Surveyor's Report

Specific Purpose Survey
ENCON Well Site

SFWMD Work Order Number: 4500016343

Contractors Project No. 07050.07

Report Date: 6/10/08

Submittal: Final

Prepared for:

South Florida Water Management District

KEITH & ASSOCIATES, INC.
consulting engineers

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OVERVIEW OF THE PROJECT

PURPOSE

This survey request consists of the establishment of elevations to third order National Geodetic Survey (NGS) Standards at the existing well site in Section 10, Township 41 South, Range 42 East, Palm Beach County, Florida:

The objective of this Work Order is to:

1. Establish elevations on the wells.
2. Set a third-order benchmark at the well site.

The services listed in this report were performed under the direction of a Professional Surveyor and Mapper (PSM) registered in the State of Florida in accordance with Chapter 472 of the Florida Statutes.

LOCATION OF PROJECT

The project is located in Palm Beach County, Florida.

ITEMS DELIVERED TO THE DISTRICT

The following items were delivered to the District with this report.

Two signed and sealed paper copies of the surveyor's report.

A CD containing the following:

- The survey report in Microsoft Word format.
- Digital photos.
- Scanned copies of field notes.
- Any other digital files associated with the survey.
- Completed District benchmark description sheet for all set marks.
- Completed Excel benchmark spread sheet
- Completed Excel well activation sheet
- CorpsMet 95 Meta Data files

VERTICAL DATUM FOR THE PROJECT

The vertical datum for the project is the North American Vertical Datum of 1988. For correlation with older data sets, the elevations of the benchmarks are also shown in the National Geodetic Vertical Datum (NGVD) of 1929. The NGVD 29 elevations were derived using data provided by the South Florida Water Management District in a file named "NGVD29.txt" when applicable, otherwise NGS superseded values or South Florida Water Management District's Benchmark Data Base values were used. The linear unit for all elevations is U.S. survey feet unless otherwise stated.

LEVELING METHODS

CONFIGURATION OF LEVEL RUN

Third-Order leveling procedures were used to establish elevations on the wells and site benchmark.

Benchmark "ENCON 2008" (the site benchmark) was used as the primary vertical control for establishing the elevations on the measuring points. A level loop was run starting at NGS benchmark I95 89 A09, through NGS benchmark JENKINS, through site benchmark "ENCON 2008" and back to Benchmark I95 89 A09. **Note:** For this survey the starting elevation of Benchmark I95 89 A09 (20.184' adjusted Feb. 1997, no August 2007 adjustment) was lowered 0.026' (20.158') to match the difference of the NGS re-adjusted elevation (19.885', February 1997 and 19.859', August 2007) of Benchmark JENKINS.

The SFWMD maximum allowable misclosure for this type of run is 0.03' multiplied by the square root of the length of the level line in miles.

EQUIPMENT USED

All leveling during the project was performed with a Wild NA1 conventional level and a three-section, fiberglass level rod.

GPS METHODS

INTRODUCTION

A GPS horizontal value for the site benchmark and well was required as part of this contract. The site benchmark was occupied for a minimum of fifteen minutes for rapid static processing to obtain sub-meter accuracy and the well located from the site benchmark.

The following instrumentation was used for the GPS observation:

(1) Trimble 5700 receiver/antenna

DATA PROCESSING

Data Acquisition

The static session data was downloaded from the receiver using Trimble Geomatics Office, version 1.62 (TGO). The DAT file was then sent to the National Geodetic Survey program OPUS RS (On-line Positioning User Service rapid static) for processing. Each data file submitted to OPUS RS is processed with respect to 3 CORS sites. The sites selected may not be the nearest to the static session but are selected by distance, number of observations, site stability, etc. The results of the three baselines are then added together and averaged to obtain the unknown station(s) (site benchmark ENCON 2008) values. Those values for the site benchmark (latitude and longitude) are shown in the corresponding Vertical Control and Project Results sections below.

VERTICAL CONTROL

I95 89 A09	Elevation:	**NAVD 1988**	**20.158'**	**NGVD 1929**	**None**
PID AC5320	Latitude	26° 56' 00" (Scaled)	NGS Elevation adjusted -0.026' to match re-adjustment of JENKINS in Aug. 2007.		
State/County FL/Palm Beach	Longitude	-80° 08' 31" (Scaled)			
USGS QUAD Rood 1983					
Vertical Order Second Class II		The orthometric height of 20.184' was adjusted for this survey by (-)0.026' to match the re-adjustment of benchmark JENKINS by NGS in August 2007. To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 0.4 mile (0.6 km) to the State Road 706 bridges over Canal C-18 and the mark at the west end of a dead end asphalt drive near the southeast corner of the bridges. It is set in the top of a round concrete monument, it is 63.2 feet (19.3 m) north of the southwest end of the curved guardrail at the end of the drive, 56.2 feet (17.1 m) southwest of the north end of the curved guardrail and 2.0 feet (0.6 m) west of the west edge of the asphalt drive.			

VERTICAL CONTROL

JENKINS	Elevation:	**NAVD 1988**	**19.859'**	**NGVD 1929**	**21.414'**
PID AD6275	Latitude	26° 56' 02.31467"	From NGS Data Sheet		Superseded value from NGS Data Sheet.
State/County FL/Palm Beach	Longitude	-80° 08' 32.88006"			
USGS QUAD Rood 1983					
Vertical Order First Class II Horizontal Order First		The orthometric height was determined by differential leveling and adjusted by the NATIONAL GEODETIC SURVEY in August 2007. To reach the mark from the post office in Jupiter, go south on highway A1A along the east side of railroad tracks for 0.45 mile (0.72 km) to the junction of State Road 706, turn right and go west on State Road 706 for 3.0 miles (4.8 km) to a concrete bridge over canal and gate on left just west of the bridge. Turn left and pass through gate and go southwest along top of levee for 150 feet (45.7 m) to the mark. It is set in the top of a round concrete monument, 135.0 feet (41.1 m) southwest of the southwest end of the bridge abutment, 88.0 feet (26.8 m) south of the south edge of the eastbound lane and 4.0 feet (1.2 m) north of the west end of the gate.			

VERTICAL CONTROL

<table>
<tr><td colspan="2">SITE BENCHMARK
“ENCON 2008”</td><td>Elevation:</td><td>NAVD 1988</td><td>16.877’</td><td>NGVD 1929</td><td>18.432’</td></tr>
<tr><td colspan="2"></td><td>Latitude</td><td>26° 55’ 25.2”</td><td>Derived from the level loop as described in the Leveling Methods section of this report.</td><td></td><td>Derived from the level loop as described in the Leveling Methods section of this report.</td></tr>
<tr><td colspan="2">State/County
FL/Palm Beach</td><td>Longitude</td><td>-80° 08’ 23.8”</td><td></td><td></td><td></td></tr>
<tr><td colspan="2">USGS QUAD
Rood 1983</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">Vertical Order Third
Horizontal Order Third</td><td></td><td colspan="4" rowspan="2">To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 1.0 mile to the junction of Central Boulevard on the right, turn right onto Central Boulevard, heading south, 0.53 miles to the junction of Jupiter Park Road on the right, turn right onto Jupiter Park Road, heading west, 0.32 miles to the junction of an asphalt road and entrance to a waste water treatment plant on the left, turn left into the plant and follow the asphalt road 0.33 miles to the southeast corner of the plant and a concrete slab housing the ENCON wells. The mark is a 2-1/2” aluminum disk located on the south side of the concrete slab, 12’ north of and 12.7’ west of the deep zone well (most southerly well).</td></tr>
<tr><td colspan="3"> 


</td></tr>
</table>

Station Name:
PB-1171(Deep)

Station Name:
ENCON_MW2L (Middle)

PROJECT RESULTS

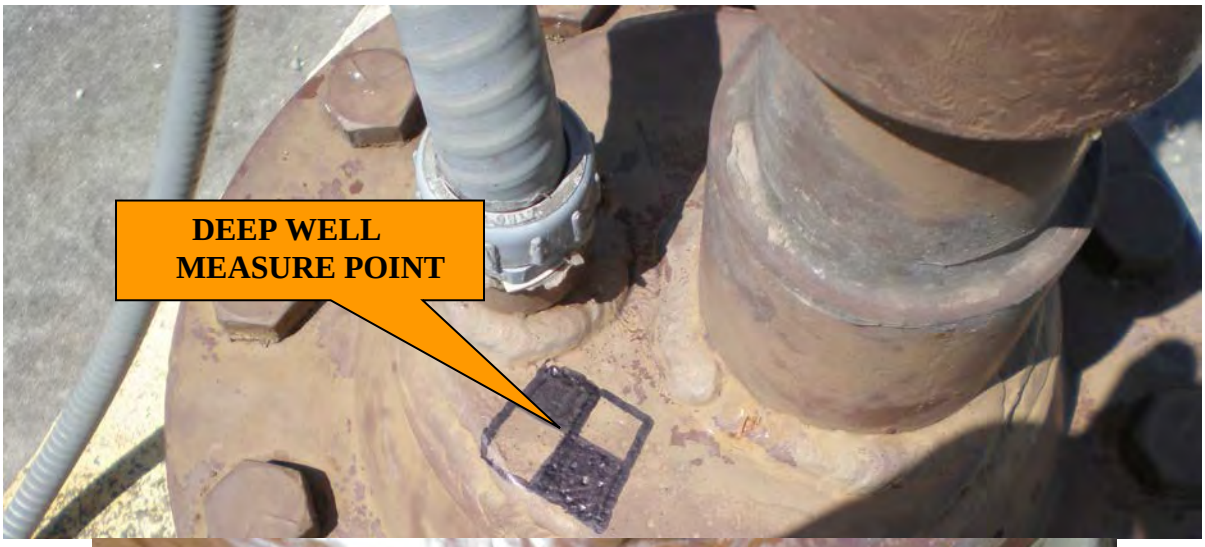
Station Name:
ENCON_MW2U (Upper)

~~Deep Zone~~	~~Intermediate Zone~~	~~Shallow Zone~~
Reference mark: Set mark on upper flange. New Information at the site: Mark El. 21.14' NGVD 29 Mark El. 19.58' NAVD 88 Initials: K&A Date: 6/10/08 Offset: -1.555 Previous Information at the site: Reference Mark Elevation(s) El. None Date: None Initials: None Reference Mark location: Same as noted above.	Reference mark: Set mark on housing just above calibration sticker. New Information at the site: Mark El. 22.87' NGVD 29 Mark El. 21.32' NAVD 88 Initials: K&A Date: 6/10/08 Offset: -1.555 Previous Information at the site: Reference Mark Elevation(s) El. None Date: None Initials: None Reference Mark location: Same as noted above	Reference mark: Set mark on housing just below gauge. New Information at the site: Mark El. 22.98' NGVD 29 Mark El. 21.42' NAVD 88 Initials: K&A Date: 6/10/08 Offset: -1.555 Previous Information at the site: Reference Mark Elevation(s) El. None Date: None Initials: None Reference Mark location: Same as noted above
DTW (Distance to water inside well) Unable to obtain, well sealed. Reference mark: N/A El. N/A (NGVD 29) Measurement to water: N/A Date: N/A Time: N/A Ground Elevation next to Well: 18.47' (NGVD 1929) (on concrete pad). NAD 1983/90 Florida East Zone Latitude: 26° 55' 25.0" Longitude: - 80° 08' 23.6" Northing:(Y) 942358 Easting:(X) 936428	DTW (Distance to water inside well) Unable to obtain, well sealed. Reference mark: N/A El. N/A (NGVD 29) Measurement to water: N/A Date: N/A Time: N/A Ground Elevation next to Well: 18.18' (NGVD 1929) (on concrete pad). NAD 1983/90 Florida East Zone Latitude: 26° 55' 25.6" Longitude: - 80° 08' 24.1" Northing:(Y) 942413 Easting:(X) 936382	DTW (Distance to water inside well) Unable to obtain, well sealed. Reference mark: N/A El. N/A (NGVD 29) Measurement to water: N/A Date: N/A Time: N/A Ground Elevation next to Well: 18.18' (NGVD 1929) (on concrete pad). NAD 1983/90 Florida East Zone Latitude: 26° 55' 25.6" Longitude: - 80° 08' 24.1" Northing:(Y) 942413 Easting:(X) 936382

