Board of County Commissioners

Kevin Beckner Victor D. Crist Ken Hagan Al Higginbotham Lesley "Les" Miller Jr. Sandra L. Murman Mark Sharpe

County Administrator Michael S. Merrill

County Administrator Executive Team

Lucia Garsys Carl S. Harness Gregory S. Horwedel Liana Lopez Bonnie Wise

County Internal Auditor Michelle Leonhardt

County Attorney
Chip Fletcher

Public Utilities PO Box 1110 Tampa, FL 33601-1110 Phone: (813) 272-5977 Fax: (813) 272-5589

Hillsborough County

Torida

Public Utilities

November 21, 2014

Mr. John Morris, P.G.
Florida Department of Environmental Protection
Waste Permitting Section
13051 Telecom Parkway
Temple Terrace, FL 33637

RE: Southeast County Landfill
Laboratory Analytical Results
Initial Assessment Monitoring Plan
Report No. 50 – October 2014

Dear Mr. Morris:

The Hillsborough County Public Utilities Department (County) is pleased to provide the analytical results from the October 2014 sampling event conducted as part of the continuation of the Initial Assessment Monitoring Plan (IAMP). The IAMP was developed to address the potential impacts to groundwater from the sinkhole on the edge of Phase VI at the Southeast County Landfill (SCLF), which was discovered on December 14, 2010.

As part of the agreement between the County and Florida Department of Environmental Protection (Department) Southwest District Office, four (4) upper Floridan/Limestone aquifer monitoring wells, designated as TH-72, TH-76, TH-77, and TH-78 are sampled on a monthly schedule. Representative samples were collected from each of these four (4) monitoring wells on October 7-8, 2014 and analyzed for total dissolved solids (TDS), chloride, total ammonia, arsenic, iron, sodium, and five (5) field parameters. Each sample collected was analyzed by our contracted laboratory, Test America, Inc. The following paragraphs summarize the parameter specific results pertinent to the evaluation of potential water quality impacts from the sinkhole at the SCLF.

Mr. John Morris, P.G. November 21, 2014 Page 2

pН

pH was observed at 8.39 pH units in new upper Floridan aquifer (UFA) monitoring well, TH-78. The elevated values observed in this well do not appear to be representative of the unaffected UFA. Based on the decreasing trend of pH values since installation of this well, the County believes the elevated values observed are likely attributable to the grout materials utilized during construction of this monitoring well. The pH values in other three UFA monitoring wells, TH-72, TH-76, and TH-77, were recorded at 6.78, 7.37, and 7.36 pH units, respectively.

Turbidity

Turbidity values in the upper Floridan / Limestone aquifer monitoring wells TH-72, TH-76, TH-77, and TH-78 were recorded at 0.79, 17.9, 0.71, and 1.12 Nephelometric Turbididy Units (NTU), respectively.

Conductivity

The conductivity values observed in monitoring wells TH-72, TH-76, TH-77, and TH-78 were 2,300, 432, 416, and 508 micromhos per centimeter (umhos/cm), respectively. Monitoring well TH-72 is the closest location to the sinkhole, and continues to exhibit water quality indicative of impacts. The elevated conductivity observed is likely attributable to the waste in the deep areas of the sinkhole and the subsurface grouting processes conducted as part of the sinkhole stabilization and remediation. Conductivity values in the down gradient monitoring wells TH-76, TH-77, and TH-78 are relatively low and appear to be consistent with the unaffected deep wells across the site.

Total Dissolved Solids (TDS)

The TDS in monitoring well TH-72 was observed at 1,300 mg/l, which continues to be above the SDWS of 500 mg/l. The elevated value is likely attributable to the waste within the remediated sinkhole. The remaining three (3) down gradient UFA monitoring wells, TH-76, TH-77, and TH-78 exhibited TDS values of 260, 240, and 270 mg/l, respectively, which is consistent with the water quality of the unaffected deep wells across the site.

Chloride

Chloride was observed at 530 mg/l in monitoring well TH-72, which is above the SDWS of 250 mg/l. The elevated chloride value observed is likely attributable to waste in the sinkhole and the grout materials injected into the subsurface as part of the sinkhole stabilization and remediation. Chloride values in the down gradient UFA monitoring wells TH-76, TH-77, and TH-78 were observed at 12, 9.3, and 34 mg/l, which is consistent with the unaffected deep wells across the site. The value of 34 mg/l observed in TH-78, although well below the SDWS, is also thought to potentially be attributable to the grout materials used to seal the casing in the new well. The County will continue to evaluate any trends with chloride values in the future.

Iron

Total iron concentrations in two (2) of the four (4) upper Floridan/Limestone aquifer monitoring wells were observed above the SDWS of 0.3 mg/l. Monitoring wells TH-72 and TH-76 exhibited iron at 0.61 and 0.77 mg/l, respectively. Monitor wells TH-77 and TH-78 exhibited iron below the SDWS at 0.16i and 0.23 mg/l. The iron concentrations is these wells have been consistent, and as discussed in many of our previous

Mr. John Morris, P.G. November 21, 2014 Page 3

submittals, the iron appears to be naturally occurring in some areas of the limestone formation, or may be the result of impacts from the strip mining activities conducted at the site prior to the landfill operations.

Sodium

Sodium was observed at a concentration of 200 mg/l in monitoring well TH-72, which is above the PDWS of 160 mg/l. The elevated sodium value is likely attributable to the waste in the sinkhole and/or the grouting materials, as previously discussed. Sodium values in down gradient monitoring wells TH-76, TH-77, and TH-78 were observed at 19, 16, and 34 mg/l, which is consistent with the unaffected deep wells across the site.

Groundwater Elevations and Direction of Flow

On October 7, 2014, the County collected groundwater and surface water elevation data at eleven (11) locations along the western portion of Phases 1-6 at the landfill site, including seven (7) surficial aquifer wells and four (4) upper Floridan (limestone) aquifer wells. No significant changes to the patterns of flow in the surficial aquifer were noted in the data set, and the flow diagram provided is consistent with the observations over the extensive period of record. The elevations observed within the wells closest to the sinkhole indicate that flow patterns continue to be affected in that area, which has not been unexpected. However, the overall direction of flow within the surficial aquifer remains toward the west/northwest.

A contour diagram of the upper Floridan / Limestone aquifer has been prepared for the west side of the landfill around the sinkhole, and it is provided with this submittal. This diagram was generated manually in AutoCad ™ utilizing the four data points closest to the sinkhole. During this sampling event, the changes in elevations between TH-72 and TH-76 is - 0.06 ft., and TH-72 and TH-77 is + 0.09 ft. Elevation of newly installed monitor well TH-78 indicated an elevation of approximately 5 feet higher than those elevations recorded at TH-72, TH-76, and TH-77. This anomaly in the groundwater elevation indicates that TH-78 may be influenced by the surface water body in this area, or some other geologic formation anomaly may be creating this potentiometric high. The elevation data from TH-78 was not utilized to prepare the UFA contour diagram. However, the County maintains the position that the configuration of the three down gradient deep monitoring wells adequately addresses the potential for migration of the contamination observed in TH-72.

Conclusions

The water quality observed in the October 2014 IAMP sampling event indicates that the monitoring well TH-72, which is closest to the sinkhole, continues to exhibit impacts to water quality in the upper Floridan / Limestone aquifer. The impacts observed include elevated conductivity, TDS, chloride, iron and sodium. The values have remained relatively stable, and do not appear to be migrating to the down gradient wells. These impacts were not unexpected in the immediate vicinity of the sinkhole, as TH-72 is less than fifty feet away from the former surface expression, and likely even closer to the subsurface karst feature where waste and grout materials are likely present. Down gradient monitoring wells, TH-76 and TH-77, and TH-78 exhibit good water quality with no evidence of impact from the sinkhole. Conductivity values, pH, TDS, sodium and chloride are all very low and consistent with the historical data sets for the unaffected upper Floridan aquifer groundwater monitoring wells at the SCLF.

Mr. John Morris, P.G. November 21, 2014 Page 4

Recommendations

The County continues to move forward with implementation of the IAMP, which includes the monthly sampling of the four upper Floridan / Limestone aquifer groundwater monitoring wells, TH-72, TH-76, TH-77, and TH-78, and quarterly sampling of the three surficial aquifer wells, TH-73, TH-74, and TH-75. The County will continue to evaluate any water quality changes in both the surficial and upper Floridan aquifer wells, and present the findings in the monthly IAMP reports. Monthly sampling shall continue for the short term. However, it should be noted the IAMP has been conducted for nearly four years, and the consistency of the data set supports closure of this monitoring plan. A select group of the IAMP wells, designed to provide long term protectiveness, should be included in the semi-annual sampling required by the Landfill Operations Permit No. 35435-022-SO/01. It is anticipated that an application for modification of that permit will include this proposed approach. If you have any specific concerns with this concept, please provide your feedback as soon as possible, so we can incorporate any suggestions into our strategy moving forward.

Enclosed for your review please find a site location map depicting the location of the monitoring wells sampled, the water quality data summary table for this sampling event, a groundwater elevation data table, groundwater contour and flow diagrams for the surficial and upper Floridan / Limestone aquifers, the historical data summary tables for the wells sampled this month, and the complete analytical data report from our contracted laboratory, Test America, Inc. Should you have any questions or require any additional information please feel free to call me at (813) 663-3221.

