

SURVEYOR'S REPORT

Specific Purpose Survey of the Monitoring Wells

OSF-70

Osceola County, Florida

South Florida Water Management District's

Purchase Order number PC P602216

Keith and Schnars project number 16434.07,

Task 22004

Report Date: August 15, 2006

Submittal: First

Prepared for:

South Florida Water Management District

Prepared by:



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Licensed Business (L.B.) 1337

SURVEYOR'S REPORT

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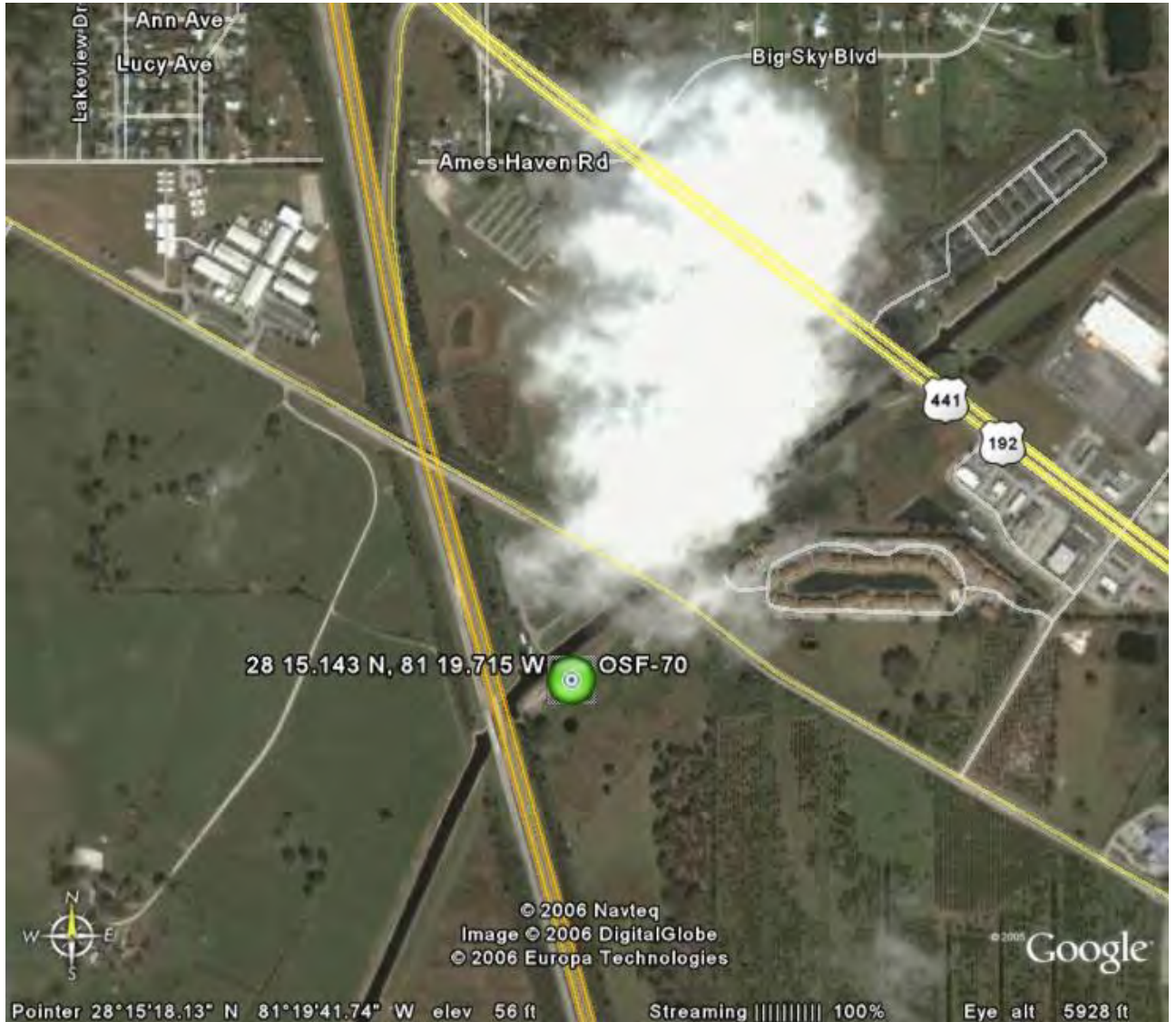
SURVEYOR'S REPORT

PURPOSE

To establish vertical data (NAVD 1988 and NGVD 1929) on the Monitoring Wells at the structure.

LOCATION OF PROJECT

The project is located in Osceola County.



SURVEYOR'S REPORT

ITEMS DELIVERED TO THE DISTRICT

1. Electronic copy of field notes.
2. Electronic copy of all computation sheets.
3. CORPSMET 95 file.
4. Site photographs.
5. Surveyor's Report.

DATUM FOR THE PROJECT


The vertical datum for the project is North American Datum of 1988 (NAVD '88). National Geodetic Survey vertical control monuments with published NAVD '88 elevations were used as the basis for this survey. The National Geodetic Vertical Datum of 1929 (NGVD '29) shown were computed using CORPSCON version 6.0 program.

LEVELING METHODS

Benchmark OSF-70 was constructed at the site. The elevations were established from Benchmark E 512 using a Wild NA-2 conventional level and three-wire observation method.