Information in "Red" not part of the Surveyor's Report

Site Photos

Station Name: PB1171 Reference Point

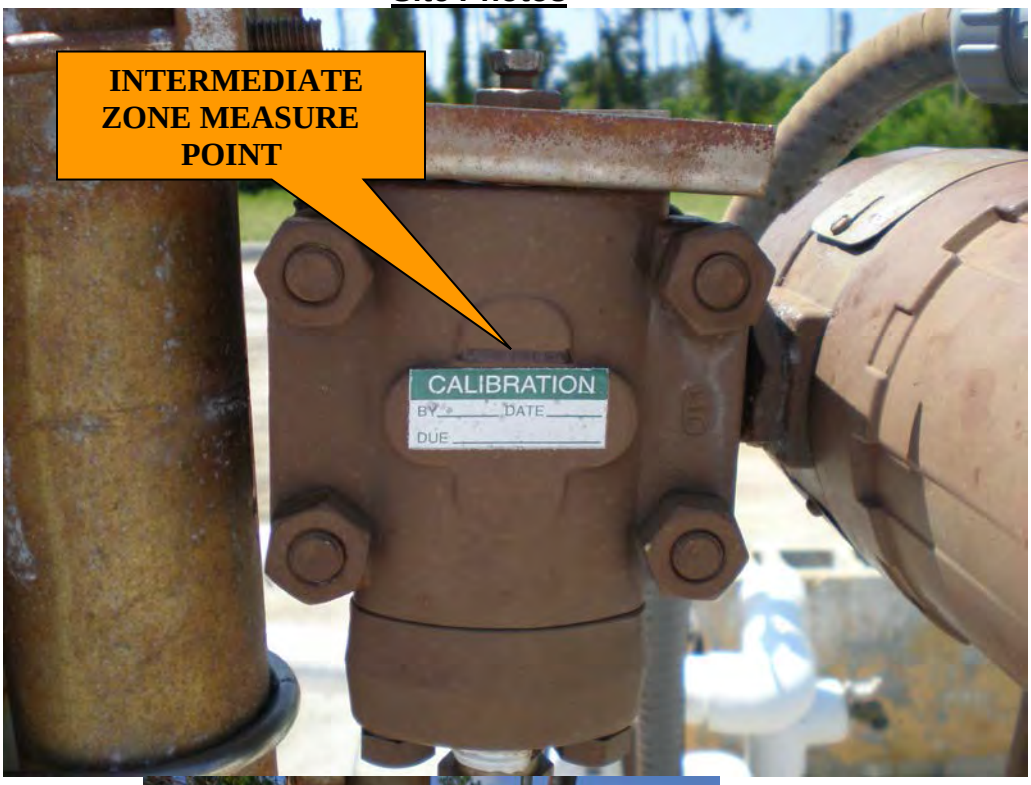


Deep Zone Well Measure Point and Information
6/10/08
Keith and Associates

Information in "Red" not part of the Surveyor's Report

Station Name: ENCON_MW2L (Middle) Reference Point

Site Photos

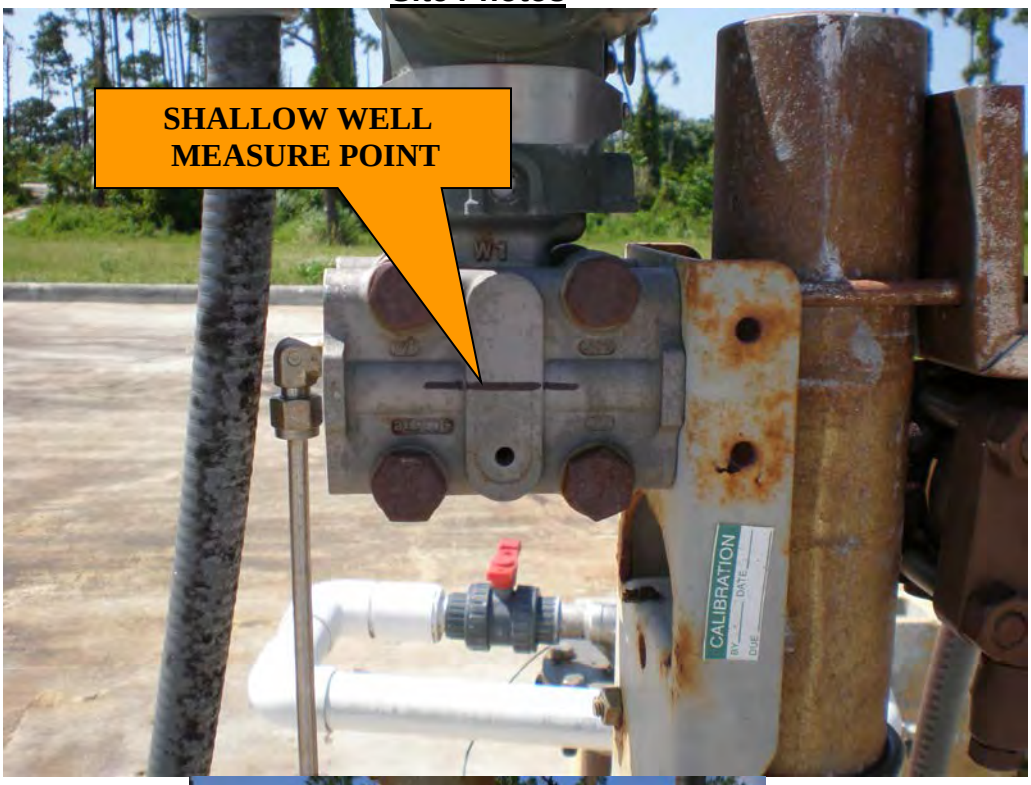


Intermediate Zone Well Measure Point and Information
6/10/08
Keith and Associates

Information in "Red" not part of the Surveyor's Report

Station Name: ENCON_MW2U (Shallow) Reference Point

Site Photos



Shallow Zone Well Measure Point and Information
6/10/08
Keith and Associates
10

Information in "Red" not part of the Surveyor's Report

Comments

Elevations shown hereon are NGVD 1929 datum unless noted otherwise.
Party Chief: D. Ferels Field Book: 292 Page Pages 2-7, 44
Bench Mark: "ENCON 2008" El. 16.877', Vertical Datum: NAVD1988
El. 18.432', Vertical Datum: NGVD1929
Offset: 1.555' SFWMD VALUE (subtract this value from NGVD 1929 to convert to NAVD 1988)
Offset: 1.555' NGS VALUE (subtract this value from NGVD 1929 to convert to NAVD 1988)
The offset values referred to as "SFWMD VALUE" and "NGS VALUE" were derived by subtracting the NAVD 1988 value from the NGVD 1929 value at NGS benchmark JENKINS. The NGVD 1929 value for benchmark JENKINS was obtained from the NGS Data Sheet as a Superseded Value.

NAVD 88 - North American Vertical Datum of 1988
NGVD29 -National Geodetic Vertical Datum of 1929
NAD 83 -99 (Horizontal Datum) North American Datum
NGS - National Geodetic Survey
SFWMD - South Florida Water Management District
PVC - Polyvinyl Chloride
L.B. - Licensed Business
RTK – Real Time Kinematic
K&A – Keith and Associates
PSM – Professional Surveyor & Mapper
USGS – United States Geological Survey
QUAD – Quadrangle Map
PID - Permanent Identifier

SURVEYOR'S CERTIFICATION

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

Keith and Associates, Inc.
L.B. number 6860

By:

Date of Survey
June 10, 2008

Michael M. Mossey, PSM
Professional Surveyor and Mapper
State of Florida
Certificate No. 5660

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01

COUNTY PALM BEACH	**PROJECT ENCON MW**	**DESIGNATION ENCON 2008**
SECTION 10	**TOWNSHIP 41 SOUTH**	**RANGE 42 EAST**

GEOGRAPHIC INDEX OF QUAD

Established by KEITH AND ASSOCIATES	**NAME OF QUADRANGLE ROOD**
SURVEYOR D. FERELS DATE 4/16/ 2008	**FIELD BOOK 292 PAGES 3-6**

HORIZONTAL DATUM: **1983/90** ZONE **EAST**

VERTICAL DATUM: NGVD 1929 AND NAVD 1988

CONTROL ACCURACY: HORIZONTAL 3rd VERTICAL 3rd

STATE PLANE COORDINATES	**X 936415**	**Y 942370**	**NAVD 1988 EL. 16.877'** **NGVD 1929 EL. 18.432'**

LATITUDE **26°55'25.2"** LONGITUDE **-80°08'23.8"**

DESCRIPTION

To Reach:

To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 1.0 mile to the junction of Central Boulevard on the right, turn right onto Central Boulevard, heading south, 0.53 miles to the junction of Jupiter Park Road on the right, turn right onto Jupiter Park Road, heading west, 0.32 miles to the junction of an asphalt road and entrance to a waste water treatment plant on the left, turn left into the plant and follow the asphalt road 0.33 miles to the southeast corner of the plant and a concrete slab housing the ENCON wells. The mark is a 2-1/2" aluminum disk located on the south side of the concrete slab, 12' north of and 12.7' west of the deep zone well (most southerly well).

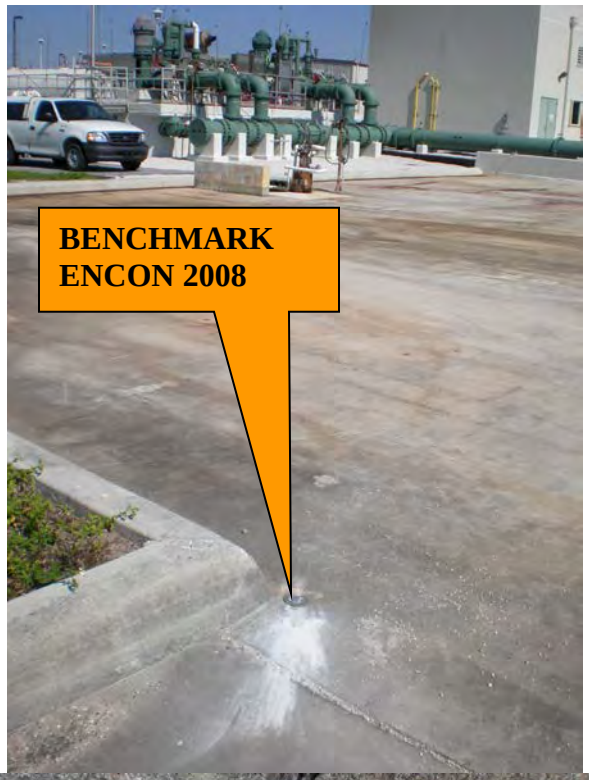
Notable Land marks:

See photos below

SKETCH

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rev. 4/01



The NGS Data Sheet

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

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.60
1        National Geodetic Survey,   Retrieval Date = MAY 24, 2008
 AC5320 ***********************************************************************
 AC5320  DESIGNATION -  I95 89 A09
 AC5320  PID         -  AC5320
 AC5320  STATE/COUNTY-  FL/PALM BEACH
 AC5320  USGS QUAD   -  ROOD (1983)
 AC5320
 AC5320                         *CURRENT SURVEY CONTROL
 AC5320  ______________________________________________________________________
 AC5320* NAD 83(1986)-  26 56 00.     (N)    080 08 31.     (W)     SCALED
 AC5320* NAVD 88     -         6.152  (meters)      20.18   (feet)  ADJUSTED
 AC5320  ______________________________________________________________________
 AC5320  GEOID HEIGHT-         -27.19  (meters)                      GEOID03
 AC5320  DYNAMIC HT  -           6.142 (meters)      20.15  (feet)  COMP
 AC5320  MODELED GRAV-     979,098.3   (mgal)                        NAVD 88
 AC5320
 AC5320  VERT ORDER  -  SECOND    CLASS II
 AC5320
 AC5320.The horizontal coordinates were scaled from a topographic map and have
 AC5320.an estimated accuracy of +/- 6 seconds.
 AC5320
 AC5320.The orthometric height was determined by differential leveling
 AC5320.and adjusted in February 1997.
 AC5320
 AC5320.The geoid height was determined by GEOID03.
 AC5320
 AC5320.The dynamic height is computed by dividing the NAVD 88
 AC5320.geopotential number by the normal gravity value computed on the
 AC5320.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AC5320.degrees latitude (g = 980.6199 gals.).
 AC5320
 AC5320.The modeled gravity was interpolated from observed gravity values.
 AC5320
 AC5320;                    North         East     Units  Estimated Accuracy
 AC5320;SPC FL E     -   288,310.      285,210.      MT  (+/- 180 meters Scaled)
 AC5320
 AC5320                          SUPERSEDED SURVEY CONTROL
 AC5320
 AC5320.No superseded survey control is available for this station.
 AC5320
 AC5320_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK851793(NAD 83)
 AC5320_MARKER: DD = SURVEY DISK
 AC5320_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
 AC5320_STAMPING: I 95 89 A 09 FLDT
 AC5320_MARK LOGO: FLDT
 AC5320_MAGNETIC: O = OTHER; SEE DESCRIPTION
 AC5320_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
 AC5320+STABILITY: SURFACE MOTION
 AC5320
 AC5320  HISTORY     - Date     Condition        Report By
 AC5320  HISTORY     - 1989     MONUMENTED       FLDT
 AC5320
 AC5320                          STATION DESCRIPTION
 AC5320
 AC5320'DESCRIBED BY FLORIDA DEPARTMENT OF TRANSPORTATION 1989 (CBM)
 AC5320'TO REACH THE STATION FROM THE INTERCHANGE OF INTERSTATE ROUTE 95 AND
 AC5320'SR 706, ABOUT 3 MILES (4.8 KM) WEST OF JUPITER, GO EAST ON STATE ROAD
 AC5320'706 FOR ABOUT 0.4 MILE (0.6 KM) TO THE STATE ROAD 706 BRIDGES OVER
 AC5320'CANAL C-18 AND THE MARK AT THE WEST END OF A DEADEND ASPHALT DRIVE
 AC5320'NEAR THE SOUTHEAST CORNER OF THE BRIDGES.  IT IS SET IN THE TOP OF A
 AC5320'ROUND CONCRETE MONUMENT, IT IS 63.2 FEET (19.3 M) NORTH OF THE
 AC5320'SOUTHWEST END OF THE CURVED GUARDRAIL AT THE END OF THE DRIVE, 56.2
 AC5320'FEET (17.1 M) SOUTHWEST OF THE NORTH END OF THE CURVED GUARDRAIL AND
 AC5320'2.0 FEET (0.6 M) WEST OF THE WEST EDGE OF THE ASPHALT DRIVE.