Respectfully submitted,

David S. Adams, P.G

Environmental Manager

Public Utilities Department

xc: John Lyons, Director, Public Works Department

Kim Byer, Director, Solid Waste Division, Public Works

Larry Ruiz, Landfill Manager, Solid Waste Division, Public Works

Jeff Greenwell, GMIII, Environmental Services, Public Utilities

Richard Tedder, FDEP Tallahassee

Clark Moore, FDEP Tallahassee

Steve Morgan, FDEP, Southwest District

Andy Schipfer, EPC

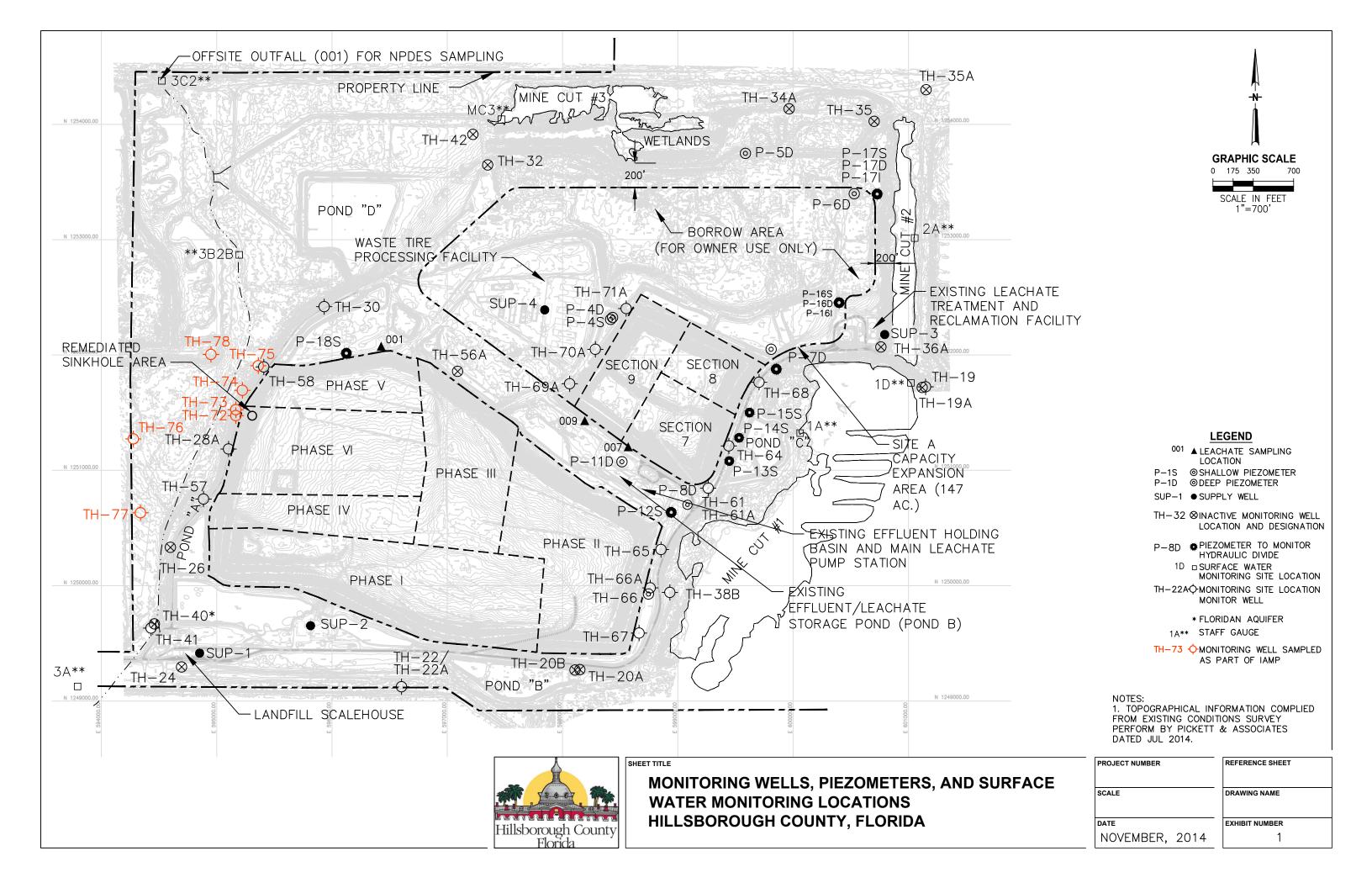
Ernest Ely, WMI

Brian Miller, DOH

Rich Siemering, HDR

Bob Curtis, HDR

Joe O'Neill, CDS

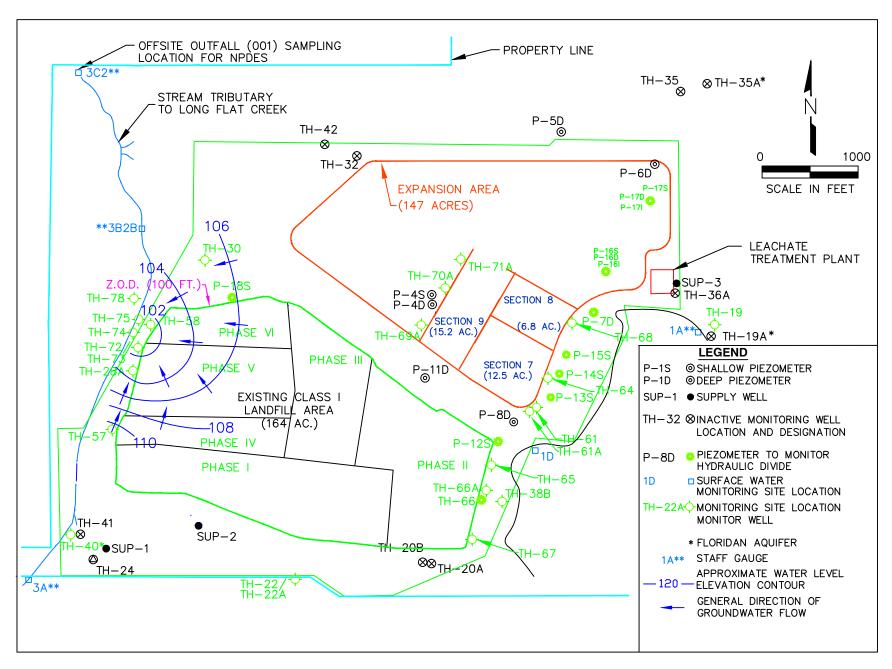


Southeast County Landfill Laboratory Analytical Data Upper Floridan Aquifer Groundwater Monitoring Wells October 7-8, 2014

GENERAL	Ų	Jpper Flori	dan Wells		MCL STANDARD
PARAMETERS	TH-72	TH-76	TH-77	TH-78	
conductivity (umhos/cm) (field)	2,300	432	416	508	NS
dissolved oxygen (mg/l) (field)	0.18	0.34	0.22	0.30	NS
pH (field)	6.78	7.37	7.36	8.39	(6.5 - 8.5)**
temperature (°C) (field)	23.59	22.89	23.64	23.35	NS
turbidity (NTU) (field)	0.79	17.9	0.71	1.12	NS
total dissolved solids (mg/l)	1,300	260	240	270	500**
chloride (mg/l)	530	12	9.3	34	250**
ammonia nitrogen (mg/l as N)	23	0.78	1.4 j3	0.44	NS
METALS (mg/l)					MCL STANDARD
arsenic	0.004 u	0.004 u	0.004 u	0.004 u	0.01*
iron	0.61	0.77	0.16 i	0.23	0.3**
sodium	200	19	16	34	160*
Note: Ref. Groundwater Guidance Cor	ncentration	s, FDEP 20	12		
MCL = Maximum Contaminant Level					
NTU = Nephelometric Turbidity Units					
NS = No Standard					
i = reported value is between the labor	atory meth	od detectio	n limit and pr	actical quanti	tation limit.
u = parameter was analyzed but not de	etected.				
* = Primary Drinking Water Standard					
** = Secondary Drinking Water Standa	ard				
1,300					
ug/l = micrograms per liter			-		
mg/l = milligrams per liter			•		

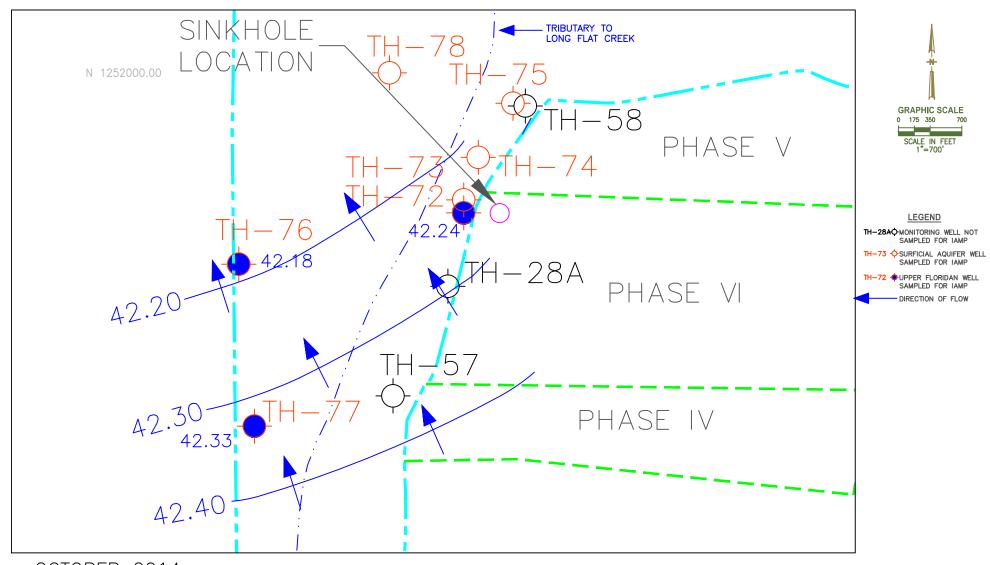
Southeast County Landfill Groundwater Elevations October 7, 2014

Measuring	T.O.C.			
Point	Elevations	W.L.	W.L.	Time
I.D.	(NGVD)	B.T.O.C.	(NGVD)	
TH-28A	131.10	27.40	103.70	10:10 AM
TH-30	128.88	23.44	105.44	10:00 AM
TH-57	128.36	18.10	110.26	9:41 AM
TH-58	127.88	26.53	101.35	10:03 AM
TH-72*	130.96	88.72	42.24	10:06 AM
TH-73	131.07	29.69	101.38	10:05 AM
TH-74	109.08	8.35	100.73	9:49 AM
TH-75	106.92	7.07	99.85	9:52 AM
TH-76*	111.21	69.03	42.18	10:30 AM
TH-77*	119.88	77.55	42.33	12:03 PM
TH-78*	120.75	73.49	47.26	10:22 AM
NGVD	= National Geode	tic Vertical Datum		
T.O.C.	= Top of Casing			
B.T.O.C.	= Below Top of Ca	asing		
*	= Floridan Well			
		tial Error in Survey	<i>y</i>	
W.L.	= Water Level			



Southeast County Landfill

Groundwater Elevation Contour Diagram — October 7, 2014



OCTOBER 2014

UPPER FLORIDAN / LIMESTONE AQUIFER CONTOUR DIAGRAM
IN THE VICINITY OF THE FORMER SINKHOLE
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA

-						111-12							
	Depth to Water	Water Table	conductivity	dissolved oxygen		temperature	turbidity (NTU)	total dissolved solids	chloride	ammonia nitrogen	arsenic		
Date	(feet)	Elevation (NGVD)	(umhos/cm) (field)	(mg/l) (field)	pH (field)	(°C) (field)	(field)	(mg/l)	(mg/l)	(mg/l as N)	(mg/l)	iron (mg/l)	sodium (mg/l)
01/27/2011	115.69	15.27	551	0.39	7.43	22.88	3.2		32	0.22	0.004 u	0.52	32
02/03/2011	112.18	18.78	565	1.09	7.38	22.95	9.9		32	0.21	0.004 u	0.62	27
02/10/2011	109.80	21.16	514	1.58	7.34	22.65	3.2	340	31	0.28	0.004 u	0.54	31
02/14/2011	108.18	22.78	483	1.15	7.36	22.7	3.5		32	0.24	0.0013 u	0.58	32
02/24/2011	111.71	19.25	513	0.19	7.34	22.85	1	350	32	0.22	0.004 u	0.53	31
03/03/2011	111.88	19.08	579	0.77	7.35	22.8	0.8		31	0.23	0.004 u	0.43	32
03/10/2011	113.65	17.31	551	1.26	7.41	22.73	0.9		30	0.18	0.004 u	0.35	31
03/17/2011	112.85	18.11	388	1.05	7.34	22.9	0.9		30	0.31	0.004 u	0.25	31
03/24/2011	114.33	16.63	1192	1.5	7.58	23.1	1.5	1,100	350	9	0.004 u	0.64	130
04/01/2011	115.70	15.26	928	0.16	7.41	22.8	3.6		110	2	0.004 u	0.24	59
04/08/2011	112.10	18.86	810	0.92	7.35	23.13	6.1	420	87	1.9	0.004 u	0.22	51
05/05/2011	116.21	14.75	609	0.71	7.67	23.01	6.6		33	0.3	0.004 u	0.27	37
06/08/2011	119.19	11.77	607	0.71	7.65	23.35	4.51	340	32	0.57	0.004 u	0.2	34
07/07/2011	113.30	17.66	606	0.72	7.4	23.25	3.94		64	2.1	0.004 u	7.9	27
08/04/2011	103.31	27.65	564	0.33	7.29	23.18	0.4		33	0.21	0.004 u	0.18 i	34
09/08/2011	97.99	32.97	536	1.11	7.29	23.2	0.6		34	0.41	0.004 u	0.18 i	36
10/04/2011	99.45	31.51	471	1.69	7.31	23.13	1.1	290	31	0.3	0.004 u	0.14 i	34
11/03/2011	103.37	27.59	550	1.8	7.28	23.04	1.51	290	32	0.29	0.004 u	0.15 i	34
12/08/2011	106.80	24.16	528	1.92	7.31	22.9	0.73	320	29	0.32	0.004 u	0.13 i	33
01/05/2012	113.08	17.88	535	0.2	7.23	22.74	0.44	330	32	0.29	0.004 u	0.097 i	31
02/10/2012	113.86	17.10	511	0.94	7.3	22.89	1.39	310	28	0.28	0.004 u	0.13 i	30
03/07/2012	121.00	9.96	575	0.27	7.15	23.23	0.5	310	25	0.22	0.004 u	0.11 i	31
04/05/2012	124.96	6.00	522	1.09	7.08	23.18	0.65	280	28	0.41	0.004 u	0.11 i	29
05/03/2012	126.55	4.41	746	1.6	6.9	23.46	0.81	380	72	2.3	0.004 u	0.54	49
06/07/2012	120.46	10.50	641	0.72	7.07	23.4	0.26	370	46	1	0.004 u	0.23	37
07/05/2012	104.95	26.01	900	0.23	6.54	23.52	0.4	650	190	2.9 j3	0.004 u	0.39	70
08/03/2012	98.26	32.70	843	0.69	6.77	23.6	2.23	730	210	3	0.004 u	0.48	78
09/06/2012	91.18	39.66	2,357	0.2	6.51	23.62	1.05	1,300	570	12	0.004 u	1.1	170
10/04/2012	90.19	40.77	1,654	0.6	6.43	23.22	0.46	1,500	650	25	0.004 u	1.9	210
11/07/2012	99.29	31.67	2,488	0.76	6.58	23.03	0.74	1,400	540	15	0.004 u	1.4	180
12/05/2012	101.82	29.14	2,416	0.23	6.49	23.18	0.45	1,300	540	13	0.004 u	1.3	180 j3
01/03/2013	100.65	30.31	2,430	1.1	6.44	23.09	0.42	1,400	500	15	0.004 u	1.3	170 j3
02/07/2013	105.58	25.38	2,206	0.6	6.5	23.1	0.22	1,100	470	13	0.004 u	1.1	160
03/07/2013	110.00	20.96	1,234	0.3	6.61	22.85	0.41	770	290	11	0.004 u	1.1	110
04/04/2013	111.35	19.61	1,252	0.33	6.74	23.15	9.9	870	260	10	0.004 u	1	100
05/02/2013	109.56	21.40	1,615	0.18	6.83	23.16	0.45	810	300	8.6	0.004 u	0.87	110
06/04/2013	109.62	21.34	1,440	0.31	7.13	23.3	0.27	850	290	8.4	0.004 u	0.82	120
07/03/2013	98.72	32.24	1,450							8.8	0.004 u		120
08/02/2013	ND	ND	1,256	0.46	6.88	23.43			290	6.8	0.004 u	0.72	120
09/05/2013	87.92	43.04	1,001	0.61	6.98	23.45			290	7.6	0.004 u	0.71	110
10/02/2013	87.39	43.57	1,566	0.32	6.86	23.53	12.6	•	350	7.4 j3	0.004 u	0.79	120
11/06/2013	97.90	33.06	2,145	0.16	6.69	23.36			450	12	0.004 u	0.64	170
12/05/2013	98.50	32.46	2,615	0.39	6.74	23.45	0.58	·	580	16	0.004 u	0.65	200
01/03/2014	99.02	31.94	2,220	0.84	6.83	22.88	1.64	,	580	25	0.004 u	0.67	230 j3
02/06/2014	99.50	31.46	2,452	0.13	6.69	23.13	2.07	1,300	580	23 j3	0.004 u	0.71	210
03/04/2014	97.91	33.05	2,173	0.24		23.4	1.33	·	580	22	0.004 u	0.74	220
04/03/2014	96.22	34.74	1,992	0.22	6.74	23.35		•	590	27	0.0013 u	0.71	220
05/06/2014	100.22	30.74	2,247	0.46	6.81	23.5		·	590	24	0.004 u	0.64	230
06/03/2014	102.58	28.38	2,771	0.34		23.46		•	570	27	0.004 u	0.73	220
07/03/2014	97.64	33.32	2,388	0.29	6.86	23.54	1.34		570	24	0.004 u	0.72	220
08/12/2014	90.40	40.56	2,375	0.28	6.87	23.55	0.81		540	23	0.004 u	0.62	200 j3
09/05/2014	90.75	40.21	3,156	0.46	6.74	23.61	1.96	1,400	510	20	0.004 u	0.65	210

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

ND = No Data - water levels collected during quarterly ADR.

