

PREDICTING *ESHERICHIA COLI* LEVELS IN THE TRINITY
RIVER FOR ISSUING CONTACT RECREATION
WARNINGS IN THE DALLAS-FORT
WORTH METROPLEX

by

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Dedication

This thesis is dedicated to my family who supported me throughout this long journey. My parents, Cecil and Susan, provided the best advice during the difficult times over the past seven years. My loving husband, Shane, provided moral support and helped me deal with all the stress on a daily basis. Without you all I wouldn't have been able to make it to the end. You are the most important people in my life.

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Abstract

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E. coli is an indicator for the potential of waterborne illness. However, tests for *E. coli* take 18 to 24 hours to produce results. During this time, citizens may be exposed to high levels of bacteria. As contact recreation increases in the Trinity River through the Dallas-Fort Worth Metroplex, methods to predict *E. coli* levels from instantaneously measured water quality parameters may provide a better way to protect public health than the current standard methods.

Predictive models were created using multiple linear least-squares regression for the three segments of the Trinity River that flow through the Dallas-Fort Worth Metroplex. Initial results of the models are encouraging in that they reasonably predict *E. coli* levels in these segments, but additional validation data is needed. The methods described herein may be applicable to other entities interested in developing prediction models for *E. coli* in their watersheds.

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Chapter 1

Introduction

Surface Water Quality

Rivers and reservoirs contain a great deal of the fresh water used for drinking water and contact recreation throughout the world. In some areas, these surface water sources are supplemented or replaced by groundwater. In general, because it is protected from most contaminants, groundwater can be consumed without any additional treatment. Surface water, on the contrary, must be treated to remove contaminants such as suspended solids and bacteria before it is considered safe for delivery to consumers via public water supply systems. However, there is no such treatment to ensure that surface waters are safe for contact recreation.

Wastewater treatment plants and discharge permits ensure that water being released into surface waters meet a specified quality but there is no way to impose these limitations on the environment. Surface waters, by definition, are open to the environment and are subjected to contaminants in that environment; both natural and anthropogenic. Illicit discharges from industries can release a myriad of chemicals into water bodies. Soils erode and their sediments become suspended in the water column making water turbid. Runoff from residential yards and agricultural fields can contribute chemicals from pesticides and fertilizers that can harm aquatic life. Nutrients from fertilizers and wastewater effluent can cause algal blooms. These blooms can cause taste and odor problems for drinking water supplies and also cause declines in dissolved oxygen that can lead to fish kills. In addition, some species of algae produce toxins that are of concern for contact recreation. For example, cyanobacteria produce toxins which cause contact dermatitis (World Health Organization, 2013). Wildlife, livestock, pets, and

failing infrastructure or lack of infrastructure can introduce bacteria to surface waters (United States Department of Health and Human Services, 2011).

These issues are not uncommon to many surface waters especially those in populated areas. There are many accounts of surface waters being made unsafe for humans and animals due to the reasons mentioned above. The Cuyahoga River caught on fire several times, most famously in 1969, as a result of decades of pollution being dumped into the river unchecked (Rotman, 2013). In 1858, the House of Commons in London was abandoned due to the odor of sewage coming from the Thames. Around the same time, all the fish and birds that depended on the Thames were killed. Cholera epidemics were common in this era as well (Sinha-Jordan, 2005). Harmful surface waters are not relegated to history however. The Mississippi River watershed covers approximately 41% of the United States. As it flows to the Gulf of Mexico it carries considerable loadings of nutrients mainly from upstream agriculture. These nutrients cause the algal blooms which lead to the Dead Zone in the Gulf (Louisiana Universities Marine Consortium, 2013). The Willamette River in Portland is subject to occasional sewer overflows due to its combined sanitary and storm water sewer system. An alert system has been put in place to provide citizens with information regarding when sewer overflows are likely to occur as well as recent bacteria levels at several sites along the river. Citizens can then use this information to determine if they wish to recreate in the river (Danab, 2011).

Escherichia coli

The potential for surface waters to harm humans is assessed, in part, through determinations of the abundance of *Escherichia coli* (*E. coli*), a species of bacteria commonly found in the intestines of warm blooded animals. Most strains of *E. coli* are

not harmful; however, there are some species that produce Shiga toxin which can cause illness in humans. *E. coli* O157:H7 is one of the most common Shiga toxin producing strains. Transmission of illness causing *E. coli* is through consumption of contaminated food and water. Symptoms of infection include nausea and vomiting, diarrhea, and may lead to kidney failure and death (United States Department of Health and Human Services, 2011). Although high levels of *E. coli* in surface waters do not necessarily indicate that waterborne illness will occur, they do indicate that the water body may contain harmful strains of *E. coli* and other bacterial contamination caused by human or animal waste.

The Texas Commission on Environmental Quality (TCEQ) assesses surface water on the suitability for contact recreation such as swimming, skiing, canoeing and kayaking, and other activities that could result in the accidental ingestion of water. For this assessment, *E. coli* is used as an indicator bacterium. While the bacteria measured in a sample of water may not include any of the illness causing strains, the *E. coli* analysis indicates that a sample may be contaminated with those strains. Sources of *E. coli* in water bodies can include wildlife such as birds, livestock, pets (United States Department of Health and Human Services, 2011), and sewer line overflows and breaks.

The 2012 Texas Integrated Report by the TCEQ (Texas Commission on Environmental Quality, 2012a) identified several portions of the West Fork Trinity River, Lower West Fork Trinity River, and Upper Trinity River as having elevated levels of *E. coli*. This was based on data collected between December 1, 2003 and November 30, 2010. These portions of the river flow through the Dallas-Fort Worth Metroplex. The elevated *E. coli* levels indicate that contact recreation may not be advisable along these portions of the river. Similar problems were found in many of the tributaries that feed into this portion of the river. The current standards for *E. coli* are 394 colony forming units

(CFU)/100 mL for instantaneous grab samples and 126 CFU/100 mL for the geometric mean of samples collected over time. When these standards are exceeded, the water body is identified as failing to support the contact recreation use designation (Texas Commission on Environmental Quality, 2012b). If a water body fails to support its designated use, a Total Maximum Daily Load (TMDL) project may be scheduled. A TMDL is undertaken to determine the cause of the impairment, the assimilative capacity of the water body for the pollutant, and to identify the best options for reducing the pollutant loading. For the assessment of the instantaneous grab samples, a threshold percentage of the samples based on the number of samples must exceed the standard of 394 CFU/100mL. For example, assessments are based on data collected over a seven year period. If a single site were sampled monthly, 84 data points would be available for assessment. In order for this data set to be found non-supportive of contact recreation, a minimum of 25 samples would have to exceed 394 CFU/100 mL. In the case of quarterly sampling, 28 data points would be available and at least ten exceedances would be required. Assessment of the geometric mean requires at least 10 samples and the geometric mean of the samples must exceed the standard of 126 CFU/100mL (Texas Commission on Environmental Quality, 2012b).

One portion of the West Fork Trinity River had an *E. coli* geometric mean exceedance of 146 CFU/100 mL, meaning that the geometric mean was 20 CFU/100 mL higher than the standard. Two of the assessed tributaries to this portion of the river had geometric mean exceedances of 166 and 213 CFU/100 mL. In one of these tributaries, 26 of 77 samples exceeded the grab sample standard. In another tributary, 25 of 76 samples exceeded the grab sample standard but the geometric mean of these samples did not exceed the geometric mean standard. Two portions of the Lower West Fork Trinity River had geometric mean exceedances of 160 and 188 CFU/100 mL. Fourteen

of the assessed tributaries also exceeded the geometric mean standard with geometric means ranging from 144 to 1911 CFU/100 mL. Grab sample exceedances ranged from 31 of 35 samples to 94 of 316 samples. Two portions of the Upper Trinity River had geometric mean exceedances of 222 and 397 CFU/100 mL. In addition, 25 of 73 and 35 of 79 samples collected in these portions exceeded the standard for grab samples (Texas Commission on Environmental Quality, 2012a).

Texas

The State of Texas encompasses 268,596 square miles in the southern United States with 7,365 square miles being covered by water (Plocheck, 2010-2011). The terrain and climate of Texas vary widely across the state. Western Texas is arid and mountainous. This then transitions to semi-arid plains in the north central part of the state and into the Hill Country and sub-tropical lowlands along the Gulf Coast and eastern portion of the state.

The population estimate for Texas as of January 1, 2012 was 25,883,305 individuals (Hoque, 2013). The main population centers in Texas include Houston, San Antonio, El Paso, Laredo, Corpus Christi, and the cities of the Dallas-Fort Worth Metroplex (Plocheck, 2010-2011).

Dallas-Fort Worth Metroplex

The Dallas-Fort Worth Metroplex is located in North Central Texas. The climate can be classified as semi-arid. The majority of the rainfall in this area occurs in the spring and fall and generally occurs in a few large storm events rather than in smaller rainfall events spread over the season (National Oceanic and Atmospheric Administration, 2013). This area is highly urbanized with very dense residential areas, commercial and

industrial land uses. There are some smaller rural areas scattered throughout the Metroplex.

The Dallas-Fort Worth Metroplex includes Collin, Dallas, Delta, Denton, Ellis, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise counties (ProximityOne, 2012). There are approximately 6.6 million people living in the Metroplex (Hoque, 2013). This amounts to one-quarter of the entire state population living in this 12 county area. Within these counties lie parts or all of 17 Trinity River basin reservoirs: Arlington, Bardwell, Benbrook, Bridgeport, Cedar Creek, Eagle Mountain, Grapevine, Joe Pool, Lavon, Lewisville, Mountain Creek, Ray Hubbard, Ray Roberts, Waxahachie, Weatherford, White Rock, and Worth.

Trinity River

The Trinity River basin occupies an area of approximately 18,000 square miles and is the largest river basin in Texas with its entire watershed within the borders of the state (Trinity River Authority of Texas, 2010). The Clear, West, Elm, and East forks of the river begin in rural areas outside of the Dallas-Fort Worth Metroplex and converge across the Metroplex with the East Fork Trinity River confluence lying just south of the City of Dallas.

During its pre-settlement history, the Trinity River was much smaller than what is seen today. It was not uncommon for the tributaries and the river itself to go dry during the summer or in droughts (Trinity River Authority of Texas, 2010). After settlement, the Trinity River was a convenient method of waste disposal but was also the main source of water for the burgeoning communities along the river. Unfortunately, this paradox is not uncommon to many water ways throughout history as discussed in the Surface Water Quality section above. Slaughter houses in Fort Worth dumped leavings directly into the

river (State of Texas, 1925). Residential communities and industries in the developing Dallas-Fort Worth Metroplex also dumped their untreated or under-treated waste into the river leading to outbreaks of typhoid (Trinity River Authority of Texas, 2010). A 1925 report by the State Health Department of Texas characterized the river at this time as a “Stygian...mythological river of death” full of “hatcheries of mosquitoes and malaria” (State of Texas, 1925).

In more recent decades, wastewater treatment facilities and advancements in treatment technology have vastly improved the quality and quantity of water entering the river. In the Dallas-Fort Worth Metroplex, regional wastewater treatment plants have been built to treat water from many communities. These regional plants treat wastewater to a high level of quality before discharging it to surface waters. This high quality effluent has supplemented the native base flows in the river which consist mainly of runoff caused by rainfall patterns discussed in the Dallas-Fort Worth Metroplex section above. As a result, during dry weather the Trinity River is effluent dominated (Trinity River Authority of Texas, 2010). Wastewater effluent is high in nutrients which can lead to downstream eutrophication. However, due to the chlorination step in the treatment process, bacteria levels in effluent are typically very low or non-existent.

Contact Recreation

The Clean Water Act of 1972 set the framework for protecting water bodies in the United States. This includes setting water quality standards for surface waters and permit limits for dischargers to ensure that surface waters will be protected for various uses. These uses include protection of aquatic life, public water supply, and contact recreation (Trinity River Authority of Texas, 2010). Contact recreation encompasses activities ranging from wading to kayaking to swimming.

From the Lake Worth Dam in Fort Worth to the East Fork Trinity River south of Dallas, there are over 100 miles of river that can provide recreational opportunities. Because of its history, the Trinity River through the Dallas-Fort Worth Metroplex has not been looked upon as a resource for these activities. However, because of the increased flows and water quality afforded by the regional wastewater treatment plants, this is beginning to change. Several projects have been developed or are underway which are increasing contact recreation opportunities along the stretch of the river passing through the Dallas-Fort Worth Metroplex.

The Trinity River Vision Project in Fort Worth has plans to create a river front area similar to the River Walk in San Antonio. This will include activities like canoeing and kayaking (Trinity River Vision Authority, 2013a). Current contact recreation in Fort Worth includes rowing clubs and Rockin' the River; a weekly float and concert series throughout the summer (Trinity River Vision Authority, 2013b). River Legacy Parks in Arlington offers one canoe and kayak launch point and paddling trail with plans to install additional launches (Texas Parks and Wildlife Department, 2013a). The Trinity River Corridor Project in Dallas has installed a standing wave for whitewater kayaking with canoe and kayak launches upstream and downstream of the wave for paddling trails in the river (Texas Parks and Wildlife Department, 2013b). Future plans include building small lakes in the floodway for recreation and additional paddling trails (Trinity River Corridor Project, 2013).

Study Motivation

Currently, there are no early warning systems in place to alert citizens to potentially elevated levels of *E. coli* in the water bodies of the Trinity River basin. The most common analytical methods being used now in Texas are the IDEXX Colilert-18

and Colilert-24 tests (Texas Commission on Environmental Quality, 2012c). As indicated by the method names, these tests yield results in 18 and 24 hours, respectively. This is in addition to a holding time of up to eight hours from the time of collection: six hours to deliver the sample to the laboratory and two hours for the laboratory to process the sample. As *E. coli* levels can rapidly fluctuate, water quality samples taken on previous days may not reflect *E. coli* levels on days that contact recreation activities are planned. This may result in the public being exposed to elevated levels of *E. coli* or an area being closed to recreation when *E. coli* levels may have “returned to safe levels” (Francy and Darner, 2003). Therefore, a predictive model may be the best alternative to determine if water quality is acceptable for contact recreation on any given day or time.

There have been several projects conducted by various agencies to provide a method for predicting *E. coli* in their areas. A large number of projects to predict *E. coli* have been conducted in the Great Lakes; specifically Lake Erie and Lake Michigan. Several of these projects used regression modeling to predict *E. coli*. A project conducted by the USGS for swimming beaches on Lake Erie as well as an inland lake, Mosquito Lake, in Ohio determined that “wave height, number of birds on the beach, lake-current directions, rainfall, turbidity, and wind direction and speed” were useful parameters for creating models for these beaches (Francy and Darner, 2006). A similar model is in development for beaches in Grand Lake, St. Mary’s State Park in Ohio (Francy and Fletcher, 2010). It has been noted that the parameters used in these studies were chosen because they either caused bacteria to enter a water body or they were easily measured “surrogates” for bacteria (Brooks, et al., 2013). For example, rainfall causes bacteria to enter a water body and turbidity is an easily measured surrogate. The Lake Erie and Mosquito Lake projects cited a 2000 statistic noting that 85% of 11,270 beach closings and advisories across the country were based on “bacteria levels

exceeding the water quality standards.” They also noted that surrogates for detecting wastewater contamination may provide faster results than the current *E. coli* tests. Some surrogates were ruled out because other mammals produce the same substances. Caffeine was identified as a potential surrogate for human waste contamination because it is not produced or used by other organisms. Ultimately it was determined that the surrogate method was not feasible (Francy, et al., 2003). In 2003, a study of a beach on Lake Michigan and one on Lake Erie was conducted using a quantitative polymerase chain reaction to measure *Enterococcus* which yields results in less than two hours. This study found that there was a link between the results of the test and occurrences of gastrointestinal illness (Wade, et al., 2006). Many studies have developed models specific to a single beach or another small area. A study by Nevers and Whitman (2008) attempted to determine if a more regionalized approach could be used. Twelve beaches along the Lake Michigan coast were studied and it was determined that the *E. coli* in the study area could be predicted by a single regional model almost as accurately as by individual beach specific models. However, another study at four beaches on Lake Michigan found that was not the case and that beach specific models were necessary (Olyphant, 2005). It is worth noting that regionalized models may still be beneficial in areas with limited resources and many beaches to monitor (Nevers and Whitman, 2011).

One of the studies on Lake Michigan looked at the effects of sunlight on *E. coli* survival. Solar radiation can kill *E. coli*; therefore the amount of sunlight reaching the water column has an effect on the concentration of *E. coli* in the water (Whitman, et al., 2004). However, this may not apply in naturally turbid streams where the suspended sediment provides a measure of shading and protection from solar radiation. One study discussed the ability of shallow and shore sediments to contain high levels of *E. coli*. These sediments protected *E. coli* from solar radiation and predation as well as provided

a wet nutrient rich environment (Whitman and Nevers, 2003). When bacteria laden sediment is stirred up, bacteria are re-suspended in the water column and may produce elevated levels of bacteria during and after contact recreation not predicted by a model or measured in samples taken prior to contact recreation activities (Francy, et al., 2013). A project on Lake Michigan and Lake Superior found that *E. coli* levels were generally higher in shallower water (Kleinheinz, et al., 2006). This may present a concern for public health because children are typically more susceptible to gastrointestinal illness than healthy adults and tend to recreate in shallow water.

Due to the dynamic nature of rivers and the resulting potential for rapid changes in *E. coli*, predictive modeling may be more suitable for rivers than for lakes and reservoirs (Nevers and Whitman, 2005). The Ohio Nowcast (United States Geological Survey, 2013a) project determined that turbidity and 48-hour total precipitation were the strongest indicators of *E. coli* levels on the Cuyahoga River at Jaite, Ohio. This model used linear regression in its development (Brady and Plona, 2010). The Cuyahoga River is designated for contact recreation use, like most other water bodies in the United States. However, bacterial monitoring demonstrated that the river exceeded the standards required to ensure that public health was protected during contact recreation activities. This project made mention of the fact that, as rivers are a moving system, the bacteria levels at any particular site can change quickly due to “decay, dilution, dispersion, and transport.” The final model developed for the Jaite, Ohio, site used a single linear regression with \log_{10} turbidity and was determined to be suitable for predicting *E. coli* at downstream locations as well (Brady, et al., 2009). Additional work on the Cuyahoga River was conducted to show that a rapid analysis method for measuring the level of adenosine triphosphate (ATP) released by *E. coli* cells gave

results that were significantly correlated to standard *E. coli* quantification results (Brady, 2007).

The Charles River, Massachusetts, has not been used for swimming since the late 1950s, however, sailing and windsurfing continues to take place (Hellweger and Masopust, 2008). A model was developed for sites along the river in order to provide information on the condition of the river to the public in the form of color coded warning flags at several boat landings. Initially this modeling and warning system used information on rainfall and potential for combined sewer overflows to determine if conditions were safe for contact recreation. Modeling determined that prior rainfall totals and a factor that quantified the lag between rainfall and bacteria levels provided better results than the previous method of issuing warnings (Eleria and Vogel, 2005).

A forecast system based on fecal coliform levels in the Schuylkill River in Philadelphia was developed to let the public know what level of contact recreation was acceptable. Data were analyzed to determine “cutoff” values for several parameters in relation to fecal coliform levels. The values of these parameters would then be used to issue warnings against certain contact recreation activities. The parameters include river flow, turbidity, and time since the last rain event (Maimone, et al., 2007).

Models were developed for *Enterococcus* using multiple linear regressions at several sites in the Mystic River watershed of Massachusetts. This project noted that the benefit of linear regression models over other more complex modeling systems lies in the fact that the data required for the more complex systems may be difficult to obtain (Heberger, et al., 2008).

As previously discussed, sediments can harbor high levels of bacteria which can be re-suspended when those sediments are disturbed. The Soil and Water Assessment Tool (SWAT) was used to determine the rates of re-suspension in Little Cove Creek,

Pennsylvania. This project did not include data for wildlife contributions to *E. coli* concentrations; therefore, the model did not perform as well as expected. However, it was noted that, at low flows, turbidity measurements may reflect sediment re-suspension and be a good indicator of increases in *E. coli* levels due to this source. In contrast, at higher flows, increases in *E. coli* levels were likely due to runoff (Kim, et al., 2010).

For the purposes of this project, data were culled from pre-existing data sets from the Trinity River in Texas in the Dallas-Fort Worth region. These data sets provided a predetermined starting position for data analysis based upon the parameters available. The data available for this project were collected over a period of many years at a frequency of no greater than once a month per site. This is a deviation from the data used in most of the projects referenced in this document. Other projects typically designed monitoring programs specifically for model development. As such, the data were collected in an intensive manner with samples collected over a short period of time at a frequency of several samples per day or week at a site (Francy and Darner, 2006; Francy, et al., 2013; Francy, et al., 2003; Hellweger and Masopust, 2008; McLellan and Salmore, 2003; Nevers and Whitman, 2005, 2008, 2011; Olyphant, 2005; Olyphant and Whitman, 2004). Routine sampling, especially in Texas, generally consists of single grab, or discrete, samples that are not biased to any particular weather pattern or flow regime. This type of monitoring and the resultant modeling does not lend itself to predicting variations in *E. coli* throughout a storm event. In addition, because of the routine and unbiased nature of the data, it is not able to predict variations in *E. coli* between storm events (McCarthy, et al., 2011). This is not to say that predictive modeling will not work with this type of data, only that there are limitations to what may be done with it. Thus, the intent of this project was to provide a methodology for entities such as municipalities or recreational event managers to use common existing data to

develop initial models potentially useful for issuing contact recreation warnings. For those entities which have no existing monitoring program in place, the information herein may provide an outline for beginning a monitoring program that could be used for later model development. These models may lead entities to consider the inclusion of additional parameters as discussed in the Recommendations section in future monitoring programs to potentially increase model accuracy. Prior to creating monitoring programs, entities should detail quality assurance and quality control requirements to ensure that the data being collected are suitable for modeling.

There are several parameters that can be measured in situ with instantaneous results such as dissolved oxygen (DO), water temperature, pH, specific conductance, Secchi depth, and air temperature (Texas Commission on Environmental Quality, 2012c). Other parameters can be easily obtained from websites such as flow from the United States Geological Survey (USGS) (United States Geological Survey, 2013b) and precipitation data from the National Oceanic and Atmospheric Administration (NOAA) (National Oceanic and Atmospheric Administration, 2013a) or the National Weather Service (NWS) (National Oceanic and Atmospheric Administration, 2013b). Flow can also be obtained in situ using a variety of flow measurement equipment at sites for which there are no USGS flow gages. These methods include top-setting wading rod mounted electromagnetic, mechanical, or acoustic Doppler flow meters; weirs; and floating acoustic Doppler flow profilers (Texas Commission on Environmental Quality, 2012c). Watershed characteristic parameters such as land use type and percentages of land use types in a watershed can be determined using GIS. While not available for the analysis conducted for this project, other factors such as wildlife counts can be conducted at the time of sampling. Each of these parameters may influence *E. coli* levels and could potentially be used to predict when high levels of *E. coli* are likely to occur.

Chapter 2

Methods

Data Collection

All data used for this project were collected by various entities for reasons including storm water permit sampling, watershed protection, and routine monitoring. Due to the various reasons for sampling, different parameter suites were collected by each entity. There is no set suite of parameters being collected across the Trinity River basin or even across the Dallas-Fort Worth Metroplex. This inconsistency can complicate data analysis in some cases. However, there are generally a few parameters that are almost always collected and analyzed in similar ways.

Many entities use YSI, Hydrolab, or similar probes for the collection of water temperature, specific conductance, DO, and pH measurements. Properly maintained and calibrated instruments yield comparable data.

The easiest method to obtain flow measurements is from nearby USGS gages (United States Geological Survey, 2013b). The readings from these gages are based on a stream stage that is matched to a site specific flow curve graph, which is periodically calibrated by the USGS with in-stream flow measurements. In cases where there are no nearby gages and the water body is wadeable, many entities will use a top-setting wading rod mounted Marsh McBirney or Hach electromagnetic flow meter or a Flow Tracker acoustic Doppler flow meter. When a water body is not wadeable, some entities may use a boat or towable float mounted acoustic Doppler profiler to obtain a flow measurement. However, the cost for this technology and time needed to obtain a measurement is prohibitive for many entities. As a result, when water bodies do not have a nearby USGS gage, flow data is frequently not reported.

Precipitation data are generally only reported as a number of days since the last precipitation event. The amount of precipitation, either inches of rainfall or equivalent from frozen precipitation, is generally not reported. The number of days since the last precipitation event does not give any indication of the intensity of the precipitation or the quantity of runoff it may be able to produce.

E. coli data have been collected and analyzed in much the same way since early on in its collection. There are several membrane filtration methods that were used in the beginning and are still used infrequently which provide data in colony forming units (CFU)/100 mL (American Public Health Association, et al., 1998). However, the IDEXX Colilert method (American Public Health Association, et al., 1998) has been used almost exclusively by many of the laboratories that analyze *E. coli* and provide data in a statistically equivalent unit of most probable number (MPN)/100 mL. This method requires that samples be collected in a specific sample container and immediately placed on ice. There is a maximum eight-hour hold time from the time of collection to the time of sample preparation in the laboratory after which there is an 18 or 24 hour incubation period depending on the test being used.

Data Handling

A majority of the data used in this project were obtained from the TCEQ Surface Water Quality Monitoring Information System (SWQMIS) database (Texas Commission on Environmental Quality, 2013). Data used for this project are shown in Appendix A. SWQMIS contains water quality monitoring data collected by several agencies throughout the state for the period of record of sampling at each site. The formatting of data in the SWQMIS database bears mentioning. Data are stored in Event and Result tables. The Event table includes information about the location, date, time, and depth of

the sample. There is a single record for each sampling event. The Result table includes information on the analyses performed and the results of those analyses. The analyses are represented by a five digit parameter code. This code is tied to an analytical method and a unit of measurement. There is a one-to-many relationship between the two tables and they are linked by a unique identifier called the Tag Number.

In theory, all the data for a particular parameter for the period of record should be comparable as all data were collected under a quality assured project plan (QAPP). In reality, changes in analytical technology, reporting limits and QAPP requirements over time may render some of the early data questionable. This concern is not as applicable to *E. coli* data available in SWQMIS at this time as the routine collection and analysis of *E. coli* is relatively recent. Starting in 2000, TCEQ began requiring the analysis of *E. coli* rather than Fecal Coliform as an indicator bacterium. The term "indicator bacteria" refers to the concept that bacteria levels in surface water may indicate the presence of illness inducing bacteria. As discussed in the introduction, not all *E. coli* strains are illness inducing, however, elevated levels of *E. coli* can reasonably be presumed to increase the likelihood of the presence of illness inducing strains.

Data for the period of record for *E. coli* were pulled from the SWQMIS database. This resulted in samples collected between June 27, 2000 and December 11, 2011. A single sample from June 11, 1998 was also pulled from SWQMIS. In addition to *E. coli*, several other parameters collected under the same Tag Number as the *E. coli* data were downloaded. These parameters are tests with instantaneous results including air temperature, water temperature, instantaneous stream flow, Secchi depth, specific conductance, DO, pH, flow severity, days since last precipitation event, and turbidity.

As well as the data downloaded from SWQMIS, data were also obtained from the USGS National Water-Quality Assessment Program (NAWQA) (United States Geological

Survey, 2013c) and Environmental Protection Agency (EPA) STORET (United States Environmental Protection Agency, 2013) databases. After data were compiled from these three sources, they were carefully examined to remove duplicate sampling events and results. As the data from USGS and EPA are not stored in the same manner as in SWQMIS, manual examination and removal of duplicate records was required. In the end, the USGS and EPA databases provided less than 25 additional records that were not already available in the SWQMIS database.

Data were then processed to result in a data set appropriate for the regression analysis discussed below. Any values that were reported as greater than (>) a particular value were changed to that value: essentially the greater than symbol was removed. There is some debate on how data reported as less than (<) a value should be handled when conducting data analysis. The standard TCEQ convention is to take one half of the less than value and that is what was done for this project. For example, a value reported as <3 was changed to 1.5. Flow severity data are categorical and the values do not represent a stepwise increase in flow. The original values are reported between 1 and 6 and represent No Flow, Low Flow, Normal Flow, Flood Flow, High Flow, and Dry, respectively. New values between 1 and 6 were assigned to represent Dry, No Flow, Low Flow, Normal Flow, High Flow, and Flood Flow, respectively. Finally, data that were not already rounded were rounded according to TCEQ data management protocols as listed below. For rounding of values where the number 5 follows the last digit needed, round-to-even rules were followed.

1. Temperature, DO, pH – Rounded to the nearest tenth.
2. Specific Conductance – Rounded to three significant figures.
3. Secchi Depth – Rounded to two significant figures.

4. Flow
 - a. Values less than 0.01 censored to <0.01 then changed to 0.05 as noted above
 - b. Values ≥ 0.01 to <0.1, not rounded
 - c. Values ≥ 0.1 to <10, nearest tenth
 - d. Values ≥ 10 , nearest whole number
5. *E. coli*
 - a. Values less than 1 censored to <1 then changed to 0.5 as noted above
 - b. Values ≥ 1 to <100, to nearest whole number
 - c. Values ≥ 100 , to two significant figures

As it was created from existing data, the data set developed proved to be far from perfect. Not all the selected parameters were available for each sample event. There were several different parameter codes for each parameter; e.g. field turbidity and laboratory turbidity, different *E. coli* methods, *et cetera*. In order to make the data set more useable, results for several parameter codes were combined into one single parameter. The details of the parameter combinations are listed below.

1. Field specific conductance was combined with laboratory specific conductance. In cases where both parameters were available, only field specific conductance was used.
2. Field turbidity measured in nephelometric turbidity units (NTU) was combined with lab turbidity measured in NTU. In cases where both parameters were available, only field turbidity was used. Data for turbidity measured in Formazin turbidity units (FTU) was not used.
3. Instantaneous flow measured in cubic feet per second (cfs) was combined with mean daily flow and flow estimate, both measured in cfs. Instantaneous flow

was used in preference to mean daily flow or flow estimate. If instantaneous flow was not available, mean daily flow was used in preference to the flow estimate. If neither instantaneous flow nor mean daily flow was available, the flow estimate was used.

4. There were four methods for the available *E. coli* data. The IDEXX method was preferred if there were data for other methods available. After the IDEXX method, in order of preference, the MF mTEC (membrane filter-membrane thermotolerant *E. coli*), modified mTEC, and Thermotol MF mTEC methods were used.

For records where no flow value was reported, flow data were obtained from the nearest usable USGS flow gage. For USGS flow gage data to be considered usable, there should be no major inputs, such as tributaries, or withdrawals between a sampling location and the nearby USGS gage. See Appendix B for a list sites used in this project and the USGS gage sites matched to them. In addition, the two should be relatively close to reduce the influence of runoff during precipitation events. The USGS generally reports flow measurements every 15 minutes. This is considered the instantaneous flow value. In order to match sample times to the nearest 15 minute flow value, the sample times were rounded as listed below; where X equals the hour.

1. X:01-X:07 rounded to X:00
2. X:08-X:22 rounded to X:15
3. X:23-X:37 rounded to X:30
4. X:38-X:51 rounded to X:45
5. X:52-X:59 rounded to X+1:00

The USGS only maintains the 15 minute flow values on their website for a limited period of time, after which only daily statistics including the minimum, mean, and maximum flow values are available. Whenever available, the 15 minute values were used. If the 15 minute values were not available, then the daily mean was used.

Precipitation totals for periods of time prior to sampling are not a routine part of most data collection programs included in SWQMIS. Runoff resulting from precipitation is one of the major sources of bacterial loading into water bodies. Between precipitation events, bacteria from sources such as pets, wildlife, and leaking waste infrastructure can build up on the ground. These accumulated bacteria are then washed into a water body during precipitation events. As it is very likely to be a strong predictor of *E. coli*, precipitation totals for several increments of time prior to sampling were created for each record.

Precipitation data were obtained from HydroDesktop (Ames et al., 2012). The software is available for free download on the HydroDesktop website (CodePlex, 2013). The HydroDesktop software provides National Weather Service (NWS) radar interpolated precipitation totals per hour at points on a 4x4 kilometer grid (National Oceanic and Atmospheric Administration, 2005). These NWS grid points were matched to sampling stations as closely as possible using the shortest straight line distance and/or nearest upstream point to the sampling station. In some cases, best professional judgment was used to determine which NWS point best represented the precipitation at a sampling station. See Appendix B for a list of NWS sites matched to the sites used in this project. For the purposes of this project, hourly precipitation data were obtained from the following layers:

1. NWS-WGRFC Hourly Multi-sensor Precipitation Estimates
2. NWS-WGRFC Hourly Multi-sensor Precipitation Estimates Recent Values

NWS precipitation data are available for one hour time frames. The number of NWS points and the period of record for this project resulted in more than seven million individual data points being downloaded. These data were processed to create the total precipitation amounts for 24-hour increments up to 168 hours prior to and inclusive of each time stamp in the period of record of data downloaded from HydroDesktop. In order to ensure that no data gaps were included in the totals, the raw NWS data had to be matched to a temporally sorted list of all possible date and time combinations in the period of record for this project. Once the data were matched, precipitation totals and a count of the records used to create the totals were calculated. If any precipitation total had less than 24, 48, 72, 96, 120, 144, or 168 records used in the calculation, then that value was not used in subsequent data analysis.

Once the NWS data were processed into precipitation totals for 24-hour increments, the resultant data were matched to the data obtained from SWQMIS. Times in the SWQMIS data were rounded to the nearest hour to facilitate this process. Times reported at less than or equal to X:30, where X is the hour, were rounded down to X:00 while times reported at greater than X:30 were rounded up to X+1:00.

Data Analysis

Data were grouped and analyzed for all river segments in the Trinity River basin and for the individual segments listed below that run through the Dallas-Fort Worth Metroplex. See Figure 2-1 for a map of the study area.

1. 0806 – The West Fork Trinity River below Lake Worth from the Lake Worth Dam to a point immediately upstream of the confluence with Village Creek.

2. 0841 – The Lower West Fork Trinity River from a point immediately upstream of the confluence with Village Creek to a point immediately upstream of the confluence with the Elm Fork Trinity River.
3. 0805 – The Upper Trinity River from a point immediately upstream of the confluence with the Elm Fork Trinity River to a point immediately upstream of the confluence with the Cedar Creek Reservoir discharge canal.

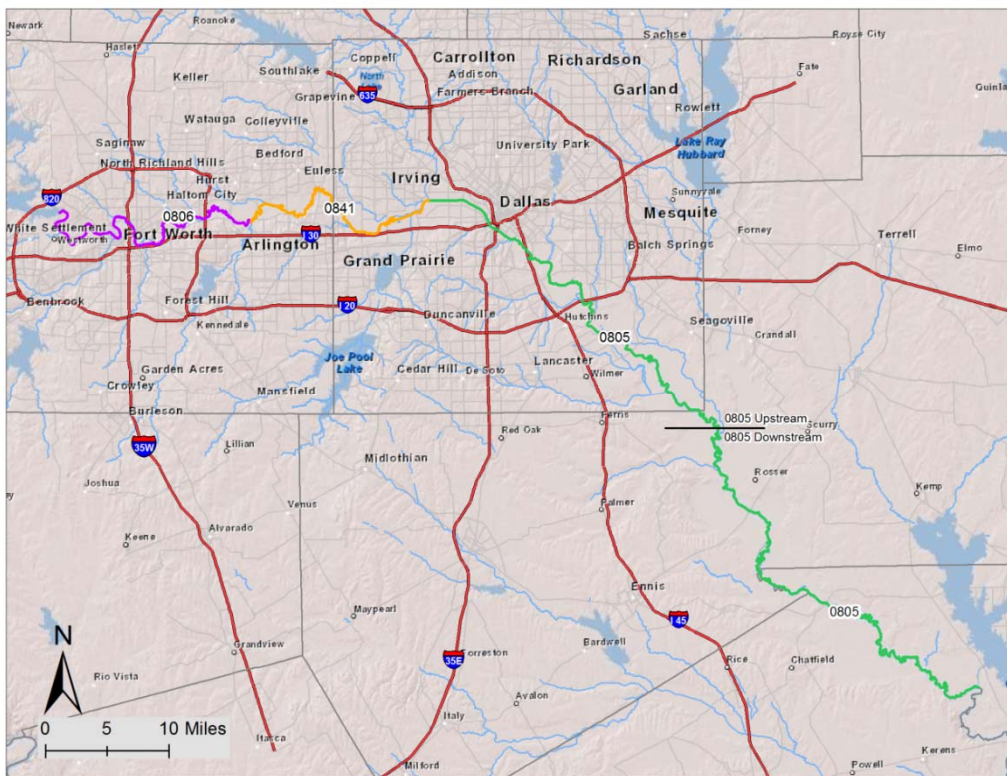


Figure 2-1 Map of study area

Segment 0805 was further divided into two portions to remove the influence of the confluence with the East Fork Trinity River from the analysis. This division was done for several reasons. First, the East Fork Trinity River drains a largely rural watershed. Rural watersheds typically have less impervious ground cover than urban watersheds

which would reduce the amount of runoff produced during a precipitation event. In addition, larger quantities of vegetation may reduce the amount of *E. coli* reaching the river due to runoff. However, rural watersheds generally have more wildlife and livestock than urban watersheds. Secondly, due to private land ownership along the river downstream of this confluence, it is less likely that contact recreation occurs. Lastly, the Trinity River downstream of the East Fork Trinity River confluence was outside of the scope of this project for urban contact recreation. The first portion of 0805 included all sites in the segment from a point immediately upstream of the confluence with the Elm Fork Trinity River to a point immediately upstream of the East Fork Trinity River confluence. The second portion of 0805 included all sites in the segment from a point immediately upstream of the East Fork Trinity River confluence to a point immediately upstream of the confluence with the Cedar Creek Reservoir discharge canal.

E. coli data were transformed in four ways to obtain a total of five options for data analysis: original untransformed data (Y), $\log_{10} Y$ transformed, $(\log_{10} Y)^2$ transformed, natural log Y transformed, and $(\text{natural log } Y)^2$ transformed. Instantaneous stream flow data were similarly handled to obtain the original untransformed value (Y), $\log_{10} Y$ transformed, and natural log Y transformed data points. Data for precipitation totals, air temperature, water temperature, Secchi depth, specific conductance, DO, pH, flow severity, days since last precipitation event, and turbidity were left untransformed.

In order to determine which parameters were the best predictors for *E. coli*, two completely independent methods were used. The first involved calculating single linear least-squares regression statistics including the r^2 , P-value, intercept, and slope for each combination of *E. coli* and the other parameters including transformations. This resulted in 570 sets of regression statistics. See Appendix C for a full table of the regression statistics. Parameters were then grouped by flow and its transformations, precipitation

totals, and all other parameters. It was assumed that precipitation totals and flow would be the strongest predictors for *E. coli*. Based on this assumption, the precipitation total with the highest r^2 was selected. This determined which transformation of *E. coli* would be used to select additional parameters for multiple linear regressions. Next, the flow transformation with the highest r^2 was chosen. In all cases, this was the \log_{10} flow. The remaining parameters included water and air temperature, dissolved oxygen, pH, Secchi depth, specific conductance, flow severity, days since last precipitation, turbidity. At this point, flow severity, days since last precipitation, and turbidity were rejected as parameters to be used in further analysis. Flow severity is both categorical and subjective. It depends too much on the individual recording the value and the seasonality of the flow. In other words, a person familiar with a site might consider a particular flow to be normal while a person unfamiliar with it might consider it to be low. In addition, a flow that is considered to be normal in the summer may be considered to be low during the winter. The days since last precipitation are also somewhat categorical and seemed redundant after obtaining precipitation totals. Turbidity had too few data points to be useful. After these three parameters were rejected, two of the remaining parameters with the highest r^2 values were selected. The final parameters selected for multiple linear least-squares regressions are listed below. Table 2-1 below is an excerpt from Appendix C and shows the regression statistics for the selected parameters.

1. All river segments – $(\text{Log}_{10} E. coli)^2$, Log_{10} Flow, 48-hr Precipitation Total, pH, and Secchi Depth.
2. 0806 – $(\text{Log}_{10} E. coli)^2$, Log_{10} Flow, 72- hr Precipitation Total, pH, and Secchi Depth.
3. 0841 – $(\text{Log}_{10} E. coli)^2$, Log_{10} Flow, 48-hr Precipitation Total, Secchi Depth, and Specific Conductance.

4. 0805 – $(\text{Log}_{10} E. coli)^2$, Log_{10} Flow, 72-hr Precipitation Total, Secchi Depth, and Specific Conductance.
5. 0805 Upstream of East Fork Trinity River Confluence – $(\text{Log}_{10} E. coli)^2$, Log_{10} Flow, 48-hr Precipitation Total, Secchi Depth, and Specific Conductance.
6. 0805 Downstream of East Fork Trinity River Confluence – $(\text{Log}_{10} E. coli)^2$, Log_{10} Flow, 168-hr Precipitation Total, Secchi Depth, and Specific Conductance.

Table 2-1 Single linear least-squares regression statistics (excerpt from Appendix C)

Segment	Parameter	Statistic	Log_{10} Flow	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)
All	$(\text{Log}_{10} E. coli)^2$	r^2	0.057	0.215			0.047	0.122	
		P-value	0.000	0.000			0.000	0.000	
		Intercept	2.859	4.262			20.038	7.084	
		Slope	0.868	3.725			-1.938	-7.958	
0806	$(\text{Log}_{10} E. coli)^2$	r^2	0.326		0.400		0.034	0.477	
		P-value	0.000		0.000		0.000	0.000	
		Intercept	-4.225		3.424		20.752	13.992	
		Slope	4.837		6.217		-2.060	-25.649	
0841	$(\text{Log}_{10} E. coli)^2$	r^2	0.297	0.449				0.267	0.260
		P-value	0.000	0.000				0.000	0.000
		Intercept	-11.858	4.747				9.729	12.636
		Slope	6.986	7.591				-15.210	-0.011
0805	$(\text{Log}_{10} E. coli)^2$	r^2	0.143		0.273			0.345	0.310
		P-value	0.000		0.000			0.000	0.000
		Intercept	-7.593		4.581			10.213	14.663
		Slope	4.171		4.297			-20.773	-0.015
0805 Upstream of East Fork Trinity River Confluence	$(\text{Log}_{10} E. coli)^2$	r^2	0.178	0.325				0.549	0.311
		P-value	0.000	0.000				0.000	0.000
		Intercept	-9.073	5.170				12.605	15.456
		Slope	4.955	5.337				-25.485	-0.015
0805 Downstream of East Fork Trinity River Confluence	$(\text{Log}_{10} E. coli)^2$	r^2	0.281			0.293		0.338	0.382
		P-value	0.000			0.000		0.000	0.000
		Intercept	-12.850			2.951		8.399	13.641
		Slope	5.276			2.765		-23.636	-0.015

The second method for determining the best predictors of *E. coli* used Pearson correlation coefficients between the original untransformed *E. coli* value and its

transformations and all other parameters. This resulted in 560 correlation coefficient values. See Appendix D for a full table of the correlation statistics. This method was intended to identify a different set of parameters for multiple linear regressions than those chosen from the single linear regressions. Therefore, the steps detailed below were used to select additional parameters. These steps are demonstrated in a simplified form in Figure 2-2.

1. Correlation tables were organized into a standard format with the *E. coli* transformations as the column headers and the remaining parameters as the row headers. The correlation coefficient was placed in the intersection.
2. Row header parameters were grouped by type: flow transformations, precipitation totals, and all other parameters. Incidentally, flow severity, days since precipitation, and turbidity were rejected for further analysis as described in the method for single linear regression parameter selection.
3. The highest coefficient for each row was highlighted (see Step 1 in Figure 2-2).
4. Because $(\log_{10} E. coli)^2$ had already been selected using single linear regressions, this column was removed. In almost all cases, this left the $\log_{10} E. coli$ with highlighted coefficients (see Step 2 in Figure 2-2).
5. From the remaining highlighted coefficients, the parameters in each group with the highest coefficients were selected (see Step 3 in Figure 2-2). In general, +0.5 or -0.5 was used as the minimum coefficient value cutoff.

Slight deviations from these steps were taken for segment 0805. For 0805, \log_{10} flow and 144-hr precipitation total were selected even though the coefficients were below 0.5. This was also the case for \log_{10} flow in segment 0805 upstream of the East Fork Trinity River confluence. Segment 0805 downstream of the East Fork Trinity River had only one parameter in the flow and precipitation total groups with the higher coefficient

identified under $\log_{10} E. coli$. Therefore, $(\log_{10} E. coli)^2$ was used rather than $\log_{10} E. coli$. This was justified by the fact that segment 0805 is the furthest downstream segment and, as such, correlations could be expected to be lower due to upstream influences.

Step 1			Step 2			Step 3	
Segment X	$\log_{10} E. coli$	$(\log_{10} E. coli)^2$	Segment X	$\log_{10} E. coli$	$(\log_{10} E. coli)^2$	Segment X	$\log_{10} E. coli$
\log_{10} Flow	0.67	0.58	\log_{10} Flow	0.67	0.58	\log_{10} Flow	0.67
24-hr precip	0.51	0.73	24-hr precip	0.51	0.73	24-hr precip	-
48-hr precip	0.32	0.42	48-hr precip	0.32	0.42	48-hr precip	-
72-hr precip	0.27	0.09	72-hr precip	0.27	0.09	72-hr precip	0.27
Secchi Depth	0.59	0.33	Secchi Depth	0.59	0.33	Secchi Depth	0.59

Figure 2-2 Simplified parameter selection process based on correlation coefficients

The final parameters selected for multiple linear least-squares regressions are listed below. Table 2-2 is an excerpt from Appendix D and shows the correlation statistics for the parameters below.

1. All segments – Correlations were comparatively weak. No parameters were selected.
2. 0806 – $\log_{10} E. coli$, \log_{10} Flow, and 96-hr Precipitation Total.
3. 0841 – $\log_{10} E. coli$, 120-hr Precipitation Total, Secchi Depth, and Specific Conductance.
4. 0805 – $\log_{10} E. coli$, \log_{10} Flow, 144-hr Precipitation Total, and Specific Conductance.
5. 0805 Upstream of East Fork Trinity River Confluence – $\log_{10} E. coli$, \log_{10} Flow, 96-hr Precipitation Total, Secchi Depth, and Specific Conductance.
6. 0805 Downstream of East Fork Trinity River Confluence – $(\log_{10} E. coli)^2$, \log_{10} Flow, 168-hr Precipitation Total, and Secchi Depth.

Table 2-2 Pearson correlation coefficient statistics (excerpt from Appendix D)

Parameter	0806 Log ₁₀ <i>E. coli</i>	0841 Log ₁₀ <i>E. coli</i>	0805 Log ₁₀ <i>E. coli</i>	0805 Upstream of East Fork Trinity River Confluence Log ₁₀ <i>E. coli</i>	0805 Downstream of East Fork Trinity River Confluence (Log ₁₀ <i>E. coli</i>) ²
Log Flow	0.583		0.392	0.438	0.530
96-hr Precipitation Total (inches)	0.561			0.54552	
120-hr Precipitation Total (inches)		0.622			
144-hr Precipitation Total (inches)			0.464		
168-hr Precipitation Total (inches)					0.541
Secchi Depth (m)		-0.536		-0.761	-0.582
Specific Conductance (us/cm)		-0.519	-0.562	-0.564	

Following the selection of parameters from the two methods discussed above for single linear least-squares regressions and the Pearson correlations, multiple linear least-squares regressions were conducted. These were run in Microsoft Excel on all possible groupings of the parameters listed above for single linear regressions and correlations. For example, if parameters A, B, C, and D were selected to be run against X transformation of *E. coli*, regressions were run for X in relation to ABCD, ABC, ABD, ACD, BCD, AB, AC, AD, BC, BD, and CD. Once the groupings were made, all rows of data with any null values were removed as this would prevent the ability to perform a regression. This greatly reduced the number of records available for modeling. For example, segment 0841 had 455 available rows of data available. After removing null records, between 66 and 221 rows of data remained depending on the grouping of parameters. Due to this limited data set, the decision was made to use all available data for modeling rather than splitting out a portion of the data set to be used for model verification. This decision was justified by the fact that a small amount of additional data had become available since the initial data gathering had been conducted at the beginning of this project. This additional data was used to evaluate the predictive

capability of the regression models. The results of the regressions can be seen in Appendices E and F.

Additional data were obtained for segments 0806, 0841, and 0805 for model validation. These data were collected after the initial date range used for model development. These data were handled in the same manner as was discussed above in the Data Handling section and flow and precipitation data were updated. This resulted in a total of 27 records that had all the necessary parameters for each segment: eight records for 0806, five records for 0841, and 14 records for 0805. These data were entered into the model equation and the predicted transformed *E. coli* values were obtained. The predicted transformed *E. coli* values were then converted into an untransformed *E. coli* value. The predicted *E. coli* values were compared against the single grab and geometric mean assessment criteria of 394 and 126 CFU/100 mL, respectively. The values were color-coded and given a proposed contact recreation warning level that may be used for signage. The color-coding and language are shown below. In addition, the measured *E. coli* values were color-coded for comparison. The results of model validation can be seen in Appendix G.

1. Values \leq 126 CFU/100 mL – Coded green – Proposed language “Current conditions indicate that *E. coli* levels may be low and appropriate for contact recreation.”
2. Values between 126 and 394 CFU/100 mL – Coded yellow – Proposed language “Current conditions indicate that *E. coli* levels may be elevated but may still be appropriate for contact recreation.”
3. Values \geq 394 CFU/100 mL – Coded red – Proposed language “Current conditions indicate that *E. coli* levels may be elevated and may not be appropriate for contact recreation.”

Chapter 3

Results

In general, the multiple linear regressions based on parameters selected from single linear regressions provided better fits than those selected from the correlations. The overall regression F-statistic was significant ($P < 0.05$) for all regressions. The individual P-values for the t-statistics of most parameters were also low. These P-values were used as a deciding factor to choose between regression models in cases where the adjusted r^2 values for two regressions were very close. Overall, flow, precipitation totals, pH, Secchi depth, and specific conductance were the most common parameters selected for regression models. Each of these parameter coefficients responded in the expected manner. Flow and precipitation totals had positive coefficients while pH, Secchi depth, and specific conductance had negative coefficients. Precipitation and the resultant increases in flow wash *E. coli* from the land into water bodies via runoff, therefore, the positive coefficient was expected. pH generally decreases at night and during cloudy weather as algae are respiring. The process of respiration increases dissolved carbon dioxide which decreases pH. As precipitation is typically accompanied by cloudy skies, the decrease in pH was expected for increases in *E. coli*, thus the negative coefficient. Secchi depth frequently decreases during precipitation as sediments are being washed in from the land or eroded from stream banks. Specific conductance normally decreases during precipitation events due to dilution of ambient stream flows with fresher rainfall. Therefore, the negative coefficients for Secchi depth and specific conductance were expected.

All Segments

The regression for all segments produced the worst adjusted r^2 value in comparison to the adjusted r^2 values produced by the models for the individual segments. This all-segment model produced an adjusted r^2 of 0.328. This model was based on the $(\log_{10} E. coli)^2$ in relation to the 48-hr precipitation total, pH, and Secchi depth. Based on the low adjusted r^2 value for all segments (see Table 3-1 below), this model was rejected. It was determined that the best method for accurately predicting *E. coli* at this time is on a segment-by-segment basis.

Table 3-1 Best fit multiple linear least-squares regression for all segments (excerpt from Appendix E)

Regression Statistics	
Multiple r	0.575
r^2	0.330
Adjusted r^2	0.328
Standard Error	3.044
Observations	1009

ANOVA	df	SS	MS	F	Significance F
Regression	3	4590.978	1530.326	165.154	4.998E-87
Residual	1005	9312.360	9.266		
Total	1008	13903.337			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	24.626	2.416	10.191	2.818E-23	19.884	29.368
48-hr Precipitation Total	2.691	0.181	14.893	1.785E-45	2.337	3.046
pH	-2.409	0.307	-7.847	1.086E-14	-3.012	-1.807
Secchi Depth	-5.310	0.612	-8.679	1.584E-17	-6.510	-4.109

Segment 0806

For segment 0806, the best fit model based on parameters selected from single linear regressions resulted in an adjusted r^2 of 0.740 while the best fit model based on parameters selected from correlations resulted in an adjusted r^2 of 0.434. The regression-selected parameters included $(\log_{10} E. coli)^2$ in relation to \log_{10} flow, the 72-hr precipitation total, pH, and Secchi depth. The correlation-selected parameters included

\log_{10} *E. coli* in relation to \log_{10} flow and the 96-hr precipitation total. Based on the higher adjusted r^2 , the model developed from the regression-selected parameters was chosen.

Table 3-2 shows the results of this multiple linear regression.

Table 3-2 Best fit multiple linear least-squares regression for Segment 0806 (excerpt from Appendix E)

Regression Statistics	
Multiple r	0.867
r^2	0.752
Adjusted r^2	0.740
Standard Error	2.366
Observations	89

ANOVA	df	SS	MS	F	Significance F
Regression	4	1426.596	356.649	63.725	1.174E-24
Residual	84	470.121	5.597		
Total	88	1896.717			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	44.742	9.165	4.882	4.944E-06	26.517	62.968
\log_{10} Flow	2.069	0.453	4.568	1.676E-05	1.168	2.970
72-hr Precipitation Total	2.997	0.571	5.245	1.149E-06	1.861	4.134
pH	-5.092	1.180	-4.314	4.353E-05	-7.439	-2.745
Secchi Depth	-12.435	2.579	-4.822	6.265E-06	-17.563	-7.306

The predicted *E. coli* values for the validation data are shown in Table 3-3. This table shows the final results of the model in Table 3-2. Columns 2 and 3 represent the measured *E. coli* values and its transformation. The last three columns represent the predicted transformed and untransformed *E. coli* values as well as the proposed warning level language. The remaining columns represent the measured parameter values as specified in the model above. As noted in the last paragraph of the Data Analysis section, the *E. coli* values in this table were color coded to indicate one of three warning levels. Green indicates that the *E. coli* value was below the geometric mean standard of 126 CFU/100 mL. Yellow indicates that the *E. coli* value was between the geometric mean and the single grab standard of 394 CFU/100 mL. Red indicates that the *E. coli* value was above the single grab standard. The measured *E. coli* value in the second

column was color coded independently of the predicted *E. coli* value in the second to last column. The proposed contact recreation warning level in the last column was color coded to match the predicted *E. coli* value. The independent color coding of the measured and predicted *E. coli* values was done to highlight cases where these values either agreed or disagreed. The first four rows show cases of agreement between the measured and predicted *E. coli* values. The first row shows somewhat elevated levels of *E. coli* that are still within the safe range for some contact recreation activities. The next three rows show that both measured and predicted *E. coli* values are well below the levels considered safe for contact recreation. These four rows indicate accurately predicted warning levels. Rows five and seven indicate disagreement between measured and predicted *E. coli* values, where measurements were somewhat elevated but the models predicted values below the geometric mean standard. Row six shows a case in which the measured *E. coli* value was well above the single grab standard, while the model predicted a value that was only somewhat elevated but still safe for some contact recreation activities. Collectively, rows five, six, and seven represent failures of the model to accurately predict the appropriate warning level by predicting lower warning levels than would be warranted by the measured values. Row eight shows a measured *E. coli* value that was well below the geometric mean standard and a predicted value that was somewhat elevated but may be considered safe for some contact recreation activities. While this was also a failure of the model to accurately predict the appropriate warning level, because the predicted warning level was higher than that based upon the measured value, this error was considered more acceptable as it was protective of public health.

Table 3-3 Segment 0806 final results (excerpt from Appendix G)

Segment	<i>E. coli</i> (MPN or #/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	Flow (cfs)	Log ₁₀ Flow	72-hr Precipitation Total (Inches)	pH (SU)	Secchi Depth (m)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or #/100 mL)	Proposed Contact Recreation Warning Level For Signage
0806	150	4.735	27	1.431	0	7.8	0.26	4.754	238.196	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	24	1.905	13	1.114	0	8.2	0.5	-0.924	0.345	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	29	2.139	32	1.505	0	8	0.45	1.526	5.791	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	40	2.567	35	1.544	0	7.9	0.49	1.618	6.441	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	360	6.535	193	2.286	0.26	7.9	0.5	3.807	80.069	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	1300	9.697	167	2.223	0.23	8	0.36	4.819	256.650	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	190	5.193	56	1.748	0.63	8	0.43	4.165	120.964	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	22	1.802	27	1.431	0	7.6	0.32	5.026	325.897	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.

Segment 0841

For segment 0841, the best fit model based on parameters selected from single linear regressions resulted in an adjusted r^2 of 0.676 while the best fit model based on

parameters selected from correlations resulted in an adjusted r^2 of 0.530. The regression-selected parameters included $(\log_{10} E. coli)^2$ in relation to \log_{10} flow, the 48-hr precipitation total, and Secchi depth. The correlation-selected parameters included $\log_{10} E. coli$ in relation to the 120-hr precipitation total, Secchi depth, and specific conductance. Based on the higher adjusted r^2 , the model developed from the regression-selected parameters was chosen. Table 3-4 shows the results of this multiple linear regression.

Table 3-4 Best fit multiple linear least-squares regression for Segment 0841 (excerpt from Appendix E)

Regression Statistics	
Multiple r	0.831
r^2	0.691
Adjusted r^2	0.676
Standard Error	2.511
Observations	66

ANOVA	df	SS	MS	F	Significance F
Regression	3	875.035	291.678	46.244	8.113E-16
Residual	62	391.059	6.307		
Total	65	1266.095			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-9.298	2.685	-3.463	9.738E-04	-14.665	-3.931
\log_{10} Flow	6.271	0.989	6.339	2.948E-08	4.294	8.249
48-hr Precipitation Total	2.386	0.847	2.818	6.481E-03	0.693	4.078
Secchi Depth	-4.578	2.117	-2.162	3.447E-02	-8.810	-0.345

The evaluation of the predicted *E. coli* values is shown in Table 3-5. The model presented in Table 3-4 resulted in three accurate warning level predictions as shown in rows one, two, and five. Rows three and four show predicted *E. coli* values and the resultant warning levels higher than what the measured *E. coli* values represent. As stated in the Segment 0805 section above, these higher than necessary warning limits were errors that are protective of public health.

Table 3-5 Segment 0841 final results (excerpt from Appendix G)

Segment	<i>E. coli</i> (MPN or #/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	Flow (cfs)	Log Flow	48-hr Precipitation Total (inches)	Secchi Depth (m)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or #/100 mL)	Proposed Contact Recreation Warning Level For Signage
0841	22	1.802	159	2.201	0	0.28	3.226	41.034	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	72	3.450	200	2.301	0	0.34	3.576	61.410	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	70	3.404	712	2.852	0.31	0.34	7.774	7712.547	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	390	6.714	334	2.524	0	0.15	5.843	834.581	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	37	2.459	169	2.228	0	0.29	3.347	47.133	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.

Segment 0805

For segment 0805, the best fit model based on parameters selected from single linear regressions resulted in an adjusted r^2 of 0.509 while the best fit model based on parameters selected from correlations resulted in an adjusted r^2 of 0.449. The regression-selected parameters included $(\log_{10} E. coli)^2$ in relation to the 72-hr precipitation total, Secchi depth, and specific conductance. The correlation-selected parameters included $\log_{10} E. coli$ in relation to the 144-hr precipitation total and specific conductance. Based on the higher adjusted r^2 , the model developed from the regression-selected parameters was chosen. Table 3-6 shows the results of this multiple linear regression.

Table 3-6 Best fit multiple linear least-squares regression for Segment 0805 (excerpt from Appendix E)

Regression Statistics	
Multiple r	0.718
r ²	0.516
Adjusted r ²	0.509
Standard Error	2.921
Observations	227

ANOVA	df	SS	MS	F	Significance F
Regression	3	2027.127	675.709	79.178	6.573E-35
Residual	223	1903.086	8.534		
Total	226	3930.213			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	10.561	0.906	11.655	7.968E-25	8.775	12.347
72-hr Precipitation Total	2.575	0.340	7.577	9.335E-13	1.905	3.244
Secchi Depth	-8.877	2.184	-4.065	6.654E-05	-13.180	-4.574
Specific Conductance	-0.006	0.002	-3.606	3.836E-04	-0.010	-0.003

The evaluation of the predicted *E. coli* values is shown in Table 3-7. The model presented in Table 3-6 resulted in five accurate warning level predictions as shown in rows three, four, six, twelve, and fourteen. Rows one, two, and ten show predicted *E. coli* values and warning levels below those necessary based on the measured *E. coli* values. Rows five, seven, eight, nine, eleven, and thirteen show predicted *E. coli* values and the resultant warning levels higher than what the measured *E. coli* values represent and were acceptable errors as they are protective of public health.

Table 3-7 Segment 0805 final results (excerpt from Appendix G)

Segment	<i>E. coli</i> (MPN or #/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	72-hr Precipitation Total (inches)	Secchi Depth (m)	Specific Conductance (us/cm)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or #/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805	150	4.735	0	0.28	917	2.340	14.787	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	1200	9.481	0	0.28	816	2.972	30.603	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	16	1.450	0	0.23	814	3.428	51.753	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	35	2.384	0	0.43	814	1.652	6.703	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	24	1.905	0.76	0.37	663	5.086	349.323	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	580	7.637	0.33	0.23	563	5.848	839.065	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	66	3.311	0.01	0.25	581	4.734	232.684	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	49	2.857	0.03	0.17	581	5.495	559.233	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	360	6.535	0.81	0.2	638	6.881	2756.296	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	4800	13.552	0.02	0.24	995	2.258	13.465	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	20	1.693	0.36	0.12	831	5.225	409.695	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	36	2.422	0	0.4	849	1.700	7.078	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	340	6.408	1.67	0.14	434	10.904	283014	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	3100	12.190	0.84	0.03	349	10.275	137200	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.