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

The NGS Data Sheet

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

```
DATABASE =  ,PROGRAM = datasheet, VERSION = 7.61
1        National Geodetic Survey,   Retrieval Date = JUNE 10, 2008
 AD6275 ***********************************************************************
 AD6275  TIDAL BM    -  This is a Tidal Bench Mark.
 AD6275  DESIGNATION -  JENKINS
 AD6275  PID         -  AD6275
 AD6275  STATE/COUNTY-  FL/PALM BEACH
 AD6275  USGS QUAD   -  ROOD (1983)
 AD6275
 AD6275                         *CURRENT SURVEY CONTROL
 AD6275  ______________________________________________________________________
 AD6275* NAD 83(1990)-  26 56 02.31467(N)    080 08 32.88006(W)     ADJUSTED
 AD6275* NAVD 88     -          6.053  (meters)      19.86   (feet)  ADJUSTED
 AD6275  ______________________________________________________________________
 AD6275  LAPLACE CORR-          -3.81  (seconds)                    DEFLEC99
 AD6275  GEOID HEIGHT-         -27.12  (meters)                     GEOID03
 AD6275  DYNAMIC HT  -           6.044 (meters)      19.83  (feet)  COMP
 AD6275  MODELED GRAV-     979,098.1   (mgal)                       NAVD 88
 AD6275
 AD6275  HORZ ORDER  -  FIRST
 AD6275  VERT ORDER  -  FIRST     CLASS II
 AD6275
 AD6275.The horizontal coordinates were established by classical geodetic methods
 AD6275.and adjusted by the National Geodetic Survey in May 1991.
 AD6275
 AD6275.The orthometric height was determined by differential leveling
 AD6275.and adjusted in August 2007.
 AD6275
 AD6275.This Tidal Bench Mark is designated as VM 5564
 AD6275.by the Center for Operational Oceanographic Products and Services.
 AD6275
 AD6275.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD6275
 AD6275.The geoid height was determined by GEOID03.
 AD6275
 AD6275.The dynamic height is computed by dividing the NAVD 88
 AD6275.geopotential number by the normal gravity value computed on the
 AD6275.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD6275.degrees latitude (g = 980.6199 gals.).
 AD6275
 AD6275.The modeled gravity was interpolated from observed gravity values.
 AD6275
 AD6275;                    North         East     Units Scale Factor Converg.
 AD6275;SPC FL E     -   288,377.542   285,160.906   MT  1.00003068   +0 23 18.4
 AD6275;SPC FL E     -   946,118.65    935,565.41   sFT  1.00003068   +0 23 18.4
 AD6275;UTM  17      - 2,979,411.130   585,131.849   MT  0.99968947   +0 23 18.4
 AD6275
 AD6275!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AD6275!SPC FL E     -   1.00000331  x   1.00003068  =   1.00003399
 AD6275!UTM  17      -   1.00000331  x   0.99968947  =   0.99969278
 AD6275
 AD6275:                Primary Azimuth Mark                    Grid Az
 AD6275:SPC FL E     -  JENKINS S 1 PBCSD 1970                  003 09 14.1
 AD6275:UTM  17      -  JENKINS S 1 PBCSD 1970                  003 09 14.1
 AD6275
 AD6275|----------------------------------------------------------------------|
 AD6275|  PID    Reference Object                     Distance      Geod. Az  |
 AD6275|                                                            dddmmss.s |
 AD6275|  AD6535 JENKINS S 1 PBCSD 1970             APPROX. 0.5 KM 0033232.5 |
 AD6275|  AD6531 JENKINS S 1 PBCSD A 1              229.305 METERS 00638     |
 AD6275|  CW9097 JENKINS RM 1                        22.659 METERS 04738     |
 AD6275|  AD6433 TEQUESTA PB CABLE TV TOWER         APPROX. 6.4 KM 0540825.6 |
 AD6275|  AD6429 TEQUESTA EPIS CH SPIRE             APPROX. 5.6 KM 0583730.0 |
 AD6275|  CW9098 JENKINS S 2                                        0641523.6 |
 AD6275|  AD6427 JUPITER INLET BEACH COLONY TK      APPROX. 6.1 KM 0655128.5 |
 AD6275|  AD6445 JUPITER INLET LH 1934              APPROX. 6.2 KM 0745231.7 |
 AD6275|  AD6422 JUPITER USCG RADIO TOWER           APPROX. 6.3 KM 0750158.6 |
 AD6275|  AD6417 JUPITER RAD STA WJTS WEST MAST     APPROX. 2.6 KM 0765913.4 |
 AD6275|  AD6441 JUPITER MICROWAVE TOWER CENTER     APPROX. 3.3 KM 0883401.9 |
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AD6275| AD6414 JUPITER USAF GAPFILLER RADAR        APPROX. 7.2 KM 0903320.7 |
AD6275| AD6276 JENKINS RM 2                         23.712 METERS 20503      |
AD6275| AD6530 JUPITER FLA TURNPIKE RAD MAST       APPROX. 1.5 KM 2771550.9 |
AD6275|-----------------------------------------------------------------------|
AD6275
AD6275                          SUPERSEDED SURVEY CONTROL
AD6275
AD6275  NAD 83(1986)-  26 56 02.31938(N)    080 08 32.88912(W) AD(        ) 1
AD6275  NAD 27      -  26 56 01.11331(N)    080 08 33.73139(W) AD(        ) 1
AD6275  NAVD 88 (02/05/97)    6.061  (m)           19.89   (f) UNKNOWN      2 1
AD6275  NAVD 88 (06/15/91)    6.067  (m)           19.90   (f) UNKNOWN      2 1
AD6275  NGVD 29 (09/01/92)    6.527  (m)           21.41   (f) ADJUSTED     2 1
AD6275
AD6275.Superseded values are not recommended for survey control.
AD6275.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD6275.See file dsdata.txt to determine how the superseded data were derived.
AD6275
AD6275_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK8513279411(NAD 83)
AD6275_MARKER: DS = TRIANGULATION STATION DISK
AD6275_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD6275_SP_SET: CONCRETE POST
AD6275_STAMPING: JENKINS 1970
AD6275_MARK LOGO: CGS
AD6275_PROJECTION: FLUSH
AD6275_MAGNETIC: N = NO MAGNETIC MATERIAL
AD6275_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD6275+STABILITY: SURFACE MOTION
AD6275_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD6275+SATELLITE: SATELLITE OBSERVATIONS - December 10, 2007
AD6275
AD6275  HISTORY     - Date     Condition        Report By
AD6275  HISTORY     - 1970     MONUMENTED       NGS
AD6275  HISTORY     - 1973     GOOD             NGS
AD6275  HISTORY     - 1981     GOOD             FLDNR
AD6275  HISTORY     - 19891231 GOOD             FLDT
AD6275  HISTORY     - 19950407 GOOD             USPSQD
AD6275  HISTORY     - 20020209 GOOD             USPSQD
AD6275  HISTORY     - 20030217 GOOD             USPSQD
AD6275  HISTORY     - 20040301 GOOD             FLDEP
AD6275  HISTORY     - 20040304 GOOD             USPSQD
AD6275  HISTORY     - 20060316 GOOD             FLDEP
AD6275  HISTORY     - 20071210 GOOD             INDIV
AD6275
AD6275                          STATION DESCRIPTION
AD6275
AD6275'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970 (CLH)
AD6275'STATION IS LOCATED ABOUT 3-1/2 MILES SOUTHWEST OF TEQUESTA, 3 MILES
AD6275'WEST OF JUPITER, ON SOUTH SIDE OF STATE HIGHWAY 706 AND ON WEST
AD6275'LEVEE OF CANAL C-18.
AD6275'
AD6275'TO REACH THE STATION FROM THE POST OFFICE IN JUPITER, GO SOUTH
AD6275'ON HIGHWAY A1A ALONG THE EAST SIDE OF RAILROAD TRACKS FOR 0.45
AD6275'MILE TO THE JUNCTION OF STATE HIGHWAY 706.  TURN RIGHT AND GO WEST
AD6275'ON STATE HIGHWAY 706 FOR 3.0 MILES TO A CONCRETE BRIDGE OVER CANAL
AD6275'AND GATE ON LEFT JUST WEST OF THE BRIDGE.  TURN LEFT AND PASS
AD6275'THROUGH GATE AND GO SOUTHWEST ALONG TOP OF LEVEE FOR 150 FEET TO
AD6275'STATION AS DESCRIBED.
AD6275'
AD6275'STATION MARK, STAMPED JENKINS 1970, IS SET IN A CONCRETE POST
AD6275'FLUSH WITH THE GROUND.  IT IS 227 FEET SOUTHWEST OF THE SOUTHWEST
AD6275'CORNER OF BRIDGE, 165 FEET SOUTH OF CENTER OF STATE HIGHWAY 706,
AD6275'35 FEET NORTHWEST OF THE WEST EDGE OF LEVEE AND 2.2 FEET EAST OF
AD6275'A METAL WITNESS POST.
AD6275'
AD6275'RM 1, STAMPED JENKINS NO 1 1970, IS SET IN A CONCRETE POST THAT
AD6275'IS SET FLUSH.  IT IS 87 FEET SOUTHWEST OF THE CENTER OF GATE, 18
AD6275'FEET NORTHWEST OF WEST EDGE OF LEVEE AND 1 FOOT SOUTHEAST OF A
AD6275'METAL WITNESS POST.
AD6275'
AD6275'RM 2, STAMPED JENKINS NO 2 1970, IS SET IN A CONCRETE POST THAT
AD6275'IS SET FLUSH.  IT IS 57 FEET SOUTHEAST OF EAST SIDE OF A PALMETTO
AD6275'PATCH, 23.5 FEET NORTHWEST OF THE WEST EDGE OF LEVEE AND 1.2 FEET
AD6275'NORTHEAST OF A METAL WITNESS POST.
AD6275'
AD6275'JENKINS S-2 (AZ MK), IS A PALM BEACH COUNTY SURVEY DEPARTMENT
AD6275'BRONZE DISK STAMPED JENKINS S-2, IS SET IN A ROUND CONCRETE POST
AD6275'FLUSH WITH THE SURFACE OF THE GROUND.  IT IS 199 FEET EAST OF THE
AD6275'NORTHWEST CORNER OF BALL PARK, 79 FEET WEST OF THE NORTHEAST
AD6275'CORNER OF BALL PARK AND 2 FEET NORTH OF THE NORTH EDGE OF THE
AD6275'BALL PARK.
AD6275'
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AD6275'TO REACH JENKINS S-2 (AZ MK) FROM THE STATION, GO EAST ON STATE
AD6275'HIGHWAY 706 FOR 0.2 MILE TO A BALL PARK ON LEFT. TURN LEFT AND
AD6275'GO NORTH ACROSS BALL PARK FOR 0.05 MILE TO THE MARK AS DESCRIBED.
AD6275'
AD6275'HEIGHT OF LIGHT ABOVE STATION MARK 26 METERS.
AD6275
AD6275   STATION RECOVERY (1973)
AD6275
AD6275'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1973 (RRW)
AD6275'STATION, RM 1, AND RM 2 RECOVERED IN GOOD CONDITION AS DESCRIBED BY
AD6275'CLH IN 1970.
AD6275
AD6275   STATION RECOVERY (1981)
AD6275
AD6275'RECOVERY NOTE BY FL DEPT OF NAT RES 1981
AD6275'3.45 MI WEST FROM JUPITER.
AD6275'TO REACH THE STATION FROM THE POST OFFICE IN JUPITER, GO SOUTH ON
AD6275'HIGHWAY A1A ALONG THE EAST SIDE OF RAILROAD TRACKS FOR 0.45 MILE TO
AD6275'THE JUNCTION OF STATE HIGHWAY 706, TURN RIGHT AND GO WEST ON STATE
AD6275'HIGHWAY 706 FOR 3.0 MILE TO A CONCRETE BRIDGE OVER CANAL AND GATE ON
AD6275'LEFT JUST WEST OF THE BRIDGE, TURN LEFT AND PASS THROUGH GATE AND GO
AD6275'SOUTHWEST ALONG TOP OF LEVEE FOR 150 FEET TO THE STATION, 227 FEET
AD6275'SOUTHWEST OF THE SOUTHWEST CORNER OF THE BRIDGE, 165 FEET SOUTH OF
AD6275'CENTER OF STATE HIGHWAY 706, 35 FEET NORTHWEST OF THE WEST EDGE OF THE
AD6275'LEVEE, 2.2 FEET EST OF A METAL WITNESS POST.
AD6275
AD6275   STATION RECOVERY (1989)
AD6275
AD6275'RECOVERY NOTE BY FLORIDA DEPARTMENT OF TRANSPORTATION 1989 (CBM)
AD6275'TO REACH THE MARK FROM THE POST OFFICE IN JUPITER, GO SOUTH ON HIGHWAY
AD6275'A1A ALONG THE EAST SIDE OF RAILROAD TRACKS FOR 0.45 MILE (0.72 KM) TO
AD6275'THE JUNCTION OF STATE ROAD 706, TURN RIGHT AND GO WEST ON STATE ROAD
AD6275'706 FOR 3.0 MILES (4.8 KM) TO A CONCRETE BRIDGE OVER CANAL AND GATE ON
AD6275'LEFT JUST WEST OF THE BRIDGE. TURN LEFT AND PASS THROUGH GATE AND GO
AD6275'SOUTHWEST ALONG TOP OF LEVEE FOR 150 FEET (45.7 M) TO THE MARK. IT IS
AD6275'SET IN THE TOP OF A ROUND CONCRETE MONUMENT, 135.0 FEET (41.1 M)
AD6275'SOUTHWEST OF THE SOUTHWEST END OF THE BRIDGE ABUTMENT, 88.0 FEET (26.8
AD6275'M) SOUTH OF THE SOUTH EDGE OF THE EASTBOUND LANE AND 4.0 FEET (1.2 M)
AD6275'NORTH OF THE WEST END OF THE GATE.
AD6275
AD6275   STATION RECOVERY (1995)
AD6275
