Surveyor's Report of Record Survey
Of the specific data listed below
For Structure Alligator 2

Structure type**: Stilling Well**
Description: **Alligator 2**

Date: July 29, 2005

20FT (West) Stilling Well: Reference mark: **Mark on the inside lid cover of the Stilling Well** New Reference Mark El.**73.803'** (NGVD '29) **(Wrote -0.924' to NAVD 1988).** **Initials: Keith & Schnars** Date: **7/26/05** **written at the mark:** El. **20' well RP elev: 73.79'** Date: **None previous** By: **None previous** Reference Mark location**:** **Inside lid cover of the 20ft Stilling Well**	East Stilling Well: Reference mark: **Mark on lid of stilling well.** New Reference Mark El.**74.16'** (NGVD '29) **(Wrote -0.924' to NAVD 1988).** **Initials: Keith & Schnars** Date: **7/20/05** **written at the mark:** El. **10' well RP elev: 74.16'** Date: **None previous** By: **None previous** Reference Mark location**:** **Inside lid cover of the 20ft Stilling Well**

Party Chief: **R. Stoddard** Field Book: **1073, Pages 46-49, 62 & 67**
Survey Date: **July 26, 2005** Bench Mark: **"C 576"** El. **70.662'**
Vertical Datum: **NAVD1988**
Offset: + **0.924'** S.F.W.M.D. VALUE (add this value to convert to NGVD 1929)
Offset: + **0.924'** N.G.S. 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 of 1983 with the 1999 adjustment applied.
N.G.S. - National Geodetic Survey
S.F.W.M.D. - South Florida Water Management District

G.P.S. POSITION (NAD 83-99)
Structure "Alligator 2"
Northing: 1,405,017 Feet
Easting: 577,578 Feet

Comments:
The N.G.S. benchmarks used to calculate the offset value were "C 576" which has a published NAVD 88 elevation of 70.66 feet and "D 576" which has a published NAVD elevation of 75.28 feet and SFWMD benchmark "ALLIGATOR 2" which has a NGVD 29 elevation of 71.77'. The offset values referred to as "SFWMD VALUE" and "N.G.S. VALUE" were derived by subtracting the NAVD 88 elevation established at benchmark "ALLIGATOR 2" from the published NGVD 29 elevation at Benchmark "ALLIGATOR 2". The offset value calculated by N.G.S. VERTical CONversion (VERTCON) Transformation Program Version 2.10 between NAVD 88 and NGVD 29 was -0.312meters (-1.024') at well station ALLIGATOR 2.

Prepared by: Keith & Schnars, P.A. (L.B. 1337)
2525 Drane Field Road
Lakeland, Florida 33813
(863) 646-4771

Prepared for: **South Florida Water Management District**
3301 Gun Club Road
West Palm Beach, Florida 33406

For the Benefit of: **The District's STRucture Information Verification (STRIVE) Project**.

Notes:
1) This survey meets all applicable requirements of the Florida Minimum Technical Standards as contained in Chapter 61G17-6 FAC.
2) Not valid without the signature and the original raised seal of the Florida Surveyor and Mapper in responsible Charge.
3) Additions or deletions to this data by anyone other than the signing party are prohibited without written consent of the signing party.

Surveyor and Mapper in Responsible Charge:
Kenneth T. Glass
Professional Surveyor and Mapper
License Number 5713

Signed: _____ Seal:

SURVEYOR'S REPORT

Keith & Schnars, P.A. (the "surveyor") operating under contract (PC P501726) to the South Florida Water Management District (the "District") was tasked with the execution of this Specific Purpose Survey for the district's STRucture Information Verification (STRIVE) Project.. The purpose of this survey was to provide as-built data and other spatial data on this culvert structure operating under the authority of the South Florida Water Management District. THIS IS NOT A BOUNDARY SURVEY**.**

This stilling well, known as ALLIGATOR 2, is located in Osceola County, Florida.

Elevations at the structure were determined by a combination of differential leveling and direct and indirect measurements. Elevations are based on National Geodetic Survey Benchmarks "C 576" and "D 576" Second Order, Class 1 vertical control monuments and S.F.W.M.D. Benchmark "ALLIGATOR 2" a Third Order (no class is given) benchmark. The elevations for "C 576" and "D 576" are based on NAVD 88 (North American Vertical Datum of 1988), which were determined by differential leveling and adjusted by the National Geodetic Survey in September 2004.

Benchmark "C 576" is a Florida Department of Environmental Protection (FDEP) disk stamped "C 576 2002" set in a concrete monument and has a published elevation of 70.66' (NAVD 88). The mark is about 4.0 miles southeast of St. Cloud, 3.6 miles south of Ashton, in Section 30, Township 26 South, Range 31 East. To reach the mark from the junction of U.S. Highway 192, 441 (13th Street) and County Road 523 (Vermont Avenue, Canoe Creek Road) in St. Cloud, go east on U.S. Highway 192, 441 (13th Street, East Bronson Highway) for 3.0 miles to the intersection of State Road 15, turn right on State Road 15 and go south for 2.35 miles to the junction of Old Hickory Tree Road on the right, continue south on State Road 15 (Old Hickory Tree Road for 1.25 miles to the junction of Pine Tree Drive on the right and the mark on the right. "C 576" is located 78.8 feet west of the centerline of Old Hickory Tree Road, 23.0 feet south of the centerline of Pine Tree Drive, 9.8 feet west of power pole number 20340 (EC815A202) and 5.3 feet north of a hog-wire fence and a carsonite witness post. A bar magnet was imbedded in the ground on the south side of the monument.

Benchmark "D 576" is a Florida Department of Environmental Protection (FDEP) disk stamped "D 576 2002" set in a concrete monument and has a published elevation of 75.28' (NAVD 88). The mark is about3.5 miles southeast of St. Cloud, 2.6 miles south of Ashton, in Section 20, Township 26 South, Range 31 East. To reach the mark from the junction of U.S. Highway 192, 441 (13th Street) and County Road 523 (Vermont Avenue, Canoe Creek Road) in St. Cloud, go east on U.S. Highway 192, 441 (13th Street, East Bronson Highway) for

3.0 miles to the intersection of State Road 15, turn right on State Road 15 and go south for 2.35 miles to the junction of Old Hickory Tree Road on the right, continue south on State Road 15 (Old Hickory Tree Road for 0.25 miles to the junction of Alligator Lake Road on the left and the mark on the left, set in the top of a round concrete monument flush with the ground and 2.0 ft below the level of old hickory tree road. “D 576” is located 81.5 feet south of the centerline of Alligator Lake Road, 51.5 feet south of power pole number 20085, 28.1 ft east of the centerline of Old Hickory Tree Road, 2.5 ft west of a barbwire fence and 1.5 ft west of a carsonite witness post. A bar magnet was imbedded in the ground on the south side of the monument.

Benchmark “ALLIGATOR 2” is a SFWMD aluminum disk stamped “ALLIGATOR #2 1998 BM”, and has a published NGVD 29 elevation of 71.770’. The benchmark is set in a 8ft x 3.5 ft concrete slab, between the 24" and 30" corrugated metal pipes housings around the two wells on a concrete slab. The benchmark is located from the intersection of Hickory Tree Road (County Road 534), and Mabel Simmons Road, go east on Mabel Simmons Road for 0.1 mile to West Shore Drive and station location. The station is located 13 feet north of the centerline of Mabel Simmons Drive, and 94 feet west of the centerline of West Shore Drive.

All level runs meet or exceed the formula of the Square Root in miles of the level run multiplied by 0.03’.

```
Identification_Information:
        Citation:
                Citation_Information:
                        Originator: Kenneth T. Glass, P.S.M.
                        Publication_Date: 20050722
                        Publication_Time: Unknown
                        Title: S.F.W.M.D. Stilling Well Alligator 2
                        Edition: 1
                        Publication_Information:
                                Publication_Place: Not Published
                                Publisher: None
                        Online_Linkage: kglass@keithandschnars.com
        Description:
                Abstract:
                        South Florida Water Management District
                        Stilling Well Alligator 2
                Purpose:
                        To establish reference elevations in NAVD 1988 and
                        NGVD 1929 datum at the Stilling Wells.
        Time_Period_of_Content:
                Time_Period_Information:
                        Single_Date/Time:
                                Calendar_Date: 20050722
                Currentness_Reference: Publication Date
        Status:
                Progress: Complete
                Maintenance_and_Update_Frequency: Unknown
        Spatial_Domain:
                Bounding_Coordinates:
                        West_Bounding_Coordinate: 81°14'23.6"
                        East_Bounding_Coordinate: 81°14'23.6"
                        North_Bounding_Coordinate: 28°11'55.3"
                        South_Bounding_Coordinate: 28°11'55.3"
        Keywords:
                Theme:
                        Theme_Keyword_Thesaurus: None
                        Theme_Keyword: Record Survey
                        Theme_Keyword: WELL
                Place:
                        Place_Keyword_Thesaurus: None
                        Place_Keyword: S.F.W.M.D. STILLING WELL ALLIGATOR 2
                        Place_Keyword: SEC. 29 - T26S - R31E
                        Place_Keyword: Osceola County, Florida
        Access_Constraints: Wells are locked with combination lock, combination 6745
        Use_Constraints:  Wells are locked with combination lock, combination 6745
        Point_of_Contact:
                Contact_Information:
                        Contact_Person_Primary:
                                Contact_Person: Howard J. Ehmke
                                Contact_Organization: South Florida Water Management
District
                        Contact_Position: P.S.M. Construction and Land Management
Department
                        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 4636
                        Contact_Electronic_Mail_Address: hehmke@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 a hand held GPS and a
                        level. The horizontal location of the benchmark was
                        determined by using a hand held GPS. The vertical data
                        was collected using a Leica N2 Level.
```

Kenneth T. Glass
Keith & Schnars

Howard J. Ehmke II
District Contact

Coordinates are based on the Florida State Plane
Coordinate System, East Zone, NAD 83/99. Elevations
are based on NAVD 1988 and NGVD 1929.

Logical_Consistency_Report:
Vertical data was established using NGS/SFWMD benchmarks "C 576" AND "D 576" and "ALLIGATOR 2"

Completeness_Report:

All-2 Well Report

Horizontal location was taken at the center of the
of the stilling wells
Lat. 28-11-55.26
Long. -81-14-23.58
N. 1405016 ft.
E. 577578 ft. (Florida East, NAD 1983)
x
Alligator 2 - 10FT Well
x
73.236' (NAVD 88)
74.160' (NGVD 29) Calculated from the published elevations of NGS Benchmarks "C 576"
"D 576" AND "ALLIGATOR 2"
x
Alligator 2 - 20FT Well
x
72.879' (NAVD 88)
73.803' (NGVD 29) Calculated from the published elevations of NGS Benchmarks "C 576"
"D 576" AND "ALLIGATOR 2"
x
ALLIGATOR 2 SITE BENCHMARK LOCATION
x
Benchmark "ALLIGATOR 2" is a SFWMD aluminum disk stamped "ALLIGATOR #2 1998 BM",
The benchmark is set in a 8ft x 3.5 ft concrete slab, between the 24" and 30"
corrugated metal pipes housings around the two wells on a concrete slab. The
benchmark is located from the intersection of Hickory Tree Road (County Road 534),
and Mabel Simmons Road, go east on Mabel Simmons Road for 0.1 mile to West
Shore Drive and station location. The station is located 13 feet north of the
centerline of Mabel Simmons Drive, and 94 feet west of the centerline
of West Shore Drive.
x
Reference Benchmark elevations.
70.846' (NAVD 88) Calculated elevation from ties to NGS Benchmark "C 576" & "D 576"
71.770' (NGVD 29) Published value of SFWMD Benchmark "ALLIGATOR 2"

Positional_Accuracy:
Horizontal_Positional_Accuracy:
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: 3m+/-
Horizontal_Positional_Accuracy_Explanation: The intended positional accuracy for this survey is 3m +/-

Vertical_Positional_Accuracy:

Level Line

Vertical_Positional_Accuracy_Report:
A level loop was run from Benchmark "C 576" through
and back to "D 576".
All level runs meet or exceed the formula of the Square
root in miles of the level run multiplied by 0.03ft.
Quantitative_Vertical_Positional_Accuracy_Assessment:
Vertical_Positional_Accuracy_Value: 0.006ft. NAVD88
Vertical_Positional_Accuracy_Explanation: Better than 0.03ft. x sq. root of miles of the level loop.
Quantitative_Vertical_Positional_Accuracy_Assessment:
Vertical_Positional_Accuracy_Value: 0.006ft. NGVD 29
Vertical_Positional_Accuracy_Explanation: Better than

```
0.03ft. x the sq. root of miles of the level loop.
        Lineage:
                Process_Step:
                        Process_Description:
                                The horizontal work was performed using a hand held GPS
                                unit.
                                Differential leveling was performed using a Leica NA2
                        Process_Date: 20050722
Spatial_Reference_Information:
        Horizontal_Coordinate_System_Definition:
                Geographic:
                        Latitude_Resolution: 28°11'55"
                        Longitude_Resolution: 81°14'24"
                        Geographic_Coordinate_Units: Degrees, minutes, and decimal seconds
Distribution_Information:
        Distributor:
                Contact_Information:
                        Contact_Organization_Primary:
                                Contact_Organization: Keith and Schnars
                                Contact_Person: Ken Glass
                        Contact_Position: Director of Surveying
                        Contact_Address:
                                Address_Type: mailing and physical address
                                Address: 2525 Dranefield Road
                                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
Metadata_Reference_Information:
        Metadata_Date: 20050722
        Metadata_Review_Date: 20050722
        Metadata_Contact:
                Contact_Information:
                        Contact_Person_Primary:
                                Contact_Person: Kenneth T. Glass, P.S.M.
                                Contact_Organization: Keith and Schnars
                        Contact_Position: Director of Surveying
                        Contact_Address:
                                Address_Type: mailing and physical address
                                Address: 2525 Dranefield Road
                                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
```

ALLIGATOR 2

Keith and Schnars, P.A.

