

### PUBLIC WATER SUPPLY WELL UFA-2 CONSTRUCTION REPORT CITY OF LABELLE LABELLE, FLORIDA

Prepared for

Applied Technology & Management, Inc.

December 2013



Murray Consultants, Inc. 769 Skyview Dr Hayesville, FL 28904 828/389-2476

#### PROFESSIONAL GEOLOGIST CERTIFICATION AND APPROVAL

I, Gail Murray Doyle, P.G. No. 459, certify that I currently hold an active Professional Geologist license in the State of Florida. I further certify that the April 2013 document titled "Public Water Supply Well UFA-2 Construction Report, City of LaBelle" was prepared by me. Moreover, I certify that Murray Consultants Inc. holds an active certification of authorization No. GB174.

Gail Werray Doyler, P. 6 Florida R. G. Jonevise Vo. 459 Expiration Vone dury 31, 2014 Murray Consultants, Inc. 769 Skyview Dr. Hayesville, NC 28905 Office: (828) 389-2476 Facsimile: (828) 389-0503

Date: December 19, 2013



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#### PUBLIC WATER SUPPLY WELL UFA-2 CONSTRUCTION REPORT CITY OF LABELLE LABELLE, FLORIDA

#### INTRODUCTION

The City of LaBelle (City) is constructing a Reverse Osmosis (RO) Water Treatment Plant, just south of the city on part of what was the Bob Paul Grove. The non-potable source of water will be from the Upper Floridan Aquifer. Murray Consultants Inc was retained by Applied Technology & Management to provide hydrogeologic consulting services to design, oversee the construction, run geophysical logging, and pump test two RO production wells. This report covers the construction of the second well, UFA-2.

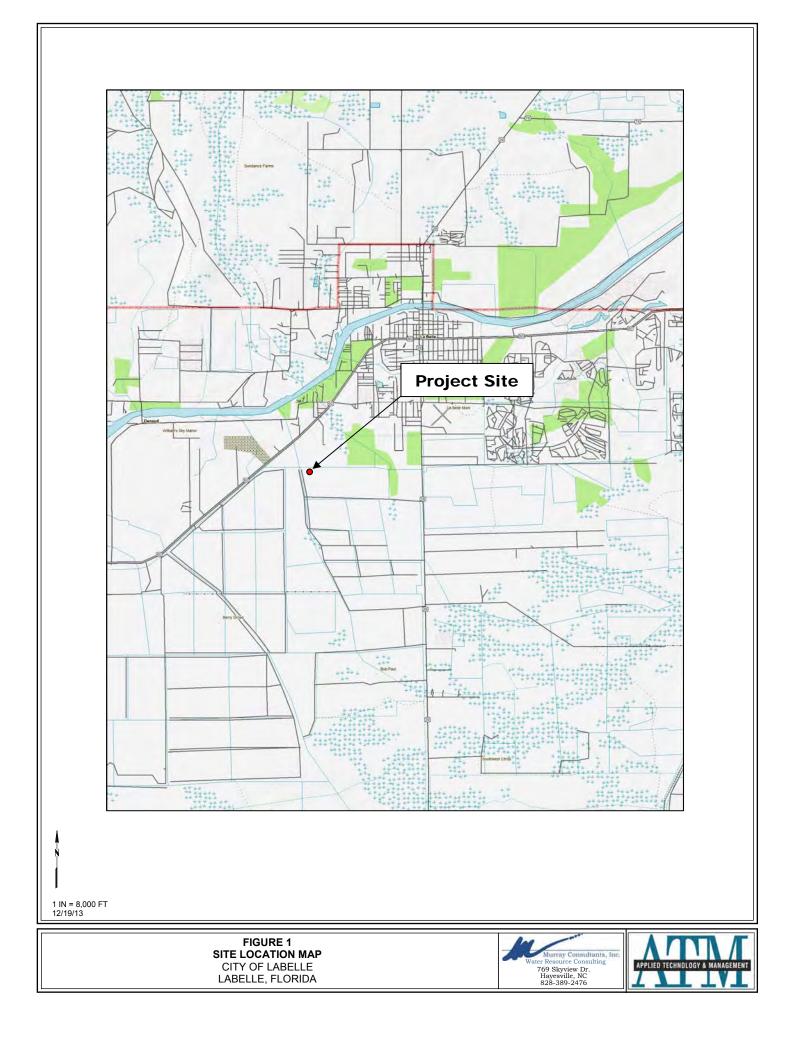
Well UFA-2 was constructed with 600 feet of casing and open borehole to 697 feet. Wells & Water Systems Inc constructed the well. The well site is located in Section 19, Township 43 South, Range 29 East. The location of the well UFA-2 is shown in **Figures 1 and 2**.

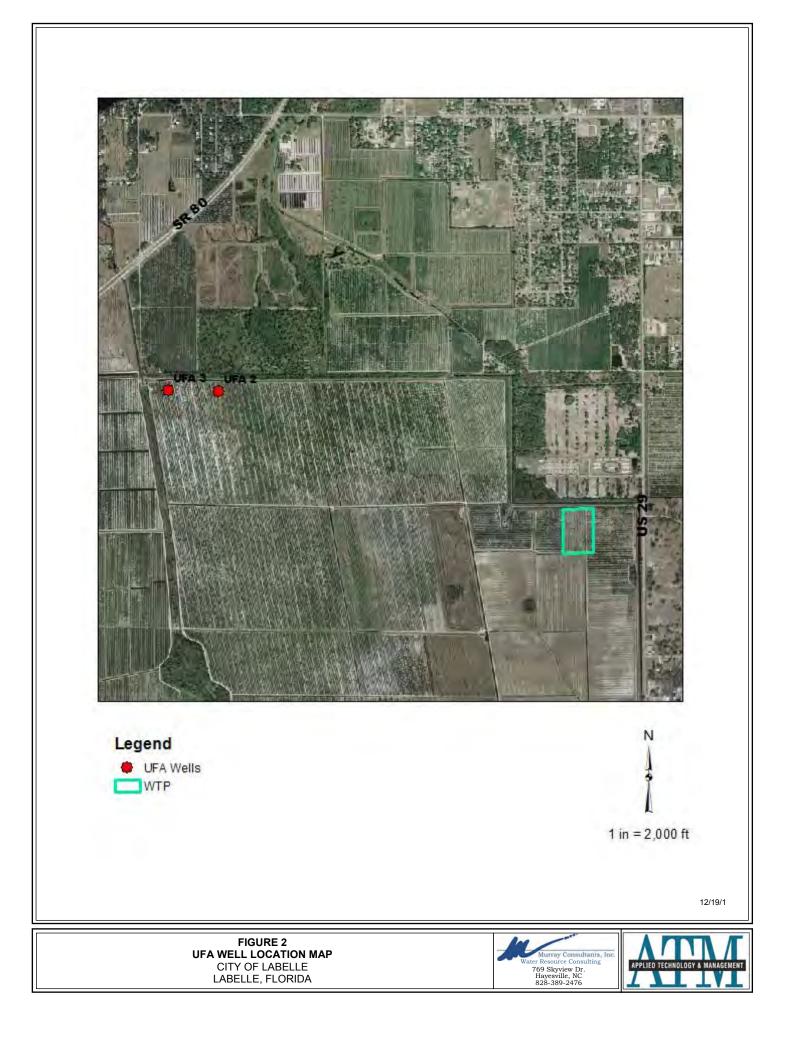
This report describes the hydrogeology, well construction, data collected, pump testing, and discussion of the test results.

#### HYDROGEOLOGY

There are three major aquifer systems in the LaBelle area: Surficial Aquifer System (SAS), Intermediate Aquifer System (IAS) or Confining Beds, and Floridan Aquifer System (FAS). The SAS can be divided into two broad zones: the water table aquifer consisting of sand and shell and a confining zone that consists of sandy clay. The IAS consists mainly of clay, mudstone, and interbedded limestone units. Some of these limestone units in the LaBelle area provide water, especially near the top of the system, which is known as the Sandstone Aquifer. The FAS is a very thick sequence of limestone and dolostones that occurs from about 600 to 3,700 feet. This system has three aquifers: Upper Floridan, Middle Floridan and Lower Floridan. The Upper Floridan Aquifer is expected to be between about 600 and 900 feet below land surface.









#### WELL CONSTRUCTION

From March 21 to March 24, 2013, Wells & Water Systems mobilized and set up at the site, **Figure 3**. Mud rotary was used to drill the well.



FIGURE 3: WELL DRILLING SET-UP

On March 25<sup>th</sup>, a 30-inch hole to 40 ft was drilled and surface casing set and grouted. The surface casing is 24-inch steel pipe, set to 40 feet below land surface. Eighty bags of neat cement were used to grout the casing. See **Figure 4** for the surface casing setting picture and **Figure 5** for the grouting.

After the installation of the surface casing, a 7%-inch pilot hole was drilled to 206 ft. Based on the geology, it was determined to install 204 ft of intermediate casing. A 23inch bit was used to ream the pilot hole to 206 ft. Centralizers were placed on the casing at 5 ft from the bottom, than every 40 ft.

The casing is 18-inch Schedule 80 PVC, which has an 18-inch outer diameter (OD) and a 16-inch inner diameter (ID).







FIGURE 4: 24-INCH SURFACE CASING INSTALLATION

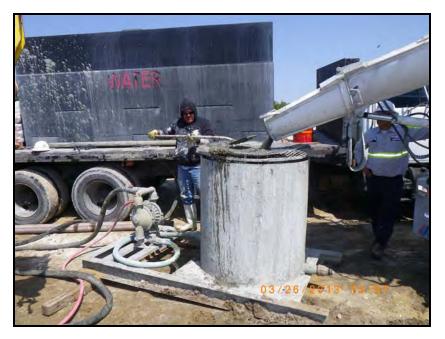


FIGURE 5: 24-INCH SURFACE CASING GROUTING

On April 3<sup>rd</sup>, the intermediate casing was set. The casing was grouted in two stages with neat cement. The first stage was pressure grouted to 145 ft below land surface, with the second stage to land surface with a tremie pipe. The bottom of the casing took a lot of cement in an area where there was lost circulation during drilling. A total of 345 bags of neat cement were used for the grouting. Pictures of the setting and grouting of the intermediate casing are shown in **Figures 6 and 7**.







FIGURE 6: 18-INCH INTERMEDIATE CASING INSTALLATION



FIGURE 7: INTERMEDIATE CASING GROUTING SET-UP

After the cement cured, a 9<sup>7</sup>/<sub>8</sub> pilot hole was drilled to 716 feet. Drill cutting samples were collected during the drilling of all of the pilot holes and described. The lithologic description for the total depth drilled is included in **Appendix A**. On April 18, 2013, geophysical logging was performed for gamma ray, caliper, and dual induction by Steve Miller of MV Geophysical Surveys, Inc.





The pilot hole was reamed to 15 inches from 204 ft to 603 feet. On April, 2013, 10inch CertainTeed Certa-Lok PVC casing was installed to 603 feet. Centralizers were placed on the bottom of the pipe, then every 40 feet to the top of the pipe. The top 180 feet was installed with a threaded coupling, so that it could be removed after grouting. This allows for the installation of a pump that will withdraw at least 1500 gpm. **Figure 8** shows the installation of the production casing.



FIGURE 8: PRODUCTION CASING INSTALLATION

The production casing was grouted from bottom to top (130 feet below land surface) with Portland neat cement. The first lift was pressure grouted from 603 feet to 270 feet, using 138 bags of cement. The balance of the grouting was performed with a tremie pipe within the annulus. Fifty-seven (57) bags of cement were installed for the second lift of grouting, which took the grout from 270 to 130 feet. The second lift took the cement 50 feet too high: the lift should have been to 180 feet. The driller constructed a tool to cut the Schedule 40 PCV at 130 feet. The casing was grouted with a total of 195 bags of neat cement. **Figure 9** shows the grouting of the production casing.







FIGURE 9: PRODUCTION CASING GROUTING

On May 3, 2013 the open borehole was drilled. A  $7\frac{1}{3}$ -inch drill bit was used for mud rotary drilling from 600 to 723 feet. The well started free flowing once the drilling mud was thinned. The drill rods were removed to 100 feet and the well developed with air, see **Figure 10**. **Figure 11** is the free flow after 8 hours of air development and has a flow of 900 gpm. The flow was measured using a flow meter.



FIGURE 10: AIR DEVELOPMENT







FIGURE 11: FREE FLOW AFTER DEVELOPMENT AIR DEVELOPMENT

Steve Miller of MV Geophysical Surveys performed geophysical logs on May 7, 2013. The following geophysical logs were performed: video, caliper, gamma ray, temperature, dynamic flow and conductivity. The bottom of the hole was tagged at 697 ft below land surface. **Figure 12** is a picture of the open hole. The video of the well is included in **Appendix B**.



FIGURE 12: VIEW OF CAVITY FROM DOWNHOLE CAMERA



PWS Well UFA-2 Construction Report



The logs show that the borehole depth is 697 feet, leaving 97 feet of open hole. The flow log indicates that the majority of the water is flowing into the hole between 670 and 680 feet below land surface. The caliper log also shows a small cavity between 670 and 674 feet below land surface. The conductivity log shows an average reading of  $3320 \ \mu$ S/cm to 670 feet and an average of  $3485 \ \mu$ S/cm below 670 feet to the bottom of the hole. The temperature was  $85.1^{\circ}$  F down to 670 feet, where there is a slight increase to  $85.5^{\circ}$  to the bottom of the hole. The geophysical results are shown in **Figure 13** and **Appendix B**.

Air development continued until May 10, 2013 with a total air development time of about 35 hours. Development continued with the test pump another 20 hours for a total development time of 55 hours.

A Silt Density Test (SDI) test was run upon completion of development and when the well was being pumped at 1500 gpm. The result of that test was 0.0 and the sand content measured about 0.2 mg/l.

A water sample was collected and field-tested right after development. **Table 1** shows the results of the testing.

Specific Conductance (µS/cm)	TDS (mg/l)	Chloride (mg/l)	Temp (°F)	Sulfur smell	
3,290	1,650	880	85.3	Mild	

TABLE 1:WATER QUALITY

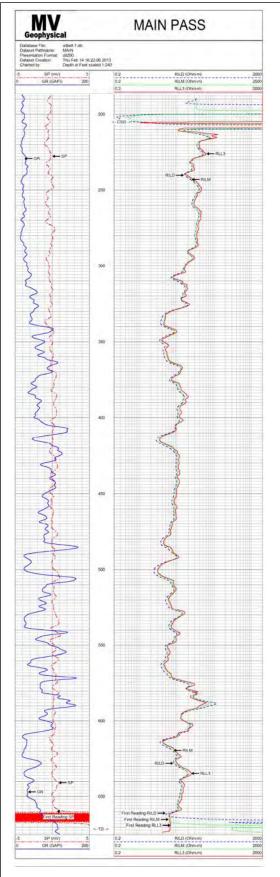
#### DATA COLLECTED

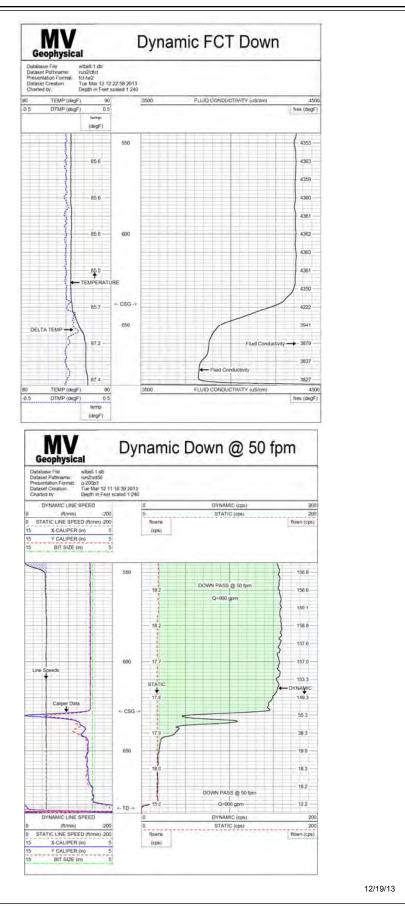
**Figure 14** depicts the 'As-Built' drawing, lithologic description, and hydrogeologic units of UFA-3. **Table 2** details the final well construction.

	Surface Casing	Intermediate Casing	Well Casing
Diameter (in)	24	18	10
Depth (ft)	40	204	600
Open Borehole Depth (ft)			696
Construction Material	Steel	PVC Schedule 80	PVC CertainTeed SDR 17 Certa-Lok

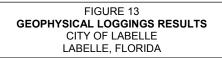
 TABLE 2:
 WELL CONSTRUCTION DETAILS





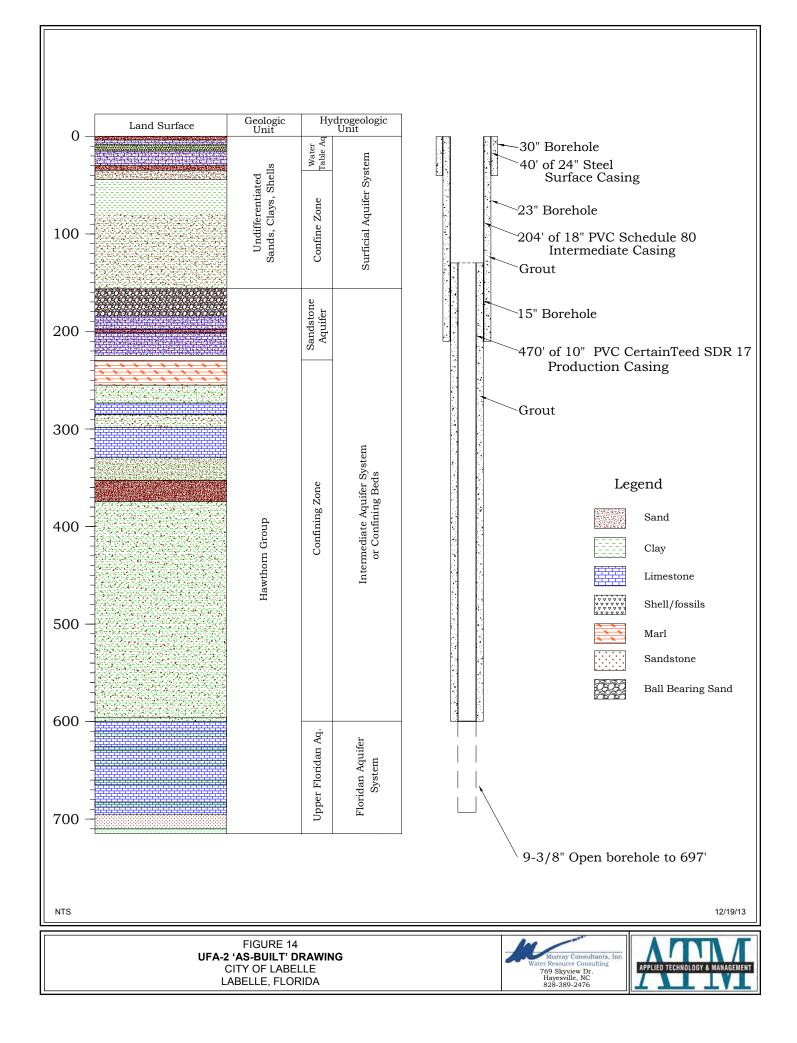


NTS





APPLIED TECHNOLOGY & MANAGEMENT





#### **PUMP TESTING**

#### Set-Up

The same set-up was used for performing both the Step-Drawdown Test (SDT) and the Aquifer Performance Test (APT). A pressure transducer was installed in the well to measure the drawdown and the pumping rate was calculated using an orifice and manometer. The well is free flowing with a water level approximately 34 feet above land surface. Water was discharged about 20 feet from the well which flowed into a grove ditch. A 6-inch value was installed to regulate the flow rate. **Figure 15** is a picture of the SDT and APT set-up.

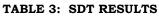


FIGURE 15: PUMP TEST SET-UP

#### Step-Drawdown Test

A Step-Drawdown Test (SDT) was performed on May 17, 2013 by Wells & Water Systems. The test included three steps, pumping about 50 minutes a step. **Table 3** lists the results of the SDT. The drawdown in this table represents the water level drop from the initial water level of 34.3 ft above measuring point (MP).

Q (gpm)	s (ft)	WL below MP	Q/s (gpm/ft)	s/Q (ft/gpm)		
1370	33.0	3.0	41.52	0.0241		
1760	47.5	17.5	37.05	0.0270		
1980	55.1	25.1	35.93	0.0278		







#### Aquifer Performance Test

An Aquifer Performance Test was performed on May 21, 2013 after the SDT was completed and the aquifer had stabilized. The well was pumped at a starting rate of 1560 gpm and dropped to 1440 after 24 hours and recovered for 24 hours. The average pumping rate was 1500 gpm. The initial water level at the start of the test was 34.3 feet above the measuring point. The measuring point elevation was surveyed at 16.63 ft NGVD. The maximum drawdown was 42.9 ft below starting head, or 8.6 feet below the measuring point.

### Aquifer Performance Test Results

The drawdown and recovery data was analyzed using **AquiferTest**, a computer program developed by Waterloo Hydrogeologic Inc. has a suite of analytical solutions for determining aquifer properties from pumping tests. From the program, the Cooper-Jacob time-drawdown and Theis Recovery solution were used to analyze the data.

The Cooper-Jacob time-drawdown solution is a straight-line analysis that uses the following equations for confined aquifers:

$$T = 2.3Q/4\pi\Delta s$$
  $S = 2.25Tt_0/r^2$ 

The Walton solution equations are:

$$T = Q/4\pi s[W(u,r/L)] \qquad S = 4Ttu/r^2$$

The Theis Recovery equations are:

$$T = Q/4\pi s'[W(u,r/L-W(u',r/L)]$$

where,

 $T = \text{transmissivity, ft}^2/d$   $Q = \text{pumping rate, ft}^3/d$  s = drawdown, ft r = distance of observation well from pumped well, ft  $t_0 = \text{time at which the straight line fit intersects the time axis, days}$  S = storage coefficient, dimensionless

Leakance was determined by the following equation: L = 1/c*c* = *hydraulic resistance, d* 

The above equations assume the aquifer homogeneous, anisotropic, infinite in areal extent, of constant thickness, the production and observation wells having no storage capacity, the wells fully penetrating the aquifer, and the aquifer potentiometric surface initially being horizontal.

The results of the analysis are tabulated below in **Table 4**.





	Cooper-Jacob Ti	ne Drawdown		Walton							
	Transmissivity (ft²/d)	Storage	Transmissivity (ft²/d)	Storage	Leakance (/d)	Transmissivity (ft²/d)					
UFA-2	15,400										
UFA-3	12,500	7.50E-05	14,700	9.13E-05	1.50E-06	11,700					

The data logger in UFA-2 did not function properly, so the manual drawdown data was used for the analysis. Manual recovery data could not be taken due to the water levels rising above the manual measuring point. The average transmissivity value calculated from the drawdown and recovery data is 13,600 ft<sup>2</sup>/d or 101,700 gpd/ft. This value is consistent with the APT results for the test well installed in 2010, UFA-3, and for a SFWMD well LAB-PW (Bennett, 2003) that pumped the same zone. The data analysis is included in **Appendix C**.

The well was disinfected upon completion of the testing and withdrawal of the test pump. Water samples were collected for testing of the Drinking Water Standards. The results are included in **Appendix D**.

#### DISCUSSION

UFA-2 construction and testing was completed on May 23, 2013. The well is completed with 204 feet of 18-inch casing to accommodate the pump and 396 feet of 10-inch casing to a total depth of 600 ft. The static hydraulic head is about 34 feet above the measuring point during the testing. The well should pump at a rate of 1500 gpm with about 10 feet of drawdown inside the well casing. Due to additional off-site interference, it is recommended installing the pump at least 80 feet below the top of casing. The APT performed resulted in a calculated transmissivity of 13,600 ft<sup>2</sup>/d or 101,700 gpd/ft.

The water table aquifer was encountered from land surface to about 40 feet. Beneath the water table is a confining unit to about 157 feet. Underlying the confining unit is the Sandstone Aquifer, which is the top of the Intermediate Aquifer System or Confining Beds and marks the top of the Hawthorn Group. The Hawthorn Group consists mainly of greenish gray to dark greenish gray sandy phosphatic clays. Interbedded with the clays are stringers of sandy phosphatic limestone. The Upper Floridan Aquifer, which resides in the basal part of the Hawthorn Group and the Suwannee Limestone Unit, starts at about 600 feet below land surface. The production water is coming from a limestone unit between 670 and 680 feet, which is the basal part of the Hawthorn Group included in the Upper Floridan Aquifer.





#### BIBLIOGRAPHY

Bennett, M.W., 2003. Hydrogeologic Investigation of the Floridan Aquifer System, LaBelle, Hendry County, Florida. Technical Publication WS-15. SFWMD. WPB, FL.



# **APPENDIX** A



Project Name: LaBelle RO Wells Project No.: 12-2372 Well No.: UFA-2 Sampling Method: Continuous Grab Described By: Gail Doyle

Depth ft bls	Description
0-2	Sand, pale yellowish brown (10YR 6/2), fine grained, subangular to subrounded
2 - 8	Sandy Limestone, pale yellowish brown (10YR 6/2) , hard, slow drilling
8 - 13	Sandy Shelly <b>Clay</b> , light greenish gray (5Y 8/1), fragments to whole shells, fine grained quartz sand
13 - 15	Shell, very pale orange (10YR 8/2)
15 - 30	Sandy Fossiliferous Limestone, light gray (N7), hard drilling
30 - 33	Clayey Shelly <b>Sand,</b> yellowish gray (5Y 8/1), fine grained, subangular, limestone pieces, phosphatic
33 - 35	Same as above, except semi-consolidated
35 - 43	Sandy Clay, light greenish gray (5GY 8/1), fine grained quartz, phosphate and calcium sand
43 - 79	Clay, dark greenish gray (5GY 4/1), sticky, minor quartz and phosphate fine grained sand
79 - 90	Sandy Shelly <b>Clay</b> , dark greenish gray (5GY 4/1); shell fragments, fine grained quartz and phosphate sand
90 - 128	Sandy Clay, dark greenish gray (5GY 4/1); fine grained quartz and phosphate sand
128 -130	Clayey Shelly <b>Sand</b> , greenish gray (5GY 6/1), very fine grained, subangular to subrounded, quartz and phosphate; minor large grains
130 -157	Sandy Clay, greenish gray (5GY 6/1); fine to large gravel grained quartz and phosphate sand
157 - 185	<b>Sand</b> (Ball Bearing Sand), white (N9) to medium gray (N5) to black (N1), medium to pebble grained, rounded, quartz and phosphate; minor limestone
185 - 198	Sandy Limestone, yellowish gray (5Y8/1), solution
198 - 201	<b>Sand</b> (Ball Bearing Sand), white (N9) to medium gray (N5) to black (N1), fine to small gravel grained, rounded, quartz and phosphate
201-226	Sandy Limestone, yellowish gray (5Y8/1), solution
226 - 230	Sandy <b>Clay,</b> yellowish gray (5Y8/1); very fine grained phosphate sand
230 - 256	Marl, light greenish gray (5G 8/1), phosphatic
256 - 273	Sandy <b>Clay</b> , light greenish gray (5G 8/1); fine grained quartz and phosphate; stringers of semi- consolidated sandy clay
273 - 285	Fossiliferous Limestone, very pale orange (10YR 8/2); minor phosphatic sand
285 - 298	Sandy <b>Clay</b> , greenish gray (5G 6/1); fine grained quartz and phosphate; stringers of semi- consolidated sandy clay
298 - 316	Fossiliferous Limestone, yellowish gray (5Y8/1); minor phosphatic sand
316 - 318	Clay, greenish gray (5GY 6/1), soft, sticky; minor phosphatic sand
318 - 329	Fossiliferous Limestone, yellowish gray (5Y8/1); minor phosphatic sand
329 - 353	Sandy <b>Clay</b> , dark greenish gray (5GY 4/1), phosphatic
353 - 375	Clayey silty <b>Sand</b> , greenish gray (5GY 6/1), phosphate and quartz, very fine grained, subangular to subrounded; minor semi-consolidated stringers
375 - 394	Sandy Shelly <b>Clay</b> , light greenish gray (5G 8/1); very fine grained phosphate sand; minor semi- consolidated stringers
394 - 410	Clayey Shelly <b>Sand</b> , greenish gray (5GY 6/1), very fine grained, subangular to subrounded, quartz and phosphate; minor large grains
410 - 470	Sandy <b>Clay</b> , light greenish gray (5GY 8/1); very fine grained phosphate sand; stringers of fossiliferous limestone



Project Name: LaBelle RO Wells Project No.: 12-2372 Well No.: UFA-2 Sampling Method: Continuous Grab Described By: Gail Doyle

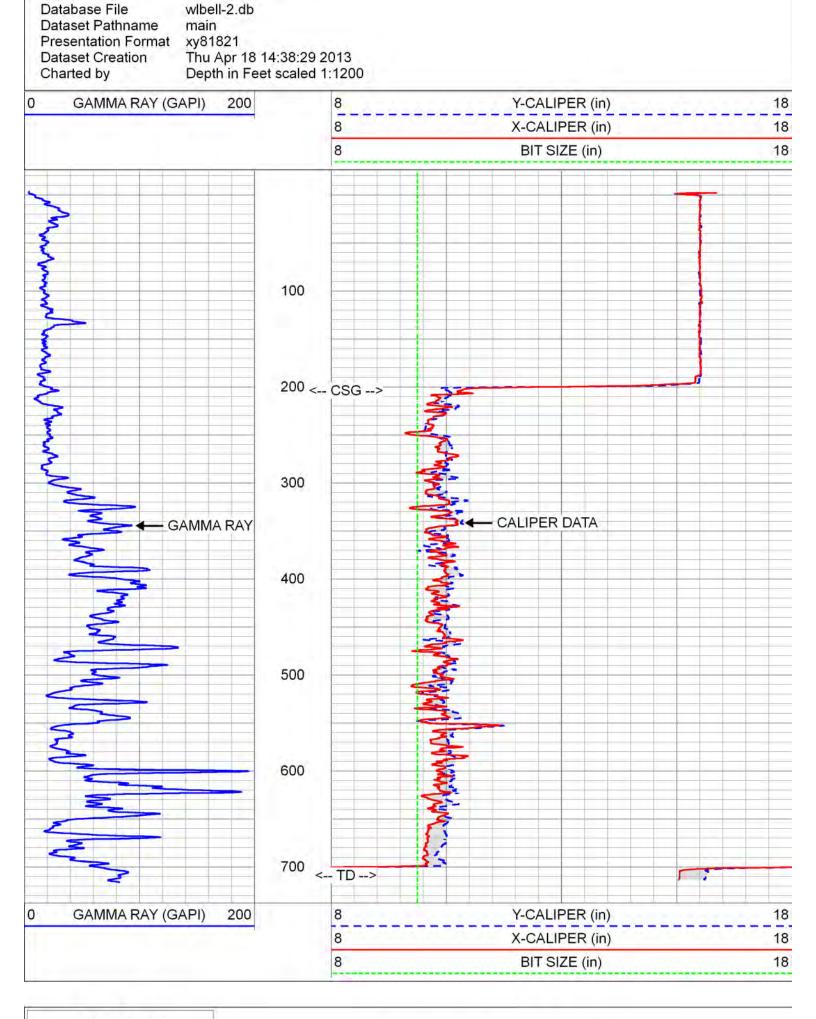
Depth ft bls	Description
470 - 483	Sandy Clay, dark greenish gray (5GY 4/1) fine grained quartz and phosphate sand
483 - 490	Silty <b>Clay</b> , greenish gray (5GY 6/1)
490 - 506	Clayey Shelly <b>Sand,</b> greenish gray (5GY 6/1), very fine to coarse grained, subangular to subrounded, quartz and phosphate; minor large grains
506 - 546	Sandy Shelly <b>Clay</b> , greenish gray (5GY 8/1); fine to coarse grained quartz and phosphate sand: interbedded with sandy <b>Limestone</b> , yellowish gray (5Y 8/1)
546 - 600	Sandy <b>Clay</b> , light olive gray (5Y 6/1); fine to coarse grained phosphate, quartz and calcite sand; minor limestone stringers
600 - 636	Sandy <b>Limestone</b> , yellowish gray (5Y 8/1) to light olive gray (5Y 6/1) to pale yellowish brown (10YR 6/2); sand is very fine phosphate INTERBEDDED with : Sandy <b>Clay</b> , (N7); very fine quartz and phosphate sand
636 - 656	Sandy Limestone, light gray (N7) to pale yellowish brown (10YR 6/2); fine grained quartz and phosphate sand, fossil molds: minor clay stringers
656 - 696	Sandy <b>Limestone</b> , light gray (N7) to pale yellowish brown (10YR 6/2); fine grained quartz and phosphate sand, fossil molds: INTERBEDDED with Sandy <b>Clay</b> , light greenish gray (5GY 8/1); fine to coarse grained phosphate and quartz sand
696 - 710	Calcareous <b>Sandstone</b> , very pale orange (10YR 8/2) to light gray (N7): clay matrix, very soft and friable; minor fossil fragments
710 - 715	Sandy Clay, light greenish gray (5GY 8/1); fine to coarse grained phosphate and quartz sand

