

Identification Information:

Citation:

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**Ben R. Homola
McKim & Creed**

Originator: Ben R. Homola(comp.)
Publication_Date: Unpublished material
Publication_Time: Unknown
Title: S. F. W. M. D. Wells **TCWD, RUCK, TCS2, & TC01**
Edition: 1
Publication_Information:
Publication_Place: Not published
Publisher: None

Description:

Abstract:

South Florida Water Management District
Wells TCWD, RUCK, TSC2, & TC01

Purpose:

Purpose

To establish NAVD 88 and NGVD 29 elevations on the wells platforms at the reference marks and the staff gauges.
Establish nearby site benchmarks if there are none available.
Establish State Plane Coordinates on the wells and benchmarks.

Time_Period_of_Content:

Time_Period_Information:

Survey Date

Range_of_Dates/Times:
Beginning_Date: 20050428
Ending_Date: 20050526

Currentness_Reference: Date of field work

Status:

Progress: Complete
Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: -080°52' 20.49"
East_Bounding_Coordinate: -080°48' 53.41"
North_Bounding_Coordinate: +27°24' 04.17"
South_Bounding_Coordinate: +27°17' 45.13"

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
Theme_Keyword: Record Survey
Theme_Keyword: Well Sites

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: S. F. W. M. D. Wells TCWD, RUCK, TCS2, & TC01
Place_Keyword: TCWD - Sec. 34, Twp. 36 S., Rge. 35 E.
Place_Keyword: RUCK - Sec. 32, Twp. 35 S., Rge. 35 E.
Place_Keyword: TCS2 - Sec. 6, Twp. 36 S., Rge. 35 E.
Place_Keyword: TC01 - Sec. 27, Twp. 35 S., Rge. 35 E.
Place_Keyword: Okeechobee County, Florida
Place_Keyword_Thesaurus: Geographic Names Information System
Place_Keyword: Florida

Access_Constraints:

There is no access constraints getting to Wells TCWD & TC01.
There is a locked gate on the north side of NW 144th Drive at the entrance to a dairy pasture getting to Well Ruck's.
There is a locked gate on the south side of a drainage canal 0.1 mi. south along gravel road from the west end of 141st St. getting to Well TCS2.
See point of contact for key.

Use_Constraints:

There are keyed locks on the wells at RUCK & TC01.
There are combo locks on the wells at TCWD & TCS2.
See point of contact for key and combo.

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Elvie D. Ebanks

SFWMD

District

tcwd well.met

Contact_Person: Elvie D. Ebanks

Contact_Organization: South Florida Water Management

Contact_Position: Professional Surveyor & Mapper

Contact_Address:

Address_Type: mailing and physical address

Address: 8894 Belvedere Road

City: West Palm Beach

State_or_Province: Florida

Postal_Code: 33411

Country: USA

Contact_Voice_Telephone: 561-753-2400 Ext. 4717 (W), 561-389-9455

(M)

Contact_Facsimile_Telephone: (561) 791-4093

Contact_Electronic_Mail_Address: eebanks@sfwmd.gov

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

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

This survey was prepared using GPS and Leveling instruments. The horizontal location of the wells and benchmarks were performed using GPS.

The vertical data was collected using a Trimble Dini 12 Digital Level and a Wild NA2 Level.

Coordinates are based on the Florida State Plane Coordinate System, East Zones, NAD 83.

Elevations are based on NAVD 88 and NGVD 29.

Logical_Consistency_Report:

Horizontal data was established using the Coast Guard Beacon Station at Tampa, Florida.

Vertical data was established using NGS control points Obannon & Obannon 2 at TCWD, T 502 & U 502 at RUCK & TCS2, and E 563 & TCB 14 at TC01.

Completeness_Report:

Project Results

TCWD Well

WELL TCWD

x

Horizontal location taken at approximate center of well.

Lat. +27° 17' 45.14"

Long. -080° 49' 31.21"

N 1076765

E 712891 (Florida East Zone, NAD 83)

Existing reference mark on wood platform is a black "Square" with an elevation of 29.23' dated 2/14/96 with no initials.

New reference mark leveled elevations.

27.90' (NAVD 88)

29.16' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for Q 22 and W 502.

A prorated value was determined between these points based on distance and then applied to the location of TCWD.

The staff gauge is a few feet north of the well and has an actual elevation at the top of the staff of 26.66'.

New leveled elevations on top of staff.

25.40' (NAVD 88)

26.66' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for Q 22 and W 502.

A prorated value was determined between these points based on distance and then applied to the location of TCWD.

x

WELL TCWD SITE BENCHMARK.

x

TCWD

The mark is located 4 miles north of the City of Okeechobee. To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 4.25 mi. to south most paved delivery entrance drive to Eckerd Youth Development Center, thence east on entrance road for 0.05 mi. to T-intersection,

TCWD

Benchmark

thence south and southeast along paved road for 0.4 mi. to a T-intersection, thence southwest along paved drive for 200 feet to end of drive, thence continue southwest across open grass field for 0.1 mi. to grass trail along a drainage canal, thence continue southwest along grass trail for 0.2 mi. to end of trail and mark on left, a SFWMD 3½ inch brass disk set in top of a round concrete monument flush with the ground. Located 18.5 feet west of center of monitoring well, 12.3 feet southwest of the northwest corner of wood deck for well equipment, 4.0 feet northwest of top of bank of canal, 7.0 feet north of a carsonite witness post, 1.2 feet southeast of a buried magnet 0.4-foot below grade.

Horizontal location.

Lat. +27° 17' 45.13"

Long. -080° 49' 31.42"

N 1076764

E 712872 (Florida East Zone, NAD 83)

New leveled elevations.

22.136' (NAVD 88)

23.40' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for Q 22 and W 502.

A prorated value was determined between these points based on distance and then applied to the location of TCWD.

Q22 0.385m
W502 0.3699m
1.238' difference+/-
Corpscon
1.493

x
x
x

Ruck Wells Report

RUCK WELLS

x

Horizontal location taken at approximate center of Well GW1.

Lat. +27° 22' 54.95"

Long. -080° 50' 48.80"

N 1108040

E 705853 (Florida East Zone, NAD 83)

Existing reference mark on wood platform is a black "X Square" with an elevation of 44.51' with no date or initials.

New reference mark leveled elevations.

43.24' (NAVD 88)

44.46' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for U 502.

x

Horizontal location taken at approximate center of Well GW2.

Lat. +27° 22' 54.89"

Long. -080° 50' 48.82"

N 1108034

E 705851 (Florida East Zone, NAD 83)

Existing reference mark on wood platform is a black "X Square" with an elevation of 43.95' with no date or initials.

New reference mark leveled elevations.

42.68' (NAVD 88)

43.90' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for U 502.

x

Horizontal location taken at approximate center of Well GW3 (N. 2" well).

Lat. +27° 22' 54.93"

Long. -080° 50' 48.72"

N 1108038

E 705860 (Florida East Zone, NAD 83)

Existing reference mark is a "V notch" in top of 2" PVC pipe underneath a cap and has an elevation of 44.25' with no date or initials.

New reference mark leveled elevations.

43.00' (NAVD 88)

44.22' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for U 502.

x

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Horizontal location taken at approximate center of Well GW4 (S. 2" well).
Lat. +27°22' 54.86"
Long. -080°50' 48.75"
N 1108031
E 705858 (Florida East Zone, NAD 83)
Existing reference mark is a "V notch" in top of 2" PVC pipe underneath a cap and has an elevation of 44.02' with no date or initials.
New reference mark leveled elevations.
42.64' (NAVD 88)
43.86' (NGVD 29) based on the NGS NGVD 29 adjustment of the CERP network for U 502.

x
WELL RUCK SITE BENCHMARK.
x
RUCK
The mark is located 10 miles north of the City of Okeechobee. To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 9.2 mi. to junction of NW 144th Drive (Potter Rd. / C.R. 68A) on left, turn left on NW 144th Drive and go west for 2.25 mi. to a dirt entrance on the right into a dairy cattle pasture and a locked gate, turn right on dirt trail and go north through locked gate for 300-feet, thence go northeast across pasture leaving dirt trail for 0.25 mi to the northwest corner of a large wooded wetlands, thence go east along north side of wetlands for 0.1mi. to the northeast corner of wetlands, thence go southeast for 0.1 mi. to the middle of pasture and a fenced pen around a well site and the mark centered between four wells, a SFWMD 3½ inch brass disk set in the top of a round concrete monument flush with the ground. Located 5.3 feet southeast of the center of well GW1, 4.6 feet northeast of the center of well GW2, 3.9 feet southwest of the center of well GW3, 4.1 feet northwest of the center of well GW4, 3.5 feet southeast of a carsonite witness post, 1.2 feet north of a buried magnet 0.4-foot below grade.
Horizontal location.
Lat. +27°22' 54.91"
Long. -080°50' 48.77"
N 1108036
E 705856 (Florida East Zone, NAD 83)
New leveled elevations.
39.134' (NAVD 88)
40.35' (NGVD 29) based on the NGS NGVD 29 adjustment of the CERP network for U 502.

x
x
x

WELL TCS2
x
Horizontal location taken at approximate center of well.
Lat. +27°21' 52.85"
Long. -080°52' 20.49"
N 1101760
E 697594 (Florida East Zone, NAD 83)
Existing reference mark on plastic platform is a black " X Square" with an elevation of 32.49' dated 04/16/97 with initials LH/AW.
New reference mark leveled elevations.
31.07' (NAVD 88)
32.29' (NGVD 29) based on the NGS NGVD 29 adjustment of the CERP network for U 502.
There is no staff gauge.
x
WELL TCS2 SITE BENCHMARKS.
x
TCS2
The mark is located 10 miles north, northwest of the City of

Ruck Benchmark

**TCS2
Well
Report**

**TCS2
Benchmarks**

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Okeechobee. To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 9.2 mi. to junction of NW 144th Drive (Potter Rd. / C.R. 68A) on left, turn left on NW 144th Drive and go west for 1.1 mi. to junction of NW 9th Terr. on left, turn left on NW 9th Terr. and go south for 0.15 mi. to junction of NW 141st St. on right, turn right on NW 141st St. and go west for 0.5 mi. to end of road at gravel road left, turn left on gravel road and go south for 0.1 mi. crossing over a pipe culvert under road to a grass trail and locked gate on the right, turn right on grass trail on south side of a drainage canal and go west, southwest and southeast through locked gate for 2.4 mi. to mark on right, a SFWMD 2 inch alum. disk set in top of the east end of the east concrete end wall of a drainage structure. Located 19.0 feet southwest of centerline of trail, 39.1 feet southeast of center of monitoring well, 24.3 feet southeast of the southeast corner of wood deck for well equipment, 11.7 feet northeast of a carsonite witness post, 0.4-foot southwest of the east end of concrete end wall, no magnet set.

Horizontal Location.

Lat. +27°21'52.73"

Long. -080°52'20.10"

N 1101748

E 697630 (Florida East Zone, NAD 83)

New Level elevations.

28.008' (NAVD 88)

29.23' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for U 502.

x

TCS2A

The mark is located 10 miles north, northwest of the City of Okeechobee. To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 9.2 mi. to junction of NW 144th Drive (Potter Rd. / C.R. 68A) on left, turn left on NW 144th Drive and go west for 1.1 mi. to junction of NW 9th Terr. on left, turn left on NW 9th Terr. and go south for 0.15 mi. to junction of NW 141st St. on right, turn right on NW 141st St. and go west for 0.5 mi. to end of road at gravel road left, turn left on gravel road and go south for 0.1 mi. crossing over a pipe culvert under road to a grass trail and locked gate on the right, turn right on grass trail on south side of a drainage canal and go west through locked gate for 1.2 mi. to mark on left, a SFWMD 3½ inch brass disk set in the top of a round concrete monument 0.4-foot below grade. Located 14.0 feet southeast of centerline of trail, 30.0 feet southeast of top of bank of canal, 24.1 feet west of carsonite witness post, 56.5 feet north of a blaze in the north face of a 15 inch Oak painted yellow, 1.3 feet east of a buried magnet 0.4-foot below grade.

Horizontal Location.

Lat. +27°22'23.95"

Long. -080°51'41.07"

N 1104904

E 701145 (Florida East Zone, NAD 83)

New Level elevations.

29.665' (NAVD 88)

30.89' (NGVD 29) based on the NGS NGVD 29

adjustment of the CERP network for U 502.

x

x

x

WELL TC01

x

Horizontal Location taken at approximate center of well.

Lat. +27°24'01.42"

Long. -080°48'59.56"

N 1114765

**TC01 Well
Report**

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E 715690 (Florida East Zone, NAD 83)
Existing reference mark on wood platform is a black "X Square" with an elevation of 63.62' dated 11/24/98 with initials EE/BW/SJ.

New leveled elevations.

62.23' (NAVD 88)

63.44' (NGVD 29) based on the NGS NGVD 29 adjustment of the CERP network for TCB 14.

The staff gauge is a few feet northeast of the well and has an actual elevation at the top of the staff of 56.66'.

New leveled elevations on top of staff.

55.30' (NAVD 88)

56.51' (NGVD 29) based on the NGS NGVD 29 adjustment of the CERP network for TCB 14.

x

WELL TC01 SITE BENCHMARK.

x

TCB 14

The mark is located 11 miles north of the City of Okeechobee. The mark is a SFWMD survey disk set in top of a concrete straight end wall. See NGS web site for further descriptions for PID No. AJ6116.

Horizontal location.

Lat. +27°24'04.17"

Long. -080°48'53.41"

N 1115044

E 716244 (Florida East Zone, NAD 83)

Existing elevations.

59.50' (NAVD 88) as published.

60.71' (NGVD 29) based on the NGS NGVD 29 adjustment of the CERP network for TCB 14.

Positional Accuracy:

Horizontal Positional Accuracy:

Horizontal Positional Accuracy Report:

The horizontal positions of the wells and benchmarks were established with GPS RTK using Coast Guard Beacon Station in Tampa in accordance with the Florida Minimum Technical Standards (Chapter 61G17-6).

Quantitative Horizontal Positional Accuracy Assessment:

Horizontal Positional Accuracy Value: 1 m

Horizontal Positional Accuracy Explanation: The intended

positional accuracy for this survey is 1 meter.

Vertical Positional Accuracy:

Vertical Positional Accuracy Report:

TCWD

x

A 2nd order, class II level line was run originating on

NGS

Obannon with an NAVD 88 elevation and running through NGS Obannon 2 for a check in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

x

A 2nd order, class II level line was run originating on

NGS

Obannon 2 with an NAVD 88 elevation and running through TCWD and back to Obannon 2 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

x

The NGVD 29 elevations established are based on the NGS NGVD 29 adjustment of the CERP network for Q 22 and W 502. The differences between (29) & (88) for Q 22 and W 502 were used and a prorated value between Q 22 and W 502 was determined based on distance and then applied to the location of TCWD.

x

A short level line was run originating on TCWD and running through the well and staff gauge and terminating back into TCWD in accordance with Florida Minimum Technical

**TC01
Benchmark**

TCWD Level Line

Standards (Chapter 61G17-6).

X

X

X

RUCK

X

A 2nd order, class II level line was run originating on

NGS

T 502 with an NAVD 88 elevation and running through NGS U 502 for a check in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

X

A 2nd order, class II level line was run originating on

U 502 with an NAVD 88 elevation and running through RUCK and back to U 502 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

X

The NGVD 29 elevations established are based on the NGS NGVD 29 adjustment of the CERP network for U 502.

X

A short level line was run originating on RUCK and running through the wells and terminating back into RUCK in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

X

X

X

TCS2

X

A 2nd order, class II level line was run originating on

U 502 with an NAVD 88 elevation and running through TCS2A and TCS2 and back to U 502 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

X

The NGVD 29 elevations established are based on the NGS NGVD 29 adjustment of the CERP network for U 502.

X

A short level line was run originating on TCS2 and running through the well and terminating back into TCS2 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

X

X

X

TC01

X

A 2nd order, class II level line was run originating on

E 563 with an NAVD 88 elevation and running through NGS TCB 14 for a check in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

X

The NGVD 29 elevations established are based on the NGS NGVD 29 adjustment of the CERP network for TCB 14.

X

A short level line was run originating on TCB 14 and running through the well and staff gauge and terminating back into TCB 14 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.77 mm

Vertical_Positional_Accuracy_Explanation: Obannon to

Obannon 2 NAVD 88 level run, 0.77 mm closure in 0.655 km, max. allowed 6.47 mm (FGCS)

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.10 mm

tcwd well.met

Vertical_Positional_Accuracy_Explanation: Obannon 2 to TCWD to Obannon 2 NAVD 88 level run, 0.10 mm closure in 2.192 km, max. allowed 11.84 mm (FGCS)

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 1.71 mm

Vertical_Positional_Accuracy_Explanation: T 502 to U 502 NAVD 88 level run, 1.71 mm closure in 1.597 km, max. allowed 10.11 mm (FGCS)

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.49 mm

Vertical_Positional_Accuracy_Explanation: U 502 to RUCK to U 502 NAVD 88 level run, 0.49 mm closure in 1.685 km, max. allowed 10.38 mm (FGCS)

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 2.99 mm

Vertical_Positional_Accuracy_Explanation: U 502 to TSC2A to TSC2 to U 502 NAVD 88 level run, 2.99 mm closure in 8.184 km, max. allowed 22.89 mm (FGCS)

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 1.37 mm

Vertical_Positional_Accuracy_Explanation: E 563 to TCB 14 NAVD 88 level run, 1.37 mm closure in 0.688 km, max. allowed 6.64 mm (FGCS)
Lineage:

Process_Step:

Process_Description:

The horizontal work was performed using a Trimble GPS Pathfinder Pro XR unit. RTK methodology was used based on the Coast Guard Beacon Station in Tampa, Florida.

The level lines were performed using a Trimble Dini 12 Digital Level and a Wild NA2 level.

Process_Date: 20050603

Process_Time: 11000000

Metadata_Reference_Information:

Metadata_Date: 20050603

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Ben R. Homola

Contact_Organization: McKim & Creed, P. A.

Contact_Position: Sr. Survey Project Manager

Contact_Address:

Address_Type: mailing and physical address

Address: 6241 Arc Way

City: Fort Myers

State_or_Province: Florida

Postal_Code: 33912

Country: USA

Contact_Voice_Telephone: (239) 275-8875

Contact_Facsimile_Telephone: (239) 275-7029

Contact_Electronic_Mail_Address: bhomola@mckimcreed.com

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

From: Taylor, Ronnie L. [Ronnie.L.Taylor@dep.state.fl.us]
Sent: Wednesday, August 10, 2005 4:53 PM
To: Ben Homola
Cc: Ehmke, Howard
Subject: L26742 and L26743

Ben,

Sorry for the delay, I have been on vacation and am trying to catch up on everything.

I have reviewed your submittal for leveling to Well TCWD (L26742) and Wells RUCK and TCS2 (L26743). I find everything in good order and is acceptable to me. I will forward it to NGS for final acceptance and inclusion into the National Spatial Reference System. I will request input from HQ on what files have to be submitted, I think that all the files you submitted should be submitted with the exception of the .HA file, which is the same as the .DSC file.

Thank you for all your efforts and assistance in being the Beta tester for the new TRANSLEV program. Your input has been very beneficial to getting the program to work with the TRIMBLE level. We will probably use this submittal to aid in building the necessary (or updating existing) programs to get the information in the NSRS.

Again thank you for all your efforts on these projects. The submittal looks very good.