AD6275'RECOVERY NOTE BY US POWER SQUADRON 1995
AD6275'RECOVERED IN GOOD CONDITION.
AD6275
AD6275   STATION RECOVERY (2002)
AD6275
AD6275'RECOVERY NOTE BY US POWER SQUADRON 2002 (AEP)
AD6275'RECOVERED IN GOOD CONDITION.
AD6275
AD6275   STATION RECOVERY (2003)
AD6275
AD6275'RECOVERY NOTE BY US POWER SQUADRON 2003 (AEP)
AD6275'RECOVERED IN GOOD CONDITION.
AD6275
AD6275   STATION RECOVERY (2004)
AD6275
AD6275'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AD6275'RECOVERED IN GOOD CONDITION.
AD6275
AD6275   STATION RECOVERY (2004)
AD6275
AD6275'RECOVERY NOTE BY US POWER SQUADRON 2004 (AEP)
AD6275'MARK IS 1.0 FOOT EAST OF CARSONITE WITNESS POST
AD6275'
AD6275
AD6275   STATION RECOVERY (2006)
AD6275
AD6275'RECOVERY NOTE BY FL DEPT OF ENV PRO 2006 (JRH)
AD6275'RECOVERED AS DESCRIBED.
AD6275
AD6275   STATION RECOVERY (2007)
AD6275
AD6275'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (RJW)
AD6275'RECOVERED IN GOOD CONDITION.

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

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NAVD88*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.953												
BM	5.702	5.702	25.860			20.158	**20.158**						NGS I95 89 A09
	4.451	0.000											
STADIA		250.200											
	4.440			5.329									
TP1	4.090	4.090	25.871	4.079	4.079	21.781		500.30	-0.000106752	-0.000106752	**21.781**	6.639	
	3.740	0.000		2.828	0.000			0.10					
	12.270			12.236				0.10					
STADIA		70.000			250.100								
	6.451			6.329									
TP2	6.111	6.111	25.986	5.998	5.996	19.875		136.80	-0.000029190	-0.000135942	**19.875**	6.058	NGS BM JENKINS
	5.771	0.000		5.661	0.002			3.20					PUB ELEV. 19.859'
	18.333			17.988				3.30					
STADIA		68.000			66.800								
	5.299			4.551									
TP3	4.050	4.050	25.830	4.208	4.206	21.780		137.10	-0.000029254	-0.000165196	**21.780**	6.639	
	2.801	0.000		3.860	0.002			-1.10					
	12.150			12.619				2.20					
STADIA		249.800			69.100								
	1.079			6.631									
TP4	0.680	0.680	21.128	5.382	5.382	20.448		499.60	-0.000106603	-0.000271799	**20.448**	6.233	
	0.281	0.000		4.133	0.000			0.00					
	2.040			16.146				2.20					
STADIA		79.800			249.800								
	7.170			7.740									
TP5	5.919	5.919	19.697	7.350	7.350	13.778		157.70	-0.000033649	-0.000305449	**13.778**	4.200	
	4.668	0.000		6.961	0.000			1.90					
	17.757			22.051				4.10					
STADIA		250.200			77.900								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008		Datum:	*NAVD88*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.650			6.558									
TP6	6.242	6.242	20.629	5.310	5.310	14.387		499.80	-0.000106646	-0.000412094	**14.387**	4.385	
	5.834	0.000		4.062	0.000			0.60					
	18.726			15.930				4.70					
STADIA		81.600			249.600								
	5.766			7.001									
TP7	4.515	4.515	18.558	6.588	6.586	14.042		164.70	-0.000035143	-0.000447237	**14.043**	4.280	
	3.264	0.000		6.170	0.002			-1.50					
	13.545			19.759				3.20					
STADIA		250.200			83.100								
	6.830			7.011									
TP8	5.581	5.581	18.380	5.758	5.759	12.799		500.40	-0.000106774	-0.000554011	**12.799**	3.901	
	4.332	0.000		4.509	-0.001			0.00					
	16.743			17.278				3.20					
STADIA		249.800			250.200								
	6.698			6.220									
TP9	5.449	5.449	18.858	4.971	4.971	13.409		499.60	-0.000106603	-0.000660614	**13.409**	4.087	
	4.200	0.000		3.722	0.000			0.00					
	16.347			14.913				3.20					
STADIA		249.800			249.800								
	5.869			6.559									
TP10	4.670	4.673	18.232	5.299	5.299	13.559		501.80	-0.000107072	-0.000767686	**13.559**	4.133	
	3.481	-0.003		4.039	0.000			-2.20					
	14.020			15.897				1.00					
STADIA		238.800			252.000								
	10.470			5.709									
TP11	9.220	9.220	22.933	4.519	4.519	13.713		476.80	-0.000101738	-0.000869424	**13.714**	4.180	
	7.970	0.000		3.329	0.000			0.80					
	27.660			13.557				1.80					
STADIA		250.000			238.000								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008		Datum:	*NAVD88*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.491			4.958									
TP12	5.244	5.244	24.467	3.710	3.710	19.223		499.60	-0.000106603	-0.000976027	**19.224**	5.859	
	3.998	0.000		2.462	0.000			0.40					
	15.733			11.130				2.20					
STADIA		249.300			249.600								
	4.478			7.179									
TP13	3.865	3.867	22.406	5.928	5.928	18.539		499.50	-0.000106582	-0.001082609	**18.540**	5.651	
	3.257	-0.002		4.677	0.000			-0.90					
	11.600			17.784				1.30					
STADIA		122.100			250.200								
	6.319			6.162									
TP14	5.681	5.683	22.559	5.530	5.530	16.876		248.40	-0.000053003	-0.001135611	**16.877**	5.144	SET 2-1/2" ALUMINUM DISK
	5.050	-0.002		4.899	0.000			-4.20					ON CONC. SLAB @ WELL SITE
	17.050			16.591				-2.90					ENCON
STADIA		126.900			126.300								
	7.129			4.630									
TP15	5.880	5.880	24.419	4.019	4.020	18.539		248.90	-0.000053109	-0.001188721	**18.541**	5.651	
	4.631	0.000		3.410	-0.001			4.90					
	17.640			12.059				2.00					
STADIA		249.800			122.000								
	4.598			6.450									
TP16	3.349	3.349	22.567	5.201	5.201	19.218		499.60	-0.000106603	-0.001295324	**19.220**	5.858	
	2.099	0.000		3.952	0.000			0.00					
	10.046			15.603				2.00					
STADIA		249.900			249.800								
	5.531			10.080									
TP17	4.342	4.342	18.079	8.830	8.830	13.737		499.90	-0.000106667	-0.001401991	**13.738**	4.187	
	3.153	0.000		7.580	0.000			-0.10					
	13.026			26.490				1.90					
STADIA		237.800			250.000								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NAVD88*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.452			5.700									
TP18	5.199	5.199	18.777	4.501	4.501	13.578		477.60	-0.000101909	-0.001503899	**13.580**	4.139	
	3.946	0.000		3.302	0.000			-2.00					
	15.597			13.503				-0.10					
STADIA		250.600			239.800								
	6.170			6.579									
TP19	4.919	4.919	18.367	5.329	5.329	13.448		500.60	-0.000106816	-0.001610716	**13.450**	4.099	
	3.668	0.000		4.079	0.000			0.60					
	14.757			15.987				0.50					
STADIA		250.200			250.000								
	7.069			7.020									
TP20	5.817	5.817	18.414	5.770	5.770	12.597		500.10	-0.000106710	-0.001717425	**12.598**	3.840	
	4.565	0.000		4.521	0.000			0.30					
	17.451			17.311				0.80					
STADIA		250.400			249.900								
	6.799			5.511									
TP21	6.381	6.381	20.535	4.260	4.260	14.154		500.60	-0.000106816	-0.001824242	**14.155**	4.315	
	5.963	0.000		3.009	0.000			0.20					
	19.143			12.780				1.00					
STADIA		83.600			250.200								
	6.230			6.428									
TP22	4.979	4.979	19.492	6.020	6.022	14.512		164.50	-0.000035100	-0.001859342	**14.514**	4.424	
	3.728	0.000		5.619	-0.002			2.70					
	14.937			18.067				3.70					
STADIA		250.200			80.900								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NAVD88*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	8.160			7.250									
TP23	7.759	7.759	21.246	6.005	6.005	13.487		249.00	-0.000053131	-0.001965860	**13.489**	4.111	
	7.358	0.000		4.760	0.000			-249.00					
	23.277			18.015				4.90					
STADIA		80.200			249.000								
				1.489									
BM				1.090	1.090	20.156	**20.158**	160.00	-0.000034140	-0.002000000	**20.158**	6.144	BM CHECK I95 89 A09
				0.691	0.000			0.40					
				3.270				5.30					
					79.800								
							LOR=	9373.10	**CHECK VALUES TO VERIFY SAME**				
									OR TO SEE THEY ARE WITHIN				
	TOTAL + =	4689.200		**TOTAL - =**	4683.900			9373.10	**THIRD ORDER SPECS(MAX DIFF. 33 FT.)**				
					5.30								
						RAW CLOSURE=	-0.002						
						ERROR PER FOOT=	0.000						
			MTS ALLOWABLE ERROR FOR THIRD ORDER=				0.040						
						ACTUAL ERROR=	0.002	RED IF BAD-----GREEN IF GOOD					

copy and insert to expand worksheet

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STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.953												
BM	5.702	5.702	27.415			21.713	**21.713**						NGS I95 89 A09
	4.451	0.000											
STADIA		250.200											
	4.440			5.329									
TP1	4.090	4.090	27.426	4.079	4.079	23.336		500.30	-0.000106752	-0.000106752	**23.336**	7.113	
	3.740	0.000		2.828	0.000			0.10					
	12.270			12.236				0.10					
STADIA		70.000			250.100								
	6.451			6.329									
TP2	6.111	6.111	27.541	5.998	5.996	21.430		136.80	-0.000029190	-0.000135942	**21.430**	6.532	NGS BM JENKINS
	5.771	0.000		5.661	0.002			3.20					PUB ELEV. 21.414'
	18.333			17.988				3.30					
STADIA		68.000			66.800								
	5.299			4.551									
TP3	4.050	4.050	27.385	4.208	4.206	23.335		137.10	-0.000029254	-0.000165196	**23.335**	7.113	
	2.801	0.000		3.860	0.002			-1.10					
	12.150			12.619				2.20					
STADIA		249.800			69.100								
	1.079			6.631									
TP4	0.680	0.680	22.683	5.382	5.382	22.003		499.60	-0.000106603	-0.000271799	**22.003**	6.707	
	0.281	0.000		4.133	0.000			0.00					
	2.040			16.146				2.20					
STADIA		79.800			249.800								
	7.170			7.740									
TP5	5.919	5.919	21.252	7.350	7.350	15.333		157.70	-0.000033649	-0.000305449	**15.333**	4.673	
	4.668	0.000		6.961	0.000			1.90					
	17.757			22.051				4.10					
STADIA		250.200			77.900								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NGVD29*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.650			6.558									
TP6	6.242	6.242	22.184	5.310	5.310	15.942		499.80	-0.000106646	-0.000412094	**15.942**	4.859	
	5.834	0.000		4.062	0.000			0.60					
	18.726			15.930				4.70					
STADIA		81.600			249.600								
	5.766			7.001									
TP7	4.515	4.515	20.113	6.588	6.586	15.597		164.70	-0.000035143	-0.000447237	**15.598**	4.754	
	3.264	0.000		6.170	0.002			-1.50					
	13.545			19.759				3.20					
STADIA		250.200			83.100								
	6.830			7.011									
TP8	5.581	5.581	19.935	5.758	5.759	14.354		500.40	-0.000106774	-0.000554011	**14.354**	4.375	
	4.332	0.000		4.509	-0.001			0.00					
	16.743			17.278				3.20					
STADIA		249.800			250.200								
	6.698			6.220									
TP9	5.449	5.449	20.413	4.971	4.971	14.964		499.60	-0.000106603	-0.000660614	**14.964**	4.561	
	4.200	0.000		3.722	0.000			0.00					
	16.347			14.913				3.20					
STADIA		249.800			249.800								
	5.869			6.559									
TP10	4.670	4.673	19.787	5.299	5.299	15.114		501.80	-0.000107072	-0.000767686	**15.114**	4.607	
	3.481	-0.003		4.039	0.000			-2.20					
	14.020			15.897				1.00					
STADIA		238.800			252.000								
	10.470			5.709									
TP11	9.220	9.220	24.488	4.519	4.519	15.268		476.80	-0.000101738	-0.000869424	**15.269**	4.654	
	7.970	0.000		3.329	0.000			0.80					
	27.660			13.557				1.80					
STADIA		250.000			238.000								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NGVD29*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.491			4.958									
TP12	5.244	5.244	26.022	3.710	3.710	20.778		499.60	-0.000106603	-0.000976027	**20.779**	6.333	