# **APPENDIX B**

Production String Liner Invoice No.	Prot. String	Casing Record			Run Number		Recorded By	Location	Fauinment Number	Time Logger on Bot	Estimated Cement Top	Max. Recorded Temp.	Density / Viscosity	Upen Hole Size	Top Log Interval	Bottom Logged Interval	Depth Logger	Depth Driller	Run Number	Date	Compan Well Field County State	1	Wells & Water UFA-2 LaBelle Hendry Florida	Syst	ems			ntry (	ISA	Geop	Z
2013057		Size		9.875" 204'	Bit From				1011	tom.	Top	ıp.				rval					Permanent Datum Log Measured From Drilling Measured From	1	Location:	State	County		Field	Well	Company	Geophysical	<b>NN</b>
3x/pdf/las	10 10	Wgt/Ft			To	G.MurrayDoyle (MCI)	S.Miller/C.Miller	Fort Myers	MVGS-1	C102/01/4 00.11	SURFACE	NA	NANA	WI ID	SURFACE	709'	709'	716'	ONE	18-APR-2013	m G.L. d From G.L.	C	API # : City of LaBelle N 871669.65 E 504488.27 Murray Consultants, Inc. Murray Consultants, Inc.	Florida	nendry	Lande.	LaBelle	UFA-2	Wells & Water Systems, Inc.		
w/bell-2.db					Tubing Record Size Weight Fro	T.Rosenkranz (WWS)															Elevation	RUE	9  # :  Belle   504488.27  ltants, Inc.	Country USA					Systems, Inc.	LOG	X-Y CALIPER GAMMA RAY
* FIELD PRINT *	204	Bottom 2004			From To																GLF.	Elevation	Other Services XY/GR DIL/SP	SA							<b>₹</b> ₩
All inter any i	prei inte	rpreta	s are c tion, a	nd	we s	hall	l no	t, e nyc	xce	pt i res	in th sulti	ng f	ase rom	of g any	ros / in	terp	or w	villfi tati d cc	ul r on ond	neg ma itio	ligence or de by any	n ou y of	ir part, be liable	e or i jents	ore	ons	ible	for a	ny los	s, costs,	or correctness of damages, or ations are also
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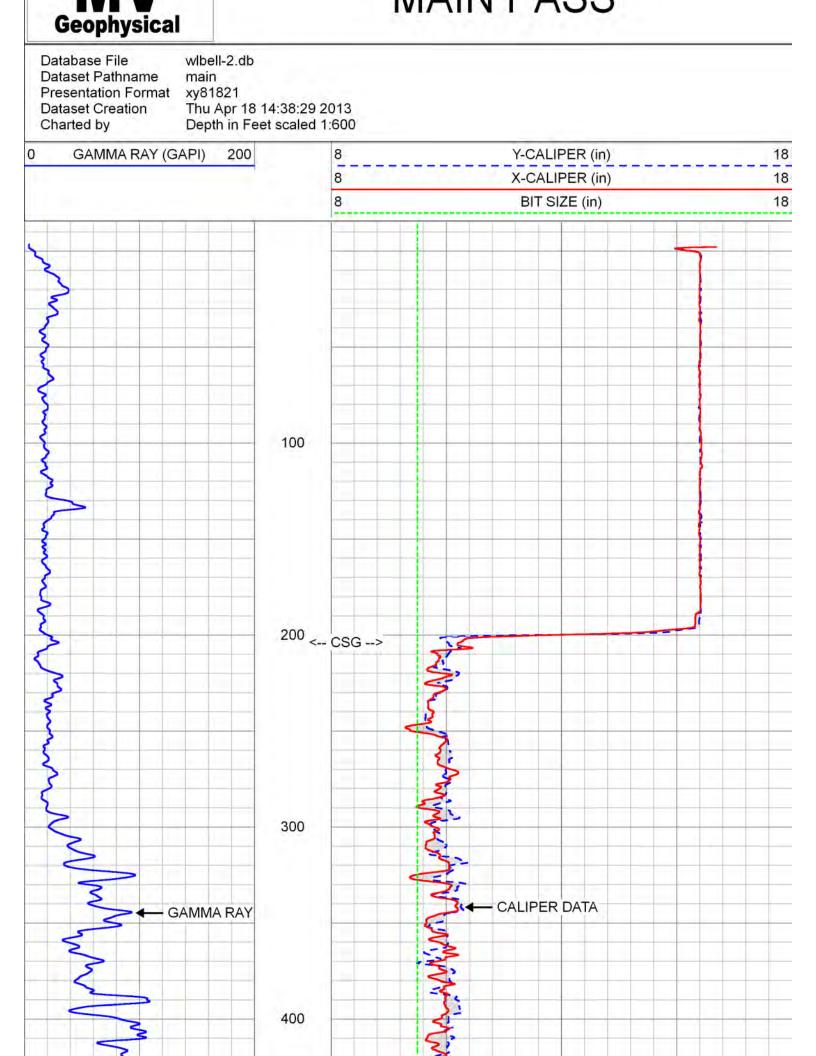
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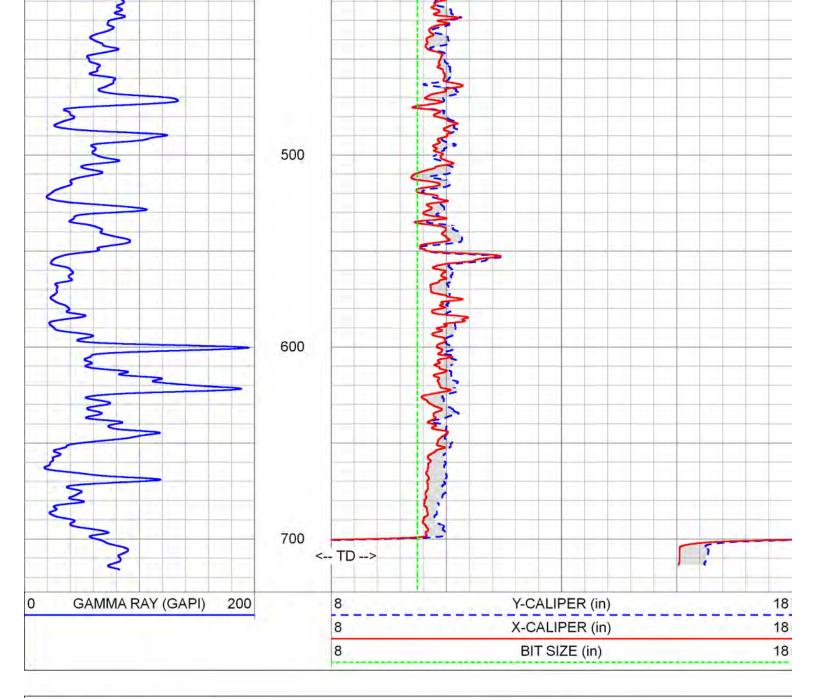
MAIN PASS



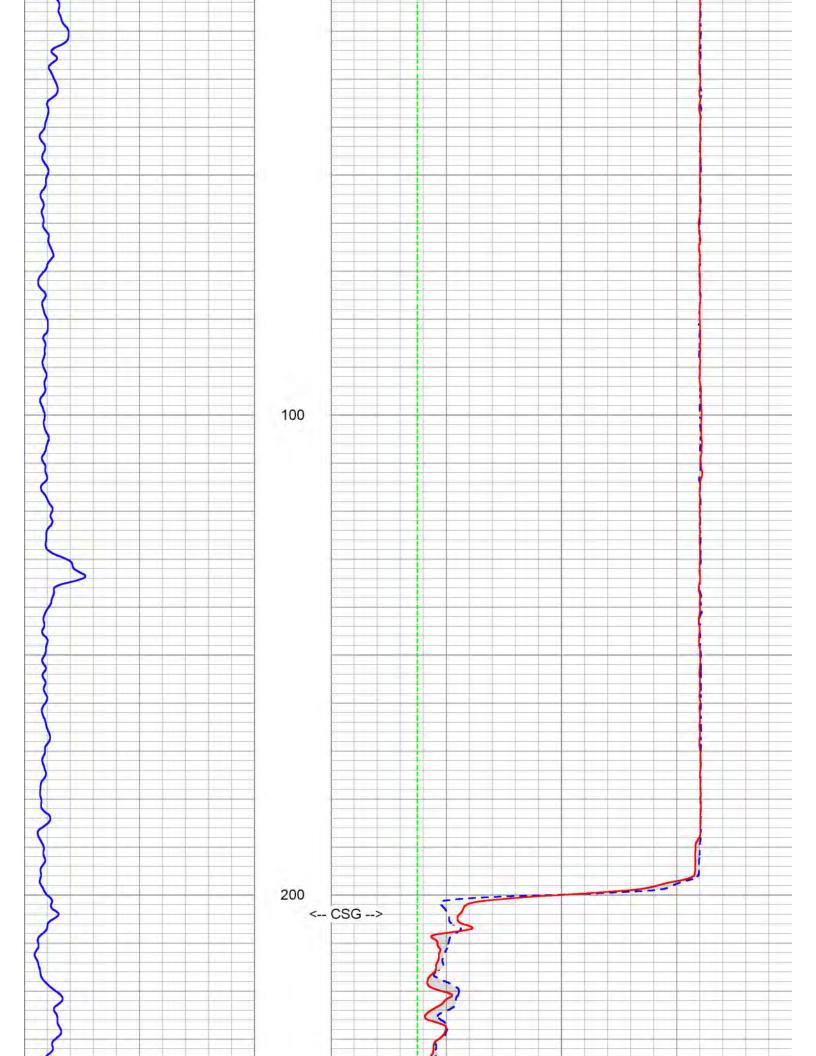


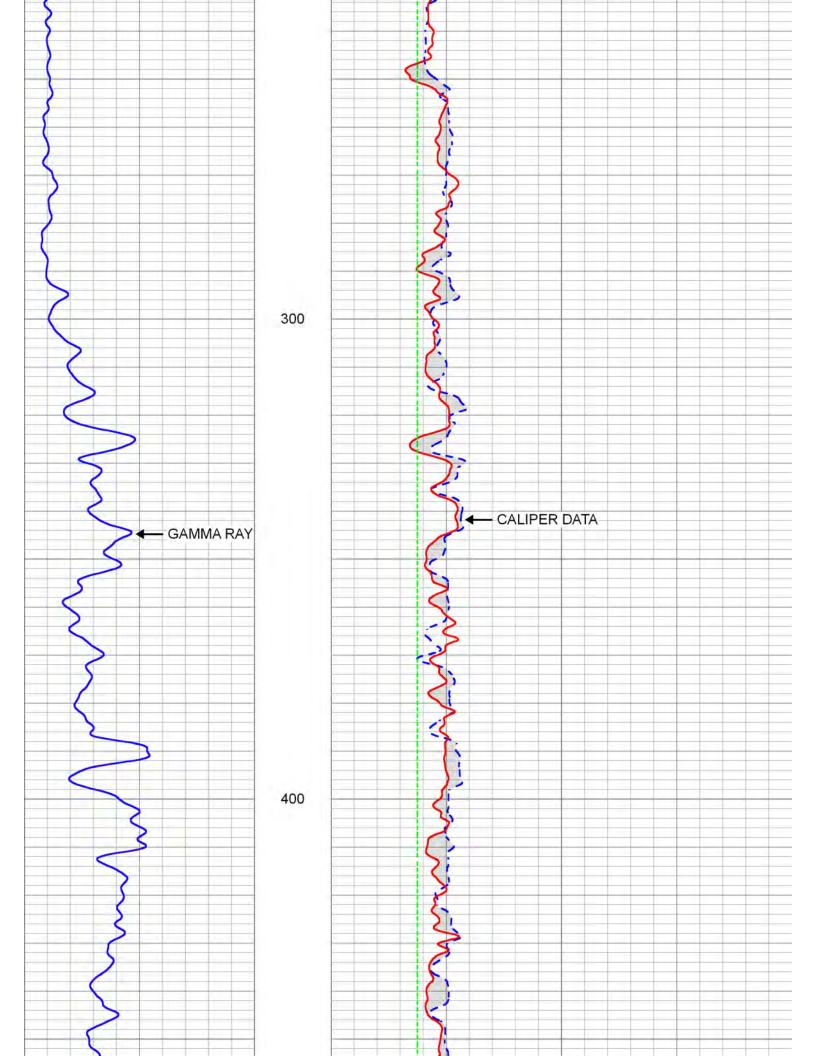
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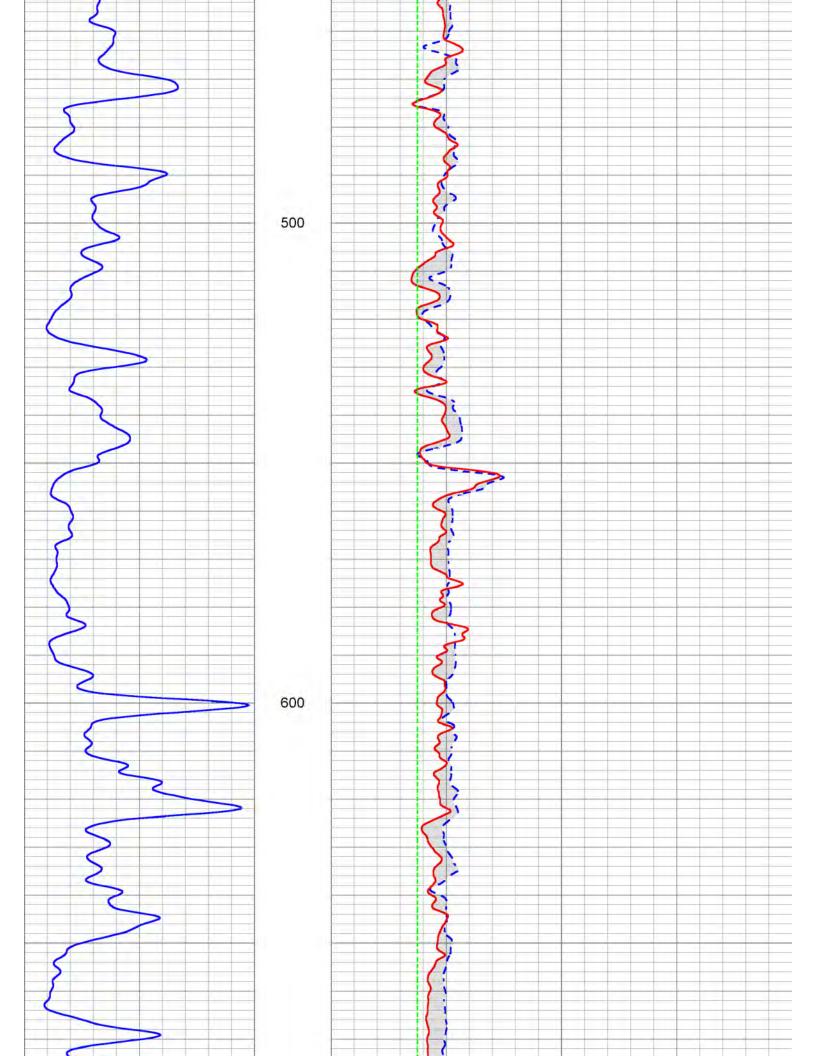


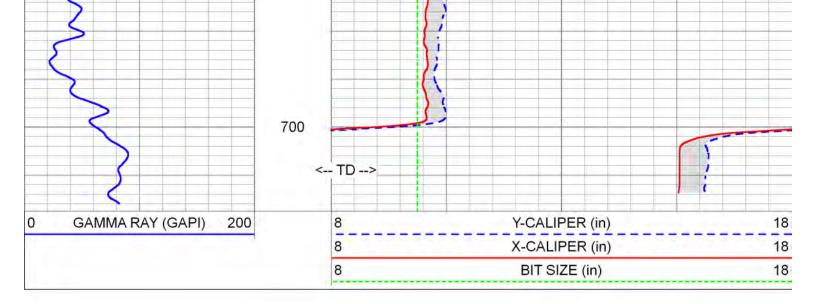


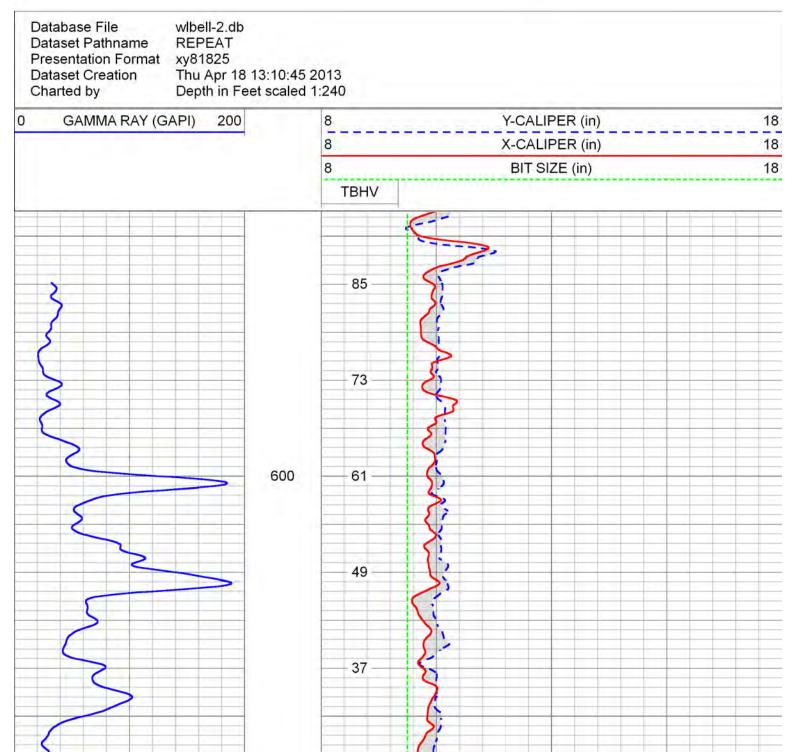
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	4:38:29 2013 scaled 1:240	
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	8 X-CALIPER (in)	18
	8 BIT SIZE (in)	18

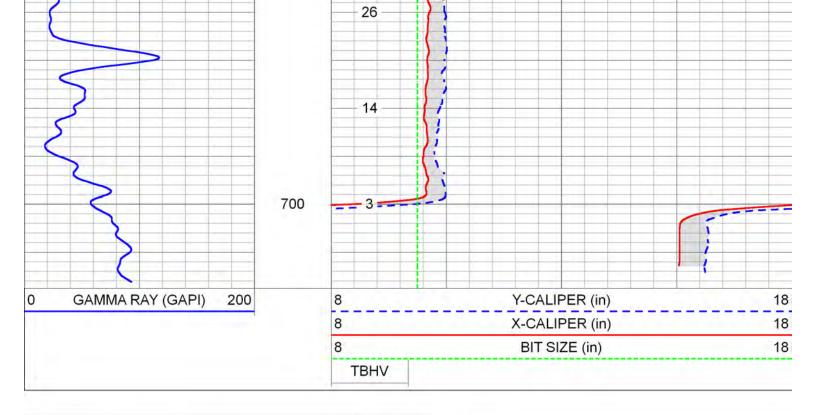












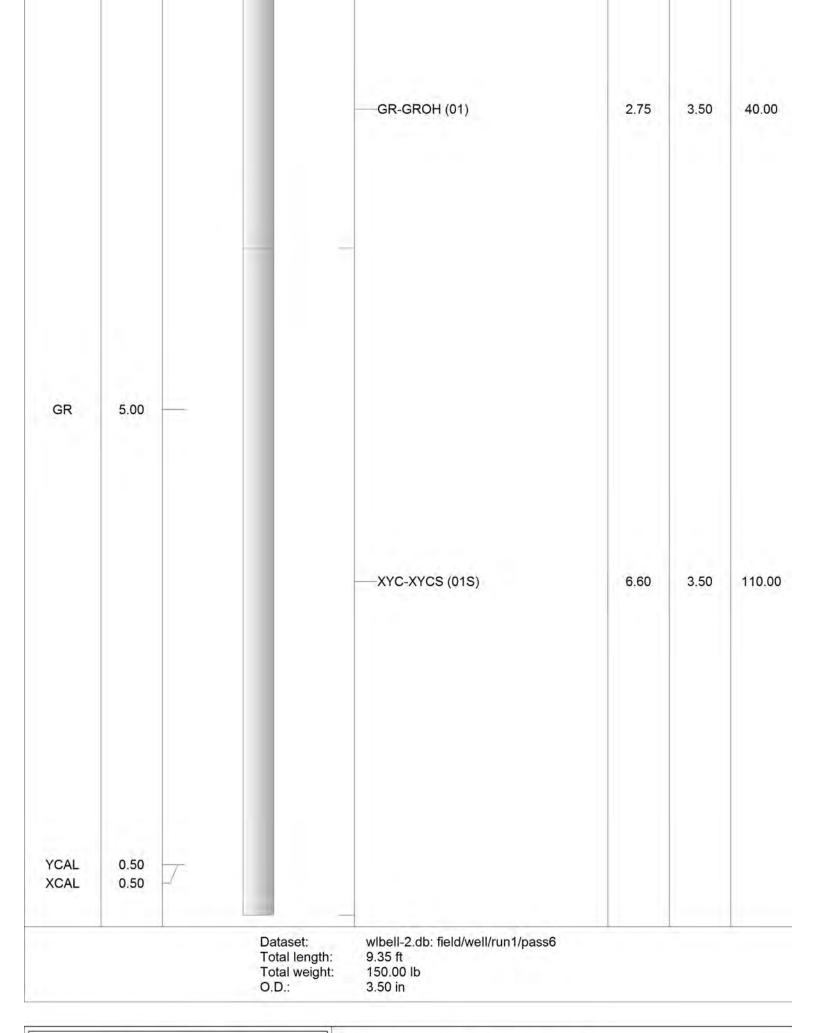
		Calibration R	eport			
	ell-2.db					
Dataset Pathname pas						
Dataset Creation The	u Apr 18 13:51:53 201:	3				
	XY	Caliper Calibra	tion Report			
Serial Number		01S	-			
Tool Model:		XYCS				
Performed:		Thu Apr 1	8 13:53:41 20	013		
Small Ring:		10		in		
Large Ring:		33		in		
		X Caliper		Y Caliper		
	1					
Reading with S		636		640	cps	
Reading with L	arge Ring:	1133.3		1080.7	cps	
Gain:		0.046249	7	0.0521897		
Offset:		-19.4148		-23.4014		
	Gan	nma Ray Calibra	ation Report			
Serial Number	. (	01				
Tool Model:		GROH				
Performed:		Thu Apr 18 13:4	4:49 2013			
Calibrator Valu	ie:	120.0	GAPI			
Background R	eading:	15.4	cps			
Calibrator Rea		133.1	cps			

Sensor	Offset (ft)	Schematic	Description	Length (ft) O.D. (in) Weight (lb

GAPI/cps

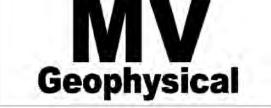
1.0188

Sensitivity:



Wells & Water Systems, Inc.

Company

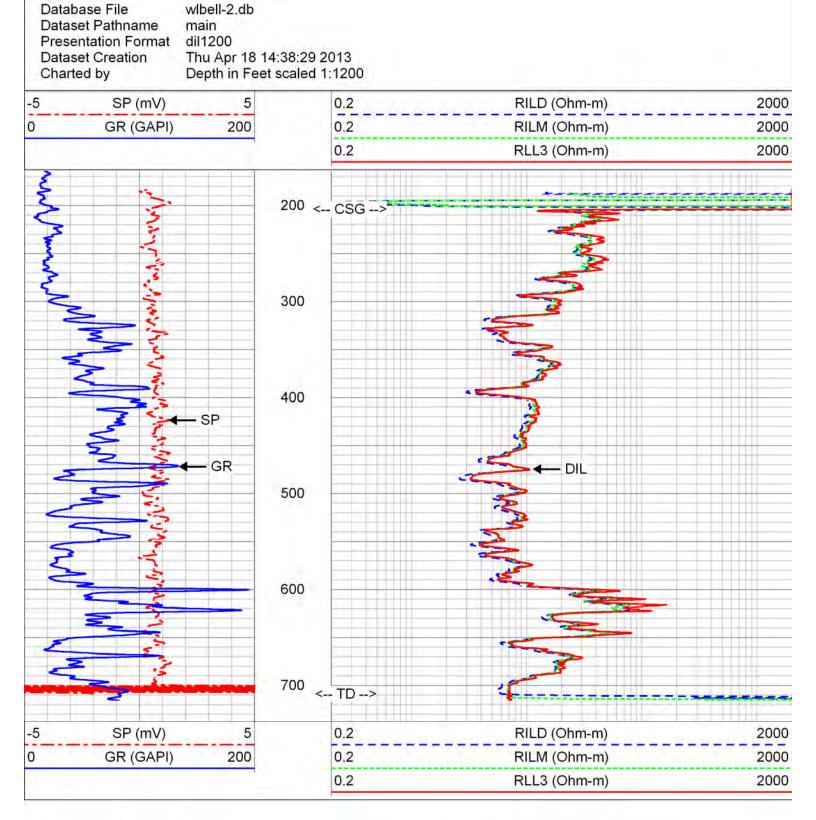


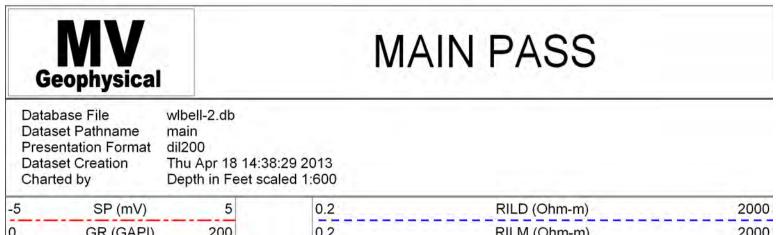
Ш	1.4.5	The second			
	Well	UFA-2			
	Field	LaBelle			
	County	Hendry			
	State	Florida	Country	USA	

