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April 25, 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. 43 – March 2014**

Dear Mr. Morris:

The Hillsborough County Public Utilities Department (County) is pleased to provide the analytical results from the March 2014 sampling event conducted as part of our 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 Southwest District Office (Department), three (3) upper Floridan/Limestone aquifer monitoring wells, designated as TH-72, TH-76 and TH-77 are sampled on a monthly schedule and three (3) surficial aquifer monitoring wells, designated as TH-73, TH-74, and TH-75 are sampled on a quarterly schedule. Representative samples were collected from each of these six (6) monitoring wells on March 4-5, 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 County did not sample the surficial aquifer monitoring wells in February, as intended. Therefore, the County collected groundwater samples from all six (6) of the groundwater monitoring wells included in the IAMP during the March sampling event. The following paragraphs summarize the parameter specific results pertinent to the evaluation of potential water quality impacts from the sinkhole at the SCLF.

Turbidity

Turbidity values in the surficial aquifer monitoring wells TH-73, TH-74, and TH-75 were recorded at 6.23, 2.26, and 5.3 Nephelometric Turbidity Units (NTUs). Turbidity in upper Floridan / Limestone aquifer monitoring wells TH-72, TH-76, and TH-77 were recorded at 1.33, 26.2, and 1.12 NTUs, respectively.

Conductivity

The conductivity values in TH-73, TH-74, and TH-75 were recorded at 381, 570, and 338 micromhos per centimeter (umhos/cm) and the conductivity values in TH-72, TH-76, and TH-77 were recorded at 2,173, 434, and 418 umhos/cm, respectively. Monitoring well TH-72 is the closest UFA monitoring well to the sinkhole, it and continues to exhibit groundwater impacts similar to those observed over the last year. Conductivity values in TH-76 and TH-77 are relatively low and consistent with the unaffected deep wells across the site.

Total Dissolved Solids (TDS)

The TDS in TH-73, TH-74, and TH-75 were all within the Secondary Drinking Water Standard (SDWS) of 500 mg/l. However, TDS in TH-72 was observed at 1,500 mg/l and continues to be above the SDWS. The two down gradient monitoring wells, TH-76 and TH-77 both exhibited a TDS value of 230 mg/l, which is consistent with the water quality historically observed in the unaffected deep wells across the site.

Chloride

Chloride concentrations in the surficial aquifer wells were all below 100 mg/l. A concentration of 580 mg/l was observed in TH-72, which is well above the SDWS of 250 mg/l. Chloride values in TH-76 and TH-77 were observed at 12 mg/l and 9.3 mg/l, which is consistent with the unaffected deep wells across the site.

Iron

Iron concentrations in TH-73, TH-74, and TH-75 were observed at 4.6, 29, and 6.1 mg/l, respectively. Concentrations in TH-72, TH-76, and TH-77 were observed at 0.74, 0.69, and 0.21 mg/l, respectively. The elevated iron concentrations observed at specific locations across the site are consistent with background water quality, and are likely naturally occurring and/or the result of past strip mining activities at the site.

Sodium

Sodium was observed at a concentration of 220 mg/l in TH-72, which is above the PDWS of 160 mg/l. Sodium values in TH-76 and TH-77 were observed at 20 and 16 mg/l, which is consistent with the unaffected deep wells across the site. The surficial aquifer wells were relatively low and do not appear to exhibit any impact from the sinkhole.

Total Ammonia

Surficial aquifer monitoring well TH-74 and upper Floridan well TH-72 exhibited ammonia above the former GCTL of 2.8 mg/l, at concentrations of 3.5 mg/l and 22 mg/l, respectively. The remaining monitoring wells were below the former GCTL.

Groundwater Elevations and Direction of Flow

On March 3, 2014, the County collected groundwater and surface water elevation data at sixty-five (65) points across the site, including twenty eight (28) surficial aquifer wells, seven (7) upper Floridan (limestone) aquifer wells, twenty three (23) piezometers, and six (6) surface water sites. No significant changes to the patterns of flow in the surficial aquifer were noted in the December data set and the flow diagram provided is consistent with the observations over the period of record. The general direction of flow within the surficial aquifer has historically been to the west-northwest across the Southeast County Landfill site. The elevations observed within the wells closest to the sinkhole indicate that flow patterns may be somewhat affected in the area, which would not be unexpected. However, the overall direction of flow within the surficial aquifer remains toward the west/northwest across the site.

A contour diagram of the upper Floridan / Limestone aquifer has been prepared for the general area around the sinkhole and is included with this submittal. This diagram was generated manually in AutoCad™ utilizing only the three data points closest to the sinkhole. For the month of February, the elevation change between TH-72 and TH-76 is -0.04 ft., and the change between TH-72 and TH-77 is +0.13 ft. The diagram indicates that flow within the UFA in the area of the former sinkhole continues to be in a north/northwest direction, but at what appears to be a very slow rate. The County will continue to evaluate the direction of flow within the upper Floridan / Limestone aquifer in the vicinity of the sinkhole, and a more comprehensive understanding of this system will be developed over time. However, based on the consistency of the gradient and direction of flow, an additional down gradient monitoring well is warranted. The County intends to move forward with the installation of this well, and will work directly with the Department on approval of the location and the appropriate construction details.

Conclusions

The water quality observed in the March 2014 IAMP sampling event indicates that the upper Floridan / Limestone well TH-72, which is closest to the sinkhole, continues to exhibit impacts to water quality. The impacts observed in TH-72 include elevated conductivity, TDS, chloride, ammonia, iron and sodium. These impacts are not unexpected within the upper Floridan / Limestone aquifer in the immediate vicinity of the sinkhole feature. Upper Floridan / Limestone aquifer monitoring wells, TH-76 and TH-77 continue to exhibit good water quality with no evidence of impact from the sinkhole. Conductivity values, TDS, chloride and ammonia are all very low and consistent with the historical data set for the unaffected upper Floridan aquifer groundwater monitoring wells at the SCLF, which supports the position that the impacts from the sinkhole are limited in extent.

Recommendations


The County continues to move forward with implementation of the IAMP, which includes the monthly sampling of the three upper Floridan / Limestone aquifer groundwater monitoring wells, TH-72, TH-76, and TH-77, and the quarterly sampling of the three surficial aquifer monitoring wells, TH-73, TH-74, and TH-75. We will continue to evaluate any water quality changes in both the surficial and upper Floridan wells, and present the findings in the monthly IAMP reports.

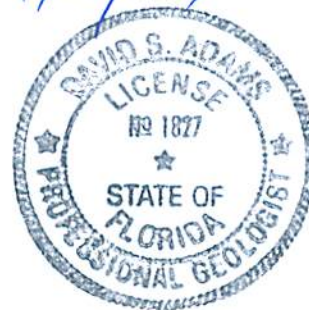
Mr. John Morris, P.G.
April 25, 2014
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Enclosed for your review please find a site location map depicting the location of the monitoring wells sampled, the water quality data summary table for the March 2014 sampling event, a groundwater elevation data table, groundwater contour and flow diagrams for the surficial and upper Floridan / Limestone aquifers, the historical data tables for each well 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
Environmental Services



xc: John Lyons, Director, Public Works Department
Kim Byer, Public Works Department, Solid Waste Division
Larry Ruiz, Public Works Department, Solid Waste Division
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Andy Schipfer, EPC
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Brian Miller, DOH
Rich Siemering, HDR
Joe O'Neill, CDS

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**Southeast County Landfill
Laboratory Analytical Data
Surficial and Upper Floridan Aquifer Groundwater Monitoring Wells
March 4-5, 2014**

