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Citation:

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**Darren Townsend
Cooner & Associates**

Originator: Darren Townsend(ed.)
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Edition: 1
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Publication_Place: 20050518
Publisher: None
Online_Linkage: darrent@cooner.com

Description:

Abstract:

South Florida Water Management District
Well Griffin Ranch

Purpose

Purpose:

To establish NAVD 88 and NGVD 29 elevations on the wells reference marks from nearby, existing benchmarks.

Supplemental_Information:

ACCOMPANYING DIGITAL FILES
GRIFFIN RANCH.GEN , CORPSMET95 FILE
GRIFFIN RANCH.DOC , BENCHMARK RECOVERY FORM
GRIFFIN RANCH.PDF , SCANNED COPIES OF FIELD NOTES, VERTCON CALCULATIONS (IF APPLICABLE) AND LEAST SQUARES ADJUSTMENT
GRIFFIN RANCH.PPT , POWER POINT FILES OF WELL SITE PICTURES

Time_Period_of_Content:

Time_Period_Information:

Survey Date

Range_of_Dates/Times:

Beginning_Date: 20050119
Ending_Date: 20050328

Currentness_Reference: Publication Date

Status:

Progress: Complete

Maintenance_and_Update_Frequency: Unknown

Spatial_Domain:

Bounding_Coordinates:

Project Location

West_Bounding_Coordinate: -080°55' 46.64"
East_Bounding_Coordinate: -080°55' 46.37"
North_Bounding_Coordinate: +27°29' 40.45"
South_Bounding_Coordinate: +27°29' 39.80"

Keywords:

Theme:

Theme_Keyword_Thesaurus: None
Theme_Keyword: Record Survey
Theme_Keyword: Well Site

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: SFWMD WELL GRIFFIN RANCH
Place_Keyword: SEC. 29, TWP 34, RGE 24
Place_Keyword: OKEECHOBEE COUNTY FL

Access_Constraints: None

Use_Constraints:

The wells have keyed or combination locks. Dirt road to well site is gated and locked. See point of contact for key or combination.

Point_of_Contact:

Contact_Information:

**Elvie Ebanks
SFWMD**

Contact_Person_Primary:

Contact_Person: Elvie D. Ebanks

Contact_Organization: South Florida Water Management District

Contact_Position: Professional Surveyor & Mapper

Contact_Address:

Address_Type: mailing and physical address

Address: 3301 Gun Club Road

City: West Palm Beach

State_or_Province: Florida

Postal_Code: 33406

Country: USA

GRIFFIN RANCH.met

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

Contact_Electronic_Mail_Address: eebanks@sfwmd.gov

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

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

Equipment Used

The horizontal location of the wells and benchmark was performed using differentially corrected TRIMBLE GPS PATHFINDER PRO XR receiver. The vertical data was collected using a LEICA NA3003 electronic digital level. Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 83/99. Elevations are based on NAVD 88.

Logical_Consistency_Report:

Horizontal data was established using differentially corrected GPS signals from U.S. Coast Guard Beacon at Cape Canaveral. Vertical data was established NGS control points R499 and S499.

Project Results

Completeness_Report:

Horizontal location taken at approximate center of well.

Well GRIFFIN RANCH

Lat. +27°29'40.45"

Long. -080°55'46.64"

N 1148963.98'

E 678982.26'

Elevation taken on top of the pipe extending above well platform at the tip of a black arrow.

69.24' (NAVD 88)

70.46' (NGVD 29) calculated using 1.22' offset value based on

NGS NGVD 29 adjustment of CERP vertical network for control points R499 and S499.

70.44' (NGVD 29) calculated using 1.20' offset value based

FDEP preliminary elevation for benchmarks R499 and S499 as shown on SFWMD online Benchmark Database.

NEW SITE BENCHMARK

GRRH5 is a standard SFWMD aluminum

disk set in top of a class "C" concrete monument, flush with the ground. A magnet was set on the south side of the mark. To reach the mark from the intersection of US

Highway 441 and County Road 724, go west on County Road 724 for 9.4 miles to a dirt road on the right with a sign

"CNC Ranch". Head north along this road for 2.2 miles to a gated dirt road and an archway "CNC Ranch". Go

through the gate headed east for 1.1 miles to the mark on the left. Mark is 2.9' east of a wood power pole and

65.0' north of an east-west running barbed wire fence. Mark is set ~0.5" below ground level.

Lat. +27°29'39.80"

Long. -080°55'46.37"

N 1148897.95'

E 679006.17'

64.90' (NAVD 88)

66.12' (NGVD 29) calculated using 1.22' offset value based on

NGS NGVD 29 adjustment of CERP vertical network for control points R499 and S499.

66.10' (NGVD 29) calculated using offset 1.20' value based

FDEP preliminary elevation for benchmark R499 and S499 as shown on SFWMD online Benchmark Database.

Positional_Accuracy:

Horizontal

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

The horizontal positions of the well and benchmark LHATCH3 were established with differentially corrected GPS signals from U.S. Coast Guard Beacon at Cape Canaveral.

Quantitative_Horizontal_Positional_Accuracy_Assessment:

Horizontal_Positional_Accuracy_Value: sub meter

Horizontal_Positional_Accuracy_Explanation: The intended

positional accuracy for this survey is sub meter.

Vertical_Positional_Accuracy:

Level Line

Vertical_Positional_Accuracy_Report:

A level line was run originating on NGS benchmark R499 with an NAVD 88 elevation and running through new site benchmark GRRH5 and terminating on NGS benchmark S499 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6). The well platform was then elevated by a level line originating on new site benchmark GRRH5 with an newly established NAVD 88 elevation running through well platform and terminating on new site benchmark GRRH5 in accordance with Florida Minimum Technical Standards (Chapter 61G17-6).

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.002 ft

ft closure in 27017.7 ft, max. allowed 0.068 ft (MTS)

Vertical_Positional_Accuracy_Explanation: NAVD 88 level run, 0.002

Quantitative_Vertical_Positional_Accuracy_Assessment:

Vertical_Positional_Accuracy_Value: 0.000 ft

ft closure in 141.0 ft, max. allowed 0.005 ft (MTS)

Vertical_Positional_Accuracy_Explanation: NAVD 88 level run, 0.000

Lineage:

Process_Step:

Process_Description:

The horizontal work was performed using a Trimble GPS Pathfinder Pro XR receiver using U.S. Coast Guard beacon at Cape Canaveral. The level line was performed using a Leica NA3003 electronic digital level.

Process_Date: 20050422

Metadata_Reference_Information:

Metadata_Date: 20050518

Metadata_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Darren Townsend

Contact_Organization: Cooner & Associates, Inc.

Contact_Position: Project Surveyor

Contact_Address:

Address_Type: mailing and physical address

Address: 5670 Zip Drive

City: Fort Myers

State_or_Province: Florida

Postal_Code: 33905

Country: USA

Contact_Voice_Telephone: (239) 277-0722

Contact_Facsimile_Telephone: (239) 277-7179

Contact_Electronic_Mail_Address: darrent@cooner.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: 19980601

GRIFFIN RANCH



- COONER & ASSOCIATES, INC.
 - Date of photo: January 20, 2005
- View: Looking North at BM GRRH5

GRIFFIN RANCH



- COONER & ASSOCIATES, INC.
- Date of photo: January 20, 2005
 - View: Looking North at well

GRIFFIN RANCH



- COONER & ASSOCIATES, INC.
- Date of photo: January 20, 2005
- View: Looking at Elevation mark on well

GRIFFIN RANCH



- COONER & ASSOCIATES, INC.
- Date of photo: January 20, 2005
- View: Looking at top view of BM GRRH5

020801.03

SFWMD
Griffin Ranch

Benchmark Recovery Notes

R499 - Mark Recovered In Good Condition

S499 - Mark Recovered In Good Condition

1/19/05

FB 81

PG 14

Etgeton

Z. Annam Collins

020801.03

SFWMD
Griffin Ranch

A- Well site

N: 1148963.98'

E: 678982.26'

EL:

B- Set 3" Aluminum Disk In ~12" Poured Concrete Monument

N: 1148897.95'

E: 679006.17'

EL:

C - Dist: 2.9' Bearing: 50°E

D - Dist: 13.0' Bearing: 90°W

FL STATE PLANE, EAST ZONE

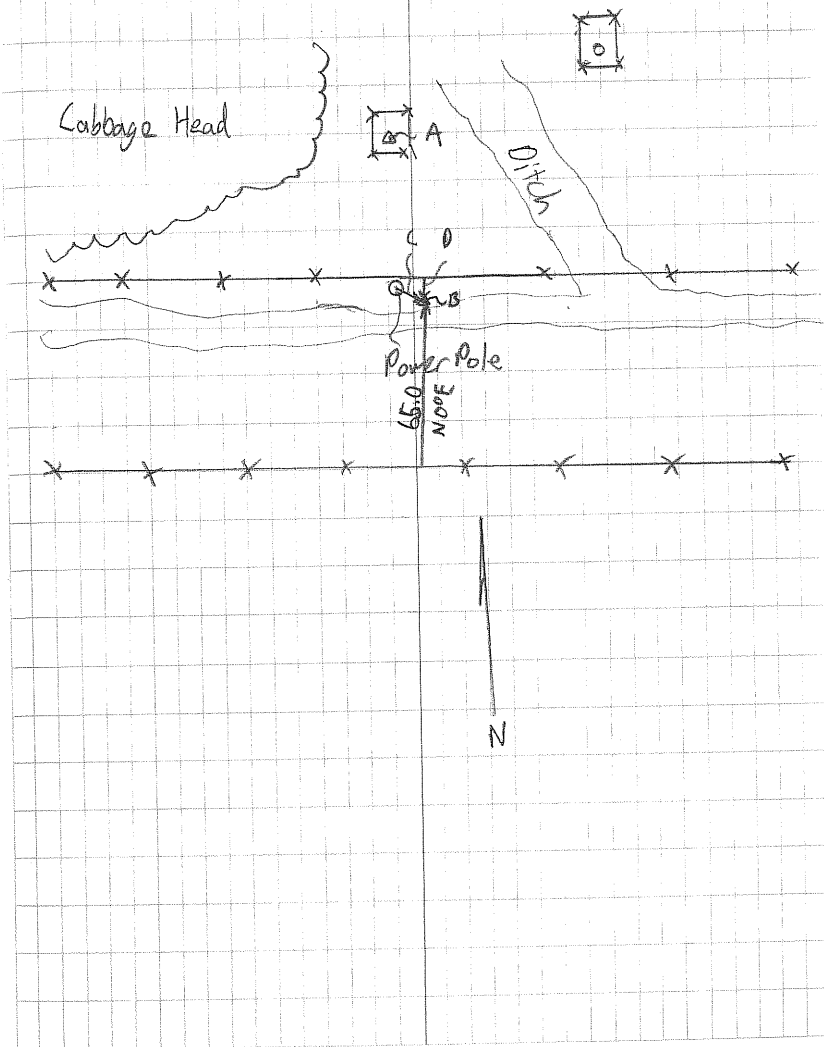
1/19/05

FG81

PG15

Edgeton

Z. Amann Collins



020801.03

SFWMD

Griffin Ranch

1/19/05

F081

A616

Etgeton

Z. Amann Collins

Card #2	Run 1		EL	Adj EL	PT#	Description
5.579	70.259		64.86 65.851	NAVO 88	100	Found 3" Brass Disk In ~12" Poured Concrete Monument "Florida Department of Environmental Protection R499 2000"
4.644	70.315	4.588	65.671 65.391		1	TP (60D Nail)
4.995	70.206	5.104	65.211 65.793		2	TP (60D Nail)
4.658	70.271	4.593	65.613 65.552		3	TP (60D Nail)
4.922	70.294	4.899	65.392 65.569		4	TP (60D Nail)
4.677	70.066	4.905	65.389 65.688		5	TP (60D Nail)
4.482	69.990	4.558	65.508 64.915		6	TP (60D Nail)
5.362	70.097	5.255	64.735 65.263		7	TP (60D Nail)
5.126	70.209	5.014	65.083 65.712		8	TP (60D Nail)
4.695	70.227	4.677	65.532 65.665		9	TP (60D Nail)
5.564	71.229 71.049	4.742	65.485		10	TP (60D Nail)

020801.03

5FWMD

Griffin Ranch

71.229

HI = ~~71.044~~

+	HI	-	EL 66.053 65.973	Adj EL	PT#
5.274	71.147	5.176	65.786 65.600		11
6.007	71.607	5.547	67.473 67.293		12
5.330	72.623	4.314	68.015 67.835		13
4.733	72.568	4.788	66.973 66.793		14
3.906	70.699	5.775	65.067 64.887		15
4.687	69.574	5.812	64.811 64.631		16
4.477	69.108	4.943	64.572 64.392		17
4.749	69.141	4.716	64.157 63.977		18
4.750	68.727	5.164	63.383 63.203		19
5.218	68.421	5.524	65.192 65.012		20
5.111	70.303 70.123	3.409			21

1/19/05

F081

P617

Egerton

Z. Anam Collins

Description
TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

TP (600 Nail)

020801.03

SFWMD

Griffin Ranch

70.303

HI = 70.115

+	HI	-	EL	Adj EL	PT#
5.037		4.347	65.956 65.776		22
	70.813		65.958		
4.309		5.035	65.778		23
	70.087		63.642		
4.762		6.625	63.462		24
	68.224		63.679		
4.897		4.725	63.499		25
	68.396		64.179		
5.805		4.397	63.999		26
	69.804		64.895		
		5.089	64.715	64.90'	127

LEVEL RUN CONTINUED ON PAGE 19

1/19/05

FB 81

P6-18

Etgeton

Z. Anam Collins

Description			
TP (600 Nail)			
TP (600 Nail)			
TP (600 Nail)			
TP (600 Nail)			
TP (600 Nail)			
Set 3" Aluminum Disk In ~12" Poured Concrete Monument			
"SD. FLA. WATER MANAGEMENT DISTRICT" "GRRH 5"			

020801.03		SFWMD			
71.324		Griffin Ranch			
HI = 71.144					
t	HI	-	EL ^{68.189}	Adj EL	PT*
4.979		3.135	68.009		38
	72.988		67.928		
4.491		5.240	67.748		39
	72.239		66.813		
4.590		5.606	66.633		40
	71.223		66.055		
5.176		5.348	65.875		41
	71.051		66.429		
5.022		4.802	66.249		42
	71.271		66.330		
5.338		6.121	65.150		43
	70.488		65.517		
5.059		5.151	65.337		44
	70.396		64.562		
5.060		6.014	64.382		45
	69.442		65.264		
4.579		4.358	65.084		46
	69.663		65.542		
4.922		4.301	65.362		47
	70.284		65.504		
4.719	70.223	4.960	65.329		48
	70.043				

1/20/05

FB81

PG20

Etgeton

Z. Amann Collins

Description

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

TP (60D Nail)

020801.03

SFWMO

Griffin Ranch

70.223
HI = ~~70.043~~

+	HI	-	EL	ALJEL	PT #
4.820		4.834	65.209		49

70.029

4.261		65.768	65.95	150
		(Posted 65.950)		

LINE LENGTH = 27017.7'

$$\begin{aligned} \text{ALLOWABLE MISCLOSURE} &= 0.03 \sqrt{\frac{27017.7}{5280}} \\ &= \pm 0.0679' \end{aligned}$$

ACTUAL MISCLOSURE = 0.002'

1/20/05

F881

Pg 21

Etgeton

Collins

Z. Amann

Description
TP (600 Nail)

Found 3" Brass Disk In ~12" Poured Concrete Monument
"FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION 5499 2000"

020801.03

SFWMD

Griffin Ranch (Well Elevation)

Card 1, Run 4

+	HT	-	EL	ADJ EL	PT ⁿ
5.645			64.90'	NAVD 88	127
	70.545				
1.521		1.305	69.240	69.24'	201
	70.761				
		5.861	64.900	64.90'	120
			(64.90 Posted)		

LINE LENGTH = 141.0'

$$\text{ALLOWABLE MISCLOSURE} = 0.03 \sqrt{\frac{141.07}{5280}}$$

$$= \pm 0.005'$$

ACTUAL MISCLOSURE = 0.000'

3/29/05

FB 86

Pg 50

Egerton
Collins

Description

Set 2" Aluminum Disk In ~ 12" Poured Concrete Monument
 "50 FLA WATER MANAGEMENT DIST GRRH 5"
 Elevated Well At Mark On Pipe

