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MARCH 2013 SEMIANNUAL MONITORING REPORT FOR OPERABLE UNIT 2 (OU 2)
MCCOY ANNEX NTC ORLANDO FL
6/1/2013
BFA ENVIRONMENTAL CONSULTANTS

March 2013 Semiannual Monitoring Report
Operable Unit 2 - McCoy Annex
Former Naval Training Center
Orlando, Florida

Prepared for:

Department of the Navy
Naval Facilities Engineering Command Southeast
BRAC Program Management Office Southeast
Contract No. N62467-03-G-0297-0002

Prepared by:

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June 2013

March 2013 Semiannual Monitoring Report
Operable Unit 2 - McCoy Annex
Former Naval Training Center
Orlando, Florida

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Prepared under:

Long Term Monitoring and O & M at Former NTC Orlando, Florida

Contract No. N62467-03-G-0297

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June, 2013

BFA certifies that the fieldwork and the preparation of this report were done in accordance with Florida Rules Regulations and Industry guidance. As a registered Engineering and Geological services firm our senior professionals are authorized by the rules that govern this work including Chapters 492 or 471, Florida Statutes. We certify that the work was performed under the guidance of appropriately credentialed and licensed professionals.

To the best of our knowledge, the information and laboratory data included herein are true, accurate, complete, and in accordance with applicable Florida state and federal rules and regulations.

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7/3/13
Date

Certification Page

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A Previous Analytical Results (2008-2013)
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Acronyms

AMSL	Above Mean Sea Level
BFA	Barnes, Ferland and Associates, Inc.
BGS	Below Ground Surface
°C	Degrees Celsius
Cis-1, 2-DCE	Cis-1, 2-dichloroethene
CTO	Contract Task Order
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
ft.	Feet
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organic
gal	gallons
GCTL	Groundwater Cleanup Target Levels
in	Inches
µg/L	Micrograms per liter
µS/cm	Micro Siemens per centimeter
mg/L	Milligrams per liter
MEE	Methane, Ethane, and Ethene
mL/min	Milliliters per minute
mV	Millivolts
NA	Not Available
NADC	Natural Attenuation Default Concentration
NM	Not Measured
NTC	Naval Training Center
NTU	Nephelometric Turbidity Units
OPT	Orlando Partnering Team
ORP	Oxidation-Reduction Potential
PAH	Polynuclear Aromatic Hydrocarbons
PCE	Tetrachloroethene
SA	Study Area
SAP	Sampling and Analysis Plan
SI	Site Investigation
SU	Standard Unit
TCE	Trichloroethene
TOC	Top of Casing
TPH	Total Petroleum Hydrocarbon
VOC	Volatile Organic Compound

Section 1 - Background

The following report presents results of the March 2013 groundwater sampling round at the Operable Unit 2 (OU2) site - formerly McCoy Annex Landfill in Orlando, Florida. Section 1 is intended to provide background information for understanding the site conditions at OU2.

1.1 NTC Orlando's Environmental Program

Environmental studies and cleanup actions are currently underway at the former NTC, Orlando as part of the Department of Defense's Installation Restoration (IR) Program. Through this program, areas of known or suspected contamination from past practices and operations are being monitored, evaluated, and, if necessary, cleaned up.

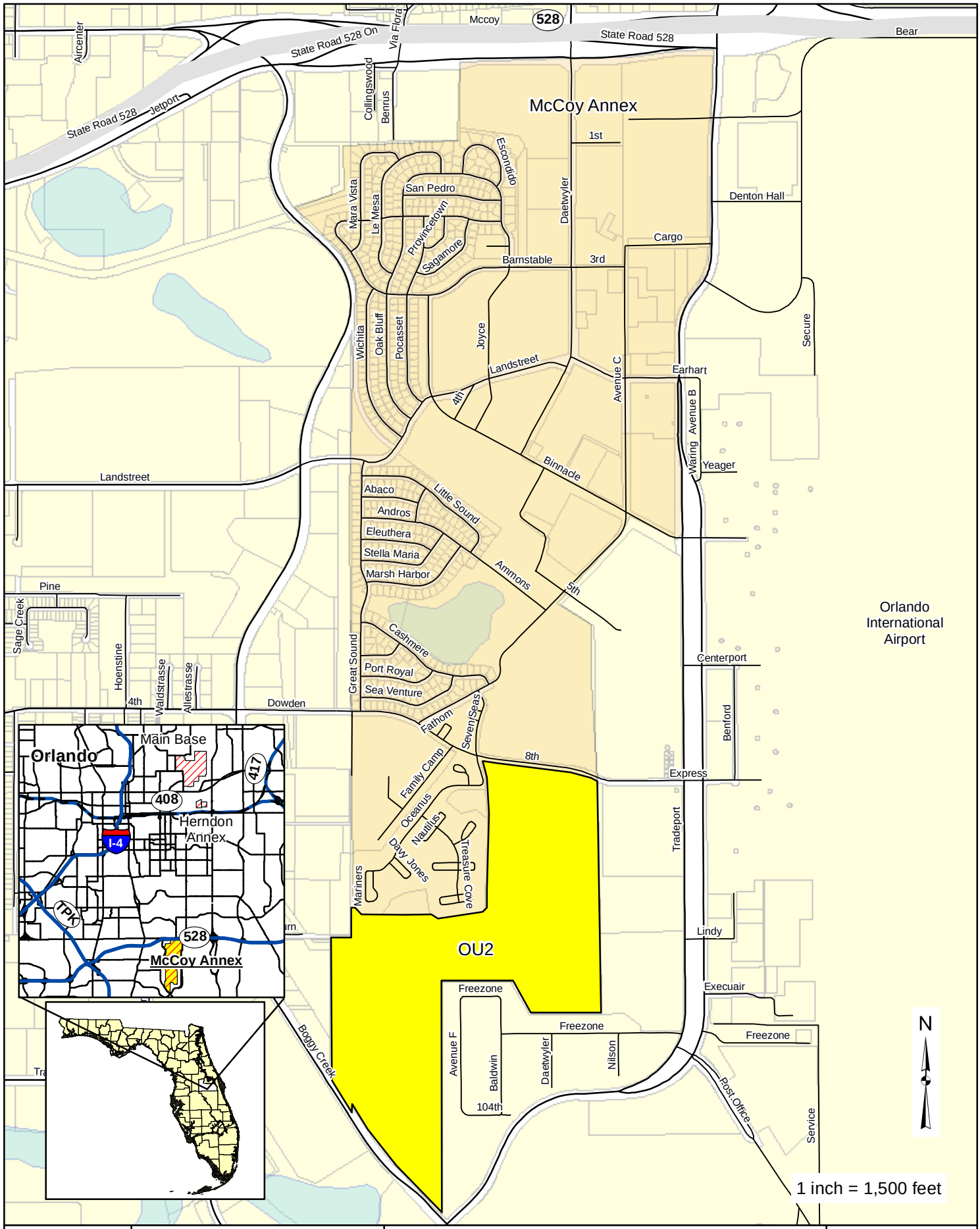
1.2 Description and History of Operable Unit 2

McCoy Annex (1940-1947, 1951-1975) is a former US Army Airfield (Pinecastle Army Airfield) and United States Air Force base (McCoy Air Force Base) located 10 miles south of Orlando, Florida. It was a training base during World War II. After the war it became a Front-Line Strategic Air Command (SAC) base during the Vietnam War and the Cold War. With McCoy's closure as an active Air Force installation in 1975, the site was redeveloped with the military retaining most of the land, with the exception of the airfield (which became Orlando International Airport).

The OU2 site is located immediately west of the Orlando International Airport and Greater Orlando Airport Authority (GOAA) property as shown on Figure 1. OU2 is an inactive landfill located in the southern part of McCoy Annex. The landfill occupies approximately 114 acres, and its relatively flat topography slopes from north to south. A paint ball shooting range now occupies the northern half of the site. The southern half of the site was wooded, but the trees have been removed and the area was covered with clean soil as part of an Interim Remedial Action (IRA). A portion of the area is currently being used as a paintball field.

The western portion of the site was used as a landfill by the Air Force from about 1960 to 1972, while the eastern portion was used as a landfill by the Air Force and the Navy from 1972 until about 1978. Landfill operations consisted of excavating ditches (100 to 200 feet long by 20 to 25 feet wide by 10 to 15 feet deep) into which trucks disposed wastes. Occasional burning of the wastes took place in the ditches. Trenches were filled with waste to within 3 or 4 feet of the ground surface and then backfilled with soil and seeded.

The estimated volume of waste is more than 1,000,000 cubic yards (yd^3). Landfill wastes reportedly included hospital wastes, paint and paint thinner, automobile batteries, airplane parts, and asbestos.



Location Map of Operable Unit 2
McCoy Annex

Figure 1

A Remedial Investigation (RI) was conducted at the site from May 1997 to March 2001. The RI indicated that: the landfill covers approximately 114 acres; the surface soil was contaminated with landfill material in the southern portion of the golf course and in the wooded area in the south portion of OU2; surface water and sediment were not contaminated, but groundwater could cross contaminant these media in the future; and two contaminant plume areas (north and south) exist at the site.

Two IRAs were conducted at OU2. One of these actions included the removal of 2,000 yd^3 of contaminated surface soil in the northern portion of OU2 and the other involved placement of additional soil cover in the southern portion of OU2.

1.3 Nature and Extent of Contamination

The principal contaminants of concern were benzene, iron, and manganese in the northern plume area, and benzene and chlorinated solvents (such as vinyl chloride, PCE and TCE) in the southern plume area. The Orlando Partnering Team proposed the following plan to address the potential risk from landfill material and groundwater contamination. For the *northern groundwater plume*, additional cover was placed over the landfill, where needed, to prevent direct human contact with landfill materials. Land use controls are implemented to control exposure to contaminants of concern. Land use controls include site restrictions to prohibit unauthorized intrusive activity within the landfill boundary and to prohibit the use of groundwater for any purpose other than for groundwater investigation without written authorization from the Navy and Florida Department of Environmental Protection. Signs are posted to alert users of the property about the presence of a landfill and monitoring of groundwater and surface water were implemented to assess the progress of natural attenuation.

For the *southern groundwater plume*, enhanced biodegradation, land use controls, and monitoring have been implemented to address the contamination. Enhanced biodegradation involves injecting a bio-stimulant within the plume to enhance ongoing natural biodegradation of chlorinated compounds. Site conditions, as demonstrated by the ongoing groundwater monitoring program, indicate that natural attenuation has successfully reduced the extent of the contaminated groundwater plume. Land use controls are implemented to control exposure to contaminants of concern. Land use controls include site restrictions to prohibit residential use, to prohibit unauthorized intrusive activity within the landfill boundary, and to prohibit using groundwater as a drinking water supply. Signs are posted to alert users of the property about the presence of the landfill. Monitoring involves both groundwater and surface water to assess the progress of natural attenuation.

1.4 Reductive Dechlorination Treatment at OU2

Previous activities at the site have involved Phase I and II pilot studies, conducted by AGVIQ/CH2M HILL JV II, which included groundwater monitoring along a permeable reactive biobarrier (PRB) system created by injecting an emulsified oil substrate (EOS®) to intercept contaminant migration from OU2

southern plume area to the neighboring Greater Orlando Airport Authority (GOAA) property. The substrate promotes enhanced reductive dechlorination (ERD) of the chlorinated volatile organic compounds (CVOCs) as contaminated groundwater passes through the PRB.

In July 2010, Solutions-IES was contracted directly by the Naval Facilities Engineering Command Southeast (NAVFAC SE) to plan an enhanced remediation of the treatment area to address residual CVOCs in groundwater at the OU2 site. Utilizing lessons learned from the previous successful ERD approach, Solutions-IES proposed continuing with *in situ* bioremediation and enhancing the remedial design by implementing the injection of a combination of two emulsified oil products, and a bioaugmentation culture. The Sampling and Analysis Plan and Quality Assurance Project Plan (UFP-SAP/QAPP) for this project was submitted under separate cover and titled: *Solutions-IES, May 2011. Final Sampling and Analysis Plan, Revision No. 2, Injection of Emulsified Oil Substrate (EOS® and AquaBupH™) for In-Situ Bioremediation at Operable Unit 2 (OU2) Former Naval Training Center Orlando, Orlando, Florida.* The UFP-SAP/QAPP was approved by the FDEP in July 2011. This Work Plan is prepared to guide the implementation of the expanded ERD groundwater remedy at OU2 with referral to the UFPSAP/QAPP, as necessary.

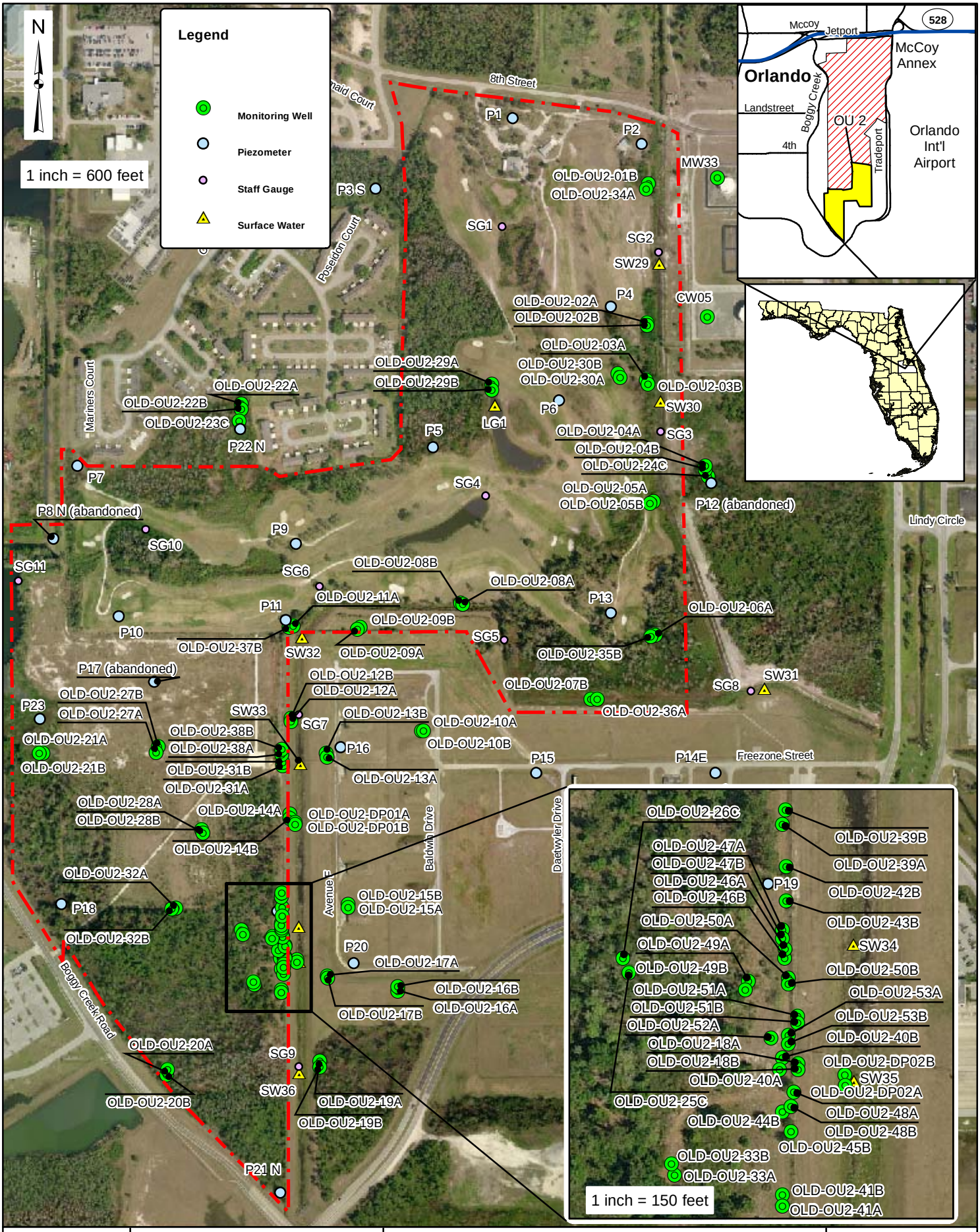
A subsequent Work Plan was prepared by Solutions-IES titled: *Work Plan, In-Situ Bioremediation of Chlorinated Solvents in Groundwater at OU2 Former Naval Training Center, Orlando, Florida, during December 2011.* This Work Plan was prepared to describe the in-situ remedial design and methods to inject organic substrates and performance monitoring. The injections were scheduled for late February, 2012 at OU2 in the vicinity of monitor wells MW-49 through MW-54 (Target Treatment Injection Zone - Figure 2).

1.5 Continued Groundwater Network Monitoring

Numerous groundwater monitoring wells currently exist at OU2, which are used for monitoring of groundwater conditions (Figure 2). Barnes, Ferland and Associates, Inc. (BFA) began sampling the OU2 monitor wells semiannually in October, 2008. BFA has performed a total of ten sampling events at OU2. All sampling and testing procedures are performed in accordance with the Sampling and Analysis Plan titled, *Long Term Monitoring at Operable Unit 2, Naval Training Center, Orlando, Florida (Tetra-Tech, August, 2012).*

1.6 Regulatory Framework

This project is being conducted as part of the US Navy Base Realignment and Closure Act (US Navy BRAC). The US Environmental Protection Agency (USEPA) works closely with other federal agencies, state and local governments to develop and enforce regulations under existing environmental laws. A number of Federal statutes provide USEPA with the authority to prevent and control sources of groundwater contamination, as well as cleanup of existing contaminated sites. The Comprehensive



BFA

OU 2 Monitor Well and Surface Water Sampling Location Map

Figure 2

Environmental Response Compensation Liability Act (CERCLA) regulations, governing the treatment and handling of wastes, are applied at OU2. USEPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states the responsibility for issuing permits, and monitoring and enforcing compliance. Chapter 403, *FS* establishes the Florida Department of Environmental Protection (FDEP) as the primary agency responsible for the protection of the groundwater supply. The FDEP has promulgated a number of different regulations under title 62 of the Florida Administrative Code (*F.A.C.),* which function to regulate several types of activities with potential impacts on groundwater. Applicable *F.A.C.* Chapter 62 regulations are also followed in the performance of the scope of work, as detailed in the site Work Plan (BFA, June 2008). Key project decisions are made by the Orlando Partnering Team (OPT) including members of USEPA, FDEP, US Navy BRAC and Resolution Consultants.

Section 2 - Field Sampling Activities and Results

The sampling schedule for Operable Unit 2 (OU2) is semi-annual during March and September. For the March 2013 sampling round, monitor wells and surface water sites were sampled as shown in Table 1, as provided by the Orlando Partnering Team (OPT). All field sampling and laboratory testing activities were performed in accordance with the Sampling and Analysis Plan (SAP) titled, *Long Term Monitoring at Operable Unit 2, Naval Training Center, Orlando, Florida (Tetra-Tech, August, 2012)* and Table 1. Groundwater samples were collected by Barnes, Ferland and Associate, Inc. (BFA) and laboratory analysis was performed by Accutest Laboratories, Southeast. The following section provides a summary of BFA field activities and laboratory results.

2.1 Water Level Measurements

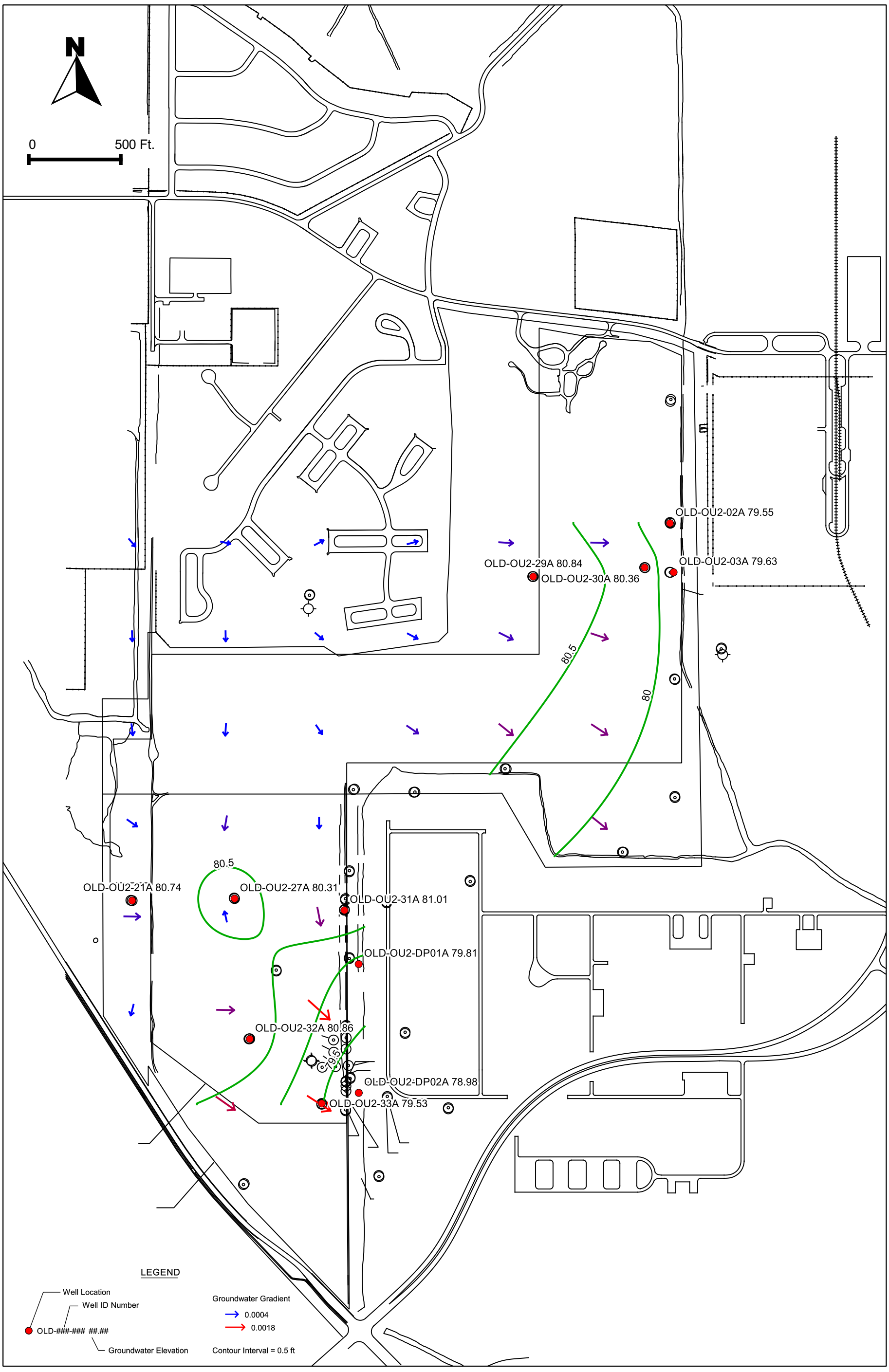
Prior to groundwater sample collection, water levels were measured in OU2 monitor wells, as described in the SAP and in compliance with FDEP SOP 01-01 (Version March 31, 2008). Groundwater level measurements were collected from 18 monitoring wells on April 1, 2013. At the OU2 site, monitor wells are screened in two surficial aquifer zones below land surface (bls) as follows: shallow Zone A (3.4-17.4 ft bls) and intermediate Zone B (23-39 ft bls). Table 2 identifies the approximate depths for these well screened zones and the calculated groundwater elevations. Groundwater elevations are captured by the electronic program/database ADESSO. Potentiometric surface maps are produced by aid of Golden Software's Surfer program. Groundwater flow patterns in Zone A were towards the south-southeast and generally towards the onsite canal/ditch (Figure 3). In the deeper Zone B ground water flow was towards the east in the northern plume area and towards the south in the southern plume area (Figure 4).

2.2 Groundwater Sampling

Groundwater sampling of 31 monitor wells and 7 surface water sites was conducted at the OU2 site during April 2-16, 2013. However, surface water sites SW-33 and SW-36 were dry and could not be sampled. Groundwater sampling consists of purging and sampling the monitor wells using the low-flow methods (peristaltic pump) as described in the Work Plan. In accordance with the SAP, purge waters are collected in a 125-gallon tank mounted on one of the BFA sampling trucks. The purge water is containerized in drums until analyses results are received. The purge water is then disposed of appropriately by a hazardous waste handler. The purging of wells consists of removing groundwater at a flow rate less than or equal to the groundwater recharge rate until field parameters (temperature, pH, conductivity, turbidity, Dissolved Oxygen [DO], and Oxidation-Reduction Potential [ORP]) have stabilized (Appendix B). Water levels in the wells are continuously monitored to maintain drawdown at less than 0.3 feet. The default pumping rate used is 0.1 GPM for 2-inch diameter wells. This rate is varied as necessary for individual well characteristics.

Table 1 - Operable Unit 2 March 2013 Sampling Matrix

Operable Unit 2 Well IDs	Water Levels	Carbon Dioxide	Dissolved Oxygen	Ferrous Iron	Total Sulfide	Hydrogen Sulfide	VOCs	Iron	Manganese	Alkalinity	TDS	TOC	Chloride	Nitrate	Nitrite	Sulfate	Ortho-phosphate	Dissolved Gases
OLD-OU2-02A	X						X	X	X									
OLD-OU2-02B	X						X	X	X									
OLD-OU2-03A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-03B DUP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-12B	X						X	X	X									
OLD-OU2-18B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-21A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-27A	X						X	X	X									
OLD-OU2-27B	X						X	X	X									
OLD-OU2-28B	X						X	X	X									
OLD-OU2-29A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-29B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-30A	X						X	X	X									
OLD-OU2-30B DUP	X						X	X	X									
OLD-OU2-31A	X						X	X	X									
OLD-OU2-31B	X						X	X	X									
OLD-OU2-32A	X						X	X	X									
OLD-OU2-32B	X						X	X	X									
OLD-OU2-33A	X						X	X	X									
OLD-OU2-33B	X						X	X	X									
OLD-OU2-37B	X						X	X	X									
OLD-OU2-41B	X						X	X	X									
OLD-OU2-42B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-43B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-44B	X						X	X	X									
OLD-OU2-47B DUP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-51B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-DP01A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-DP02A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-DP02B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
OLD-OU2-LG01	X						X	X										
OLD-OU2-SW29 DUP	X						X	X	X									
OLD-OU2-SW30	X						X	X	X									
OLD-OU2-SW31	X						X	X	X									
OLD-OU2-SW33	X						X	X										
OLD-OU2-SW35	X						X	X										
OLD-OU2-SW36	X						X	X										
TOTALS	**38**	**14**	**14**	**14**	**14**	**14**	**38**	**38**	**34**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**



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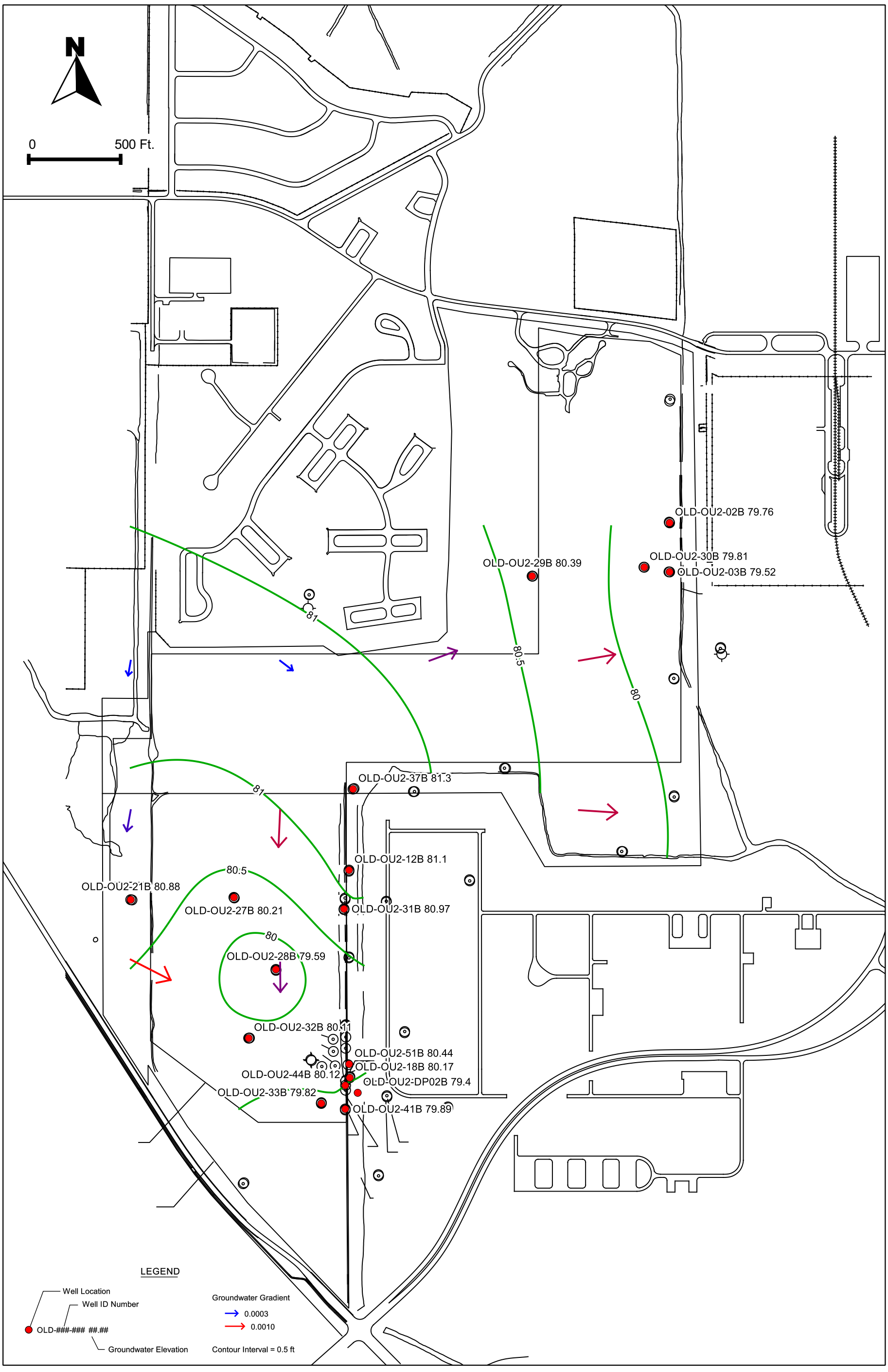
Potentiometric Surface Map - Zone A

FIGURE 3



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Potentiometric Surface Map - Zone B

FIGURE 4

Table 2 - OU2 monitor well information and April 1, 2013 groundwater elevations

Well ID	Well Diameter (inches)	Screened Interval (ft. BLS)	TOC Elevation (ft. NGVD)	Depth to Water Level (ft. BTOC)	Groundwater Elevation (ft. NGVD)
OLD-OU2-02A	2”	7.4 – 17.4	91.55	12.00	79.55
OLD-OU2-02B	2”	27 – 32	91.76	12.00	79.76
OLD-OU2-03A	2”	7.5 – 17.5	89.21	9.58	79.63
OLD-OU2-03B	2”	27.5 – 32.5	89.17	9.65	79.52
OLD-OU2-12B	2”	29 – 35	90.40	9.30	81.10
OLD-OU2-18B	2”	28.5 – 33.5	89.89	9.72	80.17
OLD-OU2-21A	2”	7 – 17	93.79	13.05	80.74
OLD-OU2-21B	2”	27.5 – 32.5	93.93	13.05	80.88
OLD-OU2-27A	2”	6 – 16	95.31	15.00	80.31
OLD-OU2-27B	2”	27 – 32	95.31	15.10	80.21
OLD-OU2-28B	2”	27 – 32	94.49	14.90	79.59
OLD-OU2-29A	1”	5 – 15	86.99	6.15	80.84
OLD-OU2-29B	1”	25 – 30	86.79	6.40	80.39
OLD-OU2-30A	1”	5 – 15	88.68	8.32	80.36
OLD-OU2-30B	1”	25 – 30	88.31	8.50	79.81
OLD-OU2-31A	1”	5 – 15	93.81	12.80	81.01
OLD-OU2-31B	1”	25 – 30	93.53	12.56	80.97
OLD-OU2-32A	1”	5 – 15	93.94	13.08	80.86
OLD-OU2-32B	1”	25 – 30	94.06	13.95	80.11
OLD-OU2-33A	1”	5 – 15	93.70	14.17	79.53
OLD-OU2-33B	1”	25 – 30	93.42	13.60	79.82
OLD-OU2-37B	1”	25 – 30	92.67	11.37	81.30
OLD-OU2-41B	2”	30 – 35	89.49	9.60	79.89
OLD-OU2-42B	2”	34 – 39	89.60	19.13	70.47
OLD-OU2-43B	2”	29.5 – 34.5	89.37	18.95	70.42
OLD-OU2-44B	2”	28.5 – 33.5	89.39	9.27	80.12
OLD-OU2-47B	2”	30 – 35	89.58	19.15	70.43
OLD-OU2-51B	2”	24 – 34	90.72	10.28	80.44
OLD-OU2-DP01A	1.25”	3.5 – 7.5	82.68	2.87	79.81
OLD-OU2-DP02A	1.25”	3.5 – 7.5	82.53	3.55	78.98
OLD-OU2-DP02B	1.25"	17 - 22	83.70	4.30	79.40

Notes:

BLS - Below land surface

TOC - Top of casing

NGVD - National Geodetic Vertical Datum

BTOC - Below top of casing

The calibration of field testing equipment is checked daily according to the SAP (Appendix C). The equipment is calibrated as required according to the manufacturer’s instructions. ADESSO is used as the field electronic capture program and relational database for field related data. All data are captured in the field electronically and uploaded to the database and is accessible to interested Navy and OPT members near real time.

Table 3 presents the field parameters taken with a multi-parameter water quality meter at stabilization after the completion of well purging. As in the past, the natural pH of groundwater at this site is on the acidic side which can inhibit reductive dechlorination. However, the low O_2 readings and mostly negative ORP in the monitor wells is conducive for reductive dechlorination. Table 4 presents the field parameters taken by BFA with field analytical test kits.

For all laboratory analytes, the screening criterion is the Florida Department of Environmental Protection (FDEP) Maximum Contamination Level (MCLs) as given in the Drinking Water Standards (*F.A.C.* 62-550 Table 1, MCLs for Volatile Organic Compounds), *F.A.C.* 62-777 Table 1 Groundwater and Surface Water Cleanup Target Levels, and *F.A.C.* 62-777 Table V Natural Attenuation Default Concentrations (NADC). For metals, the Background Screening Values (BGSV) from the Background Sampling Report, NTC, Orlando, May, 1995 are used as the primary standard where measurements are above the 62-777 Groundwater Cleanup Target Levels (GCTLs).

Table 3 - OU2 April 2-16, 2013 multi-parameter meter field sampling results

Well ID	Temp °C	Cond µS/cm	DO mg/L	pH	ORP mV	Turbidity NTU
OLD-OU2-02A	23.76	345.60	0.26	6.10	-73.00	61.70
OLD-OU2-02B	25.07	207.10	0.13	5.51	-33.00	6.40
OLD-OU2-03A	23.61	353.30	0.12	5.22	-50.00	1.80
OLD-OU2-03B	24.04	292.50	0.08	5.52	-58.00	13.70
OLD-OU2-12B	23.64	110.00	0.32	5.30	6.00	5.70
OLD-OU2-18B	25.61	121.00	0.16	4.97	-167.00	16.10
OLD-OU2-21A	27.73	78.00	0.08	4.15	212.00	6.20
OLD-OU2-21B	30.47	225.70	0.29	5.20	-92.00	5.40
OLD-OU2-27A	24.41	149.00	0.11	4.85	-52.00	13.60
OLD-OU2-27B	25.17	151.00	0.24	4.61	-83.00	7.30
OLD-OU2-28B	24.76	137.00	0.53	4.08	-31.00	3.00
OLD-OU2-29A	23.82	154.00	0.11	5.20	-59.00	48.40
OLD-OU2-29B	25.06	117.00	0.09	5.39	-127.00	12.70
OLD-OU2-30A	24.22	213.90	1.17	5.39	-72.00	1336.80
OLD-OU2-30B	25.14	645.20	0.08	6.03	-81.00	13.50
OLD-OU2-31A	24.49	40.00	0.64	4.43	100.00	13.70
OLD-OU2-31B	24.95	173.00	0.23	4.50	-108.00	16.20
OLD-OU2-32A	23.94	67.21	5.20	4.78	22.00	24.10
OLD-OU2-32B	24.77	111.70	0.12	5.05	-118.00	1.90
OLD-OU2-33A	24.65	103.00	3.29	4.70	-51.00	80.00
OLD-OU2-33B	23.81	140.00	0.30	4.70	-102.00	1.10
OLD-OU2-37B	24.27	200.00	0.25	4.57	-115.00	2.60
OLD-OU2-41B	24.51	116.00	0.41	5.00	-136.00	2.50
OLD-OU2-42B	26.43	92.19	0.58	5.32	-91.00	3.20
OLD-OU2-43B	25.19	109.00	0.28	4.71	-103.00	2.00
OLD-OU2-44B	25.47	137.20	0.09	5.06	-108.00	19.20
OLD-OU2-47B	26.32	124.10	0.12	5.02	-101.00	5.90

OLD-OU2-51B	24.58	108.00	0.14	4.55	-134.00	13.00
OLD-OU2-DP01A	26.29	337.00	0.18	4.46	-74.00	12.20
OLD-OU2-DP02A	30.90	309.00	6.57	4.44	-21.00	3.90
OLD-OU2-DP02B	29.10	190.00	0.31	4.77	-124.00	3.10
OLD-OU2-LG1	27.50	151.00	11.65	6.67	134.00	3.60
OLD-OU2-SW29	29.17	168.00	10.89	6.48	175.00	30.30
OLD-OU2-SW30	29.85	194.00	10.56	6.85	146.00	21.20
OLD-OU2-SW31	31.37	184.00	10.69	6.76	135.00	13.70
OLD-OU2-SW35	29.19	513.00	4.91	5.82	168.00	8.70

Notes: mg/L-milligrams per liter; µS/cm-micro siemens per centimeter; mV-millivolts; NTU-Nephelometric Turbidity Units

Table 4 - OU2 April 2-16, 2013 field test kit analytical parameters

Well ID	DO (mg/L)	CO_2 (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)	Total Sulfide (mg/L)
OLD-OU2-03A	0.00	234.00	2.90	0.53	0.50
OLD-OU2-03B	1.19	99.00	1.40	0.27	0.25
OLD-OU2-18B	0.00	79.00	1.80	1.86	1.75
OLD-OU2-21A	2.12	44.50	1.40	0.00	0.00
OLD-OU2-21B	1.45	251.00	1.50	0.80	0.75
OLD-OU2-29A	0.55	133.00	1.90	0.16	0.15
OLD-OU2-29B	0.93	122.00	1.50	0.80	0.75
OLD-OU2-42B	1.01	150.00	1.30	0.90	0.85
OLD-OU2-43B	0.42	65.50	0.80	0.38	0.36
OLD-OU2-47B	0.00	227.00	1.30	1.22	1.15
OLD-OU2-51B	0.00	70.00	1.40	1.27	1.20
OLD-OU2-DP01A	0.90	45.20	2.40	0.19	0.18
OLD-OU2-DP02A	4.00	35.80	1.80	0.00	0.00
OLD-OU2-DP02B	0.68	44.20	2.00	0.39	0.37

Tables 5 and 6 provide a summary of the OU2 groundwater and surface water analyte detections and exceedances, respectively. Bolded values within these tables indicate detected analyte concentrations. Yellow highlights indicate results above the site specific GCTL, FDEP MCL and/or FAC 62-777 GCTL. Orange highlighted values indicate concentrations in excess of FDEP NADC, if appropriate.

