

# Data Sheet and Surveyor's Report for

# **Buck Island Ranch Monitoring Well Benchmarks**

Description: Monitoring Well "BUCK 13"

Location: Buck Island Ranch, Highlands County, Florida

**Project Results** 

Benchmarks established:

1. "BUCK 13A": 3" bronze survey disk set in concrete monument

**a.** Elevation: **7.8339 m** 

2. "BUCK 13C": Top of existing 3" PVC monitoring well casing

a. Elevation: **8.8515 m** 

Party Chief: **G. Royer** Field Book: **154**, Pages **1 - 45** 

Survey Date: <u>February – May 2005</u> Bench Mark: "<u>H-437"</u> El. <u>9.395 m / 30.82 ft.</u>

"J-437" El. 11.555 m / 37.91 ft.

Date: June 17, 2005

Vertical Datum: NAVD1988

NGVD 1929 Offset: + **1.210 ft.** (add this value to convert to NGVD 1929)

#### Comments:

The offset value referred to as "NGVD 1929 Offset" was derived by subtracting the published NAVD 1988 elevation from the published NGVD 1929 elevation for NGS Benchmarks "H-437 and J-437".

**G.P.S. POSITION** (NAD 83, Florida East Zone, Sub-meter):

Well Site: "BUCK 13A" N = 1021836 E = 597094

NAVD 88 - North American Vertical Datum of 1988 NGVD29 -National Geodetic Vertical Datum of 1929 NAD 83 (Horizontal Datum) North American Datum of 1983

\*Note: See the SFWMD Benchmark Description Sheet for additional information

#### SURVEYOR'S REPORT

## **Vertical Control Survey**

Hyatt Survey Services, Inc. operating under sub-contract to George F Young, Inc. and the South Florida Water Management District was tasked with the execution of a Vertical Control Survey in support of the District's Benchmark Densification and Monitoring Well Elevation Initiatives.

### **Purpose**

The purpose of this survey was to establish benchmarks at each of 22 monitoring wells on the Buck Island Ranch Facility in Highlands County, Florida. A minimum of two (2) benchmarks were established at each well.

1. "A" benchmarks are NGS Class "C", "poured-in-place," concrete monuments with SFWMD bronze disks set flush with the ground.

- 2. "B" benchmarks were set on the top of existing 1.5" steel pipes at each well site. Each pipe protrudes approximately 3" above the surrounding ground.
- 3. "C" benchmarks were set on the top of the 3" PVC well casing at each well site.

Elevations were determined by digital differential leveling performed in accordance with the Minimum Technical Standards (MTS) for Vertical Control Surveys as set forth in Chapter 61G17-6 FAC and the requirements for Second-Order Class II Vertical Control Surveys as established by the Federal Geodetic Control Sub-committee.

#### Vertical Control

All elevations are based on National Geodetic Survey Benchmarks "H-437" and "J-437" both Second Order, Class I vertical control monuments. The vertical datum used was NAVD 88 (North American Vertical Datum of 1988).

#### **Level Lines**

All level runs were double-run under differing atmospheric conditions and meet or exceed the formula of the Square Root in miles of the level run multiplied by 0.03°. A Leica DNA 3003 digital level and two 3 meter aluminum bar-coded "Invar Rods" with aluminum struts were utilized to obtain all leveling data.

The processing of the field data was performed by and under the supervision of Mr. Ronnie Taylor, Florida's NGS Advisor. NGS' "WDDPROC" leveling software was utilized to process the field data and to create the NGS benchmark descriptions.

Prepared by: **Hyatt Survey Services, Inc.** 

11007 8<sup>th</sup> Avenue East Bradenton, Florida 34212

(941) 748-4693

Prepared for: South Florida Water Management District

3301 Gun Club Road

West Palm Beach, Florida 33406

#### **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.

## **Hyatt Survey Services, Inc.**

Russell P. Hyatt, PSM, VP Professional Surveyor and Mapper License Number 5303

# **BUCK 013A**



Prime Contractor: George F. Young, Inc. Subcontractor: Hyatt Survey Services, Inc.

Date of Photo: July 7, 2005

View: Monument

# **BUCK013**



Prime Contractor: George F. Young, Inc. Subcontractor: Hyatt Survey Services, Inc. Date of Photo: June 15, 2005

View: Well Site

# BUCK013C



Prime Contractor: George F. Young, Inc. Subcontractor: Hyatt Survey Services, Inc. Date of Photo: June 15, 2005

View: Well

LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE	OF
		1		

SURVEY	SURVEY	TIME ZONE	TEMP PROBE	TEMP PROBE
ORDER	CLASS	CODE	TOP HGT	BOTTOM HGT
2				11

## CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1	INFO 2	OBS'R	INFO 3 -INST TYPE	INFO 4 -TEMP CODE
DATE (MMDDYY)	OBS'R ≓	INIT'S	(2000, 2002, 3000, 3003)	(0 for C - 1 for F)
5/21/5	1 1	SIL		90°

#### CODE 2 - EQUIPMENT USED

4

INFO 1 - INST SERIAL	INFO 2 - INST	ROD	INFO 3 - ROD I	INFO 4 - ROD 2	
	COLLIMATION	CODE	SERIAL #	SERIAL #	
783AZO-	-1.6	396	.29572	7.29720	

المراجع والمراجع	CODE I	1 - BEGINNIN	G SECTION INFORMATION	turase of the	reserve s in greb	Andrew Polsk	a Lieni	
a secondarité dans su	SPSN	BM DESIG	BENCH MARK STAMPING	INFO I TIME (HHMM)	INFO 2 Rod On Mark #	INFO 3 TEMP	DIR F 3	
	05	BULIS	BUCK 134" 2005"	1100	ŀ	900		

CODE 99 - ENDING SECTION INFORMATION

SPSN	BM	BENCH MARK	INFO I	INFO 2	INFO 3	INFO 4
=	DESIG	STAMPING	TIME (HHMM)	Red On Mark #	TEMP	W/S=
C4	BULIZI		1218	!	900	1/2

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL	TOTAL DISTANCE (D)	ACCUMULATED	ELEV DIFFERENCE
SETUPS		IMB (d)	(GROUND HGT)
1	601,37	4476	+ 6.791

	CLOSURE	REMARKS
F		
В		
DIF		
ALW'D		

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH

SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY

OTHER INFO CODES

CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)

CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)

(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)

CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

#### LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE	OF

SURVEY	SURVEY	TIME ZONE	TEMP PROBE	TEMP PROBE
ORDER	CLASS	CODE	TOP HGT	BOTTOM HGT

#### CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1	INFO 2	OBS'R	INFO 3 -INST TYPE	INFO 4 -TEMP CODE
DATE (MMDDYY)	OBS'R#	INIT'S	(2000, 2002, 3000, 2003)	(0 for C - 1 for F)
4/25/5	1	SIZ		60°

#### CODE 2 - EQUIPMENT USED

INFO 1 - INST SERIAL	INFO 2 - INST	ROD	INFO 3 - ROD 1	INFO 4 - ROD 2
	COLLIMATION	CODE	SERIAL #	SERIAL#
783AZO	+1.1	396	29572	29720

#### CODE 11 - BEGINNING SECTION INFORMATION

# 100	DESIG	STAMPING BLCK-26A 2005	TIME (HHMM)	Rod On Mark #	TEMP	F(B)
SPSN	. BM	BENCH MARK	INFO 1	INFO 2	INFO 3	DIR

#### CODE 99 - ENDING SECTION INFORMATION

SPSN	BM	BENCH MARK	INFO 1	INFO 2	INFO 3	INFO 4
≓	DESIG	STAMPING	TIME (HHMM)	Rod On Mark #	TEMP	W/S#
0005	BUX13	BLCK-13A'2005"	1740.		840	0/2

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL	TOTAL DISTANCE (D)	ACCUMULATED	ELEV DIFFERENCE
SETUPS		IMB (d)	(GROUND HGT)
13	1045.29	-0.05	-0.0406

C	LOSURE	REMARKS	
F			
В			
DIF			
ALW'D			

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH

SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY

## OTHER INFO CODES

CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)

CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)

(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)

CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

#### LEICA DIGITAL GEODETIC LEVELING - BACKUP RECORDING SHEET

LINE	PROJECT	FILENAME	PAGE OF	

SURVEY	SURVEY	TIME ZONE	TEMP PROBE	TEMP PROBE
ORDER	CLASS	CODE	TOP HGT	BOTTOM HGT
2	l	Q		

### CODE 1 - BEGINNING OF DAY OR CHANGE IN OBSERVER OR INSTRUMENT TYPE

INFO 1	INFO 2	OBS'R	INFO 3 -INST TYPE	INFO 4 -TEMP CODE
DATE (MMDDYY)	OBS'R#	INIT'S	(2000, 2002, 3000 3003)	(0 for C - 1 for F)
04.76.05	l	SR		76°

#### CODE 2 - EQUIPMENT USED

INFO 1 - INST SERIAL	INFO 2 - INST	ROD	INFO 3 - ROD I	INFO 4 - ROD 2
	COLLIMATION	CODE	SERJAL #	SERIAL#
283420	-1.3	396	29572	29720

#### CODE 11 - BEGINNING SECTION INFORMATION

SPSN	BM	BENCH MARK	INFO 1	INFO 2	INFO 3	DIR
#	DESIG	STAMPING	TIME (HHMM)	Rod On Mark #	TEMP	F B
0005	BUCK-13	BUCK 13-A"2005	0930	gen digen hyd ffenglish i e	76	ar att att

# CODE 99 - ENDING SECTION INFORMATION

SPSN	BM	BENCH MARK	INFO 1	INFO 2	INFO 3	INFO	
#	DESIG	STAMPING	TIME (HHMM)	Rod On Mark #	TEMP	W/S	
0001	BLK-15	BUCK 15'A"2005"	1630	1	86°	2/	1

SECTION OBSERVATONS INFORMATION (Recall from level using UP/DN arrows)