Check In to Start Point

GRIFFIN.raw

410001+?. 1
110002+00000100 83..11+00064860
110003+00000100 32..01+00187800 331107+00055793 52..07+0003+006
110004+00000001 32..01+00201240 332107+00045877 52..07+0003+008
110005+00000001 573..1-00013440 574..1+00389040 83..01+00065852
110006+00000001 32..01+00315290 331107+00046436 52..07+0003+026
110007+00000002 32..01+00292090 332107+00051035 52..07+0003+025
110008+00000002 573..1+00009760 574..1+00996410 83..01+00065392
110009+00000002 32..01+00306050 331107+00049948 52..07+0003+028
110010+00000003 32..01+00261520 332107+00045931 52..07+0003+003
110011+00000003 573..1+00054290 574..1+01563990 83..01+00065793
110012+00000003 32..01+00301440 331107+00046580 52..07+0003+013
110013+00000004 32..01+00296820 332107+00048990 52..07+0003+026
110014+00000004 573..1+00058900 574..1+02162250 83..01+00065552
110015+00000004 32..01+00315100 331107+00049217 52..07+0003+022
110016+00000005 32..01+00302650 332107+00049047 52..07+0003+021
110017+00000005 573..1+00071350 574..1+02779990 83..01+00065569
110018+00000005 32..01+00295580 331107+00046766 52..07+0003+031
110019+00000006 32..01+00295990 332107+00045584 52..07+0003+008
110020+00000006 573..1+00070940 574..1+03371560 83..01+00065668
110021+00000006 32..01+00236390 331107+00044820 52..07+0003+017
110022+00000007 32..01+00303590 332107+00052551 52..07+0003+083
110023+00000007 573..1+00003740 574..1+03911540 83..01+00064914
110024+00000007 32..01+00263590 331107+00053616 52..07+0003+016
110025+00000008 32..01+00302890 332107+00050137 52..07+0003+015
110026+00000008 573..1-00035560 574..1+04478010 83..01+00065262
110027+00000008 32..01+00307810 331107+00051260 52..07+0003+012
110028+00000009 32..01+00324370 332107+00046771 52..07+0003+007
110029+00000009 573..1-00052110 574..1+05110190 83..01+00065711
110030+00000009 32..01+00310600 331107+00046950 52..07+0003+028
110031+00000010 32..01+00307060 332107+00047417 52..07+0003+025
110032+00000010 573..1-00048570 574..1+05727860 83..01+00065664
110033+00000010 32..01+00305850 331107+00055641 52..07+0003+036
110034+00000011 32..01+00270110 332107+00051761 52..07+0003+021
110035+00000011 573..1-00012830 574..1+06303820 83..01+00066052
110036+00000011 32..01+00302430 331107+00052738 52..07+0003+003
110037+00000012 32..01+00307590 332107+00055470 52..07+0003+014
110038+00000012 573..1-00017990 574..1+06913840 83..01+00065779
110039+00000012 32..01+00307680 331107+00060068 52..07+0003+040
110040+00000013 32..01+00320190 332107+00043138 52..07+0003+035
110041+00000013 573..1-00030500 574..1+07541720 83..01+00067472
110042+00000013 32..01+00299720 331107+00053303 52..07+0003+054
110043+00000014 32..01+00308470 332107+00047882 52..07+0003+001
110044+00000014 573..1-00039250 574..1+08149900 83..01+00068014
110045+00000014 32..01+00310520 331107+00047325 52..07+0003+011
110046+00000015 32..01+00232530 332107+00057754 52..07+0003+010
110047+00000015 573..1+00038750 574..1+08692960 83..01+00066971
110048+00000015 32..01+00289970 331107+00039056 52..07+0003+021
110049+00000016 32..01+00296640 332107+00058125 52..07+0003+019
110050+00000016 573..1+00032080 574..1+09279570 83..01+00065065
110051+00000016 32..01+00306200 331107+00046874 52..07+0003+079
110052+00000017 32..01+00306950 332107+00049431 52..07+0003+041
110053+00000017 573..1+00031330 574..1+09892720 83..01+00064809
110054+00000017 32..01+00300070 331107+00044770 52..07+0003+029
110055+00000018 32..01+00308850 332107+00047159 52..07+0003+031
110056+00000018 573..1+00022560 574..1+10501630 83..01+00064570
110057+00000018 32..01+00241940 331107+00047485 52..07+0003+004
110058+00000019 32..01+00264580 332107+00051640 52..07+0003+006
110059+00000019 573..1-00000080 574..1+11008150 83..01+00064154
110060+00000019 32..01+00185620 331107+00047505 52..07+0003+003
110061+00000020 32..01+00249280 332107+00055240 52..07+0003+001
110062+00000020 573..1-00063750 574..1+11443050 83..01+00063381
110063+00000020 32..01+00257770 331107+00052177 52..07+0003+011
110064+00000021 32..01+00238410 332107+00034085 52..07+0003+001
110065+00000021 573..1-00044400 574..1+11939230 83..01+00065190
110066+00000021 32..01+00204170 331107+00051106 52..07+0003+005
110067+00000022 32..01+00247830 332107+00043474 52..07+0003+007

GRIFFIN.raw

110068+00000022	573..1-00088050	574..1+12391230	83..01+00065953
110069+00000022	32..01+00204640	331107+00050368	52..07+0003+003
110070+00000023	32..01+00187350	332107+00050349	52..07+0003+004
110071+00000023	573..1-00070760	574..1+12783220	83..01+00065955
110072+00000023	32..01+00234720	331107+00043094	52..07+0003+002
110073+00000024	32..01+00244320	332107+00066250	52..07+0003+009
110074+00000024	573..1-00080360	574..1+13262260	83..01+00063640
110075+00000024	32..01+00266840	331107+00047618	52..07+0003+003
110076+00000025	32..01+00257050	332107+00047252	52..07+0003+001
110077+00000025	573..1-00070580	574..1+13786150	83..01+00063676
110078+00000025	32..01+00264150	331107+00048966	52..07+0003+004
110079+00000026	32..01+00262380	332107+00043973	52..07+0003+002
110080+00000026	573..1-00068810	574..1+14312670	83..01+00064176
110081+00000026	32..01+00137590	331107+00058054	52..07+0003+011
110082+00000127	32..01+00125470	332107+00050888	52..07+0003+003
110083+00000127	573..1-00056700	574..1+14575730	83..01+00064892
110084+00000127	32..01+00225020	331107+00053949	52..07+0003+009
110085+00000028	32..01+00238130	332107+00065969	52..07+0003+015
110086+00000028	573..1-00069800	574..1+15038880	83..01+00063690
110087+00000028	32..01+00251730	331107+00047596	52..07+0003+017
110088+00000029	32..01+00248320	332107+00048286	52..07+0003+003
110089+00000029	573..1-00066390	574..1+15538940	83..01+00063621
110090+00000029	32..01+00296500	331107+00048394	52..07+0003+004
110091+00000030	32..01+00289030	332107+00027129	52..07+0003+015
110092+00000030	573..1-00058920	574..1+16124470	83..01+00065748
110093+00000030	32..01+00295830	331107+00050224	52..07+0003+033
110094+00000031	32..01+00294380	332107+00048285	52..07+0003+006
110095+00000031	573..1-00057470	574..1+16714680	83..01+00065941
110096+00000031	32..01+00298070	331107+00044219	52..07+0003+021
110097+00000032	32..01+00277160	332107+00055458	52..07+0003+005
110098+00000032	573..1-00036560	574..1+17289910	83..01+00064818
110099+00000032	32..01+00230100	331107+00039289	52..07+0003+004
110100+00000033	32..01+00272280	332107+00051231	52..07+0003+018
110101+00000033	573..1-00078750	574..1+17792290	83..01+00063623
110102+00000033	32..01+00298210	331107+00055436	52..07+0003+002
110103+00000034	32..01+00268290	332107+00047511	52..07+0003+024
110104+00000034	573..1-00048830	574..1+18358800	83..01+00064416
110105+00000034	32..01+00299880	331107+00050525	52..07+0003+006
110106+00000035	32..01+00295610	332107+00046614	52..07+0003+006
110107+00000035	573..1-00044550	574..1+18954290	83..01+00064807
110108+00000035	32..01+00288000	331107+00050465	52..07+0003+041
110109+00000036	32..01+00283630	332107+00046766	52..07+0003+008
110110+00000036	573..1-00040180	574..1+19525920	83..01+00065177
110111+00000036	32..01+00292140	331107+00049489	52..07+0003+013
110112+00000037	32..01+00298910	332107+00046253	52..07+0003+002
110113+00000037	573..1-00046950	574..1+20116960	83..01+00065501
110114+00000037	32..01+00205080	331107+00058190	52..07+0003+003
110115+00000038	32..01+00310360	332107+00031354	52..07+0003+005
110116+00000038	573..1-00152230	574..1+20632400	83..01+00068184
110117+00000038	32..01+00292960	331107+00049785	52..07+0003+006
110118+00000039	32..01+00296610	332107+00052401	52..07+0003+012
110119+00000039	573..1-00155880	574..1+21221970	83..01+00067923
110120+00000039	32..01+00292770	331107+00044914	52..07+0003+009
110121+00000040	32..01+00305420	332107+00056061	52..07+0003+007
110122+00000040	573..1-00168530	574..1+21820160	83..01+00066808
110123+00000040	32..01+00296560	331107+00045898	52..07+0003+004
110124+00000041	32..01+00309180	332107+00053481	52..07+0003+014
110125+00000041	573..1-00181150	574..1+22425900	83..01+00066050
110126+00000041	32..01+00299090	331107+00051759	52..07+0003+013
110127+00000042	32..01+00248430	332107+00048018	52..07+0003+005
110128+00000042	573..1-00130490	574..1+22973410	83..01+00066424
110129+00000042	32..01+00289940	331107+00050215	52..07+0003+015
110130+00000043	32..01+00254360	332107+00061211	52..07+0003+002
110131+00000043	573..1-00094910	574..1+23517710	83..01+00065324
110132+00000043	32..01+00304180	331107+00053381	52..07+0003+005
110133+00000044	32..01+00249990	332107+00051505	52..07+0003+011
110134+00000044	573..1-00040720	574..1+24071880	83..01+00065512