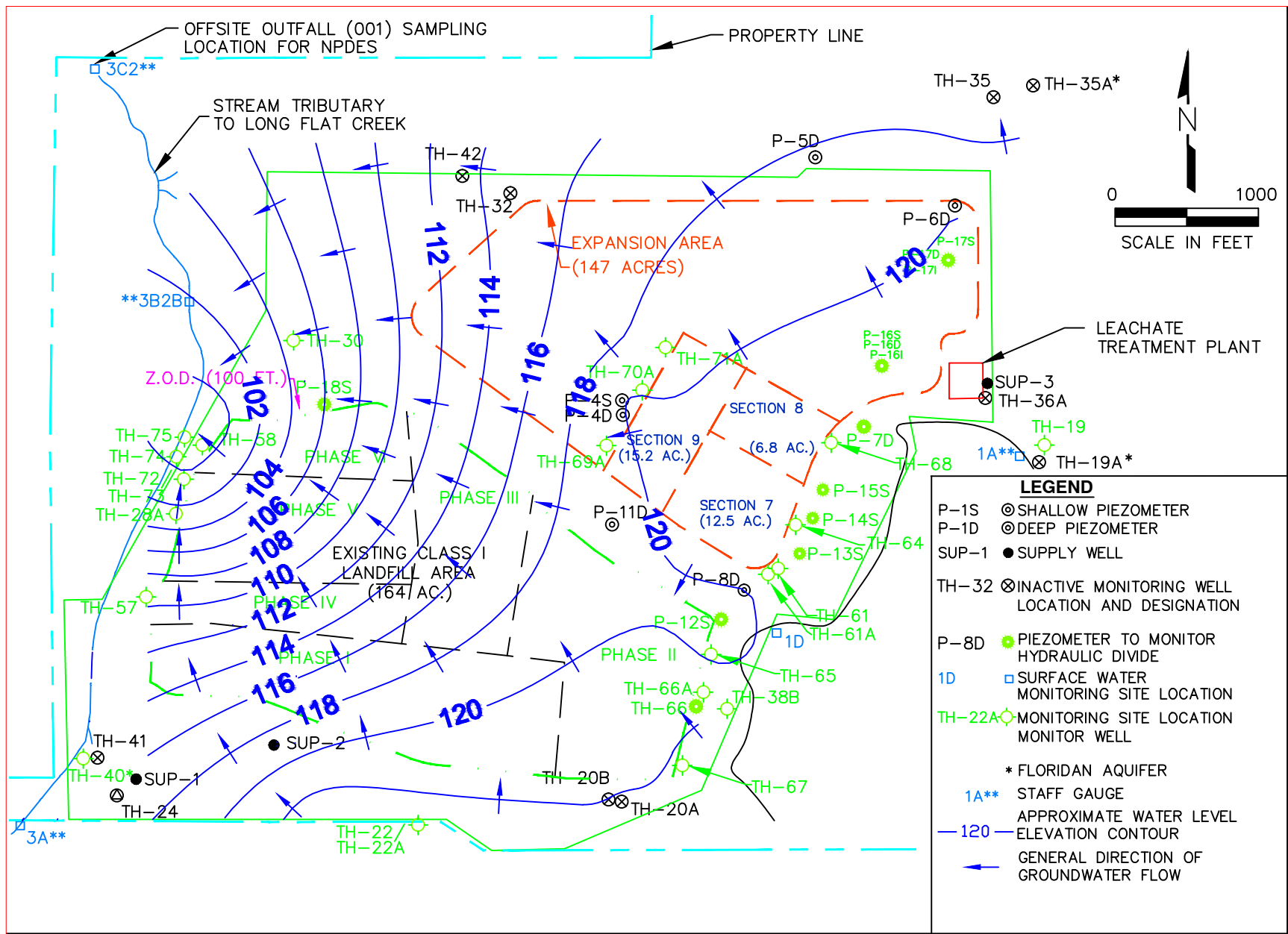
GENERAL (mg/l)	Surficial Aquifer Wells			Upper Floridan Wells				(MCL) STANDARD
PARAMETERS	TH-73	TH-74	TH-75	TH-72	TH-76	TH-77	Duplicate	
conductivity (umhos/cm) (field)	381	570	338	2173	434	418	NA	NS
dissolved oxygen (mg/l) (field)	0.39	0.58	0.39	0.24	0.18	0.36	NA	NS
pH (field)	4.92	5.55	5.66	6.67	7.36	7.34	NA	(6.5 - 8.5)**
temperature (°C) (field)	25.11	21.83	22.51	23.40	22.70	23.38	NA	NS
turbidity (NTU) (field)	6.23	2.26	5.3	1.33	26.2	1.12	NA	NS
total dissolved solids (mg/l)	230	370	200	1500	230	230	1500	500**
chloride (mg/l)	96	95	27	580	12	9.3	580	250**
ammonia nitrogen (mg/l as N)	1.9	3.5	1.5	22	0.33	0.32	22	2.8***
								(MCL) STANDARD
Metals: (mg/l)	TH-73	TH-74	TH-75	TH-72	TH-76	TH-77	Duplicate	
arsenic	0.004 u	0.004 u	0.0067 i	0.004 u	0.004 u	0.004 u	0.004 u	0.01*
iron	4.6	29	6.1	0.74	0.69	0.21	0.74	0.3**
sodium	31	44	16	220	20	16	220	160*
MCL=Maximum Contaminant Level								
NA =Not Analyzed								
NS=No Standard								
NTU = Nephelometric Turbidity Units								
i = reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.								
u = parameter was analyzed but not detected.								
*=Denotes Primary Drinking Water Standard as per Chapter 62-550.310, F.A.C.								
**=Denotes Secondary Drinking Water Standard as per Chapter 62-550.320, F.A.C.								
*** = Denotes Groundwater Cleanup Target Levels as per Chapter 62,777, F.A.C.								
4.92	Exceeds Standard							
mg/l=milligrams per liter								
ug/l = Micrograms per liter								