Segment 0805 Upstream of the East Fork Trinity River Confluence

For segment 0805 upstream of the East Fork Trinity River confluence, the best fit model based on parameters selected from correlations resulted in an adjusted r^2 of 0.632 while the best fit model based on parameters selected from regressions resulted in an adjusted r^2 of 0.630. The correlation-selected parameters included $\log_{10} E. coli$ in relation to the 96-hr precipitation total and Secchi depth. The regression-selected parameters included $(\log_{10} E. coli)^2$ in relation to the 48-hr precipitation total and Secchi depth. Based on the higher adjusted r^2 , the model developed from the correlation-selected parameters was chosen. Table 3-8 shows the results of this multiple linear regression.

Table 3-8 Best fit multiple linear least-squares regression for Segment 0805 upstream of East Fork Trinity River confluence (excerpt from Appendix F)

Regression Statistics	
Multiple r	0.798
r^2	0.637
Adjusted r^2	0.632
Standard Error	0.517
Observations	143

ANOVA	df	SS	MS	F	Significance F
Regression	2	65.609	32.805	122.881	1.537E-31
Residual	140	37.375	0.267		
Total	142	102.984			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.101	0.117	26.445	2.639E-56	2.869	3.333
96-hr Precipitation Total	0.379	0.067	5.625	9.731E-08	0.246	0.512
Secchi Depth	-3.638	0.397	-9.166	5.559E-16	-4.423	-2.853

The evaluation of the predicted *E. coli* values is shown in Table 3-9. The model presented in Table 3-8 resulted in two accurate warning level predictions as shown in rows three and eight. Rows one, two, four, and seven show predicted *E. coli* values and warning levels below what is necessary based on the measured *E. coli* values. Rows five, six, and nine show predicted *E. coli* values and the resultant warning levels higher

than what the measured *E. coli* values represent and were considered acceptable errors as they are protective of public health.

Table 3-9 Segment 0805 upstream of East Fork Trinity River confluence final results
(excerpt from Appendix G)

Segment	<i>E. coli</i> (MPN or #/100 mL)	Log ₁₀ <i>E. coli</i>	96-hr Precipitation Total (inches)	Secchi Depth (m)	Predicted Log ₁₀ <i>E. coli</i>	Predicted <i>E. coli</i> (MPN or #/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805 Upstream of East Fork Trinity River Confluence	150	2.176	0	0.28	2.082	120.888	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	1200	3.079	0	0.28	2.082	120.888	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	35	1.544	0	0.43	1.537	34.411	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	580	2.763	0.33	0.23	2.389	245.057	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	66	1.820	0.02	0.25	2.199	158.159	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	360	2.556	0.99	0.2	2.748	560.253	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	4800	3.681	0.02	0.24	2.235	171.979	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	36	1.556	0	0.4	1.646	44.242	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	340	2.531	2.02	0.14	3.357	2273.936	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.

Segment 0805 Downstream of the East Fork Trinity River Confluence

For segment 0805 downstream of the East Fork Trinity River confluence, the best fit model based on parameters selected from single linear regressions resulted in an adjusted r^2 of 0.577 while the best fit model based on parameters selected from

correlations resulted in an adjusted r^2 of 0.520. The regression-selected parameters included $(\log_{10} E. coli)^2$ in relation to the 168-hr precipitation total, Secchi depth, and specific conductance. The correlation-selected parameters included $(\log_{10} E. coli)^2$ in relation to the \log_{10} flow, 168-hr precipitation total, and Secchi depth. Based on the higher adjusted r^2 , the model developed from the regression-selected parameters was chosen. Table 3-10 shows the results of this multiple linear regression.

Table 3-10 Best fit multiple linear least-squares regression for Segment 0805 downstream of East Fork Trinity River confluence (excerpt from Appendix E)

Regression Statistics	
Multiple r	0.770
r^2	0.592
Adjusted r^2	0.577
Standard Error	2.329
Observations	83

ANOVA	df	SS	MS	F	Significance F
Regression	3	622.316	207.439	38.231	2.290E-15
Residual	79	428.645	5.426		
Total	82	1050.961			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	7.885	1.340	5.885	9.147E-08	5.218	10.552
168-hr Precipitation Total	2.041	0.365	5.594	3.074E-07	1.315	2.768
Secchi Depth	-8.285	3.515	-2.357	0.021	-15.281	-1.289
Specific Conductance	-0.006	0.002	-2.593	0.011	-0.010	-0.001

The evaluation of the predicted *E. coli* values is shown in Table 3-11. The model presented in Table 3-10 resulted in all five records producing accurate warning level predictions.

Table 3-11 Segment 0805 downstream of East Fork Trinity River confluence final results

(excerpt from Appendix G)

Segment	<i>E. coli</i> (MPN or #/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	168-hr Precipitation Total (inches)	Secchi Depth (m)	Specific Conductance (us/cm)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or #/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805 Downstream of East Fork Trinity River Confluence	16	1.450	0	0.23	814	1.453	5.329	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	24	1.905	0.98	0.37	663	3.133	36.876	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	49	2.857	0.09	0.17	581	3.430	51.858	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	20	1.693	0.43	0.12	831	3.148	37.489	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	3100	12.190	1.11	0.03	349	7.962	9568.538	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.

Chapter 4

Discussion

The models based on parameters selected from single linear regressions usually produced better results overall than those based on selection from correlations. Based on the poor regression results for all river segments combined shown in Table 3-1, it was determined that the best method for accurately predicting *E. coli* at this time is on a segment-by-segment basis. The regression models for segments 0806, 0841, and 0805 gave much more acceptable results. In hydrologic order, from upstream to downstream, the adjusted r^2 for each segment was 0.740 for 0806, 0.676 for 0841, and 0.509 for 0805. This indicates that the variation of the selected parameters can explain roughly 50 to 74% of the variation in the $(\log_{10} E. coli)^2$ values. Due to the lower adjusted r^2 for segment 0805, the two models for the upstream and downstream portions of that segment were also reviewed. Segment 0805 upstream of the East Fork Trinity River confluence had an adjusted r^2 value of 0.632 while the portion downstream of the confluence had an adjusted r^2 of 0.577. Overall, with these adjusted r^2 values replacing the single adjusted r^2 for segment 0805, approximately 58 to 74% of the variation is explained by the parameters in the models.

The decrease in the fit of the model moving downstream is presumed to be due to the increasing complexity of the river itself. Tributaries to the river will contribute loadings of *E. coli* and other constituents. As the river flows downstream, there is increasing upstream watershed area with increasing runoff, animal populations, and wastewater infrastructure. Runoff can carry *E. coli* generated by wildlife, pets, and livestock into the river. In addition, increasing amounts of wastewater infrastructure such as septic systems, wastewater treatment plants, and wastewater pipelines could

reasonably be assumed to increase the opportunity for failures in these systems. When failures occur, *E. coli* can be introduced to the river.

An important point to remember is that a single grab sample is intended to be representative of a water body at a sample point. However, because a river is a dynamic moving system, the water quality at a sample point is constantly changing. Therefore, the levels of *E. coli* or any other parameter being measured cannot be accurately predicted from one hour to the next without knowing the water quality of upstream sites. Due to this fact, there is an inherent uncertainty in any model developed and the resultant predictions made from those models. In addition, there may be anomalies that occur that make contact recreation inadvisable: sewer infrastructure failures and wildlife migrations, for example. These scenarios would likely result in high *E. coli* levels without being predicted by the models.

As shown in Tables 3-3, 3-5, 3-7, 3-9, 3-11 there were cases where the measured *E. coli* values in the validation data did not agree with the model results. In segment 0806 (Table 3-3), the record for the measured *E. coli* value of 1300 CFU/100 mL indicated that there was evidence of recent flooding based on field comments associated with the sample. The flow for this sample was also somewhat elevated in comparison to the flow values for other samples at the same site. This seems to indicate that the recent flooding and elevated flow produced conditions in which *E. coli* were still being introduced into the river at the time of sampling. In addition, the elevated flow alone would likely be a justifiable reason to warn against contact recreation even though the model does not heavily weight flow in this segment (see Table 3-2).

In segment 0841 (Table 3-5), there were two suggested warnings against contact recreation that were not reflected in the measured *E. coli* values. As in segment 0806, the elevated flows alone may be sufficient to warn against contact recreation. The flow

was heavily weighted in the model for this segment (see Table 3-4), which resulted in inaccurate contact recreation warnings for these samples.

The results for the whole of segment 0805 (Table 3-7), showed six records where contact recreation was not advised based on the results of the model. Four of these records did not agree with the measured *E. coli* values. Flow was not used in this model; however, the associated flows for these records were elevated and should deter contact recreation (see Appendix A). There were two other records for which the measured *E. coli* was above the grab sample standard but no warning was advised by the model. The flows for these samples were not especially high and, although specific conductance was elevated, this parameter was not heavily weighted in the model equation (see Table 3-6). There were no indications of anomalous conditions such as odors or excessive wildlife activity noted in comments associated with these samples. At this time, it is not known what caused the elevated *E. coli* levels for these records.

Segment 0805 upstream of the East Fork Trinity River confluence showed a better adjusted r^2 value (see Table 3-8) than that for the whole of segment 0805 (see Table 3-6). There were two records for which contact recreation was not advised (see Table 3-9). The measured *E. coli* values were below, but close to, the single grab sample standard. Although the flow was not used in this model, the flows were somewhat elevated for these samples (see Appendix A). Three records had measured *E. coli* values that were not appropriate for contact recreation; however, the model indicated that it was acceptable. The flows for these samples measured 527, 614, and 1820 cfs while the associated *E. coli* values were 1200, 4800, and 580 MPN/100 mL, respectively. This confirms that, for this portion of segment 0805, flow does not accurately predict *E. coli* levels.

As seen with the upstream portion of 0805, 0805 downstream of the East Fork Trinity River confluence had a better adjusted r^2 value (see Table 3-10) than did the whole of segment 0805 (see Table 3-6). There was one record for which contact recreation was not advised (see Table 3-11). Again, although flow was not used in the models for 0805, this sample did have the highest flow (see Appendix A).

Table 4-1 Model prediction accuracy

<i>E. coli</i> Color Code	Predicted <i>E. coli</i> Color Code	Prediction Accuracy	0806	0841	0805	0805 Upstream	0805 Downstream
Green	Green	Accurately predicted warning level	3	3	3	2	4
Yellow	Yellow		1	0	0	0	0
Red	Red		0	0	2	0	1
Green	Yellow	Predicted higher than actual warning level	1	0	2	1	0
Green	Red		0	1	2	0	0
Yellow	Red		0	1	2	2	0
Yellow	Green	Predicted lower than actual warning level	2	0	1	1	0
Red	Yellow		1	0	0	2	0
Red	Green		0	0	2	1	0

Table 4-1 above tabulates the results of the models into three categories based on the color coding seen in Tables 3-3, 3-5, 3-7, 3-9, 3-11. The first group accurately predicted a warning level appropriate to the measured *E. coli* value. The second group predicted a higher warning level than what would be appropriate for the measured *E. coli*. For example, a measured *E. coli* value below the geometric mean standard of 126 CFU/100 mL was given a warning that is appropriate for values between 126 and the single grab standard of 394 CFU/100 mL. Values that were between 126 and 394 CFU/100 mL were given warnings appropriate for values measured above 394 CFU/100 mL. The third group predicted lower warning levels than what would be appropriate for the measured *E. coli*. For example, measured *E. coli* values that were above 394 CFU/100 mL were given warnings appropriate for *E. coli* values between 126 and 394

CFU/100 mL and values between these two standards were given warnings appropriate for *E. coli* values below 126 CFU/100 mL. For the purposes of this project, the first two categories were considered preferable to the third category given that accurate predictions and predictions of higher warning levels are protective of public health. However, being more conservative in the interest of public health may introduce several negative outcomes including inconvenience to citizenry and financial losses. Citizens may travel to a location to recreate only to find that recreation activities are not advised. Organized events such as Rockin' the River include many aspects such as the procurement of entertainment as well as vendors for food, beverages, and souvenirs. If models predict that contact recreation is not advised, event organizers not only lose the money that has been invested in the event, organizers and vendors lose any potential profits to be made from the event. In addition, general recreation not associated with an organized event has the potential to increase profits for business such as convenience stores and restaurants that may begin to rely on the business generated by citizens recreating nearby. Predictions advising that contact recreation may not be safe would likely reduce traffic to these businesses and therefore reduce their sales for the day.

For segments 0806 and 0841, the grouping resulted in 62.5% and 100% of the predictions, respectively, being placed into the two preferable categories. For the whole of segment 0805, 78.6% of the predictions fell into the two preferable categories. However, 0805 upstream of the East Fork Trinity River confluence had only 55.6% of the predictions fall into these categories. The downstream portion had 100% of the predictions grouped into the preferable categories. Because of the urban focus of this project, the model and predictions for the portion of 0805 downstream of the East Fork Trinity River confluence were disregarded. This left the 78.6% preferable predictions for the whole of segment 0805 to be considered against the 55.6% preferable predictions for

the portion upstream of the confluence. Because of the discrepancy between these two percentages, it was determined that the model for the whole of segment 0805 provided better results than those for the upstream and downstream portions of 0805 separately regardless of their higher adjusted r^2 values. This conflicted with initial assumptions that the individual models would provide better results than a single model for segment 0805. As discussed in the Data Analysis section, it was believed that the inflow from a largely rural watershed would negatively influence the model.

Sensitivity and specificity are measures of the accuracy of a model with two possible outcomes. In respect to this project, specificity is the percentage of correctly predicted *E. coli* values greater than or equal to 394 MPN or CFU/100 mL versus the total number of predicted values greater than or equal to this number. Specificity is the percentage of correctly predicted values less than 394 MPN or CFU/100 mL versus the total number of predicted values less than this number. This division was chosen because some contact recreation activities may be acceptable below this concentration while no contact recreation activities are acceptable above this concentration. As shown in Table 4-2, the models were able to correctly predict values less than 394 MPN or CFU/100 mL between 75% and 100% of the time. However, values greater than 394 MPN or CFU/100 mL were correctly predicted only 33% and 50% of the time. This indicates that the models were less able to accurately predict events with high *E. coli* concentrations. As previously discussed in this section, there are situations where unknown factors such as infrastructure failures may introduce high levels of *E. coli* which cannot be predicted by the models. As shown in Tables 4-1 and 4-2, the data sets used to validate the models were very small. It is expected that the percentage of preferable predictions based on Table 4-1 and the sensitivities and specificities in Table 4-2 will change as more data becomes available due to the ongoing water quality monitoring in

these segments. Although these values are expected to change over time, the initial values are encouraging.

Table 4-2 Sensitivity and specificity

Segment	Predicted Exceedances (\geq 394 MPN or CFU/100 mL)	Correctly Predicted Exceedances (\geq 394 MPN or CFU/100 mL)	Sensitivity	Predicted Non-Exceedances ($<$ 394 MPN or CFU/100 mL)	Correctly Predicted Non-Exceedances ($<$ 394 MPN or CFU/100 mL)	Specificity
0806	0	0	--	8	7	88%
0841	2	1	50%	3	3	100%
0805	6	2	33%	8	6	75%

These results are comparable to the results from other river studies. *E. coli* at sites along the Cuyahoga River were modeled by single and multiple linear regressions using turbidity, rainfall, and flow as predictors. These models resulted in adjusted r^2 values ranging from 0.32 to 0.68 with sensitivities of 89% to 100% and specificities of 0% to 58%. This project also used a single model developed for the Jaite, Ohio site on the Cuyahoga River to predict *E. coli* at other sites. This method resulted in adjusted r^2 values between 0.3 and 0.7 with sensitivities between 73% and 81% and specificities between 47% and 68% (Brady, et al., 2009). While the adjusted r^2 values are comparable, the sensitivity and specificity values for the Cuyahoga River project do not compare with the values found in this Trinity River project. It is believed that the generalized and regionalized approach to the project described in this paper for the Trinity River account for the discrepancy. The Cuyahoga River project created models for single sites and applied the model for one site to other sites while the project described herein used data for all sites within a segment to create a single model. The Charles River project by Eleria and Vogel (2005) used previous rainfall amounts and the previous day's fecal coliform value to predict fecal coliform with an adjusted r^2 value of

0.538. The best values obtained from this model resulted in a sensitivity of 71% and a specificity of 96%. These values are more comparable to those seen in Table 4-2.

Based on literature review, it appears that several entities have had great success in using models to predict *E. coli* levels. However, there are many areas where contact recreation is occurring and for which there are no real-time methods for *E. coli* level predictions. This puts the onus for recreational decisions on a citizenship that is unaware of the factors that may make a water body unsafe for contact recreation. A predictive model can provide a warning system for recreating and, based on the results reported herein, may be preferable to a system that does not use predictive models. For example, simply basing warnings on *E. coli* levels from the previous day (Francy and Darner, 2003) or not having a warning system at all may not adequately protect the public health.

When a model predicts high levels of *E. coli*, the city or other entity must make the decision to accept or reject the model results and alter activities accordingly. If the model is accurate, the public may be protected from potential illness. If the model is inaccurate, the city or entity may lose revenue associated with planned events. If the model predicts low *E. coli* levels, a similar decision and risk must be taken. If the model is accurate, then no harm is done. However, if the model is inaccurate, there is the risk of some members of the public becoming ill.

There are inherent risks being assumed by cities, entities, and citizens when no model is used. These models allow for a better opportunity to protect the public from unnecessary exposure to high levels of *E. coli*. It cannot be stated strongly enough that there are factors that cannot be predicted by the models as they are presented with the data available at the time of their development. Counts of wildlife are not included but may present an uncertainty factor in the models. While the segments used in this project

flow through highly urbanized areas, the floodplains are generally undeveloped and contain riparian buffer zones which provide habitat for wildlife. Future monitoring should include wildlife counts in order to account for this in future model review and development. In addition, there are completely unaccountable factors that can cause these models or any model to be inaccurate. Infrastructure failures such as sewer line breaks or clogs and backups can occur at any time without being tied to any particular factor. For example, sewer line breaks may occur when there has been a large amount of precipitation that washes away supporting materials and cause a line to collapse. Alternatively, sewer lines can break due to aging and failure of sewer line material or during prolonged dry weather when the ground shifts and cracks. Overflows typically occur during wet weather due to precipitation infiltration into the sewer line. However, overflows can also occur at any other time due to obstructions in the lines. Obstructions can be caused by roots growing into the lines or by improper disposal of materials such as oils and grease by the public.

Signage and the language proposed in the Data Analysis section present a problem for public notification. The reach of signage at points of contact recreation is limited. That is, signage may not be easily visible over a large physical area such as a 100 yard reach of a river for example. In addition, signage can be expensive to install and maintain especially if it is installed densely enough to adequately notify citizens in any particular area. Compounding this expense, a person or persons must change the sign plates on a possibly daily basis to notify citizens of current conditions. Signage would also have to include several translations in order to successfully notify citizens speaking languages other than English.

The Philly RiverCast system uses a similar system of color coding as described previously. The delivery method for information is via website with a "Current RiverCast"

warning level, water temperature, and flow presented in the top right-hand corner of the screen. Green indicates that water quality is acceptable for primary and secondary contact recreation while red indicates that recreation is not acceptable. Primary contact recreation is defined as “jet skiing, swimming, kayaking, wading, and water skiing” while secondary contact recreation includes “rowing, power boating, and fishing” (Philadelphia Water Department, 2013). The difference between these two categories is the higher risk for accidental ingestion of water during primary contact recreation.

The Trinity River in its current configuration is not suitable for high-power boating due to shallow depths and snags of trees or other large debris. Therefore, activities such as power boating, jet skiing, and water skiing would likely not occur. This leaves swimming, kayaking, and wading as primary activities and rowing and fishing as secondary activities. As an alternative to signage, a flagging system may provide better notification coverage for an area. A “Flagging Program” has been used on the Charles River in Massachusetts to indicate water quality conditions via flags at key locations along the river (Eleria and Vogel, 2005). This information is also presented via maps on the Charles River Watershed Association website (Charles River Watershed Association, 2008). A similar system of flagging may be useful in the Dallas-Fort Worth Metroplex and other areas.

A proposed system of flagging is shown in Figure 4-1. This system agrees with the color coding discussed in the Data Analysis section and used in the Results section. It utilizes icons and a single word as well as flag colors to indicate current conditions. The green flag indicates that water quality may be suitable for primary and secondary contact recreation. The yellow flag indicates that water quality may be suitable for secondary but not primary contact recreation. The red flag indicates that water quality may not be suitable for neither primary nor secondary contact recreation. Flags would be

visible at greater distances and allow for fewer man-hours needed to change flags as fewer flags would be needed at contact recreation sites. In conjunction with these flags, a website may also provide a way to get information out to a broader audience and allow citizens to determine their ability to recreate without first traveling to the site.

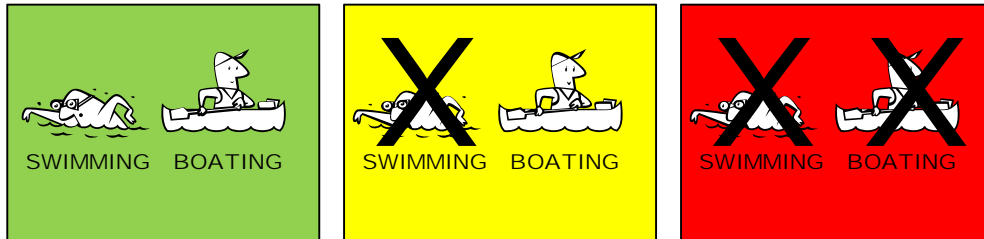


Figure 4-1 Proposed flagging

Chapter 5

Conclusions and Recommendations

Conclusions

Based on the results of this project, it does appear that reasonably accurate models for the prediction of *E. coli* levels in the Trinity River through the Dallas-Fort Worth Metroplex can be made and used to issue contact recreation warnings.

Segment 0805 produced a model with an adjusted r^2 of 0.740. Eight records were available for model verification. Of these records, 67.6% had predicted values that fell into the preferable categories of accurate and higher than actual predicted warning levels.

The model for segment 0841 resulted in an adjusted r^2 of 0.676 and 100% of the model verification results fell into the preferable categories. However, only five records were available for model verification at the time of this writing and it is unlikely that the model will continue to produce 100% preferable results.

Three separate models were developed for segment 0805 due to concerns for the influence of inflows from the East Fork Trinity River. Below are the summaries of these models. The model for the downstream portion of the segment was discarded as it was outside of the Dallas-Fort Worth Metroplex. However, the model for the entirety of the segment was ultimately found to produce more favorable results than the model for the upstream portion only.

1. 0805 – adjusted $r^2 = 0.509$, 78.6% of predictions were preferable based on 14 records
2. 0805 upstream of the confluence – adjusted $r^2 = 0.639$, 55.6% of predictions were preferable based on 9 records

3. 0805 downstream of the confluence – adjusted $r^2 = 0.577$, 100% of predictions were preferable based on 5 records

By utilizing these methods, decision makers in other areas can develop similar models for their areas of interest. Because the methods include simple linear and multiple linear regressions as well as correlations, the methods described for this project are easily accessible to any entity with access to the standard Microsoft Office Professional suite with the Data Analysis add-on for Excel or an equivalent spreadsheet or database application.

These predictive models may be able to reduce the occurrence of illness in citizens caused by the ingestion of contaminated water during contact recreation. However, as mentioned previously, there are anomalous conditions that may result in elevated *E. coli* levels that will not be predicted by these models. Decision makers must be willing to accept this risk when using models to issue contact recreation warnings. In addition, there are other reasons, such as unsafe elevated flows, that may be used to issue contact recreation use warnings. These models are therefore intended to supplement good common sense practices when deciding if contact recreation is appropriate on any given day.

Recommendations

Additional work and analyses may be able to increase the accuracy of these models. These recommendations are outlined below.

1. Models should be reviewed and/or updated on a regular basis in order to incorporate new data or parameters into the models. It does not seem wise to continue using models based on data that becomes progressively older in order to issue current contact recreation warnings. As better or newer data sets are

built, the parameters that are the best predictors of *E. coli* levels may change. In addition, a portion of the newer data should be reserved for model validation.

2. Based on modeling activities in several northern lake and river studies (Francy and Darner, 2006; Francy, et al., 2003; Brady, et al., 2009; Olyphant, 2005), turbidity may be an important factor in *E. coli* predictions. As noted by Nevers and Whitman (2008), turbidity is coupled with rainfall and loadings of *E. coli* into water bodies. Turbidity is a measure of the clarity of water and may also be correlated with *E. coli* levels due to the ability of UV radiation to kill bacteria. Turbidity was not frequently collected in most of the data sets available for this project. It is recommended that this parameter become a routine part of future data collection.
3. Precipitation totals were used in each of these models. However, the totals used were based on radar interpolated totals at nearby grid points rather than on actual measured precipitation totals. If it is determined that prediction models are a useful tool for decision makers, identification of nearby rain gages or the installation of rain gages at important contact recreation sites may provide a more accurate data set for model development.
4. As instantaneous 15-minute flow measurements are maintained on the USGS website for a finite period of time, it is suggested that this data be routinely downloaded and stored for important sites. The change in flow values for a period of time prior to sample collection may also be a useful parameter in model development. For example, a change in flow over the previous six hours may provide a better indication of possible *E. coli* levels than a single instantaneous flow measurement. However, this will only be advantageous for sites with nearby

USGS flow gages. This may not be practical for entities that must make their own flow measurements.

5. The day of the year, from 1 to 365, could be considered in future model updates. This number may indirectly indicate several activities that could affect water quality and *E. coli* levels: animal/bird migrations, contact recreation usage, and seasonal weather patterns including changes in water temperature to name a few (Francy, et al., 2003).
6. Birds are a contributor to *E. coli* levels in urban water bodies. Northern lake studies indicate that the bird counts were a predictor of *E. coli* levels (Francy and Darner, 2006). An effort to report the number of birds seen at the time of sampling should be made. However, as many of the birds seen near sampling sites in the Dallas-Fort Worth Metroplex are small flying birds rather than large wading shore birds, counts may be difficult. A categorical value that indicates a range of counts may be more feasible.
7. As better data sets are built, a shift from segment specific to site specific models may provide better results. Site specific models may be especially important for locations that are heavily used for contact recreation. As noted by Olyphant (2005), the parameters that are the best predictors for *E. coli* are not spatially consistent. Therefore, it could be expected that a site specific model would produce better results than a single model for an entire river segment.
8. The models for segment 0805 should continue to be reviewed frequently. At some point a separate model for the upstream portion of the segment may produce better results than a model for the whole of the segment.
9. For this project, flow, precipitation totals over various numbers of days, pH, Secchi depth, and specific conductance were the most commonly used

parameters across all the models developed. This parameter suite is by no means intended to be the sole list of parameters collected for model development by other entities. It was simply the best list of predictors for the existing data set available at the time this project was conducted. However, it may provide a starting point for entities creating new monitoring programs for the purpose of model development. Additional parameters should be considered as mentioned in the preceding recommendations. If new monitoring programs are created, the importance of having detailed quality control and quality assurance guidelines defined and adhered to cannot be understated. The data used to develop models must be of high quality in order for the models to reliable results.

10. Site specific models may produce better results when data used to develop the models include only data collected during times when contact recreation would occur. In some areas, such as the Trinity River in the Dallas-Fort Worth Metroplex, this may not be appropriate as contact recreation may occur throughout the year. As discussed in the Contact Recreation section, there are many rowing and kayaking opportunities in place or planned in this portion of the river. These activities can occur year-round and carry the risk of accidental ingestion of water.
11. Separate models for dry weather and wet weather may produce better fits for some or all segments presented in this project as well as other areas for which models may be developed. A threshold precipitation total should be determined either prior to or during model development. For example, a total precipitation of 0.25 inches in the seven days prior to generating *E. coli* predictions may be considered wet weather and any precipitation total below this may be considered dry weather. However, there are factors such as antecedent soil moisture that

could increase or decrease the amount of runoff generated from a precipitation event which could complicate a simple distinction between wet and dry weather.

Appendix A

Raw Data

Segment	Tag	Site	End Date	End Time	E. coli (MPN or CFU/100 mL)	Flow (cfs)	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)	Flow Severity	Days Since Precipitation	Turbidity (NTU)
0806	TR72454	10938	01/09/01	11:32	1	70	0	0	0	0	0	0	0				6.8		470	4	9	22
0806	TR72465	17368	01/09/01	12:06	7		0	0	0	0	0	0	0				7.2		380	4	9	12
0806	TR72449	16120	01/09/01	11:09	57		0	0	0	0	0	0	0				6.9		1440	4	9	16
0806	TR72466	17368	02/13/01	12:12	48		0.27	0.27	0.31	0.31	0.52	0.52	0.52				7.5		500	5	0.5	18
0806	TR72456	10938	02/13/01	11:41	1700	397	0.22	0.22	0.22	0.22	0.42	0.42	0.42				7.3		470	5	0.5	101
0806	TR72450	16120	02/13/01	11:21	730		0.22	0.22	0.25	0.25	0.42	0.42	0.42				7.3		440	5	0.5	30
0806	TR60031	10938	02/20/01	14:15	870	387	0	0	0	0	1.63	2.03	2.03	14.3	24.4	11.2	8.1		483	4	4	
0806	TR72451	16120	03/13/01	11:58	1300		0	0.52	1.03	1.03	1.63	1.63	1.63	14.5		9.8	7.2		330	5	2	57
0806	TR72467	17368	03/13/01	11:04	2000		0	0.91	0.95	0.95	1.57	1.57	1.57	14.3		9.8	7.1		340	5	2	30
0806	TR72457	10938	03/13/01	11:37	1600	1910	0	0.59	1.01	1.01	1.67	1.67	1.67	14.8		10	7.3		330	5	2	36
0806	TR60037	10938	03/26/01	8:55	210	1890	0	0.12	0.41	0.41	0.41	0.41	0.41	12.6	8.9	10.5	8		388	4	2	
0806	TR72452	16120	04/10/01	10:03	330		0	0	0	0	0	0	0	8.1		8.1	7.9		450	5	13	30
0806	TR72458	10938	04/10/01	10:46	6	267	0	0	0	0	0	0	0	21.2		6.7	7.8		430	5	13	29
0806	TR72468	17368	04/10/01	11:21	19		0	0	0	0	0	0	0	22.2		7.8	8		420	5	13	25
0806	TR60042	10938	04/17/01	14:45	480	571	0.01	0.01	0.01	0.21	0.21	0.21	0.78	19.7		9.4	8.4		421	4		
0806	TR72459	10938	05/08/01	10:51	1000	655	0	0.13	1.16	2.13	2.13	2.13	2.13	22.1		8.7	7.5		260	5	1	29
0806	TR72453	16120	05/08/01	10:26	2400		0	0.09	1.11	2.01	2.01	2.01	2.01	21.8		7.5	7.1		290	5	1	33
0806	TR72469	17368	05/08/01	11:33	870		0	0.14	1.44	2.39	2.39	2.39	2.39	21.2		8.6	7.7		390	5	1	14
0806	TR72490	16120	05/09/01	16:49	7300		0	0	0.09	1.11	1.96	2.01	2.01	22.1		8.3	7.1		280	5	2	33
0806	TR60047	10938	05/16/01	9:30	96	128	0	0	0	0	0.01	0.01	0.01	24.9		7.7	8.2		431	4	5	
0806	TR72475	16120	06/12/01	12:53	50		0	0	0	0	0.04	0.04	0.04	30.3		8.5	8.2		430	3	14	29
0806	TR72478	10938	06/12/01	12:21	8	49	0	0	0	0.1	0.1	0.1	0.1	28.2		8.3	8.2		430	3	14	26
0806	TR72484	17368	06/12/01	12:03	5		0	0	0	0.07	0.07	0.07	0.07	26.6		13	8		480	3	14	15
0806	TR60054	10938	06/12/01	13:40	15	49	0	0	0	0.04	0.1	0.1	0.1	31.4		8.1	8.1		479			
0806	TR60059	10938	07/09/01	10:00	130	30	0	0	0	0	0	0	0	29.2		7.5	8		310	4		
0806	TR72485	17368	07/16/01	10:58	12		0	0	0.05	0.05	0.05	0.05	0.05	29.7		4.5	8.4		320	4	15	12
0806	TR72476	16120	07/16/01	11:56	16		0	0.11	0.11	0.11	0.11	0.11	0.11	31.6		4.2	8.3		370	3	15	32
0806	TR72479	10938	07/16/01	11:34	23	23	0	0	0.09	0.09	0.09	0.09	0.09	30.2		5.4	8.4		330	3	15	14
0806	TR60070	10938	08/13/01	14:15	54	22	0	0.1	0.1	0.1	0.1	0.1	0.1	34.6		11	8.4		427	4	2	
0806	TR72486	17368	08/14/01	15:20	12		0	0	0.16	0.16	0.16	0.16	0.16	31.7		5.5	8.4		410	4	3	12
0806	TR72477	16120	08/14/01	14:04	2400		0	0	1.78	1.79	1.79	1.79	1.79	31.2		6	8.4		470	3	3	24
0806	TR72480	10938	08/14/01	14:59	19	23	0	0	0.1	0.1	0.1	0.1	0.1	32.7		5.2	8.5		420	3	3	15
0806	TR72492	16120	09/11/01	17:52	60		0	0	0.1	0.1	0.1	0.1	1.46	27.1		3.6	8.6		360	4	2	23
0806	TR72496	10938	09/11/01	17:28	8	45	0	0	0.08	0.08	0.08	0.08	1.45	27.7		4.9	8.5		290	3	2	17
0806	TR72502	17368	09/11/01	17:02	11		0	0	0.08	0.08	0.08	0.08	1.26	27.4		7.8	8.4		300	4	2	12
0806	TR60075	10938	09/17/01	9:35	580	22	0	0	0	0	0	0	0	26.2		7.3	7.8	0.32	372			
806	TR72497	10938	10/09/01	12:07	43	24	0	0	0	0				21.3		7.2	8.3		390	3	18	27

0806	TR72503	17368	10/09/01	12:30	4		0	0	0	0				20.8		4.9	8.2		350	3	18	37	
0806	TR72493	16120	10/09/01	11:45	65		0	0	0	0				20.7		7	8.3		420	4	18	41	
0806	TR60082	10938	10/15/01	13:00	4000	105	0	0	0.63	0.63	1.97	1.97	1.97	20.7		6.6	7.7	0.23	329	5	2		
0806	TR72494	16120	11/13/01	11:55	2400		0	0.63	0.66	0.66	1.04	1.04	1.04	17.9		6.4	7.4		340	4	0.5	65	
0806	TR72498	10938	11/13/01	11:36	820	319	0	0.37	0.59	0.59	0.94	0.94	0.94	18.2		7.8	7.5		400	4	0.5	39	
0806	TR72504	17368	11/13/01	11:08	140		0.03	0.48	0.61	0.61	0.88	0.88	0.88	18.4		5.1	7.4		400	4	0.5	16	
0806	TR72495	16120	11/14/01	14:56	1400		0	0	0.62	0.66	0.66	1.04	1.04	18.9		6.5	7.2		340	4	2	46	
0806	TR60089	10938	11/14/01	10:15	400	76	0	0.13	0.56	0.59	0.61	0.94	0.94	18		8.1	7.9	0.23	478	4	5		
0806	TR60096	10938	12/10/01	11:55	110	58	0	0	0	0	0.28	0.28	0.28	12.6	17	8.1	7.8	0.51	495	4	4		
0806	TR72532	17368	12/11/01	11:15	11		0	0	0	0	0	0.28	0.28	12.6		8.3	7.9		440	3	5	21	
0806	TR18682	10938	12/11/01	10:19	32	70	0	0	0	0	0	0.28	0.28	11.7		7.7	7.9		458				
0806	TR18646	17368	12/11/01	9:37	8		0	0	0	0	0	0.28	0.28	12.5		8.6	7.9		472				
0806	TR72523	10938	12/11/01	11:45	59	70	0.04	0.04	0.04	0.04	0.04	0.32	0.32	11.5		6.8	7.8		410	4	5		
0806	TR72527	16120	12/11/01	12:00	250		0.03	0.03	0.03	0.03	0.03	0.31	0.31	10.2		8.5	8		410	3	5	20.2	
0806	TR72524	10938	01/08/02	11:56	23	64	0	0	0	0.07	0.07	0.07	0.07	7.4		12.3	7.9		320	4	4	9.69	
0806	TR72528	16120	01/08/02	12:18	88		0	0	0	0.07	0.07	0.07	0.07	8.5		13.2	8		340	4	4	920	
0806	TR72533	17368	01/08/02	11:29	2		0	0	0	0.06	0.06	0.06	0.06	6.4		13	8.5		320	4	4	8.31	
0806	TR60103	10938	01/14/02	9:32	13	60	0	0	0	0	0	0	0	9.1	15.5	10.3	7.6	0.51	456	4	7		
0806	TR60110	10938	02/11/02	12:00	15	106	0	0	0	0	0	0.26	0.93	9.3	13.5	10.3	7.8	0.28	399				
0806	TR72534	17368	02/12/02	10:40	18		0	0	0	0	0	0	0.24	8.4		9.3	7.6		300	4	5	19	
0806	TR72525	10938	02/12/02	10:24	4	102	0	0	0	0	0	0	0	0.34	9.3		9.5	8.1		320	4	5	16.4
0806	TR72529	16120	02/12/02	11:45	2400		0	0	0	0	0	0	0.21	10.3		11.3	7.9		390	4	5	21.2	
0806	TR72530	16120	02/13/02	14:49	98000		0	0	0	0	0	0	0	11.7		11.4	7.9		410	4	6	21.3	
0806	TR60117	10938	03/11/02	9:25	1	64	0	0	0	0	0	0	0	12	15.5	10.5	8		587				
0806	TR18687	10938	03/12/02	9:31	2	66	0	0	0	0	0	0	0	11.9		9.6	8.2		589				
0806	TR18651	17368	03/12/02	9:00	5		0	0	0	0	0	0	0	12		9.8	8.1		601				
0806	TR72509	10938	03/12/02	11:02	1	66	0	0	0	0	0	0	0	13.5		10.9	8.4		520	4	10	10.8	
0806	TR72511	17368	03/12/02	11:22	1		0	0	0	0	0	0	0	13		9.6	8.5		500	4	10	8.5	
0806	TR72508	16120	03/12/02	10:40	580		0	0	0	0	0	0	0	13.7		10.4	8.4		510	4	10	0.33	
0806	TR60124	10938	04/08/02	15:30	4800	2690	0.89							17	28.5	9.8	7.8	0.1	354	5	1		
0806	TR72515	10938	04/09/02	12:19	2400	972	0	2.7						17.9		6.4	8		380	5	2	48.5	
0806	TR72513	16120	04/09/02	12:59	2400		0	2.08						18		6.9	8		370	5	2	48.7	
0806	TR72519	17368	04/09/02	11:45	2400		0	2.14						17.8		7.3	8.1		34	5	2	78.7	
0806	TR72516	10938	04/11/02	12:47	120	1620	0	0	0	2.7				20.2		7.8	8.4		520	5	4	22.5	
0806	TR72514	16120	04/11/02	13:08	210		0	0	0	2.08				20.3		9.8	8.3		490	5	4	48	
0806	TR72520	17368	04/11/02	12:17	360		0	0	0	2.14				19		7.7	8.4		150	5	4	29.8	
0806	TR60131	10938	05/13/02	10:50	4800	1790	0.29	0.29	0.29	1.21	1.95	1.97	1.97	22.1	15	8.1	8	0.16	344	4	0.5		
0806	TR72535	17368	05/14/02	14:54	410		0	0.37	0.37	0.37	1.05	1.5	1.5	23.6		9	8.5		380	5	2	20.9	
0806	TR72531	16120	05/14/02	15:53	440		0	0.26	0.26	0.26	1.27	1.89	1.91	23.2		8.5	8.1		400	5	2	36.3	
0806	TR72526	10938	05/14/02	15:15	140	1270	0	0.29	0.29	0.29	1.21	1.95	1.97	24.6		9.7	8.4		410	5	2	19.8	
0806	TR60138	17662	06/10/02	14:55	43	403	0	0	0	0	0	0.37	0.37	28.2	39	8.4	7.9	0.34	537	4	6		
0806	TR72547	17368	06/11/02	10:36	3		0	0	0	0	0	0.05	0.37	28.1		7.1	7.8		520	4	6	15	
0806	TR72545	10938	06/11/02	11:05	11	220	0	0	0	0	0	0.05	0.4	28.4		7	8.1		560	4	6	9	
0806	TR72544	16120	06/11/02	11:22	12		0	0	0	0	0	0.02	0.28	28		6.9	8.1		550	4	6	20.6	
0806	TR18692	10938	06/13/02	10:51	9	105	0	0	0	0	0	0	0	28.1		9	7.8		525				
0806	TR18656	17368	06/13/02	10:34	18		0	0	0	0	0	0	0	28.7		7.8	7.9		469				
0806	TR60145	17662	07/08/02	10:45	150	96	0	0	0.48	0.51	0.87	1.77	1.95	28.4	31	6	7.9	0.33	307	4	3		
0806	TR72550	10938	07/09/02	12:29	7	87	0	0	0	0.6	0.64	0.94	1.79	31		12.4	7.9		310	4	3	6	

0806	TR72552	17368	07/09/02	12:01	4		0	0	0	0.48	0.51	0.87	1.77	30.9		15.1	8		260	4	3	6	
0806	TR72549	16120	07/09/02	12:45	83		0	0	0	0.52	0.56	0.94	1.85	31		8.2	7.7		330	4	3	27.8	
0806	TR87012	11085	07/29/02	10:25	37		0	0	0	0	0	0	0	30.1	27	5.6	7.7		520	4			
0806	TR87011	10938	07/29/02	9:50	6	35	0	0	0	0	0	0	0	29.5	27	6.8	8		401	4			
0806	TR60152	17662	08/05/02	14:15	85	35	0	0	0	0	0	0.12	0.4	31.8	37	8.1	8.2	0.27	385	4	7		
0806	TR72555	10938	08/13/02	12:08	210	73	0	0	0.64	3.08	3.08	3.08	3.08	28		5.7	7.7		280	3	3	12	
0806	TR72554	16120	08/13/02	12:35	440		0	0	0.25	2.42	2.42	2.42	2.42	28.1		6.4	7.7		280	3	3	25	
0806	TR72557	17368	08/13/02	11:41	340		0	0	0.62	2.12	2.12	2.12	2.12	26.7		2.3	7.9		260	3	3	12	
0806	TR72559	10938	09/10/02	12:05	550	14	0	0.3	1.35	1.35	1.35	1.35	1.35	27.6		3.4	6.9		380	3	1	15	
0806	TR60159	17662	09/10/02	12:40	1000	14	0	0.26	0.83	0.83	0.83	0.83	0.83	27.7	36.5	6.7		0.3	397	4	3		
0806	TR72561	17368	09/10/02	11:40	690		0	0.26	0.83	0.83	0.83	0.83	0.83	27.5		5.6	7.7		330	3	1	17	
0806	TR72455	16120	09/10/02	12:24	730		0	0.03	0.77	0.77	0.77	0.77	0.77	27.3		7.1	6.6		360	3	1	14	
0806	TR18697	10938	09/24/02	10:03	40	4	0	0	0	0	0	0.55	0.55	24.5		5.9	7.6		372				
0806	TR18660	17368	09/24/02	9:42	25		0	0	0	0	0	0.49	0.49	24.5		4.4	7.4		420				
0806	TR60166	17662	10/07/02	15:00	3100	221	1.01	1.01	1.01	1.01	1.01	1.01	1.01	24.9	26	7	7.8	0.15	405	4	0.5		
0806	TR72565	10938	10/08/02	14:29	2400	201	0.07	1.1	1.1	1.1	1.1	1.1	1.1	21.5			7.2		470	4	0.5	13	
0806	TR72563	16120	10/08/02	14:51	2400		0.13	1.2	1.2	1.2	1.2	1.2	1.2	23.3			7.1		430	4	0.5	49	
0806	TR72569	17368	10/08/02	14:07	2400		0.11	1.12	1.12	1.12	1.12	1.12	1.12	20.1			7.3		410	4	0.5	26	
0806	TR72570	17368	10/10/02	10:40	2400		0	1.2	1.31	2.32	2.32	2.32	2.32	20.6		6.8	8.1		170	4	0.5	70	
0806	TR72566	10938	10/10/02	11:08	2400	152	0	1.31	1.38	2.41	2.41	2.41	2.41	20.8		6.5	8.1		160	4	0	36	
0806	TR72564	16120	10/10/02	11:30	1700		0	0.99	1.12	2.19	2.19	2.19	2.19	20.8			7.7	8.2		170	5	0.5	111
0806	TR60173	17662	11/11/02	9:05	83	38	0	0	0	0	0	0	0.08	15.6	22.5	9.1	7.7	0.4	447	4	7		
0806	TR72573	16120	11/12/02	11:39	29									15.5		9.1	8.3		440	4	8	14	
0806	TR72574	10938	11/12/02	11:20	37	30								15.7		9.3	8.3		430	4	8	15	
0806	TR72576	17368	11/12/02	10:55	40									15.5		9.7	8		460	4	8	18	
0806	TR60180	17662	12/09/02	11:25	4800	1730	1.11	1.11	1.11	1.11	1.11	1.62	1.86	10.1	11.5	10.7	7.4	0.4	352	5	0.5		
0806	TR72587	17368	12/10/02	9:59	920		0.09	1.18	1.18	1.18	1.18	1.18	1.73	10.6		9.6	8.2		280	5	0.5	38	
0806	TR72581	10938	12/10/02	10:24	610	388	0.06	1.23	1.23	1.23	1.23	1.23	1.74	10.4		9.8	8.2		330	5	0.5	32	
0806	TR72578	16120	12/10/02	10:42	1600		0.16	1.42	1.42	1.42	1.42	1.42	2.03	10		10	8.2		330	5	0.5	58	
0806	TR18702	10938	12/18/02	9:35	130	76	0	0	0	0	0	0	0	12.4		7.5	7.7		389				
0806	TR18665	17368	12/18/02	9:00	25		0	0	0	0	0	0	0	12.2		8.2	7.6		368				
0806	TR60187	17863	01/13/03	9:50	1700	170	0.17	0.25	0.25	0.25	0.25	0.25	0.25	8.4	16	12.3	7.5	0.45	455	4	1		
0806	TR72588	17368	01/14/03	8:15	15		0	0.22	0.22	0.22	0.22	0.22	0.22	8.4		11.7	8.7		480	4	2	9	
0806	TR72582	10938	01/14/03	8:48	370	92	0	0.22	0.25	0.25	0.25	0.25	0.25	9		10.1			440	4	2	9	
0806	TR72579	16120	01/14/03	9:10	410		0	0.23	0.26	0.26	0.26	0.26	0.26	8.5		11.9			470	4	2	10	
0806	TR60194	17863	02/03/03	11:35	34	78	0	0	0	0	0	0	0	12.6	17.5	11.2	7.8	0.35	592	4	7		
0806	TR72589	17368	02/14/03	9:15	130		0.26	0.26	0.26	0.26	0.26	0.26	0.26	8.2		9.6	8.2		470	4	6	10	
0806	TR72583	10938	02/14/03	9:47	62	239	0.21	0.21	0.21	0.21	0.21	0.21	0.21	9.1		10.2	8.2		480	4	6	10	
0806	TR72580	16120	02/14/03	10:07	15		0.17	0.17	0.17	0.17	0.17	0.21	0.21	10.1		12	8.2		520	4	6	14	
0806	TR60201	17863	03/10/03	9:25	17	114	0	0	0	0	0	0	0	12.2	11.5	11.2	8	0.41	430	4	7		
0806	TR72602	17368	03/11/03	13:49	10		0	0	0	0	0	0	0	13.3		10.2	8.1		330	4	10	17.9	
0806	TR72596	10938	03/11/03	13:34	1	112	0	0	0	0	0	0	0	14.2		11.3	8.3		360	4	10	10.6	
0806	TR72593	16120	03/11/03	13:13	10		0	0	0	0	0	0	0	16.8		10.8	8.4		410	4	10	9.4	
0806	TR18707	10938	03/19/03	10:20	200	297	0.07	0.49	0.49	0.49	0.49	0.49	0.49	15.5		8.5	8.1		393				
0806	TR18670	17368	03/19/03	9:40	200		0.09	0.5	0.5	0.5	0.5	0.5	0.5	15.3		8.9	7.9		391				
0806	TR60208	17863	04/07/03	14:00	300	80	0							20.9	24	9.3	8.1	0.6	482	4	2		
0806	TR72597	10938	04/08/03	11:15	91	65	0	0						16.2		7.6	7.7		540	4	4	10.2	
0806	TR72603	17368	04/08/03	10:45	72		0	0						15.7		8.3	7.7		500	5	4	19.4	

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0806	TR72594	16120	04/08/03	11:30	460		0	0						15.5		8.6	7.8		510	4	4	46.4
0806	TR60215	17863	05/12/03	10:35	15	82	0	0	0	0	0	0	0	24	30	8.6	8	0.31	460	4	7	
0806	TR72595	16120	05/13/03	11:12	84		0.08	0.08	0.08	0.08	0.08	0.08	0.08	23.4		8.2	7.3		470	3	0.5	37.3
0806	TR72604	17368	05/13/03	10:29	99		0.05	0.05	0.05	0.05	0.05	0.05	0.05	22.3		6.7	7.5		250	4	0.5	23.8
0806	TR72598	10938	05/13/03	11:00	5	79	0	0	0	0	0	0	0	23.4		8.2	7.4		480	4	0.5	11.1
0806	TR60222	17863	06/03/03	14:15	10	45								30.6	40	9.6	8.4		375	4	7	
0806	TR72611	17368	06/10/03	10:55	46		0	0	0.3	0.3	0.53	0.97	0.97	26.1		5.1	7.9		360	4	2	15.7
0806	TR72609	10938	06/10/03	11:27	44	93	0	0	0.36	0.36	0.62	1.22	1.22	26.6		10.4	8.4		340	4	2	10.2
0806	TR72608	16120	06/10/03	11:52	110		0	0	0.3	0.3	0.43	0.93	0.93	27.3		7.9	8.4		360	4	2	26.6
0806	TR18676	17368	06/19/03	9:39	110		0	0	0	0	0.29	0.71	2.22	25.4		3.4	7.4		277			
0806	TR18712	10938	06/19/03	10:30	69	134	0	0	0	0	0.28	0.36	1.73	25.7		2.4	7.4		304			
0806	TR60229	17863	07/07/03	11:20	2	59	0	0	0	0	0	0	0	29.5	34	7.4	7.9		359	4	1	
0806	TR72616	17368	07/08/03	12:03	6		0	0	0	0	0	0	0.04	29.3		5.7	7.6			4	3	21.5
0806	TR72614	10938	07/08/03	11:20	550	80	0	0	0	0	0	0	0	28.7		7	7.5			4	3	11.4
0806	TR72613	16120	07/08/03	10:36	2400		0.06	0.06	0.22	0.22	0.22	0.22	0.24	29		6.4	7.6			4	3	46.3
0806	TR60236	17863	08/05/03	14:20	20	37	0	0	0	0	0	0	0	31	44	8.9	8		396	4	7	
0806	TR72622	17368	08/12/03	13:50	140		0.5	0.5	0.52	1.11	1.11	1.11	1.11	30		10	7.7		380	4	0.5	12.1
0806	TR72619	10938	08/12/03	14:15	2000	277	0.53	0.53	0.54	1.21	1.21	1.21	1.21	29.5		7.7	7.9		400	4	0.5	15.2
0806	TR72618	16120	08/12/03	14:35	1700		0.47	0.47	0.48	1.17	1.17	1.17	1.17	28.9		6.2	7.9		380	4	0.5	59.2
0806	TR60243	17863	09/08/03	14:45	15	48	0	0	0	0	0	0	0	28	35	12.3	8.2		337	4	7	
0806	TR72628	17368	09/09/03	10:58	4		0	0	0	0	0	0	0	26.6		6.5	7.6		400	4	7	15.8
0806	TR72626	10938	09/09/03	11:20	7	47	0	0	0	0	0	0	0	26.8		7.3	8.1		410	4	7	7.1
0806	TR72625	16120	09/09/03	11:37	30		0	0	0	0	0	0	0	28.5		6.6	8		380	4	7	23.7
0806	TR19125	17368	09/24/03	9:57	31		0	0	0	0	0	0.69	0.69	24.5		4.1	7.5		270			
0806	TR19120	10938	09/24/03	10:52	65	48	0	0	0	0	0	0.63	0.63	24.7		3.7	7.3		295			
0806	TR60250	17863	10/06/03	10:05	6500	250	0.14	0.44	0.44	0.44	0.44	0.44	0.44	22.6	24	8.4	7.9		305	4	0.5	
0806	TR72631	10938	10/14/03	11:40	25	62	0	0	0.03	0.03	0.03	0.6	0.6	22.6		7.5	8.1		410	4	3	13.1
0806	TR72630	16120	10/14/03	12:01	47		0	0	0.06	0.06	0.06	0.67	0.67	22.3		7.7	8.3		390	4	3	24.2
0806	TR72633	17368	10/14/03	11:13	91		0	0	0.02	0.02	0.05	0.67	0.67	22.6		7.9	8.1		420	4	3	21.9
0806	TR60257	17863	11/10/03	14:35	270	96	0	0.18	0.19	1.01	1.18	1.2	1.2	15.3	27	10.1	7.9	0.45	360	4	2	
0806	TR72635	16120	11/11/03	11:28	180		0	0	0.35	1.05	1.45	1.64	1.64	17.9		8.3	8		360	4	2	19.2
0806	TR72636	10938	11/11/03	11:08	52	70	0	0	0.19	0.67	1.01	1.2	1.2	15.4		8.4	7.9		320	4	2	8.7
0806	TR72638	17368	11/11/03	10:45	100		0	0	0.27	0.87	1.34	1.61	1.61	14.6		7.1	7.9		320	4	2	20.7
0806	TR72649	17368	12/09/03	11:34	6		0	0	0	0	0	0	0	12		11.2	8.2		380	3	3.5	12.3
0806	TR72643	10938	12/09/03	11:06	7	37	0	0	0	0	0	0	0	14.3		10.4	8.1		430	3	3.5	7.5
0806	TR72640	16120	12/09/03	10:47	22		0	0	0	0	0	0	0	15.4		10.5	8		440	3	3.5	10.5
0806	TR60264	17863	12/15/03	13:15	81	73	0	0	0.43	0.46	0.46	0.46	0.46	10.1	23.5	12.3	8.3	0.4	415		3	
0806	TR60271	17863	01/12/04	9:40	6	35	0	0	0	0	0	0	0	9.5	17	11.5	8	0.47	440	4	2	
0806	TR72650	17368	01/13/04	11:27	2		0.01	0.01	0.01	0.01	0.01	0.01	0.01	9.7		11.9	8.7		360	3	3.5	8.3
0806	TR72644	10938	01/13/04	11:52	1	37	0.01	0.01	0.01	0.01	0.01	0.01	0.01	11		12.1	8.5		380	3	3.5	6.8
0806	TR72641	16120	01/13/04	12:14	28		0.01	0.01	0.01	0.01	0.01	0.01	0.01	12.1		11.5	8.5		410	3	3.5	12.6
0806	TR72642	16120	02/10/04	12:22	23		0	0	0	0	0	0.54	0.74	8.2		11.8	8.8		460	4	5	18.1
0806	TR72651	17368	02/10/04	11:28	19		0	0	0	0	0	0.31	0.45	9.1		12.1	8.4		440	4	5	11.6
0806	TR72645	10938	02/10/04	11:59	21	42	0	0	0	0	0	0.48	0.66	8.5		11.6	8.5		460	4	5	8.5
0806	TR60278	17863	02/16/04	13:25	42	85	0	0.01	0.26	0.26	0.38	0.69	0.69	8.8	20	12.1	8.2	0.43	430	4	2	
0806	TR60285	17863	03/08/04	9:40	310	104	0	0	0	0.5	0.5	0.53	0.53	15.3	25	9.9	7.9	0.28	430	4	4	
0806	TR72656	10938	03/09/04	11:00	26	100	0	0	0	0	0.5	0.5	0.53	16.3		8.4	8.2		450	4	4	18.5
0806	TR72655	16120	03/09/04	10:37	21		0	0	0	0	0.44	0.45	0.54	17.3		9	8.2		460	4	4	25.3

0806	TR72658	17368	03/09/04	11:29	130		0	0	0	0	0.43	0.43	0.48	17.1		10.7	8.6		430	4	4	15.8
0806	TR19405	10938	03/24/04	11:08	18	64	0	0	0	0.01	0.01	0.01	0.01	18.4		8.1	8		530			
0806	TR19400	17368	03/24/04	10:09	6		0	0	0	0.04	0.04	0.04	0.04	18.5		8.3	8.1		530			
0806	TR60292	17863	04/12/04	12:40	220	91	0.2	0.22	0.22	0.22	0.22	0.22	0.44	17.2	16.5	9.2	8	0.54	530	4	0.5	
0806	TR72660	16120	04/13/04	12:18	69		0	0.28	0.3	0.3	0.3	0.3	0.3	17		8.5	8.1		500	4	0.5	21.1
0806	TR72663	17368	04/13/04	11:27	20		0	0.2	0.22	0.22	0.22	0.22	0.22	16.7		7.6	8		530	4	0.5	19.9
0806	TR72661	10938	04/13/04	11:57	120	57	0	0.2	0.22	0.22	0.22	0.22	0.22	16.5		6.8	7.9		510	4	0.5	13.9
0806	TR60299	17863	05/03/04	9:30	1500	23	0	0	1.14	1.14	1.17	1.17	1.17	18.2	24.5	7.9	7.6	0.28	290	4	2	
0806	TR72665	16120	05/11/04	12:20	71		0	0	0.09	0.09	0.09	0.09	0.09	25.9		8.4	8.4		380	4	7	22.2
0806	TR72668	17368	05/11/04	11:34	59		0	0	0	0	0	0	0	23.4		6.1	8		90	4	7	14.8
0806	TR72666	10938	05/11/04	11:59	25	67	0	0	0.01	0.01	0.01	0.01	0.01	25.4		9.4	8.4		340	4	7	8.5
0806	TR60306	17863	06/07/04	14:00	24000	3630	0.29	0.29	0.29	0.3	1.31	2.73	2.73	22.5	36	8.3	7.9	0.02	170	5	1	
0806	TR72675	17368	06/09/04	12:24	2400		1.56	2.11	2.65	2.65	2.65	2.65	3.64	24.4		7.4	7.7		280	6	0.5	
0806	TR72671	10938	06/09/04	11:49	2400	15000	1.61	2.2	2.49	2.49	2.49	2.5	3.51	24.6		6.8	7.8		250	6	0.5	
0806	TR72689	16120	06/09/04	11:30	2400		1.95	2.64	2.8	2.8	2.8	2.8	3.76	23.7		6.9	7.7		240	6	0.5	
0806	TR72672	10938	06/10/04	16:37	720	18200	0.08	1.85	2.68	2.97	2.97	2.97	2.97	24.9		7.6	7.8		310	6	1	
0806	TR72676	17368	06/10/04	16:08	3600		0.17	1.79	2.58	3.12	3.12	3.12	3.12	25.5		7.5	7.8		320	6	1	
0806	TR72670	16120	06/10/04	16:55	2000		0.13	2.11	3.17	3.33	3.33	3.33	3.33	24.8		7.4	7.8		300	6	1	
0806	TR19411	17368	06/28/04	10:30	2000		0.01	0.76	1.06	1.06	1.06	1.06	1.15	25.8		7.8	7.6		310			
0806	TR60313	17863	07/05/04	10:00	290	1840	0	0	0	0	0.15	1.01	2.37	28.1	28	7.8	8.1	0.24	350	5	5	
0806	TR19417	10938	07/08/04	10:40	2400	941	0.45	0.46	0.5	0.5	0.5	0.5	0.5	28.2		6.9	8		370			
0806	TR72680	10938	07/13/04	13:45	78	196	0	0						29.3		7.6	8.3		180	4	6	11.6
0806	TR72682	17368	07/13/04	13:49	33		0	0						29.2		7.1	8.2		170	4	6	17.7
0806	TR72679	16120	07/13/04	13:44	16		0	0						30.8		7.3	8.3		190	4	6	23.2
0806	TR60320	17863	08/09/04	13:40	81	20	0.01	0.01	0.01	0.01	0.01	0.01	0.01	31.1	35	8.6	8.1	0.34	350	4	7	
0806	TR72685	10938	08/10/04	12:36	7	0	0	0.01	0.01	0.01	0.01	0.01	0.01	31.8		12	8.5		130	3	12	11.8
0806	TR72684	16120	08/10/04	12:06	240		0	0.01	0.01	0.01	0.01	0.01	0.01	29.6		8.2	8		153	4	12	24.9
0806	TR72687	17368	08/10/04	12:51	2		0	0.04	0.04	0.04	0.04	0.04	0.04	30.5		11.9	8.4		110	4	12	6.9
0806	TR60327	17863	09/07/04	9:40	980	86	0	0.13	0.13	0.13	0.13	0.13	0.13	26.7	27	7.4	7.7	0.24	380	4	1	
0806	TR72699	17368	09/14/04	11:28	4		0	0	0	0	0	0	0	28.2		4.1	7.7		180	4	7	17.7
0806	TR72693	10938	09/14/04	11:54	1	37	0	0	0	0	0	0	0	29		10.1	8		170	3	7	7.9
0806	TR72690	16120	09/14/04	12:15	12		0	0	0	0	0	0	0	28.6		7.4	7.8		180	3	7	28.2
0806	TR60334	17863	10/04/04	15:15	11000	1280	1.61	1.61	2.21	2.21	2.21	2.21	2.21	21.7	24	8.8	7.6	0.08		5	0.5	
0806	TR72700	17368	10/12/04	11:13	210		0	0	0.36	0.36	0.36	0.36	0.36	21.2		6.4	7.7		130	4	2	21.1
0806	TR72694	10938	10/12/04	10:46	310	65	0	0	0.29	0.29	0.29	0.29	0.29	21.4		6.4	7.9		130	4	2	22.5
0806	TR72691	16120	10/12/04	10:26	110		0	0	0.29	0.29	0.3	0.3	0.3	20.6		8	8.1		160	4	2	15.3
0806	TR60341	17863	11/02/04	9:55	4000	362	0.26	2.06	2.11	2.2	2.2	2.2	2.2	20.4	19	8.6	7.7	0.16	260	4	0.5	
0806	TR72701	17368	11/09/04	15:07	340		0	0	0	0	0	0	0.44	18.8		5.4	7.9		130	4	7	28.1
0806	TR72695	10938	11/09/04	14:42	150	70	0	0	0	0	0	0	0.48	18.7		7.5	8.1		130	3	7	15
0806	TR72692	16120	11/09/04	14:25	86		0	0	0	0	0	0	0.49	20.1		9.3	8.2		160	4	7	15
0806	TR60348	17863	12/06/04	13:55	86	265	0.01	0.07	0.07	0.07	0.07	0.07	0.33	12.7	22.5	10.8	8	0.49	560	4	1	
0806	TR72709	17368	12/14/04	11:20	48		0	0	0	0	0	0	0	11.8		10.5	7.9		220	4	8	17.6
0806	TR72706	16120	12/14/04	12:05	88		0	0	0	0	0	0	0	12.5		11	8		240	4	8	12.2
0806	TR72707	10938	12/14/04	11:23	61	113	0	0	0	0	0	0	0	12.3		10.3	7.9		230	4	8	14.7
0806	TR87905	17863	01/03/05	9:45	4800	1220	1.85	2.12	2.12	2.12	2.12	2.12	2.12	16.9	23	9.7	7.9	0.08	350	5	0.5	
0806	TR72712	16120	01/11/05	12:13	120		0	0	0	0	0	0.04	0.14	14.9		10.8	8		200	4	6	16.4
0806	TR72713	10938	01/11/05	11:57	91	105	0	0	0	0	0	0.04	0.15	14.6		10.4	7.8		170	4	6	15
0806	TR72715	17368	01/11/05	11:35	210		0	0	0	0	0	0.03	0.17	14		10.3	7.6		170	4	6	35

