to the stable North American tectonic plate. See
AJ7583.NA2011 for more information.
AJ7583
AJ7583.The horizontal coordinates are valid at the epoch date displayed above
AJ7583.which is a decimal equivalence of Year/Month/Day.
AJ7583
AJ7583.The orthometric height was determined by differential leveling and
AJ7583.adjusted by the NATIONAL GEODETIC SURVEY
AJ7583.in February 2002.
AJ7583
AJ7583.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ7583.GEOID12B height accuracy estimate available here.
AJ7583
AJ7583.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AJ7583
AJ7583.The Laplace correction was computed from DEFLEC12B derived deflections.
AJ7583

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AJ7583.The ellipsoidal height was determined by GPS observations
 AJ7583.and is referenced to NAD 83.

AJ7583

AJ7583.The dynamic height is computed by dividing the NAVD 88
 AJ7583.geopotential number by the normal gravity value computed on the
 AJ7583.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ7583.degrees latitude (g = 980.6199 gals.).

AJ7583

AJ7583.The modeled gravity was interpolated from observed gravity values.

AJ7583

AJ7583. The following values were computed from the NAD 83(2011) position.

AJ7583

AJ7583;		North	East	Units	Scale	Factor	Converg.
AJ7583;SPC FL E	-	225,341.870	147,918.777	MT	0.99997465	-0 13	54.4
AJ7583;SPC FL E	-	739,309.12	485,296.85	sFT	0.99997465	-0 13	54.4
AJ7583;UTM 17	-	2,916,396.966	447,936.547	MT	0.99963347	-0 13	54.4
AJ7583!	-	Elev Factor	x	Scale Factor	=	Combined Factor	
AJ7583!SPC FL E	-	1.00000267	x	0.99997465	=	0.99997732	
AJ7583!UTM 17	-	1.00000267	x	0.99963347	=	0.99963614	

AJ7583

SUPERSEDED SURVEY CONTROL

AJ7583

AJ7583	NAD 83(2007)-	26 22 00.02544(N)	081 31 18.68525(W)	AD(2002.00)	0
AJ7583	ELLIP H (02/10/07)	-16.952 (m)		GP(2002.00)	
AJ7583	NAD 83(1999)-	26 22 00.02550(N)	081 31 18.68537(W)	AD()	1
AJ7583	ELLIP H (12/12/02)	-16.965 (m)		GP()	4 2
AJ7583	NAVD 88 (12/12/02)	7.28 (m)	23.9 (f)	LEVELING	3

AJ7583

AJ7583.Superseded values are not recommended for survey control.

AJ7583

AJ7583.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AJ7583.[See file dsdata.txt](#) to determine how the superseded data were derived.

AJ7583

AJ7583_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK4793616396(NAD 83)

AJ7583

AJ7583_MARKER: F = FLANGE-ENCASED ROD
 AJ7583_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.)
 AJ7583_STAMPING: X 534 2001 CERP
 AJ7583_MARK LOGO: NONE
 AJ7583_PROJECTION: RECESSED 15 CENTIMETERS
 AJ7583_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
 AJ7583_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AJ7583_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AJ7583+SATELLITE: SATELLITE OBSERVATIONS - December 11, 2013
 AJ7583_ROD/PIPE-DEPTH: 9.72 meters
 AJ7583_SLEEVE-DEPTH : 0.46 meters

AJ7583

AJ7583	HISTORY	-	Date	Condition	Report By
AJ7583	HISTORY	-	20010825	MONUMENTED	LDBLS
AJ7583	HISTORY	-	20020311	GOOD	MAPTEC
AJ7583	HISTORY	-	20060325	GOOD	SUTESO
AJ7583	HISTORY	-	20110507	GOOD	INDIV
AJ7583	HISTORY	-	20131211	GOOD	FL-021

AJ7583

STATION DESCRIPTION

AJ7583

AJ7583'DESCRIBED BY LD BRADLEY LAND SURVEYORS 2001 (JCH)
 AJ7583'THE MARK IS ABOUT 48.9 KM (30.40 MI) NORTHEAST OF NAPLES, ABOUT 15.8
 AJ7583'KM (9.83
 AJ7583'MI) SOUTHWEST OF IMMOKALEE, IN SECTION 21, TOWNSHIP 47 SOUTH, RANGE 28
 AJ7583'EAST,
 AJ7583'COLLIER COUNTY, FLORIDA. OWNERSHIP - COLLIER COUNTY
 AJ7583'
 AJ7583'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 29 AND COUNTY
 AJ7583'ROAD 846