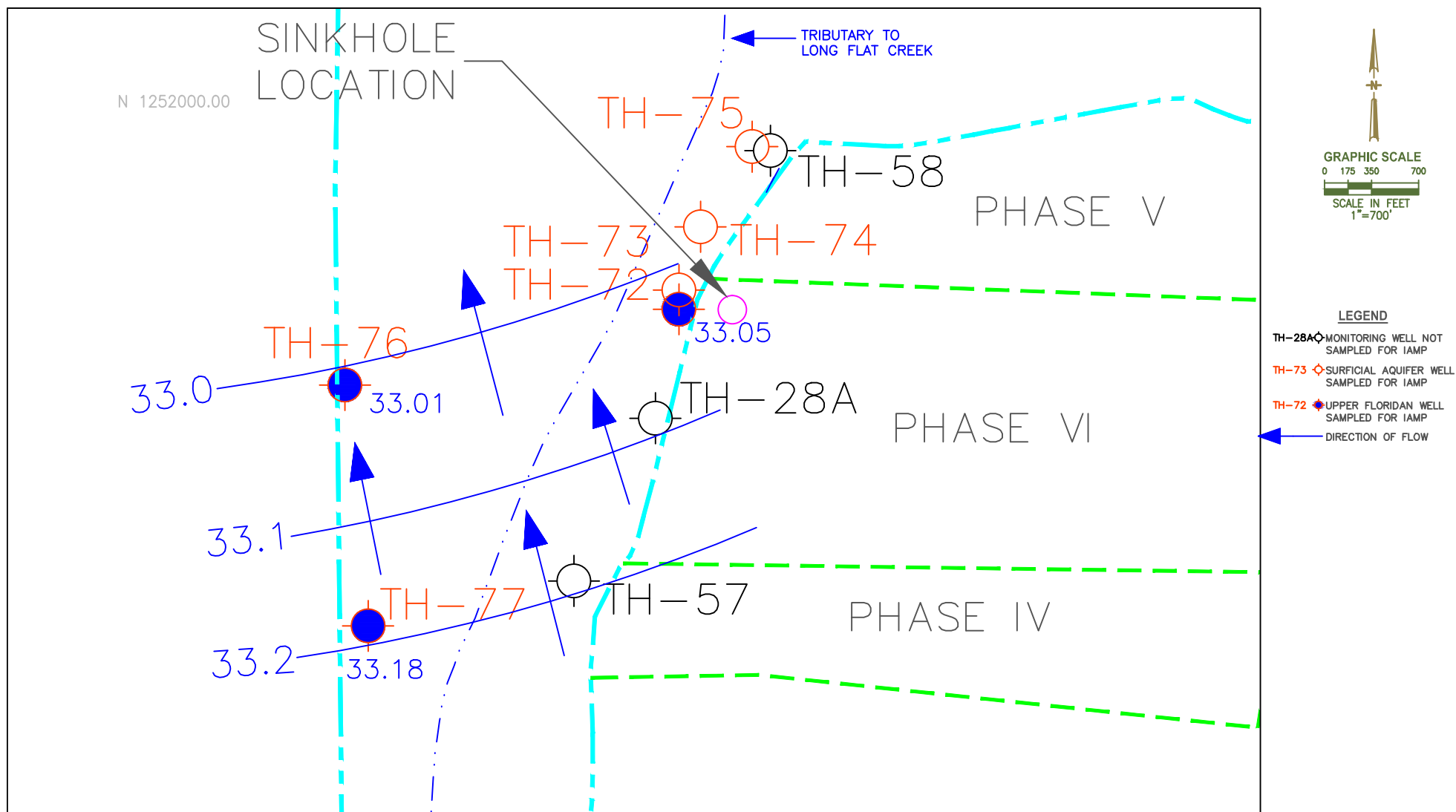
Southeast County Landfill

Groundwater and Surface Water Elevations

March 3, 2014

Measuring Point	T.O.C. Elevations	W.L.	W.L.	Time
I.D.	(NGVD)	B.T.O.C.	(NGVD)	
P-4D	140.78	22.54	118.24	11:37
P-4S	140.95	10.13	130.82	11:35
P-5D	151.94	Dry	151.94	13:11
P-6D-A	148.01	28.02	119.99	13:04
P-7D	138.92	18.15	120.77	12:40
P-8D	138.34	18.39	119.95	12:19
P-11D	138.02	17.90	120.12	11:51
P-12S	134.97	14.56	120.41	12:15
P-13S	140.21	19.78	120.43	12:28
P-14S	138.56	18.12	120.44	12:33
P-15S	139.19	18.83	120.36	12:35
P-16S	143.38	16.19	127.19	12:52
P-16I	144.15	24.20	119.95	12:51
P-16D	143.84	23.93	119.91	12:50
P-17S	137.35	16.49	120.86	13:19
P-17I	137.32	17.33	119.99	13:18
P-17D	137.22	17.33	119.89	13:18
P-18S	129.86	18.59	111.27	10:41
P-19	133.36	14.70	118.66	13:06
P-20	132.38	13.24	119.14	12:59
P-21	122.79	4.38	118.41	11:23
P-22	128.35	9.61	118.74	11:26
P-23	143.13	23.98	119.15	12:54
TH-19*	130.27	98.87	31.40	13:37
TH-20A	131.86	9.68	122.18	12:04
TH-20B	132.57	10.66	121.91	12:03
TH-22	128.82	5.34	123.48	9:39
TH-22A	129.27	5.93	123.34	9:39
TH-24A	128.23	5.49	122.74	9:45
TH-28A	131.10	28.18	102.92	10:57
TH-30	128.88	23.99	104.89	10:46
TH-32	129.90	15.09	114.81	10:35
TH-35	145.98	28.74	117.24	13:23
TH-36A	152.70	32.81	119.89	12:43
TH-38A	130.68	10.30	120.38	12:00
TH-38B	131.81	11.13	120.68	12:00
TH-40*	124.99	93.91	31.08	9:52
TH-41*	125.00	99.19	25.81	9:53
TH-42*	116.74	76.72	40.02	10:32
TH-57	128.36	19.29	109.07	11:01
TH-58	127.88	28.15	99.73	10:49
TH-61	138.73	17.83	120.90	11:53
TH-61A	139.45	18.48	120.97	11:55
TH-64	139.64	18.30	121.34	12:30
TH-65	135.40	15.77	119.63	12:12
TH-66	130.58	9.42	121.16	12:09
TH-66A	130.66	9.82	120.84	12:10
TH-67	129.51	6.73	122.78	12:07
TH-68	140.01	19.42	120.59	12:37
TH-69A	144.97	25.72	119.25	11:47
TH-70A	146.63	26.29	120.34	11:42
TH-71A	146.95	27.59	119.36	11:31
TH-72*	130.96	97.91	33.05	10:54
TH-73	131.07	30.78	100.29	10:53
TH-74	109.08	9.52	99.56	11:09
TH-75	106.92	7.87	99.05	11:13
TH-76*	111.21	78.20	33.01	10:04
TH-77*	119.88	86.70	33.18	9:58
SW-3A	3.0'=125.53'	0.25	122.78	9:31
SW-3B2B	3.0'=97.97'	Dry	N/A	10:09
SW-3C2	6.0'=92.33'	1.26	87.59	10:17
Mine Cut #1	4.0'=122.14'	2.55	120.69	12:22
Mine Cut #2	6.0'=123.47'	2.60	120.07	13:27
Mine Cut #3	4.0'=112.27'	2.20	110.47	10:28
Mine Cut #4	5.0'=97.54'	1.42	93.96	10:25
NGVD = National Geodetic Vertical Datum				
T.O.C. = Top of Casing				
B.T.O.C. = Below Top of Casing				
* = Floridan Well				
ND = No Data - Sampling Location Dry				
W.L. = Water Level				





MARCH 2014
 UPPER FLORIDAN / LIMESTONE AQUIFER CONTOUR DIAGRAM
 IN THE VICINITY OF THE FORMER SINKHOLE
 SOUTHEAST COUNTY LANDFILL
 HILLSBOROUGH COUNTY, FLORIDA

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-72

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)
01/27/2011	115.69	15.27	551	0.39	7.43	22.88	3.2	320	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	300	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	320	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	330	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	320	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	330	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	520	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	320	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	150	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	360	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	340	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	0.18	7.03	23.5	0.41	820	280	8.8	0.004 u	0.79	120
08/02/2013	ND	ND	1,256	0.46	6.88	23.43	0.2	800	290	6.8	0.004 u	0.72	120
09/05/2013	87.92	43.04	1,001	0.61	6.98	23.45	1.17	760	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	1,000	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	0.8	1,200	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	1,200	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	1,200	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

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.

1,100

EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-73

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)
01/27/2011	30.99	100.08	440	1.7	5.53	25.01	22.2	180	69	2.3	0.004 u	15	38
02/03/2011	30.85	100.22	400	1.78	5.62	26.12	17.6	140	56	1.9	0.004 u	31	26
02/10/2011	30.76	100.31	336	1.44	5.62	25.86	12	160	56	2	0.004 u	26	27
02/14/2011	30.82	100.25	312	0.56	5.54	26	15.5	190	55	2.6	0.004 u	34	24
02/24/2011	30.78	100.29	340	0.38	5.62	26.15	16.4	170	61	3	0.004 u	17	28
03/03/2011	30.87	100.20	382	0.53	5.56	26	19.4	200	61	2.1	0.004 u	21	29
03/10/2011	30.87	100.20	371	0.66	5.56	25.97	8.3	170	60	1.7	0.004 u	21	27
03/17/2011	30.76	100.31	266	1.22	5.35	26	14.3	150	69	2.1	0.004 u	12	33
03/24/2011	30.78	100.29	346	0.61	5.47	26.02	8	140	63	2	0.004 u	13	27
04/01/2011	31.11	99.96	366	0.78	5.53	25.89	19.8	160	68	1.7	0.004 u	14	29
04/08/2011	30.65	100.42	331	0.62	5.35	25.97	18	140	66	2.1	0.004 u	11	30
05/05/2011	31.70	99.37	361	0.4	5.34	25.64	12.2	150	66	2	0.004 u	20	28
06/08/2011	32.54	98.53	391	0.7	5.41	25.69	14	150	63	2.2	0.004 u	14	27
07/07/2011	31.55	99.52	306	0.35	5.13	25.34	19.2	350	33	0.52	0.004 u	0.22	31
08/04/2011	31.40	99.67	262	0.89	5.12	25.44	19.9	140	60	1.2	0.004 u	8.2	24
09/08/2011	30.66	100.41	259	0.49	5.24	25.41	28.1	170	62	1.9	0.004 u	8.5	27
10/04/2011	31.16	99.91	345	0.89	5.2	25.48	12	220	96	1.8	0.004 u	9.1	33
11/03/2011	31.27	99.80	1273	0.3	5.21	25.55	8.16	720	360	7.3	0.004 u	22	97
12/08/2011	31.96	99.11	1499	0.62	5.3	25.24	2.64	820	500	3	0.004 u	26	110
01/05/2012	32.31	98.76	1188	0.71	5.16	25.18	2.05	750	350	3.3	0.004 u	19	80
02/10/2012	32.25	98.82	304	0.55	5.28	25.24	3.31	190	67	1.6	0.004 u	4.9	23
03/07/2012	32.42	98.65	312	1.08	5.22	25.24	3.3	150	56	1.2	0.004 u	4.7	22
04/05/2012	32.63	98.44	231	0.79	5.06	24.94	4.39	120	50	1.1	0.004 u	4.1	20
05/03/2012	32.74	98.33	283	0.99	4.8	24.88	6.47	160	63	1.9	0.004 u	4.5	22
06/07/2012	32.40	98.67	224	0.87	4.82	24.64	5.6	140	48	1.6	0.004 u	3.3	18
07/05/2012	31.51	99.56	232	0.31	4.77	24.63	9	140	50	1.7	0.004 u	4	18
08/03/2012	32.09	98.98	201	0.71	5.02	24.63	5.13	160	52	1.7	0.004 u	3.8	19
09/06/2012	31.22	99.76	242	0.5	5.06	24.67	7.39	140	47	1.3	0.004 u	3.6	18
10/04/2012	31.46	99.61	222	0.18	4.86	24.68	7.56	130	43	1.2	0.004 u	3.4	16
11/07/2012	31.84	99.23	231	0.39	5.06	24.75	5.54	130	45	0.94	0.004 u	3.6	16
12/05/2012	32.14	98.93	237	0.2	5.03	24.9	3.26	110	46	0.84	0.004 u	3.5	17
01/03/2013	31.91	99.16	237	0.49	4.95	24.84	2.47	130	45	1.1	0.004 u	3.2	16
02/07/2013	32.11	98.96	221	0.69	4.84	24.79	4.8	120	47	0.84	0.004 u	3	15
03/07/2013	32.41	98.66	179	0.23	4.78	24.46	2.64	110	45	1.2	0.004 u	3.1	17
04/04/2013	32.41	98.66	191	0.2	4.73	24.42	2.49	140	53	1.1	0.004 u	3.4	20
05/02/2013	31.40	99.67	240	0.24	5.12	24.43	8.82	120	52	0.99	0.004 u	3.4	16
06/04/2013	31.14	99.93	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
07/03/2013	30.22	100.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
08/02/2013	ND	ND	395	0.23	5.13	24.85	10.4	270	130	2.3	0.004 u	7.8	38
09/04/2013	29.89	101.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10/04/2013	29.74	101.33	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
11/06/2013	30.36	100.71	319	0.62	5.01	25.54	6.35	200	76	2.2	0.004 u	3.8	25