Figures 5 and 6 shows the analyte detections and GCTL exceedances of the contaminants of concern (COC) from the surface water sampling sites and the Zone A and B monitor wells at OU2. Benzene and chlorinated solvents (PCE, cis 1, 2 DCE, TCE and vinyl chloride) concentrations are above the GCTLs at several well sites. The highest Zone A COC concentrations occurred at the northern plume in monitor well OLD-OU2-03A. Iron concentrations are typically above BGSV quantitation limits in several wells and were highest at shallow well OLD-OU2-30B (24,100 µg/L). Zone B monitor wells have significantly higher COC concentrations at the southern plume area (between Wells OLD-OU2-41B and OLD-OU2-42B), particularly the chlorinated solvents parameters. Figure 7 only shows an increase in cis 1,2 DCE

Table 5 - Operable Unit 2 March 2013 Semiannual Analytical Detections

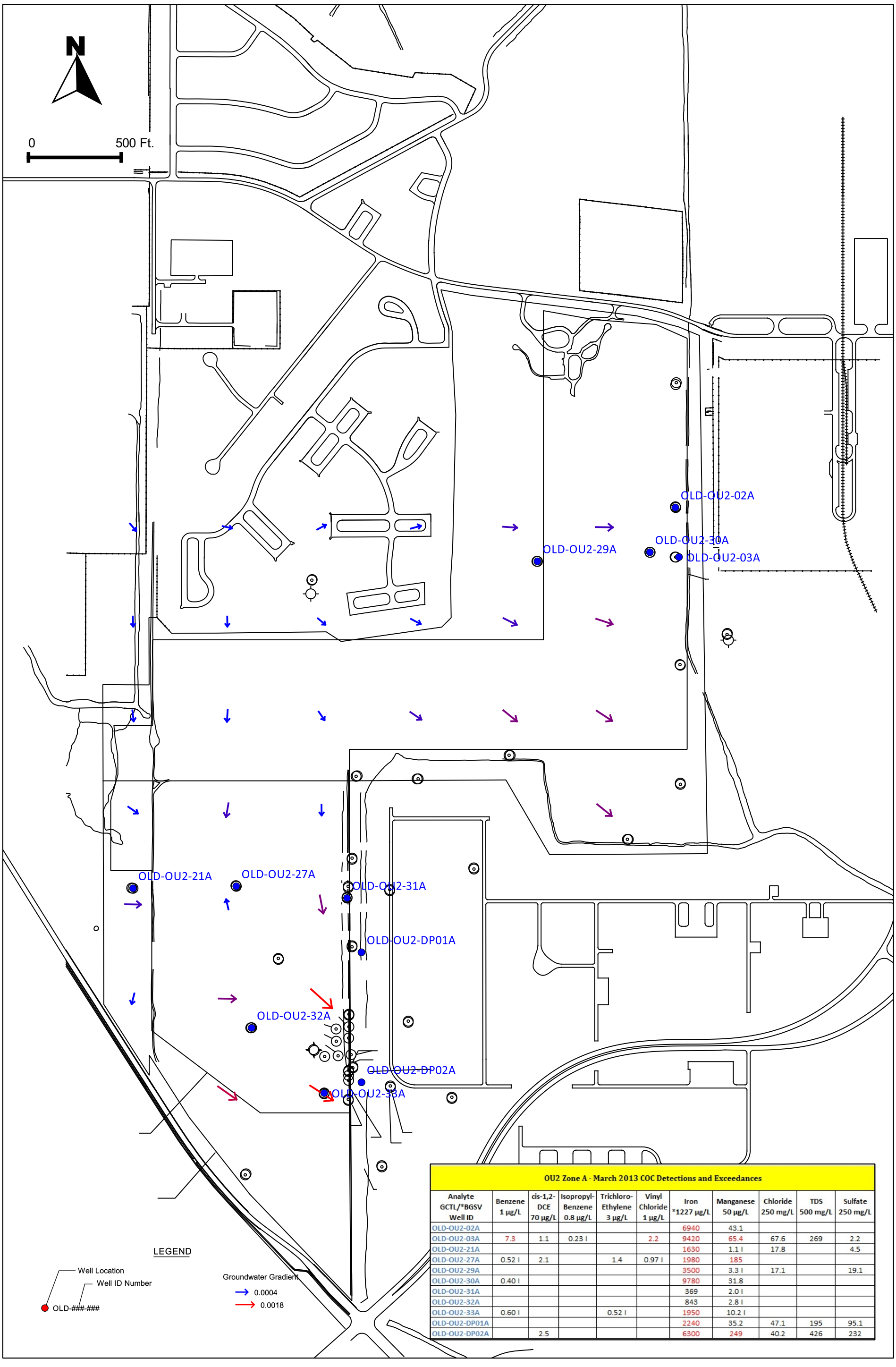
Operable Unit 2 Analytical Results March 2013		Chemical Name	GC/MS Volatiles (SW846 8260B)							GC Volatiles (RSKSOP-147/175)			Metals Analysis		General Chemistry								
			Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Nitrate	Nitrogen, Nitrate + Nitrite	Nitrogen, Nitrite	Phosphate, Ortho	Solids, Total Dissolved	Sulfate	Total Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	7439-89-6	7439-96-5		16887-00-6	14797-55-8		14797-65-0	14265-44-2		14808-79-8	
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ug/l	ug/l	ug/l	µg/L	µg/L	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
		GCTL	1	70	0.8	5	3	3	1	-	-	-	300	50	-	250	10	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	3000	500	-	2500	100	100	10	-	5000	2500	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-02A	FA3390-11	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	6940	43.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-02B	FA3390-12	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	2380	10.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-03A	FA3390-7	04/03/2013	7.3	1.1	0.23 I	2.0 U	0.32 U	0.31 U	2.2	2920	0.32 U	0.43 U	9420	65.4	70.4	67.6	0.050 U	NA	0.050 U	0.15	269	2.2	15.8
OLD-OU2-03B	FA3390-10	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	190	0.32 U	0.43 U	5800	12.1 I	47.2	48.3	0.050 U	NA	0.14	0.51	198	17.8	12.3
	FA3390-9	Duplicate	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	9200	12.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-12B	FA3748-5	04/16/2013	0.34 I	0.58 I	NA	NA	0.32 U	0.31 U	0.44 U	NA	NA	NA	263 I	12.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-18B	FA3748-2	04/16/2013	2.1 U	956	NA	NA	3.2 U	3.1 U	621	11400	0.41 I	47.2	912	14.7 I	28.2	13.8	0.050 U	NA	0.050 U	0.48	67.0 I	7.1	7
OLD-OU2-21A	FA3547-2	04/10/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	634	0.32 U	0.43 U	1630	1.1 I	0.60 U	17.8	0.050 U	0.10 U	0.050 U	0.17	NA	4.5	4.8
OLD-OU2-21B	FA3547-1	04/10/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	1250	0.32 U	0.43 U	1310	15.1	27.7	42.2	0.050 U	0.10 U	0.050 U	2.2	161	12.5	6.8
OLD-OU2-27A	FA3390-1	04/03/2013	0.52 I	2.1	0.20 U	2.0 U	0.32 U	1.4	0.97 I	NA	NA	NA	1980	185	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-27B	FA3390-2	04/03/2013	3.5	0.48 I	0.62 I	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	1140	5.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-28B	FA3304-8	04/02/2013	5.5	1.5	0.20 U	2.0 U	0.32 U	0.31 U	6.5	NA	NA	NA	1930	5.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-29A	FA3545-3	04/08/2013	0.21 U	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	108	0.32 U	0.43 U	3500	3.3 I	20.5	17.1	NA	NA	NA	0.020 U	NA	19.1	19.5
OLD-OU2-29A	FA3678-1	04/15/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 U	NA	0.050 U	NA	NA	NA	NA
OLD-OU2-29B	FA3545-5	04/08/2013	0.21 U	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	1010	0.49 J	0.43 U	1800	16.3	25.3	16.6	NA	NA	NA	2	NA	2.1	8.5
OLD-OU2-29B	FA3678-2	04/15/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 U	NA	0.050 U	NA	NA	NA	NA
OLD-OU2-30A	FA3545-1	04/08/2013	0.40 I	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	NA	NA	NA	9780	31.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-30B	FA3390-6	04/03/2013	0.65 I	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	24100	104	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-8	Duplicate	0.62 I	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	22300	97.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-31A	FA3390-3	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	369	2.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-31B	FA3390-4	04/03/2013	12.3	1.4	0.31 I	2.0 U	1.3	0.40 I	1	NA	NA	NA	1680	6.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-32A	FA3304-5	04/02/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	843	2.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-32B	FA3304-7	04/02/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	1200	8.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33A	FA3390-5	04/03/2013	0.60 I	0.24 U	0.20 U	2.0 U	0.32 U	0.52 I	0.44 U	NA	NA	NA	1950	10.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33B	FA3545-2	04/08/2013	0.21 U	0.99 I	NA	NA	0.94 I	19	0.44 U	NA	NA	NA	1720	7.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-37B	FA3545-4	04/08/2013	0.46 I	0.42 I	NA	NA	0.32 U	0.31 U	0.44 U	NA	NA	NA	2100	4.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-41B	FA3545-6	04/08/2013	1.7	17	NA	NA	0.38 I	33.9	0.99 I	NA	NA	NA	940	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-42B	FA3547-3	04/10/2013	2.1 U	638	2.0 U	20 U	3.2 U	798	13.7	1130	0.32 U	3.29	658	5.9 I	22	9.8	0.077 I	0.10 U	0.050 U	2	52.0 I	1.5 I	5.2
OLD-OU2-43B	FA3547-4	04/10/2013	21 U	348	20 U	200 U	32 U	5690	44 U	1070	0.50 I	6.74	623	5.3 I	8.6	13.6	0.050 U	0.10 U	0.050 U	2.5	140	11.1	5.1
OLD-OU2-44B	FA3620-2	04/11/2013	2.1 U	326	2.0 U	20 U	3.2 U	3.5 I	776	NA	NA	NA	958	6.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-47B	FA3620-1	04/11/2013	NA	138	NA	NA	16 U	2490	22 U	778	0.32 U	3.24	783	8.5 I	15.1	12.9	0.050 U	NA	0.050 U	0.9	77.0 I	13.7	5.6
	FA3620-3	Duplicate	NA	133	NA	NA	23.9	1550	29.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-51B	FA3748-3	04/16/2013	0.42 U	99.4	NA	NA	0.64 U	0.63 U	12.2	7300	0.32 U	4.55	894	4.4 I	0.60 U	19.3	0.050 U	NA	0.050 U	0.26	78.0 I	10.1	7.3
OLD-OU2-DP01A	FA3748-4	04/16/2013	0.21 U	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	191	0.32 U	0.43 U	2240	35.2	0.60 U	47.1	0.050 U	NA	0.050 U	0.14	195	95.1	5.8
OLD-OU2-DP02A	FA3678-3	04/15/2013	NA	2.5	NA	NA	0.32 U	0.31 U	0.44 U	8.61	0.32 U	0.43 U	6300	249	0.60 U	40.2	0.050 U	NA	0.050 U	0.020 U	426	232	5
OLD-OU2-DP02B	FA3748-1	04/16/2013	0.21 U	0.88 I	NA	NA	0.32 U	0.80 I	0.44 U	148	0.32 U	0.43 U	1610	8.6 I	6.5	47	0.050 U	NA	0.050 U	0.71	82.0 I	4.3	2.7

NOTES: µg/L - micrograms per liter
U - indicates result less than method detection limit
I - indicates result greater than or equal to method detection limit but less than practical quantitation limit
GCTL - groundwater cleanup target level
NADC - natural attenuation default concentration

Table 6 - Operable Unit 2 March 2013 Surface Water Analytical Detections and Exceedances

Operable Unit 2 Analytical Results March 2013		Chemical Name	GC/MS Volatiles (SW846 8260B)	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Metals Analysis	Iron	Manganese
		CAS-RN		71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4		7439-89-6	7439-96-5
		Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		µg/L	µg/L
		GCTL		**1**	**70**	**0.8**	**5**	**3**	**3**	**1**		300	**50**
		NADSC		**10**	**700**	**8**	**500**	**300**	**30**	**10**		**3000**	**500**
Well ID	Lab ID	BGSV		-	-	-	-	-	-	-		**1227**	17
OLD-OU2-LG1	FA3304-6	04/02/2013		0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U		**475**	**7.0 I**
OLD-OU2-SW29	FA3304-1	04/02/2013		0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U		**3820**	**34.8**
OLD-OU2-DUP3	FA3304-9	04/02/2013		0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U		**3390**	**31.6**
OLD-OU2-SW30	FA3304-2	04/02/2013		0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U		**3460**	**44.2**
OLD-OU2-SW31	FA3304-3	04/02/2013		0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U		**3760**	**38.7**
OLD-OU2-SW35	FA3304-4	04/02/2013		0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U		**1410**	**247**

NOTES:
µg/L - micrograms per liter
U - indicates result less than method detection limit
I - indicates result greater than or equal to method detection limit but less than practical quantitation limit
SWCTL – surface water cleanup target level



OU2 Zone A - March 2013 COC Detections and Exceedances

Analyte GCTL/*BGSV Well ID	Benzene 1 µg/L	cis-1,2-DCE 70 µg/L	Isopropyl-Benzene 0.8 µg/L	Trichloro-Ethylene 3 µg/L	Vinyl Chloride 1 µg/L	Iron *1227 µg/L	Manganese 50 µg/L	Chloride 250 mg/L	TDS 500 mg/L	Sulfate 250 mg/L
OLD-OU2-02A						6940	43.1			
OLD-OU2-03A	7.3	1.1	0.23 I		2.2	9420	65.4	67.6	269	2.2
OLD-OU2-21A						1630	1.1 I	17.8		4.5
OLD-OU2-27A	0.52 I	2.1		1.4	0.97 I	1980	185			
OLD-OU2-29A						3500	3.3 I	17.1		19.1
OLD-OU2-30A	0.40 I					9780	31.8			
OLD-OU2-31A						369	2.0 I			
OLD-OU2-32A						843	2.8 I			
OLD-OU2-33A	0.60 I			0.52 I		1950	10.2 I			
OLD-OU2-DP01A						2240	35.2	47.1	195	95.1
OLD-OU2-DP02A		2.5				6300	249	40.2	426	232

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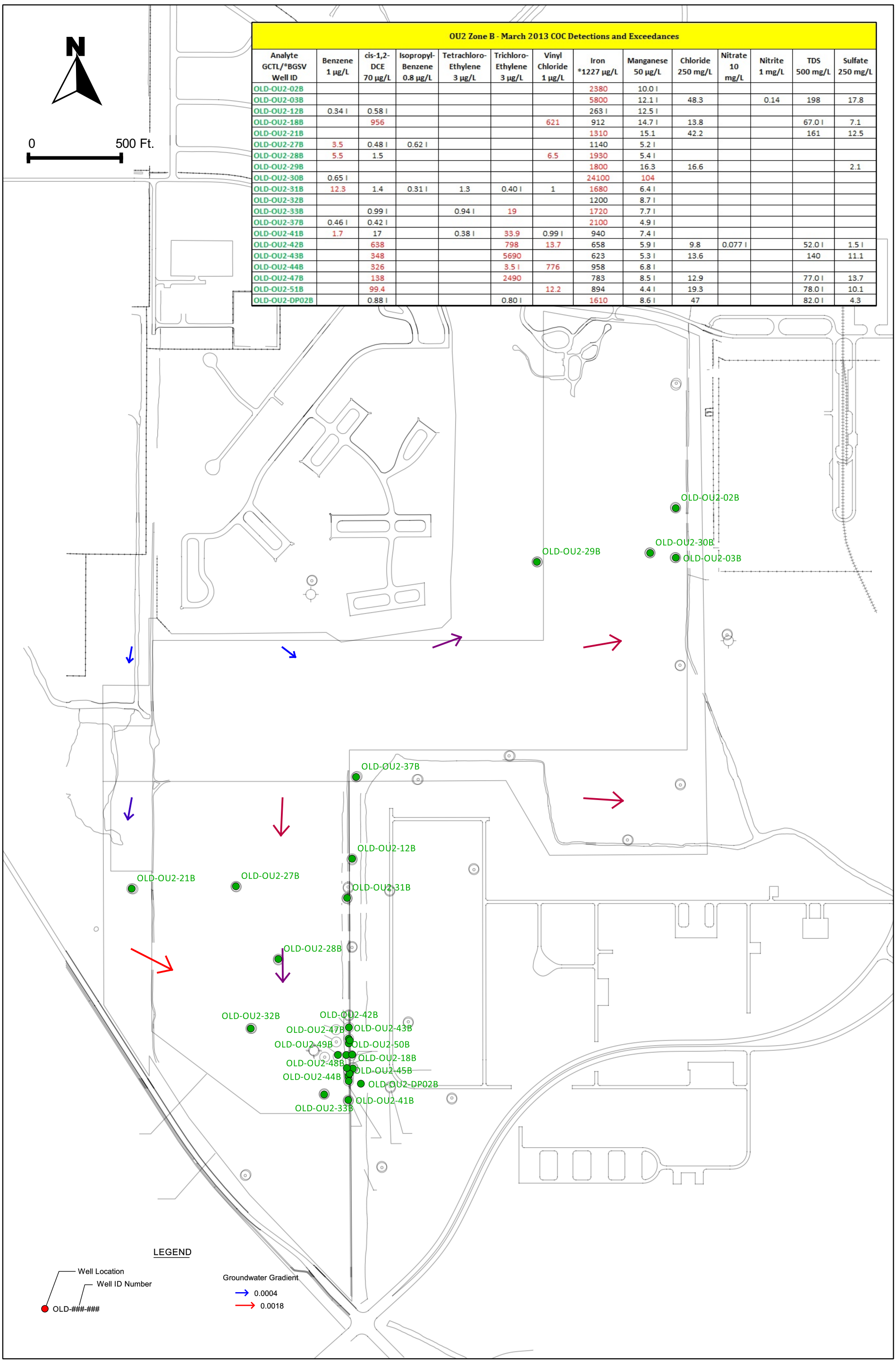
March 2013
Semiannual Monitoring Report
Operable Unit 2 - McCoy Annex

Analytical Detection and Exceedance Results
COC's for Zones A Monitoring Wells

FIGURE 5



OU2 Zone B - March 2013 COC Detections and Exceedances													
Analyte GCTL/*BGSV Well ID	Benzene 1 µg/L	cis-1,2-DCE 70 µg/L	Isopropyl-Benzene 0.8 µg/L	Tetrachloro-Ethylene 3 µg/L	Trichloro-Ethylene 3 µg/L	Vinyl Chloride 1 µg/L	Iron *1227 µg/L	Manganese 50 µg/L	Chloride 250 mg/L	Nitrate 10 mg/L	Nitrite 1 mg/L	TDS 500 mg/L	Sulfate 250 mg/L
OLD-OU2-02B							2380	10.0 I					
OLD-OU2-03B							5800	12.1 I	48.3		0.14	198	17.8
OLD-OU2-12B	0.34 I	0.58 I					263 I	12.5 I					
OLD-OU2-18B		956				621	912	14.7 I	13.8			67.0 I	7.1
OLD-OU2-21B							1310	15.1	42.2			161	12.5
OLD-OU2-27B	3.5	0.48 I	0.62 I				1140	5.2 I					
OLD-OU2-28B	5.5	1.5				6.5	1930	5.4 I					
OLD-OU2-29B							1800	16.3	16.6				2.1
OLD-OU2-30B	0.65 I						24100	104					
OLD-OU2-31B	12.3	1.4	0.31 I	1.3	0.40 I	1	1680	6.4 I					
OLD-OU2-32B							1200	8.7 I					
OLD-OU2-33B		0.99 I		0.94 I	19		1720	7.7 I					
OLD-OU2-37B	0.46 I	0.42 I					2100	4.9 I					
OLD-OU2-41B	1.7	17		0.38 I	33.9	0.99 I	940	7.4 I					
OLD-OU2-42B		638			798	13.7	658	5.9 I	9.8	0.077 I		52.0 I	1.5 I
OLD-OU2-43B		348			5690		623	5.3 I	13.6			140	11.1
OLD-OU2-44B		326			3.5 I	776	958	6.8 I					
OLD-OU2-47B		138			2490		783	8.5 I	12.9			77.0 I	13.7
OLD-OU2-51B		99.4				12.2	894	4.4 I	19.3			78.0 I	10.1
OLD-OU2-DP02B		0.88 I			0.80 I		1610	8.6 I	47			82.0 I	4.3

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March 2013
Semiannual Monitoring Report
Operable Unit 2 - McCoy Annex

Analytical Detection and Exceedance Results
COC's for Zones B Monitoring Wells

FIGURE
6

concentrations at source monitor well OLD-OU2-43B during March 2013. Figure 8 shows a decrease in COC concentrations at compliance monitor wells OLD-OU2-DP02A and 41B. For the five surface water sites, only iron and manganese exceeded their quantitation limits.

2.3 Selected Well Concentration Trend Analysis

Both Mann-Kendall and Linear Regression trend analyses were performed using statistical tools found in the Monitoring and Remediation Optimization System (MAROS) software (AFCEE, 2003), resulting in plume stability information. Documentation/details are provided at: http://www.gsi-net.com/software/MAROS_V2_1Manual.pdf . Individual well concentration trends were calculated for TCE and benzene for the time period 12-2008 to 4-2013 (Appendix A). For this evaluation, a decision matrix developed by Groundwater Services, Inc. is used to determine the "Concentration Trend" category (plume stability) for selected wells. Depending on statistical indicators, the concentration trend is classified into six categories: Decreasing (D); Probably Decreasing (PD); Stable (S); No Trend (NT); Probably Increasing (PI); Increasing (I).

Appendix A and E and Table 7 below provides a summary of concentration trends for selected analytes and the higher concentration monitor wells at OU-2. Benzene appears to be decreasing at monitor well OLD-OU2-31B. At source monitor well OLD-OU2-43B, no trends occur historically for TCE, however, a decrease in TCE occurs from October, 2012 (6,580 µg/L) to April 2013 (5,690 µg/L). At compliance monitor well OLD-OU2-41B, largely no trends occur historically for benzene or TCE, however, a decrease in TCE occurred from October, 2012 (58.4 µg/L) to April, 2013 (33.9 µg/L).

Table 7 - Summary of Concentration Trends

Selected Wells/COCs	Trichloroethylene		Benzene	
	M-K	L-R	M-K	L-R
OLD-OU2-31B	---	---	D	D
OLD-OU2-41B	S	S	S	S
OLD-OU2-42B	D	D	---	---
OLD-OU2-43B	NT	NT	---	---

M-K - Mann-Kendall Trend
L-R - Linear Regression Trend
D = Decreasing; PD = Probably Decreasing; S = Stable; PI = Probably Increasing; I = Increasing; NT = No Trend.

Figure 7 a, b, c - Graphs of historical COC concentrations for selected source wells at OU2

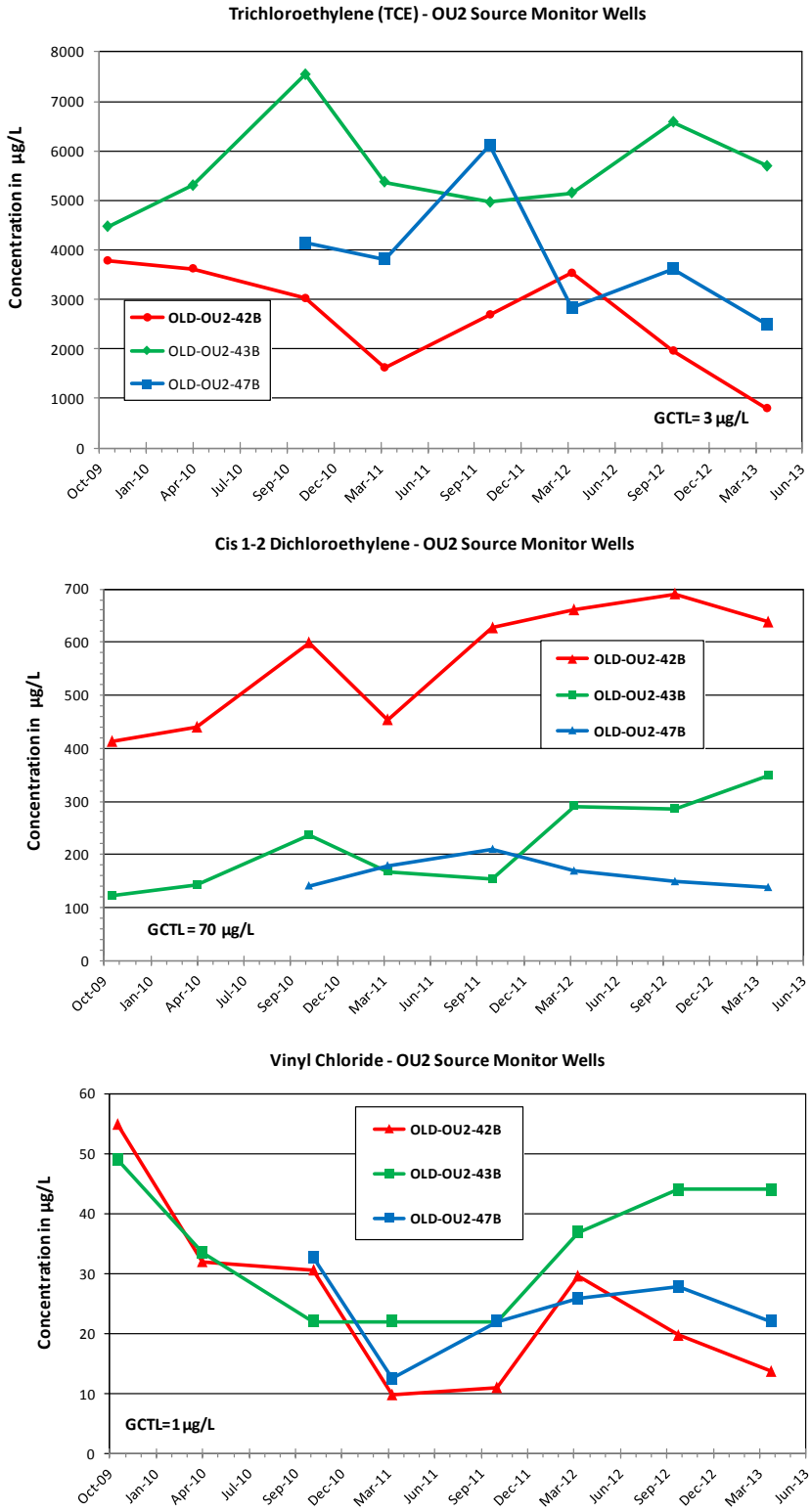
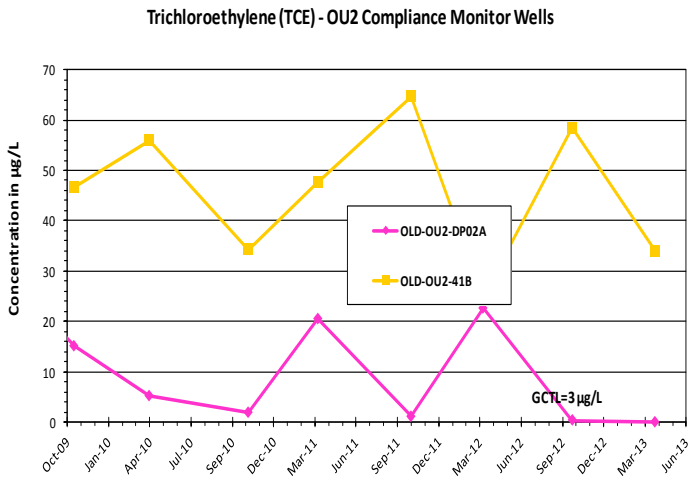
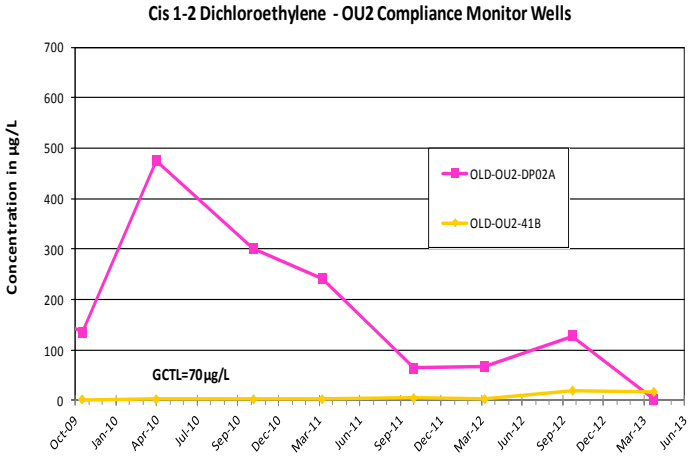
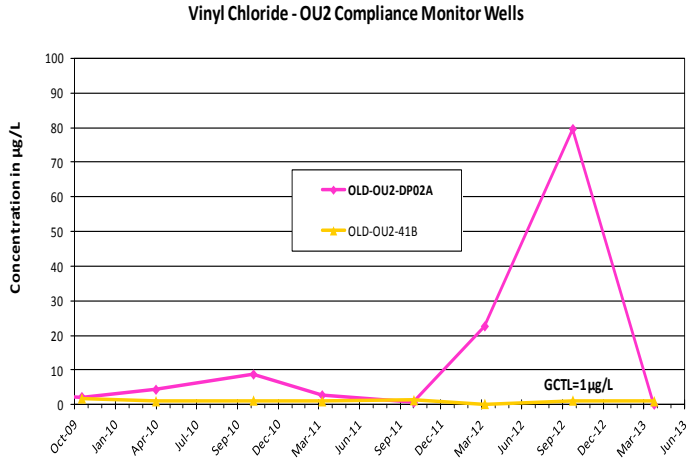


Figure 8 a, b, c - Graphs of COC concentrations for selected compliance wells at OU2







Section 3 - Conclusions and Recommendations

This report presents the field sampling and laboratory analytical results for the March 2013 groundwater sampling event performed at Operable Unit 2 (OU2) - McCoy Annex, which included 31 monitor wells and 5 surface water sampling sites. The following is a summary of the data interpretations and main conclusions and recommendations.

3.1 Conclusions

1. Groundwater level measurements were collected from 31 monitoring wells on April 1, 2013. At the OU2 site, monitor wells are screened in two surficial aquifer zones below land surface (bls) as follows: shallow Zone A (3.4-17.4 ft bls) and intermediate Zone B (23-39 ft bls). Two contaminant plume areas (north and south) exist at the OU2 site. Groundwater flow patterns in Zone A were towards the south-southeast and generally towards the onsite canal/ditch. In the deeper Zone B, ground water flow was towards the east in the northern plume area and towards the south in the southern plume area.

2. Table 3 contains the field parameters taken at stabilization after the completion of well purging. As in the past, the natural pH of groundwater at the site is on the acidic side which can inhibit reductive dechlorination. However, the low O_2 readings and mostly negative ORP in the monitor wells is conducive for reductive dechlorination.

3. For the five surface water sites sampled, only iron and manganese were above their quantitation limits. Benzene and chlorinated solvents (PCE, 1-2 DCE, TCE and vinyl chloride) concentrations are above the GCTLs at several well sites. The highest Zone A COC concentrations occurred at the northern plume in monitor well OLD-OU2-03A. Iron concentrations are typically above BGSV quantitation limits in several wells and were highest at monitor well OLD-OU2-30B (24,100 µg/L). Zone B monitor wells have significantly higher COC concentrations at the southern plume area (between Wells OLD-OU2-41B and OLD-OU2-42B), particularly the chlorinated solvents parameters.

4. Benzene and trichloroethylene concentration trend analysis was performed using historical data on four selected wells at OU-2 (OLD-OU2-31B, 41B, 42B, 43B). Both Mann-Kendall and Linear Regression trend analyses were performed using statistical tools found in the Monitoring and Remediation Optimization System (MAROS) software (AFCEE, 2003), resulting in plume stability information (Appendix E). Monitor wells OLD-OU2-31B and 41B are downgradient of the southern source area and monitor potential off-site migration. Benzene appears to be decreasing at monitor well OLD-OU2-31B and a decrease in occurs from October, 2012 (13.4 µg/L) to April, 2013 (12.3 µg/L). At compliance monitor well OLD-OU2-41B benzene and TCE are

stable historically, however, a decrease in TCE occurred from October, 2012 (58.4 µg/L) to April, 2013 (33.9 µg/L). At source monitor well OLD-OU2-42B, TCE is decreasing historically. At source monitor well OLD-OU2-43B no trends occur historically for TCE, however, a decrease in TCE occurs from October, 2012 (6,580 µg/L) to April, 2013 (5,690 µg/L).

3.2 Recommendations

1. Continued sampling and analysis is recommended at OU2 in accordance with the Tetra Tech, Inc., August 2012 Sampling and Analysis Plan, the current sampling matrix (Table 1) and OPT meeting updates. The objective remains to monitor site-wide water quality, monitor the effectiveness of remediation efforts and monitor groundwater for biological activities to support natural attenuation.