TOTAL	TOTAL DISTANCE	ACCUMULATED	ELEV DIFFERENCE
SETUPS	(D)	IMB (d)	(GROUND HGT)
3	+0.510	450.75	+0.04-16 -

_		LOSURE	REMARKS	
	F			
	В			
	DIF			
Γ	ALW'D			

WIND CODE - (0) 0-6 MPH (1) 6-15 MPH (2) >15 MPH

SUN CODE - (0) 25% SUNNY (1) 25-75% SUNNY (2) >75% SUNNY

#### OTHER INFO CODES

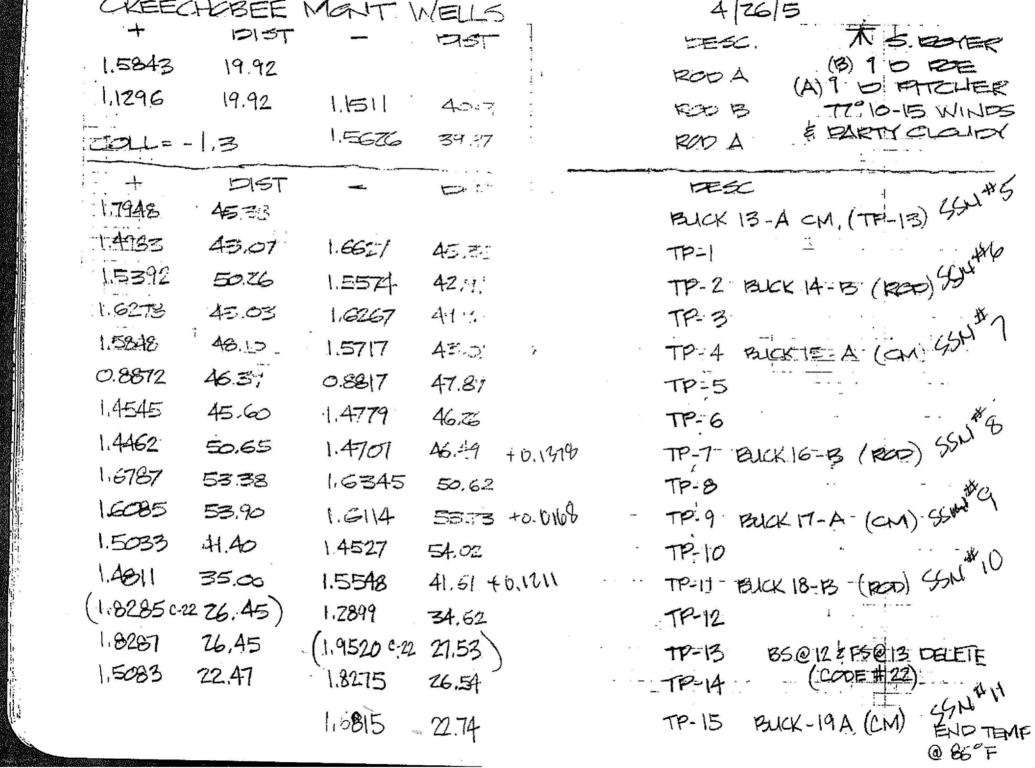
CODE 22 - REJECT PREVIOUS BACKSIGHT AND FORSIGHT (NO INFO ENTRIES - PRESS REC)

CODE 33 - GRADIENT TEMPERATURES (INFO 1 - LOWER PROBE - NO DECIMAL 761 FOR 76.1)

(INFO 2 - UPPER PROBE - NO DECIMAL 761 FOR 76.1)

CODE 9999 - END OF DAY, CHG OBS, CHG EQUIPMENT (NO INFO ENTRIES - PRESS REC)

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4554 109.79 5442 199.32	4.839 115.67	TP-1
5.177 161.0	4.921 19898	TP-2
4393 16976 4680 17936	4,425 16151	TP-A
5544 109.89	5.3/4. 180.43	TP-6
END SECTION	5 597 119.75 4347 8486	TP-7 BUCK 20-A 551-03
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7,740 108.78	6.322 171,23 5.084 170,45	TP-2
5,111 171,44	8717 109.47	TP-3

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Buck13. met
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## Identification\_Information: Ci tati on: Ci tati on\_Informati on: Originator: George F. Young, Inc. Publication\_Date: Unknown Publication\_Time: Unknown Title: Buck Island Ranch Monitoring Well Benchmarks Publication\_Information: Publication\_Place: Not published Publisher: None Description: Abstract: South Florida Water Management District Buck Island Ranch Monitoring Well Benchmarks Purpose: To establish NAVD 88 and NGVD 29 elevations and benchmarks at each of twenty two well sites. Time\_Period\_of\_Content: Time\_Period\_Information: Range\_of\_Dates/Times: Beginning\_Date: 20050217 Ending\_Date: 20050617 Currentness\_Reference: Pending NGS Approval Status: Progress: In work Maintenance\_and\_Update\_Frequency: Unknown Spati al \_Domai n: Boundi ng\_Coordi nates: West\_Boundi ng\_Coordi nate: -081°13' 03" East\_Boundi ng\_Coordi nate: -080°12' 06" North\_Boundi ng\_Coordi nate: +27°08' 41" South\_Boundi ng\_Coordi nate: +27°07' 50" Keywords: Theme: Theme\_Keyword\_Thesaurus: None Theme\_Keyword: Record Survey Theme\_Keyword: Well Site PI ace: PI ace\_Keyword\_Thesaurus: None PI ace\_Keyword: S. F. W. M. D. Well L28WFUVM PI ace\_Keyword: Sec. 18, Twp. 48 S., Rge. 33 E. PI ace\_Keyword: Hendry County, Florida Access\_Constraints: None Use\_Constraints: None Point\_of\_Contact: Contact\_Information: Contact\_Person\_Pri mary: Contact\_Person: Howard Ehmke 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 Contact\_Voi ce\_Tel ephone: (561) 686-8800, Ext. 4636 Contact\_Facsimile\_Telephone: (561) 681-6265 Contact\_Electronic\_Mail\_Address: hehmke@sfwmd.gov Hours\_of\_Service: 8:00 am to 5:00 pm EST

Page 1

Data\_Quality\_Information:

Attri bute\_Accuracy:

Attri bute\_Accuracy\_Report:

This survey was prepared using sub-meter GPS and DNA 3003 Leveling instruments. The horizontal location of the and benchmark was performed using sub-meter GPS. The vertical data was collected using a Leica DNA 3003 Level Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 83/90.

Elevations are based on NAVD 88

Logical\_Consistency\_Report:
Horizontal data was established using Coastguard corrected sub-meter GPS Vertical data was established using control points H-437 and J-437.

Completeness\_Report:

Horizontal location taken at approximate center of well. Site Benchmark is a 3" bronze disk set in top of poured in place 48"x12" round concrete monument THE MARK IS ABOUT 15 MI SOUTHEAST
OF LAKE PLACID, 12.5 MI NORTHWEST OF
LAKEPORT IN SECTION 25, TOWNSHIP 38 SOUTH
RANGE 31 EAST. TO REACH THE MARK FROM THE TOWNSHIP 38 SOUTH, JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN LEFT AND GO EAST FOR O.14 MI TO A SMALL BRIDGE OVER A CANAL. CROSS THE BRIDGE AND CONTINUE EAST FOR O. 46 MI TO A GATE ON THE RIGHT. TURN RIGHT INTO A LARGE FENCED PASTURE. THE MARK IS LOCATED 1054 FT EAST AND 2049 FT SOUTH FROM THE GATE. THE MARK IS LOCATED ON THE SOUTH SIDE OF A MONITORING WELL ENCLOSED BY A 4 FT WOODEN FENCE. THE MARK IS A 3 IN BRONZE SURVEY DISK SET IN CONCRETE, 2 FT SOUTH OF THE FENCE, SET FLUSH WITH THE GROUND. THE NAD 1983, FLORI DA EAST ZONE, STATE PLANE COORDINATE FOR THE MARK IS 1021836 FT, E=597094 FT. NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE MARK IS ABOUT 15 MI SOUTHEAST OF

LAKE PLACID, 12.5 MI NORTHWEST OF LAKEPORT IN SECTION 25, TOWNSHIP 38 SOUTH, RANGE 31 EAST. TO REACH THE MARK FROM THE JUNCTION OF U.S. HIGHWAY 27 AND STATE ROAD 70, GO EAST ON STATE ROAD 70 FOR 7.16 MI TO JC DURRANCE ROAD (A DIRT ROAD) ON THE RIGHT, TURN RIGHT AND GO SOUTH FOR 4.51 MI TO THE END OF JC DURRANCE ROAD AND A TEE INTERSECTION WITH UNNAMED DIRT ROAD. TURN LEFT AND GO EAST FOR O. 14 MI TO A SMALL BRIDGE OVER A CANAL. CROSS THE BRIDGE AND CONTINUE EAST FOR O. 46 MI TO A GATE ON THE RIGHT. TURN RIGHT INTO A LARGE FENCED PASTURE. THE MARK IS LOCATED 1055 FT EAST AND 2044 FT SOUTH FROM THE GATE. THE MARK IS A 3 IN PVC MONITORING WELL PIPE INSIDE A STEEL BOX SURROUNDED BY A 4 FT WOODEN FENCE. THE MARK IS SET 4 FT ABOVE THE

SURROUNDING GROUND. THE NAD 1983, FLORIDA EAST ZONE, STATE PLANE COORDINATE FOR THE 1021845 FT, E=597094 FT. Notable Land NONE N270841 W0811054 Posi ti onal \_Accuracy: Hori zontal \_Posi ti onal \_Accuracy: Hori zontal \_Posi ti onal \_Accuracy\_Report: The horizontal positions were established with sub-meter **GPS** Verti cal \_Posi ti onal \_Accuracy: Vertical\_Positional\_Accuracy\_Report: Second Order, Class II The methodology was approved by Mr. Ronnie Taylor, State, Geodetic Advisor The NAVD 88 elevations established for this survey was determined by using the published values for benchmark H-437 and J-437. Li neage: Process\_Step: Process\_Description: Horizontal data was established using Coastguard corrected sub-meter GPS Vertical data was established using control points H-437 and J-437. Process\_Date: 20050617 Metadata\_Reference\_Information: Metadata\_Date: 20050617 Metadata\_Contact: Contact\_Information: Contact\_Person\_Pri mary: Contact\_Person: Catherine A. Pollak Contact\_Organization: George F. Young, Inc. Contact\_Position: Project Surveyor Contact\_Address: Address\_Type: mailing and physical address Address: 299 Dr. Martin Luther King, Jr. Street, North City: St. Petersburg State\_or\_Province: Florida Postal\_Code: 33701 Country: USA

Contact\_Voice\_Telephone: (727) 822-4317

Contact\_Facsimile\_Telephone: (727) 822-2919

Contact\_Electronic\_Mail\_Address: pollak@georgefyoung.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

Buck13. met



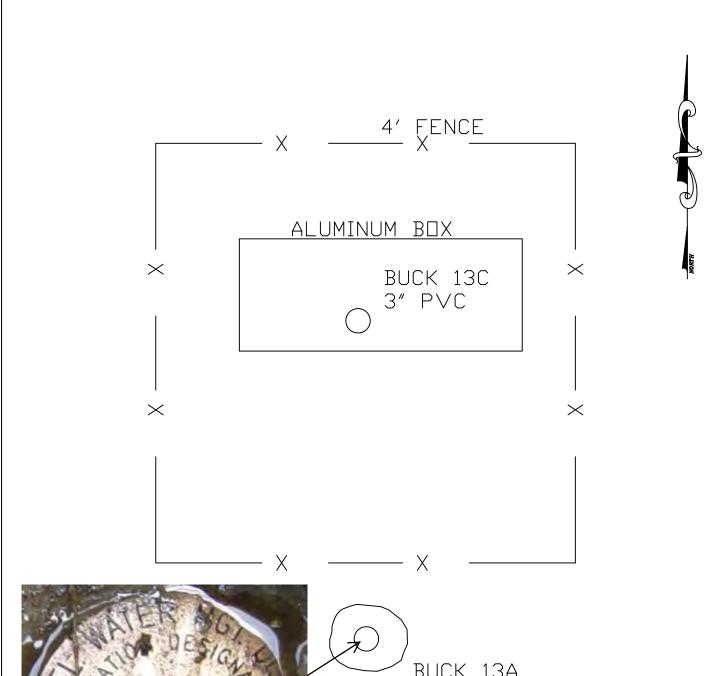
# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