0806	TA69601	16120	05/17/05	8:16	140	95	0	0	0	0.46	0.46	0.46	0.46							4	3	
0806	TA69592	18459	05/17/05	7:21	92		0	0	0	0.55	0.55	0.55	0.55							4	3	
0806	TA69593	18459	05/17/05	7:23	150		0	0	0	0.55	0.55	0.55	0.55							4	3	
0806	TA69603	16120	05/17/05	8:20	270	95	0	0	0	0.46	0.46	0.46	0.46							4	3	
0806	TA69600	16120	05/17/05	8:14	130	95	0	0	0	0.46	0.46	0.46	0.46							4	3	
0806	TA69733	10938	06/01/05	8:17	5500	462	0.76	0.76	0.76	1.22	1.28	1.28	1.28							5	0.5	
0806	TA69731	10938	06/01/05	8:15	6500	462	0.76	0.76	0.76	1.22	1.28	1.28	1.28							5	0.5	
0806	TA69730	10938	06/01/05	8:14	6300	462	0.76	0.76	0.76	1.22	1.28	1.28	1.28							5	0.5	
0806	TA69736	16120	06/01/05	8:39	8000	911	0.75	0.77	0.77	1.21	1.23	1.23	1.34							5	0.5	
0806	TA69739	16120	06/01/05	8:43	5700	911	0.75	0.77	0.77	1.21	1.23	1.23	1.34							5	0.5	
0806	TA69737	16120	06/01/05	8:40	6600	911	0.75	0.77	0.77	1.21	1.23	1.23	1.34							5	0.5	
0806	TA69735	16120	06/01/05	8:37	5200	911	0.75	0.77	0.77	1.21	1.23	1.23	1.34							5	0.5	
0806	TA69734	10938	06/01/05	8:19	6200	462	0.76	0.76	0.76	1.22	1.28	1.28	1.28							5	0.5	
0806	TA69732	10938	06/01/05	8:16	4700	462	0.76	0.76	0.76	1.22	1.28	1.28	1.28							5	0.5	
0806	TA69738	16120	06/01/05	8:42	5400	911	0.75	0.77	0.77	1.21	1.23	1.23	1.34							5	0.5	
0806	TR87943	17863	06/06/05	13:45	400	191	0	2.14	2.14	2.17	2.17	2.93	2.93	28.3	37	8.6	8.2	0.34	370	4	2	
0806	TA69864	18459	06/14/05	8:06	260		0.04	0.04	0.04	0.05	0.05	0.05	0.05							3	7	
0806	TR72742	16120	06/14/05	14:09	1		0.01	0.01	0.01	0.04	0.04	0.04	0.04	32.7		8.2	7.8		173	3	0.5	17
0806	TR72745	10938	06/14/05	13:40	2	27	0.01	0.01	0.01	0.02	0.02	0.02	0.02	31.2		12.5	8.1		147	3	0.5	12
0806	TA69877	16120	06/14/05	9:08	610	20	0.01	0.01	0.01	0.04	0.04	0.04	0.04							3	7	
0806	TA69875	16120	06/14/05	9:05	70	20	0.01	0.01	0.01	0.04	0.04	0.04	0.04							3	7	
0806	TA69863	18459	06/14/05	8:04	260		0.04	0.04	0.04	0.05	0.05	0.05	0.05							3	7	
0806	TA69874	16120	06/14/05	9:03	56	20	0.01	0.01	0.01	0.04	0.04	0.04	0.04							3	7	
0806	TA69876	16120	06/14/05	9:06	210	20	0.01	0.01	0.01	0.04	0.04	0.04	0.04							3	7	
0806	TR89089	17368	06/14/05	13:10	490		0.01	0.01	0.01	0.02	0.02	0.02	0.02	30.9		10.1	7.8		160	3	0.5	27
0806	TA69867	18459	06/14/05	8:10	310		0.04	0.04	0.04	0.05	0.05	0.05	0.05							3	7	
0806	TA69873	16120	06/14/05	9:02	50	20	0.01	0.01	0.01	0.04	0.04	0.04	0.04							3	7	
0806	TA69921	18459	06/20/05	6:32	88		0	0	0	0	0	0	0.04							3	7	
0806	TA69924	10938	06/20/05	7:36	96	39	0	0	0	0	0	0	0.01							3	7	
0806	TR70300	17368	06/20/05	10:05	31		0	0	0	0	0	0	0.01	28.8		4.6	7.6		390			
0806	TR70304	10938	06/20/05	11:03	26	39	0	0	0	0	0	0	0.01	28.4		3.3	7.4		381			
0806	TA69957	18459	06/21/05	6:30	96		0	0	0	0	0	0	0							3	7	
0806	TR87951	17863	07/05/05	9:45	15	142	0.04	0.04	0.04	0.06	0.06	0.06	0.06	28.8	26	5.6	7.8	0.26	420	4	1	
0806	TA70108	16120	07/07/05	12:40	39000	1360	1.47	1.47	1.83	1.83	1.83	1.83	1.83							5	0.5	
0806	TA70104	10938	07/07/05	10:56	39000	500	1.16	1.18	1.48	1.48	1.48	1.5	1.5							5	0.5	
0806	TA70112	18459	07/07/05	14:10	300		1.27	1.27	1.52	1.52	1.52	1.6	1.6							5	0.5	
0806	TA70118	16120	07/07/05	16:00	33000	1032	1.57	1.57	1.93	1.93	1.93	1.93	1.93							5	0.5	
0806	TA70113	10938	07/07/05	14:30	5100	500	1.19	1.19	1.51	1.51	1.51	1.53	1.53							5	0.5	
0806	TA70111	18460	07/07/05	14:01	260		1.06	1.06	1.27	1.27	1.27	1.3	1.3							5	0.5	
0806	TA70103	18459	07/07/05	10:35	2600		1.23	1.27	1.48	1.48	1.48	1.56	1.56							4	0.5	
0806	TA70102	18460	07/07/05	10:25	2800		0.91	1.07	1.12	1.12	1.12	1.15	1.15							4	0.5	
0806	TA70154	18460	07/08/05	12:09	260		0.04	1.1	1.1	1.31	1.31	1.31	1.34							4	1	
0806	TA70159	16120	07/08/05	12:10	2800	156	0.1	1.57	1.57	1.93	1.93	1.93	1.93							4	1	
0806	TA70153	18459	07/08/05	11:57	280		0.07	1.33	1.33	1.58	1.58	1.58	1.66							4	1	
0806	TA70184	10938	07/12/05	7:56	40	59	0	0	0	0	1.24	1.24	1.56							3	5	
0806	TA70183	18459	07/12/05	7:36	76		0	0	0	0	1.33	1.33	1.58							4	5	
0806	TA70182	18459	07/12/05	7:34	46		0	0	0	0	1.33	1.33	1.58							4	5	
0806	TA70181	18459	07/12/05	7:32	120		0	0	0	0	1.33	1.33	1.58							4	5	

0806	TA70190	16120	07/12/05	8:51	130	26	0	0	0	0	1.57	1.57	1.93						4	5		
0806	TR72743	16120	07/12/05	15:05	22		0	0	0	0	0.03	1.57	1.57	33.7		7.4	8.1		233	4	5	169
0806	TA70179	18459	07/12/05	7:29	98		0	0	0	0	1.33	1.33	1.58						4	5		
0806	TA70191	16120	07/12/05	8:52	100	26	0	0	0	0	1.57	1.57	1.93						4	5		
0806	TA70189	16120	07/12/05	8:50	140	26	0	0	0	0	1.57	1.57	1.93						4	5		
0806	TR89090	17368	07/12/05	14:23	23		0	0	0	0	0.07	1.38	1.38	30.9		12.2	8.6		107	4	5	11
0806	TR72746	10938	07/12/05	14:45	4	59	0	0	0	0	0.03	1.24	1.24	32		10	8.4		153	3	5	7
0806	TA70193	16120	07/12/05	8:54	130	26	0	0	0	0	1.57	1.57	1.93						4	5		
0806	TA70192	16120	07/12/05	8:53	110	26	0	0	0	0	1.57	1.57	1.93						4	5		
0806	TA70180	18459	07/12/05	7:30	62		0	0	0	0	1.33	1.33	1.58						4	5		
0806	TA70331	16120	07/27/05	8:40	90	55	0.26	0.26	0.26	0.26	0.26	0.26	0.26						4	0.5		
0806	TA70332	16120	07/27/05	8:42	260	55	0.26	0.26	0.26	0.26	0.26	0.26	0.26						4	0.5		
0806	TA70319	18459	07/27/05	7:30	46		0.07	0.07	0.07	0.07	0.07	0.07	0.07						4	0.5		
0806	TR87959	17863	08/01/05	14:10	40	62	0	0	0	0	0.14	0.64	0.64	31.3	37	9.2	8.4	0.33	350	4	5	
0806	TR72747	10938	08/09/05	11:42	280	163	0.11	0.12	0.12	0.42	0.42	0.42	0.42	28.3		6.7	7.8		160	4	0.5	19
0806	TR72744	16120	08/09/05	12:13	310		0.01	0.05	0.05	0.57	0.57	0.57	0.57	28.4		6.7	7.7		187	4	0.5	37
0806	TR89091	17368	08/09/05	11:07	43		0.08	0.11	0.11	0.23	0.23	0.23	0.23	29.2		5.2	7.3		40	4	0.5	15
0806	TA70611	16120	08/16/05	10:16	7700	507	0.45	0.47	0.47	0.47	0.47	0.48	0.48						5	0.5		
0806	TA70612	16120	08/16/05	10:18	8700	507	0.45	0.47	0.47	0.47	0.47	0.48	0.48						5	0.5		
0806	TA70613	16120	08/16/05	10:19	7900	507	0.45	0.47	0.47	0.47	0.47	0.48	0.48						5	0.5		
0806	TA70599	18459	08/16/05	9:16	3300		0.58	0.61	0.61	0.61	0.61	0.61	0.61						5	0.5		
0806	TA70604	10938	08/16/05	9:45	4700	456	0.66	0.66	0.66	0.66	0.66	0.68	0.7						5	0.5		
0806	TA70610	16120	08/16/05	10:15	7900	507	0.45	0.47	0.47	0.47	0.47	0.48	0.48						5	0.5		
0806	TA70601	18459	08/16/05	9:18	3900		0.58	0.61	0.61	0.61	0.61	0.61	0.61						5	0.5		
0806	TA70602	18459	08/16/05	9:20	2700		0.58	0.61	0.61	0.61	0.61	0.61	0.61						5	0.5		
0806	TA70600	18459	08/16/05	9:17	3700		0.58	0.61	0.61	0.61	0.61	0.61	0.61						5	0.5		
0806	TA70603	18459	08/16/05	9:22	3200		0.58	0.61	0.61	0.61	0.61	0.61	0.61						5	0.5		
0806	TA70605	10938	08/16/05	9:47	5300	456	0.66	0.66	0.66	0.66	0.66	0.68	0.7						5	0.5		
0806	TA70606	10938	08/16/05	9:49	4300	456	0.66	0.66	0.66	0.66	0.66	0.68	0.7						5	0.5		
0806	TA70607	10938	08/16/05	9:50	5400	456	0.66	0.66	0.66	0.66	0.66	0.68	0.7						5	0.5		
0806	TA70608	10938	08/16/05	9:52	4600	456	0.66	0.66	0.66	0.66	0.66	0.68	0.7						5	0.5		
0806	TA70609	16120	08/16/05	10:13	7700	507	0.45	0.47	0.47	0.47	0.47	0.48	0.48						5	0.5		
0806	TA70652	18459	08/24/05	7:40	27		0	0	0	0	0								4	7		
0806	TA70665	18460	08/24/05	12:34	19		0	0	0	0	0								4	7		
0806	TA70651	18460	08/24/05	7:26	13		0	0	0	0	0								4	7		
0806	TA70667	10938	08/24/05	13:04	2	21	0	0	0	0	0								4	7		
0806	TA70666	18459	08/24/05	12:46	7		0	0	0	0	0								4	7		
0806	TA70660	16120	08/24/05	8:17	20	15	0	0	0	0	0								4	7		
0806	TA70653	10938	08/24/05	7:59	5	21	0	0	0	0	0								4	7		
0806	TA70674	16120	08/24/05	13:14	25	11	0	0	0	0	0								4	7		
0806	TA70684	18459	08/25/05	7:09	15		0	0	0	0	0	0							4	7		
0806	TA70687	10938	08/25/05	7:58	6	22	0	0	0	0	0	0							4	7		
0806	TA70685	18460	08/25/05	7:21	41		0	0	0	0	0	0							4	7		
0806	TA70683	16120	08/25/05	8:13	21	13	0	0	0	0	0	0							4	7		
0806	TR87967	17863	09/12/05	10:14	13	22	0.01	0.01	0.01	0.01	0.01	0.01	0.01	27	27	5.1	7.8	0.27	400	4	0.5	
0806	TR89099	16120	09/14/05	11:36	10		0	0	0	0.01	0.01	0.01	0.01	29.1		5.2	7.1		190	4	3	36
0806	TR89102	10938	09/14/05	12:01	3	25	0	0	0.01	0.01	0.01	0.01	0.01	28.2		6.1	7.3		180	3	3	13
0806	TR89108	17368	09/14/05	12:50	25		0	0	0	0	0	0	0	27.3		15.4	7.2		170	4	3	30

0806	TA70756	18459	09/16/05	12:52	5100		0.43	0.43	0.43	0.43	0.43	0.57	0.57												4	0.5	
0806	TA70755	10938	09/16/05	12:30	110000	55	0.55	0.55	0.55	0.55	0.56	0.56	0.56												4	0.5	
0806	TA70754	16120	09/16/05	12:17	39000	50	0.54	0.54	0.54	0.54	0.54	0.55	0.55												4	0.5	
0806	TA70764	16120	09/17/05	9:28	3900	41	0	0.54	0.54	0.54	0.54	0.54	0.55												5	1	
0806	TA70765	18459	09/17/05	9:50	140		0	0.43	0.43	0.43	0.43	0.57	0.57												4	1	
0806	TA70769	10938	09/17/05	9:38	7100	25	0	0.55	0.55	0.55	0.55	0.56	0.56												4	1	
0806	TR70494	10938	09/28/05	11:57	5	19	0	0	0	0	0	0	0	28		6.2	7.8				600						
0806	TR70489	17368	09/28/05	10:30	14		0	0	0	0	0	0	0	27.9		3.6	7.5				450						
0806	TR87975	17863	10/03/05	14:55	36	22	0	0	0	0	0.01	0.01	0.01	27.1	34	8.8	8.3	0.25			420	4	5				
0806	TR89103	10938	10/11/05	16:47	1	26	0	0.02	0.02	0.02	0.09	0.09	0.09	23.5		11.2	8.1				190	3	0.5	12			
0806	TR89109	17368	10/11/05	16:25	17		0	0.03	0.03	0.03	0.09	0.09	0.09	21.4		9.5	8				180	4	0.5	16			
0806	TR89100	16120	10/11/05	17:12	3		0	0.03	0.03	0.03	0.09	0.09	0.09	24.4		10.6	8.1				190	3	0.5	17			
0806	TA70952	10938	10/25/05	10:58	1	22	0	0	0	0	0	0	0												3	7	
0806	TA70953	16120	10/25/05	11:13	6	17	0	0	0	0	0	0	0												3	7	
0806	TA70951	18459	10/25/05	10:43	1		0	0	0	0	0	0	0												3	7	
0806	TA70997	16120	11/01/05	9:47	33000	214	0.4	0.4	0.4	0.4	0.4	0.4	0.4												5	0.5	
0806	TA70995	18459	11/01/05	9:12	36000		0.67	0.67	0.68	0.68	0.68	0.68	0.68												5	0.5	
0806	TA70996	10938	11/01/05	9:30	10000	232	0.82	0.82	0.82	0.82	0.82	0.82	0.82												5	0.5	
0806	TA71008	16120	11/02/05	10:01	3600	56	0	0.4	0.4	0.4	0.4	0.4	0.4												5	1	
0806	TA71009	10938	11/02/05	10:39	4200	59	0	0.02	0.82	0.82	0.82	0.82	0.82												4	1	
0806	TA71010	18459	11/02/05	10:53	4000		0	0.02	0.67	0.68	0.68	0.68	0.68												4	1	
0806	TR89110	17368	11/08/05	12:25	75		0	0	0	0	0	0	0	19.1		7.2	7.8				170	4	7	15			
0806	TR89101	16120	11/08/05	11:40	23		0	0	0	0	0	0	0	21.8		7.9	7.5				220	4	7	17			
0806	TR89104	10938	11/08/05	11:57	27	37	0	0	0	0	0	0	0	21.3		10.5	7.7				230	3	7	10			
0806	TR87983	17863	11/14/05	10:10	15	22	0	0	0	0	0	0	0	19.3	21.5	7.6	8	0.42			490	4	7				
0806	TR87991	17863	12/12/05	13:40	2	49	0	0	0	0	0	0.01	0.01	7.3	20.5	12.6	8.4	0.5			480	4	5				
0806	TR89117	16120	12/13/05	10:15	9		0	0	0	0	0	0.02	0.02	8.4		10.3	7.1				200	4	6	12.1			
0806	TR70859	17368	12/13/05	10:22	2		0	0	0	0	0	0.02	0.02	6.2		11.7	7.5				500						
0806	TR70864	10938	12/13/05	11:23	1	34	0	0	0	0	0	0	0.01	6.3		11	7.5				480						
0806	TR89120	10938	12/13/05	10:35	1	34	0	0	0	0	0	0	0.01	7.9		11.6	7.3				190	4	6	8.59			
0806	TR89126	17368	12/13/05	11:05	13		0	0	0	0	0	0	0.02	8.1		10.7	7.7				200	4	6	6.5			
0806	TR87999	17863	01/09/06	13:19	1	60	0	0	0	0	0	0	0	11.9	24.5	12.9	8.5	0.43			500	4	7				
0806	TR89118	16120	01/10/06	13:45	19		0	0	0	0	0	0	0	12		11.7	8.4				230	4	7	15.7			
0806	TR89121	10938	01/10/06	14:06	2	38	0	0	0	0	0	0	0	11.5		13.5	8.6				210	3	7	8.6			
0806	TR89127	17368	01/10/06	14:32	2		0	0	0	0	0	0	0	11.7		12.8	8.7				200	3	7	9.1			
0806	TA71227	16120	01/23/06	10:43	1300	343	0.37	0.85	0.85	0.85	0.85	0.85	0.85												5	0.5	
0806	TA71226	10938	01/23/06	10:25	270	273	0.29	0.52	0.52	0.52	0.52	0.52	0.52												5	0.5	
0806	TA71225	18459	01/23/06	10:07	2000		0.46	0.81	0.81	0.81	0.81	0.81	0.81												5	0.5	
0806	TA71246	16120	01/24/06	13:18	370	69	0	0.07	0.85	0.85	0.85	0.85	0.85												4	2	
0806	TA71247	10938	01/24/06	13:35	690	93	0	0	0.52	0.52	0.52	0.52	0.52												4	2	
0806	TA71248	18459	01/24/06	13:53	940		0	0	0.81	0.81	0.81	0.81	0.81												4	2	
0806	TR88007	17863	02/06/06	9:05	110	24	0	0	0	0.06	0.06	0.06	0.06	11.7	13	9.4	7.9	0.27			410	3	4				
0806	TR89122	10938	02/14/06	11:10	14	22	0	0	0	0	0.01	0.01	0.01	11.2		9.2	7.1				170	4	4	10.1			
0806	TR89128	17368	02/14/06	11:39	5		0	0	0	0	0.01	0.01	0.01	10.1		9.8	7.5				67	4	4	22.3			
0806	TR88015	17863	03/13/06	13:15	30	30	0.04	0.04	0.04	0.04				20.7	26.5	9.8	8.3	0.6			356	4	4				
0806	TR89136	10938	03/14/06	13:37	27	24	0	0.04	0.04	0.04	0.04			19.7		6.7	7.6				170	3	1	16.4			
0806	TR89135	16120	03/14/06	13:00	14		0	0.03	0.03	0.03	0.03			20.5		9	7.9				190	4	1	12.4			
0806	TR89138	17368	03/14/06	13:50	6		0	0.03	0.03	0.03	0.03			21.7		7.7	7.8				100	3	1	13.8			

0806	TR71102	17368	03/22/06	10:15	1900		0	0	1.12	3.76	4.11	4.11	4.11	12.9		9.8	7.7		279			
0806	TR88023	17863	04/03/06	9:45	26	58	0	0						20.7	24.5	8.5	8.3	0.4	440	4	7	
0806	TR89143	10938	04/12/06	11:00	12	49	0	0	0	0	0	0.02	0.02	20.8		8.1	7.8		240	4	5	8
0806	TR89141	16120	04/12/06	11:31	12		0	0	0	0	0	0.03	0.03	23		7.2	7.7		250	3	5	22
0806	TR89147	17368	04/12/06	10:46	24		0	0	0	0	0	0.02	0.02	20.2		6.7	7.7		230	4	5	25
0806	TR88031	17863	05/08/06	13:40	440	137	0	0.12	0.47	1.52	1.76	1.8	1.81	23	32	8.2	7.9	0.2	250	4	2	
0806	TR89142	16120	05/09/06	12:44	140		0	0	0.07	0.52	1.73	1.94	1.98	30.2		6.5	7.7		140	4	2	31
0806	TR89144	10938	05/09/06	12:08	170	112	0	0	0.12	0.47	1.52	1.76	1.8	29.6		5.3	7.9		110	4	2	32
0806	TR89148	17368	05/09/06	11:56	440		0	0	0.04	0.46	1.61	1.85	1.89	24.4		5.1	7.6		110	4	2	56
0806	TR88039	17863	06/05/06	10:20	21	25	0	0	0	0.03	0.05	0.05	0.05	27.3	30	6.5	7.9	0.3	392	4	7	
0806	TR89156	10938	06/13/06	10:41	360	22	0	0	0	0	0	0	0	29.1		4.1	7.6		180	3	7	5
0806	TR89163	17368	06/13/06	10:55	3		0	0	0	0	0	0	0	29.7		7.5	7.9		160	3	7	10
0806	TR89153	16120	06/13/06	10:06	8		0	0	0	0	0	0	0	31.4		5.2	7.9		220	3	7	30
0806	TR71386	17368	06/20/06	10:53	150		0	0	0.85	1.1	1.1	1.1	1.1	26		1.6	7.3		302			
0806	TR71396	10938	06/20/06	11:55	690	66	0	0	0.83	1.04	1.04	1.04	1.04	26.7		1.7	7.2		329			
0806	TR88047	17863	07/10/06	12:55	66	36	0	0	0	0	0.32	1	1	30.5	38	9	8.3	0.4	340	4	7	
0806	TR89154	16120	07/11/06	13:27	10		0	0	0	0	0	0.07	0.48	30.7		7.8	8.3		362	3	6	
0806	TR89157	10938	07/11/06	13:57	16	43	0	0	0	0	0	0.32	1	31		9.2	8.5		345	3	6	
0806	TR89164	17368	07/11/06	14:07	23		0	0	0	0	0	0.42	1.31	28.3		5	7.5		369	3	6	
0806	TR89165	17368	08/08/06	14:59	5		0.01	0.01	0.01	0.01	0.01	0.01	0.01	28.8		7.5	8		395	3	1	13
0806	TR89155	16120	08/08/06	14:07	1		0	0	0	0	0	0	0	31.6		6.9	6.9		292	3	2	27
0806	TR89158	10938	08/08/06	14:47	1	22	0	0	0	0	0	0	0	32		9	8.3		383	3	1	11
0806	TR88055	17863	08/09/06	9:50	22	21	0	0	0	0	0	0	0	29.3	30	4.9	7.7	0.3	406	4	2	
0806	TR88063	17863	09/06/06	14:45	230	93	0	0.2	1.08	1.12	1.12	1.12	1.12	27	33	9	8.3	0.33	325	3	2	
0806	TR89200	17368	09/12/06	14:10	12		0.29	0.29	0.29	0.29	0.29	0.29	0.29	28.8		10.3	8.2		305	4	0.5	11
0806	TR89194	10938	09/12/06	14:22	48000	186	0.21	0.21	0.21	0.21	0.21	0.21	0.21	27.8		9.2	8		289	4	0.5	13
0806	TR89190	16120	09/12/06	14:55	2400		0.22	0.22	0.22	0.22	0.22	0.22	0.22						5	0.5		
0806	TR89191	16120	09/14/06	15:30	17		0	0	0.22	0.22	0.22	0.22	0.22	27.2		9	8.4		304	4	1	
0806	TR71401	10938	09/20/06	11:32	200	78	0	0	0.66	0.67	0.67	0.67	0.67	25.3		7.3	7.7		334			
0806	TR71391	17368	09/20/06	10:43	69		0	0	0.61	0.62	0.62	0.62	0.62	25.3		4.8	7.5		318			
0806	TR89195	10938	10/10/06	14:56	10000	428	0.48	0.48	0.48	0.48	0.48	0.48	0.48	25.6		7.7	7.6		113	5	0.5	38
0806	TR89201	17368	10/10/06	14:42	260		0.57	0.57	0.57	0.57	0.57	0.57	0.57	26		7.6	7.5		127	4	0.5	11
0806	TR89192	16120	10/10/06	15:30	20000		0.52	0.52	0.52	0.52	0.52	0.52	0.52	28.2		7.7	7.6		133	4	0.5	102
0806	TR88071	17863	10/16/06	10:00	6400	1140	1.29	1.52	1.52	1.52	1.52	1.52	2	20.4	22.5	8.6	7.8	0.08	289	5	0.5	
0806	TR88079	17863	11/06/06	14:20	15000	1710	1.36	1.36	1.36	1.36	1.36	1.36	1.36	16.4	22	9.3	7.9	0.05	227	5	0.5	
0806	TR89202	17368	11/14/06	11:11	180		0	0	0	0	0	0	0	16.1		7.3	7.7		61	4	7	13
0806	TR89193	16120	11/14/06	10:24	220		0	0.02	0.02	0.02	0.02	0.02	0.02	15.9		8.8	8.4		113	4	7	11
0806	TR89196	10938	11/14/06	10:57	370	30	0	0	0	0	0	0	0	16.1		7.2	7.9		100	4	7	9
0806	TR89172	16120	12/12/06	10:11	49		0	0	0	0	0	0	0	10		12.5	8.6		120	4	3	7.58
0806	TR89175	10938	12/12/06	11:01	46	31	0	0	0	0	0	0	0	10		1.6	8.9		100	4	3	5.19
0806	TR89181	17368	12/12/06	11:13	81		0	0	0	0	0	0	0	9.1		11.3	8.9		40	4	3	4.58
0806	TR88089	17863	12/13/06	13:15	54	28	0	0	0	0	0	0	0	10.7	24	12.4	8.3	0.34	366	4	4	
0806	TR71561	17368	12/14/06	11:07	79		0	0	0	0	0	0	0	9.4		10.7	7.6		359			
0806	TR71566	10938	12/14/06	11:52	43	26	0	0	0	0	0	0	0	10.2		11.7	7.8		372			
0806	TR89173	16120	01/09/07	9:30	73		0	0	0	0	0	0.94	0.94	8.8		11.1	7.1		377	5	5	16.6
0806	TR89176	10938	01/09/07	10:02	73	49	0	0	0	0	0	0.89	0.89	9.5		8.9	7.7		350	4	5	13.1
0806	TR89182	17368	01/09/07	10:26	160		0	0	0	0	0	0.92	0.92	9.7		8.6	7.7		297	4	5	27.3
0806	TR88109	17863	02/06/07	8:30	10	55	0	0	0	0	0.24	0.33	0.33	8.4	12	12	8.2	0.4	557	4	4	

0806	TR89174	16120	02/13/07	9:45	73			0.03	0.09	0.09	0.09	0.09	0.09	0.09	9.3			10.9	8		630	4	0.5	4.98	
0806	TR89183	17368	02/13/07	10:33	37			0.01	0.1	0.1	0.1	0.1	0.1	0.1	9			11.2	8.2		597	4	0.5	14.9	
0806	TR89177	10938	02/13/07	10:19	230	109		0.02	0.07	0.07	0.07	0.07	0.07	0.07	8.9			10.8	8		608	4	0.5	8.32	
0806	TR88119	17863	03/12/07	10:50	3300	205		0.33							17.5	23.5		9.3	7.9	0.27	535	5	0.5		
0806	TR89213	10938	03/13/07	10:49	78	352		0	0.33						18.8			10	8.1		554	4	0.5	3.02	
0806	TR89210	16120	03/13/07	10:13	460				0	0.36					18.6			7.7	7.8		518	4	0.5	8.03	
0806	TR89219	17368	03/13/07	11:02	12			0	0.39						18.5			9.4	7.8		604	4	0.5	0.09	
0806	TR0761W	17368	03/21/07	11:15	27			0	0	0	0	0	0	0	18.4			6.2	7.2		457				
0806	TR0766W	10938	03/21/07	12:08	120	32		0.02	0.02	0.02	0.02	0.02	0.02	0.02	18.6			6.4	7.2		509				
0806	TR88129	17863	04/09/07	9:32	180	111		0	0	0	0	0	0	0.24	0.24	14.1	15		10.4	8.1	0.29	459	6	2	
0806	TR89214	10938	04/10/07	10:35	130	180		0	0	0	0	0	0	0	0.24	13.9			11	8.6		449	5	3	20.6
0806	TR89220	17368	04/10/07	10:49	86			0	0	0	0	0	0	0	0.2	13.4			10.6	8.1		446	5	3	24.7
0806	TR89211	16120	04/10/07	9:55	130			0	0	0	0	0	0	0	0.66	14.9			10.3	8.5		495	5	3	21.2
0806	TR89221	17368	05/08/07	10:50	58000			0.69	0.82	0.82	0.82	0.82	2.05	2.08	23.7			7.5	7.9		313	5	0.5	59.4	
0806	TR88139	17863	05/08/07	9:30	2300	696		0.49	0.59	0.59	0.59	0.59	1.6	1.65	23.3	26		8.1	8	0.21	406	5	0.5		
0806	TR89212	16120	05/08/07	9:55	17000			0.6	0.76	0.76	0.76	0.77	1.73	1.76	22.9			7.3	8		293	5	0.5	3.13	
0806	TR89215	10938	05/08/07	10:35	1400	696		0.49	0.59	0.59	0.59	0.59	1.6	1.63	24.2			7.4	7.9		408	5	0.5	23.7	
0806	TR88149	17863	06/04/07	9:40	920	1560		0	0.34	0.83	0.83	0.9	1.26	1.46	24.9	28		9.9	8	0.23	378	5	1		
0806	TR0809W	17368	06/11/07	11:19	66			0	0	0	0	0	0	0	25.9			7.8	7.7		378				
0806	TR0815W	10938	06/11/07	12:55	66	621		0	0	0	0	0	0	0	25.9			8	7.6		380				
0806	TR89229	10938	06/12/07	9:49	47	418		0	0	0	0	0	0	0	27.1			9.4	7.9		318	5	7		
0806	TR89231	17368	06/12/07	10:04	58			0	0	0	0	0	0	0	27.4			10.2	8.2		349	5	7		
0806	TR89228	16120	06/12/07	9:08	27			0	0	0	0	0	0	0	26.7			8.6	7.9		376	5	7		
0806	TR89234	16120	07/10/07	9:38	120			0	0.01	0.01	0.01	0.48	0.63	1.74	27.7			7.9	8.2		379	5	4	29	
0806	TR88159	17863	07/10/07	9:50	140	2760		0	0.01	0.01	0.01	0.27	0.37	1.45	27.8	29		8.4	8.2	0.26	352	5	1		
0806	TR89237	17368	07/10/07	10:25	220			0	0.04	0.04	0.04	0.96	1.06	2.4	27.6			8	8		357	5	4	38	
0806	TR89235	10938	07/10/07	10:10	120	2760		0	0.01	0.01	0.01	0.27	0.37	1.45	27.9			7.6	8.2		345	5	4	19	
0806	TR88169	17863	08/06/07	9:45	190	530		0	0	0	0	0.12	0.25	0.85	0.98	29.2	34		7.6	8.1	0.24	337	5		
0806	TR89241	10938	08/14/07	8:59	15	110		0	0	0	0	0	0	0	13.3			8.7	7.8		376	4	7	9	
0806	TR89240	16120	08/14/07	8:30	28			0	0	0	0	0	0	0	29.8			6.5	7.8		444	4	7	24	
0806	TR89243	17368	08/14/07	9:13	11			0	0	0	0	0	0	0	31.6			7.5	7.3		372	4	7	8	
0806	TR2098W	17368	09/19/07	13:25	6			0.01	0.01	0.01	0.01	0.01	0.01	0.01	26.8			4.3	7.1		318				
0806	TR2119W	10938	09/19/07	13:37	21	60		0.01	0.01	0.01	0.01	0.01	0.01	0.01	26.6			4	7		341				
0806	TR88179	17863	11/13/07	10:00	22	37		0	0.04	0.04	0.04	0.04	0.04	0.04	19.7	25		8.3	8	0.32	424	4	7		
0806	TR2103W	17368	12/14/07	11:24	2400			0	0.27	0.78	0.84	0.84	0.87	0.87	9.7			9.4	7.2		429				
0806	TR2123W	10938	12/14/07	11:46	690	93		0	0.27	0.68	0.71	0.71	0.73	0.73	9.7			10	7.2		426				
0806	TR88201	20292	02/19/08	10:15	280	35		0	0	0.45	0.8	0.8	0.8	0.8	11.1	18		10.1	7.7	0.3	440	4	3		
0806	TR88189	17863	02/19/08	10:45	200	32		0	0	0.17	0.38	0.38	0.38	0.38	10.6	19		9.3	7.7	0.22	497	4	3		
0806	TR2108W	17368	03/25/08	10:39	34			0	0	0	0	0	0	1.3	15			9.8	7.7		387				
0806	TR88213	20292	05/06/08	11:30	2400	950		0.5	0.5	0.5	0.5	0.5	0.5	0.5	21.1	22		7	7.8	0.28	418	4	0.5		
0806	TR88202	17863	05/06/08	10:50	2800	1210		0.45	0.45	0.45	0.45	0.45	0.45	0.45	20.5	21		8.7	7.9	0.14	409	5	0.5		
0806	TR2114W	17368	06/18/08	9:56	11			0.03	0.03	0.03	0.03	0.03	0.03	0.03	28.5			7.3	7.4		459				
0806	TR2132W	10938	06/18/08	11:09	3	4.4		0.03	0.03	0.03	0.03	0.03	0.03	0.03	28.2			3.7	6.9		437				
0806	TR88225	20292	08/18/08	10:30	110	40		0.32	0.32	0.32	1.95	1.95	1.95	1.95	27.3	24.5		4.6	7.7	0.57	336	4	0.5		
0806	TR88214	17863	08/18/08	11:00	370	69		0.56	0.56	0.56	2.28	2.28	2.28	2.28	26.7	25		6	7.7	0.31	331	4	0.5		
0806	TR2582W	17368	09/17/08	10:14	36			0	0	0	0.69	0.72	0.72	1	25.2			5.9	7.1		333				
0806	TR2587W	10938	09/17/08	11:13	81	15		0	0	0	0.69	0.72	0.72	0.91	24.3			7.6	7.4		321				
0806	TR88226	17863	11/10/08	10:45	17	19		0	0	0	0	0.14	0.14	0.14	16.9	20			7.8	0.25	443	4	0.5		

0806	TR88237	20292	11/10/08	10:00	110	22	0	0	0	0	0.22	0.22	0.22	17.6	22		7.6	0.43	393	4	0.5		
0806	TR3045W	17368	12/18/08	10:11	18		0.04	0.04	0.04	0.04	0.04			7.5		11.3	8.4		437				
0806	TR3050W	10938	12/18/08	11:05	12	24	0.05	0.05	0.05	0.05	0.05			7.4		12.3	8.5		432				
0806	TR88238	17863	02/11/09	9:07	2800	455	0.46	0.46	0.82	0.82	0.82	0.82	0.82	14.2	17	9.9	7.8	0.13	443	4	1		
0806	TR88249	20292	02/11/09	9:40	4800	185	0.43	0.43	0.82	0.82	0.82	0.82	0.82	14.6	16	9	7.6	0.16	432	4	1		
0806	TR3204W	17368	03/19/09	10:20	10		0	0	0	0	0	0	0.47	0.57	14.9		8.4	7.5		317			
0806	TR3209W	10938	03/19/09	11:32	36	48	0	0	0	0	0	0.36	0.71	11.8		7.7	7.6		298				
0806	TR88250	17863	05/27/09	10:55	2400	1310	0.74	0.74	1.07	1.13	1.13	1.13	1.13	25.9	25	7.8	8	0.19	366	5	1		
0806	TR88261	20292	05/27/09	10:00	1400	521	0.71	0.71	1.16	1.16	1.18	1.18	1.18	24.7	29	6	8	0.19	243	4	1		
0806	TR3289W	10938	06/17/09	10:33	87	65	0	0	0	0	0	0	0.21	2.78	28		0.4	7.9		305			
0806	TR3285W	17368	06/17/09	9:36	29		0	0	0	0	0	1.02	3.51	28.3		8.5	8.2		317				
0806	TR88262	17863	08/20/09	9:45	15	34	0	0	0	0	0	0.01	0.01	29	31.8	5.1	7.7	0.23	347	4	7		
0806	TR88273	20292	08/20/09	9:15	10	28	0	0.01	0.01	0.01	0.01	0.01	0.02	29.5	29.1	6	7.9	0.48	394	4	7		
0806	TR3497W	17368	09/16/09	11:36	200		0	0.03	1.8	3.83	6.01	6.29	6.29	23.1		6	7.7		264				
0806	TR3502W	10938	09/16/09	11:06	200	154	0	0.03	1.41	3.52	5.5	5.79	5.79	23		6.1	7.7		279				
0806	TR88274	17863	11/04/09	9:55	120	1140	0	0	0	0	0	0.17	0.22	17	26	9.9	8.1	0.2	376	5	6		
0806	TR88285	20292	11/04/09	9:15	37	840	0	0	0	0	0	0	0.2	0.24	16.4	21	10.1	8	0.31	371	4	6	
0806	TR3743W	17368	12/16/09	11:49	15		0	0	0	0	0	0	0	8.5		10.9	8		563				
0806	TR3748W	10938	12/16/09	13:01	11	125	0	0	0	0	0	0	0	8.3		11.8	8.7		572				
0806	TR88286	17863	02/23/10	9:50	78	1130	0.01	0.01	0.08	0.08	0.08	0.08	0.08	7.8	4	11.1	8.2	0.37	462	4	2		
0806	TR88297	20292	02/23/10	9:25	38	748	0.01	0.02	0.06	0.06	0.06	0.06	0.06	7.2	3.5	12.8	8.1	0.45	441	4	2		
0806	TR3982W	17368	03/17/10	10:01	920		0	0.27	0.27					12.5		10.4	7.9		397				
0806	TR3987W	10938	03/17/10	11:00	450	1160	0	0.32	0.32					12.7		10.4	7.9		409				
0806	TR88298	17863	05/18/10	10:00	260	2280	0.11	0.11	0.17	1.33	1.35	1.35	1.35	24.2	25	8.1	8.2	0.31	424	5	1		
0806	TR88309	20292	05/18/10	9:00	56	1860	0.07	0.07	0.18	1.25	1.27	1.27	1.27	23.6	25	8	8.2	0.43	428	4	1		
0806	TR4589W	10938	06/16/10	10:56	19	30	0	0.04	0.04	0.04	0.04	0.04	0.05	28.9		6.2	7.6		483				
0806	TR4585W	17368	06/16/10	10:23	16		0	0.03	0.03	0.03	0.03	0.03	0.06	29.2		8.9	8		491				
0806	TR88310	17863	08/17/10	10:07	38	21	0	0	0	0	0	0	0	30.9	32	3.5	7.5	0.35	433	3	7		
0806	TR88321	20292	08/17/10	9:45	17	6	0.01	0.02	0.02	0.02	0.02	0.02		31.8	32	6.9	7.9	0.42	413	3	7		
0806	TR4591W	10938	09/15/10	11:27	520	218	0	0	0	0	0	0.01	0.29	29.5		8.4	8.3		360				
0806	TR4586W	17368	09/15/10	10:49	240		0	0	0	0	0	0	0.27	29.2		7.1	8		358				
0806	TR88333	20292	11/09/10	9:15	98	22	0	0	0	0	0	0	0.04	0.96	15.3	20	7.7	7.8	0.44	380	4	7	
0806	TR88322	17863	11/09/10	9:45	93	70	0	0	0	0	0	0	1.11	15.2	21	9.7	8	0.31	376	4	7		
0806	TR88355	17863	02/22/11	10:50	10	42	0	0	0	0	0	0	0	16.3	14	10.2	8.1	0.41	548	4	7		
0806	TR88366	20292	02/22/11	10:20	4	21	0	0	0	0	0	0	0	16.2	13	9.8	8.1	0.48	536	4	7		
0806	TR88387	17863	05/11/11	9:35	4800	180	0.43	0.43	0.43	0.43	0.43	0.43	0.43	23	27	7.6	7.9	0.11	261	4	1		
0806	TR88398	20292	05/11/11	9:00	4800	83	0.37	0.37	0.37	0.37	0.37	0.37	0.37	24	26	5.6	7.7	0.23	416	4	1		
0841	TR60007	11081	09/18/00	15:00	690	170	0	0						27.4		9.3	8		856	3	7		
0841	TR60391	17160	10/03/00	11:20	77	143	0	0	0	0	0	0	0	27.1		7.3	7.4		808	3	9	4	
0841	TR60394	11089	10/03/00	16:00	77	299	0	0	0	0	0	0	0	27.8		9.3	7.8		846	3	9	4	
0841	TR60392	11084	10/04/00	11:30	56	106	0	0	0	0	0	0	0	26.5		6.8	7.6		809	3	10	11	
0841	TR60393	11079	10/05/00	11:15	38	299	0	0	0	0	0	0	0	26		7.5	8		768	3	11	15	
0841	TR60012	11081	10/16/00	11:00	4800	1180	0.57	0.57	0.57	0.57	0.57	0.57	0.57	24.6		5.5	7.4		694	5	0.5		
0841	R193600	11084	02/06/01	10:00	57		0	0	0	0	0	0	0	13.5		8.5	7.5	0.3	594	4	7		
0841	TR60032	11081	02/20/01	12:35	2400	1180	0	0	0	0	2.51	3.37	3.37	14.3	25.6	9.9	7.6		575	4	4		
0841	TR60038	11081	03/26/01	9:40	690	2400	0	0.17	0.4	0.4	0.4	0.4	0.4	14	7.8	9.6	7.7		463	4	2		
0841	TR60043	11081	04/17/01	15:30	180	905	0.03	0.03	0.03	0.06	0.06	0.06		20.6		8.4	7.9		558	4			
0841	TR60048	11081	05/16/01	10:15	58	439	0	0	0	0	0.2	0.2	0.2	25.6		7.6	8		583	4	5		

0841	TR60055	11081	06/12/01	12:45	15	181	0	0	0	0	0	0	0	29.5		8.6	8		816			
0841	TR60060	11081	07/09/01	10:50	84	236	0	0	0	0	0	0	0	30.2		6.8	7.8		765	4		
0841	R196834	11084	07/23/01	10:15	30		0	0	0	0	0	0	0	30.4		6.6	7.6	0.3	862	4	7	
0841	TR60071	11081	08/13/01	13:25	200	192	0	0.16	0.16	0.16	0.16	0.16	0.16	31.5		6.8	7.8		870	4	2	
0841	TR60076	11081	09/17/01	10:15	3500	217	0	0.04	0.04	0.04	0.04	0.04	0.04	27.6		6.7	7.7	0.29	799			
0841	R198208	11084	09/18/01	9:40	160		0	0	0.26	0.26	0.26	0.26	0.26	27.5		6.9	7.5	0.3	734	4	4	
0841	TR60083	11081	10/15/01	12:10	920	452	0	0	0.67	0.67	1.98	1.98	1.98	20.8		7.9	7.8	0.17	502	4	2	
0841	R201272	11084	10/30/01	9:55	28	220	0	0	0	0	0	0	0							4	7	
0841	TR60090	11081	11/14/01	11:10	430	299	0	0	0.01	0.01	0.01	0.32	0.32	19.2		7.3	7.7	0.15	524	4	5	
0841	R201273	11084	12/04/01	11:00	20	250	0	0	0	0	0	0	0	0.15						4	0.5	
0841	TR60097	11081	12/10/01	11:15	170	194	0	0	0	0	0	0	0	14.6	16	9.3	7.3	0.44	863	4	4	
0841	TR74306	17669	12/10/01	9:25	64		0	0	0	0	0	0	0	14.5	7	7.3	8.6					14
0841	R199772	11084	12/10/01	11:50	39		0	0	0	0	0	0	0	15.7		8.9	7.4	0.3	764	3	7	
0841	TR72899	11080	12/11/01	10:30	62		0	0	0	0	0	0.1	0.1	13.5	11.8					4		
0841	R201274	11084	01/03/02	10:10	18	175	0	0	0	0	0	0	0							4	7	
0841	TR60104	11081	01/14/02	10:10	48	201	0	0	0	0	0	0	0	13.4	16	10.4	7.6	0.6	850	4	7	
0841	TR72929	11080	01/16/02	10:49	410		0	0	0	0	0	0	0	13.1	14.9					4	7	
0841	TR74328	17669	01/22/02	8:42	22		0	0	0	0	0	0	0	13.7	12.5	7.6	8.4			4		7.73
0841	R201275	11084	02/05/02	10:45	450	900	0.58	0.58	0.58	0.58	0.58	2.27	2.27							5	0.5	
0841	TR60111	11081	02/11/02	10:20	2000	489	0	0	0	0	0	0.41	1.34	11.2	10.5	7.7	0.24	611				
0841	TR74350	17669	02/18/02	8:50	650		0	0	0	0	0	0	0	14.3	13	7.8	7.6			4	3	11
0841	TR72951	11080	02/18/02	12:48	540		0	0	0	0	0	0	0	14.4	16.1					4	7	
0841	TR60118	11081	03/11/02	10:25	780	223	0	0	0.23	0.23	0.23	0.23	0.23	15	15	10.7	7.8		893			
0841	R201051	11084	03/13/02	10:20	20		0	0	0.1	0.1	0.35	0.35	0.35	16.9		10.5	7.7	0.3	795	4	7	
0841	TR74370	17669	03/21/02	9:05	4800		0	1.64	3.12	3.16	3.16	3.16	3.16	14.9	15	5.9	7.8			6	1	
0841	R201466	11084	04/02/02	11:25	84	1100	0	0	0.28	1.7	1.7	1.7	1.7							4	2	
0841	TR60125	11081	04/08/02	14:45	4800	11700	2.3							17.1	29.5	8.8	8	0.03	230	6	1	
0841	TR74392	17669	04/23/02	9:30	120		0	0	0	0.03	0.03	0.03	1.71	21.6	21	9.1	7.9			5	3	45
0841	TR60132	11081	05/13/02	11:35	2400	2530	0.4	0.4	0.4	0.92	1.18	1.18	1.18	23.4	20.5	7.4	7.8	0.11	417	5	0.5	
0841	TR74437	17669	05/28/02	11:15	1500		0.22	0.22	0.27	0.27	0.27	0.27	0.27	24.3	21	7.5	7.7			4	0.5	22
0841	R202439	11084	06/06/02	9:10	120		0.06	0.06	0.06	0.06	0.06	0.06	0.06	26.2		7.1	7.6	0.3	778	4	1	
0841	TR60139	11081	06/10/02	13:10	340	375	0	0	0	0	0	0.02	0.02	28.1	34	7.2	7.8	0.21	860	4	6	
0841	TR74411	17669	06/19/02	11:05	120		0	0	0	0.45	0.45	0.65	0.65		29	6.3	7.9			4	3	25.3
0841	TR60146	11081	07/08/02	11:15	170	333	0	0	0.04	0.04	0.27	0.69	2.17	29	35.5	6.8	7.7	0.2	518	4	3	
0841	TR72990	11080	07/08/02	13:15	240		0	0	0	0	0.16	0.94	2.79	32.2						3	4	
0841	TR74455	17669	07/22/02	10:15	160		0	0	0	0	0	0	0.02	29.1	28	6.1	7.1			4	3	26
0841	TR87018	11084	07/29/02	12:10	71		0	0	0	0	0	0	0	29.1	30	6.6	7.6			794	4	
0841	TR87017	17160	07/29/02	10:50	32		0	0	0	0	0	0	0	28.8	27	6.8	7.2			715	4	
0841	TR87015	11079	07/29/02	13:40	85		0	0	0	0	0	0	0	29.5	35	7.5	8			841	4	
0841	TR87016	11087	07/29/02	11:35	97		0	0	0	0	0	0	0	28.6	28	6.1	7.4			754	4	
0841	TR87014	11081	07/29/02	12:55	30	194	0	0	0	0	0	0	0	29.3	31	6.4	7.8			807	4	
0841	TR60153	11081	08/05/02	13:35	45	183	0	0	0	0	0	0.01	0.01	31.5	36.5	7.1	7.9	0.25	830	4	7	
0841	TR73009	11080	08/12/02	12:00	3500		0	0.28	3.77	3.77	3.77	3.77	3.77	28.1						4	2	
0841	TR74476	17669	08/28/02	10:40	870		0	0.13	0.54	0.54	0.54	0.54	0.54	27.8	27.5	4.5	7.6			4	0.5	28.3
0841	TR87019	17160	09/05/02	10:00	17		0	0	0	0	0	0	0	29.7	31	6.4	7.2			829	4	
0841	TR87020	11084	09/05/02	10:50	110		0	0	0	0	0	0	0	29.3	33	6.4	7.5			790	4	
0841	TR87021	11079	09/05/02	11:45	22		0	0	0	0	0	0	0	30	36	7.6	8			751	4	
0841	TR60160	11081	09/10/02	13:15	870	345	0	0	0.27	0.27	0.27	0.27	0.27	28.1	36.5	8.7		0.2	520	4	3	

0841	TR73048	11080	09/11/02	10:40	380		0	0	0.02	0.05	0.05	0.05	0.05	28						4	2	
0841	TR74512	17669	09/25/02	13:30	47		0	0	0	0	0	0	0.22	25.3	27	6.2	7.6			3	3	23
0841	TR87027	11084	09/26/02	10:35	42		0	0	0	0	0	0	0	25.9	29.5	6.7	7.4		851	4		
0841	TR87026	17160	09/26/02	9:50	32		0	0	0	0	0	0	0	27.6	25	7.1	7.1		850	4		
0841	TR87028	11079	09/26/02	11:45	110		0	0	0	0	0	0	0	25	29	7.8	7.8		736	4		
0841	TR87034	11084	10/01/02	10:35	43		0	0	0	0	0	0	0	27.1	28	6.5	7.4		847	4		
0841	TR87033	17160	10/01/02	9:55	17		0	0	0	0	0	0	0	27.9	25.5	7.1	7.1		806	4		
0841	TR87035	11079	10/01/02	11:30	8		0	0	0	0	0	0	0	26.6	30	7.1	7.8		895	4		
0841	TR60167	11081	10/07/02	14:25	4800	630	1.04	1.04	1.04	1.04	1.04	1.04	1.04	25.1	23	6.5	7.6	0.07	712	4	0.5	
0841	TR74522	17669	10/17/02	9:55	85		0	0	0	0	0.01	0.01	0.01	20.6	14	8	7.6			3	3	22
0841	TR73092	11080	11/06/02	10:50	160		0	0.04	0.04	0.11	0.14	0.15	0.15	16.9	13.9	7.8	7.9		508	4	2	
0841	TR60174	11081	11/11/02	9:45	59	226	0	0	0	0	0	0	0.05	19.3	24	8.5	7.6	0.55	801	4	7	
0841	TR73099	11080	12/02/02	9:20	40		0	0	0	0	0	0	0	14.1	20.9	7.7	7.4		631	4	24	
0841	TR74574	17669	12/04/02	8:45	2800		0.34	0.37	0.37	0.37	0.37	0.37	0.37	13.6	5	8	7.2			4	1	117
0841	TR60181	11081	12/09/02	10:55	4800	2910	1.17	1.19	1.19	1.19	1.19	2.09	2.44	13	11.5	9.7	7.3	0.55	422	5	0.5	
0841	TR60188	11081	01/13/03	10:40	220	468	0.07	0.13	0.13	0.13	0.13	0.13	0.13	11.5	9.5	10.6	7.4	0.41	780	4	1	
0841	TR73145	11080	01/14/03	11:02	290		0	0.06	0.16	0.16	0.16	0.16	0.16	10.7	12.3	9.3	7.9		476	4	2	
0841	TR74587	17669	01/22/03	10:40	17		0	0	0	0	0	0	0	13.6	7	14.2	7.5			3	3	8.32
0841	TR73151	11080	02/03/03	10:46	49		0	0	0	0	0	0	0	16.3	14.9	9.9	8		695	4	22	
0841	TR60195	11081	02/03/03	10:55	2	352	0	0	0	0	0	0	0	16.4	15.5	10.1	7.5	0.6	898	4	7	
0841	TR74609	17669	02/20/03	8:15	170		0.04	0.04	0.04	0.04	0.04	0.04	0.1	14.2	9	8.5	7.6			3	0	17.6
0841	TR73194	11080	03/06/03	13:20	19		0	0	0	0	0	0	0	12.2	12.5	9.4	7.9		458	4	8	
0841	TR60202	11081	03/10/03	11:00	37	443	0	0	0	0	0	0	0	14.2	12	10.2	7.8	0.45	668	4	7	
0841	TR74657	17669	03/24/03	12:25	120		0	0.15	0.15	0.15	0.18	0.18	0.81	19.4	26	9.6	7.6			3	1	11
0841	TR60209	11081	04/07/03	13:05	4800	676	0.06							19.3	20.5	7.3	7.7	0.04	524	4	2	
0841	TR73217	11080	04/09/03	13:45	460		0	0	0					17.8	14.6	8.2	7.8		604	4	5	
0841	TR74636	17669	04/17/03	13:49	86		0	0	0	0	0	0	0	21.6	19	5.3	8			3	3	26
0841	TR73238	11080	05/07/03	13:45	150		0	0	0	0	0	0.23	0.23	27.2	27.1	5.4	8		710	4	6	
0841	TR60216	11081	05/12/03	11:20	210	241	0	0	0	0	0	0	0	24.4	31	8.5	7.8	0.2	879	4	7	
0841	TR74688	17669	05/28/03	10:45	190		0	0	0	1.5	1.55	1.55	1.6	23.9	27.5	7.8	7.8			4	3	53.4
0841	TR60223	11081	06/03/03	13:35	49	174	0	0	0	0	0	0	0	29.2	36.5	8.2	7.8		830	4	7	
0841	TR73265	11080	06/09/03	12:40	360		0	0.38	0.38	0.61	1.31	1.31	1.31	26.1	26	4.6	7.7		668	4	1	
0841	TR74706	17669	06/24/03	9:00	35		0	0	0	0	0	0	0.09	28.9	30	7.2	7.8			4	3	27
0841	TR60230	11081	07/07/03	12:00	160	224	0.14	0.14	0.21	0.21	0.23	0.23	0.23	28.8	36	6.6	7.7		690	4	1	
0841	TR73284	11080	07/08/03	13:10	81		0.01	0.06	0.06	0.07	0.07	0.09	0.09	29.4	29.9	5	7.7		777	4	2	
0841	TR74727	17669	07/29/03	8:50	19		0	0	0	0	0	0	0.01	30.1	29	6.7	7.7			4	3	25
0841	TR73296	11080	08/04/03	12:20	13		0	0	0	0	0	0	0	29.9	30	5.2	8		940	3	7	
0841	TR60237	11081	08/05/03	13:40	51	119	0	0	0	0	0	0	0	30.8	40	7.8	7.8		821	4	7	
0841	TR74749	17669	08/20/03	10:00	110		0	0	0	0	0	0.09	0.14	29.9	33	8.1	7			4	3	26
0841	TR73320	11080	09/02/03	11:50	1400		0.06	0.54	1.89	1.89	1.89	1.89	3.84	26.5	27.9	4.5	7.4		375	5	1	
0841	TR60244	11081	09/08/03	13:55	60	177	0	0	0	0	0	0	0	28	36	10.3	7.8		772	4	7	
0841	TR74770	17669	09/23/03	9:15	120		0	0	0	0	0.55	0.55	0.55	25.3	24	5.5	7.9			4	3	19.9
0841	TR73348	11080	10/01/03	13:35	29		0	0	0	0	0	0	0	24.2	19.6	6.7	7.7		666	4	7	
0841	TR60251	11081	10/06/03	10:55	19900	851	0.04	0.35	0.35	0.35	0.35	0.35	0.35	23.7	24	7.5	7.7		476	4	0.5	
0841	TR74790	17669	10/22/03	9:00	45		0	0	0	0	0	0	0	23.2	19.5	7.2	7.7			4	3	22.7
0841	TR60258	11081	11/10/03	13:45	780	478	0	0.15	0.2	1.11	1.12	1.14	1.14	17.1	25.5	8.7	7.6	0.16	511	4	2	
0841	TR73376	11080	11/11/03	11:25	240		0	0	0.25	0.91	1.34	1.37	1.37	18.2	19.6	6.5	7.6		452	4	3	
0841	TR74815	17669	11/19/03	10:00	4600		0	1.72	1.75	1.75	1.76	1.76	1.76	17.4	15	7.7	7.7		434	4	2	80