7/26/05

SITE

ALLIGATOR 2

Keith and Schnars, P.A.

7/26/05

20 FT WELL ON THE RIGHT, 10 FT WELL ON THE LEFT

ALLIGATOR 2

Keith and Schnars, P.A.

7/26/05

10FT (EAST) STILLING WELL

ALLIGATOR 2

Keith and Schnars, P.A.

7/26/05

10FT STILLING WELL PIPE

ALLIGATOR 2

Keith and Schnars, P.A.

7/26/05

20FT (WEST) STILLING WELL

ALLIGATOR 2

Keith and Schnars, P.A.

7/26/05

20FT STILLING WELL PIPE

16434.06
6/22/2005
SAME CREW

BM	BS	MEAN	HI	FS	MEAN	ELEV.	ADJ ELEV	REMARKS
C5716	5.81 4.88 (187') 3.94 14.63	4.877	75.539			70.662 (88)		FND CONC. MONUMENT AT INTERSECTION OF HICKORY TREE RD AND PINE TREE DR. 5.3' N OF HOGWIRE FENCE ELEV= 70.6662
TBM 1	6.27 5.27 (200') 4.27 15.81	5.27	76.793	4.95 4.02 (187') 3.08 12.05	4.017	71.522	71.522 (88)	SET PK NAIL IN EAST EP HICKORY TREE RD 374' 001
TBM 2	6.23 5.23 (200') 4.23 15.69	5.23	77.762	5.26 4.26 (200') 3.26 12.78	4.26	72.532	72.531 (88)	" 774 - 0.001 0.002
TBM 3	5.19 4.27 (184') 3.35 12.81	4.27	77.979	5.06 4.05 (201') 3.05 12.16	4.053	73.709	73.708 (88)	SET PK NAIL IN SOUTH EP MABEL SIMMONS RD 1175 - 0.001 0.004
TBM 4	4.59 3.59 (200') 2.59 10.77	3.59	76.769	5.72 4.80 (184') 3.88 14.40	4.80	73.179	73.177 (88)	" 1543 - 0.002 0.005

16434.06
6/22/2005
SAME CREW

BM	BS	MEAN	HI	FS	MEAN
TBM 5	4.73 3.73 (200') 2.73 11.19	3.73	75.329	6.17 5.17 (200') 4.17 15.51	5.17
TBM 6	6.41 5.41 (199') 4.42 16.24	5.413	75.505	6.24 5.24 (201') 4.23 15.71	5.237
TBM 7	6.43 5.43 (200') 4.43 16.29	5.43	76.962	4.97 3.97 (199') 2.98 11.92	3.973
TBM 8	6.08 5.18 (180') 4.28 15.54	5.18	77.922	5.22 4.22 (200') 3.22 12.66	4.22
TBM 9	5.62 4.62 (200') 3.62 13.86	4.62	79.552	3.89 2.99 (180') 2.09 8.97	2.99

"3 WIRE BENCH RUN" 1073/47

ELEV.	ADJ. ELEV	REMARKS	
71.599	71.597 (88)	SET PK NAIL IN SOUTH EP MABLE SIMMONS RD	1943 - 0.002 0.006
70.092	70.089 (88)	SET 5/8 IRC - REF CAP IN NORTH TOP OF DITCH LINE MABLE SIMMONS RD. 0.7' N OF EP	2344 - 0.008 0.007
71.532	71.529 (88)	SET PK NAIL IN NORTH EP MABLE SIMMON RD	2742 - 0.003 0.009
72.742	72.738 (88)	SET 5/8 IRC - REF CAP IN NORTH TOP OF DITCH LINE MABLE SIMMONS RD 5' ± N OF EP	3142 - 0.004 0.010
74.932	74.928 (88)	SET PK NAIL IN EAST EP HICKORY TREE RD.	3502 - 0.004 0.011

164 34.06
6/22/2005
SAME CREW

BM	BS	MEAN	HI	FS	MEAN	ELEV	ADJ. ELEV.	REMARKS	
								SET PK NAIL IN EAST EP	3901
TBM 10	5.07 4.07 (200') 3.07 12.21	4.07	79.399	5.22 4.22 (199') 3.23 12.67	4.223	75.329	75.324 (BB)	HICKORY TREE RD.	- 0.005 0.018
									4301
TBM 11	4.33 3.25 (210') 2.17 9.75	3.25	77.639	6.01 5.01 (200') 4.01 15.03	5.01	74.389	74.384 (BB)	" " "	- 0.005 0.014
								SET 5/8 IRC-REF CAP IN EAST	4734
TBM 12	5.45 4.45 (200') 3.45 13.35	4.45	77.426	5.75 4.66 (217') 3.58 13.99	4.663	72.976	72.970 (BB)	TOP OF DITCH LINE HICKORY TREE RD. 3.5' +/- E OF EP	- 0.006 0.015
								SET PK NAIL IN EAST EP	5135
TBM 13	5.173 4.173 (200') 3.173 14.19	4.173	77.553	5.61 4.60 (201') 3.60 13.81	4.603	72.823	72.817 (BB)	HICKORY TREE RD	- 0.006 0.016
									5536
TBM 14	6.06 5.06 (200') 4.06 15.18	5.06	78.400	5.22 4.21 (201') 3.21 12.64	4.213	73.340	73.333 (BB)	" " "	- 0.007 0.018

160434.06
6/22/2005
SAME CREW

BM	BS	MEAN	HI	FS	MEAN	ELEV	ADJ. ELEV	REMARKS	
								SET PK NAIL IN EAST EP	5937
TBM 15	6.20 5.20 (201') 4.19 15.59	5.197	79.917	4.69 3.68 (201') 2.68 11.05	3.68	74.720'	74.713 (BB)	HICKORY TREE RD.	- 0.007 0.019
									6339
TBM 16	5.74 4.75 (199') 3.75 14.24	4.747	80.818	4.85 3.85 (201') 2.84 11.54	3.846	76.071	76.063 (BB)	" "	- 0.008 0.020
									6737
TBM 17	5.89 4.69 (241') 3.48 14.06	4.687	81.318	5.18 4.19 (199') 3.19 12.56	4.187	76.631	76.623 (BB)	" "	- 0.008 0.021
								FND CONC. MONUMENT AT	7219
D576				7.23 6.03 4.82 (241') 18.08	6.027	75.291	75.282 (BB)	INTERSCTION OF ALLIGATOR LAKE RD. AND HICKORY TREE RD. 81.5 S OF ℄ ALLIGATOR LAKE RD. ELEV 75.282 (BB)	- 0.009 0.023

7219 ÷ 5280 = √1.367 = x 0.03 = ALLOWABLE - 0.035

0.009 ÷ 7219 = 0.000001247 PER FEET (BB)
0.023 ÷ 7219 = 0.000003186 PER FEET (29)

16434.06 WELL SIGHTS

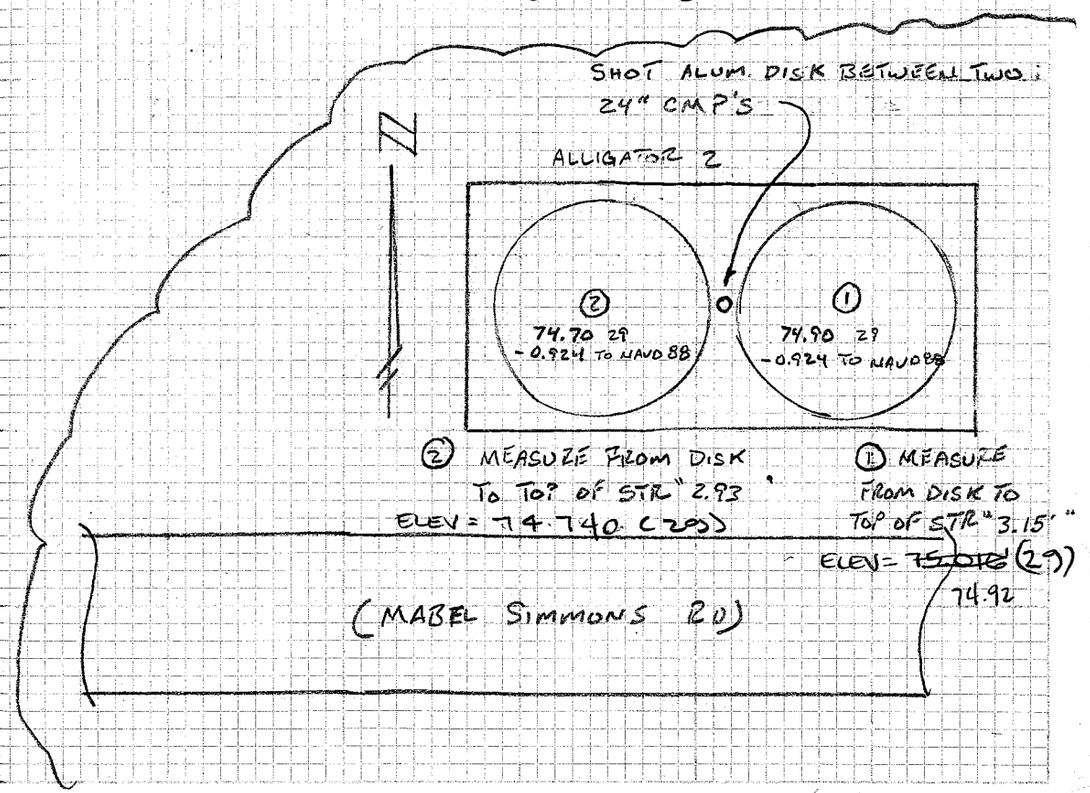
SAME CREW

BM	BS		MEAN	HI	FS		MEAN
	6.10						
TBM 6	5.58	103'	5.583	75.672 ~~76.088~~			
	5.07						
	16.75						
ALLIGATOR 2	6.15				5.32		
	4.68		4.68	75.526 ~~76.546~~	4.82		4.82 C
	3.21	192'			4.34	98'	
	14.01				14.48		
					5.46		
TBM 5					3.93		3.93
					2.40	306'	
					11.79		

71.77 29
70.846 88 0.924

ALLIGATOR 2 1073/62

ELEV	ADJ ELEV	REMARKS
	70.089 (88)	(SEE PG 47)
~~70.896~~ ~~71.866~~	71.770(29)	SFWMD ALUM DISK STAMPED
	70.846 (88)	ALLIGATOR 2 BM 1998
		71.77 NVGD 70.846 NAVD
		OFFSET = -0.924 TO 88
71.596 ~~72.616~~	71.597(88)	(SEE PG 47)