				Rev. 4/01
COUNTY: HIGHLANDS	PROJECT: BUC	CK ISLAND RANCH	DESIGN	ATION: BUCK 13A
SECTION 25	TOWNSHIP 38	SOUTH	RANGE	31 EAST
GEOGRAPHIC INDEX OF QUAD				
Established by HYATT SURVEY SI Recovered by	ERVICES	NAME OF QUADRA	NGLE:	BRIGHTON NW
SURVEYOR R. HYATT DATE	<u>06 /16 / </u> 2005	FIELD BOOK 15	4	<b>PAGE</b> <u>1 - 45</u>
HORIZONTAL DATUM: 1927	<mark>983</mark> Other_	(circle	e one)	zone <mark>E</mark> or <b>W</b>
VERTICAL DATUM: MSL 1929	1988 Other	(circle	e one)	
CONTROL ACCURACY: HORIZON	NTAL 1 2 3	_ <mark>4th</mark> (circle or	ne) <b>VERT</b>	ICAL 1 2 3
STATE PLANE COORDINATES	X = 597094 FT	Y = 1021836	FT	EL. = 7.8339 m
LATITUDE : N270841	LC	NGITUDE: W08110	)54	
	DESC	RIPTION		
To Reach: THE MARK IS ABOUT 15 MI SOUTH SECTION 25, TOWNSHIP 38 SOUTH			THWEST	OF LAKEPORT IN
TO REACH THE MARK FROM THE J STATE ROAD 70 FOR 7.16 MI TO JO GO SOUTH FOR 4.51 MI TO THE EN UNNAMED DIRT ROAD. TURN LEFT CROSS THE BRIDGE AND CONTINU LARGE FENCED PASTURE. THE MA	DURRANCE RO ND OF JC DURRA AND GO EAST F JE EAST FOR 0.4 ARK IS LOCATED	AD (A DIRT ROAD) C ANCE ROAD AND A T FOR 0.14 MI TO A SM 6 MI TO A GATE ON 1054 FT EAST AND	ON THE RI TEE INTER ALL BRID THE RIGI 2049 FT S	IGHT, TÜRN RIGHT AND RSECTION WITH IGE OVER A CANAL. HT. TURN RIGHT INTO A BOUTH FROM THE GATE.
THE MARK IS LOCATED ON THE SO WOODEN FENCE. THE MARK IS A 3 FENCE, SET FLUSH WITH THE GRO COORDINATE FOR THE MARK IS N	B IN BRONZE SUI DUND. THE NAD	RVEY DISK SET IN CO 1983, FLORIDA EAST	ONCRETE	E, 2 FT SOUTH OF THE

NOTE A MAGNET WAS IMBEDDED IN THE GROUND ON THE SOUTH SIDE OF THE MONUMENT.

SKETCH: SEE ATTACHED SKETCH

Notable Land marks: NONE





BUCK 13A 3" SURVEY DISK IN 12" CONCRETE MONUMENT

TITLE

SKETCH OF BUCK 13 MONITORING WELL

# Hyatt Survey Services, Inc. Geographic Data Specialists

11007 8TH AVENUE EAST BRADENTON, FLORIDA 34212 PH. (941) 748-4693 FAX (941) 744-1643 LB No.: 7203

JOB NUMBER	REVISION	SCALE	DATE	DRAWN BY	FILE NAME	SHEET
12-0538		NOT TO SCALE	6/17/05	RSF	BUCK13.DWG	1 OF 1

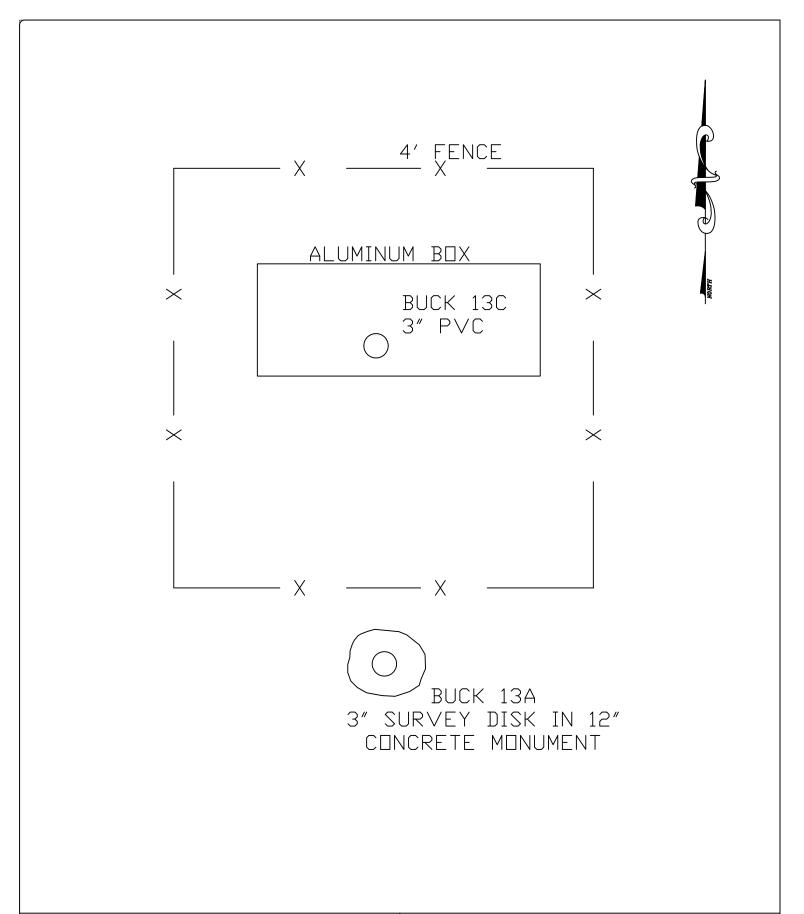


# SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY: HIGHLANDS	PROJECT: BUG	CK ISLAND RANCH	DESIGNAT	ION: BUCK 13C										
SECTION 25	TOWNSHIP 38	SOUTH	RANGE 31	EAST										
GEOGRAPHIC INDEX OF QUAD														
Established by HYATT SURVEY SERVICES Recovered by  NAME OF QUADRANGLE: BRIGHTON NW  SUBVEYOR B HYATT DATE OF (46 / 2005)  FIELD BOOK 454														
SURVEYOR         R. HYATT         DATE 06 /16 / 2005         FIELD BOOK         154         PAGE 1 - 45														
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 4th (circle one) VERTICAL 1 2 3														
STATE PLANE COORDINATES         X = 597094 FT         Y = 1021845 FT         EL. = 8.8515 m														
STATE PLANE COORDINATES         X = 597094 FT         Y = 1021845 FT         EL. = 8.8515 m           LATITUDE:         N270841         LONGITUDE: W0811054														
	DESC	RIPTION												
To Reach: THE MARK IS ABOUT 15 MI SOUTH SECTION 25, TOWNSHIP 38 SOUTH TO REACH THE MARK FROM THE S STATE ROAD 70 FOR 7.16 MI TO JO GO SOUTH FOR 4.51 MI TO THE EI UNNAMED DIRT ROAD. TURN LEFT CROSS THE BRIDGE AND CONTINU	H, RANGE 31 EAS JUNCTION OF U.S DURRANCE RO ND OF JC DURRA TAND GO EAST F JE EAST FOR 0.4	ST. S. HIGHWAY 27 AND AD (A DIRT ROAD) C ANCE ROAD AND A T FOR 0.14 MI TO A SM 16 MI TO A GATE ON	STATE ROADN THE RIGHTEE INTERSEALL BRIDGE	AD 70, GO EAST ON HT, TURN RIGHT AND ECTION WITH E OVER A CANAL. TURN RIGHT INTO A										
THE MARK IS A 3 IN PVC MONITOR WOODEN FENCE. THE MARK IS SE EAST ZONE, STATE PLANE COORD Notable Land marks: NONE	T 4 FT ABOVE TI	HE SURROUNDING (	ROUND. TH	HE NAD 1983, FLORIDA										

SKETCH: SEE ATTACHED SKETCH



TITLE

SKETCH OF BUCK 13 MONITORING WELL

# Hyatt Survey Services, Inc. Geographic Data Specialists

11007 8TH AVENUE EAST BRADENTON, FLORIDA 34212 PH. (941) 748-4693 FAX (941) 744-1643

JOB NUMBER	REVISION	SCALE	DATE	DRAWN BY	FILE NAME	SHEET
12-0538		NOT TO SCALE	6/17/05	RSF	BUCK13.DWG	1 OF 1

## The NGS Data Sheet

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

```
AE6391 DESIGNATION - H 437
         PID - AE6391
STATE/COUNTY- FL/HIGHLANDS
 AE6391
 AE6391
 AE6391 USGS QUAD - BRIGHTON NW (1983)
 AE6391
                                       *CURRENT SURVEY CONTROL
 AE6391
 AE6391
 AE6391 * NAD 83(1986) - 27 08 14.
                                                       081 12 06.
                                               (N)
                                                                          (W)
                                                                                    SCALED
 AE6391* NAVD 88
                                                                30.82
                                               (meters)
                                                                          (feet)
                                                                                    ADJUSTED
 AE6391
 AE6391
          GEOID HEIGHT-
                                      -25.20
                                               (meters)
                                                                                    GEOID03
 AE6391
          DYNAMIC HT -
                                       9.380 (meters)
                                                                 30.77 (feet)
                                                                                    COMP
          MODELED GRAV-
                                 979,125.1
 AE6391
                                                                                   NAVD 88
                                                (mgal)
 AE6391
 AE6391
          VERT ORDER - SECOND
                                         CLASS I
 AE6391
 AE6391. The horizontal coordinates were scaled from a topographic map and have
 AE6391.an estimated accuracy of +/- 6 seconds.
 AE6391. The orthometric height was determined by differential leveling
 AE6391.and adjusted by the National Geodetic Survey in March 1998.
 AE6391
 AE6391. The geoid height was determined by GEOID03.
 AE6391
AE6391. The dynamic height is computed by dividing the NAVD 88 AE6391. geopotential number by the normal gravity value computed on the AE6391. Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AE6391.degrees latitude (g = 980.6199 \text{ gals.}).
 AE6391
 AE6391. The modeled gravity was interpolated from observed gravity values.
 AE6391
                                                             Units Estimated Accuracy MT (+/- 180 meters Scaled)
 AE6391;
                                  North
                                                   East
 AE6391; SPC FL E
                              310,620.
                                                180,010.
 AE6391
 AE6391
                                        SUPERSEDED SURVEY CONTROL
 AE6391
 AE6391 No superseded survey control is available for this station.
 AE6391
 AE6391_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML800016(NAD 83) AE6391_MARKER: DV = VERTICAL CONTROL DISK
 AE6391_SETTING: 38 = BRIDGE ABUTMENT
 AE6391_STAMPING: H 437 1995
 AE6391_MARK LOGO: NGS
 AE6391_MAGNETIC: N = NO MAGNETIC MATERIAL
 AE6391_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AE6391 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AE6391+SATELLITE: SATELLITE OBSERVATIONS - 1995
 AE6391
         HISTORY
HISTORY
 AE6391
                         - Date
                                       Condition
                                                            Report By
 AE6391
                         - 1995
                                       MONUMENTED
                                                            FLDED
 AE6391
                                        STATION DESCRIPTION
 AE6391
 AE6391
 AE6391'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
 AE6391'THE MARK IS ABOUT 15.0 MI (24.1 KM) SOUTHEAST OF LAKE PLACID, 12.5 MI
 AE6391'(20.1 KM) NORTHWEST OF LAKEPORT IN SECTION 27, TOWNSHIP 38 SOUTH, AE6391'RANGE 31 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY
 AE6391'27 AND STATE ROAD 70 SOUTH OF LAKE PLACID, GO EAST ON STATE ROAD 70
AE6391'FOR 7.7 MI (12.4 KM) TO THE WEST END OF THE BRIDGE OVER CANAL C 41
AE6391'(HARNEY POND CANAL), TURN RIGHT AT THE WEST END OF BRIDGE, PASSING
AE6391'THROUGH THE GATE, GO SOUTH ON THE LEVEE ROAD FOR 1.05 MI (1.69 KM) TO
AE6391'A SHARP CURVE TO THE RIGHT, CONTINUE WEST ON THE LEVEE ROAD FOR 1.85
AE6391'MI (2.98 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTH ON THE LEVEE ROAD
 AE6391'FOR 2.1 MI (3.4 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTHEAST ON THE
 AE6391'LEVEE ROAD FOR 2.7 MI (4.3 KM) TO A BRIDGE ON THE LEFT AND THE MARK
 AE6391'SET FLUSH IN THE SOUTHWEST BRIDGE ABUTMENT. LOCATED 41.7 FT (12.7 M)
```