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
05/02/2013	89.83	21.38	450	0.22	7.63	22.81	36.9	220	13	0.4	0.004 u	1.1	20
06/04/2013	89.91	21.30	401	0.27	7.86	22.9	16.2	240	13	0.4	0.004 u	0.66	22
07/03/2013	79.04	32.17	398	0.19	8	23	28.6	210	12	0.34	0.004 u	0.99	22
08/02/2013	ND	ND	343	0.22	7.57	23.02	42.2	230	13	0.26	0.004 u	1.6	21
09/05/2013	68.22	42.99	278	0.21	7.74	22.97	46	240	12	0.32	0.004 u	1.5	20
10/02/2013	67.69	43.46	399	0.22	7.61	22.99	61.9	120	13	0.38	0.004 u	1.7	20
11/06/2013	78.19	33.02	446	0.64	7.54	22.84	29	260	13	0.36	0.004 u	1.1	20
12/05/2013	78.80	32.41	478	0.48	7.45	22.9	19.2	240	12	0.35	0.004 u	0.96	20
01/03/2014	79.38	31.83	398	0.58	7.67	22.35	19.4	190	12	0.23 j3	0.004 u	1.1	20
02/06/2014	79.87	31.34	446	0.14	7.54	22.57	18.1	230	12	0.45	0.004 u	0.96	20
03/04/2014	78.20	33.01	434	0.18	7.36	22.7	26.2	230	12	0.33	0.004 u	0.69	20
04/03/2014	76.54	34.67	441	0.18	7.46	22.82	24.7	210	12	0.6	0.0013 u	0.34	19
05/06/2014	80.52	30.69	427	0.24	7.56	22.85	12.7	220	12	0.38	0.004 u	0.65	21
06/03/2014	82.85	28.36	423	0.3	7.47	22.82	16.8	240	12	0.47	0.004 u	0.64	20
07/03/2014	77.98	33.23	421	0.3	7.46	22.83	19.5	230	12	0.49	0.004 u	0.2	20
08/13/2014	70.72	40.49	445	0.25	7.37	22.81	17	240	12	0.5	0.004 u	0.7	20
09/05/2014	71.05	40.16	596	0.2	7.28	22.92	19	240	12	0.72	0.004 u	0.61	20

u = parameter was analyzed but not detected

ND = No Data - water levels collected during quarterly ADR.

1.1 EXCEEDS STANDARD

Date	Depth to Water (feet)	Water Table Elevation (NGVD)	conductivity (umhos/cm) (field)	dissolved oxygen (mg/l) (field)	pH (field)	temperature (°C) (field)	turbidity (NTU) (field)	total dissolved solids (mg/l)	chloride (mg/l)	ammonia nitrogen (mg/l as N)	arsenic (mg/l)	iron (mg/l)	sodium (mg/l)
05/02/2013	98.31	21.57	440	0.57	7.39	23.39	59.4	190	9.4	0.39	0.004 u	1.2	17
06/04/2013	98.38	21.50	384	0.56	7.86	23.59	35.4	230	8.9	0.42	0.004 u	0.89	18
07/03/2013	87.48	32.40	388	0.41	7.8	23.7	38.4	210	8.9	0.4	0.004 u	1.1	17
08/02/2013	ND	ND	334	0.47	7.44	23.66	42.9	230	9.2	0.36	0.004 u	1.1	18
09/05/2013	76.66	43.22	269	0.83	7.61	23.68	47.1	230	8.9	0.35	0.004 u	0.96	16
10/02/2013	76.14	43.72	383	0.69	7.5	23.59	52.7	240	9.1	0.39	0.004 u	1.3	17
11/06/2013	86.68	33.20	423	0.74	7.43	23.51	25.1	230	9.7	0.36 j3	0.004 u	0.68	17
12/05/2013	87.29	32.59	451	0.9	7.44	23.6	16.4	220	9	0.36	0.004 u	0.58	17
01/03/2014	87.87	32.01	371	0.85	7.65	23.18	16.5	160	9.1	0.39	0.004 u	0.63	17
02/06/2014	88.30	31.58	424	0.09	7.53	23.39	4.62	250	9.2	0.27	0.004 u	0.26	16
03/04/2014	86.70	33.18	418	0.36	7.34	23.38	1.12	230	9.3	0.32	0.004 u	0.21	16
04/03/2014	85.02	34.86	430	0.28	7.45	23.47	1.97	220	9.4	0.61	0.0013 u	0.18	15
05/06/2014	89.02	30.86	414	0.34	7.52	23.47	1.01	220	9.7	0.59	0.004 u	0.19	17
06/03/2014	91.34	28.54	464	0.27	7.47	23.49	0.88	230	9.7	0.75	0.004 u	0.19	17
07/03/2014	86.40	33.48	409	0.34	7.44	23.65	1.56	230	9.6	0.48	0.004 u	0.14 i	17
08/13/2014	79.19	40.69	436	0.36	7.39	23.76	0.61	260	9.5	0.49	0.004 u	0.16 i	16
09/05/2014	79.52	40.36	578	0.37	7.31	23.62	1.02	240	12	0.72	0.004 u	0.61	20

u = parameter was analyzed but not detected

1.2 EXCEEDS STANDARD

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.

ND = No Data - water levels collected during quarterly ADR.

_	Depth to Water	Water Table	conductivity	dissolved oxygen		•	, ,	total dissolved solids		ammonia nitrogen	arsenic		
Date	(feet)	Elevation (NGVD)	(umhos/cm) (field)	(mg/l) (field)	pH (field)	(°C) (field)	(field)	(mg/l)	(mg/l)	(mg/l as N)	(mg/l)	iron (mg/l)	sodium (mg/l)
07/02/2014	ND	ND	363	0.41	9.08	23.89	19.3	210	43	0.44	0.0019 i	1	38
08/12/2014	75.51	45.24	467	0.4	9.55	23.56	7.37	240	38	0.42 j3	0.004 u	0.48	34
09/05/2014	75.12	45.63	680	0.15	8.18	23.46	3.86	270	36	0.4	0.004 u	0.27	35

u = parameter was analyzed but not detected

ND = No Data - survey data was not complete.

1.2 EXCEEDS STANDARD

i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

j3 = estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Tampa 6712 Benjamin Road Suite 100 Tampa, FL 33634

Tel: (813)885-7427

TestAmerica Job ID: 660-63242-1

Client Project/Site: SELF IAMP Monitoring Wells

For:

Hillsborough Co Public Utilities Dept Environmental Services Group Brandon Support Operations Complex 332 North Falkenburg Rd, 2nd Floor Tampa, Florida 33619

Attn: David Adams

Authorized for release by:

Authorized for release by: 10/20/2014 4:47:11 PM

Nancy Robertson, Project Manager II (813)885-7427

nancy.robertson@testamericainc.com

----- LINKS -----

Review your project results through

Total Access

Have a Question?



Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Case Narrative	4
Definitions/Glossary	5
Detection Summary	6
Client Sample Results	8
QC Sample Results	14
QC Association Summary	19
Lab Chronicle	21
Method Summary	23
Certification Summary	24
Chain of Custody	26
Receipt Checklists	36

Sample Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-63242-1	TH- 77	Water	10/07/14 12:53	10/07/14 15:10
660-63242-2	TH- 76	Water	10/07/14 11:48	10/07/14 15:10
660-63242-3	FIELD BLANK	Water	10/07/14 10:40	10/07/14 15:10
660-63267-1	TH-72	Ground Water	10/08/14 12:06	10/08/14 14:00
660-63267-2	TH-78	Ground Water	10/08/14 10:47	10/08/14 14:00
660-63267-3	DUPLICATE	Ground Water	10/08/14 00:00	10/08/14 14:00

4

7

8

11

12

4 /

Case Narrative

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Job ID: 660-63242-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative 660-63242-1

Comments

No additional comments.

Receipt

The samples were received on 10/7/2014 3:10 PM and 10/8/2014 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.0° C and 4.4° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method 350.1: The matrix spike duplicate (MSD) recovery for batch 353054 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The sample is flagged with J3.

No additional analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

3

1

E

6

b

9

10

4.0

13

Definitions/Glossary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.
1	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

General Chemistry

Qualifier	Qualifier Description
J3	Estimated value; value may not be accurate. Spike recovery or RPD outside of criteria.
U	Indicates that the compound was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit

MLMinimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC **Quality Control** RER Relative error ratio

Reporting Limit or Requested Limit (Radiochemistry) RL

RPD Relative Percent Difference, a measure of the relative difference between two points

Toxicity Equivalent Factor (Dioxin) TEF TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Tampa

Page 5 of 39

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Client Sample ID: TH-77

TestAmerica Job ID: 660-63242-1

Lab Sample ID: 660-63242-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.3		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	160	1	200	50	ug/L	1		6010B	Total
Sodium	16		0.50	0.31	mg/L	1		6010B	Recoverable
Socium	10		0.50	0.31	IIIg/L	ı		0010B	Total Recoverable
Ammonia as N	1.4	J3	0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	240		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.36				SU	1		Field Sampling	Total/NA
Field Temperature	23.64				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.22				mg/L	1		Field Sampling	Total/NA
Specific Conductance	416				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.71				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-76 Lab Sample ID: 660-63242-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	770		200	50	ug/L	1		6010B	Total
Sodium	19		0.50	0.31	mg/L	1		6010B	Recoverable Total Recoverable
Ammonia as N	0.78		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	260		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.37				SU	1		Field Sampling	Total/NA
Field Temperature	22.89				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.34				mg/L	1		Field Sampling	Total/NA
Specific Conductance	432				umhos/cm	1		Field Sampling	Total/NA
Turbidity	17.9				NTU	1		Field Sampling	Total/NA

Client Sample ID: FIELD BLANK Lab Sample ID: 660-63242-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil F		Method	Prep Type
Ammonia as N	0.11		0.050	0.026	mg/L		1	350.1	Total/NA

Client Sample ID: TH-72 Lab Sample ID: 660-63267-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	530		10	5.0	mg/L	20	_	300.0	Total/NA
Iron	610		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	200		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	23		1.0	0.52	mg/L	20		350.1	Total/NA
Total Dissolved Solids	1300		25	25	mg/L	1		SM 2540C	Total/NA
Field pH	6.78				SU	1		Field Sampling	Total/NA
Field Temperature	23.59				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2300				uS/cm	1		Field Sampling	Total/NA
Turbidity	0.79				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-78 Lab Sample ID: 660-63267-2

This Detection Summary does not include radiochemical test results.