AJ7583'
AJ7583'RECOVERED AS DESCRIBED 2002 MAPTECH INC (CP)
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583'
AJ7583
AJ7583 STATION RECOVERY (2006)
AJ7583
AJ7583'RECOVERY NOTE BY SURVTECH SOLUTIONS 2006 (BS)
AJ7583'RECOVERED AS DESCRIBED
AJ7583
AJ7583 STATION RECOVERY (2011)
AJ7583
AJ7583'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2011
AJ7583'RECOVERED IN GOOD CONDITION.
AJ7583
AJ7583 STATION RECOVERY (2013)
AJ7583
AJ7583'RECOVERY NOTE BY COLLIER COUNTY FLORIDA 2013 (MLB)
AJ7583'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:02

Level Adjustment: 03-13-2003 10:37:11
 From file: 30201-10-88.LIN
 Project: Project: SFWMD LEE-COLLIER WELLS
 Entered by: M. HOLT 03-12-2003 11:28:02

BM ADJ EL(M)	SUM DIST	UNADJ ELEV	CORRECTION	ADJ EL(FT)
Y 534 6.608	0.000	21.680		21.680
TP 1 7.005	441.000	22.983	0.001	22.984
TP 2 7.174	862.000	23.536	0.001	23.537
TP 3 7.123	1306.000	23.366	0.002	23.368
TP 4 7.387	1745.000	24.233	0.003	24.236
TP 5 7.411	2188.000	24.310	0.003	24.313
TP 6 7.532	2619.000	24.707	0.004	24.711
TP 7 7.456	3035.000	24.457	0.004	24.461
TP 8 7.547	3471.000	24.757	0.005	24.762
TP 9 7.600	3908.000	24.930	0.006	24.936
TP 10 7.595	4343.000	24.913	0.006	24.919
TP 11 7.562	4775.000	24.803	0.007	24.810
TP 12 7.171	5176.000	23.520	0.007	23.527
TP 13 7.009	5539.000	22.987	0.008	22.995

TP 14 7.033	5968.000	23.064	0.009	23.073
. 7.002	6398.000	22.964	0.009	22.973
TP 16 7.052	6839.000	23.127	0.010	23.137
TP 17 7.165	7271.000	23.497	0.010	23.507
TP 18 7.097	7710.000	23.274	0.011	23.285
TP 19 6.732	8144.000	22.074	0.012	22.086
TP 20 6.711	8574.000	22.004	0.012	22.016
TP 21 6.749	9016.000	22.130	0.013	22.143
TP 22 6.968	9430.000	22.846	0.014	22.860
TP 23 6.893	9847.000	22.599	0.014	22.613
TP 24 6.969	10263.000	22.849	0.015	22.864
TP 25 6.792	10697.000	22.269	0.015	22.284
TP 26 6.756	10999.000	22.149	0.016	22.165
TP 27 6.751	11433.000	22.133	0.016	22.149
TP 28 6.805	11870.000	22.310	0.017	22.327
TP 29 6.761	12309.000	22.163	0.018	22.181
TP 30 6.822	12745.000	22.363	0.018	22.381
TP 31 7.200	12879.000	23.603	0.019	23.622

COLL-49 6.459	13077.000	21.173	0.019	21.192
TP 32 6.854	13476.000	22.466	0.019	22.485
TP 33 6.780	13921.000	22.223	0.020	22.243
TP 34 6.670	14365.000	21.863	0.021	21.884
TP 35 6.767	14795.000	22.179	0.021	22.200
TP 36 6.862	15240.000	22.492	0.022	22.514
TP 37 6.661	15686.000	21.832	0.023	21.855
TP 38 6.634	16136.000	21.742	0.023	21.765
TP 39 6.604	16568.000	21.642	0.024	21.666
TP 40 6.609	17007.000	21.659	0.024	21.683
TP 41 6.528	17446.000	21.392	0.025	21.417
TP 42 6.516	17876.000	21.352	0.026	21.378
TP 43 6.812	17978.000	22.322	0.026	22.348
TP 44 6.598	18406.000	21.622	0.026	21.648
TP 45 6.643	18835.000	21.769	0.027	21.796
TP 46 6.650	19273.000	21.789	0.028	21.817
TP 47 6.720	19699.000	22.019	0.028	22.047
TP 48 6.623	20143.000	21.699	0.029	21.728