SURVEYOR'S REPORT

VERTICAL CONTROL

BM E 512		Elevation:	NAVD 1988	58.07'	NGVD 1929	
Found in National Geodetic Survey Database	Latitude		28°15'26" (Scaled)			
State/County FL/Osceola	Longitude		81°19'20" (Scaled)			
USGS QUAD St. Cloud North (1987)						
Horiz. Order (Preliminary) Class (Preliminary)	<p>DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM) THE MARK IS ABOUT 1.0 MI NORTHWEST OF ST. CLOUD, IN SECTION 4, TOWNSHIP 26 SOUTH, RANGE 30 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 192, 441 (13TH STREET) AND COUNTY ROAD 523 (VERMONT AVENUE) IN ST. CLOUD, GO NORTH ON COUNTY ROAD 523 (VERMONT AVENUE) FOR 0.9 MI TO THE JUNCTION OF LAKESHORE BOULEVARD, TURN LEFT ON LAKESHORE BOULEVARD (COUNTY ROAD 523) AND GO NORTHWEST FOR 1.15 MI TO THE NORTH END OF A BRIDGE OVER CANAL 31 AND THE JUNCTION OF A CANAL ROAD ON THE LEFT, TURN LEFT AND GO WEST ALONG THE NORTH SIDE OF CANAL 31 FOR 75.0 FT TO A LOCKED GATE, CONTINUE WEST ON THE CANAL ROAD FOR 0.1 MI TO A METAL GATE FOR STRUCTURE S-59, CONTINUE SOUTH THEN WEST ON THE CANAL ROAD FOR 0.9 MI TO THE JUNCTION OF U.S. HIGHWAY 192, 441 AND THE MARK SET IN THE TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.3 FT BELOW THE LEVEL OF THE GROUND AND ABOUT 25.0 FT BELOW U.S. HIGHWAY 192, 441. THE MARK CAN ALSO BE REACHED FROM THE INTERSECTION OF U.S. HIGHWAY 192, 441 (13TH STREET) AND COUNTY ROAD 523 (VERMONT AVENUE) IN ST CLOUD, GO NORTHWEST ON U.S. HIGHWAY 192, 441 (13TH STREET) FOR 2.05 MI TO THE BRIDGE OVER CANAL 31 AND THE MARK ON THE RIGHT. LOCATED 123.0 FT SOUTHEAST OF THE SOUTH END OF THE CANAL, 64.0 FT NORTHEAST OF THE CENTERLINE OF U.S. HIGHWAY 192, 441 NORTHBOUND LANES, 38.0 FT NORTHWEST OF THE SOUTHWEST CORNER OF A BARBWIRE FENCE, 10.0 FT SOUTHEAST OF A METAL GATE, 1.4 FT NORTHEAST OF A CARSONITE WITNESS POST AND 1.3 FT NORTHEAST OF A WOODEN FENCE.</p> <p>NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE MONUMENT.</p>					
						

SURVEYOR'S REPORT

PROJECT RESULTS

Monitoring Well (GW-1)	Monitoring Well (GW-2)
<p>Monitoring Well OSF-70: Reference mark: <u>Set mark on S. side PVC pipe</u> <u>With initials K&S.</u></p> <p>New Reference Mark El. <u>65.075'</u> (NGVD '29) <u>(Wrote -0.971' to NAVD 1988).</u></p> <p>Initials: <u>K&S</u> <u>B.M., R.F., R.C</u></p> <p>Date: <u>7/27/06</u></p> <p>written at the mark: El. <u>65.053'</u> Date: <u>4/27/04</u> By: <u>E.E., F.D.</u></p> <p>Reference Mark location: <u>Top of PVC Pipe</u></p>	<p>Monitoring Well OSF-70: Reference mark: <u>Set mark on S. side PVC pipe</u> <u>With initials K&S.</u></p> <p>New Reference Mark El. <u>64.758'</u> (NGVD '29) <u>(Wrote -0.971' to NAVD 1988).</u></p> <p>Initials: <u>K&S</u> <u>B.M., R.F., R.C</u></p> <p>Date: <u>7/27/06</u></p> <p>written at the mark: El. <u>64.745'</u> Date: <u>4/27/04</u> By: <u>E.E., F.D.</u></p> <p>Reference Mark location: <u>Top of PVC Pipe</u></p>

SURVEYOR'S REPORT

PROJECT RESULTS

Monitoring Well (GW-3)	Monitoring Well (GW-4)
<p>Monitoring Well OSF-70: Reference mark: <u>Set mark on S. side PVC pipe</u> <u>With initials K&S.</u></p> <p>New Reference Mark El. <u>64.355'</u> (NGVD '29) <u>(Wrote -0.971' to NAVD 1988).</u></p> <p>Initials: <u>K&S</u> <u>B.M., R.F., R.C</u></p> <p>Date: <u>7/27/06</u></p> <p>written at the mark: El. <u>64.34'</u> Date: <u>4/27/04</u> By: <u>E.E., F.D.</u></p> <p>Reference Mark location: <u>Top of PVC Pipe</u></p>	<p>Monitoring Well OSF-70: Reference mark: <u>Set mark on S. side PVC pipe</u> <u>With initials K&S.</u></p> <p>New Reference Mark El. <u>66.142'</u> (NGVD '29) <u>(Wrote -0.971' to NAVD 1988).</u></p> <p>Initials: <u>K&S</u> <u>B.M., R.F., R.C</u></p> <p>Date: <u>7/27/06</u></p> <p>written at the mark: El. <u>66.125'</u> Date: <u>4/27/04</u> By: <u>E.E., F.D.</u></p> <p>Reference Mark location: <u>Top of PVC Pipe</u></p>

SURVEYOR'S REPORT

PROJECT RESULTS

Monitoring Well (GW-5)

Monitoring Well OSF-70:

Reference mark:

Set mark on S. side PVC pipe
With initials K&S.

New Reference

Mark El. **66.432'**

(NGVD '29)

(Wrote -0.971' to NAVD 1988).

Initials:

K&S

B.M., R.F., R.C

Date:

7/27/06

written at the mark:

El. **66.423'**

Date: **4/27/04**

By: **E.E., F.D.**

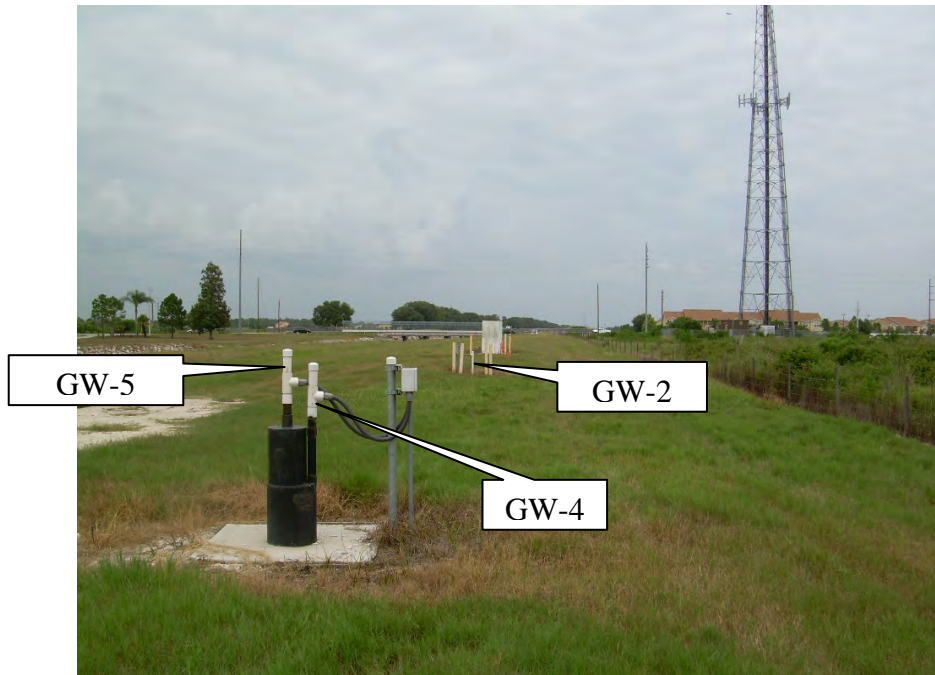
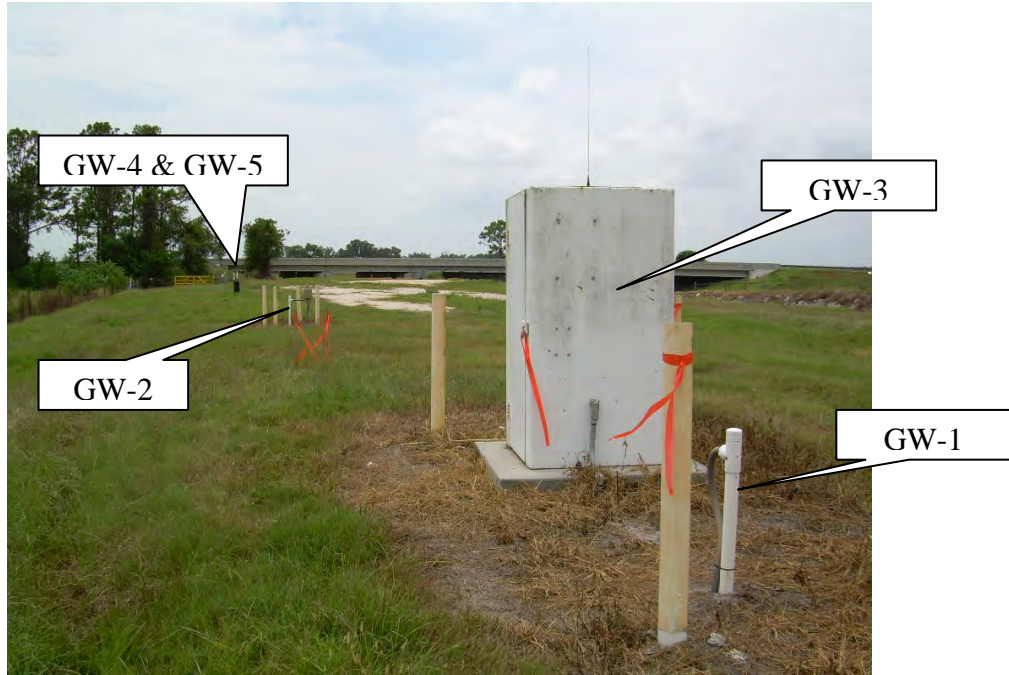
Reference Mark location:

Top of PVC Pipe

SURVEYOR'S REPORT

PROJECT PHOTO

OSF-70



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-70



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-70



SURVEYOR'S REPORT

PROJECT PHOTO

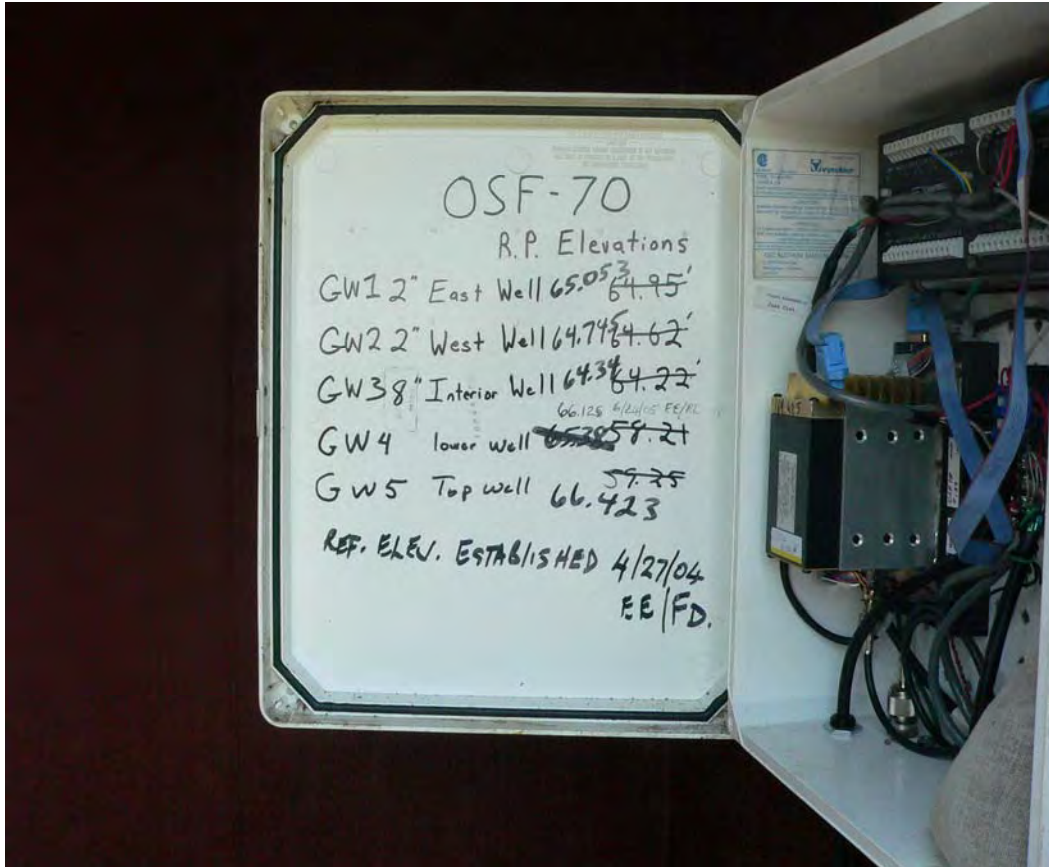
OSF-70



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-70



SURVEYOR'S REPORT

PROJECT PHOTO

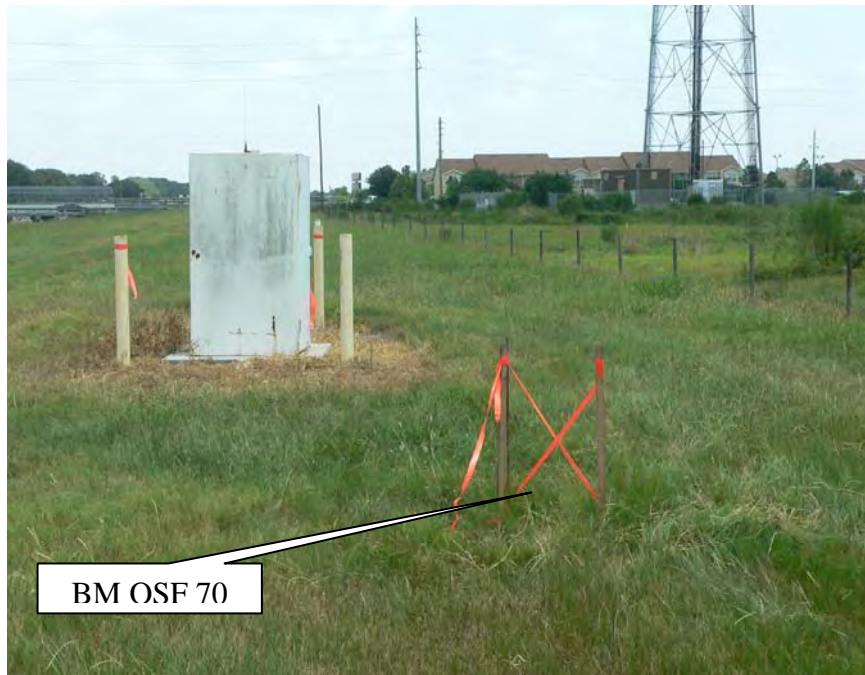
OSF-70



SURVEYOR'S REPORT

PROJECT PHOTO

OSF-70



SURVEYOR'S REPORT

Comments:

Party Chief: D. Sullivan Field Book: 1073 Page 68-71
Bench Mark: "E 512" El. 58.07', Vertical Datum: NAVD1988
Offset: 0.971' SFWMD VALUE (add this value to convert to NGVD 1929)
Offset: 0.971' NGS VALUE (add this value to convert to NGVD 1929)
NAVD 88 - North American Vertical Datum of 1988
NGVD29 - National Geodetic Vertical Datum of 1929
NAD 83-99 (Horizontal Datum) North American Datum
NGS- National Geodetic Survey
SFWMD- South Florida Water Management District
PVC- Polyvinyl Chloride

SURVEYOR'S CERTIFICATION

I hereby certify that this Specific Purpose Survey meets applicable portions of the Minimum Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61-G17, Florida Administrative Code. This report is prepared for the sole and specific use of the South Florida Water Management District and is not assignable.

KEITH and SCHNARS, PA.
L.B. number 1337

By:

Date of Survey
July 27, 2006

Kenneth T. Glass, PSM
Professional Surveyor and Mapper
State of Florida
Certificate No. 5713

JOB NO 16434.07
 DATE 06-27-06 OSF-70
 FOR S. F. W. M. D. BENCH RUN
 LOCATION KISSIMMEE
 WEATHER MOSTLY SUNNY, 89°
 EQUIPMENT WILD NA-2 #596929, CHICAGO ROD, BUBBLE LEVEL
 CREW D. SULLIVAN M. FOLDS R. CRUM
 BENCH WORK TO OSF-70

BM	BS	MN	HI	FS	MN	ELEV	ADJ ELEV	REMARKS
ES12	12.27 11.75 11.23	104' 104'	11.750			57.98	58.07	NGS DATA SHEET ES12 PUBLISHED ELEV. = 58.07 NAVD 88 4x4" CROWN W/NGS BRASS DISC STAMPED ES12 NAVD 88 ELEV 2001
TBM 1	5.28 4.74 4.20	108'	4.740	3.81 3.28 2.76	105' 105'	3.283		TOED HUB IN MEDIAN US 17/92
TBM 2	5.81 4.33 3.26	255'	4.533	10.45 9.91 9.37	108' 108'	9.910		TOED HUB SO. OF US 17/92 EAST SIDE OF CANAL 31
TBM 3	5.68 4.43 3.23	245'	4.953	5.48 4.21 2.94	254' 254'	4.210		TOED HUB SO. OF US 17/92 EAST SIDE OF CANAL 31
TBM 4	5.41 4.20 2.98	243'	4.197	6.18 4.94 3.71	247' 247'	4.943		TOED HUB NO OF NEPTUNE RD EAST SIDE CANAL 31
	955		29.673	714		22.346		

JOB No 16424.07
DATE 06-27-06
CREW SAME

BENCH WORK (CONT)

BM	BS	BENCH WORK (CONT)		FS	MN	ELEV	ADJ ELEV	REMARKS
		MN	HI					
TBM 5	7.36	201'	6.357	4.12	2.903	62.494		TOED HUB NO. OF NEPTUNE RD EAST OF CANAL 31
	6.36			2.90				
	5.35			1.69				
TBM 6	7.08	243'	5.967	7.59	6.590			TOED HUB SO. OF NEPTUNE RD EAST OF CANAL 31 BY B/W FENCE
	5.87			6.59				
	4.65			5.59				
TBM 7	3.83	95'	3.357	6.18	4.963			TOED HUB SO. OF NEPTUNE RD EAST OF CANAL 31
	3.36			4.96				
	2.88			3.75				