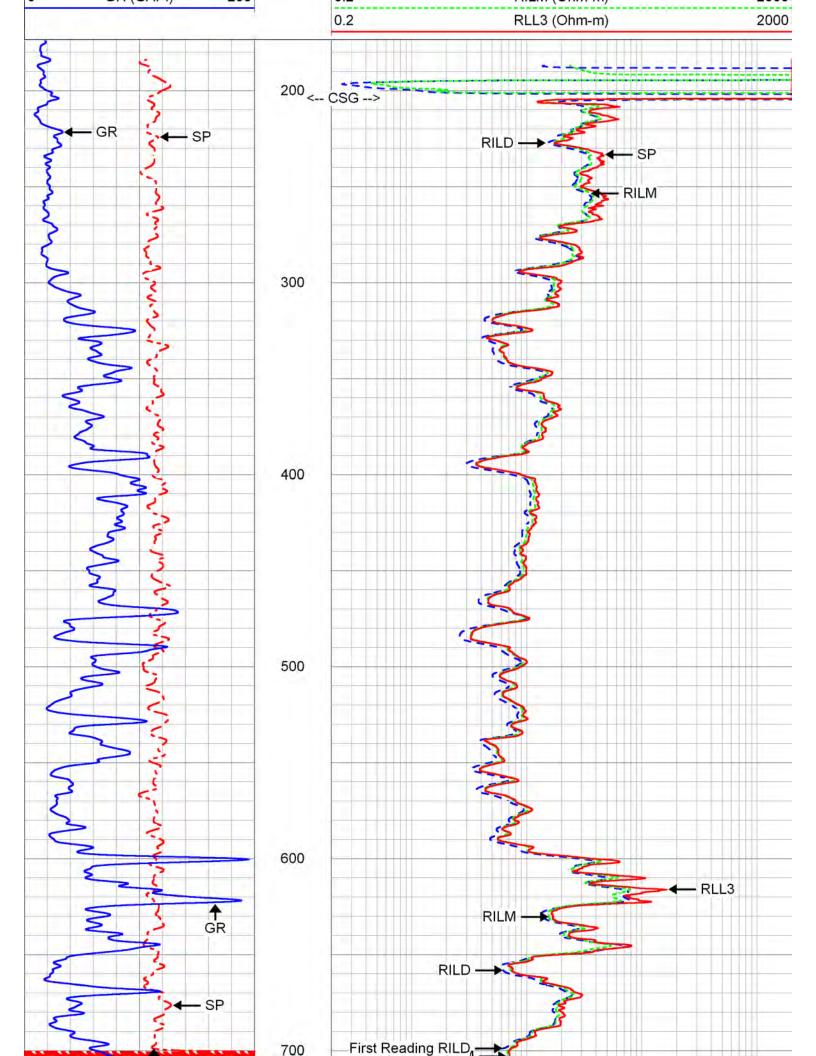
Casing Record Surface String Prot. String		Run Number ONE	Witnessed By	Recorded By	Equipment Number	Time Logger on Bottom	Time Well Ready	Max. Recorded Temp.	Type Fluid Density / Viscosity	Open Hole Size	Top I on Interval	Depth Logger	Depth Driller	Run Number	ate	Company Well Field County	L L H	Vells & Water IFA-2 aBelle lendry	Sys	lem					Geophysical	
		Bit 9.875"	Boreh		7	ottom	lop	mp.			cival					State	-	lorida	a	) (	-	-		USA	Ţ	<b>N</b>
Size 18" PVC	01	From 204'	ole Record													rmanent Datu g Measured Fi Iling Measure	S		late		nintv	ield	Vell	ompany	sical	<
16" ID	Wict/IC+	To 716'	G.MurrayDoyle (MC	S.Miller/C.Miller	MVGS-1	12:30 4/18/2013	11:00 4/18/2013	NA	MUD	9.875"	204	700	716	ONE	18-APR-2013	From	0				Hendry	LaBelle	UFA-2	Wells & Wate		
		Size			-				-				-				7	API # : LaBelle E 504 sultant						er Sys		DU
SURFACE	Ť	Weight	Rosenkranz (WWS													Elevation	GE	9 488.27 s, Inc.						tems, Inc.	LOG	UAL INDUCTION
		From	3) Record																USA	5					-	PTIO
204"	D	1 To														GDX F 7B	Elevation	Other Service XY/GR DIL/SP								Ż
rpretatio interpre	ons are etation,	opinior and we	shal	l not	exc	cept ie re	in the	ne ca ng fr	om a	of gro any i	oss nte	or v rpre	willf etati d co	on ond	neg ma litio	ligence or ide by any ns set out	of	r part, be liable our officers, ag	e or gents	resp s or	oon em	sible	for	any los	s, costs, d	lamages, or
												-		20	mn	nents										
									Rr	n=0	6.0	012	2 c	h	m-	m @ 9	1.2	2 degF								
r	16" ID SURFACE 204" Fold H	16" ID Top SURFACE 204" Fold Here >>>	From     To     Size       204"     716"     Size       204"     716"     Size       Size     Weight     From       18" PVC     16" ID     SURFACE       204"     16" ID     SURFACE       204"     10"     SURFACE       204"     Top     Bottom       Fold Here >>>     204"     Top	G.MurrayDoyle (MCI)     T.Rosenkranz (WWS)       Size     Tubing Record       From     To       Size     Weight       From     To       Size     Wgt/Ft       Top     Bottom       Fold Here     204"       Here     204"	Size     Willer/C.Miller       Size     Size       Very Size     Weight       Size     Weight       From     To       Size     Weight       Ford     To       Size     Weight       From     To       Size     Weight       Ford     To       Support     To       Support     Support       Fold Here >>>	Size     Fort Myers       Size     Size       Size     Size       Size     To       Size     Veight       To     Size       Weight     From       To     Size       Weight     From       To     Size       Weight     From       To     Size       Weight     From       To     Surface       Weight     From       To     Surface       Weight     From       To     Surface       Weight     From       To     Surface       Surface     204"       To     Surface       Surface     204"       To     Surface       Surface     204"	Size     12:30 4/18/2013       S.Miller/C.Miller     Fort Myers       S.Miller/C.Miller     S.Miller/C.Miller       To     Size       Size     Veight       To     Size       Wgt/Ft     To       SURFACE     204"       To     Size       Way/Ft     To       Surface     Weight       From     To       Size     Way/Ft       Top     Bottom       Fold Here >>>	SURFACE       Size     11:00 4/18/2013       From     12:30 4/18/2013       MVGS-1     Fort Myers       S.Miller/C.Miller     S.Miller/C.Miller       To     Size       Veight     To       Size     Weight       From     To       Size     Weight       From     To       Size     Weight       From     To       Surray     Size       Weight     From       To     Surray       Surray     Surray       Out     Size       Weight     From       To     Surray       Surray     To	Size     Inclusion       Size     S.Miller/C.Miller       Size     S.Miller/C.Miller       Size     Size       Size     Veight       To     Size       Wgt/Ft     To       SURFACE     Veight       From     To       Size     Veight       To     Size       Wgt/Ft     To       SURFACE     Veight       From     To	Size     NANA       Size     SurFACE       Size     Size       VC     11:00 4/18/2013       Size     Size       VGS-1     Size       VGVFt     Size       VGUFt     Size       Veight     From       Top     From       SurFACE     Soldtom	James Size     MUD       Size     11:00 4/18/2013       MVGS-1     SURFACE       Similer/C.Miller     Similer/C.Miller       Size     Works:       To     Size       WgUFt     To       SURFACE     Size       WgUFt     To       Size     Weight       From     To       Size     Weight       From     To       Size     Weight       From     To	Size     0     0     0     0       Hole Record     11:00 4/18/2013     12:30 4/18/2013     12:30 4/18/2013       Size     0     0     0     0       MVGS-1     1     100 4/18/2013     0     0       Size     716     Size     Weight     0     0       Top     10     10     10     0     0       SURFACE     Weight     From Messa     0     0       Size     Weight     From Messa     0     0       Size     Weight     From Top     0     0       Fold Here >>>     204     Top     0     0	Implementation     Implementation       Size     0       From     11:00 4/18/2013       12:30 4/18/2013     11:00 4/18/2013       13: FVC     0       WgUFI     0       16: FVC     10       10: FVC     10: Size       10: FVC     11:00 4/18/2013       11: 00 4/18/2013     11:00 4/18/2013       10: FVC     10:00 4/18/2014	Image: Size     Imag	Size     ONE       18" PVC     0.4"       10"     11:00 HR2CE       11:00 HR2CE     0.0%       11:00 HR2CE<	Implementation       Implementation       Implementation       Implementation       Implementation         Implementation       Implementation       Implementation       Implementation       Implementation       Implementation         Implementation       <	orgenment Datum       G.L.       Elevation         orgenment Datum       G.L.       Istration         istration       G.MurrayDoyle       NAA         istration       Istration       Istration         istration       Istration       Istratistration	SEC     TWP     RGE       org/measured From     G.L.     Elevation       IIIng Measured From     G.L.     Elevation       III.     III.     III.       III.     III.     IIII.       III.     III.     III.       III.     III.     IIII.       III.     IIII.     IIII.       III.     IIII.     IIII.       III.     IIII.     IIII.       III.     IIII.     IIIIII.       III.     IIII.     IIIIIII.       III.     IIIIII.     IIIIIIII.       III.     IIIIIIIII.     IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Location:       API#::         emmanent Datum       RT1669.65 E 504488.27         Murray Consultants, Inc.       SEC         SEC       Murray Consultants, Inc.         III.       Elevation         G.L.       Elevation         ONE       709         709       709         709       709         709       709         709       709         709       709         709       709         709       709         709       709         709       709         709       709         700       709         700       709         700       709         700       709         700       709         700       700         875       9875         9875       704         9875       910         9875       704         9875       704         9875       704         9875       704         9875       704         9875       704         9875       704         9875       706	State     Florida     Country USA       ermanent Datum     0.1.     Florida     Other Services       Nutray Consultants, Inc.     SEC     Muray Consultants, Inc.     Inc.       SEC     TWP     RGE     DIL/SP       No     0.1.     Elevation     G.L.     DIL/SP       No     0.1.     Elevation     G.L.     DIL/SP       No     0.1.     Elevation     G.L.     DIL/SP       No     10.04     9875     0.04     0.1.     Elevation       No     NANA     NANA     NANA     0.1.     Elevation       No     10.04     9875     9875     0.1.     DIL/SP       No     NANA     NANA     NANA     0.1.     Elevation       No     11:00 4182013     9875     0.1.     DIL/SP     DIL/SP       No     11:00 4182013     11:00 4182013     0.1.     DIL/SP     DIL/SP       No     11:00 4182013     11:00 4182013     DIL/SP     DIL/SP     DIL/SP       No     11:00 4182013     11:00 4182013     DIL/SP     DIL/SP     DIL/SP       State     No     No     No     DIL/SP     DIL/SP     DIL/SP       Fold     Here >>>     DIL/SP     DIL/SP     DIL/SP	State       Florida       Country       USA         Cocation:       Florida       Country       USA         Nama       City of LaBelle       Nama       City of LaBelle         Nama       City of LaBelle       City of LaBelle       City of LaBelle         Nama       City of LaBelle       City of LaBelle       City of LaBelle         Nama       City of LaBelle       City of LaBelle       City of LaBelle         Nama       City of LaBelle       City of LaBelle       City of LaBelle         Nama       City of LaBelle       City of LaBelle       City of LaBelle         Nama       State       Nama       City of LaBelle       City of LaBelle         Namo       State       Nama       City of LaBelle       City of LaBelle       City of LaBelle         State       State       Nama       City of LaBelle       City of LaBelle       City of LaBelle       City of LaBelle         Name       State       Nama       Nama       City of LaBelle       City of LaBelle	County       Hendry         State       Florida       Country         Uccation:       API # :       Other Services         No 7 Clop of LaBelle       No 7 Clop of LaBelle       No 7 Clop of LaBelle         No 7 Clop of LaBelle       No 7 Clop of LaBelle       Other Services         SEC       Muray Consultants Inc.       Elevation       Elevation         GL       Elevation       GL       Elevation         No Rescue From       GL       Elevation       Elevation         No NGS-1       Surprise       DULYSP       Elevation         No NGS-1       Surprise       NANA       Elevation         NUMOS-1       Incosenkranz       Muray       Elevation       Elevation         Size       No Hillschild       NANA       Elevation       Elevation         NUMOS-1       Incosenkranz       Muray       Elevation       Elevation         Size       Velight       Too       Size       Velight       Elevation         Fold Here >>>       Subject to our general terms and conditions set out in our current Price Schedul         Comments       Subject to our general terms and conditions set out in our current Price Schedul	Field       LaBelle         County       Hendry         State       Florida       Country         Uccation:       Oily of LaBelle       Nama Country       USA         Name       Name       Other Services       Other Services         Sec       True       Other Services       Other Services         ONE       Other Services       Other Services       N/GR         Name       Isolation:       Elevation       Isolation:       Elevation         ONE       Sec       True       Isolation:       Elevation       Isolation:         NAM       Size       NAM       Isolation:       Isolation:       Isolation:       Isolation:         NAM       Size       Name       Isolation:       Isolatisolation:       Isolatisolation: <td< td=""><td>Field       LaBelle         County       Hendry         State       Florida       County         Florida       County         N871699.65       E 504489.27         Willing Wessured From       G.L.       Elevation         GL       Billing Wessured From       G.L.         Billing Wessured From       G.L.       Elevation         GL       Billing Wessured From       G.L.         Billing Wessured From       G.L.       Elevation         GL       Billing Wessured From       G.L.         Billing Wessured From       G.L.       Elevation         MUD       Wild       Billing Record         MUSCI       Transenkranz (WWS)       Billing Record         Wild       Fort Wess       Fort Wess         State       From       Transenkranz (WWS)         Wild       Transenkranz (WWS)       Billing Record         Wild Hereits       State       Fort Wess         Field Here       State       Fort Wess         State       State       State         Fort Here       State       State         Fort Here       State       State         State       State       State</td><td>Weill       UFA-2         Field       LaBelle         County       Hendry         State       Florida       Country         Hendry       State       Florida       Country         Name       County       Hendry       Sec       Other Services         Name       County       USA       Country       USA         Name       County       USA       Country       USA         Name       County       USA       Country       USA         Name       Country       USA       Country       USA         Name       State       Country       USA       Diversion         State       Form       GL       Evalue       Diversion       Diversion         State       State       State       Diversion       Diversion       Diversion         State       Form       GL       Evalue       Diversion       Diversion       Diversion         State       State</td><td>Sical       UCC         Company       Wells &amp; Water Systems, Inc.         Well       UFA-2         Field       LaBelle         County       Hendry         State       Florida       County         Hendry       Off Size         State       Florida       County         Hendry       Off Size       South Size         Name       Off Size       County         Name       Inc.       Off Size         Notes       Size       Off Size         Size       Nume       Size         Nume       Notes       Size         Off Size       Size       Off Size         Size       Nume       Size         Notes       Size       Off Size         Notes       Size       Off Size         Size       Nume       Size       Off Size         Fortige       Size       Size       Off Size         Size       Nume       Size       Off Size</td></td<>	Field       LaBelle         County       Hendry         State       Florida       County         Florida       County         N871699.65       E 504489.27         Willing Wessured From       G.L.       Elevation         GL       Billing Wessured From       G.L.         Billing Wessured From       G.L.       Elevation         GL       Billing Wessured From       G.L.         Billing Wessured From       G.L.       Elevation         GL       Billing Wessured From       G.L.         Billing Wessured From       G.L.       Elevation         MUD       Wild       Billing Record         MUSCI       Transenkranz (WWS)       Billing Record         Wild       Fort Wess       Fort Wess         State       From       Transenkranz (WWS)         Wild       Transenkranz (WWS)       Billing Record         Wild Hereits       State       Fort Wess         Field Here       State       Fort Wess         State       State       State         Fort Here       State       State         Fort Here       State       State         State       State       State	Weill       UFA-2         Field       LaBelle         County       Hendry         State       Florida       Country         Hendry       State       Florida       Country         Name       County       Hendry       Sec       Other Services         Name       County       USA       Country       USA         Name       County       USA       Country       USA         Name       County       USA       Country       USA         Name       Country       USA       Country       USA         Name       State       Country       USA       Diversion         State       Form       GL       Evalue       Diversion       Diversion         State       State       State       Diversion       Diversion       Diversion         State       Form       GL       Evalue       Diversion       Diversion       Diversion         State       State	Sical       UCC         Company       Wells & Water Systems, Inc.         Well       UFA-2         Field       LaBelle         County       Hendry         State       Florida       County         Hendry       Off Size         State       Florida       County         Hendry       Off Size       South Size         Name       Off Size       County         Name       Inc.       Off Size         Notes       Size       Off Size         Size       Nume       Size         Nume       Notes       Size         Off Size       Size       Off Size         Size       Nume       Size         Notes       Size       Off Size         Notes       Size       Off Size         Size       Nume       Size       Off Size         Fortige       Size       Size       Off Size         Size       Nume       Size       Off Size

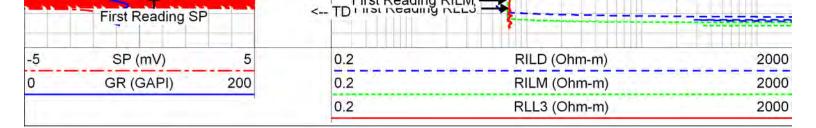
**MV** Geophysical

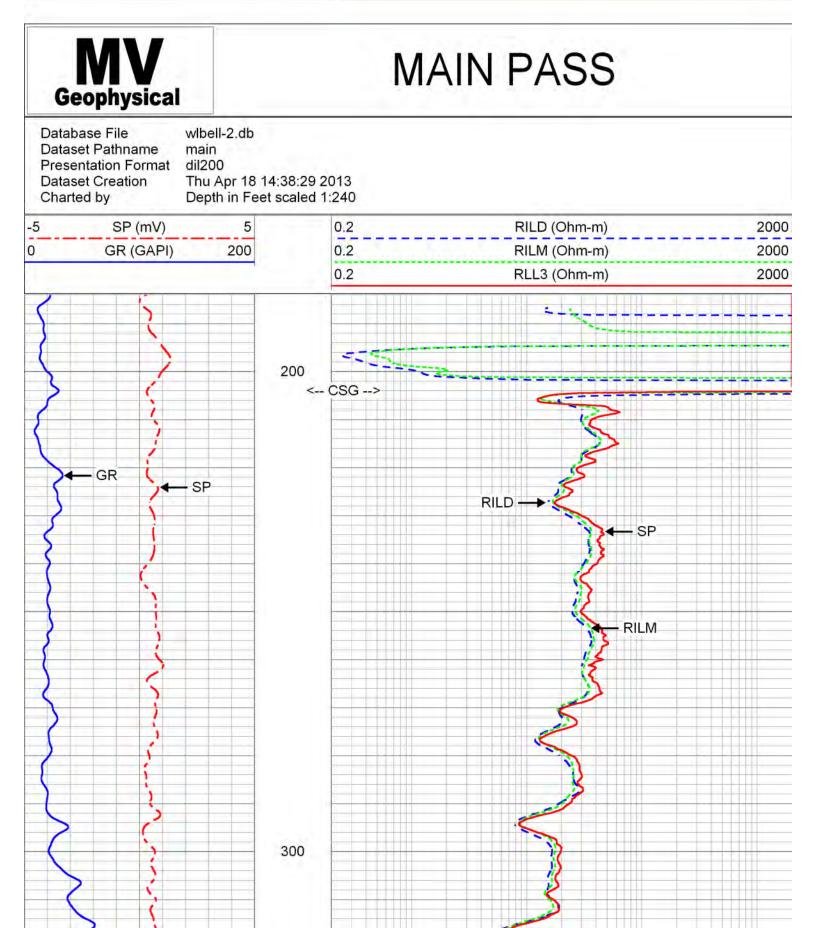
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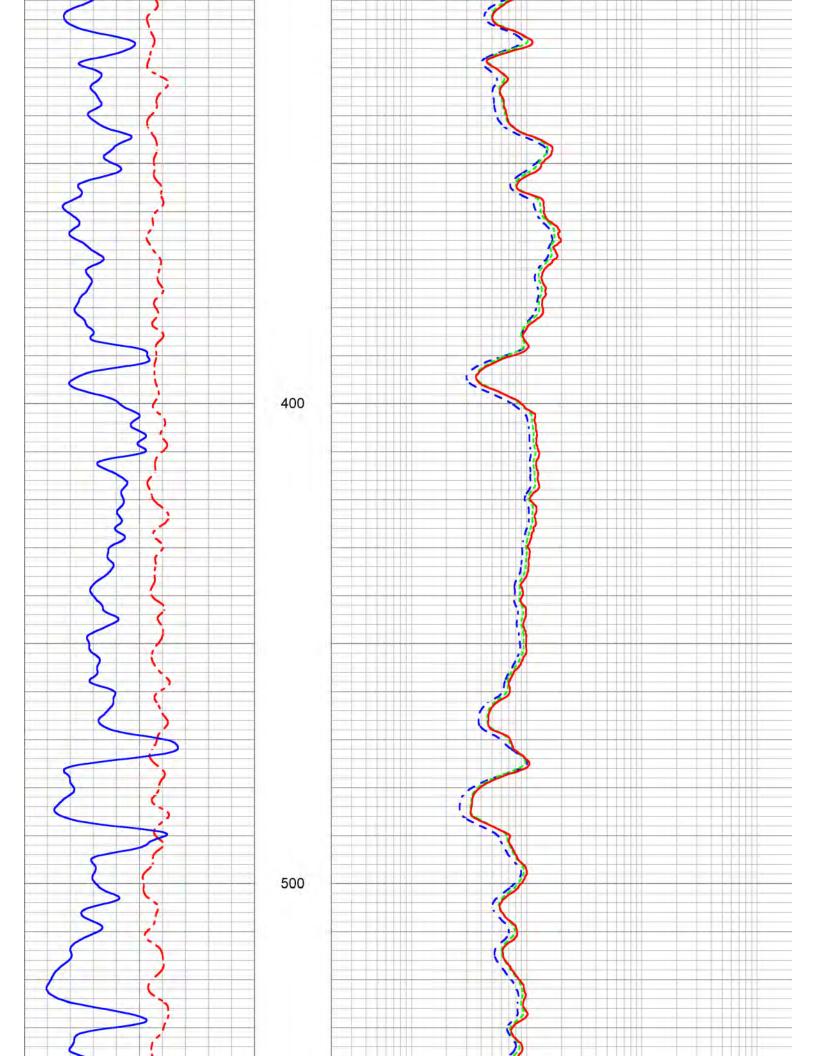


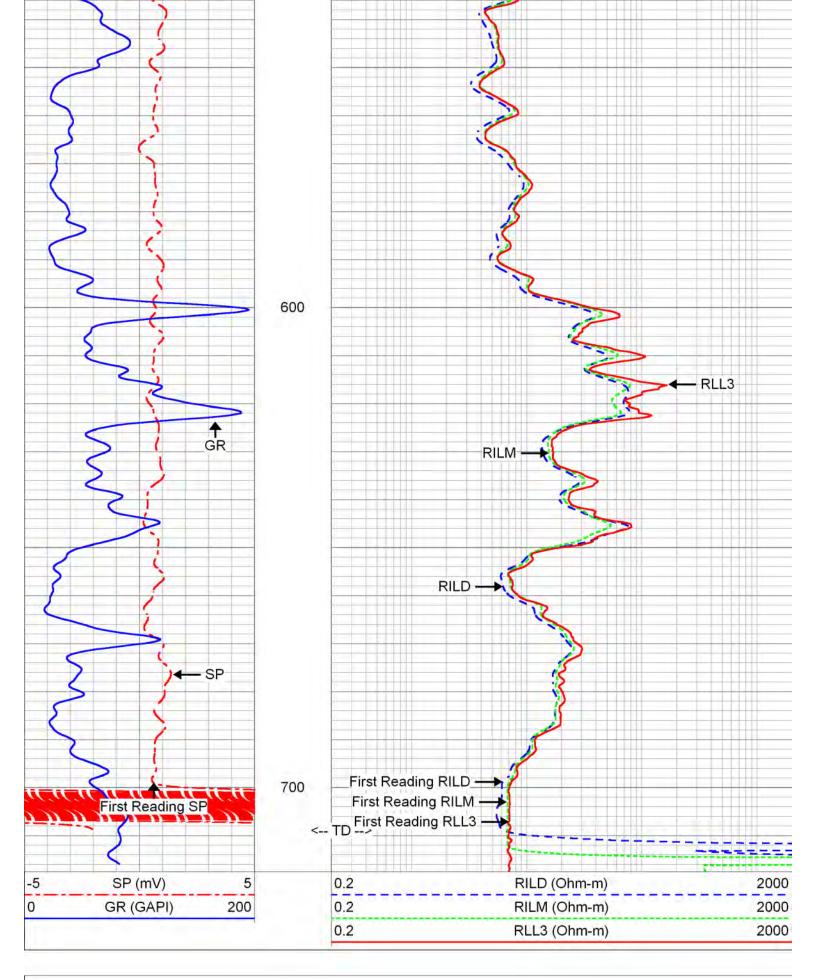




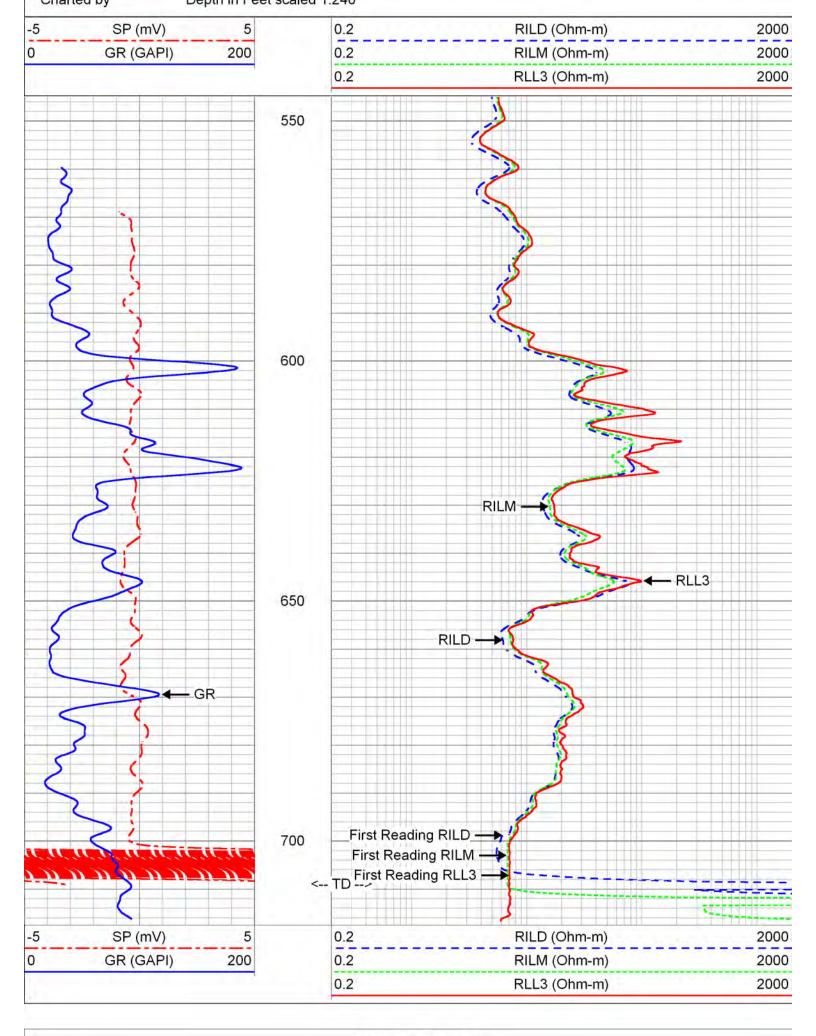








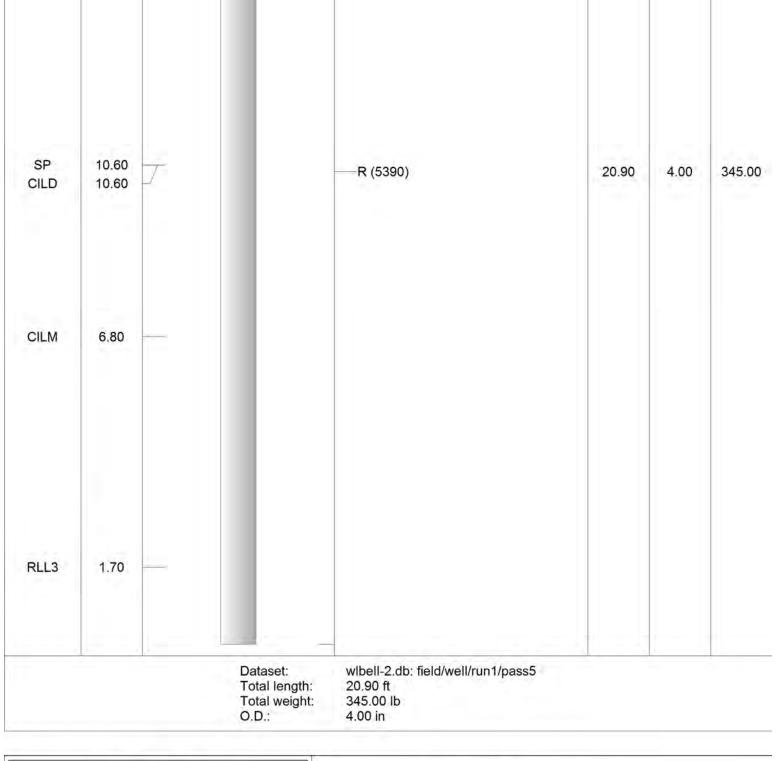
Database Filewlbell-2.dbDataset PathnameREPEATPresentation Formatdil200Dataset CreationThu Apr 18 13:10:45 2013Charted byDepth in Fast scaled 1:240





ataset Pathnan ataset Creation		18 13:34:2	2 2013					
			Dual Inducti	on Calibration	Report			
	Downho	Cal Perfor		We	ed Apr 21 1	1:17:23 2010 1:04:55 2010 1:04:55 2010		
Surface Calibr	ation							
	1	Readings		R	eferences		Resul	ts
Loop:	Air	Loop		Air	Loop		m	b
Deep Medium	0.050 0.018	0.645 0.735	V V	0.000 0.000	400.000 464.000	mmho/m mmho/m	672.269 647.120	-33.613 -11.545
Internal:	Zero	Cal		Zero	Cal		m	b
Deep Medium	0.011 0.005	0.641 0.739	V V	0.000 0.000		mmho/m mmho/m	634.921 632.408	-6.984 -3.370
Downhole Cal	ibration							
		Readings		R	eferences		Resul	ts
Internal:	Zero	Cal		Zero	Cal		m	b
Deep Medium Shallow	-43.158 -9.475 2.516	78.288 466.701 0.025	mmho/m mmho/m V	-42.562 -8.097 494.500	77.983 466.698 2.000	mmho/m mmho/m Ohm-m	0.993 0.997 197.690	0.275 1.351 -2.966
After Survey V	erification							
	4	Readings			Targets		Resul	ts
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep Medium	0.000 0.000 0.000	0.000 0.000 0.000	mmho/m mmho/m Ohm-m	-43.158 -9.475 494.500	78.288 466.701 2.000	mmho/m mmho/m Ohm-m	0.993 0.997 1.000	0.275 1.351 0.000

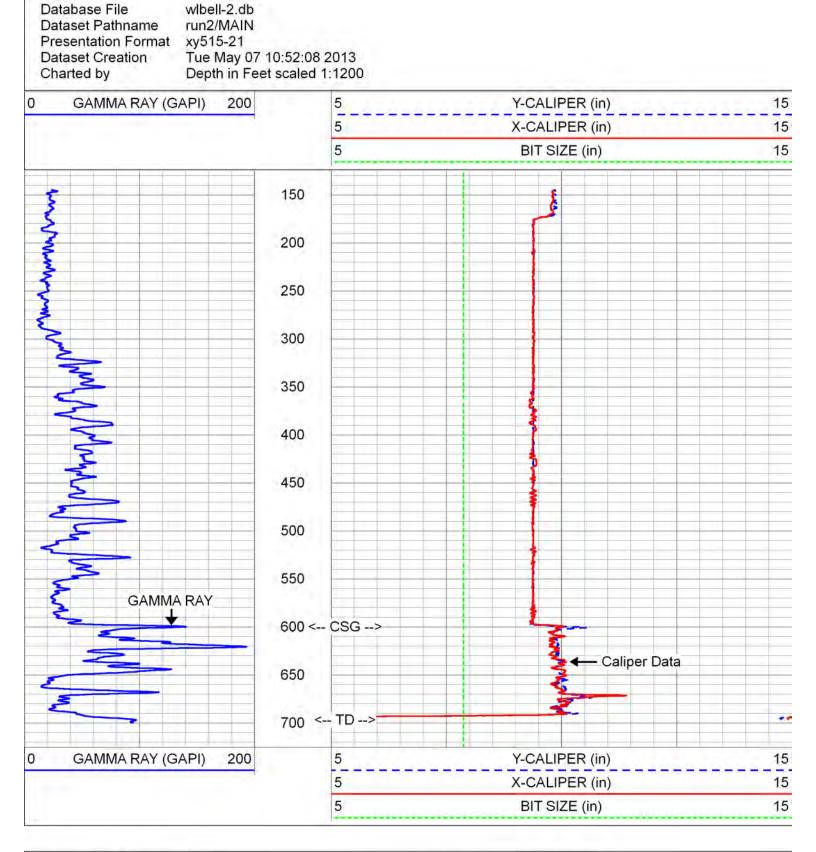
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (II
						1-10

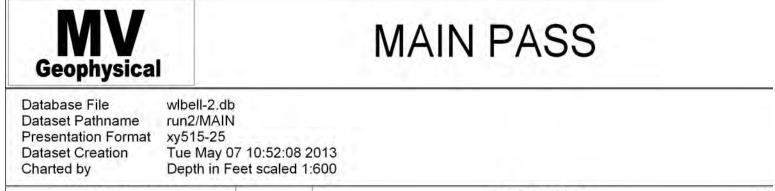


	Company	Wells & Water Systems, Inc.		
	Well	UFA-2		
	Field	LaBelle		
	County	Hendry		
Geophysical	State	Florida	Country	USA

Invoice No.	Casing Record Surface String Prot. String Production String Liner	Run Number ONE TWO	Witnessed By	Recorded By	Equipment Number	Time Logger on Bottom	Time Well Ready	Max. Recorded Temp.	Density / Viscosity	Open Hole Size	Top Log Interval	Bottom Logged Interval	Depth Logger	Denth Driller	Run Number		Company Well Field County	L L F	Vells & Wat JFA-2 aBelle lendry	ter S	iyste	ems,			1124	1425	Geop	2	
20	18	Bit 9.875" 7.875"	Rorehole Record		7	ottom	doi	mp.			I.	erval					State Log Meas Drilling M		lorida	Location:	State	County	Field		USA Company		Geophysical		
2013061	Size 18" PVC 10.5" PVC	204' 600'														1 1 1	Permanent Datum Log Measured From Drilling Measured From	SEC					5	c			2		
3x/pdf/las	Wgt/Ft 16" ID 9.375" ID	To S 716' 720'	G.MurrayDoyle (MCI)	S.Miller/C.Miller	MVGS-1	10:00 5/7/2013	08:00 5/7/2013	NA	NA/NA	7.875"	145	697'	697'	720'	TWO	WAY-	a ooo r⊤⊤		City of N 871669.65 Murray Col		Florida	Hendry	LaBelle	UFA-2	Wells & Water Systems, Inc.				
		Size	T.Roser															RGE	Belle 504488. Itants, Inc	API#:					System			GAI	
wlbell-2.db	Top SURFACE 130'	Weight	T,Rosenkranz (WWS) Tubing Record														Elevation		27		Country USA				s, Inc.		LOG	GAMMA RAY	
*FIE		From	Cord														003		_	-	ISA							¥¥	;
FIELD PRINT *	Bottom 204'	10															GLE R	Elevation	XY/GR DHTV FLO,FCT	Other Services									
All	<-< Fold Here interpretations any interpretati xpenses incurre	are opinion on, and we	shall	l not, by an	exe	cept ne re	t in the	ne c ing f	ase rom	of g any	ros int	is of terp	r will reta	Ilfu atio cor	l ne n n ndit	egli nac tion	igence on de by any	of	r part, be lia	able age	or rents	espo or er	nsibl	e for	any lo	oss, co	sts, da	mages,	or
								M	ЛA	XII	м	JN	1 A	R	M	E	XTEN	SI	ON: 33	ų									