New survey data beginning with 10/4/2012.

u = parameter was analyzed but not detected

NS = No Sample Collected (Surficial wells are now sampled quarterly)

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

**Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-74**

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)
11/03/2011	9.65	ND	485	0.51	5.56	23.62	5.45	280	48	2.9	0.004 u	26	20
12/08/2011	10.11	98.97	445	0.89	5.64	22.9	14.7	270	40	2.3	0.0042 i	27	21
01/05/2012	10.30	98.78	474	0.66	5.66	21.97	16.8	240	59	1.8	0.004 u	30	26
02/10/2012	10.22	98.86	501	0.6	5.42	21.48	9.99	350	95	2.5	0.004 u	34	22
03/07/2012	10.40	98.68	618	0.53	5.24	21.57	8.7	210	120	2.3	0.004 u	38	22
04/05/2012	10.53	98.55	592	0.79	5.13	21.74	13.7	270	120	2.8	0.004 u	40	24
05/03/2012	10.71	98.37	602	0.86	5.15	21.93	12.5	330	110	2.8	0.004 u	38	25
06/07/2012	10.45	98.63	334	0.75	5.35	22.48	6.92	210	37	3	0.004 u	20	16
07/05/2012	9.45	99.63	495	0.32	4.99	23.09	5.33	240	73	2.1	0.004 u	11	27
08/03/2012	9.99	99.09	261	0.37	5.18	23.63	6.12	210	47	3	0.004 u	19	15
09/06/2012	9.36	99.66	578	0.24	5.33	24.08	2.37	330	110	2.8	0.012	21	36
10/04/2012	9.53	99.55	369	0.25	5.36	24.12	3.98	260	76	3.5	0.0055 i	19	22
11/07/2012	9.91	99.17	385	0.36	5.47	23.53	3.21	240	60	1.9	0.0045 i	18	20
12/05/2012	10.14	98.94	398	0.34	5.44	22.82	3.08	230	59	2.7	0.004 u	21	19
01/03/2013	9.96	99.12	418	0.31	5.43	22.03	3.03	280	59	2.7	0.004 u	20	20
02/07/2013	10.16	98.92	394	0.34	5.43	21.66	1.95	200	45	1.9	0.004 u	20	16
03/07/2013	10.23	98.85	363	0.35	5.38	21.06	1.24	180	47	3	0.004 u	20	17
04/04/2013	10.52	98.56	273	0.38	5.34	20.75	5.85	210	43	1.9	0.004 u	20	16
05/02/2013	9.94	99.14	357	0.39	5.61	21.28	2.62	190	37	2.8	0.004 u	21	14
06/04/2013	9.91	99.17	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
07/03/2013	8.90	100.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
08/02/2013	ND	ND	508	0.29	5.55	23.26	1.3	240	63	3.2	0.004 u	31	20
09/04/2013	8.94	100.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10/04/2013	8.87	100.21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
11/06/2013	9.37	99.71	1,348	1.41	5.43	23.98	9.71	890	370	3.2	0.004 u	60	78

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.

NS = No Sample Collected (Surficial wells are now sampled quarterly)

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

5.56 EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-75

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)
11/03/2011	7.68	ND	396	0.25	5.65	23.63	11.6	220	49	1.4	0.0085 i	11	14
12/08/2011	7.90	99.02	301	0.46	5.57	22.9	20.1	150	23	1.1	0.011	8.9	11
01/05/2012	8.01	98.91	300	0.92	5.58	21.69	18.9	180	25	1.1	0.0071 i	8.6	10
02/10/2012	8.00	98.92	422	0.51	5.48	21.5	17.9	280	81	1.1	0.0072 i	12	20
03/07/2012	8.14	98.78	495	0.26	5.39	21.5	19.6	220	79	0.96	0.0079 i	13	22
04/05/2012	8.15	98.77	584	0.33	5.37	21.76	4.94	300	130	1.3	0.0063 i	16	26
05/03/2012	8.27	98.65	588	0.28	5.32	22.06	0.0	350	120	1.9	0.0078 i	16	33
06/07/2012	8.14	98.78	702	0.39	5.61	22.87	5.69	480	140	1.5	0.0095 i	10	40
07/05/2012	7.36	99.56	344	0.22	5.35	23.52	6.48	180	37	2	0.01	9.8	15
08/03/2012	7.80	99.12	241	0.28	5.28	24.07	4.21	190	25	1.8	0.008 i	8.3	14
09/06/2012	7.42	99.50	360	0.18	5.41	24.5	4.41	200	40	2	0.01	9.1	15
10/04/2012	7.55	99.37	346	0.15	5.35	24.54	6.73	240	51	2.5	0.0084 i	9.2	15
11/07/2012	7.79	99.13	422	0.3	5.48	23.8	2.51	200	54	1.6	0.0086 i	9.8	17
12/05/2012	7.98	98.94	395	0.31	5.5	22.97	7.22	210	48	1.4	0.0067 i	9.2	16
01/03/2013	7.88	99.04	447	0.37	5.53	21.89	13.9	400	60	1.3	0.0065 i	8.1	21
02/07/2013	8.02	98.90	453	0.2	5.48	21.71	6.35	240	62	1.5	0.0076 i	9.8	19
03/07/2013	8.04	98.88	379	0.27	5.4	21.38	2.71	200	40	1.9	0.0061 i	8	17
04/04/2013	8.23	98.69	245	0.25	5.34	21.08	4.92	180	22	1.7	0.0068 i	7.3	14
05/02/2013	8.00	98.92	340	0.21	5.61	21.72	1.59	170	26	1.3	0.0071 i	7.6	13
06/04/2013	7.85	99.07	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
07/03/2013	7.34	99.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
08/02/2013	ND	ND	356	0.21	5.63	23.9	2.1	170	28	1.3	0.0096 i	7.6	18
09/04/2013	7.47	99.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10/04/2013	7.45	99.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
11/06/2013	7.81	99.11	353	1.13	5.78	24.32	12.3	200	31	1.3	0.0046 i	6.5	14

New survey data beginning with 10/4/2012.

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

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

5.65

EXCEEDS STANDARD

Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-76

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

u = parameter was analyzed but not detected

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

1.1

EXCEEDS STANDARD

**Hillsborough County Southeast Landfill
Laboratory Analytical Results from IAMP Groundwater Monitoring
TH-77**

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

u = parameter was analyzed but not detected

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

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

1.2 EXCEEDS STANDARD

TestAmerica

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: 660-59458-1

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:
3/18/2014 10:37:39 AM

Nancy Robertson, Project Manager II
(813)885-7427
nancy.robertson@testamericainc.com

LINKS

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results through
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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.

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Sample Summary

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

TestAmerica Job ID: 660-59458-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-59458-1	BLANK FIELD	Ground Water	03/04/14 10:30	03/04/14 15:25
660-59458-2	TH-77	Ground Water	03/04/14 11:06	03/04/14 15:25
660-59458-3	TH-76	Ground Water	03/04/14 12:17	03/04/14 15:25
660-59458-4	TH-73	Ground Water	03/04/14 13:07	03/04/14 15:25
660-59473-1	DUPLICATE NOT BLANK	Ground Water	03/05/14 00:00	03/05/14 14:57
660-59473-2	TH-72	Ground Water	03/05/14 11:16	03/05/14 14:57
660-59473-3	TH-74	Ground Water	03/05/14 12:25	03/05/14 14:57
660-59473-4	TH-75	Ground Water	03/05/14 13:15	03/05/14 14:57

Case Narrative

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

TestAmerica Job ID: 660-59458-1

Job ID: 660-59458-1

Laboratory: TestAmerica Tampa

Narrative

Job Narrative
660-59458-1

Comments

No additional comments.

Receipt

The samples were received on 3/4/2014 3:25 PM and 3/5/2014 2:57 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.6° C and 5.4° C.