Page 6 of 39

TestAmerica Tampa

Detection Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Client Sample ID: TH-78 (Continued)

TestAmerica Job ID: 660-63242-1

Lab Sample ID: 660-63267-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	230		200	50	ug/L	1		6010B	Total
									Recoverable
Sodium	34		0.50	0.31	mg/L	1		6010B	Total
									Recoverable
Ammonia as N	0.44		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	270		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	8.39				SU	1		Field Sampling	Total/NA
Field Temperature	23.35				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.30				mg/L	1		Field Sampling	Total/NA
Specific Conductance	508				uS/cm	1		Field Sampling	Total/NA
Turbidity	1.12				NTU	1		Field Sampling	Total/NA

Client Sample ID: DUPLICATE

Lab Sample ID: 660-63267-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34		0.50	0.25	mg/L	1	_	300.0	Total/NA
Iron	240		200	50	ug/L	1		6010B	Total Recoverable
Sodium	34		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	0.88		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	260		10	10	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

10/20/2014

2

4

6

9

10

4.0

13

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Lab Sample ID: 660-63242-1

10/07/14 12:52

Matrix: Water

Date Collected: 10/07/14 12:53 Date Received: 10/07/14 15:10

Turbidity

Client Sample ID: TH-77

Method: 300.0 - Anions, Ion Cl Analyte	• • •	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		0.50	0.25	mg/L			10/15/14 15:09	1
Method: 6010B - Metals (ICP)	- Total Recoverab	le							
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		10/09/14 11:01	10/13/14 10:42	1
Iron	160	1	200	50	ug/L		10/09/14 11:01	10/13/14 10:42	1
Sodium	16		0.50	0.31	mg/L		10/09/14 11:01	10/13/14 10:42	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	1.4	J3	0.10	0.052	mg/L			10/10/14 12:53	2
Total Dissolved Solids	240		10	10	mg/L			10/08/14 07:16	1
Method: Field Sampling - Field	d Sampling								
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.36				SU			10/07/14 12:52	1
Field Temperature	23.64				Degrees C			10/07/14 12:52	1
Oxygen, Dissolved	0.22				mg/L			10/07/14 12:52	1
Specific Conductance	416				umhos/cm			10/07/14 12:52	

0.71

NTU

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Oxygen, Dissolved

Turbidity

Specific Conductance

TestAmerica Job ID: 660-63242-1

-2

10/07/14 11:48

10/07/14 11:48

10/07/14 11:48

er

Client Sample ID: TH- 76	Lab Sample ID: 660-63242-2
Date Collected: 10/07/14 11:48	Matrix: Water
Date Received: 10/07/14 15:10	

matography								
Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
12		0.50	0.25	mg/L			10/15/14 15:24	1
otal Recoverab	ole							
Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4.0	U	10	4.0	ug/L		10/09/14 11:01	10/13/14 10:55	1
770		200	50	ug/L		10/09/14 11:01	10/13/14 10:55	1
19		0.50	0.31	mg/L		10/09/14 11:01	10/13/14 10:55	1
Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
0.78		0.050	0.026	mg/L			10/10/14 12:36	1
260		10	10	mg/L			10/08/14 07:16	1
ampling								
Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
7.37				SU			10/07/14 11:48	1
22.89				Degrees C				
	12	Result Qualifier 12 Otal Recoverable Result Qualifier 4.0 770 19 Result Qualifier 0.78 260 sampling Result Qualifier Qualifier 0.78 260	Result Qualifier PQL	Result Qualifier PQL MDL	Result Qualifier PQL MDL Unit mg/L	Result Qualifier PQL MDL Unit D	Result Qualifier PQL MDL Unit D Prepared	Result Qualifier PQL MDL Unit D Prepared Analyzed

mg/L

NTU

umhos/cm

0.34

432

17.9

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells TestAmerica Job ID: 660-63242-1

Client Sample ID: FIELD BLANK

Date Collected: 10/07/14 10:40 Date Received: 10/07/14 15:10 Lab Sample ID: 660-63242-3

Matrix: Water

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.25	U	0.50	0.25	mg/L			10/15/14 16:10	1
Method: 6010B - Metals (ICP)	- Total Recoverab	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		10/09/14 11:01	10/13/14 10:58	1
Iron	50	U	200	50	ug/L		10/09/14 11:01	10/13/14 10:58	1
Sodium	0.31	U	0.50	0.31	mg/L		10/09/14 11:01	10/13/14 10:58	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.11		0.050	0.026	mg/L			10/09/14 21:36	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			10/08/14 07:16	1

TestAmerica Tampa

4

5

7

8

9

10

40

13

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Client Sample ID: TH-72

Date Collected: 10/08/14 12:06

Date Received: 10/08/14 14:00

TestAmerica Job ID: 660-63242-1

Lab Sample ID: 660-63267-1

Matrix: Ground Water

Method: 300.0 - Anions, Ion Cl Analyte	• • •	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	530		10	5.0	mg/L			10/15/14 00:43	20
Method: 6010B - Metals (ICP) -	Total Recoverab	le							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		10/09/14 11:01	10/13/14 11:18	1
Iron	610		200	50	ug/L		10/09/14 11:01	10/13/14 11:18	1
Sodium	200		0.50	0.31	mg/L		10/09/14 11:01	10/13/14 11:18	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	23		1.0	0.52	mg/L			10/14/14 10:27	20
Total Dissolved Solids	1300		25	25	mg/L			10/09/14 15:43	1
- Method: Field Sampling - Field	I Sampling								
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.78				SU			10/08/14 12:06	1
Field Temperature	23.59				Degrees C			10/08/14 12:06	1
Oxygen, Dissolved	0.18				mg/L			10/08/14 12:06	1
Specific Conductance	2300				uS/cm			10/08/14 12:06	1
Turbidity	0.79				NTU			10/08/14 12:06	

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells TestAmerica Job ID: 660-63242-1

Lab Sample ID: 660-63267-2

Matrix: Ground Water

Client Sample ID: TH-78
Date Collected: 10/08/14 10:47
Date Received: 10/08/14 14:00

Method: 300.0 - Anions, Ion Ch									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34		0.50	0.25	mg/L			10/15/14 00:58	1
Method: 6010B - Metals (ICP) -	Total Recoverab	le							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		10/09/14 11:01	10/13/14 11:22	1
Iron	230		200	50	ug/L		10/09/14 11:01	10/13/14 11:22	1
Sodium	34		0.50	0.31	mg/L		10/09/14 11:01	10/13/14 11:22	1
General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.44		0.050	0.026	mg/L			10/13/14 20:31	1
Total Dissolved Solids	270		10	10	mg/L			10/09/14 15:43	1
Method: Field Sampling - Field	l Sampling								
Analyte		Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	8.39				SU			10/08/14 10:47	1
Field Temperature	23.35				Degrees C			10/08/14 10:47	1
Oxygen, Dissolved	0.30				mg/L			10/08/14 10:47	1
Specific Conductance	508				uS/cm			10/08/14 10:47	1
Turbidity	1.12				NTU			10/08/14 10:47	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells TestAmerica Job ID: 660-63242-1

Client Sample ID: DUPLICATE

Date Collected: 10/08/14 00:00 Date Received: 10/08/14 14:00 Lab Sample ID: 660-63267-3

Matrix: Ground Water

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34		0.50	0.25	mg/L			10/15/14 01:41	1
Method: 6010B - Metals (ICP)	- Total Recoverat	ole							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		10/09/14 11:01	10/13/14 11:25	1
Iron	240		200	50	ug/L		10/09/14 11:01	10/13/14 11:25	1
Sodium	34		0.50	0.31	mg/L		10/09/14 11:01	10/13/14 11:25	1
- General Chemistry									
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.88		0.050	0.026	mg/L			10/14/14 10:10	1
Total Dissolved Solids	260		10	10	ma/l			10/09/14 15:43	1

TestAmerica Tampa

2

4

5

7

8

9

10

12

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-353588/29 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 353588

мв мв Result Qualifier PQL MDL Unit D Dil Fac Analyte Prepared Analyzed 0.50 10/14/14 20:24 Chloride 0.25 U 0.25 mg/L

Lab Sample ID: LCS 680-353588/30 Client Sample ID: Lab Control Sample **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 353588

LCS LCS Spike %Rec. Result Qualifier Analyte Added Unit %Rec Limits Chloride 10.0 9.82 mg/L 98 90 - 110

Lab Sample ID: LCSD 680-353588/31 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 353588

LCSD LCSD %Rec. RPD Spike Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloride 10.0 9.81 98 mg/L

Lab Sample ID: 660-63267-2 MS Client Sample ID: TH-78 **Matrix: Ground Water** Prep Type: Total/NA

Analysis Batch: 353588

Sample Sample Spike MS MS %Rec. Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits Chloride 34 10.0 44 1 ma/L 97 80 - 120

Lab Sample ID: 660-63267-2 MSD Client Sample ID: TH-78 **Matrix: Ground Water** Prep Type: Total/NA

Analysis Batch: 353588

Sample Sample Spike MSD MSD %Rec. RPD Added Analyte Result Qualifier Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 80 - 120 44.2 mg/L 30 34

Lab Sample ID: MB 680-353675/5 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 353675

MB MB Result Qualifier PQL Analyte MDL Unit D Prepared Analyzed Dil Fac 0.50 Chloride 0.25 U 0.25 mg/L 10/15/14 13:06

Lab Sample ID: LCS 680-353675/6 **Client Sample ID: Lab Control Sample**

Matrix: Water

Analysis Batch: 353675

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit %Rec Limits Chloride 10.0 9.71 mg/L 97 90 - 110

Lab Sample ID: LCSD 680-353675/7 Client Sample ID: Lab Control Sample Dup **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 353675

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit %Rec Limits RPD Limit Chloride 10.0 9.81 mg/L 98

TestAmerica Tampa

Prep Type: Total/NA

Client Sample ID: TH-76

Client Sample ID: TH-76

Client Sample ID: Duplicate

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Type: Total Recoverable

Prep Batch: 152180

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Lab Sample ID: 660-63242-2 MS

Matrix: Water

Analysis Batch: 353675

Sample Sample Spike MS MS %Rec. Result Qualifier Added Result Qualifier Analyte %Rec Limits Unit D Chloride 10.0 22 1 103 80 - 120 12 mg/L

Lab Sample ID: 660-63242-2 MSD

Matrix: Water

Analysis Batch: 353675

Sample Sample Spike MSD MSD %Rec. RPD Result Qualifier Result Qualifier Analyte Added %Rec I imite RPD Limit Unit D Chloride 12 10.0 21.9 mg/L 100 80 - 120 30

Lab Sample ID: 680-105985-E-1 DU

Matrix: Water

Analysis Batch: 353675

DU DU RPD Sample Sample Result Qualifier Analyte Result Qualifier Unit RPD Limit Chloride 2.6 2.61 mg/L 30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-152180/1-A

Matrix: Water

Analysis Batch: 152278

MB MB Analyte Result Qualifier PQL **MDL** Unit Prepared Analyzed Dil Fac Arsenic 4.0 U 10 10/09/14 11:01 10/13/14 10:32 4.0 ug/L Iron 50 U 200 50 ug/L 10/09/14 11:01 10/13/14 10:32 0.31 U 0.50 10/09/14 11:01 10/13/14 10:32 Sodium 0.31 mg/L

Lab Sample ID: LCS 660-152180/2-A

Matrix: Water

Analysis Batch: 152278							Prep I	Batch: 152180
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	1000	996		ug/L		100	80 - 120	
Iron	1000	1040		ug/L		104	80 - 120	
Sodium	10.0	9.72		mg/L		97	80 - 120	

Lab Sample ID: 660-63242-1 MS Client Sample ID: TH- 77 **Matrix: Water Prep Type: Total Recoverable Analysis Batch: 152278 Prep Batch: 152180**

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	4.0	U	1000	1010		ug/L		101	80 - 120	
Iron	160	1	1000	1190		ug/L		103	80 - 120	
Sodium	16		10.0	26.2		mg/L		100	80 - 120	

Lab Sample ID: 660-63242-1 MSD

Matrix: Water								Prep	Type: Tota	al Recov	erable
Analysis Batch: 152278									Prep	Batch: 1	52180
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	4.0	U	1000	1030		ug/L	_	103	80 - 120	2	20

TestAmerica Tampa

Client Sample ID: TH- 77

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 660-63242-1 MS	D								Client Sam	iple ID: 1	ГН- 77
Matrix: Water								Prep	Type: Tota	I Recov	erable
Analysis Batch: 152278									Prep	Batch: 1	52180
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Iron	160	I	1000	1210		ug/L		105	80 - 120	1	20
Sodium	16		10.0	26.5		mg/L		104	80 - 120	1	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-353054/2							Client Sa	ample ID: Metho	d Blank
Matrix: Water								Prep Type: T	otal/NA
Analysis Batch: 353054									
	MB	MB							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L			10/09/14 20:00	1
					· ·				
Lab Sample ID: LCS 680-353054/-	40					Cli	ient Sample	ID: Lab Control	Sample

Matrix: Water							Prep 1	Γype: Total/NΑ	4
Analysis Batch: 353054									
	Spike	LCS	LCS				%Rec.		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Ammonia as N	 1.00	1.02		mg/L		102	90 - 110		_

Matrix: Water Analysis Batch: 353054					Prep Type: Total/NA
Analysis Batch. 333034	Sample	Sample	Spike	MS MS	%Rec.