	3.998	0.000		2.462	0.000			0.40					
	15.733			11.130				2.20					
STADIA		249.300			249.600								
	4.478			7.179									
TP13	3.865	3.867	23.961	5.928	5.928	20.094		499.50	-0.000106582	-0.001082609	**20.095**	6.125	
	3.257	-0.002		4.677	0.000			-0.90					
	11.600			17.784				1.30					
STADIA		122.100			250.200								
	6.319			6.162									
TP14	5.681	5.683	24.114	5.530	5.530	18.431		248.40	-0.000053003	-0.001135611	**18.432**	5.618	SET 2-1/2" ALUMINUM DISK
	5.050	-0.002		4.899	0.000			-4.20					ON CONC. SLAB @ WELL SITE
	17.050			16.591				-2.90					ENCON
STADIA		126.900			126.300								
	7.129			4.630									
TP15	5.880	5.880	25.974	4.019	4.020	20.094		248.90	-0.000053109	-0.001188721	**20.096**	6.125	
	4.631	0.000		3.410	-0.001			4.90					
	17.640			12.059				2.00					
STADIA		249.800			122.000								
	4.598			6.450									
TP16	3.349	3.349	24.122	5.201	5.201	20.773		499.60	-0.000106603	-0.001295324	**20.775**	6.332	
	2.099	0.000		3.952	0.000			0.00					
	10.046			15.603				2.00					
STADIA		249.900			249.800								
	5.531			10.080									
TP17	4.342	4.342	19.634	8.830	8.830	15.292		499.90	-0.000106667	-0.001401991	**15.293**	4.661	
	3.153	0.000		7.580	0.000			-0.10					
	13.026			26.490				1.90					
STADIA		237.800			250.000								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NGVD29*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	6.452			5.700									
TP18	5.199	5.199	20.332	4.501	4.501	15.133		477.60	-0.000101909	-0.001503899	**15.135**	4.613	
	3.946	0.000		3.302	0.000			-2.00					
	15.597			13.503				-0.10					
STADIA		250.600			239.800								
	6.170			6.579									
TP19	4.919	4.919	19.922	5.329	5.329	15.003		500.60	-0.000106816	-0.001610716	**15.005**	4.573	
	3.668	0.000		4.079	0.000			0.60					
	14.757			15.987				0.50					
STADIA		250.200			250.000								
	7.069			7.020									
TP20	5.817	5.817	19.969	5.770	5.770	14.152		500.10	-0.000106710	-0.001717425	**14.153**	4.314	
	4.565	0.000		4.521	0.000			0.30					
	17.451			17.311				0.80					
STADIA		250.400			249.900								
	6.799			5.511									
TP21	6.381	6.381	22.090	4.260	4.260	15.709		500.60	-0.000106816	-0.001824242	**15.710**	4.789	
	5.963	0.000		3.009	0.000			0.20					
	19.143			12.780				1.00					
STADIA		83.600			250.200								
	6.230			6.428									
TP22	4.979	4.979	21.047	6.020	6.022	16.067		164.50	-0.000035100	-0.001859342	**16.069**	4.898	
	3.728	0.000		5.619	-0.002			2.70					
	14.937			18.067				3.70					
STADIA		250.200			80.900								

ENCON	*7050.07*	PARTY CHIEF	D.FERELS	DATE:	4/15-16/2008			Datum:	*NGVD29*	F.B. 292	PAGES	3-6	
STATION	**3 WIRE**	**AVG.(ENG)**	**HI**	**3 WIRE**	**AVG.(ENG)**	**ELEV.**	**BM EL.**	**DIST.**	**ERROR**	**ACCUM.**	**ADJ. ELEV.**	**METRIC**	**DESCRIPTION**
	8.160			7.250									
TP23	7.759	7.759	22.801	6.005	6.005	15.042		249.00	-0.000053131	-0.001965860	**15.044**	4.585	
	7.358	0.000		4.760	0.000			-249.00					
	23.277			18.015				4.90					
STADIA		80.200			249.000								
				1.489									
BM				1.090	1.090	21.711	**21.713**	160.00	-0.000034140	-0.002000000	**21.713**	6.618	BM CHECK I95 89 A09
				0.691	0.000			0.40					
				3.270				5.30					
					79.800								
							LOR=	9373.10	**CHECK VALUES TO VERIFY SAME**				
									OR TO SEE THEY ARE WITHIN				
	TOTAL + =	4689.200		**TOTAL - =**	4683.900			9373.10	**THIRD ORDER SPECS(MAX DIFF. 33 FT.)**				
					5.30								
					RAW CLOSURE=		-0.002						
					ERROR PER FOOT=		0.000						
		MTS ALLOWABLE ERROR FOR THIRD ORDER=					0.040						
					ACTUAL ERROR=		0.002	RED IF BAD-----GREEN IF GOOD					

copy and insert to expand worksheet

WELL SITE ENCON

Station Name:
ENCON_MW2U (Upper)

Station Name:
ENCON_MW2L (Middle)

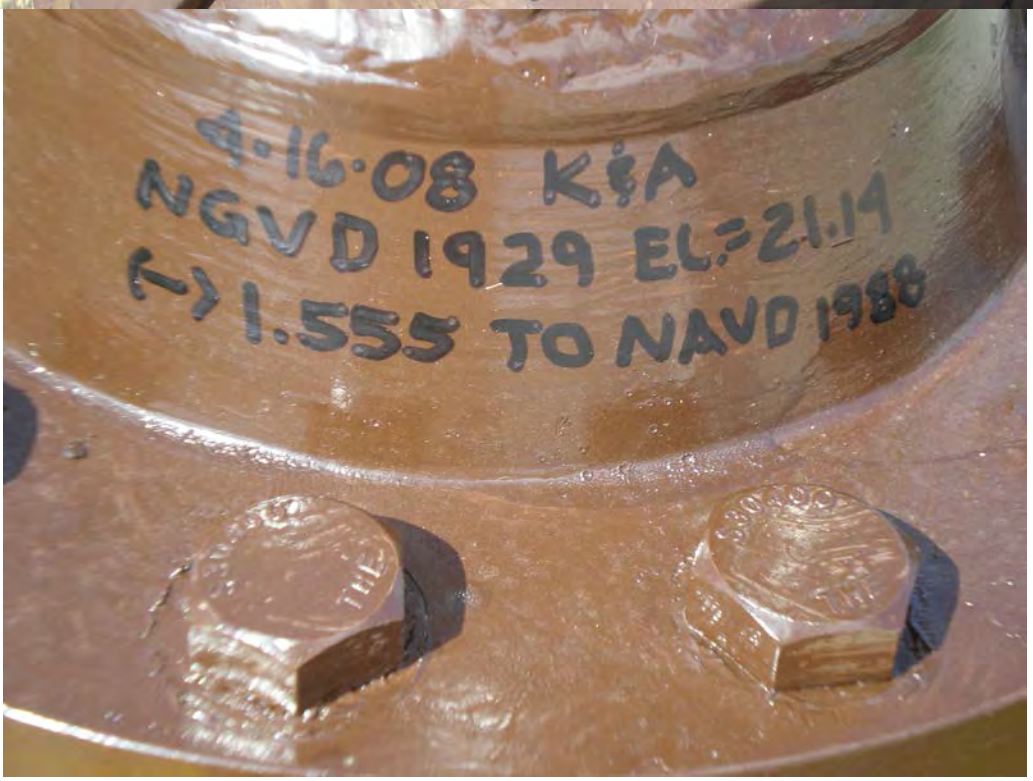
Station Name: PB1171

4/16/08

Keith and Associates, Inc.

Information in "Red" not part of the Surveyor's Report

WELL SITE ENCON



Station Name: **PB1171 Reference Point**

4/16/08

Keith and Associates, Inc.

Deep Well Measure Point & Information

Information in "Red" not part of the Surveyor's Report

WELL SITE ENCON

Station Name: ENCON_MW2L (Middle) Reference Point

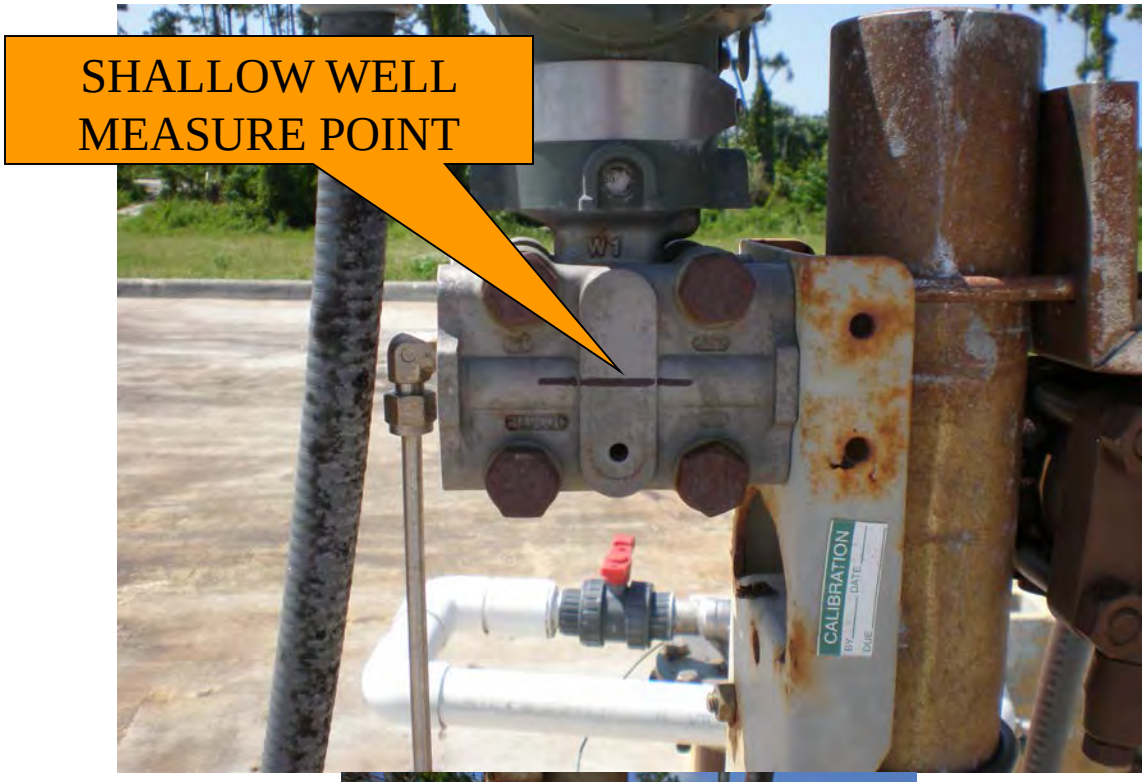
4/16/08

Keith and Associates, Inc.

Intermediate Well Measure Point & Information

Information in "Red" not part of the Surveyor's Report

WELL SITE ENCON



Station Name: ENCON_MW2U (Shallow) Reference Point

4/16/08

Keith and Associates, Inc.

Shallow Well Measure Point & Information

Information in "Red" not part of the Surveyor's Report

ENCON WELL SITE

4/16/08

Keith and Associates, Inc.

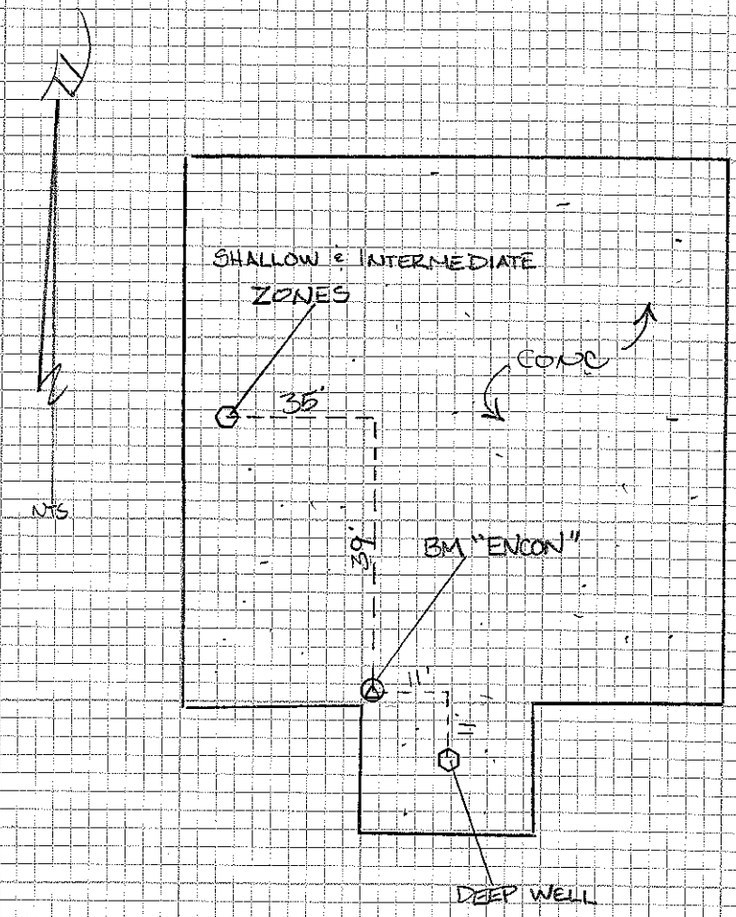
Site Benchmark ENCON 2008

4-15-08
PERELS
MAIS

S.F.W.M.D.
ENCON

292-02

GPS @ BM ENCON
START TIME : 10:07 AM
END TIME : 10:32 AM
HT : 4.72 / 1.4387 (m)
S.N. : 02202798 69



4-15-08
FERELS
MAIS

S.F.W.M.D.
ENCON

		+	HI	-	NAVD 1988 ELEV	
BM		6.953			~~20.184~~ (DATA SHEET ADJ. FEB. 1997)	
		5.702			20.158 (DATA SHEET ADJ. AUG. 2007)	ADJ. ELEV.
	(250)	4.451				
		5.702	~~25.886~~			
			25.860'			
TP1		4.440		5.329		
		4.096		4.079		
	(70)	3.740		(250) 2.828		
		4.090	~~25.897~~	4.079	~~21.807~~	
			25.871'		21.781'	21.781'
TP2		6.451		6.329		
		6.111		5.998		
	(68)	5.771		(71) 5.661		
		6.111	~~26.012~~	5.996	~~19.901~~	19.875'
			25.986'		19.875'	
TP3		5.299		4.551		
		4.050		4.208		
	(250)	2.801		(69) 3.860		
		4.050	~~25.856~~	4.206	~~21.806~~	
			25.830'		21.780'	21.780'
TP4		1.079		6.631		
		0.680		5.382		
	(80)	0.281		(250) 4.133		
		0.680	~~21.452~~	5.382	~~20.471~~	
			21.128'		20.448'	20.448'
TP5		7.170		7.790		
		5.919		7.350		
	(250)	4.668		(78) 6.961		
		5.919	~~19.723~~	7.350	~~13.804~~	
			19.697'		13.778'	13.778'
TP6		6.650		6.558		
		6.242		5.310		
	(82)	5.834		(250) 4.062	14.387'	
		6.242	20.629'	5.310	~~4.413~~	14.387'
			~~20.655~~			

FND FL. D.O.T. BRASS DISC IN CONC. MON.
STAMPED 1989 A09 ELEVATION ESTABLISHED BY DIFF (-0.026)
OF RE-ADJUSTMENT JENKINS FEB. 1997 = 19.885' / JENKINS
AUG. 2007 = 19.859'

SET PK NL IN SOUTH EP EDMONTOOD RD.

FND USCG BRASS DISC IN CONC MON.
STAMPED JENKINS 1990
NAVD 1988 ELEV. = 19.879

SET NL

SET 60d NL

" "

" "

2014

4-16-08

S.F.W.M.D.

EJCON

FERELS

MAIS

	+	HI	-	NAVD 1988 ELEV	ADJ. ELEV.
TP7	5.766		7.001		
	4.515		6.588		
(251)	3.264	(253)	6.170		
	4.515		6.586	~~14.009~~	
		~~18.584~~		14.042'	14.043
		18.558'			
TP8	6.830		7.011		
	5.581		5.758		
(250)	4.332	(250)	4.509		
	5.581		5.759	~~12.825~~	
		~~18.486~~		12.799'	12.799'
		18.380'			
TP9	6.698		6.220		
	5.449		4.971		
(250)	4.200	(250)	3.722	13.409'	
	5.449		4.971	~~13.435~~	13.409'
		~~18.684~~			
		18.858'			
TP10	5.809		6.559		
	4.670		5.299		
(239)	3.481	(252)	4.039	13.559'	
	4.673		5.299	~~13.585~~	13.559'
		~~18.258~~			
		18.232'			
TP11	10.470		5.709		
	9.220		4.519		
(250)	7.970	(238)	3.329	13.718'	
	9.220		4.519	~~13.739~~	13.714'
		~~22.954~~			
		22.933'			
TP12	6.491		4.958		
	5.244		3.710		
(249)	3.998	(250)	2.462	19.223'	19.224'
	5.244		3.710	~~19.249~~	
		~~24.493~~			
		24.467'			
TP13	4.478		7.179		
	3.865		5.928		
(122)	3.257	(250)	4.677	18.539'	18.540'
	3.867		5.928	~~18.565~~	
	~~22.435~~	22.406'			

292.04

SET 60d NL

" "

" "

" "

" "

SET NL IN ASPH

SET 60d NL

31 84

4-15-08
FERELS
MAIS

S.F.W.M.D.
ENCON

	+	HI	-	NAVD 1988 ELEV	ADJ. ELEV
TP14	6.319		6.162		
	5.681		5.530		
(127)	5.050	(126)	4.899		
	5.683	~~22.585~~ 22.559'	5.530	~~16.902~~ 16.876'	~~16.903~~ 16.877'
TP15	7.129		4.630		
	5.880		4.019		
(250)	4.631	(127)	3.410		
	5.880	~~24.445~~ 24.419'	4.020	~~18.565~~ 18.539'	18.541'
TP16	4.598		6.450		
	3.349		5.201		
(250)	2.099	(250)	3.952		
	3.349	~~22.593~~ 22.567'	5.201	~~19.244~~ 19.218'	19.220'
TP17	5.531		10.080		
	4.342		8.830		
(238)	3.153	(250)	7.580		
	4.342	~~18.105~~ 18.079'	8.830	~~13.763~~ 13.737'	13.738'
TP18	6.452		5.700		
	5.199		4.501		
(250)	3.946	(240)	3.302		
	5.199	~~18.603~~ 18.777'	4.501	~~13.604~~ 13.578'	13.580'
TP19	6.170		6.579		
	4.919		5.329		
(250)	3.668	(250)	4.079		
	4.919	~~18.393~~ 18.367'	5.329	~~13.474~~ 13.448'	13.450'
TP20	7.069		7.020		
	5.817		5.770		
(250)	4.565	(250)	4.521	12.597'	
	5.817	18.414' ~~18.440~~	5.770	~~12.623~~	12.598'

292-05

SET S.F.W.M.D. ALUM. DISC IN CONC PAD
STAMPED ENCON 2008
18.432 NGVD 1929 (ADJ.)

5324

SET 60d NL

SET NL

SET 60d NL

" "

" "

" "

3108

4-16-08
FERELS
MAIS

S.F.W.M.D.
ENCON

292-06

	+	HI	-	NAVD1988 ELEV	ADJ. ELEV.
TP21	6.799		5.511		
	6.381		4.260		
(84)	5.963	(252)	3.009		
	6.381		4.260	~~14.185~~	
		~~20.561~~		14.154	14.155'
		20.535'			
TP22	6.230		6.428		
	4.979		6.020		
(250)	3.728	(81)	5.619		
	4.979		6.022	~~14.539~~	
		~~19.518~~		14.512'	14.514'
		19.492'			
TP23	8.100		7.250		
	7.759		6.005		
(80)	7.358	(249)	4.760		
	7.759		6.005	~~13.513~~	
		~~21.277~~		13.487	13.489'
		21.246'			
BM			1.489		
			1.090		
		(80)	0.691		
			1.090	~~20.182~~	
				20.156	20.158 ✓

SET 602 NL

" "

" "

195 89 A09
NAVD 1988 ELEV. = 20.184
TOTAL ERROR = +0.002 (ALLOWABLE ERROR 0.040)
TOTAL DIST. = 9380'

4-16-08
FERELS
MAIS

S.F.W.M.D.
ENCON

292-07

OFFSET ~~1.57~~ 1.555'

	+	HI	-	NAVD 1988 ELEV	NGVD 1929 ELEV
BM	5.339			~~16.903~~	
	5.260			16.877'	18.432
	5.181				
	5.260	~~22.163~~			
		22.137'			
TP1			2.612		
	2.739		2.552		
	2.680		2.492	19.585'	21.140'
	2.619		2.552	~~19.611~~	~~21.121~~
	2.679	~~22.290~~			
		22.264'			
TP2			5.409		
	5.496		5.345		
	5.139		5.281	16.92'	
	4.780		5.345	~~16.945~~	18.47'
	5.138	~~22.083~~			
		22.058'			
TP3			5.470		
	5.384		5.429		
	5.342		5.389		
	5.300		5.429	16.63'	
	5.342	~~21.996~~		~~16.654~~	18.18'
		21.970'			
TP4			0.590		
	0.508		0.549		
	0.464		0.508	21.420'	22.995'
	0.420		0.549	~~21.444~~	~~22.957~~
	0.464	~~21.911~~			
		21.885'			
TP5			0.613		
	0.660		0.569		
	0.618		0.523	21.316'	22.871'
	0.570	21.933'	0.568	~~21.343~~	~~22.853~~
	0.616	~~21.959~~			
BM			5.341		
			5.054		
			4.767	16.879'	
			5.059	~~16.905~~	

SET MARK ON DEEP WELL

CONC @ DEEP WELL

CONC @ SHALLOW & INTERMEDIATE ZONES

SET MARK ON SHALLOW ZONE

SET MARK ON INTERMEDIATE ZONE

SFWMD ALUM DISC IN CONC.
STAMPED ENCON 2008

ENCON

6-10-08 S.F.W.M.D.
FERRELS LINCOLN
MAIS

	+	HI	−	NAVD 1988 ELEV
BM	7.309			15.013
	6.900			
(82)	6.491			
	6.900	21.913		
TP 1	6.208		1.306	
	4.950		0.911	
(79)	0.519			
(252)	3.692		0.912	21.001
	4.950	25.951		
TP 2	5.324		6.909	
	5.256		5.650	
(252)	4.391			
(13)	5.188		5.650	20.301
	5.256	25.557		
BM			5.492	
			5.414	
(15)	5.336			
			5.414	20.143

9/5 1.555

292-44

FND BRASS DISC IN CONC LOCK WINGWALL
STAMPED FCE 16TH 1958

SET NL IN NORTH EP INDIANTOWN RD.

SET NL IN ASPH DRIVE FOR BOAT RAMP

FND BRASS DISC IN CONC MON. STAMPED 195 89 A09
NAVD 1988 ELEV = 20.158