AE6391'NORTH OF THE APPROXIMATE CENTERLINE OF THE LEVEE ROAD, 18.9 FT (5.8 M) AE6391'NORTH OF A CARSONITE WITNESS POST, 8.4 FT (2.6 M) WEST OF THE AE6391'APPROXIMATE CENTERLINE OF THE BRIDGE AND 5.9 FT (1.8 M) SOUTH OF A AE6391'GATE. NOTE ALL GATES ON LEVEE ARE LOCKED, FOR KEY CONTACT CARL ZEISS, AE6391'SOUTH FLORIDA WATER MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE AE6391'NUMBER (407) 686-8800.

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

#### The NGS Data Sheet

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

```
AE6392 DESIGNATION - J 437
         PID - AE6392
STATE/COUNTY- FL/HIGHLANDS
 AE6392
         PID
 AE6392
         USGS QUAD - BRIGHTON NW (1983)
 AE6392
 AE6392
                                 *CURRENT SURVEY CONTROL
 AE6392
 AE6392
 AE6392* NAD 83(1999) - 27 08 13.27828(N)
                                              081 11 02.84354(W)
                                                                       ADJUSTED
 AE6392* NAVD 88
                               11.555
                                                      37.91
                                       (meters)
                                                              (feet)
                                                                       ADJUSTED
 AE6392
                            870,509.596 (meters)
 AE6392 X
                                                                       COMP
 AE6392
         Y
                        -5,612,861.809 (meters)
                                                                       COMP
 AE6392
                          2,891,728.917 (meters)
                                                                       COMP
 AE6392
        LAPLACE CORR-
                                -3.52
                                                                       DEFLEC99
                                        (seconds)
 AE6392
        ELLIP HEIGHT-
                                                           (05/31/01) GPS OBS
                                -13.67
                                        (meters)
        GEOID HEIGHT-
                                -25.25
 AE6392
                                         (meters)
                                                                       GEOID03
                                11.537 (meters)
 AE6392 DYNAMIC HT -
                                                       37.85 (feet) COMP
 AE6392
        MODELED GRAV-
                            979,122.9 (mgal)
                                                                       NAVD 88
 AE6392
 AE6392
         HORZ ORDER -
                        FIRST
        VERT ORDER -
 AE6392
                        SECOND
                                   CLASS I
 AE6392
         ELLP ORDER -
                        FOURTH
                                   CLASS I
 AE6392
 AE6392. The horizontal coordinates were established by GPS observations
 AE6392.and adjusted by the National Geodetic Survey in May 2001.
 AE6392
 AE6392. The orthometric height was determined by differential leveling
 AE6392.and adjusted by the National Geodetic Survey in March 1998.
 AE6392
 AE6392. The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AE6392
 AE6392. The Laplace correction was computed from DEFLEC99 derived deflections.
 AE6392
 AE6392. The ellipsoidal height was determined by GPS observations
 AE6392.and is referenced to NAD 83.
 AE6392
 AE6392. The geoid height was determined by GEOID03.
 AE6392
AE6392. The dynamic height is computed by dividing the NAVD 88 AE6392. geopotential number by the normal gravity value computed on the AE6392. Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AE6392.degrees latitude (g = 980.6199 \text{ gals.}).
 AE6392
 AE6392. The modeled gravity was interpolated from observed gravity values.
 AE6392
 AE6392;
                             North
                                           East
                                                    Units Scale Factor Converg.
                                        181,748.129 MT 0.99994529 -0 05 02.3
 AE6392; SPC FL E
                          310,599.174
 AE6392;UTM 17
                      - 3,001,625.181
                                        481,754.356
                                                       MT 0.99960411
                                                                         -0 05 02.3
 AE6392
 AE6392!
                        Elev Factor x
                                         Scale Factor =
                                                           Combined Factor
 AE6392!SPC FL E
                         1.00000215 x
                                         0.99994529 =
                                                           0.99994744
                                                           0.99960626
 AE6392!UTM 17
                          1.00000215 x
                                          0.99960411 =
 AE6392
 AE6392
                                  SUPERSEDED SURVEY CONTROL
 AE6392
 AE6392
         NAD 83(1990) - 27 08 13.27723(N)
                                              081 11 02.84324(W) AD(
        ELLIP H (05/30/00) -13.70
NAVD 88 (05/30/00) 11.55
                                                                   GP (
 AE6392
                                       ( m )
 AE6392
                                                      37.9
                                                               (f) LEVELING
                                        (m)
 AE6392
 AE6392. Superseded values are not recommended for survey control.
 AE6392.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AE6392. See file dsdata.txt to determine how the superseded data were derived.
 AE6392
 AE6392_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML8175401625(NAD 83)
 AE6392_MARKER: I = METAL ROD
 AE6392 SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
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AE6392 STAMPING: J 437 1995
AE6392 MARK LOGO: NGS
AE6392_PROJECTION: FLUSH
AE6392_MAGNETIC: N = NO MAGNETIC MATERIAL
AE6392_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AE6392 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AE6392+SATELLITE: SATELLITE OBSERVATIONS - July 13, 1999
AE6392_ROD/PIPE-DEPTH: 24.4 meters
AE6392
AE6392
           HISTORY
                            - Date
                                           Condition
                                                                   Report By
AE6392
           HISTORY
                            - 1995
                                           MONUMENTED
                                                                   FLDEP
                            - 19990713 GOOD
AE6392
                                                                   RΔH
          HISTORY
AE6392
                                             STATION DESCRIPTION
AE6392
AE6392
AE6392'DESCRIBED BY FL DEPT OF ENV PRO 1995 (LGB)
AE6392'THE MARK IS ABOUT 15.0 MI (24.1 KM) SOUTHEAST OF LAKE PLACID, 12.1 MI AE6392'(19.5 KM) NORTHWEST OF LAKEPORT IN SECTION 25, TOWNSHIP 38 SOUTH,
AE6392 RANGE 31 EAST. TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY
AE6392'27 AND STATE ROAD 70 SOUTH OF LAKE PLACID, GO EAST ON STATE ROAD 70
AE6392'FOR 7.7 MI (12.4 KM) TO THE WEST END OF THE BRIDGE OVER CANAL C 41 AE6392'(HARNEY POND CANAL), TURN RIGHT AT THE WEST END OF BRIDGE, PASSING
AE6392'THROUGH THE GATE, GO SOUTH ON THE LEVEE ROAD FOR 1.05 MI (1.69 KM) TO AE6392'A SHARP CURVE TO THE RIGHT, CONTINUE WEST ON THE LEVEE ROAD FOR 1.85 AE6392'MI (2.98 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTH ON THE LEVEE ROAD
AE6392'FOR 2.1 MI (3.4 KM) TO A CURVE TO THE LEFT, CONTINUE SOUTHEAST ON THE
AE6392'LEVEE ROAD FOR 2.7 MI (4.3 KM) TO ANOTHER CURVE TO THE LEFT, CONTINUE
AE6392'EAST ON THE LEVEE ROAD FOR 1.1 MI (1.8 KM) TO A PAIR OF 5.0 FT (1.5 M)