Section 4 - Selected References

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APPENDIX A
Previous Analytical Results (2008-2013)

Appendix A Operable Unit 2 Analytical Results 09-2008 to 03-2013		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Solids, Total Dissolved	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	7439-89-6	7439-96-5	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2		14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	-	-	-	-	-	-	-	300	50	-	250	2.8	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	-	-	-	-	3000	500	-	2500	28	1000	100	-	5000	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-02A	F60667-3	10/06/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	2.4	NA	1.2	24300	72.2	16	0.050 U	12	12.4	0.080 I	269	NA	NA	23.9
	F64318-18	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	2010	0.32 U	0.43 U	NA	3.1	NA	1.3	34300	209	620	24.4	51.7	0.050 U	0.050 U	0.040 U	NA	1.0 U	73.4
	F68804-6	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1060	0.32 U	0.43 U	NA	3.4	NA	3.1	7520	64.6	215	24.1	14.5	0.050 U	0.050 U	0.23	NA	8	0.22 U
	F72702-3	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	1020	0.32 U	0.43 U	NA	NA	NA	7.3	22500	153	374	24.9	20.4	1	0.050 U	0.020 U	NA	6.3	55.6
	F77624-1	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1330	0.32 U	0.43 U	NA	1.11	NA	NA	11200	62.6	201	31.4	9.7	0.050 U	0.050 U	11.7	NA	12.8	26.7
	F81361-1	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1600	0.015 J	0.026	220	2.1	12	NA	9250	35.1	148	30	4.9	0.050 U	0.050 U	0.24	NA	4.2	40.1
	F87010-1	10/19/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	294	1.8	2.2	190	6	17	NA	13900	70.4	359	18.5	2.3	5	6.7	0.15	NA	58.8	48.6
	F91589-1	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	730	0.01	0.034	230	3.8	15	NA	9570	177	487	35.9	12.3	0.31	0.10 U	0.22	NA	50	159
	F97815-8	10/09/2012	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	5620	28.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-11	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	6940	43.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-02B	F60666-2	10/07/2008	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	77.3	0.32 U	0.43 U	170	1.4	17	0.92	3870	16.7	11.8	0.050 U	0.11	27	0.1	12.4	NA	NA	59.1
	F64318-19	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	114	0.32 U	0.43 U	NA	4.8	NA	1.3	2660	14.9 I	26.4	47.8	0.050 U	0.11	0.050 U	0.15	NA	19.3	9.9
	F68804-7	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	153	0.32 U	0.43 U	NA	3.7	NA	2	2980	22.7	27.2	46.8	0.44	0.050 U	0.050 U	1.1	NA	14	0.22 U
	F72702-1	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	235	0.32 U	0.43 U	NA	NA	NA	6.1	7900	13.6 I	14.9	48	0.34	0.050 U	0.050 U	1.3	NA	13.5	9.8
	F77624-2	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	327	0.32 U	0.43 U	NA	0.79	NA	NA	2850	14.3 I	26.9	51.2	0.38	0.050 U	0.050 U	0.45	NA	12.1	8.8
	F81361-3	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	570	0.009 J	0.015 J	160	1.5	12	NA	2790	12.7 I	20.9	51.1	0.44	0.056 I	0.050 U	0.77	NA	13.4	19.1
	F87010-2	10/19/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	448	0.32 U	0.43 U	140	6	16	NA	2080	10.6 I	21.8	48.4	0.2	0.069 I	0.050 U	1.4	NA	4.9	12.3
	F91589-2	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	930	0.016	0.052	130	1.8	14	NA	2140	9.4 I	28.7	43.7	0.41	0.050 U	0.050 U	0.83	NA	3.4	20.4
	F97815-9	10/09/2012	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	595	9.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-12	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	2380	10.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-03A	F60666-1	10/07/2008	8.8	1.4	NA	1.0 U	0.22 U	0.32 I	2.9	4130	0.32 U	0.43 U	NA	2.4	NA	1.7	12600	66.5	55.1	0.050 U	0.83	8	0.090 I	37.3	NA	NA	62.7
	F64318-16	03/31/2009	0.71	0.20 U	0.20 U	1.1	0.22 U	0.32 U	0.30 U	3490	0.32 U	0.43 U	NA	4.4	NA	1.1	6100	337	203	70.6	4.3	0.13	0.050 U	0.20 U	NA	15.2	30.1
	F68838-16	10/15/2009	7.6	1.2	0.20 U	1.0 U	0.22 U	0.32 U	3.4	2460	0.32 U	0.43 U	NA	3.3	NA	5.5	9440	53.7	65.5	64.7	0.98	0.050 U	0.050 U	0.16	NA	1.0 U	21.3
	F72652-1	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	322	0.32 U	0.43 U	NA	NA	NA	4.3	6080	477	106	14.2	0.86	0.070 I	0.050 U	0.036 I	NA	39	22.2
	F77624-3	10/28/2010	9.6	1.2	0.22 I	2.0 U	0.25 U	0.26 U	3	2700	0.32 U	0.43 U	NA	1.19	NA	NA	9600	52.5	54.1	71.7	0.72	0.050 U	0.050 U	0.077 I	NA	1.7 I	14.6
	F81361-5	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	170	0.016 J	0.018 J	210	1.5	12	NA	6420	647	80.8	41.9	1.7	0.5	0.050 U	0.082 I	NA	89.3	30.9
	F87053-1	10/20/2011	6	0.99 I	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	3360	0.32 U	0.43 U	370	4.1	10	NA	8340	43.1	49.5	68.6	0.56	0.050 U	0.050 U	0.16	NA	1.0 U	16.4
	F91589-3	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	840	0.023	0.056	180	3.3	18	NA	29600	777	261	49.3	5.2	0.46	0.050 U	0.021 I	NA	47.3	41.2
	F97878-1	10/10/2012	8.2	1.3	0.20 U	2.0 U	0.32 U	0.31 U	2.5	NA	NA	NA	NA	NA	NA	NA	6310	113	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-7	04/03/2013	7.3	1.1	0.23 I	2.0 U	0.32 U	0.31 U	2.2	2920	0.32 U	0.43 U	NA	NA	NA	NA	9420	65.4	70.4	67.6	NA	0.050 U	0.050 U	0.15	269	2.2	15.8
OLD-OU2-03B	F60665-4	10/06/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	4.4	0.30 U	315	0.32 U	0.43 U	NA	0.83	NA	NA	14500	23.2	39.9	0.050 U	7.3	24.4	0.050 U	61.5	NA	NA	61
	F64318-17	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	351	0.32 U	0.43 U	NA	5.4	NA	7.7	9060	21.5	72.1	64.6	6.3	0.11	0.050 U	0.26	NA	18.1	10.9
	F68838-17	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	437	0.32 U	0.43 U	NA	4.4	NA	2.5	12700	20.3	72.4	59.2	5.8	0.050 U	0.050 U	0.20 U	NA	15.1	14.9
	F72652-2	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	241	0.32 U	0.43 U	NA	NA	NA	6	9190	15.3	61	53.1	4.6	0.050 U	0.050 U	1	NA	13.7	14.2
	F77624-4	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	321	0.32 U	0.43 U	NA	0.51	NA	NA	7850	19.3	47.9	55.4	3.7	0.050 U	0.050 U	0.020 U	NA	12.6	10.4
	F81361-6	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	240	0.032	0.028	190	1.8	16	NA	8340	16	41.6	56.4	3.9	0.065 I	0.050 U	1	NA	22.8	13.9
	F87053-3	10/20/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	751	0.32 U	0.43 U	180	6	16	NA	8250	14.3 I	49.1	54.8	NA	0.050 U	0.050 U	0.86	NA	18.8	29.7
	F91589-4	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	780	0.095	0.054	180	2.8	14	NA	8470	16.3	57	51.7	3.1	0.050 U	0.050 U	0.64	NA	28.4	26.9
	F97815-10	10/09/2012	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	5220	12.6 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-10	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	190	0.32 U	0.43 U	NA	NA	NA	NA	5800	12.1 I	47.2	48.3	NA	0.050 U	0.14	0.51	198	17.8	12.3
OLD-OU2-12B	F60665-3	10/06/2008	0.96 I	1.8	NA	1.0 U	0.22 U	0.57 I	0.70 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64242-1	03/26/2009	0.40 U	0.35	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68838-21	10/16/2009	0.45	0.47	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72703-3	04/06/2010	2.3	2.4	0.20 U	2.0 U	0.44 U	0.71 I	0.84 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77711-13	11/01/2010	4.4	5.2	0.20 U	2.0 U	0.25 U	0.55 I	1.4	NA	NA	NA	NA	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81422-5	04/07/2011	NA	2.4	NA	NA	0.25 U	0.88 I	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-1	10/15/2011	3.2	4.5	0.20 U	2.0 U	0.25 U	0.76 I	0.94 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-11	04/03/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.33 I	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F97878-2	10/10/2012	5	5.8	0.20 U	2.0 U	0.32 U	0.31 U	1.2	NA	NA	NA	NA	NA	NA	NA	1250	11.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3748-5	04/16/2013	0.34 I	0.58 I	NA	NA	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	263 I	12.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A Operable Unit 2 Analytical Results 09-2008 to 03-2013		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Solids, Total Dissolved	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	7439-89-6	7439-96-5	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2		14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	-	-	-	-	-	-	-	300	50	-	250	2.8	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	-	-	-	-	3000	500	-	2500	28	1000	100	-	5000	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-18B	F60665-5	10/06/2008	20 U	174	NA	76.4 I	21.5 I	3380	33.5 I	585	0.42 I	3.43	NA	2.1	NA	2.1	1260	8.7 I	6.8	0.050 U	0.050 U	19.2	0.050 U	9.4	NA	NA	15.9
	F64242-2	03/26/2009	8.0 U	1640	0.20 U	39.7	4.4 U	6.4 U	48.1	2650	0.62	6.52	NA	3	NA	14	2650	19.5	30.8	13.8	0.050 U	0.050 U	0.080 I	0.18	NA	1.0 U	84.1
	F68882-6	10/19/2009	8.0 U	1120	4.0 U	20 U	4.4 U	6.4 U	703	5290	0.32 U	21	NA	NA	NA	12	2720	73	86.6	13.6	0.050 U	0.050 U	0.14	0.25	NA	1.0 U	134
	F72703-4	04/06/2010	0.30 I	1470	0.20 U	2.0 U	0.44 U	7.5	453	6430	0.32 U	24.5	NA	NA	NA	8.3	1210	25.8	26.2	15.5	0.050 U	0.050 U	0.050 U	1.4	NA	13.6	8.3
	F77795-9	11/03/2010	1.0 U	333	1.0 U	10 U	1.3 U	3.4 I	904	13200	0.32 U	138	NA	0.11	NA	NA	1150	22	44.8	13.6	0.050 U	0.1	0.050 U	1.2	NA	1.0 U	7.9
	F81422-9	04/07/2011	1.0 U	218	1.0 U	10 U	1.3 U	4.1 I	281	13000	0.025	100	200	0.95	6.5	NA	815	19.3	11.5	12	0.11	0.050 U	0.050 U	1.3	NA	12.5	26.8
	F87208-11	10/25/2011	0.41 I	1220	0.20 U	2.0 U	0.25 U	0.26 U	1430	9900	0.32 U	77.5	280	4.8	10	NA	1100	18	40	17.2	0.13	0.050 U	0.050 U	0.42	NA	1.0 U	10.1
	F91966-2	04/06/2012	0.20 U	104	0.20 U	2.0 U	0.25 U	1.4	313	9500	0.032	58	160	1.4	9	NA	370	23.5	17.4	12.6	0.38	0.050 U	0.050 U	0.86	NA	16.7	8.3
	F97878-8	10/10/2012	0.23 I	347	0.20 U	2.0 U	0.32 U	1	553	NA	NA	NA	NA	NA	NA	NA	953	13.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3748-2	04/16/2013	2.1 U	956	NA	NA	3.2 U	3.1 U	621	11400	0.41 I	47.2	NA	NA	NA	NA	912	14.7 I	28.2	13.8	NA	0.050 U	0.050 U	0.48	67.0 I	7.1	7
OLD-OU2-21A	F60667-1	10/06/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	1.2	NA	1.4	1310	1.0 U	8.1	0.050 U	0.050 U	10.2	0.050 U	2.5 U	NA	NA	8
	F64318-12	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1.49	0.32 U	0.43 U	NA	4.5	NA	1.2	74.1 I	8.5 I	2.5 U	7.4	0.050 U	0.050 U	0.050 U	0.020 U	NA	7.9	2.9
	F68838-18	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	84.4	0.32 U	0.43 U	NA	4.8	NA	2.8	465	1.0 U	2.5 U	12.7	0.050 U	0.050 U	0.050 U	0.020 U	NA	4.6	7.6
	F72703-2	04/06/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	6.44	0.32 U	0.43 U	NA	NA	NA	3.6	60.9 I	1.0 I	2.5 U	4.2	0.050 U	0.060 I	0.050 U	0.024 I	NA	5.8	3.3
	F77795-4	11/05/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	69.7	0.32 U	0.43 U	NA	0.76	NA	NA	477	1.1 I	2.5 U	14.9	0.050 U	0.050 U	0.050 U	0.024 I	NA	7	7.7
	F81494-4	04/08/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	10	0.006 J	0.024 J	100	4.3	15	NA	45.8 I	1.0 U	2.5 U	8.3	0.050 U	NA	NA	NA	NA	5.6	24.3
	F87208-5	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	36.8	0.32 U	0.43 U	59	6.1	18	NA	457	3.4 I	2.5 U	6.1	0.050 U	0.050 U	0.050 U	0.020 U	NA	2.8	9.2
	F91966-1	04/06/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	120	0.0071	0.067	100	3.6	20	NA	338	1.0 U	2.5 U	27.8	0.050 U	0.050 U	0.050 U	0.030 I	NA	5.5	3
	FA3547-2	04/10/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	634	0.32 U	0.43 U	NA	NA	NA	NA	1630	1.1 I	0.60 U	17.8	NA	0.050 U	0.050 U	0.17	NA	4.5	4.8
OLD-OU2-21B	F60667-2	10/06/2008	0.40 U	0.98 I	NA	1.0 U	0.22 U	0.32 U	0.30 U	1040	0.32 U	0.43 U	NA	1.3	NA	1.1	1160	13.8 I	17.5	0.050 U	0.050 U	17.5	0.050 U	24.5	NA	NA	25.3
	F64318-11	03/31/2009	0.40 U	0.88	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	658	0.32 U	0.43 U	NA	3.8	NA	3.4	1450	19.6	34.8	24.4	0.050 U	0.050 U	0.050 U	1.5	NA	20.9	7.5
	F68838-19	10/15/2009	0.40 U	0.7	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	837	0.32 U	0.43 U	NA	4.3	NA	2.8	1510	14.2	33.2	24.6	0.1	0.050 U	0.050 U	0.25	NA	7.1	12.5
	F72703-1	04/06/2010	0.21 U	0.76 I	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	364	0.32 U	0.43 U	NA	NA	NA	28	1060	12.9 I	30.1	24.7	0.050 U	0.050 U	0.050 U	0.15	NA	12.4	7.9
	F77795-5	11/05/2010	0.22 I	0.53 I	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	564	0.32 U	0.43 U	NA	0.47	NA	NA	1200	15.6	43.9	28.6	0.12	0.050 U	0.050 U	0.23	NA	13.2	8.5
	F81494-2	04/08/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	710	0.093	0.027	270	1.6	11	NA	876	13.7 I	29.7	29.7	0.050 U	NA	NA	NA	NA	21.1	11.5
	F87208-3	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1930	0.32 U	0.43 U	230	4.9	13	NA	699	9.8 I	38.6	30.6	0.074 I	0.050 U	0.050 U	0.72	NA	1.0 U	9.2
	F91966-4	04/06/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2400	0.088	0.022	230	2.9	13	NA	853	12.8 I	32.4	38.3	0.050 U	0.050 U	0.050 U	0.77	NA	1.0 U	15.9
	FA3547-1	04/10/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	1250	0.32 U	0.43 U	NA	NA	NA	NA	1310	15.1	27.7	42.2	NA	0.050 U	0.050 U	2.2	161	12.5	6.8
OLD-OU2-27A	F60562-15	10/02/2008	0.40 U	0.57 I	NA	1.0 U	0.22 U	0.32 U	0.30 U	75.2	0.32 U	0.43 U	NA	1.2	NA	1.2	8520	922	21.1	0.050 U	3	49	0.050 U	42.8	NA	NA	14.4
	F64242-18	03/27/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	74.8	0.32 U	0.43 U	NA	7.3	NA	4.4	5740	388	27.6	11.3	2.1	0.050 U	0.050 U	0.024 I	NA	33.4	17.2
	F68838-13	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	42.2	0.32 U	0.43 U	NA	4	NA	2.4	11300	525	49	10.2	2.2	0.050 U	0.050 U	0.07	NA	47.2	15.2
	F72702-9	04/05/2010	0.31 I	1	0.20 U	2.0 U	0.44 U	0.24 U	8.6	399	10.7	6.39	NA	NA	NA	5.3	4530	343	24.9	19.1	1.2	0.050 U	0.050 U	0.020 U	NA	21.4	16.9
	F77934-1	11/08/2010	0.20 U	1.4	0.20 U	2.0 U	0.25 U	0.26 U	3.5	NA	NA	NA	NA	0.45	NA	NA	4430	285	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-1	04/01/2011	0.42 I	3	0.20 U	2.0 U	0.25 U	0.36 I	4.3	NA	NA	NA	NA	NA	NA	NA	3840	228	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-3	10/15/2011	0.20 U	26.4	0.20 U	2.0 U	0.25 U	16.2	0.22 U	NA	NA	NA	NA	NA	NA	NA	11000	885	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-5	04/02/2012	0.20 U	3.4	0.20 U	2.0 U	0.25 U	9.2	0.50 I	NA	NA	NA	NA	NA	NA	NA	3150	404	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-1	04/03/2013	0.52 I	2.1	0.20 U	2.0 U	0.32 U	1.4	0.97 I	NA	NA	NA	NA	NA	NA	NA	1980	185	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-27B	F60562-16	10/02/2008	12	0.54 I	NA	1.0 U	0.22 U	0.32 U	0.30 U	2570	0.39 I	0.43 U	NA	1.5	NA	1.7	1070	3.8 I	15.6	0.050 U	1.1	16.4	0.050 U	6.1	NA		28.1
	F64242-17	03/27/2009	7.4	1	0.24	1.0 U	0.22 U	0.32 U	0.30 U	1990	0.35	0.43 U	NA	3.6	NA	2.2	888	5.0 I	5.5	30.1	1.2	0.050 U	0.050 U	0.52	NA	7.6	14.3
	F68838-12	10/15/2009	4	0.68	0.28	1.0 U	0.22 U	0.32 U	2.3	838	0.46	0.73	NA	2.5	NA	2.8	1470	4.5	7.1	21.8	1.1	0.050 U	0.050 U	0.11	NA	26.4	14.2
	F72702-10	04/05/2010	2.8	0.58 I	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	1290	0.32 U	0.43 U	NA	NA	NA	6	1190	7.4 I	2.6 I	24.8	0.39	0.050 U	0.050 U	0.1	NA	30.3	12.6
	F77934-2	11/08/2010	3.2	1.3	0.39 I	2.0 U	0.25 U	0.26 U	0.71 I	NA	NA	NA	NA	0.32	NA	NA	1490	5.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-2	04/01/2011	3	0.77 I	0.68 I	2.0 U	0.25 U	0.26 U	0.32 I	NA	NA	NA	NA	NA	NA	NA	973	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-2	10/15/2011	4.3	1.2	0.84 I	2.0 U	0.25 U	0.26 U	0.61 I	NA	NA	NA	NA	NA	NA	NA	1400	5.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-6	04/02/2012	2.3	0.51 I	0.33 I	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	969	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-2	04/03/2013	3.5	0.48 I	0.62 I	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	1140	5.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-28B	F60499-3	10/01/2008	0.60 I	0.29 I	NA	1.0 U	0.22 U	0.32 U	0.76 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64242-16	03/27/2009	0.40 U	0.29 I	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68804-3	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72702-8	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77934-5	11/08/2010	0.54 I	0.44 I	0.20 U	2.0 U	0.25 U	0.26 U	2.2	NA	NA	NA	NA	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-4	04/01/2011	2.2	0.86 I	0.20 U	2.0 U	0.25 U	0.26 U	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87147-7	10/24/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-2	03/29/2012	2.6	0.85 I	0.20 U	2.0 U	0.25 U	0.26 U	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3304-8	04/02/2013	5.5	1.5	0.20 U	2.0 U	0.32 U	0.31 U	6.5	NA	NA	NA	NA	NA	NA	NA	1930	5.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A Operable Unit 2 Analytical Results 09-2008 to 03-2013		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Solids, Total Dissolved	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	7439-89-6	7439-96-5	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2		14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	-	-	-	-	-	-	-	300	50	-	250	2.8	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	-	-	-	-	3000	500	-	2500	28	1000	100	-	5000	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-29A	F60562-9	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	127	0.32 U	0.43 U	NA	0.38	NA	1.2	6350	4.9 I	37.3	0.050 U	0.24	35.6	0.050 U	12.9	NA	NA	32.8
	F64318-2	03/30/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	187	0.32 U	0.43 U	NA	4	NA	8	5240	3.7 I	5.3	22.4	0.25	0.050 U	0.050 U	0.42	NA	13.7	12.2
	F68838-14	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	40.9	0.32 U	0.43 U	NA	3.3	NA	2.7	1990	3.5	29	13.7	0.050 U	0.1	0.050 U	0.020 U	NA	12.4	18
	F72632-16	04/01/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	75	0.32 U	0.43 U	NA	NA	NA	2.3	4790	3.6 I	8.9	21.9	0.26	0.1	0.050 U	0.27	NA	30.3	25.3
	F77624-5	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	84	0.32 U	0.43 U	NA	0.39	NA	NA	3970	3.5 I	15.7	14.5	0.21	0.050 U	0.050 U	0.071 I	NA	13.9	22.7
	F81361-2	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	82	0.025 U	0.024 J	81	3.4	18	NA	1960	2.8 I	23.1	11.5	0.050 U	0.094 I	0.050 U	0.63	NA	11.2	14
	F87053-2	10/20/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	85.3	0.32 U	0.43 U	100	5.5	18	NA	3230	5.5 I	13.7	15.9	0.21	0.19	0.050 U	0.22	NA	13.7	21.6
	F91634-5	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	28.8	0.32 U	0.43 U	58	4	20	NA	1090	2.7 I	34.7	5.7	0.050 U	0.11	0.050 U	0.17	NA	10.7	29.5
	FA3545-3	04/08/2013	0.21 U	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	108	0.32 U	0.43 U	NA	NA	NA	NA	3500	3.3 I	20.5	17.1	NA	NA	NA	0.020 U	NA	19.1	19.5
	FA3678-1	04/15/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 U	0.050 U	NA	NA	NA	NA
OLD-OU2-29B	F60562-10	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	311	0.32 U	0.43 U	NA	2.7	NA	1.8	3470	11.2 I	9.3	0.050 U	0.17	10	0.050 U	13.9	NA	NA	18.1
	F64318-13	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	475	0.32 U	0.43 U	NA	0.13	NA	0.73	2290	6.9 I	20.3	15.6	0.085 I	0.050 U	0.050 U	5.6	NA	1.6 I	4.7
	F68838-3	10/16/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	376	0.32 U	0.43 U	NA	2.1	NA	26	3470	13	22.4	12.5	0.27	0.050 U	0.050 U	4.6	NA	1.0 U	7
	F72632-15	04/01/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	385	0.32 U	0.43 U	NA	NA	NA	3.2	2120	5.6 I	23.2	16.9	0.17	0.050 U	0.050 U	1.4	NA	1.5 I	5.1
	F77624-6	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	634	0.32 U	0.43 U	NA	0.32	NA	NA	1890	8.2 I	18.6	16	0.3	0.050 U	0.050 U	2.3	NA	1.3 I	5.7
	F81361-4	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	800	0.23	0.03	95	1.8	14	NA	2260	10.7 I	21.3	17.1	0.3	0.050 U	0.050 U	1.3	NA	1.0 U	10.4
	F87053-4	10/20/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	396	0.32 U	0.43 U	99	5.4	18	NA	2510	10.0 I	17	16.1	0.14	0.050 U	0.050 U	1.7	NA	1.0 U	10.9
	F91634-11	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1180	0.46 I	0.43 U	83	2.3	16	NA	2170	14.3 I	30.5	17.6	0.42	0.050 U	0.050 U	1.8	NA	1.3 I	23.3
	FA3545-5	04/08/2013	0.21 U	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	1010	0.49 J	0.43 U	NA	NA	NA	NA	1800	16.3	25.3	16.6	NA	NA	NA	2	NA	2.1	8.5
	FA3678-2	04/15/2013	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.050 U	0.050 U	NA	NA	NA	NA
OLD-OU2-30A	F60562-11	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	722	0.32 U	0.43 U	NA	0.020 U	NA	3.3	11400	50.8	52.3	0.050 U	0.67	9.4	0.050 U	59.3	NA	NA	6.5
	F64318-14	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	105	0.32 U	0.43 U	NA	NA	NA	NA	24200	47.7	48.3	19.3	0.58	0.050 U	0.050 U	3.1 I	NA	1.6 I	32
	F68882-4	10/19/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1240	0.32 U	0.43 U	NA	NA	NA	2.6	6860	19.6	52.3	6.8	0.35	0.13	0.050 U	0.020 U	NA	1.0 U	40
	F72652-3	04/02/2010	0.35 I	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	4050	0.32 U	0.43 U	NA	NA	NA	9.8	38500	171	89.4	8.9	4.1	0.050 U	0.050 U	0.078 I	NA	1.2 I	37.1
	F77624-7	10/28/2010	0.26 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	0.42	NA	NA	16600	86.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81361-7	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	9240	26.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-2	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	7930	26.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91634-13	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	10600	25.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3545-1	04/08/2013	0.40 I	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	9780	31.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-30B	F60562-12	10/03/2008	0.45 I	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	1660	0.32 U	0.43 U	NA	0.21	NA	1.5	21300	121	47.9	0.050 U	2.1	8.6	0.050 U	163	NA	NA	30.2
	F64318-15	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	3680	0.32 U	0.43 U	NA	4.3	NA	1.1	31100	134	241	63.5	2.8	0.050 U	0.050 U	0.020 U	NA	3.5	43.9
	F68882-5	10/19/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1730	0.32 U	0.43 U	NA	NA	NA	1.8	30700	138	236	40.3	2.2	0.12	0.050 U	0.046	NA	1.7	40.5
	F72702-5	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	1360	0.32 U	0.43 U	NA	NA	NA	6.6	13100	72.8	167	19.9	1.3	0.050 U	0.050 U	0.020 U	NA	4.3	30.3
	F77624-8	10/28/2010	0.39 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	0.08	NA	NA	24100	106	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81361-8	04/06/2011	0.36 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	22300	82.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-1	10/25/2011	0.25 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	20800	109	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91634-12	03/28/2012	0.46 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	29700	133	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-6	04/03/2013	0.65 I	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	24100	104	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-31A	F60562-7	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	8.07	0.32 U	0.43 U	NA	0.020 U	NA	0.98	228 I	2.5 I	6.1	0.050 U	0.050 U	11.2	0.1	19.7	NA	NA	5.9
	F64242-14	03/27/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	5.97	0.32 U	0.43 U	NA	5	NA	1	382	3.7 I	2.5 U	4.5	0.050 U	0.1	0.050 U	0.046 I	NA	4.9	3
	F68804-5	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	8.72	0.32 U	0.43 U	NA	7.3	NA	2.1	580	2.8	2.5 U	4.3	0.050 U	0.050 U	0.050 U	0.029	NA	4.1	NA
	F72652-5	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	0.25 I	0.32 U	0.43 U	NA	NA	NA	5.6	302	6.7 I	2.8 I	4.6	0.050 U	0.080 I	0.050 U	0.15	NA	4.6	6.9
	F77795-6	11/05/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	44	0.32 U	0.43 U	NA	0.31	NA	NA	1030	6.7 I	2.5 U	2.4	0.050 U	0.050 U	0.050 U	0.030 I	NA	5.6	10.6
	F81494-1	04/08/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	30	0.025 U	0.031	71	2.7	17	NA	105 I	5.6 I	2.5 U	3.7	0.050 U	NA	NA	NA	NA	5.2	6.1
	F87147-6	10/24/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	0.7	0.32 U	0.43 U	32	8.9	19	NA	190 I	1.7 I	2.7 I	3.2	0.050 U	0.050 U	0.050 U	0.020 U	NA	3.9	8.5
	F91853-7	04/03/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	44.3	0.32 U	0.43 U	36	3.9	17	NA	464	3.2 I	2.5 U	5.5	0.050 U	0.050 U	0.050 U	0.023 I	NA	9.9	4.7
	F97878-3	10/10/2012	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	42.5 I	2.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-3	04/03/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	369	2.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-31B	F60562-8	10/03/2008	20.6	5.9	NA	1.0 U	4.7	3.4	6.4	1190	0.60 I	0.45 I	NA	1.1	NA	1.5	2030	7.2 I	12.4	0.050 U	0.050 I	29.4	0.050 U	9.2	NA	NA	19.9
	F64242-15	03/27/2009	27.3	2.7	0.20 U	1.0 U	2.6	1.4	4.2	2590	1.1	0.59	NA	3.7	NA	1.2	1830	6.5 I	3.3 I	22.7	0.050 U	0.1	0.050 U	2.6	NA	11.8	9.7
	F68804-4	10/14/2009	33.5	2.1	0.36	1.0 U	3.1	1.1	4.4	1910	1.5	0.43 U	NA	3.3	NA	2.6	1720	6.2	10	25.3	0.050U	0.050 U	0.050 U	1.4	NA	8.2	NA
	F72652-4	04/02/2010	27.6	1.6	0.24 I	2.0 U	2.4	1	3.3	1770	1.2	0.43 U	NA	NA	NA	3.6	1690	6.3 I	3.8 I	26.8	0.050 U	0.050 U	0.050 U	1.2	NA	11.8	10.4
	F77795-7	11/05/2010	29	1.5	0.54 I	2.0 U	2.8	0.60 I	2.1	1730	1	2.1	NA	0.56	NA	NA	1820	6.6 I	8.4	26.7	0.050 U	0.050 U	0.050 U	0.2	NA	15.7	10
	F81494-3	04/08/2011	27.9	1.7	0.69 I	2.0 U	3.5	0.80 I	2.2	2300	1.3	0.29	410	1.3	9.9	NA	1690	6.6 I	5	25.1	0.050 U	NA	NA	NA	NA	17.4	24.2
	F87147-4	10/24/2011	15.1	1.5	0.43 I	2.0 U	3.1	0.62 I	1.3	1100	0.79 I	0	290	6.2	15	NA	1750	7.4 I	8.1	22	0.076 I	0.050 U	0.050 U	0.76	NA	27.2	16.1
	F91853-10	04/03/2012	13.9	1.3	0.20 U	2.0 U	1.7	0.50 I	1.9	1080	0.77 I	0.43 U	320	3.6	15	NA	932	7.9 I	8.8	20.8	0.050 U	0.050 U	0.050 U	1.1	NA	28.8	19.2
	F97878-5	10/10/2012	13.4	1.2	0.24 I	2.0 U	1.6	0.37 I	1.1	NA	NA	NA	NA	NA	NA	NA	1780	6.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-4	04/03/2013	12.3	1.4	0.31 I	2.0 U	1.3	0.40 I	1	NA	NA	NA	NA	NA	NA	NA	1680	6.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A Operable Unit 2 Analytical Results 09-2008 to 03-2013		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Solids, Total Dissolved	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	7439-89-6	7439-96-5	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2		14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	-	-	-	-	-	-	-	300	50	-	250	2.8	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	-	-	-	-	3000	500	-	2500	28	1000	100	-	5000	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-32A	F60499-1	10/01/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	1.7	0.32 U	0.43 U	NA	4	NA	2.2	105 I	1.0 U	10.9	5.1	0.050 U	0.14	0.050 U	0.040 U	NA	8.7	22.3
	F64242-10	03/26/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	214	0.32 U	0.43 U	NA	7.8	NA	0.8	289 I	2.5 I	3.4 I	5	0.050 U	0.12	0.050 U	0.020 U	NA	7.1	18.8
	F68804-2	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	77	0.32 U	0.43 U	NA	3.4	NA	2.3	296	1.2	2.5 U	4.3	0.050 U	0.050 U	0.050 U	0.020 U	NA	4	NA
	F72652-6	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	0.25 I	0.32 U	0.43 U	NA	NA	NA	6.3	248 I	1.0 I	3.3 I	3.1	0.050 U	0.11	0.050 U	0.58	NA	3	18
	F77934-3	11/08/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	1.46	NA	NA	674	1.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-7	04/01/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	66.2 I	2.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-7	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	288 I	1.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-4	03/29/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	150 I	2.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3304-5	04/02/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	843	2.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-32B	F64242-11	03/26/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	339	0.32 U	0.43 U	NA	2.7	NA	3	921	7.2 I	10.3	9.3	0.050 U	0.11	0.050 U	3.3	NA	1.5 I	4.7
	F68804-1	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	174	0.32 U	0.43 U	NA	2.9	NA	2.8	973	7.5	15.1	6.6	0.050U	0.050 U	0.050 U	0.23	NA	3.2	NA
	F72702-7	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	191	3.12	3.67	NA	NA	NA	8.3	1120	9.1 I	5.6	5.8	0.050 U	0.060 I	0.050 U	2.3	NA	14.7	4.8
	F77934-4	11/08/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	0.45	NA	NA	1300	10.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-8	04/01/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	1240	10.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-6	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	1250	9.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-3	03/29/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	1210	10.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3304-7	04/02/2013	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	1200	8.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33A	F60668-2	10/07/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	2.58	0.32 U	0.43 U	NA	4.4	NA	1.1	1100	6.9 I	7.5	0.050 U	0.050 U	14.1	2.1	2.5 U	NA	NA	11.7
	F64242-13	03/27/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	560	0.32 U	0.43 U	NA	0.13	NA	0.73	2160	10.0 I	2.5 U	16.6	0.050 U	0.050 U	0.050 U	0.020 U	NA	7.5	9
	F68882-7	10/19/2009	0.40 U	0.41	0.20 U	1.0 U	0.22 U	0.43	0.30 U	127	0.32 U	0.43 U	NA	NA	NA	11	926	3.7	2.5 U	6.8	0.050 U	0.11	0.050 U	0.020 U	NA	8.3	8.7
	F72632-1	04/01/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	0.47 I	0.32 U	0.43 U	NA	NA	NA	5.5	226 I	3.5 I	2.5 U	6.3	0.050 U	4.3	0.050 U	0.038 I	NA	12.3	6.5
	F77795-11	11/03/2010	0.48 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	3.6	NA	NA	1310	9.6 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-3	04/01/2011	0.54 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	1800	9.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-4	10/15/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	346	2.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91967-1	04/05/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	2230	7.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3390-5	04/03/2013	0.60 I	0.24 U	0.20 U	2.0 U	0.32 U	0.52 I	0.44 U	NA	NA	NA	NA	NA	NA	NA	1950	10.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33B	F60668-1	10/07/2008	0.40 U	1.8	NA	1.0 U	0.54 I	10.8	0.30 U	166	0.32 U	0.43 U	NA	2.3	NA	1.1	1850	8.7 I	10.7	0.050 U	0.050 U	32.6	0.050 U	2.9 I	NA	NA	16.1
	F64242-12	03/27/2009	0.40 U	1.1	0.20 U	1.0 U	0.69	16.5	0.30 U	314	0.32 U	0.43 U	NA	3.8	NA	1.1	1810	12.1 I	2.5 I	13.4	0.051 I	0.050 U	0.050 U	0.66	NA	22.5	5.5
	F68882-8	10/19/2009	0.40 U	0.99	0.20 U	1.0 U	0.37	7.6	0.37	110	0.32 U	0.43 U	NA	NA	NA	16	1770	9	7.2	12.3	0.1	0.050 U	0.050 U	0.22	NA	27.6	6.2
	F72632-2	04/01/2010	0.21 U	0.49 I	0.20 U	2.0 U	0.50 I	8.9	0.28 U	72.6	0.32 U	0.43 U	NA	NA	NA	3.9	1660	17.5	5	12	0.15	0.050 U	0.050 U	0.34	NA	29.9	5.8
	F77795-12	11/03/2010	0.20 U	1.2	0.20 U	2.0 U	0.43 I	8.3	0.22 U	NA	NA	NA	NA	0.46	NA	NA	1840	12.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-5	04/01/2011	0.20 U	0.38 I	0.20 U	2.0 U	0.59 I	12.3	0.22 U	NA	NA	NA	NA	NA	NA	NA	1460	9.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-5	10/15/2011	0.20 U	0.31 I	0.20 U	2.0 U	0.59 I	11.2	0.22 U	NA	NA	NA	NA	NA	NA	NA	1510	6.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91967-2	04/05/2012	0.20 U	0.85 I	0.20 U	2.0 U	0.70 I	11.3	0.22 U	NA	NA	NA	NA	NA	NA	NA	1650	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3545-2	04/08/2013	0.21 U	0.99 I	NA	NA	0.94 I	19	0.44 U	NA	NA	NA	NA	NA	NA	NA	1720	7.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-37B	F60562-13	10/03/2008	1.2	1.3	NA	1.0 U	0.22 U	0.32 U	1.5	2120	0.36 I	0.51 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64318-1	03/30/2009	1.2	1.8	0.20 U	1.0 U	0.22 U	0.32 U	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68838-1	10/16/2009	0.99	1	0.20 U	1.0 U	0.22 U	0.32 U	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72702-6	04/05/2010	1.2	1.4	0.20 U	2.0 U	0.44 U	0.24 U	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77934-6	11/08/2010	0.76 I	0.78 I	0.20 U	2.0 U	0.25 U	0.26 U	0.59 I	NA	NA	NA	NA	0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-6	04/01/2011	1.5	1.2	0.20 U	2.0 U	0.25 U	0.26 U	0.90 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-4	10/25/2011	0.90 I	0.75 I	0.20 U	2.0 U	0.25 U	0.26 U	0.50 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-1	03/29/2012	0.79 I	0.45 I	0.20 U	2.0 U	0.25 U	0.26 U	0.56 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F97815-11	10/09/2012	0.58 I	0.47 I	0.23 I	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	1810	4.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3545-4	04/08/2013	0.46 I	0.42 I	NA	NA	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	2100	4.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-41B	F68882-11	10/19/2009	2.1	2.1	0.20 U	1.0 U	0.27	42.7	1.7	NA	NA	NA	NA	NA	NA	NA	1010	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-3	04/01/2010	1.7	2.3	0.20 U	2.0 U	0.66 I	56	1	NA	NA	NA	NA	NA	NA	NA	604	7.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-3	11/04/2010	2	2.4	0.20 U	2.0 U	0.31 I	34.3	1.2	1620	0.32 U	1.1	NA	0.48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	6.8
	F81308-5	04/04/2011	1.8	2.5	0.20 U	2.0 U	0.41 I	47.6	0.99 I	500	0.01 J	0.25	130	4.7	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.5	5.3
	F87147-1	10/24/2011	2.5	4.6	0.20 U	2.0 U	0.68 I	64.7	1.3	1500	0.32 U	0.43 U	200	3.9	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.7	8.9
	F91968-1	04/09/2012	1.9	2.7	0.20 U	2.0 U	0.25 U	24.9	0.22 U	1700	0.078	0.28	180	2.8	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 I	10.8
	F97878-7	10/10/2012	2.1	19.7	0.20 U	2.0 U	0.66 I	58.4	1.2	NA	NA	NA	NA	NA	NA	NA	925	13.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3545-6	04/08/2013	1.7	17	NA	NA	0.38 I	33.9	0.99 I	NA	NA	NA	NA	NA	NA	NA	940	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA

Appendix A Operable Unit 2 Analytical Results 09-2008 to 03-2013		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Solids, Total Dissolved	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	7439-89-6	7439-96-5	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2		14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	-	-	-	-	-	-	-	300	50	-	250	2.8	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	-	-	-	-	3000	500	-	2500	28	1000	100	-	5000	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-42B	F68882-2	10/19/2009	20 U	413	10 U	50 U	11 U	3780	54.9	NA	NA	NA	NA	NA	NA	NA	879	6.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-4	04/01/2010	11 U	440	10 U	100 U	22 U	3620	32.0 I	NA	NA	NA	NA	NA	NA	NA	737	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77711-1	11/01/2010	10 U	599	10 U	100 U	13 U	3020	30.6 I	1440	0.32 U	3.89	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	7.4
	F81422-1	04/07/2011	4.0 U	454	4.0 U	40 U	5.0 U	1620	9.8 I	1100	0.17	2.7	160	2	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1	6.4
	F87077-1	10/21/2011	10 U	627	10 U	100 U	13 U	2690	11 U	1290	0.37 I	4.02	170	6.7	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	6.7
	F91966-5	04/06/2012	0.59 I	661	0.20 U	2.0 U	2.5	3530	29.6	2200	0.43	7.3	200	2.6	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	12.2
	F97879-1	10/11/2012	4.2 U	691	4.0 U	40 U	6.4 U	1960	19.7 I	NA	NA	NA	NA	NA	NA	NA	320	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3547-3	04/10/2013	2.1 U	638	2.0 U	20 U	3.2 U	798	13.7	1130	0.32 U	3.29	NA	NA	NA	NA	658	5.9 I	22	9.8	NA	0.077 I	0.050 U	2	52.0 I	1.5 I	5.2
OLD-OU2-43B	F68882-3	10/19/2009	20 U	123	10 U	50 U	35.4	4470	49	NA	NA	NA	NA	NA	NA	NA	982	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-5	04/01/2010	11 U	143	10 U	100 U	46.0 I	5300	33.5 I	NA	NA	NA	NA	NA	NA	NA	819	6.6 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77711-2	11/01/2010	20 U	236	20 U	232 I	54.5 I	7540	22 U	794	0.49 I	6.79	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	22.7	7.7
	F81422-2	04/07/2011	20 U	168	20 U	200 U	47.7 I	5370	22 U	840	0.43	6.3	180	1.7	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.5	24.8
	F87077-3	10/21/2011	20 U	154	20 U	200 U	40.8 I	4960	22 U	769	0.40 I	5.1	190	5.8	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	12.2
	F91968-2	04/09/2012	0.25 I	291	0.20 U	2.0 U	29.7	5150	36.9	850	0.57	8.8	180	5.1	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.2	8.4
	F97879-2	10/11/2012	21 U	286	20 U	200 U	41.7 I	6580	44 U	NA	NA	NA	NA	NA	NA	NA	822	6.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3547-4	04/10/2013	21 U	348	20 U	200 U	32 U	5690	44 U	1070	0.50 I	6.74	NA	NA	NA	NA	623	5.3 I	8.6	13.6	NA	0.050 U	0.050 U	2.5	140	11.1	5.1
OLD-OU2-44B	F77795-2	11/04/2010	2.0 U	142	2.0 U	23.4 I	13	1590	12.3	1660	0.32 U	2.2	NA	0.51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.6	6.9
	F81308-2	04/04/2011	4.0 U	1610	4.0 U	40 U	6.0 I	771	15.8 I	1600	0.018 J	0.72	97	3.9	9.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.9	5.6
	F87147-5	10/24/2011	4.0 U	1080	4.0 U	40 U	5.0 U	453	8.9 I	5950	0.32 U	1.9	200	4.4	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	9.6
	F92066-1	04/10/2012	4.0 U	436	4.0 U	40 U	5.7 I	1030	11.7 I	1400	0.13	1.2	100	4.4	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.2	6.8
	F97878-10	10/10/2012	4.2 U	1530	4.0 U	40 U	6.4 U	51.5	353	NA	NA	NA	NA	NA	NA	NA	909	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3620-2	04/11/2013	2.1 U	326	2.0 U	20 U	3.2 U	3.5 I	776	NA	NA	NA	NA	NA	NA	NA	958	6.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-45B	F77711-3	11/01/2010	2.0 U	715	2.0 U	30.6 I	2.5 U	174	2.2 U	5670	0.45 I	3.17	NA	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	6.1
	F81308-3	04/04/2011	2.0 U	852	2.0 U	20 U	2.5 U	58.2	7.2 I	4500	0.044	0.98	220	3.1	8.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.2	6.3
	F87147-3	10/24/2011	2.0 U	594	2.0 U	20 U	2.5 U	5.1 I	6.9 I	8550	0.32 U	0.43 U	260	5	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	10.7
	F91968-4	04/09/2012	0.92 I	708	0.20 U	2.0 U	0.25 U	2.2	7.3	13000	0.025 U	1.5	240	1.4	9.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.1 I	14.2
OLD-OU2-46B	F77795-14	11/03/2010	10 U	1650	10 U	102 I	17.3 I	4250	64.9	1620	0.71 I	8.18	NA	0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.9	11
	F81308-6	04/04/2011	10 U	1550	10 U	100 U	16.7 I	3840	31.8 I	1500	0.36	5	140	2	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10.5	25.8
	F87147-2	10/24/2011	20 U	826	20 U	200 U	35.6 I	4410	22 U	1740	0.60 I	6.35	110	9.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12.2	6.6
	F91968-5	04/09/2012	0.26 I	913	0.20 U	2.0 U	36.2	5020	47.6	1300	0.64	8.6	140	5	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11.5	8.7
OLD-OU2-47B	F77795-15	11/03/2010	10 U	141	10 U	20 U	37.0 I	4140	32.7 I	839	0.49 I	6.76	NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	7
	F81422-4	04/07/2011	10 U	179	10 U	100 U	33.3 I	3810	12.5 I	380	0.056	0.66	170	1.6	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.9	28.2
	F87077-5	10/21/2011	20 U	210	20 U	200 U	47.2 I	6110	22 U	763	0.36 I	4.5	160	6.4	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.4	12
	F91968-3	04/09/2012	0.20 U	169	0.20 U	2.0 U	39.7	2830	25.9	750	0.42	5.7	150	5.2	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.1	12
	F97879-3	10/11/2012	11 U	149	10 U	100 U	40.3 I	3620	27.8 I	NA	NA	NA	NA	NA	NA	NA	1020	8.6 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3620-1	04/11/2013	NA	138	NA	NA	16 U	2490	22 U	778	0.32 U	3.24	NA	NA	NA	NA	783	8.5 I	15.1	12.9	NA	0.050 U	0.050 U	0.9	77.0 I	13.7	5.6
OLD-OU2-48B	F77795-1	11/04/2010	2.0 U	1730	2.0 U	113 I	2.5 U	2.6 U	20.6	8460	0.32 U	3.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	22.5
	F81308-1	04/04/2011	4.0 U	1810	4.0 U	40 U	5.0 U	5.2 U	17.8 I	15000	0.12	2.3	290	1.4	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.9	16.8
	F87077-6	10/21/2011	4.0 U	2400	4.0 U	40 U	5.0 U	5.2 U	28.6	6890	0.32 U	0.93 I	330	3.7	8.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	9.6
	F91968-6	04/09/2012	0.79 I	1010	0.20 U	2.0 U	0.25 U	1.1	543	18000	0.025 U	36	300	1.7	6.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	26.2
OLD-OU2-49B	F77795-17	11/03/2010	0.20 U	1.8	0.20 U	2.0 U	1.5	35.6	0.53 I	141	0.32 U	0.43 U	NA	0.52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18.8	8.3
	F81422-7	04/07/2011	0.21 I	10.6	0.20 U	2.0 U	5.5	178	1.4	320	0.14	1.9	110	3.6	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.4	25
	F87077-4	10/21/2011	0.20 U	4.8	0.20 U	2.0 U	1.2	33.7	0.22 U	98.4	0.32 U	0.65 I	79	7.3	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.8	53.1
	F91968-7	04/09/2012	0.22 I	53.5	0.20 U	2.0 U	3.2	61.8	3.4	300	0.057	1.6	130	4.9	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17.1	25.3
OLD-OU2-50B	F68882-13	10/19/2009	2.0 U	632	1.0 U	12.4	1.1 U	2.3	8.5	NA	NA	NA	NA	NA	NA	NA	3350	20.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-6	04/01/2010	2.1 I	375	1.0 U	10 U	2.2 U	1.2 U	4.5 I	NA	NA	NA	NA	NA	NA	NA	1310	6.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-18	11/03/2010	1.0 U	293	1.0 U	10 U	1.3 U	2.8 I	5.7	10100	0.32 U	2	NA	1.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.9	8.4
	F81308-4	04/04/2011	2.0 U	648	2.0 U	20 U	2.5 U	4.8 I	6.5 I	12000	0.12	2.2	230	1.7	9.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19.2	24.8
	F87077-2	10/21/2011	0.20 U	212	0.20 U	2.0 U	0.25 U	1.3	5.4	4620	0.32 U	0.72 I	120	4.7	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	29.6
	F92066-3	04/10/2012	0.22 I	40.6	0.20 U	2.0 U	0.25 U	0.27 I	80.5	9400	0.1	8.8	120	7.8	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	18.7

Appendix A Operable Unit 2 Analytical Results 09-2008 to 03-2013		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Iron	Manganese	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Solids, Total Dissolved	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	7439-89-6	7439-96-5	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2		14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/l	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	-	-	-	-	-	-	-	300	50	-	250	2.8	10	1	-	500	250	-
		NADSC	10	700	8	500	300	30	10	-	-	-	-	-	-	-	3000	500	-	2500	28	1000	100	-	5000	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-
OLD-OU2-51B	F68838-22	10/16/2009	2.0 U	257	1.0 U	7.8	1.1 U	1.6 U	4	NA	NA	NA	NA	NA	NA	NA	2140	10.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-13	04/01/2010	1.1 U	218	1.0 U	10 U	2.2 U	1.2 U	3.5 I	NA	NA	NA	NA	NA	NA	NA	1270	5.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-10	11/03/2010	1.0 U	277	1.0 U	10 U	1.3 U	1.3 U	7.9	11900	0.32 U	2.2	NA	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.5	6.6
	F81422-10	04/07/2011	0.40 U	168	0.40 U	4.0 U	0.50 U	0.56 I	7	17000	0.14	3.4	290	1.1	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.3 I	23.6
	F87208-9	10/25/2011	0.20 U	99.2	0.20 U	2.0 U	0.25 U	11	2.7	10300	0.32 U	0.43 U	230	2.8	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3	11
	F91966-3	04/06/2012	0.20 U	108	0.20 U	2.0 U	0.25 U	0.26 U	12.5	14000	0.15	2.9	150	2.5	9.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	11.4
	F97878-6	10/10/2012	0.21 U	107	0.20 U	2.0 U	0.32 U	0.31 U	33.4	NA	NA	NA	NA	NA	NA	NA	1040	4.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3748-3	04/16/2013	0.42 U	99.4	NA	NA	0.64 U	0.63 U	12.2	7300	0.32 U	4.55	NA	NA	NA	NA	894	4.4 I	0.60 U	19.3	NA	0.050 U	0.050 U	0.26	78.0 I	10.1	7.3
OLD-OU2-53B	F68882-12	10/19/2009	0.80 U	166	0.40 U	2.0 U	2.4	70.2	2.3	NA	NA	NA	NA	NA	NA	NA	694	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-7	04/01/2010	0.42 U	388	0.40 U	4.0 U	3	51.2	4.2	NA	NA	NA	NA	NA	NA	NA	798	5.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-8	11/05/2010	2.0 U	797	2.0 U	20 U	10.2	371	60.8	4610	0.32 U	11.6	NA	0.43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.2	7.7
	F81308-7	04/04/2011	2.0 U	614	2.0 U	20 U	2.5 U	6.0 I	293	4300	0.025 J	12	170	2.8	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.7	7.2
	F92066-2	04/10/2012	1.0 U	316	1.0 U	10 U	2.7 I	39.8	237	6800	0.06	23	180	6	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20.7	17
OLD-OU2-DP01A	F60665-2	10/06/2008	1.8	1.2	NA	1.0 U	0.22 U	0.32 U	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64242-3	03/26/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68838-20	10/16/2009	1.5	1.1	0.20 U	1.0 U	0.22 U	0.32 U	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-12	04/01/2010	1.1	1.1	0.20 U	2.0 U	0.44 U	1.9	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-13	11/03/2010	0.69 I	0.60 I	0.20 U	2.0 U	0.25 U	0.33 I	1	NA	NA	NA	NA	4.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81422-8	04/07/2011	3.1	2	0.20 U	2.0 U	0.25 U	0.26 U	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-8	10/25/2011	2.1	1.5	0.20 U	2.0 U	0.25 U	0.26 U	2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-12	04/03/2012	1.7	1.5	0.20 U	2.0 U	0.25 U	0.26 U	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F97878-4	10/10/2012	0.21 U	0.24 U	0.20 U	2.0 U	0.32 U	0.31 U	0.44 U	NA	NA	NA	NA	NA	NA	NA	553	6.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3748-4	04/16/2013	0.21 U	0.24 U	NA	NA	0.32 U	0.31 U	0.44 U	191	0.32 U	0.43 U	NA	NA	NA	NA	2240	35.2	0.60 U	47.1	NA	0.050 U	0.050 U	0.14	195	95.1	5.8
OLD-OU2-DP02A	F60665-1	10/06/2008	0.40 U	21.6	NA	1.0 U	0.35 I	4.4	0.42 I	38.5	0.32 U	0.43 U	NA	5.3	NA	1.3	3130	3.1 I	11.7	0.050 U	0.050 U	26	0.050 U	2.5 U	NA	NA	42.4
	F64242-4	03/26/2009	0.40 U	218	0.20 U	1.0 U	0.22 U	35.1	3.7	429	0.32 U	0.43 U	NA	8.1	NA	1.3	1950	1.9 I	43.9	23.5	0.050 U	0.050 U	0.050 U	0.038 I	NA	14.7	4.7
	F68882-9	10/19/2009	0.40 U	135	0.20 U	1.0 U	0.22 U	15.1	2.2	173	0.32 U	0.43 U	NA	NA	NA	7.2	1230	1.4	42.1	21.8	0.068	0.050 U	0.050 U	0.022	NA	13.5	5.9
	F72632-14	04/01/2010	1.1 U	475	1.0 U	10 U	2.2 U	5.2	4.3 I	3780	0.32 U	0.43 U	NA	NA	NA	4.4	1990	1.2 I	14.1	15.6	0.050 U	0.050 U	0.050 U	0.13	NA	2.6	10.3
	F77795-16	11/03/2010	1.0 U	301	1.0 U	10 U	1.3 U	1.9 I	8.7	1780	0.32 U	0.43 U	NA	2.99	NA	NA	1130	1.0 I	2.7 I	29.5	0.050 U	0.089 I	0.050 U	0.22	NA	10.9	7
	F81422-11	04/07/2011	1.0 U	242	1.0 U	10 U	1.3 U	20.5	2.7 I	2100	0.025	0.14	150	2	15	NA	523	1.0 U	6.7	18.8	0.050 U	0.096 I	0.050 U	0.058 I	NA	4.9	12.1
	F87208-10	10/25/2011	0.20 U	64.2	0.20 U	2.0 U	0.25 U	1.1	0.61 I	708	0.32 U	0.43 U	130	6.8	15	NA	2110	1.4 I	2.5 U	33.4	0.058 I	0.050 U	0.050 U	0.028 I	NA	23.3	17.5
	F91967-3	04/05/2012	0.20 U	67.3	0.20 U	2.0 U	0.25 U	1.6	22.6	2800	0.015	1.2	110	2.7	9.9	NA	1770	2.0 I	2.9 I	27.5	0.051 I	0.079 I	0.050 U	0.090 I	NA	13	20.1
	F97878-9	10/10/2012	0.21 U	128	0.20 U	2.0 U	0.32 U	0.38 I	79.6	NA	NA	NA	NA	NA	NA	NA	1980	18.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3678-3	04/15/2013	NA	2.5	NA	NA	0.32 U	0.31 U	0.44 U	8.61	0.32 U	0.43 U	NA	NA	NA	NA	6300	249	0.60 U	40.2	NA	0.050 U	0.050 U	0.020 U	426	232	5
OLD-OU2-DP02B	F97878-11	10/10/2012	0.21 U	2	0.20 U	2.0 U	0.32 U	0.58 I	0.44 U	NA	NA	NA	NA	NA	NA	NA	527	7.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA
	FA3748-1	04/16/2013	0.21 U	0.88 I	NA	NA	0.32 U	0.80 I	0.44 U	148	0.32 U	0.43 U	NA	NA	NA	NA	1610	8.6 I	6.5	47	NA	0.050 U	0.050 U	0.71	82.0 I	4.3	2.7

Notes:

ug/L - micrograms per liter

U - indicates result less than method detection limit

I - indicates result greater than or equal to method detection limit but less than practical quantitation limit

NA - not analyzed

GCTL- groundwater cleanup target level

NADSC - natural attenuation default concentration

APPENDIX B
Monitor Well Purge Forms

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-02A	SAMPLE ID: A57006FDF12C43EC8D5565FC8DC5660F		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 7.4-17.4	STATIC DEPTH TO WATER (feet): 11.75	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (20.35 feet – 11.75 feet) X 0.16 gallons/foot = 1.40 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 21.35 feet)+ 0.15 gallon = 0.20 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17.35	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17.35	PURGING INITIATED AT: 9:42	PURGING ENDED AT: 10:18	TOTAL VOLUME PURGED (gallons): 3.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
9:56		1.40	0.105	11.80	6.00	23.52	301.10	0.21	23.20	-79.00	clear	none
9:59	0.30	1.70	0.101	11.80	6.02	23.51	319.90	0.20	36.60	-79.00	turbid	none
10:02	0.30	2.00	0.095	11.80	6.03	23.43	325.50	0.20	47.30	-79.00	turbid	none
10:05	0.30	2.30	0.109	11.80	6.06	23.41	336.70	0.23	67.50	-79.00	turbid	none
10:09	0.30	2.60	0.063	11.80	6.10	23.55	349.10	0.66	56.90	-57.00	turbid	none
10:12	0.30	2.90	0.099	11.80	6.08	23.59	342.40	0.39	54.90	-67.00	turbid	none
10:15	0.30	3.20	0.097	11.80	6.10	23.75	340.70	0.29	53.50	-71.00	turbid	none
10:18	0.30	3.50	0.099	11.80	6.10	23.81	344.00	0.27	58.00	-72.00	turbid	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .26	TEMP.(°C): 23.76	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 345.6	pH: 6.10	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -73	TURB(NTU): 61.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES: Katie Ballew	SAMPLING INITIATED AT: 10:18	SAMPLING ENDED AT: 10:20
PUMP OR TUBING DEPTH IN WELL (feet): 17.35	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-02A	6	CG;PE	0 ml;125 n	HCL;HNO3	40 ml;125 ml	6.10	Fe/Mn	APP

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-02B	SAMPLE ID: A5D7DD9508CB49FA86BA79347DEE5E84		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 27.1-32.1	STATIC DEPTH TO WATER (feet): 12.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (32.50 feet – 12.00 feet) X 0.16 gallons/foot = 3.35 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 10:32	PURGING ENDED AT: 10:46	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
10:37		0.30	0.065	12.20	5.62	24.68	208.80	0.49	13.60	29.00	clear	none
10:40	0.30	0.60	0.081	12.25	5.55	24.95	209.10	0.24	7.80	11.00	clear	none
10:43	0.30	0.90	0.083	12.25	5.58	25.00	209.00	0.14	5.50	-21.00	clear	none
10:46	0.30	1.20	0.089	12.25	5.57	25.06	208.40	0.13	6.60	-31.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .13	TEMP.(°C): 25.07	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 207.1	pH: 5.51	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -33	TURB(NTU): 6.4	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES: Katie Ballew	SAMPLING INITIATED AT: 10:46	SAMPLING ENDED AT: 10:56
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 351.50	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-02B	6	CG;PE	0 ml;125 m	HCL;HNO3	40 ml;125 ml	5.51	Fe/Mn	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-03A	SAMPLE ID: 98F4D93944E843179513C5CA9C026948		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 7.5-17.5	STATIC DEPTH TO WATER (feet): 10.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (20.50 feet – 10.00 feet) X 0.16 gallons/foot = 1.71 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 21.50 feet)+ 0.15 gallon = 0.20 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17.50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17.50	PURGING INITIATED AT: 13:28	PURGING ENDED AT: 13:40	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:31		0.30	0.098	10.30	5.24	23.87	354.40	0.33	4.10	-51.00	clear	none
13:34	0.30	0.60	0.100	10.75	5.25	23.79	353.70	0.16	2.00	-51.00	clear	none
13:37	0.30	0.90	0.100	10.80	5.24	23.64	353.10	0.14	2.00	-50.00	clear	none
13:40	0.30	1.20	0.094	10.90	5.23	23.62	353.00	0.12	4.00	-50.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .12	TEMP.(°C): 23.61	DO:	CO2: 234	DO High Range:	DO Low Range:
SEC(uS/cm) 353.3	pH: 5.22	Alkalinity:	Ferrous Iron: 2.9	CO2 High Range:	CO2 Low Range:
ORP(mV): -50	TURB(NTU): 1.8	H2S: .53	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .5	Ferrous Iron: 2.9	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES: Katie Ballew	SAMPLING INITIATED AT: 13:40	SAMPLING ENDED AT: 14:14
PUMP OR TUBING DEPTH IN WELL (feet): 17.50	SAMPLE PUMP FLOW RATE (mL per minute): 410.09	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-03A	11	AG;CG;PE	l;125 ml;5(	CL;HNO3;Nor	0 ml;125 ml;500	5.22	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-03B	SAMPLE ID: 9A88E45640D9455A8D091B54F99DD469		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27.4-32.4	STATIC DEPTH TO WATER (feet): 9.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.50 feet – 9.70 feet) X 0.16 gallons/foot = 4.21 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 11:18	PURGING ENDED AT: 12:18	TOTAL VOLUME PURGED (gallons): 4.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:21		0.30	0.114	9.90	5.54	24.51	274.90	0.72	228.80	-9.00	orange	none
11:31	0.90	1.20	0.093	10.00	5.52	24.07	288.00	0.13	131.10	-46.00	orange	none
11:41	1.00	2.20	0.097	10.00	5.51	24.19	290.60	0.12	99.20	-52.00	orange	none
11:51	1.00	3.20	0.095	10.00	5.51	24.09	291.70	0.09	57.50	-54.00	milky	none
12:01	1.00	4.20	0.098	10.00	5.52	24.07	293.80	0.08	32.40	-56.00	milky	none
12:12	0.00	4.20	0.078	10.00	5.50	24.17	293.20	0.08	19.50	-57.00	clear	none
12:15	0.30	4.50	0.079	10.00	5.51	24.03	292.80	0.08	15.60	-58.00	clear	none
12:18	0.30	4.80	0.080	10.00	5.52	24.05	292.70	0.08	15.40	-58.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .08	TEMP.(°C): 24.04	DO: 1.19	CO2: 99	DO High Range:	DO Low Range:
SEC(uS/cm) 292.5	pH: 5.52	Alkalinity:	Ferrous Iron: 1.4	CO2 High Range:	CO2 Low Range:
ORP(mV): -58	TURB(NTU): 13.7	H2S: .27	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate: .25	Sulfide:	Ferrous Iron: 1.4	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:18	SAMPLING ENDED AT: 13:06
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 309.14	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☑ Y ☐ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-03B	11	AG;CG;PE	l;125 ml;5(	HCL;HNO3	0 ml;125 ml;500	5.52	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-12B	SAMPLE ID: 8CD51D3E93D844AEA16A7B7CFDFC656F		DATE: 04/16/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 29.8-34.8	STATIC DEPTH TO WATER (feet): 9.45	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (34.92 feet – 9.45 feet) X 0.16 gallons/foot = 4.16 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 18:12	PURGING ENDED AT: 18:24	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
18:16		0.60	0.142	9.80	5.31	24.05	111.00	0.80	14.90	3.00	clear	none
18:20	0.40	1.00	0.121	9.80	5.26	23.66	109.00	0.42	9.00	6.00	clear	none
18:23	0.30	1.30	0.112	9.80	5.30	23.69	109.00	0.32	2.30	7.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .32	TEMP.(°C): 23.64	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 110	pH: 5.3	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 6	TURB(NTU): 5.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 18:24	SAMPLING ENDED AT: 18:35
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 410.09	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-12B	4	CG;PE	0,ml;250 m	HCL;HNO3	40 ml;250 ml	5.3	Fe/Mn	Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-18B	SAMPLE ID: 536705D04BFE41A3A91534F7DAE7A544		DATE: 04/16/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 28.6-33.6	STATIC DEPTH TO WATER (feet): 9.92	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (33.63 feet – 9.92 feet) X 0.16 gallons/foot = 3.87 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 13:47	PURGING ENDED AT: 14:45	TOTAL VOLUME PURGED (gallons): 3.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:50		0.30	0.086	10.00	4.77	25.84	121.00	0.53	22.40	-109.00	clear	none
13:53	0.30	0.60	0.095	10.00	4.73	25.32	120.00	0.41	18.90	-115.00	clear	none
13:56	0.40	1.00	0.105	12.22	4.71	24.96	118.00	0.32	19.70	-124.00	clear	none
14:01	0.30	1.30	0.092	12.50	4.81	25.09	115.00	0.22	23.80	-136.00	clear	none
14:08	0.30	1.60	0.075	12.30	4.88	25.53	117.00	0.18	38.60	-149.00	clear	none
14:18	0.40	2.00	0.065	2.00	4.94	25.65	119.00	0.15	27.40	-155.00	clear	none
14:27	0.30	2.30	0.057	12.10	4.96	25.44	120.00	0.14	40.50	-162.00	clear	none
14:36	0.30	2.60	0.052	12.10	4.98	25.54	121.00	0.18	17.10	-166.00	clear	none
14:41	0.40	3.00	0.055	12.10	4.97	25.52	121.00	0.18	17.80	-166.00	clear	none
14:44	0.30	3.30	0.058	12.10	4.97	25.61	121.00	0.16	17.00	-167.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .16	TEMP.(°C): 25.61	DO: 0	CO2: 79	DO High Range:	DO Low Range:
SEC(uS/cm) 121	pH: 4.97	Alkalinity:	Ferrous Iron: 1.8	CO2 High Range:	CO2 Low Range:
ORP(mV): -167	TURB(NTU): 16.1	H2S: 1.855	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1.75	Ferrous Iron: 1.8	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:45	SAMPLING ENDED AT: 15:25
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 215.38	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-18B	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Noı	40 ml;250 ml;1 L	4.97		Grab

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando
WELL NO: OLD-OU2-18B	SAMPLE ID: 536705D04BFE41A3A91534F7DAE7A544	DATE: 04/16/2013
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)		
SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other		

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21A	SAMPLE ID: E3B6E5FC8BD644098DDB8E938908B4C1		DATE: 04/10/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 6.8-16.8	STATIC DEPTH TO WATER (feet): 13.15	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (17.22 feet – 13.15 feet) X 0.16 gallons/foot = 0.66 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 20.00 feet)+ 0.15 gallon = 0.20 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	PURGING INITIATED AT: 12:23	PURGING ENDED AT: 12:45	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:28		0.30	0.061	13.60	4.11	28.58	73.00	0.63	124.70	248.00	turbid	none
12:33	0.30	0.60	0.061	13.60	4.11	28.31	74.00	0.12	119.60	255.00	turbid	none
12:37	0.40	1.00	0.073	13.70	4.12	28.59	75.00	0.08	10.40	254.00	clear	none
12:39	0.30	1.30	0.078	13.70	4.13	28.66	76.00	0.08	13.30	247.00	clear	none
12:44	0.30	1.60	0.076	13.70	4.08	28.21	78.00	0.07	7.20	221.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .08	TEMP.(°C): 27.73	DO: 2.12	CO2: 44.5	DO High Range:	DO Low Range:
SEC(uS/cm) 78	pH: 4.15	Alkalinity:	Ferrous Iron: 1.4	CO2 High Range:	CO2 Low Range:
ORP(mV): 212	TURB(NTU): 6.2	H2S: 0	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 0	Ferrous Iron: 1.4	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:45	SAMPLING ENDED AT: 13:38
PUMP OR TUBING DEPTH IN WELL (feet): 16.00	SAMPLE PUMP FLOW RATE (mL per minute): 275.30	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-21A	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Nor	40 ml;250 ml;1 L	4.15	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21B	SAMPLE ID: 1422CC1AFE3244DBAD400F568BC3D46C		DATE: 04/10/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27.5-32.5	STATIC DEPTH TO WATER (feet): 13.20	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (32.70 feet – 13.20 feet) X 0.16 gallons/foot = 3.18 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.70 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.70	PURGING INITIATED AT: 12:17	PURGING ENDED AT: 12:30	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:20		0.30	0.107	13.65	5.35	31.64	235.90	0.91	29.50	-84.00	clear	none
12:24	0.30	0.60	0.097	13.65	5.31	30.53	232.70	0.52	14.80	-82.00	clear	none
12:27	0.30	0.90	0.097	13.65	5.24	30.37	223.30	0.39	7.80	-92.00	clear	none
12:30	0.30	1.20	0.101	13.74	5.20	30.45	223.20	0.31	5.30	-92.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .29	TEMP.(°C): 30.47	DO: 1.45	CO2: 251	DO High Range:	DO Low Range:
SEC(uS/cm) 225.7	pH: 5.20	Alkalinity:	Ferrous Iron: 1.5	CO2 High Range:	CO2 Low Range:
ORP(mV): -92	TURB(NTU): 5.4	H2S: .8	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .75	Ferrous Iron: 1.5	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES: Kat Ballew	SAMPLING INITIATED AT: 12:30	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 29.70	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-21B	11	AG;CG;PE	l;125 ml;5(	CL;HNO3;Nor	0 ml;125 ml;500	5.20	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-27A	SAMPLE ID: 7BDE030328D749FFBA8D43181C0A3AF2		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 6.01-16	STATIC DEPTH TO WATER (feet): 15.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (19.43 feet – 15.00 feet) X 0.16 gallons/foot = 0.72 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 20.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	PURGING INITIATED AT: 11:42	PURGING ENDED AT: 12:01	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:48		0.30	0.053	15.35	4.83	23.98	153.00	0.25	24.70	-30.00	clear	none
11:52	0.30	0.60	0.060	15.35	4.73	24.07	152.00	0.11	14.10	-47.00	clear	none
11:55	0.40	1.00	0.078	15.35	4.74	24.20	150.00	0.12	14.30	-49.00	clear	none
12:00	0.30	1.30	0.072	15.35	4.80	24.34	150.00	0.12	14.80	-52.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .11	TEMP.(°C): 24.41	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 149	pH: 4.85	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -52	TURB(NTU): 13.6	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:01	SAMPLING ENDED AT: 12:14
PUMP OR TUBING DEPTH IN WELL (feet): 16.00	SAMPLE PUMP FLOW RATE (mL per minute): 259.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-27A		CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.85	Fe/Mn	

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-27B	SAMPLE ID: 411C599826544C4B9E5433AD1E19BCE8		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27-32	STATIC DEPTH TO WATER (feet): 15.15	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.27 feet – 15.15 feet) X 0.16 gallons/foot = 3.28 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 12:33	PURGING ENDED AT: 12:54	TOTAL VOLUME PURGED (gallons): 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:36		0.30	0.092	15.50	4.61	25.32	153.00	0.53	18.70	-75.00	clear	none
12:39	0.30	0.60	0.092	15.70	4.64	25.33	149.00	0.32	3.00	-79.00	clear	none
12:42	0.40	1.00	0.108	15.70	4.26	25.34	147.00	0.31	3.30	-80.00	clear	none
12:46	0.30	1.30	0.101	15.70	4.49	25.24	146.00	0.28	3.30	-81.00	clear	none
12:50	0.30	1.60	0.092	15.70	4.65	25.11	148.00	0.24	2.80	-84.00	clear	none
12:54	0.40	2.00	0.096	15.70	4.48	25.10	148.00	0.24	5.60	-83.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .24	TEMP.(°C): 25.17	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 151	pH: 4.61	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -83	TURB(NTU): 7.3	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:54	SAMPLING ENDED AT: 13:08
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 360.52	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-27B	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.61	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-28B	SAMPLE ID:	530FCA21E7C24246A239C4440725A979	DATE:	04/02/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27-32	STATIC DEPTH TO WATER (feet): 14.92	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.29 feet – 14.92 feet) X 0.16 gallons/foot = 3.32 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 14:23	PURGING ENDED AT: 14:37	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:29		0.30	0.047	14.92	4.00	24.95	135.00	1.05	3.20	15.00	clear	none
14:32	0.30	0.60	0.067	15.30	4.03	24.77	135.00	0.78	2.10	-3.00	clear	none
14:37	0.40	1.00	0.073	15.30	4.06	24.79	137.00	0.54	2.50	-28.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .53	TEMP.(°C): 24.76	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 137	pH: 4.08	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -31	TURB(NTU): 3	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:37	SAMPLING ENDED AT: 14:52
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 270.39	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-28B	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.08	Fe/Mn	Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-29A	SAMPLE ID: 08D8AD5BA4C442DAA3B006E1B121A36F		DATE: 04/08/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 6.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14.26 feet – 6.50 feet) X 0.04 gallons/foot = 0.32 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 15.00 feet)+ 0.15 gallon = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.00	PURGING INITIATED AT: 12:42	PURGING ENDED AT: 13:15	TOTAL VOLUME PURGED (gallons): 2.50