BM OSP-70	8.80	240'	7.593	6.41	5.953	60.569	60.551	1" DIA CAST CMON W/SEWMD BRASS DISC
	7.59			5.95				
	6.39			5.50				

TBM 8	4.31	60'	4.070	5.91	4.710			TOED HUB SO. OF NEPTUNE RD EAST OF CANAL 31
	4.07			4.71				
	3.77			3.51				

FS12	6.40	140'	5.700	6.50	6.200	61.322	61.30	4" x 4" CMON W/NGS BRASS DISC STAMPED FS12 2001
	5.70			6.20				
	5.00			5.90				
1793 END RUN								
3588 ÷ 5280 = 0.680								
√0.680 X 0.03 = 0.025 ALLOWABLE								

1140

JOB NO 16434.07
 DATE 06-27-06
 CREW SAME

BM	BS	BENCH WORK (CONT)		FS	MN	ELEV	ADJ ELEV	REMARKS
		MN	HI					
TBM 9	4.38 3.17 1.95	243'	3.167	3.88 3.18 2.48	140'	3.180	63.820	TOED HUB NO. OF NEPTUNE RD EAST OF CANAL 31
TBM 10	6.64 5.46 4.28	236'	5.460	7.61 6.40 5.19	242'	6.400		TOED HUB NO OF NEPTUNE RD EAST OF CANAL 31
TBM 11	6.60 5.88 4.16	244'	5.380	5.93 4.71 3.50	243'	4.713		TOED HUB NO. OF NEPTUNE RD EAST OF CANAL 31
TBM 12	5.60 4.84 4.06	154'	4.833	6.72 5.50 4.28	244'	5.500		TOED HUB SO. OF US 17/92 EAST OF CANAL 31
TBM 13	7.57 7.20 6.83	74'	7.200	2.53 1.75 0.98	153'	1.753		TOED HUB SO. OF US 17/92 EAST OF CANAL 31
TBM 14	4.01 3.50 2.97	104'	3.493	5.23 4.87 4.51	72'	4.870		TOED HUB MEDIAN OF US 17/92 EAST OF CANAL 31

JOB NO 16434.07
DATE 06-27-06
CREW SAME

BENCH WORK (CONT)

BSM	BS	MN	HI	FS	MN
ES12			12.56		
			12.03		12.030
			11.50		

1202' END RUN

ELEV ADJ ELEV REMARKS

NGS DATA SHEET E 512
PUBLISHED ELEV. = 58.07 NAVD 88

58.087 58.07 4"x4" MON W/NGS BRASS DISC STAMPED E 512
+0.017 2001

$$3493 \div 5280 = 0.662$$

$$\sqrt{0.662 \times 0.03} = 0.024 \text{ ALLOWABLE ERR}$$

SAME CREW
7/27/2000
OSE 70 REDD

BM	BS	MEAN	HT	FS	MEAN
	5.90				
BM OSE 70	5.77	5.773	66.324		
	5.65				
	17.32				
GW-5 WELL PIPE 1				1.67	
				0.86	0.863
				0.06	
				2.59	
GW-4 WELL PIPE 2				1.96	
				1.15	1.153
				0.35	
				3.46	
GW-2 WELL PIPE 3				2.87	
				2.54	2.537
				2.20	
				7.01	
GW-1 WELL PIPE 4				2.31	
				2.22	2.220
				2.13	
				6.66	
GW-3 WELL PIPE 5	2.84			3.01	
	2.77	2.770		2.94	2.940
	2.70			2.87	
	8.31				
BM OSE 70				5.73	
				5.60	5.603
				5.48	
				16.81	

ELEV.	ADJ. ELEV.	REMARKS
	60.551	POURED CONC. MON. W/ S.F.W.M.D. BRASS DISK
	NAND 88	
65.461		2" PVC PIPE S OF ABOVE GROUND VAULT, ON 8" METAL INCASEMENT PIPE ON 10" METAL INCASEMENT PIPE, 100' +/- S OF VAULT
		NGVD 29 = 66.432
		- 0.971 TO NAND 88
65.171		2" PVC PIPE S OF ABOVE GROUND VAULT, ON 10" METAL INCASEMENT PIPE 100' +/- S OF VAULT
		NGVD 29 = 66.142
		- 0.971 TO NAND 88
63.787		2" PVC PIPE S OF ABOVE GROUND VAULT, 70' +/- S OF VAULT
		NGVD 29 = 64.758
		- 0.971 TO NAND 88
64.104		2" PVC PIPE N OF ABOVE GROUND VAULT, 10' +/- N OF VAULT
		NGVD 29 = 65.075
		- 0.971
63.384		8" PVC PIPE IN ABOVE GROUND VAULT
		NGVD 29 = 64.355
		- 0.971
60.551	60.551	POURED CONC. MON. W/ S.F.W.M.D. BRASS DISK
FIAT	NAND 88	

Identification Information:

Citation:

Citation Information:

Kenneth T. Glass**Keith & Schnars P.A.**

Originator: Kenneth T. Glass, P. S. M. (ed.)

Publication_Date: 20060727

Publication_Time: Unknown

Title: S. F. W. M. D. Monitoring Well

Edition: OSF-70

Series Information:

Publication Information:

Publication_Place: Not Published

Publisher: None

Online_Linkage: kglass@keithandschnars.com

Larger_Work_Citation:

Citation Information:

Series Information:

Publication Information:

Description:

Abstract:

South Florida Water Management District
Structure OSF-70**Purpose**

Purpose:

To establish reference elevations in NAVD 1988 and
NGVD 1929 datum at the Monitoring Well(s).