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Ammonia as N	1.4	J3	1.00	2.25	J3	mg/L		85	90 - 110	

Lab Sample ID: 660-63242-1 MS Matrix: Water Analysis Batch: 353054	SD								Client Sam Prep T	ple ID: 1 ype: Tot	
, maryoto Batom cocco :	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Ammonia as N	1.4	J3	1.00	2.06	J3	mg/L		67	90 - 110	8	30
-											

Lab Sample ID: 680-106011-B- Matrix: Water	11 DU						Client Sampl Prep	e ID: Dup Type: To	
Analysis Batch: 353054							•		
-	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Ammonia as N	0.23		0.211		mg/L			10	30

Lab Sample ID: MB 680-353445/36 Matrix: Water							Client Sa	ample ID: Metho Prep Type: T	
Analysis Batch: 353445	МВ	МВ							
Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L			10/14/14 10:10	1

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 680-353445/1 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 353445

Spike LCS LCS %Rec. Added Analyte Result Qualifier Limits Unit D %Rec 1.00 90 - 110 Ammonia as N 1.01 mg/L 101

Lab Sample ID: 640-49416-B-1 MS Client Sample ID: Matrix Spike **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 353445

Sample Sample Spike MS MS %Rec. Result Qualifier Added Analyte Result Qualifier Unit %Rec Limits Ammonia as N 0.13 1.00 1.20 mg/L 107 90 - 110

Lab Sample ID: 640-49416-B-1 MSD Client Sample ID: Matrix Spike Duplicate Prep Type: Total/NA

Matrix: Water

Analysis Batch: 353445

Spike MSD MSD %Rec. RPD Sample Sample Result Qualifier Added Result Qualifier Unit D %Rec Limits **RPD** Limit 0.13 1.00 1.16 102 Ammonia as N mg/L

Client Sample ID: TH-78 Lab Sample ID: 660-63267-2 DU **Matrix: Ground Water** Prep Type: Total/NA

Analysis Batch: 353445

DU DU RPD Sample Sample Result Qualifier Result Qualifier Analyte Unit Limit 0.44 Ammonia as N 0.452 mg/L 30

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 660-152121/1 Client Sample ID: Method Blank Prep Type: Total/NA

Matrix: Water

Analysis Batch: 152121

MB MB PQL MDL Unit Result Qualifier Prepared Dil Fac Analyte Analyzed Total Dissolved Solids 5.0 5.0 U 5.0 mg/L 10/08/14 07:16

Lab Sample ID: LCS 660-152121/2 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 152121

LCS LCS Spike %Rec. Analyte Added Result Qualifier Unit D %Rec Limits Total Dissolved Solids 10000 9950 mg/L 99 80 - 120

Lab Sample ID: 660-63242-2 DU Client Sample ID: TH-76 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 152121									
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Total Dissolved Solids	260		 264		mg/L	_			20

QC Sample Results

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: TH-78

Prep Type: Total/NA

Lab Sample ID: MB 660-152196/1 Client Sample ID: Method Blank

Matrix: Water Analysis Batch: 152196

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

MB MB

Result Qualifier PQL MDL Unit Dil Fac Analyte D Prepared Analyzed Total Dissolved Solids 5.0 U 5.0 5.0 mg/L 10/09/14 15:43

Lab Sample ID: LCS 660-152196/2

Matrix: Water

Analysis Batch: 152196

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits **Total Dissolved Solids** 10000 9930 mg/L 99 80 - 120

Lab Sample ID: 660-63267-2 DU

Matrix: Ground Water

Analysis Batch: 152196

Sample Sample DU DU RPD Result Qualifier Limit Result Qualifier Unit **RPD** Total Dissolved Solids 270 284 20 mg/L

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

HPLC/IC

Analysis Batch: 353588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63267-1	TH-72	Total/NA	Ground Water	300.0	
660-63267-2	TH-78	Total/NA	Ground Water	300.0	
660-63267-2 MS	TH-78	Total/NA	Ground Water	300.0	
660-63267-2 MSD	TH-78	Total/NA	Ground Water	300.0	
660-63267-3	DUPLICATE	Total/NA	Ground Water	300.0	
LCS 680-353588/30	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-353588/31	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-353588/29	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 353675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63242-1	TH- 77	Total/NA	Water	300.0	-
660-63242-2	TH- 76	Total/NA	Water	300.0	
660-63242-2 MS	TH- 76	Total/NA	Water	300.0	
660-63242-2 MSD	TH- 76	Total/NA	Water	300.0	
660-63242-3	FIELD BLANK	Total/NA	Water	300.0	
680-105985-E-1 DU	Duplicate	Total/NA	Water	300.0	
LCS 680-353675/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-353675/7	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-353675/5	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 152180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
660-63242-1	TH- 77	Total Recoverable	Water	3005A	_
660-63242-1 MS	TH- 77	Total Recoverable	Water	3005A	
660-63242-1 MSD	TH- 77	Total Recoverable	Water	3005A	
660-63242-2	TH- 76	Total Recoverable	Water	3005A	
660-63242-3	FIELD BLANK	Total Recoverable	Water	3005A	
660-63267-1	TH-72	Total Recoverable	Ground Water	3005A	
660-63267-2	TH-78	Total Recoverable	Ground Water	3005A	
660-63267-3	DUPLICATE	Total Recoverable	Ground Water	3005A	
LCS 660-152180/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-152180/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 152278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63242-1	TH- 77	Total Recoverable	Water	6010B	152180
660-63242-1 MS	TH- 77	Total Recoverable	Water	6010B	152180
660-63242-1 MSD	TH- 77	Total Recoverable	Water	6010B	152180
660-63242-2	TH- 76	Total Recoverable	Water	6010B	152180
660-63242-3	FIELD BLANK	Total Recoverable	Water	6010B	152180
660-63267-1	TH-72	Total Recoverable	Ground Water	6010B	152180
660-63267-2	TH-78	Total Recoverable	Ground Water	6010B	152180
660-63267-3	DUPLICATE	Total Recoverable	Ground Water	6010B	152180
LCS 660-152180/2-A	Lab Control Sample	Total Recoverable	Water	6010B	152180
MB 660-152180/1-A	Method Blank	Total Recoverable	Water	6010B	152180

TestAmerica Tampa

Page 19 of 39

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

General Chemistry

Analysis Batch: 152121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63242-1	TH- 77	Total/NA	Water	SM 2540C	
660-63242-2	TH- 76	Total/NA	Water	SM 2540C	
660-63242-2 DU	TH- 76	Total/NA	Water	SM 2540C	
660-63242-3	FIELD BLANK	Total/NA	Water	SM 2540C	
LCS 660-152121/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-152121/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 152196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63267-1	TH-72	Total/NA	Ground Water	SM 2540C	
660-63267-2	TH-78	Total/NA	Ground Water	SM 2540C	
660-63267-2 DU	TH-78	Total/NA	Ground Water	SM 2540C	
660-63267-3	DUPLICATE	Total/NA	Ground Water	SM 2540C	
LCS 660-152196/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-152196/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 353054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63242-1	TH- 77	Total/NA	Water	350.1	
660-63242-1 MS	TH- 77	Total/NA	Water	350.1	
660-63242-1 MSD	TH- 77	Total/NA	Water	350.1	
660-63242-2	TH- 76	Total/NA	Water	350.1	
660-63242-3	FIELD BLANK	Total/NA	Water	350.1	
680-106011-B-11 DU	Duplicate	Total/NA	Water	350.1	
LCS 680-353054/40	Lab Control Sample	Total/NA	Water	350.1	
MB 680-353054/2	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 353445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
640-49416-B-1 MS	Matrix Spike	Total/NA	Water	350.1	
640-49416-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
660-63267-1	TH-72	Total/NA	Ground Water	350.1	
660-63267-2	TH-78	Total/NA	Ground Water	350.1	
660-63267-2 DU	TH-78	Total/NA	Ground Water	350.1	
660-63267-3	DUPLICATE	Total/NA	Ground Water	350.1	
LCS 680-353445/1	Lab Control Sample	Total/NA	Water	350.1	
MB 680-353445/36	Method Blank	Total/NA	Water	350.1	

Field Service / Mobile Lab

Analysis Batch: 152144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63242-1	TH- 77	Total/NA	Water	Field Sampling	
660-63242-2	TH- 76	Total/NA	Water	Field Sampling	

Analysis Batch: 152508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-63267-1	TH-72	Total/NA	Ground Water	Field Sampling	
660-63267-2	TH-78	Total/NA	Ground Water	Field Sampling	

Page 20 of 39

Client: Hillsborough Co Public Utilities Dept

Project/Site: SELF IAMP Monitoring Wells

Lab Sample ID: 660-63242-1

Matrix: Water

Date Collected: 10/07/14 12:53 Date Received: 10/07/14 15:10

Client Sample ID: TH-77

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0			353675	10/15/14 15:09	DAS	TAL SAV
Total Recoverable	Prep	3005A			152180	10/09/14 11:01	GAF	TAL TAM
Total Recoverable	Analysis	6010B		1	152278	10/13/14 10:42	GAF	TAL TAM
Total/NA	Analysis	350.1		2	353054	10/10/14 12:53	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	152121	10/08/14 07:16	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	152144	10/07/14 12:52	FS	TAL TAM

Lab Sample ID: 660-63242-2

Matrix: Water

Client Sample ID: TH- 76 Date Collected: 10/07/14 11:48 Date Received: 10/07/14 15:10

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Total/NA 300.0 353675 10/15/14 15:24 DAS TAL SAV Analysis Total Recoverable Prep 3005A 152180 10/09/14 11:01 GAF TAL TAM Total Recoverable 6010B TAL TAM Analysis 152278 10/13/14 10:55 GAF 1 Total/NA Analysis 350.1 353054 10/10/14 12:36 JME TAL SAV Total/NA Analysis SM 2540C 152121 10/08/14 07:16 TKO TAL TAM Total/NA Analysis 10/07/14 11:48 FS TAL TAM Field Sampling 152144

Client Sample ID: FIELD BLANK

Date Collected: 10/07/14 10:40

Date Received: 10/07/14 15:10

Lab Sample ID: 660-63242-3 Matrix: Water

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	353675	10/15/14 16:10	DAS	TAL SAV
Total Recoverable	Prep	3005A			152180	10/09/14 11:01	GAF	TAL TAM
Total Recoverable	Analysis	6010B		1	152278	10/13/14 10:58	GAF	TAL TAM
Total/NA	Analysis	350.1		1	353054	10/09/14 21:36	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	152121	10/08/14 07:16	TKO	TAL TAM

Client Sample ID: TH-72

Date Collected: 10/08/14 12:06

Date Received: 10/08/14 14:00

Lab Sampl	e ID:	660-63267-1	
N	/latrix:	Ground Water	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	353588	10/15/14 00:43	DAS	TAL SAV
Total Recoverable	Prep	3005A			152180	10/09/14 11:01	GAF	TAL TAM
Total Recoverable	Analysis	6010B		1	152278	10/13/14 11:18	GAF	TAL TAM
Total/NA	Analysis	350.1		20	353445	10/14/14 10:27	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	152196	10/09/14 15:43	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	152508	10/08/14 12:06	FS	TAL TAM

TestAmerica Tampa

Page 21 of 39

10/20/2014

Lab Chronicle

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Lab Sample ID: 660-63267-2

Matrix: Ground Water

Date Collected: 10/08/14 10:47 Date Received: 10/08/14 14:00

Client Sample ID: TH-78

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0	<u> </u>	1	353588	10/15/14 00:58	DAS	TAL SAV
Total Recoverable	Prep	3005A			152180	10/09/14 11:01	GAF	TAL TAM
Total Recoverable	Analysis	6010B		1	152278	10/13/14 11:22	GAF	TAL TAM
Total/NA	Analysis	350.1		1	353445	10/13/14 20:31	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	152196	10/09/14 15:43	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	152508	10/08/14 10:47	FS	TAL TAM

Client Sample ID: DUPLICATE Lab Sample ID: 660-63267-3

Date Collected: 10/08/14 00:00 **Matrix: Ground Water**

Date Received: 10/08/14 14:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0			353588	10/15/14 01:41	DAS	TAL SAV
Total Recoverable	Prep	3005A			152180	10/09/14 11:01	GAF	TAL TAM
Total Recoverable	Analysis	6010B		1	152278	10/13/14 11:25	GAF	TAL TAM
Total/NA	Analysis	350.1		1	353445	10/14/14 10:10	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	152196	10/09/14 15:43	TKO	TAL TAM

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Method Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
6010B	Metals (ICP)	SW846	TAL TAM
350.1	Nitrogen, Ammonia	MCAWW	TAL SAV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL TAM
Field Sampling	Field Sampling	EPA	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = TestAmerica Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

TAL TAM = TestAmerica Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

3

4

6

7

8

9

-

13

Certification Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Florida	06-30-15

Laboratory: TestAmerica Savannah

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	AFCEE		SAVLAB	_
A2LA	DoD ELAP		399.01	02-28-15
A2LA	ISO/IEC 17025		399.01	02-28-15
Alabama	State Program	4	41450	06-30-15
Arkansas DEQ	State Program	6	88-0692	01-31-15
California	NELAP	9	3217CA	07-31-14 *
Colorado	State Program	8	N/A	12-31-14
Connecticut	State Program	1	PH-0161	03-31-15
Florida	NELAP	4	E87052	06-30-15
GA Dept. of Agriculture	State Program	4	N/A	06-12-17
Georgia	State Program	4	N/A	06-30-15
Georgia	State Program	4	803	06-30-15
Guam	State Program	9	09-005r	04-16-15
Hawaii	State Program	9	N/A	06-30-15
Illinois	NELAP	5	200022	11-30-14 *
Indiana	State Program	5	N/A	06-30-15
lowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program		18	06-30-15
Louisiana	NELAP	6	30690	06-30-14 *
Louisiana (DW)	NELAP	6	LA140023	12-31-14
Maine	State Program		GA00006	09-24-16
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-15
Michigan	State Program		9925	06-30-15
Mississippi	State Program	4	N/A	06-30-15
Montana	State Program	8	CERT0081	01-01-15
Nebraska	.		TestAmerica-Savannah	06-30-15
New Jersey	State Program NELAP	2	GA769	06-30-15
New Mexico	State Program	6	N/A	06-30-15
New York	NELAP		10842	03-31-15
North Carolina (DW)		4	13701	07-31-15
	State Program			
North Carolina (WW/SW)	State Program	4	269	12-31-14
Oklahoma	State Program	6	9984	08-31-15
Pennsylvania	NELAP	3	68-00474	06-30-15
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14 *
Tennessee	State Program	4	TN02961	06-30-15
Texas	NELAP	6	T104704185-08-TX	11-30-14 *
USDA	Federal		SAV 3-04	06-11-17
Virginia	NELAP	3	460161	06-14-15
Washington	State Program	10	C805	06-10-15
West Virginia (DW)	State Program	3	9950C	12-31-14
West Virginia DEP	State Program	3	94	06-30-15

^{*} Certification renewal pending - certification considered valid.