Ronnie L. Taylor

NOAA, National Geodetic Survey

National Ocean Service Advisor

3900 Commonwealth Blvd., MS105

Tallahassee, Florida 32399

Phone: (850)245-2606

Fax: (850)245-2645

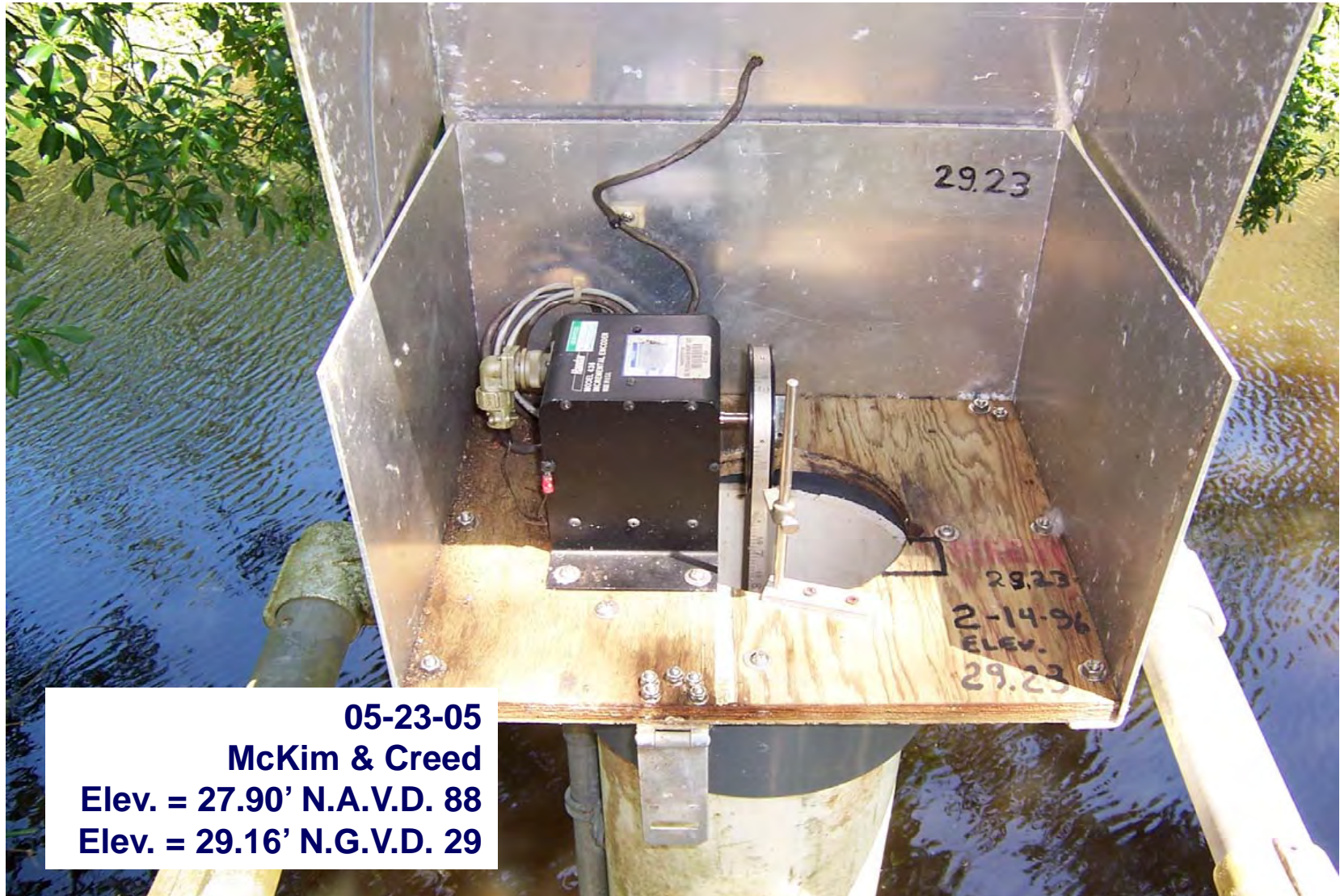
Email: Ronnie.Taylor@noaa.gov

TCWD



McKim & Creed
Date of Photo: April 28, 2005
View: Looking East at Well Site

TCWD



05-23-05
McKim & Creed
Elev. = 27.90' N.A.V.D. 88
Elev. = 29.16' N.G.V.D. 29

McKim & Creed
Date of Photo: April 28, 2005
View: Well Reference Mark

TCWD



McKim & Creed
Date of Photo: April 28, 2005
View: Staff Gauge

TCWD



McKim & Creed
Date of Photo: April 28, 2005
View: Benchmark TCWD

TCWD



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking Easterly at the site**

TCWD



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking easterly at the recorder box**

TCWD



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking easterly at open recorder box**

TCWD



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking at the reference elevation**

TCWD



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking easterly at the Recorder Box**

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = AUGUST 31, 2015
DI8699 *****
DI8699 DESIGNATION - TCWD
DI8699 PID - DI8699
DI8699 STATE/COUNTY- FL/OKEECHOBEE
DI8699 COUNTRY - US
DI8699 USGS QUAD - TAYLOR CREEK SE (1972)
DI8699
DI8699 *CURRENT SURVEY CONTROL
DI8699
DI8699* NAD 83(1986) POSITION- 27 17 45. (N) 080 49 31. (W) SCALED
DI8699* NAVD 88 ORTHO HEIGHT - 6.747 (meters) 22.14 (feet) ADJUSTED
DI8699
DI8699 GEOID HEIGHT - -26.68 (meters) GEOID12B
DI8699 DYNAMIC HEIGHT - 6.737 (meters) 22.10 (feet) COMP
DI8699 MODELED GRAVITY - 979,106.7 (mgal) NAVD 88
DI8699
DI8699 VERT ORDER - SECOND CLASS II
DI8699
DI8699.The horizontal coordinates were scaled from a topographic map and have
DI8699.an estimated accuracy of +/- 6 seconds.
DI8699.
DI8699.The orthometric height was determined by differential leveling and
DI8699.adjusted by the NATIONAL GEODETIC SURVEY
DI8699.in January 2008.
DI8699
DI8699.No vertical observational check was made to the station.
DI8699
DI8699.Photographs are available for this station.
DI8699
DI8699.The dynamic height is computed by dividing the NAVD 88
DI8699.geopotential number by the normal gravity value computed on the
DI8699.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DI8699.degrees latitude (g = 980.6199 gals.).
DI8699
DI8699.The modeled gravity was interpolated from observed gravity values.
DI8699
DI8699;
DI8699;SPC FL E - North East Units Estimated Accuracy
DI8699; 328,190. 217,300. MT (+/- 180 meters Scaled)
DI8699
DI8699 SUPERSEDED SURVEY CONTROL
DI8699
DI8699.No superseded survey control is available for this station.
DI8699
DI8699_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL172192 (NAD 83)
DI8699
DI8699_MARKER: DD = SURVEY DISK
DI8699_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DI8699_STAMPING: TCWD 2005
DI8699_MARK LOGO: SFLWMD
DI8699_PROJECTION: FLUSH
DI8699_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DI8699_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DI8699+STABILITY: SURFACE MOTION

```

DI8699_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
DI8699+SATELLITE: SATELLITE OBSERVATIONS - April 28, 2005

DI8699

DI8699 HISTORY - Date Condition Report By

DI8699 HISTORY - 20050428 MONUMENTED MCKIM

DI8699

DI8699

STATION DESCRIPTION

DI8699

DI8699'DESCRIBED BY MCKIM AND CREED 2005

DI8699'THE STATION IS LOCATED ABOUT 3.7 MI (6.0 KM) NORTH OF OKEECHOBEE, 38.6

DI8699'MI (62.1 KM) EAST SOUTHEAST OF SEBRING, AND 30.5 MI (49.1 KM) WEST

DI8699'SOUTHWEST OF FORT PIERCE IN SECTION 34, TOWNSHIP 36 SOUTH, RANGE 35

DI8699'EAST.

DI8699'

DI8699'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 98/441 AND

DI8699'U.S. HIGHWAY 98/STATE HIGHWAY 70 IN OKEECHOBEE, GO NORTH ON HIGHWAY

DI8699'441 FOR 4.25 MI (6.84 KM) TO SOUTH-MOST PAVED DELIVERY ENTRANCE DRIVE

DI8699'TO ECKERD YOUTH DEVELOPMENT CENTER ON THE RIGHT, TURN RIGHT ON

DI8699'ENTRANCE DRIVE AND GO EAST FOR 0.05 MI (0.08 KM) TO A T-JUNCTION, TURN

DI8699'RIGHT ON PAVED ROAD AND GO SOUTH AND SOUTHEAST FOR 0.4 MI (0.6 KM) TO

DI8699'A T-JUNCTION, TURN RIGHT ON PAVED DRIVE AND GO SOUTHWEST FOR 200 FT

DI8699'(61 M) TO END OF DRIVE AT GRASS FIELD, CONTINUE SOUTHWEST ACROSS OPEN

DI8699'GRASS FIELD FOR 0.1 MI (0.2 KM) TO GRASS TRAIL ALONG A DRAINAGE CANAL

DI8699'AT SOUTH CORNER OF OPEN GRASS FIELD, CONTINUE SOUTHWEST ALONG GRASS

DI8699'TRAIL FOR 0.2 MI (0.45 KM) TO END OF TRAIL AND STATION ON LEFT.

DI8699'

DI8699'THE STATION IS A 3-1/2 INCH (8 CM) BRASS SFLWMD SURVEY DISK SET IN THE

DI8699'TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND. LOCATED 18.5

DI8699'FT (5.6 M) WEST OF CENTER OF MONITORING WELL, 12.3 FT (3.7 M)

DI8699'SOUTHWEST OF THE NORTHWEST CORNER OF WOOD DECK FOR WELL EQUIPMENT, 4.0

DI8699'FT (1.2 M) NORTHWEST OF THE TOP OF BANK OF CANAL, 7.0 FT (2.1 M) NORTH

DI8699'OF A CARSONITE WITNESS POST, AND 1.2 FT (0.4 M) SOUTHEAST OF A BURIED

DI8699'MAGNET 0.4 FT (12.2 CM) BELOW GRADE.

DI8699'

DI8699'OWNERSHIP - TIITF/HRS-YOUTH SERVICE, 1117 NORTHEAST 39TH BOULEVARD,

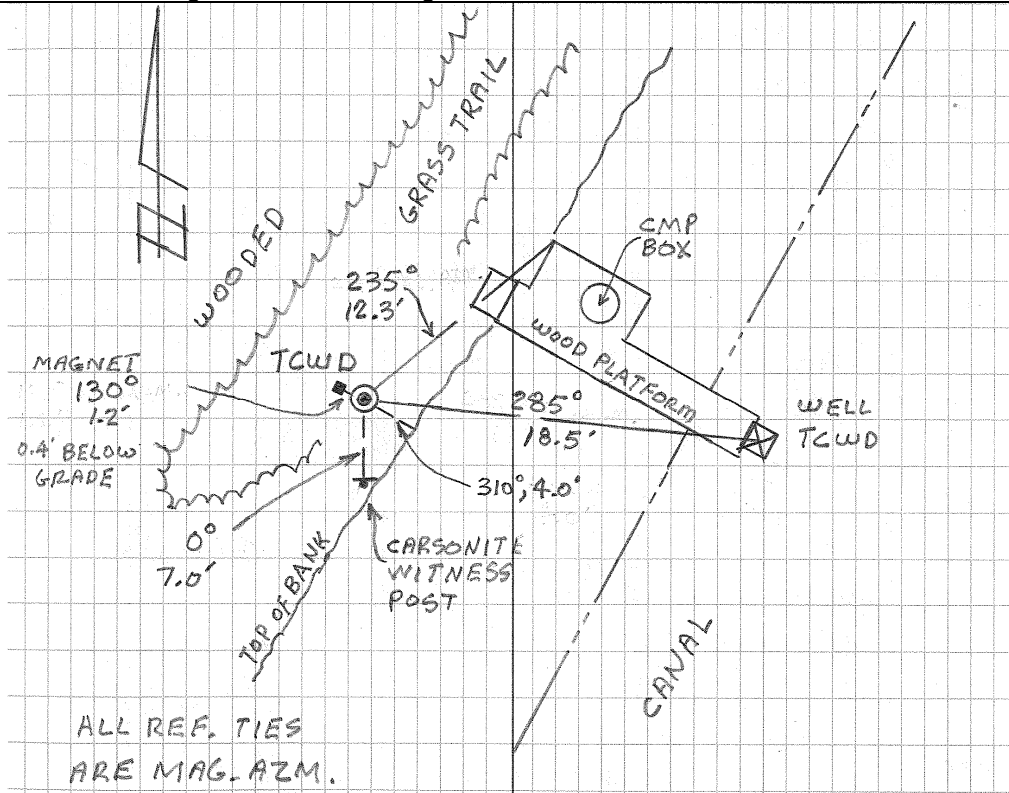
DI8699'OKEECHOBEE, FLORIDA 34973.

*** retrieval complete.

Elapsed Time = 00:00:02



COUNTY: Okeechobee		PROJECT: Well TCWD		DESIGNATION: TCWD	
SECTION 34		TOWNSHIP 36 SOUTH		RANGE 35 EAST	
GEOGRAPHIC INDEX OF QUAD: Florida					
Established by <u> X </u> Recovered by McKim & Creed, PA			NAME OF QUADRANGLE: Taylor Creek SE		
SURVEYOR: Ben R. Homola DATE: 4/28/05			FIELD BOOK: STRIVE 6 PAGE: 3		
HORIZONTAL DATUM: Florida State Plane Coordinate System, NAD 83 ZONE: EAST					
VERTICAL DATUM: NAVD 88 & NGVD 29 (NGS NGVD 29 adjustment of the CERP network)					
CONTROL ACCURACY: HORIZONTAL ± 1 meter VERTICAL 2 nd order, class II					
STATE PLANE COORDINATES Feet		X 712872		Y 1076764	
				EL. = 22.136' (NAVD 88) EL. = 23.40' (NGVD 29)	
LATITUDE: 27°17'45.13" LONGITUDE: 080°49'31.42"					
DESCRIPTION					
To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 4.25 mi. to south most paved delivery entrance drive to Eckerd Youth Development Center, thence east on entrance road for 0.05 mi. to T-intersection, thence south and southeast along paved road for 0.4 mi. to a T-intersection, thence southwest along paved drive for 200 feet to end of drive, thence continue southwest across open grass field for 0.1 mi. to grass trail along a drainage canal, thence continue southwest along grass trail for 0.2 mi. to end of trail and mark on left, a SFWMD 3½ inch brass disk set in top of a round concrete monument flush with the ground. Located 18.5 feet west of center of monitoring well, 12.3 feet southwest of the northwest corner of wood deck for well equipment, 4.0 feet northwest of top of bank of canal, 7.0 feet north of a carsonite witness post, 1.2 feet southeast of a buried magnet 0.4-foot below grade.					



The NGS Data Sheet

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

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12

1 National Geodetic Survey, Retrieval Date = FEBRUARY 5, 2005

```

AH9321 *****
AH9321 DESIGNATION - OBANNON
AH9321 PID - AH9321
AH9321 STATE/COUNTY- FL/OKEECHOBEE
AH9321 USGS QUAD - TAYLOR CREEK SE (1972)
AH9321
AH9321 *CURRENT SURVEY CONTROL
AH9321
AH9321 * NAD 83(1999)- 27 18 36.72310(N) 080 49 32.52531(W) ADJUSTED
AH9321 * NAVD 88 - 8.911 (meters) 29.24 (feet) ADJUSTED
AH9321
AH9321 X - 904,204.170 (meters) COMP
AH9321 Y - -5,598,636.667 (meters) COMP
AH9321 Z - 2,908,790.812 (meters) COMP
AH9321 LAPLACE CORR- -2.06 (seconds) DEFLEC99
AH9321 ELLIP HEIGHT- -17.75 (meters) (05/31/01) GPS OBS
AH9321 GEOID HEIGHT- -26.65 (meters) GEOID03
AH9321 DYNAMIC HT - 8.898 (meters) 29.19 (feet) COMP
AH9321 MODELED GRAV- 979,110.9 (mgal) NAVD 88
AH9321
AH9321 HORZ ORDER - FIRST
AH9321 VERT ORDER - FIRST CLASS II
AH9321 ELLP ORDER - FOURTH CLASS I
AH9321
AH9321.The horizontal coordinates were established by GPS observations
AH9321.and adjusted by the National Geodetic Survey in May 2001.
AH9321
AH9321.The orthometric height was determined by differential leveling
AH9321.and adjusted by the National Geodetic Survey in May 2004.
AH9321
AH9321.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AH9321
AH9321.The Laplace correction was computed from DEFLEC99 derived deflections.
AH9321
AH9321.The ellipsoidal height was determined by GPS observations
AH9321.and is referenced to NAD 83.
AH9321
AH9321.The geoid height was determined by GEOID03.
AH9321
AH9321.The dynamic height is computed by dividing the NAVD 88
AH9321.geopotential number by the normal gravity value computed on the
AH9321.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AH9321.degrees latitude (g = 980.6199 gals.).
AH9321
AH9321.The modeled gravity was interpolated from observed gravity values.
AH9321
AH9321;
AH9321; North East Units Scale Factor Converg.
AH9321;SPC FL E - 329,786.175 217,251.259 MT 0.99994485 +0 04 47.9
AH9321;UTM 17 - 3,020,805.635 517,245.373 MT 0.99960367 +0 04 47.9
AH9321
AH9321! - Elev Factor x Scale Factor = Combined Factor
AH9321!SPC FL E - 1.00000279 x 0.99994485 = 0.99994764
AH9321!UTM 17 - 1.00000279 x 0.99960367 = 0.99960646
AH9321
AH9321: Primary Azimuth Mark Grid Az
AH9321:SPC FL E - OBANNON 2 184 35 04.6
AH9321:UTM 17 - OBANNON 2 184 35 04.6
AH9321
AH9321 |-----|
AH9321 | PID Reference Object Distance Geod. Az |
AH9321 | AH9320 OBANNON 2 APPROX. 0.7 KM 1843952.5 |
AH9321 |-----|
AH9321
AH9321 SUPERSEDED SURVEY CONTROL
AH9321
AH9321 NAD 83(1990)- 27 18 36.72207(N) 080 49 32.52456(W) AD( ) 1

```

AH9321 ELLIP H (06/01/99) -17.71 (m) GP() 4 1

AH9321

AH9321.Superseded values are not recommended for survey control.

AH9321.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AH9321.[See file dsdata.txt](#) to determine how the superseded data were derived.

AH9321

AH9321_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL1724520806(NAD 83)

AH9321_MARKER: F = FLANGE-ENCASED ROD

AH9321_SETTING: 50 = ALUMINUM ALLOY ROD W/O SLEEVE (10 FT.+)

AH9321_STAMPING: O BANNON G.P.S. 1998

AH9321_MARK LOGO: NONE

AH9321_PROJECTION: RECESSED 10 CENTIMETERS

AH9321_MAGNETIC: N = NO MAGNETIC MATERIAL

AH9321_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AH9321_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AH9321+SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002

AH9321

HISTORY	Date	Condition	Report By
AH9321	1998	MONUMENTED	SFLWMD
AH9321	20020530	GOOD	FLDEP

AH9321

STATION DESCRIPTION

AH9321

AH9321 DESCRIBED BY S FL WATER MGMT DIST 1998

AH9321 THE STATION IS ABOUT 4.7 MI (7.6 KM) NORTH OF OKEECHOBEE, 28.1 MI

AH9321 (45.2 KM) EAST SOUTHEAST OF LORIDA, AND 10 MI (16.1 KM) NORTHEAST OF

AH9321 THE KISSIMMEE RIVER CANAL C-38 IN SECTION 27, TOWNSHIP 36 SOUTH, RANGE

AH9321 35 EAST. TO REACH STATION FROM THE INTERSECTION OF U.S.HIGHWAY 98/441

AH9321 (PARROT AVE) AND U.S.HIGHWAY 98/STATE HIGHWAY 70 (N.PARK ST) IN

AH9321 OKEECHOBEE, GO NORTH ON HIGHWAY 441 FOR 4.6 MI (7.4 KM) TO THE

AH9321 APPARENT NORTH BOUNDARY OF THE ECKERD YOUTH DEVELOPMENT CENTER (STATE

AH9321 FACILITY) LANDS ON RIGHT AND THE STATION, A 5/8-INCH ALUMINUM ROD

AH9321 DRIVEN TO A REPORTED DEPTH OF 27 FT (8.2 M) AND HOUSED INSIDE AN

AH9321 8-INCH PVC PIPE WELL CASING WITH ALUMINUM ACCESS COVER RECESSED 0.4 FT

AH9321 (12.2 CM) BELOW GROUND LEVEL, WITH CONCRETE COLLAR. TOP OF ROD IS

AH9321 0.21 FT (6.40 CM) BELOW THE LEVEL OF THE ACCESS COVER RIM. LOCATED

AH9321 63.0 FT (19.2 M) EAST OF CENTERLINE OF U.S.HIGHWAY 441, 371 FT (113.1

AH9321 M) NORTH OF THE NORTH EDGE OF PAVEMENT OF THE NORTHMOST PAVED ENTRANCE

AH9321 DRIVE TO ECKERD YOUTH DEVELOPMENT CENTER, 21.4 FT (6.5 M) SOUTHEAST OF

AH9321 A WOOD CORNER FENCE POST, 94.5 FT (28.8 M) NORTHWEST OF AN 18-INCH

AH9321 FORKED PINE TREE, 8.6 FT (2.6 M) SOUTHWEST OF A NORTHWEST-SOUTHEAST

AH9321 BARBWIRE FENCE AND N.G.S.CARSONITE WITNESS POST. RECOVERABLE WITH

AH9321 MAGNETIC LOCATOR, MAGNETIC SOURCE UNKNOWN.

AH9321

STATION RECOVERY (2002)

AH9321

AH9321 RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)

AH9321 RECOVERED AS DESCRIBED.

AH9321

*** retrieval complete.

Elapsed Time = 00:00:00

The NGS Data Sheet

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

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12

1 National Geodetic Survey, Retrieval Date = FEBRUARY 5, 2005

AH9320 *****

AH9320 DESIGNATION - OBANNON 2
 AH9320 PID - AH9320
 AH9320 STATE/COUNTY- FL/OKEECHOBEE
 AH9320 USGS QUAD - TAYLOR CREEK SE (1972)
 AH9320
 AH9320 *CURRENT SURVEY CONTROL

AH9320*	NAD 83(1999)-	27 18 15.51734(N)	080 49 34.46219(W)	ADJUSTED
AH9320*	NAVD 88	- 8.478 (meters)	27.81 (feet)	ADJUSTED

AH9320 X - 904,199.274 (meters) COMP
 AH9320 Y - -5,598,940.381 (meters) COMP
 AH9320 Z - 2,908,210.635 (meters) COMP
 AH9320 LAPLACE CORR- -2.04 (seconds) DEFLEC99
 AH9320 ELLIP HEIGHT- -18.19 (meters) (05/31/01) GPS OBS
 AH9320 GEOID HEIGHT- -26.65 (meters) GEOID03
 AH9320 DYNAMIC HT - 8.465 (meters) 27.77 (feet) COMP
 AH9320 MODELED GRAV- 979,109.2 (mgal) NAVD 88

AH9320 HORZ ORDER - FIRST
 AH9320 VERT ORDER - FIRST CLASS II
 AH9320 ELLP ORDER - FOURTH CLASS I

AH9320.The horizontal coordinates were established by GPS observations
 AH9320.and adjusted by the National Geodetic Survey in May 2001.
 AH9320
 AH9320.The orthometric height was determined by differential leveling
 AH9320.and adjusted by the National Geodetic Survey in May 2004.
 AH9320
 AH9320.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AH9320
 AH9320.The Laplace correction was computed from DEFLEC99 derived deflections.
 AH9320
 AH9320.The ellipsoidal height was determined by GPS observations
 AH9320.and is referenced to NAD 83.
 AH9320
 AH9320.The geoid height was determined by GEOID03.
 AH9320
 AH9320.The dynamic height is computed by dividing the NAVD 88
 AH9320.geopotential number by the normal gravity value computed on the
 AH9320.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AH9320.degrees latitude (g = 980.6199 gals.).
 AH9320
 AH9320.The modeled gravity was interpolated from observed gravity values.

AH9320;		North	East	Units	Scale	Factor	Converg.
AH9320;SPC FL E	-	329,133.422	217,198.916	MT	0.99994483		+0 04 46.9
AH9320;UTM 17	-	3,020,153.105	517,193.048	MT	0.99960365		+0 04 46.9
AH9320!	-	Elev Factor	x Scale Factor	=	Combined Factor		
AH9320!SPC FL E	-	1.00000286	x 0.99994483	=	0.99994769		
AH9320!UTM 17	-	1.00000286	x 0.99960365	=	0.99960651		

AH9320:		Primary Azimuth Mark	Grid Az
AH9320:SPC FL E	-	OBANNON	004 35 04.7
AH9320:UTM 17	-	OBANNON	004 35 04.7

AH9320	PID	Reference Object	Distance	Geod. Az
AH9320	AH9321	OBANNON	APPROX. 0.7 KM	0043951.6

AH9320 SUPERSEDED SURVEY CONTROL

AH9320 NAD 83(1990)- 27 18 15.51630(N) 080 49 34.46136(W) AD() 1

AH9320 ELLIP H (06/01/99) -18.16 (m) GP() 4 1

AH9320

AH9320.Superseded values are not recommended for survey control.

AH9320.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AH9320.[See file dsdata.txt](#) to determine how the superseded data were derived.

AH9320

AH9320_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL1719320153(NAD 83)

AH9320_MARKER: F = FLANGE-ENCASED ROD

AH9320_SETTING: 50 = ALUMINUM ALLOY ROD W/O SLEEVE (10 FT.+)

AH9320_STAMPING: O BANNON 2 G.P.S. 1998

AH9320_MARK LOGO: NONE

AH9320_PROJECTION: RECESSED 15 CENTIMETERS

AH9320_MAGNETIC: N = NO MAGNETIC MATERIAL

AH9320_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AH9320_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AH9320+SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002

AH9320

HISTORY	Date	Condition	Report By
AH9320	1998	MONUMENTED	SFLWMD
AH9320	20020530	GOOD	FLDEP

AH9320

AH9320 STATION DESCRIPTION

AH9320

AH9320'DESCRIBED BY S FL WATER MGMT DIST 1998

AH9320'STATION IS ABOUT 4.3 MI (6.9 KM) NORTH OF OKEECHOBEE, 28.2 MI (45.4

AH9320'KM) EAST SOUTHEAST OF LORIDA, 10 MI (16.1 KM) NORTHEAST OF THE

AH9320'KISSIMMEE RIVER CANAL C-38, IN SECTION 27, TOWNSHIP 36 SOUTH, RANGE 35

AH9320' TO REACH STATION FROM THE INTERSECTION OF U.S.HIGHWAY 98/441

AH9320'(PARROT AVE) AND U.S.HIGHWAY 98/STATE HIGHWAY 70 (N.PARK ST) IN

AH9320'OKEECHOBEE, GO NORTH ON HIGHWAY 441 FOR 4.25 MI (6.84 KM) TO

AH9320'SOUTH-MOST PAVED DELIVERY ENTRANCE DRIVE TO ECKERD YOUTH DEVELOPMENT

AH9320'CENTER (STATE FACILITY) ON RIGHT AND STATION, A 5/8-INCH ALUMINUM ROD

AH9320'DRIVEN TO A REPORTED DEPTH OF 31.5 FT (9.6 M) AND HOUSED INSIDE AN

AH9320'8-INCH PVC PIPE WELL CASING WITH ALUMINUM ACCESS COVER RECESSED 0.35

AH9320'FT (10.67 CM) BELOW GROUND LEVEL, WITH CONCRETE COLLAR. TOP OF ROD IS

AH9320'0.25 FT (7.62 CM) BELOW THE LEVEL OF THE ACCESS COVER RIM. LOCATED

AH9320'97.0 FT (29.6 M) EAST OF CENTERLINE OF U.S.HIGHWAY 441, 14.0 FT (4.3

AH9320'M) SOUTH OF THE CENTERLINE OF THE PAVED DELIVERY ENTRANCE DRIVE

AH9320'LEADING EASTERLY, SOUTHEAST OF A METAL GATE ACROSS THE DRIVE AND 37.3

AH9320'FT (11.4 M) EAST OF THE SOUTH 3 FT (0.9 M) HIGH STEEL GATE POST, 3.5

AH9320'FT (1.1 M) SOUTH OF THE SOUTH EDGE OF PAVED DRIVE, 67.3 FT (20.5 M)

AH9320'NORTH OF A 4-INCH PIPE VENT AT THE NORTHEAST CORNER OF A LIFT STATION,

AH9320'40.8 FT (12.4 M) NORTH OF A N.G.S. CARSONITE WITNESS POST ADJACENT TO

AH9320'A POWER POLE WITH 3 TRANSFORMERS AND LAMP ATTACHED. RECOVERABLE WITH

AH9320'MAGNETIC LOCATOR, MAGNETIC SOURCE UNKNOWN.

AH9320

AH9320 STATION RECOVERY (2002)

AH9320

AH9320'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)

AH9320'RECOVERED AS DESCRIBED.

AH9320'

*** retrieval complete.

Elapsed Time = 00:00:00

The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER 2, 2015
AF5554 *****
AF5554 DESIGNATION - Q 22
AF5554 PID - AF5554
AF5554 STATE/COUNTY- FL/OKEECHOBEE
AF5554 COUNTRY - US
AF5554 USGS QUAD - OKEECHOBEE (1972)
AF5554
AF5554 *CURRENT SURVEY CONTROL
AF5554
AF5554* NAD 83(2011) POSITION- 27 14 37.08879(N) 080 49 38.86131(W) ADJUSTED
AF5554* NAD 83(2011) ELLIP HT- -18.257 (meters) (06/27/12) ADJUSTED
AF5554* NAD 83(2011) EPOCH - 2010.00
AF5554* NAVD 88 ORTHO HEIGHT - 8.423 (meters) 27.63 (feet) ADJUSTED
AF5554
AF5554 NAD 83(2011) X - 904,570.970 (meters) COMP
AF5554 NAD 83(2011) Y - -5,602,001.089 (meters) COMP
AF5554 NAD 83(2011) Z - 2,902,234.852 (meters) COMP
AF5554 LAPLACE CORR - -2.14 (seconds) DEFLEC12B
AF5554 GEOID HEIGHT - -26.67 (meters) GEOID12B
AF5554 DYNAMIC HEIGHT - 8.410 (meters) 27.59 (feet) COMP
AF5554 MODELED GRAVITY - 979,094.4 (mgal) NAVD 88
AF5554 OBS GRAVITY - 979,092.5 (mgal) GRAV_OBS
AF5554
AF5554 VERT ORDER - FIRST CLASS II
AF5554
AF5554 Network accuracy estimates per FGDC Geospatial Positioning Accuracy
AF5554 Standards:
AF5554 FGDC (95% conf, cm) Standard deviation (cm) CorrNE
AF5554 Horiz Ellip SD_N SD_E SD_h (unitless)
AF5554 -----
AF5554 NETWORK 2.28 2.80 0.98 0.86 1.43 -0.26004606
AF5554 -----
AF5554 Click here for local accuracies and other accuracy information.
AF5554
AF5554
AF5554.The horizontal coordinates were established by GPS observations
AF5554.and adjusted by the National Geodetic Survey in June 2012.
AF5554
AF5554.NAD 83(2011) refers to NAD 83 coordinates where the reference
AF5554.frame has been affixed to the stable North American tectonic plate. See
AF5554.NA2011 for more information.
AF5554
AF5554.The horizontal coordinates are valid at the epoch date displayed above
AF5554.which is a decimal equivalence of Year/Month/Day.
AF5554
AF5554.The orthometric height was determined by differential leveling and
AF5554.adjusted by the NATIONAL GEODETIC SURVEY
AF5554.in November 2001.
AF5554
AF5554.WARNING-Repeat measurements at this control monument indicate possible
AF5554.vertical movement.
AF5554
AF5554.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AF5554
AF5554.The Laplace correction was computed from DEFLEC12B derived deflections.