AE6392'DIAMETER CULVERTS, A GATE, AND THE MARK JUST EAST OF THE GATE ON THE AE6392'RIGHT, A STAINLESS STEEL ROD DRIVEN TO THE DEPTH OF 80.0 FT (24.4 M)
AE6392'RECESSED 0.4 FT (12.2 CM) WITH A LOGO CAP FLUSH WITH THE GROUND. AE6392'LOCATED 118.0 FT (36.0 M) SOUTH OF THE TOP SCARP OF CANAL C 41, 90.0
AE6392'FT (27.4 M) NORTH OF A FENCE LINE, 6.0 FT (1.8 M) EAST OF THE SOUTH AE6392'GATE POST AND 2.5 FT (0.8 M) EAST OF A CARSONITE WITNESS POST. NOTE AE6392'ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH LOGO CAP. NOTE ALL GATES
AE6392'ON LEVEE ARE LOCKED, FOR KEY CONTACT CARL ZEISS, SOUTH FLORIDA WATER
AE6392'MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE NUMBER (407)
AE6392'686-8800.
AE6392
AE6392
                                             STATION RECOVERY (1999)
AE6392
AE6392'RECOVERY NOTE BY BERRYMAN & HENIGAR 1999 (BH)
AE6392'RECOVERED AS DESCRIBED.
*** retrieval complete.
Elapsed Time = 00:00:00
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# West Side Bench Runs

	West Side Bench Runs Foreward Run #1 Reverse Run #2														Preliminary	Preliminary			
				Benchmark	Sum of "Plus"	Sum of "Minus"	Delta = Difference in						Sum of "Plus"	Sum of "Minus"	Delta = Difference in		Adjusted Elevation	Prorated Elevation	Benchmark
Plus	н	Minus	Elevation	Description	Column	Column	Elevation	Plus	н	Minus	Elevation	Description	Column	Column	Elevation	Mean Delta	(meters)	Adjustment	Description
1.5769	10.9719		9.3950	H-437		00		1.5290	9.5759		8.0469	Buck 1A	00	•••••		ou Doita	8.0469	8.0479	Buck 1A
1.2373	10.2816	1.9276	9.0443					1.6929	10.5401	0.7287	8.8472								
1.4202	10.2451	1.4567	8.8249					1.1648	9.8373	1.8676	8.6725								
1.9284	10.2106	1.9629	8.2822					1.2641	10.1098	0.9916	8.8457								
1.4947 1.4255	10.3185	1.3868	8.8238 9.0077					1.6112 1.2763	10.6170 10.4593	1.1040 1.4340	9.0058 9.1830								
1.6000	10.4332	1.6578	8.7754					1.6381	10.7007	1.3967	9.0626								
1.4450	10.3749	1.4455	8.9299		İ			1.3182	10.4256	1.5933	9.1074								
1.3653	10.2412	1.4990	8.8759					1.4297	10.3343	1.5210	8.9046								
1.3029	10.4064	1.1377	9.1035					1.2983	10.3796	1.2530	9.0813								
1.4358	10.4914	1.3508	9.0556					1.6185	10.5848	1.4133	8.9663								
1.4350	10.5093	1.4171	9.0743					1.4891	10.5131	1.5608	9.0240								
1.3662 1.8000	10.3915	1.4840 1.6633	9.0253 8.7282		1			1.5914 1.2818	10.4590 10.3154	1.6455 1.4254	8.8676 9.0336								
1.5585	10.5262	1.4154	9.1128					1.4516	10.2345	1.5325	8.7829								-
1.3980	10.6202	1.4491	9,2222					1.5334	10.3955	1.3724	8.8621								
1.8185	10.6895	1.7492	8.8710		1			1.4060	10.3779	1.4236	8.9719		1						1
1.2979	10.2080	1.7794	8.9101					1.5885	10.5146	1.4518	8.9261								
1.2827	9.8445	1.6462	8.5618					1.4112	10.3117	1.6141	8.9005			•		-		-	
1.0878	10.0836	0.8487	8.9958					1.2995	10.3217	1.2895	9.0222								
1.5901	9.8335	1.8402	8.2434					1.5650	10.9147	0.9720	9.3497								
1.5609	9.5286	1.8658	7.9677	Durali 4.4	20.4070	00 7777	4.0504	1.6021	11.1659	1.3509	9.5638	H-437	20.0007	20.742	4.0477	4.0400			
		1.4837	8.0449	Buck 1A	32.4276	33.7777	-1.3501			1.7713	9.3946	H-437	32.0607	30.713	1.3477	1.3489			
1.6026	9.6475		8.0449	Buck 1A				1.5308	9.5124		7.9816	Buck 2A					7.98255	7.9839	Buck 2A
1.4547	9.6357	1.4665	8.1810					1.6312	9.8526	1.2910	8.2214								
1.5586	9.8827	1.3116	8.3241					1.4845	9.9331	1.4040	8.4486								
1.4750	9.8521	1.5056	8.3771					1.4619	10.0354	1.3596	8.5735								
1.4788	9.7537	1.5772	8.2749					1.5758	10.0207	1.5905	8.4449								
1.4061	9.6808	1.4790	8.2747					1.4685	9.6838	1.8054	8.2153								
1.3335 1.5206	9.4576	1.5567 1.5192	8.1241 7.9384		1			1.5098 1.4091	9.7072	1.4864 1.4978	8.1974 8.2094								
1.5206	9.4590	1.5192	7.9384	Buck 2A	11.8299	11.8933	-0.0634	1.4091	9.6185	1.4978	8.2094	Buck 1A	12.0716	12.0063	0.0653	0.06435			
		1.4773	7.9013	BUCK ZA	11.0299	11.0933	-0.0034			1.57 10	6.0409	BUCK IA	12.07 10	12.0003	0.0033	0.00433			
1.4975	9.4790		7.9815	Buck 2A				1.2116	9.4564		8.2448	Buck 3B					8.2455	8.2470	Buck 3B
1.4772	9.5316	1.4246	8.0544					1.4400	9.5453	1.3511	8.1053								
1.5121	9.5761	1.4676	8.0640					1.6740	9.6000	1.6193	7.9260								
1.5604	9.7000	1.4365	8.1396					1.1349	9.4657	1.2692	8.3308								
		1.4558	8.2442	Buck 3B	6.0472	5.7845	0.2627		1	1.4841	7.9816	Buck 2A	5.4605	5.7237	-0.2632	-0.26295			+
<b></b>					<del>                                     </del>		-		-	-			<b>—</b>		+				+
1.4879	9.7321		8.2442	Buck 3B	<del> </del>			1.6343	9.8822		8.2479	Buck 4A	<del>                                     </del>		1		8.248	8.2497	Buck 4A
1.4041	9.9134	1.2228	8.5093	Duok ob				1.5949	9.9508	1.5263	8.3559	Duon 4A					0.240	0.2-01	Duon 4A
1.4722	9.8024	1.5832	8.3302					1.5594	9.9624	1.5478	8.4030								
1.4825	9.8099	1.4750	8.3274					1.2978	9.7127	1.5475	8.4149								
		1.5638	8.2461	Buck 4A	5.8467	5.8448	0.0019			1.4679	8.2448	Buck 3B	6.0864	6.0895	-0.0031	-0.0025			
													ļ		ļ				ļ
4.7070	40.0400		0.0404	Decelo 44	1			4 0007	40 4470	ļ	0.0470	Durali 44	1		1				1
1.7678 1.4169	10.0139 9.6490	1.7818	8.2461 8.2321	Buck 4A	<b>_</b>			1.8997 1.9971	10.1476 10.2401	1.9046	8.2479 8.2430	Buck 4A	<del>                                     </del>		<del>                                     </del>				<del>                                     </del>
1.4169	9.6490	1.7818	8.2321 8.4525		<del> </del>			1.4298	9.6335	2.0364	8.2430		1		+				+
1.5580	9.6231	1.4907	8.1324		<b>+</b>			1.4290	9.6045	1.4582	8.1753		<del>                                     </del>		<del>                                     </del>				+
1.4653	9.7145	1.4412	8.2492		1			1.4951	9.7084	1.3912	8.2133				†				1
1.4034	9.6725	1.4454	8.2691					1.4795	9.7894	1.3985	8.3099				<u>                                      </u>				
		1.3634	8.3091	Buck 5B	8.7820	8.7190	0.0630			1.4787	8.3107	Buck 5B	9.7304	9.6676	0.0628	0.0629	8.3109	8.3129	Buck 5B
					ļ								ļ						1
					L					l									

						Sum of	Delta =						Sum of	Sum of	Delta =		Adjusted	Prorated	
				Benchmark	Sum of "Plus"	"Minus"	Difference in						"Plus"	"Minus"	Difference in		Elevation	Elevation	Benchmark
1.3852	<b>HI</b> 9.6943	Minus	Elevation 8.3091	Description Buck 5B	Column	Column	Elevation	Plus 1.5646	HI 9.6835	Minus	Elevation 8.1189	Description Buck 6A	Column	Column	Elevation	Mean Delta	(meters) 8.1187	Adjustment 8.1209	Description Buck 6A
1.5208	9.6943	1.4779	8.3091	BUCK 3B				1.4111	9.6835	1.3626	8.1189	BUCK 6A					8.1187	8.1209	BUCK 6A
1.5257	9.6598	1.6031	8.1341					1.3968	9.6907	1.4381	8.2939								-
1.5919	9.6750	1.5767	8.0831					1.4174	9.7126	1.3955	8.2952				İ	İ			1
		1.5585	8.1165	Buck 6A	6.0236	6.2162	-0.1926			1.4019	8.3107	Buck 5B	5.7899	5.5981	0.1918	0.1922			
								1.5887	9.7312		8.1425	Buck 8A					8.14155	8.1440	Buck 8A
1.6317	9.7482		8.1165	Buck 6A				1.3058	9.5511	1.4859	8.2453								
1.4351	9.6364	1.5469	8.2013					1.6044	9.7062	1.4493	8.1018								1
1.4827 1.4376	9.6109	1.5082 1.4567	8.1282 8.1542					1.3667 1.4273	9.6462	1.4267 1.3527	8.2795								-
1.4376	9.5918	1.4532	8.1386	Buck 8A	5.9871	5.9650	0.0221	1.4462	9.7208 9.6843	1.4827	8.2935 8.2381								1
		1.4552	0.1300	BUCK OA	3.9071	3.9030	0.0221	1.4402	9.0043	1.5654	8.1189	Buck 6A	8.7391	8.7627	-0.0236	-0.02285			+
										1.5054	0.1103	Duck on	0.7551	0.7027	-0.0230	-0.02203			-
1.3758	9.5144		8.1386	Buck 8A				1.4994	9.6103		8.1109	Buck 9B			İ	İ	8.10865	8.1114	Buck 9B
1.5503	9.5724	1.4923	8.0221					1.5640	9.6830	1.4913	8.1190								
1.0713	9.6368	1.0069	8.5655					1.4371	9.6004	1.5197	8.1633								
1.4559	9.6916	1.4011	8.2357					1.6971	9.6475	1.6500	7.9504			•					
1.3825	9.5313	1.5428	8.1488					0.9355	9.5707	1.0123	8.6352								1
1.4845	9.5301	1.4857	8.0456	ļ			ļļ	1.2466	9.3390	1.4783	8.0924	<u> </u>	ļ		<b></b>	L			1
1.6291	9.7701	1.3891	8.1410							1.1965	8.1425	Buck 8A	8.3797	8.3481	0.0316	0.0329			
1.5410	9.6333	1.6778	8.0923 8.1044	D .1.0D	11.4904	11.5246	-0.0342												1