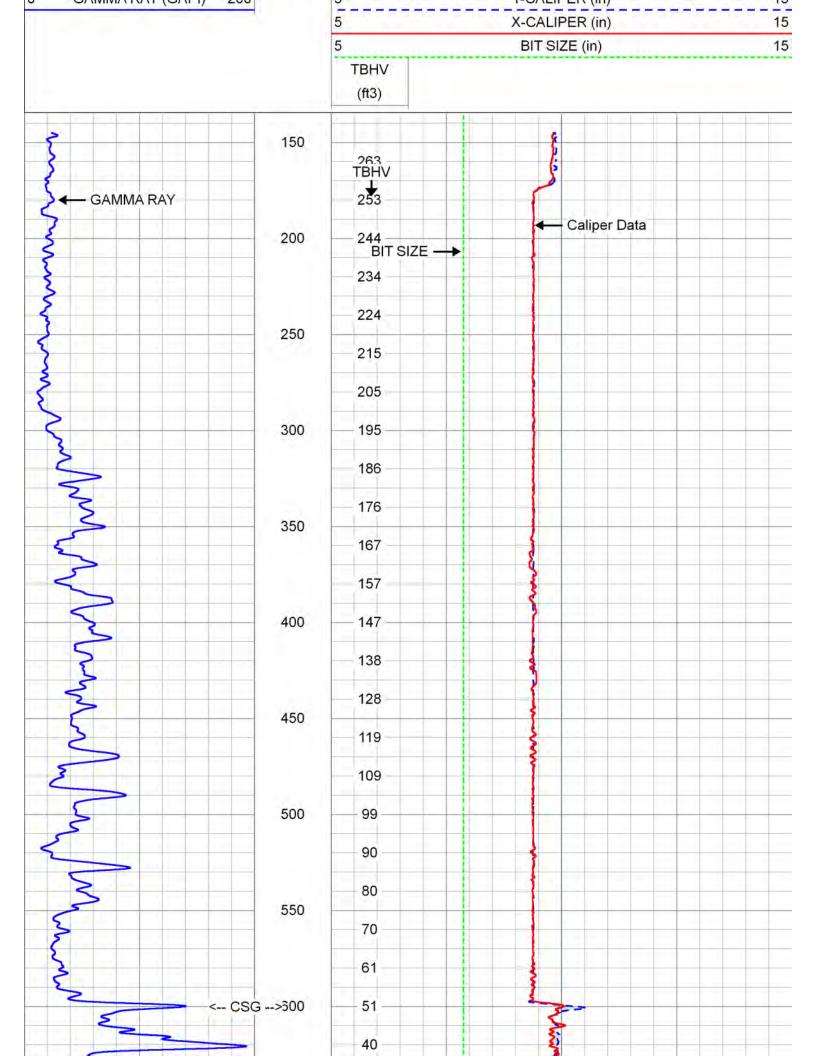
MAIN PASS

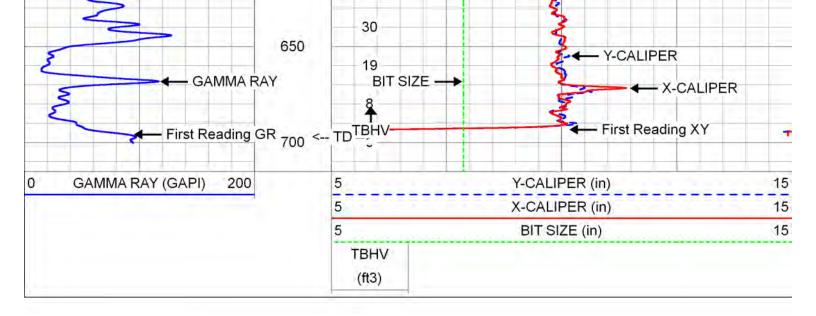


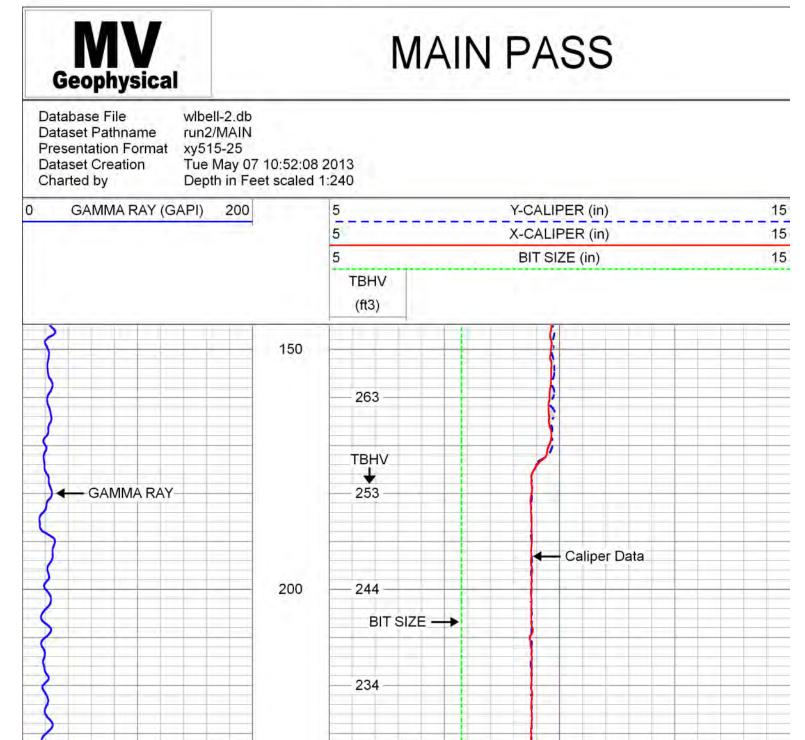


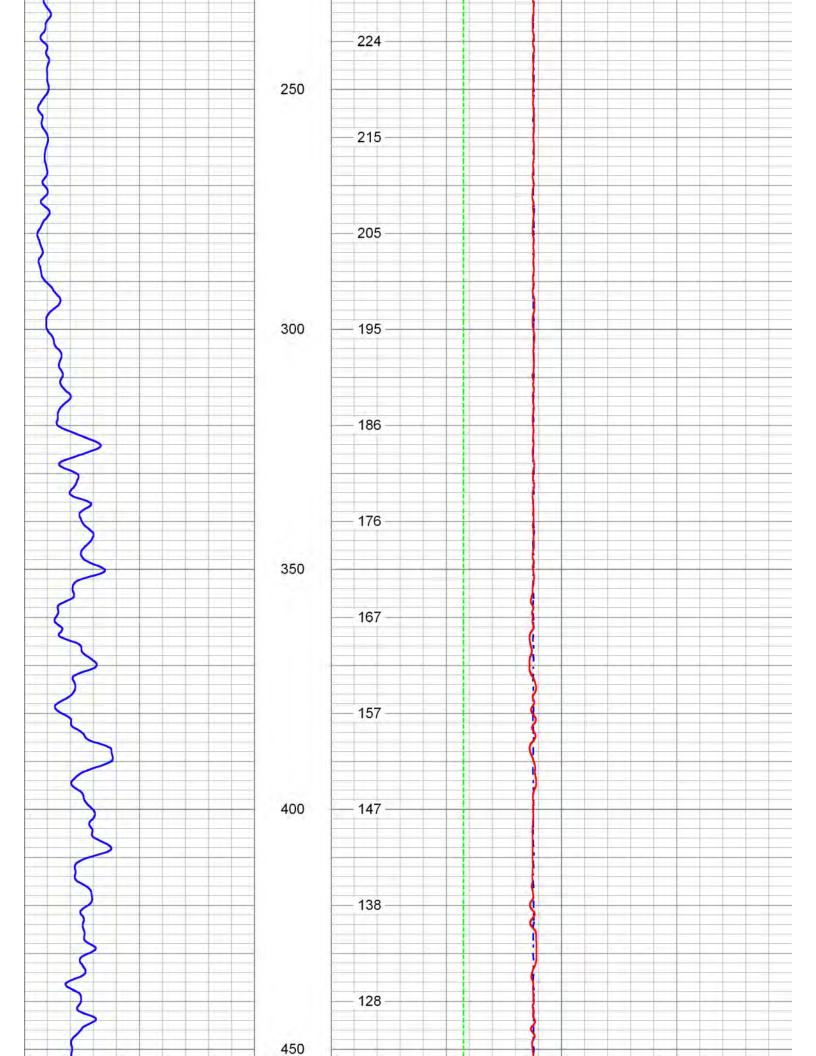
GAMMA RAY (GAPI) 200 5

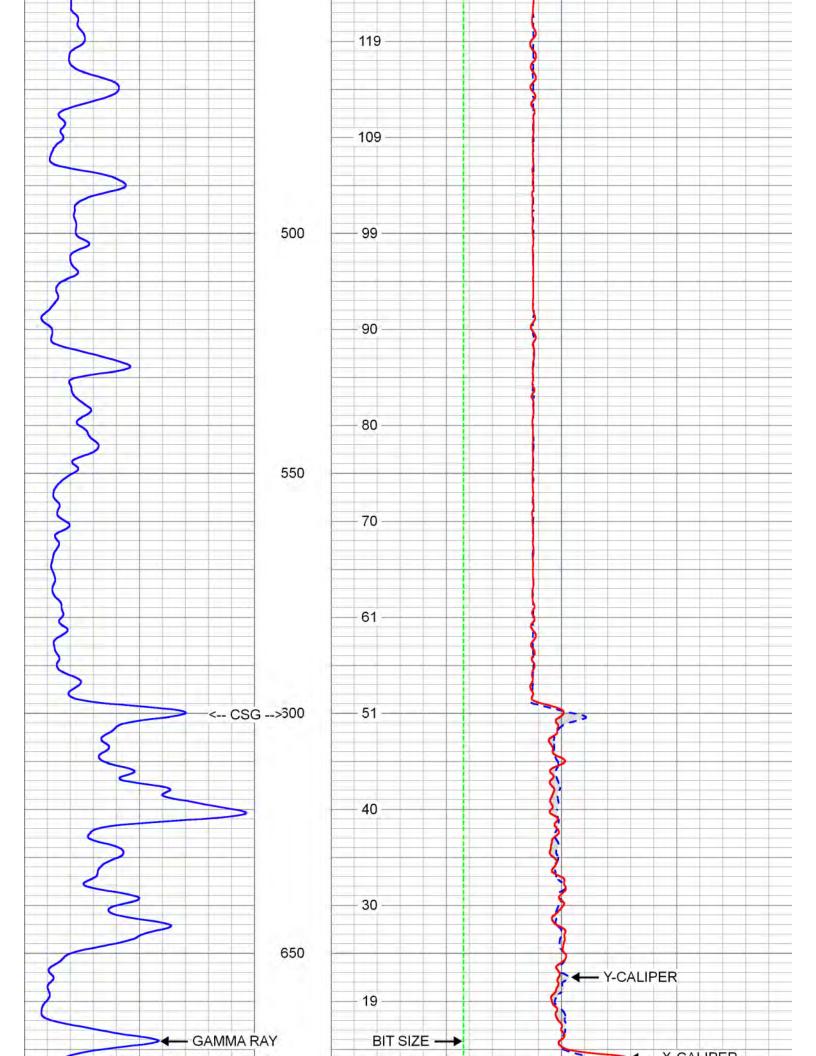
Y-CALIPER (in)

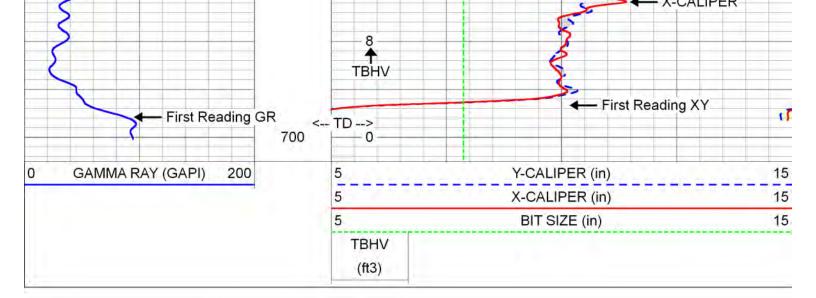


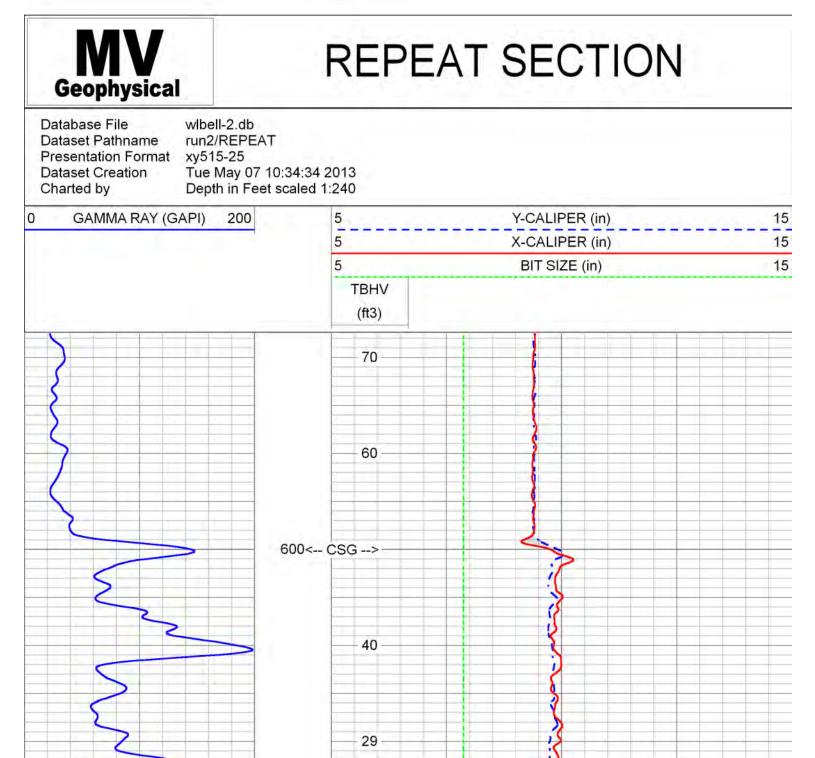


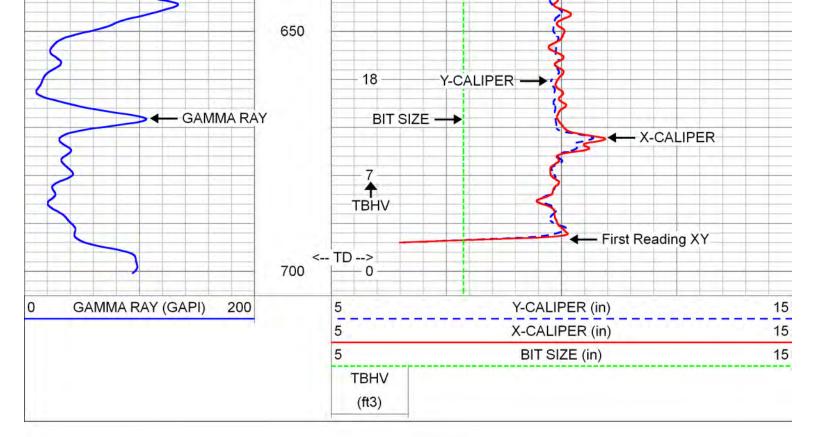






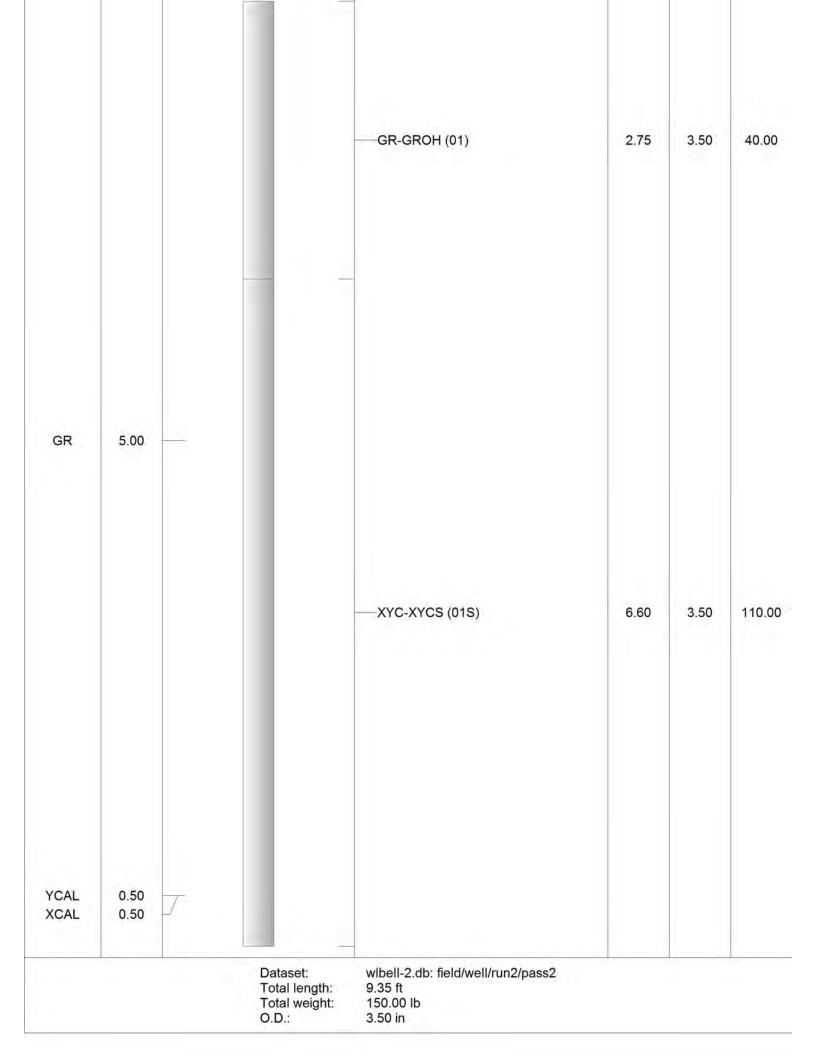


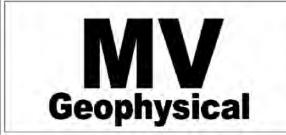




	Calibratio	n Report			
Database File wlbell-2.db		Sec. 19			
Dataset Pathname run2/pass2					
Dataset Creation Tue May 07 10:21	:18 2013				
	XY Caliper Cal	ibration Report			
Serial Number:	01S				
Tool Model:	XYCS				
Performed:	Tue M	ay 07 10:28:03 2	2013		
Small Ring:	9.375		in		
Large Ring:	33		in		
	X Cali	per	Y Caliper		
Reading with Small Ring:	634.7		665	cps	
Reading with Large Ring:	1133.3	3	1080.7	cps	
Gain:	0.0473	3827	0.0568318		
Offset:	-20.69	88	-28.4182		
	Gamma Ray Ca	libration Report			
Serial Number:	01				
Tool Model:	GROH				
Performed:	Tue May 07	09:59:57 2013			
Calibrator Value:	120.0	GAPI			
Background Reading:	14.2	cps			
Calibrator Reading:	134.8	cps			
Sensitivity:	0.9954	GAPI/cps			

Sensor	Offset (ft)	Schematic	Description	Length (ft) O.D. (in) Weight (lb

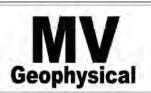




Company	Wells & Water Systems, Inc.			
Well	UFA-2			
Field	LaBelle			
County	Hendry			
State	Florida	Country	USA	

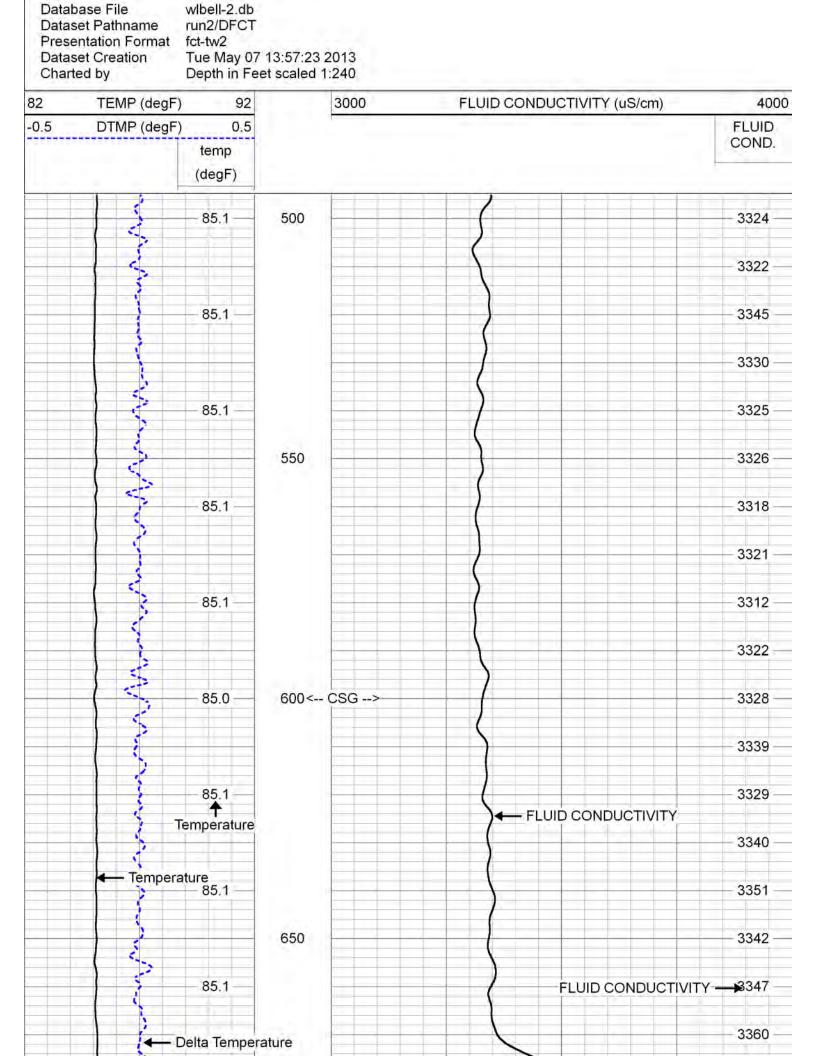
Invoice No.	Production String	Prot. String	Casing Record	UMI OMI		ber		Recorded By	Equipment Number	Time Logger on Bottom	Time Well Ready	Max. Recorded Temp.	Density / Viscosity	Type Fluid	Open Hole Size	Top Log Interval	Bottom Logger	Depth Londer	Depth Driller	Run Number	Date	Company Well Field County State	L L F	Vells & Water JFA-2 aBelle Hendry Florida	Syste	ems,		Intry	USA		Geop	2	
2013061		10.5" PVC	Size	000 018.7		Borehole Record Bit From				om	ob	, p					Val					Permanent Datum Log Measured From Drilling Measured From		Location:	State	County	Field			Joroni	Geophysical		
3x/pdf/las			Wgt/Ft	120			G, MurrayDoyle (MCI)	S.Miller/C.Miller	MVGS-1	10:45 5/7/2013	08:00 5/7/2013	NA	NA/NA	H2O	7.875"	495'	697'	697	720	TWO	MAY.	um G.L. From G.L. ed From G.L.	SEC TWP	API # : City of LaBelle N 871669.65 E 504488.27 Murray Consultants, Inc.	Florida	Hendry	LaBelle	UFA-2				FLU	
wlbell-2.db		130'	Top			Tubing Rec Weight	T.Rosenkranz (WWS)															Elevation	RGE	# : Selle 504488.27 ants, Inc.	Country USA				ystems, Inc.		LOG	FLUID CONDUCTIVI	
* FIELD PRINT *		600'	Bottom			From To															-	OLE KB	Elevation	Other Services XY/GR DHTV FLO,FCT	A						ŕ		
All i	nter any	pret	ation	ation, a	and	we s	hall	not	exe	cep ne n	t in l esul t to d	ting bur	froi gen	e o m a iera	f gro iny i il ter	inte ms	or erpr s ar	wi reta	Ilfu atio	l ne n r hdit	egl na tior	ligence on de by any ns set out	ou of c in c	d we cannot a r part, be liable our officers, ag our current Price performed	e or r gents ce Sc	espo or er	nsible nploy	e for	any los	ss, cos	sts, dam	ages, or	
				FLI						T	Cw VI	=3 TY	31 C	AL	uS _IB 12 20	,2 ,2	A 5/0 05	5.8		8	5.2 RI	2 degF EPORT CF 250 189 1495	@ () 5.4 5.4 5.4	Q=850 ( Performe 34 44 3	gpm d: 6	-M					5)		
					TE	EMF	PE	RA	π	JR	E	CA	LI			d 3 14	eg 7.3 7.	F 3 3		EF		DRT (P CP 145 254 189	.3 .5.	4	-M/	Υ <b>-</b>	201	3, 1	11:45	5)			

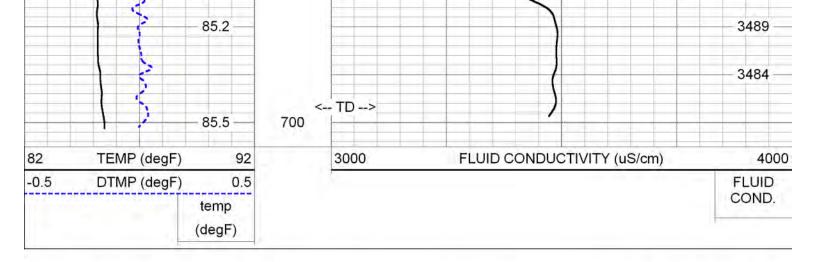
120,555



Dynamic FCT Down

1495.13





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (II
CCL	4.46		——CCL-MVGS 1.9 (MV01)	1.33	1.90	8.00
GR#2	1.15		——GR #2 -RTSB (MV01B)	3.33	1.90	10.00
TEMP	0.10		TEMP-RTS (MV01)	0.46	1.90	2.00
	11	Dataset: Total length: Total weight: O.D.:	wlbell-2.db: field/well/run2/pass3 5.12 ft 20.00 lb 1.90 in			1

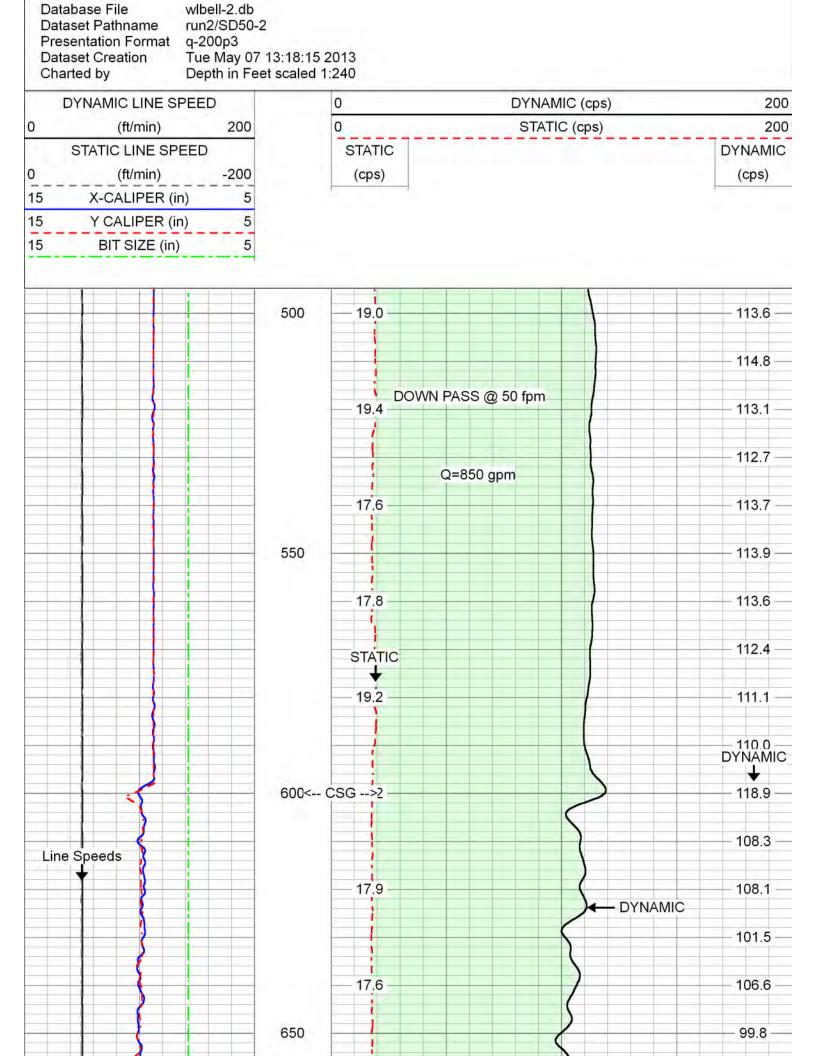


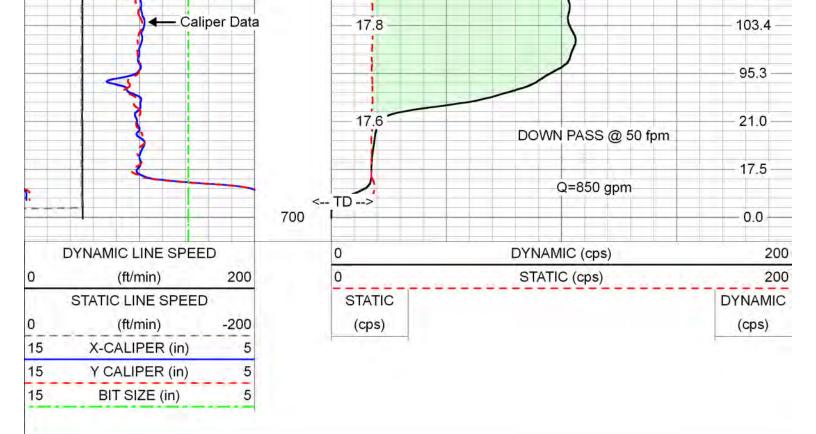
Company	Wells & Water Systems, Inc.		
Well	UFA-2		
Field	LaBelle		
County	Hendry		
Ctoto	Flavida	Country	LICA