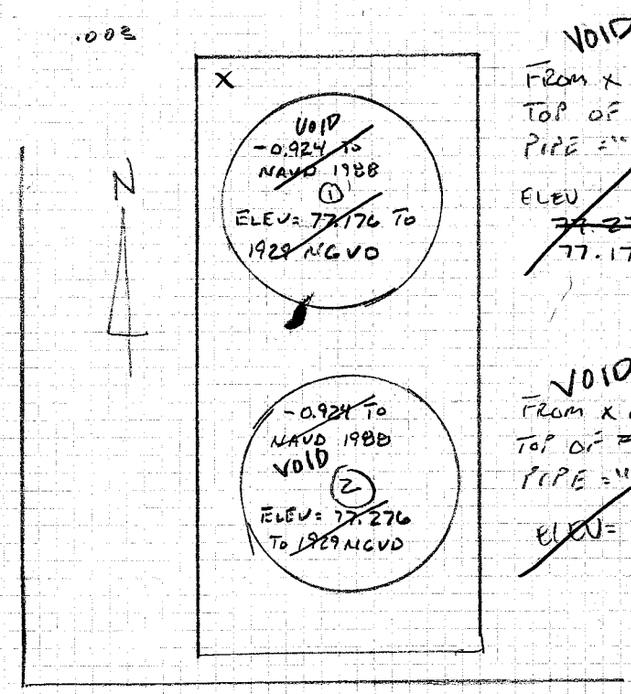
16434.06 WELL SIGHT
SAME CREW

BM	BS		MEAN	HI	FS		MEAN
	5.12'			77.381			
TBM 8	4.64'	95	4.643'	~~78.399~~			
	4.17'						
	13.93						
	4.53'				4.57'		
ALLIGATOR 1	4.08'	89	4.083'	77.334	4.13'		4.13'
	3.64'			~~78.352~~	3.68'	88	
	12.25				12.39		
					4.64		
TBM 4					4.16		4.16
					3.68'	96	
					12.48		

VOID: INFO WAS TO STILLING WELL LID COVER NOT TO THE WELL PIPE
SEE PAGE 66 KTG

ALLIGATOR 1 1073/63

ELEV	ADJ ELEV.	REMARKS
	72.738 (BB)	
	~~72.756~~ ~~(29)~~	(SEE PG 47)
73.251	73.252 (BB)	X CUT IN NORTH WEST COR OF PAD
~~74.268~~	~~74.271~~ ~~(29)~~	
	74.176 (29)	ELEV= 74.176 1929 NGVD
		FROM TIE TO ALLIGATOR 2 OFFSET TO NGVD 29 IS +0.924 (SEE PG 46)
73.174	73.177 (BB)	
~~74.192~~	~~74.198~~ ~~(29)~~	



VOID
FROM X CUT TO TOP OF #1 PIPE = " 3.00 "
ELEV ~~74.271 (29)~~
77.176 29

VOID
FROM X CUT TO TOP OF #2 PIPE = " 3.10"
ELEV= ~~77.371 (29)~~
77.276 29

CONT FROM LAST PG

10' WELL IN THE FIELD FROM BM TO TOP OF PVC PIPE MEASURED 2.34' 74.176
+ 2.340'

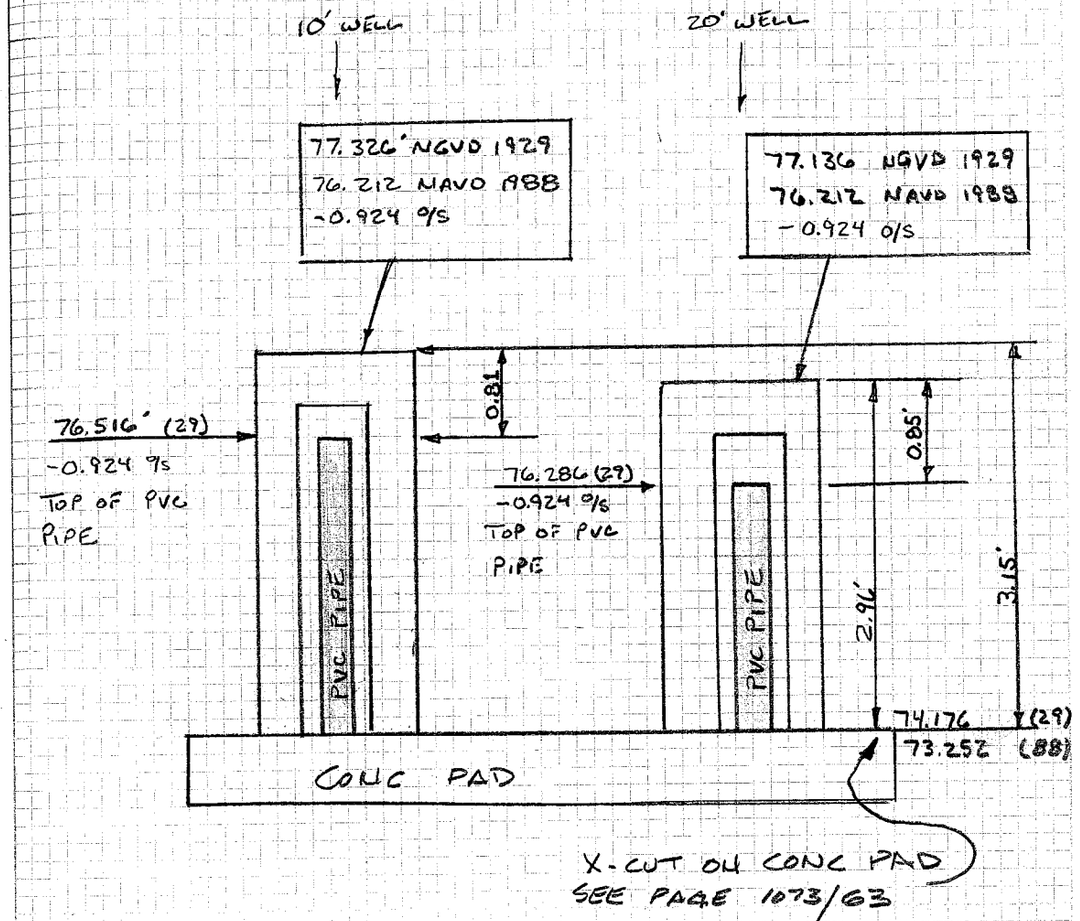
ELEV= 76.516 @ TOP OF PVC PIPE 1929 NGVD
-0.924 o/s

20' WELL IN THE FIELD FROM BM TO TOP OF PVC PIPE MEASURED 2.110' 74.176
+ 2.110

ELEV= 76.286 @ TOP OF PVC PIPE 1929 NGVD
-0.924 o/s

LOCK 6745

ALLIGATOR 1



SEE PAGE 1073/63

CONT FROM LAST PG

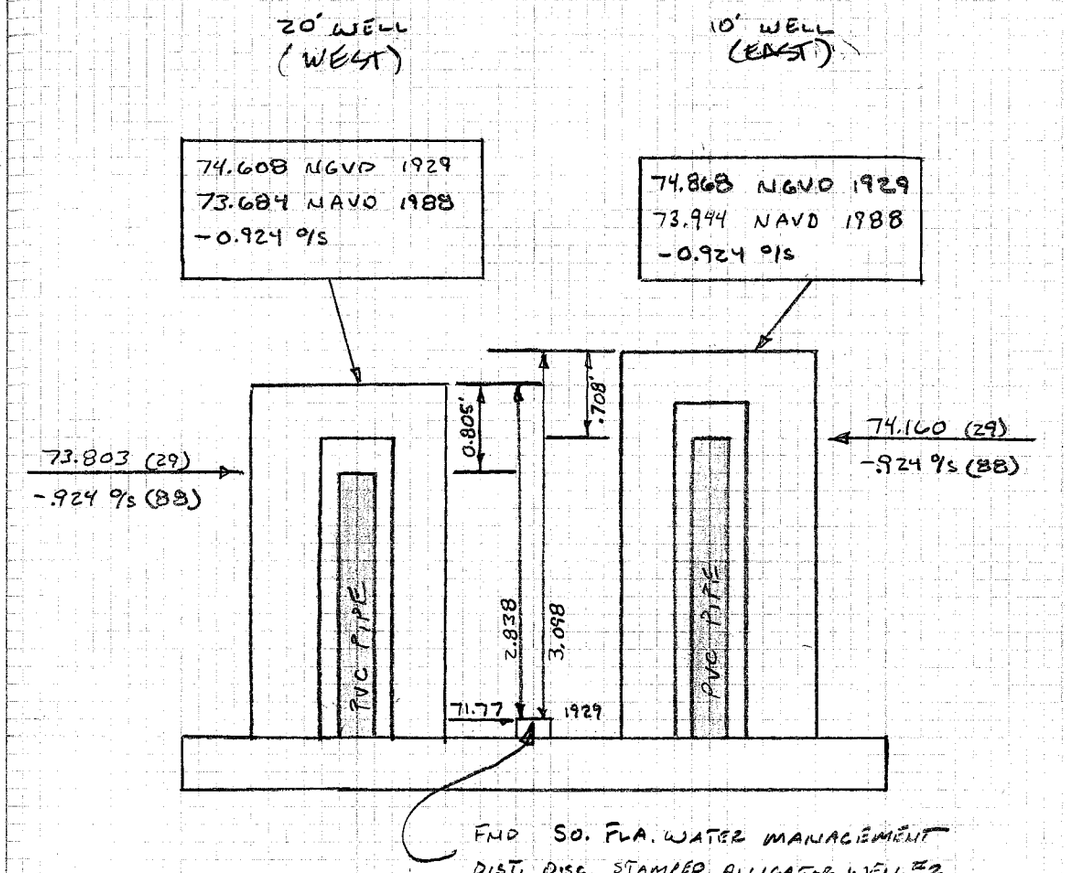
10' WELL IN THE FIELD FROM BM TO TOP OF PVC PIPE MEASURED 2.380 71.77 + 2.39

ELEV = 74.16 @ TOP OF PVC PIPE 1929 NGVD -0.924 %s

20' WELL IN THE FIELD FROM BM TO TOP OF PVC PIPE MEASURED 2.033 71.77 + 2.033

ELEV = 73.803 @ TOP OF PVC PIPE 1929 NGVD -0.924 %s

LOCK 6745



South Florida Water Management District
Benchmark Database

Report run on: October 17, 2005 3:28 PM

Designation: ALLIGATOR#2
County: OSCEOLA
USGS Quad: ASHTON
Project: ALL2 WELL SITE
Sec: 29 Twp: 26 Rge: 31
Status: GOOD JUL 2005

NAD 1927 Coordinates:
N =
E =
Adjustment:

NAD 1983 Coordinates:
X =
Y =
Adjustment:
Order:
Class:

Latitude: 281155.100 Scaled values only
Longitude: 811423.700
Monument By: SFWMD
Year: 1998
Type: V
Stamping: ALLIGATOR WELL#2 1998
Party Chief: HOLLIN
Field Book OSC CTY WELLS #15
Page: 34

NGVD 1929
Elevation: 71.770
Order: 3
Class:

NAVD 1988
Elevation: 70.846
Order: 3
Class:

Description:

CORPSCON EL. 70.75 NGVD 1988 (USING 71.77 NGVD 1929)
CORPSCON EL. 71.87 NGVD 1929 (USING 70.846 NAVD 1988)
********** RECOVERY NOTE **********
7/26/2005 STODDARD KEITH & SCHNARS FIELD BOOK 1073, PAGE 62,
SFWMD ALUMINUM DISK STAMPED "ALLIGATOR 2 BM 1998"
EL. 70.846 NAVD 88
****

FROM THE INTERSECTION OF HICKORY TREE ROAD (COUNTY ROAD 534), AND MABEL SIMMIONS ROAD, GO EAST ON MABEL SIMMIONS ROAD FOR 0.1 MILE TO WEST SHORE DRIVE AND STATION LOCATION. STATION IS LOCATED 13 FT NORTH OF THE CENTERLINE OF MABEL SIMMIONS DRIVE, AND 94 FT WEST OF THE CENTERLINE OF WEST SHORE DRIVE. BM IS A SFWMD ALUMINUM DISC STAMPED ALLIGATOR WELL #2 1998 BM, AND IS SET IN A 8FT X 3.5 FT CONCRETE SLAB, BETWEEN THE 24" AND 30" CMP HOUSING AROUND THE TWO WELLS ON SAID CONCRETE SLAB.