TestAmerica Tampa

10/20/2014

Page 24 of 39

3

4

5

9

11

13

Certification Summary

Client: Hillsborough Co Public Utilities Dept Project/Site: SELF IAMP Monitoring Wells

TestAmerica Job ID: 660-63242-1

Laboratory: TestAmerica Savannah (Continued)

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999819810	08-31-15
Wyoming	State Program	8	8TMS-L	06-30-15

RECEIVED FOR LABORATORY BY: (SIGNATURE)		08/5	RECEIVED BY: (SIGNATURE)	RELINAÇISHIPO BY (SIGNIFILES)	7		980							→ 10:40		10.7.14 12:53	SAMPLE DATE TIME	COMPANY CONTRACTING THIS WORK	CLIENT ADDRESS 332 North Falkenburg Road	Hills. County Public Utilities	Michael Townsel	Nancy Robertson	ESTAMERICA (LAB) PROJECT MANAGER	SELF-IAMP Monitoring Wells		באב ההעסמה כי מעטיסטימנאניל נוהנאס	anal TestAmerica
DATE: TIME		4 15:	DATE TIME	DATE TIME			-63242 Chain of Custody				i i			Fiew Bi	TH-76	TH-77	SAMPLE IDENTIFIC	SAMPLER'S SIGNATURE		townselm@hillsborg	(813) 663-3222		P.O. NUMBER	PROJECT NO.			ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD
CUSTODY INTACT CI	LABO		RECEIVED BY: (SIGNATU	RELINQUISHED BY: (si										427		G	,	Le Hellasen	C) OR GI	•	4-6801		CONTRACT NO.	PROJECT LOCATION Lithia, FL			HAIN OF CUSTODY R
學的特別是	RATORY U		JRE)	GNATURE)										X	X		AQUE SOLID AIR	OUS (WA	iter) IIsolid					MATRIX			ECORD
SIT LC	SE ONL													X	X	l X l		H2SO	4 Amr	nonia	-N						
S NO.	Υ		DATE	DATE										×	X	X)	 	ice	TDS	;			\rfloor		(©
Ē			⊒	1		_					_			X	X	X	MBER	ice	Chlo	ride			_			∖lterna	TestAm 6712 Be Tampa,
BORA			Æ	ME							_			_	×	×	유	ниоз	As, F	e, Na			-			ite Lat	nerica senjan t, FL 3
TORY			뀌	RE		\dashv											NTAINE						-			orato	TestAmerica Tampa 5712 Benjamin Rd,
REMAR			SEIVED	NOUIS													RS SUI						\dashv			ry Nan	TestAmerica Tampa 6712 Benjamin Rd, Suite 100 Tampa, FL 33634
, iò			BY: (si	SHED B													MITTE									1e/Loc	100
			GNATURE	Y: (SIGN													ä									ation:	
			ات	ATURE)														so :	z	- G	O m	- 0	S	.70	Fax:]	www.t Phone Fax (
			DATE	DATE													REN	UBMITTED PER SI	IMRER OF COOL	DATE DUE:	KPEDITED REPOF		TANDARD REPOR	AGE	, ; ; ;		www.testamericainc.com Phone: (813) 885 7427 Fax: (813) 885 7049
			TIME	TIME													1ARKS	HPMENT:	FRS	0	4			Q			<u>inc.com</u> 7427 49
	DATE TIME CUSTODY YES C	DATE TIME CUSTODY INTACT CUSTODY STL LOG NO. LABORATORY USE ONLY LABORATORY USE ONLY	DATE TIME CUSTODY:INTACT CUSTODY STL LOG NO: [LABORATOR] NO SEAL NO. [LABORATOR]	DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE	DATE TIME RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE 10-7-14	DATE TIME RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE LABORATORY USE ONLY SEAL NO. DATE LABORATORY REMARKS:	DATE DATE TIME RELINQUISHED BY: (SIGNATURE) DATE TIME RELINQUISHED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME TIME RECEIVED BY: (SIGNATURE) DATE TIME TIME RECEIVED BY: (SIGNATURE) DATE TIME TIM	DATE TIME RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE		DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE	DATE IDATE IO.7.14 DATE IO.7.14 DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE DATE DATE DATE DATE DAT	DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE RECEIVED BY: (SIGNATURE) DATE	DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE	DATE TIME RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE	FTELD BLANK WX X X X SO242 Chain of Custody TIME RELINQUISHED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE CUSTODY INTRACT CUSTODY SEAL NO. DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE TIME RECEIVED BY: (SIGNATURE) DATE ATIE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE	TH-76 FIELD BLANK WX X X X FIELD BLANK WX X X X X ES242 Chain of Custody DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE DATE DATE DATE TIME RECEIVED BY: (SIGNATURE) DATE	TH-77 TH-76 THELD BLANK WX X X X FIELD BLANK FIELD BLANK	SAMPLE DENTIFICATION	SAMPLE IDENTIFICATION SAMPLE IDENTIFICATION SAMPLE IDENTIFICATION SEAL NO. TH-77 GX X X X X X X X X X X X X X X X X X X	SAMPLE IDENTIFICATION SAMPLE DENTIFICATION SAMPLE DENTIFICATION SAMPLE DENTIFICATION CONTAINERS SUBMITTED REMAINDERS SOME AND	COLINI SEMILE DENTIFICATION SAMPLE DENTIFIC	Control Section Sect	CAST PRIOR CAS	DATE TIME RECEIVED BY: (SOWNTURE) DATE TIME DATE TIME RECEIVED BY: (SOWNTURE) DATE TIME DATE DATE DATE DATE DATE DATE DA	CONTROL CONTROL No. CO	PROJECTION PRO	Alternate Laboratory Name/Location: Prox. Pr

Serial Number

DEP-SOP-001/01 FS 2200 Groundwater Sampling

Form FD 9000-24 **GROUNDWATER SAMPLING LOG**

SITE	04			I A A A ID		SITE	Listin Ti	- ui al -					
NAME:		neast Cou	nty Landfil	1	· · ·	OCATION:.	Lithia, Flo	origa - T					
WELL NO:	TH-77			SAMPLE	1D: -	「H・フフ			DATE:	10.	7.14		
					PUR	GING DA	TA						
WELL DIAMETER	R (inches): 2	TUBING DIAMETER	R (inches): 0.			TERVAL DEPT 169.2 feet	TH: STATIC I	DEPTH ER (feet): 77.	55 6		PUMP TY LER: DBP		
WELL VOI	UME PURGE: t if applicable)	1 WELL VO	LUME = (TOTA	AL WELL DEP	TH - ST	ATIC DEPTH T	O WATER) X	WELL CAPAC	YTTY		14.67		
				169.2 fee		77.5 <i>5</i>					galions		
	NT VOLUME PI t if applicable)	JRGE: 1 EQU	JIPMENT VOL.		.UME + (TU ailons + (TY X Ti as/foot X	UBING LENGTH	•	CELL	VOLUME gallons =	_	gallons
INITIAL PU	IMP OR TUBIN	G	FINAL PUM	P OR TUBING		1		····γ	<u> </u>	Tr	OTAL VOLU		
DEPTH IN	WELL (feet):	168.2	DEPTH IN V	VELL (feet):	168.2	INITIATE	G AT: 12:00	PURGING ENDED AT	12:5	ત્રે թ	URGED (ga	allons)	: 23
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (slandard units)	TEMP.	COND. µS/cm	DISSOLVED OXYGEN mg/L	TURBI (NTU	DITY Js)	COLOI (describ		ODOR (describe)
12:36	15	15	,50	77.66	7.37	23.65	416	.24	1.2	6	NONE	5	NONE
12:44	4	19	150	77.66	7.37	23.65	416	,23	.8	४			1
12:52	4	23	.50	7766	7.34	23.64	416	.22	.7		V		V
			X						1			<i>\</i>	
												Z	
				1									
			T										
	PACITY (Gallon ISIDE DIA, CAI			1" = 0.04; 0006; 3/16"	1.25" = 0. = 0.0014;				5" = 1.02; 0.006;	6" 1/2" = (12" = 5/8" =	5.88 0.016
PURGING	EQUIPMENT C	ODES: B	= Bailer; E	BP = Bladder F			Submersible Pu	mp; PP = F	Peristallic P	ump;	O ≃ Otł	ner (S	pecify)
						PLING DA	λΤΑ <u>.</u>						
	BY (PRINT) / A BALLOON / ZA			SAMPLER(S)	SIGNATU		therson	SAMPLING INITIATED A	т: Га: 5	53	SAMPLING ENDED AT	3 13	3:03
PUMP OR	TUBING		1	TUBING	<i>L</i>		FIELD	-FILTERED: Y			FILTER SIZ		
DEPTH IN	WELL (feet):	168.2		MATERIAL C	ODE: T			on Equipment T					
FIELD DEC	CONTAMINATIO	ON: PUMP	YNC	Dedicated	TUB	NG Y N	Dedicated	DUPLICATE	: Y	($\overline{\mathbb{N}}$		
SAMI	PLE CONTAINE	R SPECIFICA	ATION			RESERVATIO	N	INTEND			PLING		PLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVAT USED	IVE	TOTAL VOL ED IN FIELD (1	FINAL mL) pH	ANALYSIS A			PMENT		DW RATE per minute)
10 CODE	CONTAINENO	COLL		006.0	700	CD IN TICCO (I	inc) pri						·
				.									
													
								 					
				<u></u>			1-						
									1				
 		ıl	l					1	I	-			
SEE C	.O.C. FC	R SAMI	PLE ANA	LYSIS 4	DBP=	Dedicated blac	dder pump						
MATERIAL	CODES:	AG = Amber	Glass; CG =	Clear Glass;	PE = Po	lyethylene;	PP = Polypropy	lene; S = Silic	one; T =	Teflon	i; O = Ot	her (S	Specify)
SAMPLING	EQUIPMENT		APP = After Per RFPP = Reverse		B = B Itic Pump;		Bladder Pump; Method (Tubing	ESP = Elec Gravity Drain);	tric Submer O = Ot				
MOTEC: 4	The above	do not conn	tituto all of t	o informati	on roquir		or 62-160 E A			· · ·			