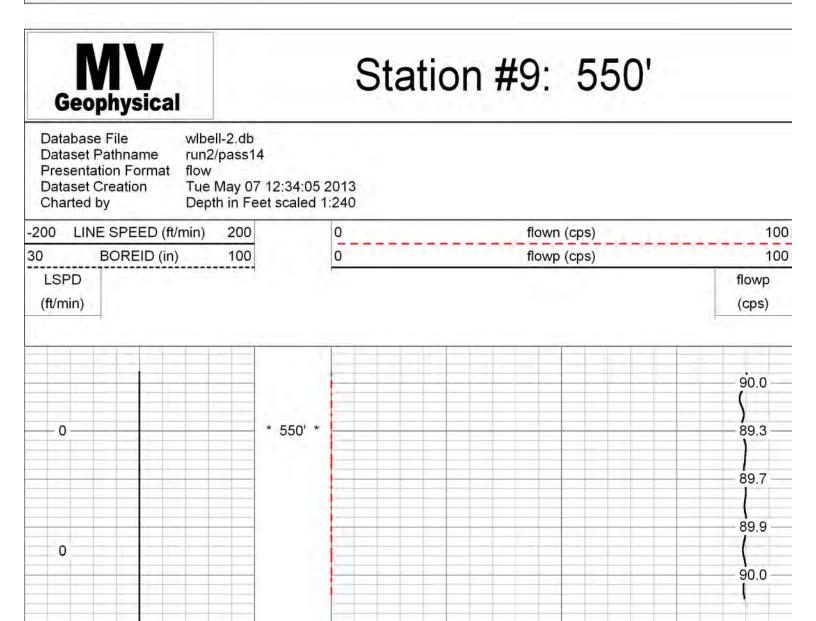


Well     UFA-2       Field     LaBelle       County     Hendry       State     Florida     Country USA       Plate     Country USA       State     Florida     Country USA       The Cale of tabum     Glassing       Two     But       Two       State     Florida     Country USA       Country USA       The Sec     Country USA       State     Florida     Country USA       Two     Sec     Florida       Two     Sec     Florida       Two     Sec     Florida       Two     Sec <th></th> <th>IVSICAL</th> <th>Wells &amp; Water t</th> <th>FLOWMETER LOG Systems, Inc.</th> <th></th> <th>ny loss, costs, damages, or</th> <th></th>		IVSICAL	Wells & Water t	FLOWMETER LOG Systems, Inc.		ny loss, costs, damages, or	
Image: State       Florida       County       Hendry         State       Florida       County       Hendry         State       Florida       County       Hendry         State       Florida       County       National State       Florida         Murray Consultants, Inc.       State       Florida       County       USA         Murray Consultants, Inc.       State       Florida       County       USA         Murray Consultants, Inc.       Florida       Florida       County       USA         Murray Consultants, Inc.       Florida       Florida       Florida       County       USA         Murray Consultants, Inc.       Florida       Florida       Florida       Florida       County       USA         Miled Chain       State       Florida       Florida       Florida       County       USA         Miled Chain       State       Florida       Gliphic       Basice       Florida       County       USA         Murray Consultants, Inc.       Florida       Florida       Florida       Florida       Hild         Murray Consultants, Inc.       Florida       Florida       Florida       Florida       Florida         Murray Consultants, Inc.	nc. Country USA	Company Well Field	Wells & Water Systems, Inc. UFA-2 LaBelle	Systems, Inc.		sible for any loss ployees. These i	
Image: State     Florida     Country     Hendry       Image: State     Florida     Country     N 871689.65 E 504488.27     Other Services       Image: State     Florida     Image: State     Florida     Image: State     Florida       Image: State     Florida     Image: State     Florida     Image: State     Florida       Image: State     Florida     Image: State     Florida     Image: State     Florida       Image: State     Florida     Image: State     Image: State <th></th> <th>County</th> <th>Hendry</th> <th></th> <th></th> <th>or em</th> <th></th>		County	Hendry			or em	
Image: Section of the section of t	Syste	State	Florida	Country US,	A	or reents	
Image	JFA-2 .aBelle Hendry			1 # : Belle 504488.27 tants, Inc.	Other Services XY/GR DHTV FLO,FCT	r part, be liable our officers, age	
ing     1     7.000 1       all     1     1       bit     1     1	Well Field County	Permanent Datur Log Measured Fr Drilling Measurec	Fron	Elevation	GL F.B.	igence on de by any o ns set out i	
a)       a) <td< td=""><td>Date</td><td></td><td>7-MAY-2013</td><td></td><td>-</td><td>negl ma dition</td><td></td></td<>	Date		7-MAY-2013		-	negl ma dition	
Iterval     697       y     1000       y     1000       y     1000       y     1100       string     1100 <td>Run Number</td> <td></td> <td>TWO</td> <td></td> <td></td> <td>Iful ition</td> <td></td>	Run Number		TWO			Iful ition	
Iterval     Iterval     4957       W     100     7875     100       Bitehole Record     SMiler/CMiler     NANA       Bitehole Record     SMiler/CMiler     NANA       Bitehole Record     GMurrayDoyle (MCI)     T.Rosenkranz (MWS)       10.5" PVC     9375"     204"     T16"       Size     Weight     From     11:30       10.5" PVC     9375"     10     SURFACE       9375     204"     T16     Size       9375     204"     Too     Size       Weight     Record     Miler/CMiler       10.5" PVC     9375" ID     SURFACE       9375" ID     SURFACE     Size       Weight     From     Too       130"     SURFACE     Bottom       4000"     Too     Size       9375" ID     SURFACE     Size       9375" ID     SURFACE     Size       930" Other     South     From       130" Other     South     From       900" Too     South     South       130" Other     South     South       130" Other     South     South       130" Other     South     South       130" Other     South     South <td< td=""><td>Depth Logger</td><td></td><td>697'</td><td></td><td></td><td>or wi</td><td></td></td<>	Depth Logger		697'			or wi	
Street     Street       9875"     204       11.30     57700       9875"     204       11.30     5772013       9875"     204       11.30     5772013       9875"     204       11.30     5772013       9875"     204       11.30     5772013       9875"     204       11.30     5772013       11.30     577201       11.30     577201       11.30     577201       11.50     577201       11.50     577201       11.50     57700       11.50	Bottom Logged Interva		697			ss o ter	
2013064     Waiter     H20       2013064     Waiter     H20       2013064     Bit     Suller/C Miler       Bit     From     11:30 5/7/2013       Bit     From     11:30 5/7/2013       Bit     From     It:30 5/7/2013       Bit     From     Too       Size     MurrayDoyle (MCI)     T.Rosenkranz (MWS)       Tubing Record     Tubing Record       Tubing Record     Tubing Record       10.5" PVC     9:375" ID       Size     Weight       Top     Size       Waiter     From       Top     Size       Waiter     From       130'     Bottom       130'     Size       204"     Top       Support     Size       Waiter     Size       Waiter     Top       Size     Weight       From     To       Support     Size       Waiter     Size       Waiter     Size       Waiter     Size       Size     Weight       Top     Size       Support     Size       Size     Size       Size     Size       Size     Size       Size	Open Hole Size		495" 7.875"			gros ny in	
y     NANA       emp.     NANA       it Top     SURFACE       emp.     NA       er     SURFACE       Bithole Record     MWGS-1       Bithole Record     S.Miller/C.Miller       Bithole Record     S.Miller/C.Miller       Bithole Record     S.Miller/C.Miller       Bithole Record     S.Miller/C.Miller       Bithole Record     Size       Vgt/Ft     Top       10.5" PVC     16" ID       9.375" ID     Size       Weight     From       Top     Size       Wather     Weight       Top     Size       Weight     From       Top     Size       Weight     Top       Bottom     Top       Size     Weight       Top     Size       Weight     From       Top     Size       Weight     Top       Size     Weight       Top     Size       Size     Weight       Top     Size       Size     Size       Weight     Top       Size     Size       Size     Size       Size     Size       Size     Size       S	Type Fluid		H20			e of ma	
Borton     SURFACE       Borton     11:30 5/7/2013       Borton     11:30 5/7/2013       Borton     MVGS-1       Fort Myers     S.Miller/C.Miller       Bit     From       To     Size       Weight     Thom       Size     Weight       Size     Weight       To     Size       Weight     From       To     Size       Size     Weight       Botton     To       Size     Weight       Size     Weight       To     Size       Size     Soldton       Size     Soldton       Size     Soldton       Size     Soldton       Size     Sold	Density / Viscosity Max Recorded Temp		NA/NA			cas g fro	
Borehole Record     11:30 5/7/2013       Borehole Record     Fort Myers       Bit     From       To     Size       Weight     From       To     Surface       Weight     From       To     Surface       Weight     From       To     Surface       Weight     From       Surface     Weight       Ford     Bottom       To     Surface       Surface     Weight       Ford     Bottom       Surface     Weight       Ford     Bottom       Surface     Surface       Surface     Surface       Surface     Surface       Surface     Surface <td< td=""><td>stimated Cement Top</td><td>0</td><td>SURFACE</td><td></td><td></td><td>the</td><td></td></td<>	stimated Cement Top	0	SURFACE			the	
Borehole Record     Fort Myers       Bit     Fort Myers       Bit     From       To     S.Miller/C.Miller       Bit     From       To     Size       Vight     T.Rosenkranz (WWS)       Tubing Record     Tubing Record       Bit     From       Size     Weight       To     Size       Weight     From       To     Size       Bottom     To       Size     Size       Weight     From       Size     Weight       Size     Size       Size     Size       Size     Size       Size     Size       Size     Size       Size     Size <td>Time Well Ready</td> <td>3</td> <td>08:00 5/7/2013</td> <td></td> <td></td> <td>pt in rest</td> <td></td>	Time Well Ready	3	08:00 5/7/2013			pt in rest	
Borehole Record       Fort Myers         Bit       From       T.Rosenkranz (WWS)         Bit       From       To         Size       Weight       From         18" PVC       720'       720'         18" PVC       16" ID       SURFACE         9.875"       204"       716'         9.875"       204"       716'         9.875"       204"       716'         9.875"       10'       Size         Weight       From       To         18" PVC       16" ID       SURFACE         18" PVC       9.375" ID       130'         9.875" ID       130'       600'         9.375" ID       130'       600'         410 Interpretations are opinions based or any interpretation, and we shall not, expenses incurred or sustained by any	Equipment Number		MVGS-1			exce	
Borehole Record     G. MurrayDoyle (MCl)     T.Rosenkranz (WWS)       Bit     From     To     Tubing Record       Bit     From     To     Size       9.875"     204"     716"       7.875"     600'     720'       7.875"     600'     720'       18" PVC     716"     ID       18" PVC     16" ID     SURFACE       18" PVC     9.375" ID     130'       18" PVC     9.375" ID     130'       18" PVC     9.375" ID     130'       410 Interpretations are opinions base any interpretation, and we shall	ocation		Fort Myers			not, e any	
Borehole Record     Tubing Record       Bit     From     To       Size     Weight     From       18" PVC     720"     720"       18" PVC     16" ID     SURFACE       204"     16" ID     SURFACE       204"     16" ID     130"       800"     720"     800"       10.5" PVC     16" ID     SURFACE       204"     16" ID     130"       8000"     130"     600"       410 Interpretations are opinions I any interpretation, and we sh	Nitnessed By		G.MurrayDoyle (MCI)	T.Rosenkranz (WWS)		nall I	
9.875"         204"         716"           7.875"         600"         720"           18" PVC         18" PVC         16" ID           10.5" PVC         16" ID         SURFACE           9.875"         000"         720"           10.5" PVC         16" ID         SURFACE           9.875"         9.375" ID         SURFACE           9.875"         9.375" ID         130"           8000"         130"         600"           9.975"         10         SURFACE           8000"         130"         600"           9.975"         10         100"           10.5" PVC         9.375" ID         9.375" ID           110 PVC         9.375" ID         9.04"           110 PVC         9.375" ID         9.04"           8000"         130"         600"           411 Interpretations are opin any interpretation, and         100"		it From	To	Tubing Rec Weight	3	we sh	
Size     WgtFt       10.5" PVC     16" ID       10.5" PVC     16" ID       10.5" PVC     9.375" ID       130'     600'       400 Here       All interpretations any interpretations						are opin on, and	
18" PVC         16" ID         SURFACE         204"           10.5" PVC         9.375" ID         130'         600'         600'         600'         410' </td <td>Casing Record</td> <td>Size</td> <td>Wgt/Ft</td> <td>Тор</td> <td></td> <td>ations : pretations</td> <td></td>	Casing Record	Size	Wgt/Ft	Тор		ations : pretations	
ONIGHT Syladillac whall o dh * EIEI D DDINT * AI	Prot. String Prot. String	18" PVC 10.5" PVC	16" ID 9,375" ID	SURFACE 130'		nterpreta ny interp	
	Invoice No.	2013061	3x/pdf/las	wlbell-2.db	* FIELD PRINT *	All i	

Dynamic Down @ 50 fpm







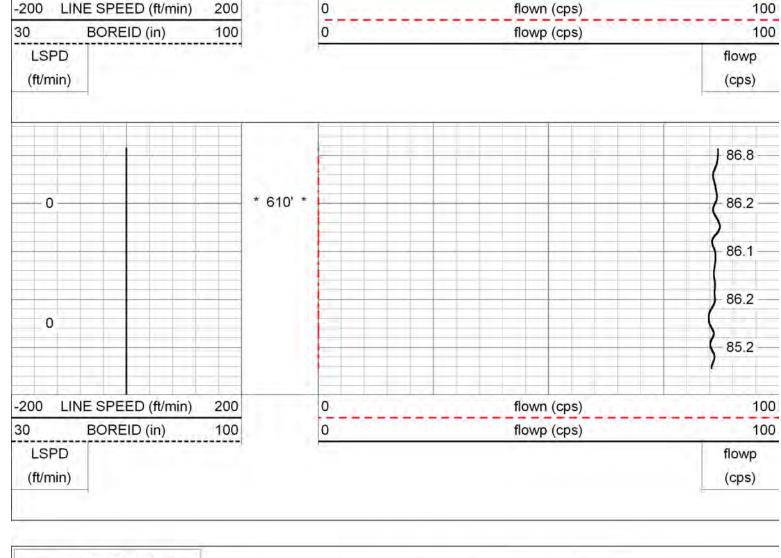
100	flown (cps)	0	200	LINE SPEED (ft/min)	-200
100	flowp (cps)	0	100	BOREID (in)	30
flowp		h		D	LSP
(cps)				n)	(ft/m

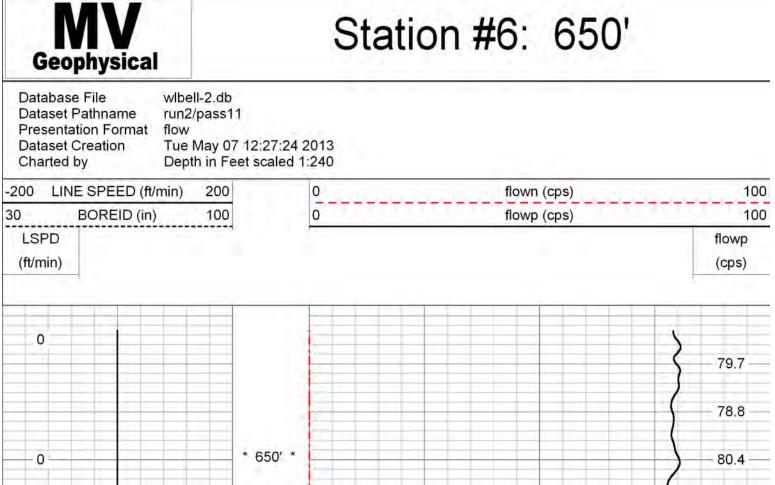
Geophysical Database File wlbell-2.db run2/pass1			8: 605		
Presentation Format flow Dataset Creation Tue May 0 Charted by Depth in Fe	7 12:31:44				
-200 LINE SPEED (ft/min) 200	1.000	0	 flown (cps)	102010	100
30 BOREID (in) 100 LSPD (ft/min)		0	flowp (cps)		100 flowp (cps)
				(	
Ō				}	- 78.8 -
				<	- 78.9
				5	78.4
0	* 605' *			(	— 78.7 —
-200 LINE SPEED (ft/min) 200		0	flown (cps)	1.	100
30 BOREID (in) 100		0	flowp (cps)		100
LSPD (ft/min)					flowp (cps)

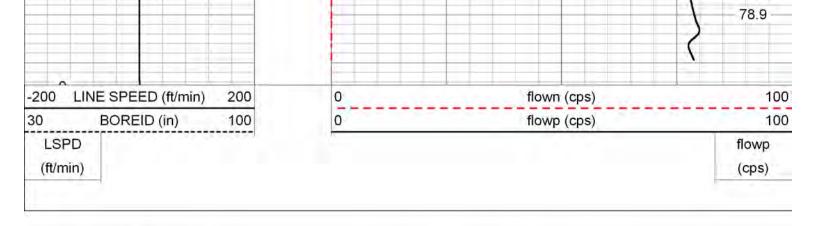
Station #7: 610'

Database File Dataset Pathname Presentation Format Dataset Creation Charted by

wlbell-2.db run2/pass12 flow Tue May 07 12:30:05 2013 Depth in Feet scaled 1:240



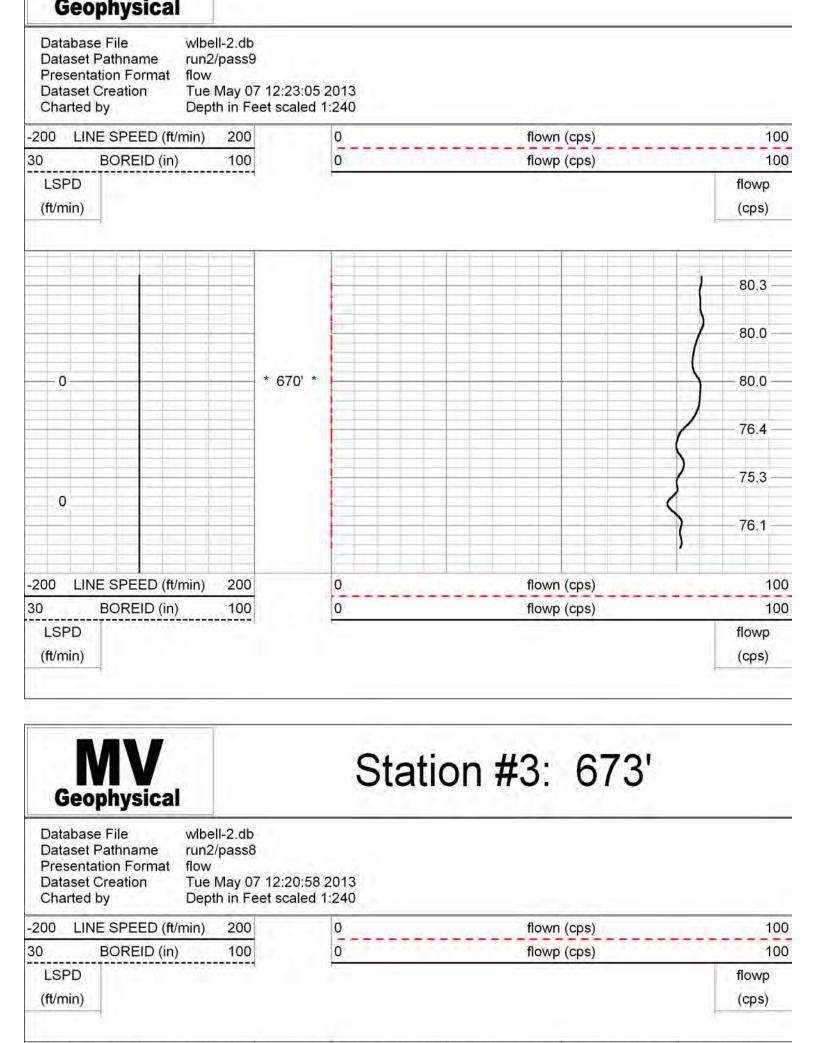


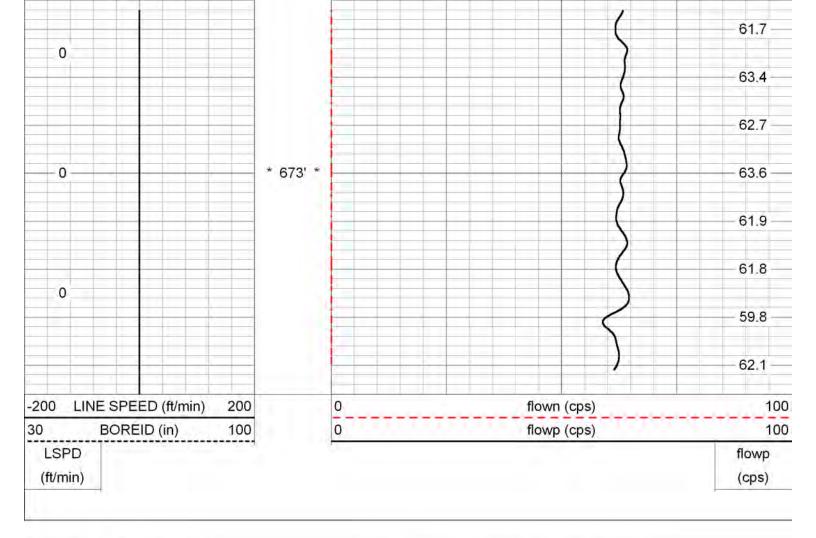


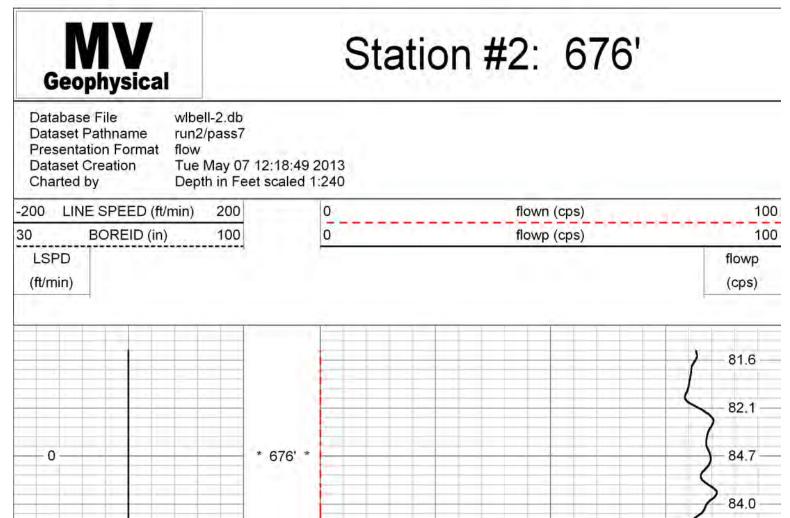
Database File wlbell-2.d					
Dataset Pathname run2/pass Presentation Format flow Dataset Creation Tue May (		2013 1:240			
200 LINE SPEED (ft/min) 200		0	1424241	flown (cps)	100
30 BOREID (in) 100	)	0	0.00	flowp (cps)	100
LSPD (ft/min)					flowp (cps)
0	-				
					81.1
					81.7
	* 660' *				80.7
					80.8
					80.4
		-		A	
200         LINE SPEED (ft/min)         200           30         BOREID (in)         100	-	0		flown (cps) flowp (cps)	100
LSPD (ff/min)	4	1 <u></u>			flowp (cps)

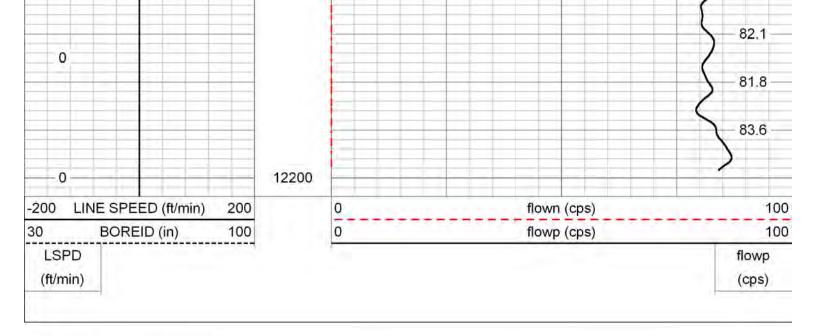
MV

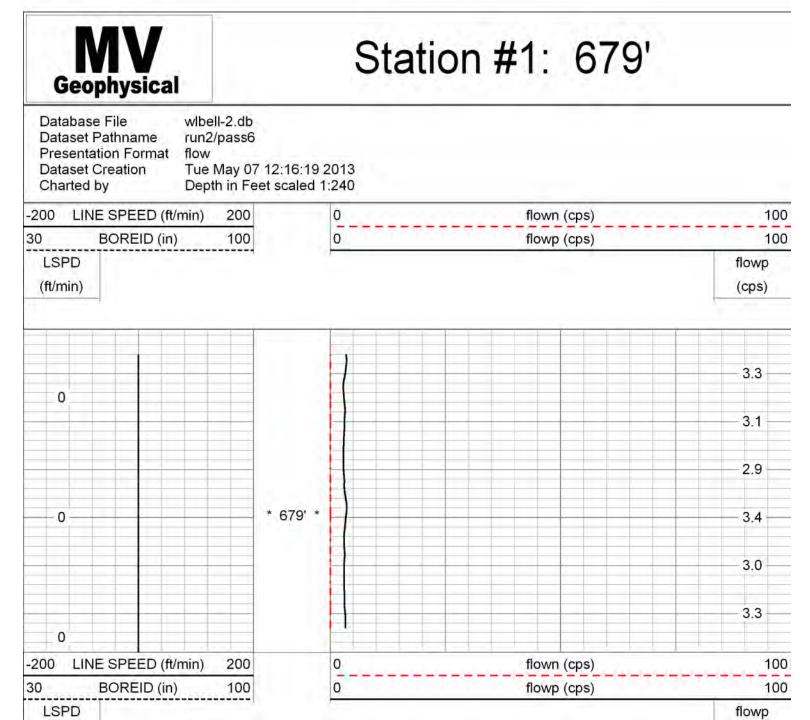
Station #4: 670'











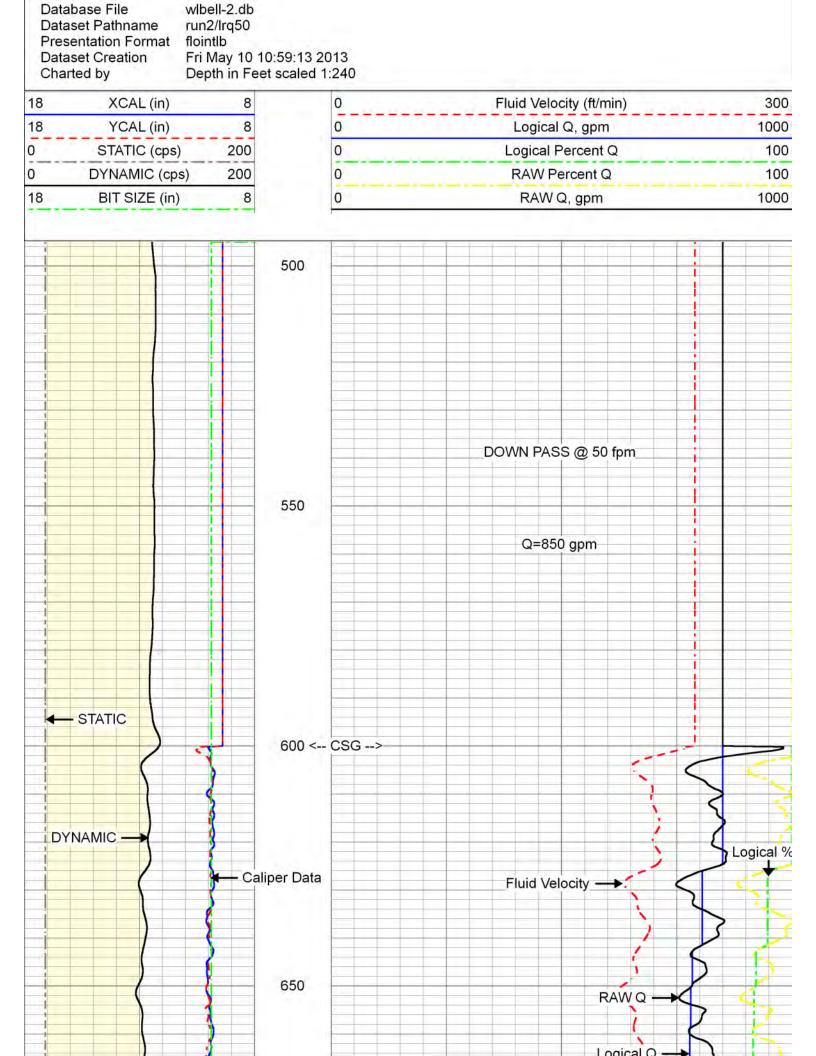
10	11-		1
- (1	t/n	nır	1)
1.	-		·/

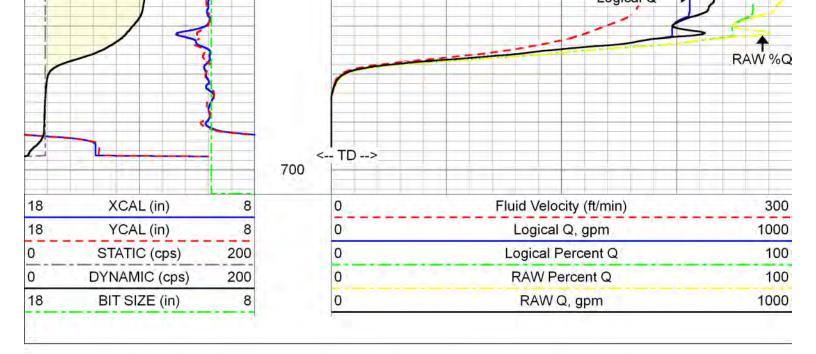
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (It
			FLOW-LARGE (65)	4.80	3.75	35.00
FLOWN FLOWP	0.00 0.00					
		Dataset: Total length: Total weight: O.D.:	wlbell-2.db: field/well/run2/pass14 4.80 ft 35.00 lb 3.75 in			

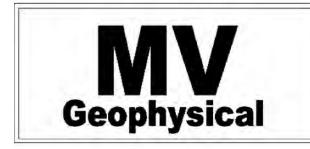
MV	Company Well Field	Wells & Water Systems, Inc. UFA-2		
Geophysical	County	LaBelle Hendry		
Ceopinysieai	State	Florida	Country	USA

Liner Invoice No.	Prot. String Production String	Surface String	Casing Record		TWO	Run Number		Witnessed By	Recorded By	Incation	Fauinment Numher	Time Vell Ready	Estimated Cement Top	Max. Recorded Temp.	Density / Viscosity	Type Fluid	Open Hole Size	Top I og Interval	Depth Logger	Depth Driller	Run Number	Date	Company Well Field County	L	Vells & Water JFA-2 aBelle Hendry	Syster	ns, Ir	10.			Geop
-		-			7.875"	Bit	Bore				Pr		tTop	emp.				terval					State	F	lorida		-	-		USA	ophysic
1205100	10.5" PVC	18" PVC	Size		5" 600'		Borehole Record																Permanent Datum Log Measured From Drilling Measured From	0	Location:	State	County	Field	Well	Company	<b>MV</b> Geophysical
3v/ndflac	9.375" ID	16	Wgt/Ft		720	10	-	G, MurrayDoyle (MCI)	S.Miller/C.Miller	Fort Myers	MVGS-1	11:00 00/02/02/04	SURFACE	NA	NANA	H20	7 875"	169	697	720	TWO	7-MAY-2013	m G.L. rom G.L. d From G.L.	SEC TWP		Florida	Hendry	LaBelle	UFA-2	Wells & Water Systems, Inc.	
filac	o" ID	ō	VFt			Size	2		ę		0	0	5							-				RG	API # : City of LaBelle N 871669.65 E 504488.27 Murray Consultants, Inc.					iter Syste	INTE
wibell-2 db	130	SURFACE	Top			Weight	Tubing Record	T.Rosenkranz (WWS)															Elevation	m	88.27 Inc.	Country USA				ms, Inc.	FLOWMETER
ň			_			From	ecord																			USA					TION
* FIELD PRINT *	600	204	Bottom			10																	GL FB	Elevation	Other Services XY/GR DHTV FLO,FCT						2
All i	any in	reta terj	ation preta	s are	e opi	d w	e sl	nall	no	nyc	xce	pt i res	n th sulti	ne c ng t	ase	e of n a	gro ny ir	nter	or v pre	villf	ul r	neg ma	ligence on ide by any	of	r part, be liabl	e or res gents o	spon r em	sible ploy	for	any loss	curacy or correctness s, costs, damages, or interpretations are als
	_			_						_				_	_			_		(	Co	mn	nents	_			_	_	_		
				orr	ect	ec	1 "	R/	AN	/'	an erp	ore	ar eta	n ir ntic	nte on	as	da	tat im ow	ive es	e " s n pa	L( o	this w	BICAL'' ief zone vas per	for for	egular Lir rmat. Th (i.e., Q & rmed @ 5	e ''LC %Q	)Gl cai	CA	L"	Q, %	Q and
																		9 9					perform	iec	ı.						
																				Q=	=8	50	) gpm.								
	_																														