Metals

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

General Chemistry

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

Definitions/Glossary

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

TestAmerica Job ID: 660-59458-1

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.
I	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
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
ML	Minimum 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
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Detection Summary

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-59458-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	0.43	I	0.50	0.31	mg/L	1		6010B	Total Recoverable

Client Sample ID: TH-77

Lab Sample ID: 660-59458-2

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	210		200	50	ug/L	1		6010B	Total Recoverable
Sodium	16		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	0.32		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	230		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.34				SU	1		Field Sampling	Total/NA
Field Temperature	23.38				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.36				mg/L	1		Field Sampling	Total/NA
Specific Conductance	418				uS/cm	1		Field Sampling	Total/NA
Turbidity	1.12				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-76

Lab Sample ID: 660-59458-3

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	690		200	50	ug/L	1		6010B	Total Recoverable
Sodium	20		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	0.33		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	230		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	7.36				SU	1		Field Sampling	Total/NA
Field Temperature	22.70				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.18				mg/L	1		Field Sampling	Total/NA
Specific Conductance	434				uS/cm	1		Field Sampling	Total/NA
Turbidity	26.2				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-73

Lab Sample ID: 660-59458-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	96		1.0	0.50	mg/L	2		300.0	Total/NA
Iron	4600		200	50	ug/L	1		6010B	Total Recoverable
Sodium	31		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	1.9		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	230		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA
Field Temperature	25.11				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.39				mg/L	1		Field Sampling	Total/NA
Specific Conductance	381				uS/cm	1		Field Sampling	Total/NA
Turbidity	6.23				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Detection Summary

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-59473-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	580		10	5.0	mg/L	20		300.0	Total/NA
Iron	740		200	50	ug/L	1		6010B	Total Recoverable
Sodium	220		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	22		1.0	0.52	mg/L	20		350.1	Total/NA
Total Dissolved Solids	1500		25	25	mg/L	1		SM 2540C	Total/NA

Client Sample ID: TH-72

Lab Sample ID: 660-59473-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	580		10	5.0	mg/L	20		300.0	Total/NA
Iron	740		200	50	ug/L	1		6010B	Total Recoverable
Sodium	220		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	22		1.0	0.52	mg/L	20		350.1	Total/NA
Total Dissolved Solids	1500		25	25	mg/L	1		SM 2540C	Total/NA
Field pH	6.67				SU	1		Field Sampling	Total/NA
Field Temperature	23.40				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.24				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2173				uS/cm	1		Field Sampling	Total/NA
Turbidity	1.33				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-74

Lab Sample ID: 660-59473-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	95		5.0	2.5	mg/L	10		300.0	Total/NA
Iron	29000		200	50	ug/L	1		6010B	Total Recoverable
Sodium	44		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	3.5		0.10	0.052	mg/L	2		350.1	Total/NA
Total Dissolved Solids	370		10	10	mg/L	1		SM 2540C	Total/NA
Field pH	5.55				SU	1		Field Sampling	Total/NA
Field Temperature	21.83				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.58				mg/L	1		Field Sampling	Total/NA
Specific Conductance	570				uS/cm	1		Field Sampling	Total/NA
Turbidity	2.26				NTU	1		Field Sampling	Total/NA

Client Sample ID: TH-75

Lab Sample ID: 660-59473-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		0.50	0.25	mg/L	1		300.0	Total/NA
Arsenic	6.7	I	10	4.0	ug/L	1		6010B	Total Recoverable
Iron	6100		200	50	ug/L	1		6010B	Total Recoverable
Sodium	16		0.50	0.31	mg/L	1		6010B	Total Recoverable
Ammonia as N	1.5		0.050	0.026	mg/L	1		350.1	Total/NA
Total Dissolved Solids	200		5.0	5.0	mg/L	1		SM 2540C	Total/NA
Field pH	5.66				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Detection Summary

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-75 (Continued)

Lab Sample ID: 660-59473-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Temperature	22.51				Degrees C	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.39				mg/L	1		Field Sampling	Total/NA
Specific Conductance	338				uS/cm	1		Field Sampling	Total/NA
Turbidity	5.30				NTU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Tampa

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: BLANK FIELD

Lab Sample ID: 660-59458-1

Date Collected: 03/04/14 10:30

Matrix: Ground Water

Date Received: 03/04/14 15:25

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.25	U	0.50	0.25	mg/L			03/11/14 20:57	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 13:56	1
Iron	50	U	200	50	ug/L		03/07/14 11:00	03/10/14 13:56	1
Sodium	0.43	I	0.50	0.31	mg/L		03/07/14 11:00	03/10/14 13:56	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L			03/12/14 09:37	1
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			03/07/14 08:40	1

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-77

Date Collected: 03/04/14 11:06

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-2

Matrix: Ground Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.3		0.50	0.25	mg/L			03/11/14 21:11	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 13:59	1
Iron	210		200	50	ug/L		03/07/14 11:00	03/10/14 13:59	1
Sodium	16		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 13:59	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.32		0.050	0.026	mg/L			03/10/14 16:06	1
Total Dissolved Solids	230		10	10	mg/L			03/07/14 08:40	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.34				SU			03/04/14 11:06	1
Field Temperature	23.38				Degrees C			03/04/14 11:06	1
Oxygen, Dissolved	0.36				mg/L			03/04/14 11:06	1
Specific Conductance	418				uS/cm			03/04/14 11:06	1
Turbidity	1.12				NTU			03/04/14 11:06	1

TestAmerica Tampa

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-76

Date Collected: 03/04/14 12:17

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-3

Matrix: Ground Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		0.50	0.25	mg/L			03/11/14 21:54	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 14:03	1
Iron	690		200	50	ug/L		03/07/14 11:00	03/10/14 14:03	1
Sodium	20		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 14:03	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.33		0.050	0.026	mg/L			03/10/14 16:06	1
Total Dissolved Solids	230		10	10	mg/L			03/07/14 08:40	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.36				SU			03/04/14 12:17	1
Field Temperature	22.70				Degrees C			03/04/14 12:17	1
Oxygen, Dissolved	0.18				mg/L			03/04/14 12:17	1
Specific Conductance	434				uS/cm			03/04/14 12:17	1
Turbidity	26.2				NTU			03/04/14 12:17	1

TestAmerica Tampa

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-73

Date Collected: 03/04/14 13:07

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-4

Matrix: Ground Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	96		1.0	0.50	mg/L			03/11/14 22:09	2

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 14:06	1
Iron	4600		200	50	ug/L		03/07/14 11:00	03/10/14 14:06	1
Sodium	31		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 14:06	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	1.9		0.050	0.026	mg/L			03/10/14 16:06	1
Total Dissolved Solids	230		5.0	5.0	mg/L			03/07/14 08:40	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.92				SU			03/04/14 13:07	1
Field Temperature	25.11				Degrees C			03/04/14 13:07	1
Oxygen, Dissolved	0.39				mg/L			03/04/14 13:07	1
Specific Conductance	381				uS/cm			03/04/14 13:07	1
Turbidity	6.23				NTU			03/04/14 13:07	1

TestAmerica Tampa

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-59473-1

Date Collected: 03/05/14 00:00

Matrix: Ground Water

Date Received: 03/05/14 14:57

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		10	5.0	mg/L			03/11/14 22:23	20

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 14:09	1
Iron	740		200	50	ug/L		03/07/14 11:00	03/10/14 14:09	1
Sodium	220		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 14:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	22		1.0	0.52	mg/L			03/10/14 14:34	20
Total Dissolved Solids	1500		25	25	mg/L			03/10/14 09:52	1

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-72

Date Collected: 03/05/14 11:16

Date Received: 03/05/14 14:57

Lab Sample ID: 660-59473-2

Matrix: Ground Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	580		10	5.0	mg/L			03/11/14 22:38	20

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 14:13	1
Iron	740		200	50	ug/L		03/07/14 11:00	03/10/14 14:13	1
Sodium	220		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 14:13	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	22		1.0	0.52	mg/L			03/10/14 14:34	20
Total Dissolved Solids	1500		25	25	mg/L			03/10/14 09:52	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.67				SU			03/05/14 11:16	1
Field Temperature	23.40				Degrees C			03/05/14 11:16	1
Oxygen, Dissolved	0.24				mg/L			03/05/14 11:16	1
Specific Conductance	2173				uS/cm			03/05/14 11:16	1
Turbidity	1.33				NTU			03/05/14 11:16	1

TestAmerica Tampa

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-74

Date Collected: 03/05/14 12:25

Date Received: 03/05/14 14:57

Lab Sample ID: 660-59473-3

Matrix: Ground Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	95		5.0	2.5	mg/L			03/11/14 22:52	10

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 14:16	1
Iron	29000		200	50	ug/L		03/07/14 11:00	03/10/14 14:16	1
Sodium	44		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 14:16	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	3.5		0.10	0.052	mg/L			03/10/14 13:57	2
Total Dissolved Solids	370		10	10	mg/L			03/10/14 09:52	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.55				SU			03/05/14 12:25	1
Field Temperature	21.83				Degrees C			03/05/14 12:25	1
Oxygen, Dissolved	0.58				mg/L			03/05/14 12:25	1
Specific Conductance	570				uS/cm			03/05/14 12:25	1
Turbidity	2.26				NTU			03/05/14 12:25	1

TestAmerica Tampa

Client Sample Results

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: TH-75

Date Collected: 03/05/14 13:15

Date Received: 03/05/14 14:57

Lab Sample ID: 660-59473-4

Matrix: Ground Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		0.50	0.25	mg/L			03/11/14 23:07	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.7	I	10	4.0	ug/L		03/07/14 11:00	03/10/14 14:20	1
Iron	6100		200	50	ug/L		03/07/14 11:00	03/10/14 14:20	1
Sodium	16		0.50	0.31	mg/L		03/07/14 11:00	03/10/14 14:20	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	1.5		0.050	0.026	mg/L			03/10/14 13:38	1
Total Dissolved Solids	200		5.0	5.0	mg/L			03/10/14 09:52	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.66				SU			03/05/14 13:15	1
Field Temperature	22.51				Degrees C			03/05/14 13:15	1
Oxygen, Dissolved	0.39				mg/L			03/05/14 13:15	1
Specific Conductance	338				uS/cm			03/05/14 13:15	1
Turbidity	5.30				NTU			03/05/14 13:15	1