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:45		0.30	0.087	6.60	5.66	25.11	108.70	0.43	133.90	23.00	yellow	none
12:48	0.30	0.60	0.091	6.60	5.62	24.61	116.20	0.28	95.60	-10.00	yellow	none
12:51	0.30	0.90	0.092	6.63	5.55	24.72	129.70	0.17	67.10	-23.00	yellow	none
12:54	0.30	1.20	0.094	6.64	5.53	24.91	139.20	0.12	59.40	-26.00	turbid	none
12:58	0.30	1.50	0.085	6.62	5.52	24.61	146.60	0.10	56.10	-28.00	turbid	none
13:01	0.30	1.80	0.102	6.62	5.53	24.92	149.10	0.09	53.70	-30.00	turbid	none
13:05	0.30	2.10	0.077	6.62	5.51	24.76	151.80	0.08	51.20	-31.00	turbid	none
13:15	0.30	2.40	0.030	6.62	5.50	24.82	154.20	0.09	55.60	-34.00	turbid	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .10	TEMP.(°C): 24.78	DO: .55	CO2: 133	DO High Range:	DO Low Range:
SEC(uS/cm) 154	pH: 5.50	Alkalinity:	Ferrous Iron: 1.9	CO2 High Range:	CO2 Low Range:
ORP(mV): -33	TURB(NTU): 54.7	H2S: .16	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .15	Ferrous Iron: 1.9	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:15	SAMPLING ENDED AT: 13:56
PUMP OR TUBING DEPTH IN WELL (feet): 11.00	SAMPLE PUMP FLOW RATE (mL per minute): 286.77	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-29A	11	AG;CG;PE	l;125 ml;5(	CL;HNO3;Nor	0 ml;125 ml;500 n	5.50	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-29A	SAMPLE ID: 1FF3514D1B7848BCA4220C9A1AA86B61		DATE: 04/15/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 6.53	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14.26 feet – 6.53 feet) X 0.04 gallons/foot = 0.32 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 14.00 feet)+ 0.15 gallon = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 10.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 10.00	PURGING INITIATED AT: 11:49	PURGING ENDED AT: 12:20	TOTAL VOLUME PURGED (gallons): 2.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:50		0.30	0.269	6.60	5.25	23.84	159.00	0.44	451.00	-41.00	milky	none
11:57	0.30	0.60	0.070	6.60	5.19	23.59	151.00	0.15	377.10	-56.00	milky	none
12:01	0.40	1.00	0.081	6.60	5.18	23.57	154.00	0.13	351.20	-57.00	milky	none
12:07	0.60	1.60	0.086	6.60	5.20	23.83	155.00	0.11	53.20	-59.00	milky	none
12:12	0.40	2.00	0.087	6.60	5.19	23.78	154.00	0.11	53.20	-59.00	milky	none
12:15	0.30	2.30	0.086	6.60	5.18	23.78	154.00	0.11	49.80	-59.00	milky	none
12:20	0.30	2.60	0.084	6.60	5.21	23.85	153.00	0.10	48.80	-59.00	milky	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .11	TEMP.(°C): 23.82	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 154	pH: 5.2	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -59	TURB(NTU): 48.4	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:20	SAMPLING ENDED AT: 12:31
PUMP OR TUBING DEPTH IN WELL (feet): 10.00	SAMPLE PUMP FLOW RATE (mL per minute): 329.70	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-29A	1	PE	1 L	None	1 L	5.2		Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-29B	SAMPLE ID: B165C220CF654297889110B7135A1B09		DATE: 04/08/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 6.25	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (28.95 feet – 6.25 feet) X 0.04 gallons/foot = 0.93 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 29.95 feet)+ 0.15 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 25.95	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 25.95	PURGING INITIATED AT: 13:58	PURGING ENDED AT: 14:18	TOTAL VOLUME PURGED (gallons): 1.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:01		0.30	0.122	8.50	5.82	26.51	147.90	0.21	22.80	-123.00	yellow	none
14:04	0.30	0.60	0.110	8.60	5.83	26.18	142.30	0.12	12.20	-120.00	clear	none
14:07	0.30	0.90	0.097	8.60	5.74	26.26	137.30	0.10	12.70	-112.00	clear	none
14:10	0.30	1.20	0.106	8.60	5.70	26.34	133.60	0.07	13.10	-109.00	clear	none
14:14	0.30	1.50	0.075	8.60	5.67	26.22	130.20	0.05	16.90	-106.00	clear	none
14:17	0.30	1.80	0.099	8.60	5.65	26.24	128.00	0.04	10.50	-104.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .03	TEMP.(°C): 26.07	DO: .93	CO2: 122	DO High Range:	DO Low Range:
SEC(uS/cm) 127	pH: 5.63	Alkalinity:	Ferrous Iron: 1.5	CO2 High Range:	CO2 Low Range:
ORP(mV): -104	TURB(NTU): 10.9	H2S: .8	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .75	Ferrous Iron: 1.5	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:18	SAMPLING ENDED AT: 14:39
PUMP OR TUBING DEPTH IN WELL (feet): 25.95	SAMPLE PUMP FLOW RATE (mL per minute): 359.61	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-29B	11	AG;CG;PE	l;125 ml;5(	CL;HNO3;Nor	0 ml;125 ml;500	5.63	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-29B	SAMPLE ID: CB080E8521A84F818E57209401862A94		DATE: 04/15/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 7.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (28.95 feet – 7.80 feet) X 0.04 gallons/foot = 0.86 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 31.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	PURGING INITIATED AT: 12:50	PURGING ENDED AT: 13:27	TOTAL VOLUME PURGED (gallons): 2.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:54		0.30	0.073	8.00	5.83	24.71	93.00	0.10	126.00	-108.00	yellow	none
12:58	0.30	0.60	0.074	8.00	5.72	24.56	115.00	0.10	231.90	-116.00	yellow	none
13:03	0.40	1.00	0.076	8.00	5.56	24.74	121.00	0.09	190.10	-120.00	yellow	none
13:08	0.30	1.30	0.072	8.00	5.52	24.77	123.00	0.09	30.30	-125.00	yellow	none
13:12	0.30	1.60	0.073	8.00	5.42	24.79	122.00	0.09	22.00	-126.00	yellow	none
13:16	0.40	2.00	0.076	3.00	5.40	24.92	121.00	0.09	19.00	-126.00	yellow	none
13:21	0.30	2.30	0.074	8.00	5.39	25.07	119.00	0.09	17.40	-127.00	yellow	none
13:26	0.30	2.60	0.072	8.00	5.41	25.09	117.00	0.09	13.20	-127.00	yellow	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .09	TEMP.(°C): 25.06	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 117	pH: 5.39	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -127	TURB(NTU): 12.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:27	SAMPLING ENDED AT: 13:38
PUMP OR TUBING DEPTH IN WELL (feet): 27.00	SAMPLE PUMP FLOW RATE (mL per minute): 266.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-29B	1	PE	1 L	None	1 L	5.39		Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-30A	SAMPLE ID: C9B0AF4482644854AEE784394717E0A6		DATE: 04/08/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 8.35	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (14.50 feet – 8.35 feet) X 0.04 gallons/foot = 0.25 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 15.00 feet)+ 0.15 gallon = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.00	PURGING INITIATED AT: 11:40	PURGING ENDED AT: 12:08	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:44		0.30	0.073	10.10	5.30	24.26	224.90	0.31	101.90	-46.00	milky	none
11:53	0.60	0.90	0.067	11.40	5.33	23.92	205.30	0.19	118.60	-67.00	milky	none
12:05	0.30	1.20	0.025	10.60	5.35	23.51	208.70	0.39	1,072.10	-72.00	brown	none
12:08	0.30	1.50	0.054	11.40	5.37	23.75	213.00	0.33	1,301.70	-72.00	brown	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.17	TEMP.(°C): 24.22	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 213.9	pH: 5.39	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -72	TURB(NTU): 1336.8	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES: Katie Ballew	SAMPLING INITIATED AT: 12:08	SAMPLING ENDED AT: 12:15
PUMP OR TUBING DEPTH IN WELL (feet): 11.00	SAMPLE PUMP FLOW RATE (mL per minute): 216.31	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-30A	4	CG;PE	0 ml;125 m	HCL;HNO3	40 ml;125 ml	5.39	Fe	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-30B	SAMPLE ID:	E74D6AD98EFF4D20B1C1D5B088123ABC	DATE:	04/03/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 8.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (28.80 feet – 8.50 feet) X 0.04 gallons/foot = 0.83 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 29.80 feet)+ 0.15 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 25.80	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 25.80	PURGING INITIATED AT: 14:42	PURGING ENDED AT: 14:57	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:45		0.30	0.118	9.00	6.08	25.18	699.60	0.27	24.00	-89.00	yellow	none
14:48	0.30	0.60	0.099	9.00	6.07	25.08	680.80	0.18	19.70	-80.00	clear	none
14:51	0.30	0.90	0.085	9.00	6.04	25.19	651.80	0.13	19.10	-80.00	clear	none
14:54	0.30	1.20	0.092	9.00	6.04	25.18	649.30	0.10	15.50	-80.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .08	TEMP.(°C): 25.14	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 645.2	pH: 6.03	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -81	TURB(NTU): 13.5	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:57	SAMPLING ENDED AT: 15:14
PUMP OR TUBING DEPTH IN WELL (feet): 25.80	SAMPLE PUMP FLOW RATE (mL per minute): 328.07	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☑ Y ☐ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-30B	4	CG;PE	0 ml;125 m	HCL;HNO3	40 ml;125 ml	6.03	Fe/Mn	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-31A	SAMPLE ID:	1D95B6ACBA714974BC4049D9D14C4866	DATE:	04/03/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 12.60	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.75 feet – 12.60 feet) X 0.04 gallons/foot = 0.21 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 17.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	PURGING INITIATED AT: 13:21	PURGING ENDED AT: 13:34	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:24		0.30	0.082	15.10	4.42	24.40	41.00	1.27	12.50	35.00	clear	none
13:28	0.30	0.60	0.084	15.35	4.42	24.35	41.00	0.76	11.50	60.00	clear	none
13:33	0.40	1.00	0.078	15.70	4.46	24.50	40.00	0.62	16.90	94.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .64	TEMP.(°C): 24.49	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 40	pH: 4.43	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 100	TURB(NTU): 13.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:34	SAMPLING ENDED AT: 13:53
PUMP OR TUBING DEPTH IN WELL (feet): 13.00	SAMPLE PUMP FLOW RATE (mL per minute): 291.19	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-31A	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.43	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-31B	SAMPLE ID: A48F48F83AFD43708C9C896BDE788CE1	DATE: 04/03/2013	

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 12.65	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (32.80 feet – 12.65 feet) X 0.04 gallons/foot = 0.82 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 31.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	PURGING INITIATED AT: 13:56	PURGING ENDED AT: 14:06	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:00		0.30	0.095	12.80	4.48	25.11	173.00	0.28	10.30	-104.00	clear	none
14:02	0.30	0.60	0.102	12.80	4.50	25.06	173.00	0.24	11.90	-106.00	clear	none
14:05	0.40	1.00	0.113	12.80	4.54	25.00	173.00	0.23	15.80	-108.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .23	TEMP.(°C): 24.95	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 173	pH: 4.5	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -108	TURB(NTU): 16.2	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:06	SAMPLING ENDED AT: 14:18
PUMP OR TUBING DEPTH IN WELL (feet): 27.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-31B	4	CG;PE	0 ml;250 n	HCL;HNO3	40 ml;250 ml	4.5	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-32A	SAMPLE ID: C9C9E86823144021846268D7365D7957	DATE: 04/02/2013	

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 13.85	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (17.62 feet – 13.85 feet) X 0.04 gallons/foot = 0.15 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 20.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	PURGING INITIATED AT: 12:18	PURGING ENDED AT: 13:30	TOTAL VOLUME PURGED (gallons): 2.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:33		0.50	0.033	15.80	4.67	23.12	60.45	0.27	23.10	134.00	clear	none
12:36	0.40	0.90	0.050	16.10	4.65	22.85	62.41	0.23	22.50	115.00	clear	none
12:39	0.30	1.20	0.059	16.10	4.67	23.09	62.77	1.58	22.30	106.00	clear	none
12:43	0.20	1.40	0.057	15.99	4.68	23.57	62.91	1.95	19.10	108.00	clear	none
12:59	0.00	1.40	0.034	15.42	4.70	25.00	63.96	3.02	26.00	102.00	clear	none
13:14	0.40	1.80	0.032	15.10	4.75	24.14	65.53	1.58	13.00	56.00	clear	none
13:23	0.10	1.90	0.030	15.10	4.65	23.39	68.32	1.83	16.60	29.00	clear	none
13:26	0.10	2.00	0.030	16.10	4.71	23.69	66.73	3.77	11.50	24.00	clear	none
13:30	0.20	2.20	0.031	16.20	4.77	23.86	67.22	5.01	23.80	21.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 5.20	TEMP.(°C): 23.94	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 67.21	pH: 4.78	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 22	TURB(NTU): 24.1	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:30	SAMPLING ENDED AT: 13:39
PUMP OR TUBING DEPTH IN WELL (feet): 16.00	SAMPLE PUMP FLOW RATE (mL per minute): 120.92	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-32A	6	CG;PE	0 ml;125 m	HCL;HNO3	40 ml;125 ml	4.78	Fe/Mn	APP

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-32B	SAMPLE ID:	ED07BA97818A493B919C7D43A39F90F4	DATE:	04/02/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 13.95	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (33.30 feet – 13.95 feet) X 0.04 gallons/foot = 0.79 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 14:00	PURGING ENDED AT: 14:13	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:03		0.30	0.121	14.30	5.08	24.34	112.40	0.84	1.80	-120.00	clear	none
14:06	0.30	0.60	0.098	14.30	5.09	24.82	111.30	0.27	2.50	-121.00	clear	none
14:09	0.30	0.90	0.108	14.30	5.08	24.70	111.60	0.16	0.70	-119.00	clear	none
14:12	0.30	1.20	0.103	14.30	5.07	24.68	111.60	0.12	2.10	-117.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .12	TEMP.(°C): 24.77	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 111.7	pH: 5.05	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -118	TURB(NTU): 1.9	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:13	SAMPLING ENDED AT: 14:16
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-32B	6	CG;PE	0 ml;125 m	HCL;HNO3	40 ml;125 ml	5.05	Fe/Mn	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-33A	SAMPLE ID: 50EF0BF3C0E4461280CA485EDFEEC65C		DATE: 04/03/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 13.65	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.60 feet – 13.65 feet) X 0.04 gallons/foot = 0.16 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 19.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15.00	PURGING INITIATED AT: 14:53	PURGING ENDED AT: 15:00	TOTAL VOLUME PURGED (gallons): 0.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:55		0.30	0.189	13.65	4.70	24.64	103.00	2.25	195.40	-50.00	orange	none
15:00	0.30	0.60	0.096	13.65	4.67	25.07	103.00	3.46	103.50	-51.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 3.29	TEMP.(°C): 24.65	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 103	pH: 4.7	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -51	TURB(NTU): 80	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:00	SAMPLING ENDED AT: 15:13
PUMP OR TUBING DEPTH IN WELL (feet): 15.00	SAMPLE PUMP FLOW RATE (mL per minute): 324.46	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-33A	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.7	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-33B	SAMPLE ID: 833EB607E6514893AC8417A6C828D30F		DATE: 04/08/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 13.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (33.35 feet – 13.70 feet) X 0.04 gallons/foot = 0.80 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 31.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	PURGING INITIATED AT: 12:43	PURGING ENDED AT: 12:59	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:47		0.30	0.075	14.00	4.70	24.16	140.00	0.45	1.80	-90.00	clear	none
12:50	0.30	0.60	0.082	14.00	4.70	23.99	140.00	0.37	4.70	-95.00	clear	none
12:53	0.40	1.00	0.100	14.00	4.70	23.70	140.00	0.33	1.10	-98.00	clear	none
12:57	0.30	1.30	0.096	14.00	4.72	23.66	140.00	0.31	1.20	-101.00	clear	none
12:59	0.30	1.60	0.102	14.00	4.71	23.81	140.00	0.30	1.10	-102.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .3	TEMP.(°C): 23.81	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 140	pH: 4.7	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -102	TURB(NTU): 1.1	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:59	SAMPLING ENDED AT: 13:11
PUMP OR TUBING DEPTH IN WELL (feet): 27.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-33B	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.7	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-37B	SAMPLE ID: E1B258042EA648B7B453595818A21B23	DATE: 04/08/2013	

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 11.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.20 feet – 11.50 feet) X 0.04 gallons/foot = 0.89 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 31.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	PURGING INITIATED AT: 13:28	PURGING ENDED AT: 13:43	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:31		0.30	0.103	11.80	4.56	24.61	201.00	0.64	10.40	-104.00	clear	none
13:35	0.30	0.60	0.087	11.80	4.56	24.47	201.00	0.35	5.20	-111.00	clear	none
13:40	0.40	1.00	0.088	12.90	4.55	24.12	200.00	0.27	3.00	-114.00	clear	none
13:42	0.30	1.30	0.092	12.90	4.55	24.26	199.00	0.25	2.70	-115.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .25	TEMP.(°C): 24.27	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 200	pH: 4.57	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -115	TURB(NTU): 2.6	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:43	SAMPLING ENDED AT: 13:54
PUMP OR TUBING DEPTH IN WELL (feet): 27.00	SAMPLE PUMP FLOW RATE (mL per minute): 328.07	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-37B	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	4.57	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-41B	SAMPLE ID: FFC25378D2B94F2DB9F38E7321F444AA		DATE: 04/08/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 30-35	STATIC DEPTH TO WATER (feet): 9.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 9.70 feet) X 0.16 gallons/foot = 4.13 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 14:17	PURGING ENDED AT: 14:31	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:19		0.30	0.106	10.10	4.99	25.09	119.00	0.77	10.60	-123.00	clear	none
14:22	0.30	0.60	0.114	10.10	5.02	24.76	118.00	0.62	9.90	-128.00	clear	none
14:26	0.40	1.00	0.108	11.30	5.00	24.61	117.00	0.50	9.10	-133.00	clear	none
14:30	0.30	1.30	0.095	11.30	5.00	24.56	116.00	0.42	2.60	-136.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .41	TEMP.(°C): 24.51	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 116	pH: 5	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -136	TURB(NTU): 2.5	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:31	SAMPLING ENDED AT: 14:47
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 351.50	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-41B	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	5	Fe/Mn	Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-42B	SAMPLE ID:	ED44E61A567B48EA91CD9EAE16F79FB2	DATE:	04/10/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 34-39	STATIC DEPTH TO WATER (feet): 9.25	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (39.50 feet – 9.25 feet) X 0.16 gallons/foot = 4.94 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 40.50 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 36.50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 36.50	PURGING INITIATED AT: 13:47	PURGING ENDED AT: 14:05	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:50		0.30	0.082	9.75	5.25	27.62	89.97	0.48	64.60	-100.00	turbid	none
13:53	0.30	0.60	0.104	9.61	5.26	26.65	89.64	0.33	41.60	-96.00	turbid	none
13:58	0.30	0.90	0.051	9.70	5.27	26.28	89.42	0.26	13.70	-92.00	clear	none
14:01	0.30	1.20	0.131	9.70	5.30	26.31	90.68	-93.00	6.20	-93.00	clear	none
14:04	0.30	1.50	0.101	9.70	5.30	26.37	91.76	0.62	4.90	-92.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .58	TEMP.(°C): 26.43	DO: 1.01	CO2: 150	DO High Range:	DO Low Range:
SEC(uS/cm) 92.19	pH: 5.32	Alkalinity:	Ferrous Iron: 1.3	CO2 High Range:	CO2 Low Range:
ORP(mV): -91	TURB(NTU): 3.2	H2S: .9	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .85	Ferrous Iron: 1.3	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:05	SAMPLING ENDED AT: 14:40
PUMP OR TUBING DEPTH IN WELL (feet): 36.50	SAMPLE PUMP FLOW RATE (mL per minute): 336.48	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-42B	11	AG;CG;PE	l;125 ml;5(	CL;HNO3;Nor	0 ml;125 ml;500 n	5.32	Fe/Mn	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-43B	SAMPLE ID: DB45AA5D7E0A4535A258CA3C02E89AD2	DATE: 04/10/2013	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 29.5-34.5	STATIC DEPTH TO WATER (feet): 9.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (35.00 feet – 9.00 feet) X 0.16 gallons/foot = 4.24 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 13:51	PURGING ENDED AT: 14:17	TOTAL VOLUME PURGED (gallons): 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:54		0.30	0.084	9.00	4.68	25.59	115.00	0.78	4.60	-63.00	clear	none
14:06	0.70	1.00	0.065	9.30	4.70	25.20	109.00	0.32	2.50	-90.00	clear	none
14:13	0.60	1.60	0.071	9.20	4.70	25.23	109.00	0.34	2.30	-102.00	clear	none
14:16	0.40	2.00	0.079	9.20	4.70	25.23	109.00	0.31	2.00	-103.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .28	TEMP.(°C): 25.19	DO: .42	CO2: 65.5	DO High Range:	DO Low Range:
SEC(uS/cm) 109	pH: 4.71	Alkalinity:	Ferrous Iron: 0.8	CO2 High Range:	CO2 Low Range:
ORP(mV): -103	TURB(NTU): 2	H2S: 0.38	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .36	Ferrous Iron: 0.8	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:17	SAMPLING ENDED AT: 14:56
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 291.19	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-43B	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Nor	40 ml;250 ml;1 L	4.71	Alkalinity	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-44B	SAMPLE ID: AD0C79AFB2A9411FAF6F1B8E0A8B2BCA	DATE: 04/11/2013	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 28.5-33.5	STATIC DEPTH TO WATER (feet): 9.40	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (34.50 feet – 9.40 feet) X 0.16 gallons/foot = 4.10 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.50 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.50	PURGING INITIATED AT: 13:01	PURGING ENDED AT: 13:24	TOTAL VOLUME PURGED (gallons): 2.20

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:04		0.30	0.088	9.65	5.06	26.60	134.10	0.45	68.50	-100.00	turbid	none
13:08	0.30	0.60	0.087	9.80	5.05	25.49	134.60	0.22	47.00	-101.00	turbid	none
13:11	0.30	0.90	0.090	9.80	5.06	25.44	136.70	0.14	36.70	-106.00	turbid	none
13:14	0.30	1.20	0.089	9.80	5.07	25.48	139.60	0.11	22.80	-110.00	clear	none
13:17	0.30	1.50	0.118	9.80	5.06	25.40	139.40	0.12	19.80	-107.00	clear	none
13:20	0.30	1.80	0.094	9.80	5.06	25.32	137.00	0.10	19.30	-109.00	clear	none
13:23	0.30	2.10	0.093	9.80	5.04	25.43	137.00	0.09	19.00	-108.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .09	TEMP.(°C): 25.47	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 137.2	pH: 5.06	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -108	TURB(NTU): 19.2	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:24	SAMPLING ENDED AT: 13:48
PUMP OR TUBING DEPTH IN WELL (feet): 31.50	SAMPLE PUMP FLOW RATE (mL per minute): 362.08	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-44B	4	CG;PE	0 ml;125 m	HCL;HNO3	40 ml;125 ml	5.06	Fe/Mn	APP

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-47B	SAMPLE ID: 3B4A92F658C741D7B86DB85EA12F414B		DATE: 04/11/2013

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 30-35	STATIC DEPTH TO WATER (feet): 9.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (35.00 feet – 9.00 feet) X 0.16 gallons/foot = 4.24 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 10:47	PURGING ENDED AT: 10:59	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
10:50		0.30	0.103	9.00	5.14	25.91	134.00	0.20	3.00	-99.00	clear	none
10:53	0.30	0.60	0.096	9.00	5.07	26.36	126.40	0.15	2.80	-102.00	clear	none
10:56	0.30	0.90	0.099	9.00	5.05	26.45	124.20	0.13	1.90	-104.00	clear	none
10:59	0.30	1.20	0.101	9.00	5.02	26.35	124.10	0.12	1.70	-101.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .12	TEMP.(°C): 26.32	DO:	CO2: 227	DO High Range:	DO Low Range:
SEC(uS/cm) 124.1	pH: 5.02	Alkalinity:	Ferrous Iron: 1.3	CO2 High Range:	CO2 Low Range:
ORP(mV): -101	TURB(NTU): 5.9	H2S: 1.21	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1.15	Ferrous Iron: 1.3	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 10:59	SAMPLING ENDED AT: 11:50
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 410.09	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☑ Y ☐ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-47B	11	AG;CG;PE	l;125 ml;5(	CL;HNO3;Nor	0 ml;125 ml;500 n	5.02	Fe/Mn	APP

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-51B	SAMPLE ID: 8348C31856534C1D810881510A723FD7	DATE: 04/16/2013	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 24-34	STATIC DEPTH TO WATER (feet): 10.40	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (34.00 feet – 10.40 feet) X 0.16 gallons/foot = 3.85 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 15:33	PURGING ENDED AT: 15:50	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:38		0.30	0.060	11.00	4.26	25.58	117.00	0.39	8.80	-101.00	clear	none
15:41	0.30	0.60	0.075	11.00	4.37	25.02	114.00	0.25	10.90	-114.00	clear	none
15:44	0.40	1.00	0.090	11.00	4.45	24.78	111.00	0.18	11.40	-122.00	clear	none
15:47	0.30	1.30	0.091	11.00	4.50	24.69	109.00	0.17	11.60	-129.00	clear	none
15:50	0.30	1.60	0.094	11.00	4.52	24.60	109.00	0.14	12.40	-133.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .14	TEMP.(°C): 24.58	DO: 0	CO2: 70	DO High Range:	DO Low Range:
SEC(uS/cm) 108	pH: 4.55	Alkalinity:	Ferrous Iron: 1.4	CO2 High Range:	CO2 Low Range:
ORP(mV): -134	TURB(NTU): 13	H2S: 1.272	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1.2	Ferrous Iron: 1.4	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 15:50	SAMPLING ENDED AT: 16:33
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 356.27	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-51B	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Nor	40 ml;250 ml;1 L	4.55		Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-DP01A	SAMPLE ID: 435C114A3CEE4F3DAD0FADE0277A440C		DATE: 04/16/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 3.5-7.5	STATIC DEPTH TO WATER (feet): 3.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable) = (7.44 feet – 3.00 feet) X 0.04 gallons/foot = 0.18 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = 0.00 gallons+(0.00 gallons/foot X 11.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.00	PURGING INITIATED AT: 16:52	PURGING ENDED AT: 17:12	TOTAL VOLUME PURGED (gallons): 1.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:57		0.30	0.058	3.00	4.46	27.03	331.00	0.39	132.70	-63.00	milky	none
17:01	0.30	0.60	0.067	3.00	4.46	26.33	326.00	0.26	50.30	-71.00	turbid	none
17:04	0.40	1.00	0.081	3.00	4.45	25.66	329.00	0.23	19.90	-74.00	clear	none
17:07	0.30	1.30	0.083	3.00	4.43	25.76	331.00	0.21	11.60	-73.00	clear	none
17:11	0.30	1.60	0.083	3.00	4.45	26.20	337.00	0.19	12.20	-73.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .18	TEMP.(°C): 26.29	DO: 0.9	CO2: 45.2	DO High Range:	DO Low Range:
SEC(uS/cm) 337	pH: 4.46	Alkalinity:	Ferrous Iron: 2.4	CO2 High Range:	CO2 Low Range:
ORP(mV): -74	TURB(NTU): 12.2	H2S: .19	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .18	Ferrous Iron: 2.4	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 17:12	SAMPLING ENDED AT: 18:01
PUMP OR TUBING DEPTH IN WELL (feet): 7.00	SAMPLE PUMP FLOW RATE (mL per minute): 321.76	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-DP01A	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Nor	40 ml;250 ml;1 L	4.46		Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-DP02A	SAMPLE ID: 40EBBDA3211F4FD58625DD6B8AD86A24		DATE: 04/15/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 3.5-7.5	STATIC DEPTH TO WATER (feet): 3.32	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (8.70 feet – 3.32 feet) X 0.04 gallons/foot = 0.22 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = 0.00 gallons+(0.00 gallons/foot X 11.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.00	PURGING INITIATED AT: 14:23	PURGING ENDED AT: 14:42	TOTAL VOLUME PURGED (gallons): 0.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:29		0.30	0.054	3.32	4.57	28.76	232.00	3.06	5.60	-31.00	clear	none
14:34	0.30	0.60	0.057	3.32	4.54	29.37	271.00	5.51	10.90	-27.00	clear	none
14:41	0.10	0.70	0.041	7.00	4.48	30.76	288.00	6.60	4.20	-21.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 6.57	TEMP.(°C): 30.9	DO: 4	CO2: 35.8	DO High Range:	DO Low Range:
SEC(uS/cm) 309	pH: 4.44	Alkalinity:	Ferrous Iron: 1.8	CO2 High Range:	CO2 Low Range:
ORP(mV): -21	TURB(NTU): 3.9	H2S: 0	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 0	Ferrous Iron: 1.8	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:42	SAMPLING ENDED AT: 15:42
PUMP OR TUBING DEPTH IN WELL (feet): 7.00	SAMPLE PUMP FLOW RATE (mL per minute): 139.46	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-DP02A	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Nor	40 ml;250 ml;1 L	4.44		Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-DP02B	SAMPLE ID: 1CD491F87F0A44DCAAF03744EE7545A5		DATE: 04/16/2013

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 17-22	STATIC DEPTH TO WATER (feet): 4.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
= (25.05 feet – 4.70 feet) X 0.04 gallons/foot = 0.83 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 24.00 feet)+ 0.15 gallon = 0.21 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 20.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 20.00	PURGING INITIATED AT: 12:20	PURGING ENDED AT: 12:50	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:28		0.30	0.037	4.70	4.64	26.65	194.00	0.55	41.90	-101.00	milky	none
12:34	0.30	0.60	0.042	4.70	4.69	27.00	191.00	0.48	27.50	-111.00	clear	none
12:40	0.40	1.00	0.049	4.70	4.79	27.74	190.00	0.38	7.90	-117.00	clear	none
12:46	0.30	1.30	0.050	4.70	4.77	28.74	192.00	0.35	7.00	-122.00	clear	none
12:49	0.30	1.60	0.054	4.70	4.77	29.10	189.00	0.31	4.10	-124.00	clear	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" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .31	TEMP.(°C): 29.1	DO: 0.68	CO2: 44.2	DO High Range:	DO Low Range:
SEC(uS/cm) 190	pH: 4.77	Alkalinity:	Ferrous Iron: 2	CO2 High Range:	CO2 Low Range:
ORP(mV): -124	TURB(NTU): 3.1	H2S: 0.3922	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .37	Ferrous Iron: 2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:50	SAMPLING ENDED AT: 13:35
PUMP OR TUBING DEPTH IN WELL (feet): 20.00	SAMPLE PUMP FLOW RATE (mL per minute): 201.89	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-DP02B	11	AG;CG;PE	ml;250 ml;	CL;HNO3;Nor	40 ml;250 ml;1 L	4.77		Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-LG1	SAMPLE ID: 9CD6C008D3F84C3DAD80FCF4FF1DE8B0		DATE: 04/02/2013

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 4.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	PURGING INITIATED AT: 13:33	PURGING ENDED AT: 13:33	TOTAL VOLUME PURGED (gallons): 0.15

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

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

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 11.65	TEMP.(°C): 27.5	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 151	pH: 6.67	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 134	TURB(NTU): 3.6	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:33	SAMPLING ENDED AT: 13:42
PUMP OR TUBING DEPTH IN WELL (feet): 0.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-LG1	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	6.67	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW29	SAMPLE ID: 52BD5A22AD9D4F949EE36AEF26EA14AA		DATE: 04/02/2013

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 4.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	PURGING INITIATED AT: 11:19	PURGING ENDED AT: 11:19	TOTAL VOLUME PURGED (gallons): 0.15

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

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

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 10.898	TEMP.(°C): 29.17	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 168	pH: 6.48	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 175	TURB(NTU): 30.3	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 11:19	SAMPLING ENDED AT: 11:44
PUMP OR TUBING DEPTH IN WELL (feet): 0.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW29	4	CG;PE	0 ml;250 n	HCL;HNO3	40 ml;250 ml	6.48	Fe/Mn	Grab

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

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

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 oC 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)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW30	SAMPLE ID: A368FD151A9046CCBECBCCDD569A39C0		DATE: 04/02/2013

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 4.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	PURGING INITIATED AT: 12:08	PURGING ENDED AT: 12:08	TOTAL VOLUME PURGED (gallons): 0.15

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

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

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 10.56	TEMP.(°C): 29.85	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 194	pH: 6.85	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 146	TURB(NTU): 21.2	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:08	SAMPLING ENDED AT: 12:23
PUMP OR TUBING DEPTH IN WELL (feet): 0.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW30	4	CG;PE	0 ml;250 n	HCL;HNO3	40 ml;250 ml	6.85	Fe/Mn	Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW31	SAMPLE ID: FCC35EE434AB4AC0B20043E45D823BA9		DATE: 04/02/2013

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 4.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	PURGING INITIATED AT: 12:28	PURGING ENDED AT: 12:28	TOTAL VOLUME PURGED (gallons): 0.15

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

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

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 10.69	TEMP.(°C): 31.37	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 184	pH: 6.76	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 135	TURB(NTU): 13.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:28	SAMPLING ENDED AT: 12:42
PUMP OR TUBING DEPTH IN WELL (feet): 0.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW31	4	CG;PE	0 ml;250 m	HCL;HNO3	40 ml;250 ml	6.76	Fe/Mn	Grab

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

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

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 oC 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)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW35	SAMPLE ID: A5EE396AC6D447F189C30B3763312273		DATE: 04/02/2013

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 4.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 0.00	PURGING INITIATED AT: 13:00	PURGING ENDED AT: 13:00	TOTAL VOLUME PURGED (gallons): 0.15

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

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

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 4.91	TEMP.(°C): 29.19	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 513	pH: 5.82	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 168	TURB(NTU): 8.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:00	SAMPLING ENDED AT: 13:08
PUMP OR TUBING DEPTH IN WELL (feet): 0.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW35	4	CG;PE	0 ml;250 n	HCL;HNO3	40 ml;250 ml	5.82	Fe/Mn	Grab

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

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

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 oC 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)

APPENDIX C
Field Instrument Calibration Reports

Form FD 9000-8: Field Instrument Calibration Records

NSTRUMENT (MAKE/MODEL#)	Hydrolab DS-5	INSTRUMENT #	SN 090600047993

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4	HACH	03/2012	08/2013
Standard C	pH	7	HACH	03/2012	09/2013
Standard D	pH	10	HACH	x	x
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	1413µS/cm	Radiometer Analytical	x	x
Standard I	Conductance	447µS/cm	Oakton	03/2013	06/2013
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
13/03/13	11:00	A	100	90.1		YES	I	DA
		C	7	7.17		YES	I	DA
		F	0	0.3		NO	I	DA
		I	411	454		YES	I	DA
		K	470	475		NO	I	DA
13/03/15	12:30	A	100	111.7		YES	C	DA
		C	7	6.95		NO	C	DA
		F	0	0.1		NO	C	DA
		I	411	411		NO	C	DA
13/03/19	11:00	A	100	92.7		YES	C	DA
		C	7	7.02		NO	C	DA
		F	0	1.2		NO	C	DA
		I	447	412		YES	C	DA
13/03/21	11:15	A	100	111		YES	C	DA
		C	7	7.05		NO	C	DA
		F	0	2.3		YES	C	DA
		I	447	452		NO	C	DA
13/03/22	11:30	A	100	94.5		YES	C	DA
		C	7	7.04		NO	C	DA
		F	0	0		NO	C	DA
		I	447	447		NO	C	DA
13/03/25	12:00	A	100	102.4		NO	C	DA
		C	7	7.06		NO	C	DA
		F	0	0.2		NO	C	DA
		I	447	467		YES	C	DA
13/03/27	11:30	A	100	101.9		NO	C	DA
		C	7	7.05		NO	C	DA
		F	0	0.1		NO	C	DA
		I	447	446		NO	C	DA
13/03/28	11:30	A	100	100.5		NO	C	DA
		C	7	7.05		NO	C	DA
		F	0	0.2		NO	C	DA
		I	447	448		NO	C	DA
13/03/29	11:00	A	100	100.7		NO	C	DA
		C	7	7.05		NO	C	DA
		F	0	0.3		NO	C	DA
		I	447	446		NO	C	DA
13/04/01	11:00	A	100	102.7		NO	C	DA
		C	7	7.13		YES	C	DA
		F	0	1.2		NO	C	DA
		I	447	448		NO	C	DA
13/04/03	09:30	A	100	99		NO	C	DA
		C	7	6.97		NO	C	DA
		F	0	1		NO	C	DA
		I	447	450		NO	C	DA
13/04/08	11:15	A	100	98.2		NO	C	DA
		C	7	7.01		NO	C	DA
		F	0	0.8		NO	C	DA
		I	447	449		NO	C	DA
13/04/10	11:00	A	100	98		NO	C	DA
		C	7	6.98		NO	C	DA
		F	0	0.5		NO	C	DA
		I	447	452		NO	C	DA
13/04/11	09:00	A	100	103		YES	C	DA
		C	7	6.99		NO	C	DA
		F	0	0.1		NO	C	DA
		I	447	451		NO	C	DA
13/04/16	11:00	A	100	101.7		NO	C	DA
		C	7	7.02		NO	C	DA
		F	0	0.1		NO	C	DA
		I	447	455		NO	C	DA

Form FD 9000-8: Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#)	InSitu Troll 9500XT	INSTRUMENT #	47616

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4	HACH	03/2012	08/2013
Standard C	pH	7	HACH	03/2012	09/2013
Standard D	pH	10	HACH	x	x
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	1413µS/cm	Radiometer Analytical	x	x
Standard I	Conductance	447µS/cm	Oakton	03/2013	06/2013
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
13/03/15	09:47	C	7	7.05		n	cont	kb
		F	15	15		n	cont	kb
		A	100	104		n	cont	kb
		H	84	83.5		y	cont	kb
13/03/19	10:22	B	4.01	4.07		n	cont	kb
		F	0	0		n	cont	kb
		A	100	100		n	cont	kb
		H	84	99		y	cont	kb
13/03/20	08:23	B	4.01	4.07		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	86.61		N	cont	kb
13/03/21	09:30	B	4.01	4.06		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	87		N	cont	kb
13/03/22	09:41	B	4.01	4.05		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	90.75		Y	cont	kb
13/03/26	08:15	B	4.01	4.07		N	cont	kb
		F	0	0		N	cont	kb
		A	100	98.8		N	cont	kb
		H	84	84		N	cont	kb
13/03/28	08:50	B	4.01	4.08		N	cont	kb
		F	0	0		N	cont	kb
		A	100	97		N	cont	kb
		H	84	91.29		Y	cont	kb
13/03/29	08:35	B	4.01	4.12		Y	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	80.46		N	cont	kb
13/04/02	09:54	B	4.01	3.78		Y	cont	kb
		F	0	0		N	cont	kb
		A	100	96		N	cont	kb
		H	84	89.25		Y	cont	kb
13/04/03	10:17	B	4.01	4.02		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	84.3		N	cont	kb
13/04/08	09:06	B	4.01	4.06		N	cont	kb
		F	0	0		N	cont	kb
		A	100	97		N	cont	kb
		H	84	82		N	cont	kb
13/04/10	09:50	B	4.01	4.04		N	cont	kb
		F	0	0		N	cont	kb
		A	100	97.8		N	cont	kb
		H	84	86		N	cont	kb
13/04/11	8:25	B	4.01	4.01		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	84		N	cont	kb
13/04/15	9:42	B	4.01	4.01		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	84.05		N	cont	kb
13/04/16	10:40	B	4.01	4		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	84.3		N	cont	kb
13/04/17	9:00	B	4.01	4.02		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	83.2		N	cont	kb
13/04/24	8:45	B	4.01	4.01		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	84		N	cont	kb
13/04/25	8:26	B	4.01	4.02		N	cont	kb
		F	0	0		N	cont	kb
		A	100	100		N	cont	kb
		H	84	83		N	cont	kb

APPENDIX D
March 2013 Laboratory Analytical Reports (Included on CD)

Southeast ACCUTEST LABORATORIES

04/15/13

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: FA3304

Sampling Date: 04/02/13

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **38**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Sample Summary

BFA Environmental Consultants

Job No: FA3304

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA3304-1	04/02/13	11:19	DA	04/03/13	AQ	Ground Water	OLD-OU2-SW29
FA3304-2	04/02/13	12:08	DA	04/03/13	AQ	Ground Water	OLD-OU2-SW30
FA3304-3	04/02/13	12:28	DA	04/03/13	AQ	Ground Water	OLD-OU2-SW31
FA3304-4	04/02/13	13:00	DA	04/03/13	AQ	Ground Water	OLD-OU2-SW35
FA3304-5	04/02/13	13:30	DA	04/03/13	AQ	Ground Water	OLD-OU2-32A
FA3304-6	04/02/13	13:33	DA	04/03/13	AQ	Ground Water	OLD-OU2-LG1
FA3304-7	04/02/13	14:13	DA	04/03/13	AQ	Ground Water	OLD-OU2-32B
FA3304-8	04/02/13	14:37	DA	04/03/13	AQ	Ground Water	OLD-OU2-28B
FA3304-9	04/02/13	16:00	DA	04/03/13	AQ	Ground Water	OLD-OU2-DUP3