```

AF5554
 AF5554.The ellipsoidal height was determined by GPS observations
 AF5554.and is referenced to NAD 83.
 AF5554
 AF5554.The dynamic height is computed by dividing the NAVD 88
 AF5554.geopotential number by the normal gravity value computed on the
 AF5554.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AF5554.degrees latitude (g = 980.6199 gals.).
 AF5554
 AF5554.The modeled gravity was interpolated from observed gravity values.
 AF5554
 AF5554.The observed gravity was obtained from relative gravimeter ties
 AF5554.to the IGSN71 gravity network.
 AF5554
 AF5554. The following values were computed from the NAD 83(2011) position.
 AF5554
 AF5554;

	North	East	Units	Scale Factor	Converg.
AF5554;SPC FL E	- 322,410.411	217,087.241	MT	0.99994478	+0 04 44.3
AF5554;SPC FL E	- 1,057,774.82	712,227.06	sFT	0.99994478	+0 04 44.3
AF5554;UTM 17	- 3,013,432.387	517,081.411	MT	0.99960360	+0 04 44.3

 AF5554
 AF5554!

AF5554!SPC FL E	-	Elev Factor	x	Scale Factor	=	Combined Factor
AF5554!SPC FL E	-	1.00000287	x	0.99994478	=	0.99994765
AF5554!UTM 17	-	1.00000287	x	0.99960360	=	0.99960647

 AF5554

SUPERSEDED SURVEY CONTROL

AF5554	NAD 83(2007)-	27 14 37.08895(N)	080 49 38.86197(W)	AD(2002.00)	0
AF5554	ELLIP H (02/10/07)	-18.240 (m)		GP(2002.00)	
AF5554	NAD 83(1999)-	27 14 37.08887(N)	080 49 38.86254(W)	AD()	1
AF5554	ELLIP H (12/12/02)	-18.227 (m)		GP()	4 1
AF5554	NAVD 88 (12/12/02)	8.42 (m)	27.6 (f)	LEVELING	3
AF5554	NAVD 88 (06/15/91)	8.444 (m)	27.70 (f)	SUPERSEDED	1 2
AF5554	NGVD 29 (09/01/92)	8.808 (m)	28.90 (f)	ADJUSTED	1 2

AF5554
 AF5554.Superseded values are not recommended for survey control.
 AF5554
 AF5554.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AF5554.[See file dsdata.txt](#) to determine how the superseded data were derived.
 AF5554

AF5554_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL1708113432(NAD 83)

AF5554
 AF5554_MARKER: DB = BENCH MARK DISK
 AF5554_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AF5554_SP_SET: SET IN TOP OF CONCRETE MONUMENT
 AF5554_STAMPING: 2.530 Q 22 1933
 AF5554_MARK LOGO: CGS
 AF5554_PROJECTION: PROJECTING 10 CENTIMETERS
 AF5554_MAGNETIC: O = OTHER; SEE DESCRIPTION
 AF5554_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AF5554+STABILITY: SURFACE MOTION
 AF5554_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AF5554+SATELLITE: SATELLITE OBSERVATIONS - April 17, 2002

HISTORY	- Date	Condition	Report By
AF5554	- 1933	MONUMENTED	CGS
AF5554	- 1962	GOOD	CGS
AF5554	- 1979	GOOD	NGS
AF5554	- 20010607	GOOD	EMCINC
AF5554	- 20010607	GOOD	EMCINC
AF5554	- 20020417	GOOD	MAPTEC
AF5554	- 20150307	GOOD	GEOCAC

STATION DESCRIPTION

AF5554
 AF5554'DESCRIBED BY COAST AND GEODETIC SURVEY 1962

AF5554'AT OKEECHOBEE.
AF5554'AT OKEECHOBEE, OKEECHOBEE COUNTY, AT THE CITY HALL LOCATED AT
AF5554'THE INTERSECTION OF NORTH PARK AND CHEROKEE STREETS, (12 FEET
AF5554'SOUTH OF THE CURB ON NORTH PARK STREET AND 15 FEET EAST OF THE
AF5554'CURB ON CHEROKEE STREET.) A STANDARD DISK, STAMPED 28.530 Q 22
AF5554'1933 AND SET IN THE TOP OF A CONCRETE POST PROJECTING 5 INCHES
AF5554'ABOVE THE GROUND. NOTE-- USCE 1965 REPORT WITNESSES REPORT
AF5554'HAVING SEEN THIS ENTIRE MONUMENT OUT OF GROUND, ON ITS SIDE
AF5554'DURING GRADING AND LANDSCAPING OPERATIONS RECENTLY. THE AUSTRALIAN
AF5554'PINES REFERRED TO IN PREVIOUS DESCRIPTION ARE GONE. APPARENTLY
AF5554'THE CONSTRUCTION WORKERS RESET THE MONUMENT IN ITS PRESENT
AF5554'POSITION.
AF5554
AF5554 STATION RECOVERY (1979)
AF5554
AF5554'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1979
AF5554'RECOVERED IN GOOD CONDITION.
AF5554
AF5554 STATION RECOVERY (2001)
AF5554
AF5554'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AF5554'RECOVERED IN GOOD CONDITION. NOTE--THE NUMBER 8 IN THE STAMPING CAN
AF5554'NO LONGER BE READ. IT HAS BEEN SCRAPED OFF.
AF5554'
AF5554'
AF5554
AF5554 STATION RECOVERY (2001)
AF5554
AF5554'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AF5554'RECOVERED AS DESCRIBED.
AF5554
AF5554 STATION RECOVERY (2002)
AF5554
AF5554'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AF5554'RECOVERED AS DESCRIBED
AF5554'
AF5554
AF5554 STATION RECOVERY (2015)
AF5554
AF5554'RECOVERY NOTE BY GEOCACHING 2015 (DEB)
AF5554'RECOVERED IN GOOD CONDITION.

*** retrieval complete.

Elapsed Time = 00:00:03

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.
 Line/Part: L26130 SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated
 & constrained

The NGS Data Sheet

Mark ID SSN PID Designation Geopotential Elevation Codes
 725 0052 AJ6118 W 502 15.4859 15.8019

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

```

PROGRAM = datasheet95, VERSION = 8.7.1
1 National Geodetic Survey, Retrieval Date = SEPTEMBER 2, 2015
AJ6118 *****
AJ6118 DESIGNATION - W 502
AJ6118 PID - AJ6118
AJ6118 STATE/COUNTY- FL/OKEECHOBEE
AJ6118 COUNTRY - US
AJ6118 USGS QUAD - TAYLOR CREEK NE (1971)
AJ6118
AJ6118 *CURRENT SURVEY CONTROL
AJ6118
AJ6118* NAD 83(1986) POSITION- 27 22 31. (N) 080 49 04. (W) SCALED
AJ6118* NAVD 88 ORTHO HEIGHT - 15.432 (meters) 50.63 (feet) ADJUSTED
AJ6118
AJ6118 GEOID HEIGHT - -26.64 (meters) GEOID12B
AJ6118 DYNAMIC HEIGHT - 15.408 (meters) 50.55 (feet) COMP
AJ6118 MODELED GRAVITY - 979,128.8 (mgal) NAVD 88
AJ6118
AJ6118 VERT ORDER - FIRST CLASS II
AJ6118
AJ6118.The horizontal coordinates were scaled from a topographic map and have
AJ6118.an estimated accuracy of +/- 6 seconds.
AJ6118.
AJ6118.The orthometric height was determined by differential leveling and
AJ6118.adjusted by the NATIONAL GEODETIC SURVEY
AJ6118.in January 2002.
AJ6118
AJ6118.The dynamic height is computed by dividing the NAVD 88
AJ6118.geopotential number by the normal gravity value computed on the
AJ6118.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6118.degrees latitude (g = 980.6199 gals.).
AJ6118
AJ6118.The modeled gravity was interpolated from observed gravity values.
AJ6118
AJ6118; North East Units Estimated Accuracy
AJ6118;SPC FL E - 337,000. 218,030. MT (+/- 180 meters Scaled)
AJ6118
AJ6118 SUPERSEDED SURVEY CONTROL
AJ6118
AJ6118.No superseded survey control is available for this station.
AJ6118
AJ6118_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL180280(NAD 83)
AJ6118
AJ6118_MARKER: F = FLANGE-ENCASED ROD
AJ6118_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ6118_STAMPING: W 502 2000
AJ6118_MARK LOGO: NGS
AJ6118_PROJECTION: RECESSED 5 CENTIMETERS
AJ6118_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ6118_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ6118_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6118+SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002
AJ6118_ROD/PIPE-DEPTH: 24.1 meters
AJ6118
AJ6118 HISTORY - Date Condition Report By
AJ6118 HISTORY - 2000 MONUMENTED FLDEP
AJ6118 HISTORY - 20020530 GOOD FLDEP
    
```

AJ6118

AJ6118

STATION DESCRIPTION

AJ6118

AJ6118'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)

AJ6118'THE MARK IS ABOUT 9.4 MI (15.1 KM) SOUTH OF FORT DRUM, 9.2 MI (14.8

AJ6118'KM) NORTH OF OKEECHOBEE, IN SECTION 3, TOWNSHIP 36 SOUTH, RANGE 35

AJ6118'EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441

AJ6118'(PARROTT STREET) AND STATE ROAD 70 (PARK STREET) IN OKEECHOBEE, GO

AJ6118'NORTH ON U.S. HIGHWAY 441 (PARROTT STREET) FOR 9.2 MI (14.8 KM) TO

AJ6118'THE JUNCTION OF NORTHWEST 144TH DRIVE ON THE LEFT (COUNTY ROAD 68A)

AJ6118'AND THE MARK ON THE LEFT, A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A

AJ6118'DEPTH OF 79.2 FT (24.1 M) WITH A NGS LOGO CAP RECESSED 0.2 FT (6.1 CM)

AJ6118'BELOW THE LEVEL OF THE GROUND AND 1.5 FT (0.5 M) BELOW THE LEVEL OF

AJ6118'NORTHWEST 144TH DRIVE, THE DATUM POINT IS RECESSED 0.4 FT (12.2 CM)

AJ6118'BELOW THE LEVEL OF THE NGS LOGO CAP. LOCATED 42.8 FT (13.0 M) WEST OF

AJ6118'THE CENTERLINE OF U.S. HIGHWAY 441, 38.8 FT (11.8 M) SOUTH OF THE

AJ6118'APPROXIMATE CENTERLINE OF NORTHWEST 144TH DRIVE, 4.5 FT (1.4 M) NORTH

AJ6118'OF A CARSONITE WITNESS POST AND 1.6 FT (0.5 M) EAST OF A CONCRETE

AJ6118'POLE. NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO

AJ6118'CAP.

AJ6118

AJ6118

STATION RECOVERY (2002)

AJ6118

AJ6118'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)

AJ6118'RECOVERED AS DESCRIBED.