Time_Period_of_Content:

Time_Period Information:

Single_Date/Time:

Calendar_Date: 20060727

Range_of_Dates/Times:

Multiple_Dates/Times:

Currentness_Reference: Publication Date

Survey Date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 81° 19' 42.9"

East_Bounding_Coordinate: 81° 19' 42.9"

North_Bounding_Coordinate: 28° 15' 08.6"

South_Bounding_Coordinate: 28° 15' 08.6"

Keywords:

Theme:

Theme_Keyword_Thesaurus: Specific Purpose Survey

Theme_Keyword: Monitoring Well(s)

Place:

Place_Keyword_Thesaurus: Osceola County

Place_Keyword: S. F. W. M. D. Monitoring Well OSF-70

Place_Keyword: SEC. 05 - T26S - R30E

Stratum:

Temporal:

Access_Constraints: Key needed to gain access to Monitoring Wells.

Use_Constraints: Call South Florida Water Management District for key.

Point_of_Contact:

Contact Information:

Contact_Person_Primary:

Contact_Person: Howard J. Ehmke

Contact_Organization: South Florida Water Management

Howard Ehmke**SFWMD**

District

Contact_Organization_Primary:

Contact_Position: P. S. M.

Contact_Address:

Address_Type: mailing and physical address

Address:

Acceler 8

Suite 150

2301 Centerpark West Drive

City: West Palm Beach

State_or_Province: Florida

Postal_Code: 33409

Country: USA

OSF 70.gen
Contact_Voice_Telephone: (561) 242-5520 ext 4064
Contact_Electronic_Mail_Address: hehmke@sfwmd.gov
Hours_of_Service: 8:00 am to 5:00 pm EST

Security_Information:

Cross_Reference:

Citation_Information:

Series_Information:

Publication_Information:

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

Equipment Used

The horizontal location of the benchmark was taken from a hand held G. P. S. unit. The vertical data was collected using a Wild NA-2 Level. Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 83/90. Elevations are based on NAVD 1988 with an offset supplied to convert to NGVD 1929.

Logical_Consistency_Report:

Vertical data on the monitoring well was established using the site benchmark.

Completeness_Report:

Project Results

65.075' (NGVD 1929) OSF-70 Well. (GW-1)
Offset written at wells (-) 0.971' to NAVD 1988.
64.758' (NGVD 1929) OSF-70 Well. (GW-2)
Offset written at wells (-) 0.971' to NAVD 1988.
64.355' (NGVD 1929) OSF-70 Well. (GW-3)
Offset written at wells (-) 0.971' to NAVD 1988.
66.142' (NGVD 1929) OSF-70 Well. (GW-4)
Offset written at wells (-) 0.971' to NAVD 1988.
66.432' (NGVD 1929) OSF-70 Well. (GW-5)
Offset written at wells (-) 0.971' to NAVD 1988.
OSF-70 2006 was the site benchmark used for this survey. NAVD 1988 elevation 60.551'

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal

Horizontal_Positional_Accuracy_Report:

The horizontal position of the benchmark was established using a hand held GPS.

Quantitative_Horizontal_Positional_Accuracy_Assessment:

Horizontal_Positional_Accuracy_Value: Lat. 28°15'08.6"

Long. 81°19'42.9"

Horizontal_Positional_Accuracy_Explanation: Value derived

by hand-held GPS unit.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report:

The onsite benchmark was used to establish the elevations on the monitoring well(s) in this report.

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.022 ft. NAVD88

Vertical_Positional_Accuracy_Explanation: Better than

0.03ft. x sq. root of miles of the level loop.

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Series_Information:

Publication_Information:

Larger_Work_Citation:

Citation_Information:

Series_Information:

Publication_Information:

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Range_of_Dates/Times:

Multiple_Dates/Times:

Level Line

Process_Step:

Process_Description:

Differential leveling was performed using a Wild NA-2

level.

OSF 70.gen

The onsite benchmark OSF-70 2006 was used to determine the monitoring well elevation. Elevations were written at the wells in NGVD 1929 with an offset provided to convert the elevations to NAVD 1988.

Process_Date: 20060727

Process_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Organization_Primary:

Contact_Address:

Spatial_Data_Organization_Information:

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Geographic:

Latitude_Resolution: 28°15'08.6"

Longitude_Resolution: 81°19'42.9"

Geographic_Coordinate_Units: Degrees, minutes, and decimal

seconds

Geodetic_Model:

Vertical_Coordinate_System_Definition:

Altitude_System_Definition:

Depth_System_Definition:

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Attribute:

Attribute_Domain_Values:

Attribute_Value_Accuracy_Information:

Overview_Description:

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Organization_Primary:

Contact_Organization: Keith and Schnars, P. A.

Contact_Person: Kenneth T. Glass, P. S. M.

Contact_Position: Director of Surveying and Mapping Lakeland

Contact_Address:

Address_Type: mailing and physical address

Address: 2525 Drane Field Rd., Suite 7

City: Lakeland

State_or_Province: Florida

Postal_Code: 33811

Country: Polk

Contact_Voice_Telephone: (863)-646-4771

Contact_Facsimile_Telephone: (863)-646-3378

Contact_Electronic_Mail_Address: kglass@keithandschnars.com

Hours_of_Service: 8:00-5:00 est.

Distribution_Liability: None

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

Dialup_Instructions:

Offline_Option:

Recording_Capacity:

Available_Time_Period:

Time_Period_Information:

Single_Date/Time:

Range_of_Dates/Times:

Multiple_Dates/Times:

Metadata_Reference_Information:

Metadata_Date: 20060809

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Kenneth T. Glass, P. S. M.