TP 49 6.551	20568.000	21.462	0.030	21.492
TP 50 6.703	20988.000	21.962	0.030	21.992
TP 51 6.757	21429.000	22.139	0.031	22.170
TP 52 6.782	21857.000	22.219	0.031	22.250
TP 53 6.813	22283.000	22.319	0.032	22.351
TP 54 6.693	22722.000	21.926	0.033	21.959
TP 55 6.563	23149.000	21.499	0.033	21.532
GPS A060 6.335	23425.000	20.749	0.034	20.783
TP 56 6.627	23811.000	21.709	0.034	21.743
TP 57 6.739	24230.000	22.076	0.035	22.111
TP 58 6.589	24653.000	21.583	0.035	21.618
TP 59 6.573	25090.000	21.530	0.036	21.566
TP 60 6.605	25541.000	21.633	0.037	21.670
TP 61 6.766	25956.000	22.160	0.037	22.197
TP 62 6.389	26409.000	20.923	0.038	20.961
TP 63 6.528	26852.000	21.380	0.039	21.419
CC-8 6.395	27179.000	20.943	0.039	20.982
COLL-46 6.340	27338.000	20.760	0.039	20.799

TP 64 6.151	27784.000	20.140	0.040	20.180
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COLL-45 6.246	27869.000	20.453	0.040	20.493
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TP 65 6.164	28039.000	20.183	0.040	20.223
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TP 66 6.341	28401.000	20.763	0.041	20.804
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TP 67 6.609	28831.000	21.643	0.041	21.684
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TP 68 6.528	29290.000	21.376	0.042	21.418
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TP 69 6.799	29741.000	22.263	0.043	22.306
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TP 70 6.589	30183.000	21.573	0.043	21.616
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TP 71 6.568	30633.000	21.503	0.044	21.547
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TP 72 6.624	31079.000	21.687	0.045	21.732
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TP 73 6.730	31525.000	22.033	0.045	22.078
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TP 74 6.684	31977.000	21.883	0.046	21.929
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TP 75 6.861	32419.000	22.463	0.047	22.510
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TP 76 6.650	32860.000	21.770	0.047	21.817
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TP 77 6.803	33294.000	22.270	0.048	22.318
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TP 78 6.801	33732.000	22.266	0.049	22.315
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TP 79 6.767	34195.000	22.153	0.049	22.202
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TP 80 6.709	34648.000	21.960	0.050	22.010
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TP 81 6.616	35093.000	21.657	0.051	21.708
TP 82 6.664	35541.000	21.811	0.051	21.862
TP 83 6.699	36004.000	21.928	0.052	21.980
TP 84 6.667	36445.000	21.821	0.052	21.873
CC-6 6.399	36539.000	20.941	0.053	20.994
TP 85 6.683	36979.000	21.871	0.053	21.924
TP 86 6.734	37430.000	22.038	0.054	22.092
TP 87 6.813	37670.000	22.298	0.054	22.352
TP 88 6.534	38097.000	21.381	0.055	21.436
TP 89 6.469	38539.000	21.167	0.055	21.222
TP 90 6.569	38967.000	21.497	0.056	21.553
TP 91 6.674	39416.000	21.840	0.057	21.897
TP 92 6.744	39880.000	22.070	0.057	22.127
TP 93 7.078	40333.000	23.163	0.058	23.221
TP 94 6.814	40788.000	22.296	0.059	22.355
TP 95 6.847	41246.000	22.406	0.059	22.465
TP 96 6.744	41708.000	22.066	0.060	22.126
TP 97 6.692	42160.000	21.896	0.061	21.957