AJ6118'

*** retrieval complete.

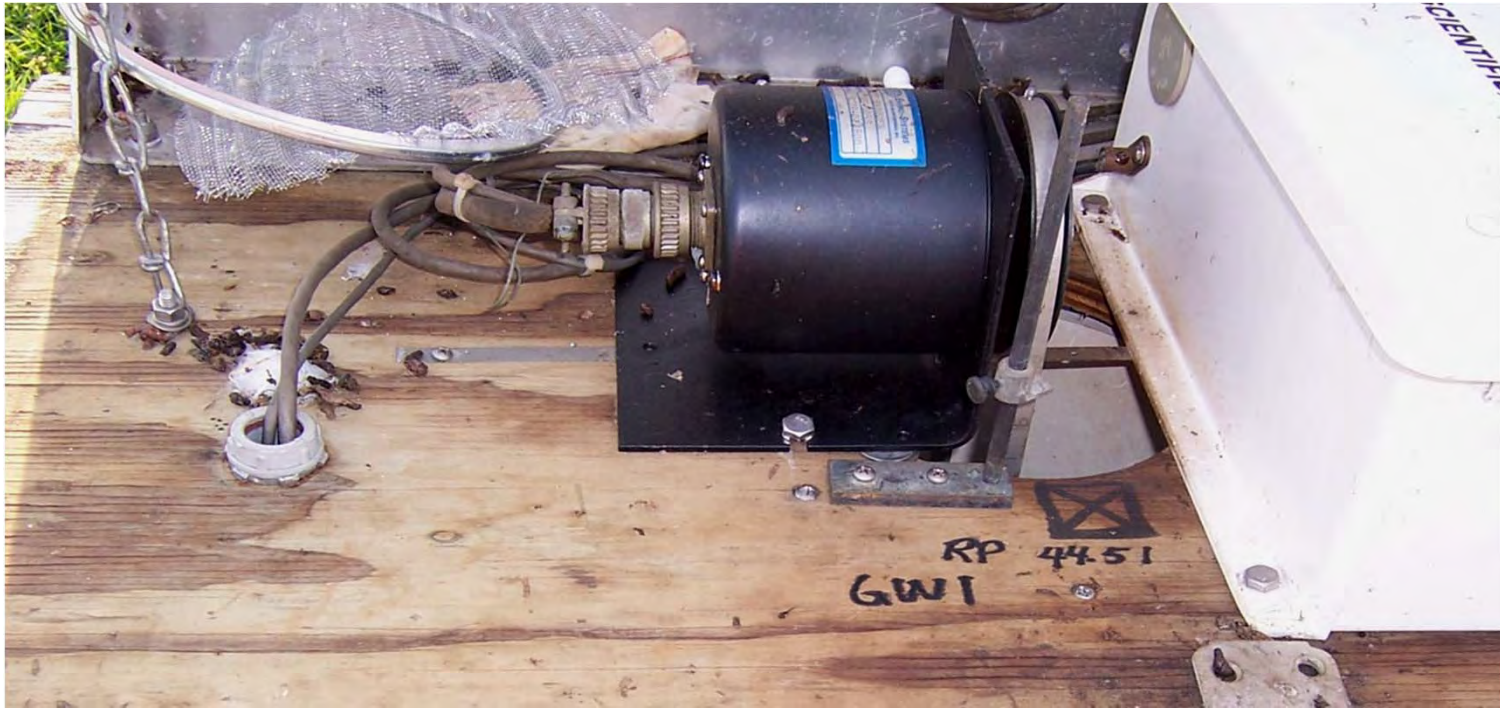
Elapsed Time = 00:00:02

RUCK



McKim & Creed
Date of Photo: April 28, 2005
View: Looking Northeast at Well Site

RUCK



GW1 = 44.51 (Deep)
GW2 = 43.95 (Shallow)
N. 2" Well = 44.25
S. 2" Well = 44.02

GW1
05-24-05
McKim & Creed
Elev. = 43.24' N.A.V.D. 88
Elev. = 44.46' N.G.V.D. 29

McKim & Creed
Date of Photo: April 28, 2005
View: Well GW1 Reference Mark

RUCK



GW1 = 44.51 (Deep)
GW2 = 43.95 (Shallow)
N. 2" Well = 44.25
S. 2" Well = 44.02

GW2
05-24-05
McKim & Creed
Elev. = 42.68' N.A.V.D. 88
Elev. = 43.90' N.G.V.D. 29

McKim & Creed
Date of Photo: April 28, 2005
View: Well GW2 Reference Mark

RUCK



GW1 = 44.51 (Deep)
GW2 = 43.95 (Shallow)
N. 2" Well = 44.25
S. 2" Well = 44.02

GW3
05-24-05
McKim & Creed
Elev. = 43.00' N.A.V.D. 88
Elev. = 44.22' N.G.V.D. 29

McKim & Creed
Date of Photo: April 28, 2005
View: Well GW3 Reference Mark

RUCK



GW1 = 44.51 (Deep)
GW2 = 43.95 (Shallow)
N. 2" Well = 44.25
S. 2" Well = 44.02

GW4
05-24-05
McKim & Creed
Elev. = 42.64' N.A.V.D. 88
Elev. = 43.86' N.G.V.D. 29

McKim & Creed
Date of Photo: April 28, 2005
View: Well GW4 Reference Mark

RUCK



McKim & Creed
Date of Photo: April 28, 2005
View: Benchmark RUCK

SWMMD WELL TCWD

A 2ND ORDER, CLASS II LEVEL LINE WAS RUN BETWEEN OBANNON 2 & OBANNON 2 AND CHECKED BY -0.77mm (-0.003') DIST. 0.655 KM (2,149')

5-24-05 BRH/KSS/TMR

A 2ND ORDER, CLASS II LEVEL LINE WAS RUN FROM OBANNON 2 TO TCWD AND BACK TO OBANNON 2 AND CHECKED BY -0.10mm (0.000') DIST. 2.192 KM (7,192')

ADJ. NAVD(88) ELEV.

OBANNON (SPSN#0001) FOR TCWD IS 6.747m (22.136')

OBANNON 2 (SPSN#0002)

TCWD (SPSN#0003)

SEE PAGE 8 FOR WELL ELEVATIONS

GPS LOCATION USING TRIMBLE PATH FINDER 4-28-05

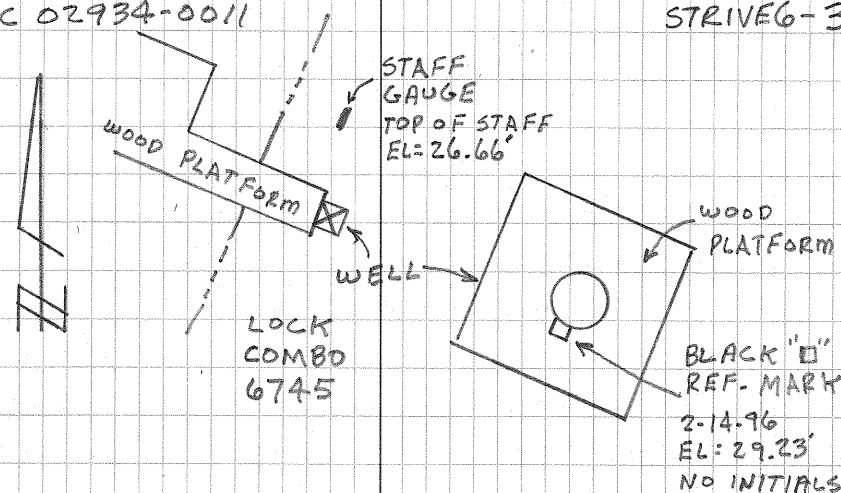
WELL TCWD	N 1076765	LAT. 27°17'45.14"	FREQUENCY: TAMPA
	E 712891	LONG. 080°49'31.21"	
BM TCWD	N 1076764	LAT. 27°17'45.13"	(± ONE METER)
	E 712872	LONG. 080°49'31.42"	

FLORIDA EAST ZONE, NAD83 BASED ON COAST GUARD BEACON PHOTOS 4-28-05 BRH

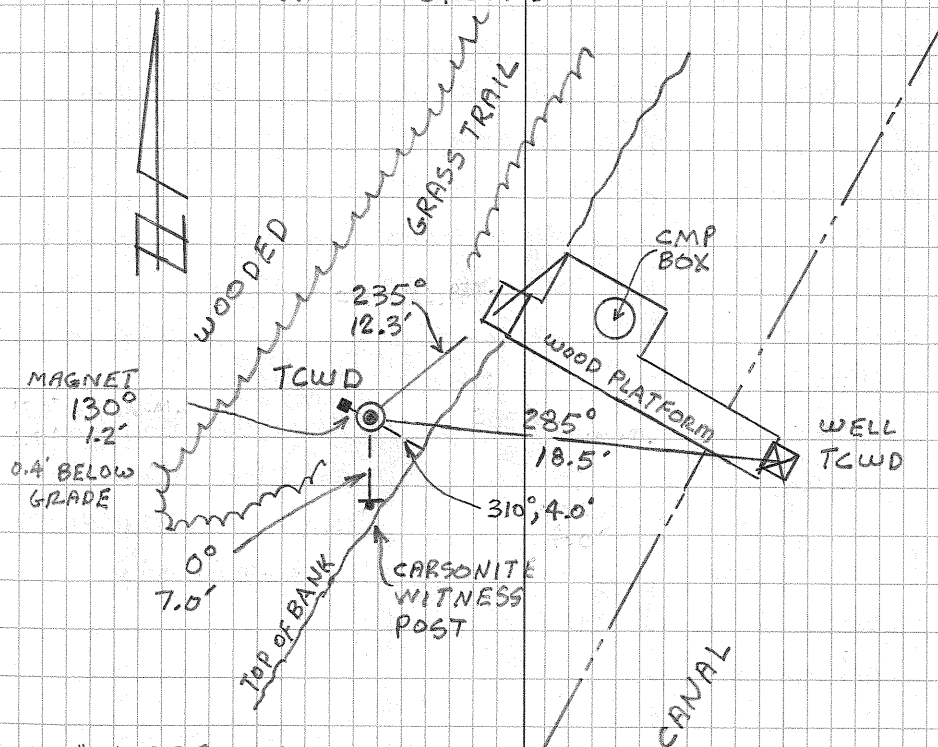
- 1 TCWD HOLE
- 2 TCWD, 1
- 3 " , 2
- 4 " , 3E
- 5 LOOKING E. AT WELL
- 6 REF. MARK
- 7 STAFF GAUGE
- 8 " " TOP
- 9 " " BOTTOM

M&C 02934-0011

STRIVE6-3



TCWD
3 1/2" SWMMD BRASS DISK
SET IN CLASS "C" CONC. MON.
FLUSH WITH GROUND



ALL REF. TIES ARE MAG. AZM.

SFWMD WELL RUCK

A 2ND ORDER, CLASS II LEVEL LINE WAS RUN BETWEEN
T502 & U502 AND CHECKED BY 1.71mm (0.006")
DIST. 1.597 km (5,239')

5-24-05 BRH/KSS/TMR

A 2ND ORDER, CLASS II LEVEL LINE WAS RUN FROM U502
TO RUCK AND BACK TO U502 AND CHECKED BY -0.49mm (0.002")
DIST. 1.685 km (5,527') 5-25-05 BRH/KSS/TMR

SEE PAGE 9 FOR ELEVATIONS

GPS LOCATION USING TRIMBLE PATHFINDER 4-28-05

RUCK N 1108036	LAT. 27° 22' 54.91"	FREQUENCY:-
E 705856	LONG. 080° 50' 48.77"	TAMPA
GW1 N 1108040	LAT. 27° 22' 54.95"	(± ONE METER)
E 705853	LONG. 080° 50' 48.80"	T502 (SPSN# 0004)
GW2 N 1108034	LAT. 27° 22' 54.89"	U502 (SPSN# 0005)
E 705851	LONG. 080° 50' 48.82"	RUCK (SPSN# 0006)
GW3 N 1108038	LAT. 27° 22' 54.93"	
E 705860	LONG. 080° 50' 48.72"	ADJ. NAVD(83) ELEV.
GW4 N 1108031	LAT. 27° 22' 54.86"	FOR RUCK IS 11.928 m
E 705858	LONG. 080° 50' 48.75"	(39.134')

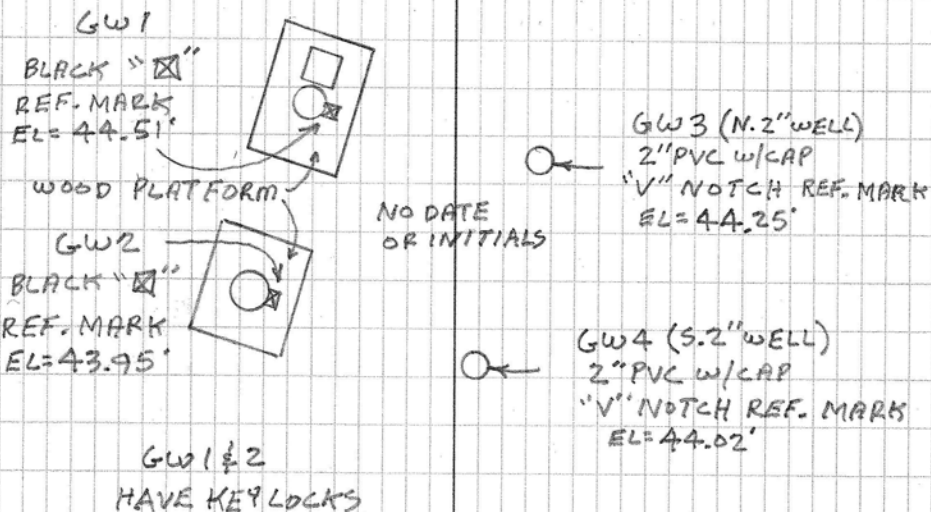
PHOTOS 4-28-05 BRH

- 10 RUCK HOLE
- 11 RUCK , 1
- 12 " , 2
- 13 " , 3N
- 14 LOOKING NE AT WELLS
- 15 REF. MARK GW1
- 16 " " GW2
- 17 " " GW3
- 18 " " GWA
- 19 " MARKS ELEV.'S

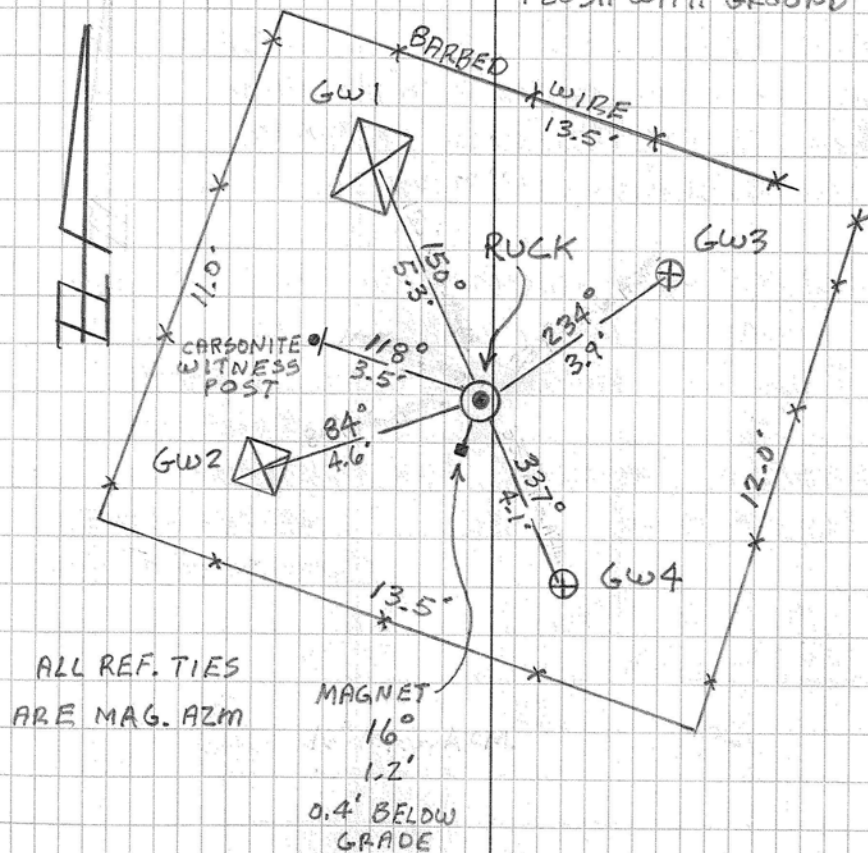
FLORIDA EAST ZONE,
NAD 83 BASED ON
COAST GUARD BEACON

M&C 02934-0011

STRIVE6-4



RUCK
3 1/2" SFWMD BRASS DISK
SET IN CLASS "C" CONC. MON.
FLUSH WITH GROUND



SFWMD WELL TCS2

ADJ. NAVD (88) ELEV. FOR TCS2A IS 9.042m (29.665')
 SEE PG. 6 FOR LEVEL RUN DETAILS.
 NGVD (29) FOR TCS2A IS (30.89')
 SEE PG. 9 FOR ELEV. DETAILS.

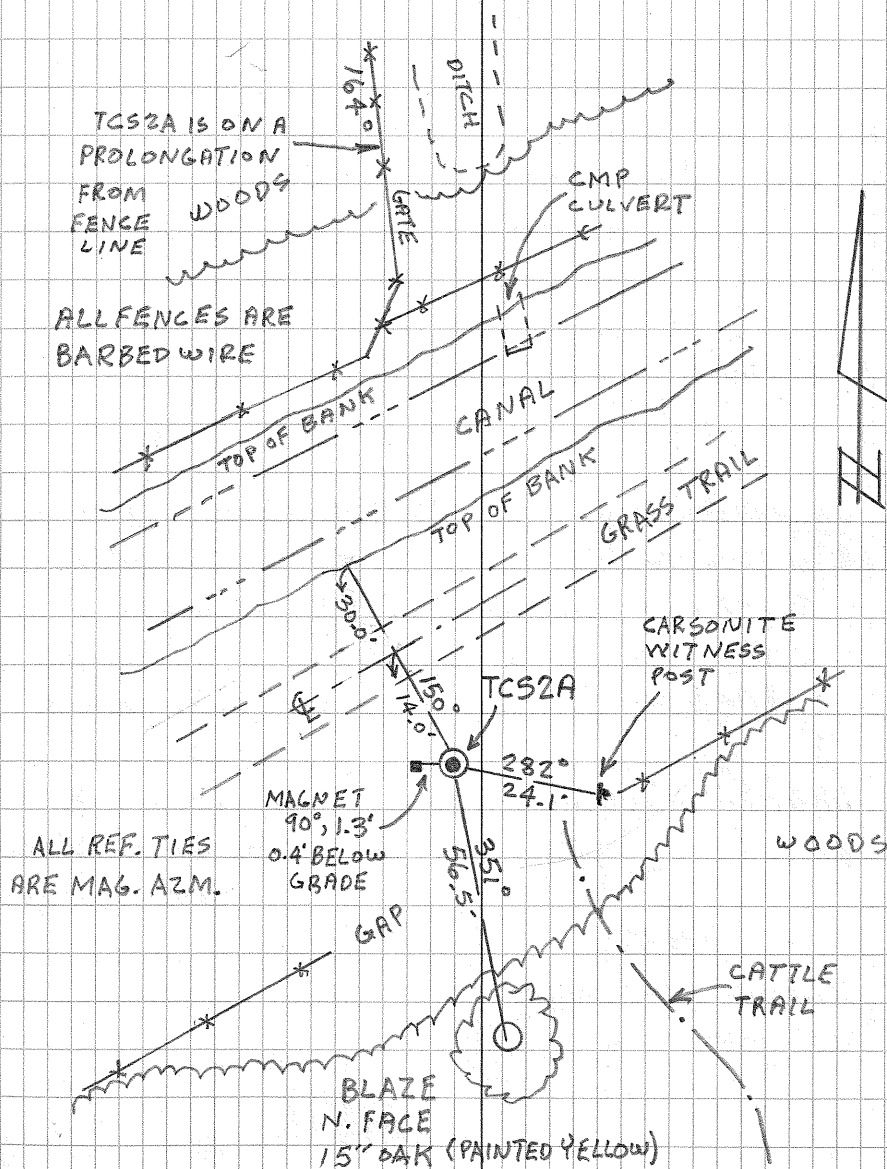
GPS LOCATION USING TRIMBLE PATH FINDER 4-29-05
 TCS2A N 1104904 LAT. 27° 22' 23.95" FREQUENCY:
 E 701145 LONG. 080° 51' 41.07" TAMPA

(± ONE METER)

PHOTOS 4-29-05 BRN FLORIDA EAST ZONE,
 NAD 83 BASED ON
 COAST GUARD BEACON

- 20 TCS2A HOLE
- 21 " , 1
- 22 " , 2
- 23 " , 35W

TCS2A
 3 1/2" SFWMD BRASS DISK
 SET IN CLASS "C" CONC. MON.
 0.4' BELOW GRADE



SFWMD WELL TCSZ

A 2ND ORDER, CLASS II LEVEL LINE WAS RUN FROM U502 TO TCS2A & TCS2 AND BACK TO U502 AND CHECKED BY -2.99mm (0.010') DIST. 8.184km (26,852') 5.69mi.
5-25/26-05 BRH/KSS/TMR

ADJ. NAVD (88) ELEV. FOR TCS2 IS 8.537m (28.008')
" " " " " TCS2A IS 9.042m (29.665')

U502 (SPSN# 0005)
TCS2A (SPSN# 0007)
TCS2 (SPSN# 0008)

SEE PAGE 9 FOR ELEVATIONS

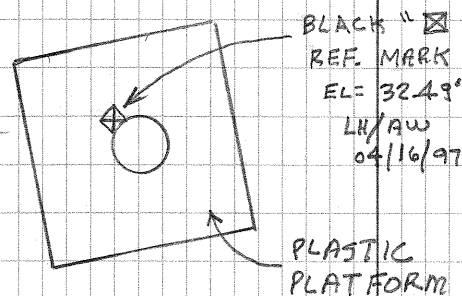
GPS LOCATION USING TRIMBLE PATH FINDER 4-29-05
BM TCS2 N 1101748 LAT. 27° 21' 52.73" FREQUENCY:
E 697630 LONG. 080° 52' 20.10" TAMPA
TCS2 N 1101760 LAT. 27° 21' 52.85"
WELL E 697594 LONG. 080° 52' 20.49" (± ONE METER)

FLORIDA EAST ZONE
NAD 83 BASED ON
COAST GUARD BEACON

PHOTOS 4-29-05 BRH
24 BM TCS2, 1
25 " , 2
26 " , 3 SW
27 LOOKING W. AT WELL
28 REF. MARK

M&C 02934-0011

STRIVE 6-6

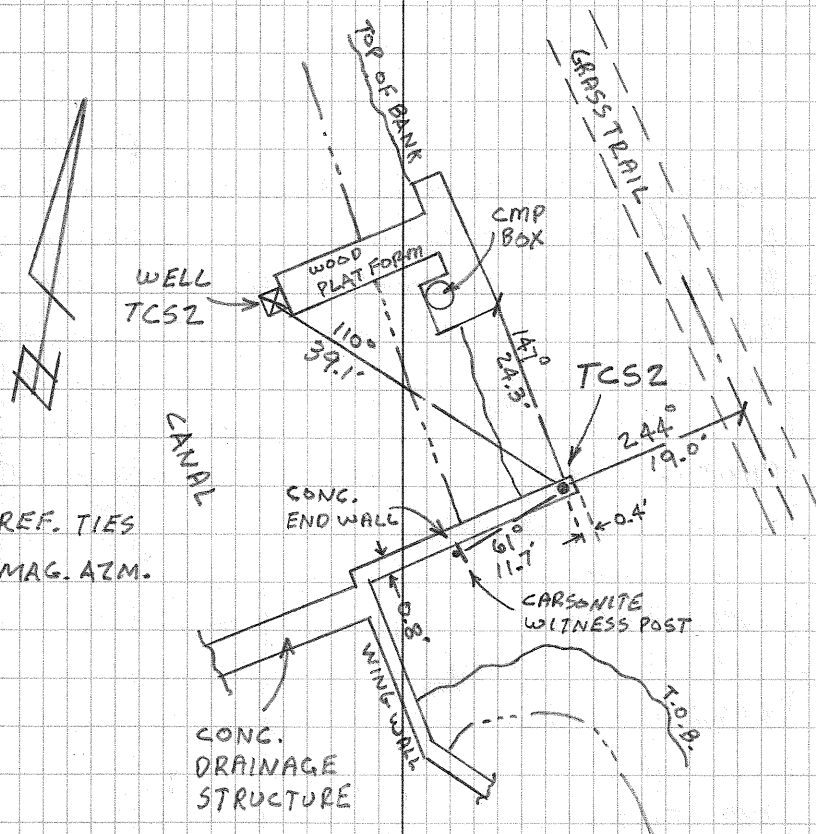


LOCK COMBO 6745

NO STAFF GAUGE

BM TCS2

2" SFWMD ALUM. SURVEY MARKER DISK SET IN TOP OF CONC. END WALL STAMPED "B.M. TCS 2"