FLA. WATER MANAGEMENT
SURVEY
ALLIGATOR CR
WELL E-2
BM 1998
MARKER DISTRICT
USC&GS

SEC 29 TWP 26S RNG 31E
RUN LEVELS TO ALLIGATOR WELL SITES 1&2

STA	+	HI	−	ELEV	BM ELEV
BM					74.882
	1.58	79.46			
	2.68				
SO. WELL			2.95	76.51	
			4.31		
		RETURN	LEVELS		
	2.76	79.27			
	4.50				
BM			4.39	74.88	
			2.87		
SO. WELL				76.51	76.51
	2.05	78.56			
	5.21				
N. WELL			2.29	76.27	
			4.98		
		RETURN	LEVELS		
	2.05	78.32			
	5.22				
			1.81	76.51	76.51
			5.45		

74.0092983333' NAVD88

STRICKLAND
BUCKS

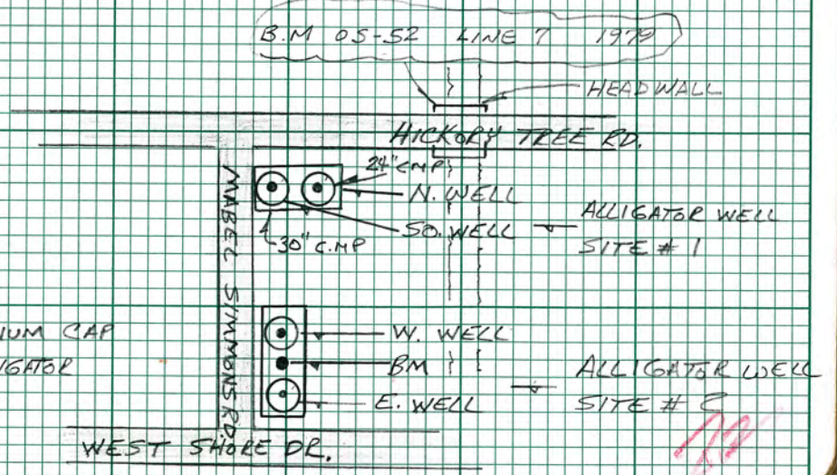
COMMENTS
BM 05-52 LINE 7 1979

SO. WELL "X" MARK ON ENE OF 2" PVC PIPE @ ALLIGATOR WELL SITE #1

SAME AS ABOVE

N. WELL "X" MARK ON NNE OF 2" PVC PIPE @ ALLIGATOR WELL SITE #1

SO. WELL SAME AS ABOVE



BM IS A ALUMINUM CAP STAMPED ALLIGATOR WELL # 2 BM 1998

SEC 29 TWP 26S RNG 31E
LEVELS TO ALLIGATOR WELL SITE #2

STA	+	HI	−	ELEV	BM ELEV
BM					74.88
	3.67				
	3.59	78.55			
TP			5.71		
			1.55	72.84	
	4.55	77.39			
	2.71				
TP			5.42		
			1.84	71.97	
	3.94				
	3.32	75.91			
TP			4.78		
			2.48	71.13	
	5.19				
	2.07	76.32			
BM			4.55	71.77	71.77
			2.71		
		RETURN	LEVELS		
	4.33				
	2.93	76.13			
TP			4.96	71.14	
			2.30		
	4.76				
	2.50	75.90			
TP			3.95		
			3.32	71.95	
	5.43				
	1.83	77.38			
TP			4.53		
			2.73	72.85	
	5.69				
	1.57	78.54			
BM			3.65		
			3.61	74.89	74.88

COMMENTS

BM OS-52 LINE 7 1979

BM IS A ALUMINUM CAP STAMPED ALLIGATOR WELL #2 BM 1998 SEE DRAWING ON PG-33 B.M. IS 94' W OF THE INTERSECTION OF MABLE SIMMONS & WEST SHORE DR. AND 13.0' NORTH OF MABLE SIMMONS RD. DISK IS SET BETWEEN THE 2 WELLS W/ 24" CMP HOUSING ON A 8'X5.5" THE E. CMP IS 24" AND THE W. CMP IS 30"

BM OS-52 LINE 7 1979

SEC 29 TWP 26S RNG 31E
LEVELS CONT'D

STA	+	HI	−	ELEV	BM ELEV
BM					71.77
	4.71	76.48			
	2.55				
E. WELL			2.32	74.16	
			4.94		
W. WELL			2.69	73.79	
			4.57		
		RETURN	LEVELS		
	2.70	76.49			
	4.56				
BM			4.72	71.77	
			2.54		

COMMENTS

BM ALLIGATOR WELL #2 BM 1998

E. WELL "X" MARK ON SLY SIDE OF 2" PVC PIPE @ ALLIGATOR WELL SITE #2

W. WELL "X" MARK ON SLY SIDE OF 2" PVC PIPE @ ALLIGATOR WELL SITE #2

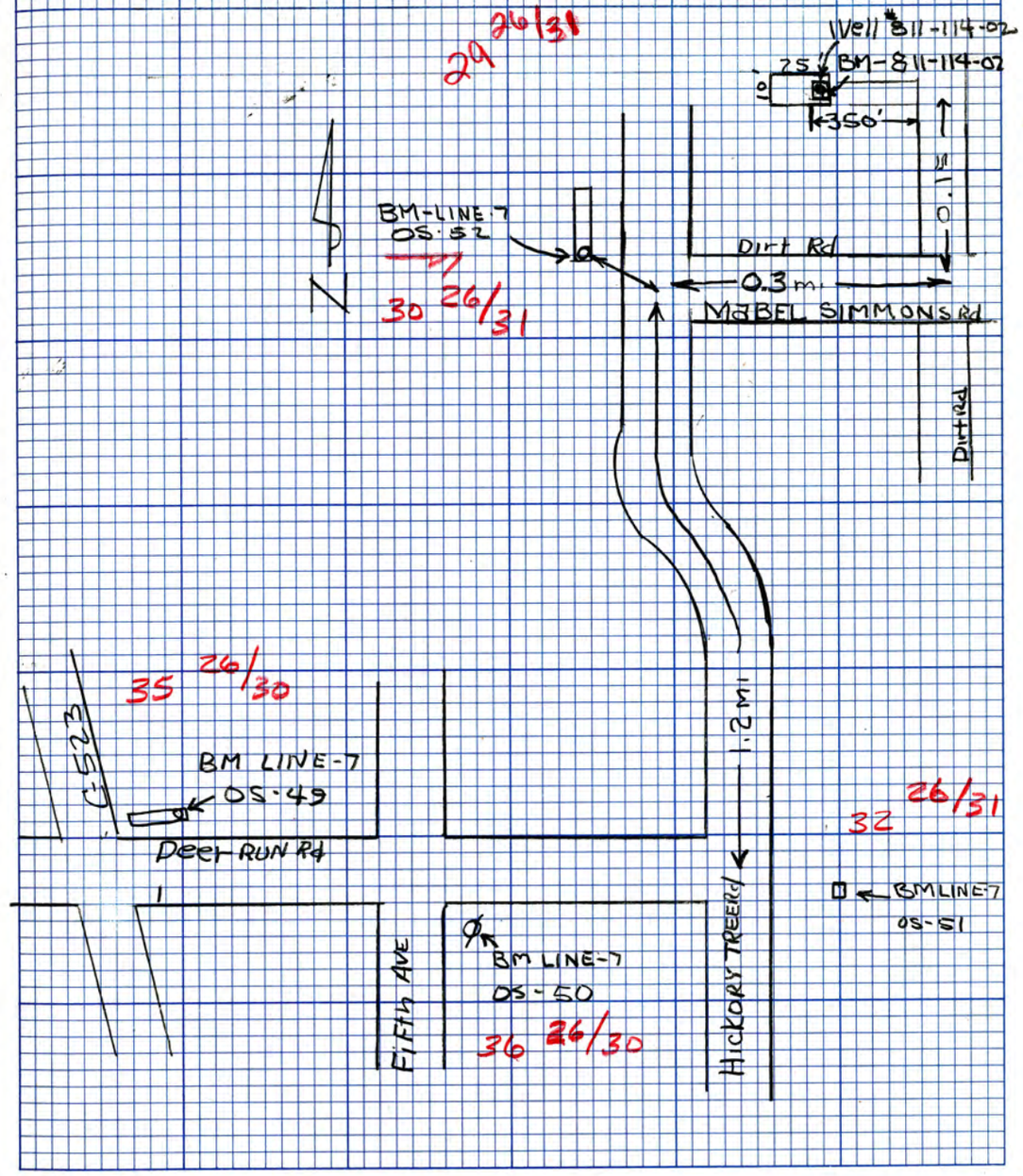
BM SAME AS ABOVE

	+		−	ELEV
BM	5.79		5.11	
	1.48		2.18	
	7.27		7.29	

TOTAL+ 70.09 TOTAL− 69.39

Diff:+ 0.70

BM-LINE-7 05 52 is a alum. casting set on the S. end of a endwall that runs UNDER HICKORY TREE Rd it is 23.4' N.W of ℄ of Hickotree Rd & Mabel Simmons Rd 1.2 mi N. of the inter of Deer RUN Rd & HICKORY Tree Rd



PROJECT OSC. CO. WELLS V FIELD BOOK OSC. CO. WELLS #3 ORDER _____ ADJ. BY P.L.H.

LINE FROM U.S.C.E.S. P-59 (RESET 1971) TO (LOOP-7) (CLOSE LINE) PARTY CHIEF P. RANKIN COUNTY OSCEOLA DATE 4-16-79

SECTION	DISTANCE	F or B	SUM ROD READINGS BACK +	SUM ROD READINGS FWD. -	DIFF. ELEV.	MEAN DIFF.	ELEVATIONS UNADJ.	ELEVATIONS CORR.	ELEVATIONS ADJ.	REMARKS
U.S.C.E.S. P-59 (RESET 1971)									76.102	
	5808	F	63.30	67.57						
OS-41 (LINE-7)					-4.27		71.832	+.011	71.843	OSC. CO. WELLS #3 PG. 62
	5808	F	61.72	60.25						
OS-42					+1.47		73.302	+.023	73.325	" " " 64
	6336	F	36.55	35.31						
OS-43					-20.68		93.982	+.036	94.018	" " " 67
	6388	F	75.57	100.11						
OS-47					-24.54		69.442	+.048	69.490	" " " #4, PG. 15
	1320	F	71.10	72.06						
OS-48					-.96		68.482	+.051	68.533	" " " #4 " 18
	5820	F	78.52	71.14						
OS-49					+7.38		75.862	+.063	75.925	" " " " " 21
		F	52.77	56.17	-3.40					
		B	55.70	52.32	+3.38					" " " " " 23
BM-807-116-01						-3.39			72.535	
							75.862	+.063	75.925	
	5810	F	69.11	71.04						
OS-50					-1.93		73.932	+.075	74.007	" " " " " 29
	6340	F	74.97	74.82						
OS-51					+.15		74.082	+.087	74.169	" " " " 32
	6325	F	70.09	69.39						
OS-52					+.70		74.782	+.100	74.882	" " " " 35

74.0092983333' NAVD88)

ADJUSTMENT OF LEVELS

PROJECT _____ FIELD BOOK _____ ORDER _____ ADJ. BY _____

LINE FROM _____ TO _____ PARTY CHIEF _____ COUNTY _____ DATE _____

SECTION	DISTANCE	F or B	SUM ROD READINGS BACK +	SUM ROD READINGS FWD. -	DIFF. ELEV.	MEAN DIFF.	ELEVATIONS UNADJ.	ELEVATIONS CORR.	ELEVATIONS ADJ.	REMARKS
OS-52							74.782	+.100	74.882	
	5810	F	73.54	68.34						
OS-53					+5.20		79.982	+.112	80.094	OSC. CO WELLS # 4 PG. 41
	5260	F	62.96	66.07						
OS-54					-3.11		76.872	+.122	76.994	" " " " " 43
	4224	F	50.74	48.56						
OS-55					+2.18		79.052	+.131	79.183	" " " " " 45
	5300	F	67.72	74.32						
OS-15 (LINE-2)					-6.60		72.452	+.142	72.596	" " " " " 48
	70,549								454 / .142	