0841	TA69944	11081	06/20/05	11:15	52	144	0	0	0	0	0	0	0								3	7	
0841	TR75245	17669	06/21/05	8:35	210		0	0	0	0	0	0	0	28.2	31	6.7	7.9	0.29	920		3	3	26.5
0841	TA69964	17669	06/21/05	9:06	100		0	0	0	0	0	0	0								3	7	
0841	TA69973	11081	06/21/05	12:45	210	143	0	0	0	0	0	0	0								3	7	
0841	TA70030	11081	06/28/05	10:58	260	148	0	0	0	0	0	0	0								3	7	
0841	TA70024	17669	06/28/05	9:33	46		0	0	0	0	0	0	0								3	7	
0841	TA70027	17669	06/28/05	9:37	50		0	0	0	0	0	0	0								3	7	
0841	TA70025	17669	06/28/05	9:34	46		0	0	0	0	0	0	0								3	7	
0841	TA70029	11081	06/28/05	10:57	340	148	0	0	0	0	0	0	0								3	7	
0841	TA70031	11081	06/28/05	11:00	330	148	0	0	0	0	0	0	0								3	7	
0841	TA70026	17669	06/28/05	9:36	70		0	0	0	0	0	0	0								3	7	
0841	TA70023	17669	06/28/05	9:32	68		0	0	0	0	0	0	0								3	7	
0841	TA70032	11081	06/28/05	11:01	310	148	0	0	0	0	0	0	0								3	7	
0841	TA70028	11081	06/28/05	10:56	270	148	0	0	0	0	0	0	0								3	7	
0841	TR87958	11081	07/05/05	10:20	13	192	0	0	0	0.02	0.02	0.02	0.02	30.6	29	6.6	7.9	0.24	890		4	1	
0841	TA70198	17669	07/12/05	9:32	250		0	0	0	0	0.85	1.08	1.2								3	5	
0841	TA70194	17669	07/12/05	9:26	620		0	0	0	0	1.08	1.08	1.2								3	5	
0841	TA70195	17669	07/12/05	9:27	520		0	0	0	0	1.08	1.08	1.2								3	5	
0841	TA70197	17669	07/12/05	9:30	490		0	0	0	0	1.08	1.08	1.2								3	5	
0841	TA70199	11081	07/12/05	10:52	430	192	0	0.01	0.01	0.01	0.24	1.16	1.21								3	5	
0841	TA70200	11081	07/12/05	10:53	410	192	0	0.01	0.01	0.01	0.24	1.16	1.21								3	5	
0841	TA70201	11081	07/12/05	10:55	210	192	0	0.01	0.01	0.01	0.24	1.16	1.21								3	5	
0841	TA70202	11081	07/12/05	10:56	320	192	0	0.01	0.01	0.01	0.24	1.16	1.21								3	5	
0841	TA70203	11081	07/12/05	10:58	340	192	0	0.01	0.01	0.01	0.24	1.16	1.21								3	5	
0841	TA70196	17669	07/12/05	9:29	350		0	0	0	0	1.08	1.08	1.2								3	5	
0841	TA70204	11089	07/12/05	11:15	120	487	0.01	0.1	0.1	0.1	0.23	0.63	0.66								3	5	
0841	TA70205	11089	07/12/05	11:17	130	487	0.01	0.1	0.1	0.1	0.23	0.63	0.66								3	5	
0841	TA70206	11089	07/12/05	11:19	120	487	0.01	0.1	0.1	0.1	0.23	0.63	0.66								3	5	
0841	TA70207	11089	07/12/05	11:21	130	487	0.01	0.1	0.1	0.1	0.23	0.63	0.66								3	5	
0841	TA70208	11089	07/12/05	11:23	150	487	0.01	0.1	0.1	0.1	0.23	0.63	0.66								3	5	
0841	TR75223	17669	07/21/05	9:20	80		0	0	0	0.01	0.01	0.09	0.15	29.7	31	6.5	8	0.2	780		4	4	31.1
0841	TA70347	11089	07/27/05	10:19	64	420	0.16	0.16	0.16	0.16	0.16	0.16	0.16								4	0.5	
0841	TA70348	11089	07/27/05	10:21	94	420	0.16	0.16	0.16	0.16	0.16	0.16	0.16								4	0.5	
0841	TA70334	17669	07/27/05	9:22	2500		0.15	0.15	0.15	0.15	0.15	0.15	0.15								4	0.5	
0841	TA70346	11089	07/27/05	10:17	92	420	0.16	0.16	0.16	0.16	0.16	0.16	0.16								4	0.5	
0841	TA70345	11089	07/27/05	10:15	110	420	0.16	0.16	0.16	0.16	0.16	0.16	0.16								4	0.5	
0841	TA70341	11081	07/27/05	9:37	570	235	0.25	0.25	0.25	0.25	0.25	0.25	0.25								4	0.5	
0841	TA70340	11081	07/27/05	9:36	490	235	0.25	0.25	0.25	0.25	0.25	0.25	0.25								4	0.5	
0841	TA70335	17669	07/27/05	9:24	2800		0.15	0.15	0.15	0.15	0.15	0.15	0.15								4	0.5	
0841	TA70342	11081	07/27/05	9:38	690	235	0.25	0.25	0.25	0.25	0.25	0.25	0.25								4	0.5	
0841	TA70343	11081	07/27/05	9:39	800	235	0.25	0.25	0.25	0.25	0.25	0.25	0.25								4	0.5	
0841	TR87966	11081	08/01/05	12:45	71	185	0	0	0	0	0	0.26	0.26	30.9	36.5	7.7	8.1	0.23	720		4	5	
0841	TA70554	17669	08/10/05	13:33	280		0	0	0.54	0.54	0.66	0.66	0.66								4	5	
0841	TA70531	11081	08/10/05	8:53	320	233	0	0	0.36	0.46	0.46	0.46	0.46								5	5	
0841	TA70530	17669	08/10/05	8:02	400		0	0	0.54	0.54	0.66	0.66	0.66								6	5	
0841	TA70555	11081	08/10/05	14:09	320	233	0	0	0.36	0.46	0.46	0.46	0.46								5	5	
0841	TA70558	11089	08/10/05	14:57	240	430	0	0	0	0.32	0.32	0.32	0.33								5	5	
0841	TA70534	11089	08/10/05	9:40	260	379	0	0	0.01	0.32	0.32	0.32	0.33								5	5	

0841	TA70623	17669	08/16/05	12:50	3800		0.29	0.36	0.36	0.36	0.36	0.36	0.36								5	0.5	
0841	TA70619	17669	08/16/05	12:44	5500		0.29	0.36	0.36	0.36	0.36	0.36	0.36								5	0.5	
0841	TA70617	11081	08/16/05	11:23	1200	642	0.4	0.52	0.52	0.52	0.52	0.52	0.52								5	0.5	
0841	TA70615	11081	08/16/05	11:20	1200	642	0.4	0.52	0.52	0.52	0.52	0.52	0.52								5	0.5	
0841	TA70618	11081	08/16/05	11:25	2200	642	0.4	0.52	0.52	0.52	0.52	0.52	0.52								5	0.5	
0841	TA70614	11081	08/16/05	11:19	1000	642	0.4	0.52	0.52	0.52	0.52	0.52	0.52								5	0.5	
0841	TA70628	11089	08/16/05	13:22	5500	1093	0.45	0.58	0.58	0.58	0.58	0.58	0.58								5	0.5	
0841	TA70627	11089	08/16/05	13:20	5300	1093	0.45	0.58	0.58	0.58	0.58	0.58	0.58								5	0.5	
0841	TA70626	11089	08/16/05	13:18	5100	1093	0.45	0.58	0.58	0.58	0.58	0.58	0.58								5	0.5	
0841	TA70625	11089	08/16/05	13:16	4100	1093	0.45	0.58	0.58	0.58	0.58	0.58	0.58								5	0.5	
0841	TA70622	17669	08/16/05	12:48	3600		0.29	0.36	0.36	0.36	0.36	0.36	0.36								5	0.5	
0841	TA70621	17669	08/16/05	12:46	3100		0.29	0.36	0.36	0.36	0.36	0.36	0.36								5	0.5	
0841	TA70624	11089	08/16/05	13:14	4400	1093	0.45	0.58	0.58	0.58	0.58	0.58	0.58								5	0.5	
0841	TA70616	11081	08/16/05	11:22	1300	642	0.4	0.52	0.52	0.52	0.52	0.52	0.52								5	0.5	
0841	TA70620	17669	08/16/05	12:45	3500		0.29	0.36	0.36	0.36	0.36	0.36	0.36								5	0.5	
0841	TA70669	17669	08/24/05	13:51	55		0	0	0	0	0	0	0.37								4	7	
0841	TR75267	17669	08/24/05	10:55	84		0	0	0	0	0	0	0.37	30.8	38	5.8	7.8	0.21	740		4	6	29
0841	TA70672	11089	08/24/05	14:36	32	286	0	0	0	0	0	0	0.34								4	7	
0841	TA70662	11081	08/24/05	9:21	73	163	0	0	0	0	0	0	0.22								4	7	
0841	TA70658	11089	08/24/05	9:56	54	342	0	0	0	0	0	0	0.34								4	7	
0841	TA70655	17669	08/24/05	8:59	66		0	0	0	0	0	0	0.37								4	7	
0841	TA70676	11081	08/24/05	14:04	47	163	0	0	0	0	0	0	0.22								4	7	
0841	TA70693	17669	08/25/05	9:43	63		0	0	0	0	0	0	0								4	7	
0841	TA70695	11081	08/25/05	10:22	58	163	0	0	0	0	0	0	0								4	7	
0841	TA70697	11089	08/25/05	11:01	63	378	0	0	0	0	0	0	0								4	7	
0841	TR87974	11081	09/12/05	10:55	78	164	0	0	0	0	0	0	0	30	30	6.7	7.9	0.28	1160		4	0.5	
0841	TA70751	11089	09/16/05	10:07	33000	704	0.44	0.44	0.44	0.44	0.44	0.44	0.44								5	0.5	
0841	TA70752	11081	09/16/05	10:40	6900	322	0.4	0.4	0.4	0.4	0.4	0.4	0.4								5	0.5	
0841	TA70753	17669	09/16/05	11:23	61000		0.27	0.27	0.27	0.27	0.29	0.29	0.29								5	0.5	
0841	TA70768	11089	09/17/05	9:08	2100	476	0	0.44	0.44	0.44	0.44	0.44	0.44								4	1	
0841	TA70762	11081	09/17/05	8:17	5200	209	0	0.4	0.4	0.4	0.4	0.4	0.4								5	1	
0841	TA70763	17669	09/17/05	8:35	4000		0	0.27	0.27	0.27	0.27	0.29	0.29								5	1	
0841	TR75289	17669	09/21/05	10:00	270		0	0	0	0	0	0.27	0.27	28.8	30	6.1	7.7	0.22	717		4	6	273
0841	TR87982	11081	10/03/05	13:30	83	160	0	0	0	0	0.42	0.42	0.42	28.8	36	7.5	7.9	0.26	980		4	5	
0841	TR75333	17669	10/20/05	8:10	63		0	0	0	0	0	0	0	23.1	25	6.3		0.25	825		3	21.2	
0841	TA70955	11081	10/25/05	12:21	32	159	0	0													3	7	
0841	TA70954	17669	10/25/05	12:04	36		0	0													3	7	
0841	TA70950	11089	10/25/05	12:39	22	421	0	0													4	7	
0841	TA70999	11081	11/01/05	10:45	43000	725	0.15	1.04	1.04	1.04	1.04	1.04	1.04								5	0.5	
0841	TA70998	17669	11/01/05	10:32	31000		0.1	0.77	0.77	0.77	0.77	0.77	0.77								5	0.5	
0841	TA71000	11089	11/01/05	11:26	22000	1147	0.18	1.02	1.02	1.02	1.02	1.02	1.02								5	0.5	
0841	TA71006	11081	11/02/05	9:03	27000	273	0	1.04	1.04	1.04	1.04	1.04	1.04								5	1	
0841	TA71005	11089	11/02/05	8:52	31000	562	0	1.02	1.02	1.02	1.02	1.02	1.02								5	1	
0841	TA71007	17669	11/02/05	9:33	29000		0	0.76	0.77	0.77	0.77	0.77	0.77								5	1	
0841	TR87990	11081	11/14/05	11:00	160	160	0	0	0	0	0	0	0	22	21	7.4	7.8	0.21	1070		4	7	
0841	TR75311	17669	11/16/05	9:30	65		0	0	0	0	0	0	0	17.8	5	7.5	7.5	0.24	657		4	7	18.9
0841	TR87998	11081	12/12/05	12:15	55	201	0	0	0	0	0.02	0.05	0.05	13.2	20	9.7	7.7	0.36	970		4	5	
0841	TR75355	17669	12/14/05	8:50	61		0.04	0.04	0.04	0.04	0.04	0.04	0.11	14.9	10	8.5	7.2	0.3	724		4	7	22.2

0841	TR88006	11081	01/09/06	11:45	40	195	0	0	0	0	0	0	0	15.4	20	9.3	7.7	0.43	1040	4	7	
0841	TR75377	17669	01/19/06	9:00	32		0	0	0	0	0	0	0	13.8	14	9.1	7.4	0.27	750	4	7	20
0841	TA71230	11089	01/23/06	12:29	1000	1402	0.1	0.64	0.64	0.64	0.64	0.64	0.64							5	0.5	
0841	TA71229	11081	01/23/06	11:45	1700	934	0.11	0.61	0.61	0.61	0.61	0.61	0.61							5	0.5	
0841	TA71228	17669	01/23/06	11:32	1900		0.14	0.82	0.82	0.82	0.82	0.82	0.82							5	0.5	
0841	TA71244	11081	01/24/06	12:11	960	333	0	0.11	0.61	0.61	0.61	0.61	0.61							4	2	
0841	TA71243	11089	01/24/06	11:27	720	603	0	0.18	0.64	0.64	0.64	0.64	0.64							4	2	
0841	TA71245	17669	01/24/06	12:27	960		0	0.14	0.82	0.82	0.82	0.82	0.82							4	2	
0841	TR88014	11081	02/06/06	9:50	43	200	0	0	0	0.15	0.16	0.16	0.16	15.5	14	9.4	7.7	0.25	750	3	4	
0841	TR75410	17669	02/15/06	9:50	65		0	0	0	0	0.02	0.02	0.02	15.5	18	9	7.3	0.31	585	4	6	19
0841	TR88022	11081	03/13/06	12:30	72	203	0.04	0.04	0.04	0.04	0.12	0.12	0.12	21.4	25	8.7	7.9	0.4	971	3	4	
0841	TR75421	17669	03/16/06	8:45	37		0	0	0	0.02	0.02	0.02	0.02	18.2	19	8.8	7.4	0.44	659	4	2	10
0841	TR88030	11081	04/03/06	10:30	29	262	0							22.3	24	8	7.8	0.4	988	4	7	
0841	TR75443	17669	04/20/06	9:20	5800		1.62	1.62	1.62	1.62	1.62	1.62	1.62	22.4	18	7.3	7.6	0.04	592	5	0.5	350
0841	TR88038	11081	05/08/06	12:15	460	471	0	0.03	0.57	2.2	2.34	2.39	2.39	23.3	31	7.3	7.8	0.3	533	4	2	
0841	TR75465	17669	05/22/06	9:40	49		0	0	0	0				26.4		7.6	7.8	0.24	841	4	3	11
0841	TR88046	11081	06/05/06	11:00	19	190	0	0	0	0	0	0	0.14	28.5	33	8.1	8	0.2	864	4	7	
0841	TR75486	17669	06/20/06	9:15	650		0	0	1.26	1.54	1.54	1.54	1.54	27.9	35	6		0.12	521	3	3	65.6
0841	TR88054	11081	07/10/06	12:15	160	150	0	0	0	0	0.01	0.98	0.98	30	37	8.6	8.1	0.2	905	4	7	
0841	TR75507	17669	07/27/06	12:45	38		0	0	0	0	0	0	0	29.8	34	8.1	7.3	0.29	812	4	3	19.6
0841	TR88062	11081	08/09/06	10:35	58	126	0	0.01	0.09	0.09	0.09	0.09	0.09	30.5	35	7.3	7.7	0.3	949	4	2	
0841	TR94565	17669	08/15/06	10:45	43		0	0	0	0	0	0	0	30.5	37	6.9	7.5	0.23	774	4	7	24.3
0841	TR88070	11081	09/06/06	14:00	360	375	0	0.39	1.24	1.25	1.25	1.25	1.25	27	31	7.2	7.8	0.14	509	4	2	
0841	TR94585	17669	09/27/06	8:48	170		0	0	0	0.34	0.34	0.35	0.35	24.8	23	4	7.4	0.19	693	4	4	34.6
0841	TR88078	11081	10/16/06	10:40	17000	3950	3.1	3.25	3.25	3.25	3.25	3.25	5.02	20.7	20	8	7.8	0.04	301	5	0.5	
0841	TR94668	17669	10/17/06	8:41	8700		0.02	2.64	2.67	2.67	2.67	2.67	2.91	20.9	18	5.1	7.7	0.07	336	5	1	183
0841	TR88086	11081	11/06/06	13:40	24000	2720	0.82	0.82	0.82	0.82	0.82	0.85	0.85	17.9	19	8.8	7.6	0.02	450	5	0.5	
0841	TR94606	17669	11/16/06	9:40	80		0.04	0.05	0.05	0.07	0.07	0.07	0.07	16	7	8.1	7.6	0.26	728	4	7	22.5
0841	TR88096	11081	12/13/06	13:50	32	188	0	0						16	25	9.2	7.6	0.28	82	4	4	
0841	TR94626	17669	12/20/06	10:05	1900		0.43	0.43	0.43	0.43	0.43	0.43	0.43	17.3	11	6.4	7.6	0.08	543	5	0.5	106.9
0841	TR88106	11081	01/10/07	10:10	170	316	0	0	0	0	0	0	1.12	12.3	10	9.5	7.6	0.31	853	4	4	
0841	TR94648	17669	01/22/07	9:42	450		0	0.26	0.6	0.69	0.69	0.99	0.99	9	3	11.1	7.6	0.12	318	4	2	37.8
0841	TR88116	11081	02/06/07	9:10	40	296	0	0	0	0	0.38	0.61	0.65	12.5	12	9.8	7.6	0.6	818	4	4	
0841	TR94699	17669	02/20/07	9:35	72		0	0	0	0	0	0.08	0.08	14.8	17	9.5	7.6	0.58	890	4	7	1.83
0841	TR88126	11081	03/12/07	11:35	870	343	0.24							19.9	23	7.6	7.7	0.26	888	4	0.5	
0841	TR94724	17669	03/22/07	8:45	160		0	0.01	0.01	0.01	0.01	0.01	0.01	20.6	19	7.4	7.4	0.26	991	4	7	22
0841	TR88136	11081	04/09/07	10:04	250	559	0	0	0	0	0	0.13	0.13	15.3	12	9.4	7.9	0.26	800	4	2	
0841	TR94733	17669	04/17/07	9:00	150		0	0	0	0.35	0.35	0.35	0.36	18.5	16	9.3	7.7	0.26	624	4	4	27
0841	TR88146	11081	05/08/07	10:15	7900	2850	0.76	0.76	0.76	0.76	0.96	2.24	2.26	23.9	29	8	7.7	0.85	635	5	0.5	
0841	TR94762	17669	05/15/07	9:28	550		0	0.52	0.75	0.75	0.76	1.41	2.66	25.9	26	7.7	7.7	0.18	618	4	2	30
0841	TR88156	11081	06/04/07	10:20	3100	3450	0.02	0.44	1.27	1.27	2.46	2.62	2.65	24.9	28	8	7.8	0.11	485	4	1	
0841	TR94773	17669	06/19/07	8:30	4800		0	2.06	2.17	3.18	3.18	3.18	3.18	25.6	27	6.2	7.2	0.05		3	310	
0841	TR88166	11081	07/10/07	10:30	4800	4970	0	0.02	0.02	0.02				27.5	31	7.9	7.8	0.12	460	5	1	
0841	TR94805	17669	07/25/07	8:45	3300		0	0	0.29	0.45	0.45	0.45	0.45	26.4	25	6.3	7.4	0.05	217	6	2	196
0841	TR88176	11081	08/06/07	10:30	140	845	0	0	0	0.18	0.51	0.54	0.58	29.4	33	7.2	7.8	0.17	525	4		
0841	TR94826	17669	08/29/07	9:20	37		0	0	0	0.01	0.01	0.01	0.01	28.6	28	7.2	0.16	790	4	7	37.7	
0841	TR94843	17669	09/26/07	8:54	27		0	0	0	0	0	0	0	26.9	26	6.6	7	0.3	737	3	7	16.9
0841	TR94863	17669	10/24/07	10:05	420		0	0.06	0.81	0.81	0.81	0.81	0.81	17.8	18	4.2	7.1	0.21		4	3	39.7

0841	TR88186	11081	11/13/07	10:50	74	256	0	0	0	0	0	0	0	22.6	25.5	8	7.7	0.35	868	4	7	
0841	TR94883	17669	11/28/07	9:10	1100		0	0	0.08	1.38	1.54	1.58	1.58	13.5	11	9.6	7.3	0.26	574	4	3	34.7
0841	TR94905	17669	12/19/07	8:27	83		0	0	0	0	1.28	1.28	1.6	13.5	4	9.2	7.5	0.32	642	4	4	17.6
0841	TR94911	17669	01/22/08	9:25	85		0.09	0.09	0.09	0.09	0.09	0.09	0.09	12.1	2	8.8	7.5	0.48	804	4	1	10.23
0841	TR88196	11081	02/19/08	11:20	1400	448	0	0	0.82	1.39	1.39	1.39	1.39	12	16	9.6	7.6	0.32	626	4	3	
0841	TR94943	17669	02/25/08	9:45	50		0	0	0	0	0	0	0	15.6	18	7.2	6.8	0.35	819	4	7	16
0841	TR94966	17669	03/26/08	8:45	81		0	0	0	0	0	0	0	17.3	19	9	7.8	0.23	440	4	7	23.2
0841	TR94984	17669	04/23/08	9:05	84		0	0	0	0	0	1.42	1.42	22.7	23	7.3	7.6	0.32	519	4	6	27
0841	TR88209	11081	05/06/08	12:10	6500	1930	0.68	0.68	0.68	0.68	0.77	0.77	0.77	20.2	22.5	8.6	7.8	0.03	425	5	0.5	
0841	TR95002	17669	05/21/08	9:10	70		0	0	0	0	0	0	0.55	24.4	23	7.8	7.9	0.34	545	4		20
0841	TR95022	17669	06/18/08	8:45	55		0.01	0.01	0.01	0.01	0.01	0.01	0.01	27	24	6.9	7.6	0.2	805	4	7	26
0841	TR95030	17669	07/23/08	8:55	980		0	0	0	0	0	0	0.01	29.2	28	6.5	7.6	0.18	791	4	7	31
0841	TR88221	11081	08/18/08	11:45	320	246	0.24	0.24	0.24	1.24	1.24	1.24	1.25	27.5	26	6.6	7.7	0.22	696	4	0.5	
0841	TR95058	17669	08/20/08	10:05	20000		0.32	0.66	0.71	0.71	0.71	1.98	1.98	25.5	24	7	7.1		434	4	0.5	60
0841	TR95130	17669	09/24/08	9:30	83		0	0	0	0	0	0	0	26.2	26	6.7	7.3	0.28	748	4	7	17.9
0841	TR95077	17669	10/22/08	6:55	120		0	0	0	0	0	0	0.3	22	18	7	6.7	0.22	731	4	7	23
0841	TR88233	11081	11/10/08	11:30	31	189	0.02	0.02	0.02	0.02	0.11	0.11	0.11	18.3	18		7.7	0.4	825	4	0.5	
0841	TR95095	17669	11/19/08	9:05	120		0	0	0	0	0	0	0	15.3	11	8.5	7.6	0.25	572	3	7	20
0841	TR95113	17669	12/18/08	13:35	300		0.09	0.1	0.12	0.12	0.12	0.12	0.12	14.8	15	9.3	7.1	0.19	641	4	2	38
0841	TR95138	17669	01/14/09	8:45	730		0	0	0	0	0	0	0	10.9	20	6.3	7.6	0.33	580	4	2	15
0841	TR88245	11081	02/11/09	10:35	200	946	0.43	0.43	0.82	0.82	0.82	0.82	0.82	15.7	21	8.5	7.4	0.082	634	4	1	
0841	TR95157	17669	02/18/09	9:05	160		0	0	0	0	0	0	0	15.5	16	8	7.5	0.2	623	4	3.5	23
0841	TR95179	17669	03/18/09	8:50	65									12.5	14	8.5	7.2	0.28	494	4	4	26
0841	TR95200	17669	04/15/09	10:00	200		0	0	0	1.32	1.32	1.32	1.32	18	18	7.3	7.5	0.2	564	4	4	36
0841	TR95221	17669	05/20/09	9:25	140		0	0	0	0.25	0.62	0.65	0.65	22.7	22	12.6	7.6	0.32	624	4	4	24
0841	TR88257	11081	05/27/09	11:45	1600	1090	0.61	0.61	0.68	0.73	0.73	0.73	0.73	25.7	25	7	7.7	0.09	620	4	1	
0841	TR95242	17669	06/24/09	8:45	44		0	0	0	0	0	0	0	29.4	31	4.4	7.2	0.32	747	3	7	24
0841	TR95263	17669	07/22/09	7:57	650		0	0.39	0.39	0.39	0.39	0.45	0.45	26.2	24	5.3	7.7	0.18	624	4	1	45
0841	TR95284	17669	08/19/09	8:10	29		0	0	0	0	0	0	0	28.4	27	5.2	7.9	0.33	880	4	7	23
0841	TR88269	11081	08/20/09	11:00	17	176	0	0	0	0	0	0	0	29.7	31.7	7.5	7.9	0.29	935	4	7	
0841	TR95302	17669	09/24/09	8:51	710		0	0.01	1.09	1.09	1.09	1.09	1.49	21	16	11.2	7.5	0.25	488	4	2	45
0841	TR95324	17669	10/27/09	9:40	1100		0.66	2.11	2.11	2.11	2.11	4.67	4.94	14.5	10	8.3	7.9	0.078	186	6	1	120
0841	TR88281	11081	11/04/09	10:35	95	1500	0	0	0	0	0	0.33	0.39	18.4	26	9.1	7.9		550	4	6	
0841	TR95347	17669	11/18/09	9:30	280		0	0	0.85	0.85	0.85	0.85	0.85	13.3	10.6	8.3	6.5	0.27	541	4	6	
0841	TR95369	17669	12/22/09	9:00	24		0	0	0	0	0	0	0	12.6	14	9.6	7.3	0.44	714	4	7	7.9
0841	TR95392	17669	01/27/10	8:46	35		0	0	0	0.08	0.08	0.08	0.08	13.6	11	9.2	7.7	0.49	763	4	4	8.5
0841	TR95554	17669	02/17/10	9:40	91		0	0	0	0	0	0.6	1.13	6.5	4	11.4	7.8	0.15	469	4	5	34.8
0841	TR88293	11081	02/23/10	10:35	87	1470	0	0.05	0.06	0.06	0.06	0.06	0.06	9.6	3	11.3	7.9	0.26	646	4	2	
0841	TR95430	17669	03/24/10	9:15	100		0	0	0	0.11	1	1	1	14.5	17	6.6	7.8	0.22	383	4	3	30.5
0841	TR95452	17669	04/28/10	10:06	42		0	0	0	0	0.47	0.47	0.47	20.1	19	5.6	7.8	0.25	468	5	4	63.1
0841	TR88305	11081	05/18/10	10:59	4900	2840	0.96	0.96	0.96	1.75	1.82	1.82	1.82	23.6	27	6.9	7.8	0.11	488	5	1	
0841	TR95473	17669	05/25/10	9:25	55		0	0	0	0	0.93	0.93	0.93	25	26	5.3	7.8	0.15	449	4	5	65
0841	TR95485	17669	06/22/10	10:40	31		0	0	0	0	0	0	0	29.3	33	5.1	7.8	0.28	881	4	7	39
0841	TR95513	17669	07/20/10	8:50	550		0	0.02	0.02	0.02	0.02	0.02	0.02	29.3	28	2.4	7.7	0.22	629	4	2	39
0841	TR88317	11081	08/17/10	11:15	27	184	0.01	0.01	0.01	0.01	0.01	0.01	0.01	31.8	33.8	7.1	7.8	0.24	1110	3	7	
0841	TR95533	17669	08/26/10	9:20	1800		0.12	1.34	1.34	1.34	1.34	1.34	1.34	25.6	25	3.7	7.8	0.14	1110	6	1	95
0841	TR95575	17669	09/22/10	9:10	53		0.01	0.01	0.01	0.01	0.01	0.01	0.01	27	26	3.7	7.8	0.3	347	4	2	50
0841	TR95595	17669	10/20/10	8:45	37		0	0	0	0	0	0	0	23.4	18	5.1	8	0.33	430	4	7	25

0841	TR88329	11081	11/09/10	10:45	39	256	0	0	0	0	0	0.04	2.17	18.7	24	8.3	7.7	0.35	775	4	7	
0841	TR95618	17669	11/18/10	8:30	73		0	0	0.04	0.04	0.04	0.18	0.18	13.4	7	6.6	7.9	0.37	736	4	3	21.4
0841	TR95639	17669	12/16/10	10:10	56		0	0	0	0	0	0	0	15.4	8	9.1	7.8	0.34	842	4	7	23.8
0841	TR95647	17669	01/20/11	10:00	42		0.05	0.05	0.05	0.05	0.33	0.39	0.39	13.3	0	10.1	7.6	0.35	757	4	0.5	22.4
0841	TR95669	17669	02/22/11	12:15	20		0	0	0	0	0	0	0	18	15	7.8	7.2		817	4	7	8.21
0841	TR88362	11081	02/22/11	11:35	22	251	0	0	0	0	0	0	0	17.2	15.5	9.2	7.8	0.37	920	4	7	
0841	TR95691	17669	03/23/11	9:40	96		0	0	0	0	0	0	0	21.1	21	8.3	7.6	0.29	844	4	15	22.9
0841	TR95713	17669	04/27/11	9:30	150		0	0	0.53	0.56	0.56	0.58	0.58	21.5	18	6	7.7	0.2	669	4	2	41.7
0841	TR88394	11081	05/11/11	10:30	480	524	0.01	0.01	0.01	0.01	0.01	0.01	0.01	24.5	27.5	7.2	7.7	0.19	770	4	1	
0841	TR95735	17669	05/25/11	12:40	3500		1.34	1.34	2.26	2.26	2.71	2.74	2.74	25.6	29	5.5	7.1	0.07	437	4	0	190
0841	TR95757	17669	06/21/11	10:00	7300		1.4	1.4	1.4	1.4	1.4	1.4	1.4	25.8	27	13.7	7.5	0.05	609	4	0	450
0841	TR95775	17669	07/19/11	11:40	37		0	0	0	0	0	0	0	30.4	34	6.3	7.8	0.3	880	4	29	28
0805	R178055	10924	06/11/98	10:15	26									27		6.9	7.5	0.2	614	4		
0805	TR60395	17161	10/04/00	10:02	220	356	0	0	0	0	0	0	0	26.2		7	7.8		830	3	10	13
0805	R193603	10925	02/01/01	11:00	340	5220	0	0	0	0.82	0.82	0.86	0.86	9.9		9.1	7.8	0.2	461	4	4	
0805	TR60033	10925	02/20/01	9:10	2400	16300	0	0	0	0	1.51	1.71	1.71	11.4	20	9.5	7.6		378	5	4	
0805	TR60034	10934	02/20/01	10:40	1700		0	0	0	0	3.88	4.17	4.17	13	22.2	9.6	7.5		543	4	4	
0805	TR60035	10937	02/20/01	11:25	2400	2040	0	0	0	0	4.94	5.22	5.22	13.5	24.4	10.2	7.7		547	5	4	
0805	R201440	10932	02/21/01	11:05	980	7500	0	0	0	0	0.02	3.37	3.83							5	5	
0805	R201433	10930	02/21/01	10:30	1400	2850	0	0	0	0	1.24	1.57								5	5	
0805	R194769	10924	02/26/01	8:55	770	15000	0	0.77	0.93	1.1	1.1	1.1	1.1	12.4		9.8	7.5		401	6	5	0.1
0805	R194243	10925	03/07/01	11:30	160	15100	0	0	0	0.49	0.52	0.55	0.95	12.8		10.3	7.7	0.1	390	5	4	
0805	TR60041	10937	03/26/01	10:30	580	6060	0	0.04	0.32	0.32	0.32	0.32	0.32	13.4	11.1	9.8	7.8		441	5	2	
0805	TR60040	10934	03/26/01	11:50	1000	10400	0	0	0.2	0.2	0.2	0.2	0.2	13.6	13.9	8.9	7.6		427	5	2	
0805	TR60039	10925	03/26/01	13:50	770	17500	0	0	0.47	0.47	0.47	0.47	0.47	13.6	17.8	9.3	7.8		370	5	2	
0805	TR60044	10937	04/17/01	12:00	200	4300	0	0	0	0.03	0.03	0.03		17.2		9.4	8		397	5		
0805	TR60046	10925	04/17/01	10:10	130	7770	0	0	0	0	0.11	0.11		17.7		8.8	7.8		428	4		
0805	TR60045	10934	04/17/01	11:05	130		0.01	0.01	0.01	0.01	0.01	0.01	0.61	18.4		9	7.8		417	4		
0805	TR60049	10937	05/16/01	11:00	86	2660	0	0	0	0	0.08	0.08	0.08	22.7		9	8		422	5	5	
0805	TR60051	10925	05/16/01	13:15	110	5680	0	0	0	0	0.1	0.1	0.1	24.2		8.2	8		434	4	5	
0805	TR60050	10934	05/16/01	12:00	110		0	0	0	0	0.33	0.33	0.33	22.8		8.6	7.8		441	4	5	
0805	R195214	10924	05/21/01	9:30	33	2000	0	0	0	0	0	0	0	24.7		7.5	7.5	0.2	508	5	5	
0805	TR60056	10937	06/12/01	12:00	64	691	0	0	0	0	0	0	0	28.4		7.8	7.9		721			
0805	TR60057	10934	06/12/01	11:15	220		0	0	0	0	0	0	0	28.8		7.3	7.7		712			
0805	TR60058	10925	06/12/01	10:00	11	1210	0	0	0	0.98	0.98	0.98	0.98	29.1		7.2	7.9		728			
0805	TR60061	10937	07/09/01	11:35	40	487	0	0	0	0	0	0	0	30		7.7	7.9		760	4		
0805	R196364	10925	07/09/01	10:40	18	1110	0	0	0	0	0	0	0	30.4		5.7	7.8	0.2	644	3	7	
0805	TR60063	10925	07/09/01	14:00	29	1110	0	0	0	0	0	0	0	32.1		7.2	7.9		642	4		
0805	TR60062	10934	07/09/01	12:35	170		0	0	0	0	0	0	0	30.3		7.3	7.5		695	4		
0805	TR60073	10934	08/13/01	11:45	4800		0	0.34	0.34	0.34	0.34	0.34	0.34	30.9		5.6	7.5		796	4	2	
0805	TR60074	10925	08/13/01	10:30	22	1040	0	0	0	0	0	0	0	30.9		6.6	7.9		749	4	2	
0805	TR60072	10937	08/13/01	12:25	200	459	0.07	0.46	0.46	0.46	0.46	0.46	0.46	30.6		6.8	7.7		813	4	2	
0805	TR60078	10934	09/17/01	12:10	2000		0	0	0	0	0	0	0	28		7.2	7.6	0.24	622			
0805	TR60077	10937	09/17/01	11:15	260	549	0	0	0	0	0	0	0	27.8		7.2	7.7	0.34	695			
0805	TR60079	10925	09/18/01	13:40	35	1200	0	0	0.3	0.3	0.3	0.3	0.3	28.3		8	7.9	0.16	685			
0805	R198210	10925	09/24/01	10:50	43	1180	0	0	0	0.21	0.21	0.33	0.33	26.1		7.6	8	0.2	510	4	1	
0805	R199025	10924	10/04/01	11:00	20	1000	0	0	0	0	0	0	0	23.6		8.8	8	0.3	720	4	10	
0805	TR60084	10937	10/15/01	10:55	500	763	0	0	1.25	1.25	3.12	3.12	3.12	21.6		7.8	7.6	0.19	577	4	2	

0805	TR60085	10934	10/15/01	10:15	870		0	0	0.7	0.74	2.3	2.3	2.3	20.9		7.3	7.4	0.15	512	4	2		
0805	TR60086	10925	10/16/01	10:35	1000	2120	0	0	0	1.99	1.99	2.39	2.39	18.4		8.4	7.8	0.08	426	4	3		
0805	R201441	10932	10/17/01	14:45	150	500	0	0	0	0	1.06	1.06	2.58								4	6	
0805	R201434	10930	10/17/01	14:15	74	1130	0	0	0	0	1.13	1.13	2.26									4	6
0805	R201442	10932	11/06/01	13:00	11	400	0	0	0	0	0	0	0									4	7
0805	R201435	10930	11/06/01	12:15	13	817	0	0														4	7
0805	TR60091	10937	11/14/01	12:00	160	571	0	0	0.1	0.18	0.18	0.34	0.34	21.1		7.8	7.7	0.23	630	4	5		
0805	TR60092	10934	11/14/01	12:45	660		0	0	0.01	0.05	0.05	0.11	0.11	20.9		7.5	7.5	0.24	636	4	5		
0805	TR60093	10925	11/15/01	14:00	76	1050	0	0	0	0	0	0	0.37	20.6		8.6	7.8	0.23	710	4	6		
0805	R201436	10930	12/05/01	13:45	26	665	0	0	0	0	0	0	0									4	1
0805	R201443	10932	12/06/01	11:05	35	500	0	0	0	0	0	0	0									4	0.5
0805	TR60099	10934	12/10/01	9:00	58		0	0	0	0	0.2	0.2	0.2	15.8	13	8.7	7.4	0.45	780	4	4		
0805	TR60098	10937	12/10/01	10:05	38	459	0	0	0	0	0.14	0.14	0.14	17.5	13.5	8.8	7.6	0.42	828	4	4		
0805	R200186	10924	12/11/01	9:40	17	1000	0	0	0	0.71	0.71	0.71	0.71	14.3		9.8	7.4	0.3	686	4	4		
0805	TR60100	10925	12/11/01	13:00	17	802	0	0	0	0.14	0.14	0.21	0.21	13.8	10.5	9.9	8	0.36	709	4	0.5		
0805	R201444	10932	01/08/02	13:30	27	475	0	0	0	0	0	0	0									4	3
0805	R201437	10930	01/08/02	13:00	28	789	0	0	0	0.02	0.02	0.02	0.02									4	3
0805	TR60106	10934	01/14/02	11:45	21		0	0	0	0	0	0	0	14.3	17	9.9	7.5	0.42	763	4	7		
0805	TR60105	10937	01/14/02	11:00	13	481	0	0	0	0	0	0	0	15.5	16	9.8	7.6		806	4	7		
0805	TR60107	10925	01/15/02	13:05	17	1100	0	0	0	0	0	0	0	12.3	20.5	11.6	8	0.3	598	4	3		
0805	R200972	10925	02/04/02	10:30	2400	8840	0	0	0	0.11	0.46	0.46	0.46	10.1		10.8	7.8	0.2	387	5	4		
0805	R201445	10932	02/04/02	13:45	490	1500	0	0	0	0	1.33	1.33	1.33									5	4
0805	R201438	10930	02/04/02	12:55	1500	3570	0	0	0	0	1.55	1.55	1.55									5	4
0805	TR60113	10934	02/11/02	8:50	460		0	0	0	0	0	0.46	1.09	10.5	13	10.8	7.7	0.11	569				
0805	TR60112	10937	02/11/02	9:40	2000	1390	0	0	0	0	0	0.44	1.04	10.6	8	11.2	7.8	0.17	566				
0805	TR60114	10925	02/12/02	13:00	200	2640	0	0	0	0	0	0	0.38	12	20	10.6	7.8	0.12	625				
0805	TR60120	10934	03/11/02	13:25	240		0	0	0.05	0.05	0.05	0.05	0.05	15.8	16	10.2	7.6		775				
0805	TR60119	10937	03/11/02	11:10	57	537	0	0	0.1	0.1	0.1	0.1	0.1	16.5	13.5	10.3	7.8		849				
0805	TR60121	10925	03/12/02	12:50	40	1040	0	0	0	0	0	0	0	15.7	22	11.1	8	0.4	727				
0805	R201446	10932	03/13/02	13:25	17	500	0	0	0	0	0.11	0.11	0.11									4	7
0805	R201439	10930	03/13/02	12:55	8	888	0	0	0	0	0	0	0									4	7
0805	NAWQA1	10934	03/26/02	9:30	160	4030	0	0	0	0	0	0.02	1.11	13.6		9.8	7.8		447				
0805	TR60127	10934	04/08/02	11:15	4800		1.08							15.7	21	8.1	7.5	0.04	318	6	0.5		
0805	TR60126	10937	04/08/02	12:15	4800	24300	2.01							16.5	24.5	8.9	8	0.03	267	6	1		
0805	TR60128	10925	04/09/02	14:45	3500	24400	0	0.82						17	27	7.6	7.9	0.04	320	6	2		
0805	R201754	10925	04/09/02	10:45	2000	24400	0	0.82						16.8		8	7.7	0.1	304	5	2		
0805	R201595	10930	04/11/02	13:25	100	12500	0	0	0	1.27												5	3
0805	R201596	10932	04/11/02	14:00	94	5500	0	0	0	1.06												5	3
0805	R201803	10930	05/06/02	11:45	290	10900	0	1.17	1.17	1.83	1.83	1.85										5	1
0805	R201804	10932	05/06/02	12:20	320	16300	0	1.97	1.97	2.56	2.56	2.56	2.58									5	1
0805	R202231	10924	05/09/02	9:45	460	7700	0	0	0	0	0.02	0.02	1.22	23.7		6.4	7.6	0.1	375	5	6		
0805	TR60133	10937	05/13/02	12:30	980	6120	1.2	1.2	1.2	1.6	1.81	1.81	1.81	22.4	17	8.2	7.9		413	5	0.5		
0805	TR60134	10934	05/13/02	14:30	2800		0.41	0.41	0.41	0.89	0.91	0.91	0.91	22.6	24	7.9	7.8	0.09	408	5	0.5		
0805	TR60135	10925	05/14/02	14:25	1400	12200	0	0.2	0.2	0.2	1.62	1.62	1.62	22.2	29	7.7	7.8	0.06	392	5	2		
0805	R202294	10932	06/03/02	12:40	26	800	0	0	0	0	0	0.68	0.82									4	7
0805	R202293	10930	06/03/02	12:00	12	1170	0	0	0	0												4	7
0805	TR60141	10934	06/10/02	11:40	1500		0.06	0.09	0.09	0.09	0.09	0.09	0.09	26.3	32	7.3	7.7	0.15	531	4	6		
0805	TR60140	10937	06/10/02	12:15	120	1300	0	0	0	0	0	0.04	0.04	26.3	32	8	7.8	0.2	540	4	6		

0805	TR60142	10925	06/11/02	14:45	49	2250	0	0.17	0.63	0.63	0.63	0.63	0.63	28.8	37	7.4	7.9	0.1	570	4	7	
0805	R202693	10930	07/01/02	11:45	620	3200	0.61	0.7	0.7	0.7	1.21	1.21	1.21							5	0.5	
0805	R202694	10932	07/01/02	12:30	380	2200	0.75	0.87	1.03	1.03	1.17	1.17	1.17							5	0.5	
0805	TR60147	10937	07/08/02	11:55	200	642	0	0	0	0	0.06	1.12	1.28	29.2	34.5	7.4	7.7	0.2	598	4	3	
0805	TR60148	10934	07/08/02	12:45	270		0	0	0	0	0.17	0.92	1.14	29.6	37	6.8	7.4	0.18	544	4	3	
0805	TR60149	10925	07/09/02	13:50	160	1180	0	0	0	0	0	0	0.48	31.2	41	7.1	7.9		522	4	4	
0805	R204295	10924	07/11/02	9:45	8	1000	0	0	0	0	0	0	0	31		7.1	7.9		533	4	5	
0805	R203327	10925	07/29/02	12:10	8	786	0	0	0	0	0	0	0	29.5		8.1	8.1	0.2	694	3	7	
0805	R203469	10930	08/05/02	12:00	3	569	0	0	0	0	0	0	0							4	7	
0805	R203470	10932	08/05/02	12:25	12	450	0	0	0	0	0	0	0							4	7	
0805	TR60154	10937	08/05/02	12:35	56	466	0	0	0	0	0	0	0	30.1	35	7.4	7.7		771	4	7	
0805	TR60155	10934	08/05/02	11:40	51		0	0	0	0	0	0	0	30.1	34.5	6.9	7.6	0.3	736	4	7	
0805	TR60156	10925	08/06/02	14:00	4	741	0	0	0.02	0.02	0.02	0.02	0.02	31.5	39	8.2	8.2	0.16	689	4	7	
0805	NAWQA2	10934	08/20/02	11:00	2700	340	0	0	0	0	0	0.01	0.01	29.6		7.6	7.3		667			
0805	R204820	10930	09/09/02	12:00	210	1220	0.04	0.47	0.47	0.47	0.47	0.47	0.47							5	0.5	
0805	R204821	10932	09/09/02	12:30	290	1200	0.08	0.26	0.26	0.26	0.26	0.26	0.26							5	0.5	
0805	TR60161	10937	09/10/02	13:50	360	799	0	0.69	0.77	0.77	0.77	0.77	0.77	28.2	34.5	7.2		0.21	554	4	3	
0805	TR60162	10934	09/10/02	14:40	430		0	0.2	0.39	0.39	0.39	0.39	0.39	28.2	39	7.7		0.16	504	4	3	
0805	TR60163	10925	09/11/02	15:05	250	1570	0	0	0.02	0.53	0.53	0.53	0.53	28.7	42	7.2	7.6	0.1	564	4	4	
0805	TR87037	10925	10/01/02	14:55	39	856	0	0	0	0	0	0	0	27.2	36	7.8	7.8		724	4		
0805	TR87036	10929	10/01/02	13:05	19		0	0	0	0	0	0	0	27.1	33	6.9	7.5		722	4		
0805	R205456	10930	10/07/02	12:30	1100	1450	1.03	1.03	1.03	1.03	1.03	1.03	1.03							5	0.5	
0805	TR60168	10937	10/07/02	12:30	4800	945	0.36	0.36	0.36	0.36	0.36	0.36	0.36	25.2	23.5	6.7	7.5	0.07	585	4	0.5	
0805	TR60169	10934	10/07/02	11:50	4800	1190	1.44	1.44	1.44	1.44	1.44	1.44	1.44	24.9	24	5.5	7.4	0.09	393	4	0.5	
0805	TR60170	10925	10/08/02	14:15	4800	2030	0.03	1.76	1.76	1.76	1.76	1.76	1.76	24.5	27	7.3	7.6	0.06	636	4	0.5	
0805	R206166	10930	11/04/02	12:10	65	1770	0	0	0.04	0.04	0.04	0.04	0.25							4	2	
0805	TR60175	10937	11/11/02	10:25	17	571	0	0	0	0	0	0	0.03	19.8	22.5	8.7	7.6	0.46	717	4	7	
0805	TR60176	10934	11/11/02	11:10	50	813	0	0	0	0	0	0	0.03	19.9	24	8.5	7.5	0.45	675	4	7	
0805	TR60177	10925	11/12/02	12:15	8	942	0	0	0	0	0	0	0	18.8	22	10.1	7.8	0.31	675	4	7	
0805	TR60183	10934	12/09/02	9:15	4800	4190	1.16	1.16	1.16	1.16	1.16	1.95	1.95	13.3	14	9.8	7.4	0.07	507	5	0.5	
0805	TR60182	10937	12/09/02	9:55	2600	4330	1.27	1.27	1.27	1.27	1.27	1.79	1.87	11.2	11	10.6	7.4	0.07	377	5	0.5	
0805	R206875	10930	12/10/02	13:15	870	6600	0.01	0.88	0.88	0.88	0.88	0.88	1.12							5	1	
0805	TR60184	10925	12/10/02	12:25	2200	9630	0.01	1.24	1.24	1.24	1.24	1.24	1.43	11.3	17	9.7	7.3	0.04	268	5	1	
0805	R207695	10930	01/08/03	12:30	34	793	0	0	0	0	0	0	0							4	7	
0805	TR60189	10937	01/13/03	11:15	1000	1340	0.09	0.12	0.12	0.12	0.12	0.12	0.12	10	8.5	11.2	7.5	0.19	569	4	1	
0805	TR60190	10934	01/13/03	13:20	230	1820	0.06	0.17	0.17	0.17	0.17	0.17	0.17	10.8	12	10.9	7.3		579	4	1	
0805	TR60191	10925	01/14/03	12:45	600	2150	0	0.22	0.42	0.42	0.42	0.42	0.42	12.1	16	10.5	7.6	0.17	721	4	2	
0805	TR60196	10937	02/03/03	10:20	24	571	0	0	0	0	0	0	0	17.8	14	9.5	7.4	0.6	844	4	7	
0805	TR60197	10934	02/03/03	9:35	46	595	0	0	0	0	0	0	0	17.2	15.5	9.1	7.2	0.6	797	4	7	
0805	TR60198	10925	02/04/03	12:40	160	1010	0	0.03	0.03	0.03	0.03	0.03	0.03	15	19	11.1	7.8		764	4	7	
0805	R208368	10930	02/13/03	11:30	17	589	0	0	0	0	0.07	0.07	0.07							4	7	
0805	TR60203	10937	03/10/03	11:45	24	1830	0	0	0	0	0	0	0	11.5	15	11.3	7.9	0.22	498	5	7	
0805	TR60204	10934	03/10/03	12:30	24	2290	0	0	0	0	0	0	0	12.4	17.5	10.8	7.6	0.23	525	4	7	
0805	TR60205	10925	03/11/03	12:45	34	3000	0	0	0	0	0	0	0	14	24	10.4	8	0.15	543	4	7	
0805	R209004	10930	03/17/03	12:00	9	1500	0	0	0	0	0.02	0.02	0.02							4	7	
0805	TR60210	10937	04/07/03	12:25	4800	2520	0							18.6	18.5	8.4	7.7	0.07	503	4	2	
0805	TR60211	10934	04/07/03	10:45	4800	2590	0							18.6	20.5	7.3	7.6	0.06	512	4	2	
0805	TR60212	10925	04/08/03	14:00	2100	4290	0	0						17.5	17	8.8	8.1	0.04	478	4	3	

0805	R209589	10930	04/10/03	12:15	43	800	0	0	0	0									4	4	
0805	R210139	10930	05/07/03	13:40	38	480	0.1	0.1	0.35	0.35	0.35	0.35	0.35						4	7	
0805	TR60218	10934	05/12/03	13:50	72	753	0	0	0	0	0	0	0	25	32.5	8.9	7.6	0.25	780	4	7
0805	TR60217	10937	05/12/03	12:00	46	740	0	0	0	0	0	0	0	24.5	28	8.6	7.7	0.25	830	4	7
0805	TR60219	10925	05/13/03	13:50	27	820	0.11	0.11	0.11	0.11	0.11	0.11	0.14	25.7	33	8.9	8.2	0.17	775	4	7
0805	TR60225	10934	06/03/03	10:40	69	760								27.5	32	7.1	7.5		744	4	7
0805	TR60224	10937	06/03/03	11:30	38	741	0	0	0	0	0	0	0	27.3	31.5	7.7	7.7		832	4	7
0805	R210916	10930	06/03/03	12:10	17	400	0	0	0	0	0	0	0							4	7
0805	TR60226	10925	06/04/03	13:50	47	756	0	0	0	0	0	0	0	27.8	35	9.6	8.4		726	4	7
0805	R211228	10930	07/01/03	11:15	8	290	0.23	0.23	0.23	0.23	0.23	0.76	0.76							4	5
0805	TR60231	10937	07/07/03	12:45	110	656	0.04	0.04	0.04	0.04	0.04	0.04	0.04	28.7	33	7.5	7.8		656	4	1
0805	TR60232	10934	07/07/03	15:05	1300	918	0.01	0.01	0.06	0.06	0.06	0.37	0.37	29.3	37	7.1	7.6		673	4	1
0805	TR60233	10925	07/08/03	13:45	54	988	0	0	0	0.47	0.47	0.47	0.47	30.2	36	7.5	8		660	4	2
0805	TR60239	10934	08/05/03	11:10	60	476	0	0	0	0	0	0	0	29.3	34	6.8	7.5		763	4	7
0805	TR60238	10937	08/05/03	12:50	24	465	0	0	0	0	0	0	0	29.5	35	7.3	7.7		798	4	7
0805	TR60240	10925	08/06/03	13:25	13	658	0	0	0	0	0	0	0.02	31.1	40	7.4	7.9		772	4	7
0805	R211810	10930	08/13/03	12:00	580	1500	0.01	0.14	0.19	0.32	0.36	0.4	0.4							5	0.5
0805	TR60246	10934	09/08/03	10:50	43	701	0	0	0	0	0	0	0	26.9	30	9.4	7.5		684	4	7
0805	TR60245	10937	09/08/03	11:40	40	476	0	0	0	0	0	0	0.18	27.4	31	8	7.7		743	4	7
0805	TR60247	10925	09/09/03	14:20	22	754	0	0	0	0	0	0	0	28.2	36	10	8.2		671	4	7
0805	R212966	10930	09/23/03	11:00	34	600	0	0	0	0	0.36	0.36	0.36							4	4
0805	TR60252	10937	10/06/03	11:35	1800	1250	0.01	0.22	0.22	0.22	0.22	0.22	0.22	24.2	25	8.2	7.8		665	4	0.5
0805	TR60253	10934	10/06/03	13:05	8700	1690	0.05	0.44	0.44	0.44	0.44	0.44	0.44	24.1	26	8.6	7.6		612	4	0.5
0805	TR60254	10925	10/07/03	13:45	2400	1810	0	0.17	0.71	0.71	0.71	0.71	0.71	23.9	31	8.4	7.9		625	4	1
0805	R213617	10930	10/29/03	11:50	60	200	0	0	0.02	0.02	0.02	0.02	0.02							4	7
0805	TR60260	10934	11/10/03	10:45	1200	1900	0	0.06	0.64	0.81	0.81	0.81	0.81	16.9	22	8.6	7.9	0.11	500	4	2
0805	TR60259	10937	11/10/03	11:35	820	1090	0	0.16	0.65	1.28	1.28	1.28	1.28	16.9	22.5	9.1	7.7	0.15	502	4	2
0805	TR60261	10925	11/11/03	13:40	520	1470	0	0	0.02	0.11	0.25	0.25	0.25	18.2	29	9	7.9	0.1	481	4	3
0805	R213984	10930	11/20/03	11:45	140	1100	0	0.02	1.41	1.46	1.46	1.46	1.46							5	3
0805	R214536	10930	12/10/03	12:15	17	400	0	0.01	0.01	0.01	0.01	0.01	0.01							4	7
0805	TR60266	10937	12/15/03	10:45	440	672	0	0	1.32	1.32	1.32	1.32	1.32	13.5	20	10.1	7.6		600	4	3
0805	TR60267	10934	12/15/03	10:05	580	1160	0	0	1.13	1.13	1.13	1.13	1.13	12	19	9.9	7.5	0.2	533	4	3
0805	TR60268	10925	12/16/03	14:00	170	1290	0	0	0	0.72	0.72	0.72	0.72	11.3	13	10.7	8	0.1	527	4	4
0805	TR60273	10937	01/12/04	12:00	27	516	0	0	0	0	0	0	0	15.5	19	10.1	7.7	0.47	770	4	2
0805	TR60274	10934	01/12/04	13:00	24	688	0	0	0	0	0	0	0	14.4	21	10.2	7.6	0.53	740	4	2
0805	TR60275	10925	01/13/04	14:00	10	926	0	0	0	0	0	0	0	14.2	25	11.4	8	0.33	750	4	1
0805	R214928	10930	01/15/04	10:00	12	700	0	0	0	0	0	0	0							4	7
0805	R215365	10930	02/02/04	12:15	96	1800	0.25	0.25	0.25	0.25	0.25	0.25	0.25							5	0.5
0805	TR60281	10934	02/16/04	10:15	210	1830	0	0.02	0.22	0.22	0.43	1.08	1.08	10.2	17	10.3	7.5		600	4	2
0805	TR60280	10937	02/16/04	11:00	65	965	0	0	0.25	0.25	0.51	1.21		10.8	16	10.6	7.7	0.33	610	4	2
0805	TR60282	10925	02/17/04	14:00	73	2370	0	0	0	0.16	0.17	0.27	1.07	11.5	23	10.9	8	0.15	580	4	3
0805	TR60288	10934	03/08/04	13:00	620	2520	0	0	0	0.63	0.67	0.89	0.89	16.3	26	9.5	7.7	0.14	570	4	4
0805	TR60287	10937	03/08/04	11:05	920	1830	0	0	0	0.99	1	1	1	15.8		9.8	7.9	0.15	550	4	4
0805	R216509	10930	03/09/04	12:15	80	2400	0	0	0	0	0.52	0.57	0.84							5	4
0805	TR60289	10925	03/09/04	13:50	190	3340	0	0	0	0	0.38	0.45	0.54	16.9	24	9.8	8	0.1	580	4	5
0805	TR60294	10934	04/12/04	9:45	1200	1220	0.09	0.09	0.09	0.09	0.09	0.09	0.21	17.4	15	8.1	7.8	0.28	780	4	0.5
0805	TR60293	10937	04/12/04	10:30	85	698	0.2	0.2	0.2	0.2	0.2	0.2	0.35	18.2	16	8.5	7.7	0.19	740	4	0.5
0805	TR60295	10925	04/13/04	13:25	280	1460	0	0.13	0.18	0.18	0.18	0.18	0.22	17.8	26	9.6	8	0.2	730	4	1

0805	R234129	10930	06/19/06	11:30	730	3000	0	1.45	1.58	1.58	1.58	1.58	1.58								4	2
0805	TR88051	10925	07/10/06	10:10	87	803	0	0	0	0	0.23	0.26	0.33	28.9	30	8.5	7.8	0.1	584	4	7	
0805	TR88049	10934	07/10/06	11:10	780	872	0	0	0	0	0	1.04	1.04	29.3	33	9.3	7.5	0.2	626	4	7	
0805	TR88048	10937	07/11/06	14:30	76	451	0	0.31	0.31	0.31	0.31	0.32	0.7	29.9	32	9.2	8	0.3	770	4	7	
0805	R235252	10930	07/12/06	10:40	13	830	0	0	0.02	0.02	0.02	0.02	0.06								4	3
0805	R235997	10930	08/03/06	10:15	5	730	0	0	0	0	0	0	0								4	7
0805	TR88056	10937	08/08/06	14:45	2800	629	1.39	1.94	1.94	1.94	1.94	1.94	1.94	31	36	7.1	7.8	0.2	671	4	1	
0805	TR88057	10934	08/09/06	11:45	2400	839	0	0	0.27	0.27	0.27	0.27	0.27	30.7	38	9.3	7.5	0.3	669	3	2	
0805	TR88059	10925	08/09/06	12:45	230	911	0	0.05	0.28	0.28	0.28	0.28	0.28	31.2	39	8.2	7.7	0.1	756	4	2	
0805	TR88064	10937	09/05/06	15:05	2400	2130	0.31	1.04	1.05	1.05	1.05	1.05	1.05	26.7	29.5	5.5	7.7	0.05	411	5	1	
0805	TR88067	10925	09/06/06	10:30	820	2510	0	0.56	0.56	0.56	0.56	0.56	0.56	25.6	30	6.4	7.6	0.04	574	5	2	
0805	TR88065	10934	09/06/06	11:55	650	1610	0	0.23	0.92	0.92	0.92	0.92	0.92	26.2	29	6.2	7.6	0.12	466	4	2	
0805	10013722	10930	09/14/06	10:40	65	950	0	0	0.08	0.08	0.08	0.08	0.08								5	2
0805	TR88073	10934	10/16/06	14:30	18000	8250	3.33	3.41	3.41	3.41	3.41	3.41	4.04	20.5	25.5	6.9	7.9	0.03	277	5	0.5	
0805	TR88075	10925	10/16/06	13:35	3700	5110	1.17	1.18	1.2	1.2	1.2	1.2	2.73	22.4	22	7.3	7.7	0.02	606	5	0.5	
0805	TR88072	10937	10/17/06	14:00	1900	8920	0	2.69	2.92	2.92	2.92	2.92	2.92	21	30	7.8	7.6	0.07	350	5	1	
0805	10013782	10930	10/26/06	10:45	62	850	0.1	0.17	0.17	0.17	0.17	0.17	0.17								4	1
0805	TR88081	10934	11/06/06	11:20	13000	3390	1.27	1.27	1.27	1.27	1.27	1.33	1.33	19.6	16.5	7.4	7.7	0.08	575	5	0.5	
0805	TR88083	10925	11/06/06	10:24	98	2530	1.43	1.43	1.43	1.43	1.43	1.47	1.47	18.2	18	8.9	7.7	0.15	817	5	0.5	
0805	TR88080	10937	11/07/06	14:10	24000	3230	0	0.89	0.89	0.89	0.89	0.89	0.92	18	25	7.2	7.6	0.06	407	5	2	
0805	10013816	10930	11/28/06	12:45	18	950	0	0	0	0	0	0	0								4	7
0805	TR88090	10937	12/12/06	14:30	46	437	0							18.1	22	9	7.6	0.37	810	4	3	
0805	TR88091	10934	12/18/06	11:40	88	918	0	0	0	0	0	0	0	19.9	25.5	7.9	7.4	0.37	778	4	7	
0805	TR88093	10925	12/18/06	10:30	13	976	0	0	0	0	0	0	0	18.4	22.5	9	7.7	0.26	816	4	7	
0805	TR88100	10937	01/09/07	15:25	46	575	0	0	0	0	0	1	1	14.8	10	9.8	7.7	0.28	749	4	3	
0805	TR88101	10934	01/09/07	14:45	120	1250	0	0	0	0	0	1.1	1.1	14.4	10	9.8	7.5	0.21	678	4	3	
0805	TR88103	10925	01/09/07	13:45	73	1450	0	0	0.28	0.28	0.28	1.14	1.21	12.8	9.5	10.4	7.8	0.11	656	4	3	
0805	10014020	10930	01/24/07	10:50	52	2400	0	0	0	0.55	0.87	0.87	0.87								5	3
0805	TR88110	10937	02/05/07	14:30	60	1120	0	0	0	0.25	0.37	0.56	0.56	12.6	17	10.8	7.7	0.36	726	4	3	
0805	TR88111	10934	02/05/07	13:55	330	1630	0	0	0	0.22	0.33	0.38	0.38	9.8	18	11.8	7.6	0.15	599	4	3	
0805	TR88113	10925	02/05/07	12:55	60	1540	0	0	0	0.26	0.55	0.65	0.65	10.7	24	11.6	7.8	0.18	671	4	3	
0805	10014054	10930	02/13/07	11:30	32	1100	0.06	0.07	0.07	0.07	0.07	0.07	0.07								4	1
0805	TR88120	10937	03/13/07	16:00	170	1470	0	0.22						20.9	25	8.4	7.6	0.4	979	4	1	
0805	TR88121	10934	03/13/07	15:06	300	1570	0	0.23						21	27	7.8	7.4	0.35	856	4	1	
0805	TR88123	10925	03/13/07	14:05	10	1130	0	1.18						21	30	9.5	7.9	0.23	895	4	1	
0805	TR88130	10937	04/09/07	13:15	110	1900	0	0	0	0	0	0.14	0.14	15.4	16	9.9	8	0.19	590	6	2	
0805	TR88133	10925	04/10/07	13:45	160	2820	0.01	0.01	0.02	0.04	0.04	0.04	0.04	15.5	20	9.1	7.9	0.12	601	4	3	
0805	TR88131	10934	04/10/07	14:50	100	2370	0	0	0	0	0	0	0.02	16	20	9.1	7.8	0.2	625	4	3	
0805	TR88143	10925	05/07/07	14:00	920	2460	0	0	0	0	2.09	2.54	3.6	24.6	36	8.1	7.8	0.072	535	4	2	
0805	TR88141	10934	05/07/07	15:05	1400	2240	0	0	0	0.02	0.89	0.9	1.15	24.4	30	8.2	7.6	0.14	559	4	2	
0805	10014296	10930	05/07/07	12:05	120	2300	0	0	0	0	0.74	0.81	1.14								4	5
0805	TR88140	10937	05/08/07	13:45	9700	3430	0.2	0.2	0.2	0.2	0.22	1.05	1.05	24	30	8	7.7	0.03	456	5	0.5	
0805	TR88150	10937	06/04/07	13:30	1200	9750	0	1.1	1.78	1.78	1.78	3.06	3.16	24.1	30	10.2	7.7	0.12	408	5	1	
0805	TR88151	10934	06/05/07	14:50	3100	11500	0.32	0.32	1.3	2.18	2.18	2.38	3.82	24.6	35	12	7.6	0.066	407	5	2	
0805	TR88153	10925	06/05/07	13:50	1200	19200	0.14	0.14	0.95	1.71	1.71	1.74	2.46	24.2	34	9.7	7.6	0.065	417	5	2	
0805	TR88161	10934	07/09/07	15:00	4800	13100	0	0	0	0.03	0.9	0.98	1.16	28	34	9.2	7.7	0.12	413	6	0.5	
0805	TR88163	10925	07/09/07	14:05	520	20100	0	0	0					27.9	37	8.1	7.6	0.08	414	5	0.5	
0805	TR88160	10937	07/10/07	13:45	4800	11000	0	0.02	0.02	0.02				27.6	33	9.6	7.8	0.12	405	6	1	