SFWMD WELL TCO1

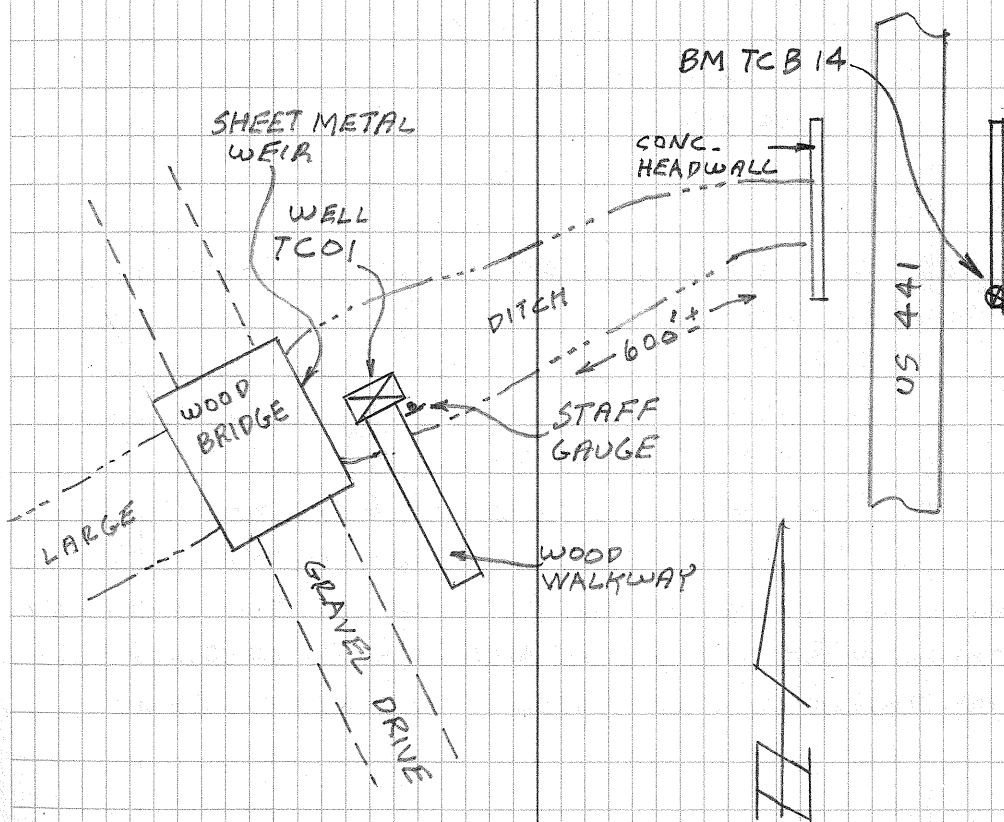
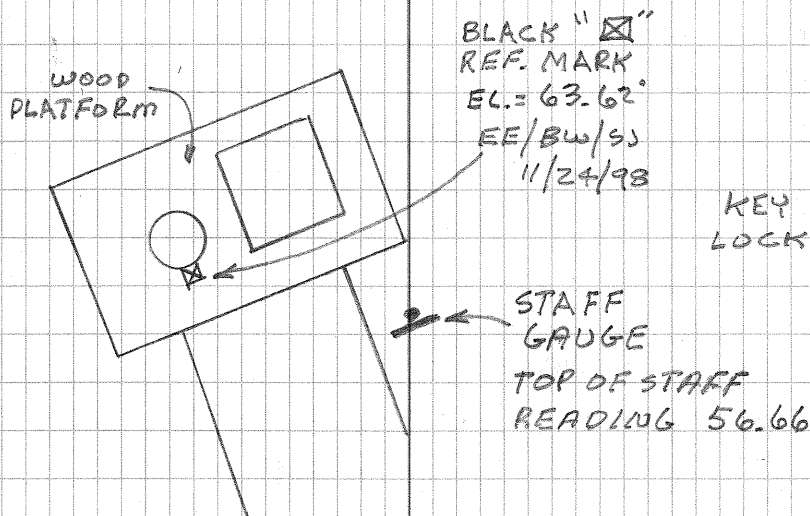
A PRACTICE 2ND ORDER, CLASS II LINE LINE WAS RUN BETWEEN E563 & TCB14 AND CHECKED BY -1.37mm (0.004') DIST. 0.688km (2,256') 5-23-05 BRH/HSS/TMR NAVD (83) ELEV. FOR TCB14 IS 18.137m (59.504'). PUBLISHED

SEE PAGE 8 FOR ELEVATIONS

GPS	LOCATION	USING	TRIMBLE	PATH	FINDER	4-29-05
BM	N 1115044	LAT. 27° 24' 04.17"	FREQUENCY:			
TCB14	E 716244	LONG. 080° 48' 53.41"	TAMPA			
TCO1	N 1114765	LAT. 27° 24' 01.42"	(± ONE METER)			
WELL	E 715690	LONG. 080° 48' 59.56"	FLORIDA EAST ZONE, NAD 83 BASED ON COAST GUARD BEACON			
PHOTOS	4-29-05	BRH	COAST GUARD BEACON			
35	LOOKING SE AT WELL					
36	" NW "					
37	REF. MARK					
38	" " INFO					
39	STAFF GAUGE					
40	" "					
41	BM TCB14					
42	" "					

M&C 02934-0011

STRIVE 6-7



SFWMD WELL		TC01	
		5-23-05 BRH/KSS/TMR	
		(NAVD 88) (NGVD 29)	
BM	TCB 14		
	300'	4.79	64.29'
		2.49	
	300'	6.73	57.56'
		0.55	
		6.26	63.82
		1.02	
TOP OF STAFF		8.52	55.30' 56.51'
		4.77	
REF. MARK		1.59	62.23' 63.44'
		5.70	
		1.45	63.68'
		5.83	
		6.11	57.57'
		1.17	
		6.38	63.95'
		0.90	
BM	TCB 14	4.45	59.50' 60.71'
		2.83	

SEE PAGE 7 FOR WELL DETAILS

NGVD (29) ELEVATIONS ARE BASED ON THE NGS (NGVD 29) ADJUSTMENT OF THE CERP NETWORK AT BM TCB 14. THE DIFFERENCE BETWEEN (29) & (88) IS 1.21'.

STRIVE 6-8

SFWMD WELL		TCWD	
		NAVD (88)	NGVD (29)
BM	TCWD	22.14'	23.40'
	2005	5.87	28.01'
		1.41	
TOP OF STAFF		2.61	25.40' 26.66'
		4.67	
REF. MARK		0.11	27.90' 29.16'
		7.17	
		0.21	28.11'
		7.07	
BM	TCWD	5.97	22.14' 23.40'
		1.31	

SEE PAGE 3 FOR WELL DETAILS

NGVD (29) ELEVATIONS ARE BASED ON THE NGS NGVD (29) ADJUSTMENT OF THE CERP NETWORK.

THE DIFFERENCE BETWEEN (29) & (88) ON BM'S W502 & Q22 WAS USED. A PRORATED VALUE WAS DETERMINED BASED ON DISTANCE AND THEN APPLIED TO THE LOCATION OF TCWD.

THE DIFFERENCE BETWEEN (29) & (88) AT TCWD IS 1.26'.

SFWMD WELL ROCK

5-24-05 BRH/KSS/TMR

(NAVD88) (NGVD29)

BM	ROCK			39.13'	40.35'
		5.33	44.46		
		1.95			
GW1	REF. MARK			1.22	43.24'
				6.06	44.46'
		1.24	44.48		
		6.04			
GW2	REF. MARK			1.80	42.68'
				5.48	43.90'
		1.88	44.56		
		5.40			
GW3	REF. MARK			1.56	43.00'
				5.72	44.22'
		1.62	44.62		
		5.66			
GW4	REF. MARK			1.98	42.64'
				5.30	43.86'
		1.91	44.55		
		5.37			
BM	ROCK			5.42	39.13'
				1.86	40.35'

SEE PAGE 4 FOR WELLS DETAILS

NGVD (29) ELEVATIONS ARE BASED ON THE NGS (NGVD29) ADJUSTMENT OF THE CERP NETWORK AT BM U502. THE DIFFERENCE BETWEEN (29) & (88) IS 1.22'.

STRIVE6-9

SFWMD WELL TCS2

5-25-05 BRH/KSS/TMR

(NAVD88) (NGVD29)

BM	TCS2			28.01'	29.23'
		4.43	32.44'		
		2.85			
WELL	REF. MARK			1.37	31.07'
				5.91	32.29'
		1.36	32.43'		
		5.92			
BM	TCS2			4.42	28.01'
				2.86	29.23'

SEE PAGE 6 FOR WELL DETAILS

NGVD (29) ELEVATIONS ARE BASED ON THE NGS (NGVD29) ADJUSTMENT OF THE CERP NETWORK AT BM U502. THE DIFFERENCE BETWEEN (29) & (88) IS 1.22'.

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER 5, 2015
DJ5115 *****
DJ5115 DESIGNATION - RUCK
DJ5115 PID - DJ5115
DJ5115 STATE/COUNTY- FL/OKEECHOBEE
DJ5115 COUNTRY - US
DJ5115 USGS QUAD - TAYLOR CREEK NE (1971)
DJ5115
DJ5115 *CURRENT SURVEY CONTROL
DJ5115
DJ5115* NAD 83(1986) POSITION- 27 22 54. (N) 080 50 48. (W) SCALED
DJ5115* NAVD 88 ORTHO HEIGHT - 11.928 (meters) 39.13 (feet) ADJUSTED
DJ5115
DJ5115 GEOID HEIGHT - -26.57 (meters) GEOID12B
DJ5115 DYNAMIC HEIGHT - 11.910 (meters) 39.07 (feet) COMP
DJ5115 MODELED GRAVITY - 979,132.9 (mgal) NAVD 88
DJ5115
DJ5115 VERT ORDER - SECOND CLASS II
DJ5115
DJ5115.The horizontal coordinates were scaled from a topographic map and have
DJ5115.an estimated accuracy of +/- 6 seconds.
DJ5115.
DJ5115.The orthometric height was determined by differential leveling and
DJ5115.adjusted by the NATIONAL GEODETIC SURVEY
DJ5115.in January 2008.
DJ5115
DJ5115.No vertical observational check was made to the station.
DJ5115
DJ5115.Photographs are available for this station.
DJ5115
DJ5115.The dynamic height is computed by dividing the NAVD 88
DJ5115.geopotential number by the normal gravity value computed on the
DJ5115.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DJ5115.degrees latitude (g = 980.6199 gals.).
DJ5115
DJ5115.The modeled gravity was interpolated from observed gravity values.
DJ5115
DJ5115;
DJ5115;SPC FL E - North East Units Estimated Accuracy
DJ5115; 337,700. 215,170. MT (+/- 180 meters Scaled)
DJ5115
DJ5115 SUPERSEDED SURVEY CONTROL
DJ5115
DJ5115.No superseded survey control is available for this station.
DJ5115
DJ5115_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL151287(NAD 83)
DJ5115
DJ5115_MARKER: DD = SURVEY DISK
DJ5115_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DJ5115_STAMPING: RUCK 2005
DJ5115_MARK LOGO: SFLWMD
DJ5115_PROJECTION: FLUSH
DJ5115_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DJ5115_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DJ5115+STABILITY: SURFACE MOTION
DJ5115_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DJ5115+SATELLITE: SATELLITE OBSERVATIONS - April 29, 2005

```

DJ5115
DJ5115 HISTORY - Date Condition Report By
DJ5115 HISTORY - 20050429 MONUMENTED MCKIM

DJ5115

DJ5115

STATION DESCRIPTION

DJ5115

DJ5115'DESCRIBED BY MCKIM AND CREED 2005

DJ5115'THE STATION IS LOCATED ABOUT 9.4 MI (15.1 KM) NORTH OF OKEECHOBEE,
DJ5115'35.8 MI (57.6 KM) EAST SOUTHEAST OF SEBRING, AND 30.5 MI (49.1 KM)
DJ5115'WEST SOUTHWEST OF FORT PIERCE IN SECTION 32, TOWNSHIP 35 SOUTH, RANGE
DJ5115'35 EAST. OWNERSHIP--H.W. RUCKS AND SON DAIRY, INC., P.O.BOX 95,
DJ5115'OKEECHOBEE, FL 34973-0095.

DJ5115'

DJ5115'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 441 AND
DJ5115'STATE ROAD 70 IN OKEECHOBEE, GO NORTH ON U.S. HIGHWAY 441 FOR 9.2 MI
DJ5115'(14.8 KM) TO JUNCTION OF NORTHWEST 144TH DRIVE (POTTER ROAD/COUNTY
DJ5115'ROAD 68A) ON THE LEFT, TURN LEFT ON NORTHWEST 144TH DRIVE AND GO WEST
DJ5115'FOR 2.25 MI (3.6 KM) TO A DIRT ENTRANCE ON THE RIGHT INTO A DAIRY
DJ5115'CATTLE PASTURE AND A LOCKED GATE, TURN RIGHT AND GO NORTH THROUGH
DJ5115'LOCKED GATE (NOTE--CALL SFLWMD AT 561-753-2400 TO ACQUIRE KEY) FOR
DJ5115'300 FT (91.4 M), THENCE GO NORTHEAST ACROSS PASTURE LEAVING DIRT TRAIL
DJ5115'FOR 0.25 MI (0.4 KM) TO THE NORTHWEST CORNER OF A LARGE WOODED
DJ5115'WETLAND, THENCE GO EAST ALONG NORTH SIDE OF WETLAND FOR 0.1 MI (0.15
DJ5115'KM) TO THE NORTHEAST CORNER OF WETLAND, THENCE GO SOUTHEAST FOR 0.1 MI
DJ5115'(0.15 KM) TO THE MIDDLE OF A PASTURE AND FENCED PENINSULA AROUND A
DJ5115'WELL SITE AND STATION CENTERED BETWEEN FOUR MONITORING WELLS.

DJ5115'

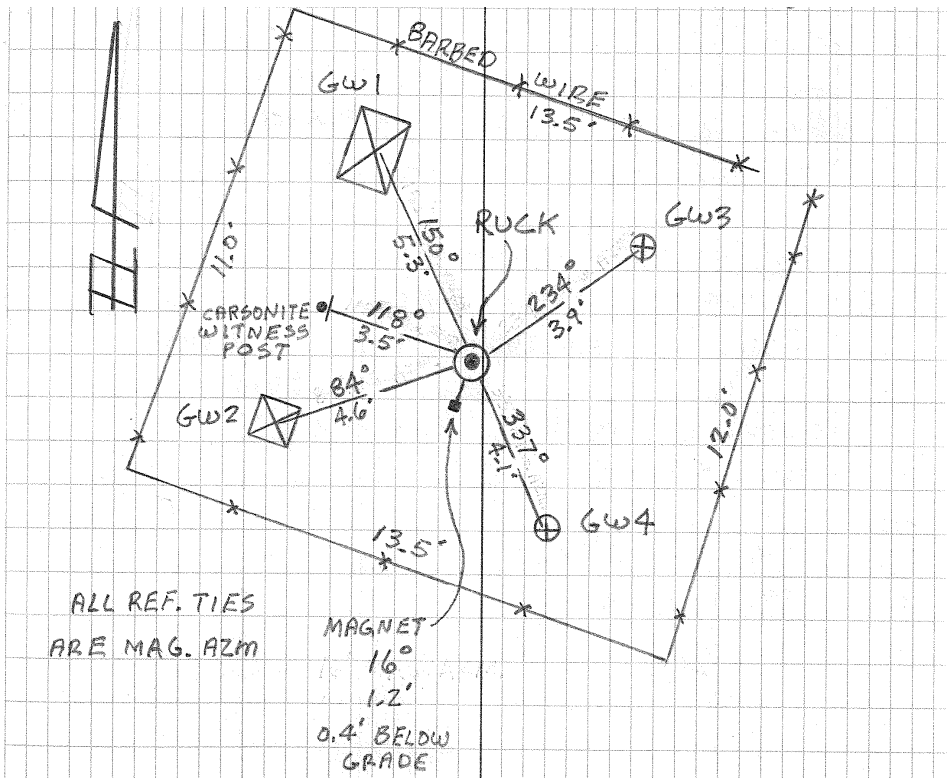
DJ5115'THE STATION IS A 3-1/2 INCH (8 CM) BRASS SFLWMD SURVEY DISK SET IN THE
DJ5115'TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND. LOCATED 5.3
DJ5115'FT (1.6 M) SOUTHEAST OF THE CENTER OF WELL GW1, 4.6 FT (1.4 M)
DJ5115'NORTHEAST OF THE CENTER OF WELL GW2, 3.9 FT (1.2 M) SOUTHWEST OF THE
DJ5115'CENTER OF WELL GW3, 4.1 FT (1.3 M) NORTHWEST OF THE CENTER OF WELL
DJ5115'GW4, 3.5 FT (1.1 M) SOUTHEAST OF A CARSONITE WITNESS POST, AND 1.2 FT
DJ5115'(0.4 M) NORTH OF A BURIED MAGNET 0.4 FT (12.2 CM) BELOW GRADE.

*** retrieval complete.

Elapsed Time = 00:00:03



COUNTY: Okeechobee		PROJECT: Well RUCK		DESIGNATION: RUCK	
SECTION 32		TOWNSHIP 35 SOUTH		RANGE 35 EAST	
GEOGRAPHIC INDEX OF QUAD: Florida					
Established by ___X___ Recovered by McKim & Creed, PA			NAME OF QUADRANGLE: Taylor Creek NE		
SURVEYOR: Ben R. Homola DATE: 4/28/05			FIELD BOOK: STRIVE 6 PAGE: 4		
HORIZONTAL DATUM: Florida State Plane Coordinate System, NAD 83 ZONE: EAST					
VERTICAL DATUM: NAVD 88 & NGVD 29 (NGS NGVD 29 adjustment of the CERP network)					
CONTROL ACCURACY: HORIZONTAL ± 1 meter VERTICAL 2 nd order, class II					
STATE PLANE COORDINATES Feet		X 705856	Y 1108036	EL. = 39.134' (NAVD 88) EL. = 40.35' (NGVD 29)	
LATITUDE: 27°22'54.91" LONGITUDE: 080°50'48.77"					
DESCRIPTION					
To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 9.2 mi. to junction of NW 144 th Drive (Potter Rd. / C.R. 68A) on left, turn left on NW 144 th Drive and go west for 2.25 mi. to a dirt entrance on the right into a dairy cattle pasture and a locked gate, turn right on dirt trail and go north through locked gate for 300-feet, thence go northeast across pasture leaving dirt trail for 0.25 mi to the northwest corner of a large wooded wetlands, thence go east along north side of wetlands for 0.1 mi. to the northeast corner of wetlands, thence go southeast for 0.1 mi. to the middle of pasture and a fenced pen around a well site and the mark centered between four wells, a SFWMD 3½ inch brass disk set in the top of a round concrete monument flush with the ground. Located 5.3 feet southeast of the center of well GW1, 4.6 feet northeast of the center of well GW2, 3.9 feet southwest of the center of well GW3, 4.1 feet northwest of the center of well GW4, 3.5 feet southeast of a carsonite witness post, 1.2 feet north of a buried magnet 0.4-foot below grade.					



The NGS Data Sheet

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