Survey Data Entry and Retrieval Application (SDERA) Print Output

Control Point Search Results

Derived Data - Denoted By: **

Designation	**OS52**	**Record State**	**ACCEPTED**
NGS PID			
Project Name	**OSCEOLA COUNTY LEVELS**	**Date Entered/Updated**	**07/01/2015**
Updated By	**jstrickl**	**Status**	**GOOD**
Party Chief	**STRICKLAND, NED**	**Type**	**V**
Monument Set By	**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**	**Date Established**	**01/01/1979**
County		**Section**	**29**
Township	**26**	**Range**	**30**
Quadrangle	**ASHTON**	**Offset (29 to 88)**	
NGS Source BM		**CCR Link**	
Ctrl Pt Source(s)			

Horizontal	**NAD 1927**	**NAD 1983**	**Vertical**	**NGVD 1929**	**NAVD 1988**
Latitude		**28 11 58.4**	**Class**		
Longitude		**81 14 37.5**	**Order**		**3**
Northing(Y)			**Elevation**	**74.882**	**73.952**
Easting(X)			**Measurement Unit**	**Feet**	**Feet**
Class					
Order					
NAD83 Adj Year					

Field Book

OS.#4

Field Book Pages

35

Stamping

OS52

How to Reach

Description

LEVEL RUN BY STRICKLAND 6/30/2015 MISC FB 6 X PAGE 21 FOUND BM IN GOOD TO FAIR CONDITION.
********** RECOVERY NOTE **********
NO DATE, NED STRICKLAND, SFWMD, FIELD BOOK OSCEOLA CO. WELLS 15,
PAGES 33 AND 34, BM OS-52 LINE7 (1979) EL. 74.88 NGVD 1929
****
*****
BM OS-52 (LINE 7) IS AN ALUMINUM CASTING SET ON THE SOUTH END OF AN ENDWALL THAT RUNS UNDER HICKORY TREE ROAD. IT IS 23.4 FEET NORTHWEST OF THE CENTER LINE OF HICKORY ROAD AND MABEL SIMMONS ROAD, 1.2 MILES NORTH OF THE INTERSECTION OF DEER RUN ROAD AND HICKORY TREE ROAD.

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  8, 2015
 AK2011 ***********************************************************************
 AK2011  DESIGNATION -  P 59 RESET
 AK2011  PID         -  AK2011
 AK2011  STATE/COUNTY-  FL/OSCEOLA
 AK2011  COUNTRY     -  US
 AK2011  USGS QUAD   -  ST CLOUD SOUTH (1980)
 AK2011
 AK2011                        *CURRENT SURVEY CONTROL
 AK2011  ______________________________________________________________________
 AK2011* NAD 83(2011) POSITION- 28 14 45.99482(N) 081 17 35.16489(W)   ADJUSTED
 AK2011* NAD 83(2011) ELLIP HT-    -5.017 (meters)        (06/27/12)   ADJUSTED
 AK2011* NAD 83(2011) EPOCH    -  2010.00
 AK2011* NAVD 88 ORTHO HEIGHT -    22.930 (meters)       75.23  (feet) ADJUSTED
 AK2011  ______________________________________________________________________
 AK2011  NAD 83(2011) X  -    851,187.532 (meters)                     COMP
 AK2011  NAD 83(2011) Y  - -5,558,059.622 (meters)                     COMP
 AK2011  NAD 83(2011) Z  -  3,000,557.042 (meters)                     COMP
 AK2011  LAPLACE CORR    -         -1.26  (seconds)                    DEFLEC12B
 AK2011  GEOID HEIGHT    -        -27.94  (meters)                     GEOID12B
 AK2011  DYNAMIC HEIGHT  -         22.896 (meters)       75.12  (feet) COMP
 AK2011  MODELED GRAVITY -    979,158.8   (mgal)                       NAVD 88
 AK2011
 AK2011  VERT ORDER      -  SECOND    CLASS I
 AK2011
 AK2011  Network accuracy estimates per FGDC Geospatial Positioning Accuracy
 AK2011  Standards:
 AK2011         FGDC (95% conf, cm)     Standard deviation (cm)     CorrNE
 AK2011            Horiz  Ellip          SD_N   SD_E   SD_h      (unitless)
 AK2011  ------------------------------------------------------------------
 AK2011  NETWORK    0.97   1.65          0.42   0.37   0.84      0.09255559
 AK2011  ------------------------------------------------------------------
 AK2011  Click here for local accuracies and other accuracy information.
 AK2011
 AK2011
 AK2011.The horizontal coordinates were established by GPS observations
 AK2011.and adjusted by the National Geodetic Survey in June 2012.
 AK2011
 AK2011.NAD 83(2011) refers to NAD 83 coordinates where the reference
 AK2011.frame has been affixed to the stable North American tectonic plate. See
 AK2011.NA2011 for more information.
 AK2011
 AK2011.The horizontal coordinates are valid at the epoch date displayed above
 AK2011.which is a decimal equivalence of Year/Month/Day.
 AK2011
 AK2011.The orthometric height was determined by differential leveling and
 AK2011.adjusted by the NATIONAL GEODETIC SURVEY
 AK2011.in April 2004.
 AK2011
 AK2011.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AK2011
 AK2011.The Laplace correction was computed from DEFLEC12B derived deflections.
 AK2011
 AK2011.The ellipsoidal height was determined by GPS observations
 AK2011.and is referenced to NAD 83.
 AK2011
```

22.930m - 23.196m = -0.266m (0.8727016666')

```
AK2011.The dynamic height is computed by dividing the NAVD 88
AK2011.geopotential number by the normal gravity value computed on the
AK2011.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AK2011.degrees latitude (g = 980.6199 gals.).
AK2011
AK2011.The modeled gravity was interpolated from observed gravity values.
AK2011
AK2011. The following values were computed from the NAD 83(2011) position.
AK2011
AK2011;                    North         East     Units Scale Factor Converg.
AK2011;SPC FL E     -   433,516.427   171,237.392   MT  0.99995138   -0 08 19.4
AK2011;SPC FL E     - 1,422,295.14    561,801.34   sFT  0.99995138   -0 08 19.4
AK2011;UTM  17      - 3,124,500.494   471,247.206   MT  0.99961020   -0 08 19.4
AK2011
AK2011!             -  Elev Factor  x  Scale Factor =   Combined Factor
AK2011!SPC FL E     -   1.00000079  x   0.99995138  =   0.99995217
AK2011!UTM  17      -   1.00000079  x   0.99961020  =   0.99961099
AK2011
AK2011                          SUPERSEDED SURVEY CONTROL
AK2011
AK2011  NAD 83(2007)-  28 14 45.99487(N)    081 17 35.16566(W) AD(2002.00) 1
AK2011  ELLIP H (04/30/08)   -5.008  (m)                       GP(2002.00) 4 1
AK2011  NAVD 88 (04/30/08)   22.93   (m)           75.2    (f) LEVELING    3
AK2011  NAVD 88 (06/15/91)   22.898  (m)           75.12   (f) SUPERSEDED  2 1
AK2011  NGVD 29 (09/01/92)   23.196  (m)           76.10   (f) ADJUSTED    2 1
AK2011
AK2011.Superseded values are not recommended for survey control.
AK2011
AK2011.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AK2011.See file dsdata.txt to determine how the superseded data were derived.
AK2011
AK2011_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM7124724500(NAD 83)
AK2011
AK2011_MARKER: DB = BENCH MARK DISK
AK2011_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AK2011_SP_SET: SET IN TOP OF CONCRETE MONUMENT
AK2011_STAMPING: P 59 RESET 1971
AK2011_MARK LOGO: CGS
AK2011_PROJECTION: PROJECTING 3 CENTIMETERS
AK2011_MAGNETIC: N = NO MAGNETIC MATERIAL
AK2011_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AK2011+STABILITY: SURFACE MOTION
AK2011_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AK2011+SATELLITE: SATELLITE OBSERVATIONS - August 15, 2007
AK2011
AK2011  HISTORY     - Date     Condition        Report By
AK2011  HISTORY     - 1971     MONUMENTED       NGS
AK2011  HISTORY     - 19990219 GOOD             USPSQD
AK2011  HISTORY     - 20010204 GOOD             FLDEP
AK2011  HISTORY     - 20050218 GOOD             GEOCAC
AK2011  HISTORY     - 20070815 GOOD             WILMIL
AK2011
AK2011                          STATION DESCRIPTION
AK2011
AK2011'DESCRIBED BY NATIONAL GEODETIC SURVEY 1971
AK2011'AT ST CLOUD.
AK2011'AT ST. CLOUD, IN THE FRONT LAWN OF THE ROSS JEFFRES ELEMENTARY
AK2011'SCHOOL, BETWEEN DAKOTA AVENUE AND VERMONT AVENUE, 6 FEET WEST
AK2011'OF A CONCRETE POWER POLE WITH THREE TRANSFORMERS, 40 FEET EAST
AK2011'OF EAST CURB OF DRIVEWAY, 10 FEET SOUTH OF THE SOUTH CURB OF
AK2011'SCHOOL PARKING LOT, 8 FEET NORTH OF NORTH CURB OF U.S. HIGHWAY
AK2011'441 (WEST BOUND LANE), 1 1/2 FEET NORTH OF NORTH EDGE OF SIDEWALK,
AK2011'1 FOOT NORTH OF CHAINLINK FENCE AND 1 FOOT NORTH OF A WITNESS
AK2011'POST.  SET IN THE TOP OF A ROUND CONCRETE POST ABOUT FLUSH WITH
AK2011'THE GROUND.
AK2011
```

```
AK2011                          STATION RECOVERY (1999)
AK2011
AK2011'RECOVERY NOTE BY US POWER SQUADRON 1999
AK2011'RECOVERED IN GOOD CONDITION.
AK2011
AK2011                          STATION RECOVERY (2001)
AK2011
AK2011'RECOVERY NOTE BY FL DEPT OF ENV PRO 2001 (JLM)
AK2011'THE MARK IS IN ST CLOUD, IN SECTION 3, TOWNSHIP 26 SOUTH, RANGE 30
AK2011'EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S.  HIGHWAYS 192, 441
AK2011'(13TH STREET) AND COUNTY ROAD 523 (VERMONT AVENUE CANOE CREEK ROAD) IN
AK2011'ST. CLOUD, GO WEST ON (NORTH) U.S.  HIGHWAY 192, 441 (13TH STREET) FOR
AK2011'0.05 MI (0.08 KM) TO THE MARK ON THE RIGHT, SET IN THE TOP OF A ROUND
AK2011'CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH COUNTY ROAD
AK2011'523. LOCATED 89.5 FT (27.3 M) SOUTH OF THE ADMINISTRATION DOOR ON THE
AK2011'SOUTHSIDE OF THE ROSS E.  JEFFRIES SCHOOL, 55.5 FT (16.9 M) EAST OF
AK2011'THE APPROXIMATE CENTERLINE OF THE EXIT DRIVEWAY OF ROSS E.  JEFFRIES
AK2011'SCHOOL, 26.2 FT (8.0 M) NORTH OF THE CENTERLINE OF U.S.  HIGHWAY 192
AK2011'AND 19.6 FT (6.0 M) WEST OF POWERPOLE NUMBER 45420.
AK2011
AK2011                          STATION RECOVERY (2005)
AK2011
AK2011'RECOVERY NOTE BY GEOCACHING 2005 (MAG)
AK2011'RECOVERED IN GOOD CONDITION.
AK2011
AK2011                          STATION RECOVERY (2007)
AK2011
AK2011'RECOVERY NOTE BY WILSONMILLER 2007 (JHL)
AK2011'RECOVERED IN GOOD CONDITION

*** retrieval complete.
Elapsed Time = 00:00:03
```

The NGS Data Sheet

See file dsdata.txt for more information about the datasheet.