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110135+00000044	32..01+00298990	331107+00050590	52..07+0003+035
110136+00000045	32..01+00277020	332107+00060142	52..07+0003+022
110137+00000045	573..1-00018750	574..1+24647890	83..01+00064556
110138+00000045	32..01+00290590	331107+00050602	52..07+0003+009
110139+00000046	32..01+00269630	332107+00043576	52..07+0003+019
110140+00000046	573..1+00002220	574..1+25208120	83..01+00065259
110141+00000046	32..01+00292660	331107+00045788	52..07+0003+002
110142+00000047	32..01+00248020	332107+00043006	52..07+0003+027
110143+00000047	573..1+00046860	574..1+25748800	83..01+00065537
110144+00000047	32..01+00301580	331107+00049221	52..07+0003+074
110145+00000048	32..01+00231750	332107+00049602	52..07+0003+017
110146+00000048	573..1+00116690	574..1+26282130	83..01+00065499
110147+00000048	32..01+00290700	331107+00047188	52..07+0003+021
110148+00000049	32..01+00214110	332107+00048342	52..07+0003+016
110149+00000049	573..1+00193270	574..1+26786940	83..01+00065384
110150+00000049	32..01+00102970	331107+00048196	52..07+0003+004
110151+00000150	32..01+00127800	332107+00042609	52..07+0003+001
110152+00000150	573..1+00168440	574..1+27017710	83..01+00065942

410001+?.....1				
110002+00000100	83..11+00064860			
110003+00000100	32..01+00187800	331107+00055793	52..07+0003+006	
110004+00000001	32..01+00201240	332107+00045877	52..07+0003+008	
110005+00000001	573..1-00013440	574..1+00389040	83..01+00065672	.852
110006+00000001	32..01+00315290	331107+00046436	52..07+0003+026	
110007+00000002	32..01+00292090	332107+00051035	52..07+0003+025	
110008+00000002	573..1+00009760	574..1+00996410	83..01+00065212	.392
110009+00000002	32..01+00306050	331107+00049948	52..07+0003+028	
110010+00000003	32..01+00261520	332107+00045931	52..07+0003+003	
110011+00000003	573..1+00054290	574..1+01563990	83..01+00065613	.793
110012+00000003	32..01+00301440	331107+00046580	52..07+0003+013	
110013+00000004	32..01+00296820	332107+00048990	52..07+0003+026	
110014+00000004	573..1+00058900	574..1+02162250	83..01+00065372	.552
110015+00000004	32..01+00315100	331107+00049217	52..07+0003+022	
110016+00000005	32..01+00302650	332107+00049047	52..07+0003+021	
110017+00000005	573..1+00071350	574..1+02779990	83..01+00065389	.569
110018+00000005	32..01+00295580	331107+00046766	52..07+0003+031	
110019+00000006	32..01+00295990	332107+00045584	52..07+0003+008	
110020+00000006	573..1+00070940	574..1+03371560	83..01+00065508	.668
110021+00000006	32..01+00236390	331107+00044820	52..07+0003+017	
110022+00000007	32..01+00303590	332107+00052551	52..07+0003+083	.914
110023+00000007	573..1+00003740	574..1+03911540	83..01+00064734	.914
110024+00000007	32..01+00263590	331107+00053616	52..07+0003+016	
110025+00000008	32..01+00302890	332107+00050137	52..07+0003+015	
110026+00000008	573..1-00035560	574..1+04478010	83..01+00065082	.262
110027+00000008	32..01+00307810	331107+00051260	52..07+0003+012	
110028+00000009	32..01+00324370	332107+00046771	52..07+0003+007	
110029+00000009	573..1-00052110	574..1+05110190	83..01+00065531	.711
110030+00000009	32..01+00310600	331107+00046950	52..07+0003+028	
110031+00000010	32..01+00307060	332107+00047417	52..07+0003+025	
110032+00000010	573..1-00048570	574..1+05727860	83..01+00065484	.664
110033+00000010	32..01+00305850	331107+00055641	52..07+0003+036	
110034+00000011	32..01+00270110	332107+00051761	52..07+0003+021	
110035+00000011	573..1-00012830	574..1+06303820	83..01+00065872	.66.052
110036+00000011	32..01+00302430	331107+00052738	52..07+0003+003	
110037+00000012	32..01+00307590	332107+00055470	52..07+0003+014	
110038+00000012	573..1-00017990	574..1+06913840	83..01+00065599	.779
110039+00000012	32..01+00307680	331107+00060068	52..07+0003+040	
110040+00000013	32..01+00320190	332107+00043138	52..07+0003+035	
110041+00000013	573..1-00030500	574..1+07541720	83..01+00067292	.472
110042+00000013	32..01+00299720	331107+00053303	52..07+0003+054	
110043+00000014	32..01+00308470	332107+00047882	52..07+0003+001	
110044+00000014	573..1-00039250	574..1+08149900	83..01+00067834	.68.014
110045+00000014	32..01+00310520	331107+00047325	52..07+0003+011	
110046+00000015	32..01+00232530	332107+00057754	52..07+0003+010	
110047+00000015	573..1+00038750	574..1+08692960	83..01+00066791	.971
110048+00000015	32..01+00289970	331107+00039056	52..07+0003+021	
110049+00000016	32..01+00296640	332107+00058125	52..07+0003+019	
110050+00000016	573..1+00032080	574..1+09279570	83..01+00064885	65.065
110051+00000016	32..01+00306200	331107+00046874	52..07+0003+079	
110052+00000017	32..01+00306950	332107+00049431	52..07+0003+041	
110053+00000017	573..1+00031330	574..1+09892720	83..01+00064629	.809
110054+00000017	32..01+00300070	331107+00044770	52..07+0003+029	
110055+00000018	32..01+00308850	332107+00047159	52..07+0003+031	
110056+00000018	573..1+00022560	574..1+10501630	83..01+00064390	64.570
110057+00000018	32..01+00241940	331107+00047485	52..07+0003+004	
110058+00000019	32..01+00264580	332107+00051640	52..07+0003+006	
110059+00000019	573..1-00000080	574..1+11008150	83..01+00063974	64.154
110060+00000019	32..01+00185620	331107+00047505	52..07+0003+003	
110061+00000020	32..01+00249280	332107+00055240	52..07+0003+001	
110062+00000020	573..1-00063750	574..1+11443050	83..01+00063201	63.381
110063+00000020	32..01+00257770	331107+00052177	52..07+0003+011	
110064+00000021	32..01+00238410	332107+00034085	52..07+0003+001	
110065+00000021	573..1-00044400	574..1+11939230	83..01+00065010	65.470.190
110066+00000021	32..01+00204170	331107+00051106	52..07+0003+005	
110067+00000022	32..01+00247830	332107+00043474	52..07+0003+007	
110068+00000022	573..1-00088050	574..1+12391230	83..01+00065773	.953