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

Revision Date: February 2009

Revision Date: February 1, 2004 10/20/2014

SITE	04		المسالية	III LABAD		SITE	1 141-1-	C1	.t.r.				
NAME:	Souti	neast Cou	nty Landt	III IANIP	1 [OCATION:.	Lithia,	, Flor			10.		
WELL NO:	TH-76			SAMPLE	ID:	TH-76				DATE:	10-6	5-14	
					PUR	GING DA	TA						
WELL.		TUBING		WELL SO		ERVAL DEPTI		STAT	TIC DEPTH	03	PURGE	PUMP TYPE	
DIAMETE	R (inches): 2	DIAMETER	R (inches): 0	.5 163.35	eet to	178.35 fe	et	TO V	VATER (feet):			LER: DBP	
		1 WELL VO	LUME = (TO	TAL WELL DEP	TH - ST.	ATIC DEPTH 1	TO WATER	R) X	WELL CAPACI	ΪΥ			
(only till ou	t if applicable)		= (178.35	feet -	69.0	3 feet) X	.16	nalion	s/foot	± 17.50	gallons
	NT VOLUME PI	JRGE: 1 EQL	IPMENT VOI	= PUMP VOL	UME + (TU			Ti	JBING LENGTH	+ FLOW	CELLV	/OLUME	gaions
(only fill ou	t if applicable)			= 0	allons + (aall	ons/foot X		feet)			gallons =	aallana
INITIAL PI	IMP OR TUBIN	G	FINAL DUI	MP OR TUBINO							1 70	OTAL VOLUME	gallons
	WELL (feet):	177.35		WELL (feet):	177.35	INITIATI	IG ED AT: IC	55:55	ENDED AT:	1148	Pl	JRGED (gallons	_{s):} 26.50
	VOLUME	CUMUL.	BUBGE	DEPTH	рН	1		- 1	DISSOLVED				<u> </u>
TIME	PURGED	VOLUME PURGED	PURGE RATE	TO WATER	(standarð	TEMP.	CONE µS/cn		OXYGEN mg/L	TURB (NT		COLOR (describe)	ODOR (describe)
	(gallons)	(gailons)	(gpm)	(feet)	units)					<u> </u>		(i) ht	(doddioc)
11:30	17.50	17.50	.50	69.78	7.37	22.95	43	3	.31	18.	7	clary	NOVE
11:39	4.5	22,00	.50	67.78	7.37	22.53	43	2	, 31	16	.2	1	1
11:48	4.5	26.50	.50	69.78	7.37	22.89	43	2	. 34		.9	4	U
·i···· · · ·	, ,,,					-				 • -		· · · · · · · · · · · · · · · · · ·	
				 		 		\rightarrow					
-/-				<i>/</i>		//		-/		1	$\overline{}$		
-($-$													
		· .	4							ļ			
												(
			+										
	PACITY (Gallon					06; 2" = 0.1		0.37;		5" = 1.02			5.88
	ISIDE DIA. CAF EQUIPMENT C		r <i>t.). 116 0</i> ≃ Bailer;	BP = Bladder F	≃ 0.0014;	1/4" = 0,002 ESP = Electric	•	3" = 0.1 No Pur		eristaltic F	1/2" = 0	0 = Other (= 0.016
1 01101110	EQUI IIIER O	ODLO. D	- 531101,	DI - Dipodel I		PLING DA		ole i ui	mp, FF-10	enstaille F	unip,	o - oniei (opecity)
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLER(S)			// ///		04451,040		1		
ANDREW	BALLOON / ZA	CK PATTERS	ON	, ,		Talle 1	they	-	SAMPLING INITIATED AT	_{E:} / ; 4	8	SAMPLING INDEDICT:	1:58
PUMP OR	TUBING	·		TUBING		7		FIELD-	FILTERED: Y			FILTER SIZE:	um
DEPTH IN	WELL (feet):	177.35		MATERIAL CO	ODE: T				on Equipment Ty		,	TETER OLC.	F ****
FIELD DEC	CONTAMINATIO	N: PUMP	YNC	Dedicated	TUBIN	G Y N	Dedicati	eď	DUPLICATE:	Y		(N	
SAM	PLE CONTAINE	R SPECIFICA	TION		SAMPLE P	RESERVATIO	N		1k1TCK1DF			a no	ADI E DUVE
SAMPLE	#	MATERIAL		PRESERVAT	N/E	TOTAL VOI		FIN	_ INTENDE ANALYSIS AI				MPLE PUMP OW RATE
ID CODE	CONTAINERS	CODE	VOLUME	USED		DDED IN FIELD		AL	METHO	D	CC	DDE (ml.	per minute)
								рH		,			
								_					
							-		-		· -		
						/			ļ				
SEE C	.O.C. FO	DEAM	OI E AN	VI VOIG	-								
MATERIAL		AG = Amber	-	Clear Glass:		icated bladde lyethylene;	r pump PP = Poly	incons!	0001 P = 001		- Toff	0 = 014 : : :	(0===i6.)
	EQUIPMENT	•		eristaltic Pump;	B = Ba		Bladder P				= Teflon;		opecity)
	, agon manti		FPP = Rever	se Flow Perista					ESP = Electr Gravity Drain);		ther (Sp		
IOTEO. A	Th	1	Citation all are	11			. 00 455						

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE A	Souther	st Cou	nty Land	for TA	MP	SITE LOCATION:	1	lithia	, FL			
WELL NO:		ELO B	•	SAMPLE		FIELD			• ,	DATE:	10-7-14	
		000 .5.	-710-14		PUR	RGING DA		9991				
WELL DIAMETER	t (inches):	TUBING	FER (inches):	WEL DEP		N INTERVAL feet to f		STATIC DE	/ 4		PURGE PUMP T OR BAILER:	YPE N/A
	.UME PURGE: if applicable)	1 WELL VOI				TATIC DEPTH 1	O WA	TER) X	WELL CAPACI	TY		,
EQUIPMEN (only NI out	NT VOLUME PI	JRGE: 1 EQU	IPMENT VOL		UME + (Ti	UBING CAPACI	TY ns/foot	_	BING LENCYH)		/foot = CELL VOLUME gallons	gallons = gallons
INITIAL PU	MP OR TUBIN	G 🛂 /	FINAL PUM	P OR TUBING	N/	PURGIN		๊ม/.	PURGING	<u>'\/.</u>	TOTAL VO	TIME N
	WELL (feet):	/ <i>\</i> {	DEPTH IN V	NELL (feet):	1/1	INITIATE	ED AT:	_/A	ENDED AT:	<u> </u>		
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	d TEMP.	(circi µmi	OND. le units) hos/cm µS/cm	OXYGEN (circle units) mg/L. or % saturation	TURBI (NTI		I I
								$\overline{}$				
-/			-			-	1	$\overline{}$		-		·)—
			1-1		1	11		Z	/	KI		
					_		1	\mathcal{I}	-17	1		
		/				·			/			
												_
WELL CAP	PACITY (Gallon	s Per Footh:	0.75" = 0.02:	1" = 0.04:	1.25" = 0	0.06; 2" = 0.1	6: 3	B" = 0.37;	4" = 0.65;	5" = 1.02	: 6" = 1.47;	12" = 5.88
TUBING IN	ISIDE DÌA. CAI EQUIPMENT C	PACITY (Gal./	Ft.): 1/8" = 0.0	0006; 3/16" BP = Bladder P	= 0.0014;	1/4" = 0.002 ESP = Electric	:6;	5/16" = 0.0	04; 3/8" = 0		1/2" = 0.010;	5/8" = 0.016 ther (Specify)
TORONO	EQUI IIIERT C	OBEO. D	Danoi, L	Ji Bladdel I	•	PLING DA			, , , , , , , , , , , , , , , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.1.101	отог (ороспу)
	BY (PRINT) / A BALLOON / Z			SAMPLER(S)	SIGNATU	Best 1	de	veso	SAMPLING INITIATED AT	n: 10:4	10 SAMPLIN	IG AT: 10:50
PUMP OR DEPTH IN	TUBING WELL (feet):	N/	1	TUBING MATERIAL CO	DDE.	T			I FILTERED: Y n Equipment Ty	(N)		IZE; μm
	CONTAMINATIO	ON: PUM F		Dedicated*		BING Y	N D		DUPLICATE:	Υ	(Ñ)	
SAME	PLE CONTAINE	R SPECIFICA	NOITA		SAMPLE	PRESERVATIO	N		INTENDE		SAMPLING	SAMPLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATI USED		TOTAL VOL DED IN FIELD (mL)	FINAL. pH	ANALYSIS AI METHO		EQUIPMENT CODE	FLOW RATE (ml. per minute)
			-									
					-		_					
							\rightarrow					
	.						-					
					_		\dashv					
-	OC FOR			<u> </u>			D-0	B.,		-	T.O	2060
MATERIAL	. CODES:	AG = Amber	Glass; CG =	Clear Glass;		olyethylene; Bailer; BP =		Polypropyle er Pump;	-		= Teflon; O = 0 ersible Pump;	Other (Specify)
OMMELING	- EQUIPMENT		RFP = Revers			SM = Straw	Metho		Gravity Drain);		ther (Specify)	

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

		le(s)	h Samp	Original - Return to Laboratory with Sample(s)	eturn to	Original - R			0:2	FCU036:12.20.00:2
W CU-09	4.0/4.4			SEAL NO.	SEA	00 8 E	E	114	Sath	(signature)
	LABORATORY REMARKS:	LABORAT	Y S NO.	LABORATORY USE ONLY	LABORA	ATNI YGOTSU	TIME	DATE :	ABORATORY BX://	RECEIVED FOR LABORATORY BY
יייייייייייייייייייייייייייייייייייייי	NECELATED D: (SIGNALORE)	i i	ı			יין יין אויין אויין (פופואה טאב)		,		
JAH.	מהסתועהם מעי לייניים ו	TIME	DATE		100000	בוועדה פעי	1400	10.8.14	CNATIOE)	BECEIVED BY: (SIGNIATIONS)
SNATURE) DATE TIME	RELINQUISHED BY: (SIGNATURE)	TIME	DATE		BY: (sign	RELINQUISHED BY: (SIGNATURE)			(SICHTURE)	RELINOUNGHED
					_				`	
777.77	Chain of Custody	660-63267 Chain	56C							
			I							
							:			
					-					
			×	X			Duplicate	Dop		+
		×	×	X			H-78	-47	10:47	1 10
		<u>×</u>	×	X	GX		H-72	TH-		10-8-14
REMARKS	F CONTAINERS SUBMITTED	NUMBER OF CON	NOMI	SOLIC AIR			SAMPLE IDENTIFICATION	SAMPLE	TIME	DATE
SUBMITTED PER SHIPMENT:		Ice HNO3	ice	OR SE	OSITE (Mating.	ATURE (UM)	SAMPLER'S SIGNATURE	ING THIS WORK	COMPANY CONTRACTING THIS WORK
NUMBER OF COOLERS		1	TD	AISOLIC					nburg Road	332 North Falkenburg Road
(SURCHARGE) DATE DUE:		oride Fe, N) (O!L, S	RAB (G	ounty.org	townselm@hillsboroughcounty.org	townselm@	olic Utilities	Hills. County Public Utilities
REPORT		a		solvent)INC/CATI	(813) 274-6801		(813) 663-3222		Michael Townsel
DELIVERY				ſ. <u></u>)	F	CONTACT NO.) 5	7. C. NO.	ח אינועייטייטייטייטייטייטייטייטייטייטייטייטייט	Nancy Robertson
		-		MATRIX TYPE	-	PROJECT LOCATION Lithia, FL	P	PROJECT NO.	itoring Wells	SELF-IAMP Monitoring Wells
Phone: Fax:			С							
λ;	Alternate Laboratory Name/Location:	emate Lab) Alt						COCK A EXCESSIVE DAY TO THE TO	THE LEGISLAND BY
Phone: (813) 885 7427 Fax: (813) 885 7049	6712 Benjamin Rd, Suite 100 Tampa, FL 33634	6712 Benjamin Ro Tampa, FL 33634	© 67 Ta	CORD	DDY RE	OF CUSTO	ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD	S REQUEST	estAmerica ANALYSI	Tost Ar
www.testamericainc.com	Tampa	TestAmerica Tampa	Te							

Serial Number

SITE NAME:	Southe	east County	(Landfill I	AMP	SI	TE CATION:.	l i l	hia, Florida			
····	TH-72	asi Oduniy	Landin	SAMPLE		Tけー			DATE: 10	.8.14	
***************************************	111.12					SING DA	-			. 6.74	
WELL		TUBING		WEL	L SCREEN			EPTH S	PUR	GE PUMP TYPE	
DIAMETER	R (inches): 2	DIAMET	R (Inches): (et to 190 fe	et TO WATE	:R (feet): ひひ ・	OR E	BAILER: DBP	
	.UME PURGE: t if applicable)	1 WELL VOL	JME≃ (TOTA	IL WELL DEP	TH - STA		·	WELL CAPACI			
POLUBIAN		IDAE ARAU	= (et -	88.89		.16	gallons/for	ot = 1618	gallons
	NT VOLUME PU t if applicable)	JRGE: 1 EQUI	PMENI VOL.		,			JBING LENGTH)	+ FLOW CEL	L VOLUME	
INITIAL DI	IMP OR TUBIN	Ġ	CIMAL DUM	= ga P OR TUBING	illons + (_	ns/foot X	feet)	<u>-</u>	gallons =	gallons
	WELL (feet):	189	DEPTH IN V		, 189	PURGIN INITIATE	ED AT: :15	PURGING ENDED AT:	12:00	TOTAL VOLUME PURGED (gallon	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP.	COND. µS/cm	DISSOLVED OXYGEN mg/L	TURBIDIT' (NTUs)	COLOR (describe)	ODOR (describe)
11:48	16.50	16.50	.50	88.89	6.79	23.59	2253	.22	.92	None	NONE
11:57	4.50	21.00	.50	উ ঠ.৪৭		23,57	2283	.19	.86		
13:06	4.50	25.50	.50	88.89	6.78	23.59	2300	.18	.79	<u> </u>	U
··· ·· · · · ·	/										
										/	
/			_/_		_/_		/		<u> </u>		<u> </u>
\leftarrow			/					/			<u> </u>
											<u> </u>
						/					<u> </u>
											7
	PACITY (Gallon ISIDE DIA. CAF			<u> </u>	1.25" = 0.06 = 0.0014;	3; 2" = 0.16 1/4" = 0.002	6; 3" = 0.37; 6; 5/16" = 0.				= 5.88 = 0.016
PURGING	EQUIPMENT C	ODES: B =	Bailer, B	P = Bladder P			Submersible Pui	mp; PP = Pe	ristaltic Pump	; O = Other (Specify)
GALIDI EO	DV (DDIN)	CCU IA TION	·····	AMOLEDIO		LING DA	ØTA	1			
	BY (PRINT) / A BALLOON / ZAG			SAMPLER(S)	SIGNATURE	1/2	ttown	SAMPLING INITIATED AT	12:00	SAMPLING ENDED AT:	2:16
PUMP OR		189	I	TUBING MATERIAL CO	DDE: T			FILTERED: Y	N	FILTER SIZE:	µm
	WELL (feet): CONTAMINATION	• • • • • • • • • • • • • • • • • • • •		Dedicated	TUBING	Y N (Dedicated	DUPLICATE:	Y	(N)	
	PLE CONTAINE				SAMPLE PR	ESERVATIO		INTENDE			MPLE PUMP
SAMPLE ID CODE	#	MATERIAL	VOLUME 1	PRESERVATI	VE T	OTAL VOL	FINAL	ANALYSIS AN	ID/OR EQ	UIPMENT FL	OW RATE per minute)
ID CODE	CONTAINERS	CODE		USED	AUDE	D IN FIELD (r	nL) pH		$\overline{}$		
											