TestAmerica Tampa

QC Sample Results

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

TestAmerica Job ID: 660-59458-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-319123/37

Matrix: Water

Analysis Batch: 319123

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.25	U	0.50	0.25	mg/L			03/11/14 20:14	1

Lab Sample ID: LCS 680-319123/39

Matrix: Water

Analysis Batch: 319123

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	10.0		mg/L		100	90 - 110

Lab Sample ID: LCSD 680-319123/40

Matrix: Water

Analysis Batch: 319123

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.97		mg/L		100	90 - 110	1	30

Lab Sample ID: 660-59458-2 MS

Matrix: Ground Water

Analysis Batch: 319123

Client Sample ID: TH-77

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.3		10.0	19.7		mg/L		104	80 - 120

Lab Sample ID: 660-59458-2 MSD

Matrix: Ground Water

Analysis Batch: 319123

Client Sample ID: TH-77

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.3		10.0	19.5		mg/L		101	80 - 120	1	30

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 660-146745/1-A

Matrix: Water

Analysis Batch: 146777

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 146745

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0	U	10	4.0	ug/L		03/07/14 11:00	03/10/14 13:13	1
Iron	50	U	200	50	ug/L		03/07/14 11:00	03/10/14 13:13	1
Sodium	0.31	U	0.50	0.31	mg/L		03/07/14 11:00	03/10/14 13:13	1

Lab Sample ID: LCS 660-146745/2-A

Matrix: Water

Analysis Batch: 146777

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 146745

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1000	1040		ug/L		104	80 - 120
Iron	1000	1070		ug/L		107	80 - 120
Sodium	10.0	10.0		mg/L		100	80 - 120

TestAmerica Tampa

QC Sample Results

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

TestAmerica Job ID: 660-59458-1

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

Lab Sample ID: 660-59476-B-35-B MS

Matrix: Water

Analysis Batch: 146777

Client Sample ID: Matrix Spike

Prep Type: Total Recoverable

Prep Batch: 146745

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	4.0	U	1000	1070		ug/L		107	80 - 120
Iron	220		1000	1250		ug/L		103	80 - 120
Sodium	41		10.0	50.3		mg/L		98	80 - 120

Lab Sample ID: 660-59476-B-35-C MSD

Matrix: Water

Analysis Batch: 146777

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total Recoverable

Prep Batch: 146745

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	4.0	U	1000	1080		ug/L		108	80 - 120	1	20
Iron	220		1000	1270		ug/L		105	80 - 120	2	20
Sodium	41		10.0	50.3		mg/L		98	80 - 120	0	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 680-318972/2

Matrix: Water

Analysis Batch: 318972

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L			03/10/14 12:35	1

Lab Sample ID: LCS 680-318972/1

Matrix: Water

Analysis Batch: 318972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	1.00	1.00		mg/L		100	90 - 110

Lab Sample ID: 640-47035-A-1 MS

Matrix: Water

Analysis Batch: 318972

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	0.075	J3	1.00	1.18		mg/L		110	90 - 110

Lab Sample ID: 640-47035-A-1 MSD

Matrix: Water

Analysis Batch: 318972

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N	0.075	J3	1.00	1.19	J3	mg/L		111	90 - 110	1	30

Lab Sample ID: 640-47060-H-9 DU

Matrix: Water

Analysis Batch: 318972

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia as N	0.096		0.0987		mg/L		3	30

TestAmerica Tampa

QC Sample Results

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

TestAmerica Job ID: 660-59458-1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: MB 680-319235/35

Matrix: Water

Analysis Batch: 319235

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L	-		03/11/14 10:34	1

Lab Sample ID: LCS 680-319235/34

Matrix: Water

Analysis Batch: 319235

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	1.00	0.997		mg/L	-	100	90 - 110

Lab Sample ID: 580-42575-A-1 MS

Matrix: Water

Analysis Batch: 319235

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	0.17	J3	1.00	1.74	J3	mg/L	-	156	90 - 110

Lab Sample ID: 580-42575-A-1 MSD

Matrix: Water

Analysis Batch: 319235

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N	0.17	J3	1.00	1.74	J3	mg/L	-	157	90 - 110	0	30

Lab Sample ID: 580-42575-A-2 DU

Matrix: Water

Analysis Batch: 319235

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N	0.15			0.155		mg/L	-			4	30

Lab Sample ID: MB 680-319249/2

Matrix: Water

Analysis Batch: 319249

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.026	U	0.050	0.026	mg/L	-		03/12/14 09:15	1

Lab Sample ID: LCS 680-319249/1

Matrix: Water

Analysis Batch: 319249

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	1.00	1.04		mg/L	-	104	90 - 110

Lab Sample ID: 680-99108-E-2 MS

Matrix: Water

Analysis Batch: 319249

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	970		1000	2000		mg/L	-	103	90 - 110

TestAmerica Tampa

QC Sample Results

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

TestAmerica Job ID: 660-59458-1

Lab Sample ID: 680-99108-E-2 MSD

Matrix: Water

Analysis Batch: 319249

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia as N	970		1000	1990		mg/L		102	90 - 110	0	30

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

Lab Sample ID: MB 660-146736/1

Matrix: Water

Analysis Batch: 146736

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			03/07/14 08:40	1

Lab Sample ID: LCS 660-146736/2

Matrix: Water

Analysis Batch: 146736

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9920		mg/L		99	80 - 120

Lab Sample ID: 640-47058-H-1 DU

Matrix: Water

Analysis Batch: 146736

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	300		296		mg/L		0	20

Lab Sample ID: MB 660-146772/1

Matrix: Water

Analysis Batch: 146772

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	5.0	U	5.0	5.0	mg/L			03/10/14 09:52	1

Lab Sample ID: LCS 660-146772/2

Matrix: Water

Analysis Batch: 146772

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	10000	9970		mg/L		100	80 - 120

Lab Sample ID: 660-59473-3 DU

Matrix: Ground Water

Analysis Batch: 146772

Client Sample ID: TH-74

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	370		364		mg/L		1	20

TestAmerica Tampa

QC Association Summary

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

TestAmerica Job ID: 660-59458-1

HPLC/IC

Analysis Batch: 319123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59458-1	BLANK FIELD	Total/NA	Ground Water	300.0	
660-59458-2	TH-77	Total/NA	Ground Water	300.0	
660-59458-2 MS	TH-77	Total/NA	Ground Water	300.0	
660-59458-2 MSD	TH-77	Total/NA	Ground Water	300.0	
660-59458-3	TH-76	Total/NA	Ground Water	300.0	
660-59458-4	TH-73	Total/NA	Ground Water	300.0	
660-59473-1	DUPLICATE NOT BLANK	Total/NA	Ground Water	300.0	
660-59473-2	TH-72	Total/NA	Ground Water	300.0	
660-59473-3	TH-74	Total/NA	Ground Water	300.0	
660-59473-4	TH-75	Total/NA	Ground Water	300.0	
LCS 680-319123/39	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-319123/40	Lab Control Sample Dup	Total/NA	Water	300.0	
MB 680-319123/37	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 146745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59458-1	BLANK FIELD	Total Recoverable	Ground Water	3005A	
660-59458-2	TH-77	Total Recoverable	Ground Water	3005A	
660-59458-3	TH-76	Total Recoverable	Ground Water	3005A	
660-59458-4	TH-73	Total Recoverable	Ground Water	3005A	
660-59473-1	DUPLICATE NOT BLANK	Total Recoverable	Ground Water	3005A	
660-59473-2	TH-72	Total Recoverable	Ground Water	3005A	
660-59473-3	TH-74	Total Recoverable	Ground Water	3005A	
660-59473-4	TH-75	Total Recoverable	Ground Water	3005A	
660-59476-B-35-B MS	Matrix Spike	Total Recoverable	Water	3005A	
660-59476-B-35-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	
LCS 660-146745/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 660-146745/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 146777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59458-1	BLANK FIELD	Total Recoverable	Ground Water	6010B	146745
660-59458-2	TH-77	Total Recoverable	Ground Water	6010B	146745
660-59458-3	TH-76	Total Recoverable	Ground Water	6010B	146745
660-59458-4	TH-73	Total Recoverable	Ground Water	6010B	146745
660-59473-1	DUPLICATE NOT BLANK	Total Recoverable	Ground Water	6010B	146745
660-59473-2	TH-72	Total Recoverable	Ground Water	6010B	146745
660-59473-3	TH-74	Total Recoverable	Ground Water	6010B	146745
660-59473-4	TH-75	Total Recoverable	Ground Water	6010B	146745
660-59476-B-35-B MS	Matrix Spike	Total Recoverable	Water	6010B	146745
660-59476-B-35-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	146745
LCS 660-146745/2-A	Lab Control Sample	Total Recoverable	Water	6010B	146745
MB 660-146745/1-A	Method Blank	Total Recoverable	Water	6010B	146745