← CORRECTED GLEV. ORIGINAL ENTERED } RUN
 w/ 68.68 NEED TO ADD 0.18' TO EACH GLEV. GRIFFIN RANCH
 1/28/05

110071+00000023	573..1-00070760	574..1+12783220	83..01+00065775	.955
110072+00000023	32..01+00234720	331107+00043094	52..07+0003+002	
110073+00000024	32..01+00244320	332107+00066250	52..07+0003+009	
110074+00000024	573..1-00080360	574..1+13262260	83..01+00063460	.64
110075+00000024	32..01+00266840	331107+00047618	52..07+0003+003	
110076+00000025	32..01+00257050	332107+00047252	52..07+0003+001	
110077+00000025	573..1-00070580	574..1+13786150	83..01+00063496	.676
110078+00000025	32..01+00264150	331107+00048966	52..07+0003+004	
110079+00000026	32..01+00262380	332107+00043973	52..07+0003+002	
110080+00000026	573..1-00068810	574..1+14312670	83..01+00063996	64.176
110081+00000026	32..01+00137590	331107+00058054	52..07+0003+011	
110082+00000127	32..01+00125470	332107+00050888	52..07+0003+003	
110083+00000127	573..1-00056700	574..1+14575730	83..01+00064712	64.892
110084+00000127	32..01+00225020	331107+00053949	52..07+0003+009	
110085+00000028	32..01+00238130	332107+00065969	52..07+0003+015	
110086+00000028	573..1-00069800	574..1+15038880	83..01+00063510	.69
110087+00000028	32..01+00251730	331107+00047596	52..07+0003+017	
110088+00000029	32..01+00248320	332107+00048286	52..07+0003+003	
110089+00000029	573..1-00066390	574..1+15538940	83..01+00063441	.621
110090+00000029	32..01+00296500	331107+00048394	52..07+0003+004	
110091+00000030	32..01+00289030	332107+00027129	52..07+0003+015	
110092+00000030	573..1-00058920	574..1+16124470	83..01+00065568	.748
110093+00000030	32..01+00295830	331107+00050224	52..07+0003+033	
110094+00000031	32..01+00294380	332107+00048285	52..07+0003+006	
110095+00000031	573..1-00057470	574..1+16714680	83..01+00065761	.941
110096+00000031	32..01+00298070	331107+00044219	52..07+0003+021	
110097+00000032	32..01+00277160	332107+00055458	52..07+0003+005	
110098+00000032	573..1-00036560	574..1+17289910	83..01+00064638	.818
110099+00000032	32..01+00230100	331107+00039289	52..07+0003+004	
110100+00000033	32..01+00272280	332107+00051231	52..07+0003+018	
110101+00000033	573..1-00078750	574..1+17792290	83..01+00063443	.623
110102+00000033	32..01+00298210	331107+00055436	52..07+0003+002	
110103+00000034	32..01+00268290	332107+00047511	52..07+0003+024	
110104+00000034	573..1-00048830	574..1+18358800	83..01+00064236	.416
110105+00000034	32..01+00299880	331107+00050525	52..07+0003+006	
110106+00000035	32..01+00295610	332107+00046614	52..07+0003+006	
110107+00000035	573..1-00044550	574..1+18954290	83..01+00064627	.807
110108+00000035	32..01+00288000	331107+00050465	52..07+0003+041	
110109+00000036	32..01+00283630	332107+00046766	52..07+0003+008	
110110+00000036	573..1-00040180	574..1+19525920	83..01+00064997	.65.177
110111+00000036	32..01+00292140	331107+00049489	52..07+0003+013	
110112+00000037	32..01+00298910	332107+00046253	52..07+0003+002	
110113+00000037	573..1-00046950	574..1+20116960	83..01+00065321	.501
110114+00000037	32..01+00205080	331107+00058190	52..07+0003+003	
110115+00000038	32..01+00310360	332107+00031354	52..07+0003+005	
110116+00000038	573..1-00152230	574..1+20632400	83..01+00068004	.184
110117+00000038	32..01+00292960	331107+00049785	52..07+0003+006	
110118+00000039	32..01+00296610	332107+00052401	52..07+0003+012	
110119+00000039	573..1-00155880	574..1+21221970	83..01+00067743	.923
110120+00000039	32..01+00292770	331107+00044914	52..07+0003+009	
110121+00000040	32..01+00305420	332107+00056061	52..07+0003+007	
110122+00000040	573..1-00168530	574..1+21820160	83..01+00066628	.808
110123+00000040	32..01+00296560	331107+00045898	52..07+0003+004	
110124+00000041	32..01+00309180	332107+00053481	52..07+0003+014	
110125+00000041	573..1-00181150	574..1+22425900	83..01+00065870	66.050
110126+00000041	32..01+00299090	331107+00051759	52..07+0003+013	
110127+00000042	32..01+00248430	332107+00048018	52..07+0003+005	
110128+00000042	573..1-00130490	574..1+22973410	83..01+00066244	.424
110129+00000042	32..01+00289940	331107+00050215	52..07+0003+015	
110130+00000043	32..01+00254360	332107+00061211	52..07+0003+002	
110131+00000043	573..1-00094910	574..1+23517710	83..01+00065144	.324
110132+00000043	32..01+00304180	331107+00053381	52..07+0003+005	
110133+00000044	32..01+00249990	332107+00051505	52..07+0003+011	
110134+00000044	573..1-00040720	574..1+24071880	83..01+00065332	.512
110135+00000044	32..01+00298990	331107+00050590	52..07+0003+035	
110136+00000045	32..01+00277020	332107+00060142	52..07+0003+022	
110137+00000045	573..1-00018750	574..1+24647890	83..01+00064376	.556
110138+00000045	32..01+00290590	331107+00050602	52..07+0003+009	

110141+00000046	32..01+00292660	331107+00045788	52..07+0003+002	
110142+00000047	32..01+00248020	332107+00043006	52..07+0003+027	
110143+00000047	573..1+00046860	574..1+25748800	83..01+00065357	.537
110144+00000047	32..01+00301580	331107+00049221	52..07+0003+074	
110145+00000048	32..01+00231750	332107+00049602	52..07+0003+017	
110146+00000048	573..1+00116690	574..1+26282130	83..01+00065319	.499
110147+00000048	32..01+00290700	331107+00047188	52..07+0003+021	
110148+00000049	32..01+00214110	332107+00048342	52..07+0003+016	
110149+00000049	573..1+00193270	574..1+26786940	83..01+00065204	.384
110150+00000049	32..01+00102970	331107+00048196	52..07+0003+004	
110151+00000150	32..01+00127800	332107+00042609	52..07+0003+001	
110152+00000150	573..1+00168440	574..1+27017710	83..01+00065762	.942

GRIFFIN

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Input Field File : J:\2002\A020801.03\levelpak\GRIFFINRANCH\GRIFFIN.raw
 Output Data File : J:\2002\A020801.03\STARNET\GRIFFIN.dat
 Date Processed : 01-28-2005 10:55:44