```

DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2005
AJ6121 *****
AJ6121 DESIGNATION - T 502
AJ6121 PID - AJ6121
AJ6121 STATE/COUNTY- FL/OKEECHOBEE
AJ6121 USGS QUAD - TAYLOR CREEK NE (1971)
AJ6121
AJ6121 *CURRENT SURVEY CONTROL
AJ6121
AJ6121 * NAD 83(1986)- 27 22 57. (N) 080 51 27. (W) SCALED
AJ6121 * NAVD 88 - 11.588 (meters) 38.02 (feet) ADJUSTED
AJ6121
AJ6121 GEOID HEIGHT- -26.54 (meters) GEOID03
AJ6121 DYNAMIC HT - 11.571 (meters) 37.96 (feet) COMP
AJ6121 MODELED GRAV- 979,134.2 (mgal) NAVD 88
AJ6121
AJ6121 VERT ORDER - SECOND CLASS I
AJ6121
AJ6121.The horizontal coordinates were scaled from a topographic map and have
AJ6121.an estimated accuracy of +/- 6 seconds.
AJ6121
AJ6121.The orthometric height was determined by differential leveling
AJ6121.and adjusted by the National Geodetic Survey in January 2002.
AJ6121
AJ6121.The geoid height was determined by GEOID03.
AJ6121
AJ6121.The dynamic height is computed by dividing the NAVD 88
AJ6121.geopotential number by the normal gravity value computed on the
AJ6121.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6121.degrees latitude (g = 980.6199 gals.).
AJ6121
AJ6121.The modeled gravity was interpolated from observed gravity values.
AJ6121
AJ6121; North East Units Estimated Accuracy
AJ6121;SPC FL E - 337,790. 214,100. MT (+/- 180 meters Scaled)
AJ6121
AJ6121 SUPERSEDED SURVEY CONTROL
AJ6121
AJ6121.No superseded survey control is available for this station.
AJ6121
AJ6121_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL140288(NAD 83)
AJ6121_MARKER: DD = SURVEY DISK
AJ6121_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6121_STAMPING: T 502 2000
AJ6121_MARK LOGO: FLDEP
AJ6121_PROJECTION: RECESSED 8 CENTIMETERS
AJ6121_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ6121_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6121+STABILITY: SURFACE MOTION
AJ6121_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6121+SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002
AJ6121
AJ6121 HISTORY - Date Condition Report By
AJ6121 HISTORY - 2000 MONUMENTED FLDEP
AJ6121 HISTORY - 20020530 GOOD FLDEP
AJ6121
AJ6121 STATION DESCRIPTION
AJ6121
AJ6121'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ6121'THE MARK IS ABOUT 9.5 MI (15.3 KM) SOUTH-SOUTHWEST OF FORT DRUM, 9.4
AJ6121'MI (15.1 KM) NORTH OF OKEECHOBEE ON NORTHWEST 144TH DRIVE (COUNTY ROAD
AJ6121'68A) , IN SECTION 32, TOWNSHIP 35 SOUTH, RANGE 35 EAST. TO REACH THE
AJ6121'MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441 (PARROTT STREET) AND
AJ6121'STATE ROAD 70 (PARK STREET) IN OKEECHOBEE, GO NORTH ON U.S. HIGHWAY
AJ6121'441 (PARROTT STREET) FOR 9.2 MI (14.8 KM) TO THE JUNCTION OF NORTHWEST
AJ6121'144TH DRIVE ON THE LEFT (COUNTY ROAD 68A) , TURN LEFT ON NORTHWEST
AJ6121'144TH DRIVE (COUNTY ROAD 68A) AND GO WEST FOR 2.65 MI (4.26 KM) TO THE
AJ6121'JUNCTION OF NORTHWEST 30TH TERRACE AND THE MARK ON THE LEFT, SET IN

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DATASHEETS

AJ6121' TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.3 FT (9.1 CM) BELOW THE
AJ6121' LEVEL OF THE GROUND AND 1.0 FT (0.3 M) BELOW THE LEVEL OF NORTHWEST
AJ6121' 144TH DRIVE. LOCATED 47.8 FT (14.6 M) EAST OF THE APPROXIMATE CENTER
AJ6121' OF THE T-JUNCTION OF NORTHWEST 144TH DRIVE AND NORTHWEST 30TH TERRACE,
AJ6121' 29.7 FT (9.1 M) SOUTH OF THE APPROXIMATE CENTERLINE OF NORTHWEST 144TH
AJ6121' DRIVE, 4.1 FT (1.2 M) NORTH OF A BARBWIRE FENCE, 2.9 FT (0.9 M) WEST
AJ6121' OF A CARSONITE WITNESS POST AND 2.6 FT (0.8 M) WEST OF POWER POLE
AJ6121' NUMBER 5561 WITH 6 GUY WIRES ATTACHED.

AJ6121
AJ6121 STATION RECOVERY (2002)

AJ6121 RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
AJ6121 RECOVERED AS DESCRIBED. NOT LEVELED TO THIS DATE.

AJ6121'
AJ6121'

*** retrieval complete.
Elapsed Time = 00:00:01

The NGS Data Sheet

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

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DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.12
1 National Geodetic Survey, Retrieval Date = FEBRUARY 8, 2005
AJ6120 *****
AJ6120 DESIGNATION - U 502
AJ6120 PID - AJ6120
AJ6120 STATE/COUNTY- FL/OKEECHOBEE
AJ6120 USGS QUAD - TAYLOR CREEK NE (1971)
AJ6120
AJ6120 *CURRENT SURVEY CONTROL
AJ6120
AJ6120 * NAD 83(1986)- 27 22 33. (N) 080 50 34. (W) SCALED
AJ6120 * NAVD 88 - 11.237 (meters) 36.87 (feet) ADJUSTED
AJ6120
AJ6120 GEOID HEIGHT- -26.57 (meters) GEOID03
AJ6120 DYNAMIC HT - 11.220 (meters) 36.81 (feet) COMP
AJ6120 MODELED GRAV- 979,131.1 (mgal) NAVD 88
AJ6120
AJ6120 VERT ORDER - SECOND CLASS I
AJ6120
AJ6120 .The horizontal coordinates were scaled from a topographic map and have
AJ6120 .an estimated accuracy of +/- 6 seconds.
AJ6120
AJ6120 .The orthometric height was determined by differential leveling
AJ6120 .and adjusted by the National Geodetic Survey in January 2002.
AJ6120
AJ6120 .The geoid height was determined by GEOID03.
AJ6120
AJ6120 .The dynamic height is computed by dividing the NAVD 88
AJ6120 .geopotential number by the normal gravity value computed on the
AJ6120 .Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6120 .degrees latitude (g = 980.6199 gals.).
AJ6120
AJ6120 .The modeled gravity was interpolated from observed gravity values.
AJ6120
AJ6120 ;
AJ6120 ; North East Units Estimated Accuracy
AJ6120 ; SPC FL E - 337,060. 215,550. MT (+/- 180 meters Scaled)
AJ6120
AJ6120 SUPERSEDED SURVEY CONTROL
AJ6120
AJ6120 .No superseded survey control is available for this station.
AJ6120
AJ6120 _U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL155280(NAD 83)
AJ6120 _MARKER: DD = SURVEY DISK
AJ6120 _SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6120 _STAMPING: U 502 2000
AJ6120 _MARK LOGO: FLDEP
AJ6120 _PROJECTION: FLUSH
AJ6120 _MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ6120 _STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6120 +STABILITY: SURFACE MOTION
AJ6120 _SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6120 +SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002
AJ6120
AJ6120 HISTORY - Date Condition Report By
AJ6120 HISTORY - 2000 MONUMENTED FLDEP
AJ6120 HISTORY - 20020530 GOOD FLDEP
AJ6120
AJ6120 STATION DESCRIPTION
AJ6120
AJ6120 'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ6120 'THE MARK IS ABOUT 9.5 MI (15.3 KM) SOUTH-SOUTHWEST OF FORT DRUM, 9.3
AJ6120 'MI (15.0 KM) NORTH OF OKEECHOBEE ON NORTHWEST 144TH DRIVE (COUNTY ROAD
AJ6120 '68A) , IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 35 EAST. TO REACH THE
AJ6120 'MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441 (PARROTT STREET) AND
AJ6120 'STATE ROAD 70 (PARK STREET) IN OKEECHOBEE, GO NORTH ON U.S. HIGHWAY
AJ6120 '441 (PARROTT STREET) FOR 9.2 MI (14.8 KM) TO THE JUNCTION OF NORTHWEST
AJ6120 '144TH DRIVE ON THE LEFT (COUNTY ROAD 68A) , TURN LEFT ON NORTHWEST
AJ6120 '144TH DRIVE (COUNTY ROAD 68A) AND GO WEST FOR 1.65 MI (2.66 KM) TO THE
AJ6120 'MARK ON THE LEFT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT FLUSH

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DATASHEETS

AJ6120' WITH THE GROUND AND 1.0 FT (0.3 M) BELOW THE LEVEL OF NORTHWEST 144TH
AJ6120' DRIVE. LOCATED 27.1 FT (8.3 M) SOUTH OF NORTHWEST 144TH DRIVE, 13.7 FT
AJ6120' (4.2 M) EAST OF TWO CABLE BOXES NUMBER 36521, 3.3 FT (1.0 M) NORTH OF
AJ6120' POWER POLE WITH ONE GUY WIRE ATTACHED, 1.5 FT (0.5 M) EAST OF A
AJ6120' BARB WIRE FENCE CORNER AND 1.3 FT (0.4 M) EAST OF A CARSONITE WITNESS
AJ6120' POST.

AJ6120
AJ6120 STATION RECOVERY (2002)
AJ6120

AJ6120' RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
AJ6120' RECOVERED AS DESCRIBED. NOT LEVELED TO THIS DATE.

AJ6120'
AJ6120'

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

Sub-Network 1 Adjusted Elevations

RUCK

Level Line between T 502 & U 502

Number of Points : 19

Number of Constrained Points : 2

Elevation Only : 2

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0004 (T 502)	N/A	N/A	N/A	N/A	11.588m	0.000m	e
10004	N/A	N/A	N/A	N/A	11.905m	0.001m	
20004	N/A	N/A	N/A	N/A	11.696m	0.001m	
30004	N/A	N/A	N/A	N/A	11.565m	0.001m	
40004	N/A	N/A	N/A	N/A	11.262m	0.001m	
50004	N/A	N/A	N/A	N/A	11.494m	0.002m	
60004	N/A	N/A	N/A	N/A	11.126m	0.002m	
70004	N/A	N/A	N/A	N/A	11.280m	0.002m	
80004	N/A	N/A	N/A	N/A	11.007m	0.002m	
90004	N/A	N/A	N/A	N/A	10.959m	0.002m	
100004	N/A	N/A	N/A	N/A	11.042m	0.002m	
110004	N/A	N/A	N/A	N/A	11.068m	0.002m	
120004	N/A	N/A	N/A	N/A	11.191m	0.002m	
130004	N/A	N/A	N/A	N/A	11.397m	0.002m	
140004	N/A	N/A	N/A	N/A	11.836m	0.001m	
150004	N/A	N/A	N/A	N/A	12.108m	0.001m	
160004	N/A	N/A	N/A	N/A	11.672m	0.001m	
170004	N/A	N/A	N/A	N/A	11.606m	0.001m	
180004 (U 502)	N/A	N/A	N/A	N/A	11.237m	0.000m	e

Sub-Network 2 Adjusted Elevations

RUCK

Level Line between U 502 & RUCK

Number of Points : 9

Number of Constrained Points : 1

Elevation Only : 1

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0005 (U 502)	N/A	N/A	N/A	N/A	11.237m	0.000m	e
10005	N/A	N/A	N/A	N/A	11.697m	0.004m	
20005	N/A	N/A	N/A	N/A	11.790m	0.006m	
30005	N/A	N/A	N/A	N/A	11.395m	0.007m	
40005	N/A	N/A	N/A	N/A	11.213m	0.008m	
50005	N/A	N/A	N/A	N/A	11.263m	0.009m	
60005	N/A	N/A	N/A	N/A	11.478m	0.010m	
70005	N/A	N/A	N/A	N/A	11.856m	0.011m	
80005 (RUCK)	N/A	N/A	N/A	N/A	11.928m	0.012m	

Sub-Network 3 Adjusted Elevations

RUCK

Level Line between RUCK & U 502

Number of Points : 9

Number of Constrained Points : 1

Elevation Only : 1

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0006 (RUCK)	N/A	N/A	N/A	N/A	11.928m	0.012m	
10006	N/A	N/A	N/A	N/A	11.745m	0.011m	
20006	N/A	N/A	N/A	N/A	11.343m	0.010m	
30006	N/A	N/A	N/A	N/A	11.124m	0.009m	
40006	N/A	N/A	N/A	N/A	11.290m	0.008m	
50006	N/A	N/A	N/A	N/A	11.677m	0.007m	
60006	N/A	N/A	N/A	N/A	12.086m	0.006m	
70006	N/A	N/A	N/A	N/A	11.642m	0.004m	
80006 (U 502)	N/A	N/A	N/A	N/A	11.237m	0.000m	e

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking northwesterly at the site**

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking Northwesterly at the recorder box**

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking northerly at the recorder box**

TC01



South Florida Water Management District

Date of Photo: February 3, 2005

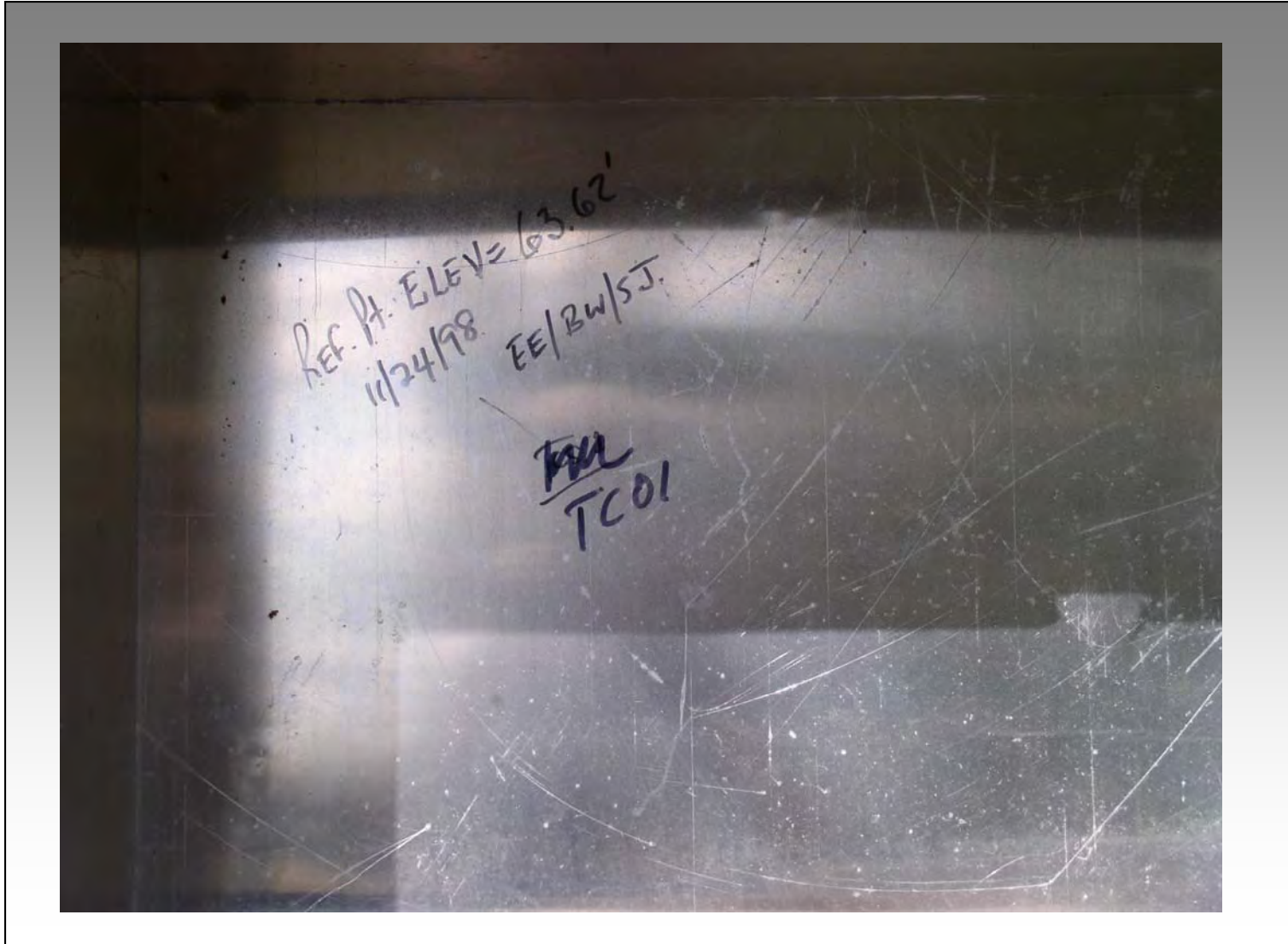
View: Looking northwesterly at the open recorder box

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking northwesterly at the Reference mark**

TC01



South Florida Water Management District

Date of Photo: February 3, 2005

View: Looking northwesterly at the writing on the recorder box lid

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking downstream from the recorder box**

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking upstream from the recorder box**

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking at the Staff Gauge on the north side of
the recorder platform**

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking downstream from the recorder box at
the weir under the bridge**

TC01



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking at site bench mark a railroad spike**

**THIS SHEET HAS BEEN MODIFIED FROM THE ORIGINAL NGS DATASHEET
BY MCKIM & CREED**

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AJ6116 *****
AJ6116 DESIGNATION - TCB 14
AJ6116 PID - AJ6116
AJ6116 STATE/COUNTY- FL/OKEECHOBEE
AJ6116 USGS QUAD - TAYLOR CREEK NE (1971)
AJ6116
AJ6116 *CURRENT SURVEY CONTROL
AJ6116
AJ6116* NAD 83 - 27 24 04.17 (N) 080 48 53.41 (W) Coast Guard Beacon
AJ6116* NAVD 88 - 18.137 (meters) 59.50 (feet) ADJUSTED
AJ6116 NGVD 29 - 18.506 (meters) 60.72 (feet)
AJ6116 NGVD 29 elevations based on the NGS (NGVD 29) adjustment of the CERP
AJ6116 network
AJ6116
AJ6116 GEOID HEIGHT- -26.63 (meters) GEOID03
AJ6116 DYNAMIC HT - 18.110 (meters) 59.42 (feet) COMP
AJ6116 MODELED GRAV- 979,134.3 (mgal) NAVD 88
AJ6116
AJ6116 VERT ORDER - FIRST CLASS II
AJ6116
AJ6116.The horizontal coordinates were scaled from a topographic map and have
AJ6116.an estimated accuracy of +/- 6 seconds.
AJ6116
AJ6116.The orthometric height was determined by differential leveling
AJ6116.and adjusted by the National Geodetic Survey in January 2002.
AJ6116
AJ6116.The geoid height was determined by GEOID03.
AJ6116
AJ6116.The dynamic height is computed by dividing the NAVD 88
AJ6116.geopotential number by the normal gravity value computed on the
AJ6116.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6116.degrees latitude (g = 980.6199 gals.).
AJ6116
AJ6116.The modeled gravity was interpolated from observed gravity values.
AJ6116
AJ6116; North East Units Accuracy
AJ6116;SPC FL E - 339,866. 218,312. MT (+/- 1 meter)
AJ6116
AJ6116 SUPERSEDED SURVEY CONTROL
AJ6116
AJ6116.No superseded survey control is available for this station.
AJ6116
AJ6116_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL182308(NAD 83)
AJ6116_MARKER: DD = SURVEY DISK
AJ6116_SETTING: 32 = SET IN A RETAINING WALL OR CONCRETE LEDGE
AJ6116_SP_SET: HEADWALL
AJ6116_STAMPING: TCB 14 BM 1999
AJ6116_MARK LOGO: SFLWMD

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AJ6116_MAGNETIC: N = NO MAGNETIC MATERIAL
AJ6116_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6116+STABILITY: SURFACE MOTION
AJ6116_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6116+SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002

AJ6116
AJ6116 HISTORY - Date Condition Report By
AJ6116 HISTORY - 1999 MONUMENTED SFLWMD
AJ6116 HISTORY - 20001103 GOOD FLDEP
AJ6116 HISTORY - 20020530 GOOD FLDEP
AJ6116 HISTORY - 20050429 GOOD MCKIM

AJ6116
AJ6116 STATION DESCRIPTION
AJ6116

AJ6116'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ6116'THE MARK IS ABOUT 11.0 MI (17.7 KM) NORTH OF OKEECHOBEE, 7.6 MI (12.2
AJ6116'KM) SOUTH OF FORT DRUM ON U.S. HIGHWAY 441, IN SECTION 27, TOWNSHIP
AJ6116'35 SOUTH, RANGE 35 EAST. TO REACH THE MARK FROM THE INTERSECTION OF
AJ6116'U.S. HIGHWAY 441 (PARROTT STREET) AND STATE ROAD 70 (PARK STREET) IN
AJ6116'OKEECHOBEE, GO NORTH ON U.S. HIGHWAY 441 (PARROTT STREET) FOR 11.0 MI
AJ6116'(17.7 KM) TO THE MARK ON THE RIGHT, SET FLUSH IN THE SOUTH END OF THE
AJ6116'CONCRETE HEADWALL LEVEL WITH THE GROUND AND 0.5 FT (15.2 CM) BELOW THE
AJ6116'LEVEL OF U.S. HIGHWAY 441. LOCATED 46.5 FT (14.2 M) EAST OF THE
AJ6116'CENTERLINE OF U.S. HIGHWAY 441, 32.8 FT (10.0 M) NORTH OF A
AJ6116'T-JUNCTION IN A BARBWIRE FENCE, 1.2 FT (0.4 M) WEST OF A BURIED CABLE
AJ6116'TELEPHONE SIGN AND 0.5 FT (15.2 CM) NORTH OF A CARSONITE WITNESS POST.
AJ6116

AJ6116 STATION RECOVERY (2002)
AJ6116

AJ6116'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
AJ6116'RECOVERED AS DESCRIBED.