0805	TR88170	10937	08/06/07	14:10	52	5750	0	0	0	0.04	0.28	0.34	0.34	28.2	38	7.4	7.7	0.18	359	5		
0805	TR88173	10925	08/08/07	13:40	31	9910	0	0	0	0	0	0	0.74	28.8	39	6.7	7.7	0.08	258	5		
0805	TR88171	10934	08/08/07	14:47	40	7250	0	0	0	0	0	0	0.75	28.4	36	7	7.6	0.17	366	5		
0805	TR88183	10925	11/12/07	13:15	26	852	0	0	0	0	0	0	0.03	21.6	27		7.9	0.27	762	4	1	
0805	TR88181	10934	11/12/07	14:30	22	738	0	0	0	0	0	0	0	23.1	29		7.5	0.33	754	4	1	
0805	TR88180	10937	11/13/07	14:45	22	567	0	0	0	0	0	0	0	24.2	27	8.2	7.6	0.25	787	4	7	
0805	TR88191	10934	02/18/08	9:35	1300	3490	0	0.56	0.74	0.74	0.74	0.74	1.16	11.1	13.5		7.3	0.075	492	4	2	
0805	TR88190	10937	02/19/08	12:45	820	689	0	0	0.47	0.86	0.86	0.86	0.86	14.2	18.5	9.5	7.5	0.22	649	4	3	
0805	TR88193	10925	02/20/08	13:15	160	1520	0	0	0	0.58	0.67	0.67	0.67	13	20	10.4	8	0.1	560	4	4	
0805	TR88206	10925	05/05/08	14:45	76	7690	0	0	0	0.14	0.14	0.14	0.14	20.7	24	8.5	7.9	0.12	452	5		
0805	TR88203	10937	05/06/08	13:00	4000	5570	0.62	0.62	0.62	0.62	0.73	0.73	0.73	20.5	23	8.8	7.9	0.11	443	5	0.5	
0805	TR88204	10934	05/07/08	9:30	4800	7130	0.08	0.6	0.6	0.6	0.6	0.63	0.63	20.8	23	7.8	7.7	0.08	450	5	0.5	
0805	TR88215	10937	08/18/08	12:45	200	552	0.12	0.12	0.12	0.86	0.86	0.86	0.88	27.3	26.5	6.9	7.7	0.23	609	4	0.5	
0805	TR88218	10925	08/19/08	11:30	500	1830	0.82	0.92	0.92	0.95	2.28	2.28	2.29	28	24.5	5.6	7.6	0.03	740	4	0.5	
0805	TR88216	10934	08/20/08	9:45	4400	4040	2.89	3.61	3.66	3.66	3.66	4.57	4.57	26.1	27	6.2	7.5	0.1	395	4	0.5	
0805	TR88227	10937	11/10/08	12:35	84	438	0.24	0.24	0.24	0.24	0.5	0.5	0.5	19.7	18		7.6	0.49	734	4	0.5	
0805	TR88230	10925	11/11/08	14:05	660	5930	3.17	3.25	3.25	3.25	3.25	3.32	3.32	19.2	27	8.8	7.6	0.03	333	4	0.5	
0805	TR88228	10934	11/12/08	10:00	4600	11700	0	2.48	2.55	2.55	2.55	2.55	2.59	17.5	18	6.4	7.5	0.05	320	5	2	
0805	TR88242	10925	02/10/09	13:25	15	1390	0	0.51	0.51	0.51	0.51	0.51	0.51	17	25	9.8	7.7	0.19	794	4	0.5	
0805	TR88239	10937	02/11/09	11:20	2800	1790	0.38	0.38	0.6	0.6	0.6	0.6	0.6	15.6	19	9.6	7.6	0.08	524	4	1	
0805	TR88240	10934	02/12/09	9:20	690	2420	0	0.58	0.61	0.9	0.9	0.9	0.9	15.1	18	8.6	7.4	0.08	558	4	2	
0805	TR88254	10925	05/26/09	14:20	100	3460	0	0.01	0.06	0.07	0.07	0.07	0.07	25.5	37	8	7.9	0.09	512	4	2	
0805	TR88251	10937	05/27/09	12:25	1000	2110	0.39	0.39	0.41	0.42	0.42	0.42	0.42	25	25	7.8	7.8	0.15	465	4	1	
0805	TR88252	10934	05/28/09	9:40	690	3550	0	0.33	0.33	0.45	0.45	0.5	0.5	24.7	27	7.1	7.6	0.07	428	4	2	
0805	TR88264	10934	08/18/09	10:15	29	588	0	0	0	0	0	0	0	29.7	29	6.6	7.5	0.34	783	4	7	
0805	TR88266	10925	08/19/09	13:10	4	663	0.06	0.06	0.06	0.06	0.06	0.06	0.06	30.9	34	8.4	8.3	0.2	768	4		
0805	TR88263	10937	08/20/09	13:15	26	388	0	0	0	0	0	0	0	29.7	32.8	8.2	7.8	0.32	77	4	7	
0805	TR88276	10934	11/02/09	10:15	100	10100	0	0	0	0.34	0.6	0.6	0.92	17.7	23	8.5	7.7	0.09	385	5	4	
0805	TR88278	10925	11/03/09	13:55	100	12100	0	0	0	0	0.02	0.16	0.16	18	25.5	8.8	7.8	0.09	405	5	5	
0805	TR88275	10937	11/04/09	12:55	67	9830	0	0	0	0	0	0.07	0.34	17.9	27	9.3	7.9	0.15	389	5	6	
0805	TR88288	10934	02/22/10	9:36	100	9660	0.26	0.28	0.28	0.28	0.28	0.28	0.28	9.1	6	12.6	7.9	0.14	452	5	1	
0805	TR88287	10937	02/23/10	11:20	46	7560	0.01	0.05	0.07	0.07	0.07	0.07	0.07	7.8	4	11.5	8.1	0.22	430	5	2	
0805	TR88290	10925	02/24/10	13:27	49	15300	0.01	0.19	0.19	0.19	0.19	0.19	0.19	7.4	9	12.9	8	0.1	446	5	2	
0805	TR88299	10937	05/18/10	12:00	2800	4160	0.82	0.82	0.82	1.68	1.77	1.77	1.77	23.8	25	6.9	7.7	0.09	470	5	1	
0805	TR88300	10934	05/19/10	9:00	390	4400	0	0.28	0.28	0.28	1.05	1.05	1.05	24	26	7.7	8	0.22	495	5	2	
0805	TR88302	10925	05/20/10	14:00	270	5350	0.23	0.23	0.38	0.38	0.38	1.62	1.62	25.1	29	7.8	7.8	0.13	507	5		
0805	TR88311	10937	08/17/10	13:46	260	736	0.01	0.01	0.01	0.01	0.01	0.02	0.02	31.3	38	7.9	7.7	0.32	798	3	7	
0805	TR88312	10934	08/18/10	9:40	210	764	0.03	0.03	0.03	0.03	0.03	0.03	0.03	30.7	29	6.4	7.7	0.27	794	3	7	
0805	TR88314	10925	08/19/10	13:30	8	804	0	0	0	0	0	0	0	32	43	7.1	7.9	0.09	772	4	7	
0805	TR88326	10925	11/02/10	13:35	310	1020	1.17	1.17	1.17	1.17	1.17	1.17	1.17	19.5	13	9	7.9	0.21	713	4	0.5	
0805	TR88324	10934	11/03/10	10:15	4800	5550	2.52	2.52	2.52	2.52	2.52	2.52	2.52	16.4	11.5	8.1	7.7	0.09	410	5	0.5	
0805	TR88323	10937	11/09/10	11:45	49	507	0	0	0	0	0	0	1.93	20.2	24	8.5	7.7	0.39	754	4	7	
0805	TR88357	10934	02/15/11	9:45	19	941	0	0	0	0	0	0	0.15	14.4	24	9.6	7.6	0.5	742	4	7	
0805	TR88359	10925	02/16/11	11:00	4	1180	0	0	0	0	0	0	0	11.5	18	11.8	8.1	0.2	628	3	7	
0805	TR88356	10937	02/22/11	13:00	26	504	0	0	0	0	0	0	0	15.2	16	10.2	8.2	0.28	527	4	7	
0805	TR88391	10925	05/03/11	13:25	6100	13000	0.15	0.54	0.54	0.54	0.54	0.54	1.47	16.1	24	7.9	7.7	0.02	386	5	2	
0805	TR88389	10934	05/09/11	9:50	49	787	0	0	0	0	0	0	0.42	24.7	27	7.7	7.6	0.31	737	4	6	
0805	TR88388	10937	05/11/11	11:15	420	746	0.03	0.05	0.05	0.05	0.05	0.05	0.05	24.8	26	7.9	7.7	0.23	744	4	1	

0801	R194332	10892	03/20/01	12:15	63		0	0.08	0.08	0.08	0.08	1.64	1.64	14.9		10.1	7.6	0.17	300	6		
0802	10013331	10894	12/07/06	9:26	110		0	0	0	0	0	0	0.04	11.9		10.7	7.7	0.52	410	4	7	
0802	10013337	10896	12/07/06	10:32	410	1650	0	0	0	0	0	0	0	12.3		10.9	8.1	0.47	420	4	7	
0802	10013787	10896	09/07/06	11:07	10	1060	0	0	0	0	0	0	0	27.8		8.6	8.5	0.27	470	4	2	
0802	10013929	10894	09/07/06	10:07	5		0	0.01	0.01	0.01	0.01	0.01	0.01	27.6		7.1	8.1	0.25	470	4	2	
0802	10014604	10894	03/08/07	10:50	10		0	0	0	0	0	0	0	14.3		10.2	7.7	0.25	290		7	
0802	10014609	10896	03/08/07	11:50	10	1560	0	0	0	0	0	0	0	13.9		10.4	7.7	0.3	280		7	
0802	10021733	10894	06/06/07	9:11	20	19300	0	0	0	1.76	1.76	1.76	2.13	26.6		8	7.8	0.23	330	5	3	
0802	10021737	10896	06/06/07	10:03	5	21600	0	0	0	0	0	0	0.25	26.3		8	7.9	0.3	320	5	3	
0802	10037550	10896	09/11/07	10:49	40	8820	0	0	0.66	0.66	0.93	1.41	1.55	29.6		7.9	8.1	0.28	350	4	7	
0802	10037558	10894	09/11/07	9:46	40		0	0.02	0.07	0.07	0.08	0.39	0.41	30		7.7	8.1	0.17	350	4	7	
0802	10090290	10894	12/06/07	12:23	10		0	0	0	0.04	0.04	0.04	0.04	14.7		10.6	8.3	0.35	356	4	4	
0802	10090294	10896	12/06/07	11:23	41	2680	0	0	0	0	0	0	0	14.6		10.3	8.3	0.52	354	4	4	
0802	10096324	10896	03/06/08	11:00	63	3180	0	0	0.29	0.36	0.36	0.36	0.36	14.6		11.1	8.5	0.27	380	4	3	
0802	10096331	10894	03/06/08	12:45	41		0	0	0.08	0.42	0.42	0.42	0.42	15.7		11.4	8.4	0.16	350	4	3	
0802	10122015	10896	06/04/08	11:30	30	3000	0	0	0	0	0	0	0.74	26.8		9.6	8.2	0.32	390	4	7	
0802	10122017	10894	06/04/08	12:34	5		0	0	0	0	0	0.03	0.89	29.1		11.1	8.5	0.16	390	3	7	
0802	I013025	10895	06/27/00	9:10	1		0	0	0	0	0	0	0.03	27		6.8	8.4					
0802	I013026	10895	08/29/00	9:05	1		0	0	0	0	0.63	0.65	0.85	27		6.6	8.4				2	
0802	I013028	10895	10/24/00	9:26	3		0	9.1	9.22	9.22	9.22	9.22	9.22	22.1		6.2	7.9				4	
0802	I016572	10895	07/25/00	9:05	1		0	0.37	0.37	0.37	0.37	0.37	0.37	27		7.5	8.5					
0802	I016574	10895	12/27/00	8:05	1		0.18	0.18	0.78	0.81	0.81	0.81	0.81	9		10.2	7.8				4	
0802	R194043	10894	02/06/01	8:45	10	11300	0	0	0	0	0	0	0	9.9		10.9	7.6	0.3	300	4		
0802	R194047	10896	02/06/01	9:40	5	11300	0	0	0	0	0	0	0	9.7		11.3	7.5		200	4		
0802	R194263	10894	03/15/01	8:40	120	61300	1.76	1.78	1.78	2.15	2.15	2.15	3.24	15.1		7.8	7.4	0.1	302	5		
0802	R194264	10896	03/15/01	9:30	110	62900	1.31	1.48	1.48	2.94	2.94	2.94	3.6	14.9		10	7.5	0.3	233	5		
0802	R195227	10894	05/31/01	8:45	20		0.02	0.02	0.02	0.02	0.32	0.32	1.24	27.1		8.6	8.4	0.6	366	4		
0802	R195231	10896	05/31/01	11:15	20	5770	0.04	0.04	0.04	0.11	0.58	0.58	0.84	25.7		7.8	8	0.8	371	4		
0802	R198348	10896	09/26/01	9:20	20	3310	0	0	0.14	1.22	2.12	2.12	2.12	24.3		8.4	8.1	0.8	289	4		
0802	R198354	10894	09/26/01	8:20	84	2590	0	0	0.83	1.17	3.73	3.73	3.73	23.3		7.9	7.7	0.3	274	4		
0802	R199646	10896	12/11/01	9:30	260	3450	0	0	0.07	0.36	0.38	0.38	0.38	14.5		10.4	7.5		313			
0802	R201111	10894	03/19/02	9:50	20		0	0	0	0	0	0	0	19.1		10	7.7	0.35	316	3		
0802	R201114	10896	03/19/02	10:45	20	2170	0	0	0	0	0	0	0	17.1		10.1	7.6	0.5	312	3		
0802	R202523	10894	06/11/02	8:22	10		0	0.02	0.02	0.54	1.44	1.44	1.44	29.1		7.3	8.2	0.58	369			
0802	R202525	10896	06/11/02	9:25	5	2280	0	0.02	0.06	0.22	0.24	0.24	0.24	27.7		9.2	8.2	0.7	367	4		
0802	R205282	10894	09/16/02	8:40	10		0.29	0.29	0.29	0.29	0.29	0.29	1.13	27.4		6.3	7.6	0.46	300	4		
0802	R205285	10896	09/16/02	9:45	30	1260	0.31	0.31	0.31	0.31	0.31	0.31	0.87	27.4		7.9	8.4	0.6	335	4		
0802	R206878	10894	12/11/02	8:30	41	20800	0	0.72	1.38	1.38	1.38	1.38	1.58	11.8		10.6	7.6	0.2	260	5		
0802	R206879	10896	12/11/02	9:30	31	20600	0	0.49	0.84	0.84	0.84	0.84	1.03	11.9		10.7	7.9	0.2	260	5		
0802	R209116	10894	03/20/03	12:50	300		0	0.19	0.51	0.51	0.56	0.56	0.77	15.3		9.7	7.2	0.35	252	4		
0802	R209127	10896	03/20/03	10:25	990	4970	0	0.87	0.87	0.88	0.88	0.88	0.99	14		10.4	7.3	0.4	249	4		
0802	R210945	10894	06/04/03	9:55	10		0.06	1.6	1.6	1.6	1.6	1.6	1.6	28.4		7.7	8.2	0.35	320			
0802	R210948	10896	06/04/03	11:20	20	2030	0.06	0.06	0.06	0.06	0.06	0.06	0.06	27.2		7.8	7.9	0.35	310	3		
0802	R212234	10894	09/03/03	8:45	240		0.88	1.36	3.29	6.04	6.04	6.11	6.76	27.2		6.6	7.6	0.3	240	4	1	
0802	R212238	10896	09/03/03	9:46	130	10200	1.08	1.19	2.75	7.26	7.26	7.26	7.45	28.8		6.7	7.9	0.2	320	5	1	
0802	R213915	10894	11/13/03	8:30	10		0	0	0	0	0	0	0	22.6		8.4	8	0.6	350	4	7	
0802	R213918	10896	11/13/03	9:30	5	929	0	0	0	0	0.01	0.01	0.01	22.6		10	8.6	0.5	350	4	7	
0802	R215859	10894	02/25/04	8:45	860	11200	0.1	0.1	0.87	0.87	0.87	0.87	0.87	12.7		10.5	7.9	0.13	330	5	0	

0802	R215862	10896	02/25/04	9:50	240	8730	0.07	0.07	0.46	0.46	0.46	0.46	0.46	11.7		11.5	8	0.27	350	5	0	
0802	R217520	10896	05/26/04	9:36	5	2220	0	0	0	0	0	0	0	25.9		9.4	8	0.5	338	5	5	
0802	R217525	10894	05/26/04	8:34	20		0	0	0	0	0.01	0.01	0.01	26		7.6	7.5	0.3	307	4	5	
0802	R219805	10896	09/15/04	9:11	640	2900	0.11	0.11	0.11	0.11	0.11	0.11	0.11	28.3		7.6	7.9	0.51	322		0.5	
0802	R219810	10894	09/15/04	10:19	97		0	0.01	0.01	0.01	0.01	0.01	0.01	28.4		6.8	7.6	0.35	337		0.5	
0802	R222088	10894	12/07/04	9:17	130	37300	1.42	1.42	1.42	1.45	1.45	1.45	1.52	15.8		9.8	7.7	0.13	280	5	1	
0802	R222089	10896	12/07/04	10:15	230	34400	0.44	0.44	0.52	0.62	0.62	0.62	0.66	15.4		10.8	7.8	0.13	270	5	1	
0802	R223919	10894	03/17/05	9:30	20		0.06	0.17	0.19	0.19	0.19	0.19	0.19	13.3		9.4	7.5	0.25	320	3	1	
0802	R225047	10894	06/02/05	10:55	110	2570	0	0.03	0.33	8.71	10.01	10.05	10.05	26.4		8	8	0.16	333	4	1	
0802	R225048	10896	06/02/05	11:55	10	2850	0	0.07	0.18	1.18	1.94	1.94	1.94	25.8		8.2	8	0.25	359	4	1	
0802	R226887	10894	09/07/05	9:35	5		0	0	0	0	0.02	0.06	0.08	28.4		6.3	8.2	0.34	396	4	4	
0802	R226890	10896	09/07/05	10:35	5	1210	0	0	0	0	0	0.01	0.01	28.2		8.9	8.7	0.32	389	4	4	
0802	R228474	10894	12/06/05	10:50	31		0	0.24	0.24	0.24	0.24	0.24	0.24	13.9		9.7	8.1	0.26	425	4	2	
0802	R228479	10896	12/06/05	12:05	20	962	0	0.12	0.14	0.14	0.14	0.14	0.14	14.2		9.5	8.2	0.32	430	4	2	
0802	R233226	10894	03/14/06	9:20	5		0.01	0.01	0.01	0.01	0.08	0.09	0.09	19.3		10.5	8.8	0.26	480		1	
0802	R233231	10896	03/14/06	10:52	5	1670	0	0	0	0	0	0.13	0.13	17.8		11.8	8.6	0.41	480	4	1	
0802	R233614	10894	06/07/06	9:10	5		0	0	0	0	0	0.84	1.04	30.2		6.2	7.8	0.27	440	4	5	
0802	R233617	10896	06/07/06	10:10	20	913	0	0	0	0	0	0.11	0.14	29.9		7.3	8.3	0.31	450	4	5	
0802	TR02756	10894	03/25/02	14:05	30		0	0	0	0	0	0.19	0.19	17.3	21.5	10.1	7.4		359	4	4	33.7
0802	TR02758	10897	03/25/02	16:05	13	11100	0	0	0	0	0	0.56	0.56	16.2	21.5	10.2	7.7		369	4	4	23.6
0802	TR02760	10896	03/25/02	14:15	20	9600	0	0	0	0	0	0.2	0.2	16.5	21.5	10.4	7.6		442	4	4	29.2
0802	TR02772	10897	05/28/02	15:50	7	5800	0.02	0.02	0.02	0.02	0.02	0.02	0.02	25.1		11.8	8.2		410			16.3
0802	TR02784	10897	07/24/02	11:28	5	3950	0	0	0	0	0	0	0	29.1	33	9.1	7.6		365			
0802	TR02801	10897	09/24/02	14:50	33	1070	0	0	0	0	2.02	2.22	2.31	27.4	28		8.6					12.4
0802	TR02831	10896	03/25/03	14:45	16	5690	0	0	0	0.17	0.17	0.17	0.26	16.5	21	8.5	7.7		317			36.7
0802	TR02832	10894	03/25/03	13:25	7		0	0	0.19	0.27	0.27	0.27	0.46	17.8	21	8	7.6		321			31.4
0802	TR02833	10897	03/25/03	15:40	8	5690	0	0	0	0.2	0.2	0.2	0.2	15.7	21	9.8	7.7		320			26.2
0802	TR02846	10897	05/27/03	16:13	130	2900	0.05	0.29	0.29	0.29	0.29	0.29	0.29	25.9	23.1		7.9		342	3		25.2
0802	TR02880	10897	10/29/03	16:15	43	1020	0	0	0.13	0.6	0.61	0.61	0.61	22	27	7.8			425			12.9
0802	TR02881	10896	10/29/03	14:30	10	956	0	0	0.12	0.13	0.2	0.2	0.2	22.5	33	9			429			13.7
0802	TR02911	10897	03/23/04	13:30	20	3470	0	0	0.11	0.11	0.11	0.11	0.11	16.3	20.5	10.2	9.2		360			16
0802	TR02954	10897	10/26/04	18:36	54	1880	0	0	0.01	0.24	0.24	0.24	0.24	25	28	6.7	7.9		360			9.19
0802	TR02965	10897	12/28/04	14:50	14	6950	0	0	0	0.03	0.04	0.04	0.9	11.1		11	7.9					34.1
0802	TR02967	10896	12/28/04	13:50	10	8480	0	0	0	0.11	0.12	0.12	0.63	11.3		11.1	7.8					33.5
0802	TR02968	10894	12/28/04	10:40	54	10300	0	0	0	0.49	0.49	0.7	1.48	10.8		11.9	6.9					38.5
0802	TR02977	10897	02/23/05	15:50	80	5500	0.18	0.18	0.18	0.37	0.37	0.37	0.37	14.1	20	9.8	7.4		335			18.5
0802	TR57025	10897	11/29/05	17:40	29	1070	0	0.04	0.04	1.06	1.06	1.06	1.06	15.6		10.9	8		453			12.6
0802	TR57036	10897	01/25/06	18:10	64	1430	0	0	0.02	1.62	1.68	1.68	1.68	13.3	19	11.6	8.4		494			
0802	TR57046	10897	03/27/06	15:45	8	11700	0	0	0	0	0.01	0.01	0.01	16.6	17		8.2		503			14.6
0802	TR57053	10896	04/19/06	17:45	5	1310	0	0	0	0	0	0	0	26.3	34	13.3	8.6		468			
0802	TR57054	10894	04/19/06	19:15	650		0	0	0	0	0	0	0	27.5	34	9.8	8.4		449			
0802	TR57081	10897	09/26/06	15:05	5	1150	0	0	2.73	2.73	2.75	2.75	2.75	26.2	23	10.7	8.1	0.25	513			
0802	TR58008	10897	03/27/07	15:20	460	3650	0.77	0.77	0.77	0.77	0.77	0.77	0.77	18.1	27	10.8	7.4	0.28				
0802	TR58072	10897	05/28/08	17:20	8	3580	0.02	0.02	0.02	0.02	0.02	0.02	0.19	27	32	9.6	7.1	0.32				
0802	TR58077	10897	06/26/08	11:35	19	792	0.49	0.49	0.5	0.5	0.5	0.5	0.65	28.8		8	7.4	0.36				
0802	TR58084	10897	07/31/08	11:40	4	1090	0	0	0	0	0	0	0.22	30.6	33	7.8	8.5					
0802	TR58141	10897	05/26/09	17:35	6	6540	0.01	0.04	0.1	0.1	0.1	0.1	0.1	26.5	25	9.1	8.9	0.4			0.5	
0802	TR58160	10897	08/31/09	17:50	12	991	0	0	0	0.23	0.23	0.72	0.72	30		10.4	8.7	0.41		3		

0802	TR58194	10897	04/27/10	18:15	23	7160	0.16	0.16	0.16	0.17	0.17	0.17	0.17	21.7	19.3	9.2	8.2	0.41	376	5			
0802	TR58199	10897	05/25/10	19:40	190	5450	0	0	0	0	0	0	0	25.8	25	8.3	8	0.29	394	4			
0802	TR58212	10897	07/20/10	20:10	70	2750	0	0.35	1.02	1.18	1.18	1.18	1.18	30	28	8.4	8.2	0.3	374		0.5		
0802	TR58233	10897	10/27/10	16:15	32	938	0	0	0	0	0	0	0	26.1	28	10.6	8.5	0.31	371	3	7		
0802	TR58234	16998	10/27/10	17:15	10	1000	0	0	0	0	0	0	0	25.8	28	9.2	8.4	0.27	383	3	7		
0802	TR87190	10894	07/13/00	10:00	1		0	0	0	0	0	0	0	31	29.7	6.7	8.4		416	4	5	17	
0802	TR87191	10895	07/13/00	10:55	1		0	0	0	0	0	0	0	31.5	32.7	8.2	8.4		409	4	5	7.9	
0802	TR87192	10896	07/13/00	13:25	3	1780	0	0	0	0	0	0	0	31.6	40.4	9.9	8		404	4	5	9	
0802	TR87193	10897	07/13/00	14:00	3	1600	0	0	0	0	0	0	0	30.8	34.7	8.2	7.9		410	4	5	4.4	
0802	TR87194	16998	07/13/00	14:25	2		0	0	0.01	0.01	0.01	0.01	0.01	31.1	34.5	7.9	7.8		406	4	5	3	
0802	TR87195	10894	07/27/00	9:40	3		0	0	0	0.91	0.91	0.91	0.91	30.3	27	5.4	8.2		383	4		8.1	
0802	TR87196	10895	07/27/00	10:30	1		0	0	0	0.37	0.37	0.37	0.37	30.4	28.3	7.6	8.5		373	4		5.9	
0802	TR87197	10896	07/27/00	11:20	26	1120	0	0	0	0	0	0	0	30.5	30.3	7.7	8.6		362	4		5.1	
0802	TR87198	10897	07/27/00	12:30	6	1020	0	0	0	0.01	0.01	0.01	0.01	30.8	31.1	8.3	8.5		373	4		4.4	
0802	TR87199	16998	07/27/00	12:15	3		0	0	0	0.04	0.04	0.04	0.04	30.8	31.1	7.8	8.2		369	4		4.2	
0802	TR87200	10894	08/10/00	9:45	3		0	0.71	0.71	0.71	0.71	0.71	0.71	30.4	27.8	5.5	8.3		407			8.2	
0802	TR87201	10895	08/10/00	10:50	2		0	0.32	0.33	0.33	0.33	0.33	0.5	0.5	31.6	33.8	7.7	8.4		399			6.8
0802	TR87202	10896	08/10/00	12:00	83	1090	0	0	0	0	0	3.4	3.55	30.7	30.7	8.7	8.7		395			5.8	
0802	TR87203	10897	08/10/00	13:00	1	998	0	0.01	0.01	0.01	0.01	0.01	0.01	31	31.6	9.3	8.6		398			4.5	
0802	TR87204	16998	08/10/00	13:25	2		0	0	0	0	0	0.13	0.43	30.8	37.8	8	8.4		396			2.9	
0802	TR87205	10894	08/24/00	10:08	10		0.04	0.22	0.22	0.22	0.22	0.22	0.22	29.3	27.8	6.5	8.6		406			9.1	
0802	TR87206	10895	08/24/00	11:10	3		0.02	0.22	0.22	0.22	0.22	0.22	0.22	30.7	32.2	7.7	8.3		401			6.8	
0802	TR87207	10896	08/24/00	12:00	4	1190	0.04	0.4	0.4	0.4	0.4	0.4	0.4	29.4	33	8.4	8.4		396			7.2	
0802	TR87208	10897	08/24/00	13:20	7	1120	0	0.04	0.04	0.04	0.04	0.04	0.04	30.1	31.4	8.7	8.4		398			4.4	
0802	TR87209	16998	08/24/00	14:30	5		0	0.86	1.34	1.34	1.34	1.34	1.34	31.6	36.2	8.4	8		402			3.8	
0802	TR87210	10894	09/07/00	10:15	2400		0	0.18	0.18	0.18	0.18	0.32	0.42	29	24	6.3	7.8					14	
0802	TR87211	10895	09/07/00	11:10	2		0	0	0	0.92	0.92	1.23	1.23	30	31	7.6	8.1					8.3	
0802	TR87212	10896	09/07/00	11:50	17	1120	0	0	0	0.11	0.14	0.17	0.17	29.3	34	8.3	8.3					7.5	
0802	TR87213	10897	09/07/00	12:55	3	1070	0	0	0	0.02	0.02	0.02	0.02	30.6	35	8.7	8.4					5.5	
0802	TR87214	16998	09/07/00	13:20	1		0	0	0	0	0	0	0	30.9	32	8.5	8.3					3	
0802	TR87222	10894	09/21/00	10:00	69		0.1	0.1	0.1	0.1	0.1			27.3	24.5	6.7	8.5		405		0.5	11	
0802	TR87223	10895	09/21/00	10:50	6		0.12	0.12	0.12	0.12	0.12			27.7	26	7.3	8.4		399		0.5	9.3	
0802	TR87224	10896	09/21/00	9:47	160	1190	0.77	0.77	0.77	0.77	0.77			26.6	27.7	7.7	7.7		406	3	0.5	6.8	
0802	TR87225	10897	09/21/00	10:20	22	1070	0.83	0.83	0.83	0.83	0.83			27.5	27.7	8.1	7.8		413	3	0.5	6.6	
0802	TR87226	16998	09/21/00	10:54	20		0.21	0.21	0.21	0.21	0.21			27.6	27.7	7.9	7.9		412	3	0.5	4.2	
0802	TR87230	10894	10/05/00	9:45	17		0	0	0	0	0	0	0	26.7	27	7	8.3				7	11	
0802	TR87231	10895	10/05/00	10:35	3		0	0	0	0	0	0	0	27.5	28	7.6	8.2				7	8	
0802	TR87232	10896	10/05/00	11:15	18	1060	0	0	0	0	0	0	0	27	28	8.9	8.4				7	6.3	
0802	TR87233	10897	10/05/00	12:40	13	992	0	0	0	0	0	0	0	26.2	30	8.5	8.1				7	6.3	
0802	TR87234	16998	10/05/00	13:00	8		0	0	0	0	0	0	0	26.4	28.5	8.8	8				7	4.7	
0802	TR87238	10894	10/19/00	10:40	8		0	0.02	0.33	0.33	0.41	0.41	0.41	22.6	19.5	8	8.1		407	3	3	9.4	
0802	TR87241	10895	10/19/00	12:00	7		0	0	1.3	1.3	1.3	1.3	1.3	24.1	29.8	10.3	8.1		409	3	3	8.5	
0802	TR87242	10896	10/19/00	9:40	20	1030	0	0.04	1	1	1	1	1	22	19.8	9.1	8.4		403	3	3	7.5	
0802	TR87243	10897	10/19/00	9:15	6	983	0	0	0.21	0.26	0.26	0.26	0.26	21.2	16.6	9.2	8.8		409	3	3	5.6	
0802	TR87244	16998	10/19/00	13:35	1		0	0	0.2	0.35	0.35	0.35	0.35	24.5	29	10.2	8.1		410	3	3	4.1	
0802	TR87248	10894	11/01/00	12:30	38		0	0	0	0	0.67	0.84	0.84	24.2	27	8.5	8.6		395	4	7	9.2	
0802	TR87251	10895	11/01/00	13:25	14		0	0	0	0	0.23	0.28	0.28	24.2	23.3	10.5	8.4		410	4	7	8.4	
0802	TR87252	10896	11/01/00	11:05	21	1030	0	0	0	0	0	0.01	0.01	23.4	31	9.4	8.6		413	3	3	6.7	

0802	TR87253	10897	11/01/00	11:50	29	980	0	0	0	0	0	0	0	23	31	9	8.1		419	3	3	4.9
0802	TR87254	16998	11/01/00	12:15	21		0.02	0.02	0.05	0.05	0.05	0.12	0.12	22.6	31	9.1	8		420	3	3	3.9
0804	R194770	10921	02/26/01	10:25	340	18800	0	0.34	0.34	0.78	0.78	0.78	0.78	12.8		9.4	7.4	0.1	388	5	5	
0804	R194771	10919	02/28/01	11:55	93	36300	1.01	1.74	1.74	1.75	1.76	1.78	1.78	15.2		7.3	7.4	0.1	335	6	5	
0804	R195211	10919	05/21/01	13:25	35	4680	0	0	0	0	0	0	0	25.8		6.9	7.5	0.2	444	5	5	
0804	R195213	10921	05/21/01	10:50	36	3420	0	0	0	0	0	0	0	25		7.2	7.6	0.2	467	5	5	
0804	R199028	10921	10/04/01	12:25	6	914	0	0	0	0	0	0	0	23.4		8.4	8.2		655	4	10	0.3
0804	R199029	10919	10/04/01	14:00	8	1040	0	0	0	0	0	0	0	23		8.8	8.1	0.3	616	4	10	
0804	R200187	10921	12/11/01	11:00	24	1020	0	0	0	0.94	0.94	0.94	0.94	14.4		9.5	7.3	0.3	717	4	4	
0804	R200188	10919	12/11/01	12:40	200	1710	0.03	0.03	0.19	1.01	1.01	1.01	1.01	13.2		9.3	7.3		639	4	0	
0804	R201419	10922	02/20/01	11:15	1300	44400	0	0	0	0	1.86	1.98	1.98							5	4	
0804	R201420	10922	10/17/01	12:00	540	3210	0	0	0	0	0.8	0.8	1.42							5	6	
0804	R201421	10922	11/06/01	10:20	5	940	0	0												4	7	
0804	R201422	10922	12/05/01	11:15	25	1040	0	0	0.04	0.04	0.04	0.04	0.1							4	1	
0804	R201423	10922	01/08/02	11:00	14	1480	0	0	0	0.51	0.51	0.51	0.51							4	3	
0804	R201424	10922	02/04/02	10:30	1100	17200	0	0	0	0.08	0.14	0.14	0.14							5	4	
0804	R201425	10922	03/13/02	11:00	1	1160	0	0.16	0.16	0.16	0.18	0.18	0.18							4	7	
0804	R201593	10922	04/11/02	11:30	69	21000	0	0	0	1.72										5	3	
0804	R202232	10921	05/09/02	11:10	310	17100	0.09	0.09	0.09	0.09	0.12	0.12	0.24	24.2		6.5	7.6	0.1	345	5	6	
0804	R202233	10919	05/09/02	12:25	770	12300	0	0	0	0	0	0	0	24		6.1	7.6	0.1	300	5	6	
0804	R204296	10921	07/11/02	11:15	20	1210	0	0	0	0	0.77	0.77	0.77	31		6.4	7.9		550	4	5	
0804	R204297	10919	07/11/02	12:45	21	1630	0	0	0.03	0.03	0.03	0.03	0.03	31.2		6.2	7.7		439	4	5	
0804	TR02740	13690	01/29/02	10:40	650	5430	0	0	0	0	0	0.04	0.04	14.1	23.3	9.2	6		538	3	4	535
0804	TR02747	13690	02/25/02	10:01	140	2740	0	0	0	0	0	0	0	14.4	15.7	14.3	7.3		446	3	3	80.5
0804	TR02752	13690	03/25/02	10:20	460	17100	0	0	0	0	0	0.37	0.37	15.3	21.5	9.4	7.1		349	4	4	277
0804	TR02761	13690	04/22/02	10:50	100	19200	0	0	0	0	0	0	0	23	20.3	8.6	7.8		398	4	16	128
0804	TR02768	13690	05/28/02	10:31	1600	3290	1.85	1.85	2.04	2.04	2.04	2.04	2.04	25.2	24	8.7	7.6		454			254
0804	TR02773	13690	06/25/02	10:00	22	1640	0.05	0.05	0.05	0.33	0.45	0.45	0.45	28.6	24.1	7.8	7.8		615			54.5
0804	TR02780	13690	07/23/02	9:30	34	2340	0	0	0	0	0	0.06	1.26	31	35	9.3	7.5		445			135
0804	TR02787	13690	08/26/02	10:04	8	991	0.02	0.02	0.02	0.05	0.05	0.05	0.05	30.3	25.3	7.1	8		664			50.8
0804	TR02794	13690	09/24/02	10:05	80	2040	0	0	0	0	1.91	2.15	2.15	25	21.1	7.7	8		684			137
0804	TR02802	13690	10/29/02	9:15	1900	3490	0.17	0.17	0.17	0.23	1.37	1.37	1.54	19	17	10.6	7.7		367			399
0804	TR02806	13690	11/20/02	9:45	20	1220	0	0	0	0	0	0.06	0.06	15	17.1	10	7.9					37.1
0804	TR02816	13690	01/27/03	9:25	50	1880	0	0.05	0.05	0.05	0.05	0.05	0.05	8.5	6.8	13.2	7.8					14.6
0804	TR02823	13690	02/25/03	9:25	1700	27800	0.28	0.28	0.28	0.65	4.76	5.56	5.56	10.1	3.5	11	8.4					163
0804	TR02827	13690	03/25/03	10:00	43	2460	0	0	0	0	0	0	0.6		21				575			69.7
0804	TR02834	13690	04/22/03	10:00	17	1110	0	0	0	0.04	0.04	0.04	0.04	22	20.1	9.3	7.9		744			22.2
0804	TR02842	13690	05/27/03	9:55	20	1910	0	0.12	0.2	0.2	0.2	0.22	0.22	25.6	22.8	7.5	7.5		744	3		104
0804	TR02850	13690	06/24/03	10:00	38	4550	0	0	0	1.08	1.08	1.08	1.1	29.3	29.8	7.1	7.3		432			160
0804	TR02858	13690	07/29/03	10:20	51	1480	0	0	0	0	0	0.01	3.16	30.3	36	6.6	7.6		586			54.2
0804	TR02865	13690	08/25/03	10:40	27	825	0	0	0	0.95	0.95	0.95	0.95	31.1	27.3	6.6	7.7		608			77.4
0804	TR02870	13690	09/23/03	10:11	230	4640	0	0.23	0.7	0.7	0.84	0.84	0.84	25.2	21.7	8.5	7.5		636			587
0804	TR02874	13690	10/29/03	10:05	15	1080	0	0	0.03	0.45	0.45	0.45	0.45	20	28.5	8.4	7.8		752			34.6
0804	TR02882	13690	11/18/03	9:55	2600	2040	1.67	2.31	3.66	3.66	3.66	3.66	3.66	19	26.5		5.6		360	5		184
0804	TR02886	13690	12/29/03	10:10	480	1480	0.58	0.58	0.58	0.58	0.58	0.58	0.74	12.7	13.7	10.8	7.5		610			45
0804	TR02893	13690	01/27/04	10:22	1300	1990	0	0	0.99	1.57	1.57	1.57	1.57	10.9	5.2	10.5	8.5		410			158
0804	TR02900	13690	02/17/04	10:15	240	5440	0	0	0	0.45	0.45	1.29	2.03	9.4	12.7	9.2	7.1					189
0804	TR02907	13690	03/23/04	9:55	52	1850	0	0	0.06	0.06	0.06	0.06	0.06	18.8	18.1	10.8	7.6		520			84.4

0804	TR02912	13690	04/27/04	12:35	530	11500	0	0.13	0.77	1.48	1.48	1.48	1.55	22.4	24.7	7.8	7.4		460		560
0804	TR02919	13690	05/25/04	10:30	24	1460	0	0	0	0	0	0	0	27	27.3	8.2	7.4		540		43.7
0804	TR02925	13690	06/29/04	10:20	310	16000	1.18	1.26	3.25	3.29	3.29	3.43	3.44	26.8	24.6	6.6	7.4		340		211
0804	TR02929	13690	07/21/04	10:00	16	2090	0	0	0	0.04	0.04	0.04	0.04	30.5	27.5	7.9	7.6		480		192
0804	TR02937	13690	08/24/04	10:15	490	10800	0.15	0.31	1.15	1.31	3.35	3.35	3.35	26.4	26.5	13.2	7.6		390		980
0804	TR02943	13690	09/28/04	10:15	7	1110	0	0	0	0.05	0.05	0.05	0.05	25.7	23.9	8.1	7.6		650		30
0804	TR02947	13690	10/26/04	10:15	1000	2470	0	1.27	1.27	2.42	2.42	2.42	2.42	24.5	24	7.5	6.9		370		118
0804	TR02955	13690	11/15/04	10:30	58	3050	0	0	0	0	0	0	0	16.8	17.7	9.4	7.9		460		143
0804	TR02961	13690	12/28/04	10:10	94	2800	0	0	0	0	0	0.02	0.31	9	11.2	11.7	7.1				108
0804	TR02969	13690	01/25/05	10:03	99	5810	0	0	0	0	0	0	0	11.5	15.7		7.5		432		146
0804	TR02973	13690	02/23/05	10:35	2600	3530	0.81	0.81	0.81	0.83	0.83	0.84	0.84	17	16.6	9.7	7.7		436		153
0804	TR02979	13690	03/30/05	10:38	110	6900								17.9	24.1	15.2	7.9		614		196
0804	TR02986	13690	04/26/05	10:20	23	1570	0	0.5	0.5	0.5	0.5	0.5	0.5	20.9	23.9	11.4	8.3				
0804	TR02991	13690	05/24/05	10:15	18	1410	0	0	0	0	0	0	0	28.8	33	8.2	7.5				
0804	TR02995	13690	06/28/05	9:35	1	929	0	0	0	0	0	0	0	31	35	10.7	8.4		733		
0804	TR02999	13690	07/27/05	19:55	8	1010	0.1	0.1	0.1	0.1	0.1	0.6	0.6	30.9	34	8.8	8.1				
0804	TR57007	13690	08/30/05	10:35	31	1060	0.14	0.14	0.26	0.26	0.26	0.26	0.26	31	33	8.6	8.2		566		
0804	TR57015	13690	10/31/05	15:00	420	858	0.25	0.25	0.25	0.25	0.25	0.25	0.25	18.3	17	9.6	7.9		803		
0804	TR57018	13690	11/29/05	10:05	200	865	0	0.13	0.19	0.26	0.26	0.26	0.26	14.4	11.9	9.7	7.1		799		36.8
0804	TR57027	13690	12/27/05	10:05	48	1060	0	0	0	0	0	0	0	12.9	20.2	10.9	8.3		761		39.5
0804	TR57032	13690	01/24/06	10:35	9700	1320	0	1.64	1.78	1.83	1.83	1.83	1.83	11.2	8.1	10.8	7		682		
0804	TR57037	13690	02/21/06	13:15	34	1140	0	0	0	0.13	0.13	0.13	0.13	9.9	10	11	7.8				43.1
0804	TR57043	13690	03/27/06	10:55	150	15700	0	0	0	0	0.01	0.01	0.01	13.3	17.4		7.3		342		315
0804	TR57047	13690	04/18/06	10:15	14	1240	0	0	0	0	0	0	0	25.8	26.6	10.5	8.2		743		
0804	TR57062	13690	06/27/06	10:35	14	1060	0	0.08	0.1	0.1	0.1	0.1	0.1	29.4	22.2	6.7	7.6		638		
0804	TR57069	13690	08/22/06	10:10	1	716	0	0	0	0	0	0	0	32.2	29	7.3	8.2	0.12	853		
0804	TR57076	13690	09/26/06	10:30	30	994	0	0	1.09	1.09	1.09	1.09	1.09	25.3	20.6	7.1	7.7		608		
0804	TR57082	13690	10/24/06	10:15	150	1170	0	0	0	0	0	0.77	0.77	18.6	18.6	8.1	7.6	0.05	468		
0804	TR57087	13690	11/28/06	10:20	26	1130	0.18	0.18	0.18	0.18	0.18	0.18	0.18	17.2	21.9	10.4	7.6	0.19	872		
0804	TR57090	13690	12/18/06	10:30	44	1260	0	0	0	0	0	0	0	15.7	19.1	10	7.8	0.18	739		
0804	TR57097	13690	01/22/07	10:35	690	23000	0	0.09	0.09	0.12	0.14	0.22	0.36	6.2	7.8	11.3	6.1	0.71	293		
0804	TR58000	13690	02/19/07	10:30	38	1580	0	0	0	0	0	0	0.61	9.8	15.9	12.8	7.5	0.18	680		
0804	TR58004	13690	03/27/07	10:20	9700	2630	1.59	1.59	1.59	1.59	1.59	1.59	1.59	20.6	20.5	8.1	7.4	0.08			
0804	TR58009	13690	04/23/07	10:15	43	5970	0	0	0	0	0	0.31	0.31	19.9	21.1	8.9	7.5	0.071			
0804	TR58016	13690	05/29/07	10:38	2000	14100	0.74	0.91	0.96	1.02	1.03	1.03	1.04	24	24.1	6.8	7.5	0.04			
0804	TR58019	13690	06/25/07	12:30	200	20700	0.25	0.42	0.43	1.15	1.24	1.24	1.24	26.2	32	6.2	7.4	0.12			
0804	TR58022	13690	07/23/07	13:20	21	32200	0.1	0.1	0.15	0.35	0.35	0.79	1.35	29.5	33	5.7	7.9	0.12			
0804	TR58025	13690	08/31/07	12:35	10	1710	0	0	0	0.13	0.13	0.13	0.13	31.2	31.8	6.2	7.5	0.09			
0804	TR58028	13690	09/25/07	13:40	8	4610	0	0	0	0	0	0	0	28.4	29	7	8	0.09			
0804	TR58035	13690	10/22/07	10:45	220	4880	0.11	0.11	0.11	0.11	0.19	0.19	0.58	21.1	13.6	7.9	7.3	0.05			
0804	TR58038	13690	11/27/07	16:20	220	1810	0	0	0.14	0.99	1.03	1.03	1.1	13.1	16	10.2	7.7	0.19			
0804	TR58050	13690	12/19/07	14:30	260	5490	0	0	0	0	1.21	1.21	1.32	12.9	23	10.3	7.3				
0804	TR58053	13690	01/29/08	10:15	190	2030								11.8	22.7	12.3	8.1	0.22			
0804	TR58056	13690	02/14/08	14:50	2600	1990	0	0	0.56	0.56	0.56	0.56	0.56	14.6	17	10.1	7.8	0.11			
0804	TR58059	13690	03/25/08	13:35	320	22500	0	0	0	0	0	0	0.95	16.6	26	7.7	7	0.09			
0804	TR58062	13690	04/27/08	17:50	840	15800	0.02	0.03	0.03	0.43	0.43	0.43	0.43	20.6	17	8.8	7.5	0.05			
0804	TR58065	13690	05/28/08	11:30	73	2050	0.25	0.48	0.6	0.6	0.6	0.6	0.6	27.3		7.4	7.4	0.11			
0804	TR58073	13690	06/25/08	12:25	24	1520	0.04	0.04	0.04	0.04	0.04	0.04	0.17	30.9	32	6.6	8.1	0.11			

0804	TR58079	13690	07/30/08	17:40	10	675	0	0	0	0	0	0	0	31.9	34	8.3	8.7	0.11			
0804	TR58085	13690	08/26/08	15:10	150	2610	0	0	0					30.4	35	8.7	7.8	0.05			
0804	TR58091	13690	09/30/08	18:15	10	888	0	0	0	0	0	0	0.32	25.4	25	10.9	9.1	0.13	588		
0804	TR58098	13690	10/28/08	13:05	37	905	0	0	0	0	0	0	0	18.1	20	9.7	8.1	0.1			
0804	TR58103	13690	11/25/08	11:35	68	1070	0	0.08	0.08	0.08	0.08	0.08	0.08	14.6	17	9.8	7.5	0.12			
0804	TR58107	13690	12/30/08	14:35	79	1110	0	0	0.04	0.31	0.31	0.31	0.31	13.2	20	7.7	7.6	0.11		3	4
0804	TR58110	13690	01/27/09	14:15	15	1140	0	0	0	0	0	0	0	11.1	15	12.9	8.6	0.13		4	
0804	TR58117	13690	02/24/09	12:45	30	999	0	0	0	0	0	0	0	15.2		10.6	8	0.15			
0804	TR58123	13690	03/23/09	14:20	34	2150	0	0	0	0	0			19.5	23	8.5	7.7	0.07		4	7
0804	TR58130	13690	04/21/09	14:35	830	12400	0	0	0	3.25	4.82	4.82	4.82	20.3	29	6.7	7.8	0.05		5	3
0804	TR58145	13690	07/28/09	13:45	6	1010	0.06	0.07	0.07	0.07	0.11	0.11	0.11	29.6	35	8.4	8.4	0.08		4	6
0804	TR58153	13690	08/25/09	15:30	21	2350	0	0.02	0.02	0.02	0.02	0.02	0.02	31.6		7.3	8.7	0.07		4	
0804	TR58161	13690	09/29/09	12:15	110	2400	0	0	0	0	0.16	0.49	0.61	24.3	19.9	7.2	7.9	0.05		5	
0804	TR58164	13690	10/27/09	14:05	280	31800	0.1	1.15	1.15	1.15	1.15	1.83	1.84	18.8	21	7.5	7.7	0.07		6	
0804	TR58167	13690	11/24/09	13:30	1400	15700	0	0	0	0	0.02	0.02	0.02	16.2	16	8.9	7.7			5	
0804	TR58170	13690	12/14/09	13:25	59	5370	0	0	0	0	0	0	0	10.5	16.1	12.4	7.9	0.07	472	4	
0804	TR58173	13690	01/26/10	13:05	26	2990	0	0	0	0	0	0	0	12.5	16.1	11.3	8	0.12	482	4	
0804	TR58181	13690	02/24/10	14:15	41	29500	0.04	0.14	0.14	0.14	0.14	0.14	0.14	8.9	6.7	9.3	7.8	0.09	386	6	
0804	TR58184	13690	03/30/10	13:25	100	23000	0	0	0	0	0	0.14	0.14	16.8	27.3	9	7.8	0.07	338	5	
0804	TR58191	13690	04/27/10	13:30	200	12100	0.04	0.04	0.04	0.78	0.82	0.82	0.82	21.8	21.2	8.2	8	0.05	462		
0804	TR58195	13690	05/25/10	13:10	170	7950	0	0	0	0	0.02	0.02	0.02	26.6	31.4	6.8	7.8	0.05	434	4	
0804	TR58200	13690	06/23/10	14:20	27	3030	0	0	0	0	0	0	0	31.8	27.6	7	8	0.11	352	4	
0804	TR58209	13690	07/20/10	14:40	17	1280	0.01	0.01	0.01	0.01	0.01	0.01	0.01	32.1	31	7.6	8.1	0.1	477	4	0.5
0804	TR58215	13690	08/25/10	11:20	17	776	0.06	0.06	0.06	0.06	0.06	0.06	0.87	31.4	33.2	7.4	8.2	0.1	793	3	
0804	TR58223	13690	09/29/10	13:50	140	8320	0	0	0	0.1	0.1	0.1	0.1	25.5	27.6	7.4	7.8	0.05	421	5	7
0804	TR58226	13690	10/27/10	11:20	160	2810	0	0	0	0.11	0.11	0.11	0.11	23.7	28.9	8.2	7.9	0.13	680	4	7
0804	TR58235	13690	11/29/10	14:00	25	1070								16	20.2	11.8	8.4	0.26	634	3	0.5
0804	TR60080	10922	09/18/01	12:00	74	1420	0	0	0.11	0.11	0.11	0.11	0.11	28.2		7.1	7.9	0.08	681		
0804	TR60081	10919	09/18/01	10:45	80	1750	0	0	0.02	0.02	0.02	0.02	0.02	27.6		7.1	8	0.09	614		
0804	TR60087	10922	10/16/01	12:00	780	5150	0	0	0	0.8	0.8	1.42	1.42	19.2		7.2	7.7	0.04	353		3
0804	TR60088	10919	10/16/01	13:55	1800	9950	0	0	0	1.19	1.19	2.09	2.09	19.2		6	7.7	0.02	306	5	3
0804	TR60094	10922	11/15/01	12:30	340	1440	0	0	0	0	0	0.13	0.29	19.7		8.5	7.8	0.1	640	4	6
0804	TR60095	10919	11/15/01	11:15	210	1730	0	0	0	0	0	0.02	0.17	19.6		8.5	7.7	0.16	743	4	6
0804	TR60101	10922	12/11/01	11:30	39	1020	0	0	0.04	0.76	0.76	0.76	0.76	14.3	12	9.5	7.9	0.25	742	4	0.5
0804	TR60102	10919	12/11/01	10:00	310	1710	0	0	0.21	0.98	0.98	0.98	0.98	13.4	12.5	9.6	7.8	0.14	661	4	0.5
0804	TR60108	10922	01/15/02	11:45	37	1320	0	0	0	0	0	0	0	11.8	19	11.2	8		655	4	7
0804	TR60109	10919	01/15/02	10:10	34	2710	0	0	0	0	0	0	0	10.4	17	11.1	7.9	0.12	387	4	7
0804	TR60115	10922	02/12/02	11:30	180	4100	0	0	0	0	0	0	0.71	10.2	20	11	7.8	0.07	412		
0804	TR60116	10919	02/12/02	10:00	320	18000	0	0	0	0	0	0	0.62	8.9		10.6	7.6	0.08	206		
0804	TR60122	10922	03/12/02	11:30	8	1210	0.16	0.16	0.16	0.18	0.18	0.18	0.18	15	22.5	12	8.4	0.19	748		
0804	TR60123	10919	03/12/02	10:10	35	1640	0.02	0.02	0.02	0.1	0.1	0.1	0.1	14.3	20.5	11.6	8.5	0.14	676		
0804	TR60129	10922	04/09/02	13:45	1800	19200	0	1.72						15.9	22	8.9	7.9	0.04	374	6	2
0804	TR60130	10919	04/09/02	12:30	110	24700	0.25	2.07						17.2	23.5	8.1	7.7	0.1	361	6	2
0804	TR60136	10922	05/14/02	13:25	300	13800	0	1.35	1.35	1.35	1.38	1.47	1.47	23.6	28.5	7.5	7.8	0.05	357	5	2
0804	TR60137	10919	05/14/02	12:00	870	12100	0	0.46	0.46	0.46	0.46	0.46	0.46	24.2	27	6.2	7.7	0.03	357	5	2
0804	TR60143	10922	06/11/02	13:20	110	2040	0	0.95	1.33	1.46	1.46	1.46	1.46	29.5	36.5	6.6	8	0.05	721	4	7
0804	TR60144	10919	06/11/02	11:55	76	1770	0	0.74	0.77	0.77	0.77	0.77	0.77	24	39	6.3	7.9	0.08	624	4	7
0804	TR60150	10922	07/09/02	12:45	38	1550	0	0	0.16	0.16	0.16	0.19	1.09	30.9	36.5	6.9	8	0.08	506	4	4

0804	TR60151	10919	07/09/02	11:30	300	2340	0.03	0.03	0.03	0.03	0.03	0.03	1.66	29.6	33.5	6.1	7.8	0.04	423	4	4		
0804	TR60157	10922	08/06/02	12:55	4	840	0	0.34	0.9	0.9	0.9	0.9	0.9	32	40	7	8.1	0.11	658	4	7		
0804	TR60158	10919	08/06/02	11:45	20	988	0	0.02	0.25	0.25	0.25	0.25	0.25	30.8	35	6.5	7.9	0.11	755	4	7		
0804	TR60164	10922	09/11/02	14:10	730	2240	0	0	0.22	0.75	0.75	0.75	0.75	28.5	39.5	6.3	7.7	0.04	620	4	4		
0804	TR60165	10919	09/11/02	12:35	32	1290	0	0	0.24	1.23	1.23	1.23	1.23	28.7	35.5	7.4	8	0.12	703	4	4		
0804	TR60171	10922	10/08/02	13:12	150	1420	0.02	1.97	1.97	1.97	1.97	1.97	1.97	24.6	26	7.6	7.9	0.08	699	4	0.5		
0804	TR60172	10919	10/08/02	11:55	370	1020	0	2.31	2.31	2.31	2.31	2.31	2.31	25.2	27	7.4	7.8	0.12	708	4	0.5		
0804	TR60178	10922	11/12/02	11:20	10	1070	0	0	0	0	0	0	0	17.4	24.5	9.6	7.9	0.17	627	4	7		
0804	TR60179	10919	11/12/02	9:50	58	1520	0	0	0	0	0	0	0	17.2	21	8.6	7.7	0.12	555	4	7		
0804	TR60185	10922	12/10/02	11:20	3100	6640	0.08	1.41	1.41	1.41	1.41	1.41	1.41	2.62	10.8	17	9.9	7.6	0.03	446	5	1	
0804	TR60186	10919	12/10/02	9:50	380	3000	0.13	0.65	0.65	0.65	0.65	0.69	3.27	10.9	11.5	9.9	7.6	0.07	461	4	1		
0804	TR60192	10922	01/14/03	11:40	17	1910	0	0.12	0.22	0.22	0.22	0.22	0.22	11.1	19	10.7	7.7	0.13	693	4	2		
0804	TR60193	10919	01/14/03	10:15	29	3310	0	0.24	0.28	0.28	0.28	0.28	0.28	10.5	11	11.1	7.8	0.12	428	4	2		
0804	TR60199	10922	02/04/03	11:35	4	955	0.01	0.01	0.01	0.01	0.01	0.01	0.01	13.6	18	11.1	7.9	0.24	748	4	7		
0804	TR60200	10919	02/04/03	10:00	37	1340	0	0	0	0	0	0	0	12.8	13.5	11	7.9	0.21	714	4	7		
0804	TR60206	10922	03/11/03	11:40	21	3180	0	0	0	0	0	0	0	14.9	25.5	10	8.1	0.09	563	4	7		
0804	TR60207	10919	03/11/03	10:10	12	6310	0	0	0	0	0	0	0.01	13.7	24	10	8.1	0.08	444	5	7		
0804	TR60213	10922	04/08/03	12:45	460	5170	0	0.23						19.9	20	7.3	7.9	0.04	590	4	3		
0804	TR60214	10919	04/08/03	11:30	380	3610	0	0.33						19.9	17.5	7.9	8.1	0.08	645	4	3		
0804	TR60220	10922	05/13/03	12:40	35	750	0.2	0.2	0.2	0.2	0.2	0.2	0.28	25.8	32.5	9	8.5	0.11	741	4	7		
0804	TR60221	10919	05/13/03	11:20	24	929	0.07	0.07	0.08	0.08	0.08	0.08	0.1	25.9	30	7.5	8		697	4	7		
0804	TR60227	10922	06/04/03	12:15	310	843	0.43	0.43	0.43	0.43	0.43	0.43	0.43	28.7	33	7.3	8.3		659	4	7		
0804	TR60228	10919	06/04/03	11:10	60	1030	0.03	0.03	0.03	0.03	0.03	0.03	0.03	28.2	31	6.7	7.9		510	4	1		
0804	TR60234	10922	07/08/03	12:30	24	1260	0.31	0.31	0.31	0.31	0.31	0.31	0.31	30.4	36	7	8.1		682	4	2		
0804	TR60235	10919	07/08/03	11:05	22	1110	0.01	0.04	0.04	0.09	0.09	0.09	0.09	30.3	33	6.6	8		689	4	2		
0804	TR60241	10922	08/06/03	12:20	10	793	0	0	0	0	0	0.63	2.2	31.1	37	5.8	8.4		769	4	7		
0804	TR60242	10919	08/06/03	11:05	15	733	0	0	0	0	0	0.64	1.35	31.3	32.5	7	8		757	4	7		
0804	TR60248	10922	09/09/03	13:15	19	958	0	0	0	0	0.01	0.01	0.01	27.8	37	8.9	8.7		559	4	7		
0804	TR60249	10919	09/09/03	11:50	56	1050	0	0	0	0	0.16	0.16	0.16	27.3	34	8.3	8		438	4	7		
0804	TR60255	10922	10/07/03	12:35	160	1970	0	0.68	1.43	1.43	1.43	1.43	1.43	23.2	31	8.7	8		745	4	1		
0804	TR60256	10919	10/07/03	11:15	3900	1220	0.33	2.36	2.36	2.36	2.36	2.36	2.36	22.4	29	8.5	8.1		670	4	1		
0804	TR60262	10922	11/11/03	12:15	1600	3110	0	0	0	0	0	0.15	0.18	16.9	28	8.7	7.9	0.05	439	4	3		
0804	TR60263	10919	11/11/03	10:50	870	4380	0.01	0.01	0.07	0.21	0.21	0.21	0.21	18.3	26	8.4	7.8	0.02	742	6	0.5		
0804	TR60269	10922	12/16/03	12:30	510	1760	0	0	0	0.62	0.62	0.62	0.62	10.7	12	10.4	8	0.1	489	4	4		
0804	TR60270	10919	12/16/03	10:55	300	3660	0	0	0	0.61	0.61	0.61	0.61	11.2	15	10.3	7.9	0.04	705	4	4		
0804	TR60276	10922	01/13/04	12:45	4	934	0	0	0	0	0	0	0	11.9	23	12	8.2	0.34	720	4	1		
0804	TR60277	10919	01/13/04	11:15	29	954	0.03	0.03	0.03	0.03	0.03	0.03	0.03	10.8	21	11.6	7.9	0.22	690	4	1		
0804	TR60283	10922	02/17/04	12:50	170	2920	0	0	0	0.3	0.31	0.5	1.26	9.2	23	11.2	8	0.08	570	4	3		
0804	TR60284	10919	02/17/04	10:35	120	4140	0	0	0	0.37	0.37	0.76	1.31	9.7	17	11.7	8.5	0.06	450	4	3		
0804	TR60290	10922	03/09/04	12:35	280	3830	0	0	0	0	0.62	0.69	0.7	17	26	9.3	8	0.05	520	4	5		
0804	TR60296	10922	04/13/04	12:15	32	1260	0.01	0.16	0.4	0.4	0.4	0.4	0.4	17.7	20	9.1	8.1	0.13	700	4	1		
0804	TR60297	10919	04/13/04	11:00	78	1510	0	0.08	0.24	0.24	0.24	0.38	0.5	17.8	16	8.3	8.4	0.1	770	4	1		
0804	TR60304	10922	05/04/04	12:15	540	20500	0	0	0	3.19	3.19	3.49	3.49	20.5	30	7	7.7	0.07	340	5	3		
0804	TR60305	10919	05/04/04	11:00	400	19800	0	0	0.02	1.92	1.92	2.08	2.08	20.6	29	5.5	7.7	0.08	290	5	3		
0804	TR60311	10922	06/08/04	12:45	270	3900	1.05	1.05	1.34	1.4	1.4	2.51	3.07	26.5	25	6.4	7.9	0.05	480	5	0.5		
0804	TR60312	10919	06/08/04	11:30	240	6780	1.25	1.25	1.25	1.26	1.26	2.87	2.95	26.2	25	5.7	7.9	0.04	390	5	0.5		
0804	TR60318	10922	07/06/04	13:15	94	18800	0	0	0	0	0	0	0.42	28.8	34	5.7	7.7	0.08	410	5	6		
0804	TR60319	10919	07/06/04	11:40	100	19200	0	0	0	0	0.69	1.16	1.43	28.8	31	5.2	7.6	0.13	340	5	6		