Line	Point	Type	E	D	Sum E	Sum D	Desc
3	100	B	5.5793	187.8000	0.0000	0.0000	
4		F	4.5877	201.2400	0.9916	389.0400	
6		B	4.6436	315.2900			
7		F	5.1035	292.0900	0.5317	996.4200	
9		B	4.9948	306.0500			
10		F	4.5931	261.5200	0.9334	1563.9900	
12		B	4.6580	301.4400			
13		F	4.8990	296.8200	0.6924	2162.2500	
15		B	4.9217	315.1000			
16		F	4.9047	302.6500	0.7094	2780.0000	
18		B	4.6766	295.5800			
19		F	4.5584	295.9900	0.8276	3371.5700	
21		B	4.4820	236.3900			
22		F	5.2551	303.5900	0.0545	3911.5500	
24		B	5.3616	263.5900			
25		F	5.0137	302.8900	0.4024	4478.0300	
27		B	5.1260	307.8100			
28		F	4.6771	324.3700	0.8513	5110.2100	
30		B	4.6950	310.6000			
31		F	4.7417	307.0600	0.8046	5727.8700	
33		B	5.5641	305.8500			
34		F	5.1761	270.1100	1.1926	6303.8300	
36		B	5.2738	302.4300			
37		F	5.5470	307.5900	0.9194	6913.8500	
39		B	6.0068	307.6800			
40		F	4.3138	320.1900	2.6124	7541.7200	
42		B	5.3303	299.7200			
43		F	4.7882	308.4700	3.1545	8149.9100	
45		B	4.7325	310.5200			
46		F	5.7754	232.5300	2.1116	8692.9600	
48		B	3.9056	289.9700			
49		F	5.8125	296.6400	0.2047	9279.5700	
51		B	4.6874	306.2000			
52		F	4.9431	306.9500	-0.0510	9892.7200	
54		B	4.4770	300.0700			
55		F	4.7159	308.8500	-0.2899	10501.6400	
57		B	4.7485	241.9400			
58		F	5.1640	264.5800	-0.7054	11008.1600	
60		B	4.7505	185.6200			
61		F	5.5240	249.2800	-1.4789	11443.0600	
63		B	5.2177	257.7700			
64		F	3.4085	238.4100	0.3303	11939.2400	
66		B	5.1106	204.1700			
67		F	4.3474	247.8300	1.0935	12391.2400	
69		B	5.0368	204.6400			
70		F	5.0349	187.3500	1.0954	12783.2300	
72		B	4.3094	234.7200			
73		F	6.6250	244.3200	-1.2202	13262.2700	
75		B	4.7618	266.8400			
76		F	4.7252	257.0500	-1.1836	13786.1600	
78		B	4.8966	264.1500			
79		F	4.3973	262.3800	-0.6843	14312.6900	
81		B	5.8054	137.5900			
82	127	F	5.0888	125.4700	0.0323	14575.7500	

GRIFFIN

Line	Point	Type	E	D	Sum E	Sum D	Desc
84	127	B	5.3949	225.0200	0.0000	0.0000	
85		F	6.5969	238.1300	-1.2020	463.1500	
87		B	4.7596	251.7300			
88		F	4.8286	248.3200	-1.2710	963.2000	
90		B	4.8394	296.5000			
91		F	2.7129	289.0300	0.8555	1548.7300	
93		B	5.0224	295.8300			
94		F	4.8285	294.3800	1.0494	2138.9400	
96		B	4.4219	298.0700			
97		F	5.5458	277.1600	-0.0745	2714.1700	
99		B	3.9289	230.1000			
100		F	5.1231	272.2800	-1.2687	3216.5500	
102		B	5.5436	298.2100			
103		F	4.7511	268.2900	-0.4762	3783.0500	
105		B	5.0525	299.8800			
106		F	4.6614	295.6100	-0.0851	4378.5400	
108		B	5.0465	288.0000			
109		F	4.6766	283.6300	0.2848	4950.1700	
111		B	4.9489	292.1400			
112		F	4.6253	298.9100	0.6084	5541.2200	
114		B	5.8190	205.0800			
115		F	3.1354	310.3600	3.2920	6056.6600	
117		B	4.9785	292.9600			
118		F	5.2401	296.6100	3.0304	6646.2300	
120		B	4.4914	292.7700			
121		F	5.6061	305.4200	1.9157	7244.4200	
123		B	4.5898	296.5600			
124		F	5.3481	309.1800	1.1574	7850.1600	
126		B	5.1759	299.0900			
127		F	4.8018	248.4300	1.5315	8397.6800	
129		B	5.0215	289.9400			
130		F	6.1211	254.3600	0.4319	8941.9800	
132		B	5.3381	304.1800			
133		F	5.1505	249.9900	0.6195	9496.1500	
135		B	5.0590	298.9900			
136		F	6.0142	277.0200	-0.3357	10072.1600	
138		B	5.0602	290.5900			
139		F	4.3576	269.6300	0.3669	10632.3800	
141		B	4.5788	292.6600			
142		F	4.3006	248.0200	0.6451	11173.0600	
144		B	4.9221	301.5800			
145		F	4.9602	231.7500	0.6070	11706.3900	
147		B	4.7188	290.7000			
148		F	4.8342	214.1100	0.4916	12211.2000	
150		B	4.8196	102.9700			
151	150	F	4.2609	127.8000	1.0503	12441.9700	

Process completed with 0 errors and 0 warnings.

Summary of Files Used and Option Settings

Project Folder and Data Files

Project Name GRIFFIN
Project Folder J:\2002\A020801.03\STARNET
Data File List GRIFFIN.dat

Project Option Settings

STAR*NET Run Mode : Adjust with Error Propagation
Type of Adjustment : Lev
Project Units : FeetUS
Input/Output Coordinate Order : North-East
Create Coordinate File : Yes

Instrument Standard Error Settings

Project Default Instrument
Differential Levels : 0.010000 FeetUS / Mile

Listing of Input Data

=====

[File: J:\2002\A020801.03\STARNET\GRIFFIN.DAT]

STAR*DNA Version 4.0.2

Copyright 2003 Starplus Software, Inc.

Input Field File : J:\2002\A020801.03\levelpak\GRIFFINRANCH\GRIFFIN.raw

Date Processed : 01-28-2005 10:55:44

.Units FeetUS

.Sep -

.3D

NAVD 88 BM ELEVATIONS

E 100 64.86 !

E 150 65.95 !

Elevation Difference Records

# Stations	Diff	Dist	Descriptor
L 100-127	0.03230	14576	
L 127-150	1.05030	12442	

Summary of Unadjusted Input Observations

=====

Number of Entered Stations (FeetUS) = 2

Fixed Stations	Elev	Description
100	64.8600	
150	65.9500	

Number of Differential Level Observations (FeetUS) = 2

From	To	Elev Diff	StdErr	Length
100	127	0.0323	0.0166	14576
127	150	1.0503	0.0154	12442

Adjustment Statistical Summary

=====
Number of Stations = 3
Number of Observations = 2
Number of Unknowns = 1
Number of Redundant Obs = 1

Observation	Count	Sum Squares of StdRes	Error Factor
Level Data	2	0.107	0.327
Total	2	0.107	0.327

The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.031/2.241)

Adjusted Elevations and Error Propagation (FeetUS)

=====

Station	Elev	StdDev	95%	Description
100	64.8600	0.000000	0.000000	
150	65.9500	0.000000	0.000000	
127	64.8963	0.011275	0.022099	

Adjusted Observations and Residuals

=====

Adjusted Differential Level Observations (FeetUS)

From	To	Elev Diff	Residual	StdErr	StdRes
100	127	0.0363	0.0040	0.0166	0.2
127	150	1.0537	0.0034	0.0154	0.2

Elapsed Time = 00:00:00

GRIFFIN-WELL.RAW

410025+?.....1
110026+00000127 83..11+00064900
110027+00000127 32..01+00029380 331107+00056449 52..07+0003+005
110028+00000201 32..01+00041110 332107+00013048 52..07+0003+010
110029+00000201 573..1-00011740 574..1+00070490 83..01+00069240
110030+00000201 32..01+00041030 331107+00015209 52..07+0003+001
110031+00000127 32..01+00029460 332107+00058608 52..07+0003+005
110032+00000127 573..1-00000170 574..1+00140970 83..01+00064900

GRIFFIN-WELL.log

STAR*DNA Version 4.0.2
Copyright 2003 Starplus Software, Inc.

Input Field File : J:\2002\A020801.03\levelpak\GRIFFINRANCH\GRIFFIN-WELL.RAW
Output Data File : J:\2002\A020801.03\STARNET\GRIFFIN-WELL.dat
Date Processed : 04-22-2005 13:23:07

Line	Point	Type	E	D	Sum E	Sum D	Desc
3	127	B	5.6449	29.3800	0.0000	0.0000	
4	201	F	1.3048	41.1100	4.3401	70.4900	

Line	Point	Type	E	D	Sum E	Sum D	Desc
6	201	B	1.5209	41.0300	0.0000	0.0000	
7	127	F	5.8608	29.4600	-4.3399	70.4900	

Process completed with 0 errors and 0 warnings.