AJ6116'
AJ6116'

AJ6116 STATION RECOVERY (2005)
AJ6116

AJ6116'RECOVERY NOTE BY MCKIM & CREED 2005 (BRH)
AJ6116'RECOVERED AS DESCRIBED.
AJ6116'

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = AUGUST 31, 2015
DG4287 *****
DG4287 DESIGNATION - E 563
DG4287 PID - DG4287
DG4287 STATE/COUNTY- FL/OKEECHOBEE
DG4287 COUNTRY - US
DG4287 USGS QUAD - TAYLOR CREEK NE (1971)
DG4287
DG4287 *CURRENT SURVEY CONTROL
DG4287
DG4287* NAD 83(1986) POSITION- 27 24 25. (N) 080 48 52. (W) SCALED
DG4287* NAVD 88 ORTHO HEIGHT - 18.993 (meters) 62.31 (feet) ADJUSTED
DG4287
DG4287 GEOID HEIGHT - -26.64 (meters) GEOID12B
DG4287 DYNAMIC HEIGHT - 18.964 (meters) 62.22 (feet) COMP
DG4287 MODELED GRAVITY - 979,135.5 (mgal) NAVD 88
DG4287
DG4287 VERT ORDER - FIRST CLASS II
DG4287
DG4287.The horizontal coordinates were scaled from a topographic map and have
DG4287.an estimated accuracy of +/- 6 seconds.
DG4287.
DG4287.The orthometric height was determined by differential leveling and
DG4287.adjusted by the NATIONAL GEODETIC SURVEY
DG4287.in May 2004.
DG4287
DG4287.The dynamic height is computed by dividing the NAVD 88
DG4287.geopotential number by the normal gravity value computed on the
DG4287.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DG4287.degrees latitude (g = 980.6199 gals.).
DG4287
DG4287.The modeled gravity was interpolated from observed gravity values.
DG4287
DG4287;
DG4287;          North          East          Units  Estimated Accuracy
DG4287;SPC FL E - 340,510.      218,350.      MT (+/- 180 meters Scaled)
DG4287
DG4287 SUPERSEDED SURVEY CONTROL
DG4287
DG4287.No superseded survey control is available for this station.
DG4287
DG4287_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL183315(NAD 83)
DG4287
DG4287_MARKER: F = FLANGE-ENCASED ROD
DG4287_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
DG4287_STAMPING: E 563 2002
DG4287_MARK LOGO: NGS
DG4287_PROJECTION: FLUSH
DG4287_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DG4287_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
DG4287_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DG4287+SATELLITE: SATELLITE OBSERVATIONS - June 12, 2002
DG4287_ROD/PIPE-DEPTH: 24.4 meters
DG4287
DG4287 HISTORY - Date Condition Report By

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DG4287 HISTORY - 20020612 MONUMENTED FLDEP

DG4287

DG4287

STATION DESCRIPTION

DG4287

DG4287'DESCRIBED BY FL DEPT OF ENV PRO 2002 (JLM)

DG4287'THE MARK IS ABOUT 11.2 MI NORTH OF OKEECHOBEE, 7.0 MI SOUTH OF FORT

DG4287'DRUM, IN SECTION 22,

DG4287'TOWNSHIP 35 SOUTH, RANGE 35 EAST.

DG4287'

DG4287'TO REACH THE MARK FROM THE INTERSECTION OF STATE ROAD 70 (U.S. HIGHWAY

DG4287'98, PARK STREET)

DG4287'AND U.S. HIGHWAY 441 (PARROTT STREET) IN OKEECHOBEE, GO NORTH ON U.S.

DG4287'HIGHWAY 441

DG4287'(PARROTT STREET) FOR 10.2 MI TO THE JUNCTION OF COUNTY ROAD 68 (NW

DG4287'160TH STREET) ON THE

DG4287'LEFT, CONTINUE NORTH ON U.S. HIGHWAY 441 FOR 1.15 MI TO THE MARK ON

DG4287'THE LEFT, A STAINLESS

DG4287'STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 79.9 FT WITH A NGS LOGO CAP

DG4287'FLUSH WITH THE

DG4287'GROUND AND ABOUT 3.0 FT BELOW THE LEVEL OF U.S. HIGHWAY 441, THE DATUM

DG4287'POINT IS RECESSED

DG4287'0.2 FT BELOW THE LEVEL OF THE NGS LOGO CAP.

DG4287'

DG4287'LOCATED 59.4 FT WEST OF THE CENTERLINE OF U.S. HIGHWAY 441, 38.6 FT

DG4287'SOUTH OF THE

DG4287'CENTERLINE OF 179TH STREET, 2.6 FT SOUTHEAST OF THE NORTHEAST CORNER

DG4287'OF THE BARBWIRE

DG4287'FENCE AND 1.9 FT EAST OF A CARSONITE WITNESS POST AND BARBWIRE FENCE.

DG4287'

DG4287'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.

DG4287'

DG4287'NOTE A MAGNET WAS PLACED INSIDE OF THE NGS LOGO CAP.

DG4287'

*** retrieval complete.

Elapsed Time = 00:00:02

Adjusted Elevations

TCO1

Level Line between E 563 & TCB 14

Number of Points : 9

Number of Constrained Points : 2

Elevation Only : 2

Errors are reported using 1.96σ .

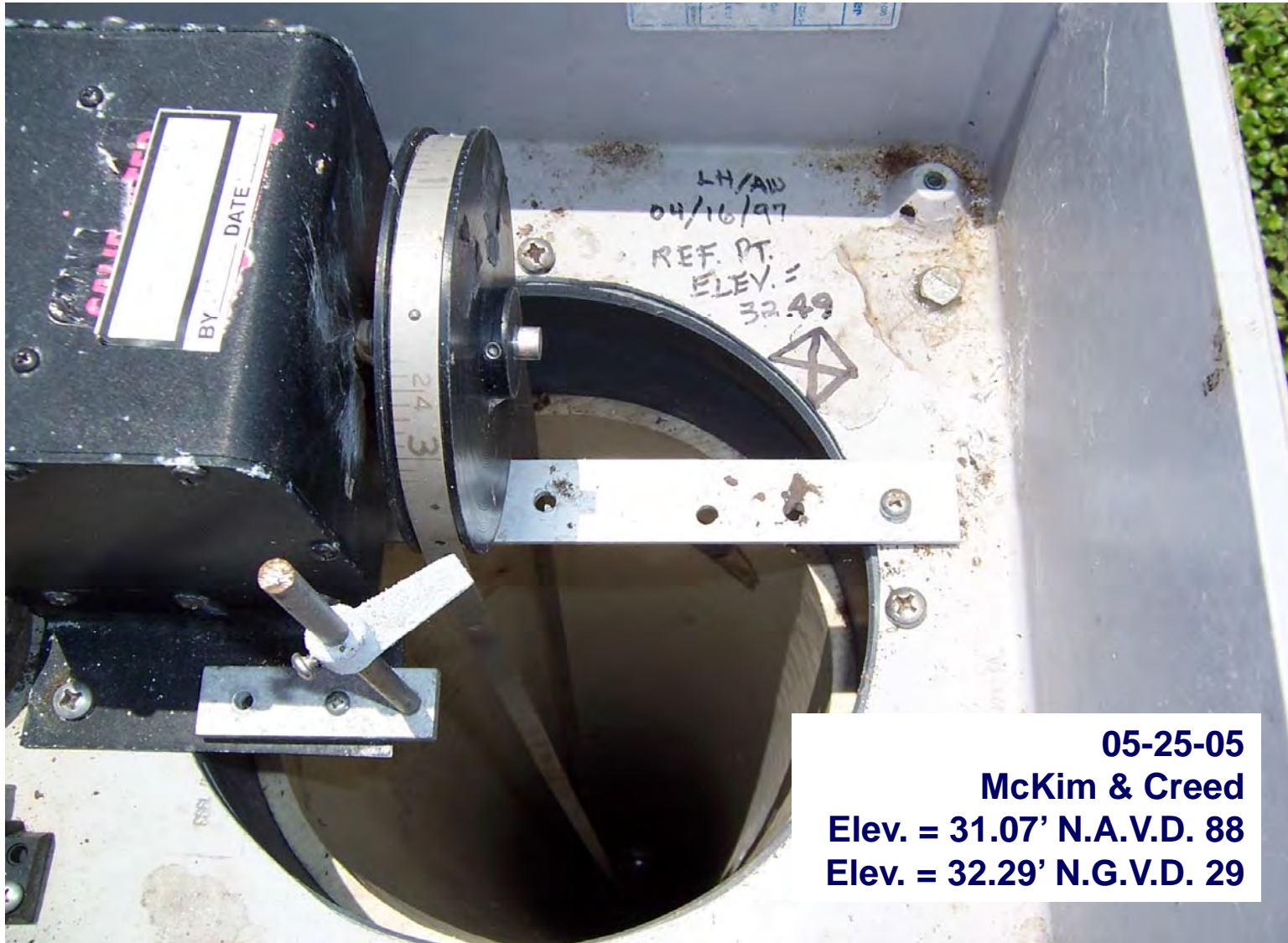
Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0009 (E 563)	N/A	N/A	N/A	N/A	18.992m	0.000m	e
10009	N/A	N/A	N/A	N/A	18.688m	0.001m	
20009	N/A	N/A	N/A	N/A	18.561m	0.001m	
30009	N/A	N/A	N/A	N/A	18.453m	0.001m	
40009	N/A	N/A	N/A	N/A	18.082m	0.001m	
50009	N/A	N/A	N/A	N/A	17.916m	0.001m	
60009	N/A	N/A	N/A	N/A	18.030m	0.001m	
70009	N/A	N/A	N/A	N/A	17.492m	0.001m	
80009 (TCB 14)	N/A	N/A	N/A	N/A	18.137m	0.000m	e

TCS2



McKim & Creed
Date of Photo: April 29, 2005
View: Looking West at Well Site

TCS2



McKim & Creed
Date of Photo: April 29, 2005
View: Well Reference Mark

TCS2



McKim & Creed
Date of Photo: April 29, 2005
View: Benchmark TCS2

TCS2



McKim & Creed
Date of Photo: April 29, 2005
View: Benchmark TCS2A

TCS2



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking westerly at the site**

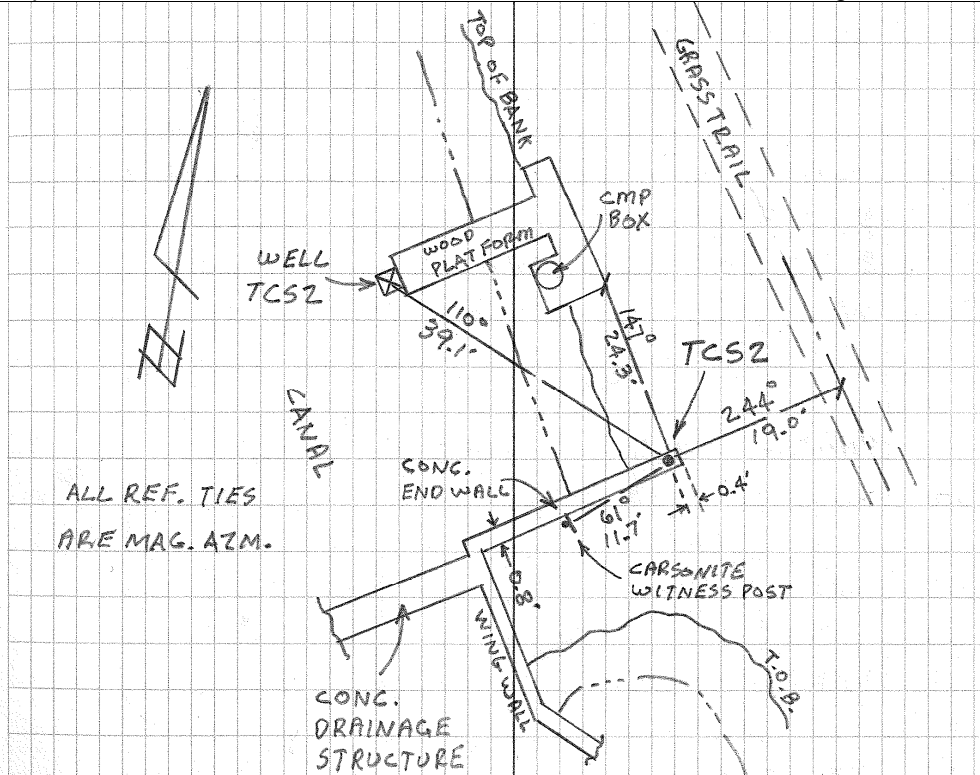
TCS2



**South Florida Water Management District
Date of Photo: February 3, 2005
View: Looking at the site bench mark "TCS 2"**



COUNTY: Okeechobee		PROJECT: Well TCS2		DESIGNATION: TCS2	
SECTION 6		TOWNSHIP 36 SOUTH		RANGE 35 EAST	
GEOGRAPHIC INDEX OF QUAD: Florida					
Established by <u> X </u> Recovered by McKim & Creed, PA			NAME OF QUADRANGLE: Taylor Creek SE		
SURVEYOR: Ben R. Homola DATE: 4/29/05			FIELD BOOK: STRIVE 6 PAGE: 6		
HORIZONTAL DATUM: Florida State Plane Coordinate System, NAD 83 ZONE: EAST					
VERTICAL DATUM: NAVD 88 & NGVD 29 (NGS NGVD 29 adjustment of the CERP network)					
CONTROL ACCURACY: HORIZONTAL ± 1 meter VERTICAL 2 nd order, class II					
STATE PLANE COORDINATES Feet		X 697630	Y 1101748	EL. = 28.008' (NAVD 88) EL. = 29.23' (NGVD 29)	
LATITUDE: 27°21'52.73"		LONGITUDE: 080°52'20.10"			
DESCRIPTION					
To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 9.2 mi. to junction of NW 144 th Drive (Potter Rd. / C.R. 68A) on left, turn left on NW 144 th Drive and go west for 1.1 mi. to junction of NW 9 th Terr. on left, turn left on NW 9 th Terr. and go south for 0.15 mi. to junction of NW 141 st St. on right, turn right on NW 141 st St. and go west for 0.5 mi. to end of road at gravel road left, turn left on gravel road and go south for 0.1 mi. crossing over a pipe culvert under road to a grass trail and locked gate on the right, turn right on grass trail on south side of a drainage canal and go west, southwest and southeast through locked gate for 2.4 mi. to mark on right, a SFWMD 2 inch alum. disk set in top of the east end of the east concrete end wall of a drainage structure. Located 19.0 feet southwest of centerline of trail, 39.1 feet southeast of center of monitoring well, 24.3 feet southeast of the southeast corner of wood deck for well equipment, 11.7 feet northeast of a carsonite witness post, 0.4-foot southwest of the east end of concrete end wall, no magnet set.					



The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER  5, 2015
DJ5117 *****
DJ5117 DESIGNATION - TCS2
DJ5117 PID - DJ5117
DJ5117 STATE/COUNTY- FL/OKEECHOBEE
DJ5117 COUNTRY - US
DJ5117 USGS QUAD - TAYLOR CREEK SE (1972)
DJ5117
DJ5117 *CURRENT SURVEY CONTROL
DJ5117
DJ5117* NAD 83(1986) POSITION- 27 21 52. (N) 080 52 20. (W) SCALED
DJ5117* NAVD 88 ORTHO HEIGHT - 8.537 (meters) 28.01 (feet) ADJUSTED
DJ5117
DJ5117 GEOID HEIGHT - -26.53 (meters) GEOID12B
DJ5117 DYNAMIC HEIGHT - 8.524 (meters) 27.97 (feet) COMP
DJ5117 MODELED GRAVITY - 979,131.0 (mgal) NAVD 88
DJ5117
DJ5117 VERT ORDER - SECOND CLASS II
DJ5117
DJ5117.The horizontal coordinates were scaled from a topographic map and have
DJ5117.an estimated accuracy of +/- 6 seconds.
DJ5117.
DJ5117.The orthometric height was determined by differential leveling and
DJ5117.adjusted by the NATIONAL GEODETIC SURVEY
DJ5117.in January 2008.
DJ5117
DJ5117.No vertical observational check was made to the station.
DJ5117
DJ5117.Photographs are available for this station.
DJ5117
DJ5117.The dynamic height is computed by dividing the NAVD 88
DJ5117.geopotential number by the normal gravity value computed on the
DJ5117.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DJ5117.degrees latitude (g = 980.6199 gals.).
DJ5117
DJ5117.The modeled gravity was interpolated from observed gravity values.
DJ5117
DJ5117; North East Units Estimated Accuracy
DJ5117;SPC FL E - 335,790. 212,640. MT (+/- 180 meters Scaled)
DJ5117
DJ5117 SUPERSEDED SURVEY CONTROL
DJ5117
DJ5117.No superseded survey control is available for this station.
DJ5117
DJ5117_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL126268 (NAD 83)
DJ5117
DJ5117_MARKER: DD = SURVEY DISK
DJ5117_SETTING: 32 = SET IN A RETAINING WALL OR CONCRETE LEDGE
DJ5117_SP_SET: SET IN TOP OF CONCRETE END WALL
DJ5117_STAMPING: B.M. TCS 2
DJ5117_MARK LOGO: SFLWMD
DJ5117_MAGNETIC: O = OTHER; SEE DESCRIPTION
DJ5117_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DJ5117+STABILITY: SURFACE MOTION
DJ5117_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DJ5117+SATELLITE: SATELLITE OBSERVATIONS - April 29, 2005

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DJ5117
DJ5117 HISTORY - Date Condition Report By
DJ5117 HISTORY - 20050429 MONUMENTED MCKIM

DJ5117

DJ5117

STATION DESCRIPTION

DJ5117

DJ5117'DESCRIBED BY MCKIM AND CREED 2005

DJ5117'THE STATION IS LOCATED ABOUT 8.4 MI (13.5 KM) NORTH OF OKEECHOBEE,
DJ5117'34.7 MI (55.8 KM) EAST SOUTHEAST OF SEBRING, AND 32.1 MI (51.6 KM)
DJ5117'WEST SOUTHWEST OF FORT PIERCE IN SECTION 6, TOWNSHIP 36 SOUTH, RANGE
DJ5117'35 EAST. OWNERSHIP--TAYLOR CREEK RANCH LTD, 19198 PINETREE DRIVE,
DJ5117'TEQUESTA, FLORIDA 33469.

DJ5117'

DJ5117'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 441 AND
DJ5117'STATE ROAD 70 IN OKEECHOBEE, GO NORTH ON U.S. HIGHWAY 441 FOR 9.2 MI
DJ5117'(14.8 KM) TO JUNCTION OF NORTHWEST 144TH DRIVE (POTTER ROAD/COUNTY
DJ5117'ROAD 68A) ON THE LEFT, TURN LEFT ON NORTHWEST 144TH DRIVE AND GO WEST
DJ5117'FOR 1.1 MI (1.8 KM) TO JUNCTION OF NORTHWEST NINTH TERRACE ON LEFT,
DJ5117'TURN LEFT ON NORTHWEST NINTH TERRACE AND GO SOUTH FOR 0.15 MI (0.24
DJ5117'KM) TO JUNCTION OF NORTHWEST 141ST STREET ON RIGHT, TURN RIGHT ON
DJ5117'NORTHWEST 141ST STREET AND GO WEST FOR 0.5 MI (0.8 KM) TO END OF ROAD
DJ5117'AT THE JUNCTION OF GRAVEL ROAD LEFT, TURN LEFT ON GRAVEL ROAD AND GO
DJ5117'SOUTH FOR 0.1 MI (0.15 KM) CROSSING OVER A PIPE CULVERT UNDER ROAD TO
DJ5117'A GRASS TRAIL AND LOCKED GATE ON RIGHT, TURN RIGHT ON GRASS TRAIL ON
DJ5117'SOUTH SIDE OF A DRAINAGE CANAL AND GO WEST, SOUTHWEST AND SOUTHEAST
DJ5117'THROUGH LOCKED GATE (NOTE--CALL SFLWMD AT 561-753-2400 TO ACQUIRE
DJ5117'KEY) FOR 2.4 MI (3.9 KM) TO STATION ON RIGHT.

DJ5117'

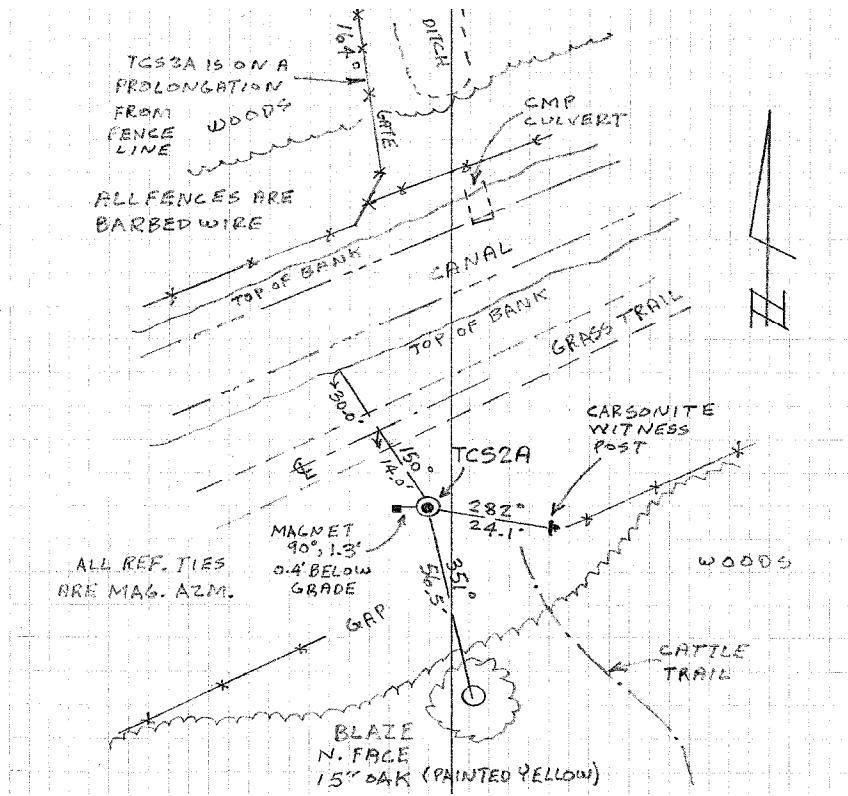
DJ5117'THE STATION IS A SFLWMD 2-INCH ALUMINUM SURVEY DISK SET IN THE TOP OF
DJ5117'THE EAST END OF THE EAST CONCRETE END WALL OF A DRAINAGE STRUCTURE 0.4
DJ5117'FT (12.2 CM) PROJECTING ABOVE GRADE. LOCATED 19.0 FT (5.8 M)
DJ5117'SOUTHWEST OF THE CENTERLINE OF GRASS TRAIL, 39.1 FT (11.9 M) SOUTHEAST
DJ5117'OF CENTER OF MONITORING WELL, 24.3 FT (7.4 M) SOUTHEAST OF THE
DJ5117'SOUTHEAST CORNER OF WOOD DECK FOR WELL EQUIPMENT, 11.7 FT (3.6 M)
DJ5117'NORTHEAST OF A CARSONITE WITNESS POST, AND 0.4 FT (12.2 CM) SOUTHWEST
DJ5117'OF THE EAST END OF CONCRETE END WALL. RECOVERABLE WITH MAGNETIC
DJ5117'LOCATOR, MAGNETIC SOURCE UNKNOWN.