Summary of Hits

Job Number: FA3304
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/02/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3304-1	**OLD-OU2-SW29**					
Iron		3820	300	29	ug/l	SW846 6010C
Manganese		34.8	15	0.70	ug/l	SW846 6010C
FA3304-2	**OLD-OU2-SW30**					
Iron		3460	300	29	ug/l	SW846 6010C
Manganese		44.2	15	0.70	ug/l	SW846 6010C
FA3304-3	**OLD-OU2-SW31**					
Iron		3760	300	29	ug/l	SW846 6010C
Manganese		38.7	15	0.70	ug/l	SW846 6010C
FA3304-4	**OLD-OU2-SW35**					
Iron		1410	300	29	ug/l	SW846 6010C
Manganese		247	15	0.70	ug/l	SW846 6010C
FA3304-5	**OLD-OU2-32A**					
Iron		843	300	29	ug/l	SW846 6010C
Manganese		2.8 I	15	0.70	ug/l	SW846 6010C
FA3304-6	**OLD-OU2-LG1**					
Iron		475	300	29	ug/l	SW846 6010C
Manganese		7.0 I	15	0.70	ug/l	SW846 6010C
FA3304-7	**OLD-OU2-32B**					
Iron		1200	300	29	ug/l	SW846 6010C
Manganese		8.7 I	15	0.70	ug/l	SW846 6010C
FA3304-8	**OLD-OU2-28B**					
Benzene		5.5	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		1.5	1.0	0.24	ug/l	SW846 8260B
Vinyl chloride		6.5	1.0	0.44	ug/l	SW846 8260B
Iron		1930	300	29	ug/l	SW846 6010C
Manganese		5.4 I	15	0.70	ug/l	SW846 6010C

Summary of Hits

Job Number: FA3304
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/02/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3304-9	**OLD-OU2-DUP3**					
Iron		3390	300	29	ug/l	SW846 6010C
Manganese		31.6	15	0.70	ug/l	SW846 6010C

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OLD-OU2-SW29		
Lab Sample ID:	FA3304-1	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15254.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-SW29		
Lab Sample ID:	FA3304-1	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3820	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	34.8	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-SW30		
Lab Sample ID:	FA3304-2	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15255.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-SW30		
Lab Sample ID:	FA3304-2	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3460	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	44.2	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-SW31		
Lab Sample ID:	FA3304-3	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15256.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-SW31		
Lab Sample ID:	FA3304-3	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3760	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	38.7	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-SW35		
Lab Sample ID:	FA3304-4	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15257.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	103%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-SW35		
Lab Sample ID:	FA3304-4	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1410	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	247	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-32A		
Lab Sample ID:	FA3304-5	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15258.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	102%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-32A		
Lab Sample ID:	FA3304-5	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	843	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.8 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-LG1		
Lab Sample ID:	FA3304-6	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15259.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-LG1		
Lab Sample ID:	FA3304-6	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	475	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	7.0 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-32B		
Lab Sample ID:	FA3304-7	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15260.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-32B		
Lab Sample ID:	FA3304-7	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1200	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	8.7 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-28B		
Lab Sample ID:	FA3304-8	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15261.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	5.5	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.5	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	6.5	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-28B		
Lab Sample ID:	FA3304-8	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1930	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	5.4 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-DUP3		
Lab Sample ID:	FA3304-9	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15262.D	1	04/11/13	MM	n/a	n/a	VO627
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	106%		76-127%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-DUP3		
Lab Sample ID:	FA3304-9	**Date Sampled:**	04/02/13
Matrix:	AQ - Ground Water	**Date Received:**	04/03/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3390	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	31.6	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10673
(2) Prep QC Batch: MP24947

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

FA 3304

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/2/13 Shipped by: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont.	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-SW29	04/02/2013	11:19 am	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
2	OLD-OU2-SW30	04/02/2013	12:08 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
3	OLD-OU2-SW31	04/02/2013	12:28 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
4	OLD-OU2-SW35	04/02/2013	01:00 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
5	OLD-OU2-32A	04/02/2013	01:30 pm	WG	Fe/Mn VOCs	6	CG;PE	40 ml;125 ml	HCL;HNO3	2 week	
6	OLD-OU2-LG1	04/02/2013	01:33 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
7	OLD-OU2-32B	04/02/2013	02:13 pm	WG	Fe/Mn VOCs	6	CG;PE	40 ml;125 ml	HCL;HNO3	2 week	
8	OLD-OU2-28B	04/02/2013	02:37 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
9	OLD-OU2-Dup 3	04/02/2013	04:00 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	

Client Comments / Instructions	Lab Comments / Special Instructions

Relinquished by:	Date	Time	Accepted by:	Date	Time
[illegible]	04/02/13	1605	[illegible]	04/02/13	1605
[illegible]	04/02/13	1635	J. Copple (ALSA)	4.3.13	08:00

Sampler Name: Damian Allen

Sampler Signature: [illegible]

2.6

Date Signed: 04/02/2013

FA3304: Chain of Custody

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ACCUTEST LABORATORIES

FA3304

4.1 4

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 3304 CLIENT: BFA PROJECT: 07-71009/2

DATE/TIME RECEIVED: 4-3-13 08:00 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM____ 5-GRAM____

NUMBER OF 5035 FIELD KITS ? ____

NUMBER OF LAB FILTERED METALS ? ____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 2.2
- [ ] CORRECTED TEMPS: 2.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: SAMPLE #7 COC reads 7 CONTAINERS RECEIVED 4 (3 VIALS) 1 METAL

TECHNICIAN SIGNATURE/DATE JC 4-3-13 REVIEWER SIGNATURE/DATE RWU 04-03-13

NF 12/10

receipt confirmation 122910.xls

4.1

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FA3304: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3304
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO627-MB	O15248.D	1	04/11/13	MM	n/a	n/a	VO627

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	100%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Blank Spike Summary

Job Number: FA3304
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO627-BS	O15247.D	1	04/11/13	MM	n/a	n/a	VO627

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.6	98	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.0	96	81-114
98-82-8	Isopropylbenzene	25	23.6	94	87-131
75-09-2	Methylene chloride	25	25.9	104	69-125
127-18-4	Tetrachloroethylene	25	23.9	96	80-131
79-01-6	Trichloroethylene	25	24.2	97	85-124
75-01-4	Vinyl chloride	25	30.4	122	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	95%	84-120%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3304
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3304-1MS	O15269.D	1	04/11/13	MM	n/a	n/a	VO627
FA3304-1MSD	O15270.D	1	04/11/13	MM	n/a	n/a	VO627
FA3304-1	O15254.D	1	04/11/13	MM	n/a	n/a	VO627

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

CAS No.	Compound	FA3304-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		25	24.3	97	23.4	94	4	83-124/11
156-59-2	cis-1,2-Dichloroethylene	1.0 U		25	24.4	98	23.7	95	3	81-114/10
98-82-8	Isopropylbenzene	1.0 U		25	23.6	94	22.6	90	4	87-131/10
75-09-2	Methylene chloride	5.0 U		25	23.5	94	22.5	90	4	69-125/11
127-18-4	Tetrachloroethylene	1.0 U		25	25.5	102	24.6	98	4	80-131/12
79-01-6	Trichloroethylene	1.0 U		25	25.2	101	24.9	100	1	85-124/10
75-01-4	Vinyl chloride	1.0 U		25	28.9	116	26.6	106	8	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	FA3304-1	Limits
1868-53-7	Dibromofluoromethane	105%	104%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	99%	99%	100%	76-127%
2037-26-5	Toluene-D8	94%	95%	96%	86-112%
460-00-4	4-Bromofluorobenzene	95%	95%	102%	84-120%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3304
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24947
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	1.3	1.3		
Arsenic	10	1.6	2.5		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1.8	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	29	29	-10	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	74	74		
Manganese	15	.7	.7	-0.10	<15
Molybdenum	50	.6	1		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2	2		
Silver	10	.5	.5		
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.3	1.3		
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1		
Zinc	20	3	5		

Associated samples MP24947: FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3304
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24947
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	04/12/13						04/12/13		
Metal	FA3330-8F Original	DUP	RPD	QC Limits	FA3330-8F Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	anr								
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	10800	10700	0.9	0-20	10800	36100	26000	97.3	80-120
Lead	anr								
Magnesium									
Manganese	637	627	1.6	0-20	637	1090	500	90.6	80-120
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP24947: FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3304
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24947 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/12/13

Metal	FA3330-8F Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	10800	36900	26000	100.4	2.2	20
Lead	anr					
Magnesium						
Manganese	637	1130	500	98.6	3.6	20
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP24947: FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3304
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24947
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	27000	26000	103.8	80-120
Lead	anr			
Magnesium				
Manganese	518	500	103.6	80-120
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24947: FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3304
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24947
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	FA3330-8F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	10800	10400	3.5	0-10
Lead	anr			
Magnesium				
Manganese	637	617	3.1	0-10
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24947: FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3304
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24947
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	Sample ml	Final ml	FA3330-8F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	10800	10584	13500	0.2	150	3000	97.2	80-120
Lead										
Magnesium										
Manganese	9.8	10	636.6	623.868	663.8	0.2	2.5	50	80.0	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP24947: FA3304-1, FA3304-2, FA3304-3, FA3304-4, FA3304-5, FA3304-6, FA3304-7, FA3304-8, FA3304-9

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

04/16/13

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

Accutest Job Number: FA3390

Sampling Date: 04/03/13

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **68**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Sample Summary

BFA Environmental Consultants

NTC Orlando, Orlando, FL

Job No: FA3390

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA3390-1	04/03/13	12:01	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-27A
FA3390-2	04/03/13	12:54	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-27B
FA3390-3	04/03/13	13:34	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-31A
FA3390-4	04/03/13	14:06	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-31B
FA3390-5	04/03/13	15:00	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-33A
FA3390-6	04/03/13	14:57	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-30B
FA3390-7	04/03/13	13:40	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-03A
FA3390-8	04/03/13	00:00	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-DUP2
FA3390-9	04/03/13	00:00	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-DUP1
FA3390-10	04/03/13	12:18	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-03B
FA3390-11	04/03/13	10:18	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-02A
FA3390-12	04/03/13	10:46	DAKB	04/04/13	AQ	Ground Water	OLD-OU2-02B

Summary of Hits

Job Number: FA3390
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/03/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3390-1	**OLD-OU2-27A**					
Benzene		0.52 I	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		2.1	1.0	0.24	ug/l	SW846 8260B
Trichloroethylene		1.4	1.0	0.31	ug/l	SW846 8260B
Vinyl chloride		0.97 I	1.0	0.44	ug/l	SW846 8260B
Iron		1980	300	29	ug/l	SW846 6010C
Manganese		185	15	0.70	ug/l	SW846 6010C
FA3390-2	**OLD-OU2-27B**					
Benzene		3.5	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		0.48 I	1.0	0.24	ug/l	SW846 8260B
Isopropylbenzene		0.62 I	1.0	0.20	ug/l	SW846 8260B
Iron		1140	300	29	ug/l	SW846 6010C
Manganese		5.2 I	15	0.70	ug/l	SW846 6010C
FA3390-3	**OLD-OU2-31A**					
Iron		369	300	29	ug/l	SW846 6010C
Manganese		2.0 I	15	0.70	ug/l	SW846 6010C
FA3390-4	**OLD-OU2-31B**					
Benzene		12.3	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		1.4	1.0	0.24	ug/l	SW846 8260B
Isopropylbenzene		0.31 I	1.0	0.20	ug/l	SW846 8260B
Tetrachloroethylene		1.3	1.0	0.32	ug/l	SW846 8260B
Trichloroethylene		0.40 I	1.0	0.31	ug/l	SW846 8260B
Vinyl chloride		1.0	1.0	0.44	ug/l	SW846 8260B
Iron		1680	300	29	ug/l	SW846 6010C
Manganese		6.4 I	15	0.70	ug/l	SW846 6010C
FA3390-5	**OLD-OU2-33A**					
Benzene		0.60 I	1.0	0.21	ug/l	SW846 8260B
Trichloroethylene		0.52 I	1.0	0.31	ug/l	SW846 8260B
Iron		1950	300	29	ug/l	SW846 6010C
Manganese		10.2 I	15	0.70	ug/l	SW846 6010C
FA3390-6	**OLD-OU2-30B**					
Benzene		0.65 I	1.0	0.21	ug/l	SW846 8260B
Iron		24100	300	29	ug/l	SW846 6010C
Manganese		104	15	0.70	ug/l	SW846 6010C

Summary of Hits

Job Number: FA3390
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/03/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3390-7	**OLD-OU2-03A**					
Benzene		7.3	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		1.1	1.0	0.24	ug/l	SW846 8260B
Isopropylbenzene		0.23 I	1.0	0.20	ug/l	SW846 8260B
Vinyl chloride		2.2	1.0	0.44	ug/l	SW846 8260B
Methane		2920	5.0	1.6	ug/l	RSKSOP-147/175
Iron		9420	300	29	ug/l	SW846 6010C
Manganese		65.4	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		70.4	10	1.2	mg/l	SM19 2320B
Chloride		67.6	2.0	0.80	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho		0.15	0.10	0.020	mg/l	EPA 365.3
Solids, Total Dissolved		269	100	10	mg/l	SM19 2540C
Sulfate		2.2	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		15.8	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3390-8	**OLD-OU2-DUP2**					
Benzene		0.62 I	1.0	0.21	ug/l	SW846 8260B
Iron		22300	300	29	ug/l	SW846 6010C
Manganese		97.8	15	0.70	ug/l	SW846 6010C
FA3390-9	**OLD-OU2-DUP1**					
Iron		9200	300	29	ug/l	SW846 6010C
Manganese		12.5 I	15	0.70	ug/l	SW846 6010C
FA3390-10	**OLD-OU2-03B**					
Methane		190	0.50	0.16	ug/l	RSKSOP-147/175
Iron		5800	300	29	ug/l	SW846 6010C
Manganese		12.1 I	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		47.2	10	1.2	mg/l	SM19 2320B
Chloride		48.3	2.0	0.80	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]		0.14	0.10	0.050	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho		0.51	0.20	0.038	mg/l	EPA 365.3
Solids, Total Dissolved		198	100	10	mg/l	SM19 2540C
Sulfate		17.8	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		12.3	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3390-11	**OLD-OU2-02A**					
Iron		6940	300	29	ug/l	SW846 6010C
Manganese		43.1	15	0.70	ug/l	SW846 6010C

Summary of Hits

Job Number: FA3390
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/03/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3390-12	**OLD-OU2-02B**					
Iron		2380	300	29	ug/l	SW846 6010C
Manganese		10.0 I	15	0.70	ug/l	SW846 6010C

(a) Sample analyzed beyond hold time.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OLD-OU2-27A		
Lab Sample ID:	FA3390-1	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090020.D	1	04/13/13	TD	n/a	n/a	VB3685
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.52	1.0	0.21	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	2.1	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	1.4	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.97	1.0	0.44	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	106%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-27A		
Lab Sample ID:	FA3390-1	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1980	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	185	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10670
(2) Prep QC Batch: MP24953

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-27B		
Lab Sample ID:	FA3390-2	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090021.D	1	04/13/13	TD	n/a	n/a	VB3685
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	3.5	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.48	1.0	0.24	ug/l	I
98-82-8	Isopropylbenzene	0.62	1.0	0.20	ug/l	I
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	108%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	104%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-27B		
Lab Sample ID:	FA3390-2	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1140	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	5.2 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10670
(2) Prep QC Batch: MP24953

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	FA3390-3	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090022.D	1	04/13/13	TD	n/a	n/a	VB3685
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		83-118%
17060-07-0	1,2-Dichloroethane-D4	106%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	FA3390-3	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	369	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.0 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10670
(2) Prep QC Batch: MP24953

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	FA3390-4	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090023.D	1	04/13/13	TD	n/a	n/a	VB3685
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	12.3	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.4	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.31	1.0	0.20	ug/l	I
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	1.3	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.40	1.0	0.31	ug/l	I
75-01-4	Vinyl chloride	1.0	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	106%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	103%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	FA3390-4	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1680	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	6.4 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10670
(2) Prep QC Batch: MP24953

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-33A		
Lab Sample ID:	FA3390-5	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090024.D	1	04/13/13	TD	n/a	n/a	VB3685
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.60	1.0	0.21	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.52	1.0	0.31	ug/l	I
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-33A		
Lab Sample ID:	FA3390-5	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1950	300	29	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	10.2 I	15	0.70	ug/l	1	04/12/13	04/12/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10670
(2) Prep QC Batch: MP24953

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-30B		
Lab Sample ID:	FA3390-6	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090025.D	1	04/13/13	TD	n/a	n/a	VB3685
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.65	1.0	0.21	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-30B		
Lab Sample ID:	FA3390-6	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	24100	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	104	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	FA3390-7	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090033.D	1	04/15/13	WV	n/a	n/a	VB3686
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	7.3	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.1	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.23	1.0	0.20	ug/l	I
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	2.2	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		83-118%
17060-07-0	1,2-Dichloroethane-D4	110%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	FA3390-7	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18108.D	1	04/10/13	CP	n/a	n/a	GFF747
Run #2	FF18118.D	10	04/10/13	CP	n/a	n/a	GFF747

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	2920 [a]	5.0	1.6	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	FA3390-7	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	9420	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	65.4	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	FA3390-7	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	70.4	10	1.2	mg/l	2	04/10/13 09:00	HH	SM19 2320B
Chloride	67.6	2.0	0.80	mg/l	1	04/05/13 13:25	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/05/13 13:25	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/05/13 13:25	AA	EPA 300/SW846 9056A
Phosphate, Ortho	0.15	0.10	0.020	mg/l	1	04/05/13 09:00	MG	EPA 365.3
Solids, Total Dissolved	269	100	10	mg/l	1	04/10/13	KC	SM19 2540C
Sulfate	2.2	2.0	0.60	mg/l	1	04/05/13 13:25	AA	EPA 300/SW846 9056A
Total Organic Carbon	15.8	1.0	0.23	mg/l	1	04/06/13 16:47	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-DUP2		
Lab Sample ID:	FA3390-8	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090034.D	1	04/15/13	WV	n/a	n/a	VB3686
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.62	1.0	0.21	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-DUP2		
Lab Sample ID:	FA3390-8	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	22300	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	97.8	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-DUP1		
Lab Sample ID:	FA3390-9	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090035.D	1	04/15/13	WV	n/a	n/a	VB3686
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-DUP1		
Lab Sample ID:	FA3390-9	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	9200	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	12.5 I	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	FA3390-10	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090036.D	1	04/15/13	WV	n/a	n/a	VB3686
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	FA3390-10	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18116.D	1	04/10/13	CP	n/a	n/a	GFF747
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	190	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	FA3390-10	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	5800	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	12.1 I	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	FA3390-10	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	47.2	10	1.2	mg/l	2	04/10/13 09:00	HH	SM19 2320B
Chloride	48.3	2.0	0.80	mg/l	1	04/06/13 00:32	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]	0.050 U	0.10	0.050	mg/l	1	04/06/13 00:32	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]	0.14	0.10	0.050	mg/l	1	04/06/13 00:32	AA	EPA 300/SW846 9056A
Phosphate, Ortho	0.51	0.20	0.038	mg/l	2	04/05/13 09:00	MG	EPA 365.3
Solids, Total Dissolved	198	100	10	mg/l	1	04/10/13	KC	SM19 2540C
Sulfate	17.8	2.0	0.60	mg/l	1	04/06/13 00:32	AA	EPA 300/SW846 9056A
Total Organic Carbon	12.3	1.0	0.23	mg/l	1	04/06/13 17:04	FN	SM19 5310B/SW 9060A

(a) Sample analyzed beyond hold time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-02A		
Lab Sample ID:	FA3390-11	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090037.D	1	04/15/13	WV	n/a	n/a	VB3686
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	109%		79-125%
2037-26-5	Toluene-D8	96%		85-112%
460-00-4	4-Bromofluorobenzene	97%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-02A		
Lab Sample ID:	FA3390-11	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	6940	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	43.1	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-02B		
Lab Sample ID:	FA3390-12	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B090038.D	1	04/15/13	WV	n/a	n/a	VB3686
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	109%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	98%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-02B		
Lab Sample ID:	FA3390-12	**Date Sampled:**	04/03/13
Matrix:	AQ - Ground Water	**Date Received:**	04/04/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2380	300	29	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	10.0 I	15	0.70	ug/l	1	04/15/13	04/15/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10676
(2) Prep QC Batch: MP24960

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

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Accutest JOB # FA3390 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: BFA
Address:
City | State | Zip
Project Contact | E-mail
Phone#
Sampler(s) Name(s) (Printed): Damian Allen, Katie Ballew

Project Information

Project Name: Orlando NTC
Street:
City | State
Project #:
Fax #:
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	Fe/Mn	VOCs	MEE	TOC	Alk, TDS, Chl, NO2, NO3, SO4	8260							Matrix Codes / LAB USE ONLY
1	OLD-OUZ-27A	4-3-13	1201	DA	GW	4			X		X					X	X											
2	OLD-OUZ-27B	4-3-13	1254	DA	GW	4			X		X					X	X											
3	OLD-OUZ-31A	4-3-13	1334	DA	GW	4			X		X					X	X											
4	OLD-OUZ-31B	4-3-13	1400	DA	GW	4			X		X					X	X											
5	OLD-OUZ-33A	4-3-13	1500	DA	GW	4			X		X					X	X											
6	OLD-OUZ-30B	4-3-13	1457	KB	GW	4			X		X					X	X											
7	OLD-OUZ-03A	4-3-13	1340	KB	GW	11		X	X		X					X	X	X	X	X	X							
8	OLD-OUZ-Dup2	4-3-13		KB	GW	4			X		X					X	X											
9	OLD-OUZ-Dup1	4-3-13		KB	GW	4			X		X					X	X											
10	OLD-OUZ-03B	4-3-13	1218	KB	GW	11		X	X		X					X	X	X	X	X	X							
11	OLD-OUZ-02A	4-3-13	1018	KB	GW	4			X		X					X	X											
12	OLD-OUZ-02B	4-3-13	1046	KB	GW	4			X		X					X	X											

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [ ] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1	04/04/13 16:20		Stan Flores AISE	04/04/13 16:53	4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 3.8-3.6

FA3390: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 3390 CLIENT: BFA PROJECT: Orlando MTC

DATE/TIME RECEIVED: 04/04/13 16:53 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR +.04
- [ ] OBSERVED TEMPS: 3.4 3.2
- [ ] CORRECTED TEMPS: 3.8 3.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 04/04/13 REVIEWER SIGNATURE/DATE [signature] 04-04-13

NF 12/10

receipt confirmation 122910.xls

4.1

4

FA3390: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB3685-MB	B090013.D	1	04/13/13	TD	n/a	n/a	VB3685

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5, FA3390-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	103%	83-118%

Method Blank Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB3686-MB	B090032.D	1	04/15/13	WV	n/a	n/a	VB3686

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

Blank Spike Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB3685-BS	B090011.D	1	04/13/13	TD	n/a	n/a	VB3685

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5, FA3390-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.9	100	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.3	97	81-114
98-82-8	Isopropylbenzene	25	28.9	116	87-131
75-09-2	Methylene chloride	25	25.9	104	69-125
127-18-4	Tetrachloroethylene	25	25.2	101	80-131
79-01-6	Trichloroethylene	25	25.1	100	85-124
75-01-4	Vinyl chloride	25	28.4	114	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	76-127%
2037-26-5	Toluene-D8	99%	86-112%
460-00-4	4-Bromofluorobenzene	97%	84-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VB3686-BS	B090031.D	1	04/15/13	WV	n/a	n/a	VB3686

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.6	98	81-122
156-59-2	cis-1,2-Dichloroethylene	25	24.1	96	78-120
98-82-8	Isopropylbenzene	25	28.1	112	83-132
75-09-2	Methylene chloride	25	26.8	107	69-135
127-18-4	Tetrachloroethylene	25	25.9	104	76-135
79-01-6	Trichloroethylene	25	25.6	102	81-126
75-01-4	Vinyl chloride	25	30.2	121	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	83-118%
17060-07-0	1,2-Dichloroethane-D4	108%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	96%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3390-1MS	B090039.D	1	04/15/13	TD	n/a	n/a	VB3685
FA3390-1MSD	B090040.D	1	04/15/13	TD	n/a	n/a	VB3685
FA3390-1	B090020.D	1	04/13/13	TD	n/a	n/a	VB3685

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5, FA3390-6

CAS No.	Compound	FA3390-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.52	I	25	24.7	97	23.5	92	5	81-122/14
156-59-2	cis-1,2-Dichloroethylene	2.1		25	26.7	98	25.3	93	5	78-120/15
98-82-8	Isopropylbenzene	1.0 U		25	27.7	111	27.1	108	2	83-132/15
75-09-2	Methylene chloride	5.0 U		25	26.6	106	24.0	96	10	69-135/16
127-18-4	Tetrachloroethylene	1.0 U		25	24.3	97	24.0	96	1	76-135/16
79-01-6	Trichloroethylene	1.4		25	27.1	103	24.8	94	9	81-126/15
75-01-4	Vinyl chloride	0.97	I	25	24.0	92	26.9	104	11	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3390-1	Limits
1868-53-7	Dibromofluoromethane	104%	103%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	107%	106%	79-125%
2037-26-5	Toluene-D8	96%	97%	98%	85-112%
460-00-4	4-Bromofluorobenzene	99%	99%	101%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3624-1MS	B090053.D	5	04/15/13	WV	n/a	n/a	VB3686
FA3624-1MSD	B090054.D	5	04/15/13	WV	n/a	n/a	VB3686
FA3624-1	B090041.D	2	04/15/13	WV	n/a	n/a	VB3686
FA3624-1	B090043.D	5	04/15/13	WV	n/a	n/a	VB3686

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

CAS No.	Compound	FA3624-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.0 U		125	129	103	127	102	2	81-122/14
156-59-2	cis-1,2-Dichloroethylene	182 [a]		125	300	94	294	90	2	78-120/15
98-82-8	Isopropylbenzene	0.43	I	125	148	118	141	112	5	83-132/15
75-09-2	Methylene chloride	6.7	I	125	153	117	145	111	5	69-135/16
127-18-4	Tetrachloroethylene	2.0 U		125	124	99	126	101	2	76-135/16
79-01-6	Trichloroethylene	2.0 U		125	136	109	129	103	5	81-126/15
75-01-4	Vinyl chloride	2.0 U		125	120	96	130	104	8	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3624-1	FA3624-1	Limits
1868-53-7	Dibromofluoromethane	105%	104%	105%	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	109%	107%	110%	79-125%
2037-26-5	Toluene-D8	93%	97%	100%	99%	85-112%
460-00-4	4-Bromofluorobenzene	101%	100%	99%	101%	83-118%

(a) Result is from Run #2.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF747-MB	FF18103.D	1	04/10/13	CP	n/a	n/a	GFF747

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3390-7, FA3390-10

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF747-BS	FF18104.D	1	04/10/13	CP	n/a	n/a	GFF747

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3390-7, FA3390-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	131	121	54-149
74-84-0	Ethane	219	271	124	57-143
74-85-1	Ethene	290	360	124	57-143

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3409-4MS	FF18122.D	1	04/10/13	CP	n/a	n/a	GFF747
FA3409-4	FF18121.D	1	04/10/13	CP	n/a	n/a	GFF747

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3390-7, FA3390-10

CAS No.	Compound	FA3409-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	3.58		108	105	94	54-149
74-84-0	Ethane	ND		219	214	98	57-143
74-85-1	Ethene	ND		290	282	97	57-143

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA3390
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3465-29DUP	FF18111.D	20	04/10/13	CP	n/a	n/a	GFF747
FA3465-29	FF18107.D	1	04/10/13	CP	n/a	n/a	GFF747
FA3465-29 [a]	FF18114.D	20	04/10/13	CP	n/a	n/a	GFF747

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3390-7, FA3390-10

CAS No.	Compound	FA3465-29 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	11800 [b]		12100		3	24
74-84-0	Ethane	617		825		0	23
74-85-1	Ethene	3.37		ND		0	10

(a) Sample was not preserved to a pH < 2.
(b) Result is from Run #2.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24953
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	1.3	1.3		
Arsenic	10	1.6	2.5		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1.8	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	29	29	-4.7	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	74	74		
Manganese	15	.7	.7	0.10	<15
Molybdenum	50	.6	1		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2	2		
Silver	10	.5	.5		
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.3	1.3		
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1		
Zinc	20	3	5		

Associated samples MP24953: FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24953
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Metal	FA3378-1 Original	DUP	RPD	QC Limits	FA3378-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Prep Date:			04/12/13					04/12/13	
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron	65400	65600	0.3	0-20	65400	87600	26000	85.4	80-120
Lead	anr								
Magnesium									
Manganese	2680	2700	0.7	0-20	2680	3090	500	82.0	80-120
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP24953: FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24953 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/12/13

Metal	FA3378-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron	65400	86300	26000	80.4	1.5	20
Lead	anr					
Magnesium						
Manganese	2680	3060	500	76.0 (a)	1.0	20
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP24953: FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24953
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	27900	26000	107.3	80-120
Lead	anr			
Magnesium				
Manganese	531	500	106.2	80-120
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24953: FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24953
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	FA3378-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	65400	66100	1.1	0-10
Lead	anr			
Magnesium				
Manganese	2680	2760	2.8	0-10
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24953: FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24953
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/12/13

Metal	Sample ml	Final ml	FA3378-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	65440	64131.2	65650	0.2	150	3000	50.6*(a)	80-120
Lead										
Magnesium										
Manganese	9.8	10	2681	2627.38	2670	0.2	2.5	50	85.2	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP24953: FA3390-1, FA3390-2, FA3390-3, FA3390-4, FA3390-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24960
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/15/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	1.3	1.3		
Arsenic	10	1.6	2.5		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1.8	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	29	29	-2.4	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	74	74		
Manganese	15	.7	.7	-0.10	<15
Molybdenum	50	.6	1		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2	2		
Silver	10	.5	.5		
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.3	1.3		
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1		
Zinc	20	3	5		

Associated samples MP24960: FA3390-6, FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24960
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	04/15/13						04/15/13		
Metal	FA3551-1 Original	DUP	RPD	QC Limits	FA3551-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt									
Copper									
Iron	1760	1720	2.3	0-20	1760	28500	26000	102.8	80-120
Lead	anr								
Magnesium	anr								
Manganese	88.6	85.7	3.3	0-20	88.6	603	500	102.9	80-120
Molybdenum									
Nickel									
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP24960: FA3390-6, FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24960
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/15/13

Metal	FA3551-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper						
Iron	1760	28200	26000	101.7	1.1	20
Lead	anr					
Magnesium	anr					
Manganese	88.6	600	500	102.3	0.5	20
Molybdenum						
Nickel						
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP24960: FA3390-6, FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24960
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/15/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper				
Iron	27000	26000	103.8	80-120
Lead	anr			
Magnesium	anr			
Manganese	529	500	105.8	80-120
Molybdenum				
Nickel				
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24960: FA3390-6, FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24960
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/15/13

Metal	FA3551-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper				
Iron	1760	1760	0.3	0-10
Lead	anr			
Magnesium	anr			
Manganese	88.6	89.5	1.0	0-10
Molybdenum				
Nickel				
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24960: FA3390-6, FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24960
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/15/13

Metal	Sample ml	Final ml	FA3551-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	1764	1728.72	4636	0.2	150	3000	96.9	80-120
Lead										
Magnesium										
Manganese	9.8	10	88.6	86.828	134.2	0.2	2.5	50	94.7	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP24960: FA3390-6, FA3390-7, FA3390-8, FA3390-9, FA3390-10, FA3390-11, FA3390-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN55167	5.0	1.6	mg/l	250	240	96.0	90-113%
Bromide	GP21399/GN55123	0.50	0.0	mg/l	12.5	13.1	104.8	90-110%
Chloride	GP21399/GN55123	2.0	0.0	mg/l	50	52.5	105.0	90-110%
Chloride	GP21400/GN55123	2.0	0.0	mg/l	50	52.7	105.4	90-110%
Nitrogen, Nitrate	GP21399/GN55123	0.10	0.0	mg/l	2.5	2.50	100.0	90-110%
Nitrogen, Nitrate	GP21400/GN55123	0.10	0.0	mg/l	2.5	2.56	102.4	90-110%
Nitrogen, Nitrite	GP21399/GN55123	0.10	0.0	mg/l	2.5	2.52	100.8	90-110%
Nitrogen, Nitrite	GP21400/GN55123	0.10	0.0	mg/l	2.5	2.55	102.0	90-110%
Phosphate, Ortho	GP21376/GN55070	0.10	0.0	mg/l	0.300	0.31	102.9	83-116%
Solids, Total Dissolved	GN55180	100	0.0	mg/l				
Sulfate	GP21399/GN55123	2.0	0.0	mg/l	50	49.9	99.8	90-110%
Sulfate	GP21400/GN55123	2.0	0.0	mg/l	50	51.2	102.4	90-110%
Total Organic Carbon	GP21387/GN55090	1.0	0.0	mg/l	15	15.3	102.0	90-110%

Associated Samples:
Batch GN55167: FA3390-7, FA3390-10
Batch GN55180: FA3390-7, FA3390-10
Batch GP21376: FA3390-7, FA3390-10
Batch GP21387: FA3390-7, FA3390-10
Batch GP21399: FA3390-7
Batch GP21400: FA3390-10
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN55167	FA3367-1	mg/l	125	124	0.8	0-20%
Phosphate, Ortho	GP21376/GN55070	FA3390-7	mg/l	0.15	0.15	2.9	0-26%
Solids, Total Dissolved	GN55180	FA3390-7	mg/l	269	265	1.5	0-5%
Solids, Total Dissolved	GN55180	FA3390-10	mg/l	198	196	1.0	0-5%
Total Organic Carbon	GP21387/GN55090	FA3230-1	mg/l	4.4	4.4	0.0	0-20%

Associated Samples:
Batch GN55167: FA3390-7, FA3390-10
Batch GN55180: FA3390-7, FA3390-10
Batch GP21376: FA3390-7, FA3390-10
Batch GP21387: FA3390-7, FA3390-10
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN55167	FA3367-1	mg/l	125	250	378	101.0	90-113%
Bromide	GP21399/GN55123	FA3413-3	mg/l	0.0	12.5	7.5	60.0N(a)	90-110%
Chloride	GP21399/GN55123	FA3413-3	mg/l	17.8	50	66.4	97.2	90-110%
Chloride	GP21400/GN55123	FA3362-1	mg/l	8.6	50	58.4	101.2	90-110%
Chloride	GP21400/GN55123	FA3362-1	mg/l	7.8	50	58.4	101.2	90-110%
Nitrogen, Nitrate	GP21399/GN55123	FA3413-3	mg/l	0.0	2.5	2.4	96.0	90-110%
Nitrogen, Nitrate	GP21400/GN55126	FA3362-1	mg/l	5.1	2.5	7.1	84.0N(a)	90-110%
Nitrogen, Nitrate	GP21400/GN55126	FA3362-1	mg/l	5.0	2.5	7.1	84.0N(a)	90-110%
Nitrogen, Nitrite	GP21399/GN55123	FA3413-3	mg/l	0.0	2.5	2.3	92.0	90-110%
Nitrogen, Nitrite	GP21400/GN55123	FA3362-1	mg/l	0.0	2.5	2.5	96.0	90-110%
Nitrogen, Nitrite	GP21400/GN55123	FA3362-1	mg/l	0.10	2.5	2.5	96.0	90-110%
Phosphate, Ortho	GP21376/GN55070	FA3390-7	mg/l	0.15	0.300	0.42	89.4	83-116%
Sulfate	GP21399/GN55123	FA3413-3	mg/l	99.3	50	142	85.4N(a)	90-110%
Sulfate	GP21400/GN55123	FA3362-1	mg/l	1.8	50	50.4	97.2	90-110%
Sulfate	GP21400/GN55123	FA3362-1	mg/l	3.4	50	50.4	97.2	90-110%
Total Organic Carbon	GP21387/GN55090	FA3230-1	mg/l	4.4	15	19.6	101.3	90-110%

Associated Samples:
Batch GN55167: FA3390-7, FA3390-10
Batch GP21376: FA3390-7, FA3390-10
Batch GP21387: FA3390-7, FA3390-10
Batch GP21399: FA3390-7
Batch GP21400: FA3390-10
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3390
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP21399/GN55123	FA3413-3	mg/l	0.0	12.5	7.4	1.3(a)	20%
Chloride	GP21399/GN55123	FA3413-3	mg/l	17.8	50	66.6	0.3	20%
Chloride	GP21400/GN55123	FA3362-1	mg/l	7.8	50	58.4	0.0	20%
Chloride	GP21400/GN55123	FA3362-1	mg/l	8.6	50	58.4	0.0	20%
Nitrogen, Nitrate	GP21399/GN55123	FA3413-3	mg/l	0.0	2.5	2.4	0.0	20%
Nitrogen, Nitrate	GP21400/GN55126	FA3362-1	mg/l	5.0	2.5	7.2	1.4(a)	20%
Nitrogen, Nitrate	GP21400/GN55126	FA3362-1	mg/l	5.1	2.5	7.2	1.4(a)	20%
Nitrogen, Nitrite	GP21399/GN55123	FA3413-3	mg/l	0.0	2.5	2.4	4.3	20%
Nitrogen, Nitrite	GP21400/GN55123	FA3362-1	mg/l	0.10	2.5	2.5	0.0	20%
Nitrogen, Nitrite	GP21400/GN55123	FA3362-1	mg/l	0.0	2.5	2.5	0.0	20%
Sulfate	GP21399/GN55123	FA3413-3	mg/l	99.3	50	141	0.7(a)	20%
Sulfate	GP21400/GN55123	FA3362-1	mg/l	3.4	50	50.7	0.6	20%
Sulfate	GP21400/GN55123	FA3362-1	mg/l	1.8	50	50.7	0.6	20%