SEE C	.O.C. FO	RSAMP	LE ANA	LYSIS	DRP = n	edicated Bla	ider Pumn				
MATERIAL		AG = Amber G			PE = Poly		PP = Polypropyl	ene; S = Silico	ne; T = Tef	lon; O = Other	(Specify)
SAMPLING	EQUIPMENT		P = After Peri PP = Reverse	stallic Pump; Flow Peristal	B = Baii tic Pump;		Bladder Pump; Method (Tubing	ESP = Electric Gravity Drain);	c Submersible		

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTŪ or ± 10% (whichever is greater)

Revision Date: February 2009

Revision Date: February 1, 2004

10/20/2014

Form FD 9000-24 GROUNDWATER SAMPLING LOG

SITE NAME:	Souther	ast Co	ounty L	andfill I	AMP LO	CATION:	Lithia	i, FL_			
WELL NO:		TH-	•	SAMPLE		TH-78		·	DATE: (2.8.14	
			_			ING DA					
WELL DIAMETER	(inches):	TUBING DIAME	3 TER (inches):	3/8 WELL	L SCREEN I T H 63.14 fee	NTERVAL et to 178.14 fe	STATIC D	ER (feet): 73.	45 PU	RGE PUMP T' BAILER:	BP
	UME PURGE: t if applicable)	1 WELL VO	LUME = (TOT	ALWELL DEP	TH - STAT	пс <u>рертн т</u> 73.45	O WATER) X	WELL CAPAC	ITY	ot = 16.7	6 gallons
EQUIPME	NT VOLUME PL	JRGE: 1 EQU	JIPMENT VOL	. = PUMP VOL	UME + (TUB			JBING LENGTH) + FLOW CE	LL VOLUME	- ganono
(only fill ou	t if applicable)			= ga	ıllons + (gallo	ns/foot X	feel) +	gallons	≖ galions
	MP OR TUBING	G 177.14	FINAL PUN DEPTH IN	IP OR TUBING WELL (feet):	177.14	PURGIN INITIATE	G 7.55	PURGING ENDED AT:	10:47	TOTAL VOI PURGED (6	UME gallons): 36
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (^O C)	COND. (circle units) µmhos/cm or	DISSOLVED OXYGEN (circle units) (mg) or % saturation	TURBIDI (NTUs)		
10:29	17.0	7.0	.50	73.54		23.33	507	.30	1.25	אטטען	3 NONE
10:38	4.5	21.5	.50	73.54	5.38	23.35	דטפ	.31	1.21		
10:47	4.5	36.0	.50	73.54	<i>5</i> .39	23.35	508	.30	1.12	. \	<u> </u>
	/								\bot		
(/	-+/-
			-						 		
				1							-/-
		<u>.</u>						+			4
WELL CAI	PACITY (Gallon	s Per Foot):	0.75" = 0.02;	1" = 0.04;	1.25" = 0.06	6; 2" = 0.1		4" = 0.65;	5" = 1.02;	6" = 1.47;	12" = 5.88
TUBING IN	ISIDE DIA. CAI	PACITY (Gal./	Ft.): 1/8" = 0.		= 0.0014;		•		0.006; 1/2 Peristaltic Pur	2" = 0.010;	5/8" = 0.016 ther (Specify)
PURGING	EQUIPMENT C	ODES: E	B = Bailer,	BP = Bladder F		LING DA	Submersible Pu	тр, РР-1	ensialuc Pui	пр, Оно	ther (Specify)
	BY (PRINT) / A		RSON	SAMPLER(S)			tterem	SAMPLING	AT: 10:4	7 SAMPLIN	IG (T: 10:57
PUMP OR	TURING			TUBING			FIFI D	-FILTERED: Y			IZE: µm
	WELL (feet):	17	7.14	MATERIAL C	ODE:	T		on Equipment T			,
FIELD DE	CONTAMINATIO	ON: PUM	P Y N	Dedicated	TUBIN	NG Y	N Qedicated	DUPLICATE	: (Y)	\$\tag{2}	<u> </u>
SAM	PLE CONTAINE	ER SPECIFICA	ATION			RESERVATIO		INTEND ANALYSIS A	- 1	SAMPLING C	SAMPLE PUMP FLOW RATE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVAT USED		TOTAL VOL D IN FIELD (mL) FINAL	METH		CODE	(mL per minute)
						•					
											<u> </u>
											<u> </u>
	OC FOR	ANAL									
MATERIA		AG = Amber		= Clear Glass;			PP = Polypropy				Other (Specify)
SAMPLIN	G EQUIPMENT			eristaltic Pump; se Flow Perista		SM = Straw	Bladder Pump; Method (Tubing	Gravity Drain);	tric Submersi O = Othe	ble Pump; er (Specify)	
			474 4 11 7	41	!	ا ما ک محما الم	10 CO 4CO E	N C			

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	Southe	ast Co	inter La	Mfill IAM	O SIT	E CATION:	Lith	ia, FL			
WELL NO:	Di	policat	e '	Mfil TAM	D	Volice	rte.		DATE:	10.8.14	
					PURG	ING DAT	Ά				
WELL YOL	R (inches): UME PURGE: t if applicable)		TER (inches):		fee	NTERVAL et to fee TIC DEPTH TO		R (feet):	t or	RGE PUMP TYPE BAILER:	N/A
EQUIPMEN	• • • • • • • • • • • • • • • • • • • •	JRGE: 1 EQI	JIPMENT VQI	feet = PUMP VOLUMI			feet) X Y X TU	JBING LENGTH)			gallons gallons
	MP OR TUBIN WELL (feet):	G NA			NA	PURGING INITIATED		PURGING ENDED AT:	NA	TOTAL VOLUM PURGED (gallo	
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)		pH andard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDIT (NTUs)	Y COLOR (describe)	ODOR (describe)
				$\overline{\mathcal{D}}$				$\overline{}$			
				1							
					$\overline{}$			<u> </u>	/		/
				HX)//	71 }	~ /\		1	
					1-	\mathbb{Z}	\perp (1	
					-	/ 			,	1	
			1			·					
	PACITY (Gallon					; 2" = 0.16; 1/4" = 0.0026			5" = 1.02;		= 5.88 = 0.016
	EQUIPMENT (•	BP = Bladder Pum	p; E\$	SP = Electric S	ubmersible Pur		eristaltic Pum	,	
	BY (PRINT) / A			SAMPLER(S) SIG		LING DA	11-	SAMPLING	N/	SAMPLING	N/.
PUMP OR	BALLOON / Z	ACK PATTER	J/.	TUBING		au p	ELECTION FIELDS	INITIATED AT	r: /A (N)	ENDED AT: FILTER SIZE:	/A-
DEPTH IN	WELL (feet):	ON: PUM	// /	MATERIAL CODE	: TUBIN	T	4	DUPLICATE:		N N	
	PLE CONTAINS					ESERVATION		INTENDE	ED 8	SAMPLING SA	MPLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED		OTAL VOL D IN FIELD (m	FINAL L) pH	ANALYSIS AI METHO			LOW RATE L per minute)
				- · · · · · · · · · · · · · · · · · · ·	-						
					-		1				
					-						i
SEE C	OC FOR	ANALY	'SIS 4		•		•	-			
MATERIAL		AG = Amber		= Clear Glass; F	E = Poly	ethylene; P	PP = Polypropyl	ene; S = Silico	one; T = Te	eflon; O = Othe	(Specify)
SAMPLING	G EQUIPMENT	CODES:	APP = After Po	eristaltic Pump; se Flow Peristaltic I	B = Bail ump;		Bladder Pump; flethod (Tubing	ESP = Electr Gravity Drain);		ole Pump; r (Specify)	

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

Company 2

9907

10 08 M

Cooler Temperature(s) °C and Other Remarks:

Received by:

Company

Date/Time:

Custody Seal No.:

Custody Seals Intact: Δ Yes Δ No

13

S - H2SO4
T - TSP Dodecahydrate
T - Acetone
V - MCAA
W - ph 4-5
Z - other (specify) THE LEADER IN ENVIRONMENTAL TESTING TestAmerico Special Instructions/Note: N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2SO3 Company Company Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client — Disposal By Lab — Archive For Mont reservation Codes A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
F - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid 660-72531.1 660-63242-1 Page 1 of 1 I - Ice J - DI Water K - EDTA L - EDA Total Number of containers Date/Time: Date/Time: Method of Shipment: **Analysis Requested** Special Instructions/QC Requirements: E-Mail: nancy.robertson@testamericainc.com eceived by: Received by: 350.1\ Nitrogen, Ammonia × Lab PM: Robertson, Nancy Chain of Custody Record × × Time: Water Matrix Water Water Type (C=comp, G=grab) Sample 009 Sample Time Eastern 11:48 Eastern 10:40 Eastern Due Date Requested: 10/16/2014 TAT Requested (days): Sample Date 10/7/14 10/7/14 10/7/14 Project #: 66003915 SSOW#: Phone: * OM Client Information (Sub Contract Lab) Deliverable Requested: I, II, III, IV, Other (specify) Tampa, FL 33634 Phone (813) 885-7427 Fax (813) 885-7049 Sample Identification - Client ID (Lab ID) 912-354-7858(Tel) 912-352-0165(Fax) Possible Hazard Identification 6712 Benjamin Road Suite 100 estAmerica Laboratories, Inc. FIELD BLANK (660-63242-3) Project Name: SELF IAMP Monitoring Wells Empty Kit Relinquished by: 5102 LaRoche Avenue, TH- 77 (660-63242-1) TH- 76 (660-63242-2) Shipping/Receiving

Southeast Landfill

State, Zip: GA, 31404

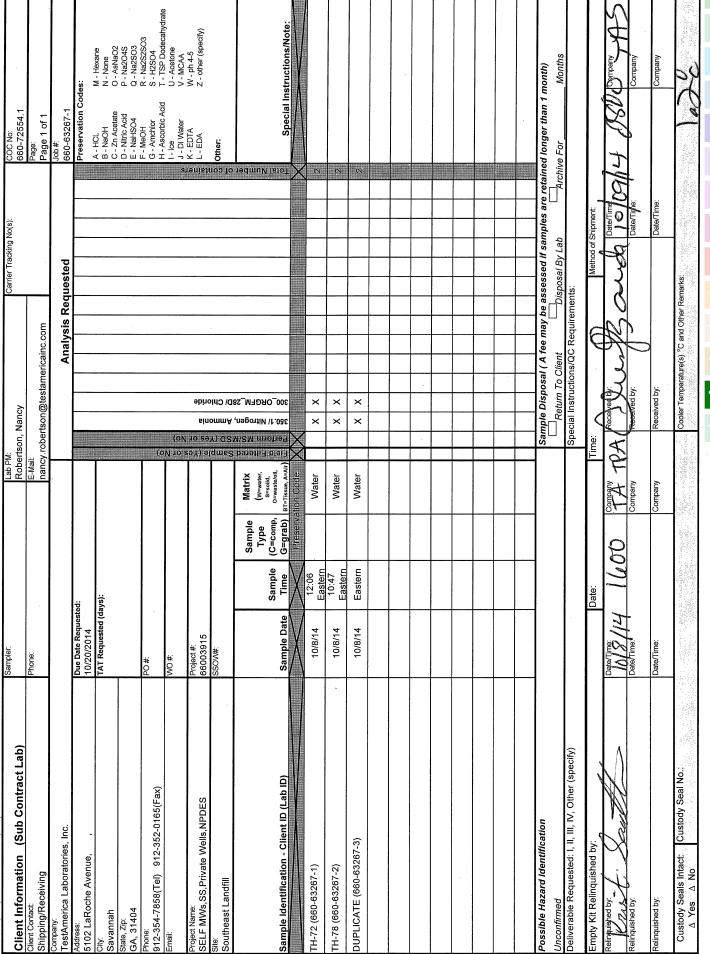
Savannah

TestAmerica Tampa

Client Contact:

Unconfirmed

elinquished by:



THE LEADER IN ENVIRONMENTAL TESTING

TestAmerico

Chain of Custody Record

Phone (813) 885-7427 Fax (813) 885-7049

6712 Benjamin Road Suite 100 **TestAmerica Tampa**

FL 33634 FL 33634

Client: Hillsborough Co Public Utilities Dept Job Number: 660-63242-1

Login Number: 63242 List Source: TestAmerica Tampa

List Number: 1

Creator: Monterroso, Giovanni A

Creator. Monterroso, Giovanni A		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Δ

5

7

9

10

12

13

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-63242-1

List Source: TestAmerica Savannah
List Number: 2
List Creation: 10/08/14 10:49 AM

Creator: Conner, Keaton

ordator. Comici, reaton		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

4

9

11

13

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-63242-1

Login Number: 63267 List Source: TestAmerica Tampa

List Number: 1

Creator: Southers, Kristin B

Answer	Comment
N/A	
True	
N/A	
True	
True	
N/A	
	N/A True True True True True True True Tru

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-63242-1

List Source: TestAmerica Savannah
List Number: 2
List Creation: 10/09/14 08:56 AM

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

2

3

4

6

8

10

1 0

13