*** retrieval complete.

Elapsed Time = 00:00:09



COUNTY: Okeechobee		PROJECT: Well TCS2		DESIGNATION: TCS2A	
SECTION 6		TOWNSHIP 36 SOUTH		RANGE 35 EAST	
GEOGRAPHIC INDEX OF QUAD: Florida					
Established by ___X___ Recovered by McKim & Creed, PA			NAME OF QUADRANGLE: Taylor Creek SE		
SURVEYOR: Ben R. Homola DATE: 4/29/05			FIELD BOOK: STRIVE 6 PAGE: 5		
HORIZONTAL DATUM: Florida State Plane Coordinate System, NAD 83 ZONE: EAST					
VERTICAL DATUM: NAVD 88 & NGVD 29 (NGS NGVD 29 adjustment of the CERP network)					
CONTROL ACCURACY: HORIZONTAL ± 1 meter VERTICAL 2 nd order, class II					
STATE PLANE COORDINATES Feet		X 701145	Y 1104904	EL. = 29.665' (NAVD 88) EL. = 30.89' (NGVD 29)	
LATITUDE: 27°22'23.95" LONGITUDE: 080°51'41.07"					
DESCRIPTION					
To reach station from the intersection of U.S. 98/441 and U.S. 98/70 in Okeechobee, Go north on U.S. 441 for 9.2 mi. to junction of NW 144 th Drive (Potter Rd. / C.R. 68A) on left, turn left on NW 144 th Drive and go west for 1.1 mi. to junction of NW 9 th Terr. on left, turn left on NW 9 th Terr. and go south for 0.15 mi. to junction of NW 141 st St. on right, turn right on NW 141 st St. and go west for 0.5 mi. to end of road at gravel road left, turn left on gravel road and go south for 0.1 mi. crossing over a pipe culvert under road to a grass trail and locked gate on the right, turn right on grass trail on south side of a drainage canal and go west through locked gate for 1.2 mi. to mark on left, a SFWMD 3½ inch brass disk set in the top of a round concrete monument 0.4-foot below grade. Located 14.0 feet southeast of centerline of trail, 30.0 feet southeast of top of bank of canal, 24.1 feet west of carsonite witness post, 56.5 feet north of a blaze in the north face of a 15 inch Oak painted yellow, 1.3 feet east of a buried magnet 0.4-foot below grade.					



The NGS Data Sheet

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

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PROGRAM = datasheet95, VERSION = 8.7.1
1      National Geodetic Survey,  Retrieval Date = SEPTEMBER 5, 2015
DJ5116 *****
DJ5116 DESIGNATION - TCS2A
DJ5116 PID - DJ5116
DJ5116 STATE/COUNTY- FL/OKEECHOBEE
DJ5116 COUNTRY - US
DJ5116 USGS QUAD - TAYLOR CREEK SE (1972)
DJ5116
DJ5116 *CURRENT SURVEY CONTROL
DJ5116
DJ5116* NAD 83(1986) POSITION- 27 22 23. (N) 080 51 41. (W) SCALED
DJ5116* NAVD 88 ORTHO HEIGHT - 9.041 (meters) 29.66 (feet) ADJUSTED
DJ5116
DJ5116 GEOID HEIGHT - -26.54 (meters) GEOID12B
DJ5116 DYNAMIC HEIGHT - 9.027 (meters) 29.62 (feet) COMP
DJ5116 MODELED GRAVITY - 979,132.3 (mgal) NAVD 88
DJ5116
DJ5116 VERT ORDER - SECOND CLASS II
DJ5116
DJ5116.The horizontal coordinates were scaled from a topographic map and have
DJ5116.an estimated accuracy of +/- 6 seconds.
DJ5116.
DJ5116.The orthometric height was determined by differential leveling and
DJ5116.adjusted by the NATIONAL GEODETIC SURVEY
DJ5116.in January 2008.
DJ5116
DJ5116.No vertical observational check was made to the station.
DJ5116
DJ5116.Photographs are available for this station.
DJ5116
DJ5116.The dynamic height is computed by dividing the NAVD 88
DJ5116.geopotential number by the normal gravity value computed on the
DJ5116.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DJ5116.degrees latitude (g = 980.6199 gals.).
DJ5116
DJ5116.The modeled gravity was interpolated from observed gravity values.
DJ5116
DJ5116;
DJ5116;SPC FL E - North East Units Estimated Accuracy
DJ5116; 336,750. 213,710. MT (+/- 180 meters Scaled)
DJ5116
DJ5116 SUPERSEDED SURVEY CONTROL
DJ5116
DJ5116.No superseded survey control is available for this station.
DJ5116
DJ5116_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL137277(NAD 83)
DJ5116
DJ5116_MARKER: DD = SURVEY DISK
DJ5116_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DJ5116_STAMPING: TCS2A 2005
DJ5116_MARK LOGO: SFLWMD
DJ5116_PROJECTION: RECESSED 12 CENTIMETERS
DJ5116_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DJ5116_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DJ5116+STABILITY: SURFACE MOTION
DJ5116_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DJ5116+SATELLITE: SATELLITE OBSERVATIONS - April 29, 2005

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DJ5116
DJ5116 HISTORY - Date Condition Report By
DJ5116 HISTORY - 20050429 MONUMENTED MCKIM

DJ5116

DJ5116

STATION DESCRIPTION

DJ5116

DJ5116'DESCRIBED BY MCKIM AND CREED 2005

DJ5116'THE STATION IS LOCATED ABOUT 8.7 MI (14.0 KM) NORTH OF OKEECHOBEE,
DJ5116'35.2 MI (56.6 KM) EAST SOUTHEAST OF SEBRING, AND 31.4 MI (50.5 KM)
DJ5116'WEST SOUTHWEST OF FORT PIERCE IN SECTION 6, TOWNSHIP 36 SOUTH, RANGE
DJ5116'35 EAST. OWNERSHIP--TAYLOR CREEK RANCH LTD, 19198 PINETREE DRIVE,
DJ5116'TEQUESTA, FLORIDA 33469.

DJ5116'

DJ5116'TO REACH THE STATION FROM THE INTERSECTION OF U.S. HIGHWAY 441 AND
DJ5116'STATE ROAD 70 IN OKEECHOBEE, GO NORTH ON U.S. HIGHWAY 441 FOR 9.2 MI
DJ5116'(14.8 KM) TO JUNCTION OF NORTHWEST 144TH DRIVE (POTTER ROAD/COUNTY
DJ5116'ROAD 68A) ON THE LEFT, TURN LEFT ON NORTHWEST 144TH DRIVE AND GO WEST
DJ5116'FOR 1.1 MI (1.8 KM) TO JUNCTION OF NORTHWEST NINTH TERRACE ON LEFT,
DJ5116'TURN LEFT ON NORTHWEST NINTH TERRACE AND GO SOUTH FOR 0.15 MI (0.24
DJ5116'KM) TO JUNCTION OF NORTHWEST 141ST STREET ON RIGHT, TURN RIGHT ON
DJ5116'NORTHWEST 141ST STREET AND GO WEST FOR 0.5 MI (0.8 KM) TO END OF ROAD
DJ5116'AT THE JUNCTION OF GRAVEL ROAD LEFT, TURN LEFT ON GRAVEL ROAD AND GO
DJ5116'SOUTH FOR 0.1 MI (0.15 KM) CROSSING OVER A PIPE CULVERT UNDER ROAD TO
DJ5116'A GRASS TRAIL AND LOCKED GATE ON RIGHT, TURN RIGHT ON GRASS TRAIL ON
DJ5116'SOUTH SIDE OF A DRAINAGE CANAL AND GO WEST THROUGH LOCKED GATE (
DJ5116'NOTE--CALL SFLWMD AT 561-753-2400 TO ACQUIRE KEY) FOR 1.2 MI (1.9 KM)
DJ5116'TO STATION ON LEFT.

DJ5116'

DJ5116'THE STATION IS A 3-1/2 INCH (8 CM) BRASS SFLWMD SURVEY DISK SET IN THE
DJ5116'TOP OF A ROUND CONCRETE MONUMENT 0.4 FT (12.2 CM) BELOW GRADE.
DJ5116'LOCATED 14.0 FT (4.3 M) SOUTHEAST OF THE CENTERLINE OF GRASS TRAIL,
DJ5116'30.0 FT (9.1 M) SOUTHEAST OF THE TOP OF BANK OF CANAL, 24.1 FT (7.3 M)
DJ5116'WEST OF A CARSONITE WITNESS POST, 56.5 FT (17.2 M) NORTH OF A BLAZE IN
DJ5116'THE NORTH FACE OF A 15-INCH (38 CM) OAK TREE PAINTED YELLOW, 1.3 FT
DJ5116'(0.4 M) EAST OF A BURIED MAGNET 0.4 FT (12.2 CM) BELOW GRADE.

*** retrieval complete.

Elapsed Time = 00:00:08

The NGS Data Sheet

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

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DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.20
1 National Geodetic Survey, Retrieval Date = JULY 22, 2005
AJ6120 *****
AJ6120 DESIGNATION - U 502
AJ6120 PID - AJ6120
AJ6120 STATE/COUNTY- FL/OKEECHOBEE
AJ6120 USGS QUAD - TAYLOR CREEK NE (1971)
AJ6120
AJ6120 *CURRENT SURVEY CONTROL
AJ6120
AJ6120 * NAD 83(1986)- 27 22 33. (N) 080 50 34. (W) SCALED
AJ6120 * NAVD 88 - 11.237 (meters) 36.87 (feet) ADJUSTED
AJ6120
AJ6120 GEOID HEIGHT- -26.57 (meters) GEOID03
AJ6120 DYNAMIC HT - 11.220 (meters) 36.81 (feet) COMP
AJ6120 MODELED GRAV- 979,131.1 (mgal) NAVD 88
AJ6120
AJ6120 VERT ORDER - SECOND CLASS I
AJ6120
AJ6120 .The horizontal coordinates were scaled from a topographic map and have
AJ6120 .an estimated accuracy of +/- 6 seconds.
AJ6120
AJ6120 .The orthometric height was determined by differential leveling
AJ6120 .and adjusted by the National Geodetic Survey in January 2002.
AJ6120
AJ6120 .The geoid height was determined by GEOID03.
AJ6120
AJ6120 .The dynamic height is computed by dividing the NAVD 88
AJ6120 .geopotential number by the normal gravity value computed on the
AJ6120 .Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6120 .degrees latitude (g = 980.6199 gals.).
AJ6120
AJ6120 .The modeled gravity was interpolated from observed gravity values.
AJ6120
AJ6120 ;
AJ6120 ; North East Units Estimated Accuracy
AJ6120 ; SPC FL E - 337,060. 215,550. MT (+/- 180 meters Scaled)
AJ6120
AJ6120 SUPERSEDED SURVEY CONTROL
AJ6120
AJ6120 .No superseded survey control is available for this station.
AJ6120
AJ6120 _U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL155280(NAD 83)
AJ6120 _MARKER: DD = SURVEY DISK
AJ6120 _SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6120 _STAMPING: U 502 2000
AJ6120 _MARK LOGO: FLDEP
AJ6120 _PROJECTION: FLUSH
AJ6120 _MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AJ6120 _STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6120 +STABILITY: SURFACE MOTION
AJ6120 _SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6120 +SATELLITE: SATELLITE OBSERVATIONS - May 30, 2002
AJ6120
AJ6120 HISTORY - Date Condition Report By
AJ6120 HISTORY - 2000 MONUMENTED FLDEP
AJ6120 HISTORY - 20020530 GOOD FLDEP
AJ6120
AJ6120 STATION DESCRIPTION
AJ6120
AJ6120 'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)
AJ6120 'THE MARK IS ABOUT 9.5 MI (15.3 KM) SOUTH-SOUTHWEST OF FORT DRUM, 9.3
AJ6120 'MI (15.0 KM) NORTH OF OKEECHOBEE ON NORTHWEST 144TH DRIVE (COUNTY ROAD
AJ6120 '68A) , IN SECTION 33, TOWNSHIP 35 SOUTH, RANGE 35 EAST. TO REACH THE
AJ6120 'MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441 (PARROTT STREET) AND
AJ6120 'STATE ROAD 70 (PARK STREET) IN OKEECHOBEE, GO NORTH ON U.S. HIGHWAY
AJ6120 '441 (PARROTT STREET) FOR 9.2 MI (14.8 KM) TO THE JUNCTION OF NORTHWEST
AJ6120 '144TH DRIVE ON THE LEFT (COUNTY ROAD 68A) , TURN LEFT ON NORTHWEST
AJ6120 '144TH DRIVE (COUNTY ROAD 68A) AND GO WEST FOR 1.65 MI (2.66 KM) TO THE
AJ6120 'MARK ON THE LEFT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT FLUSH

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DATASHEETS

AJ6120' WITH THE GROUND AND 1.0 FT (0.3 M) BELOW THE LEVEL OF NORTHWEST 144TH
AJ6120' DRIVE. LOCATED 27.1 FT (8.3 M) SOUTH OF NORTHWEST 144TH DRIVE, 13.7 FT
AJ6120' (4.2 M) EAST OF TWO CABLE BOXES NUMBER 36521, 3.3 FT (1.0 M) NORTH OF
AJ6120' POWER POLE WITH ONE GUY WIRE ATTACHED, 1.5 FT (0.5 M) EAST OF A
AJ6120' BARBWIRE FENCE CORNER AND 1.3 FT (0.4 M) EAST OF A CARSONITE WITNESS
AJ6120' POST.

AJ6120
AJ6120 STATION RECOVERY (2002)
AJ6120

AJ6120' RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
AJ6120' RECOVERED AS DESCRIBED. NOT LEVELED TO THIS DATE.

AJ6120'
AJ6120'

*** retrieval complete.
Elapsed Time = 00:00:01

Sub-Network 1 Adjusted Elevations

TCS2

Level Line between U 502 & TCS2A

Number of Points : 23

Number of Constrained Points : 1

Elevation Only : 1

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0005 (U 502)	N/A	N/A	N/A	N/A	11.237m	0.000m	e
90005	N/A	N/A	N/A	N/A	11.205m	0.004m	
100005	N/A	N/A	N/A	N/A	10.748m	0.006m	
110005	N/A	N/A	N/A	N/A	10.547m	0.007m	
120005	N/A	N/A	N/A	N/A	10.156m	0.008m	
130005	N/A	N/A	N/A	N/A	9.558m	0.009m	
140005	N/A	N/A	N/A	N/A	9.944m	0.010m	
150005	N/A	N/A	N/A	N/A	10.025m	0.011m	
160005	N/A	N/A	N/A	N/A	10.125m	0.012m	
170005	N/A	N/A	N/A	N/A	10.201m	0.012m	
180005	N/A	N/A	N/A	N/A	10.098m	0.013m	
190005	N/A	N/A	N/A	N/A	9.988m	0.014m	
200005	N/A	N/A	N/A	N/A	9.864m	0.014m	
210005	N/A	N/A	N/A	N/A	10.292m	0.015m	
220005	N/A	N/A	N/A	N/A	9.671m	0.016m	
230005	N/A	N/A	N/A	N/A	9.585m	0.016m	
240005	N/A	N/A	N/A	N/A	9.436m	0.017m	
250005	N/A	N/A	N/A	N/A	9.662m	0.017m	
260005	N/A	N/A	N/A	N/A	9.140m	0.018m	
270005	N/A	N/A	N/A	N/A	9.712m	0.018m	
280005	N/A	N/A	N/A	N/A	9.219m	0.019m	
290005	N/A	N/A	N/A	N/A	9.364m	0.019m	
300005 (TCS2A)	N/A	N/A	N/A	N/A	9.042m	0.020m	

Sub-Network 2 Adjusted Elevations

TCS2

Level Line between TCS2A & U 502

Number of Points : 21

Number of Constrained Points : 1

Elevation Only : 1

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0007 (TCS2A)	N/A	N/A	N/A	N/A	9.042m	0.019m	
170007	N/A	N/A	N/A	N/A	9.278m	0.018m	
180007	N/A	N/A	N/A	N/A	9.362m	0.018m	
190007	N/A	N/A	N/A	N/A	9.785m	0.017m	
200007	N/A	N/A	N/A	N/A	9.253m	0.017m	
210007	N/A	N/A	N/A	N/A	9.635m	0.016m	
220007	N/A	N/A	N/A	N/A	9.433m	0.016m	
230007	N/A	N/A	N/A	N/A	9.563m	0.015m	
240007	N/A	N/A	N/A	N/A	9.992m	0.014m	
250007	N/A	N/A	N/A	N/A	9.942m	0.014m	
260007	N/A	N/A	N/A	N/A	9.653m	0.013m	
270007	N/A	N/A	N/A	N/A	10.121m	0.012m	
280007	N/A	N/A	N/A	N/A	10.139m	0.012m	
290007	N/A	N/A	N/A	N/A	10.072m	0.011m	
300007	N/A	N/A	N/A	N/A	9.937m	0.010m	
310007	N/A	N/A	N/A	N/A	9.258m	0.009m	
320007	N/A	N/A	N/A	N/A	10.265m	0.008m	
330007	N/A	N/A	N/A	N/A	10.525m	0.007m	
340007	N/A	N/A	N/A	N/A	10.823m	0.006m	
350007	N/A	N/A	N/A	N/A	11.314m	0.004m	
360007 (U 502)	N/A	N/A	N/A	N/A	11.237m	0.000m	e

Sub-Network 3 Adjusted Elevations

TCS2

Level Line between TCS2A & TCS2

Number of Points : 17

Number of Constrained Points : 1

Elevation Only : 1

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0007 (TCS2A)	N/A	N/A	N/A	N/A	9.042m	0.000m	e
10007	N/A	N/A	N/A	N/A	9.069m	0.004m	
20007	N/A	N/A	N/A	N/A	8.658m	0.006m	
30007	N/A	N/A	N/A	N/A	9.096m	0.007m	
40007	N/A	N/A	N/A	N/A	8.609m	0.008m	
50007	N/A	N/A	N/A	N/A	8.446m	0.009m	
60007	N/A	N/A	N/A	N/A	8.515m	0.010m	
70007	N/A	N/A	N/A	N/A	8.379m	0.011m	
80007	N/A	N/A	N/A	N/A	8.220m	0.012m	
90007	N/A	N/A	N/A	N/A	8.311m	0.012m	
100007	N/A	N/A	N/A	N/A	8.405m	0.013m	
110007	N/A	N/A	N/A	N/A	8.332m	0.014m	
120007	N/A	N/A	N/A	N/A	8.176m	0.014m	
130007	N/A	N/A	N/A	N/A	8.229m	0.015m	
140007	N/A	N/A	N/A	N/A	8.271m	0.016m	
150007	N/A	N/A	N/A	N/A	8.482m	0.016m	
160007 (TCS2)	N/A	N/A	N/A	N/A	8.538m	0.017m	

Sub-Network 4 Adjusted Elevations

TCS2

Level Line between TCS2 & TCS2A

Number of Points : 15

Number of Constrained Points : 1

Elevation Only : 1

Errors are reported using 1.96σ .

Point Name	Northing	N error	Easting	E error	Elevation	e error	Fix
0008 (TCS2)	N/A	N/A	N/A	N/A	8.538m	0.016m	
10008	N/A	N/A	N/A	N/A	8.170m	0.015m	
20008	N/A	N/A	N/A	N/A	8.332m	0.014m	
30008	N/A	N/A	N/A	N/A	8.253m	0.014m	
40008	N/A	N/A	N/A	N/A	8.203m	0.013m	
50008	N/A	N/A	N/A	N/A	8.365m	0.012m	
60008	N/A	N/A	N/A	N/A	8.395m	0.012m	
70008	N/A	N/A	N/A	N/A	8.240m	0.011m	
80008	N/A	N/A	N/A	N/A	8.246m	0.010m	
90008	N/A	N/A	N/A	N/A	8.420m	0.009m	
100008	N/A	N/A	N/A	N/A	8.280m	0.008m	
110008	N/A	N/A	N/A	N/A	9.052m	0.007m	
120008	N/A	N/A	N/A	N/A	8.671m	0.006m	
130008	N/A	N/A	N/A	N/A	8.974m	0.004m	
140008 (TCS2A)	N/A	N/A	N/A	N/A	9.042m	0.000m	e