OSF 70.gen
Contact_Organization: Keith and Schnars, P. A.
Contact_Organization_Primary:
Contact_Position: Director of Surveying and Mapping Lakeland
Contact_Address:
Address_Type: mailing and physical address
Address: 2525 Drane Field Rd., Suite 7
City: Lakeland
State_or_Province: FL
Postal_Code: 33811
Country: USA
Contact_Voice_Telephone: (863) 646-4771
Contact_Facsimile_Telephone: (863) 646-3378
Contact_Electronic_Mail_Address: kglass@keithandschnars.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: 19940608
Metadata_Security_Information:



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY OSCEOLA	PROJECT	DESIGNATION Structure OSF-70	
SECTION <u>05</u>	TOWNSHIP <u>26</u> SOUTH	RANGE <u>30</u> EAST	
GEOGRAPHIC INDEX OF QUAD			
Established by <u>KEITH AND SCHNARS</u>		NAME OF QUADRANGLE	
Recovered by		<u>ST. CLOUD NORTH</u>	
SET CLASS "C" MONUMENT WITH SFWMD BRASS DISK.			
SURVEYOR <u>D. SULLIVAN (Keith and Schnars)</u>		FIELD BOOK, 1073, pgs. 68-71	
DATE <u>06/27/2006</u>			
HORIZONTAL DATUM: 1983 with 1999 correction, ZONE East			
VERTICAL DATUM: NGVD 1929 and NAVD 1988			
CONTROL ACCURACY: HORIZONTAL HAND-HELD GPS, 3rd Order VERTICAL			
STATE PLANE COORDINATES	X = 550382	Y = 1424608	EL. (NGVD 1929) 61.522'
			EL. (NAVD 1988) 60.551'
LATITUDE <u>28° 15' 08.6"</u>		LONGITUDE <u>81° 19' 42.9"</u>	
DESCRIPTION			
South Florida Water Management District brass disk set in concrete monument stamped OSF 70 / 2006			
The benchmark is located 2.9 miles west of Saint Cloud			
To reach the mark from the intersection of U.S. 92 and Neptune Rd. travel west along Neptune Rd. a distance			
Of 1.2 miles to canal S31. The mark is 750' +/- south west of Neptune Rd., south east of the canal, 25' south of			
The well and 50' west of a 4' barbed wire fence.			
Notable Land marks:			



SKETCH

The NGS Data Sheet

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

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DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.35
1 National Geodetic Survey, Retrieval Date = APRIL 26, 2006
DF6690 *****
DF6690 DESIGNATION - E 512
DF6690 PID - DF6690
DF6690 STATE/COUNTY- FL/OSCEOLA
DF6690 USGS QUAD - ST CLOUD NORTH (1987)
DF6690
DF6690 *CURRENT SURVEY CONTROL
DF6690
DF6690 * NAD 83(1986)- 28 15 26. (N) 081 19 20. (W) SCALED
DF6690 * NAVD 88 - 17.700 (meters) 58.07 (feet) ADJUSTED
DF6690
DF6690 GEOID HEIGHT- -27.89 (meters) GEOID03
DF6690 DYNAMIC HT - 17.673 (meters) 57.98 (feet) COMP
DF6690 MODELED GRAV- 979,159.9 (mgal) NAVD 88
DF6690
DF6690 VERT ORDER - SECOND CLASS I
DF6690
DF6690 .The horizontal coordinates were scaled from a topographic map and have
DF6690 .an estimated accuracy of +/- 6 seconds.
DF6690
DF6690 .The orthometric height was determined by differential leveling
DF6690 .and adjusted by the National Geodetic Survey in April 2004..
DF6690
DF6690 .The geoid height was determined by GEOID03.
DF6690
DF6690 .The dynamic height is computed by dividing the NAVD 88
DF6690 .geopotential number by the normal gravity value computed on the
DF6690 .Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
DF6690 .degrees latitude (g = 980.6199 gals.).
DF6690
DF6690 .The modeled gravity was interpolated from observed gravity values.
DF6690
DF6690 ;
DF6690 ; North East Units Estimated Accuracy
DF6690 ; SPC FL E - 434,760. 168,380. MT (+/- 180 meters Scaled)
DF6690
DF6690 SUPERSEDED SURVEY CONTROL
DF6690
DF6690 No superseded survey control is available for this station.
DF6690
DF6690 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM683257(NAD 83)
DF6690 _MARKER: DD = SURVEY DISK
DF6690 _SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
DF6690 _STAMPING: E 512 2001
DF6690 _MARK LOGO: FLDEP
DF6690 _PROJECTION: RECESSED 8 CENTIMETERS
DF6690 _MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
DF6690 _STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
DF6690 +_STABILITY: SURFACE MOTION
DF6690 _SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
DF6690 +_SATELLITE: SATELLITE OBSERVATIONS - June 28, 2001
DF6690
DF6690 HISTORY - Date Condition Report By
DF6690 HISTORY - 20010628 MONUMENTED FLDEP
DF6690
DF6690 STATION DESCRIPTION
DF6690
DF6690 'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)
DF6690 'THE MARK IS ABOUT 1.0 MI NORTHWEST OF ST. CLOUD, IN SECTION 4,
DF6690 'TOWNSHIP 26 SOUTH, RANGE
DF6690 '30 EAST.
DF6690 '
DF6690 'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 192, 441 (13TH
DF6690 'STREET) AND
DF6690 'COUNTY ROAD 523 (VERMONT AVENUE) IN ST. CLOUD, GO NORTH ON COUNTY ROAD
DF6690 '523 (VERMONT
DF6690 'AVENUE) FOR 0.9 MI TO THE JUNCTION OF LAKESHORE BOULEVARD, TURN LEFT
DF6690 'ON LAKESHORE

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DATASHEETS

DF6690' BOULEVARD (COUNTY ROAD 523) AND GO NORTHWEST FOR 1.15 MI TO THE NORTH
DF6690' END OF A BRIDGE
DF6690' OVER CANAL 31 AND THE JUNCTION OF A CANAL ROAD ON THE LEFT, TURN LEFT
DF6690' AND GO WEST
DF6690' ALONG THE NORTH SIDE OF CANAL 31 FOR 75.0 FT TO A LOCKED GATE,
DF6690' CONTINUE WEST ON THE
DF6690' CANAL ROAD FOR 0.1 MI TO A METAL GATE FOR STRUCTURE S-59, CONTINUE
DF6690' SOUTH THEN WEST ON
DF6690' THE CANAL ROAD FOR 0.9 MI TO THE JUNCTION OF U.S. HIGHWAY 192, 441 AND
DF6690' THE MARK SET IN THE
DF6690' TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.3 FT BELOW THE LEVEL OF
DF6690' THE GROUND AND
DF6690' ABOUT 25.0 FT BELOW U.S. HIGHWAY 192, 441. THE MARK CAN ALSO BE
DF6690' REACHED FROM THE
DF6690' INTERSECTION OF U.S. HIGHWAY 192, 441 (13TH STREET) AND COUNTY ROAD
DF6690' 523 (VERMONT AVENUE)
DF6690' IN ST CLOUD, GO NORTHWEST ON U.S. HIGHWAY 192, 441 (13TH STREET) FOR
DF6690' 2.05 MI TO THE BRIDGE
DF6690' OVER CANAL 31 AND THE MARK ON THE RIGHT.
DF6690'
DF6690' LOCATED 123.0 FT SOUTHEAST OF THE SOUTH END OF THE CANAL, 64.0 FT
DF6690' NORTHEAST OF THE
DF6690' CENTERLINE OF U.S. HIGHWAY 192, 441 NORTHBOUND LANES, 38.0 FT
DF6690' NORTHWEST OF THE
DF6690' SOUTHWEST CORNER OF A BARBWIRE FENCE, 10.0 FT SOUTHEAST OF A METAL
DF6690' GATE, 1.4 FT
DF6690' NORTHEAST OF A CARSONITE WITNESS POST AND 1.3 FT NORTHEAST OF A WOODEN
DF6690' FENCE.
DF6690'
DF6690' NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE
DF6690' MONUMENT.
DF6690'
DF6690'