0804	TR60325	10922	08/10/04	12:40	48	5510	0	0	0	0	0	0	0	29.2	36.5	6.7	7.8	0.04	430	4	7
0804	TR60326	10919	08/10/04	11:20	70	15400	0.38	0.38	0.38	0.38	0.38	0.38	0.38	28.9	35	5.7	7.6	0.08	400	5	7
0804	TR60332	10922	09/08/04	13:00	270	3730	0	0	0.03	0.03				26.9	21.9	6.7	7.8	0.04	630	4	2
0804	TR60333	10919	09/08/04	11:45	51	1950	0	0.02	0.03	0.03				27.1	24.3	6.5	8	0.08	560	4	2
0804	TR60339	10922	10/05/04	12:55	130	4080	0.59	1.45	1.45	2.08	2.09	2.09	2.09	23.7	27.5	7.7	7.8	0.04		5	1
0804	TR60340	10919	10/05/04	11:30	190	2160	1.77	2.34	2.34	4	4	4	4	23.6	26	7.7	7.9	0.05		4	1
0804	TR60346	10922	11/03/04	13:00	4600	11300	0	0.11	0.7	0.82	0.87	0.87	0.87	20.3	19	6.4	7.9	0.02	340	5	0.5
0804	TR60347	10919	11/03/04	11:45	1100	4540	0.07	0.15	1.07	1.07	1.07	1.07	1.07	20.7	18	7.3	8	0.06	440	4	0.5
0804	TR87038	10922	10/01/02	16:05	4	796	0	0	0	0	0	0	0	27.4	39	9	8.2		683	4	
0804	TR87903	10922	12/07/04	12:15	4800	9960	0.58	0.7	0.84	0.84	0.84	0.84	0.84	14.2	24	9.7	8	0.08	400	5	1
0804	TR87904	10919	12/07/04	11:00	360	16200	0.71	0.79	1	1	1	1	1	14.3	21	9.3	7.9	0.09	360	5	1
0804	TR87910	10922	01/04/05	12:40	4800	16000	0	0.05	0.32	0.32	0.32	0.32	0.32	17.6	24.5	7.4	7.9	0.03	280	5	1
0804	TR87911	10919	01/04/05	11:25	190	5750	0	0.41	0.44	0.44	0.44	0.44	0.44	16	25	9.5	8	0.09	540	4	1
0804	TR87917	10922	02/08/05	12:25	140	5620	0	0.1	0.1	0.1	0.1	0.1	0.29	11.7	16.5	11.1	8.1	0.1	500	4	2
0804	TR87918	10919	02/08/05	11:10	280	12900	0.02	2.13	2.13	2.13	2.13	2.13	2.53	11.3	17.5	10.8	8	0.09	390	5	2
0804	TR87924	10922	03/08/05	12:30	150	2670	0	0	0	0	0.02	0.02	0.85	15.7	24	11	8.1	0.12	560	4	4
0804	TR87925	10919	03/08/05	11:00	130	7110	0.01	0.04	0.04	0.04	0.05	0.05	0.64	14.5	20	10.8	8.1	0.11	430	4	4
0804	TR87932	10922	04/12/05	12:20	790	2560	0	0.07	0.07	0.07	0.07	0.12	1.52	20.7	24		8.2	0.07	620	4	2
0804	TR87933	10919	04/12/05	11:00	32	3850	0	0	0	0	0	0	0.66	19.1	21		8.1	0.1	440	4	2
0804	TR87940	10922	05/10/05	12:15	71	1600	0	0	0.7	0.7	0.7	0.82	1.26	22.3	32	8.5	8.1	0.12	700	4	2
0804	TR87941	10919	05/10/05	11:10	420	2090	0	0.44	1.05	1.05	1.05	1.05	1.23	21.9	29	7.4	8	0.06	730	4	2
0804	TR87948	10922	06/07/05	12:45	60	2070	0	0	0	0	0	0	0.32	29.2	33	6.9	8.1	0.08	540	4	3
0804	TR87949	10919	06/07/05	11:30	73	2090	0.08	0.08	0.08	0.08	0.08	0.08	0.22	28.3	32	6.2	8.1	0.06	520	4	3
0804	TR87956	10922	07/06/05	12:45	52	846	0	0	0	0	0.99	0.99	0.99	31.2	35.5	6.7	8.1	0.08	730	4	2
0804	TR87957	10919	07/06/05	11:30	50	1070	0	0	0	0.2	0.22	0.22	0.22	31.2	33	6.7	8.1	0.11	810	4	2
0804	TR87964	10922	08/02/05	12:50	13	905	0	0	0	0	0	0	0	30.8	35	7.8	8.4	0.13	710	4	6
0804	TR87965	10919	08/02/05	11:30	16	1050	0	0	0	0	0	0	0	30.7	33	6.7	8.2	0.11	760	4	6
0804	TR87972	10922	09/13/05	12:30	17	751	0	0	0	0	0	0	0	27.8	32	7.3	8.1	0.13	790	4	7
0804	TR87973	10919	09/13/05	11:20	22	725	0.19	0.19	0.19	0.19	0.19	0.19	0.19	27.6	28	7.1	8	0.28	780	4	7
0804	TR87980	10922	10/04/05	12:40	160	753	0	0	0	0	0	0.87	0.87	27.2	31	7.1	8	0.1	610	4	6
0804	TR87981	10919	10/04/05	11:30	14	868	0	0	0	0	0	0.08	0.08	27	29	7.5	7.9	0.13	820	4	6
0804	TR87988	10922	11/15/05	12:30	49	631	0	0	0	0	0	0	0	21.2	20.5	8.1	8.1	0.14	780	4	7
0804	TR87989	10919	11/15/05	11:10	40	770	0	0	0	0	0	0	0	22.1	26	7.8	7.9	0.15	710	4	0.5
0804	TR87996	10922	12/13/05	13:15	24	714	0	0	0	0	0	0.01	0.04	10.2	22	11.6	8.1	0.31	790	4	6
0804	TR87997	10919	12/13/05	11:55	17	885	0	0	0	0	0	0	0.03	9.8	21	11.9	8	0.23	780	4	6
0804	TR88004	10922	01/10/06	12:45	24	614	0	0	0	0	0	0	0	13.5	16	11	8.2	0.16	410	4	7
0804	TR88005	10919	01/10/06	11:30	60	805	0.19	0.19	0.19	0.19	0.19	0.19	0.19	13.4	14	10.7	8.1	0.11	770	4	7
0804	TR88012	10922	02/07/06	12:30	22	1030	0	0	0	0.03	0.33	1.61	1.61	14.1	17	10.2	8	0.11	740	3	3
0804	TR88013	10919	02/07/06	11:25	51	1360	0	0	0	0.05	0.17	0.75	0.75	13.1	16	10.1	8.1	0.09	540	3	3
0804	TR88020	10922	03/14/06	12:55	39	824	0	0.29	0.29	0.29	0.29	1.07	1.07	20	21	8.7	8	0.1	715	3	4
0804	TR88021	10919	03/14/06	11:15	65	1140	0	0.02	0.02	0.02	0.02	0.23	0.23	19.7	21	7.9	8	0.1	739	3	4
0804	TR88028	10922	04/04/06	12:30	51	1420	0	0						21.4	25.5	8.1	7.9	0.1	670	3	7
0804	TR88029	10919	04/04/06	10:45	22	1730	0	0.05						21	22	7.4	7.8	0.1	570	3	7
0804	TR88036	10922	05/09/06	12:20	480	3820	0	0	0.03	0.9	1.02	1.03	1.03	24.2	28	7.2	7.8	0.1	425	5	3
0804	TR88037	10919	05/09/06	11:00	770	7280	0	0.08	0.08	1.76	1.78	1.78	1.78	24.4	28	6.5	7.7	0.3	447	5	3
0804	TR88044	10922	06/06/06	12:35	10	825	0	0	0	0	0	0	0	29	30.5	7.1	8	0.1	808	4	7
0804	TR88045	10919	06/06/06	11:15	19	1000	0	0	0	0.07	1.43	2.04	2.04	29.5	31.5	6.9	8	0.1	835	4	7
0804	TR88052	10922	07/11/06	12:30	66	954	0	0	0	0	0	0.11	0.11	29.2	33	7.8	8	0.1	510	4	7

0804	TR88053	10919	07/11/06	11:00	69	1070	0	0	0	0	0	0.16	0.19	29.8	33	6.3	7.9	0.5	728	3	7	
0804	TR88060	10922	08/08/06	12:45	140	916	0	0.19	0.19	0.19	0.19	0.19	0.19	30.5	37	9.5	8.1	0.1	830	3	1	
0804	TR88061	10919	08/08/06	11:30	100	713	0.08	0.32	0.32	0.32	0.32	0.32	0.32	29.8	32.5	9	7.9	0.1	847	3	1	
0804	TR88068	10922	09/05/06	13:00	32	915	0.3	0.31	0.31	0.31	0.31	0.31	0.31	27.4	30	7	8	0.09	672	3	1	
0804	TR88069	10919	09/05/06	11:25	97	769	0.09	0.09	0.09	0.09	0.09	0.09	0.09	26.8	32	6.4	7.8	0.06	602	3	1	
0804	TR88076	10922	10/17/06	12:15	4000	5780	0.07	0.56	0.59	0.61	0.61	0.61	0.7	22.3	29	6.7	7.6	0.02	643	5	1	
0804	TR88077	10919	10/17/06	10:50	680	953	0.22	0.73	0.73	0.73	0.73	0.73	2.38	21.9	27	7	7.7	0.05	499	4	1	
0804	TR88084	10922	11/07/06	12:20	390	3020	0	2.22	2.22	2.22	2.22	2.32	3.06	17.6	21	9.2	7.8	0.04	785	5	2	
0804	TR88085	10919	11/07/06	10:50	1200	1110	0	0.85	0.85	0.85	0.85	0.85	0.85	16.9	20	9.4	7.9	0.07	736	4	2	
0804	TR88094	10922	12/12/06	12:30	24	948	0							11.9	19	10.9	8	0.17	719	4	3	
0804	TR88095	10919	12/12/06	11:15	43	960	0							10.2	19.5	11	7.8	0.14	620	4	3	
0804	TR88104	10922	01/09/07	12:35	190	1850	0	0	0.13	0.13	0.13	1.72	1.72	11.4	10	10.4	7.9	0.05	478	4	3	
0804	TR88105	10919	01/09/07	11:00	300	4160	0	0	0.2	0.2	0.2	1.82	1.82	10.9	11	9.8	7.8	0.05	367	4	3	
0804	TR88114	10922	02/05/07	11:45	170	1730	0	0	0	0.4	0.81	0.94	0.94	9	15	11.4	7.9	0.11	657	4	3	
0804	TR88115	10919	02/05/07	10:05	170	2930	0	0	0	0.06	0.14	0.14	0.15	9	15	11.4	7.9	0.11	657	4	3	
0804	TR88124	10922	03/13/07	12:43	9900	4260	0.02	3.86						19.6	26	7.3	7.7	0.03	497	4	1	
0804	TR88125	10919	03/13/07	11:10	12000	6420	0.02	2.51						18.1	24	7.3	7.9	0.03	335	4	1	
0804	TR88134	10922	04/10/07	12:35	180	4060	0.03	0.03	0.17	0.18	0.18	0.18	0.18	15.5	16	8.5	7.9	0.058	562	5	3	
0804	TR88135	10919	04/10/07	11:00	100	35400	0.02	0.02	0.21	0.21	0.21	0.21	0.27	15.3	17	5.8	7.5	0.18	345	6	3	
0804	TR88144	10922	05/07/07	12:50	480	9250	0	0	0	0.07	3.03	4.72	5.45	23.8	31	8.7	7.7	0.054	360	5	2	
0804	TR88145	10919	05/07/07	11:20	320	21100	0	0	0	0.5	2.28	4.36	4.79	24	27	6.8	7.6	0.084	279	6	2	
0804	TR88154	10922	06/05/07	12:45	870	15700	0.08	0.09	0.63	1.62	1.62	1.62	2.86	24.5	34	12.2	7.6	0.06	362	6	2	
0804	TR88155	10919	06/05/07	10:55	330	23100	0	0.17	0.35	0.35	0.35	1	1.56	25.3	30	11.3	7.6	0.11	342	5	2	
0804	TR88164	10922	07/09/07	12:55	27	49200	0.04	0.19	0.19					27.3	35	8	7.5	0.22	305	5	0.5	
0804	TR88165	10919	07/09/07	11:25	37	69000	0.04	0.07	0.08					27.9	34	7.4	7.4	0.37	309	5	0.5	
0804	TR88174	10922	08/08/07	12:25	6	9900	0	0	0	0	0	0.08	0.3	29.2	33	6.1	7.7	0.06	393	5		
0804	TR88175	10919	08/08/07	10:45	13	21500	0	0	0	0	0	0.11	0.46	29.8	31	5.3	7.7	0.14	338	6		
0804	TR88184	10922	11/12/07	12:10	16	898	0.11	0.11	0.11	0.11	0.11	0.11	0.11	20.5	25		8.1	0.25	768	4	1	
0804	TR88185	10919	11/12/07	10:50	38	1000	0.01	0.01	0.01	0.01	0.01	0.01	0.01	19.9	26		8	0.16	701	4	7	
0804	TR88194	10922	02/20/08	12:15	370	4590	0	0	0	1.75	2.06	2.06	2.06	11.8	21	10.1	7.9	0.05	490	4	4	
0804	TR88195	10919	02/20/08	11:00	330	8900	0	0	0	0.74	1.01	1.01	1.01	12.8	20	8.7	7.7	0.03	493	4	4	
0804	TR88207	10922	05/05/08	13:30	66	9040	0.16	0.16	0.16	0.48	0.48	0.48	0.48	21.1	24	8.2	7.9	0.084	452	5		
0804	TR88208	10919	05/05/08	11:45	63	15300	0.04	0.04	0.04	0.13	0.13	0.13	0.13	21.2	25	7.9	7.9	0.076	404	5		
0804	TR88219	10922	08/19/08	13:22	930	1600	2.08	2.21	2.21	2.21	2.9	2.9	2.9	26.6	29	6.7	7.7	0.03	465	4	0.5	
0804	TR88220	10919	08/19/08	14:30	200	3480	6.57	6.68	6.78	6.78	6.81	6.81	6.82	27.1	27	7.3	7.7	0.1	506	4	0.5	
0804	TR88231	10922	11/11/08	13:00	360	898	1.35	1.43	1.43	1.43	1.43	1.53	1.53	18.1	25	9.2	8	0.1	764	4	0.5	
0804	TR88232	10919	11/11/08	11:15	440	981	1.28	1.36	1.36	1.36	1.36	1.36	1.36	17.6	18	8.9	7.8	0.12	760	4	0.5	
0804	TR88243	10922	02/10/09	12:15	22	862	0.12	0.63	0.63	0.63	0.63	0.63	0.63	15.4	25	10	8	0.24	771	4	0.5	
0804	TR88244	10919	02/10/09	11:05	44	954	0.09	0.18	0.18	0.18	0.18	0.18	0.18	14.7	23	10.3	8	0.21	679	4	0.5	
0804	TR88255	10922	05/26/09	13:00	57	3580	0	0.01	0.01	0.02	0.02	0.02	0.02	25.5	34	7.7	8	0.078	234	4	2	
0804	TR88256	10919	05/26/09	11:24	30	3490	0.03	0.32	0.32	0.32	0.32	0.32	0.32	25.1	28	7	7.9	0.062	490	4	0.5	
0804	TR88267	10922	08/19/09	12:10	4	749	0.01	0.01	0.01	0.01	0.01	0.01	0.01	31	32.5	8.9	8.7	0.17	754	4		
0804	TR88268	10919	08/19/09	10:35	90	915	0	0	0	0	0	0	0	30.8	30.2	7.2	9	0.09	683	3		
0804	TR88279	10922	11/03/09	12:31	76	24400	0	0	0	0	0.19	0.39	0.39	17.8	28	7.5	7.7	0.085	380	6	5	
0804	TR88280	10919	11/03/09	11:10	35	41200	0	0	0	0	0.08	0.09	0.09	18.3	25	6	7.6	0.26	323	6	5	
0804	TR88291	10922	02/24/10	12:11	62	17000	0.13	0.25	0.25	0.25	0.25	0.25	0.25	7.7	6	11.7	8	0.075	450	5	2	
0804	TR88292	10919	02/24/10	10:50	42	27600	0.43	0.7	0.7	0.72	0.72	0.72	0.72	7.5	4	11.9	7.9	0.12	390	6	1	
0804	TR88303	10922	05/20/10	12:30	780	5520	0	0	0.35	0.35	0.35	0.85	0.85	25.1	29	6.1	7.7	0.05	427	4		

0804	TR88304	10919	05/20/10	10:55	130	4300	0	0	0.1	0.1	0.1	0.47	0.47	25.5	28	6.4	7.8	0.05	611	4		
0804	TR88315	10922	08/19/10	12:15	27	796	0.75	0.75	0.75	0.75	0.75	0.75	0.75	32.3	35.5	6.5	8	0.11	726	4	7	
0804	TR88316	10919	08/19/10	11:00	1200	994	1.14	1.14	1.14	1.14	1.14	1.14	1.14	31.5	33.5	6	7.8	0.09	697	4	7	
0804	TR88327	10922	11/02/10	12:00	83	912	0.3	0.3	0.3	0.3	0.3	0.3	0.3	19.2	13	8.8	8	0.16	606	4	0.5	
0804	TR88328	10919	11/02/10	10:30	230	948	0.39	0.39	0.39	0.39	0.39	0.39	0.39	19.3	14	8.4	7.9	0.07	503	4	0.5	
0804	TR88360	10922	02/16/11	12:30	1	1240	0	0	0	0	0	0	0	12.6	20	12.2	8.2	0.32	696	3	5	
0804	TR88361	10919	02/16/11	13:45	8	1480	0	0	0	0	0	0	0	14.8	22	11.1	8	0.34	734	3	7	
0804	TR88392	10922	05/03/11	12:15	450	4150	0.11	0.13	0.13	0.13	0.13	0.13	1.78	20.2	23	8.2	8	0.05	681	5	2	
0804	TR88393	10919	05/03/11	10:40	20	1050	0.05	0.05	0.05	0.07	0.07	0.07	1.22	20.2	18	8.2	8	0.12	725	4	2	
0810	10015975	10969	11/16/06	9:15	280	0.09	0.04	0.07	0.07	0.07	0.07	0.07	0.07	8		5.3	7.1	0.4	1200	3	1	
0810	10015992	10969	02/22/07	10:30	160	3.5	0	0	0	0	0	0	0	11.4		9.3	8.2	0.3	914	3	7	
0810	10023461	10969	05/23/07	9:30	320	65	0	0	0.02	0.02	0.25	0.25	0.25	22.8		6.1	7.9	0.25	610	4	3	
0810	10035890	10969	08/07/07	10:20	290	58	0	0	0	0	0.44	0.94	0.96	27.8		5.4	7.9	0.2	634	4	3	
0810	10092092	10969	12/03/07	12:33	440	65	0	0	0	0	0	0	0	13.2		9.2	7.7	0.35	449	4	3	
0810	10094661	10969	02/13/08	10:57	1000	75	0	0	0	0	0	0	0	8.7		11	8.1	0.45	501	4	3	
0810	10115036	10969	05/01/08	10:37	220	147	0	0	0	0	0.05	0.05	0.05	20.3		7.3	7.9	0.15	662	5	7	
0810	R194239	10969	02/20/01	12:15	2400	995	0	0	0	0	0.99	1.13	1.13	10.1		9.7	7.9	0.1	384	4	5	
0810	R195545	10969	05/17/01	10:15	820	57	0	0	0	0	0	0.04	0.04	24.9		6.1	7.8	0.1	558	4	7	
0810	R196832	10969	08/01/01	11:15	110	342	0	0	0	0	0	0	0	29.7		6.5	8	0.1	332	4	7	
0810	R199493	10969	11/13/01	9:50	270	120	0	0	0	0	0	0	0	17.9		8.4	8	0.3	354	5	1	
0810	R200997	10969	02/25/02	11:40	550	76	0	0	0	0	0	0	0.53	12.1		10.7	8.2	0.3	359	4	7	
0810	R202144	10969	05/02/02	10:00	2000	31	0.21	0.21	1.07	1.07	1.07	1.07	1.12	24.4		6.8	7.9	0.3	917	4	0.5	
0810	R203806	10969	08/05/02	8:30	49	9.9	0	0	0	0	0	0.36	0.79	28.2		6.6	8	0.2	853	3	7	
0810	R206302	10969	11/06/02	15:21	210	15	0	0.03	0.03	0.05	0.07	0.07	0.07	13		10.5	8.1	0.2	774	4		
0810	R208612	10969	02/19/03	10:30	200	16	0	0	0	0	0	0.14	0.14	11.4		9.9	8.1	0.4	964	4	7	
0810	R211051	10969	05/22/03	12:13	260	283	0.12	0.54	1.61	1.61	1.61	1.61	1.7	20.3		7.7	8	0.2	388	5	1	
0810	R213824	10969	08/13/03	13:50	240	298	0	0.29	0.52	0.54	1.19	1.19	1.19	27.3		6.5	7.8	0.13	328	4	0.5	
0810	R214100	10969	11/13/03	12:45	47	8.5	0	0	0	0	0.18	0.22	1.34	15.2		7.6	7.7	0.3	511	3	6	
0810	R215804	10969	02/18/04	9:40	100	39	0	0	0	0.08	0.32	0.32	0.43	7.4		11.6	8.1	0.61	592	4	4	
0810	R217489	10969	05/18/04	9:30	730	20	0	0	0	0	0.39	0.39	1.4	23		5.3	7.7	0.15	481	4	1	
0810	R219039	10969	08/02/04	9:30	1200	16	0	0	0	0	2.56	2.62	2.62	27.6		4.9	7.8	0.15	664	4	4	
0810	R221993	10969	11/30/04	9:38	730	62	0.21	0.4	0.4	0.4	0.4	0.4	0.67	10		11.9	7.7	0.3	650	4	0.5	
0810	R223682	10969	02/09/05	9:48	770	50	0	0	0	0.11	0.11	0.11	0.11	8.5		10.5	8.1	0.43	1020	4	3	
0810	R224968	10969	05/19/05	9:20	770	50	0	0	0	0	0	0.33	0.33	22.8		5.5	7.8	0.15	879	4	4	
0810	R226913	10969	08/18/05	9:25	870	119	0	0.02	0.06	0.27	0.33	0.33	0.35	27		6.3		0.15	306	5	1	
0810	R228234	10969	11/03/05	9:30	80	141	0	0	0.28	0.32	0.45	0.45	0.45	15.8		8.3	7.8	0.36	330	4	2	
0810	R230733	10969	02/15/06	9:20	190	59	0	0	0	0	0.05	0.08	0.08	9		10.7	8	0.51	367	4	7	
0810	R233591	10969	05/22/06	9:45	1600	18	0	0	0	0				23.6		5.9	7.7	0.23	421	4	1	
0810	R236101	10969	08/02/06	9:50	100	440	0	0	0	0	0	0	0	28.3		6.1	7.6	0.3	329	5	7	
0810	TR2543W	14246	11/29/07	14:10	76		0	0	0	0.02	1.08	1.38	1.44	11.9		10.3	7.7		449	4	7	
0810	TR2544W	10969	11/29/07	13:28	140	68	0	0	0	0.01	1.16	1.42	1.47	11.4		10	7.6		551	4	3	
0810	TR2545W	20840	11/29/07	14:31	46		0	0	0	0.01	0.9	1.19	1.2	13.4		9.4	7.8		307	4	7	
0810	TR2546W	14904	11/29/07	15:05	86		0	0	0	0.04	0.88	1.14	1.15	13.3		8.7	7.8		1150	4	7	
0810	TR2547W	17844	11/29/07	13:14	250		0	0	0	0.01	1.14	1.39	1.44	10.5		9.5	7.4		518	4	3	
0810	TR2548W	10967	11/29/07	12:59	310		0	0	0	0.01	1.14	1.39	1.44	10.1		9.6	7.3		525	4	3	
0810	TR2553W	14246	02/28/08	10:29	190		0	0	0	0	0	0	0	9.6		10.8	7.7		1190	3	7	
0810	TR2555W	20840	02/28/08	10:58	11		0	0	0	0	0	0	0	9.6		8.6	7.2		771	4	7	
0810	TR2556W	14904	02/28/08	11:42	62		0	0	0	0	0	0	0	10.6		10.5	7.5		350	4	7	

0810	TR2557W	17844	02/28/08	9:31	140		0	0	0	0	0	0	0	9.3		9.3	7.5		988	4	7	
0810	TR2558W	10967	02/28/08	9:17	41		0	0	0	0	0	0	0	10.2		10	7.5		976	4	7	
0810	TR2563W	14246	04/29/08	10:55	130		0	0	0.14	0.14	0.14	0.76	0.76	17		7.7	8.4		665	4	3	
0810	TR2564W	10969	04/29/08	10:09	250	156	0	0	0.05	0.05	0.05	0.74	0.74	17.6		6.7	7.9		685	4	3	
0810	TR2565W	20840	04/29/08	11:12	74		0	0	0.11	0.11	0.11	0.72	0.72	19.1		6.6	8.1		338	5	3	
0810	TR2566W	14904	04/29/08	13:50	62		0	0	0.08	0.08	0.08	0.67	0.67	18.4		7.3	8.3		288	4	3	
0810	TR2567W	17844	04/29/08	9:54	130		0	0	0.08	0.08	0.08	0.92	0.92	17.1		6.5	7.9		668	4	3	
0810	TR2568W	10967	04/29/08	9:40	140		0	0	0.08	0.08	0.08	0.92	0.92	18.2		6.6	8.1		710	4	3	
0810	TR2573W	14246	07/24/08	11:28	68		0	0	0	0	0	0	0	29.6		7	7.7		332	5	7	
0810	TR2574W	10969	07/24/08	10:43	52	230	0	0	0	0	0	0	0	29.3		6.6	7.5		341	4	7	
0810	TR2575W	20840	07/24/08	11:49	20		0	0	0	0	0	0	0	28.8		7.4	7.7		296	5	7	
0810	TR2576W	14904	07/24/08	12:25	2		0	0	0	0	0	0	0	29.6		7.7	7.8		291	5	7	
0810	TR2577W	17844	07/24/08	10:30	110		0	0	0	0	0	0	0	29.1		6.6	7.5		339	4	7	
0810	TR2578W	10967	07/24/08	10:15	69		0	0	0	0	0	0	0	29		6.5	7.4		342	4	7	
0810	TR2736W	14246	10/22/08	11:35	52		0	0	0	0	0	0	0	19.9		9.8	8.4		416	4	7	
0810	TR2737W	10969	10/22/08	10:58	260	114	0	0	0	0	0	0	0	20.3		8.3	8		391	5	6	
0810	TR2738W	20840	10/22/08	11:51	45		0.01	0.01	0.01	0.01	0.01	0.01	0.01	21.1		8.4	8.3		305	5	7	
0810	TR2739W	14904	10/22/08	12:18	49		0	0	0	0	0	0	0	21.3		8.6	8.3		299	4	7	
0810	TR2740W	17844	10/22/08	10:46	170		0	0	0	0	0	0	0	19.6		8.3	8		399	4	6	
0810	TR2741W	10967	10/22/08	10:32	150		0	0	0	0	0	0	0	19.9		8.1	8		413	4	6	
0810	TR3090W	14246	01/22/09	10:53	38		0	0	0	0	0	0	0	6.2		12.7	8.2		413	4	7	
0810	TR3091W	10969	01/22/09	12:24	53	73	0	0	0	0	0	0	0	6.8		12	8.1		413	4	7	
0810	TR3092W	20840	01/22/09	11:10	19		0	0	0	0	0	0	0	7.2		12.2	8.2		305	4	7	
0810	TR3093W	14904	01/22/09	11:50	16		0	0	0	0	0	0	0	7		11.9	8.2		297	4	7	
0810	TR3094W	17844	01/22/09	12:36	16		0	0	0	0	0	0	0	6.7		11.5	8		418	4	7	
0810	TR3095W	10967	01/22/09	12:49	25		0	0	0	0	0	0	0	6.6		11.7	8.1		435	4	7	
0810	TR3367W	10967	04/23/09	9:42	71		0	0	0	0	0.03	0.27	0.56	20.2		5.8	7.7		797	4	4	
0810	TR3368W	20840	04/23/09	11:09	38		0	0	0	0	0.24	0.25	1.28	19.7		8	7.9		335	4	3	
0810	TR3369W	10969	04/23/09	10:07	210	37	0	0	0	0	0.02	0.28	0.61	19.6		6.6	7.7		546	4	4	
0810	TR3370W	14246	04/23/09	10:53	120		0	0	0	0	0.1	0.11	0.87	20.1		7.9	8		462	4	4	
0810	TR3371W	14904	04/23/09	11:53	29		0	0	0	0	0.91	0.91	1.81	18.6		8.2	8.1		314	4	3	
0810	TR3372W	17844	04/23/09	9:55	88		0	0	0	0	0.03	0.27	0.56	20.3		6.1	7.7		893	4	4	
0810	TR3438W	20840	07/30/09	10:01	2400		2.54	2.65	2.79	3.04	3.04	3.04	3.11	22.1		7.4	8.2		14	5	0.5	
0810	TR3439W	14904	07/30/09	10:08	2400		2.09	2.21	2.44	2.6	2.6	2.6	2.66	22.3		6.8	8.1		135	5	0.5	
0810	TR3441W	14246	07/30/09	10:41	920		2.14	2.26	2.52	2.8	2.8	2.8	2.87	26.8		5.8	7.8		319	5	0.5	
0810	TR3442W	10969	07/30/09	12:50	2400	497	1.74	1.93	2.18	2.38	2.38	2.38	2.47	26.2		7.4	8.2		265	5	0.5	
0810	TR3443W	17844	07/30/09	10:25	2400		1.79	1.91	2.22	2.54	2.54	2.54	2.64	23.8		6.3	7.9		160	5	0.5	
0810	TR3444W	10967	07/30/09	9:49	2400		1.79	1.91	2.22	2.54	2.54	2.54	2.64	25.4		6.9	7.9		316	5	0.5	
0810	TR3561W	14246	10/28/09	11:06	130		0	0.05	0.71	0.71	0.71	0.71	2.57	13.4		9.3	7.9		751	4	2	
0810	TR3562W	14904	10/28/09	13:22	84		0	0.01	0.13	0.13	0.13	0.13	2.06	13.7		7.3	7.9		359	4	6	
0810	TR3563W	17844	10/28/09	9:48	690		0	0.05	0.63	0.63	0.63	0.63	2.62	14.5		7.7	7.5		374	4	2	
0810	TR3810W	10967	01/26/10	12:08	4		0	0	0.08	0.14	0.14	0.15	0.15	9		9.8	8		1090	4	1	
0810	TR3811W	17844	01/26/10	11:55	1		0	0	0.08	0.14	0.14	0.15	0.15	7.8		11.8	8.2		1080	3	1	
0810	TR3812W	10969	01/26/10	11:40	99	12	0	0	0.09	0.15	0.15	0.18	0.18	7.3		11.3	8.2		1180	3	1	
0810	TR3815W	14246	01/26/10	9:52	120		0	0	0.25	0.26	0.26	0.26	0.27	5.6		10.6	6.2		1230	3	1	
0810	TR3818W	14904	01/26/10	10:48	72		0	0	0.34	0.47	0.47	0.47	0.49	6.9		9.3	7.7		920	3	1	
0810	TR3819W	20840	01/26/10	10:12	290		0	0	0.33	0.37	0.37	0.37	0.4	7.6		9	7.8		1070	4	1	
0810	TR3940W	10967	04/26/10	10:42	100		0	0	0.12	0.31	0.31	0.31	0.31	19.2		6.1	7.5		323	6	1	

0810	TR3941W	17844	04/26/10	10:59	73		0	0	0.12	0.31	0.31	0.31	0.31	20.4		6	7.6		322	6	1	
0810	TR3942W	10969	04/26/10	11:21	260	4120	0	0	0.1	0.33	0.33	0.33	0.33	19		6.2	7.5		325	6	1	
0810	TR3945W	14246	04/26/10	12:10	50		0	0	0.08	0.3	0.3	0.3	0.3	19.4		7.1	7.7		331	6	1	
0810	TR3947W	14904	04/26/10	13:27	21		0	0	0.06	0.24	0.24	0.24	0.24	18.5		9	8		290	5	1	
0810	TR3948W	20840	04/26/10	12:46	48		0	0	0.06	0.24	0.24	0.24	0.24	18.2		8.8	8		294	6	1	
0810	TR4230W	10967	10/28/09	9:34	770		0	0.05	0.63	0.63	0.63	0.63	2.62	14.5		7.7	7.4		369	4	2	
0810	TR4231W	20840	10/28/09	11:58	76		0	0.02	0.18	0.18	0.18	0.18	1.98	13.9		8.6	7.8		475	4	6	
0810	TR4232W	10969	10/28/09	10:04	460	48	0	0.05	0.33	0.33	0.33	0.33	2.24	13.9		8.2	7.7		460	4	2	
0810	TR4754W	14246	07/26/10	11:15	14		0	0	0.12	0.12	0.12	0.12	0.12	27.8		6.8	7.9		854	4		
0810	TR4755W	10969	07/26/10	10:35	140	32	0	0	0.03	0.03	0.03	0.03	0.03	28.5		5.9	7.6		542	4		
0810	TR4756W	17844	07/26/10	10:20	63		0	0	0.03	0.03	0.03	0.03	0.03	28.3		5.1	7.4		485	3		
0810	TR4757W	10967	07/26/10	10:00	48	44	0	0	0.03	0.03	0.03	0.03	0.03	29.2		4.8	7.4		390	4		
0810	TR4759W	20840	07/26/10	11:46	52		0	0	0.02	0.02	0.02	0.02	0.02	28.6		5	7.2		562	4		
0810	TR4760W	14904	07/26/10	12:01	100		0	0	0.01	0.01	0.01	0.01	0.01	28.7		5.7	7.3		589	4		
0810	TR4762W	14246	10/28/10	11:23	190		0	0	0	0	0.65	0.65	0.65	15.1		7.4	7.8		1320	4	7	
0810	TR4763W	10969	10/28/10	11:51	190	4.5	0	0	0	0	0.61	1.39	1.39	16.2		7.5	7.7		1260	4	7	
0810	TR4764W	17844	10/28/10	12:20	140		0	0	0	0	0.72	1.53	1.53	16.3		5.7	7.5		1200	4	7	
0810	TR4765W	10967	10/28/10	12:30	81		0	0	0	0	0.72	1.53	1.53	18.5		3	7.3		743	4	7	
0810	TR4767W	20840	10/28/10	11:04	25		0	0	0	0	0.56	0.56	0.56	15.9		3.8	7.1		734	4	7	
0810	TR4768W	14904	10/28/10	10:33	25		0	0	0	0	0.44	0.44	0.44	15.4		3.6	7.3		816	4	7	
0810	TR86612	10967	09/27/01	8:33	86		0	0	0	0.07	0.07	0.08	0.22	19.9		8	7.6		351	4	4	
0810	TR86613	17844	09/27/01	8:46	85		0	0	0	0.07	0.07	0.08	0.22	19.6		7.9	7.8		351	4	4	
0810	TR86614	10969	09/27/01	8:58	98	168	0	0	0	0	0	0.02	0.12	21		7.7	7.8		347		4	
0810	TR86618	14246	09/27/01	10:03	2400		0	0	0	0	0	0	0.14	20.8		8	8.1		350	4	4	
0810	TR86619	20840	09/27/01	10:18	17		0	0	0	0	0	0	0.37	22.1		8	8.1		343	4	4	
0810	TR86621	14904	09/27/01	10:56	13		0	0	0	0	0	0	0.13	23.1		8.2	8		362		4	
0810	TR86622	10967	10/30/01	7:41	140		0	0	0	0	0	0	0	16.2		9.5	8.1		351	4	7	
0810	TR86623	17844	10/30/01	7:51	170		0	0	0	0	0	0	0	16		9.3	8.1		354	4	7	
0810	TR86624	10969	10/30/01	8:07	160	161	0	0	0	0	0	0	0	17.1		9.1	8.2		346		7	
0810	TR86627	14246	10/30/01	8:50	120		0	0	0	0	0	0	0	16.8		9.4	8.3		346	4	7	
0810	TR86628	14904	10/30/01	9:37	39		0	0	0	0	0	0	0	18.4		9.4	8.4		338	4	7	
0810	TR86630	20840	10/30/01	9:07	82		0	0	0	0	0	0	0	17.7		9.2	8.3		341	4	7	
0810	TR86632	10967	11/28/01	8:05	550		0.06	0.06	0.06	0.06	0.08	0.08	0.08	10.2		9.8	8.1		354	4	7	
0810	TR86633	17844	11/28/01	8:14	250		0.06	0.06	0.06	0.06	0.08	0.08	0.08	10.1		10.1	8.1		349	4	7	
0810	TR86634	10969	11/28/01	8:25	820	117	0.07	0.07	0.07	0.07	0.08	0.08	0.08	10		10.4	8.1		346		7	
0810	TR86637	14246	11/28/01	8:56	24		0.19	0.19	0.19	0.19	0.23	0.23	0.23	9.3		10.4	8.3		346	4	7	
0810	TR86639	14904	11/28/01	9:29	200		0.28	0.28	0.28	0.28	0.29	0.29	0.29	11.2		9.8	8.4		329	4	7	
0810	TR86640	10968	11/28/01	9:14	93		0.07	0.07	0.07	0.07	0.08	0.08	0.08	10.2		10	8.3		335	4	7	
0810	TR86642	10967	12/27/01	7:30	160		0	0	0	0	0	0.02	0.02	5.3		10.7	7.9		484	3	7	
0810	TR86643	17844	12/27/01	7:45	160		0	0	0	0	0	0.02	0.02	4.2		11.1	8		515	3	7	
0810	TR86644	10969	12/27/01	7:53	980	8.1	0	0	0	0	0	0	0	4.3		10.8	8.1		553		7	
0810	TR86647	14246	12/27/01	8:25	1400		0	0	0	0	0	0	0	2.3		12.1	8.2		692	3	7	
0810	TR86649	14904	12/27/01	9:13	1300		0	0	0	0	0	0	0	4.5		10.4	8		400	3	7	
0810	TR86650	20840	12/27/01	8:40	36		0	0	0	0	0	0	0	4.9		8.7	7.6		704	3	7	
0810	TR86652	10967	01/24/02	8:17	140		0.38	0.38	0.38	0.38	0.38	0.38	0.38	9.8		9.5	8		435	3	1	
0810	TR86653	17844	01/24/02	8:31	770		0.54	0.54	0.54	0.54	0.54	0.54	0.54	9.5		9.1	8.1		464	3	1	
0810	TR86654	10969	01/24/02	8:43	2400	11	0.5	0.5	0.5	0.5	0.5	0.5	0.5	9.4		9.7	8.3		493		1	
0810	TR86657	14246	01/24/02	9:19	590		0.56	0.56	0.56	0.56	0.56	0.56	0.56	8.2		10.7	8.4		665	4	1	

0810	TR86659	14904	01/24/02	10:12	20		0.41	0.41	0.41	0.41	0.41	0.41	0.41	9		9.3	8.2		289	3	1			
0810	TR86660	10968	01/24/02	9:35	170		0.5	0.5	0.5	0.5	0.5	0.5	0.5	9.8		8.2	7.9		610	3	1			
0810	TR86662	10967	02/21/02	8:10	930		0	0	0.7	0.7	0.7	0.7	0.7	13.1		10.8	8.1		487	4	2			
0810	TR86663	17844	02/21/02	8:30	1100		0	0	0.7	0.7	0.7	0.7	0.7	12.2		10.8	8.1		569	4	2			
0810	TR86664	10969	02/21/02	8:42	740	112	0	0	0.53	0.53	0.53	0.53	0.53	12.2		10.4	8.2		417		2			
0810	TR86667	14246	02/21/02	9:21	300		0	0	0.41	0.41	0.41	0.41	0.41	10.8		11.3	8.2		364	4	2			
0810	TR86669	14904	02/21/02	10:10	540		0	0	0.96	0.96	0.96	0.96	0.96	10.6		11.4	8.3		341	4	2			
0810	TR86670	20840	02/21/02	9:37	140		0	0	0.57	0.57	0.57	0.57	0.57	11.5		11.4	8.3		353	4	2			
0810	TR86672	10967	03/27/02	8:45	130		0	0	0	0	0	0	0.2	12.2		8.2	7.8		546	4	6			
0810	TR86673	17844	03/27/02	9:19	210		0	0	0	0	0	0	0	0.2	12.2		8.4	8		587	4	6		
0810	TR86674	10969	03/27/02	9:02	390	26	0	0	0	0	0	0	0	0.22	11.9		9.2	8.1		642		6		
0810	TR86677	14246	03/27/02	9:54	2400		0	0	0	0	0	0	0	0	12.4		10.8	8.4		795	4	6		
0810	TR86679	14904	03/27/02	10:48	29		0	0	0	0	0	0	0	0	11.6		11.3	8		410	4	6		
0810	TR86680	20840	03/27/02	10:18	130		0	0	0	0	0	0	0	11.9		7.7	7.8		841	4	6			
0810	TR86682	10967	04/25/02	9:30	41		0	0	0	0	0	0	0.13	0.13	23		5.4	7.9		879	4	7		
0810	TR86683	17844	04/25/02	9:45	140		0	0	0	0	0	0	0.04	0.13	21.8		4.8	7.9		900	4	7		
0810	TR86684	10969	04/25/02	10:00	160	28	0	0	0	0	0	0	0	0.03	0.1	22		5.5	8		931		7	
0810	TR86687	14246	04/25/02	10:47	510		0	0	0	0	0	0	0	0.09	20.5		7.5	8.2		966	4	7		
0810	TR86689	14904	04/25/02	11:40	20		0	0	0	0	0	0	0	0.03	21.4		5	7.7		513	4	7		
0810	TR86690	20840	04/25/02	11:05	140		0	0	0	0	0	0	0	0.02	20.2		7.6			1020	4	7		
0810	TR86692	10967	05/22/02	9:35	170		0	0	0	0	0	0	0.88	0.88	20.3		5.5	7.5		498	4	5		
0810	TR86693	17844	05/22/02	9:46	410		0	0	0	0	0	0	0.88	0.88	20.4		6.5	7.7		575	4	5		
0810	TR86694	10969	05/22/02	9:57	440	28	0	0	0	0	0	0	1	1	20.3		6.8	7.8		663		5		
0810	TR86697	14246	05/22/02	10:39	380		0	0	0	0	0	0	1.25	1.25	20.2		8	8.1		846	4	5		
0810	TR86699	14904	05/22/02	11:29	140		0	0	0	0	0	0	0.71	0.71	20.4		6.2	7.8		427	4	5		
0810	TR86700	20840	05/22/02	10:55	130		0	0	0	0	0	0	0.68	0.68	19.9		6.4	7.6		732	4	5		
0810	TR86702	10967	06/27/02	9:45	460		0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	26.8		5.1	7.9		927	4	5		
0810	TR86703	17844	06/27/02	9:58	200		0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	26		5.8	7.9		970	4	5		
0810	TR86704	10969	06/27/02	10:09	120	18	0	0	0	0	0	0	0	0	26.6		6.4	8		977		5		
0810	TR86707	14246	06/27/02	10:45	52		0	0.03	0.03	0.03	0.03	0.03	0.03	0.03	26.1		8.2	8.6		1020	4	5		
0810	TR86709	14904	06/27/02	11:38	180		0	0	0	0	0	0	0	0	27.2		5.7	7.7		531	4	5		
0810	TR86710	20840	06/27/02	11:05	210		0	0	0	0	0	0	0	0.03	26.6		5.1	7.6		914	4	5		
0810	TR86712	10967	07/29/02	12:45	93		0	0	0	0	0.15	0.15	0.15	0.15	28.9		6.3	8		885	3	7		
0810	TR86713	17844	07/29/02	12:59	110		0	0	0	0	0.15	0.15	0.15	0.15	28.5		5.9	8		929	3	7		
0810	TR86714	10969	07/29/02	13:10	110	13	0	0	0	0	0.33	0.33	0.33	0.33	28.2		7	8.1		895		7		
0810	TR86717	14246	07/29/02	13:44	600		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	27.8		9.8	8.3		986	4	7		
0810	TR86719	14904	07/29/02	14:35	300		0.21	0.21	0.21	0.21	0.52	0.52	0.52	0.52	27.8		5.6	7.8		521	4	7		
0810	TR86720	20840	07/29/02	13:59	13000		0.14	0.14	0.14	0.14	0.82	0.82	0.82	0.82	27.5		4.8	7.6		940	3	7		
0810	TR86722	10967	08/20/02	9:05	170		0	0	0	0	0	0	0	0.03	27.3		3.8	7.6		1070	4	5		
0810	TR86723	17844	08/20/02	9:17	320		0	0	0	0	0	0	0	0.03	27		4	7.6		1130	3	5		
0810	TR86724	10969	08/20/02	9:29	490	8.3	0	0	0	0	0	0	0	0.03	27		5.1	7.8		1020		5		
0810	TR86727	14246	08/20/02	10:15	420		0	0	0	0	0	0	0	0	26.3		4.8	7.9		1100	3	5		
0810	TR86729	14904	08/20/02	11:03	310		0	0	0	0	0	0	0	0	27.8		4.6	7.6		506	2	5		
0810	TR86730	20840	08/20/02	10:31	780		0	0	0	0	0	0	0	0	27.2		3.3	7.5		913	3	5		
0810	TR86732	10967	04/21/03	8:50	150		0	0	0.01	0.01	0.01	0.01	0.01	0.01	18.8		5.9	7.6		1090	4	4		
0810	TR86733	17844	04/21/03	9:03	140		0	0	0.01	0.01	0.01	0.01	0.01	0.01	18.5		6.5	7.8		1100	4	4		
0810	TR86734	10969	04/21/03	9:16	120	18	0	0	0.02	0.02	0.02	0.02	0.02	0.02	18.1		6.3	7.9		1120		4		
0810	TR86737	14246	04/21/03	10:07	390		0	0	0	0	0	0	0	0	17		7.9	7.9		1230	3	4		

0810	TR86739	14904	04/21/03	10:57	34		0	0	0	0	0	0	0	19.4		5.6	7.7		900	2	4
0810	TR86740	20840	04/21/03	10:23	200		0	0	0	0	0	0	0	18.4		5.1	7.6		1370	3	4
0810	TR86742	10967	05/22/03	8:35	1400		0.32	1.47	1.7	1.7	1.7	1.7	1.75	19.6		7.8	7.7		487	4	1
0810	TR86743	17844	05/22/03	8:48	690		0.32	1.47	1.7	1.7	1.7	1.7	1.75	19.8		7.8	7.8		458	4	1
0810	TR86744	10969	05/22/03	9:00	460	283	0.28	1.37	1.61	1.61	1.61	1.61	1.7	20.1		7.8	7.7		419		1
0810	TR86747	14246	05/22/03	9:37	490		0.46	1.53	2.03	2.03	2.03	2.03	2.32	20.5		8	8		401	5	1
0810	TR86749	14904	05/22/03	10:28	66		0.31	0.99	1.67	1.67	1.67	1.69	2.18	21.9		8.1	8.3		369	5	1
0810	TR86750	20840	05/22/03	9:54	65	298	0.42	1.32	2	2	2	2	2.46	21.3		7.9	7.7		375	5	1
0810	TR86752	10967	06/26/03	9:01	210		1.07	1.07	1.07	1.07	1.07	1.07	1.07	28.2		7.9	4.4		837	3	0.5
0810	TR86753	17844	06/26/03	9:17	2100		1.07	1.07	1.07	1.07	1.07	1.07	1.07	26.9		7.9	4.9		737	3	0.5
0810	TR86754	10969	06/26/03	9:26	1000	88	1.07	1.07	1.07	1.07	1.07	1.07	1.07	25.8		7.6	3.8		549		0.5
0810	TR86757	14246	06/26/03	10:04	2100		1.38	1.38	1.38	1.38	1.38	1.38	1.38	25.2		7.9	6.2		780	5	0.5
0810	TR86759	14904	06/26/03	10:46	440	33	1.18	1.18	1.18	1.18	1.18	1.18	1.18	26.8		7.5	4.1		474		0.5
0810	TR86760	20840	06/26/03	11:27	2100		1.33	1.33	1.33	1.33	1.33	1.33	1.33	26.8		7.6	5.2		901	3	0.5
0810	TR86762	10967	07/31/03	8:33	240		0	0	0	0	0	0	0	28.1		7.9	6.6		353	4	7
0810	TR86763	17844	07/31/03	8:47	280		0	0	0	0	0	0	0	28.9		7.8	6.8		351	4	7
0810	TR86764	10969	07/31/03	8:59	540	247	0	0	0	0	0	0	0	28.8		7.9	7.2		348		7
0810	TR86767	14246	07/31/03	9:47	300		0	0	0	0	0	0	0	28.9		8.1	6.8		346	5	7
0810	TR86769	14904	07/31/03	10:34	170		0	0	0	0	0	0	0	29.1		8.2	7.3		337	4	7
0810	TR86770	20840	07/31/03	10:02	590		0	0	0	0	0	0	0	28.5		8.1	7.3		338	5	7
0810	TR86772	10967	08/27/03	8:45	280		0	0.04	0.04	0.04	0.04	0.04	0.04	28		7.9	6.7		344	4	1
0810	TR86773	17844	08/27/03	8:57	120		0	0.04	0.04	0.04	0.04	0.04	0.04	28.4		7.9	6.6		343	4	1
0810	TR86774	10969	08/27/03	9:09	190	272	0.01	0.01	0.01	0.01	0.01	0.01	0.01	28.3		8	6.7		343		1
0810	TR86777	14246	08/27/03	9:43	130		0.15	0.15	0.15	0.15	0.22	0.22	0.22	28.8		8.2	7.2		339	5	1
0810	TR86779	14904	08/27/03	10:41	31		0.05	0.05	0.05	0.05	0.05	0.05	0.05	28.7		8.3	7.5		337	4	1
0810	TR86780	20840	08/27/03	10:02	20	296	0.46	0.46	0.46	0.46	0.46	0.46	0.46	28.7		8.2	7.5		339	5	1
0810	TR86782	10967	09/25/03	8:59	180		0	0	0	0	0	0	0.77	23.4		4.7	7.5		402	3	7
0810	TR86783	17844	09/25/03	9:12	240		0	0	0	0	0	0	0.77	23		5.2	7.6		429	3	7
0810	TR86784	10969	09/25/03	9:22	340	9.5	0	0	0	0	0	0	0.58	23.4		6.2	7.7		459		7
0810	TR86787	14246	09/25/03	10:12	240		0	0	0	0	0	0	0.12	22.2		7.3	8.1		632	3	7
0810	TR86789	14904	09/25/03	11:07	52		0	0	0	0	0	0	0.06	24.1		5.9	7.6		362	2	7
0810	TR86790	20840	09/25/03	10:26	150		0	0	0	0	0	0	0.05	23.1		5.7	7.5		637	3	7
0810	TR86792	10967	10/23/03	8:36	170		0	0	0	0	0	0	0	20		7.7	7.8		360	5	7
0810	TR86793	17844	10/23/03	8:50	160		0	0	0	0	0	0	0	19.7		7.8	8.4		361	5	7
0810	TR86794	10969	10/23/03	9:04	160	170	0	0	0	0	0	0	0	20.6		7.7	8.7		354	5	7
0810	TR86797	14246	10/23/03	9:44	190		0	0	0	0	0	0	0	19.6		8.1	8.8		355	5	7
0810	TR86799	14904	10/23/03	10:58	83	180	0	0	0	0	0	0	0	21.7		8.5	8.4		347	5	7
0810	TR86800	20840	10/23/03	10:02	660		0	0	0	0	0	0	0	21.5		8.2	8.6		351	5	7
0810	TR86802	10967	11/24/03	9:06	910		0	0.42	0.42	0.42	0.42	0.42	1.59	11.5		9.2	7.9		840	4	6
0810	TR86803	17844	11/24/03	9:20	560		0	0.42	0.42	0.42	0.42	0.42	1.59	11.1		9.5	8.1		550	4	6
0810	TR86804	10969	11/24/03	9:35	660	86	0	0.2	0.2	0.2	0.2	0.2	1.4	11		10	8.2		390	4	6
0810	TR86808	14246	11/24/03	10:22	340		0	0.03	0.03	0.03	0.03	0.03	0.26	10.1		10.7	8.7		370	4	6
0810	TR86809	20840	11/24/03	10:41	330		0	0.02	0.02	0.02	0.02	0.02	0.38	12.4		10.1	8.6		360	4	6
0810	TR86811	14904	11/24/03	11:17	52		0	0.02	0.02	0.02	0.02	0.02	0.53	14.2		10	8.8		350	4	6
0810	TR86812	10967	12/22/03	8:53	180		0	0	0	0	0	0	0	9.7		10.9	8.6		390	4	7
0810	TR86813	17844	12/22/03	9:08	150		0	0	0	0	0	0	0	9.9		10.9	9		390	4	7
0810	TR86814	10969	12/22/03	9:20	210	103	0	0	0	0	0	0	0	10.4		10.7	8.9		380	4	7
0810	TR86818	14246	12/22/03	10:08	460		0	0	0	0	0	0	0	11.1		11.1	9		380	4	7

0810	TR86819	20840	12/22/03	10:25	450		0	0	0	0	0	0	0	11		11.1	9.1		260	4	7	
0810	TR86821	14904	12/22/03	11:08	30		0	0	0	0	0	0	0	10.2		11.4	8.9		350	4	7	
0810	TR86822	10967	01/29/04	9:09	110		0	0	0	0	0	0	0	6.8		12.2	7.9		660	4		
0810	TR86823	17844	01/29/04	9:23	460		0	0	0	0	0	0	0	6.6		12.1	8		690	4		
0810	TR86824	10969	01/29/04	9:35	860	50	0	0	0	0	0.03	0.03	0.03	6.3		13.1	8.1		710	4		
0810	TR86827	14246	01/29/04	10:12	360		0	0	0	0	0.13	0.13	0.13	7.2		12.5	7.1		520	4		
0810	TR86828	20840	01/29/04	10:32	110		0	0	0	0	0.16	0.16	0.16	7.3		11.8	8		400	4		
0810	TR86830	14904	01/29/04	11:06	5		0	0	0	0	0.15	0.15	0.15	9		13	8.2		350	4		
0810	TR86832	10967	02/26/04	9:00	8300		0	0.81	1.33	1.35	1.35	1.35	1.35	7.1		11.2	7.4		310	5	1	
0810	TR86833	17844	02/26/04	9:18	13000		0	0.81	1.33	1.35	1.35	1.35	1.35	7.1		11.2	7.4		310	5	1	
0810	TR86834	10969	02/26/04	9:31	12000	244	0	0.69	1.22	1.23	1.23	1.23	1.23	6.8		11.5	7.5		360	5	1	
0810	TR86838	14246	02/26/04	10:18	2900		0	0.91	1.33	1.37	1.37	1.37	1.37	7.2		11	7.7		580	5	1	
0810	TR86839	20840	02/26/04	10:33	11000		0	1.15	1.55	1.71	1.71	1.71	1.71	6.5		10.3	7.3		410	4	1	
0810	TR86841	14904	02/26/04	11:08	690		0	1.17	1.75	1.87	1.87	1.87	1.87	6.3		10.2	7.5		310	4	1	
0810	TR86842	10967	03/25/04	9:07	520		0	0	0	0	0.87	0.87	0.87	17.8		6.4	7.8		630	4		
0810	TR86843	17844	03/25/04	9:21	610		0	0	0	0	0.87	0.87	0.87	17.6		7.5	7.9		680	4		
0810	TR86844	10969	03/25/04	9:33	870	14	0	0	0	0	0.93	0.93	0.93	17.9		7.2	8		820	4		
0810	TR86847	14246	03/25/04	10:10	410		0	0	0	0	0.28	0.28	0.28	18.1		8.9	8.3		970	4		
0810	TR86848	20840	03/25/04	10:28	2400		0	0	0	0	0.03	0.03	0.03	18		7.2	7.7		1040	4		
0810	TR86850	14904	03/25/04	11:00	310		0	0	0	0	0	0	0	18.4		6.5	7.8		620	3		
0810	TR86851	10967	04/29/04	8:20	170		0.03	0.03	0.03	0.04	0.06	2.67	2.67	19.7		5.6	7.5		500	4	5	
0810	TR86852	17844	04/29/04	8:31	530		0.03	0.03	0.03	0.04	0.06	2.67	2.67	19.5		6.4	7.6		520	4	5	
0810	TR86853	10969	04/29/04	8:45	480	29	0.03	0.03	0.03	0.03	0.04	2.63	2.63	19.6		6	7.6		570	4	5	
0810	TR86856	14246	04/29/04	9:22	680		0.03	0.03	0.03	0.13	0.14	2.01	2.01	19.1		7.6	7.9		630	4	5	
0810	TR86861	10967	05/26/04	9:42	270		0.15	0.18	0.18	0.18	0.18	0.18	0.18	24		4.7	7.5		680	4	7	
0810	TR86862	17844	05/26/04	9:54	95		0.15	0.18	0.18	0.18	0.18	0.18	0.18	23.8		5.8	7.6		710	3	7	
0810	TR86863	10969	05/26/04	10:04	450	14	0.17	0.17	0.17	0.17	0.17	0.17	0.17	24		5.8	7.7		740	3	7	
0810	TR86868	14246	05/26/04	10:48	74		0.09	0.09	0.09	0.09	0.09	0.09	0.09	23.9		7.4	8		880	3	7	
0810	TR86869	20840	05/26/04	11:03	350		0.08	0.11	0.11	0.11	0.11	0.11	0.11	24.2		5	7.4		800	3	7	
0810	TR86870	14904	05/26/04	11:35	610		0.1	0.11	0.11	0.11	0.11	0.11	0.11	24.8		5.9	7.6		410	5	7	
0810	TR86871	10967	06/24/04	10:05	190		0	0	0.05	0.05	0.41	0.42	0.42	25.9		5.3	7.5		610	4	2	
0810	TR86872	17844	06/24/04	10:18	340		0	0	0.05	0.05	0.41	0.42	0.42	25.3		5.8	7.5		570	4	2	
0810	TR86873	10969	06/24/04	10:30	260	139	0	0	0.03	0.03	0.46	0.47	0.47	25.7		6.1	7.6		520	5	2	
0810	TR86876	14246	06/24/04	11:05	400		0	0	0.09	0.09	1.68	1.68	1.68	26.7		7	7.7		540	5	2	
0810	TR86877	20840	06/24/04	11:21	390		0	0	0.13	0.13	0.94	0.94	0.94	25.5		5.8	7.4		950	4	2	
0810	TR86879	14904	06/24/04	12:20	330		0	0	0.21	0.21	0.29	0.34	0.34	26		6.2	7.4		380	5	2	
0810	TR86881	10967	07/29/04	9:00	10000		2.83	2.86	2.86	2.86	2.87	2.88	2.88	23.9		5.9	7.7		580	5	1	
0810	TR86882	17844	07/29/04	9:14	4800		2.83	2.86	2.86	2.86	2.87	2.88	2.88	23.7		6.3	7.8		610	5	1	
0810	TR86883	10969	07/29/04	9:25	10000	271	2.56	2.62	2.62	2.62	2.67	2.67	2.67	23.7		5.6	7.7		640	5	1	
0810	TR86886	14246	07/29/04	10:00	10000		2.27	2.5	2.5	2.5	2.55	2.55	2.55	23.3		6.7	7.9		240	5	1	
0810	TR86887	20840	07/29/04	10:18	14000		1.36	1.64	1.64	1.67	2.19	2.19	2.19	23.7		6.1	7.8		290	5	1	
0810	TR86889	14904	07/29/04	10:49	750		1.15	1.63	1.63	1.63	2.01	2.01	2.01	24.7		5.1	7.7		500	5	1	
0810	TR86891	10967	08/30/04	8:53	160		0	0.17	0.96	0.96	0.96	0.96	0.96	25.6		5.3	7.6		980	4	1	
0810	TR86892	17844	08/30/04	9:07	150		0	0.17	0.96	0.96	0.96	0.96	0.96	24.9		5.4	7.5		680	4	1	
0810	TR86893	10969	08/30/04	9:20	290	40	0	0.15	0.73	0.73	0.73	0.73	0.73	24.8		5.7	7.6		670	5	1	
0810	TR86896	14246	08/30/04	10:00	460		0	0	1.2	1.2	1.2	1.2	1.2	24.5		6.7	7.7		370	5	1	
0810	TR86897	20840	08/30/04	10:17	80		0	0	1.27	1.27	1.27	1.27	1.27	26.1		6.4	7.8		320	4	1	
0810	TR86899	14904	08/30/04	10:54	51		0	0	1.79	1.79	1.79	1.79	1.79	25.5		7	8		300	4	1	