Summary of Files Used and Option Settings
=====

Project Folder and Data Files

Project Name GRIFFIN
Project Folder J:\2002\A020801.03\STARNET
Data File List GRIFFIN-WELL.dat

Project Option Settings

STAR*NET Run Mode : Adjust with Error Propagation
Type of Adjustment : Lev
Project Units : FeetUS
Input/Output Coordinate Order : North-East
Create Coordinate File : Yes

Instrument Standard Error Settings

Project Default Instrument
Differential Levels : 0.010000 FeetUS / Mile

Listing of Input Data

=====

[File: J:\2002\A020801.03\STARNET\GRIFFIN-WELL.DAT]

STAR*DNA Version 4.0.2

Copyright 2003 Starplus Software, Inc.

Input Field File : J:\2002\A020801.03\levelpak\GRIFFINRANCH\GRIFFIN-WELL.RAW

Date Processed : 04-22-2005 13:23:07

.Units FeetUS

.Sep -

.3D

#NAVD 88 ELEVATIONS

E 127 64.90 !

Elevation Difference Records

Stations

	Diff	Dist	Descriptor
L 127-201	4.34010	70	
L 201-127	-4.33990	70	

Summary of Unadjusted Input Observations

Number of Entered Stations (FeetUS) = 1

Fixed Stations	Elev	Description
127	64.9000	

Number of Differential Level Observations (FeetUS) = 2

From	To	Elev Diff	StdErr	Length
127	201	4.3401	0.0012	70
201	127	-4.3399	0.0012	70

Adjustment Statistical Summary
=====

Number of Stations = 2
Number of Observations = 2
Number of Unknowns = 1
Number of Redundant Obs = 1

Observation	Count	Sum Squares of StdRes	Error Factor
Level Data	2	0.015	0.123
Total	2	0.015	0.123

The Chi-Square Test at 5.00% Level Passed
Lower/Upper Bounds (0.031/2.241)

Adjusted Elevations and Error Propagation (FeetUS)

=====

Station	Elev	StdDev	95%	Description
127	64.9000	0.000000	0.000000	
201	69.2400	0.000814	0.001596	

Adjusted Observations and Residuals

=====

Adjusted Differential Level Observations (FeetUS)

From	To	Elev Diff	Residual	StdErr	StdRes
127	201	4.3400	-0.0001	0.0012	0.1
201	127	-4.3400	-0.0001	0.0012	0.1

Elapsed Time = 00:00:01

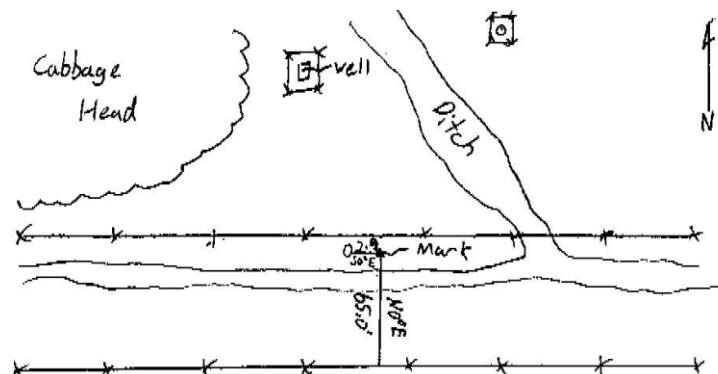


SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY Okeechobee		PROJECT Griffin Ranch		DESIGNATION GRRH 5	
SECTION <u>29</u>		TOWNSHIP <u>34S</u>		RANGE <u>24E</u>	
GEOGRAPHIC INDEX OF QUAD					
Established by <u>X</u> Recovered by Cooner & Associates, Inc.			NAME OF QUADRANGLE Taylor Creek NW		
SURVEYOR <u>RJE</u> DATE <u>1 / 19 / 2005</u>			FIELD BOOK <u>81</u> PAGE <u>14-21</u>		
HORIZONTAL DATUM: 1927 1983 Other _____ (circle one) ZONE E or W					
VERTICAL DATUM: MSL 1929 1988 Other _____ (circle one)					
CONTROL ACCURACY: HORIZONTAL 1 2 3 <u>Sub-meter</u> (circle one) VERTICAL 1 2 3					
STATE PLANE COORDINATES		X 679006.17'	Y 1148897.95'	EL. 64.90'	
LATITUDE 27° 29' 39.80" N		LONGITUDE 080° 55' 46.37" W			
DESCRIPTION SFWMD ALUM. DISK IN CONCRETE					
To Reach:					
To reach the mark from the intersection of US Highway 441 and County Road 724, go west on County Road 724 for 9.4 miles to a dirt road on the right with a sign "CNC Ranch". Head north along this road for 2.2 miles to a gated dirt Road and an archway "CNC Ranch". Go through the gate headed east for 1.1 miles to the mark on the left.					
Notable Land marks:					
Mark is 2.9' east of a wood power pole and 65.0' north of an east-west running barbed wire fence. Mark is set ~0.5" below ground level.					

SKETCH





SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01



Looking North

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.							
Line/Part: L26130		SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained					
Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes	
738	0035	AJ6105	S 499	20.0628	20.4723		
739	0034	AJ6104	R 499	19.7375	20.1403		

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.12.1
1      National Geodetic Survey,  Retrieval Date = APRIL  5, 2017
AJ6104 *****
AJ6104 DESIGNATION - R 499
AJ6104 PID - AJ6104
AJ6104 STATE/COUNTY- FL/OKEECHOBEE
AJ6104 COUNTRY - US
AJ6104 USGS QUAD - TAYLOR CREEK NW (1972)
AJ6104
AJ6104 *CURRENT SURVEY CONTROL
AJ6104
AJ6104* NAD 83(1986) POSITION- 27 27 51. (N) 080 56 45. (W) SCALED
AJ6104* NAVD 88 ORTHO HEIGHT - 19.769 (meters) 64.86 (feet) ADJUSTED
AJ6104
AJ6104 GEOID HEIGHT - -26.361 (meters) GEOID12B
AJ6104 DYNAMIC HEIGHT - 19.740 (meters) 64.76 (feet) COMP
AJ6104 MODELED GRAVITY - 979,147.6 (mgal) NAVD 88
AJ6104
AJ6104 VERT ORDER - SECOND CLASS I
AJ6104
AJ6104.The horizontal coordinates were scaled from a topographic map and have
AJ6104.an estimated accuracy of +/- 6 seconds.
AJ6104.
AJ6104.The orthometric height was determined by differential leveling and
AJ6104.adjusted by the NATIONAL GEODETIC SURVEY
AJ6104.in January 2002.
AJ6104
AJ6104.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ6104.GEOID12B height accuracy estimate available here.
AJ6104
AJ6104.The dynamic height is computed by dividing the NAVD 88
AJ6104.geopotential number by the normal gravity value computed on the
AJ6104.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6104.degrees latitude (g = 980.6199 gals.).
AJ6104
AJ6104.The modeled gravity was interpolated from observed gravity values.
AJ6104
AJ6104; North East Units Estimated Accuracy
AJ6104;SPC FL E - 346,840. 205,350. MT (+/- 180 meters Scaled)
AJ6104
AJ6104_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL053378(NAD 83)
AJ6104
AJ6104 SUPERSEDED SURVEY CONTROL
AJ6104
AJ6104.No superseded survey control is available for this station.
AJ6104
AJ6104_MARKER: DD = SURVEY DISK
AJ6104_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6104_STAMPING: R 499 2000
AJ6104_MARK LOGO: FLDEP
AJ6104_MAGNETIC: N = NO MAGNETIC MATERIAL

```

AJ6104_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AJ6104+STABILITY: SURFACE MOTION
 AJ6104_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AJ6104+SATELLITE: SATELLITE OBSERVATIONS - 2000

AJ6104

AJ6104	HISTORY	- Date	Condition	Report By
AJ6104	HISTORY	- 2000	MONUMENTED	FLDEP
AJ6104	HISTORY	- 20050119	GOOD	INDIV

AJ6104

AJ6104 STATION DESCRIPTION

AJ6104

AJ6104'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)

AJ6104'THE MARK IS ABOUT 17.3 MI (27.8 KM) NORTH OF OKEECHOBEE, 12.5 MI (20.1
 AJ6104'KM) SOUTHWEST OF FORT DRUM ON COUNTY ROAD 724, IN SECTION 5, TOWNSHIP
 AJ6104'35 SOUTH, RANGE 34 EAST. TO REACH THE MARK FROM THE INTERSECTION OF
 AJ6104'U.S. HIGHWAY 441 (PARROTT STREET) AND STATE ROAD 70 (PARK STREET) IN
 AJ6104'OKEECHOBEE, GO NORTH ON U.S. HIGHWAY 441 (PARROTT STREET) FOR 14.4 MI
 AJ6104'(23.2 KM) TO THE JUNCTION OF COUNTY ROAD 68 ON THE RIGHT, CONTINUE
 AJ6104'NORTH ON U.S. HIGHWAY 441 FOR 1.0 MI (1.6 KM) TO THE JUNCTION OF
 AJ6104'COUNTY ROAD 724 (NW 240TH STREET) ON THE LEFT, TURN LEFT ON COUNTY
 AJ6104'ROAD 724 (NW 240TH STREET) AND GO WEST FOR 8.45 MI (13.60 KM) TO THE
 AJ6104'MARK ON THE LEFT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT FLUSH
 AJ6104'WITH THE GROUND AND LEVEL WITH THE COUNTY ROAD 724. LOCATED 49.3 FT
 AJ6104'(15.0 M) SOUTH OF THE CENTERLINE OF COUNTY ROAD 724, 16.5 FT (5.0 M)
 AJ6104'WEST OF THE APPROXIMATE CENTERLINE OF A DRIVEWAY AND A GATE, 1.3 FT
 AJ6104'(0.4 M) NORTH OF A BARBWIRE FENCE AND 1.2 FT (0.4 M) NORTH OF A
 AJ6104'CARSONITE WITNESS POST.

AJ6104

AJ6104 STATION RECOVERY (2005)

AJ6104

AJ6104'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2005

AJ6104'RECOVERED AS DESCRIBED. RECOVERY NOTE BY COONER AND ASSOCIATES, INC.

*** retrieval complete.

Elapsed Time = 00:00:03

From the "ngvd29.txt" file provided by NGS for the CERP Geodetic Vertical Control Project.						
Line/Part: L26130		SSN+: mark floated, SSN*: mark constrained, SSN#: mark floated & constrained				
Mark ID	SSN	PID	Designation	Geopotential	Elevation	Codes
738	0035	AJ6105	S 499	20.0628	20.4723	
739	0034	AJ6104	R 499	19.7375	20.1403	

The NGS Data Sheet

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