*** 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 = 7.35

1 National Geodetic Survey, Retrieval Date = APRIL 26, 2006

DF6691 *****

DF6691 DESIGNATION - F 512

DF6691 PID - DF6691

DF6691 STATE/COUNTY- FL/OSCEOLA

DF6691 USGS QUAD - ST CLOUD NORTH (1987)

DF6691

DF6691 *CURRENT SURVEY CONTROL

DF6691* NAD 83(1986)- 28 15 13. (N) 081 19 38. (W) SCALED

DF6691* NAVD 88 - 18.684 (meters) 61.30 (feet) ADJUSTED

DF6691

DF6691 GEOID HEIGHT- -27.89 (meters) GEOID03

DF6691 DYNAMIC HT - 18.656 (meters) 61.21 (feet) COMP

DF6691 MODELED GRAV- 979,159.5 (mgal) NAVD 88

DF6691

DF6691 VERT ORDER - SECOND CLASS I

DF6691

DF6691.The horizontal coordinates were scaled from a topographic map and have

DF6691.an estimated accuracy of +/- 6 seconds.

DF6691

DF6691.The orthometric height was determined by differential leveling

DF6691.and adjusted by the National Geodetic Survey in April 2004..

DF6691

DF6691.The geoid height was determined by GEOID03.

DF6691

DF6691.The dynamic height is computed by dividing the NAVD 88

DF6691.geopotential number by the normal gravity value computed on the

DF6691.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DF6691.degrees latitude (g = 980.6199 gals.).

DF6691

DF6691.The modeled gravity was interpolated from observed gravity values.

DF6691

DF6691; North East Units Estimated Accuracy

DF6691;SPC FL E - 434,360. 167,890. MT (+/- 180 meters Scaled)

DF6691

DF6691 SUPERSEDED SURVEY CONTROL

DF6691 No superseded survey control is available for this station.

DF6691

DF6691 U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM679253(NAD 83)

DF6691_MARKER: DD = SURVEY DISK

DF6691_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DF6691_STAMPING: F 512 2001

DF6691_MARK LOGO: FLDEP

DF6691_PROJECTION: RECESSED 5 CENTIMETERS

DF6691_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

DF6691_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

DF6691+STABILITY: SURFACE MOTION

DF6691_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DF6691+SATELLITE: SATELLITE OBSERVATIONS - June 28, 2001

DF6691

DF6691 HISTORY - Date Condition Report By

DF6691 HISTORY - 20010628 MONUMENTED FLDEP

DF6691

DF6691 STATION DESCRIPTION

DF6691

DF6691'DESCRIBED BY FL DEPT OF ENV PRO 2001 (JLM)

DF6691'THE MARK IS ABOUT 6.4 MI SOUTHEAST OF KISSIMMEE, 2.0 MI NORTHWEST OF

DF6691'ST. CLOUD, IN SECTION

DF6691'5, TOWNSHIP 26 SOUTH, RANGE 30 EAST.

DF6691'

DF6691'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 192, 441 (13TH

DF6691'STREET) AND

DF6691'COUNTY ROAD 523 (VERMONT AVENUE) IN ST. CLOUD, GO NORTHWEST ON U.S.

DF6691'HIGHWAY 192, 441

DF6691'(13TH STREET) FOR 1.1 MI TO THE JUNCTION OF NEPTUNE ROAD ON THE LEFT

DF6691'(COUNTY ROAD 525),

DATASHEETS

DF6691' TURN LEFT ON NEPTUNE ROAD (COUNTY ROAD 525) AND GO SOUTHWEST THEN
DF6691' WESTERLY FOR 0.4
DF6691' MI TO THE INTERSECTION OF KISSIMMEE PARK ROAD, CONTINUE NORTHWEST ON
DF6691' NEPTUNE ROAD
DF6691' (COUNTY ROAD 525) FOR 0.6 MI TO THE SOUTH END OF THE BRIDGE OVER CANAL
DF6691' 31 AND THE MARK
DF6691' ON THE LEFT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT RECESSED 0.2
DF6691' FT BELOW THE
DF6691' LEVEL OF THE GROUND AND ABOUT 1.0 FT ABOVE THE LEVEL OF NEPTONE ROAD.
DF6691'
DF6691' LOCATED 149.4 FT SOUTHWEST OF THE CENTERLINE OF NEPTONE ROAD, 37.4 FT
DF6691' SOUTHEAST OF THE
DF6691' SOUTHEAST SIDE OF THE CANAL, 11.2 FT NORTHWEST OF THE APPROXIMATE
DF6691' CENTERLINE OF THE
DF6691' CANAL ROAD AND A METAL GATE AND 1.0 FT NORTHEAST OF A WOODEN FENCE AND
DF6691' A CARSONITE
DF6691' WITNESS POST.
DF6691'
DF6691' NOTE A MAGNET WAS IMBEDDED IN THE MONUMENT ON THE SOUTH SIDE.
DF6691'
DF6691'
DF6691'

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