```
DATABASE = Sybase ,PROGRAM = datasheet, VERSION = 7.16
1        National Geodetic Survey,   Retrieval Date = APRIL 21, 2005
 DG6241 ***********************************************************************
 DG6241  DESIGNATION -  C 576
 DG6241  PID         -  DG6241
 DG6241  STATE/COUNTY-  FL/OSCEOLA
 DG6241  USGS QUAD   -  ASHTON (1981)
 DG6241
 DG6241                          *CURRENT SURVEY CONTROL
 DG6241  ______________________________________________________________________
 DG6241* NAD 83(1986)-  28 11 40.     (N)    081 14 38.     (W)     SCALED
 DG6241* NAVD 88     -        21.538  (meters)      70.66   (feet)  ADJUSTED
 DG6241  ______________________________________________________________________
 DG6241  GEOID HEIGHT-         -27.92  (meters)                      GEOID03
 DG6241  DYNAMIC HT  -          21.506 (meters)      70.56  (feet)  COMP
 DG6241  MODELED GRAV-     979,155.5   (mgal)                        NAVD 88
 DG6241
 DG6241  VERT ORDER  -  SECOND    CLASS I
 DG6241
 DG6241.The horizontal coordinates were scaled from a topographic map and have
 DG6241.an estimated accuracy of +/- 6 seconds.
 DG6241
 DG6241.The orthometric height was determined by differential leveling
 DG6241.and adjusted by the National Geodetic Survey in September 2004.
 DG6241
 DG6241.The geoid height was determined by GEOID03.
 DG6241
 DG6241.The dynamic height is computed by dividing the NAVD 88
 DG6241.geopotential number by the normal gravity value computed on the
 DG6241.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DG6241.degrees latitude (g = 980.6199 gals.).
 DG6241
 DG6241.The modeled gravity was interpolated from observed gravity values.
 DG6241
 DG6241;                     North         East     Units  Estimated Accuracy
 DG6241;SPC FL E     -   427,780.      176,060.      MT  (+/- 180 meters Scaled)
 DG6241
 DG6241                           SUPERSEDED SURVEY CONTROL
 DG6241
 DG6241.No superseded survey control is available for this station.
 DG6241
 DG6241_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM760187(NAD 83)
 DG6241_MARKER: DD = SURVEY DISK
 DG6241_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 DG6241_STAMPING: C 576 2002
 DG6241_MARK LOGO: FLDEP
 DG6241_PROJECTION: FLUSH
 DG6241_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
 DG6241_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 DG6241+STABILITY: SURFACE MOTION
 DG6241_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 DG6241+SATELLITE: SATELLITE OBSERVATIONS - November 24, 2002
 DG6241
 DG6241  HISTORY     - Date     Condition        Report By
 DG6241  HISTORY     - 20021024 MONUMENTED       FLDEP
 DG6241  HISTORY     - 20021124 GOOD             FLDEP
 DG6241
 DG6241                           STATION DESCRIPTION
 DG6241
 DG6241'DESCRIBED BY FL DEPT OF ENV PRO 2002 (JLM)
 DG6241'THE MARK IS ABOUT 4.0 MI SOUTHEAST OF ST. CLOUD, 3.6 MI SOUTH OF
 DG6241'ASHTON, IN SECTION 30,  TOWNSHIP 26 SOUTH, RANGE 31 EAST.
 DG6241'
 DG6241'TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 192, 441 (13TH
 DG6241'STREET) AND COUNTY  ROAD 523 (VERMONT AVENUE, CANOE CREEK ROAD) IN ST.
 DG6241'CLOUD, GO EAST ON U.S. HIGHWAY 192, 441  (13TH STREET, EAST BRONSON
 DG6241'HIGHWAY) FOR 3.0 MI TO THE INTERSECTION OF STATE ROAD 15,  TURN RIGHT
 DG6241'ON STATE ROAD 15 AND GO SOUTH FOR 2.35 MI TO THE JUNCTION OF OLD
 DG6241'HICKORY  TREE ROAD ON THE RIGHT, CONTINUE SOUTH ON STATE ROAD 15 (OLD
```

DG6241'HICKORY TREE ROAD FOR 1.25 MI TO THE JUNCTION OF PINE TREE DRIVE ON
DG6241'THE RIGHT AND THE MARK ON THE RIGHT, SET IN THE TOP OF A ROUND
DG6241'CONCRETE MONUMENT FLUSH WITH THE GROUND AND LEVEL WITH PINE TREE
DG6241'DRIVE.
DG6241'
DG6241'LOCATED 78.8 FT WEST OF THE CENTERLINE OF OLD HICKORY TREE ROAD, 23.0
DG6241'FT SOUTH OF THE CENTERLINE OF PINE TREE DRIVE, 9.8 FT WEST OF POWER
DG6241'POLE NUMBER 20340 (EC815A202) AND 5.3 FT NORTH OF A HOGWIRE FENCE AND
DG6241'A CARSONITE WITNESS POST.   NOTE A BAR MAGNET WAS IMBEDDED IN THE
DG6241'GROUND ON THE SOUTH SIDE OF THE MONUMENT.

*** 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 = 7.16
1        National Geodetic Survey,   Retrieval Date = APRIL 21, 2005
 DG6254 ***********************************************************************
 DG6254  DESIGNATION -  D 576
 DG6254  PID         -  DG6254
 DG6254  STATE/COUNTY-  FL/OSCEOLA
 DG6254  USGS QUAD   -  ASHTON (1981)
 DG6254
 DG6254                          *CURRENT SURVEY CONTROL
 DG6254
 DG6254* NAD 83(1986)-  28 12 33.     (N)    081 14 37.     (W)     SCALED
 DG6254* NAVD 88     -         22.946  (meters)      75.28   (feet)  ADJUSTED
 DG6254
 DG6254  GEOID HEIGHT-          -27.94  (meters)                      GEOID03
 DG6254  DYNAMIC HT  -           22.912 (meters)      75.17  (feet)  COMP
 DG6254  MODELED GRAV-      979,156.3   (mgal)                        NAVD 88
 DG6254
 DG6254  VERT ORDER  -  SECOND    CLASS I
 DG6254
 DG6254.The horizontal coordinates were scaled from a topographic map and have
 DG6254.an estimated accuracy of +/- 6 seconds.
 DG6254
 DG6254.The orthometric height was determined by differential leveling
 DG6254.and adjusted by the National Geodetic Survey in September 2004.
 DG6254
 DG6254.The geoid height was determined by GEOID03.
 DG6254
 DG6254.The dynamic height is computed by dividing the NAVD 88
 DG6254.geopotential number by the normal gravity value computed on the
 DG6254.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 DG6254.degrees latitude (g = 980.6199 gals.).
 DG6254
 DG6254.The modeled gravity was interpolated from observed gravity values.
 DG6254
 DG6254;                     North         East     Units  Estimated Accuracy
 DG6254;SPC FL E     -   429,410.      176,090.      MT  (+/- 180 meters Scaled)
 DG6254
 DG6254                          SUPERSEDED SURVEY CONTROL
 DG6254
 DG6254.No superseded survey control is available for this station.
 DG6254
 DG6254_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMM760203(NAD 83)
 DG6254_MARKER: DD = SURVEY DISK
 DG6254_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 DG6254_STAMPING: D 576 2002
 DG6254_MARK LOGO: FLDEP
 DG6254_PROJECTION: FLUSH
 DG6254_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
 DG6254_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 DG6254+STABILITY: SURFACE MOTION
 DG6254_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 DG6254+SATELLITE: SATELLITE OBSERVATIONS - November 24, 2002
 DG6254
 DG6254  HISTORY     - Date     Condition        Report By
 DG6254  HISTORY     - 20021024 MONUMENTED       FLDEP
 DG6254  HISTORY     - 20021124 GOOD             FLDEP
 DG6254
 DG6254                          STATION DESCRIPTION
 DG6254
 DG6254'DESCRIBED BY FL DEPT OF ENV PRO 2002 (JLM)
 DG6254'THE MARK IS ABOUT 3.5 MI SOUTHEAST OF ST. CLOUD, 2.6 MI SOUTH OF
 DG6254'ASHTON, IN SECTION 20,  TOWNSHIP 26 SOUTH, RANGE 31 EAST.
 DG6254'
 DG6254'TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 192, 441 (13TH
 DG6254'STREET) AND COUNTY  ROAD 523 (VERMONT AVENUE, CANOE CREEK ROAD) IN ST.
 DG6254'CLOUD, GO EAST ON U.S. HIGHWAY 192, 441  (13TH STREET, EAST BRONSON
 DG6254'HIGHWAY) FOR 3.0 MI TO THE INTERSECTION OF STATE ROAD 15,  TURN RIGHT
 DG6254'ON STATE ROAD 15 AND GO SOUTH FOR 2.35 MI TO THE JUNCTION OF OLD
 DG6254'HICKORY  TREE ROAD ON THE RIGHT, CONTINUE SOUTH ON STATE ROAD 15 (OLD
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DG6254'HICKORY TREE ROAD FOR 0.25 MI TO THE JUNCTION OF ALLIGATOR LAKE ROAD
DG6254'ON THE LEFT AND THE MARK ON THE LEFT, SET IN THE TOP OF A ROUND
DG6254'CONCRETE MONUMENT FLUSH WITH THE GROUND AND 2.0 FT BELOW THE LEVEL OF
DG6254'OLD HICKORY TREE ROAD.
DG6254'
DG6254'LOCATED 81.5 FT SOUTH OF THE CENTERLINE OF ALLIGATOR LAKE ROAD, 51.5
DG6254'FT SOUTH OF POWER POLE NUMBER 20085, 28.1 FT EAST OF THE CENTERLINE
DG6254'OF OLD HICKORY TREE ROAD, 2.5 FT WEST OF A BARBWIRE FENCE AND 1.5 FT
DG6254'WEST OF A CARSONITE WITNESS POST.   NOTE A BAR MAGNET WAS IMBEDDED IN
DG6254'THE GROUND ON THE SOUTH SIDE OF THE MONUMENT.

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

-*- FIELD ABSTRACT -*-

920307-920406 HGZ L26456 3 6.0 MM ORDER 2 CLASS 1 PAGE 1

LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.
STARTING IN ST. CLOUD, FL. GO S ON C/R 534 FOR 6 MI TO JCT. OF STORY RD (SPUR E ON C/R 534 FOR 6 MI TO U.S.441), GO S ON STORY RD FOR 1 MI, THEN W ON MILDRED BASS RD FOR 2 MI TO C/R 523 THEN S FOR 4 MI.
STARTING ELEVATION BASED ON PRELIMINARY NAVD 88 HEIGHTS FROM L26221.
NOTE COLLIMATION STORED IN ELECTRONIC INSTRUMENT.
NOTE LATITUDE AND LONGITUDE WAS SCALED FROM TOPOGRAPHIC MAP.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
1004 K 507							21.28813	
1004 K 507	3070911	B	1.67	0.27692	*	0.00	-0.27692	1
1003 J 507			1.67			0.00	21.01121	
1003 J 507	3070811	B	1.60	-0.96329	*	0.00	0.96329	1
1002 H 507			3.27			0.00	21.97450	
1002 H 507	3211122	F	1.56	-0.17461	*	0.00	-0.17461	2
1001 G 507			4.83			0.00	21.79989	
1001 G 507	3071105	F	1.35	2.00010	*	0.33	2.00079	1
3000 G 576	3081114	B	1.35	-2.00101	*			1
	3220857	F	1.35	2.00126	*			2
			6.18			0.33	23.80068	
3000 G 576	3071244	F	1.59	-0.12176	*	1.20	-0.12116	1
3001 F 576	3081021	B	1.58	0.12056	*			1
			7.76			1.53	23.67952	
3001 F 576	3071357	F	1.48	-0.92229	*	0.00	-0.92229	1
3002 E 576	3080932	B	1.48	0.92229	*			1
			9.24			1.53	22.75723	
3002 E 576	3080834	B	1.32	-0.16780	*	2.37	0.16662	1
3003 D 576	3081318	F	1.31	0.16543	*			1
			10.54			3.90	22.92385	
3003 D 576	3081411	F	1.61	-1.40768	*	0.01	-1.40767	1
3004 C 576	3221409	B	1.61	1.40767	*			2
			12.15			3.92	21.51618	
3004 C 576	3221320	B	1.60	-0.12049	*	-3.79	0.12239	2
3005 B 576	4020844	F	1.60	0.12428	*			2
			13.75			0.13	21.63857	
3005 B 576	3221109	B	1.21	-0.38912	*	0.07	0.38908	2
3006 BM OS 111	4020935	F	1.21	0.38904	*			2
			14.96			0.20	22.02765♀	

-*- FIELD ABSTRACT -*-

920307-920406 HGZ L26456 3 6.0 MM ORDER 2 CLASS 1 PAGE 2

LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
3006 BM OS 111	4011329	F	0.24	0.10403	*	0.41	0.10423	2
3041 KR 603	4011627	B	0.24	-0.10443	*			2

	SL 1	15.20		0.61	22.13188		
3041 KR 603	4011406	F	0.31	-0.77400 *	-1.49	-0.77475	2
3042 KR 1066	4011550	B	0.32	0.77549 *			2
	SL 1	15.51		-0.88	21.35713		
3042 KR 1066	4011425	F	1.14	-1.60443 *	1.72	-1.60357	2
3043 Q 575	4011502	B	1.14	1.60271 *			2
	SL 1	16.65		0.84	19.75356		
3006 BM OS 111	4010905	F	1.72	-2.65263 *	-2.46	-2.65386	2
3039 N 575	4011124	B	1.71	2.65509 *			2
	SL 1	16.67		-2.25	19.37379		
3039 N 575	4011005	F	0.71	-0.54255 *	1.00	-0.54204	2
3040 P 575	4011053	B	0.71	0.54154 *			2
	SL 1	17.38		-1.25	18.83175		
3006 BM OS 111	3221056	B	0.18	-0.21869 *	-0.35	0.21886	2
3007 BRICK AZ MK	4031255	F	0.18	0.21903 *			2
	SL 1	15.14		-0.14	22.24651		
3007 BRICK AZ MK	3221021	B	1.22	0.76591 *	1.89	-0.76685	2
3008 95 060	4031410	F	1.22	-0.76780 *			2
	SL 1	16.36		1.75	21.47966		
3008 95 060	3221012	B	0.17	-0.97773 *	-0.02	0.97774	2
3009 BRICK RM 2	4031454	F	0.18	0.97775 *			2
	SL 1	16.53		1.73	22.45740		
3009 BRICK RM 2	3221003	B	0.03	0.43710 *	0.33	-0.43727	2
3010 BRICK	4031506	F	0.02	-0.43743 *			2
	SL 1	16.55		2.06	22.02013		
3010 BRICK	4031510	F	1.58	-1.21980 *	-2.13	-1.22086	2
3012 A 576	4060720	B	1.58	1.22193 *			1
	SL 1	18.13		-0.07	20.79927		
3012 A 576	4051400	B	1.57	-0.34600 *	-0.86	0.34643	1
3013 Z 566	4060816	F	1.59	0.34686 *			1
	SL 1	19.70		-0.93	21.14570		
3013 Z 566	4051306	B	1.49	0.60986 *	3.39	-0.61156	1
3014 Y 566	4060905	F	1.49	-0.61325 *			1
	SL 1	21.19		2.46	20.53414♀		

-*- FIELD ABSTRACT -*-

920307-920406 HGZ L26456 3 6.0 MM ORDER 2 CLASS 1 PAGE 3

LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)	-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
3014 Y 566	4051042	B	1.36	-3.71964 *	2.69	3.71830	1
3015 X 566	4060856	F	1.37	3.71695 *			2
	SL 1		22.55		5.15	24.25244	
3015 X 566	4050950	B	1.59	0.02524 *	3.79	-0.02713	1
3016 W 566	4060941	F	1.59	-0.02903 *			2
	SL 1		24.13		8.94	24.22531	
3016 W 566	4050934	B	0.26	0.52108 *	-0.36	-0.52090	1
3017 9299A	4061029	F	0.25	-0.52072 *			2
	SL 1		24.38		8.58	23.70441	
3017 9299A	4050907	B	0.79	2.20764 *	1.23	-2.20826	1
3018 M 507	4061056	F	0.78	-2.20888 *			2
	SL 1		25.16		9.82	21.49615	

3018 M 507	4050819 B	1.61	-3.75451	*	0.00	3.75451	1
3019 AP 30							
	SL 1	26.76			9.82	25.25066	
3006 BM OS 111	3221522 B	1.12	-0.44156	*	2.77	0.44018	2
3022 V 566	4021026 F	1.13	0.43879	*			2
		16.08			2.97	22.46783	
3022 V 566	4021128 F	1.51	-2.74919	*	3.56	-2.74741	2
3023 U 566	4031147 B	1.51	2.74563	*			2
		17.59			6.53	19.72042	
3023 U 566	4021330 F	1.00	1.64412	*	1.08	1.64466	2
3024 T 566	4031036 B	1.00	-1.64520	*			2
		18.59			7.61	21.36508	
3024 T 566	4021415 F	1.53	0.07147	*	5.39	0.07417	2
3025 R 506	4030934 B	1.54	-0.07686	*			2
		20.12			13.00	21.43925	
3025 R 506	4030850 B	1.61	1.23799	*	0.00	-1.23799	2
3026 Q 506							
		21.74			13.00	20.20126	
3026 Q 506	4040849 F	1.67	0.67286	*	0.00	0.67286	2
3027 P 506							
		23.40			13.00	20.87412	
3027 P 506	4040934 F	1.74	-0.33690	*	-1.60	-0.33770	2
3028 KR 1067	4051507 B	1.74	0.33849	*			2
		25.15			11.40	20.53642♀	

-*- FIELD ABSTRACT -*-

920307-920406 HGZ L26456 3 6.0 MM ORDER 2 CLASS 1 PAGE 4

LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
3028 KR 1067	4041057 F		1.77	-1.72399	*	-7.10	-1.72956	2
3029 BM OS 118	4051356 B		1.79	1.73429	*			2
	4060741 F		1.79	-1.73039	*			2
			26.92			4.30	18.80686	
3029 BM OS 118	4041339 F		1.26	0.55485	*	-0.25	0.55472	2
3030 KR 1426 GPS	4051212 B		1.26	-0.55460	*			2
			28.18			4.05	19.36158	
3030 KR 1426 GPS	4041521 F		1.01	-0.30757	*	2.71	-0.30621	2
3035 OSC 32H RM 1	4051125 B		1.01	0.30486	*			2
			29.19			6.75	19.05537	
3035 OSC 32H RM 1	4041605 F		0.02	-1.19265	*	-0.23	-1.19277	2
3034 OSC 32 H	4051120 B		0.02	1.19288	*			2
			29.21			6.52	17.86260	
3034 OSC 32 H	4041607 F		0.02	1.31342	*	0.09	1.31347	2
3033 OSC 32H RM 2	4051118 B		0.02	-1.31351	*			2
			29.23			6.61	19.17607	
3033 OSC 32H RM 2	4041613 F		0.59	-0.00300	*	0.06	-0.00297	2
3031 KR 1068	4051056 B		0.60	0.00294	*			2
			29.82			6.68	19.17310	
3031 KR 1068	4050917 F		0.21	-0.98541	*	0.06	-0.98538	2
3036 K 506	4051046 B		0.21	0.98535	*			2
			30.03			6.74	18.18772	
3036 K 506	4051020 B		0.57	-0.84900	*	-0.77	0.84939	2