TP 98 6.761	42642.000	22.120	0.061	22.181
TP 99 6.782	43082.000	22.190	0.062	22.252
TP 100 7.194	43524.000	23.540	0.063	23.603
TP 101 7.123	43943.000	23.307	0.063	23.370
TP 102 7.170	44408.000	23.460	0.064	23.524
TP 103 7.111	44857.000	23.267	0.065	23.332
TP 104 7.119	45292.000	23.290	0.065	23.355
TP 105 7.097	45743.000	23.217	0.066	23.283

X 534 7.282	45858.000	23.824	0.066	23.890
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Closure : 0.066
 Max Allowed: 0.147 (MTS)
 Max Allowed: 0.074 (Second Order, Class II)

Distance : 45858
 Turns : 112
 Error per Turn : 0.00059

Project:
 Entered by: 03-13-2003 10:10:03

BM ADJ EL(M)	SUM DIST	UNADJ ELEV	CORRECTION	ADJ EL(FT)
-----	-----	-----	-----	-----
TP 31 7.200	0.000	23.622		23.622
HF 5 7.561	421.000	24.805	0.001	24.806
TP 6.699	819.000	21.975	0.002	21.977
HF 3 8.070	1003.000	26.475	0.002	26.477

HF 3G 1189.000 24.185 0.002 24.187
7.372

COLL-49 1439.000 21.189 0.003 21.192
6.459

Closure : 0.003
Max Allowed: 0.026 (MTS)
Max Allowed: 0.013 (Second Order, Class II)

Distance : 1439
Turns : 5
Error per Turn : 0.00060

NAVD88 Adjustment

BM ADJ EL(M)	SUM DIST	UNADJ ELEV	CORRECTION	ADJ EL(FT)	--
----- ----- COLL-46 6.340	0.000	20.799		20.799	
HF 6G 7.004	176.000	22.979	-0.000	22.979	
HF 1G 6.352	255.000	20.842	-0.001	20.841	
HF 1 7.286	332.000	23.905	-0.001	23.904	
TP 1 6.409	545.000	21.028	-0.001	21.027	
TP 2 6.474	654.000	21.241	-0.002	21.239	
HF 2G 6.940	758.000	22.771	-0.002	22.769	
HF 2 7.751	864.000	25.431	-0.002	25.429	
TP 3 6.449	970.000	21.161	-0.002	21.159	
TP 4 6.193	1150.000	20.321	-0.003	20.318	
HF 4G 6.812	1406.000	22.351	-0.003	22.348	
HF 4 7.600	1655.000	24.938	-0.004	24.934	

HF 7	1966.000	23.575	-0.005	23.570
7.184				

COLL-45	2147.000	20.498	-0.005	20.493
6.246				

Closure : -0.005
Max Allowed: 0.032 (MTS)
Max Allowed: 0.016 (Second Order, Class II)

Distance : 2147
Turns : 13
Error per Turn : -0.00038

Level Adjustment: 03-19-2003 10:12:36

From file: 30201--2.LIN

Project: Project: SFWMD LEE-COLLIER WELLS

Entered by: M. HOLT 03-12-2003 11:28:02

BM	SUM DIST	UNADJ ELEV	CORRECTION	ADJ EL(FT)
ADJ EL(M)				