```
Identification_Information:
        Citation:
                Citation_Information:
                        Originator: Michael M. Mossey, P.S.M.(ed.)
                        Publication_Date: 20080606
                        Publication_Time: Unknown
                        Title: Well Site ENCON
                        Edition: 1
                        Publication_Information:
                                Publication_Place: Not Published
                                Publisher: None
                        Online_Linkage: mmossey@keith-associates.com
        Description:
                Abstract: Well site ENCON  Deep, Intermediate and Shallow  Zones.
                Purpose:
                        To establish reference elevations in NAVD 1988 and
                        NGVD 1929 datum at the site on the existing
                        wells and set a site benchmark.
        Time_Period_of_Content:
                Time_Period_Information:
                        Range_of_Dates/Times:
                                Beginning_Date: 20080514
                                Ending_Date: 20080610
                Currentness_Reference: Publication Date
        Status:
                Progress: Complete
                Maintenance_and_Update_Frequency: Unknown
        Spatial_Domain:
                Bounding_Coordinates:
                        West_Bounding_Coordinate: 80°08'23.8"
                        East_Bounding_Coordinate: 80°08'23.8"
                        North_Bounding_Coordinate: 26°55'25.2"
                        South_Bounding_Coordinate: 26°55'25.2"
        Keywords:
                Theme:
                        Theme_Keyword_Thesaurus: Specific Purpose Survey
                        Theme_Keyword: Well Site
                Place:
                        Place_Keyword_Thesaurus: Palm Beach County, Florida
                        Place_Keyword: Well Site ENCON
                        Place_Keyword: Sections 10 Township 41 S - Range 42 E
        Access_Constraints: None
        Use_Constraints: None
        Point_of_Contact:
                Contact_Information:
                        Contact_Person_Primary:
                                Contact_Person: Steve Krupa
                                Contact_Organization: South Florida Water Management
District
                        Contact_Position: Senior Supervisor
                        Contact_Address:
                                Address_Type: mailing and physical address
                                Address:
                                        3301 Gun Club Road
                                        MS 4330
                                City: West Palm Beach
                                State_or_Province: Florida
                                Postal_Code: 33406
                                Country: USA
                        Contact_Voice_Telephone: Office (561) 682-6923
                        Contact_Electronic_Mail_Address: skrupa@sfwmd.gov
                        Hours_of_Service: 8:00 am to 5:00 pm EST
Data_Quality_Information:
```

Attribute_Accuracy:
Attribute_Accuracy_Report:
Horizontal locations were obtained using a Trimble 5700 receiver. The site benchmark and wells were occupied for a minimum of fifteen minutes for rapid static processing to obtain sub-meter accuracy. Coordinates are based on the Florida State Plane Coordinate System, East Zone, NAD 1983/90. Elevations are based on NGVD 1929 with an offset supplied to convert to NAVD 1988.
Logical_Consistency_Report:
Vertical data at the site was established using site Benchmark "ENCON 2008", a South Florida Water Management 2-1/2" aluminum disk.
Completeness_Report:
Deep Zone Measure Point (NGVD1929) Elev. 21.14'
Deep Zone Measure Point (NAVD1988) Elev. 19.58'
Intermediate Zone Measure Point (NGVD1929) Elev. 22.87'
Intermediate Zone Measure Point (NAVD1988) Elev. 21.32'
Shallow Zone Measure Point (NGVD1929) Elev. 22.98'
Shallow Zone Measure Point (NAVD1988) Elev. 21.42'
Site Benchmark ENCON 2008, To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 1.0 mile to the junction of Central Boulevard on the right, turn right onto Central Boulevard, heading south, 0.53 miles to the junction of Jupiter Park Road on the right, turn right onto Jupiter Park Road, heading west, 0.32 miles to the junction of an asphalt road and entrance to a waste water treatment plant on the left, turn left into the plant and follow the asphalt road 0.33 miles to the southeast corner of the plant and a concrete slab housing the ENCON wells. The mark is a 2-1/2" aluminum disk located on the south side of the concrete slab, 12' north of and 12.7' west of the deep zone well (most southerly well).
NAVD 1988 elevation 16.877' (field derived)
NGVD 1929 elevation 18.432' (field derived)
NGS Benchmark I95 89 A09, The orthometric height of 20.184' was adjusted for this survey by (-)0.026' to match the re-adjustment of benchmark JENKINS by NGS in August 2007.To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 0.4 mile (0.6 km) to the State Road 706 bridges over Canal C-18 and the mark at the west end of a dead end asphalt drive near the southeast corner of the bridges. It is set in the top of a round concrete monument, it is 63.2 feet (19.3 m) north of the southwest end of the curved guardrail at the end of the drive, 56.2 feet (17.1 m) southwest of the north end of the curved guardrail and 2.0 feet (0.6 m) west of the west edge of the asphalt drive.
NAVD 1988 elevation 20.184' (NGS Data sheet) 20.158' (used for level run), NGVD 1929 elevation (None)
Benchmark JENKINS, The orthometric height was determined by differential leveling and adjusted by the NATIONAL GEODETIC SURVEY in August 2007. To reach the mark from the post office in Jupiter, go south on highway A1A along the east side of railroad tracks for 0.45

mile (0.72 km) to the junction of State Road 706, turn right
and go west on State Road 706 for 3.0 miles (4.8 km) to a
concrete bridge over canal and gate on left just west of
the bridge. Turn left and pass through gate and go
southwest along top of levee for 150 feet (45.7 m) to the
mark. It is set in the top of a round concrete monument,
135.0 feet (41.1 m) southwest of the southwest end of the
bridge abutment, 88.0 feet (26.8 m) south of the south
edge of the eastbound lane and 4.0 feet (1.2 m) north of
the west end of the gate.
NAVD 1988 elevation 19.859' (NGS Data sheet)
NGVD 1929 elevation 21.414, superseded value from
NGS Data Sheet.
Positional_Accuracy:
Horizontal_Positional_Accuracy:
Horizontal_Positional_Accuracy_Report:
The horizontal location of the benchmark and wells
were
obtained using sub-meter GPS methods, Trimble 5700
receiver and a fifteen minute static session. The
results of
the static session were processed through the NGS
wesite
OPUS program .
Quantitative_Horizontal_Positional_Accuracy_Assessment:
Horizontal_Positional_Accuracy_Value: +/- 3'
Horizontal_Positional_Accuracy_Explanation: Value
derived using Trimble 5700 receiver/celluar RTK link.
Vertical_Positional_Accuracy:
Vertical_Positional_Accuracy_Report:
NGS benchmarks I95 89 A09 and JENKINS were
used to establish the elevations on site benchmark
ENCON 2008.Site benchmark ENCON 2008 was used to
establish the elevations at the site. The offset
values
referred to as "SFWMD VALUE" and "NGS VALUE" were
derived by subtracting the NAVD 1988 value from the
NGVD 1929 value at NGS benchmark JENKINS. The
NGVD 1929 value for benchmark JENKINS was obtained
from the NGS Data Sheet as a Superseded Value.
Quantitative_Vertical_Positional_Accuracy_Assessment:
Vertical_Positional_Accuracy_Value: 0.002'
Vertical_Positional_Accuracy_Explanation: Better
than 0.03ft. x sq. root of miles of the level loop.
Quantitative_Vertical_Positional_Accuracy_Assessment:
Vertical_Positional_Accuracy_Value: 0.002'
Vertical_Positional_Accuracy_Explanation: Better
than 0.03ft. x the sq. root of miles of the level loop.
Lineage:
Process_Step:
Process_Description:
Benchmark "ENCON 2008" (the site benchmark) was
used as the primary vertical control for
establishing the
elevations on the measuring points. A level loop was
run
starting at NGS benchmark I95 89 A09, through NGS
benchmark JENKINS, through site benchmark "ENCON
2008" and back to Benchmark I95 89 A09. Note: For
this

survey the starting elevation of Benchmark I95 89 A09
(20.184' adjusted Feb. 1997, no August 2007 adjustment)
was lowered 0.026' (20.158') to match the difference of the
NGS re-adjusted elevation (19.885', February 1997 and
19.859', August 2007) of Benchmark JENKINS. The wells
and site benchmark were located via GPS observations.The static sessions data was downloaded
from the receiver using Trimble Geomatics Office, version
1.62 (TGO). The DAT file was then sent to the National
Geodetic Survey program OPUS RS (On-line Positioning
User Service rapid static) for processing. Each data file
submitted to OPUS RS is processed with respect to 3
CORS sites. The sites selected may not be the nearest to
the static session but are selected by distance, number of
observations, site stability, etc. The results of the three
baselines are then added together and averaged to obtain
the unknown station(s) (site benchmark SCU MW 2008)
values. Those values for the site benchmark (latitude and
longitude) are shown in the corresponding Vertical Control
and Project Results sections below.

Process_Date: 20080610
Spatial_Reference_Information:
Horizontal_Coordinate_System_Definition:
Geographic:
Latitude_Resolution: 26°55'25.2"
Longitude_Resolution: -80°08'23.8"
Geographic_Coordinate_Units: Degrees, minutes, and decimal seconds
Distribution_Information:
Distributor:
Contact_Information:
Contact_Organization_Primary:
Contact_Organization: Keith and Associates
Contact_Person: Michael Mossey
Contact_Position: Project Surveyor
Contact_Address:
Address_Type: mailing and physical address
Address: 301 East Atlantic Boulevard
City: Pompano Beach
State_or_Province: Florida
Postal_Code: 33060-6643
Country: Broward
Contact_Voice_Telephone: 954 788-3400
Contact_Facsimile_Telephone: 954 788-3500
Contact_Electronic_Mail_Address: mmossey@keith-associates.com
Hours_of_Service: 8:00-5:00 est.