Logical/Raw F.Vel., Q & %Q

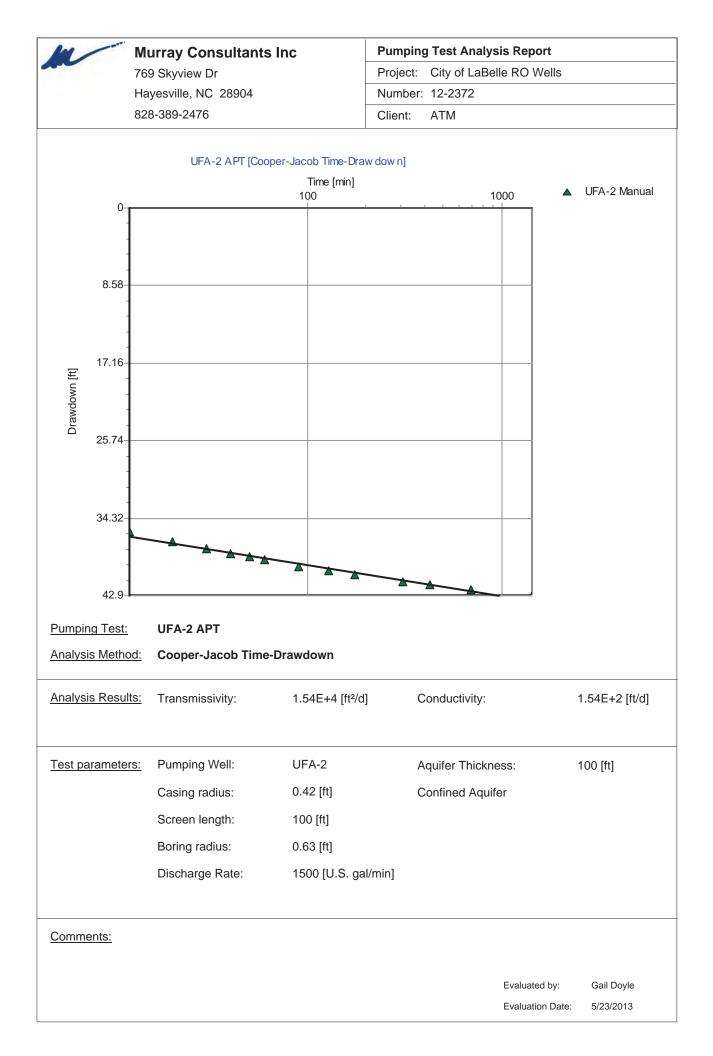




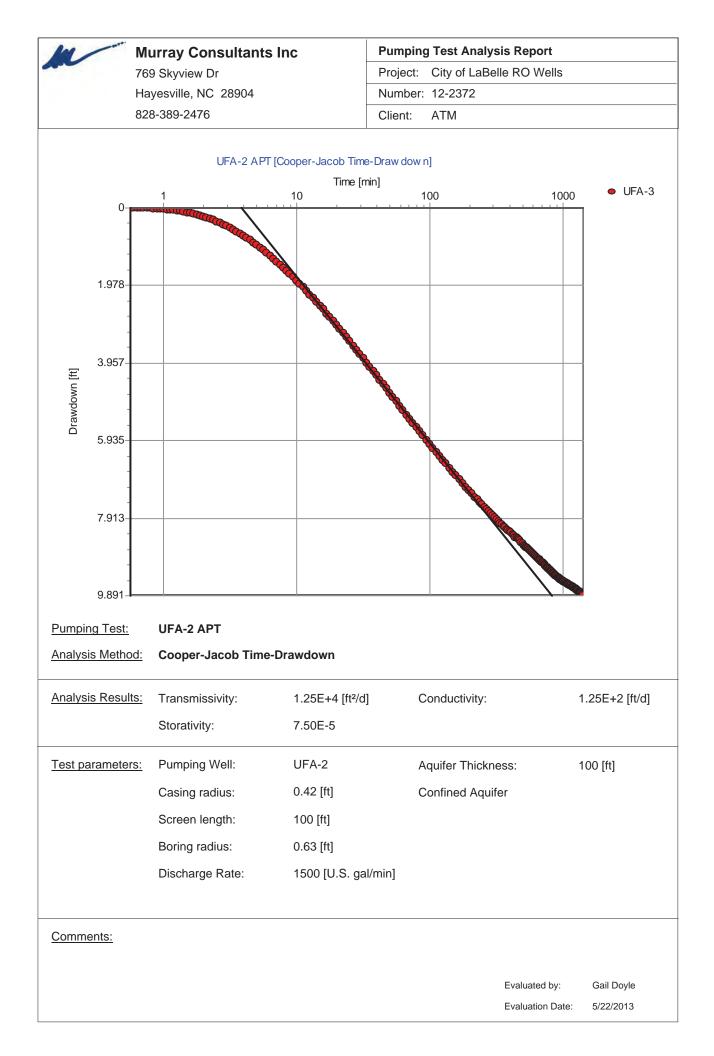


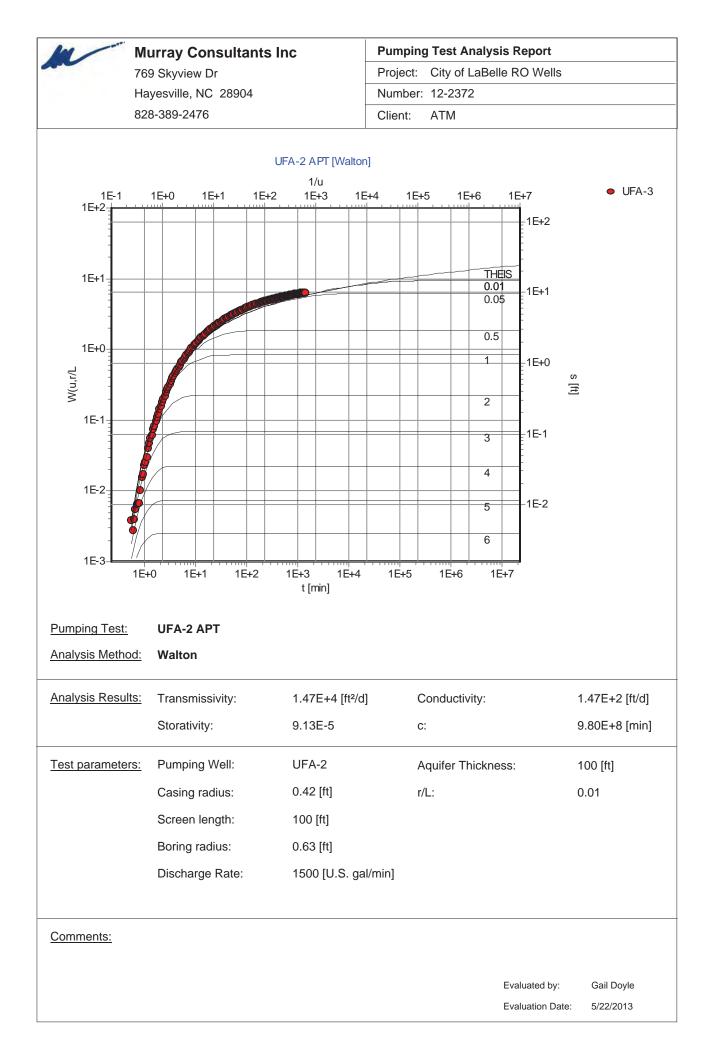
State	Florida	Country	USA	
County	Hendry			
Field	LaBelle			
Well	UFA-2			
Company	Wells & Water Systems, Inc.			

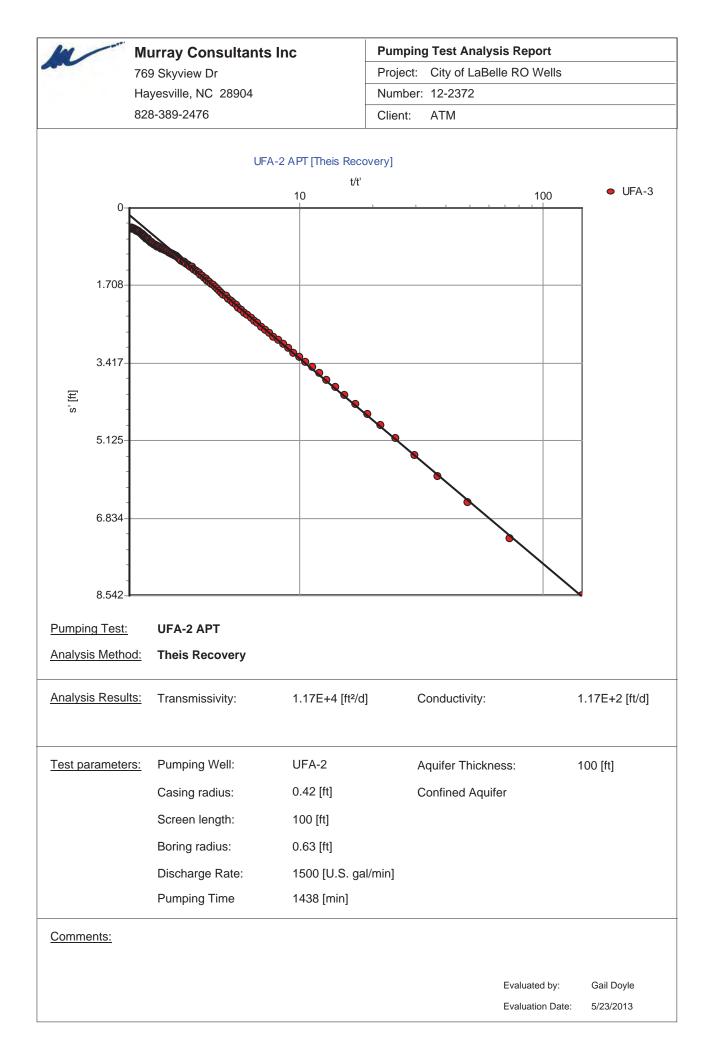
## **APPENDIX C**



M	Murray Consultants	Inc	Pumping Test Data	a Report		
	769 Skyview Dr		Project: City of LaBelle RO Wells			
	Hayesville, NC 28904		Number: 12-2372			
	828-389-2476		Client: ATM		Page 7	
Data o	bserved at: UFA-2 Manual		Pumping Test:	UFA-2 APT		
Distan	ce from PW: 0 [ft]		Pumping Well:	UFA-2		
Depth	to Static WL: 0 [ft]		Casing radius:	0.42 [ft]		
Locatio	on: City of LaBelle WTP	2 Wellfield	Boring radius:	0.63 [ft]		
Record	ded by: Gail Doyle		Screen length:	100 [ft]		
Date:	5/21/2013		Aquifer Thickness:	100 [ft]		
	Time [min]	Dep	oth to WL [ft]	Drawdown [ft]		
1	12		35.79	35.79		
2	20		36.91	36.91		
3	30		37.74	37.74		
4	40		38.24	38.24		
5	50		38.63	38.63		
6	60		38.96	38.96		
7	90		39.64	39.64		
8	128		40.18	40.18		
9	175		40.62	40.62		
10	308		41.34	41.34		
11	424		41.69	41.69		
12	696		42.24	42.24		
13	1434		42.90	42.90		







m	769 Skyview Dr	Inc	Pumping Test Dat Project: City of La	•	
	Hayesville, NC 28904		Number: 12-2372		
	828-389-2476		Client: ATM		Page
Data ob	oserved at: UFA-3		Pumping Test:	UFA-2 APT	
Distance	e from PW: 1000 [ft]		Pumping Well:	UFA-2	
Depth to	o Static WL: 0 [ft]		Casing radius:	0.42 [ft]	
Locatior	n: City of LaBelle WTP 2	Wellfield	Boring radius:	0.63 [ft]	
Recorde	ed by: Gail Doyle		Screen length:	100 [ft]	
Date:	5/21/2013		Aquifer Thickness:	100 [ft]	
	Time [min]	D	epth to WL [ft]	Drawdown [ft]	
1	0.562		0.01	0.01	
2	0.596		0.00	0.00	
3	0.631		0.01	0.01	
4	0.668		0.01	0.01	
5	0.708		0.01	0.01	
6	0.75		0.01	0.01	
7	0.794		0.01	0.01	
8	0.841		0.02	0.02	
9	0.891		0.02	0.02	
10	0.944		0.03	0.03	
11	1		0.04	0.04	
12	1.06		0.04	0.04	
13	1.12		0.05	0.05	
14	1.19		0.06	0.06	
15	1.26		0.07	0.07	
16	1.33		0.09	0.09	
17	1.41		0.09	0.09	
18	1.5		0.12	0.12	
19	1.58		0.13	0.13	
20	1.68		0.15	0.15	
21	1.78		0.17	0.17	
22	1.88		0.19	0.19	
23	1.99		0.22	0.22	
24	2.11		0.25	0.25	
25	2.24		0.28	0.28	
26	2.37		0.31	0.31	
27	2.51		0.35	0.35	
28	2.66		0.39	0.39	
29	2.82		0.43	0.43	
30	2.98		0.46	0.46	
31	3.16		0.51	0.51	

m	Murray Consultants I 769 Skyview Dr		Data Report LaBelle RO Wells
	Hayesville, NC 28904	Number: 12-237	
	828-389-2476	Client: ATM	Page 2
Data ob	served at: UFA-3	Pumping Test:	UFA-2 APT
Distance	e from PW: 1000 [ft]	Pumping Well:	UFA-2
Depth to	Static WL: 0 [ft]	Casing radius:	0.42 [ft]
Location	city of LaBelle WTP 2	Wellfield Boring radius:	0.63 [ft]
Recorde	ed by: Gail Doyle	Screen length:	100 [ft]
Date:	5/21/2013	Aquifer Thicknes	ss: 100 [ft]
	Time [min]	Depth to WL [ft]	Drawdown [ft]
32	3.35	0.56	0.56
33	3.55	0.61	0.61
34	3.76	0.65	0.65
35	3.98	0.71	0.71
36	4.22	0.77	0.77
37	4.47	0.83	0.83
38	4.73	0.89	0.89
39	5.01	0.95	0.95
40	5.31	1.02	1.02
41	5.62	1.08	1.08
42	5.96	1.15	1.15
43	6.31	1.22	1.22
44	6.68	1.29	1.29
45	7.08	1.37	1.37
46	7.5	1.45	1.45
47	7.94	1.52	1.52
48	8.41	1.60	1.60
49	8.91	1.69	1.69
50	9.44	1.77	1.77
51	10	1.86	1.86
52	10.6	1.94	1.94
53	11.2	2.02	2.02
54	11.9	2.13	2.13
55	12.6	2.22	2.22
56	13.3	2.31	2.31
57	14.1	2.40	2.40
58	15	2.50	2.50
59	15.8	2.59	2.59
60	16.8	2.70	2.70
61	17.8	2.79	2.79
62	18.8	2.88	2.88

m	Murray Consultants Inc		Pumping Test Da	ta Report	
	769 Skyview Dr		Project: City of La	Belle RO Wells	
	Hayesville, NC 28904		Number: 12-2372		
	828-389-2476		Client: ATM		Page
Data ob	oserved at: UFA-3		Pumping Test:	UFA-2 APT	
Distanc	e from PW: 1000 [ft]		Pumping Well:	UFA-2	
Depth to	o Static WL: 0 [ft]		Casing radius:	0.42 [ft]	
Location	n: City of LaBelle WTP 2	2 Wellfield	Boring radius:	0.63 [ft]	
Recorde	ed by: Gail Doyle		Screen length:	100 [ft]	
Date:	5/21/2013		Aquifer Thickness:	100 [ft]	
	Time [min]		Depth to WL [ft]	Drawdown [ft	:]
63	19.9		2.99	2.99	
64	21.1		3.09	3.09	
65	22.4		3.20	3.20	
66	23.7		3.30	3.30	
67	25.1		3.41	3.41	
68	26.6		3.52	3.52	
69	28.2		3.62	3.62	
70	29.8		3.73	3.73	
71	31.6		3.84	3.84	
72	33.5		3.95	3.95	
73	35.5		4.06	4.06	
74	37.6		4.17	4.17	
75	39.8		4.28	4.28	
76	42.2		4.39	4.39	
77	44.7		4.50	4.50	
78	47.3		4.61	4.61	
79	50.1		4.72	4.72	
80	53.1		4.84	4.84	
81	56.2		4.94	4.94	
82	59.6		5.06	5.06	
83	63.1		5.16	5.16	
84	66.8		5.28	5.28	
85	70.8		5.38	5.38	
86	75		5.49	5.49	
87	79.4		5.60	5.60	
88	84.1		5.70	5.70	
89	89.1		5.81	5.81	
90	94.4		5.92	5.92	
91	100		6.02	6.02	
92	106		6.13	6.13	
93	112		6.23	6.23	

m			Pumping Test Dat	a Report	
	769 Skyview Dr		Project: City of La	Belle RO Wells	
	Hayesville, NC 28904		Number: 12-2372		
	828-389-2476		Client: ATM		Page 4
Data observe	ed at: UFA-3		Pumping Test:	UFA-2 APT	
Distance from	n PW: 1000 [ft]		Pumping Well:	UFA-2	
Depth to Stat	ic WL: 0 [ft]		Casing radius:	0.42 [ft]	
Location:	City of LaBelle WTP 2	Wellfield	Boring radius:	0.63 [ft]	
Recorded by:	Gail Doyle		Screen length:	100 [ft]	
Date:	5/21/2013		Aquifer Thickness:	100 [ft]	
	Time [min]	D	epth to WL [ft]	Drawdown [ft]	
94	119		6.33	6.33	
95	126		6.43	6.43	
96	133		6.53	6.53	
97	141		6.63	6.63	
98	150		6.74	6.74	
99	158		6.83	6.83	
100	168		6.94	6.94	
101	178		7.03	7.03	
102	188		7.13	7.13	
103	198		7.21	7.21	
104	208		7.29	7.29	
105	218		7.37	7.37	
106	228		7.45	7.45	
107	238		7.51	7.51	
108	248		7.57	7.57	
109	258		7.64	7.64	
110	268		7.70	7.70	
111	278		7.75	7.75	
112	288		7.80	7.80	
113	298		7.85	7.85	
114	308		7.90	7.90	
115	318		7.95	7.95	
116	328		7.99	7.99	
117	338		8.04	8.04	
118	348		8.08	8.08	
119	358		8.12	8.12	
120	368		8.15	8.15	
121	378		8.20	8.20	
122	388		8.23	8.23	
123	398		8.26	8.26	
124	408		8.29	8.29	

m	Murray Consultants Inc	Pumping Test Da	ta Report
	769 Skyview Dr	Project: City of La	Belle RO Wells
	Hayesville, NC 28904	Number: 12-2372	
	828-389-2476	Client: ATM	Page
Data observe	ed at: UFA-3	Pumping Test:	UFA-2 APT
Distance from	PW: 1000 [ft]	Pumping Well:	UFA-2
Depth to Stati	c WL: 0 [ft]	Casing radius:	0.42 [ft]
Location:	City of LaBelle WTP 2 Wellfiel	d Boring radius:	0.63 [ft]
Recorded by:	Gail Doyle	Screen length:	100 [ft]
Date:	5/21/2013	Aquifer Thickness:	100 [ft]
	Time [min]	Depth to WL [ft]	Drawdown [ft]
125	418	8.32	8.32
126	428	8.36	8.36
127	438	8.40	8.40
128	448	8.42	8.42
129	458	8.45	8.45
130	468	8.47	8.47
131	478	8.50	8.50
132	488	8.53	8.53
133	498	8.57	8.57
134	508	8.61	8.61
135	518	8.63	8.63
136	528	8.67	8.67
137	538	8.67	8.67
138	548	8.69	8.69
139	558	8.71	8.71
140	568	8.75	8.75
141	578	8.77	8.77
142	588	8.80	8.80
143	598	8.82	8.82
144	608	8.85	8.85
145	618	8.87	8.87
146	628	8.89	8.89
147	638	8.91	8.91
148	648	8.94	8.94
149	658	8.96	8.96
150	668	8.98	8.98
151	678	9.00	9.00
152	688	9.02	9.02
153	698	9.04	9.04
154	708	9.06	9.06
155	718	9.08	9.08

m	769 Skyview Dr	Pumping Test Date Project: City of La	
	Hayesville, NC 28904	Number: 12-2372	
	828-389-2476	Client: ATM	Page
Data obse	erved at: UFA-3	Pumping Test:	UFA-2 APT
	rom PW: 1000 [ft]	Pumping Well:	UFA-2
Depth to S	Static WL: 0 [ft]	Casing radius:	0.42 [ft]
Location:	City of LaBelle WTP 2 Wellfiel	d Boring radius:	0.63 [ft]
Recorded		Screen length:	100 [ft]
Date:	5/21/2013	Aquifer Thickness:	
	Time [min]	Depth to WL [ft]	Drawdown [ft]
156	728	9.10	9.10
157	738	9.12	9.12
158	748	9.14	9.14
159	758	9.16	9.16
160	768	9.18	9.18
161	778	9.20	9.20
162	788	9.22	9.22
163	798	9.24	9.24
164	808	9.26	9.26
165	818	9.27	9.27
166	828	9.29	9.29
167	838	9.31	9.31
168	848	9.32	9.32
169	858	9.33	9.33
170	868	9.35	9.35
171	878	9.37	9.37
172	888	9.38	9.38
173	898	9.40	9.40
174	908	9.41	9.41
175	918	9.43	9.43
176	928	9.43	9.43
177	938	9.45	9.45
178	948	9.46	9.46
179	958	9.47	9.47
180	968	9.48	9.48
181	978	9.50	9.50
182	988	9.51	9.51
183	998	9.52	9.52
184	1008	9.52	9.52
185	1018	9.53	9.53
186	1028	9.54	9.54

m	<b>Murray Consultants Inc</b> 769 Skyview Dr	Pumping Test Da Project: City of La	-
	Hayesville, NC 28904	Number: 12-2372	
	828-389-2476	Client: ATM	Page
Data obse	rved at: UFA-3	Pumping Test:	UFA-2 APT
Distance fr	om PW: 1000 [ft]	Pumping Well:	UFA-2
Depth to St	tatic WL: 0 [ft]	Casing radius:	0.42 [ft]
Location:	City of LaBelle WTP 2 Wellfield	d Boring radius:	0.63 [ft]
Recorded b	oy: Gail Doyle	Screen length:	100 [ft]
Date:	5/21/2013	Aquifer Thickness:	100 [ft]
	Time [min]	Depth to WL [ft]	Drawdown [ft]
187	1038	9.55	9.55
188	1048	9.56	9.56
189	1058	9.56	9.56
190	1068	9.58	9.58
191	1078	9.58	9.58
192	1088	9.59	9.59
193	1098	9.60	9.60
194	1108	9.61	9.61
195	1118	9.62	9.62
196	1128	9.62	9.62
197	1138	9.63	9.63
198	1148	9.64	9.64
199	1158	9.65	9.65
200	1168	9.66	9.66
201	1178	9.66	9.66
202	1188	9.67	9.67
203	1198	9.68	9.68
204	1208	9.69	9.69
205	1218	9.69	9.69
206	1228	9.70	9.70
207	1238	9.71	9.71
208	1248	9.72	9.72
209	1258	9.73	9.73
210	1268	9.73	9.73
211	1278	9.75	9.75
212	1288	9.75	9.75
213	1298	9.76	9.76
214	1308	9.77	9.77
215	1318	9.78	9.78
216	1328	9.79	9.79
217	1338	9.80	9.80

11	Murray Consultants Inc		Pumping Test Dat	a Report	
	769 Skyview Dr		Project: City of La	Belle RO Wells	
	Hayesville, NC 28904		Number: 12-2372		
	828-389-2476		Client: ATM		Page 8
Data ob	oserved at: UFA-3		Pumping Test:	UFA-2 APT	
Distance	e from PW: 1000 [ft]		Pumping Well:	UFA-2	
Depth to	o Static WL: 0 [ft]		Casing radius:	0.42 [ft]	
Location	n: City of LaBelle WTP 2	Wellfield	Boring radius:	0.63 [ft]	
Recorde	ed by: Gail Doyle		Screen length:	100 [ft]	
Date:	5/21/2013		Aquifer Thickness:	100 [ft]	
	Time [min]		Depth to WL [ft]	Drawdown [ft]	
218	1348		9.81	9.81	
219	1358		9.82	9.82	
220	1368		9.84	9.84	
221	1378		9.85	9.85	
222	1388		9.86	9.86	
223	1398		9.87	9.87	
224	1408		9.88	9.88	
225	1418		9.89	9.89	
226	1428		9.90	9.90	
227	1438		9.91	9.91	
228	1448		8.54	8.54	
229	1458		7.28	7.28	
230	1468		6.48	6.48	
231	1478		5.91	5.91	
232	1488		5.45	5.45	
233	1498		5.09	5.09	
234	1508		4.79	4.79	
235	1518		4.54	4.54	
236	1528		4.32	4.32	
237	1538		4.12	4.12	
238	1548		3.94	3.94	
239	1558		3.79	3.79	
240	1568		3.65	3.65	
241	1578		3.52	3.52	
242	1588		3.40	3.40	
243	1598		3.29	3.29	
244	1608		3.19	3.19	
245	1618		3.10	3.10	
246	1628		3.00	3.00	
247	1638		2.91	2.91	
248	1648		2.84	2.84	

m			Pumping Test Da	ta Report	
	769 Skyview Dr Hayesville, NC 28904		Project: City of La	Belle RO Wells	
	Hayesville, NC 28904		Number: 12-2372		
	828-389-2476		Client: ATM		Page
Data obs	served at: UFA-3		Pumping Test:	UFA-2 APT	
Distance	from PW: 1000 [ft]		Pumping Well:	UFA-2	
Depth to	Static WL: 0 [ft]		Casing radius:	0.42 [ft]	
Location:	City of LaBelle WTP 2	Wellfield	Boring radius:	0.63 [ft]	
Recorded	d by: Gail Doyle		Screen length:	100 [ft]	
Date:	5/21/2013		Aquifer Thickness:	100 [ft]	
	Time [min]	D	epth to WL [ft]	Drawdown [ft]	
249	1658		2.76	2.76	
250	1668		2.69	2.69	
251	1678		2.62	2.62	
252	1688		2.55	2.55	
253	1698		2.49	2.49	
254	1708		2.43	2.43	
255	1718		2.37	2.37	
256	1728		2.31	2.31	
257	1738		2.25	2.25	
258	1748		2.20	2.20	
259	1758		2.15	2.15	
260	1768		2.09	2.09	
261	1778		2.04	2.04	
262	1788		2.00	2.00	
263	1798		1.95	1.95	
264	1808		1.92	1.92	
265	1818		1.87	1.87	
266	1828		1.83	1.83	
267	1838		1.79	1.79	
268	1848		1.75	1.75	
269	1858		1.71	1.71	
270	1868		1.67	1.67	
271	1878		1.63	1.63	
272	1888		1.60	1.60	
273	1898		1.57	1.57	
274	1908		1.54	1.54	
275	1918		1.50	1.50	
276	1928		1.47	1.47	
277	1938		1.44	1.44	
278	1948		1.42	1.42	
279	1958		1.39	1.39	

m	Murray Consultants Inc		Pumping Test Da	•	
	769 Skyview Dr		Project: City of La	Belle RO Wells	
	Hayesville, NC 28904		Number: 12-2372		
	828-389-2476		Client: ATM		Page 1
Data obs	erved at: UFA-3		Pumping Test:	UFA-2 APT	
Distance f	Distance from PW: 1000 [ft]		Pumping Well:	UFA-2	
Depth to \$	Static WL: 0 [ft]		Casing radius:	0.42 [ft]	
Location:	City of LaBelle WTP 2	Wellfield	Boring radius:	0.63 [ft]	
Recorded	I by: Gail Doyle		Screen length:	100 [ft]	
Date:	5/21/2013		Aquifer Thickness:	100 [ft]	
	Time [min]	D	epth to WL [ft]	Drawdown [ft]	
280	1968		1.36	1.36	
281	1978		1.34	1.34	
282	1988		1.31	1.31	
283	1998		1.29	1.29	
284	2008		1.28	1.28	
285	2018		1.27	1.27	
286	2028		1.24	1.24	
287	2038		1.22	1.22	
288	2048		1.20	1.20	
289	2058		1.18	1.18	
290	2068		1.17	1.17	
291	2078		1.14	1.14	
292	2088		1.12	1.12	
293	2098		1.11	1.11	
294	2108		1.08	1.08	
295	2118		1.07	1.07	
296	2128		1.07	1.07	
297	2138		1.05	1.05	
298	2148		1.03	1.03	
299	2158		1.02	1.02	
300	2168		1.01	1.01	
301	2178		1.00	1.00	
302	2188		0.98	0.98	
303	2198		0.98	0.98	
304	2208		0.96	0.96	
305	2218		0.95	0.95	
306	2228		0.94	0.94	
307	2238		0.93	0.93	
308	2248		0.92	0.92	
309	2258		0.91	0.91	
310	2268		0.90	0.90	

m	769 Skyview Dr	Pumping Test Da Project: City of La	-	
	Hayesville, NC 28904	Number: 12-2372		
	828-389-2476	Client: ATM		Page 1
Data obse	rved at: UFA-3	Pumping Test:	UFA-2 APT	0
	rom PW: 1000 [ft]	Pumping Well:	UFA-2	
	tatic WL: 0 [ft]	Casing radius:	0.42 [ft]	
Location:	City of LaBelle WTP 2 Wellfield	Boring radius:	0.63 [ft]	
Recorded	•	Screen length:	100 [ft]	
Date:	5/21/2013	Aquifer Thickness:		
	Time [min]	Depth to WL [ft]	Drawdown [ft]	
311	2278	0.90	0.90	
312	2288	0.88	0.88	
313	2298	0.88	0.88	
314	2308	0.87	0.87	
315	2318	0.86	0.86	
316	2328	0.85	0.85	
317	2338	0.84	0.84	
318	2348	0.84	0.84	
319	2358	0.83	0.83	
320	2368	0.81	0.81	
321	2378	0.81	0.81	
322	2388	0.80	0.80	
323	2398	0.78	0.78	
324	2408	0.77	0.77	
325	2418	0.77	0.77	
326	2428	0.75	0.75	
327	2438	0.74	0.74	
328	2448	0.73	0.73	
329	2458	0.72	0.72	
330	2468	0.71	0.71	
331	2478	0.69	0.69	
332	2488	0.68	0.68	
333	2498	0.68	0.68	
334	2508	0.66	0.66	
335	2518	0.65	0.65	
336	2528	0.64	0.64	
337	2538	0.63	0.63	
338	2548	0.62	0.62	
339	2558	0.61	0.61	
340	2568	0.60	0.60	
341	2578	0.59	0.59	

IN	Murray Consultants	Inc								
	769 Skyview Dr		Project: City of La	Belle RO Wells						
	Hayesville, NC 28904		Number: 12-2372							
	828-389-2476		Client: ATM		Page 1					
Data obse	erved at: UFA-3		Pumping Test:	UFA-2 APT						
Distance f	rom PW: 1000 [ft]		Pumping Well:	UFA-2						
Depth to S	Static WL: 0 [ft]		Casing radius:	0.42 [ft]						
Location:	City of LaBelle WTP 2	2 Wellfield	Boring radius:	0.63 [ft]						
Recorded	by: Gail Doyle		Screen length:	100 [ft]						
Date:	5/21/2013		Aquifer Thickness:	100 [ft]						
	Time [min]	l	Depth to WL [ft]	Drawdown [ft]						
342	2588		0.58	0.58						
343	2598		0.57	0.57						
344	2608		0.57	0.57						
345	2618		0.56	0.56						
346	2628		0.55	0.55						
347	2638		0.54	0.54						
348	2648		0.53	0.53						
349	2658		0.52	0.52						
350	2668		0.51	0.51						
351	2678		0.51	0.51						
352	2688		0.50	0.50						
353	2698		0.50	0.50						
354	2708		0.49	0.49						
355	2718		0.49	0.49						
356	2728		0.48	0.48						
357	2738		0.48	0.48						
358	2748		0.47	0.47						
359	2758		0.46	0.46						
360	2768		0.47	0.47						
361	2778		0.46	0.46						
362	2788		0.46	0.46						
363	2798		0.46	0.46						
364	2808		0.45	0.45						
365	2818		0.45	0.45						
366	2828		0.45	0.45						
367	2838		0.46	0.46						
368	2848		0.46	0.46						
369	2858		0.46	0.46						
370	2868		0.46	0.46						
371	2878		0.46	0.46						

# **APPENDIX D**

## BENCHMARK

EnviroAnalytical Inc.

FDOH Certification #E84167

Wells & Water Systems Inc.