Associated Samples:
Batch GP21399: FA3390-7
Batch GP21400: FA3390-10
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

Southeast ACCUTEST LABORATORIES

04/23/13

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: FA3545

Sampling Date: 04/08/13

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
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ATTN: John Watson

Total number of pages in report: **46**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: FA3545

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA3545-1	04/08/13	12:08	DA	04/10/13	AQ	Ground Water	OLD-OU2-30A
FA3545-2	04/08/13	12:59	DA	04/10/13	AQ	Ground Water	OLD-OU2-33B
FA3545-3	04/08/13	13:15	DA	04/10/13	AQ	Ground Water	OLD-OU2-29A
FA3545-4	04/08/13	13:43	DA	04/10/13	AQ	Ground Water	OLD-OU2-37B
FA3545-5	04/08/13	14:18	DA	04/10/13	AQ	Ground Water	OLD-OU2-29B
FA3545-6	04/08/13	14:31	DA	04/10/13	AQ	Ground Water	OLD-OU2-41B

Summary of Hits

Job Number: FA3545
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/08/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3545-1	**OLD-OU2-30A**					
Benzene		0.40 I	1.0	0.21	ug/l	SW846 8260B
Iron		9780	300	29	ug/l	SW846 6010C
Manganese		31.8	15	0.70	ug/l	SW846 6010C
FA3545-2	**OLD-OU2-33B**					
cis-1,2-Dichloroethylene		0.99 I	1.0	0.24	ug/l	SW846 8260B
Tetrachloroethylene		0.94 I	1.0	0.32	ug/l	SW846 8260B
Trichloroethylene		19.0	1.0	0.31	ug/l	SW846 8260B
Iron		1720	300	29	ug/l	SW846 6010C
Manganese		7.7 I	15	0.70	ug/l	SW846 6010C
FA3545-3	**OLD-OU2-29A**					
Methane		108	0.50	0.16	ug/l	RSKSOP-147/175
Iron		3500	300	29	ug/l	SW846 6010C
Manganese		3.3 I	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		20.5	5.0	0.60	mg/l	SM19 2320B
Chloride		17.1	2.0	0.80	mg/l	EPA 300/SW846 9056A
Sulfate		19.1	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		19.5	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3545-4	**OLD-OU2-37B**					
Benzene		0.46 I	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		0.42 I	1.0	0.24	ug/l	SW846 8260B
Iron		2100	300	29	ug/l	SW846 6010C
Manganese		4.9 I	15	0.70	ug/l	SW846 6010C
FA3545-5	**OLD-OU2-29B**					
Methane		1010	0.50	0.16	ug/l	RSKSOP-147/175
Ethane		0.49 J	1.0	0.32	ug/l	RSKSOP-147/175
Iron		1800	300	29	ug/l	SW846 6010C
Manganese		16.3	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		25.3	5.0	0.60	mg/l	SM19 2320B
Chloride		16.6	2.0	0.80	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho [a]		2.0	1.0	0.19	mg/l	EPA 365.3
Sulfate		2.1	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		8.5	1.0	0.23	mg/l	SM19 5310B/SW 9060A

Summary of Hits

Job Number: FA3545
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/08/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3545-6	**OLD-OU2-41B**					
Benzene		1.7	1.0	0.21	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		17.0	1.0	0.24	ug/l	SW846 8260B
Tetrachloroethylene		0.38 I	1.0	0.32	ug/l	SW846 8260B
Trichloroethylene		33.9	1.0	0.31	ug/l	SW846 8260B
Vinyl chloride		0.99 I	1.0	0.44	ug/l	SW846 8260B
Iron		940	300	29	ug/l	SW846 6010C
Manganese		7.4 I	15	0.70	ug/l	SW846 6010C

(a) Sample received outside the holding time.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OLD-OU2-30A		
Lab Sample ID:	FA3545-1	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J085677.D	1	04/19/13	MM	n/a	n/a	VJ4356
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.40	1.0	0.21	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-30A		
Lab Sample ID:	FA3545-1	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	9780	300	29	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	31.8	15	0.70	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24987

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-33B		
Lab Sample ID:	FA3545-2	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J085678.D	1	04/19/13	MM	n/a	n/a	VJ4356
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.99	1.0	0.24	ug/l	I
127-18-4	Tetrachloroethylene	0.94	1.0	0.32	ug/l	I
79-01-6	Trichloroethylene	19.0	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	96%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-33B		
Lab Sample ID:	FA3545-2	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1720	300	29	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	7.7 I	15	0.70	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24987

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	FA3545-3	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J085679.D	1	04/19/13	MM	n/a	n/a	VJ4356
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	FA3545-3	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18157.D	1	04/11/13	CP	n/a	n/a	GFF748
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	108	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	FA3545-3	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3500	300	29	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	3.3 I	15	0.70	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24987

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	FA3545-3	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	20.5	5.0	0.60	mg/l	1	04/18/13 13:15	AC	SM19 2320B
Chloride	17.1	2.0	0.80	mg/l	1	04/18/13 13:47	AA	EPA 300/SW846 9056A
Phosphate, Ortho [a]	0.020 U	0.10	0.020	mg/l	1	04/11/13 13:00	MG	EPA 365.3
Sulfate	19.1	2.0	0.60	mg/l	1	04/18/13 13:47	AA	EPA 300/SW846 9056A
Total Organic Carbon	19.5	1.0	0.23	mg/l	1	04/17/13 06:36	FN	SM19 5310B/SW 9060A

(a) Sample received outside the holding time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-37B		
Lab Sample ID:	FA3545-4	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J085680.D	1	04/19/13	MM	n/a	n/a	VJ4356
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.46	1.0	0.21	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.42	1.0	0.24	ug/l	I
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	100%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-37B		
Lab Sample ID:	FA3545-4	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2100	300	29	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	4.9 I	15	0.70	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24987

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	FA3545-5	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J085681.D	1	04/19/13	MM	n/a	n/a	VJ4356
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	102%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	FA3545-5	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18158.D	1	04/11/13	CP	n/a	n/a	GFF748
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	1010	0.50	0.16	ug/l	
74-84-0	Ethane	0.49	1.0	0.32	ug/l	J
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	FA3545-5	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1800	300	29	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	16.3	15	0.70	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24987

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	FA3545-5	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	25.3	5.0	0.60	mg/l	1	04/18/13 13:15	AC	SM19 2320B
Chloride	16.6	2.0	0.80	mg/l	1	04/18/13 14:03	AA	EPA 300/SW846 9056A
Phosphate, Ortho [a]	2.0	1.0	0.19	mg/l	10	04/11/13 13:00	MG	EPA 365.3
Sulfate	2.1	2.0	0.60	mg/l	1	04/18/13 14:03	AA	EPA 300/SW846 9056A
Total Organic Carbon	8.5	1.0	0.23	mg/l	1	04/17/13 06:53	FN	SM19 5310B/SW 9060A

(a) Sample received outside the holding time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-41B		
Lab Sample ID:	FA3545-6	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J085682.D	1	04/19/13	MM	n/a	n/a	VJ4356
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	1.7	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	17.0	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	0.38	1.0	0.32	ug/l	I
79-01-6	Trichloroethylene	33.9	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.99	1.0	0.44	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	98%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-41B		
Lab Sample ID:	FA3545-6	**Date Sampled:**	04/08/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	940	300	29	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	7.4 I	15	0.70	ug/l	1	04/18/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24987

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

FA3545

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/8/13 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-30A	04/08/2013	12:08 pm	WG	Fe Mn VOCs	4	CG;PE	40 ml;125 ml	HCL;HNO3	2 week	
2	OLD-OU2-33B	04/08/2013	12:59 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
3	OLD-OU2-29A	04/08/2013	01:15 pm	WG	Alkalinity, Chloride, ~~Nitrate/Nitrite,~~ Orthophosphate, Sulfate Fe/Mn Methane/ethane/ethene TOC VOCs	11	AG;CG;PE	40 ml;125 ml;500 ml	HCL;HNO3;None	2 week	
4	OLD-OU2-37B	04/08/2013	01:43 pm	WG	Fe/Mn VOCs	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	
5	OLD-OU2-29B	04/08/2013	02:18 pm	WG	Alkalinity, Chloride, ~~Nitrate/Nitrite,~~ Orthophosphate, Sulfate Fe/Mn Methane/ethane/ethene TOC VOCs	11	AG;CG;PE	40 ml;125 ml;500 ml	HCL;HNO3;None	2 week	
6	OLD-OU2-41B	04/08/2013	02:31 pm	WG	Fe/Mn VOC	4	CG;PE	40 ml;250 ml	HCL;HNO3	2 week	

Client Comments / Instructions

Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[illegible]	4.10.13	1608	[illegible]	04/10/13	1605
[illegible]	04/10/13	1637	Frank Torres AISE	04/10/13	1635

Sampler Name: Damian Allen

Sampler Signature: [illegible]

Date Signed: 04/08/2013

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FA3545: Chain of Custody
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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 3545 CLIENT: B.F.A. PROJECT: Operable unit 2

DATE/TIME RECEIVED: 04/10/13 16:35 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR +04
- [ ] OBSERVED TEMPS: 3.2
- [ ] CORRECTED TEMPS: 3.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 04/10/13 REVIEWER SIGNATURE/DATE [signature] 04-10-13

NF 12/10

receipt confirmation 122910.xls

4.1

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FA3545: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ4356-MB	J085672.D	1	04/19/13	MM	n/a	n/a	VJ4356

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

Blank Spike Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ4356-BS	J085671.D	1	04/19/13	MM	n/a	n/a	VJ4356

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	23.9	96	81-122
156-59-2	cis-1,2-Dichloroethylene	25	24.6	98	78-120
127-18-4	Tetrachloroethylene	25	25.5	102	76-135
79-01-6	Trichloroethylene	25	25.1	100	81-126
75-01-4	Vinyl chloride	25	29.2	117	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	96%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3545-4MS	J085693.D	1	04/20/13	MM	n/a	n/a	VJ4356
FA3545-4MSD	J085694.D	1	04/20/13	MM	n/a	n/a	VJ4356
FA3545-4	J085680.D	1	04/19/13	MM	n/a	n/a	VJ4356

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

CAS No.	Compound	FA3545-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.46	I	25	26.3	103	25.8	101	2	81-122/14
156-59-2	cis-1,2-Dichloroethylene	0.42	I	25	25.4	100	25.3	100	0	78-120/15
127-18-4	Tetrachloroethylene	1.0 U		25	24.3	97	23.2	93	5	76-135/16
79-01-6	Trichloroethylene	1.0 U		25	26.2	105	26.4	106	1	81-126/15
75-01-4	Vinyl chloride	1.0 U		25	28.5	114	28.9	116	1	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3545-4	Limits
1868-53-7	Dibromofluoromethane	95%	97%	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	93%	95%	100%	79-125%
2037-26-5	Toluene-D8	93%	96%	100%	85-112%
460-00-4	4-Bromofluorobenzene	92%	94%	99%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF748-MB	FF18134.D	1	04/11/13	CP	n/a	n/a	GFF748

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3545-3, FA3545-5

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF748-BS	FF18135.D	1	04/11/13	CP	n/a	n/a	GFF748

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3545-3, FA3545-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	106	98	54-149
74-84-0	Ethane	219	230	105	57-143
74-85-1	Ethene	290	295	102	57-143

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3521-4MS	FF18140.D	1	04/11/13	CP	n/a	n/a	GFF748
FA3521-4	FF18139.D	1	04/11/13	CP	n/a	n/a	GFF748

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3545-3, FA3545-5

CAS No.	Compound	FA3521-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	13.3		108	101	81	54-149
74-84-0	Ethane	ND		219	194	89	57-143
74-85-1	Ethene	ND		290	253	87	57-143

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA3545
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3521-1DUP	FF18141.D	1	04/11/13	CP	n/a	n/a	GFF748
FA3521-1 [a]	FF18137.D	1	04/11/13	CP	n/a	n/a	GFF748

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3545-3, FA3545-5

CAS No.	Compound	FA3521-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	138		149		8	24
74-84-0	Ethane	ND		ND		nc	23
74-85-1	Ethene	ND		ND		nc	10

(a) Sample was not preserved to a pH < 2.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24987
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	1.3	1.3		
Arsenic	10	1.6	2.5		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1.8	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	29	29	-2.1	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	74	74		
Manganese	15	.7	.7	0.0	<15
Molybdenum	50	.6	1		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2	2		
Silver	10	.5	.5		
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.3	1.3		
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1		
Zinc	20	3	5		

Associated samples MP24987: FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24987
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	04/18/13						04/18/13		
Metal	FA3545-1 Original	DUP	RPD	QC Limits	FA3545-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	anr								
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	9780	10400	6.1	0-20	9780	33800	26000	92.4	80-120
Lead									
Magnesium									
Manganese	31.8	33.8	6.1	0-20	31.8	497	500	93.0	80-120
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP24987: FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24987 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/18/13

Metal	FA3545-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	9780	35300	26000	98.2	4.3	20
Lead						
Magnesium						
Manganese	31.8	524	500	98.4	5.3	20
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP24987: FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24987
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	25300	26000	97.3	80-120
Lead				
Magnesium				
Manganese	481	500	96.2	80-120
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24987: FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24987
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/13

Metal	FA3545-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	9780	10500	7.4	0-10
Lead				
Magnesium				
Manganese	31.8	36.7	15.4 (a)	0-10
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP24987: FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24987
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/13

Metal	Sample ml	Final ml	FA3545-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	9783	9587.34	12370	0.2	150	3000	92.8	80-120
Lead										
Magnesium										
Manganese	9.8	10	31.8	31.164	80	0.2	2.5	50	97.7	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP24987: FA3545-1, FA3545-2, FA3545-3, FA3545-4, FA3545-5, FA3545-6

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN55319	5.0	0.80	mg/l	250	251	101.0	90-113%
Chloride	GP21498/GN55329	2.0	0.0	mg/l	50	51.4	102.8	90-110%
Nitrogen, Nitrate	GP21498/GN55329	0.10	0.0	mg/l	2.5	2.51	100.4	90-110%
Nitrogen, Nitrite	GP21498/GN55329	0.10	0.0	mg/l	2.5	2.60	104.0	90-110%
Phosphate, Ortho	GP21431/GN55194	0.10	0.0	mg/l	0.300	0.28	94.3	83-116%
Sulfate	GP21498/GN55329	2.0	0.0	mg/l	50	49.9	99.8	90-110%
Total Organic Carbon	GP21469/GN55275	1.0	0.0	mg/l	15	15.3	102.0	90-110%

Associated Samples:
Batch GN55319: FA3545-3, FA3545-5
Batch GP21431: FA3545-3, FA3545-5
Batch GP21469: FA3545-3, FA3545-5
Batch GP21498: FA3545-3, FA3545-5
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN55319	FA3490-1	mg/l	71.2	71.9	1.0	0-20%
Phosphate, Ortho	GP21431/GN55194	FA3547-2	mg/l	0.17	0.18	5.1	0-26%
Total Organic Carbon	GP21469/GN55275	FA3598-1	mg/l	41.1	41.9	1.9	0-20%

Associated Samples:
Batch GN55319: FA3545-3, FA3545-5
Batch GP21431: FA3545-3, FA3545-5
Batch GP21469: FA3545-3, FA3545-5
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN55319	FA3490-1	mg/l	71.2	250	321	99.7	90-113%
Chloride	GP21498/GN55329	FA3769-2	mg/l	7.4	50	59.6	104.4	90-110%
Nitrogen, Nitrate	GP21498/GN55329	FA3769-2	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Nitrogen, Nitrite	GP21498/GN55329	FA3769-2	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Phosphate, Ortho	GP21431/GN55194	FA3547-2	mg/l	0.17	0.300	0.37	69.2*(a)	83-116%
Sulfate	GP21498/GN55329	FA3769-2	mg/l	0.60 U	50	51.2	102.4	90-110%
Total Organic Carbon	GP21469/GN55275	FA3598-1	mg/l	41.1	15	56.8	104.7	90-110%

Associated Samples:
Batch GN55319: FA3545-3, FA3545-5
Batch GP21431: FA3545-3, FA3545-5
Batch GP21469: FA3545-3, FA3545-5
Batch GP21498: FA3545-3, FA3545-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3545
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP21498/GN55329	FA3769-2	mg/l	7.4	50	59.6	0.0	20%
Nitrogen, Nitrate	GP21498/GN55329	FA3769-2	mg/l	0.050 U	2.5	2.5	0.0	20%
Nitrogen, Nitrite	GP21498/GN55329	FA3769-2	mg/l	0.050 U	2.5	2.5	0.0	20%
Sulfate	GP21498/GN55329	FA3769-2	mg/l	0.60 U	50	51.3	0.2	20%

Associated Samples:
Batch GP21498: FA3545-3, FA3545-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Southeast ACCUTEST LABORATORIES

04/24/13

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: FA3547

Sampling Date: 04/10/13

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **48**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: FA3547

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA3547-1	04/10/13	12:30	DA	04/10/13	AQ	Ground Water	OLD-OU2-21B
FA3547-2	04/10/13	12:45	DA	04/10/13	AQ	Ground Water	OLD-OU2-21A
FA3547-3	04/10/13	14:05	DA	04/10/13	AQ	Ground Water	OLD-OU2-42B
FA3547-4	04/10/13	14:17	DA	04/10/13	AQ	Ground Water	OLD-OU2-43B

Summary of Hits

Job Number: FA3547
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/10/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3547-1	**OLD-OU2-21B**					
Methane		1250	1.0	0.32	ug/l	RSKSOP-147/175
Iron		1310	300	29	ug/l	SW846 6010C
Manganese		15.1	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		27.7	5.0	0.60	mg/l	SM19 2320B
Chloride		42.2	2.0	0.80	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho		2.2	1.0	0.19	mg/l	EPA 365.3
Solids, Total Dissolved		161	100	10	mg/l	SM19 2540C
Sulfate		12.5	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		6.8	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3547-2	**OLD-OU2-21A**					
Methane		634	0.50	0.16	ug/l	RSKSOP-147/175
Iron		1630	300	29	ug/l	SW846 6010C
Manganese		1.1 I	15	0.70	ug/l	SW846 6010C
Chloride		17.8	2.0	0.80	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho		0.17	0.10	0.020	mg/l	EPA 365.3
Sulfate		4.5	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		4.8	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3547-3	**OLD-OU2-42B**					
cis-1,2-Dichloroethylene		638	10	2.4	ug/l	SW846 8260B
Trichloroethylene		798	10	3.1	ug/l	SW846 8260B
Vinyl chloride		13.7	10	4.4	ug/l	SW846 8260B
Methane		1130	1.0	0.32	ug/l	RSKSOP-147/175
Ethene		3.29	1.0	0.43	ug/l	RSKSOP-147/175
Iron		658	300	29	ug/l	SW846 6010C
Manganese		5.9 I	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		22.0	5.0	0.60	mg/l	SM19 2320B
Chloride		9.8	2.0	0.80	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate		0.077 I	0.10	0.050	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho		2.0	1.0	0.19	mg/l	EPA 365.3
Solids, Total Dissolved		52.0 I	100	10	mg/l	SM19 2540C
Sulfate		1.5 I	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		5.2	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3547-4	**OLD-OU2-43B**					
cis-1,2-Dichloroethylene		348	100	24	ug/l	SW846 8260B
Trichloroethylene		5690	100	31	ug/l	SW846 8260B
Methane		1070	0.50	0.16	ug/l	RSKSOP-147/175
Ethane		0.50 I	1.0	0.32	ug/l	RSKSOP-147/175

Summary of Hits

Job Number: FA3547
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/10/13

Lab Sample ID Client Sample ID Analyte	Result/ Qual	PQL	MDL	Units	Method
Ethene	6.74	1.0	0.43	ug/l	RSKSOP-147/175
Iron	623	300	29	ug/l	SW846 6010C
Manganese	5.3 I	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3	8.6	5.0	0.60	mg/l	SM19 2320B
Chloride	13.6	2.0	0.80	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho	2.5	1.0	0.19	mg/l	EPA 365.3
Solids, Total Dissolved	140	100	10	mg/l	SM19 2540C
Sulfate	11.1	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon	5.1	1.0	0.23	mg/l	SM19 5310B/SW 9060A

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	FA3547-1	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15580.D	1	04/22/13	MM	n/a	n/a	VO638
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		83-118%
17060-07-0	1,2-Dichloroethane-D4	111%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	103%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	FA3547-1	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18248.D	1	04/17/13	CP	n/a	n/a	GFF752
Run #2	FF18259.D	2	04/17/13	CP	n/a	n/a	GFF752

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	1250 [a]	1.0	0.32	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	FA3547-1	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1310	300	29	ug/l	1	04/19/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	15.1	15	0.70	ug/l	1	04/19/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24991

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	FA3547-1	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	27.7	5.0	0.60	mg/l	1	04/18/13 13:15	AC	SM19 2320B
Chloride	42.2	2.0	0.80	mg/l	1	04/13/13 01:23	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]	0.050 U	0.10	0.050	mg/l	1	04/13/13 01:23	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite [b]	0.10 U	0.20	0.10	mg/l	1	04/13/13 01:23	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]	0.050 U	0.10	0.050	mg/l	1	04/13/13 01:23	AA	EPA 300/SW846 9056A
Phosphate, Ortho	2.2	1.0	0.19	mg/l	10	04/11/13 13:00	MG	EPA 365.3
Solids, Total Dissolved	161	100	10	mg/l	1	04/17/13	KC	SM19 2540C
Sulfate	12.5	2.0	0.60	mg/l	1	04/13/13 01:23	AA	EPA 300/SW846 9056A
Total Organic Carbon	6.8	1.0	0.23	mg/l	1	04/14/13 09:35	FN	SM19 5310B/SW 9060A

(a) Sample analyzed beyond hold time due to instrument error.
(b) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	FA3547-2	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15581.D	1	04/22/13	MM	n/a	n/a	VO638
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.21 U	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	109%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	104%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	FA3547-2	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18249.D	1	04/17/13	CP	n/a	n/a	GFF752
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	634	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	FA3547-2	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1630	300	29	ug/l	1	04/19/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	1.1 I	15	0.70	ug/l	1	04/19/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24991

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	FA3547-2	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	0.60 U	5.0	0.60	mg/l	1	04/18/13 13:15	AC	SM19 2320B
Chloride	17.8	2.0	0.80	mg/l	1	04/13/13 01:39	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate [a]	0.050 U	0.10	0.050	mg/l	1	04/13/13 01:39	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite [b]	0.10 U	0.20	0.10	mg/l	1	04/13/13 01:39	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]	0.050 U	0.10	0.050	mg/l	1	04/13/13 01:39	AA	EPA 300/SW846 9056A
Phosphate, Ortho	0.17	0.10	0.020	mg/l	1	04/11/13 13:00	MG	EPA 365.3
Sulfate	4.5	2.0	0.60	mg/l	1	04/13/13 01:39	AA	EPA 300/SW846 9056A
Total Organic Carbon	4.8	1.0	0.23	mg/l	1	04/14/13 09:59	FN	SM19 5310B/SW 9060A

(a) Sample analyzed beyond hold time due to instrument error.
(b) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	FA3547-3	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15628.D	10	04/23/13	MM	n/a	n/a	VO640
Run #2 [a]	O15582.D	20	04/22/13	MM	n/a	n/a	VO638

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	2.1 U	10	2.1	ug/l	
156-59-2	cis-1,2-Dichloroethylene	638	10	2.4	ug/l	
98-82-8	Isopropylbenzene	2.0 U	10	2.0	ug/l	
75-09-2	Methylene chloride	20 U	50	20	ug/l	
127-18-4	Tetrachloroethylene	3.2 U	10	3.2	ug/l	
79-01-6	Trichloroethylene	798	10	3.1	ug/l	
75-01-4	Vinyl chloride	13.7	10	4.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	107%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	110%	79-125%
2037-26-5	Toluene-D8	104%	104%	85-112%
460-00-4	4-Bromofluorobenzene	104%	105%	83-118%

(a) Confirmation run.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	FA3547-3	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18250.D	1	04/17/13	CP	n/a	n/a	GFF752
Run #2	FF18260.D	2	04/17/13	CP	n/a	n/a	GFF752

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	1130 [a]	1.0	0.32	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	3.29	1.0	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	FA3547-3	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	658	300	29	ug/l	1	04/19/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	5.9 I	15	0.70	ug/l	1	04/19/13	04/19/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24991

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	FA3547-3	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	22.0	5.0	0.60	mg/l	1	04/18/13 13:15	AC	SM19 2320B
Chloride	9.8	2.0	0.80	mg/l	1	04/12/13 13:27	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.077 I	0.10	0.050	mg/l	1	04/12/13 13:27	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite [a]	0.10 U	0.20	0.10	mg/l	1	04/12/13 13:27	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/12/13 13:27	AA	EPA 300/SW846 9056A
Phosphate, Ortho	2.0	1.0	0.19	mg/l	10	04/11/13 13:00	MG	EPA 365.3
Solids, Total Dissolved	52.0 I	100	10	mg/l	1	04/17/13	KC	SM19 2540C
Sulfate	1.5 I	2.0	0.60	mg/l	1	04/12/13 13:27	AA	EPA 300/SW846 9056A
Total Organic Carbon	5.2	1.0	0.23	mg/l	1	04/14/13 10:16	FN	SM19 5310B/SW 9060A

(a) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	FA3547-4	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15583.D	100	04/22/13	MM	n/a	n/a	VO638
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	21 U	100	21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	348	100	24	ug/l	
98-82-8	Isopropylbenzene	20 U	100	20	ug/l	
75-09-2	Methylene chloride	200 U	500	200	ug/l	
127-18-4	Tetrachloroethylene	32 U	100	32	ug/l	
79-01-6	Trichloroethylene	5690	100	31	ug/l	
75-01-4	Vinyl chloride	44 U	100	44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		83-118%
17060-07-0	1,2-Dichloroethane-D4	111%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	103%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	FA3547-4	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18251.D	1	04/17/13	CP	n/a	n/a	GFF752
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	1070	0.50	0.16	ug/l	
74-84-0	Ethane	0.50	1.0	0.32	ug/l	I
74-85-1	Ethene	6.74	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	FA3547-4	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	623	300	29	ug/l	1	04/19/13	04/20/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	5.3 I	15	0.70	ug/l	1	04/19/13	04/20/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10686
(2) Prep QC Batch: MP24991

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	FA3547-4	**Date Sampled:**	04/10/13
Matrix:	AQ - Ground Water	**Date Received:**	04/10/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	8.6	5.0	0.60	mg/l	1	04/18/13 13:15	AC	SM19 2320B
Chloride	13.6	2.0	0.80	mg/l	1	04/12/13 13:43	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/12/13 13:43	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate + Nitrite [a]	0.10 U	0.20	0.10	mg/l	1	04/12/13 13:43	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/12/13 13:43	AA	EPA 300/SW846 9056A
Phosphate, Ortho	2.5	1.0	0.19	mg/l	10	04/11/13 13:00	MG	EPA 365.3
Solids, Total Dissolved	140	100	10	mg/l	1	04/17/13	KC	SM19 2540C
Sulfate	11.1	2.0	0.60	mg/l	1	04/12/13 13:43	AA	EPA 300/SW846 9056A
Total Organic Carbon	5.1	1.0	0.23	mg/l	1	04/14/13 10:33	FN	SM19 5310B/SW 9060A

(a) Calculated as: (Nitrogen, Nitrate) + (Nitrogen, Nitrite)

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

FA 3547

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/10/13 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont.	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-21B	04/10/2013	12:30 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Fe/Mn TDS Methane/ethane/ethene TOC ~~Biogenic Gases~~ VOCs	11	AG;CG;PE	40 ml;125 ml;500 ml	HCL;HNO3;None	2 week	
2	OLD-OU2-21A	04/10/2013	12:45 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate ~~Biogenic Gases~~ Fe/Mn Methane/ethane/ethene TOC VOCs	11	AG;CG;PE	40 ml;250 ml;1 L	HCL;HNO3;None	2 week	
3	OLD-OU2-42B	04/10/2013	02:05 pm	WG	Fe/Mn, ~~Biogenic Gases~~ Methane/ethane/ethene Sulfate TOC ortho phosphate VOCs Alkalinity, Chloride, Nitrate/Nitrite, Sulfide, TDS	11	AG;CG;PE	40 ml;125 ml;500 ml	HCL;HNO3;None	2 week	
4	OLD-OU2-43B	04/10/2013	02:17 pm	WG	Alkalinity ~~Biogenic Gases~~ Chloride Fe/Mn Methane/ethane/ethene Nitrate/Nitrite Orthophosphate Sulfate TDS TOC VOCs	11	AG;CG;PE	40 ml;250 ml;1 L	HCL;HNO3;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4.10.13	1608	[signature]	04/10/13	1608
[signature]	04/10/13	1633	Frank Torres AISE	04/10/13	1633

Sampler Name: Damian Allen

Sampler Signature: [signature]

Date Signed: 04/10/2013

2.4

4.1 4

FA3547: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 3547 CLIENT: BFA PROJECT: 07-71009/2

DATE/TIME RECEIVED: 04/10/13 1653 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR 04
- [ ] OBSERVED TEMPS: 2.0
- [ ] CORRECTED TEMPS: 2.4

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 04/10/13 REVIEWER SIGNATURE/DATE [signature] 04-10-13

NF 12/10

receipt confirmation 122910.xls

4.1

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FA3547: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO638-MB	O15563.D	1	04/22/13	MM	n/a	n/a	VO638

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

Method Blank Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO640-MB	O15623.D	1	04/23/13	MM	n/a	n/a	VO640

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3547-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	101%	83-118%

Blank Spike Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO638-BS	O15562.D	1	04/22/13	MM	n/a	n/a	VO638

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.0	104	81-122
156-59-2	cis-1,2-Dichloroethylene	25	24.4	98	78-120
98-82-8	Isopropylbenzene	25	24.2	97	83-132
75-09-2	Methylene chloride	25	27.3	109	69-135
127-18-4	Tetrachloroethylene	25	25.2	101	76-135
79-01-6	Trichloroethylene	25	25.8	103	81-126
75-01-4	Vinyl chloride	25	30.2	121	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	94%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO640-BS	O15622.D	1	04/23/13	MM	n/a	n/a	VO640

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3547-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.7	103	81-122
156-59-2	cis-1,2-Dichloroethylene	25	23.9	96	78-120
98-82-8	Isopropylbenzene	25	24.1	96	83-132
75-09-2	Methylene chloride	25	27.1	108	69-135
127-18-4	Tetrachloroethylene	25	24.7	99	76-135
79-01-6	Trichloroethylene	25	25.4	102	81-126
75-01-4	Vinyl chloride	25	27.9	112	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3547-3MS	O15584.D	20	04/22/13	MM	n/a	n/a	VO638
FA3547-3MSD	O15585.D	20	04/22/13	MM	n/a	n/a	VO638
FA3547-3 [a]	O15582.D	20	04/22/13	MM	n/a	n/a	VO638

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	FA3547-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20 U		500	528	106	513	103	3	81-122/14
156-59-2	cis-1,2-Dichloroethylene	488		500	1010	104	981	99	3	78-120/15
98-82-8	Isopropylbenzene	20 U		500	466	93	460	92	1	83-132/15
75-09-2	Methylene chloride	100 U		500	584	117	570	114	2	69-135/16
127-18-4	Tetrachloroethylene	20 U		500	469	94	462	92	2	76-135/16
79-01-6	Trichloroethylene	676		500	1150	95	1130	91	2	81-126/15
75-01-4	Vinyl chloride	10.8	I	500	567	111	552	108	3	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3547-3	Limits
1868-53-7	Dibromofluoromethane	107%	105%	107%	83-118%
17060-07-0	1,2-Dichloroethane-D4	108%	106%	110%	79-125%
2037-26-5	Toluene-D8	95%	95%	104%	85-112%
460-00-4	4-Bromofluorobenzene	94%	95%	105%	83-118%

(a) Confirmation run.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF752-MB	FF18246.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF752-BS	FF18247.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	105	97	61-144
74-84-0	Ethane	219	232	106	64-143
74-85-1	Ethene	290	299	103	64-141

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3678-3MS	FF18257.D	1	04/17/13	CP	n/a	n/a	GFF752
FA3678-3	FF18252.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	FA3678-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	8.61		108	153	134	61-144
74-84-0	Ethane	1.0 U		219	300	137	64-143
74-85-1	Ethene	1.0 U		290	402	139	64-141

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA3547
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3547-2DUP	FF18258.D	1	04/17/13	CP	n/a	n/a	GFF752
FA3547-2	FF18249.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3547-1, FA3547-2, FA3547-3, FA3547-4

CAS No.	Compound	FA3547-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	634		612		4	33
74-84-0	Ethane	1.0 U		ND		nc	20
74-85-1	Ethene	1.0 U		ND		nc	19

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24991
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:					04/19/13		04/19/13
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	15	15				
Antimony	6.0	1.3	1.3				
Arsenic	10	1.6	2.5				
Barium	200	1	1				
Beryllium	4.0	.5	.5				
Cadmium	5.0	.5	.5				
Calcium	1000	50	50				
Chromium	10	1.8	2				
Cobalt	50	.5	.5				
Copper	25	1	1				
Iron	300	29	29	35.3	<300	3.6	<300
Lead	5.0	1.1	1.1				
Magnesium	5000	74	74				
Manganese	15	.7	.7	-0.10	<15	0.20	<15
Molybdenum	50	.6	1				
Nickel	40	.5	.5				
Potassium	10000	200	200				
Selenium	10	2	2				
Silver	10	.5	.5				
Sodium	10000	500	500				
Strontium	10	.5	.5				
Thallium	10	1.3	1.3				
Tin	50	.7	1.8				
Titanium	10	.9	1				
Vanadium	50	.5	1				
Zinc	20	3	5				

Associated samples MP24991: FA3547-1, FA3547-2, FA3547-3, FA3547-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24991
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	04/19/13						04/19/13		
Metal	FA3547-1 Original	DUP	RPD	QC Limits	FA3547-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	1310	1270	3.1	0-20	1310	27700	26000	101.5	80-120
Lead	anr								
Magnesium	anr								
Manganese	15.1	14.7	2.7	0-20	15.1	548	500	106.6	80-120
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin	anr								
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP24991: FA3547-1, FA3547-2, FA3547-3, FA3547-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24991
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/19/13

Metal	FA3547-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	1310	26800	26000	98.0	3.3	20
Lead	anr					
Magnesium	anr					
Manganese	15.1	535	500	104.0	2.4	20
Molybdenum						
Nickel	anr					
Potassium	anr					
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin	anr					
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP24991: FA3547-1, FA3547-2, FA3547-3, FA3547-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24991
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/19/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	26000	26000	100.0	80-120
Lead	anr			
Magnesium	anr			
Manganese	518	500	103.6	80-120
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP24991: FA3547-1, FA3547-2, FA3547-3, FA3547-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24991
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/19/13

Metal	FA3547-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	1310	1350	2.8	0-10
Lead	anr			
Magnesium	anr			
Manganese	15.1	15.3	1.3	0-10
Molybdenum				
Nickel	anr			
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin	anr			
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP24991: FA3547-1, FA3547-2, FA3547-3, FA3547-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP24991
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/19/13

Metal	Sample ml	Final ml	FA3547-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	1309	1282.82	4198	0.2	150	3000	97.2	80-120
Lead										
Magnesium										
Manganese	9.8	10	15.1	14.798	66.3	0.2	2.5	50	103.0	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP24991: FA3547-1, FA3547-2, FA3547-3, FA3547-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN55319	5.0	0.80	mg/l	250	251	101.0	90-113%
Bromide	GP21454/GN55253	0.50	0.0	mg/l	12.5	13.3	106.4	90-110%
Bromide	GP21455/GN55253	0.50	0.0	mg/l	12.5	13.2	105.6	90-110%
Chloride	GP21454/GN55253	2.0	0.0	mg/l	50	52.1	104.2	90-110%
Chloride	GP21455/GN55253	2.0	0.0	mg/l	50	52.3	104.6	90-110%
Nitrogen, Nitrate	GP21454/GN55253	0.10	0.0	mg/l	2.5	2.67	106.8	90-110%
Nitrogen, Nitrate	GP21455/GN55253	0.10	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrite	GP21454/GN55253	0.10	0.0	mg/l	2.5	2.62	104.8	90-110%
Nitrogen, Nitrite	GP21455/GN55253	0.10	0.0	mg/l	2.5	2.74	109.6	90-110%
Phosphate, Ortho	GP21431/GN55194	0.10	0.0	mg/l	0.300	0.28	94.3	83-116%
Solids, Total Dissolved	GN55290	100	54.0	mg/l				
Sulfate	GP21454/GN55253	2.0	0.0	mg/l	50	51.9	103.8	90-110%
Sulfate	GP21455/GN55253	2.0	0.0	mg/l	50	51.8	103.6	90-110%
Total Organic Carbon	GP21448/GN55233	1.0	0.0	mg/l	15	15.3	102.0	90-110%