Y 534	0.000	22.989		22.989
7.007				

TP 1	441.000	24.292	0.001	24.293
7.404				

TP 2	862.000	24.845	0.001	24.846
7.573				

TP 3	1306.000	24.675	0.002	24.677
7.522				

TP 4	1745.000	25.542	0.003	25.545
7.786				

TP 5	2188.000	25.619	0.003	25.622
7.810				

TP 6	2619.000	26.016	0.004	26.020
7.931				

TP 7	3035.000	25.766	0.005	25.771
7.855				

TP 8	3471.000	26.066	0.005	26.071
7.947				

TP 9	3908.000	26.239	0.006	26.245
7.999				

TP 10	4343.000	26.222	0.006	26.228
7.994				

TP 11	4775.000	26.112	0.007	26.119
7.961				

TP 12	5176.000	24.829	0.008	24.837
7.570				

TP 13	5539.000	24.296	0.008	24.304
7.408				

TP 14 7.432	5968.000	24.373	0.009	24.382
. 7.401	6398.000	24.273	0.009	24.282
TP 16 7.451	6839.000	24.436	0.010	24.446
TP 17 7.564	7271.000	24.806	0.011	24.817
TP 18 7.496	7710.000	24.583	0.011	24.594
TP 19 7.131	8144.000	23.383	0.012	23.395
TP 20 7.110	8574.000	23.313	0.013	23.326
TP 21 7.148	9016.000	23.439	0.013	23.452
TP 22 7.367	9430.000	24.155	0.014	24.169
TP 23 7.292	9847.000	23.908	0.015	23.923
TP 24 7.368	10263.000	24.158	0.015	24.173
TP 25 7.191	10697.000	23.578	0.016	23.594
TP 26 7.155	10999.000	23.458	0.016	23.474
TP 27 7.150	11433.000	23.442	0.017	23.459
TP 28 7.204	11870.000	23.619	0.018	23.637
TP 29 7.160	12309.000	23.472	0.018	23.490
TP 30 7.221	12745.000	23.672	0.019	23.691
TP 31 7.599	12879.000	24.912	0.019	24.931

COLL-49 6.858	13077.000	22.482	0.019	22.501
TP 32 7.253	13476.000	23.775	0.020	23.795
TP 33 7.179	13921.000	23.532	0.021	23.553
TP 34 7.069	14365.000	23.172	0.021	23.193
TP 35 7.166	14795.000	23.488	0.022	23.510
TP 36 7.261	15240.000	23.801	0.023	23.824
TP 37 7.060	15686.000	23.141	0.023	23.164
TP 38 7.033	16136.000	23.051	0.024	23.075
TP 39 7.003	16568.000	22.951	0.025	22.976
TP 40 7.008	17007.000	22.968	0.025	22.993
TP 41 6.927	17446.000	22.701	0.026	22.727
TP 42 6.915	17876.000	22.661	0.027	22.688
TP 43 7.211	17978.000	23.631	0.027	23.658
TP 44 6.998	18406.000	22.931	0.027	22.958
TP 45 7.043	18835.000	23.078	0.028	23.106
TP 46 7.049	19273.000	23.098	0.029	23.127
TP 47 7.119	19699.000	23.328	0.029	23.357
TP 48 7.022	20143.000	23.008	0.030	23.038

TP 49 6.950	20568.000	22.771	0.030	22.801
TP 50 7.103	20988.000	23.271	0.031	23.302
TP 51 7.157	21429.000	23.448	0.032	23.480
TP 52 7.181	21857.000	23.528	0.032	23.560
TP 53 7.212	22283.000	23.628	0.033	23.661
TP 54 7.092	22722.000	23.235	0.034	23.269
TP 55 6.962	23149.000	22.808	0.034	22.842
GPS A060 6.734	23425.000	22.058	0.035	22.093
TP 56 7.027	23811.000	23.018	0.035	23.053
TP 57 7.139	24230.000	23.385	0.036	23.421
TP 58 6.989	24653.000	22.892	0.037	22.929
TP 59 6.973	25090.000	22.839	0.037	22.876
TP 60 7.004	25541.000	22.942	0.038	22.980
TP 61 7.165	25956.000	23.469	0.038	23.507
TP 62 6.788	26409.000	22.232	0.039	22.271
TP 63 6.928	26852.000	22.689	0.040	22.729
CC-8 6.795	27179.000	22.252	0.040	22.292
COLL-46 6.739	27338.000	22.069	0.041	22.110

TP 64 6.550	27784.000	21.449	0.041	21.490
COLL-45 6.646	27869.000	21.762	0.041	21.803
TP 65 6.563	28039.000	21.492	0.042	21.534
TP 66 6.740	28401.000	22.072	0.042	22.114
TP 67 7.009	28831.000	22.952	0.043	22.995
TP 68 6.928	29290.000	22.685	0.043	22.728
TP 69 7.198	29741.000	23.572	0.044	23.616
TP 70 6.988	30183.000	22.882	0.045	22.927
TP 71 6.967	30633.000	22.812	0.045	22.857
TP 72 7.023	31079.000	22.996	0.046	23.042
TP 73 7.129	31525.000	23.342	0.047	23.389
TP 74 7.083	31977.000	23.192	0.047	23.239
TP 75 7.260	32419.000	23.772	0.048	23.820
TP 76 7.049	32860.000	23.079	0.049	23.128
TP 77 7.202	33294.000	23.579	0.049	23.628
TP 78 7.201	33732.000	23.575	0.050	23.625
TP 79 7.167	34195.000	23.462	0.051	23.513
TP 80 7.108	34648.000	23.269	0.051	23.320