NEW DRINKING WATER 1

4696 Elevation Way Fort Myers , FI 33905 ANALYTICAL TEST REPORT THESE RESULTS MEET NELAC STANDARDS

**REPORT NUMBER:** 

SYSTEM ID:

13050374 001

SYSTEM NAME: Labelle Well PW2 - Pri & Sec

	Parameter			ANALYSIS				DATE	TIME	
I.D.	NAME	(MCL)	UNITS	RESULT	QUALIFIER	METHOD	MDL	ANALYZED	ANALYZED	LAB ID
	CALCIUM		MG/L	86.1		200.7	0.030	05/20/2013	15:06	E84167
	IRON, DISSOLVED		MG/L	0.029	U	200.7	0.029	05/20/2013	15:01	E84167
	MAGNESIUM		MG/L	75.6		200.7	0.006	05/20/2013	15:06	E84167
	POTASSIUM		MG/L	19.7		200.7	0.169	05/20/2013	15:06	E84167
	SILICA, TOTAL		MG/L	12.2		200.7	0.004	05/20/2013	15:06	E84167
	STRONTIUM		MG/L	23.6		200.7	0.001	05/20/2013	15:06	E84167
	TOTAL PHOSPHORUS AS P		MG/L	0.008	U	365.3	0.008	05/13/2013	12:27	E84167
	BICARBONATE ALKALINITY (CACO3)		MG/L	90.5		SM2320B	0.594	05/13/2013	10:50	E84167
	CARBONATE ALKALINITY (CACO3)		MG/L	0.594	U	SM2320B	0.594	05/13/2013	10:50	E84167
	IRON (FERROUS)		MG/L	0.05	U	SM3500FE-B	0.05	05/09/2013	16:30	E84167
	CARBON DIOXIDE (CO2)		MG/L	83.2		SM4500-CO2		05/28/2013	14:14	E84167
	SILICA, DISSOLVED		MG/L	13.7		SM4500SIO2-C	0.044	05/30/2013	11:00	E84167
	TOTAL ORGANIC CARBON		MG/L	0.684	0.0	SM5310B	0.271	05/10/2013	22:47	E84167
	ALUMINUM, DISSOLVED	0.2	MG/L	0.040	1	200.7	0.023	05/20/2013	15:01	E84167
	MANGANESE, DISSOLVED	0.05	MG/L	0.001	- 18 I	200.7	0.00098	05/20/2013	15:01	E84167
	HYDROGEN SULFIDE, UNIONIZED		MG/L	0.397		SM4500-SH	0.003	05/23/2013	15:00	E84167
	SULFIDE, TOTAL		MG/L	3.25		SM4500S2D	0.028	05/13/2013	14:00	E84167

#### DATA QUALIFIERS THAT MAY APPLY:

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J = Estimated value.

Q =Sample held beyond accepted holdtime. U = Analyte analyzed but not detected at the value indicated.

#### NOTES:

V = Analyte detected in sample and method blank.Results for this analyte in associated samples may be blased high. Standard , Duplicate and Spike values are within control limits. Reported data are usable MBAS calculated as LAS; molecular weight = 348. X = Value exceeds MCL. ND = Not Detected at or above adjusted reporting limit.

C = The lab does not hold TNI accreditation for this parameter.

For guestions and comments regarding these results, please contact Bettina Beilfuss at (941) 723-9986

## **INORGANIC ANALYSIS**

62-550.310 (1)

SYSTEM NAME: Labelle Well PW2 - Pri & Sec

001

SYSTEM ID:

	Parameter			ANALYSIS				DATE	TIME	
I.D.	NAME	(MCL)	UNITS	RESULT	QUALIFIER	METHOD	MDL	ANALYZED	ANALYZED	LAB ID
	AMMONIA NITROGEN		MG/L	0.234		350.1	0.008	05/13/2013	13:14	E84167
	TOTAL KJELDAHL NITROGEN		MG/L	0.305		351.2	0.05	05/17/2013	12:11	E84167
1040	NITRATE NITROGEN	10	MG/L	0.060	U	300.0	0.060	05/09/2013	19:35	E84167
1041	NITRITE NITROGEN	1.0	MG/L	0.041	U	300.0	0.041	05/09/2013	19:35	E84167
1038	NITRATE+NITRITE AS N	10	MG/L	0.060	U	300.0	0.060	05/09/2013	19:35	E84167
1005	ARSENIC	0.010	MG/L	0.00069	U	SM3113B	0.00069	05/23/2013	15:11	E84167
1010	BARIUM	2	MG/L	0.024	1	200.7	0.002	05/20/2013	15:06	E84167
1015	CADMIUM	0.005	MG/L	0.0009	U	200.7	0.0009	05/20/2013	15:06	E84167
1020	CHROMIUM	0.1	MG/L	0.002	U	200.7	0.002	05/20/2013	15:06	E84167
1024	CYANIDE	0.2	MG/L	0.005	U	335.4	0.005	05/17/2013	12:34	E84167
1025	FLUORIDE	4.0	MG/L	0.030	U	300.0	0.030	05/11/2013	02:54	E84167
1030	LEAD	0.015	MG/L	0.00067	υ	SM3113B	0.00067	05/22/2013	11:15	E84167
1035	MERCURY	0.002	MG/L	0.000198	U	245.1	0.000198	05/16/2013	14:14	E84167
1036	NICKEL	0.1	MG/L	0.008		200.7	0.00118	05/20/2013	15:06	E84167
1045	SELENIUM	0.05	MG/L	0.00157	U	SM3113B	0.00157	05/24/2013	14:32	E84167
1052	SODIUM	160	MG/L	478	x	200.7	0.034	05/20/2013	15:06	E84167
1074	ANTIMONY	0.006	MG/L	0.00226	U	SM3113B	0.00226	05/24/2013	11:12	E84167
1075	BERYLLIUM	0.004	MG/L	0.0005		200.7	0.000078	05/20/2013	15:06	E84167
1085	THALLIUM	0.002	MG/L	0.00169	U	200.9	0.00169	05/21/2013	16:36	E84167

#### DATA QUALIFIERS THAT MAY APPLY:

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## VOLATILE ORGANICS

62-550.310 (4) (A)

#### REPORT NUMBER: 13050374

13050374 001

SYSTEM NAME: Labelle Well PW2 - Pri & Sec SYSTEM ID:

	Parameter			ANALYSIS				DATE	TIME	Side 1
I.D	NAME	(MCL)	UNITS	RESULT	QUALIFIER	METHOD	MDL	ANALYZED	ANALYZED	LAB ID
23	78 1,2,4-TRICHLOROBENZENE	70	UG/L	0.15	U	524.2	0.15	05/14/2013	22:46	E84167
23	30 CIS-1,2-DICHLOROETHYLENE	70	UG/L	0.11	U	524.2	0.11	05/14/2013	22:46	E84167
29	55 XYLENES, TOTAL	10000	UG/L	0.13	υ	524.2	0.13	05/14/2013	22:46	E84167
29	54 DICHLOROMETHANE	5	UG/L	0.20	Ù	524.2	0.20	05/14/2013	22:46	E84167
29	68 O-DICHLOROBENZENE	600	UG/L	0.11	U	524.2	0.11	05/14/2013	22:46	E84167
29	9 P-DICHLOROBENZENE	75	UG/L	0.10	U	524.2	0.10	05/14/2013	22:46	E84167
29	76 VINYL CHLORIDE	1	UG/L	0.15	U	524.2	0.15	05/14/2013	22:46	E84167
29	77 1.1-DICHLOROETHENE	7	UG/L	0.11	U	524.2	0.11	05/14/2013	22:46	E84167
29	79 TRANS-1,2-DICHLOROETHENE	100	UG/L	0.12	U	524.2	0.12	05/14/2013	22:46	E84167
29	80 1,2-DICHLOROETHANE	3	UG/L	0.16	U	524.2	0.16	05/14/2013	22:46	E84167
29	81 1,1,1-TRICHLOROETHANE	200	UG/L	0.10	U	524.2	0.10	05/14/2013	22:46	E84167
29	82 CARBON TETRACHLORIDE	3	UG/L	0.20	U	524.2	0.20	05/14/2013	22:46	E84167
29	83 1,2-DICHLOROPROPANE	5	UG/L	0.15	U	524.2	0.15	05/14/2013	22:46	E84167
29	84 TRICHLOROETHENE	3	UG/L	0.12	U	524.2	0.12	05/14/2013	22:46	E84167
29	85 1,1,2-TRICHLOROETHANE	5	UG/L	0.14	U -	524.2	0.14	05/14/2013	22:46	E84167
29	87 TETRACHLOROETHENE	3	UG/L	0.20	U	524.2	0.20	05/14/2013	22:46	E84167
29	89 MONOCHLOROBENZENE	100	UG/L	0.10	U	524.2	0.10	05/14/2013	.22:46	E84167
29	90 BENZENE	1	UG/L	0.12	. U -	524.2	0.12	05/14/2013	22:46	E84167
29	91 TOLUENE	1000	UG/L	0.11	U	524.2	0.11	05/14/2013	22:46	E84167
29		700	UG/L	0.11	U	524.2	0.11	05/14/2013	22:46	E84167
29		100	UG/L	0.10	U	524.2	0.10	05/14/2013	22:46	E84167
		100								

#### DATA QUALIFIERS THAT MAY APPLY:

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J4 = Est. value. Sample matrix interference suspected.

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#### NOTES:

V = Analyte detected in sample and method blank. Results for this analyte in associated samples may be biased high. Standard , Duplicate and Spike values are within control limits. Reported data are usable

MBAS calculated as LAS; molecular weight = 348.

X = Value exceeds MCL.

ND = Not Detected at or above adjusted reporting limit.

C = The lab does not hold TNI accreditation for this parameter.

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## SYNTHETIC ORGANICS

62-550.310 (4) (b)

### REPORT NUMBER: 13050374

001

SYSTEM ID:

SYSTEM NAME: Labelle Well PW2 - Pri & Sec

	Parameter			ANALYSIS	*			DATE	TIME	
I.D.	NAME	(MCL)	UNITS	RESULT	QUALIFIER	METHOD	MDL	ANALYZED	ANALYZED	LAB ID
2005	ENDRIN	2.0	UG/L	0.0020	U	508.1	0.0020	05/15/2013	18:33	E83079
2010	GAMMA-BHC (LINDANE)	0.2	UG/L	0.0031	U	508.1	0.0031	05/15/2013	18:33	E83079
2015	METHOXYCHLOR	40	UG/L	0.0140	U	508.1	0.0140	05/15/2013	18:33	E83079
2020	TOXAPHENE	3.0	UG/L	0.6200	U	508.1	0.6200	05/15/2013	18:33	E83079
2031	DALAPON	200	UG/L	0.8900	U	515.3	0.8900	05/17/2013	14:26	E83079
2032	DIQUAT	200	UG/L	0.1500	U	549.2	0.1500	05/16/2013	12:33	E83079
2033	ENDOTHALL	100	UG/L	2.7000	U	548.1	2.7000	05/14/2013	12:41	E83079
2034	GLYPHOSATE	700	UG/L	2.1000	- U	547	2.1000	05/13/2013	21:01	E83079
2035	DI(2-ETHYLHEXYL)ADIPATE	400	UG/L	0.3900	U	525.2	0.3900	05/15/2013	19:56	E83079
2036	OXAMYL	200	UG/L	0.4100	U	531.1	0.4100	05/17/2013	07:40	E83079
2037	SIMAZINE	4.0	UG/L	0.0450	U	508.1	0.0450	05/15/2013	18:33	E83079
2039	DI(2-ETHYLHEXYL)PHTHALATE	6.0	UG/L	0.5100	U	525.2	0.5100	05/15/2013	19:56	E83079
2040	PICLORAM	500	UG/L	0.0940	U	515.3	0.0940	05/17/2013	14:26	E83079
2041	DINOSEB	7.0	UG/L	0.1600	U	515.3	0.1600	05/17/2013	14:26	E83079
2042	HEXACHLOROCYCLOPENTADIENE	50	UG/L	0.0120	U	508.1	0.0120	05/15/2013	18:33	E83079
2046	CARBOFURAN	40	UG/L	0.3200	υ	531.1	0.3200	05/17/2013	07:40	E83079
2050	ATRAZINE	3.0	UG/L	0.0210	U	508.1	0.0210	05/15/2013	18:33	E83079
2051	ALACHLOR	2	UG/L	0.0350	U	508.1	0.0350	05/15/2013	18:33	E83079
2063	DIOXIN SCREEN		UG/L	ND	С	525.2	0.0000	05/15/2013	19:56	E83079
2065	HEPTACHLOR	0.4	UG/L	0.0061	U	508.1	0.0061	05/15/2013	18:33	E83079
2067	HEPTACHLOR EPOXIDE	0.2	UG/L	0.0031	U	508.1	0.0031	05/15/2013	18:33	E83079
2105	2,4-D	70	UG/L	0.0810	U	515.3	0.0810	05/17/2013	14:26	E83079
2110	2,4,5-TP (SILVEX)	50	UG/L	0.1600	U	515.3	0.1600	05/17/2013	14:26	E83079
2274	HEXACHLOROBENZENE	1.0	UG/L	0.0110	U	508.1	0.0110	05/15/2013	18:33	E83079
2306	BENZO(A)PYRENE	0.2	UG/L	0.0190	U	525.2	0.0190	05/15/2013	19:56	E83079
2326	PENTACHLOROPHENOL	1.0	UG/L	0.0300	U	515.3	0.0300	05/17/2013	14:26	E83079
2383	PCB	0.5	UG/L	0.0810	U	508.1	0.0810	05/15/2013	18:33	E83079
2931	1,2-DIBROMO-3-CHLOROPROPANE	0.20	UG/L	0.014	U	504.1	0.014	05/10/2013	20:09	E84167
2946	ETHYLENE DIBROMIDE	0.02	UG/L	0.01	U	504.1	0.01	.05/10/2013	20:09	E84167
2959	CHLORDANE	2.0	UG/L	0.0480	U	508.1	0.0480	05/15/2013	18:33	E83079
			100 C							

NEW DRINKING WATER 1

#### DATA QUALIFIERS THAT MAY APPLY:

I = Reported value is between the laboratory MDL and the PQL. (PQL = 4 x MDL). J = Estimated value.

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- co. value, cample matrix interference suspect O = Comple held have a constant building.

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Results relate only to the samples.

### RADIONUCLIDES

62-550.310 (6)

### REPORT NUMBER: 13050374 001 SYSTEM NAME: Labelle Well PW2 - Pri & Sec SYSTEM ID:

	Parameter			ANALYSIS				DATE	TIME	
I.D.	NAME	(MCL)	UNITS	RESULT	QUALIFIER	METHOD	MDL	ANALYZED	ANALYZED	LAB ID
4000	GROSS ALPHA	15	PCI/L	10.3+/-3.9		900.0	5.0	05/21/2013	10:02	E83033
4020	RADIUM-226	5	PCI/L	2.9+/-0.5		903.1	0.1	05/23/2013	14:57	E83033
4030	RADIUM-228		PCI/L	1.4+/-0.5		904.0	0.7	05/22/2013	13:08	E83033

#### DATA QUALIFIERS THAT MAY APPLY:

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### SECONDARY CONTAMINANTS 62-550.320

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WWW.Bench Chain of Cu	stody Forn	10.000	Well P						47.14	2		L	aborat	ory S	ubmis	sion #:		130	30503 3-c65	19/13	3
Method of E	Sb, As, Ba,	Dissolved	Ferrous	1	nple Type Gross a,	VOCs		Sample		1.1.1.1.1.1.	des and f	CB's)	-		MBAS	Dissolved	Ödor	100		TOC	-
Sample ID	Be, Cd, Cr, Pb, Hg, Ni, Se, Na, TI Al, Cu, Fe, Mn, Ag, Zn Ca Mg K Sr Total Silica	AI-Fe Mn (Lab Filtered)	Irọń		Radium- 226 & 228		Carabamates 531.1	Pesticides 508, 608	EDB/DBCP 504.1	Herbicides 515.3	Semivolatiales 525.2	Glyphosate 547	Endotball 548.1	Diquat 549.2	(Foaning Agents)	Silica (Lab Filtered)		NH, TKN	TDS Color/pH pH*** NO <sub>2</sub> (300.0) NO <sub>3</sub> (300.0) NO <sub>3</sub> -NO <sub>2</sub> (Calc.) Fluoride B/C-Alkalinity Carbon Dioxide	-	Iotal/Hydrogen Sulfide
	I: 4 HNO; pH<2 □	Plain	Plain	NaOH pH>9 □	1:4 HNO₃ pH<2 ⊡	NaThio 1:1 HCI*	MCAA <del>Nis:0</del> 5	NaS2O3 1:1 HCI*	NaS <sub>2</sub> O <sub>3</sub>	NaS:O:	NaS:0; 1:1 HCI*	Na\$2O3	NaS <sub>2</sub> O <sub>3</sub>	NaS <sub>2</sub> O3 H <sub>2</sub> SO4	Plain	Plain	Plain	1.4 H2SO4 pH<20	Plain 🗰	1:1 HCI	ZnC Na pH>
	1 x 1 Quar Plastic-	T x: V: Pint Plastic	I x 500mL Opaque Plastic	1 x 250mL Plastic	l x 2 Quart Plastic	3 x 40mL Glass Vials	2 x • 40mL • Glass Vials	2 x 1 • Liter Glass •	2 x 40mL Glass Vials	l x 250mL Glass	2 x 1 Liter Glass	2 x 40mL Glass Vials	l x 500mL Amber Glass	1 x 1 Liter Plastic	I x I Quan Plastic	1 x ½ Pint Plastic	1 x 250mL Amber Glass	I x ½ Pint Plastic	1 x 1 Quart Plastic	l x 40mL Glass Vial	l x Pi Pla
PW2	Date: 04743 Time: 5/	9/13 -	~>	22	to each both		H <sub>2</sub> SO <sub>4</sub>	to samp Received	** )le.	**Dio>	0975 tin Scree Fill all 3	vials C	* COMPL	ETELY	0940 , there c	0940 an be NO	095Z		0940	8959	09:
Cardina ID. F	w2		-	-			рн	Received	atter 1	5 minu		time, o eld Para						4			_
Station ID:	/13		Tempera	ature (°C	)	Conducti	vity (µm	ho/cm)		D.O. (	mg/L)			pH (s	.u.)		Cl <sub>2</sub> (r	ng/L)	Turbic	lity (ntu	1
Station ID: F Date: 5/9			29.	2	1	32	70		1.00	0.3	2			7.7			0.0	>	0.4	1	
Date: 5/9	940											1	sludge (SLI			* *					

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### INTERLABORATORY SAMPLE TRANSMITTAL FORM

Benchmark EnviroAnalytical, Inc. 1711 12<sup>th</sup> Street East Palmetto, FL 34221 (941) 723-9986 (941) 723-6061 fax

Office QC Check: <u>Office 34</u> Bottle Check:

Relinquished

By:

Sign Name:

Print Name:

## **10 BUSINESS DAY T.A.T. PLEASE**

Date:	. LOUGHS WELWAT*	
Project Name: Will	viri f-Labelle Well Primary and Secon	idary Analysis
# of Samples:	I 1 Total # of Bottle	s: 1
Method of Shipment:	Courier	
Subcontract Laboratory:	Florida Radiochemistry 5456 Hoffner Ave. #201 Orlando Phone: 407-382-7733 Fax; 407-	FI. 32812
Page	1 . of	

Date:

Time:

	Laboratory	Collecti	and the second	Collection Preservative	Container		Parameters	Field Conductivity
	Submission #	Date	Time Matrix*	Method**	Qty Capacity	Type***		μs/cm
	13050374-1	05/09/13	0943 DW	Grab 1:4 HNO:	1 2 Qt	P	Gross Alpha, Radium 226 & 228	3:2/70
<u>149</u> 2 (11)	and an and the	· · · · · · · · · · · · · · · · · · ·			4 <del></del>	·		
1	111 D 20 20 20 2		sin a subsection of the second se	1 200	ميرين ا	<u>.</u>	t states at the second	· · · · · · · · · · · · · · · · · · ·
				t An and a train of the				
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		· · · · · · · · · · · · · · · · · · ·					وسيوسيون والسارور و	
	A state of the second second	1		1	F			1
** Sample M	trix abbreviations. Groundwar ethod abbreviations: Grab (Gr r Type abbreviations: Plastic (	Composite (C), 24 Hour	(W). Saline Surface Water (S Composite (24HR Comp.)	SW), Fresh Surface Water(FSW), Dri	nking Water (DW), Sludge (Sldg).		Soily, Domestic Effluent (Dom Eff), Industrial Effluence)	ient (Ind Eff),
Relinquis By:		and the second sec	19	Date:	Received By:	9	- 11	Dale: S/15/12
(Benchm	ark) Print Name:		Christopher Girvin	Time:	by,		NAUMANN	Time: 18:30

Date:

Time:

Received

By:

### INTERLABORATORY SAMPLE TRANSMITTAL FORM

WOH: 3592803

Benchmark EnviroAnalytical, Inc. 1711 12th Street East Palmetto, FL 34221 (941) 723-9986 (941) 723-6061 fax www.Benchmarkea.com Office QC Check: 05/09/13 JUH Bottle Check:

05 09 13 WEL WAT \* Date: WEL WAT Labelle Well Primary and Secondary Analysis \* . Total # of Bottles: 11. 1 Hand Delivery E83079 - Pace Analytical Service Inc; 8 East Tower Circle; Ormond Beach, FI 32175 Joe Vodrik; 1-800-966-5668 of 1 . Page 1

Laboratory	1	Collecti	on	Sample	Collection	Preservative		Container	rt i	Parameters	Comments
Submission #	Date		Time	Matrix*	Method**		Qty	Capacity	Type***	SOC's (Pesticides and PCB's)	
13050374-1	05/09	/13	956	DW	Grab	MCAA NaS205	2	40 mL	G	Carabamates (531.1)	
1	1	-	945	1	1	NaS2O3 HCl	2	1 L	G	Pesticides (508/608)	
	1		950			NaS <sub>2</sub> O <sub>3</sub>	1	250mL	G	Herbicides (515.3)	
			945			NaS2O3 HCI	2	1 L.	G .	Semivolatiles (525.2)	Dioxin Scree
2		- 4	959			NaS <sub>2</sub> O <sub>3</sub>	2	40 mL	G	Glyphosate (547)	*
			951			NaS <sub>2</sub> O <sub>3</sub>	ì	500 mL	G	Endothall (548.1)	
1			942	1		NaS2O3H2SO4	1	1 L	Р	. Diquat (549.2)	(*C.)
V	-V			¥.	¥						4
				201			4.0.0				æ
	· · ·									N N	
	-	-						1	1		

\* Sample Matrix abbreviations: Groundwater (GW), Surface Water (SW), Saline Surface Water (SSW), Fresh Surface Water (FSW), Drinking Water (DW), Sludge (Sidg), Solid (Sol), Soil (Soil), Domestic Effl \*\* Sample Method abbreviations: Grab (G), Composite (C), 24 Hour Composite (24HR Comp.). E. 114 ASING 113

*** Container Type ab		(P), Glass (G).	Date:	1 a	Received By:	Borson Pike		Date:	5-10-	19
Relinquished By:	Sign Name:			the second se		portrade in	-	Time;	02-	
(Benchmark)	Print Name:	Christopher Girvin	Time:	0900		CIL A A			61	1
Relinguished By:	Sign Name:	BAL	Date:	5-10-13	Received By:	Support		Date:	100	1
	Print Name:	12 H 1	Time:	2000	-			Time:	1017	5
					1		5.2 °C eF=0		Hir.	2
							CF=0 TP-14	1		5

Page 19 of 20

### Florida Department of Environmental Protection Safe Drinking Water Program Laboratory Reporting Format

LABORATORY CERTIFIC	ATION INFORMATION (t	o be completed by lat	o – please type or print	legibly)	1500		
Lab Name: Benchmark	EnviroAnalytical, Inc	Florida DOH Certif	ication #: E84167	Certif	ication Expiration Da	ate: 06	/30/2013
			ATTACH CU	RRENT DO	OH ANALYTE SHEET	*	
Address: 1711 12th Stree	t East, Palmetto, FL 3422	1	Phone #:	941-723	-9986		
Were any analyses subcor	ntracted? Xes No I	f yes, please provide	e DOH certification n	umber(s):	E83079, E83033		
			ATTACH DC	H ANALY	TE SHEET FOR EACI	H SUBCO	NTRACTED LAB*
ANALYSIS INFORMATIO	N (to be completed by lab)	Date Sam	ple(s) Received:(	05/09/13			
PWS ID (From Page 1):	Sample N	Number (From Page 1)	<u>.</u>	_Lab As	signed Report # or J	ob ID:	13050374
Group(s) Analyzed & Resu	Its attached for compliance	e with Chapter 62-5	50, F.A.C. (Check all th	at apply):			
Inorganics ⊠All Except Asbestos □Partial □Nitrate □Nitrite □Asbestos	Synthetic Organics	<u>Volatile Organics</u> ⊠All 21 ∏Partial	Disinfection Byprodu	X	adionuclides Single Sample IQtrly Composite**	<u>Secon</u> ⊠All 1 □Part	
LASDESIOS				LAB	ERTIFICATION		
I Dale D. Dixon / Tills	y Tanrisever / Jennifer	Jordan	Lab Directo	r/000	fficer / QC Officer		do HEREBY CERTIFY
I, Dale D. Dixell' Tule	(Print Name)	<u>, , , , , , , , , , , , , , , , , , , </u>		int Title)		and a second	
that all attached analytical da	ta are correct and unless no	ted meet all requireme	ents of the National Env	/ironmenta	I Laboratory Accredita	tion Confe	erence (NELAC).
Signature:	by Duckar	C	D	ate: 5	131/2013		
** Please provide radiological	nt against the public water sy	ystem for failure to sa r each quarter.	mple, and may result in	notificatio	n of the DOH Bureau o	of Laborat	sult in rejection of the ory Services.
	ECTS ARE TO BE REPORTE						ceptable.)
COMPLIANCE DETERMI	NATION (to be completed b	y DEP or DOH attac	ch notes as necessary)				1.3
Sample Collection & Analy	sis Satisfactory:□Yes□N	10	Replacement S	Sample or	Report Requested	(circle or high	nlight group(s) above)
Person Notified:	)	Date Notified:	DEP/I	DOH Revi	ewing Official:	_	
Reporting Format 62-550.730 Effective January 1995, Revised	February 2010		Page 2 of 9				

	the Environmental Laboratory Certification Program.	Clients and Customers are urged to verify the laboratory's current certification status with	
• •	Issue Date: 7/1/2012	's current certification status with	

Palmetto, FL 34221				
Matrix: Drinking Water			Certification	
Analyte	Mothod/Tech	1.00	. Type	Effective Date
1.1.1.1.2-Tetrachloroethane	EPA 524.2	Group II Unregulated Containinants	NELAP	9/28/2005
1.1.1-Trichloroethane	EPA. 524.2	Other Regulated Contuminants	NEL AP	9/28/2005
1 J. 7. 7. Tetrachloroethanc	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/28/2005
1.1.2-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	9/28/2005
1.1-Dichlorosthane	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/28/2005
1.1-Dichloroethylene	EPA 524.2	Other Regulated Contaminants	NELAP	9/28/2005
1,1-Dichloropropene	.EPA 524.2	Group II Unregulated Contaminants	. NELAP	9/28/2005
1,2,3-Trichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/2/2011
1.2.4-Trichlorobenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	\$007/32/6
1.2.4-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/28/2005
1,2-Dibromo-3-ahloropropane (DBCP)	EPA 504.1	Synthetic Organic Coutaminants	NELAP	-4/20/2009
1,2-Dibromoethane (EDE, Ethylene dibromide)	EPA 504.1	Synthetic Organic Contaminants	NELAP	4/20/2009
1,2-Diohlorobenzene	EPA-524,2	Other Regulated Contaminants	NELAP	CUDEJO716
1,2-Dichloroethans	EPA 524.2	Othor Regulated Contaminants	NULLAR	2006/86/0
1,2-Dichloropropane	EPA 524.2	Other Regulated Contaminants	NELAP	9/28/2005
1,3,5-Trimethylbenzene	BPA 524.2	Output United Conditioners	A DEL VIEL	5/072/2005
1,3-Dichlorobenzene	EPA 5/4.2	Crown II Threadland Conteminants	NELAP	9/28/2005
L3-Dionioropropaie	ייידבע בי זכן	Other Reputated Contaminants	NELAP	9/28/2005
1,4-Dioniorobenzene	HPA 594.2	Group II Unregulated Contaminants	NBLAP	9/28/2005
- a Children and a ch	HPA 524.2	Group II Unregulated Contaminants .	NELAP	. 9/28/2005
4-Chloroto Juene	EPA 524.2	Group II Unregulated Contaminants	NELAP	9/28/2005
4-lsopropyltoluene	EPA 524.2	Group II Unregulated Contaminants	NBLAP	9/28/2005
Alkalinity as CaCO3	SM 2320 B	Primary Inorganic Contaminants	NELAP	5/25/2004
Aluminum	- EPA 200.7	Secondary Inorganic Contaminants	NELAP	HUNTICTIC
Amenable cyanide	SM 4500-CN G	Primary Inorganic Contaminants	NELAP	1102/1/16
Ammonia as N	EPA 350.1	Primary inorganic Contaminants	NELAP	TINZILIE
Authnony	SM 3113 D	Primary Inorganic Contaminants	NELAP	1/3/2002
Accenic	SM 3113 B	Prinney horganic Contaminants	NELAP	1/3/2002
Barium .	EPA 200.7	Primary Inorganic Contaminauts	NELAP	5/25/2004
Benzene	BPA 524.2	Other Regulated Contaminants .	NELAP	9/28/2005
Beryllium	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/25/2004
Borow	BPA 200,7	Sciendary Inorganic Conterninants	NELAP	3/7/2011
Bromate	EPA 300,1	Primary Inorganic Contaminants .	NELAP	11/21/2008
Bromide	EPA 300,0	Primary Inorganic Contaminants	NELAP	5/25/2004
	1111 FCD 4	Grown I I Inregulated Contaminuals	NEL AP	4/20/2009

Laboratory Scope of Accreditation. **B** 

yJohn H. Armetrong; MD State Surgeon General Page 1 of 13

Attachment to Certificate #: E84167-25, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

. IEPA Lab Code:

FL00289

(941) 723-9986

idioyarnar. Rick'Scott

State Laboratory ID: 15841.67





Mojovernel RickScoll





dohn H. Armstrong, MD State Burgeor General Page 2of 13

Attachment to Certificate #: 1284167-25, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: E84167

EPA Lab Code: . 1 TT\_00289

(941) 723-9986

E84167

Benchmark EnviroAnalytical, Inc. 1711 12th Street East Palmetto, FL 34221

Mattrixi Drinking Water	8	6	Certification	
Anniyte	Method/Tech	Category	Туре	Diffective Date
Bromobenzane	EPA 524.2	Group II Unregulated Contaminantis .	NELAP	chanage.
Bromochlorometharie	BPA 524.2	Group II Unregulated Contaminants	NELAP	9/28/2005
Bromodichloromethane	EPA 524,2	Group II Unregulated Contaminants	NELAP	2006/36/19716
Bromoform	EPA 524,2	Group II Unregulated Contaminants	NELAP	2/02/2010d
Cadmium	EP.A. 200.7	Primary Inorganic Contaminants	NELAP	5/25/2004
Caldim	EPA 200.7	Primary Inorganic Contaminants	NELAP	5/25/2004
Cateron bitranklaride	EPA 524,2	Other Regulated Contaminants.	NELAP -	9/28/2005
Chilocate	BPA 300.1	Secondary Inorganic Contaminants	NELAP -	11/21/2008
Chloride	EPA 300.0	Secondary Inorganic Contaminants	NELAP	5/25/2004
Chlorine	SM 4500-CI G	Primary Inorganic Contaminants	NELAP	3/7/2011
Chlorine dinxide, res. disinfectant	SM 4500-Clo2 D	Primary Inorganic Contaminants	NELAP	3/7/2011
Chlorite	EPA 300,1	Primary Inorganic Contaminants	NELAP	11/21/2008
Chloroscetic sold	BPA 552.2	Group I Unregulated Contaminants	NELAP	4/20/2009
Chlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	CD0210716
Chloroethane	·EPA 524.2	· Group II Unregulated Contaminants	NELAP	- 24 CNATIGFIE
Chloroform	EPA 524.2	Group II Unregulated Contaminants	NELAP	SUPERDIANO
Chrismium .	EPA 200.7 -	Primary Inorganic Contaminants	- ALTEN	2006/86/0
ois-1,2-Dialiloroethylene	EPA 524.2	Other Regulated Contamination	NEL AP	9/28/2005
ois-1,3-Dichloropropene	ELTA 244	Ormandary Instantic Contentingate	NELAP	· 7/31/2007
Color	GIVI 2710 H	Primary Increanic Conteminants	NELAP	5/25/2004
Conductivity	RPA 200.7	Primary Inorpanie	NELAP .	5/25/2004
		Contaminants, Secondary Inorganic		
Corrosivity (langlier index)	SIM 2330 B	Secondary Inorganic Contaminants	. NELAP	1 106/17/5
Cymide .	EPA 335.4	Primary Inorganic Contamination	NEL AP	4/20/2009
Dibromoacelio acid	EPA 552.2	Group I Unrogulated Contammants	NRI AP	9/28/2005
Dibronucehloromethane	EPA 524.2	Group II Unrogulated Contamutants	NPLAP	9/28/2005
Dibromomethane	EPA 524.2	Group II Unregulated Containmailes	NHI AP	4/20/2009
Dichloroacelie acid	EPA 332.2	Group J Unregulated Containants	NELAP	9/28/2005
Dichlorodifluoromethane	5PA 324,2	Group is oursely Containing	NELAP	9/28/2005
Dichloromethane (DCM, Methylene chloride)	PLACE NAT	Outer regulated Contaminants	NELAP	11/21/2008
Dissolved organic carbon (DOC)	THE PARTY AND A	h Garoliolani	NELAP	5/25/2004
Escherichia coli		i finchistory	NELAP	1/3/2002
- Escherichin coli	SM 9223 B	Microbiology	NELAP	3/7/2011
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	- TANKAR	
Ethylbenzene	EPA 524.2	Other Regulated Contaminants	, UNTGN	
	in the labountourily	and and the addition of the water in		