		1.5289	8.1044	Buck 9B	11.4904	11.5246	-0.0342												-
1.5075	9.6119		8.1044	Buck 9B				2.0806	10.0293		7.9487	Buck 10A					7.9461	7.9490	Buck 10A
1.3061	9.5092	1.4088	8.2031	2401102				1.3675	9.5893	1.8075	8.2218						7.0.01	110100	Duoi: 1071
1.6681	9.4778	1.6995	7.8097					1.5019	9.5761	1.5151	8.0742								
1.6949	9.5309	1.6418	7.8360					1.3489	9.5642	1.3608	8.2153								
		1.5894	7.9415	Buck 10A	6.1766	6.3395	-0.1629			1.4533	8.1109	Buck 9B	6.2989	6.1367	0.1622	0.16255			
								1.3549	9.3894		8.0345	Buck 11B					8.03075	8.0340	Buck 11B
1.5843	9.5258		7.9415	Buck 10A				1.3880	9.4430	1.3344	8.0550								
1.4540	9.5784	1.4014	8.1244					1.4131	9.5210	1.3351	8.1079								
1.4155 1.3800	9.4682 9.5978	1.5257 1.2504	8.0527 8.2178					1.5197 1.4410	9.6189 9.5470	1.4218 1.5129	8.0992 8.1060								
1.4729	9.4851	1.5856	8.0122					1.4633	9.5983	1.4120	8.1350								1
1.1798	9.2667	1.3982	8.0869					1.4779	9.6110	1.4652	8.1331								-
	0.2001	1.2417	8.0250	Buck 11B	8.4865	8.4030	0.0835	1.4363	9.4476	1.5997	8.0113								
					01.1000		0.0000			1.4989	7.9487	Buck 10A	11.4942	11.58	-0.0858	-0.08465			
1.5778	9.6028		8.0250	Buck 11B				1.5857	10.9807		9.3950	H-437					9.3913	9.3950	H-437
1.6708	10.3053	0.9683	8.6345					1.1452	10.3988	1.7271	9.2536								
1.4559	10.1500	1.6112	8.6941					1.2592	10.1930	1.4650	8.9338		ļ						<b>_</b>
1.2135	10.0147	1.3488	8.8012	<b> </b>				1.5455	10.3269	1.4116	8.7814	1	1		<b>!</b>	<b>!</b>		1	+
1.3837 1.2700	10.2113	1.1871 1.4499	8.8276 8.7614	ļ	<del>                                     </del>		<del>                                     </del>	1.4370 1.7494	10.1415	1.6224 1.7372	8.7045 8.4043	-	1		<del>                                     </del>	<del>                                     </del>		-	+
1.2700	10.0314	1.4499	8.7614 8.7308					1.7494	9.9914	1.7372	8.4043 8.5477				-	-			+
1.2350	10.1104	1.2604	8.8500					1.3080	9.7107	1.5887	8.4027		+		<del> </del>	<del> </del>			+
1.7861	10.3916	1.4795	8.6055					1.5859	9.6785	1.6181	8.0926		1		<b>†</b>	<b>†</b>		1	1
1.5440	10.3077	1.6279	8.7637					1.3894	9.5304	1.5375	8.1410								1
1.4888	10.1134	1.6831	8.6246				<u> </u>			1.4959	8.0345	Buck 11B	14.449	15.8095	-1.3605	-1.36055			
1.4763	10.2948	1.2949	8.8185																
2.0240	10.6456	1.6732	8.6216																1
1.6362	11.0869	1.1949	9.4507												ļ	ļ			1
		1.7013	9.3856	H-437	21.1417	19.7811	1.3606		ļ				ļ						<b>_</b>
													1		<b>.</b>	<b>.</b>			+
1 6457	11.0107		9.3950	U_497				1 4404	9.7318		0.2024	Buck 7D	-		-	-	8.28275	0 2020	Duck 7D
1.6157 0.9892	10.1507	1.8492	9.3950	H-437				1.4494 1.2762	9.7318	1.2104	8.2824 8.5214	Buck 7B			-	-	ö.28275	8.2828	Buck 7B
1.1855	9.8518	1.4844	8.6663	<del> </del>	<del> </del>		<del>                                     </del>	1.5941	10.1972	1.1945	8.6031	<del> </del>	1		<del>                                     </del>	<del>                                     </del>	l		+
1.2020	9.7236	1.3302	8.5216					1.8115	10.1972	1.0195	9.1777		1						<del>                                     </del>
	3200								.0.0002							<del>                                     </del>	<b>-</b>	<b></b>	+
112020		1.4412	8.2824	Buck 7B	4.9924	6.1050	-1.1126			1.5949	9.3943	H-437	6.1312	5.0193	1.1119	1.11225			

		Eas	t Side Bench I	Runs															
				reward Run #1		•					Re		Preliminary Preliminary						
Plus	Ξ	Minus	Elevation	Benchmark Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Plus	н	Minus	Elevation	Description	Sum of "Plus" Column	Sum of "Minus" Column	Delta = Difference in Elevation	Mean Delta	Adjusted Elevation (meters)	Prorated Elevation Adjustment	Benchmark Description
0.9432	12.4982	Willius	11.5550	J-437	Column	Column	Lievation	1.9986	9.8717	Willius	7.8731	Buck 20A	Column	Column	Lievation	Weari Deita	(meters)	Aujustilient	Description
1.3173	11.0350	2.7805	9.7177	0 407				1.5150	9.3642	2.0225	7.8492	Buok 20A							1
1.2316	9.8580	2.4086	8.6264					2.9798	11.6494	0.6946	8.6696		1						<del>                                     </del>
2.3465	10.9722	1.2323	8.6257					1.4440	9.8614	3.2320	8.4174								
1.7698	10.3788	2.3632	8.6090					2.8779	12.3977	0.3416	9.5198								
1.3100	9.2574	2.4314	7.9474					1.6664	13.4310	0.6331	11.7646								
		1.3872	7.8702	Buck 20A	8.9184	12.6032	-3.6848			1.8767	11.5543	J-437	12.4817	8.8005	3.6812	3.683	11.55985	11.5550	J-437
1.9430	9.8132		7.8702	Buck 20A				1.4105	9.4864		8.0759	Buck 12B							1
1.8603	9.4222	2.2513	7.5619					2.0659	9.7420	1.8103	7.6761								1
1.5142	9.4850	1.4514	7.9708					1.4043	9.7940	1.3523	8.3897								
1.4106	9.5257	1.3699	8.1151					1.2964	9.8695	1.2209	8.5731								
1.6551	9.7508	1.4300	8.0957					1.3240	9.8208	1.3727	8.4968								
1.3601	9.5419	1.5690	8.1818					1.3201	9.8779	1.2630	8.5578								ļ <u>.</u>
1.4092	9.5751 9.4837	1.3760	8.1659 8.1092		1			1.4787	9.9123	1.4443	8.4336 8.3396		<del>                                     </del>				<del>                                     </del>		<del> </del>
1.3745	9.4837	1.4659 1.4120	8.1092 8.0717	Buck 12B	12.5270	12.3255	0.2015	1.4935 1.3980	9.8331 9.7105	1.5727 1.5206	8.3396 8.3125		$\vdash$		-		-		<del>                                     </del>
		1.4120	0.0717	DUCK 12D	12.5270	12.3233	0.2015	1.0214	9.4757	1.2562	8.4543								
								1.0214	5.4757	1.6026	7.8731	Buck 20A	14.2128	14.4156	-0.2028	-0.20215	7.87685	7.8725	Buck 20A
										1.0020	7.0701	Buok 20A	14.2120	14.4100	0.2020	0.20210	7.07000	1.0120	Duok 20A
1.5000	9.5717	4.0000	8.0717	Buck 12B				1.5960	9.4309	4 4040	7.8349	Buck 13A							
1.6934 1.5228	9.4443 9.5503	1.8208 1.4168	7.7509 8.0275					1.3913 1.5033	9.3609 9.4892	1.4613 1.3750	7.9696 7.9859		-						<u> </u>
1.5228	9.5503	1.5629	7.9874					1.5033	9.4892	1.4143	8.0749								<u> </u>
1.4041	9.47 15	1.6424	7.8291	Buck 13A	6.2003	6.4429	-0.2426	1.4601	9.5550	1.4143	8.0759	Buck 12B	5.9507	5.7097	0.241	0.2418	8.079	8.0754	Buck 12B
		1.0424	7.0291	Buck 13A	0.2003	0.4423	-0.2420			1.4551	0.0733	DUCK 12B	3.9307	5.7097	0.241	0.2410	0.073	0.0754	Buck 12B
1.7948	9.6239	4.0007	7.8291	Buck 13A				1.5509	9.4585	4.0404	7.9076	Buck 14B							ļ <u>.</u>
1.4983	9.4595	1.6627 1.5574	7.9612 7.9021	Buck 14B	3.2931	3.2201	0.0730	1.9861	9.6285	1.8161 1.7936	7.6424 7.8349	Buck 13A	3.537	3.6097	-0.0727	-0.07285	7.8372	7.8339	Buck 13A
		1.5574	7.9021	BUCK 14B	3.2931	3.2201	0.0730			1.7930	7.0349	BUCK ISA	3.337	3.0097	-0.0727	-0.07265	1.0312	7.0339	BUCK 13A
1.5392	9.4413		7.9021	Buck 14B				1.5528	9.4298		7.8770	Buck 15A							
1.6278	9.4424	1.6267	7.8146					1.4583	9.4860	1.4021	8.0277								
		1.5717	7.8707	Buck 15A	3.1670	3.1984	-0.0314			1.5784	7.9076	Buck 14B	3.0111	2.9805	0.0306	0.031	7.91005	7.9069	Buck 14B
													1						†
1.5848	9.4555		7.8707	Buck 15A				1.4814	9.4556		7.9742	Buck 16B							
0.8872	9.4610	0.8817	8.5738					1.7663	9.7838	1.4381	8.0175								
1.4545	9.4376	1.4779	7.9831					1.4105	9.3790	1.8153	7.9685								
		1.4707	7.9669	Buck 16B	3.9265	3.8303	0.0962	1.4276	9.4175	1.3891	7.9899								
			1							1.5405	7.8770	Buck 15A	6.0858	6.183	-0.0972	-0.0967	7.87905	7.8761	Buck 15A
1.4462	9.4131	4.00.4-	7.9669	Buck 16B				1.6125	9.4649	4 4000	7.8524	Buck 17A	ļ						
1.6787	9.4573	1.6345	7.7786	Durali 47.	2.4040	0.0450	0.4040	1.3993	9.4322	1.4320	8.0329	Decel- 400	2.0412	0.00	0.4040	0.4044	7.07575	7.0724	Durali 465
		1.6114	7.8459	Buck 17A	3.1249	3.2459	-0.1210		<del>                                     </del>	1.4580	7.9742	Buck 16B	3.0118	2.89	0.1218	0.1214	7.97575	7.9731	Buck 16B
1.6085	9.4544		7.8459	Buck 17A				1.5574	9.5152		7.9578	Buck 18B							
1.5033	9.5050	1.4527	8.0017					1.4904	9.4713	1.5343	7.9809								ļ
		1.5548	7.9502	Buck 18B	3.1118	3.0075	0.1043		<b> </b>	1.6189	7.8524	Buck 17A	3.0478	3.1532	-0.1054	-0.10485	7.85435	7.8518	Buck 17A
					<del> </del>				1										
1.4811	9.4313		7.9502	Buck 18B				1.6693	9.6490		7.9797	Buck 19A	<u> </u>						