TP 81 7.016	35093.000	22.966	0.052	23.018
TP 82 7.063	35541.000	23.120	0.053	23.173
TP 83 7.099	36004.000	23.237	0.053	23.290
TP 84 7.067	36445.000	23.130	0.054	23.184
CC-6 6.798	36539.000	22.250	0.054	22.304
TP 85 7.082	36979.000	23.180	0.055	23.235
TP 86 7.133	37430.000	23.347	0.056	23.403
TP 87 7.212	37670.000	23.607	0.056	23.663
TP 88 6.933	38097.000	22.690	0.056	22.746
TP 89 6.868	38539.000	22.476	0.057	22.533
TP 90 6.969	38967.000	22.806	0.058	22.864
TP 91 7.074	39416.000	23.149	0.058	23.207
TP 92 7.144	39880.000	23.379	0.059	23.438
TP 93 7.477	40333.000	24.472	0.060	24.532
TP 94 7.213	40788.000	23.605	0.060	23.665
TP 95 7.247	41246.000	23.715	0.061	23.776
TP 96 7.144	41708.000	23.375	0.062	23.437
TP 97 7.092	42160.000	23.205	0.063	23.268

TP 98 7.160	42642.000	23.429	0.063	23.492
TP 99 7.182	43082.000	23.499	0.064	23.563
TP 100 7.594	43524.000	24.849	0.065	24.914
TP 101 7.523	43943.000	24.616	0.065	24.681
TP 102 7.570	44408.000	24.769	0.066	24.835
TP 103 7.511	44857.000	24.576	0.067	24.643
TP 104 7.518	45292.000	24.599	0.067	24.666
TP 105 7.496	45743.000	24.526	0.068	24.594
X 534 7.681	45858.000	25.133	0.068	25.201

Closure : 0.068
Max Allowed: 0.147 (MTS)
Max Allowed: 0.074 (Second Order, Class II)

Distance : 45858
Turns : 112
Error per Turn : 0.00061

Project:
Entered by: 03-13-2003 10:10:03

BM ADJ EL(M)	SUM DIST	UNADJ ELEV	CORRECTION	ADJ EL(FT)	--
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TP 31 7.599	0.000	24.931		24.931	
HF 5 7.960	421.000	26.114	0.001	26.115	
TP 7.098	819.000	23.284	0.002	23.286	
HF 3 8.469	1003.000	27.784	0.002	27.786	

HF 3G 1189.000 25.494 0.002 25.496
7.771

COLL-49 1439.000 22.498 0.003 22.501
6.858

Closure : 0.003
Max Allowed: 0.026 (MTS)
Max Allowed: 0.013 (Second Order, Class II)

Distance : 1439
Turns : 5
Error per Turn : 0.00060

NGVD29 Adjusted

BM ADJ EL(M)	SUM DIST	UNADJ ELEV	CORRECTION	ADJ EL(FT)	
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COLL-46 6.739	0.000	22.110		22.110	
HF 6G 7.403	176.000	24.290	-0.000	24.290	
HF 1G 6.752	255.000	22.153	-0.001	22.152	
HF 1 7.686	332.000	25.216	-0.001	25.215	
TP 1 6.808	545.000	22.339	-0.002	22.337	
TP 2 6.873	654.000	22.552	-0.002	22.550	
HF 2G 7.340	758.000	24.082	-0.002	24.080	
HF 2 8.150	864.000	26.742	-0.002	26.740	
TP 3 6.849	970.000	22.472	-0.003	22.469	
TP 4 6.592	1150.000	21.632	-0.003	21.629	
HF 4G 7.211	1406.000	23.662	-0.004	23.658	
HF 4 7.999	1655.000	26.249	-0.005	26.244	

HF 7	1966.000	24.886	-0.005	24.881
7.584				

COLL-45	2147.000	21.809	-0.006	21.803
6.646				

Closure : -0.006
Max Allowed: 0.032 (MTS)
Max Allowed: 0.016 (Second Order, Class II)

Distance : 2147
Turns : 13
Error per Turn : -0.00046