```

PROGRAM = datasheet95, VERSION = 8.12.1
1      National Geodetic Survey,  Retrieval Date = APRIL  5, 2017
AJ6105 *****
AJ6105 DESIGNATION -  S 499
AJ6105 PID          -  AJ6105
AJ6105 STATE/COUNTY-  FL/OKEECHOBEE
AJ6105 COUNTRY      -  US
AJ6105 USGS QUAD    -  TAYLOR CREEK NW (1972)
AJ6105
AJ6105                      *CURRENT SURVEY CONTROL
AJ6105
AJ6105* NAD 83(1986) POSITION- 27 27 51.      (N) 080 55 50.      (W)  SCALED
AJ6105* NAVD 88 ORTHO HEIGHT -   20.102 (meters)      65.95 (feet) ADJUSTED
AJ6105
AJ6105 GEOID HEIGHT   -          -26.389 (meters)                      GEOID12B
AJ6105 DYNAMIC HEIGHT -           20.072 (meters)      65.85 (feet) COMP
AJ6105 MODELED GRAVITY -   979,147.7 (mgal)                      NAVD 88
AJ6105
AJ6105 VERT ORDER    -  SECOND      CLASS I
AJ6105
AJ6105.The horizontal coordinates were scaled from a topographic map and have
AJ6105.an estimated accuracy of +/- 6 seconds.
AJ6105.
AJ6105.The orthometric height was determined by differential leveling and
AJ6105.adjusted by the NATIONAL GEODETIC SURVEY
AJ6105.in January 2002.
AJ6105
AJ6105.Significant digits in the geoid height do not necessarily reflect accuracy.
AJ6105.GEOID12B height accuracy estimate available here.
AJ6105
AJ6105.The dynamic height is computed by dividing the NAVD 88
AJ6105.geopotential number by the normal gravity value computed on the
AJ6105.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AJ6105.degrees latitude (g = 980.6199 gals.).
AJ6105
AJ6105.The modeled gravity was interpolated from observed gravity values.
AJ6105
AJ6105;                      North      East      Units  Estimated Accuracy
AJ6105;SPC FL E      -   346,840.      206,860.      MT  (+/- 180 meters Scaled)
AJ6105
AJ6105_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL068378(NAD 83)
AJ6105
AJ6105                      SUPERSEDED SURVEY CONTROL
AJ6105
AJ6105.No superseded survey control is available for this station.
AJ6105
AJ6105_MARKER: DD = SURVEY DISK
AJ6105_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AJ6105_STAMPING: S 499 2000
AJ6105_MARK LOGO: FLDEP
AJ6105_MAGNETIC: N = NO MAGNETIC MATERIAL

```

AJ6105_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AJ6105+STABILITY: SURFACE MOTION
AJ6105_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
AJ6105+SATELLITE: SATELLITE OBSERVATIONS - 2000

AJ6105

AJ6105	HISTORY	- Date	Condition	Report By
AJ6105	HISTORY	- 2000	MONUMENTED	FLDEP
AJ6105	HISTORY	- 20050119	GOOD	INDIV

AJ6105

AJ6105 STATION DESCRIPTION

AJ6105

AJ6105'DESCRIBED BY FL DEPT OF ENV PRO 2000 (JLM)

AJ6105'THE MARK IS ABOUT 17.2 MI (27.7 KM) NORTH OF OKEECHOBEE, 11.5 MI (18.5
AJ6105'KM) SOUTHWEST OF FORT DRUM ON COUNTY ROAD 724, IN SECTION 4, TOWNSHIP
AJ6105'35 SOUTH, RANGE 34 EAST. TO REACH THE MARK FROM THE INTERSECTION OF
AJ6105'U.S. HIGHWAY 441 (PARROTT STREET) AND STATE ROAD 70 (PARK STREET) IN
AJ6105'OKEECHOBEE, GO NORTH ON U.S. HIGHWAY 441 (PARROTT STREET) FOR 14.4 MI
AJ6105'(23.2 KM) TO THE JUNCTION OF COUNTY ROAD 68 ON THE RIGHT, CONTINUE
AJ6105'NORTH ON U.S. HIGHWAY 441 FOR 1.0 MI (1.6 KM) TO THE JUNCTION OF
AJ6105'COUNTY ROAD 724 (NW 240TH STREET) ON THE LEFT, TURN LEFT ON COUNTY
AJ6105'ROAD 724 (NW 240TH STREET) AND GO WEST FOR 7.5 MI (12.1 KM) TO THE
AJ6105'ENTRANCE GATE TO A CELL PHONE TOWER ON THE LEFT AND THE MARK ON THE
AJ6105'LEFT, SET IN THE TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE
AJ6105'GROUND AND LEVEL WITH COUNTY ROAD 724, 0.1 MI (0.2 KM) WEST OF THE
AJ6105'TOWER. LOCATED 46.0 FT (14.0 M) SOUTH OF THE CENTERLINE OF COUNTY ROAD
AJ6105'724, 11.6 FT (3.5 M) WEST OF THE APPROXIMATE CENTERLINE OF A FIELD
AJ6105'ENTRANCE, 5.2 FT (1.6 M) WEST OF THE WEST END OF THE ENTRANCE GATE AND
AJ6105'3.3 FT (1.0 M) NORTH OF A BARBWIRE FENCE AND 2.7 FT (0.8 M) NORTH OF A
AJ6105'CARSONITE WITNESS POST.

AJ6105

AJ6105 STATION RECOVERY (2005)

AJ6105

AJ6105'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2005

AJ6105'RECOVERED AS DESCRIBED. RECOVERY NOTE BY COONER AND ASSOCIATES, INC

*** retrieval complete.

Elapsed Time = 00:00:05