0810	TR86901	10967	09/28/04	9:59	63		0	0	0	0	0	0	0	23.4		7.9	7.9		330	5	7
0810	TR86902	17844	09/28/04	10:15	74		0	0	0	0	0	0	0	23.1		8.2	8		330	5	7
0810	TR86903	10969	09/28/04	10:28	97	189	0	0	0	0	0	0	0	23.5		8.3	8		320	5	7
0810	TR86907	14246	09/28/04	11:13	75		0	0	0	0.13	0.13	0.13	0.13	23.5		8.9	8.4		330	5	7
0810	TR86908	20840	09/28/04	11:30	52		0	0	0	0.03	0.03	0.03	0.03	24.2		8.9	8.2		310	5	7
0810	TR86910	14904	09/28/04	12:06	20		0	0	0	0.03	0.03	0.03	0.03	25.1		9.2	8.4		310	5	7
0810	TR86913	17844	11/01/04	9:17	1400		1.38	1.57	1.6	1.6	1.67	1.69	1.69	20.2		2.8	8		350	5	0.5
0810	TR86914	10969	11/01/04	9:30	1300	187	1.5	1.63	1.67	1.67	1.77	1.8	1.83	20.7		3.1	8		340	5	0.5
0810	TR86917	14246	11/01/04	10:09	24000		0.84	0.9	0.9	0.9	0.94	1	1.39	20.2		3.2	8.3		410	5	0.5
0810	TR86919	14904	11/01/04	10:56	1300		0.71	0.78	0.78	0.78	0.82	0.91	1.05	21.3		4	8.3		310	5	0.5
0810	TR86920	20840	11/01/04	10:22	20000		0.87	0.91	0.91	0.91	0.97	1.03	1.2	21		3.5	8.2		310	5	0.5
0810	TR86921	10967	11/29/04	9:09	460		0.2	0.2	0.2	0.2	0.2	0.72	1.16	12.1		8.3	7.7		510	4	5
0810	TR86923	17844	11/29/04	9:29	730		0.2	0.2	0.2	0.2	0.2	0.72	1.16	12.4		9.3	7.7		530	4	5
0810	TR86924	10969	11/29/04	9:39	480	46	0.19	0.19	0.19	0.19	0.19	0.46	0.99	12.1		9.5	7.8		590	4	5
0810	TR86927	14246	11/29/04	10:18	580		0.28	0.28	0.28	0.28	0.28	0.57	0.95	12.2		9.5	7.9		680	4	5
0810	TR86929	14904	11/29/04	11:03	20		0.27	0.27	0.27	0.27	0.27	0.55	0.73	11.6		7.6	7.5		420	4	5
0810	TR86930	20840	11/29/04	10:32	500		0.15	0.15	0.15	0.15	0.15	0.51	0.79	13.8		7.8	7.4		700	4	5
0810	TR86931	10967	12/20/04	9:18	180		0	0	0	0	0	0	0	6.7		5.2	8		1000	4	7
0810	TR86932	17844	12/20/04	9:32	240		0	0	0	0	0	0	0	6.5		6.3	8.1		1000	4	7
0810	TR86933	10969	12/20/04	9:45	260	27	0	0	0	0	0	0	0	6		6.4	8.2		1060	4	7
0810	TR86936	14246	12/20/04	10:30	280		0	0	0	0	0	0	0	6.5		7.3	8.3		1100	3	7
0810	TR86938	14904	12/20/04	11:28	2000		0	0	0	0	0	0	0	6.3		6.8	8.4		590	3	7
0810	TR86939	20840	12/20/04	10:46	98		0	0	0	0	0	0	0	6.9		7.1	8		1080	3	7
0810	TR86941	10967	01/20/05	9:16	470		0	0	0	0	0	0	0	6		12.1	7.7		1040	4	7
0810	TR86942	17844	01/20/05	9:31	630		0	0	0	0	0	0	0	6		11	7.7		1040	4	7
0810	TR86943	10969	01/20/05	9:43	450	26	0	0	0	0	0	0	0	5.4		11.3	7.7		1110	4	7
0810	TR86946	14246	01/20/05	10:16	580		0	0	0	0	0	0	0	6.2		11.5	7.8		1110	4	7
0810	TR86948	14904	01/20/05	11:10	230		0	0	0	0	0	0	0	5.5		10.5	7.4		730	3	7
0810	TR86949	20840	01/20/05	10:32	110		0	0	0	0	0	0	0	6.5		9.8	7.3		1170	3	7
0810	TR86951	10967	02/22/05	9:10	230		0	0	0.02	0.06	0.06	0.06	0.06	15		9.5	7.7		1070	4	3
0810	TR86952	17844	02/22/05	9:47	320		0	0	0.02	0.06	0.06	0.06	0.06	14.2		8.9	7.7		1060	4	3
0810	TR86953	10969	02/22/05	10:00	630	29	0	0	0.04	0.09	0.09	0.09	0.09	14.4		9.4	7.8		1110		3
0810	TR86956	14246	02/22/05	10:44	240		0	0	0	0.11	0.11	0.11	0.11	13.8		11	7.9		1080	4	3
0810	TR86958	14904	02/22/05	11:44	270		0	0	0	0.1	0.1	0.1	0.1	13.1		7.9	7.4		710	3	3
0810	TR86959	20840	02/22/05	11:00	530		0	0	0	0.12	0.12	0.12	0.12	12.5		9.6	7.4		1080	3	3
0810	TR86961	10967	04/07/05	8:45	85		0	0	0	0				17.4		5	7.5		1070	4	7
0810	TR86962	17844	04/07/05	8:59	160		0	0	0	0				16		8	7.8		1050	4	7
0810	TR86963	10969	04/07/05	9:12	160	26	0.02	0.02	0.02	0.02				15.2		8.6	7.9		1150		7
0810	TR86966	14246	04/07/05	9:59	910		0.02	0.02	0.02	0.02				14.6		10.2	8.1		1170	4	7
0810	TR86968	14904	04/07/05	11:16	120		0.03	0.03	0.03	0.03				16.4		6.9	7.9		680	3	7
0810	TR86969	20840	04/07/05	10:16	460		0.01	0.01	0.01	0.01				14.6		5.8	7.8		1000	3	7
0810	TR86971	10967	04/28/05	10:19	100		0	0	0.04	0.25	0.25	0.25	0.25	18.4		5.2	7.4		1110	4	2
0810	TR86972	17844	04/28/05	10:32	73		0	0	0.04	0.25	0.25	0.25	0.25	18.6		6.9	7.4		1110	4	2
0810	TR86973	10969	04/28/05	10:44	200	20	0	0	0.04	0.13	0.13	0.13	0.13	18.8		7.1	7.5		1220		2
0810	TR86976	14246	04/28/05	11:25	430		0	0	0.02	0.06	0.06	0.06	0.06	19.6		8.3	7.5		1250	4	2
0810	TR86978	14904	04/28/05	12:14	30		0	0	0.07	0.24	0.24	0.24	0.24	19.4		5.8	7.2		740	3	2
0810	TR86979	20840	04/28/05	11:39	280		0.01	0.01	0.03	0.12	0.12	0.12	0.12	19.2		4.8	7.1		1080	3	2
0810	TR86981	17844	08/18/05	9:10	1200		0	0.06	0.1	0.19	0.22	0.22	0.22	27		6.1	7.8		307	5	1

0810	TR86982	10969	08/18/05	9:23	870	119	0	0.02	0.06	0.27	0.33	0.33	0.35	27.7		6.2	7.8		310	5	1	
0810	TR86985	14246	08/18/05	10:08	610		0	0.19	0.28	0.36	0.7	0.7	0.7	27.4		7.3	8.2		339	5	1	
0810	TR86987	14904	08/18/05	10:59	46		0	0.49	1.19	1.55	2.21	2.21	2.21	28.6		7.4	8.2		331	5	1	
0810	TR86988	20840	08/18/05	10:24	550		0	0.38	0.68	0.92	1.52	1.53	1.53	29.2		7	8.1		332	5	1	
0810	TR86990	10967	09/15/05	12:04	370		0	0	0	0.04	0.04	0.04	0.04	26.7		6.7	7.9		340	5	3	
0810	TR86991	17844	09/15/05	11:53	130		0	0	0	0.04	0.04	0.04	0.04	25		7.1	7.9		340	5	3	
0810	TR86992	10969	09/15/05	11:44	870	354	0	0	0	0.04	0.04	0.04	0.04	23.5		7.4	7.8		340	5	3	
0810	TR86995	14246	09/15/05	10:20	170		0	0	0	0.39	0.39	0.39	0.39	22.4		7.4	7.8		330	5	3	
0810	TR86997	14904	09/15/05	11:13	12		0	0	0	0.17	0.17	0.17	0.17	21.3		7.7	7.5		340	5	3	
0810	TR86998	20840	09/15/05	10:36	74		0	0	0	0.13	0.13	0.13	0.13	21.4		8	7.6		340	5	3	
0810	TR87000	10967	01/26/06	9:04	160		0	0	0	0.89	1.3	1.3	1.3	8.5		11.3	8.2		370	4	3	
0810	TR94001	17844	01/26/06	9:16	76		0	0	0	0.89	1.3	1.3	1.3	8.3		11.4	8.1		410	4	3	
0810	TR94002	10969	01/26/06	9:28	180	147	0	0	0	0.87	1.26	1.26	1.26	9		11.2	8.2		370	4	3	
0810	TR94007	14904	01/26/06	11:14	93		0	0	0	0.14	0.58	0.58	0.58	9.4		11.7	8.3		360	4	3	
0810	TR94008	20840	01/26/06	10:42	56		0	0	0	0.17	0.58	0.58	0.58	9.3		11.5	8.3		370	4	3	
0810	TR94010	10967	10/26/05	9:05	82		0	0	0.01					14.7		9.4	7.9		490	4	7	
0810	TR94011	17844	10/26/05	9:19	140		0	0	0.01					14.4		9.3	8.1		500	4	7	
0810	TR94012	10969	10/26/05	9:30	47	135	0	0	0.01					15.2		9.2	8.1		480	5	7	
0810	TR94015	14246	10/26/05	10:30	33		0	0	0					15.8		9.4	8.2		470	5	7	
0810	TR94017	14904	10/26/05	11:26	29		0	0	0.01					18.9		9.1	8.3		460	5	7	
0810	TR94018	20840	10/26/05	10:49	37	148	0	0	0.01					17.9		8.8	8.2		170	5	7	
0810	TR94020	10967	06/02/05	13:46	870		0	0.97	0.97	1.42	1.44	1.93	1.93	23.8		5.7	7.3		579	4	1	
0810	TR94021	17844	06/02/05	14:01	830		0	0.97	0.97	1.42	1.44	1.93	1.93	24.3		6	7.3		397	4	1	
0810	TR94022	10969	06/02/05	14:13	870	147	0	1.09	1.09	1.25	1.27	1.74	1.74	25.1		6.4	7.4		463	5	1	
0810	TR94025	14246	06/02/05	9:14	1200		0	0.83	0.89	1.25	1.62	1.67	1.67	23.6		7.1	7.6		915	4	1	
0810	TR94027	14904	06/02/05	9:55	770		0	0.49	0.5	0.5	0.73	0.8	0.8							3	1	
0810	TR94028	20840	06/02/05	9:27	290		0	0.88	0.89	1.01	1.31	1.35	1.35	22.3		6.1	7.4		541	4	1	
0810	TR94030	10967	06/30/05	9:22	38	220	0	0	0	0	0	0	0	27.7		6.4	7.9		333	5	7	
0810	TR94031	17844	06/30/05	9:35	93		0	0	0	0	0	0	0	28		6.5	8		331	5	7	
0810	TR94032	10969	06/30/05	9:45	150	220	0	0	0	0	0	0	0	28.2		6.5	8		327	5	7	
0810	TR94035	14246	06/30/05	10:24	130		0	0	0	0	0	0	0	28.6		6.9	8.2		326	5	7	
0810	TR94037	14904	06/30/05	11:13	33	290	0	0	0	0	0	0	0	28.7		7.4	8.3		317	5	7	
0810	TR94038	20840	06/30/05	10:42	55		0	0	0	0	0	0	0	28.2		7.2	8.2		321	5	7	
0810	TR94040	10967	07/28/05	9:18	190	184	0.01	0.46	0.46	0.46	0.46	0.46	0.46	26.9		7.1	8		333		1	
0810	TR94041	17844	07/28/05	9:31	98		0.01	0.46	0.46	0.46	0.46	0.46	0.46	26.7		7.2	8		335	5	1	
0810	TR94042	10969	07/28/05	9:42	74	182	0.01	0.35	0.35	0.35	0.35	0.35	0.35	26.7		7.3	8		331	5	1	
0810	TR94045	14246	07/28/05	10:25	52		0	0.18	0.18	0.18	0.18	0.18	0.18	26.3		8.1	8.2		331	5	1	
0810	TR94047	14904	07/28/05	11:26	75		0	0.41	0.41	0.41	0.41	0.41	0.41	27.9		8.1	8.3		326	5	1	
0810	TR94048	20840	07/28/05	10:41	45		0	0.23	0.23	0.23	0.23	0.23	0.23	27.2		7.9	8.2		328	5	1	
0810	TR94050	10967	08/18/05	8:55	820	128	0	0.06	0.1	0.19	0.22	0.22	0.22	27.2		5.9	7.7		525	5	1	
0810	TR94051	10967	04/18/06	9:49	220		0	0	0	0	0	0	0	23.9		3.2	8		399	4	7	
0810	TR94052	17844	04/18/06	10:01	310		0	0	0	0	0	0	0	23.2		3.4	7.8		399	4	7	
0810	TR94053	10969	04/18/06	10:13	410	107	0	0	0	0	0	0	0	23.3		3.5	7.8		391	4	7	
0810	TR94056	14246	04/18/06	11:01	370		0	0	0	0	0	0	0	21.7		4.8	7.9		385	4	7	
0810	TR94058	14904	04/18/06	11:54	63		0	0	0	0	0	0	0	22.3		5.8	8		360	4	7	
0810	TR94059	20840	04/18/06	11:16	130		0	0	0	0	0	0	0	22.6		5.3	8		379	4	7	
0810	TR94071	10967	07/19/06	8:51	67		0	0	0	0	0	0	0	30.3		6.5	8.2		358	5	7	
0810	TR94072	17844	07/19/06	9:05	69		0	0	0	0	0	0	0	30.6		6.6	8.2		358	5	7	

0810	TR94073	10969	07/19/06	9:20	59	299	0	0	0	0	0	0	0	0	30.2		6.7	8.5		362	5	7	
0810	TR94076	14246	07/19/06	9:55	28		0	0	0	0	0	0	0	0	30.4		7	8.5		360	5	7	
0810	TR94078	14904	07/19/06	10:44	7		0	0	0	0	0	0	0	0	30.7		7.4	8.6		365	5	7	
0810	TR94079	20840	07/19/06	10:13	23		0	0	0	0	0	0	0	0	30.4		7.2	8.5		353	5	7	
0810	TR94081	10967	10/26/06	9:49	14	0.01	0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	15.3		4.4	7.2		465	3	1	
0810	TR94082	17844	10/26/06	10:02	260		0	0.05	0.05	0.05	0.05	0.05	0.05	0.05	16.5		4.2	7.2		1430	3	1	
0810	TR94083	10969	10/26/06	10:16	50	0.01	0	0.07	0.07	0.07	0.07	0.07	0.07	0.07	16.7		5.3	7.3		706	3	1	
0810	TR94086	14246	10/26/06	10:51	920		0	0.22	0.22	0.22	0.22	0.22	0.22	0.22	17.4		8.5	7.6		834	3	1	
0810	TR94088	14904	10/26/06	11:44	66		0	0.36	0.36	0.36	0.36	0.36	0.36	0.36	15.7		5.1	7.3		383	3	1	
0810	TR94089	20840	10/26/06	11:12	410		0	0.33	0.33	0.33	0.33	0.33	0.33	0.33	17.3		6.2	7.1		783	3	1	
0810	TR94091	10967	01/23/07	9:30	1600		0	0	0.44	0.94	1.07	1.07	1.18	3.6		12.2	7.5		500	3	2		
0810	TR94092	17844	01/23/07	9:53	2400		0	0	0.44	0.93	1.07	1.07	1.18	3.6		12.2	7.5		474	3	2		
0810	TR94093	10969	01/23/07	10:06	2400	12	0	0	0.44	0.89	1.03	1.03	1.15	3.7		12.1	7.5		353	3	2		
0810	TR94097	14246	01/23/07	10:58	2400		0	0	0.45	0.94	1.01	1.01	1.15	3		12.3	7.7		639	3	2		
0810	TR94098	20840	01/23/07	11:23	31		0	0	0.45	0.97	1.02	1.02	1.22	4		11.5	7.4		999	3	2		
0810	TR94100	14904	01/23/07	12:04	18		0	0	0.35	0.95	1.01	1.02	1.25	4.2		11.6	7.6		398	3	2		
0810	TR94101	10967	05/21/07	9:24	330		0.01	0.01	0.2	0.2	0.2	0.2	0.21	22.4		6.6	7.7		441	5	6		
0810	TR94102	17844	05/21/07	9:39	440		0.01	0.01	0.2	0.2	0.2	0.2	0.21	22		7.3	7.9		458	4	6		
0810	TR94103	10969	05/21/07	9:51	820	92	0.02	0.02	0.25	0.25	0.25	0.25	0.26	22.4		7.5	8		490	4	6		
0810	TR94107	14246	05/21/07	10:36	650		0.23	0.23	0.37	0.37	0.37	0.37	0.4	22		8.7	8.3		713	4	6		
0810	TR94109	14904	05/21/07	11:12	310		0.26	0.26	0.35	0.35	0.35	0.35	0.8	21.8		8.4	8.3		603	5	6		
0810	TR94110	20840	05/21/07	11:29	120		0.35	0.35	0.48	0.48	0.48	0.48	0.61	22.3		5.7	8.3		338	3	6		
0812	10108122	10972	04/17/08	11:35	98	3.6	0	0	0	0	0	0	0	18.3		6.8	7.8	0.05	400	5	5	714	
0812	R226996	10972	05/10/05	12:00	29	0	0	0.02	0.02	0.02	0.02	0.13	0.56	23.5		9	8.2	0.5	1000	3	10		
0812	R230106	10972	10/26/05	13:15	360	0.9	0	0	0.05					13		6.3	7.3	0.19	200	2	4		
0812	R234009	10972	06/06/06	12:20	60	4.5	0	0	0	0	0	0	0.28	0.28	24.2		5.2	7.3	0.03	220	5	5	
0819	10022203	10996	10/03/06	11:00	230	45	0	0	0	0	0	0	0	0.01	26.1		6.1	7.2	0.33	1890	4	5	
0819	10022221	10991	10/03/06	10:00	88	78	0	0	0	0	0	0	0.02		25.4		3.9	7.4	0.33	1620	4	5	
0819	10022948	10991	01/29/07	9:33	56	134	0	0.05	0.07	0.07	0.07	0.07	0.07	9.3		9.6	7.6	0.36	1020	4	3		
0819	10022950	10996	01/29/07	10:26	96	43	0	0.02	0.06	0.06	0.06	0.06	0.06	11.1		9	7.5	0.6	1250	4	3		
0819	10023189	10996	04/12/07	11:20	81	69	0	0.01	0.01	0.01	0.01	0.01	0.03	0.03	17.9		6.6	7.5	0.23	1320	4	7	
0819	10023216	10991	04/12/07	10:20	73	132	0	0.12	0.12	0.12	0.12	0.12	0.12	0.12	17.2		4.8	7.8	0.36	1000	4	7	
0819	10029747	10991	07/10/07	12:00	330	2210	0	0	0	0	0.2	1.21	1.3	26.4		5.6	7.6	0.1	476	5	3		
0819	10075246	10996	10/23/07	13:00	1600	122	0	0.56	0.56	0.56	0.56	0.56	0.56	18.1		7.6	7.9	0.3	532	5	1		
0819	10075250	10991	10/23/07	11:45	2400	460	0.01	0.39	0.39	0.39	0.39	0.39	0.39	17.9		6.6	7.6	0.13	508	5	1		
0819	10094740	10996	01/03/08	10:45	28	33	0	0	0	0	0	0	0	0.16	8.7		10.1	7.6	0.7	1090	4	5	
0819	10094751	10991	01/03/08	11:52	46	89	0	0	0	0	0	0	0	0.15	7.9		10.8	7.6	0.5	853	4	5	
0819	10115080	10996	03/27/08	10:29	60	4150	0	0	0	0	0	0	0	0	14.4		11.5	8.2	1	464	6	7	
0819	10115083	10991	03/27/08	9:32	130	6370	0	0	0	0	0	0	0	0	15.7		8.2	7.7	0.2	470	5	7	
0819	R193602	10991	02/01/01	12:10	70	2040	0	0	0	0.37	0.37	0.39	0.39	8.1		12.5	7.9	0.2	357	4	4		
0819	R194241	10991	03/07/01	10:30	76	7520	0	0	0	1.41	1.46	1.46	1.69	10.9		10.7	7.7	0.1	82	5	4		
0819	R196362	10991	07/09/01	12:10	26	85	0	0	0	0	0	0.02	0.02	31		5.9	7.8	0.2	695	3	7		
0819	R198211	10991	09/24/01	10:00	48	93	0	0	0.01	0.15	0.15	0.88	0.88	24.5		7.4	7.8	0.2	573	4	1		
0819	R200973	10991	02/04/02	9:45	2000	370	0	0	0	0.11	1.75	1.75	1.75	10.4		10	7.7	0.2	383	4	4		
0819	R201351	10990	02/06/01	10:30	39	1150	0	0	0	0	0	0	0							4	7		
0819	R201352	10990	04/03/01	10:55	130	6270	0	0													5	5	
0819	R201353	10990	05/10/01	11:15	96	1600	0	0	0	0	0.15	1.46	1.46								5	4	
0819	R201354	10990	06/11/01	14:10	13	97	0	0	0	0	0.02	0.02	0.02								4	7	

0819	R202299	10992	06/04/02	11:15	28	74	0	0	0	0	0	0	0.68								4	7
0819	R202719	10990	07/02/02	10:15	91	170	0.46	1.27	1.33	1.33	1.33	1.33	1.33								4	0.5
0819	R202721	10992	07/02/02	9:30	57	120	0.3	0.7	0.7	0.74	0.74	0.74	0.74								4	0.5
0819	R202722	10991	07/02/02	10:30	82	170	0.45	1.02	1.09	1.09	1.09	1.09	1.09								4	0.5
0819	R203326	10991	07/29/02	11:20	31	91	0	0	0	0	0	0	0	29		7.9	8	0.2	677	3	7	
0819	R203739	10990	08/08/02	10:00	22	82	0.31	0.31	0.31	0.31	0.31	0.31	0.31								4	7
0819	R203740	10991	08/08/02	10:30	4	82	0.12	0.12	0.12	0.12	0.12	0.12	0.12								4	7
0819	R203741	10992	08/08/02	10:50	10	55	0	0	0	0	0	0	0								4	7
0819	R204824	10990	09/10/02	10:30	89	164	0	0.06	0.44	0.44	0.44	0.44	0.44								4	2
0819	R204825	10991	09/10/02	10:45	76	164	0	0.3	0.43	0.43	0.43	0.43	0.43								4	2
0819	R204826	10992	09/10/02	11:15	85	110	0	0.46	0.54	0.68	0.68	0.68	0.68								4	2
0819	R205459	10990	10/08/02	9:50	84	121	0.02	1.63	1.63	1.63	1.63	1.63	1.63								4	0.5
0819	R205460	10991	10/08/02	10:15	370	121	0.02	1.07	1.07	1.07	1.07	1.07	1.07								4	0.5
0819	R205461	10992	10/08/02	10:30	230	90	0	1.06	1.06	1.06	1.06	1.06	1.06								4	0.5
0819	R205848	10991	10/17/02	11:50	68	82	0	0	0	0	0	0	0	19		9.4	7.8	0.2	624	3	7	
0819	R205849	10996	10/17/02	10:50	390	56	0	0	0	0	0	0	0	20		8.4	7.5	0.3	687	3	7	
0819	R206173	10990	11/06/02	12:15	73	147	0	0.08	0.08	0.08	0.1	0.11	0.11								4	4
0819	R206174	10991	11/06/02	12:35	68	147	0	0.05	0.05	0.05	0.07	0.09	0.09								4	4
0819	R206175	10992	11/06/02	13:15	50	145	0	0.02	0.02	0.02	0.02	0.04	0.04								4	4
0819	R207049	10990	12/17/02	12:05	37	123	0	0	0	0	0.11	0.11	0.11								4	5
0819	R207051	10991	12/17/02	12:40	32	123	0	0	0	0	0.12	0.12	0.12								4	5
0819	R207052	10992	12/17/02	13:00	41	370	0	0	0	0	0.05	0.05	0.05								4	5
0819	R207696	10990	01/08/03	10:30	35	143	0	0	0	0	0	0	0								4	7
0819	R207697	10991	01/08/03	9:45	50	143	0	0	0	0	0	0	0								4	7
0819	R207698	10992	01/08/03	10:00	27	390	0	0	0	0	0	0	0								4	7
0819	R208145	10991	01/09/03	10:25	71	128	0	0	0	0	0	0	0	12		9.1	7.5	0.2	609	4	7	
0819	R208146	10996	01/09/03	11:25	140	64	0	0	0	0	0	0	0	14.5		8.5	7.4	0.4	716	4	7	
0819	R208365	10990	02/13/03	10:20	48	129	0	0	0	0	0.1	0.1	0.1								4	7
0819	R208366	10991	02/13/03	10:45	49	129	0	0	0	0	0.09	0.09	0.09								4	7
0819	R208367	10992	02/13/03	11:00	110	105	0	0	0	0	0.1	0.1	0.1								4	7
0819	R209001	10990	03/17/03	11:00	8	126	0	0	0	0	0.08	0.08	0.08								4	7
0819	R209002	10991	03/17/03	11:20	18	126	0	0	0	0	0.08	0.08	0.08								4	7
0819	R209005	10992	03/17/03	11:35	22	120	0	0	0	0	0.06	0.06	0.06								4	7
0819	R209586	10990	04/10/03	10:15	80	136	0	0	0	0											4	4
0819	R209587	10991	04/10/03	10:35	78	136	0	0	0	0											4	4
0819	R209588	10992	04/10/03	10:50	46	130	0	0	0	0											4	4
0819	R210085	10991	04/30/03	10:50	200	145	0.33	0.34	0.34	0.34	0.34	0.34	0.97	23.6		7	7.7	0.3	717	3	0.5	
0819	R210140	10990	05/07/03	12:15	49	108	0.04	0.04	0.2	0.2	0.2	0.2	0.2								4	7
0819	R210141	10991	05/07/03	12:30	28	108	0.03	0.03	0.05	0.05	0.05	0.05	0.05								4	7
0819	R210142	10992	05/07/03	12:45	48	95	0.09	0.09	0.33	0.33	0.33	0.33	0.33								4	7
0819	R210908	10990	06/03/03	10:20	17	96	0	0	0	0	0	0	0								4	7
0819	R210911	10991	06/03/03	10:40	32	96															4	7
0819	R210914	10992	06/03/03	10:55	31	250															4	7
0819	R211054	10996	04/30/03	10:15	460	92	0.22	0.22	0.22	0.22	0.22	0.22	0.58	22.5		6.1	7.4	0.3	712	3	1	
0819	R211229	10990	07/01/03	10:10	33	125	0	0	0	0	0	0.51	0.51								4	5
0819	R211230	10991	07/01/03	10:30	28	125	0	0	0	0	0	0.19	0.19								4	5
0819	R211231	10992	07/01/03	10:45	79	100	0.06	0.06	0.06	0.06	0.06	0.3	0.3								4	5
0819	R211732	10996	07/29/03	15:15	140	36	0	0	0	0	0	0	0.11	30.1		6.6	7.3	0.2	810	4	7	

0819	R211733	10991	07/29/03	14:40	36	96	0	0	0	0	0	0	0	31.2		9.2	8.1	0.3	792	4	7	
0819	R211806	10990	08/13/03	10:40	12	101	0.09	0.09	0.09	0.19	0.31	0.46	0.46							4	7	
0819	R211807	10991	08/13/03	11:20	16	101	0.04	0.04	0.04	0.13	0.22	0.3	0.3							4	7	
0819	R211808	10992	08/13/03	11:35	13	95	0.08	0.08	0.08	0.13	0.19	0.35	0.35							4	7	
0819	R212962	10990	09/23/03	9:50	50	66	0	0	0	0	0.04	0.04	0.04							4	4	
0819	R212963	10991	09/23/03	10:15	40	66	0	0	0	0	0	0	0							4	4	
0819	R212965	10992	09/23/03	10:30	53	100	0	0	0	0	0.04	0.04	0.04							4	4	
0819	R213618	10990	10/29/03	10:40	14	70	0	0	0.02	0.02	0.02	0.02	0.02							4	7	
0819	R213619	10991	10/29/03	11:00	13	70	0	0	0.02	0.02	0.02	0.02	0.02							4	7	
0819	R213620	10992	10/29/03	11:30	21	90	0	0	0.02	0.02	0.02	0.02	0.02							4	7	
0819	R213985	10990	11/20/03	10:30	92	102	0	0.03	1.52	1.78	1.79	1.79	1.79							4	3	
0819	R213986	10991	11/20/03	10:55	72	102	0	0.03	1.47	1.71	1.71	1.71	1.73							4	3	
0819	R213987	10992	11/20/03	11:10	80	100	0	0.03	1.4	1.41	1.41	1.41	1.41							4	3	
0819	R214026	10991	10/16/03	9:50	37	81	0	0	0	0	0	0	0.01	20.7		6.7	7.5	0.61	825	4	6	
0819	R214052	10996	10/16/03	10:30	120	47	0	0	0	0	0.04	0.04	0.04	21.1		6.7	7.2	0.61	915	4	6	
0819	R214537	10990	12/10/03	11:05	40	75	0	0.03	0.03	0.03	0.03	0.03	0.03							4	7	
0819	R214538	10991	12/10/03	11:30	31	75	0	0.06	0.06	0.06	0.06	0.06	0.06							4	7	
0819	R214539	10992	12/10/03	11:45	58	70	0	0.02	0.02	0.02	0.02	0.02	0.02							4	7	
0819	R214929	10990	01/15/04	11:05	51	95	0	0	0.01	0.01	0.01	0.01	0.01							4	7	
0819	R214930	10991	01/15/04	11:20	49	95	0	0	0.02	0.02	0.02	0.02	0.02							4	7	
0819	R214931	10992	01/15/04	11:35	130	90	0	0	0.01	0.01	0.01	0.01	0.01							4	7	
0819	R215094	10991	01/21/04	9:45	1000	213	0	0	0.23	0.26	1.88	2.57	2.57	9.6		8	7.8	0.15	562	4	3	
0819	R215095	10996	01/21/04	10:30	690	63	0	0	0.2	0.22	2.44	3.44	3.44	10.7		8.6	7.7	0.46	780	4	3	
0819	R215366	10990	02/02/04	11:05	37	208	0.28	0.28	0.28	0.28	0.28	0.28	0.28							4	0.5	
0819	R215367	10991	02/02/04	11:25	33	208	0.22	0.22	0.22	0.22	0.22	0.22	0.22							4	0.5	
0819	R215368	10992	02/02/04	11:40	38	120	0.2	0.2	0.2	0.2	0.2	0.2	0.2							4	0.5	
0819	R216510	10990	03/09/04	10:55	67	141	0	0	0	0	0.44	0.52	0.81							4	4	
0819	R216511	10991	03/09/04	11:15	45	141	0	0	0	0	0.58	0.63	1.03							4	4	
0819	R216514	10992	03/09/04	11:35	96	200	0	0	0	0	0.5	0.57	0.88							4	4	
0819	R216903	10991	04/14/04	11:25	68	88	0	0	0.07	0.07	0.07	0.07	0.07	16.8		6.5	7.5	0.2	883	4	2	
0819	R216904	10996	04/14/04	12:15	150	36	0	0	0.12	0.12	0.12	0.12	0.13	17.3		7.1	7.2	0.72	934	4	2	
0819	R216965	10990	04/15/04	10:40	25	89	0	0	0	0.06	0.06	0.06	0.06							4	4	
0819	R216966	10992	04/15/04	11:05	66	130	0	0	0	0.06	0.06	0.06	0.06							4	4	
0819	R217245	10990	05/05/04	11:30	54	133	0	0	0	0	1.81	1.81	1.92							4	4	
0819	R217246	10991	05/05/04	11:50	71	133	0	0	0	0	1.91	1.91	2							4	4	
0819	R217247	10992	05/05/04	12:45	72	130	0	0	0	0	1.78	1.78	1.9							4	4	
0819	R218623	10996	07/13/04	10:30	180	38	0	0	0	0	0	0	0.24	27.9		5	7.3	0.3	1050	4	0.5	
0819	R218624	10991	07/13/04	9:30	100	142	0	0						28.9		5.5	7.7	0.46	876	4	0.5	
0819	R220903	10996	10/12/04	10:20	290	83	0	0.04	0.25	0.25	0.33	0.67	0.67	21.5		6.3	7.6	0.34	751	4	2	
0819	R222902	10991	01/18/05	10:00	140	2490	0	0	0	0	0.43	0.43	8.2			10.6	7.6		357	5	4	
0819	R222903	10996	01/18/05	11:00	49	1970	0	0	0	0	0	1.16	1.16	9.7		11.6	7.9	0.91	330	5	4	
0819	R224371	10991	04/18/05	11:00	410	122	0	0	0	0	0	0	0	20.8		7.1	7.7		1040	4	6	
0819	R224372	10996	04/18/05	11:40	550	30	0.01	0.01	0.01	0.01	0.01	0.01	0.01	20.6		6.7	7.6	0.36	1160	4	6	
0819	R226700	10991	07/06/05	9:50	460	102	0	0	0	0	0.31	0.31	0.31	29.4		5.2	7.6		906	4	5	
0819	R226701	10996	07/06/05	10:45	490	33	0	0	0	0	0.52	0.52	0.52	28.5		5.1	7.4	0.36	1230	4	5	
0819	R227608	10991	10/24/05	10:30	61	62	0	0	0	0	0	0	0	17.4		5.9	7.5	0.36	1130	4	7	
0819	R227609	10996	10/24/05	11:10	190	42	0							17.3		7.2	7.1	0.41	1030	4	7	
0819	R230239	10996	01/03/06	10:30	390	57	0	0	0	0	0	0	0	15.4		6.9	7.2	0.5	1140	4	7	

0819	R230240	10991	01/03/06	9:48	74	82	0	0	0	0	0	0	0	15.1		6	7.4	0.33	1020	4	7	
0819	R233174	10991	04/17/06	11:15	7	76	0	0	0	0	0	0	0	25.3		5	7.6	0.36	1340	4	3	
0819	R233175	10996	04/17/06	12:10	44	47	0	0	0	0	0	0	0	24.8		5.7	7.3	0.36	1400	4	7	
0819	R235270	10996	07/17/06	11:35	100	34	0	0	0	0	0	0	0	29.9		4.9	7.3	0.38	2030	4	7	
0819	R235271	10991	07/17/06	10:45	35	73	0	0	0	0	0	0	0	30.7		2.3	7.4	0.51	1630	4	7	
0819	TA69208	10990	04/14/05	10:10	56	126	0	0	0	0.27	0.27	0.27	0.27								4	4
0819	TA69256	10990	04/15/05	9:30	150	116	0	0	0	0	0.27	0.27	0.27								4	5
0819	TA69941	10990	06/20/05	9:55	100	105	0	0	0	0	0	0	0.45								4	7
0819	TA69978	10990	06/21/05	10:18	100	117	0	0	0	0	0	0	0								3	7
0819	TA70129	10990	07/08/05	2:50	260	122	0.54	0.54	0.54	0.54	0.54	0.7	1.03								5	0.5
0819	TA70167	10990	07/09/05	7:36	140	117	0	0.54	0.54	0.54	0.54	0.54	0.65								4	1
0819	TA70514	10990	08/09/05	17:26	4000	454	0	0.04	0.07	0.07	0.25	0.48	0.48								4	0.5
0819	TA70528	10990	08/10/05	9:55	710	184	0	0	0.07	0.07	0.25	0.25	0.48								4	1
0819	TA70566	10990	08/10/05	16:03	790	184	0	0	0.07	0.07	0.2	0.25	0.48								4	1
0819	TR60302	10990	05/03/04	12:15	820	248	0	0	1.81	1.81	1.92	1.92	1.92	19.8	27.5	7.9	7.8	0.11	450	4	2	
0819	TR60309	10990	06/07/04	10:10	820	165	0.02	0.02	0.81	0.81	1.7	2.55	2.56	25.8	27.5	6.8	7.7	0.12	370	4	1	
0819	TR60316	10990	07/05/04	13:30	420	220	0	0	0.06	0.06	0.06	1.64	1.7	29.7	34	7.6	8.1	0.15	590	4	5	
0819	TR60323	10990	08/09/04	10:15	51	113	0	0	0	0	0	0	0	28.4	28	7.4	7.9	0.21	740	4	7	
0819	TR60330	10990	09/07/04	13:25	170	251	0	0.35	0.35					27	29	8.4	7.9	0.18	780	4	1	
0819	TR60337	10990	10/04/04	10:35	910	702	1.84	1.84	1.96	1.96	1.96	1.96	22.1	21.5	7.8	7.7	0.07		4	0.5		
0819	TR60344	10990	11/02/04	13:00	2600	806	0.02	0.94	1.26	1.3	1.3	1.58	1.59	20.6	18	7.3	7.7	0.07	350	5	0.5	
0819	TR87013	10987	07/31/02	12:40	79		0	0	0.05	0.05	0.05	0.05	0.05	30.3	39	11.5				682	4	
0819	TR87039	10987	10/01/02	13:50	19		0	0	0	0	0	0	0	27	34	11.3	8.5			742	4	
0819	TR87901	10990	12/06/04	9:50	160	251	0	0.13	0.13	0.13	0.13	0.13	0.39	14.1	22	9.6	7.8			660	4	1
0819	TR87908	10990	01/03/05	12:15	4800	2790	1.41	1.66	1.66	1.66	1.66	1.66	1.66	17.9	24	7.4	7.7	0.04	270	5	0.5	
0819	TR87915	10990	02/07/05	9:50	230	2200	0	0.02	0.02	0.02	0.02	0.22	0.22	10.1	12	12	7.8	0.19	410	4	1	
0819	TR87922	10990	03/07/05	12:30	80	880	0	0	0	0.02	0.02	0.16	0.16	14.2	24	12.3	8.1	0.2	440	4	3	
0819	TR87930	10990	04/11/05	9:35	200	154	0.27	0.27	0.27	0.27	0.27	0.39	0.39	18.9	18.5	10.7	8.1	0.27	530	4	1	
0819	TR87938	10990	05/09/05	14:35	77	157	0	0.1	0.1	0.1	0.11	0.49	0.49	22.5	28	10.1	8	0.3	860	4	1	
0819	TR87946	10990	06/06/05	10:00	110	148	0	0	0.01	0.01	0.01	0.15	0.15	27.2	31	8.8	8.1	0.28	550	4	2	
0819	TR87954	10990	07/05/05	13:45	390	100	0	0	0	0.16	0.49	0.49	0.49	30.9	32	10	8.4	0.2	850	4	1	
0819	TR87962	10990	08/01/05	10:30	27	99	0	0	0	0	0	0	0	29.3	32.5	9.6	8.4	0.27	890	4	5	
0821		13740	09/14/11	0:00	43		0.01	0.01	0.01	0.01	0.01	0.01	0.01									
0821D	10019347	13740	12/12/06	10:45	19	0	0							7.8		7	7.5	0.5	639	3	6	
0821D	10022998	13740	03/19/07	11:45	210	12	0	0	0	0	0	0.66	0.66	16.5		7.9	7.8	0.5	551	4	5	
0821D	10029745	13740	07/10/07	9:35	29	730	0.08	0.12	0.13	0.13				26		6.6	7.7		352	5	0.5	
0821D	10054938	13740	09/25/07	10:30	29	0.41	0	0	0	0	0	0	0	22.8		4.5	7.8	0.4	693	4	7	
0821D	10092052	13740	12/17/07	11:54	170	28	0	0	0.84	0.84	1.29	2.11	2.11	4.6		12	7.7	0.5	486	5	2	
0821D	10097039	13740	02/27/08	13:00	170	44	0	0	0	0	0	0	0	9.2		10.1	7.8	0.3	478	4	5	
0821D	R216554	13740	03/11/04	10:00	350	50	0	0	0	0	0	0	1	12.8		9.3	7.8	0.3	424	4	6	
0821D	R218118	13740	06/21/04	10:35	300	60	0	0.21	0.61	0.61	0.61	0.7	0.7	24.8		5.8	7.8	0.08	307	4	2	
0821D	R222554	13740	12/21/04	10:20	210	29	0	0	0	0	0	0	0	7.6		10.8	7.9	1	523	4	7	
0821D	R224145	13740	03/09/05	9:50	250	66	0.11	0.11	0.11	0.11	0.12	0.32	0.32	13.1		9.8	7.8	1	563	4	4	
0821D	R225504	13740	06/22/05	10:10	250	0.81	0	0	0	0	0.03	0.05	0.05	23.1		1.9	7.5	0.3	712	4	7	
0821D	R232931	13740	03/22/06	10:05	370	102	0	0	1.68	3.64	3.72	3.72	3.72	10.6		9.2	7.7	0.13	330	5	2	
0822	NAWQA10	11024	04/03/03	10:45	27	201	0	0	0	0	0	0	0	16.3		11	8.4		387			
0822	NAWQA11	11024	05/22/03	10:30	76	318	0.04	0.26	0.58	0.58	0.58	0.58	0.83	21.8		7.7	7.9		410			
0822	NAWQA12	11024	06/16/03	11:15	340	407	0.19	0.27	0.29	1.36	1.82	2.29	2.29	25.8		7.1	7.8		406			

0822	NAWQA13	11024	07/14/03	9:50	32	127	0	0	0	0	0	0	0.02	28		6.9	7.7		370			
0822	NAWQA14	11024	08/07/03	9:15	120	421	0	0	0	0	0	0	0	26.2		6.6	7.4		360			
0822	NAWQA15	11024	08/25/03	9:00	250	178	0.07	0.07	0.07	0.07	0.07	0.07	0.07	29.2		6.2	7.7		354			
0822	NAWQA16	11024	09/11/03	9:45	46	1580	0	0	0	0	0	0	0.01	26.8		6.9	7.8		356			
0822	NAWQA17	11024	10/14/03	10:30	40	137	0	0	0	0	0	0.41	0.41	23.3		7.6	8		372			
0822	NAWQA18	11024	11/10/03	9:40	930	196	0	0.26	0.64	1.68	1.89	1.89	1.89	16		8.4	7.2		396			
0822	NAWQA3	11024	12/18/02	10:00	70	123	0	0	0	0	0	0	0	13.3		9.6	6.6		429			
0822	NAWQA4	11024	01/09/03	10:10	67	127	0	0	0	0	0	0	0	10.4		11	7.9		405			
0822	NAWQA5	11024	01/21/03	9:30	32	60	0	0	0	0	0	0	0	10.3		11	8		401			
0822	NAWQA6	11024	02/06/03	9:45	8	498	0.46	0.46	0.46	0.46	0.46	0.46	0.46	8.3		11.6	8		503			
0822	NAWQA7	11024	02/18/03	9:25	45	153	0	0	0	0	0.15	0.15	0.15	9.1		11.6	8		441			
0822	NAWQA8	11024	03/06/03	10:15	28	1520	0	0	0	0	0	0	0	7.3		12.1	7.9		364			
0822	NAWQA9	11024	03/20/03	9:15	150	152	0.05	0.24	0.46	0.46	0.46	0.46	0.46	13.9		8.7	7.7		501			
0822	R224077	18310	03/16/05	12:10	12	250	0	0	0	0	0	0	0							4	7	
0822	R224329	18310	04/14/05	12:00	2	360	0	0	0	0	0	0	0							4	5	
0822	R225417	18310	06/16/05	12:55	3	210	0	0	0.02	0.02	0.02	0.03	0.03							4	6	
0822	R226222	18310	07/21/05	12:25	13	150	0	0	0	0	0	0.07	0.68	0.72						4	5	
0822	TA69213	18310	04/14/05	12:58	10	65	0	0	0	0	0	0	0							4	3	
0822	TA69251	18310	04/15/05	11:14	52	144	0	0	0	0	0	0	0							4	4	
0822	TA70145	18310	07/08/05	4:59	7100	103	0.53	0.53	0.56	0.57	0.57	0.57	0.57							5	0.5	
0822	TA70160	18310	07/09/05	5:28	2000		0	0.53	0.53	0.56	0.57	0.57	0.57							4	2	
0822	TA70508	18310	08/09/05	15:38	270		0	0	0.32	0.32	0.32	0.33	0.33							5	0.5	
0822	TA70523	18310	08/10/05	9:31	300	513	0	0	0.01	0.32	0.32	0.32	0.33							5	0.5	
0822	TA70552	18310	08/10/05	14:01	290	444	0	0	0.01	0.32	0.32	0.32	0.33							5	0.5	
0822	TR72891	17162	12/05/01	10:10	28		0	0	0	0	0	0	0.05	17.6	23.8					4	6	
0822	TR72892	17163	12/05/01	11:12	17		0	0	0	0	0	0	0	16.3	26.3					4	6	
0822	TR72893	17164	12/05/01	12:53	43		0	0	0	0	0	0	0	19.4	24.2					4	6	
0822	TR72907	17162	01/07/02	10:27	75		0	0	0.09	0.09	0.09	0.09	0.09	8.1	6.7					4		
0822	TR72908	17163	01/07/02	11:18	33		0	0	0.06	0.06	0.06	0.06	0.06	7.6	8.5					4		
0822	TR72909	17164	01/07/02	12:44	24		0	0	0.05	0.05	0.05	0.05	0.05	8.4	13.5					4		
0822	TR72944	17162	02/13/02	10:06	46		0	0	0	0	0	0	0	10.9	8.7					4	7	
0822	TR72945	17163	02/13/02	11:17	46		0	0	0	0	0	0	0	10.3	11.4						7	
0822	TR72946	17164	02/13/02	12:42	2		0	0	0	0	0	0	0	16.6	14.2					4	7	
0822	TR72967	17162	03/25/02	11:33	87		0	0	0	0	0	1.55	2.73	12.4	8					4	5	
0822	TR72968	17163	03/25/02	12:43	150		0	0	0	0	0	0.76	1.99	12.4	7.9					4	5	
0822	TR72977	17163	04/01/02	9:52	1600		0	0.43	1.59	1.59	1.59	1.59	1.59	16.3	18.7					5		
0822	TR72978	17162	04/01/02	11:29	870		0	0.29	1.29	1.29	1.29	1.29	1.29		22.9					5		
0822	TR72983	17162	07/03/02	11:35	3500		1.05	1.15	1.77	1.81	1.83	1.83	2.04	20						4	0.5	
0822	TR72984	17163	07/03/02	12:10	920		1.22	1.22	1.78	1.78	1.8	1.8	2.05	26.4						4	0.5	
0822	TR72985	17164	07/03/02	12:55	1600		0.72	0.86	1.62	1.68	2.52	2.52	2.56	27.7						4	0.5	
0822	TR73017	17162	08/15/02	10:50	550		1.2	1.2	1.2	1.2	2.01	2.15	2.15	27.3						4	1	
0822	TR73018	17163	08/15/02	11:30	58		2.56	2.56	2.56	2.56	3.36	3.6	3.6	28.3						4	1	
0822	TR73019	17164	08/15/02	12:10	4000		0.87	0.87	0.87	0.87	1.43	2.51	2.51	29.6						4	1	
0822	TR73035	17162	09/09/02	11:55	1700		0.32	0.33	0.33	0.33	0.33	0.33	0.33	25						4	0.5	
0822	TR73036	17163	09/09/02	12:35	780		0.44	0.44	0.44	0.44	0.44	0.44	0.44	27						4	0.5	
0822	TR73037	17164	09/09/02	13:20	520		0.47	0.49	0.49	0.49	0.49	0.49	0.49	29						4	0.5	
0822	TR73061	17162	10/02/02	12:05	49		0	0	0	0	0	0	0	25.8	29.9					4	7	
0822	TR73062	17163	10/02/02	12:50	15		0	0	0	0	0	0	0	26.5	31					4	7	

0822	TR73063	17164	10/02/02	13:50	22		0	0	0	0	0	0	0	27	37.8						316	4	7
0822	TR73085	17162	11/05/02	10:50	320		0	0	0.02	0.06	0.06	0.06	0.06	15.5	13.3	8.1	8.1				316	4	1
0822	TR73086	17163	11/05/02	11:45	290		0	0	0.04	0.08	0.08	0.08	0.08	15.5	16.7	5.8	8.2				324	4	1
0822	TR73087	17164	11/05/02	12:10	330		0.03	0.03	0.05	0.08	0.08	0.08	0.08	15.4	17.2	8.2	8				310	4	1
0822	TR73115	17162	12/04/02	10:21	1300		0.84	0.94	0.94	0.94	0.94	0.94	0.94	10.7	4.7	5.2	7.8				364	4	0
0822	TR73116	17163	12/04/02	10:45	920		0.24	0.54	0.54	0.54	0.54	0.54	0.54	11.2	6.1	4.9	7.8				311	4	0
0822	TR73117	17164	12/04/02	11:40	220		0.5	0.82	0.82	0.82	0.82	0.82	0.82	11.2	5.2	7.1	7.9				332	5	0
0822	TR73131	17162	01/08/03	10:20	61		0	0	0	0	0	0	0	8.9	19.7	7	8				316	4	8
0822	TR73132	17163	01/08/03	11:01	79		0	0	0	0	0	0	0	9.4	20	6.4	7.9				304	4	8
0822	TR73133	17164	01/08/03	11:32	110		0	0	0	0	0	0	0	11.2	21.5	10.5	8				214	4	8
0822	TR73159	17162	02/05/03	8:30	61		0	0	0	0	0	0	0	10	8	9.1	7.7				311	4	24
0822	TR73161	17163	02/05/03	9:50	29		0	0	0	0	0	0	0	10.6	8.2	8.3	8.3				343	4	24
0822	TR73162	17164	02/05/03	10:15	1		0	0	0	0	0	0	0	8.2	9.9	8.4	8.1				379	4	24
0822	TR73180	17162	03/04/03	10:00	74		0	0	0	0	0	0	0	9.3	10.4	10.1	7.9				343	4	6
0822	TR73181	17163	03/04/03	10:50	27		0	0	0	0	0	0	0	9.2	12.3	9.9	8				342	4	6
0822	TR73182	17164	03/04/03	11:15	15		0	0	0	0	0	0	0	9.1	13.5	10	8				345	5	6
0822	TR73210	17162	04/09/03	9:10	560		0	0	0					14.3	7.7	7.4	7.8				375	4	5
0822	TR73211	17163	04/09/03	9:50	590		0	0	0					15.3	9.2	4.2	7.8				352	4	5
0822	TR73212	17164	04/09/03	10:20	230		0	0	0.02					16.5	12.2	8.1	7.9				340	4	5
0822	TR73222	17162	05/06/03	11:00	64		0	0.05	0.05	0.05	0.07	0.07	0.56	23.4		3.9	7.8				405	4	5
0822	TR73224	17163	05/06/03	12:35	30		0	0	0	0	0.13	0.13	0.71	24.7		5	8.3				428	4	5
0822	TR73225	17164	05/06/03	13:15	17		0	0	0	0	0.05	0.05	0.94	26.5		7.8	8.2				384	4	5
0822	TR73247	17162	06/03/03	11:05	56		0	0	0	0	0	0	0	25.8	28.5	4.2	7.8				481	4	11
0822	TR73248	17163	06/03/03	11:40	40		0	0	0	0	0	0	0	28.3	28.1	5.4	8.2				463	4	11
0822	TR73249	17164	06/03/03	12:15	87		0	0	0	0	0	0	0	29.9	33.7		8.1				509	4	11
0822	TR73271	17162	07/07/03	11:15	470		0.1	0.49	0.49	0.49	0.58	0.58	0.58	28.1	27.3	4.1	8				454	4	1
0822	TR73272	17163	07/07/03	11:50	47		0.04	0.6	0.6	0.6	0.66	0.66	0.66	28.9	29	4.6	8.3				420	4	1
0822	TR73273	17164	07/07/03	12:25	780		0.05	0.06	0.18	0.18	0.18	0.18	0.18	30.2	30.2	5.3	8				455	4	1
0822	TR73307	17162	08/06/03	11:05	120		0	0	0	0	0	0	0	28.8	27.3	3.2	8.1				429	3	7
0822	TR73308	17163	08/06/03	11:45	24		0	0	0	0	0	0	0	29.1	30.5	4.2	8.4				402	3	7
0822	TR73309	17164	08/06/03	12:35	22		0	0	0	0	0	0	0	30.9	28.7	3.6	8.3				532	3	7
0822	TR73328	17162	09/03/03	11:05	340		0	0.22	1.76	2.77	2.77	2.77	2.77	25.6	24.8	3.2	7.9				354	4	2
0822	TR73329	17163	09/03/03	11:50	240		0	0.2	2.44	3.82	3.82	3.82	3.82	26.2	25.6	2.7	7.9				363	4	2
0822	TR73330	18310	09/03/03	13:05	690		0	0.12	1.27	2.14	2.14	2.14	2.14	27.1	26.5	3.1	7.9				366	4	2
0822	TR73345	17162	10/01/03	10:55	34		0	0	0	0	0	0	0	22	19.5	5.1	7.7				352	4	7
0822	TR73346	17163	10/01/03	11:30	40		0	0	0	0	0	0.04	0.04	22.8	21.4	3.1	7.8				375	4	7
0822	TR73347	18310	10/01/03	12:15	2		0	0	0	0	0	0	0	24.6	18.8	5.4	7.9				427	4	7
0822	TR73369	17162	11/10/03	12:10	870		0	0.19	0.7	1.8	2.07	2.07	2.07	16	15.9	5.4	7.1				324	4	2
0822	TR73370	17163	11/10/03	12:50	1200		0	0.23	0.69	1.98	2.08	2.14	2.14	15.4	16.3	5.4	6.6				307	4	2
0822	TR73371	18310	11/10/03	13:25	980		0	0.2	0.41	1.21	1.21	1.23	1.23	15.5	16.8	5.9	6.9				300	4	2
0822	TR73398	17162	12/02/03	11:55	27		0	0	0	0	0	0	0	13.6	8.9	6.4	8.4				335	4	7
0822	TR73399	17163	12/02/03	12:40	27		0	0	0	0	0	0	0	13.9	11.6	6.4	8.2				333	4	7
0822	TR73400	18310	12/02/03	13:30	30		0	0	0	0	0	0	0	14.2	12.8	6.9	8.1				330	4	7
0822	TR73427	17162	01/07/04	11:20	58		0	0	0	0.1	0.1	0.1	0.1	7.4	4	6.8	7.5				292	4	7
0822	TR73428	17163	01/07/04	11:45	19		0	0	0	0.13	0.13	0.13	0.13	8.9	4	6.1	7.7				307	4	7
0822	TR73429	18310	01/07/04	12:55	19		0	0	0	0.14	0.14	0.14	0.14	9	5	6.3	7.8				320	4	7
0822	TR73454	17162	02/04/04	10:50	32		0.11	0.11	0.32	0.32	0.32	0.32	0.32	8.3	6.6	9.7	7.5				450	4	3
0822	TR73455	17163	02/04/04	11:09	51		0.11	0.11	0.33	0.33	0.33	0.33	0.33	8.5	6.9	8.5	7.7				420	4	3

0822	TR73456	18310	02/04/04	11:50	96		0.11	0.11	0.55	0.55	0.55	0.55	0.55	0.55	8.6	6.9	7.9	7.6		420	4	3	
0822	TR73478	17162	03/03/04	11:05	10		0.01	0.01	0.05	0.59	0.59	0.59	0.59	0.59	14.6	19.7	5.2	8		460	4	3	
0822	TR73479	17163	03/03/04	11:35	130		0.01	0.01	0.01	0.55	0.55	0.55	0.55	0.55	15.1	20	5	8.1		300	4	3	
0822	TR73480	18310	03/03/04	13:05	110		0	0	0	0.53	0.53	0.53	0.53	0.53	14.6	20.2	5.4	7.9		420	4	3	
0822	TR73490	17162	04/12/04	11:30	650		0.19	0.19	0.19	0.19	0.21	0.21	0.37	14.8	12.7	6.7	7.7		490	4	1		
0822	TR73491	17163	04/12/04	11:52	69		0.23	0.23	0.23	0.23	0.23	0.23	0.4	16.3	12.2	5.1	7.6		480	4	1		
0822	TR73492	18310	04/12/04	12:53	140		0.23	0.23	0.23	0.23	0.23	0.23	0.4	17.1	13.8	6.9	7.8		500	4	1		
0822	TR73520	17162	05/04/04	12:30	190		0	0	0	0.76	0.76	0.9	0.9	22.5	26.1	7.1	7.7		400	4	3		
0822	TR73521	17163	05/04/04	13:00	110		0	0	0	0.76	0.76	0.97	0.97	23.1	26.1	6.6	7.8		370	4	3		
0822	TR73522	18310	05/04/04	13:36	260		0	0	0	0.97	0.97	1.2	1.2	23.9	26.1	6.6	7.5		390	4	3		
0822	TR73539	17162	06/14/04	11:20	140		0	0.12	0.15	0.15	1.19	1.82	2.42	26.6	36.5	4.9	7.7		320	5	1		
0822	TR73540	17163	06/14/04	12:00	200		0	0.14	0.15	0.15	1.34	2.03	2.66	27.6	37.1	5.6	4.9		330	5	1		
0822	TR73541	18310	06/14/04	12:45	110		0	0.07	0.07	0.07	1.39	2.24	2.77	27.4	32.7	3.5	4.4		330	5	1		
0822	TR73569	17162	07/13/04	11:15	39		0	0	0	0	0	0.03	0.1	26.9	33	5	7.5		360	5	13		
0822	TR73570	17163	07/13/04	11:55	17		0	0	0	0	0	0.02	0.02	27.4	33.8	4.7	7.6		360	5	13		
0822	TR73571	18310	07/13/04	12:40	24		0	0	0	0	0	0.05	0.05	28.1	37.1	4.7	7.7		360	5	13		
0822	TR73588	17162	08/09/04	11:40	45		0	0	0	0	0	0	0	27	27.4	5.3	7.7		290	4	7		
0822	TR73589	17163	08/09/04	12:15	79		0	0	0	0	0	0	0	27.6	27.8	5.3	7.6		290	4	7		
0822	TR73590	18310	08/09/04	12:35	78		0	0	0	0	0	0	0	27.7	27.1	5.8	7.7		290	6	7		
0822	TR73612	17162	09/07/04	10:45	1600		0	0.71	0.73					25.1	25.2	5.2	7.8		310	4	1		
0822	TR73613	17163	09/07/04	11:15	1100		0	0.48	0.48					25.8	30.3	7.4	7.7		290	4	1		
0822	TR73614	18310	09/07/04	11:50	2400		0	0.43	0.43					26	27	5	7.8		280	4	1		
0822	TR73635	17162	10/18/04	11:55	120		0	0	0	0	0.04	0.04	0.04	22.8	28.6	5.1	7.7	0.17	360	4	7		
0822	TR73636	17163	10/18/04	12:35	74		0	0	0	0	0.02	0.02	0.02	22.8	36.2	5.6	7.8	0.13	360	4	7		
0822	TR73637	18310	10/18/04	13:10	48		0	0	0	0	0.01	0.01	0.01	24	29.1	5.8	7.9	0.15	360	4	7		
0822	TR73656	17162	11/09/05	10:08	80		0	0	0	0	0	0	0	21.4	27.2	6.4	7.8	0.35	390	4	7		
0822	TR73657	18310	11/09/05	11:04	48		0	0	0	0	0	0	0	23	27.7	5.1	8.1	0.3	381	4	7		
0822	TR73662	18310	02/09/06	11:37	35		0	0	0	0	0	0	0.29	12.5	11.4	7.3	8.1	0.3	436	4	6		
0822	TR73663	17162	02/09/06	10:39	45		0	0	0	0	0	0	0.21	10.9	10.5	8.1	8.5	0.2	512	4	6		
0822	TR73668	17162	05/10/06	9:21	130		0	0	0.04	0.14	0.73	2.34	2.49	24.8	29	3.3	7.8		438	4	4		
0822	TR73669	18310	05/10/06	10:12	160		0	0	0.02	0.04	0.41	1.69	1.81	25.3	27	3.7	7.7		398	4	4		
0822	TR73674	17162	08/09/06	10:11	380		0	0.25	0.44	0.44	0.44	0.44	0.44	29.3	34.5	2.3	7.6	0.35	392	4	2		
0822	TR73675	18310	08/09/06	11:17	1800		0	1.37	1.71	1.71	1.71	1.71	1.71	30.5	33.5	2	7.7	0.15	375	4	2		
0822	TR73680	17162	11/14/06	11:03	24		0	0	0	0	0	0	0	19.1	18	5.1	8.2	0.4	551	4	7		
0822	TR73681	18310	11/14/06	11:51	300		0	0	0	0	0	0	0	16.3	18.6	5.7	7.8	0.1	493	4	7		
0822	TR73686	17162	02/15/07	10:25	200		0	0	0.02	0.09	0.09	0.09	0.09	5.7	1	9.6	8.8	0.45	181	4	3		
0822	TR73687	18310	02/15/07	11:39	69		0	0	0	0.05	0.05	0.05	0.05	6	6.7	8.2	8.2	0.45	244	4	3		
0822	TR73692	17162	05/17/07	9:57	120		0	0	0	0.12	0.37	0.37	0.37	20.3	22.8	8.2	7.7	0.2	341	4	7		
0822	TR73693	18310	05/17/07	10:48	190		0	0	0.21	0.28	0.35	0.35	0.35	21.6	20.1	7.6	7.7	0.2	334	4	7		
0822	TR73698	17162	08/15/07	9:51	26		0	0	0	0	0	0	0	28.5	33.9	4.8	7.3	0.2	298	5	7		
0822	TR73699	18310	08/15/07	11:01	24		0	0	0	0	0	0	0	29.8	35	4.8	7.4	0.2	299	5	7		
0822	TR73704	17162	11/07/07	9:48	56		0	0	0	0	0	0	0	16.9	13.8	6.2	8	0.3	376	4	7		
0822	TR73705	18310	11/07/07	10:36	12		0	0	0	0	0	0	0	16.9	15.9	5.9	8.1	0.45	484	4	7		
0822	TR73710	17162	02/28/08	9:37	55		0	0	0	0	0	0	0.01	13.7	12.1	7.7	8.4	0.35	491	4	7		
0822	TR73711	18310	02/28/08	10:38	8		0	0	0	0	0	0	0	14.3	14.4	8.1	8.5	0.35	566	4	7		
0822	TR73722	17162	08/05/08	9:39	38		0	0	0	0	0.1	0.11	0.16	29.2	34.5	4.2	8.1	0.25	328	3	7		
0822	TR73723	18310	08/05/08	10:27	82		0	0	0	0	0.17	0.18	0.2	29.9	35	4.6	8	0.2	411	3	7		
0822	TR73728	17162	11/20/08	9:08	190		0	0	0	0	0	0	0	14.4	15.9	5.5	8	0.2	413	4	7		