```
 3037 J 506            4051610 F    0.56     0.84977  *                      2
                                   30.60                    5.97     19.03711
--  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
 3037 J 506            4050935 B    1.53     0.72186  *    0.00     -0.72186  2
 3038 H 506
                                   32.13                    5.97     18.31525♀
      ELEVATION REJECTION AND ERROR CODES

C - section elevation difference was rejected for cause
    ie. *43* record rejection code set to "F"
R - section elevation difference was rejected by Halperin rejection algorithm
@ - section elevation difference does not include refraction correction
* - section elevation difference does not include rod correction

♀
  INSTRUMENT CODE      INSTRUMENT               RODS

           1          243 - 92714    396 - 22565  396 - 22569
           2          243 - 91611    396 - 27450  396 - 27506
♀
                       LEVEL LINE SECTION RUNNING TREE

  1004
  1003
  1002
  1001
  3000
  3001
  3002
  3003
  3004
  3005
  3006 (3041
        3042
        3043
        3039
        3040
        3007
        3008
        3009
        3010
        3012
        3013
        3014
        3015
        3016
        3017
        3018
        3019)
  3022
  3023
  3024
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  3026
  3027
  3028
  3029
  3030
  3035
  3034
  3033
  3031
  3036
  3037
  3038♀
  FROM   TO        N. LATITUDE   W. LONGITUDE   FIELD DISTANCE VS. COMPUTED