```
        Distribution_Liability: None
Metadata_Reference_Information:
        Metadata_Date: 20080610
        Metadata_Review_Date: 20050721
        Metadata_Contact:
                Contact_Information:
                        Contact_Person_Primary:
                                Contact_Person: Michael M.Mossey, P.S.M.
                                Contact_Organization: Keith and Associates
                        Contact_Position: Project Surveyor
                        Contact_Address:
                                Address_Type: mailing and physical address
                                Address: 301 East Atlantic Boulevard
                                City: Pompano Beach
                                State_or_Province: FL
                                Postal_Code: 33060-6643
                                Country: USA
                        Contact_Voice_Telephone: 954 788-3400
                        Contact_Facsimile_Telephone: 954 788-3500
                        Contact_Electronic_Mail_Address:
mmossey@keith-associates.com
                        Hours_of_Service: 8:00 am to 5:00 pm EST
        Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata
        Metadata_Standard_Version: 19940608
```

Office

Project

9 August 2017

INPUT	OUTPUT
State Plane, flhpgn - Florida HPGN 0901 - Florida East, U.S. Feet Vertical - NAVD88, U.S. Feet	Geographic, flhpgn - Florida HPGN Vertical - NGVD29 (Custom), U.S. Feet

ENCON

Northing/Y: 942370
Easting/X: 936415
Elevation/Z: 0
Convergence: 0 23 22.06422
Scale Factor: 1.000031221
Combined Factor: 1.000035471

Latitude: 26 55 25.13646
Longitude: 80 08 23.77517
Elevation/Z: 1.499

Remark:

Corpscon v6.0.1, U.S. Army Corps of Engineers

STATION INFORMATION

Station	ENCON_MW2
Site	
Type	WELL
Latitude (ddmmss.sss)	265525.217
Longitude (ddmmss.sss)	800822.961
X Coord (ft) NAD83	936488.569
Y Coord (ft) NAD83	942378.588
County	Palm Beach
Basin	SOUTH LOXAHATCHEE ESTUARINE
Section	10
Township	41
Range	42
Show Map	Google Map
Well Info	Info
Description	ENCON- DUAL ZONE MONITOR WELL #2
Notes	
Nearby Stations	Nearby Stations
Attachments	Show Attachments

Query returned 1 station record(s).

SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
561-686-8800 | 1-800-432-2045 (Florida Only)

sfwmd.gov

DBHYDRO | by station

STATION INFORMATION

Station	ENCON_MW2L
Site	
Type	SUBSTATION
Latitude (ddmmss.sss)	265525.217
Longitude (ddmmss.sss)	800822.961
X Coord (ft) NAD83	936488.569
Y Coord (ft) NAD83	942378.588
County	Palm Beach
Basin	SOUTH LOXAHATCHEE ESTUARINE
Section	10
Township	41
Range	42
Show Map	Google Map
Well Info	Info
Description	Open-hole Interval (1840-1770 ft bls)
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Query returned 1 station record(s).

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561-686-8800 | 1-800-432-2045 (Florida Only)

sfwmd.gov

DBHYDRO | by station

STATION INFORMATION

Station	ENCON_MW2U
Site	
Type	SUBSTATION
Latitude (ddmmss.sss)	265525.217
Longitude (ddmmss.sss)	800822.961
X Coord (ft) NAD83	936488.569
Y Coord (ft) NAD83	942378.588
County	Palm Beach
Basin	SOUTH LOXAHATCHEE ESTUARINE
Section	10
Township	41
Range	42
Show Map	Google Map
Well Info	Info
Description	Annular zone Interval (1501 - 1532 ft bls)
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Query returned 1 station record(s).

SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
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sfwmd.gov

DBHYDRO | by station

STATION INFORMATION

Station	PB-1171
Site	
Type	WELL
Latitude (ddmmss.sss)	265524.581
Longitude (ddmmss.sss)	800822.502
X Coord (ft) NAD83	936530.569
Y Coord (ft) NAD83	942314.588
County	Palm Beach
Basin	SOUTH LOXAHATCHEE ESTUARINE
Section	10
Township	41
Range	42
Show Map	Google Map
Well Info	Info
Description	LOXAHATCHEE ENCON, DMW-1
Notes	
Nearby Stations	Nearby Stations
Attachments	None Available

Query returned 1 station record(s).

SFWMD Headquarters: 3301 Gun Club Road, West Palm Beach, Florida 33406
561-686-8800 | 1-800-432-2045 (Florida Only)

REGISTRATION WORKSHEET - ENCON INTERMEDIATE WELL (MEASURE POINT)

Site Name: **ENCON INTERMEI** | Today's Date: | Type Recorder:

Activity: | Effective Date: | Start Date of Data :

Customer: | Division: | Agency: | Proj Activity Code:

Project Manager: | Division: | Agency: | Contract #:

Project name: | Legal Mandate:

Short Common Name / Description: ENCON

Proj. Mgr. Notes: Survey information update.

Site Directions:

Site Address (if any):

Transportation: | Lock type or combination: | #

Recorder Location/Purpose: | Structure Type:

Array ID Configuration table attached

SURVEY INFORMATION

B.M. Elevation: **18.432' (NGVD 1929)** | Date: **6/10/2008** | Stamp: **ENCON 2008**

Agency: **ORG** | Type: **ALUMN** | Datum: NGVD29

Benchmark Location/ Description: To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 1.0 mile to the junction of Central Boulevard on the right, turn right onto Central Boulevard, heading south, 0.53 miles to the junction of Jupiter Park Road on the right, turn right onto Jupiter Park Road, heading west, 0.32 miles to the junction of an asphalt road and entrance to a waste water treatment plant on the left, turn left into the plant and follow the asphalt road 0.33 miles to the southeast corner of the plant and a concrete slab housing the ENCON wells. The

COMMUNICATIONS INFORMATION

Communications System: | Loggernet Server: | Loggernet IP Address:

Tower: | Communication Type: | R.F. Code/Modem Address: | R.F. Access Point:

Phone Number:

RTU Address: | Gateways:

WELL INFORMATION

Sensor	Customer Ref	Ref Elev	Elev Date	Top of Well	Bottom of Well	Ground/ Land Elev	Depth of Well	Sensor Location	Ground Water Sensor Location

ADDITIONAL GIS INFORMATION

Item/Parm	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin	County	Description

REGISTRATION WORKSHEET - ENCON SHALLOW WELL (MEASURE POINT)

Site Name: **ENCON SHALLOW** | Today's Date: | Type Recorder:

Activity: | Effective Date: | Start Date of Data :

Customer: | Division: | Agency: | Proj Activity Code:

Project Manager: | Division: | Agency: | Contract #:

Project name: | Legal Mandate:

Short Common Name / Description: ENCON

Proj. Mgr. Notes: Survey information update.

Site Directions:

Site Address (if any):

Transportation: | Lock type or combination: | #

Recorder Location/Purpose: | Structure Type:

Array ID Configuration table attached

SURVEY INFORMATION

B.M. Elevation: **18.432' (NGVD 1929** | Date: **6/10/2008** | Stamp: **ENCON 2008**

Agency: **ORG** | Type: **ALUMN** | Datum: NGVD29

Benchmark Location/ Description: To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 1.0 mile to the junction of Central Boulevard on the right, turn right onto Central Boulevard, heading south, 0.53 miles to the junction of Jupiter Park Road on the right, turn right onto Jupiter Park Road, heading west, 0.32 miles to the junction of an asphalt road and entrance to a waste water treatment plant on the left, turn left into the plant and follow the asphalt road 0.33 miles to the southeast corner of the plant and a concrete slab housing the ENCON wells. The

COMMUNICATIONS INFORMATION

Communications System: | Loggernet Server: | Loggernet IP Address:

Tower: | Communication Type: | R.F. Code/Modem Address: | R.F. Access Point:

Phone Number:

RTU Address: | Gateways:

WELL INFORMATION

Sensor	Customer Ref	Ref Elev	Elev Date	Top of Well	Bottom of Well	Ground/ Land Elev	Depth of Well	Sensor Location	Ground Water Sensor Location

ADDITIONAL GIS INFORMATION

Item/Parm	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin	County	Description

REGISTRATION WORKSHEET - ENCON DEEP WELL (MEASURE POINT)

Site Name:		ENCON DEEP WEL			Today's Date:									Type Recorder:					
Activity:					Effective Date:									Start Date of Data :					
Customer:						Division:			Agency:					Proj Activity Code:					
Project Manager:						Division:			Agency:				Contract #:						
Project name:										Legal Mandate:									
Short Common Name / Description:	ENCON																		
Proj. Mgr. Notes:	Survey information update.																		
Site Directions:																			
Site Address (if any):																			
Transportation:							Lock type or combination:							#					
Recorder Location/Purpose:									Structure Type:										
Array ID Configuration table attached																			

SURVEY INFORMATION

B.M. Elevation:	18.432' (NGVD 1929)						Date:	6/10/2008						Stamp:	ENCON 2008				
Agency:	ORG						Type:	ALUMN						Datum:	NGVD29				

Benchmark Location/ Description: To reach the station from the Interchange of Interstate Route 95 and SR 706, about 3 miles (4.8 km) west of Jupiter, go east on State Road 706 for about 1.0 mile to the junction of Central Boulevard on the right, turn right onto Central Boulevard, heading south, 0.53 miles to the junction of Jupiter Park Road on the right, turn right onto Jupiter Park Road, heading west, 0.32 miles to the junction of an asphalt road and entrance to a waste water treatment plant on the left, turn left into the plant and follow the asphalt road 0.33 miles to the southeast corner of the plant and a concrete slab housing the ENCON wells. The

COMMUNICATIONS INFORMATION

Communications System:					Loggernet Server:						Loggernet IP Address:								
Tower:			Communication Type:						R.F. Code/Modem Address:					R.F. Access Point:					
Phone Number:																			
RTU Address:			Gateways:																

WELL INFORMATION

Sensor	Customer Ref	Ref Elev	Elev Date	Top of Well	Bottom of Well	Ground/ Land Elev	Depth of Well	Sensor Location	Ground Water Sensor Location

ADDITIONAL GIS INFORMATION

Item/Parm	Lat	Long	X-Coord	Y-Coord	Sec	Township	Range	Quad	Basin	County	Description