TestAmerica Tampa

QC Association Summary

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

TestAmerica Job ID: 660-59458-1

General Chemistry

Analysis Batch: 146736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-47058-H-1 DU	Duplicate	Total/NA	Water	SM 2540C	
660-59458-1	BLANK FIELD	Total/NA	Ground Water	SM 2540C	
660-59458-2	TH-77	Total/NA	Ground Water	SM 2540C	
660-59458-3	TH-76	Total/NA	Ground Water	SM 2540C	
660-59458-4	TH-73	Total/NA	Ground Water	SM 2540C	
LCS 660-146736/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-146736/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 146772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59473-1	DUPLICATE NOT BLANK	Total/NA	Ground Water	SM 2540C	
660-59473-2	TH-72	Total/NA	Ground Water	SM 2540C	
660-59473-3	TH-74	Total/NA	Ground Water	SM 2540C	
660-59473-3 DU	TH-74	Total/NA	Ground Water	SM 2540C	
660-59473-4	TH-75	Total/NA	Ground Water	SM 2540C	
LCS 660-146772/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 660-146772/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 318972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
640-47035-A-1 MS	Matrix Spike	Total/NA	Water	350.1	
640-47035-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
640-47060-H-9 DU	Duplicate	Total/NA	Water	350.1	
660-59473-1	DUPLICATE NOT BLANK	Total/NA	Ground Water	350.1	
660-59473-2	TH-72	Total/NA	Ground Water	350.1	
660-59473-3	TH-74	Total/NA	Ground Water	350.1	
660-59473-4	TH-75	Total/NA	Ground Water	350.1	
LCS 680-318972/1	Lab Control Sample	Total/NA	Water	350.1	
MB 680-318972/2	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 319235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
580-42575-A-1 MS	Matrix Spike	Total/NA	Water	350.1	
580-42575-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
580-42575-A-2 DU	Duplicate	Total/NA	Water	350.1	
660-59458-2	TH-77	Total/NA	Ground Water	350.1	
660-59458-3	TH-76	Total/NA	Ground Water	350.1	
660-59458-4	TH-73	Total/NA	Ground Water	350.1	
LCS 680-319235/34	Lab Control Sample	Total/NA	Water	350.1	
MB 680-319235/35	Method Blank	Total/NA	Water	350.1	

Analysis Batch: 319249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59458-1	BLANK FIELD	Total/NA	Ground Water	350.1	
680-99108-E-2 MS	Matrix Spike	Total/NA	Water	350.1	
680-99108-E-2 MSD	Matrix Spike Duplicate	Total/NA	Water	350.1	
LCS 680-319249/1	Lab Control Sample	Total/NA	Water	350.1	
MB 680-319249/2	Method Blank	Total/NA	Water	350.1	

TestAmerica Tampa

QC Association Summary

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

TestAmerica Job ID: 660-59458-1

Field Service / Mobile Lab

Analysis Batch: 146840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-59458-2	TH-77	Total/NA	Ground Water	Field Sampling	
660-59458-3	TH-76	Total/NA	Ground Water	Field Sampling	
660-59458-4	TH-73	Total/NA	Ground Water	Field Sampling	
660-59473-2	TH-72	Total/NA	Ground Water	Field Sampling	
660-59473-3	TH-74	Total/NA	Ground Water	Field Sampling	
660-59473-4	TH-75	Total/NA	Ground Water	Field Sampling	

Lab Chronicle

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: BLANK FIELD

Date Collected: 03/04/14 10:30

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-1

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319123	03/11/14 20:57	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 13:56	GAF	TAL TAM
Total/NA	Analysis	350.1		1	319249	03/12/14 09:37	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146736	03/07/14 08:40	TKO	TAL TAM

Client Sample ID: TH-77

Date Collected: 03/04/14 11:06

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-2

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319123	03/11/14 21:11	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 13:59	GAF	TAL TAM
Total/NA	Analysis	350.1		1	319235	03/10/14 16:06	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146736	03/07/14 08:40	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	146840	03/04/14 11:06		TAL TAM

Client Sample ID: TH-76

Date Collected: 03/04/14 12:17

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-3

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319123	03/11/14 21:54	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 14:03	GAF	TAL TAM
Total/NA	Analysis	350.1		1	319235	03/10/14 16:06	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146736	03/07/14 08:40	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	146840	03/04/14 12:17		TAL TAM

Client Sample ID: TH-73

Date Collected: 03/04/14 13:07

Date Received: 03/04/14 15:25

Lab Sample ID: 660-59458-4

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2	319123	03/11/14 22:09	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 14:06	GAF	TAL TAM
Total/NA	Analysis	350.1		1	319235	03/10/14 16:06	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146736	03/07/14 08:40	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	146840	03/04/14 13:07		TAL TAM

TestAmerica Tampa

Lab Chronicle

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

TestAmerica Job ID: 660-59458-1

Client Sample ID: DUPLICATE NOT BLANK

Lab Sample ID: 660-59473-1

Date Collected: 03/05/14 00:00

Matrix: Ground Water

Date Received: 03/05/14 14:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	319123	03/11/14 22:23	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 14:09	GAF	TAL TAM
Total/NA	Analysis	350.1		20	318972	03/10/14 14:34	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146772	03/10/14 09:52	TKO	TAL TAM

Client Sample ID: TH-72

Lab Sample ID: 660-59473-2

Date Collected: 03/05/14 11:16

Matrix: Ground Water

Date Received: 03/05/14 14:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20	319123	03/11/14 22:38	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 14:13	GAF	TAL TAM
Total/NA	Analysis	350.1		20	318972	03/10/14 14:34	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146772	03/10/14 09:52	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	146840	03/05/14 11:16		TAL TAM

Client Sample ID: TH-74

Lab Sample ID: 660-59473-3

Date Collected: 03/05/14 12:25

Matrix: Ground Water

Date Received: 03/05/14 14:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	319123	03/11/14 22:52	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 14:16	GAF	TAL TAM
Total/NA	Analysis	350.1		2	318972	03/10/14 13:57	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146772	03/10/14 09:52	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	146840	03/05/14 12:25		TAL TAM

Client Sample ID: TH-75

Lab Sample ID: 660-59473-4

Date Collected: 03/05/14 13:15

Matrix: Ground Water

Date Received: 03/05/14 14:57

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	319123	03/11/14 23:07	PAT	TAL SAV
Total Recoverable	Prep	3005A			146745	03/07/14 11:00	RAG	TAL TAM
Total Recoverable	Analysis	6010B		1	146777	03/10/14 14:20	GAF	TAL TAM
Total/NA	Analysis	350.1		1	318972	03/10/14 13:38	JME	TAL SAV
Total/NA	Analysis	SM 2540C		1	146772	03/10/14 09:52	TKO	TAL TAM
Total/NA	Analysis	Field Sampling		1	146840	03/05/14 13:15		TAL TAM

TestAmerica Tampa

Lab Chronicle

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

TestAmerica Job ID: 660-59458-1

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

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Method Summary

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

TestAmerica Job ID: 660-59458-1

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

Certification Summary

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

TestAmerica Job ID: 660-59458-1

Laboratory: TestAmerica Tampa

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Florida	NELAP	4	E84282	06-30-14

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	
Alabama	State Program	4	41450	06-30-14
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	06-30-14
GA Dept. of Agriculture	State Program	4	N/A	06-30-14
Georgia	State Program	4	N/A	06-30-14
Georgia	State Program	4	803	06-30-14
Guam	State Program	9	09-005r	04-17-14 *
Hawaii	State Program	9	N/A	06-30-14
Illinois	NELAP	5	200022	11-30-14
Indiana	State Program	5	N/A	06-30-14
Iowa	State Program	7	353	07-01-15
Kentucky (DW)	State Program	4	90084	12-31-14
Kentucky (UST)	State Program	4	18	06-30-14
Louisiana	NELAP	6	LA100015	12-31-14
Maine	State Program	1	GA00006	08-16-14
Maryland	State Program	3	250	12-31-14
Massachusetts	State Program	1	M-GA006	06-30-14
Michigan	State Program	5	9925	06-30-14
Mississippi	State Program	4	N/A	06-30-14
Montana	State Program	8	CERT0081	01-01-15
Nebraska	State Program	7	TestAmerica-Savannah	06-30-14
New Jersey	NELAP	2	GA769	06-30-14
New Mexico	State Program	6	N/A	06-30-14
New York	NELAP	2	10842	03-31-14 *
North Carolina DENR	State Program	4	269	12-31-14
North Carolina DHHS	State Program	4	13701	07-31-14
Oklahoma	State Program	6	9984	08-31-14
Pennsylvania	NELAP	3	68-00474	06-30-14
Puerto Rico	State Program	2	GA00006	12-31-14
South Carolina	State Program	4	98001	06-30-14
Tennessee	State Program	4	TN02961	06-30-14
Texas	NELAP	6	T104704185-08-TX	11-30-14
USDA	Federal		SAV 3-04	04-07-14 *
Virginia	NELAP	3	460161	06-14-14
Washington	State Program	10	C1794	06-10-14
West Virginia DEP	State Program	3	94	06-30-14
West Virginia DHHR	State Program	3	9950C	12-31-14
Wisconsin	State Program	5	999819810	08-31-14
Wyoming	State Program	8	8TMS-L	06-30-14

* Expired certification is currently pending renewal and is considered valid.