        1004          281424        0811204          0.00        0.00
  1004  1003          281433        0811304          1.67        1.66
  1003  1002          281443        0811401          1.60        1.58
```

1002	1001	281444	0811459	1.56	1.58
1001	3000	281419	0811523	1.35	1.01
3000	3001	281328	0811523	1.58	1.57
3001	3002	281259	0811453	1.48	1.21
3002	3003	281232	0811438	1.31	0.93
3003	3004	281139	0811439	1.61	1.63
3004	3005	281047	0811436	1.60	1.60
3005	3006	281023	0811415	1.21	0.93
3006	3041	281027	0811414	0.24	0.13
3041	3042	281034	0811404	0.31	0.35
3042	3043	281104	0811345	1.14	1.06
3006	3039	280930	0811429	1.71	1.68
3039	3040	280909	0811433	0.71	0.66
3006	3007	281023	0811405	0.18	0.27
3007	3008	281022	0811321	1.22	1.20
3008	3009	281024	0811316	0.17	0.15
3009	3010	281023	0811316	0.02	0.03
3010	3012	281039	0811227	1.58	1.42
3012	3013	281126	0811208	1.57	1.54
3013	3014	281150	0811134	1.49	1.19
3014	3015	281142	0811048	1.36	1.28
3015	3016	281143	0810956	1.59	1.42
3016	3017	281143	0810948	0.25	0.22
3017	3018	281203	0811002	0.78	0.72
3018	3019	281249	0811032	1.61	1.64
3006	3022	281010	0811436	1.12	0.70
3022	3023	280930	0811451	1.51	1.30
3023	3024	280931	0811527	1.00	0.98
3024	3025	280919	0811610	1.53	1.23
3025	3026	280827	0811602	1.61	1.62
3026	3027	280735	0811602	1.67	1.60
3027	3028	280706	0811515	1.74	1.56
3028	3029	280609	0811519	1.77	1.76
3029	3030	280533	0811512	1.26	1.12
3030	3035	280500	0811528	1.01	1.11
3035	3034	280500	0811528	0.02	0.00
3034	3033	280500	0811528	0.02	0.00
3033	3031	280448	0811535	0.59	0.42
3031	3036	280441	0811538	0.21	0.23
3036	3037	280430	0811551	0.56	0.49
3037	3038	280415	0811644	1.53	1.52♀

Windows Abstra Version 1.2 -- Oct. 2001 -- Tue Apr 22 11:15:20 2003

SECTION FROM	TO	E R R O R M E S S A G E S
	1000	*** Bench mark description exists but mark not leveled to.
	3020	*** Bench mark description exists but mark not leveled to.
	3021	*** Bench mark description exists but mark not leveled to.

-*- FIELD ABSTRACT -*-

920307-920406 HGZ L26456 3 6.0 MM ORDER 2 CLASS 1 PAGE 1

LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.
STARTING IN ST. CLOUD, FL. GO S ON C/R 534 FOR 6 MI TO JCT. OF STORY
RD (SPUR E ON C/R 534 FOR 6 MI TO U.S.441), GO S ON STORY RD FOR 1 MI,
THEN W ON MILDRED BASS RD FOR 2 MI TO C/R 523 THEN S FOR 4 MI.
STARTING ELEVATION BASED ON PRELIMINARY NGVD 29 HEIGHTS FROM L26221.
NOTE COLLIMATION STORED IN ELECTRONIC INSTRUMENT.
NOTE LATITUDE AND LONGITUDE WAS SCALED FROM TOPOGRAPHIC MAP.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
1004 K 507							21.74713	
1004 K 507	3070911	B	1.67	0.27692	*	0.00	-0.27692	1
1003 J 507			1.67			0.00	21.47021	
1003 J 507	3070811	B	1.60	-0.96329	*	0.00	0.96329	1
1002 H 507			3.27			0.00	22.43350	
1002 H 507	3211122	F	1.56	-0.17461	*	0.00	-0.17461	2
1001 G 507			4.83			0.00	22.25889	
1001 G 507	3071105	F	1.35	2.00010	*	0.33	2.00079	1
3000 G 576	3081114	B	1.35	-2.00101	*			1
	3220857	F	1.35	2.00126	*			2
			6.18			0.33	24.25968	
3000 G 576	3071244	F	1.59	-0.12176	*	1.20	-0.12116	1
3001 F 576	3081021	B	1.58	0.12056	*			1
			7.76			1.53	24.13852	
3001 F 576	3071357	F	1.48	-0.92229	*	0.00	-0.92229	1
3002 E 576	3080932	B	1.48	0.92229	*			1
			9.24			1.53	23.21623	
3002 E 576	3080834	B	1.32	-0.16780	*	2.37	0.16662	1
3003 D 576	3081318	F	1.31	0.16543	*			1
			10.54			3.90	23.38285	
3003 D 576	3081411	F	1.61	-1.40768	*	0.01	-1.40767	1
3004 C 576	3221409	B	1.61	1.40767	*			2
			12.15			3.92	21.97518	
3004 C 576	3221320	B	1.60	-0.12049	*	-3.79	0.12239	2
3005 B 576	4020844	F	1.60	0.12428	*			2
			13.75			0.13	22.09757	
3005 B 576	3221109	B	1.21	-0.38912	*	0.07	0.38908	2
3006 BM OS 111	4020935	F	1.21	0.38904	*			2
			14.96			0.20	22.48665♀	

-*- FIELD ABSTRACT -*-

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LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
3006 BM OS 111	4011329	F	0.24	0.10403	*	0.41	0.10423	2
3041 KR 603	4011627	B	0.24	-0.10443	*			2

	SL 1	15.20		0.61	22.59088		
3041 KR 603	4011406	F	0.31	-0.77400 *	-1.49	-0.77475	2
3042 KR 1066	4011550	B	0.32	0.77549 *			2
	SL 1	15.51		-0.88	21.81613		
3042 KR 1066	4011425	F	1.14	-1.60443 *	1.72	-1.60357	2
3043 Q 575	4011502	B	1.14	1.60271 *			2
	SL 1	16.65		0.84	20.21256		
3006 BM OS 111	4010905	F	1.72	-2.65263 *	-2.46	-2.65386	2
3039 N 575	4011124	B	1.71	2.65509 *			2
	SL 1	16.67		-2.25	19.83279		
3039 N 575	4011005	F	0.71	-0.54255 *	1.00	-0.54204	2
3040 P 575	4011053	B	0.71	0.54154 *			2
	SL 1	17.38		-1.25	19.29075		
3006 BM OS 111	3221056	B	0.18	-0.21869 *	-0.35	0.21886	2
3007 BRICK AZ MK	4031255	F	0.18	0.21903 *			2
	SL 1	15.14		-0.14	22.70551		
3007 BRICK AZ MK	3221021	B	1.22	0.76591 *	1.89	-0.76685	2
3008 95 060	4031410	F	1.22	-0.76780 *			2
	SL 1	16.36		1.75	21.93866		
3008 95 060	3221012	B	0.17	-0.97773 *	-0.02	0.97774	2
3009 BRICK RM 2	4031454	F	0.18	0.97775 *			2
	SL 1	16.53		1.73	22.91640		
3009 BRICK RM 2	3221003	B	0.03	0.43710 *	0.33	-0.43727	2
3010 BRICK	4031506	F	0.02	-0.43743 *			2
	SL 1	16.55		2.06	22.47913		
3010 BRICK	4031510	F	1.58	-1.21980 *	-2.13	-1.22086	2
3012 A 576	4060720	B	1.58	1.22193 *			1
	SL 1	18.13		-0.07	21.25827		
3012 A 576	4051400	B	1.57	-0.34600 *	-0.86	0.34643	1
3013 Z 566	4060816	F	1.59	0.34686 *			1
	SL 1	19.70		-0.93	21.60470		
3013 Z 566	4051306	B	1.49	0.60986 *	3.39	-0.61156	1
3014 Y 566	4060905	F	1.49	-0.61325 *			1
	SL 1	21.19		2.46	20.99314♀		

-*- FIELD ABSTRACT -*-

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LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.

FROM / TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
3014 Y 566	4051042	B	1.36	-3.71964 *		2.69	3.71830	1
3015 X 566	4060856	F	1.37	3.71695 *				2
	SL 1		22.55			5.15	24.71144	
3015 X 566	4050950	B	1.59	0.02524 *		3.79	-0.02713	1
3016 W 566	4060941	F	1.59	-0.02903 *				2
	SL 1		24.13			8.94	24.68431	
3016 W 566	4050934	B	0.26	0.52108 *		-0.36	-0.52090	1
3017 9299A	4061029	F	0.25	-0.52072 *				2
	SL 1		24.38			8.58	24.16341	
3017 9299A	4050907	B	0.79	2.20764 *		1.23	-2.20826	1
3018 M 507	4061056	F	0.78	-2.20888 *				2
	SL 1		25.16			9.82	21.95515	

3018 M 507	4050819 B	1.61	-3.75451	*	0.00	3.75451	1
3019 AP 30							
	SL 1	26.76			9.82	25.70966	
3006 BM OS 111	3221522 B	1.12	-0.44156	*	2.77	0.44018	2
3022 V 566	4021026 F	1.13	0.43879	*			2
		16.08			2.97	22.92683	
3022 V 566	4021128 F	1.51	-2.74919	*	3.56	-2.74741	2
3023 U 566	4031147 B	1.51	2.74563	*			2
		17.59			6.53	20.17942	
3023 U 566	4021330 F	1.00	1.64412	*	1.08	1.64466	2
3024 T 566	4031036 B	1.00	-1.64520	*			2
		18.59			7.61	21.82408	
3024 T 566	4021415 F	1.53	0.07147	*	5.39	0.07417	2
3025 R 506	4030934 B	1.54	-0.07686	*			2
		20.12			13.00	21.89825	
3025 R 506	4030850 B	1.61	1.23799	*	0.00	-1.23799	2
3026 Q 506							
		21.74			13.00	20.66026	
3026 Q 506	4040849 F	1.67	0.67286	*	0.00	0.67286	2
3027 P 506							
		23.40			13.00	21.33312	
3027 P 506	4040934 F	1.74	-0.33690	*	-1.60	-0.33770	2
3028 KR 1067	4051507 B	1.74	0.33849	*			2
		25.15			11.40	20.99542♀	

-*- FIELD ABSTRACT -*-

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LEVELING IN OSCEOLA COUNTY, FLORIDA AREA.

FROM TO	START	F/B	DIST TOTAL (KM)	ELEV DIFF (MT)		-(F+B) TOTAL (MM)	MEAN DIFF FLD ELEV (MT)	I C
3028 KR 1067	4041057	F	1.77	-1.72399	*	-7.10	-1.72956	2
3029 BM OS 118	4051356	B	1.79	1.73429	*			2
	4060741	F	1.79	-1.73039	*			2
			26.92			4.30	19.26586	
3029 BM OS 118	4041339	F	1.26	0.55485	*	-0.25	0.55472	2
3030 KR 1426 GPS	4051212	B	1.26	-0.55460	*			2
			28.18			4.05	19.82058	
3030 KR 1426 GPS	4041521	F	1.01	-0.30757	*	2.71	-0.30621	2
3035 OSC 32H RM 1	4051125	B	1.01	0.30486	*			2
			29.19			6.75	19.51437	
3035 OSC 32H RM 1	4041605	F	0.02	-1.19265	*	-0.23	-1.19277	2
3034 OSC 32 H	4051120	B	0.02	1.19288	*			2
			29.21			6.52	18.32160	
3034 OSC 32 H	4041607	F	0.02	1.31342	*	0.09	1.31347	2
3033 OSC 32H RM 2	4051118	B	0.02	-1.31351	*			2
			29.23			6.61	19.63507	
3033 OSC 32H RM 2	4041613	F	0.59	-0.00300	*	0.06	-0.00297	2
3031 KR 1068	4051056	B	0.60	0.00294	*			2
			29.82			6.68	19.63210	
3031 KR 1068	4050917	F	0.21	-0.98541	*	0.06	-0.98538	2
3036 K 506	4051046	B	0.21	0.98535	*			2
			30.03			6.74	18.64672	
3036 K 506	4051020	B	0.57	-0.84900	*	-0.77	0.84939	2

```
 3037 J 506            4051610 F    0.56     0.84977  *                      2
                                   30.60                   5.97     19.49611
--  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --  --
 3037 J 506            4050935 B    1.53     0.72186  *    0.00     -0.72186  2
 3038 H 506
                                   32.13                   5.97     18.77425♀
      ELEVATION REJECTION AND ERROR CODES

C - section elevation difference was rejected for cause
    ie. *43* record rejection code set to "F"
R - section elevation difference was rejected by Halperin rejection algorithm
@ - section elevation difference does not include refraction correction
* - section elevation difference does not include rod correction

♀
  INSTRUMENT CODE      INSTRUMENT               RODS

           1          243 - 92714    396 - 22565  396 - 22569
           2          243 - 91611    396 - 27450  396 - 27506
♀
                       LEVEL LINE SECTION RUNNING TREE

  1004
  1003
  1002
  1001
  3000
  3001
  3002
  3003
  3004
  3005
  3006 (3041
        3042
        3043
        3039
        3040
        3007
        3008
        3009
        3010
        3012
        3013
        3014
        3015
        3016
        3017
        3018
        3019)
  3022
  3023
  3024
  3025
  3026
  3027
  3028
  3029
  3030
  3035
  3034
  3033
  3031
  3036
  3037
  3038♀
  FROM   TO        N. LATITUDE   W. LONGITUDE   FIELD DISTANCE VS. COMPUTED

        1004           281424        0811204           0.00        0.00
  1004  1003           281433        0811304           1.67        1.66
  1003  1002           281443        0811401           1.60        1.58
```

1002	1001	281444	0811459	1.56	1.58
1001	3000	281419	0811523	1.35	1.01
3000	3001	281328	0811523	1.58	1.57
3001	3002	281259	0811453	1.48	1.21
3002	3003	281232	0811438	1.31	0.93
3003	3004	281139	0811439	1.61	1.63
3004	3005	281047	0811436	1.60	1.60
3005	3006	281023	0811415	1.21	0.93
3006	3041	281027	0811414	0.24	0.13
3041	3042	281034	0811404	0.31	0.35
3042	3043	281104	0811345	1.14	1.06
3006	3039	280930	0811429	1.71	1.68
3039	3040	280909	0811433	0.71	0.66
3006	3007	281023	0811405	0.18	0.27
3007	3008	281022	0811321	1.22	1.20
3008	3009	281024	0811316	0.17	0.15
3009	3010	281023	0811316	0.02	0.03
3010	3012	281039	0811227	1.58	1.42
3012	3013	281126	0811208	1.57	1.54
3013	3014	281150	0811134	1.49	1.19
3014	3015	281142	0811048	1.36	1.28
3015	3016	281143	0810956	1.59	1.42
3016	3017	281143	0810948	0.25	0.22
3017	3018	281203	0811002	0.78	0.72
3018	3019	281249	0811032	1.61	1.64
3006	3022	281010	0811436	1.12	0.70
3022	3023	280930	0811451	1.51	1.30
3023	3024	280931	0811527	1.00	0.98
3024	3025	280919	0811610	1.53	1.23
3025	3026	280827	0811602	1.61	1.62
3026	3027	280735	0811602	1.67	1.60
3027	3028	280706	0811515	1.74	1.56
3028	3029	280609	0811519	1.77	1.76
3029	3030	280533	0811512	1.26	1.12
3030	3035	280500	0811528	1.01	1.11
3035	3034	280500	0811528	0.02	0.00
3034	3033	280500	0811528	0.02	0.00
3033	3031	280448	0811535	0.59	0.42
3031	3036	280441	0811538	0.21	0.23
3036	3037	280430	0811551	0.56	0.49
3037	3038	280415	0811644	1.53	1.52♀

Windows Abstra Version 1.2 -- Oct. 2001 -- Tue Apr 22 11:23:15 2003

SECTION FROM	TO	E R R O R M E S S A G E S
	1000	*** Bench mark description exists but mark not leveled to.
	3020	*** Bench mark description exists but mark not leveled to.
	3021	*** Bench mark description exists but mark not leveled to.