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Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program. Issue Date: 7/1/2012

Expiration Date: 6/30/2013

Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program. Issue Date: 7/1/2012

Iron Fluaride Analytic Palmetto, FL 34221 IE84167 'Isopropylbenzene Hydrogen sulfide, un-ionized (calculation) Mantrix: 1711 12th Street East Benchmark EnviroAnalytical, Inc. Hexachhorobutadiene Heterotrophic plate count Hardness Magnesium Lead + 1. Naphthalene Methyl chloride (Chloromethane) Methyl.bromide (Bromonnethane) Marcury Manganese Nitrate Nickel Molybdenum Methyl tert-butyl ether (MTBE) Nitrite as N n-Butylbenzene Odar n-Propylbenzene Nitrobenzenc Nitrite as N Nitrate as N-PH Orthophosphate as P Silver Styrene Sodium Silica as SiO2 Sclenium soc-Butylbenzene Potassium Drinking Water Mathod/Tech EPA 200.7 SM 4500-S H (21st Ed.) **BPA 524.2** SM 9215 B SM 2340 B EPA 300.0 EPA. 200.7 SM 3113 B EPA 524.2 EPA. 200.7 EPA. 524.2 EPA 524.2 **BPA 524.2** EPA 245.1 EPA 200.7 EPA. 524.2 EPA 300.0 EPA 353.2 EPA 200.7 EPA 524.2 EPA 524.2 EPA 524.2 EPA 353,2 EPA. 300.0 SIM 4500-EH-B EPA 300.0 EPA 200.7 EPA 140,1 SM 3113 E EPA 524.2 EPA 200.7 EPA 200.7 EPA 200.7 EPA 524.2 Secondary Inorganic Contaminants Category Secondary Inorganic Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Group II Unregulated Contaminants Secondary Inorganic Contaminants Primary Inorganic Contaminants Group II Unregulated Contaminants Microbiology Contaminants Primary Inorganic Contaminants,Secondary Inorganic Group Il Unregulated Contaminants Group II Unregulated Contaminants Group II Unregulated Contaminants Group II Unregulated Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Group II Unregulated Contaminants Secondary Inorganic Contaminauts Primary Inorganic Contaminants Primary Inorganic Contaminants Secondary Inorganic Contaminants Group II Unregulated Contaminants Group II Unregulated Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Secondary Inorganic Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Group II Unregulated Contaminants Secondary Inorganic Contaminants Secondary Inorganio Contaminants Primary Inorganic Contaminants Other Regulated Contaminants Primary Inorganic Contaminants Certification NEL AP NELAP NELAP NEL AP NELAP NEL AP NELAP NELAP NELAP NEL AP NELAP Type NELAP NELAP NELAP NEL/AP NELAP NELAP NEL:AP NELAP NELAP NELAP Effective Date 5/25/2004 9/28/2005 9/28/2005 5/25/2004 3/7/2011 5/25/2004 9/28/2005 9/28/2005 9/28/2005 5/25/2004 5/25/2004 1/3/2002 3/7/2011 9/28/2005 5/25/2004 5/25/2004 1/3/2002 5/25/2004 9/28/2005 3/7/2011 1/3/2002 5/25/2004 9/28/2005 9/28/2005 3/7/2011 9/28/2005 5/25/2004 9/28/2005 5/25/2004 5/25/2004 1/3/2002 5/25/2004 7/31/2007 1/3/2002

Governer RickScott

State Laboratory TD:

IB841.67

TEPA Lab Code:

FL00289

(941) 723-9986





sJohn H, Armétrong; WD Btate Surgeon Osheral Page 3 of 13

Attachment to Certificate #; IB94167-25, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

Laboratory Scope of Accreditation

the Environmental Laboratory Certification Program.

Clients and Customers are urged to verify the laboratory's current certification status with Issue Date: 7/1/2012

Zinc

EPA 200.7

Secondary Inorganic Contaminants

NELAP

5/25/2004

Xylene (total) Vinyl chloride Vanadium

Annlyte Palmettu, FL 34221 1711 12th Street Bast Benchmark EnviroAnalytical, Inc. Total coliforms Toluene Thallium Tetracliloroethylene (Perchloroethylene) tert-Butylbenzone Surfactants -- MBAS Matrix Total coliforms Total nitrate-nitrite Total haloacetic acids (HAAS) Total coliforms Total coliforms trans-1,2-Dichloroethylene Total nitrate-nitrite Total dissolved solids Trichloroethene (Trichloroethylene) Trichloroacetic acid traits-1,3-Dichloropropene Total trihalomethanes Total organic carbon Trichlorofluoromelhane UV 254 Turbidity ' Drinking Water SM 9223 B /QUANTI-TRAY Method/Tech BPA 524.2 EPA 524.2 SM 4500-S D/UV-VIS EPA.524.2 BPA 200.9 BM 5540 C EPA 300.0 EPA 524.2 BPA 524.2 SM 5310 B EPA 353.2 EPA 300.0 EPA 552.2 SM 2540 C SIM 9223 B SM 9222 B READYCULT EPA 552.2 EPA 524.2 EPA 524.2 EPA 524.2 EPA 180,1 SM 5910 B Group II Unregulated Contuminants Primary Inorganic Contaminants Other Regulated Contaminants Primary Inorganic Contaminants Other Regulated Contaminants Secondary Inorganic Conterninants Synthetic Organic Contaminants Secondary Inorganic Contaminants Microbiology Microbiology Microbiology Microbiology Contaminants Contaminants, Secondary Inorganic Primary Inorganic Category Other Regulated Contaminants Other Regulated Contaminants Other Regulated Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Group I Unregulated Contaminants Group II Unregulated Contaminants Primary Inorganic Contaminants Group II Unregulated Contaminant's Primary Inorganic Contaminants Secondary Inorganic Contaminants Certification

EPA 524.2 EPA 524.2 EPA 200,7 Other Regulated Contaminants Other Regulated Contaminants Secondary Inorganio Contaminants NBLAP NELAP NELAP NELAP WELLAP NELAP NELAP NELAP NEL AP NELAP NELAP NEL AP NELAP NELAP NEL AP NELAP NEL AP NELAP NELAP NELAP NELAP NELAP Type NEL AP NELAP NBLAP NELAP NELAP Effective Data 9/28/2005 9/28/2005 9/28/2005 5/25/2004 9/28/2005 9/28/2005 3/7/2011 5/25/2004 5/25/2004 5/25/2004 4/20/2009 7/31/2007 3/7/2011 1/3/2002 1/3/2002 9/28/2005 11/21/2008 10/14/2010 9/28/2005 1/3/2002 1/3/2002 1/3/2002 3/7/2011 9/28/2005 9/28/2005 9/28/2005 3/7/2011

Rick-Scott

Sulfate

E84167

State Laboratory ID:

E84167

IEPA. Lab Code:

ILL00289 -

9866-522. (146)

Sulfide





John H. Armstrang; MD State Surgeon Ceneral Page 4 01 13

Attachment to Certificate #: II84167-25, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

ACHents and Customens are augedito wetly the haboratory's current certification status with the Ensylron mental Laboratory Certification Program. IssuesDute: 77/1/2012

- Jundhum-228 dirossalpisa. Gross-both Analyte Horida Hadiochemistry: Services, Luc. StuboLathorythuy: 1983033 Drahian 'A' Radium=226 Mantrix: Orlando, FL .32812 545641offner Rd. Suite 201 Radium-226 E83033 1. Intenting Water Actiachment.to.Contificate-#13083058-08, expiration.date-Same 30, 2013. This flighting of accredited analytics should be used only when associated with available at the accelerate. - 00006 Addas EDG VAE - 0.506.Walk 0:806-V-458 02006-7685 "Na official/Tech EPANA 105 EPA Joth Cobe: - FRadioahemistry Radiochomistry Radiochemistry "Category Rudiochemistry Rudiothemistry Radiochemistry ALTOTIS. Certification NELMP NELW? "INEL:AT WELAP NELAP MELWP Taype . :(407) 382-7733 12.1 "EHective Date 12/15/2003 -6/28/2001 - 6/28/2001 -6/20/2001 6/28/2001 6/28/2001

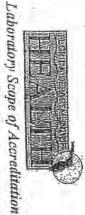
密tate.Burgeon"General -diolaniHL. Alimatrong, MD Page d adf 12

Laboratory Scope of Accreditation

-Agowerner RickBodt

Opyarhor. **Rick Scott** 





John H. Armstrong, MD State Surgeon General Page 1 of 34

Attachment to Certificate #: E83079-40, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

State Laboratory ID: IE83079 **RPA Lab Code:** 

(386) 672-5668

FL01264

Pace Analytical Services-Florida 8 East Tower Circle E83079 Ormond Beach, FL 32174

Matrix: Drinking Water	4		Certification	
Analyte	Mathnd/Tech	Category	Тура	Effective Date
1,1,1,2-Tetrachloroelliane	EPA 524.2	Group II Unregulated Contaminants	NELAP	2007/18/1
(,1,1-Trichloroethane	BPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1.1.2.2. Tetrachloroethanc	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
. 1.1.2-Trichloroethane	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1. (-Dichloroethane	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
1.1-Dichloraethylene	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1 1-Dichloromonene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
1.9.3.Trichlorobenzenc	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
1'0 3.Teloklorohane	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
1.2 A Treichlorohensene	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1 0 4 Trimeliv/harrene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
1.2-Dibromo-3-chloropropane (DBCP)	EPA 504,1	Synthetic Organic Contaminants	NELAP	1/8/2002
1.2-Dibromoethane (EDB, Ethylene dibromide)	EPA 504.1	Synthetic Organic Contaminants	NELAP	1/8/2002
1.2-Dichlorobenzette	· EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1.2-Dichloroethane	BPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1.2-Dichloropropane	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
1.3.5-Trimethylbenzene	EPA 524.2	Group II Unregulated Contaminants		1/8/2002
1,3-Diatalorabenzene	EPA 524.2	Group II Unregulated Contaminants		1/8/2002
1,3-Dichioropropane	EPA 524.2	Group II Unregulated Contaminants		1/8/2002
1,4-Dichlorobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
2.2'3.3',4.5',6.6'-Octachlorobiphenyl (BZ 201)	EPA 525.2	Group I Unregulated Contaminants	NELAP	1/8/2002
2,2,3,4,6-Pentachlorobiphenyl (525,2 type for	EPA 525.2	Group I Unregulated Contaminants	NELAP	1/8/2002
2,2',3,4',6'-Pentachlorobiphenyi) 2.2',4,4'-Tetrachlorobiphenyi (BZ 47)	EPA 525.2	. Group I Unregulated Contaminants	NELAP	1/8/2002
2.2-Dichloropropane	EPA 524.2	Group II Unregulated Contaminants		7007/8/1
2,4,5-T	EPA 515.3	Synthetic Organic Contaminants	NELAP	10/14/2004
2,4-D	EPA 515.3	Synthetic Organic Contaminants	NELAP	5/11/2004
2,4-DB	EPA 515.3	Synthetic Organic Contaminants		10/14/2004
2-Chlorobiphenyl (BZ 1)	EPA 525.2	Group I Unregulated Contaminants		1/8/2002
2-Chlorotoluene	EPA 524.2	Group II Unregulated Contuminants		2002/9/1
3-Hydroxycarbofuran	EPA 531,1	Group I Unregulated Contaminants		10101010
4-Chlorololuene	EPA 524,2	Group II Unregulated Contaminants		5002/0/1
4-isopropyltoluene	EPA 524,2	Group II Unregulated Containants		6106/5/1
Accione	EPA 524,2	Group II Unregulated Contaminants		5/11/2004
Aeifluorfen	EPA 515.3	Group J Unregulated Contamination	NET AD	CUUC/8/1.
Alachior	EPA '508.1	Synthetic Organic Collimitations		600 <i>6</i> /8/1
Aldicarb (TeinilE)	EPA 531,1	Group I Unrogulated Contaminants	B NELW -	1/0/2002

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Expiration Date: 6/30/2013

E83079 Aluminum . Aluminum Alkalinity as CaCO3 Aldrin Aldicarb sulfoxide Aldicarb sulfone Analyte Matrix: Ormond Beach, FL 32174 8-East Tower Circle Pace Analytical Services-Florida State Laboratory ID: Barium Aroclor-1242 (PCB-1242) Aroclor-1221 (PCB-1221) Antimony Aroclor-1254 (PCB-1254) Aroclor-1232 (PCB-1232) Araclar-1016 (PCB-1016) Beryllium Araclor-1260 (PCB-1260) Aroclor-1248 (PCB-1248) bis(2-Ethylhexyl) phthalate (DEHP) Beryllium Benzo(a)pyrene Bentazon Bromochloroacetic acid Bromide Bromate Bromochloromethane -Bromobenzene Bromoncetic acid. Bromide Bromoform Bromodichloromethane Drinking Water Attachment to Certificate #: E83079-40, expiration date June 30, 2013. This listing of accredited E83079 analytes should be used only when associated with a valid certificate EPA 531,1 EPA 200.7 SM 2320 B EPA 531,1 Method/Tech EPA 508.1 EPA 508.1 EPA. 200.8 EPA 200.8 EPA 525.2 BPA 200.7 EPA 508.1 EPA 508.1 EPA 508.1 EPA. 508.1 EPA 508.1 EPA 525.2 EPA 200.8 EPA 200.7 EPA 525,2 **EPA 524.2** EPA 515.3 EPA 200,8 EPA 200.7 EPA 508.1 EPA 200.8 EPA 524.2 EPA 552,2 EPA 524.2 EPA 552.2 EPA 300.1 EPA 300.0 EPA 300.1 EPA 524,2 EPA 524.2 EPA.Lah Code: Group I Unregulated Contaminunts Secondary Inorganic Contaminants Primary Inorganic Contaminants Group I Unregulated Contaminants Category Synthetic Organic Contaminants Primary tuorganic Contaminants Secondary Inorganic Contaminants Group I Unregulated Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Synthetic Organic Contaminants Primary Inorganic Contaminants Printary Inorganic Contaminants Synthetic Organic Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Other Regulated Contaminants Group IJ Unregulated Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Primary Inorganic Contaminants Synthetic Organic Contaminants Group II Unregulated Contaminants Group I Unregulated Contaminants Group I Unregulated Contaminants Group II Unregulated Contaminants, Other Regulated Group II Unregulated Contaminants Conterninants Contaminants, Other Regulated FL01264 Certification NELAP **NELAP** NELAP NEL AP NELAP NELAP NELAP NELAP NELAP NELAP NELAP Type NELAP (386) 672-5668 Effective Date 5/11/2004 3/10/2010 10/14/2004 5/11/2004 3/10/2010 3/10/2010 3/10/2010 3/10/2010 3/10/2010 3/10/2010 5/11/2004 1/8/2002 5/11/2004 1/8/2002 1/8/2002 1/8/2002 5/11/2004 1/8/2002 5/11/2004 1/8/2002 1/8/2002 1/8/2002 1/8/2002 9/14/2010 8/14/2006 5/11/2004 1/8/2002 1/8/2002 1/8/2002 1/8/2002 1/8/2002 1/8/2002 1/8/2002 1/8/2002

Expiration Date: 6/30/2013

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Atrazine

Barium

Benzene

Arsenic Arsenic

Governor

Laboratory Scope of Accreditation

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FL01264

(386) 672-5668

State Laboratory ID: IE83079

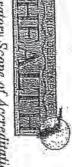
Ormond Beach, FL 32174 & East Tower Circle E83079 Pace Analytical Services-Florida

Matrix: Drinking Water			Certification	
	Method/Tech	Category	Type	Effective Date
Butachlor	EPA 508,1	Group I Unregulated Contaminants	NELAP	1/8/2002
Butachlor	EPA 525.2 -	Group I Unregulated Contaminants	NELAP	7002/8/1
Butyl benzyl phthalate	EPA 525,2	Group III Unregulated Contaminants	NELAP	1/0/2002
Cadmium	EPA 200.7	Primary Inorganic Contaminants	NELAP	1/8/2002
Osdmium	EPA 200.8	Primary Inorganic Contaminants	NELAP	5/11/2004
Calcium	EPA 200.7	Primary Inorganic Contaminants	NELAP	1/8/2002
Carbory (Sevin)	EPA 531.1	Group I Unregulated Contaminants	NELAP	1/8/2002
Carbofuran (Furadatt)	BPA 531.1	Synthetic Organic Contaminants	NELAP	1/8/2002
Corbon tetrachloride	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
Chlorate	BPA 300.1	Primary Inorganic Contaminants	NELAP	5/11/2004
Chlordane (tech.)	EPA 508.1	Synthetic Organic Contaminants	NBLAP .	1/8/2002
Chloride	EPA 300,0	Secondary Inorganic Conteminants	NELAP -	1/8/2002
Chlorine	SM 4500-CI D	Primary Inorganic Contaminants	NELAP	1/8/2002
Chlorine dioxide, res. disinfectant	SM 4500-CIO2 D	Primary Inorganic Contaminants	NELAP	10/14/2004
Chlorite	EPA 300.1	Primary Inorganic Contaminants	NELAP	.5/11/2004
Chloroncetic acid	EPA 552.2	Group I Utregulated Contaminants	NELAP	8/14/2006
Chlarobenzene	EPA 524.2	Other Regulated Contaminants	NELAP	2002/9/1
Chloroethane	BPA 524.2	Group II Unregulated Contaminants	NELAT	100000
Chloroform	EPA 524.2	Other Regulated Contaminants, Group II Unregulated Contaminants	NELAR	TINTANT
Chronnium	EPA 200.7	Primary Inorganic Contaminants	NELAP	1/8/2002
Chronium	EPA 200,8 -	Primary Inorganic Contaminants	NELAP	5/11/2004
nie-1 9-Dichlorgefliwleng	EPA. 524.2	Other Regulated Contaminants	NELAP	1/8/2002
nis-1 3-Dichloropropens	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Color	SM 2120 B	Secondary Inorganic Conteminants	NELAP	1/8/2002
Conductivity	SM 2510 B	Primary Inorganic Contominants	NELAP	1/8/2002
Coppier	BPA 200.7	Primary Inorganic	NELAP	1/8/2002
		Contaminants	1	
Copper	EPA 200.8	Primary Inorganie Contaminauts,Secondary Inorganie Contaminants	NELAP	5/11/2004
Corresivity (Innelice index)	SM 2330 B	Secondary Inorganic Contaminants	NELAP	1/8/2002
Conside	EPA 335.4	Primary Inorganic Contaminants	NELAP	1/8/2002
Dalation	EPA 515.3	Synthetic Organic Contaminants	NELAP	5/11/2004
Dalanon	EPA 552.2	Synthetic Organic Contaminants	NELAP	. 9/14/2010
Dif2-ethylhexyl)ndinate	EPA 525.2	Synthetic Organic Contaminants	NELAP	1/8/2002
Dibromoacetic acid	BPA 552.2.	<b>Oroup J Unregulated Contaminants</b>	NELAP	8/14/2006
Clients and Customers are urged to verify the laboratory's current certification status with	to verify the laboratory	v's current certification status wit		
the Environmental Exportantly Continuation 4 1 28	OF LANDERING T & MP. TONE	and the first of the other		

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Matrix: Drinking Water		0	Corffication	
Analyte	Method/Tech	Category	Type	Effective Date
Dibromochloromethane	EPA 524.2	Other Regulated Contaminants, Group II Unregulated	NELAP	1/8/2002
Titure	BPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Dioratio	EPA 515.3	Group I Unregulated Contaminunts	NELAP	5/11/2004*
Dicklossentic sold	EPA 552.2	Group I Unregulated Contaminants	NELAP	8/14/2006
Diald and internet here	BPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Dichloromeliane (DCM. Methylene chloride)	EPA 524,2	Other Regulated Contaminants	NELAP	1/8/2002
Dishlaranan (Dishlaranan)	BPA 515.3	Synthetic Organic Contaminants	NELAP	10/14/2004
Dieldrin	EPA 508.1	Group I Unregulated Contaminants	NELAP	1/8/2002
Dieldrin	BPA 525.2	Group I Unregulated Contaminants	NELAP	1/8/2002
Diethyl phthalate	BPA 525,2	Group III Unregulated Contaminants	NELAP	1/8/2002
Dimethyl phthalate	EPA 525.2	Group III Unregulated Contaminants	NELAP.	1/8/2002
Di-n-butyl pathalate	EPA 525.2	Group III Unregulated Contaminanta	NELIAP	1/8/2002
Dinoseb (2-sec-butyl-4,6-dinitrophenol, DNBP)	EPA 515.3	Synthetic Organic Contaminants	NELAP	5/11/2004
Diquat	EPA 549,2	Synthetic Organic Contaminants	NELAP	1/8/2002
Dissolved organic carbon (DOC)	SM 5310 B	Primary Inorganic Contaminants	NELAP	1/3/2012
Endothall	EPA 548,1	Synthetic Organic Contaminants	NELAP	1/6/2002
Endrin	EPA 508.1	Synthetic Organic Contaminants	NELAP	- 1/8/2002
Escherichia coli	COLISURE	Microbiology	NELAP	1.1/1/2011
Escherichia coli	SM 9223 B	Microbiology	NELAP	11/1/2011
Ethylbenzene	EPA: 524,2	Other Regulated Contaminants	NELAP	1/8/2002
Fluorenc	EPA 525.2	Group III Unregulated Contaminants	NELAP	1/8/2002-
Fluoride	EPA 300,0	Primary Inorganie Contaminants,Secondary Inorganie Contaminants	NELAP	. 1/8/2002
gamma-BHC (Lindauc,	EPA 508,1	Synthetic Organic Contaminants	NELAP	1/8/2002
Glyphosate	EPA 547	Synthetic Organic Contaminants	NELAP	1/8/2002
Hardness	SM 2340 B	Secondary Inorganic Contaminunts	NELAP	8/14/2000
Hardness (calc.)	EPA. 200.7	Secondary Inorganic Contaminants	NELAP	8/14/2006
Heptachlor	EPA 508.1	Synthetic Organic Contuminants	NELAP	1/8/2002
Henlachlor epoxide	EPA 508.1	Synthetic Organic Contaminants	NELAP	1/8/2002
Heterotrophic plate count	SM 9215 B	Microbiology	NELAP	1/8/2002
Hexachlorobenzene	EPA 508.1	Synthetic Organic Contaminants	NELAP	1/8/2002
Hexachlorobutadiene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Hexnehlorocyclopenladiene	EP.A 508.1	Synthetic Organic Contaminants	NELAP	1/8/2002
	C 565 7 011	Group [1] Unregulated Contaminants	NELAP	7007/8/\



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Laboratory Scope of Accreditation

Attachment to Certificate #: E83079-40, expiration date June 30, 2013. This listing of accredited analytes should be used only when associated with a valid certificate.

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(386) 672-5668

ICPA Lab Code:

State Laboratory ID: E83079

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Ormond Beach, FL 32174				
Matrix: Drinking Water	a .	0	Certification	
	Method/Tech	Category .		Effective Date
Tron	BPA 200,7	Secondary Inorganic Cortaminants	NELAP	1/8/2002
Isopropylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Lead	. EPA 200.8		NELAP .	5/11/2004
m/p-Xylenes	.EPA 524.2	nus	NELAP .	1/3/2012 -
Magnosium	EPA 200,7	5.4	NELAP	1/8/2002
Manganese	EPA 200.7		NELAP	1/8/2002
Manganese	EPA 200,8	Secondary Inorganic Contaminunts	NELAP	5/11/2004
Mercury	EPA 200.8	Primary Inorganic Contaminants	NELAP .	1/3/2012
Meroury	EPA 245.1	Primary Inorganic Contaminants	NELAP .	-1/8/2002
Methiocarb (Mesurol)	EPA 531.1	Group I Unregulated Contaminants	NELAP	2002/8/1
Methomyl (Lannate)	- EPA 531.1	Group I Unregulated Contaminants	NELAP	700710/1
Methoxyohlor	EPA 508.1	Synthesis Organic Contantinants	NELAP	1/8/2002
Methyl bromide (Bromomethane)	EPA 524.2	Group II Unregulated Contaminants	NELAP .	1/8/2002
Mailed include (Churching	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Metolachlor	EPA 508.1	Group I Unregulated Contaminants	NELAP	1/8/2002
Metolachior	EPA 525.2	Group I Unregulated Contaminants	NELAP	1/8/2002
Metribuzin	EPA 508.1	Group 1 Unregulated Contaminants	NELAP	. 1/8/2002
Metribuzin	EPA 525.2	Group I Unregulated Contaminants	NELAP	1/8/2002
Naphthalene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
n-Butylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Niekol	EPA 200.7	Primary Inorganic Contaminants	NELAP	1/8/2002
Njokel	EPA 200.8	Primary Inorganic Contarrinants	NELAP	5/11/2004
Nitrate	EPA 300.0	Primary Inorganic Contaminants .	NBLAP	- 1/8/2002
Nitrate	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/8/2002
Nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP	1/8/2002
Nilrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/8/2002
n-Propylbenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	7007/8/1
Odor	SM 2150 B	Secondary Inorganic Contaminants	NELAP	7007/8/1
Orthophosphate as P	EPA 300.0	Primary Inorganic Contaminants	NELAP	1/8/2002
Orthophosphate as P	EPA 365.1	Primary Inorganic Contaminants	NELAP	1/8/2002
Oxamyl	EPA 531.1	Synthetic Organic Contaminants	NELAP	1/8/2002
o-Xylene	EPA 524.2	Group II Unregulated Contaminants	NEL AP	1/3/2012
	2.6V/2 Vala	Synthetic Organic Contaminants -	NELAP	3/10/2010
Paracuat	L'EL ST STATE	and a star and a start and a s	to and the second secon	CUUC/011
Paraquat PCBs	EPA 508.1	Synthetic Organic Contaminants	NELAP	70071911

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EPA Lab Code:

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State Laboratory ID: E83079

E83079

Pace Analytical Services-Florida 8 East Tower Circle Ormond Beach, FL 32174

Ormond Beach, FL 32174				
Matrix: Drinking Water			Certification	
Analyte	Method/Tech	Category	Type	Effective Date
Perchlorate	EPA 314.0	Secondary Inorganic Contaminants	NELAP	2002/8/1
pH	SM 4500-H-1-B	Secondary Inorganio Contaminants	NELAP	2/19/2008
Picloram	EPA 515.3	Synthetic Organic Contominants	NELAP	10/19/2004
Potassium	EPA 200.7	Secondary Inorganic Contaminants	NELAP	1/1/10/20174
Propachlor (Ramrod)	EPA 508.1	Group I Unregulated Contaminants	NELAP	7002/8/1
Propachlor (Ramrod)	EPA 525.2	Group I Unregulated Contaminants	NELAP	1/8/2002
Durne	EPA 525.2	Group III Unregulated Contaminants	NELAP	1/8/2002
sec_Rutylhenzene	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Selenium	EPA 200.8	Primary Inorganio Contaminants	NELAP	5/11/2004
Silica as SiO2	SM 4500-Si D (18th/19th	Primary Inorganic Contaminants	NELAP	1/8/2002
Silica as SiO2	Ed.)/UV-VIS SIM 4500-SIO2 F (20th/21st -	Primary Inorganic Contaminants	NELAP	3/10/2010
Ciliver .	- ыа.) ВРА 200.7	Secondary Inorganic Contaminants	NELAP	1/8/2002
	EPA 200.8	Secondary Inorganic Contaminants	NELAP	5/11/2004
Silvey (2.4.5-TP)	EPA 515.3	Synthetic Organic Contaminants	NELAP	5/11/2004
Simazine	EPA 508.1	Synthetic Organic Contaminants	NELAP	1/8/2002
Sodium	'EPA 200.7	Primary Inorganic Contuminants	NBLAP	1/8/2002
Styrene	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
Sulface	EPA 300.0	Primary Inorganic Contaminants, Secondary Inorganic	NELAP	1/8/2002
	EN SEAD D	Secondary Inorganic Contaminants	NELAP	1/8/2002
Surfactants - MDAS	EPA 524.2	Group II Unregulated Contaminants	NELAP	1/8/2002
Tetrachloroethulenn (Derehloroethylene)	EPA \$24.2	Other Regulated Contaminants	NELAP	1/8/2002
Thalling	EPA 200.8	Primary Inorganic Contaminants	NELAP	5/11/2004
Toluenc	EPA 524.2	Other Regulated Contaminants	NEL AP	1/8/2002
Total coliforms	COLISURE	Microbiology	NELAP	14/1/2011
Total colliforms	SM 9223 B	Microbiology	NELAP	11/1/2011
Total dissolved solids	SM 2540 C	Secondary Inorganic Contaminants	NELAP	1/8/2002
Total haloacetic acids (HAA5)	BPA 552.2	Synthetic Organic Containinants	NELAP	8/14/2006
Total nitrate-nitrite	EPA 300.0	Primary Inorganic Contaminants	NELAP .	1/8/2002
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	1/8/2002
Total organic carbon	SM 5310 B	Primary Inorganic Contaminants	-NELAP	1/8/2002
Total tribalomethanes	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
Toxaphene (Chlorinated camphene)	EPA 508.1	<ul> <li>Synthetic Organic Contaminants</li> </ul>	NELAP	7007/8/1
trans-1,2-Dichloroethylone	EPA 524.2	Other Regulated Contaminants		2002/8/1
trans-1,3-Dickloropropene	EPA 524.2	Group II Unregulated Contaminants	SINELAP	710/2/19/1

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State Laboratory ID: E83079

RPA Lab Code:

FL/01264

(386) 672-5668

E83079 Pace Annlytical Services-Florida 8 East Tower Circle Ormond Beach, FL 32174

Matr.

Matrix: Drinking Water			Certification	
Analyta	Mathod/Tech .	Category	Type	Effective Date
This has a second so and	EPA 552.2	Group I Unregulated Contaminants	NELAP	8/14/2006
1 ( Ionito) vacous nore	EPA 524.2	Other Regulated Contaminants	NELAP .	1/8/2.002
	ED6 404.0	Group II Unregulated Contaminants	NELAP	1/8/2002
1 FIGHURDHURDINGHANS	- RPA 180.1	Secondary Inorganic Contaminants	NELAP	1/8/2002
- Urbidity		n	NEL AP	1/3/2012
Turbidity	SM 2130 B	peculuary moreane containmines		
UV 254	SM 5910 B	Primary Inorganic Contaminants	NELAP	1/8/2002
Vinvl chloride .	EPA 524.2	Other Regulated Contaminants	NELAP	1/8/2002
Volene (total)	EPA 524.2	Other Regulated Contaminants	NELAP .	1/8/2002
Time (many)	EPA 200,7	Secondary Inorganic Contaminants -	NELAP	1/8/2002
Zino	BPA 200.8	Secondary Inorganic Contaminants	NELAP	5/11/2004
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