TestAmerica Tampa

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*** * ***

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Alternate Laboratory Name/Location

Phone:

Fax: _____

[illegible]

FS 2200 Groundwater Sampling

GROUNDWATER SAMPLING LOG

PURGING DATA

SAMPLING DATA

SEE C.O.C. FOR SAMPLE ANALYSIS

DBP= Dedicated bladder pump

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

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

Revision Date: February 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: Southeast County Landfill IAMP		SITE LOCATION: Lithia, Florida	
WELL NO: TH-76		DATE: 3-4-14	

PURGING DATA

WELL DIAMETER (inches): 2		TUBING DIAMETER (inches): 0.5		WELL SCREEN INTERVAL DEPTH: 163.35 feet to 178.35 feet		STATIC DEPTH TO WATER (feet): 78.22		PURGE PUMP TYPE OR BAILER: DBP			
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (178.35 feet - 78.22 feet) X .16 gallons/foot = 16.03 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 177.35		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 177.35		PURGING INITIATED AT: 11.26		PURGING ENDED AT: 12.17		TOTAL VOLUME PURGED (gallons): 25.5			
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. µS/cm	DISSOLVED OXYGEN mg/L	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11.59	16.5	16.5	2.05	78.98	7.37	22.68	433	.22	22.9	light cloudy	NONE
12.08	4.5	21	.50	79.00	7.36	22.68	433	.19	25.3		
12.17	4.5	25.5	.50	79.00	7.36	22.70	434	.18	26.2	↓	↓

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
 PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON				SAMPLER(S) SIGNATURE(S): <i>[Signature]</i>				SAMPLING INITIATED AT: 12.17		SAMPLING ENDED AT: 12.28	
PUMP OR TUBING DEPTH IN WELL (feet): 177.35				TUBING MATERIAL CODE: T				FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: ____ µm	
FIELD DECONTAMINATION: PUMP Y N <input checked="" type="radio"/> TUBING Y N <input checked="" type="radio"/>				DUPLICATE: Y <input checked="" type="radio"/> N							
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH					

SEE C.O.C. FOR SAMPLE ANALYSIS

DBP = Dedicated bladder pump

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (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: ± 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 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SELF IAMP		SITE LOCATION: LITHIA, FL	
WELL NO: TH-73	SAMPLE ID:	DATE: 3-4-14	

PURGING DATA

WELL DIAMETER (Inches): 2	TUBING DIAMETER (Inches): 3/8	WELL SCREEN INTERVAL DEPTH: 33.4 feet to 43.4 feet	STATIC DEPTH TO WATER (feet): 30.80	PURGE PUMP TYPE OR BAILER: BP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (43.4 feet - 30.80 feet) X .16 gallons/foot = 2.02 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 42.4	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 42.4	PURGING INITIATED AT: 12.45	PURGING ENDED AT: 13.07	TOTAL VOLUME PURGED (gallons): 3.3

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12.59	2.1	2.1	.15	31.04	4.95	25.16	381	.28	5.56	NONE	NONE
13.03	.6	2.7	.15	31.04	4.96	25.07	383	.25	7.17	NONE	NONE
13.07	.6	3.3	.15	31.04	4.92	25.11	381	.39	6.23	NONE	NONE

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0028; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON		SAMPLER(S) SIGNATURE(S): <i>Andrew Balloon</i> <i>Zack Patterson</i>		SAMPLING INITIATED AT: 13.07	SAMPLING ENDED AT: 13.18
PUMP OR TUBING DEPTH IN WELL (feet): 42.4		TUBING MATERIAL CODE: T	FIELD-FILTERED: Y <input checked="" type="radio"/>	FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> Dedicated		TUBING Y <input checked="" type="radio"/> Dedicated	DUPLICATE: Y <input checked="" type="radio"/>		

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (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: ± 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 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SELF IAMP	SITE LOCATION:	DATE: 3-4-14
WELL NO: FIELD BLANK	SAMPLE ID:	

PURGING DATA

WELL DIAMETER (inches): —	TUBING DIAMETER (inches): —	WELL SCREEN INTERVAL DEPTH: — feet to — feet	STATIC DEPTH TO WATER (feet): —	PURGE PUMP TYPE OR BAILER: —
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				
EQUIPMENT VOLUME PURGE: EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): —	FINAL PUMP OR TUBING DEPTH IN WELL (feet): —	PURGING INITIATED AT: —	PURGING ENDED AT: —	TOTAL VOLUME PURGED (gallons): —

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
FIELD BLANK											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON				SAMPLER(S) SIGNATURE(S):				SAMPLING INITIATED AT: 10.30		SAMPLING ENDED AT: 10.41	
PUMP OR TUBING DEPTH IN WELL (feet): —				TUBING MATERIAL CODE: T		FIELD-FILTERED: Y <input checked="" type="radio"/> N			FILTER SIZE: _____ μm		
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N <input checked="" type="radio"/> Dedicated						TUBING Y <input checked="" type="radio"/> N <input checked="" type="radio"/> Dedicated			DUPLICATE: Y <input checked="" type="radio"/> N		

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (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: ± 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 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

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Original - Return to Laboratory with Sample(s)

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SELF IAMP		SITE LOCATION: LITHEA, FL	
WELL NO: TH-74	SAMPLE ID:	DATE: 3-5-14	

PURGING DATA

WELL DIAMETER (Inches): 2	TUBING DIAMETER (Inches): 3/8	WELL SCREEN INTERVAL DEPTH: 7 feet to 17 feet	STATIC DEPTH TO WATER (feet): 9.58	PURGE PUMP TYPE OR BAILER: BP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (17 feet - 9.58 feet) X .16 gallons/foot = 1.19 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.3	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.3	PURGING INITIATED AT: 11.55	PURGING ENDED AT: 12.25	TOTAL VOLUME PURGED (gallons): 1.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or (μS/cm)	DISSOLVED OXYGEN (circle units) (mg/L) or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12.15	1.2	1.2	.06	9.65	5.34	21.87	570	.52	2.82	NONE	NONE
12.20	.3	1.5	.06	9.65	5.55	21.87	569	.82	2.34	NONE	NONE
12.25	.3	1.8	.06	9.65	5.55	21.83	570	.58	2.26	NONE	NONE

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0008; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON		SAMPLER(S) SIGNATURE(S):		SAMPLING INITIATED AT: 12.25	SAMPLING ENDED AT: 12.36
PUMP OR TUBING DEPTH IN WELL (feet): 13.3		TUBING MATERIAL CODE: T	FIELD-FILTERED: Y <input checked="" type="radio"/> N	FILTER SIZE: _____ μm	
FIELD DECONTAMINATION: PUMP Y N <input checked="" type="radio"/> dedicated		TUBING Y N <input checked="" type="radio"/> dedicated		DUPLICATE: Y <input checked="" type="radio"/> N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (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: ± 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 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

PURGING DATA

SAMPLING DATA

SEE C.O.C. FOR SAMPLE ANALYSIS

DBP =Dedicated Bladder Pump

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump;
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

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

Revision Date: February 2009

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: SELF TAMP	SITE LOCATION: LITHIA, FL
WELL NO: Duplicate	DATE: 3-5-14

PURGING DATA

WELL DIAMETER (inches): —	TUBING DIAMETER (inches): —	WELL SCREEN INTERVAL DEPTH: — feet to — feet	STATIC DEPTH TO WATER (feet): —	PURGE PUMP TYPE OR BAILER: —
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable)				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): —	FINAL PUMP OR TUBING DEPTH IN WELL (feet): —	PURGING INITIATED AT: —	PURGING ENDED AT: —	TOTAL VOLUME PURGED (gallons): —

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
DUPLICATE											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.008; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: ANDREW BALLOON / ZACK PATTERSON	SAMPLER(S) SIGNATURE(S): 	SAMPLING INITIATED AT: —	SAMPLING ENDED AT: —
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: T	FIELD-FILTERED: Y <input checked="" type="radio"/> N <input type="radio"/>	FILTER SIZE: — μm
FIELD DECONTAMINATION: PUMP Y N <input type="radio"/> Dedicated, TUBING Y N <input type="radio"/> Dedicated		DUPLICATE: <input checked="" type="radio"/> Y <input type="radio"/> N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

SEE COC FOR ANALYSIS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (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: ± 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 NTU or ± 10% (whichever is greater)

Revision Date: February 2009

3/18/2014

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-59458-1

Login Number: 59458

List Source: TestAmerica Tampa

List Number: 1

Creator: Redding, Charles S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-59458-1

Login Number: 59458

List Number: 1

Creator: Banda, Christy S

List Source: TestAmerica Savannah

List Creation: 03/06/14 09:27 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-59458-1

Login Number: 59473

List Source: TestAmerica Tampa

List Number: 1

Creator: McNulty, Carol

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hillsborough Co Public Utilities Dept

Job Number: 660-59458-1

Login Number: 59473

List Source: TestAmerica Savannah

List Number: 1

List Creation: 03/06/14 09:27 AM

Creator: Banda, Christy S

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	