1.8287	9.9701	1.2899	8.1414					1.1914	9.4936	1.3468	8.3022								
1.5083	9.6509	1.8275	8.1426							1.5358	7.9578	Buck 18B	2.8607	2.8826	-0.0219	-0.02055	7.9592	7.9569	Buck 18B
		1.6815	7.9694	Buck 19A	4.8181	4.7989	0.0192		ļ				<b>↓</b>				ļ		<b></b>
			1						l								l		

						Sum of	Delta =						Sum of	Sum of	Delta =		Adjusted	Prorated	
					Sum of "Plus"	"Minus"	Difference in						"Plus"	"Minus"	Difference in		Elevation		Benchmark
Plus	HI	Minus	Elevation	Description	Column	Column	Elevation	Plus	HI	Minus	Elevation	Description	Column	Column	Elevation	Mean Delta	(meters)	Adjustment	Description
1.6394	9.6088		7.9694	Buck 19A				1.9151	9.8872		7.9721	Buck 22B							
1.4109	9.6314	1.3883	8.2205					1.9112	9.9174	1.8810	8.0062								
1.3867	9.5068	1.5113	8.1201					1.4913	9.8750	1.5337	8.3837								
1.5512	9.6179	1.4401	8.0667					1.3551	9.8051	1.4250	8.4500								
1.8902	9.9212	1.5869	8.0310					1.5823	9.8941	1.4933	8.3118								
1.6636	9.7215	1.8633	8.0579					1.3200	9.6218	1.5923	8.3018								
		1.7591	7.9624	Buck 22B	9.5420	9.5490	-0.0070			1.6421	7.9797	Buck 19A	9.575	9.5674	0.0076	0.0073	7.97975	7.9776	Buck 19A
1.8973	9.8597		7.9624	Buck 22B				2.0585	9.8161		7.7576	Buck 21A							
1.5705	9.7389	1.6913	8.1684					1.4509	9.6525	1.6145	8.2016								
1.4919	9.4512	1.7796	7.9593					1.6103	9.6259	1.6369	8.0156								
1.4377	9.5509	1.3380	8.1132					1.4082	9.5472	1.4869	8.1390								
1.7685	9.7568	1.5626	7.9883					1.5949	9.6252	1.5169	8.0303								
1.1950	9.4128	1.5390	8.2178					1.4346	9.7306	1.3292	8.2960								
		1.6649	7.7479	Buck 21A	9.3609	9.5754	-0.2145	1.0665	9.4916	1.3055	8.4251								
								1.4202	9.3873	1.5245	7.9671								
										1.4152	7.9721	Buck 22B	12.0441	11.8296	0.2145	0.2145	7.97245	7.9707	Buck 22B
1.6015	9.3494		7.7479	Buck 21A				1.2360	12.7910		11.5550	J-437					11.555		
1.3305	9.3566	1.3233	8.0261					1.1291	12.5386	1.3815	11.4095								
1.7334	9.6698	1.4202	7.9364					1.2447	12.2862	1.4971	11.0415								
1.7039	9.6545	1.7192	7.9506					1.6178	12.4240	1.4800	10.8062								
1.6311	9.5663	1.7193	7.9352					1.2294	12.8978	0.7556	11.6684								
1.5721	9.7729	1.3655	8.2008					1.4177	13.0188	1.2967	11.6011								
1.5992	9.7704	1.6017	8.1712				ĺ	1.5680	12.8936	1.6932	11.3256		ĺ						
1.6002	9.8496	1.5210	8.2494					0.6027	11.2540	2.2423	10.6513								
1.6236	9.7572	1.7160	8.1336					1.3210	10.3158	2.2592	8.9948								
2.5383	10.8480	1.4475	8.3097					1.3232	10.4815	1.1575	9.1583		1						
1.1523	11.1014	0.8989	9.9491					0.9842	9.3059	2.1598	8.3217								
1.1276	9.6786	2.5504	8.5510					1.4235	9.3712	1.3582	7.9477		i i						
2.7434	11.3156	1.1064	8.5722					1.7020	9.3506	1.7226	7.6486								
2.2914	13.0662	0.5408	10.7748					1.6132	9.5637	1,4001	7.9505								
		1.5216	11.5446	J-437	24,2485	20.4518	3.7967			1.8061	7.7576	Buck 21A	18.4125	22,2099	-3.7974	-3.79705	7.75795	7.7569	Buck 21A

Mart   Mart			Subo	rdinate Bench	Runs													
1.651   2.652   2.651   2.651   2.652   2.65	Plus	Н	Minus	Elevation		Difference in		Adjusted		Plus	н	Minus	Elevation		Difference in	Mean Delta	Adjusted	Benchmark Description
1.651   2.652   2.651   2.651   2.652   2.65	1 6484	9 4823		7 8339	Buck 13A					1 5924	9 4993		7 9069	Buck 14B				
1,650   7,070   1,00		0.1020	0.6309			1.0175				1.0021	0.1000	0.6432			0.9492			
1,650   2,029   Back 154	0.0040	0.4004		0.0544	D I. 420					0.0400	0.4000		0.0504	Durch 440				
1,995   1,797   1,998   1,99	0.6310	9.4824	1.6486			-1.0176	1.0176	8.8515	Buck 13C	0.6432	9.4993	1.5924			-0.9492	0.9492	8.8561	Buck 14C
1,649   2,7160   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Co																0.0.0		
1,649   2,7160   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Back 150   Colory   Co	4 4050	0.0744		7.0704	Durali 45A					4.504.4	0.0775		7.0704	Decale 45A				
1.654   0.370	1.4950	9.3711	1 4543			0.0407				1.5014	9.3775	0.6178			0.8836			
1,490   2,7250   Buck 154						010101												
1,4668   8,467	1.4541	9.3709	4 4050			0.0400	0.0400	7.0400	Durch 45D	0.6176	9.3773	4.5045			0.0000	0.00075	0.7500	Durali 450
County   C			1.4950	7.8759	BUCK 15A	-0.0409	0.0408	7.9169	BUCK 15B			1.5015	7.8758	BUCK 15A	-0.8839	0.88375	8.7598	BUCK 15C
0.0544   0.8505   80.04 10C   0.0505																		
0.5544   0.4000   0.5573   0.5514   0.5554   0.5555   0	1.4968	9.4699	0.0044			0.0004				1.6031	9.5600	0.0500			0.0400			
1.599   7.9730   Buck 176   -0.9625   0.8625   0.8625   0.8625   Buck 196			0.6344	8.8355	Buck 16C	0.8624						0.6598	8.9002	BUCK 18C	0.9433			
1,5598   5316   1,459   1,5598   3,0597   1,55	0.6344	9.4699		8.8355	Buck 16C					0.6585	9.5587		8.9002	Buck 18C				
1,446   9,3027   7,506			1.4969	7.9730	Buck 16B	-0.8625	0.8625	8.8355	Buck 16C			1.6019	7.9568	Buck 18B	-0.9434	0.94335	8.9002	Buck 18C
1.4461   9.3827   7.3968												-		-				
1,4451   3,577	1.5298	9.3816		7.8518	Buck 17A					1.5299	9.4060		7.8761	Buck 17A				
1,530   7,852   8uck 17A   0,083   0,084   7,982   8uck 17B     1,529   7,876   8uck 17A   0,0818   0,992   8,8881   8uck 17B     1,485   0,539   0,539   8uck 17B     1,485   0,539   8uck 17B     1,485   0,489   1,485			1.4450	7.9366	Buck 17B	0.0848						0.5377	8.8683	Buck 17C	0.9922			
1,530   7,852   8uck 17A   0,083   0,084   7,982   8uck 17B     1,529   7,876   8uck 17A   0,0818   0,992   8,8881   8uck 17B     1,485   0,539   0,539   8uck 17B     1,485   0,539   8uck 17B     1,485   0,489   1,485	1 4461	0.3827		7 0366	Buck 17B					 0.5378	9.4061	-	8 8683	Buck 17C				
	1.4401	3.3021	1.5300			-0.0839	0.0844	7.9362	Buck 17B	0.5570	3.4001	1.5296			-0.9918	0.992	8.8681	Buck 17C
	1 4520	0.5202		9.0754	Buck 12D					1 4625	0.4222		7 0707	Buck 22B				
0.6001   0.5307   0.6001   0.4004   0.4555   0.6005   0.8555   0	1.4559	9.0293	0.5987			0.8552				1.4023	9.4332	0.4901			0.9724			
1,4559																		
1.5261   9.5037   7.9776   Buck 19A	0.6001	9.5307	4.4550			0.0550	0.0555	0.0000	Durali 400	0.4924	9.4355	4.4050			0.0700	0.0705	0.0400	Durali 220
1.3454   8.1583   Buck 19B   0.1807			1.4559	0.0740	BUCK 12B	-0.0000	0.6555	6.9309	BUCK 12C			1.4650	7.9705	BUCK 22B	-0.9726	0.9725	0.9432	Buck 22C
1.343																		
1,343   9,5014   8,1583   Buck 198   9,5014   8,1583   Buck 198   9,5016   8,1582   Buck 198   9,5017   8,0619   9,5017   8,0619   9,0019   9,0019   9,0019   8,0689   Buck 198   9,0019   9,0	1.5261	9.5037	1 2454			0.1907				1.5237	9.5013	0.533			0.0017			
1,5236			1.3434	0.1303	DUCK 19D	0.1607						0.532	0.9093	Buck 19C	0.9917			
1.5183   3.3774   7.7589   Buck 21A	1.3431	9.5014								0.5324	9.5017							
1.5183 9.3774 7.8591 Buck 21B 0.1022			1.5236	7.9778	Buck 19A	-0.1805	0.1806	8.1582	Buck 19B			1.5234	7.9783	Buck 19A	-0.991	0.99135	8.9689	Buck 19C
1.5183 9.3774 7.8591 Buck 21B 0.1022																		
1.5183 9.3774 7.8591 Buck 218	1.6168	9.3737		7.7569						1.6190	9.3759							
1,6206			1.5146	7.8591	Buck 21B	0.1022						0.5827	8.7932	Buck 21C	1.0363			
1,6206	1.5183	9.3774		7.8591	Buck 21B					0.5806	9.3738		8.7932	Buck 21C				
1.4647 9.3501 7.8854 Buck 20B 0.0129			1.6206			-0.1023	0.1023	7.8591	Buck 21B			1.6166			-1.036	1.03615	8.7930	Buck 21C
1.4647 9.3501 7.8854 Buck 20B 0.0129												1						
1.4647 9.3501 7.8854 Buck 20B 0.0129 0.04859 9.3466 8.8607 Buck 20C 0.9882 0.0129 0.4859 9.3466 8.8607 Buck 20C 0.9882 0.0129 0.4859 9.3466 8.8607 Buck 20C 0.9882 0.0129 0.4859 9.3466 0.4859 9.3466 0.04859 9.3466 0.04859 9.3466 0.04859 9.3466 0.04859 9.3466 0.04859 9.3466 0.04859 0.048	1.4749	9.3474		7.8725	Buck 20A					1.4775	9.3500	<u> </u>	7.8725	Buck 20A				
1.4775   7.8726   Buck 20A   -0.0128   0.0129   7.8853   Buck 20B     1.4744   7.8722   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.9885   0.98855   8.8608   Buck 20A   -0.98855   0.98855   8.8608   Buck 20A   -0.98855   0.98855   8.8608   Buck 20A   -0.98855   -0.9885			1.4620			0.0129						0.4893			0.9882			