Associated Samples:
Batch GN55290: FA3547-1, FA3547-3, FA3547-4
Batch GN55319: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21431: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21448: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21454: FA3547-3, FA3547-4
Batch GP21455: FA3547-1, FA3547-2
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN55319	FA3490-1	mg/l	71.2	71.9	1.0	0-20%
Phosphate, Ortho	GP21431/GN55194	FA3547-2	mg/l	0.17	0.18	5.1	0-26%
Solids, Total Dissolved	GN55290	FA3629-17	mg/l	250	252	0.8	0-5%
Total Organic Carbon	GP21448/GN55233	FA3547-1	mg/l	6.8	6.6	3.0	0-20%

Associated Samples:
Batch GN55290: FA3547-1, FA3547-3, FA3547-4
Batch GN55319: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21431: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21448: FA3547-1, FA3547-2, FA3547-3, FA3547-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN55319	FA3490-1	mg/l	71.2	250	321	99.7	90-113%
Bromide	GP21454/GN55308	FA3568-3	mg/l	0.24 U	12.5	11.6	92.8	90-110%
Bromide	GP21455/GN55253	FA3620-1	mg/l	0.12 U	12.5	12.3	98.4	90-110%
Chloride	GP21454/GN55308	FA3568-3	mg/l	1.6 U	50	51.4	102.8	90-110%
Chloride	GP21455/GN55253	FA3620-1	mg/l	12.9	50	65.5	105.2	90-110%
Nitrogen, Nitrate	GP21454/GN55308	FA3568-3	mg/l	7.0	2.5	9.2	88.0N(a)	90-110%
Nitrogen, Nitrate	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.7	108.0	90-110%
Nitrogen, Nitrite	GP21454/GN55308	FA3568-3	mg/l	0.42	2.5	2.7	91.2	90-110%
Nitrogen, Nitrite	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.7	108.0	90-110%
Phosphate, Ortho	GP21431/GN55194	FA3547-2	mg/l	0.17	0.300	0.37	69.2*(a)	83-116%
Sulfate	GP21454/GN55308	FA3568-3	mg/l	7.3	50	57.0	99.4	90-110%
Sulfate	GP21455/GN55253	FA3620-1	mg/l	13.7	50	64.7	102.0	90-110%
Total Organic Carbon	GP21448/GN55233	FA3547-1	mg/l	6.8	15	21.8	100.0	90-110%

Associated Samples:
Batch GN55319: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21431: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21448: FA3547-1, FA3547-2, FA3547-3, FA3547-4
Batch GP21454: FA3547-3, FA3547-4
Batch GP21455: FA3547-1, FA3547-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3547
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP21454/GN55308	FA3568-3	mg/l	0.24 U	12.5	11.6	0.0	20%
Bromide	GP21455/GN55253	FA3620-1	mg/l	0.12 U	12.5	12.3	0.0	20%
Chloride	GP21454/GN55308	FA3568-3	mg/l	1.6 U	50	51.5	0.2	20%
Chloride	GP21455/GN55253	FA3620-1	mg/l	12.9	50	65.4	0.2	20%
Nitrogen, Nitrate	GP21454/GN55308	FA3568-3	mg/l	7.0	2.5	9.1	1.1(a)	20%
Nitrogen, Nitrate	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.7	0.0	20%
Nitrogen, Nitrite	GP21454/GN55308	FA3568-3	mg/l	0.42	2.5	2.8	3.6	20%
Nitrogen, Nitrite	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.6	3.8	20%
Sulfate	GP21454/GN55308	FA3568-3	mg/l	7.3	50	56.8	0.4	20%
Sulfate	GP21455/GN55253	FA3620-1	mg/l	13.7	50	64.7	0.0	20%

Associated Samples:
Batch GP21454: FA3547-3, FA3547-4
Batch GP21455: FA3547-1, FA3547-2
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

Southeast ACCUTEST LABORATORIES

04/30/13

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: FA3620

Sampling Date: 04/11/13

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **39**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

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Sample Summary

BFA Environmental Consultants

Job No: FA3620

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA3620-1	04/11/13	10:59	KB	04/12/13	AQ	Ground Water	OLD-OU2-47B
FA3620-2	04/11/13	13:24	KB	04/12/13	AQ	Ground Water	OLD-OU2-44B
FA3620-3	04/11/13	00:00	KB	04/12/13	AQ	Ground Water	OLD-OU2-DUP3

Summary of Hits

Job Number: FA3620
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3620-1	**OLD-OU2-47B**					
cis-1,2-Dichloroethylene		138	50	12	ug/l	SW846 8260B
Trichloroethylene		2490	50	16	ug/l	SW846 8260B
Methane		778	0.50	0.16	ug/l	RSKSOP-147/175
Ethene		3.24	1.0	0.43	ug/l	RSKSOP-147/175
Iron		783	300	29	ug/l	SW846 6010C
Manganese		8.5 I	15	0.70	ug/l	SW846 6010C
Alkalinity, Total as CaCO3		15.1	5.0	0.60	mg/l	SM19 2320B
Chloride		12.9	2.0	0.80	mg/l	EPA 300/SW846 9056A
Phosphate, Ortho		0.90	0.50	0.095	mg/l	EPA 365.3
Solids, Total Dissolved [a]		77.0 I	100	10	mg/l	SM19 2540C
Sulfate		13.7	2.0	0.60	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		5.6	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3620-2	**OLD-OU2-44B**					
cis-1,2-Dichloroethylene		326	10	2.4	ug/l	SW846 8260B
Trichloroethylene		3.5 I	10	3.1	ug/l	SW846 8260B
Vinyl chloride		776	10	4.4	ug/l	SW846 8260B
Iron		958	300	29	ug/l	SW846 6010C
Manganese		6.8 I	15	0.70	ug/l	SW846 6010C
FA3620-3	**OLD-OU2-DUP3**					
cis-1,2-Dichloroethylene		133	100	24	ug/l	SW846 8260B
Tetrachloroethylene		23.9	1.0	0.32	ug/l	SW846 8260B
Trichloroethylene		1550	100	31	ug/l	SW846 8260B
Vinyl chloride		29.6	1.0	0.44	ug/l	SW846 8260B

(a) Sample analyzed beyond hold time due to laboratory error.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	FA3620-1	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15640.D	50	04/23/13	MM	n/a	n/a	VO640
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	138	50	12	ug/l	
127-18-4	Tetrachloroethylene	16 U	50	16	ug/l	
79-01-6	Trichloroethylene	2490	50	16	ug/l	
75-01-4	Vinyl chloride	22 U	50	22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		83-118%
17060-07-0	1,2-Dichloroethane-D4	112%		79-125%
2037-26-5	Toluene-D8	105%		85-112%
460-00-4	4-Bromofluorobenzene	106%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	FA3620-1	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18242.D	1	04/16/13	CP	n/a	n/a	GFF751
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	778	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	3.24	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	FA3620-1	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	783	300	29	ug/l	1	04/22/13	04/22/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	8.5 I	15	0.70	ug/l	1	04/22/13	04/22/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10688
(2) Prep QC Batch: MP25001

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	FA3620-1	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	15.1	5.0	0.60	mg/l	1	04/19/13 11:45	HH	SM19 2320B
Chloride	12.9	2.0	0.80	mg/l	1	04/13/13 03:30	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/13/13 03:30	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/13/13 03:30	AA	EPA 300/SW846 9056A
Phosphate, Ortho	0.90	0.50	0.095	mg/l	5	04/13/13 09:00	VK	EPA 365.3
Solids, Total Dissolved [a]	77.0 I	100	10	mg/l	1	04/19/13 14:20	KC	SM19 2540C
Sulfate	13.7	2.0	0.60	mg/l	1	04/13/13 03:30	AA	EPA 300/SW846 9056A
Total Organic Carbon	5.6	1.0	0.23	mg/l	1	04/17/13 08:08	FN	SM19 5310B/SW 9060A

(a) Sample analyzed beyond hold time due to laboratory error.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-44B		
Lab Sample ID:	FA3620-2	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15663.D	10	04/24/13	MM	n/a	n/a	VO641
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	2.1 U	10	2.1	ug/l	
156-59-2	cis-1,2-Dichloroethylene	326	10	2.4	ug/l	
98-82-8	Isopropylbenzene	2.0 U	10	2.0	ug/l	
75-09-2	Methylene chloride	20 U	50	20	ug/l	
127-18-4	Tetrachloroethylene	3.2 U	10	3.2	ug/l	
79-01-6	Trichloroethylene	3.5	10	3.1	ug/l	I
75-01-4	Vinyl chloride	776	10	4.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	96%		79-125%
2037-26-5	Toluene-D8	100%		85-112%
460-00-4	4-Bromofluorobenzene	94%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-44B		
Lab Sample ID:	FA3620-2	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	958	300	29	ug/l	1	04/22/13	04/22/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	6.8 I	15	0.70	ug/l	1	04/22/13	04/22/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10688
(2) Prep QC Batch: MP25001

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-DUP3		
Lab Sample ID:	FA3620-3	**Date Sampled:**	04/11/13
Matrix:	AQ - Ground Water	**Date Received:**	04/12/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	O15642.D	1	04/23/13	MM	n/a	n/a	VO640
Run #2	O15664.D	100	04/24/13	MM	n/a	n/a	VO641

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	133 [a]	100	24	ug/l	
127-18-4	Tetrachloroethylene	23.9	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	1550 [a]	100	31	ug/l	
75-01-4	Vinyl chloride	29.6	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	112%	98%	79-125%
2037-26-5	Toluene-D8	103%	101%	85-112%
460-00-4	4-Bromofluorobenzene	105%	95%	83-118%

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

FA 3620

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to: John Watson	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/11/13 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-47B	04/11/2013	10:59 am	WG	Fe/Mn Methane/ethane/ethene Sulfate TOC VOCs Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate, TDS	11	AG;CG;PE	40 ml;125 ml;500 ml	HCL;HNO3;None	2 week	
2	OLD-OU2-44B	04/11/2013	01:24 pm	WG	Fe/Mn Voc	4	CG;PE	40 ml;125 ml	HCL;HNO3	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
3 OLD-OU2-DUP 3 WG VOC	

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4/12/13	1306	[signature]	04/12/13	13:06
[signature]	04/12/13	13:23	Frank Torres AISE	04/12/13	13:23

Sampler Name: Katie Ballew

Sampler Signature: [signature]

Date Signed: 04/12/2013

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FA3620: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA 3620 CLIENT: BFA PROJECT: 07-71009/2

DATE/TIME RECEIVED: 04/12/13 13:23 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND (DELIVERY) OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR +04
- [ ] OBSERVED TEMPS: 3.6
- [ ] CORRECTED TEMPS: 4.0

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 04.12.13 REVIEWER SIGNATURE/DATE [signature] 04/12/13

NF 12/10

receipt confirmation 122910.xls

4.1

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FA3620: Chain of Custody

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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO640-MB	O15623.D	1	04/23/13	MM	n/a	n/a	VO640

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3620-1, FA3620-3

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	101%	83-118%

Method Blank Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO641-MB	O15661.D	1	04/24/13	MM	n/a	n/a	VO641

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3620-2, FA3620-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	94%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	89%	83-118%

Blank Spike Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO640-BS	O15622.D	1	04/23/13	MM	n/a	n/a	VO640

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3620-1, FA3620-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
156-59-2	cis-1,2-Dichloroethylene	25	23.9	96	78-120
127-18-4	Tetrachloroethylene	25	24.7	99	76-135
79-01-6	Trichloroethylene	25	25.4	102	81-126
75-01-4	Vinyl chloride	25	27.9	112	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VO641-BS	O15660.D	1	04/24/13	MM	n/a	n/a	VO641

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3620-2, FA3620-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	23.2	93	81-122
156-59-2	cis-1,2-Dichloroethylene	25	24.0	96	78-120
98-82-8	Isopropylbenzene	25	25.0	100	83-132
75-09-2	Methylene chloride	25	21.9	88	69-135
127-18-4	Tetrachloroethylene	25	25.2	101	76-135
79-01-6	Trichloroethylene	25	23.7	95	81-126
75-01-4	Vinyl chloride	25	29.4	118	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	95%	79-125%
2037-26-5	Toluene-D8	96%	85-112%
460-00-4	4-Bromofluorobenzene	88%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3878-1MS	O15644.D	1	04/23/13	MM	n/a	n/a	VO640
FA3878-1MSD	O15645.D	1	04/23/13	MM	n/a	n/a	VO640
FA3878-1	O15631.D	1	04/23/13	MM	n/a	n/a	VO640

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3620-1, FA3620-3

CAS No.	Compound	FA3878-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
156-59-2	cis-1,2-Dichloroethylene	3.5		25	28.1	98	29.1	102	3	78-120/15
127-18-4	Tetrachloroethylene	1.0	U	25	23.8	95	23.3	93	2	76-135/16
79-01-6	Trichloroethylene	1.0	U	25	27.2	109	27.1	108	0	81-126/15
75-01-4	Vinyl chloride	1.0	U	25	27.6	110	28.6	114	4	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3878-1	Limits
1868-53-7	Dibromofluoromethane	105%	106%	107%	83-118%
17060-07-0	1,2-Dichloroethane-D4	108%	107%	111%	79-125%
2037-26-5	Toluene-D8	93%	96%	102%	85-112%
460-00-4	4-Bromofluorobenzene	98%	98%	106%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3892-2MS	O15681.D	1	04/24/13	MM	n/a	n/a	VO641
FA3892-2MSD	O15682.D	1	04/24/13	MM	n/a	n/a	VO641
FA3892-2	O15667.D	1	04/24/13	MM	n/a	n/a	VO641

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3620-2, FA3620-3

CAS No.	Compound	FA3892-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		25	22.9	92	22.3	89	3	81-122/14
156-59-2	cis-1,2-Dichloroethylene	0.86	I	25	23.5	91	22.9	88	3	78-120/15
98-82-8	Isopropylbenzene	1.0 U		25	23.8	95	23.1	92	3	83-132/15
75-09-2	Methylene chloride	5.0 U		25	23.8	95	22.9	92	4	69-135/16
127-18-4	Tetrachloroethylene	1.0 U		25	22.0	88	21.6	86	2	76-135/16
79-01-6	Trichloroethylene	1.0 U		25	24.0	96	23.7	95	1	81-126/15
75-01-4	Vinyl chloride	1.0 U		25	28.1	112	27.5	110	2	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3892-2	Limits
1868-53-7	Dibromofluoromethane	102%	101%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	100%	100%	79-125%
2037-26-5	Toluene-D8	95%	96%	101%	85-112%
460-00-4	4-Bromofluorobenzene	89%	91%	97%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF751-MB	FF18219.D	1	04/16/13	CP	n/a	n/a	GFF751

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3620-1

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF751-BS	FF18220.D	1	04/16/13	CP	n/a	n/a	GFF751

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3620-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	140	130	61-144
74-84-0	Ethane	219	298	136	64-143
74-85-1	Ethene	290	395	136	64-141

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3644-19MS	FF18231.D	1	04/16/13	CP	n/a	n/a	GFF751
FA3644-19	FF18230.D	1	04/16/13	CP	n/a	n/a	GFF751

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3620-1

CAS No.	Compound	FA3644-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	13.0		108	124	103	61-144
74-84-0	Ethane	1.0 U		219	239	109	64-143
74-85-1	Ethene	1.0 U		290	316	109	64-141

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA3620
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3644-21DUP	FF18236.D	1	04/16/13	CP	n/a	n/a	GFF751
FA3644-21	FF18233.D	1	04/16/13	CP	n/a	n/a	GFF751

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3620-1

CAS No.	Compound	FA3644-21 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	2.33		1.74		29	33
74-84-0	Ethane	1.0 U		ND		nc	20
74-85-1	Ethene	1.0 U		ND		nc	19

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25001
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/22/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	1.3	1.3		
Arsenic	10	1.6	2.5		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1.8	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	29	29	-5.5	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	74	74		
Manganese	15	.7	.7	0.0	<15
Molybdenum	50	.6	1		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2	2		
Silver	10	.5	.5		
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.3	1.3		
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1		
Zinc	20	3	5		

Associated samples MP25001: FA3620-1, FA3620-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25001
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			04/22/13					04/22/13	
Metal	FA3620-1 Original	DUP	RPD	QC Limits	FA3620-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	anr								
Barium									
Beryllium									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	783	763	2.6	0-20	783	28500	26000	106.6	80-120
Lead	anr								
Magnesium									
Manganese	8.5	8.5	0.0	0-20	8.5	532	500	104.7	80-120
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP25001: FA3620-1, FA3620-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25001 | Methods: SW846 6010C
Matrix Type: AQUEOUS | Units: ug/l

Prep Date: 04/22/13

Metal	FA3620-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	783	27300	26000	102.0	4.3	20
Lead	anr					
Magnesium						
Manganese	8.5	504	500	99.1	5.4	20
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP25001: FA3620-1, FA3620-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25001
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/22/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	27700	26000	106.5	80-120
Lead	anr			
Magnesium				
Manganese	516	500	103.2	80-120
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP25001: FA3620-1, FA3620-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25001
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/22/13

Metal	FA3620-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	783	760	3.0	0-10
Lead	anr			
Magnesium				
Manganese	8.50	8.90	4.7	0-10
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP25001: FA3620-1, FA3620-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25001
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/22/13

Metal	Sample ml	Final ml	FA3620-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	783.2	767.536	3848	0.2	150	3000	102.7	80-120
Lead										
Magnesium										
Manganese	9.8	10	8.5	8.33	59.3	0.2	2.5	50	101.9	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP25001: FA3620-1, FA3620-2

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN55340	5.0	2.4	mg/l	250	250	100.0	90-113%
Bromide	GP21455/GN55253	0.50	0.0	mg/l	12.5	13.2	105.6	90-110%
Chloride	GP21455/GN55253	2.0	0.0	mg/l	50	52.3	104.6	90-110%
Nitrogen, Nitrate	GP21455/GN55253	0.10	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrite	GP21455/GN55253	0.10	0.0	mg/l	2.5	2.74	109.6	90-110%
Phosphate, Ortho	GP21444/GN55230	0.10	0.0	mg/l	0.300	0.30	99.3	83-116%
Solids, Total Dissolved	GN55332	100	0.0	mg/l				
Sulfate	GP21455/GN55253	2.0	0.0	mg/l	50	51.8	103.6	90-110%
Total Organic Carbon	GP21469/GN55275	1.0	0.0	mg/l	15	15.3	102.0	90-110%

Associated Samples:
Batch GN55332: FA3620-1
Batch GN55340: FA3620-1
Batch GP21444: FA3620-1
Batch GP21455: FA3620-1
Batch GP21469: FA3620-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN55340	FA3748-2	mg/l	28.2	26.0	8.1	0-20%
Phosphate, Ortho	GP21444/GN55230	FA3629-16	mg/l	0.42	0.44	4.0	0-26%
Solids, Total Dissolved	GN55332	FA3598-5	mg/l	410	412	0.5	0-5%
Total Organic Carbon	GP21469/GN55275	FA3598-1	mg/l	41.1	41.9	1.9	0-20%

Associated Samples:
Batch GN55332: FA3620-1
Batch GN55340: FA3620-1
Batch GP21444: FA3620-1
Batch GP21469: FA3620-1
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN55340	FA3748-2	mg/l	28.2	250	274	98.3	90-113%
Bromide	GP21455/GN55253	FA3620-1	mg/l	0.12 U	12.5	12.3	98.4	90-110%
Chloride	GP21455/GN55253	FA3620-1	mg/l	12.9	50	65.5	105.2	90-110%
Nitrogen, Nitrate	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.7	108.0	90-110%
Nitrogen, Nitrite	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.7	108.0	90-110%
Phosphate, Ortho	GP21444/GN55230	FA3629-16	mg/l	0.42	0.300	0.73	103.1	83-116%
Sulfate	GP21455/GN55253	FA3620-1	mg/l	13.7	50	64.7	102.0	90-110%
Total Organic Carbon	GP21469/GN55275	FA3598-1	mg/l	41.1	15	56.8	104.7	90-110%

Associated Samples:
Batch GN55340: FA3620-1
Batch GP21444: FA3620-1
Batch GP21455: FA3620-1
Batch GP21469: FA3620-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3620
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP21455/GN55253	FA3620-1	mg/l	0.12 U	12.5	12.3	0.0	20%
Chloride	GP21455/GN55253	FA3620-1	mg/l	12.9	50	65.4	0.2	20%
Nitrogen, Nitrate	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.7	0.0	20%
Nitrogen, Nitrite	GP21455/GN55253	FA3620-1	mg/l	0.050 U	2.5	2.6	3.8	20%
Sulfate	GP21455/GN55253	FA3620-1	mg/l	13.7	50	64.7	0.0	20%

Associated Samples:
Batch GP21455: FA3620-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Southeast
ACCUTEST LABORATORIES

04/30/13

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: FA3678

Sampling Date: 04/15/13

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **40**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: FA3678

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA3678-1	04/15/13	12:20	DA	04/16/13	AQ	Ground Water	OLD-OU2-29A
FA3678-2	04/15/13	13:27	DA	04/16/13	AQ	Ground Water	OLD-OU2-29B
FA3678-3	04/15/13	14:42	DA	04/16/13	AQ	Ground Water	OLD-OU2-DP02A
FA3678-4	04/15/13	00:00	DA	04/16/13	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: FA3678
Account: BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL
Collected: 04/15/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	PQL	MDL	Units	Method
FA3678-1	**OLD-OU2-29A**					
No hits reported in this sample.						
FA3678-2	**OLD-OU2-29B**					
No hits reported in this sample.						
FA3678-3	**OLD-OU2-DP02A**					
cis-1,2-Dichloroethylene		2.5	1.0	0.24	ug/l	SW846 8260B
Methane		8.61	0.50	0.16	ug/l	RSKSOP-147/175
Iron		6300	300	29	ug/l	SW846 6010C
Manganese		249	15	0.70	ug/l	SW846 6010C
Chloride		40.2	2.0	0.80	mg/l	EPA 300/SW846 9056A
Solids, Total Dissolved		426	100	10	mg/l	SM19 2540C
Sulfate		232	10	3.0	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		5.0	1.0	0.23	mg/l	SM19 5310B/SW 9060A
FA3678-4	**TRIP BLANK**					
No hits reported in this sample.						

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	FA3678-1	**Date Sampled:**	04/15/13
Matrix:	AQ - Ground Water	**Date Received:**	04/16/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/16/13 12:00	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/16/13 12:00	AA	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	FA3678-2	**Date Sampled:**	04/15/13
Matrix:	AQ - Ground Water	**Date Received:**	04/16/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/16/13 12:16	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/16/13 12:16	AA	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	FA3678-3	**Date Sampled:**	04/15/13
Matrix:	AQ - Ground Water	**Date Received:**	04/16/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P15595.D	1	04/25/13	EG	n/a	n/a	VP601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	2.5	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride [a]	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	104%		83-118%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	FA3678-3	**Date Sampled:**	04/15/13
Matrix:	AQ - Ground Water	**Date Received:**	04/16/13
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF18252.D	1	04/17/13	CP	n/a	n/a	GFF752
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	8.61	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	FA3678-3	**Date Sampled:**	04/15/13
Matrix:	AQ - Ground Water	**Date Received:**	04/16/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	6300	300	29	ug/l	1	04/25/13	04/25/13	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	249	15	0.70	ug/l	1	04/25/13	04/25/13	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA10699
(2) Prep QC Batch: MP25021

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	FA3678-3	**Date Sampled:**	04/15/13
Matrix:	AQ - Ground Water	**Date Received:**	04/16/13
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	0.60 U	5.0	0.60	mg/l	1	04/19/13 11:45	HH	SM19 2320B
Chloride	40.2	2.0	0.80	mg/l	1	04/16/13 12:32	AA	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/16/13 12:32	AA	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/16/13 12:32	AA	EPA 300/SW846 9056A
Phosphate, Ortho	0.020 U	0.10	0.020	mg/l	1	04/16/13 14:00	JA	EPA 365.3
Solids, Total Dissolved	426	100	10	mg/l	1	04/19/13 14:20	KC	SM19 2540C
Sulfate	232	10	3.0	mg/l	5	04/16/13 17:00	AA	EPA 300/SW846 9056A
Total Organic Carbon	5.0	1.0	0.23	mg/l	1	04/18/13 15:38	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	FA3678-4	**Date Sampled:**	04/15/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/16/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P15571.D	1	04/24/13	AH	n/a	n/a	VP600
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	0.24 U	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	0.32 U	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	0.31 U	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	0.44 U	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		83-118%
17060-07-0	1,2-Dichloroethane-D4	106%		79-125%
2037-26-5	Toluene-D8	101%		85-112%
460-00-4	4-Bromofluorobenzene	102%		83-118%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

FA3678

Page 1 of 1

Client Information	Project Information		Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813	Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/15/13 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-29A	04/15/2013	12:20 pm	WG	Nitrate/Nitrite	1	PE	1 L	None	2 week	
2	OLD-OU2-29B	04/15/2013	01:27 pm	WG	Nitrate/Nitrite	1	PE	1 L	None	2 week	
3	OLD-OU2-DP02A	04/15/2013	02:42 pm	WG	Alkalinity Chloride Fe/Mn Methane/ethane/ethene Nitrate/Nitrite Orthophosphate Sulfate TDS TOC VOCs	11	AG;CG;PE	40 ml;250 ml;1 L	HCL;HNO3;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
J. Watson	4-16-13		[illegible]	4/16/13	847
[illegible]	4-16-13				
[illegible]	4/16/13	912	[illegible] MLJE	04/16/13	912

Sampler Name: Damian Allen

Sampler Signature: [illegible]

2-6

Date Signed: 04/15/2013

4.1 4

FA3678: Chain of Custody

Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA3678 CLIENT: BFA PROJECT: Operable Unit 2

DATE/TIME RECEIVED: 0416-13 0912 (MM/DD/YY 24:00) NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 3 CORR. FACTOR 40.4
- [ ] OBSERVED TEMPS: 2.2
- [ ] CORRECTED TEMPS: 2.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE R Willh 041613 REVIEWER SIGNATURE/DATE [illegible] 041613

NF 12/10

receipt confirmation 122910.xls

4.1

4

FA3678: Chain of Custody

Page 2 of 3

Job Change Order: FA3678_4/18/2013

Requested Date:	4/18/2013	**Received Date:**	4/16/2013
Account Name:	BFA Environmental Consultants	**Due Date:**	4/30/2013
Project	NTC Orlando, Orlando, FL	**Deliverable:**	COMMB
CSR:	JDS	**TAT (Days):**	14

Sample #:
FA3678-4

Change: Trip Blank sent but not listed on COC, please log and report PCE, TCE, C12DCE and VC for 8260 only. Thank you.

Above Changes Per: CSR

Date: 4/18/2013

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service

Page 1 of 1

FA3678: Chain of Custody
Page 3 of 3

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP600-MB	P15564.D	1	04/24/13	AH	n/a	n/a	VP600

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3678-4

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	108%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	106%	83-118%

Method Blank Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP601-MB	P15592.D	1	04/25/13	EG	n/a	n/a	VP601

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3678-3

CAS No.	Compound	Result	RL	MDL	Units	Q
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.32	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.31	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.44	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	104%	83-118%

Blank Spike Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP600-BS	P15565.D	1	04/24/13	AH	n/a	n/a	VP600

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3678-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
156-59-2	cis-1,2-Dichloroethylene	25	20.1	80	78-120
127-18-4	Tetrachloroethylene	25	22.3	89	76-135
79-01-6	Trichloroethylene	25	20.3	81	81-126
75-01-4	Vinyl chloride	25	24.7	99	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	109%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP601-BS	P15591.D	1	04/25/13	EG	n/a	n/a	VP601

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3678-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
156-59-2	cis-1,2-Dichloroethylene	25	25.8	103	78-120
127-18-4	Tetrachloroethylene	25	30.6	122	76-135
79-01-6	Trichloroethylene	25	26.3	105	81-126
75-01-4	Vinyl chloride	25	42.6	170*	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	96%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3585-4MS	P15568.D	500	04/24/13	AH	n/a	n/a	VP600
FA3585-4MSD	P15569.D	500	04/24/13	AH	n/a	n/a	VP600
FA3585-4	P15567.D	500	04/24/13	AH	n/a	n/a	VP600

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3678-4

CAS No.	Compound	FA3585-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
156-59-2	cis-1,2-Dichloroethylene	43500		12500	53000	76* [a]	52100	69* [a]	2	78-120/15
127-18-4	Tetrachloroethylene	7290		12500	20400	105	18700	91	9	76-135/16
79-01-6	Trichloroethylene	44700		12500	55000	82	53300	69* [a]	3	81-126/15
75-01-4	Vinyl chloride	2000		12500	14400	99	15100	105	5	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3585-4	Limits
1868-53-7	Dibromofluoromethane	103%	100%	107%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	109%	105%	79-125%
2037-26-5	Toluene-D8	103%	100%	102%	85-112%
460-00-4	4-Bromofluorobenzene	99%	97%	104%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3755-14MS	P15602.D	50	04/25/13	EG	n/a	n/a	VP601
FA3755-14MSD	P15603.D	50	04/25/13	EG	n/a	n/a	VP601
FA3755-14	P15601.D	50	04/25/13	EG	n/a	n/a	VP601

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA3678-3

CAS No.	Compound	FA3755-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
156-59-2	cis-1,2-Dichloroethylene	ND		1250	1370	110	1360	109	1	78-120/15
127-18-4	Tetrachloroethylene	ND		1250	1480	118	1480	118	0	76-135/16
79-01-6	Trichloroethylene	ND		1250	1380	110	1440	115	4	81-126/15
75-01-4	Vinyl chloride	ND		1250	1870	150	2110	169*	12	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA3755-14	Limits
1868-53-7	Dibromofluoromethane	99%	98%	102%	83-118%
17060-07-0	1,2-Dichloroethane-D4	110%	109%	107%	79-125%
2037-26-5	Toluene-D8	98%	99%	100%	85-112%
460-00-4	4-Bromofluorobenzene	98%	97%	104%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF752-MB	FF18246.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3678-3

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF752-BS	FF18247.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3678-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	105	97	61-144
74-84-0	Ethane	219	232	106	64-143
74-85-1	Ethene	290	299	103	64-141

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3678-3MS	FF18257.D	1	04/17/13	CP	n/a	n/a	GFF752
FA3678-3	FF18252.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3678-3

CAS No.	Compound	FA3678-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	8.61		108	153	134	61-144
74-84-0	Ethane	1.0 U		219	300	137	64-143
74-85-1	Ethene	1.0 U		290	402	139	64-141

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA3678
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA3547-2DUP	FF18258.D	1	04/17/13	CP	n/a	n/a	GFF752
FA3547-2	FF18249.D	1	04/17/13	CP	n/a	n/a	GFF752

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

FA3678-3

CAS No.	Compound	FA3547-2 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	634		612		4	33
74-84-0	Ethane	1.0 U		ND		nc	20
74-85-1	Ethene	1.0 U		ND		nc	19

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25021
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/25/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	1.3	1.3		
Arsenic	10	1.6	2.5		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1.8	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	29	29	6.7	<300
Lead	5.0	1.1	1.1		
Magnesium	5000	74	74		
Manganese	15	.7	.7	1.2	<15
Molybdenum	50	.6	1		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2	2		
Silver	10	.5	.5		
Sodium	10000	500	500		
Strontium	10	.5	.5		
Thallium	10	1.3	1.3		
Tin	50	.7	1.8		
Titanium	10	.9	1		
Vanadium	50	.5	1		
Zinc	20	3	5		

Associated samples MP25021: FA3678-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25021
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:	04/25/13						04/25/13		
Metal	FA3691-3 Original	DUP	RPD	QC Limits	FA3691-3 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	32000	26500	18.8	0-20	32000	62400	26000	116.9	80-120
Lead	anr								
Magnesium									
Manganese	995	918	8.1	0-20	995	1540	500	109.0	80-120
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium	anr								
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP25021: FA3678-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25021 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/25/13

Metal	FA3691-3 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	32000	53900	26000	84.2	14.6	20
Lead	anr					
Magnesium						
Manganese	995	1470	500	95.0	4.7	20
Molybdenum						
Nickel	anr					
Potassium						
Selenium	anr					
Silver	anr					
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP25021: FA3678-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25021
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/25/13

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	28200	26000	108.5	80-120
Lead	anr			
Magnesium				
Manganese	546	500	109.2	80-120
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP25021: FA3678-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25021
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/25/13

Metal	FA3691-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	32000	34600	8.1	0-10
Lead	anr			
Magnesium				
Manganese	995	1070	7.5	0-10
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP25021: FA3678-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP25021
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/25/13

Metal	Sample ml	Final ml	FA3691-3 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	31990	31350.2	34130	0.2	150	3000	92.7	80-120
Lead										
Magnesium										
Manganese	9.8	10	994.6	974.708	1004	0.2	2.5	50	58.6*(a)	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP25021: FA3678-3

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN55340	5.0	2.4	mg/l	250	250	100.0	90-113%
Chloride	GP21487/GN55308	2.0	0.0	mg/l	50	49.7	99.4	90-110%
Nitrogen, Nitrate	GP21487/GN55308	0.10	0.0	mg/l	2.5	2.43	97.2	90-110%
Nitrogen, Nitrite	GP21487/GN55308	0.10	0.0	mg/l	2.5	2.56	102.4	90-110%
Phosphate, Ortho	GP21466/GN55268	0.10	0.0	mg/l	0.300	0.15	105.8	83-116%
Solids, Total Dissolved	GN55332	100	0.0	mg/l				
Sulfate	GP21487/GN55308	2.0	0.0	mg/l	50	47.6	95.2	90-110%
Total Organic Carbon	GP21483/GN55301	1.0	0.0	mg/l	15	15.4	102.7	90-110%

Associated Samples:
Batch GN55332: FA3678-3
Batch GN55340: FA3678-3
Batch GP21466: FA3678-3
Batch GP21483: FA3678-3
Batch GP21487: FA3678-1, FA3678-2, FA3678-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN55340	FA3748-2	mg/l	28.2	26.0	8.1	0-20%
Phosphate, Ortho	GP21466/GN55268	FA3678-3	mg/l	0.020 U	0.0	0.0	0-26%
Solids, Total Dissolved	GN55332	FA3598-5	mg/l	410	412	0.5	0-5%
Total Organic Carbon	GP21483/GN55301	FA3659-6	mg/l	20.5	20.9	1.9	0-20%

Associated Samples:
Batch GN55332: FA3678-3
Batch GN55340: FA3678-3
Batch GP21466: FA3678-3
Batch GP21483: FA3678-3
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN55340	FA3748-2	mg/l	28.2	250	274	98.3	90-113%
Chloride	GP21487/GN55308	FA3678-1	mg/l	16.6	50	68.3	103.4	90-110%
Nitrogen, Nitrate	GP21487/GN55308	FA3678-1	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Nitrogen, Nitrite	GP21487/GN55308	FA3678-1	mg/l	0.050 U	2.5	2.6	104.0	90-110%
Phosphate, Ortho	GP21466/GN55268	FA3678-3	mg/l	0.020 U	0.300	0.15	107.2	83-116%
Sulfate	GP21487/GN55308	FA3678-1	mg/l	18.8	50	68.7	99.8	90-110%
Total Organic Carbon	GP21483/GN55301	FA3659-6	mg/l	20.5	15	34.7	94.7	90-110%

Associated Samples:
Batch GN55340: FA3678-3
Batch GP21466: FA3678-3
Batch GP21483: FA3678-3
Batch GP21487: FA3678-1, FA3678-2, FA3678-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA3678
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP21487/GN55308	FA3678-1	mg/l	16.6	50	68.2	0.1	20%
Nitrogen, Nitrate	GP21487/GN55308	FA3678-1	mg/l	0.050 U	2.5	2.5	0.0	20%
Nitrogen, Nitrite	GP21487/GN55308	FA3678-1	mg/l	0.050 U	2.5	2.6	0.0	20%
Phosphate, Ortho	GP21466/GN55268	FA3678-3	mg/l	0.020 U	0.300	0.150	0.7	26%
Sulfate	GP21487/GN55308	FA3678-1	mg/l	18.8	50	68.8	0.1	20%

Associated Samples:
Batch GP21466: FA3678-3
Batch GP21487: FA3678-1, FA3678-2, FA3678-3
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

APPENDIX E
Concentration Trend Analysis for Selected Wells

MAROS Statistical Trend Analysis Summary

Project: Orlando NTC OU-2

Location: Orlando

User Name: BFA Environmental

State: Florida

Time Period: 10/3/2008 **to** 4/10/2013

Consolidation Period: No Time Consolidation

Consolidation Type: Median

Duplicate Consolidation: Average

ND Values: Detection Limit

J Flag Values : Actual Value

Well	Source/ Tail	Number of Samples	Number of Detects	Average Conc. (mg/L)	Median Conc. (mg/L)	All Samples "ND" ?	Mann-Kendall Trend	Linear Regression Trend
BENZENE								
OLD-OU2-31B	S	10	10	2.2E-02	2.4E-02	No	D	D
OLD-OU2-41B	T	8	8	2.0E-03	2.0E-03	No	S	S
TRICHLOROETHYLENE (TCE)								
OLD-OU2-41B	T	8	8	4.5E-02	4.5E-02	No	S	S
OLD-OU2-42B	T	8	8	2.6E+00	2.9E+00	No	D	D
OLD-OU2-43B	T	8	8	5.6E+00	5.3E+00	No	NT	NT

Note: Increasing (I); Probably Increasing (PI); Stable (S); Probably Decreasing (PD); Decreasing (D); No Trend (NT); Not Applicable (N/A); Not Applicable (N/A) - Due to insufficient Data (< 4 sampling events); No Detectable Concentration (NDC)

The Number of Samples and Number of Detects shown above are post-consolidation values.