1.4775 7.8726 Buck 20A -0.0128 0.0129 7.8853 Buck 20B 1.4744 7.8722 Buck 20A -0.9885 0.98835 8.8608 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A -0.9885 0.98835 Buck 20A	1 /6/7	0.3504		7 005/	Buck 20D					0.4950	0.3466	1	9 9607	Buch suc				
1.5426 9.5905 8.0479 Buck 1A	1.7047	a.5501	1.4775			-0.0128	0.0129	7.8853	Buck 20B	U.7038	9.0400	1.4744			-0.9885	0.98835	8.8608	Buck 20C
1.4974 8.0911 Buck 1B 0.0432																		
1.4974 8.0911 Buck 1B 0.0432	1 5426	9 500F		8.0470	Ruck 1A					1.5400	0.5970	1	8.0470	Ruck 1A				
1.4973 9.5884 8.0911 Buck 1B	1.0420	9.0903	1.4994			0.0432				1.5400	9.0018	0.5966			0.9434			
1.5408 8.0476 Buck 1A -0.0435 0.0433 8.0912 Buck 1B 1.5442 8.0479 Buck 1A -0.9434 0.9434 8.9913 Buck 1A -0.9434 0.9434 Buck 1A -0.9434 0.9434 Buck 1A -0.9434 0.9434 Buck 1A -0.9434 B																		
1.5526 9.5365 7.9839 Buck 2A 1.4119 8.1246 Buck 2B 0.1407 1.5120 9.5359 7.9839 Buck 2C 0.9984 1.4106 9.5352 8.1246 Buck 2B 0.1407 0.5574 9.5797 8.9823 Buck 2C 0.9984	1.4973	9.5884	1 5 400			0.0425	0.0433	0.0040	Buok 4B	0.6008	9.5921	1 5440			0.0424	0.0424	0.0043	Buck 40
1.4119 8.1246 Buck 2B 0.1407		<del>                                     </del>	1.5408	0.0476	DUCK TA	-0.0435	0.0433	0.0912	DUCK 1B			1.3442	0.0479	DUCK TA	-0.9434	0.9434	0.9913	DUCK TC
1.4119 8.1246 Buck 2B 0.1407																		
1.4106 9.5352 8.1246 Buck 2B 0.5974 9.5797 8.9823 Buck 2C	1.5526	9.5365	1 4440			0.1407				1.5520	9.5359	0.5500			0.0004			
			1.4119	0.1240	DUCK 2B	0.1407						0.3536	0.9823	DUCK 2C	0.9984			
1.5495   7.9857   Buck 2A   -0.1389   0.1398   8.1237   Buck 2B     1.5945   7.9852   Buck 2A   -0.9971   0.99775   8.9817   Buck 2A   -0.9971   0.99775   8.9817   Buck 2A   -0.9971   0.99775   8.9817   Buck 2A   -0.9971   0.99775   8.9817   Buck 2A   -0.99775   Buck 2A   -0.99775   Buck 2A   -0.99775   Buck 2A   -0.99775   Buck 2A	1.4106	9.5352								0.5974	9.5797							
			1.5495	7.9857	Buck 2A	-0.1389	0.1398	8.1237	Buck 2B			1.5945	7.9852	Buck 2A	-0.9971	0.99775	8.9817	Buck 2C

					Delta =		Preliminary								Delta =		Preliminary	
Plus	н	Minus	Elevation	Benchmark Description	Difference in Elevation	Mean Delta	Adjusted Elevation	Benchmark Description		lus	н	Minus	Elevation	Benchmark Description	Difference in Elevation	Mean Delta	Adjusted Elevation	Benchmark Description
rius	- m	Willius	Lievation	Description	Lievation	Della	Lievation	Description		ius		Willius	Lievation	Description	Lievation	Weall Della	Lievation	Description
1.4742	9.7212		8.2470	Buck 3B					1.4	1047	9.7176		8.3129	Buck 5B				
		0.6842	9.0370	Buck 3C	0.7900							0.5447	9.1729	Buck 5C	0.86			
0.6855	9.7225	4 4740	9.0370	Buck 3C	0.7005	0.7000	0.0000	D .1.00	0.4	1953	9.6682	4.0540	9.1729	Buck 5C	0.0500	0.0500	0.4707	D :1.50
		1.4740	8.2485	Buck 3B	-0.7885	0.7893	9.0363	Buck 3C		1		1.3549	8.3133	Buck 5B	-0.8596	0.8598	9.1727	Buck 5C
4.5400	0.7007		0.0407	Duel 44					4.5	457	0.7054		0.0407	Decale 44				
1.5430	9.7927	1.4687	8.2497 8.3240	Buck 4A Buck 4B	0.0743				1.5	5457	9.7954	0.5753	8.2497 9.2201	Buck 4A Buck 4C	0.9704			
		1.4007	0.3240	Buck 4B	0.0743							0.5755	9.2201	Buck 40	0.9704			
1.4713	9.7953		8.3240	Buck 4B					0.5	5754	9.7955		9.2201	Buck 4C				
		1.5458	8.2495	Buck 4A	-0.0745	0.0744	8.3241	Buck 4B				1.5456	8.2499	Buck 4A	-0.9702	0.9703	9.2200	Buck 4C
1.5171	9.6380		8.1209	Buck 6A					1.5	5095	9.6304		8.1209	Buck 6A				
1.0171	0.0000	1.3944	8.2436	Buck 6B	0.1227				- 1.5	,000	0.0001	0.4809	9.1495	Buck 6C	1.0286			
1.0000	0.0000		0.0400	D 1 0D						1700	0.0077		0.4405	D .1.00				
1.3862	9.6298	1.5091	8.2436	Buck 6B Buck 6A	-0.1229	0.1228	8.2437	Buck 6B	0.4	1782	9.6277	1.5062	9.1495	Buck 6C Buck 6A	-1.028	1.0283	9.1492	Buck 6C
		1.5091	8.1207	BUCK 6A	-0.1229	0.1228	8.2437	виск ов				1.5062	8.1215	BUCK 6A	-1.028	1.0283	9.1492	Buck 6C
1 1010	0.4550		0.0040	D :1 445						1700	0.5070		0.4444	D .1.0D				
1.4219	9.4559	0.5336	8.0340 8.9223	Buck 11B Buck 11C	0.8883		-		1.4	1762	9.5876	0.6243	8.1114 8.9633	Buck 9B Buck 9C	0.8519			
	1	0.5556	0.9223	BUCK ITC	0.0003							0.0243	0.9033	Buck 9C	0.6519			
0.5364	9.4587		8.9223	Buck 11C					0.6	3285	9.5918		8.9633	Buck 9C				
		1.4240	8.0347	Buck 11B	-0.8876	0.8880	8.9219	Buck 11C				1.4802	8.1116	Buck 9B	-0.8517	0.8518	8.9632	Buck 9C
	ļ									-								
1.7537	9.7027		7.9490	Buck 10A					17	7556	9.7046		7.9490	Buck 10A				
1.7557	3.1021	1.6537	8.0490	Buck 10B	0.1000				1.7	330	3.7040	0.8109	8.8937	Buck 10C	0.9447			
1.6553	9.7043		8.0490	Buck 10B					0.8	808	9.7017		8.8937	Buck 10C				
		1.7548	7.9495	Buck 10A	-0.0995	0.0998	8.0487	Buck 10B				1.7521	7.9496	Buck 10A	-0.9441	0.9444	8.8934	Buck 10C
1.5719	9.7159		8.1440	Buck 8A					1.5	690	9.7130		8.1440	Buck 8A				
	1	1.4423	8.2736	Buck 8B	0.1296		<del>                                     </del>			-		0.6185	9.0945	Buck 8C	0.9505			<del>                                     </del>
1.4388	9.7124		8.2736	Buck 8B			+		0.0	618	9.7125	+	9.0945	Buck 8C				+
1.4300	5.1124	1.5691	8.1433	Buck 8A	-0.1303	0.1300	8.2739	Buck 8B	0.1	010	3.1 120	1.5686	8.1439	Buck 8A	-0.9506	0.95055	9.0945	Buck 8C
		1.5031	0.1400	DUCK OA	-0.1303	0.1000	0.2133	Duck on				1.5000	0.1700	DUCK OA	-0.0000	0.00000	3.0373	Duck 90
1.5024	9.7852		8.2828	Buck 7B														
1.0024	3.1032	0.6280	9.1572	Buck 7C	0.8744		<b> </b>					1		<b>†</b>				<b>-</b>
		0.0200	55.2		0.0		1					1		İ				1
0.6249	9.7821		9.1572	Buck 7C														
		1.5006	8.2815	Buck 7B	-0.8757	0.8751	9.1578	Buck 7C										

Well #	Location	Diameter	Easting	Northing	RP Elevation	<b>TBM Elevation</b>
Buck 01	Winter 1	4"	-81.21650328	27.13703711	30.81	28.29
Buck 02	Winter 1	2"	-81.21758805	27.13164098	30.82	28.00
Buck 03	Winter 2	2"	-81.21529124	27.13120664	30.91	28.29
Buck 04	Winter 3	2"	-81.21272495	27.1306711	31.51	28.55
Buck 05	Winter 4	2"	-81.20781146	27.13207561	31.51	28.66
Buck 06	Winter 5	2"	-81.20500916	27.13301191	31.39	28.38
Buck 07	Winter 6	4"	-81.20242938	27.13583025	31.31	28.52
Buck 08	Winter 6	2"	-81.20150397	27.13256782	31.11	28.40
Buck 09	Winter 7	2"	-81.19678183	27.13100357	30.61	27.80
Buck 10	Winter 8	2"	-81.19422701	27.1310297	30.44	27.66
Buck 11	Winter 8	4"	-81.19382747	27.1359575	30.58	27.66
Buck 12	Summer 1	2"	-81.18349326	27.14474698	30.43	27.62
Buck 13	Summer 2	2"	-81.18165026	27.14478323	30.22	27.12
Buck 14	Summer 3	2"	-81.17989676	27.14477872	30.25	27.11
Buck 15	Summer 4	2"	-81.17804051	27.14481268	29.88	27.10
Buck 16	Summer 5	2"	-81.17579256	27.1448426	30.17	27.32
Buck 17	Summer 6	2"	-81.17371487	27.14485196	30.19	27.19
Buck 18	Summer 7	2"	-81.1717829	27.14486337	30.39	27.28
Buck 19	Summer 8	2"	-81.17012554	27.14482701	30.59	27.92
Buck 20	Summer 1	4"	-81.18290103	27.139737	30.30	26.69
Buck 21	Summer 5	4"	-81.17499578	27.1411081	30.06	26.99
Buck 22	Summer 8	4"	-81.17035165	27.14107319	30.54	27.34

## Office

### **Project**

5 June 2017

#### **INPUT**

Geographic, flhpgn - Florida HPGN Vertical - NAVD88, U.S. Feet

### **OUTPUT**

State Plane, flhpgn - Florida HPGN 0901 - Florida East, U.S. Feet Vertical - NGVD29 (Custom), U.S. Feet

BUCK13

1/1

Latitude: 27 08 41 Longitude: 81 10 54

Elevation/Z: 0

Northing/Y: 1021822.200 Easting/X: 597088.296

Elevation/Z: 1.217

Convergence: -0 04 58.38152
Scale Factor: 0.999945178
Combined Factor: 0.999949088

Remark:



# **DBHYDRO** | by station

	STATION INFORMATION				
Station	BUCK13_G				
Site	BUCK13				
Туре	WELL				
Latitude (ddmmss.sss)	270841.174				
Longitude (ddmmss.sss)	811053.924				
X Coord (ft) NAD83	597094				
Y Coord (ft) NAD83	1021840				
County	Highlands				
Basin	C-41N 25 38 31				
Section					
Township					
Range					
Show Map	Google Map				
Well Info	<u>Info</u>				
Description	Middle of improved pasture S2 at Buck Island Ranch north of Harney pond canal				
Notes	Description provided by Odi Villapando				
Nearby Stations	Nearby Stations				
Attachments	None Available				
	Query returned 1 station record(s).				
Get Sa	mple Data Get Time Series Data				

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