0822	TR73729	18310	11/20/08	9:49	71		0	0	0	0	0	0	0	14.6	14.4	5.1	7.9	0.2	403	4	7	
0822	TR73734	17162	02/19/09	9:07	67		0	0	0	0	0	0	0	12.6	10	6.8	8.1	0.2	441	4	7	
0822	TR73735	18310	02/19/09	9:55	27		0	0	0	0	0	0	0	13.3	8.3	6.8	8.1	0.2	637	3	7	
0822	TR73740	17162	05/21/09	9:06	87		0	0	0	0	0.2	0.66	0.88	21.2	25	5	7.7	0.15	355		5	
0822	TR73741	18310	05/21/09	9:43	170		0	0	0	0	0.2	0.68	0.74	21.4	25	4.4	7.7	0.15	354		5	
0822	TR73746	17162	08/10/09	9:16	77		0	0	0	0	0.07	0.07	0.07	27.2	34.1	4.2	7.5	0.25	368	4	7	
0822	TR73747	18310	08/10/09	9:52	77		0	0	0	0	0.02	0.02	0.02	28.6	33.8	4.1	7.6	0.2	377	3	7	
0822	TR73752	17162	11/18/09	9:40	100		0	0	0.41	0.41	0.41	0.41	0.41	15.6	14.4	6	7.6	0.25	332	4	3	
0822	TR73753	18310	11/18/09	10:19	280		0	0	1.04	1.04	1.04	1.04	1.04	16.1	18.3	7.4	7.9	0.25	337	5	3	
0822	TR73758	17162	02/18/10	9:15	30		0	0	0	0	0	0	0.73	7.7	11.1	9.7	8	0.3	355	5	7	
0822	TR73759	18310	02/18/10	9:50	40		0	0	0	0	0	0	0.8	8.2	11.1	11.2	8.2	0.25	358	5	7	
0822	TR73764	17162	05/27/10	9:01	200		0	0	0	0	0	0	0	24.1	28.5	4.7	7.7	0.3	453	3	7	
0822	TR73765	18310	05/27/10	9:44	19		0	0	0	0	0	0	0.61	26.1	31.4	4.3	7.9	0.35	455	4	7	
0822	TR73770	17162	08/18/10	9:20	27		0.01	0.01	0.01	0.01	0.01	0.01	0.01	29.1	32.7	3.2	7.6	0.35	397	3	7	
0822	TR73771	18310	08/18/10	9:45	44		0.04	0.05	0.05	0.05	0.05	0.05	0.05	29.4	34.4	4.8	8.4	0.25	611	3	7	
0822	TR73778	17162	11/29/10	9:07	6									14.6	20.5	5.6	7.6	0.5	496	3	0.5	
0822	TR73779	18310	11/29/10	9:48	22									15	22.2	6.4	7.8	0.3	447	3	0.5	
0822	TR73786	17162	02/17/11	9:50	13		0	0	0	0	0	0	0	15.7	24.4	7.6	7.9	0.35	507	4	7	
0822	TR73787	18310	02/17/11	10:40	15		0	0	0	0	0	0	0	17.1	24.4	6.5	8	0.2	587	4	7	
0822	TR73794	17162	05/18/11	10:06	55		0	0	0	0	0	0	1.12	21.9	22.5	7.2	8.1	0.25	434	4	7	
0822	TR73795	18310	05/18/11	10:50	91		0	0	0	0	0	0	1.12	22	26.6	7.4	8	0.15	428	4	7	
0822	TR87970	18648	09/12/05	11:35	4		0	0	0	0	0	0	0	27.8	32	6	8.1	0.37	400	4	7	
0822	TR87978	18648	10/03/05	12:00	40		0	0	0	0	0.4	0.4	0.4	26.7	34	7.8	8.2	0.35	400		5	
0822	TR87986	18648	11/14/05	12:10	35		0	0	0	0	0	0	0	19.8	24	7.9	8.3	0.37	460	4	7	
0822	TR87994	18648	12/12/05	10:55	6		0	0	0	0	0.08	0.09	0.09	7.7		11.2	7.9	0.6	450	4	5	
0822	TR88002	18648	01/09/06	10:30	6		0	0	0	0	0	0	0	10.9	18	14.8	8.6	0.46	510	4	7	
0822	TR88010	18648	02/06/06	12:00	40		0	0	0	0.19	0.19	0.19	0.19	12.4	3.5	7.2	7.5	0.39	520	4	4	
0822	TR88018	18648	03/13/06	12:00	120		0.08	0.08	0.08	0.08	0.31	0.31	0.31	19.3	23	10.7	8.3	0.4	504	4	4	
0822	TR88026	18648	04/03/06	13:45	59		0							21.1	26.5	10.8	8.5	0.4	480	4	7	
0822	TR88034	18648	05/08/06	11:45	140		0.06	0.15	0.66	2.39	2.5	2.54	2.54	22.7	31.5	5.8	7.7	0.3	420	4	2	
0822	TR88042	18648	06/05/06	11:45	1		0	0	0	0.02	0.02	0.02	0.27	28.1	34	8.8	8	0.36	416	4	27	
0822	TR88050	18648	07/10/06	11:45	13		0	0	0	0	0.03	1.03	1.03	29.2	35	9.3	8.3	0.3	440	4	7	
0822	TR88058	18648	08/09/06	11:20	500		0	1.5	1.8	1.8	1.8	1.8	1.8	30.5	35	10.3	8.1	0.4	419	4	2	
0822	TR88066	18648	09/06/06	13:30	63		0	0.36	1.04	1.06	1.06	1.06	1.06	27.3	30	6.2	7.9	0.34	447	4	2	
0822	TR88074	18648	10/16/06	11:30	3100		3.46	3.61	3.61	3.61	3.61	3.61	5.11	20.1	22	7.6	7.8	0.06	349	6	0.5	
0822	TR88082	18648	11/06/06	11:50	1100		1.05	1.05	1.05	1.05	1.05	1.12	1.12	15.8	17	8.7	7.8	0.25	462	5	0.5	
0822	TR88092	18648	12/18/06	15:00	34		0	0	0	0	0	0	0	14.6	27	11.6	8.2	0.37	522	4	7	
0822	TR88102	18648	01/10/07	13:25	87		0	0	0	0	0	0	0.93	10.3	14	8.2	7.7	0.26	458	4	4	
0822	TR88112	20287	02/06/07	12:15	20		0	0	0	0	0.21	0.35	0.41	7.1	20	11.8	7.9	0.35	549	4	4	
0822	TR88122	20287	03/12/07	14:30	22		0.13							19	25	13.9	8.8	0.6	555	4	0.5	
0822	TR88132	20287	04/09/07	13:45	66		0	0	0	0	0	0.31	0.31	16.4	17	7.2	7.8	0.6	428	4	2	
0822	TR88142	20287	05/08/07	13:15	4800		0.35	0.35	0.35	0.35	0.37	1.57	1.57	22.4	30	7.9	7.7	0.9	378	5	0.5	
0822	TR88152	20287	06/04/07	13:10	920		0	0.79	1.26	1.26	1.28	2.53	2.54	23.2	35	9.8	7.7	0.15	366	5	1	
0822	TR88162	20287	07/10/07	13:15	80		0	0	0.14	0.14				26.8	34.5	9.5	7.7	0.14	372	5	1	
0822	TR88172	20287	08/06/07	13:35	17		0	0	0	0	0.21	0.8	0.8	27.4	36	7.4	7.6	0.25	322	5	4	
0822	TR88182	20287	11/13/07	14:20	22		0	0	0	0	0	0	0	20.4	28	9.3	8	0.32	423	4	7	
0822	TR88192	20287	02/19/08	13:15	390		0	0	0.94	1.71	1.71	1.71	1.71	9.4	20	9.6	7.6	0.12	403	4	3	
0822	TR88205	20287	05/06/08	13:30	54		0.6	0.62	0.62	0.62	0.71	0.71	0.71	20	24.5	8.9	8	0.21	380	5	0.5	

0822	TR88217	20287	08/18/08	15:00	37		0.31	0.31	0.31	1.07	1.07	1.07	1.1	27.4	27	5.8	7.8	0.33	422	4	0.5	
0822	TR88229	20287	11/10/08	14:45	260		0.08	0.08	0.08	0.08	0.26	0.26	0.26	17.3	19		8.4	0.6	457	4	0.5	
0822	TR88241	20287	02/11/09	11:45	4800		0.57	0.57	0.78	0.78	0.78	0.78	0.78	13.7	20	9.8	7.7	0.2	478	4	1	
0822	TR88253	20287	05/27/09	14:50	49		0.37	0.37	0.37	0.64	0.64	0.64	0.64	23.3	28	7.8	7.9	0.19	389	5	1	
0822	TR88265	20287	08/20/09	13:45	10		0	0	0	0	0	0	0	29.9	37	9.9	8.6	0.28	399	4	7	
0822	TR88277	20287	11/04/09	11:30	88		0	0	0	0	0	0.33	0.4	17.5	25	9.3	7.8	0.2	328	5	6	
0822	TR88289	20287	02/23/10	13:30	29		0	0.01	0.1	0.1	0.1	0.1	0.1	6.7	7	13.7	8.1	0.3	350	5	2	
0822	TR88301	20287	05/18/10	12:55	280		0.2	0.2	0.21	0.85	0.92	0.92	0.92	23.8	27	7.6	7.9	0.2	473	5	1	
0822	TR88313	20287	08/17/10	12:00	4		0	0	0	0	0	0	0	31.8	33.5	8	8.1	0.26	368	3	7	
0822	TR88325	20287	11/09/10	12:38	24		0	0	0	0	0	0	1.54	15.7	26	8.8	8	0.39	392	4	7	
0822	TR88358	20287	02/22/11	13:30	8		0	0	0	0	0	0	0	18.1	16	9.7	7.8	0.52	832	4	7	
0822	TR88390	20287	05/11/11	12:00	22		0.02	0.03	0.03	0.03	0.03	0.03	0.03	23.4	27	7.3	8.2	0.31	397	4	1	
0824		15635	09/07/11	0:00	1	0	0	0	0	0	0	0	0									
0824	10013625	11031	08/15/06	11:25	31	3	0	0	0	0.34	0.34	0.34	0.34								3	7
0824	10013628	15635	08/15/06	11:50	2	0	0.13	0.13	0.13	0.29	0.29	0.29	0.29								2	7
0824	10013695	11031	09/13/06	10:40	28	3	0	0.06	0.06	0.06	0.06	0.06	0.06								3	7
0824	10013696	15635	09/13/06	11:10	16	0	0	0.04	0.04	0.04	0.04	0.04	0.04								2	7
0824	10013780	11031	10/23/06	11:05	40	3.3	0	0	0	0	0.21	0.21	0.21								3	7
0824	10013781	15635	10/23/06	11:30	12	0.06	0	0	0	0	0.06	0.06	0.06								3	7
0824	10013807	11031	11/27/06	10:20	13	3	0	0	0	0	0	0	0								3	7
0824	10013810	15635	11/27/06	10:45	6	0.02	0	0	0	0	0	0	0								2	7
0824	10014033	11031	01/29/07	11:10	38	40	0	0	0	0	0	0	0								4	7
0824	10014035	15635	01/29/07	11:45	28	3.3	0	0	0	0	0	0	0								4	7
0824	10014064	11031	02/21/07	10:45	58	8.2	0	0	0	0	0	0	0								3	7
0824	10014210	11031	04/23/07	11:00	30	75	0	0	0	0	0	0.38	0.4								4	7
0824	10014222	15635	04/23/07	11:30	31	20	0	0	0	0	0	0.41	0.42								4	7
0824	10019857	15635	08/29/06	10:50	440	0.01	0.18	0.73	1.54	1.54	1.54	1.73	1.73	25.7		2.6	7.6	0.28	257	3	1	
0824	10022900	15635	11/14/06	11:00	48	0.01	0	0	0	0	0	0	0	13.6		4.4	7.7	0.61	504	2	7	
0824	10022989	15635	02/20/07	12:30	21	0.32	0	0	0	0	0	0	0	11.8		10.6	8	0.5	540	4	7	
0824	10023448	15635	05/17/07	10:40	330	7.9	0	0	0	0	0	0	0	21.8		6.9	8	0.33	456	4	6	
0824	10035830	15635	08/06/07	11:40	44	25	0	0	0	0	0.07	0.44	1.01	27.9		6.5	7.9	0.3	512	5	6	
0824	10092098	15635	11/13/07	10:40	10	2.8	0	0.01	0.01	0.01	0.01	0.01	0.01	18.6		6.5	7.6	0.6	708	4	5	
0824	10097019	15635	02/20/08	10:40	81	0.66	0	0	0	0.17	1.51	1.51	1.51	10.3		9.1	8.1	0.6	600	4	5	
0824	10115069	15635	04/09/08	12:33	170	14	0	0	0	0	0	0.39	0.39	18		8.3	8	0.6	523	4	5	
0824	R194240	15635	03/05/01	12:00	410	484	0	0	0	0	0.46	1.1	1.61	9.5		7.8	11.5	0.2	358	5	2	
0824	R195766	15635	05/31/01	12:35	2400	133	0.24	0.24	0.24	1.17	1.17	1.17	1.17	23.3		7	7.7	0.005	287	4	1	
0824	R197865	15635	08/06/01	11:00	300	0.59	0	0	0	0	0	0	0	27.1		4.9	7.5	0.2	578	2	7	
0824	R199663	15635	12/03/01	12:25	86	1.1	0	0	0	0	0	0.3	0.3	11.3		8	7.5	0.2	678	3	0	
0824	R200998	15635	02/25/02	10:15	200	4.6	0	0	0	0	0	0	0.75	11.1		10.2	7.6	0.2	462	3	7	
0824	R202155	15635	05/22/02	11:10	980	6.7	0	0	0	0	0	0.91	0.91	20.6		7.3	7.8	0.3	577	3	7	
0824	R203986	15635	08/15/02	11:05	1600	0.42	0	0.02	0.02	0.02	0.02	0.02	0.02	26.6		4	7.4	0.2	560	3	7	
0824	R204850	15635	09/12/02	12:20	54	0.22	0	0	0	0.2	0.48	0.48	0.51								4	4
0824	R205511	15635	10/10/02	12:25	140	3.2	0	0.14	1.05	1.16	1.16	1.16	1.18								4	1.8
0824	R206868	15635	11/13/02	10:30	64	33	0	0	0	0	0	0	0	11.5		9.6	7.6	1	516	4	7	
0824	R206935	15635	12/16/02	12:15	40	85	0	0	0	0	0	0	0.03								4	4
0824	R207773	15635	01/16/03	12:30	23	37	0	0	0	0	0	0	0								4	7
0824	R208307	15635	02/12/03	12:30	21	17	0	0	0	0.06	0.06	0.06	0.4								4	7
0824	R208613	15635	02/18/03	13:17	24	19	0	0	0	0	0.02	0.02	0.02	9.9		13.4	7.8	0.7	568	4	7	

0831	R211537	17444	07/10/03	10:50	59	4.1	0	0	0.24	0.24	0.24	0.24	0.24						4	4
0831	R211539	11060	07/10/03	10:15	15	1.1	0	0.16	0.22	0.22	0.23	0.23	0.23						4	4
0831	R211540	17446	07/10/03	11:30	16	1.2	0	0.36	0.37	0.37	0.39	0.39	0.39						4	4
0831	R212958	17444	09/04/03	10:20	78	2.5	0	0	0	0.26	0.39	0.39	0.39						4	3
0831	R212960	11060	09/04/03	10:00	47	0.98	0	0	0	0.25	1.13	1.13	1.13						4	3
0831	R212961	17446	09/04/03	10:50	27	0.4	0	0	0	0.22	0.86	0.86	0.86						4	3
0831	R213611	17444	10/28/03	10:15	44	3	0	0.1	0.1	0.1	0.1	0.1	0.1						4	5
0831	R213613	11060	10/28/03	9:45	11	0.88	0	0.04	0.04	0.04	0.04	0.04	0.04						4	5
0831	R213614	17446	10/28/03	11:00	10	0.8	0	0.31	0.32	0.32	0.32	0.32	0.32						4	5
0831	R213974	17444	11/17/03	10:30	62	4	0	0	0	0	0	0	0						4	7
0831	R213976	11060	11/17/03	10:00	51	2.8	0	0	0	0	0	0	0						4	7
0831	R213977	17446	11/17/03	11:05	31	1.2	0	0	0.01	0.01	0.01	0.01	0.01						4	7
0831	R214529	17444	12/09/03	10:15	78	6.4	0	0	0	0	0	0	0						4	7
0831	R214531	11060	12/09/03	9:45	18	0.75	0	0	0	0	0	0	0						4	7
0831	R214532	17446	12/09/03	10:55	18	1.2	0	0	0	0	0	0	0						4	7
0831	R215126	17444	01/21/04	10:15	100	9.4	0	0	0	0.09	1.28	1.61	1.61						4	4
0831	R215128	11060	01/21/04	9:45	820	1.6	0	0	0	0	1.44	1.6	1.68						4	4
0831	R215129	17446	01/21/04	10:50	64	1.6	0	0	0	0.04	1.43	1.59	1.6						4	4
0831	R215369	17444	02/04/04	9:55	220	5	0.08	0.08	0.47	0.47	0.47	0.47	0.47						4	0.5
0831	R215370	17445	02/04/04	9:40	47	2	0.07	0.07	0.69	0.69	0.69	0.69	0.69						4	0.5
0831	R215371	11060	02/04/04	9:20	120	2.4	0.02	0.02	0.54	0.54	0.54	0.54	0.54						4	0.5
0831	R215372	17446	02/04/04	10:25	30	1.5	0.08	0.08	0.67	0.67	0.67	0.67	0.67						4	0.5
0831	R216516	17444	03/10/04	10:40	110	16	0	0	0	0	0	0.45	0.47						4	5
0831	R216524	17445	03/10/04	10:25	96	4.5	0	0	0	0	0	0.5	0.5						4	5
0831	R216526	11060	03/10/04	10:00	80	6.1	0	0	0	0	0	0.46	0.46						4	5
0831	R216527	17446	03/10/04	11:15	22	0.5	0	0	0	0	0	0.54	0.54						4	5
0831	R216853	17444	04/05/04	13:20	51	9.5	0												4	7
0831	R216855	17445	04/05/04	13:05	18	2.7	0												4	7
0831	R216856	11060	04/05/04	12:45	29	2.2	0												4	7
0831	R216857	17446	04/05/04	13:55	16	0.2	0												4	7
0831	R217238	17444	05/04/04	13:15	150	15	0	0	0	1.08	1.08	1.11	1.11						4	3
0831	R217240	17445	05/04/04	12:50	74	3	0	0	0	1.14	1.14	1.15	1.15						4	3
0831	R217241	11060	05/04/04	12:25	87	3.1	0	0	0	1.14	1.14	1.14	1.14						4	3
0831	R217717	11060	06/07/04	12:30	550	1160	3.98	3.98	3.98	3.98	4.6	5.5	5.5						5	0.5
0831	R217718	17445	06/07/04	12:45	730	800	3.89	3.89	3.89	3.89	4.53	5.31	5.33						5	0.5
0831	R217719	17444	06/07/04	13:05	980	3500	4.27	4.27	4.28	4.28	4.83	5.82	5.83						6	0.5
0831	R218562	11060	07/06/04	10:20	96	28	0	0	0	0	0	0.02	1.43						5	6
0831	R218563	17445	07/06/04	10:40	50	100	0	0	0	0	0	0.01	1.83						5	6
0831	R218564	17444	07/06/04	10:50	67	300	0	0	0	0	0	0	1.2						5	6
0831	R219232	11060	08/02/04	10:10	66	2.9	0	0	0	0	1.1	1.1	1.1						4	5
0831	R219233	17445	08/02/04	10:30	65	2.5	0	0	0	0.03	0.83	0.83	0.83						4	5
0831	R219234	17444	08/02/04	10:50	92	6	0	0	0	0.02	1.55	1.56	1.56						4	5
0831	R220675	11060	09/08/04	10:25	60	1	0	0	0.16	0.16									4	7
0831	R220676	17445	09/08/04	10:40	20	1.6	0	0	0.13	0.13									4	7
0831	R220677	17444	09/08/04	10:55	41	4	0	0	0.11	0.11									4	7
0831	R220690	11060	09/27/04	10:00	50	0.58	0	0	0	0	0	0	0						4	7
0831	R220691	17445	09/27/04	10:15	51	0.6	0	0	0	0	0	0	0						4	7
0831	R220692	17444	09/27/04	10:35	39	1.8	0	0	0	0	0	0	0						4	7

0831	R222302	11060	11/04/04	11:20	75	0.7	0	0.24	0.32	1.73	2.19	2.19	2.19							4	1
0831	R222303	17445	11/04/04	10:50	38	0.6	0	0.24	0.31	1.71	2.2	2.2	2.2							4	1
0831	R222304	17444	11/04/04	10:15	120	2.4	0.01	0.26	0.29	1.58	1.98	2	2							4	1
0831	R222308	11060	12/13/04	10:30	70	2.8	0	0	0	0	0	0	0.41							4	6
0831	R222309	17445	12/13/04	10:55	84	0.6	0	0	0	0	0	0	0.31							4	6
0831	R222310	17444	12/13/04	11:20	45	1.8	0	0	0	0	0	0	0.54							4	6
0831	R223038	11060	01/25/05	9:05	70	2.9	0	0	0	0	0	0	0							4	7
0831	R223039	17445	01/25/05	9:25	79	0.8	0	0	0	0	0	0	0							4	7
0831	R223040	17444	01/25/05	9:40	45	2	0	0	0	0	0	0	0							4	7
0831	R224070	11060	03/08/05	10:00	94	12	0	0	0	0	0.07	0.07	0.16							4	1
0831	R224071	17445	03/08/05	10:20	40	10	0	0	0	0	0.08	0.08	0.21							4	1
0831	R224072	17444	03/08/05	10:40	49	30	0	0	0	0	0.12	0.12	0.2							4	1
0831	R224323	11060	04/13/05	10:45	64	7	0	0	0.23	0.23	0.23	0.23	0.23							4	3
0831	R224324	17445	04/13/05	11:20	120	4.9	0	0	0.43	0.43	0.43	0.43	0.43							4	3
0831	R224325	17444	04/13/05	11:40	110	15	0	0	0.36	0.36	0.36	0.36	0.36							4	3
0831	R224547	11060	05/03/05	10:35	54	1.9	0	0	0	0	0	0	0							4	4
0831	R224548	17445	05/03/05	11:05	52	2.2	0	0	0	0	0	0	0							4	4
0831	R224549	17444	05/03/05	11:20	36	6.6	0	0	0	0	0	0	0							4	4
0831	R225386	11060	06/14/05	11:30	30	2.1	0.19	0.19	0.19	0.19	0.19	0.19	0.19							4	7
0831	R225394	17445	06/14/05	11:50	26	1.9	0.39	0.39	0.39	0.39	0.39	0.39	0.39							4	7
0831	R225398	17444	06/14/05	12:15	2400	200	0.14	0.14	0.14	0.14	0.14	0.14	0.14							5	0.5
0831	R226224	11060	07/25/05	12:10	34	0.96	0	0	0	0	0	0	0							4	7
0831	R226225	17445	07/25/05	11:45	11	1	0	0	0	0	0	0	0							4	7
0831	R226226	17444	07/25/05	11:20	55	2	0	0	0	0	0	0	0							4	7
0831	R227252	11060	10/04/05	10:20	49	0.6	0	0	0	0	0	0	0							4	7
0831	R227253	17445	10/04/05	10:50	14	0.6	0	0	0	0	0	0	0							4	7
0831	R227254	17444	10/04/05	11:20	55	1.5	0	0	0	0	0	0	0							4	7
0831	R227259	11060	09/13/05	11:25	58	0.45	0	0.18	0.18	0.18	0.18	0.18	0.18							4	7
0831	R227260	17445	09/13/05	11:50	6	1	0	0.02	0.07	0.07	0.07	0.07	0.07							4	7
0831	R227261	17444	09/13/05	12:15	54	2	0	0	0	0	0	0	0							4	7
0831	R229589	11060	12/19/05	11:10	21	0.8	0	0	0.02	0.02	0.02	0.03	0.03							4	7
0831	R229591	17445	12/19/05	11:35	35	0.8	0	0	0.01	0.01	0.01	0.03	0.03							4	7
0831	R229592	17444	12/19/05	12:00	29	2.5	0	0	0.02	0.02	0.02	0.04	0.04							4	7
0831	R230323	11060	01/23/06	11:15	350	2	0.2	1.04	1.04	1.04	1.04	1.04	1.04							4	1
0831	R230325	17445	01/23/06	11:35	79	2	0.12	0.95	0.95	0.95	0.95	0.95	0.95							4	1
0831	R230327	17444	01/23/06	11:55	1000	10	0.11	1.08	1.08	1.08	1.08	1.08	1.08							5	1
0831	R232002	11060	02/14/06	10:40	15	2.2	0	0	0	0	0.04	0.04	0.04							4	7
0831	R232003	17445	02/14/06	11:00	21	2.2	0	0	0	0	0.09	0.09	0.09							4	7
0831	R232004	17444	02/14/06	11:25	22	5.4	0	0	0	0	0.03	0.03	0.03							4	7
0831	R232012	11060	03/06/06	11:50	120	0.7	0	0	0	0	0	0	0							3	7
0831	R232013	17445	03/06/06	11:30	52	0.7	0	0	0	0	0	0	0							3	7
0831	R232014	17444	03/06/06	11:10	68	2.5	0	0	0	0.02	0.02	0.02	0.02							3	7
0831	R232973	11060	04/17/06	11:15	16	2	0	0	0	0	0	0	0							3	7
0831	R232974	17445	04/17/06	11:40	24	2	0	0	0	0	0	0	0							3	7
0831	R232975	17444	04/17/06	11:55	29	5	0	0	0	0	0	0	0							3	7
0831	R233321	11060	05/01/06	10:45	68	3.5	0	0	0.91	0.91	0.91	0.91	0.91							4	3
0831	R233322	17445	05/01/06	11:10	44	3.5	0	0	0.85	0.85	0.85	0.85	0.85							4	3
0831	R233323	17444	05/01/06	11:30	460	10	0	0	0.77	0.77	0.77	0.77	0.77							4	3

0831	R234132	11060	06/26/06	9:35	46	0.5	0	0.01	0.02	0.08	0.08	0.08	0.08							3	7
0831	R234133	17445	06/26/06	10:00	21	0.5	0	0	0.02	0.07	0.07	0.07	0.07							3	7
0831	R234134	17444	06/26/06	10:20	60	1.5	0	0	0.03	0.06	0.06	0.06	0.06							3	7
0831	R235262	11060	07/26/06	13:50	3	0.2	0	0	0	0	0.01	0.01	0.01							3	7
0831	R235264	17445	07/26/06	13:25	7	0.2	0	0	0	0	0	0	0							3	7
0831	R235266	17444	07/26/06	13:10	11	0.5	0	0	0	0	0	0	0							3	7

Appendix B

Sites

Segment	Site ID	Site Description	USGS Site	NWS Precipitation Site
0806	10938	WEST FORK TRINITY RIVER 54 METERS DOWNSTREAM OF BEACH STREET IN FORT WORTH	08048543	424132
0806	11085	WEST FORK TRINITY RIVER AT PRECINCT LINE ROAD		427536
0806	16120	WEST FORK TRINITY RIVER 260 METERS DOWNSTREAM OF HANDLEY EDERVILLE ROAD 0.55KM UPSTREAM OF IH 820 IN FORT WORTH		425834
0806	17368	WEST FORK TRINITY RIVER IMMEDIATELY DOWNSTREAM OF 4TH STREET EAST OF FORT WORTH		425833
0806	17662	WEST FORK TRINITY RIVER IMMEDIATELY UPSTREAM OF EAST 1ST STREET ON THE NORTH SIDE OF GATEWAY PARK IN FORT WORTH	08048543	425833
0806	17863	WEST FORK TRINITY RIVER AT GATEWAY PARK 804 METERS DOWNSTREAM OF BEACH STREET OFF OF PIER AT RIVERBANK DRIVE IN FORTH WORTH	08048543	424132
0806	18459	WEST FORK TRINITY RIVER AT EAST NORTHSIDE DRIVE 2.95 KM DOWNSTREAM OF CONFLUENCE WITH CLEAR FORK TRINITY RIVER IN FORTH WORTH		425832
0806	18460	WEST FORK TRINITY RIVER AT NORTH UNIVERSITY DRIVE 2.4 KM UPSTREAM OF THE CONFLUENCE WITH CLEAR FORK TRINITY RIVER IN FORT WORTH		425831
0806	20292	WEST FORK TRINITY RIVER AT HERITAGE PARK PEDESTRIAN BRIDGE 285M UPSTREAM OF NORTH MAIN STREET IN FORT WORTH	08048000	424131
0841	11079	LOWER WEST FORK TRINITY RIVER AT NW CORNER OF TRA CENTRAL WWTP IN GRAND PRAIRE 1.5 KM UPSTREAM OF CONFLUENCE WITH MOUNTAIN CREEK		427542
0841	11080	LOWER WEST FORK TRINITY RIVER IMMEDIATELY UPSTREAM OF SOUTH MACARTHUR BLVD IN IRVING		427542
0841	11081	LOWER WEST FORK TRINITY RIVER AT BELT LINE ROAD IN GRAND PRAIRE	08049500	427541
0841	11084	LOWER WEST FORK TRINITY RIVER 590 METERS DOWNSTREAM OF SH 360 IN GRAND PRAIRIE		427539
0841	11087	LOWER WEST FORK TRINITY RIVER AT FM 157 IN ARLINGTON		427538
0841	11089	TRINITY RIVER 194 METERS DOWNSTREAM OF WEST LOOP SH 12 IN DALLAS		429244

Segment	Site ID	Site Description	USGS Site	NWS Precipitation Site
0841	17160	LOWER WEST FORK TRINITY RIVER IMMEDIATELY UPSTREAM OF GREENBELT ROAD DOWNSTREAM OF VILLAGE CREEK WWTP OUTFALL IN FT WORT		427538
0841	17669	LOWER WEST FORK TRINITY RIVER AT ROY ORR BOULEVARD IN GRAND PRAIRIE		427540
0805	10924	TRINITY RIVER 24 METERS DOWNSTREAM OF FM 85 WEST OF SEVEN POINTS		408847
0805	10925	TRINITY RIVER 50 METERS DOWNSTREAM OF SH 34 NORTHEAST OF ENNIS	08062500	413947
0805	10929	TRINITY RIVER IMMEDIATELY DOWNSTREAM OF MALLOY BRIDGE ROAD EAST OF WILMER		420747
0805	10930	TRINITY RIVER 723 METERS DOWNSTREAM OF BELT LINE ROAD EAST OF WILMER	08057448	422448
0805	10932	TRINITY RIVER 41 METERS UPSTREAM OF DOWDY FERRY ROAD IN DALLAS		424147
0805	10934	TRINITY RIVER AT SOUTH LOOP SH 12 SOUTH OF DALLAS	08057410	425846
0805	10937	TRINITY RIVER 46 METERS UPSTREAM OF N WESTMORELAND ROAD IN DALLAS	08057000	429245
0805	17161	TRINITY RIVER 1.01 KM UPSTREAM OF IH 45 AND UPSTREAM OF DALLAS WWTP OUTFALL IN DALLAS		427546
0805	20444	UPPER TRINITY RIVER 190 METERS DOWNSTREAM OF SOUTH CENTRAL EXPRESSWAY/SH 310 AND 105 METERS UPSTREAM OF RAILROAD BRIDGE		427547
0805	20933	UPPER TRINITY RIVER AT SYLVAN AVENUE IN DALLAS		429246
0805	20934	UPPER TRINITY RIVER AT SANTA FE AVENUE IN DALLAS UNDER DART RAIL BRIDGE		427546

Appendix C
Single Least-Squares Linear
Regression Statistics

Segment	Parameter	Statistic	Flow (cfs)	Log ₁₀ Flow	Natural Log Flow	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)
All	<i>E. coli</i> (MPN or CFU/100 mL)	r ²	0.000	0.009	0.009	0.058	0.063	0.047	0.030	0.024
		P-value	0.523	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	973.157	87.786	87.786	654.835	535.405	517.277	569.091	575.953
		Slope	0.012	369.555	160.496	3007.556	2300.181	1736.664	1138.064	917.010
	Log ₁₀ <i>E. coli</i>	r ²	0.014	0.055	0.055	0.134	0.175	0.184	0.171	0.175
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	2.036	1.630	1.630	1.976	1.930	1.900	1.885	1.862
		Slope	0.000	0.181	0.079	0.869	0.728	0.646	0.509	0.464
	(Log ₁₀ <i>E. coli</i>) ²	r ²	0.011	0.057	0.057	0.164	0.215	0.212	0.185	0.181
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	4.825	2.859	2.859	4.500	4.262	4.133	4.091	4.006
		Slope	0.000	0.868	0.377	4.450	3.725	3.200	2.442	2.174
	Natural Log <i>E. coli</i>	r ²	0.014	0.055	0.055	0.134	0.175	0.184	0.171	0.175
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	4.687	3.753	3.753	4.551	4.444	4.374	4.340	4.287
		Slope	0.000	0.417	0.181	2.001	1.676	1.488	1.172	1.067
	(Natural Log <i>E. coli</i>) ²	r ²	0.011	0.057	0.057	0.164	0.215	0.212	0.185	0.181
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	25.582	15.156	15.156	23.860	22.594	21.911	21.693	21.239
		Slope	0.000	4.603	1.999	23.593	19.750	16.966	12.949	11.526

Segment	Parameter	Statistic	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)
All	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.022	0.018	0.000	0.000	0.000	0.003	0.054	0.008
		P-value	0.000	0.000	0.587	0.478	0.529	0.020	0.000	0.000
		Intercept	566.764	577.771	897.093	985.222	974.328	4095.616	1678.014	1448.685
		Slope	802.255	683.775	-5.575	-6.689	-22.911	-423.190	-3552.459	-1.317
	Log ₁₀ <i>E. coli</i>	r^2	0.167	0.156	0.010	0.016	0.016	0.061	0.117	0.002
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056
		Intercept	1.855	1.847	2.289	2.356	2.462	5.923	2.527	2.136
		Slope	0.413	0.374	-0.012	-0.013	-0.050	-0.495	-1.668	0.000
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.167	0.152	0.006	0.009	0.010	0.047	0.122	0.007
		P-value	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
		Intercept	3.984	3.960	5.709	6.001	6.355	20.038	7.084	5.598
		Slope	1.913	1.712	-0.040	-0.045	-0.179	-1.938	-7.958	-0.001
	Natural Log <i>E. coli</i>	r^2	0.167	0.156	0.010	0.016	0.016	0.061	0.117	0.002
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056
		Intercept	4.271	4.253	5.272	5.424	5.669	13.638	5.819	4.919
		Slope	0.952	0.862	-0.027	-0.029	-0.116	-1.141	-3.840	0.000
	(Natural Log <i>E. coli</i>) ²	r^2	0.167	0.152	0.006	0.009	0.010	0.047	0.122	0.007
		P-value	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
		Intercept	21.125	20.995	30.269	31.818	33.695	106.240	37.560	29.682
		Slope	10.141	9.078	-0.210	-0.238	-0.950	-10.273	-42.194	-0.007

Segment	Parameter	Statistic	Flow Severity	Days Since Precipitation	Turbidity (NTU)
All	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.035	0.042	0.002
		P-value	0.000	0.000	0.292
		Intercept	-4561.040	2339.550	807.569
		Slope	1360.806	-318.892	2.898
	Log ₁₀ <i>E. coli</i>	r^2	0.137	0.246	0.080
		P-value	0.000	0.000	0.000
		Intercept	0.093	2.667	1.719
		Slope	0.487	-0.138	0.003
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.142	0.242	0.079
		P-value	0.000	0.000	0.000
		Intercept	-4.542	7.742	3.724
		Slope	2.340	-0.646	0.011
	Natural Log <i>E. coli</i>	r^2	0.137	0.246	0.080
		P-value	0.000	0.000	0.000
		Intercept	0.213	6.140	3.959
		Slope	1.122	-0.317	0.006
	(Natural Log <i>E. coli</i>) ²	r^2	0.142	0.242	0.079
		P-value	0.000	0.000	0.000
		Intercept	-24.079	41.046	19.744
		Slope	12.406	-3.424	0.060

Segment	Parameter	Statistic	Flow (cfs)	Log ₁₀ Flow	Natural Log Flow	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)
0806	<i>E. coli</i> (MPN or CFU/100 mL)	r ²	0.003	0.036	0.036	0.111	0.055	0.044	0.021	0.015
		P-value	0.288	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	1957.412	3223.283	-3223.283	675.242	855.719	832.725	1106.615	1188.360
		Slope	0.349	2607.896	1132.595	9044.278	4397.061	3513.039	1837.528	1411.446
	Log ₁₀ <i>E. coli</i>	r ²	0.047	0.339	0.339	0.325	0.351	0.389	0.315	0.285
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	2.056	-0.011	-0.011	1.782	1.725	1.654	1.672	1.669
		Slope	0.000	1.047	0.455	2.008	1.431	1.326	0.902	0.771
	(Log ₁₀ <i>E. coli</i>) ²	r ²	0.045	0.326	0.326	0.396	0.388	0.400	0.298	0.257
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	5.332	-4.225	-4.225	3.909	3.694	3.424	3.581	3.611
		Slope	0.001	4.837	2.101	10.237	6.941	6.217	4.055	3.384
	Natural Log <i>E. coli</i>	r ²	0.047	0.339	0.339	0.325	0.351	0.389	0.315	0.285
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	4.735	-0.026	-0.026	4.102	3.971	3.808	3.851	3.843
		Slope	0.000	2.411	1.047	4.622	3.296	3.054	2.077	1.775
	(Natural Log <i>E. coli</i>) ²	r ²	0.045	0.326	0.326	0.396	0.388	0.400	0.298	0.257
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	28.268	-22.398	-22.398	20.723	19.587	18.156	18.987	19.143
		Slope	0.004	25.647	11.138	54.275	36.803	32.961	21.501	17.943

Segment	Parameter	Statistic	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)
0806	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.018	0.011	0.000	0.001	0.001	0.001	0.350	0.003
		P-value	0.000	0.020	0.885	0.716	0.565	0.481	0.000	0.294
		Intercept	1088.904	1236.786	1313.252	962.458	522.269	5701.705	6360.718	2029.478
		Slope	1449.213	1034.219	-6.028	15.354	78.459	-572.298	-15714.489	-2.438
	Log ₁₀ <i>E. coli</i>	r^2	0.263	0.212	0.000	0.000	0.027	0.034	0.438	0.011
		P-value	0.000	0.000	0.975	0.884	0.001	0.000	0.000	0.030
		Intercept	1.662	1.681	1.892	2.184	2.454	5.588	3.840	2.152
		Slope	0.702	0.581	0.000	-0.002	-0.068	-0.470	-5.105	-0.001
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.234	0.178	0.000	0.001	0.012	0.034	0.477	0.014
		P-value	0.000	0.000	0.992	0.768	0.024	0.000	0.000	0.015
		Intercept	3.583	3.711	4.516	6.013	6.174	20.752	13.992	5.804
		Slope	3.070	2.471	0.000	-0.018	-0.202	-2.060	-25.649	-0.004
	Natural Log <i>E. coli</i>	r^2	0.263	0.212	0.000	0.000	0.027	0.034	0.438	0.011
		P-value	0.000	0.000	0.975	0.884	0.001	0.000	0.000	0.030
		Intercept	3.828	3.871	4.356	5.028	5.651	12.868	8.842	4.956
		Slope	1.617	1.337	0.000	-0.004	-0.157	-1.082	-11.754	-0.002
	(Natural Log <i>E. coli</i>) ²	r^2	0.234	0.178	0.000	0.001	0.012	0.034	0.477	0.014
		P-value	0.000	0.000	0.992	0.768	0.024	0.000	0.000	0.015
		Intercept	18.994	19.674	23.943	31.882	32.736	110.026	74.183	30.770
		Slope	16.277	13.100	-0.001	-0.095	-1.070	-10.922	-135.990	-0.020

Segment	Parameter	Statistic	Flow Severity	Days Since Precipitation	Turbidity (NTU)
0806	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.034	0.035	0.001
		P-value	0.000	0.000	0.670
		Intercept	-8457.319	3812.932	1298.144
		Slope	2546.444	-482.070	3.714
	$\text{Log}_{10} E. coli$	r^2	0.281	0.288	0.019
		P-value	0.000	0.000	0.036
		Intercept	-1.668	2.728	1.740
		Slope	0.914	-0.172	0.002
	$(\text{Log}_{10} E. coli)^2$	r^2	0.268	0.281	0.015
		P-value	0.000	0.000	0.058
		Intercept	-11.705	8.411	3.992
		Slope	4.174	-0.794	0.009
	Natural Log <i>E. coli</i>	r^2	0.281	0.288	0.019
		P-value	0.000	0.000	0.036
		Intercept	-3.841	6.281	4.006
		Slope	2.104	-0.396	0.005
	$(\text{Natural Log } E. coli)^2$	r^2	0.268	0.281	0.015
		P-value	0.000	0.000	0.058
		Intercept	-62.059	44.593	21.165
		Slope	22.130	-4.210	0.045

Segment	Parameter	Statistic	Flow (cfs)	Log ₁₀ Flow	Natural Log Flow	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)
0841	<i>E. coli</i> (MPN or CFU/100 mL)	r ²	0.053	0.102	0.102	0.075	0.194	0.124	0.088	0.072
		P-value	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	999.713	-	-11216.799	1007.632	511.571	646.948	634.862	636.961
		Slope	1.250	4975.149	2160.680	5207.040	6337.647	4055.741	2932.969	2467.079
	Log ₁₀ <i>E. coli</i>	r ²	0.153	0.279	0.279	0.242	0.407	0.379	0.395	0.386
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	2.191	-0.885	-0.885	2.180	2.097	2.098	2.044	2.019
		Slope	0.000	1.255	0.545	1.396	1.355	1.032	0.902	0.828
	(Log ₁₀ <i>E. coli</i>) ²	r ²	0.167	0.297	0.297	0.259	0.449	0.394	0.389	0.373
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	5.250	-11.858	-11.858	5.222	4.747	4.768	4.518	4.401
		Slope	0.002	6.986	3.034	7.701	7.591	5.635	4.803	4.356
	Natural Log <i>E. coli</i>	r ²	0.153	0.279	0.279	0.242	0.407	0.379	0.395	0.386
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	5.046	-2.039	-2.039	5.019	4.828	4.830	4.707	4.649
		Slope	0.001	2.891	1.255	3.215	3.121	2.376	2.078	1.906
	(Natural Log <i>E. coli</i>) ²	r ²	0.167	0.297	0.297	0.259	0.449	0.394	0.389	0.373
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	27.834	-62.870	-62.870	27.689	25.167	25.277	23.952	23.333
		Slope	0.010	37.040	16.086	40.827	40.248	29.878	25.464	23.097

Segment	Parameter	Statistic	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)
0841	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.058	0.048	0.000	0.000	0.000	0.005	0.124	0.121
		P-value	0.000	0.000	0.861	0.909	0.975	0.291	0.000	0.000
		Intercept	691.224	772.092	1113.358	1093.714	979.937	6404.489	2989.005	4836.544
		Slope	1964.002	1569.532	-4.951	-2.527	3.325	-704.544	-7289.963	-5.598
	Log ₁₀ <i>E. coli</i>	r^2	0.341	0.297	0.007	0.003	0.001	0.004	0.287	0.269
		P-value	0.000	0.000	0.176	0.372	0.565	0.327	0.000	0.000
		Intercept	2.024	2.043	2.439	2.333	2.338	3.511	3.072	3.631
		Slope	0.687	0.566	-0.010	-0.005	-0.016	-0.170	-3.055	-0.002
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.322	0.278	0.005	0.002	0.001	0.005	0.267	0.260
		P-value	0.000	0.000	0.266	0.479	0.653	0.277	0.000	0.000
		Intercept	4.444	4.551	6.418	5.961	5.962	12.854	9.729	12.636
		Slope	3.579	2.933	-0.042	-0.021	-0.064	-0.968	-15.210	-0.011
	Natural Log <i>E. coli</i>	r^2	0.341	0.297	0.007	0.003	0.001	0.004	0.287	0.269
		P-value	0.000	0.000	0.176	0.372	0.565	0.327	0.000	0.000
		Intercept	4.660	4.704	5.616	5.371	5.383	8.085	7.074	8.360
		Slope	1.583	1.302	-0.023	-0.012	-0.037	-0.392	-7.034	-0.005
	(Natural Log <i>E. coli</i>) ²	r^2	0.322	0.278	0.005	0.002	0.001	0.005	0.267	0.260
		P-value	0.000	0.000	0.266	0.479	0.653	0.277	0.000	0.000
		Intercept	23.562	24.128	34.028	31.607	31.611	68.151	51.585	66.995
		Slope	18.975	15.552	-0.225	-0.109	-0.341	-5.134	-80.643	-0.056

Segment	Parameter	Statistic	Flow Severity	Days Since Precipitation	Turbidity (NTU)
0841	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.127	0.078	0.290
		P-value	0.000	0.000	0.000
		Intercept	-10943.290	3443.102	23.662
		Slope	3086.792	-451.977	16.155
	Log ₁₀ <i>E. coli</i>	r^2	0.296	0.360	0.451
		P-value	0.000	0.000	0.000
		Intercept	-0.493	2.920	1.885
		Slope	0.695	-0.141	0.006
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.325	0.332	0.496
		P-value	0.000	0.000	0.000
		Intercept	-9.761	9.080	3.626
		Slope	3.891	-0.727	0.033
	Natural Log <i>E. coli</i>	r^2	0.296	0.360	0.451
		P-value	0.000	0.000	0.000
		Intercept	-1.136	6.724	4.341
		Slope	1.600	-0.324	0.014
	(Natural Log <i>E. coli</i>) ²	r^2	0.325	0.332	0.496
		P-value	0.000	0.000	0.000
		Intercept	-51.753	48.141	19.226
		Slope	20.630	-3.855	0.173

Segment	Parameter	Statistic	Flow (cfs)	Log ₁₀ Flow	Natural Log Flow	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)	
0805	<i>E. coli</i> (MPN or CFU/100 mL)	r ²	0.011	0.029	0.029	0.143	0.174	0.149	0.111	0.087	
		P-value	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	982.041	-3979.069	-3979.069	785.416	514.120	458.837	455.139	470.488	
		Slope	0.113	1644.729	714.297	3882.555	3368.826	2836.845	2116.000	1651.912	
	Log ₁₀ <i>E. coli</i>	r ²	0.086	0.154	0.154	0.142	0.223	0.244	0.251	0.258	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	2.047	-0.545	-0.545	2.132	2.046	2.022	1.977	1.943	
		Slope	0.000	0.870	0.378	0.898	0.877	0.816	0.715	0.635	
	(Log ₁₀ <i>E. coli</i>) ²	r ²	0.081	0.143	0.143	0.168	0.263	0.273	0.263	0.258	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	4.825	-7.593	-7.593	5.163	4.700	4.581	4.387	4.252	
		Slope	0.000	4.171	1.812	4.855	4.728	4.297	3.651	3.167	
	Natural Log <i>E. coli</i>	r ²	0.086	0.154	0.154	0.142	0.223	0.244	0.251	0.258	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	4.713	-1.255	-1.255	4.909	4.712	4.657	4.552	4.473	
		Slope	0.000	2.004	0.870	2.067	2.020	1.879	1.647	1.462	
	(Natural Log <i>E. coli</i>) ²	r ²	0.081	0.143	0.143	0.168	0.263	0.273	0.263	0.258	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	25.582	-40.258	-40.258	27.374	24.920	24.286	23.261	22.542	
		Slope	0.002	22.117	9.605	25.742	25.066	22.781	19.356	16.790	

Segment	Parameter	Statistic	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)
0805	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.067	0.064	0.000	0.001	0.018	0.006	0.114	0.125
		P-value	0.000	0.000	0.712	0.586	0.020	0.180	0.000	0.000
		Intercept	575.744	566.366	1501.879	1768.498	4069.497	11568.152	3414.329	4723.319
		Slope	1234.486	1133.026	-11.796	-16.014	-328.557	-1332.605	-10431.875	-6.049
	Log ₁₀ <i>E. coli</i>	r^2	0.215	0.213	0.012	0.009	0.024	0.075	0.326	0.316
		P-value	0.000	0.000	0.060	0.130	0.007	0.000	0.000	0.000
		Intercept	1.972	1.959	2.609	2.576	3.090	11.296	3.117	4.084
		Slope	0.493	0.464	-0.015	-0.010	-0.092	-1.163	-4.093	-0.003
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.211	0.206	0.009	0.007	0.029	0.059	0.345	0.310
		P-value	0.000	0.000	0.107	0.179	0.003	0.000	0.000	0.000
		Intercept	4.416	4.368	7.336	7.285	10.280	45.165	10.213	14.663
		Slope	2.431	2.270	-0.062	-0.046	-0.497	-5.060	-20.773	-0.015
	Natural Log <i>E. coli</i>	r^2	0.215	0.213	0.012	0.009	0.024	0.075	0.326	0.316
		P-value	0.000	0.000	0.060	0.130	0.007	0.000	0.000	0.000
		Intercept	4.541	4.512	6.008	5.932	7.116	26.011	7.176	9.404
		Slope	1.136	1.069	-0.034	-0.024	-0.213	-2.679	-9.425	-0.007
	(Natural Log <i>E. coli</i>) ²	r^2	0.211	0.206	0.009	0.007	0.029	0.059	0.345	0.310
		P-value	0.000	0.000	0.107	0.179	0.003	0.000	0.000	0.000
		Intercept	23.413	23.158	38.896	38.624	54.503	239.458	54.147	77.744
		Slope	12.890	12.034	-0.329	-0.243	-2.633	-26.828	-110.137	-0.077

Segment	Parameter	Statistic	Flow Severity	Days Since Precipitation	Turbidity (NTU)
0805	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.074	0.077	1.000
		P-value	0.000	0.000	
		Intercept	-5981.299	2650.877	774.264
		Slope	1699.247	-409.146	-42.636
	Log ₁₀ <i>E. coli</i>	r^2	0.183	0.322	1.000
		P-value	0.000	0.000	
		Intercept	-0.399	2.883	2.891
		Slope	0.618	-0.192	-0.042
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.184	0.292	1.000
		P-value	0.000	0.000	
		Intercept	-7.396	8.808	8.354
		Slope	3.079	-0.909	-0.221
	Natural Log <i>E. coli</i>	r^2	0.183	0.322	1.000
		P-value	0.000	0.000	
		Intercept	-0.919	6.638	6.656
		Slope	1.423	-0.441	-0.097
	(Natural Log <i>E. coli</i>) ²	r^2	0.184	0.292	1.000
		P-value	0.000	0.000	
		Intercept	-39.215	46.701	44.291
		Slope	16.326	-4.819	-1.169

Segment	Parameter	Statistic	Flow (cfs)	Log ₁₀ Flow	Natural Log Flow	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)	
0805 Upstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	r ²	0.015	0.050	0.050	0.206	0.207	0.173	0.132	0.098	
		P-value	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
		Intercept	1297.079	6241.698	-6241.698	1000.555	741.951	711.093	706.935	771.471	
		Slope	0.184	2550.054	1107.474	5152.728	4119.199	3389.872	2558.753	1889.186	
	Log ₁₀ <i>E. coli</i>	r ²	0.080	0.192	0.192	0.210	0.295	0.299	0.298	0.284	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
		Intercept	2.177	-0.727	-0.727	2.234	2.146	2.138	2.099	2.084	
		Slope	0.000	0.991	0.431	1.049	0.983	0.872	0.751	0.625	
	(Log ₁₀ <i>E. coli</i>) ²	r ²	0.073	0.178	0.178	0.246	0.325	0.310	0.295	0.271	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
		Intercept	5.451	-9.073	-9.073	5.630	5.170	5.131	4.958	4.910	
		Slope	0.000	4.955	2.152	5.886	5.337	4.630	3.899	3.182	
	Natural Log <i>E. coli</i>	r ²	0.080	0.192	0.192	0.210	0.295	0.299	0.298	0.284	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
		Intercept	5.013	-1.674	-1.674	5.145	4.940	4.922	4.832	4.799	
		Slope	0.000	2.283	0.991	2.416	2.263	2.009	1.730	1.438	
	(Natural Log <i>E. coli</i>) ²	r ²	0.073	0.178	0.178	0.246	0.325	0.310	0.295	0.271	
		P-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
		Intercept	28.899	-48.102	-48.102	29.850	27.410	27.205	26.288	26.034	
		Slope	0.002	26.268	11.408	31.207	28.295	24.550	20.670	16.868	

Segment	Parameter	Statistic	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)	
0805 Upstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.067	0.064	0.000	0.000	0.021	0.002	0.178	0.145	
		P-value	0.000	0.000	0.984	0.988	0.048	0.559	0.000	0.000	
		Intercept	925.888	913.754	1662.014	1730.951	5344.600	6677.861	-	5167.629	6008.518
		Slope	1290.546	1212.412	-0.994	0.677	-435.731	1087.092	-14903.019	-7.631	
	$\text{Log}_{10} E. coli$	r^2	0.211	0.203	0.000	0.000	0.030	0.001	0.579	0.318	
		P-value	0.000	0.000	0.797	0.944	0.017	0.731	0.000	0.000	
		Intercept	2.124	2.119	2.506	2.463	3.313	3.403	3.584	4.151	
		Slope	0.444	0.418	-0.003	-0.001	-0.101	-0.124	-4.915	-0.003	
	$(\text{Log}_{10} E. coli)^2$	r^2	0.197	0.188	0.000	0.000	0.032	0.001	0.549	0.311	
		P-value	0.000	0.000	0.808	0.892	0.014	0.731	0.000	0.000	
		Intercept	5.133	5.112	6.970	6.877	11.433	11.758	12.605	15.456	
		Slope	2.237	2.096	-0.013	-0.006	-0.556	-0.660	-25.485	-0.015	
	Natural $\text{Log } E. coli$	r^2	0.211	0.203	0.000	0.000	0.030	0.001	0.579	0.318	
		P-value	0.000	0.000	0.797	0.944	0.017	0.731	0.000	0.000	
		Intercept	4.891	4.879	5.771	5.671	7.628	7.836	8.252	9.558	
		Slope	1.023	0.962	-0.006	-0.001	-0.233	-0.286	-11.316	-0.007	
	(Natural $\text{Log } E. coli)^2$	r^2	0.197	0.188	0.000	0.000	0.032	0.001	0.549	0.311	
		P-value	0.000	0.000	0.808	0.892	0.014	0.731	0.000	0.000	
		Intercept	27.213	27.105	36.956	36.459	60.616	62.341	66.829	81.948	
		Slope	11.858	11.112	-0.067	-0.032	-2.950	-3.499	-135.119	-0.078	

Segment	Parameter	Statistic	Flow Severity	Days Since Precipitation	Turbidity (NTU)
0805 Upstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.090	0.106	
		P-value	0.000	0.000	
		Intercept	-7844.579	3576.337	
		Slope	2231.997	-558.688	
	Log ₁₀ <i>E. coli</i>	r^2	0.175	0.428	
		P-value	0.000	0.000	
		Intercept	-0.310	3.122	
		Slope	0.626	-0.225	
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.180	0.378	
		P-value	0.000	0.000	
		Intercept	-7.670	10.071	
		Slope	3.289	-1.094	
	Natural Log <i>E. coli</i>	r^2	0.175	0.428	
		P-value	0.000	0.000	
		Intercept	-0.713	7.189	
		Slope	1.442	-0.517	
	(Natural Log <i>E. coli</i>) ²	r^2	0.180	0.378	
		P-value	0.000	0.000	
		Intercept	-40.667	53.393	
		Slope	17.436	-5.801	

Segment	Parameter	Statistic	Flow (cfs)	Log ₁₀ Flow	Natural Log Flow	24-hr Precipitation Total (inches)	48-hr Precipitation Total (inches)	72-hr Precipitation Total (inches)	96-hr Precipitation Total (inches)	120-hr Precipitation Total (inches)
0805 Downstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	r ²	0.042	0.056	0.056	0.003	0.116	0.118	0.080	0.071
		P-value	0.002	0.000	0.000	0.393	0.000	0.000	0.000	0.000
		Intercept	259.594	3715.479	-3715.479	517.164	227.945	134.017	140.586	98.045
		Slope	0.094	1287.351	559.090	344.869	1542.391	1435.526	1027.517	916.921
	Log ₁₀ <i>E. coli</i>	r ²	0.172	0.277	0.277	0.034	0.110	0.165	0.195	0.241
		P-value	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000
		Intercept	1.774	-1.893	-1.893	1.969	1.891	1.828	1.764	1.682
		Slope	0.000	1.179	0.512	0.451	0.617	0.677	0.640	0.672
	(Log ₁₀ <i>E. coli</i>) ²	r ²	0.194	0.281	0.281	0.030	0.153	0.221	0.234	0.269
		P-value	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000
		Intercept	3.500	-12.850	-12.850	4.445	3.979	3.667	3.416	3.083
		Slope	0.000	5.276	2.291	1.890	3.232	3.467	3.100	3.142
	Natural Log <i>E. coli</i>	r ²	0.172	0.277	0.277	0.034	0.110	0.165	0.195	0.241
		P-value	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.000
		Intercept	4.086	-4.359	-4.359	4.533	4.354	4.209	4.061	3.874
		Slope	0.000	2.715	1.179	1.037	1.421	1.559	1.474	1.548
	(Natural Log <i>E. coli</i>) ²	r ²	0.194	0.281	0.281	0.030	0.153	0.221	0.234	0.269
		P-value	0.000	0.000	0.000	0.010	0.000	0.000	0.000	0.000
		Intercept	18.556	-68.129	-68.129	23.567	21.094	19.443	18.111	16.348
		Slope	0.002	27.975	12.149	10.020	17.138	18.379	16.435	16.658

Segment	Parameter	Statistic	144-hr Precipitation Total (inches)	168-hr Precipitation Total (inches)	Water Temperature (Celsius)	Air Temperature (Celsius)	DO (mg/L)	pH (SU)	Secchi Depth (m)	Specific Conductance (us/cm)
0805 Downstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.068	0.070	0.032	0.017	0.020	0.088	0.202	0.193
		P-value	0.000	0.000	0.062	0.229	0.148	0.002	0.000	0.000
		Intercept	102.678	85.140	1182.802	1117.560	1462.650	13669.769	1434.126	2463.376
		Slope	850.615	768.471	-29.182	-18.842	-102.944	-1665.934	-5670.444	-3.210
	Log ₁₀ <i>E. coli</i>	r^2	0.250	0.273	0.069	0.031	0.010	0.181	0.315	0.393
		P-value	0.000	0.000	0.006	0.102	0.318	0.000	0.000	0.000
		Intercept	1.672	1.646	2.724	2.553	2.502	16.570	2.825	4.073
		Slope	0.649	0.604	-0.033	-0.019	-0.055	-1.849	-5.319	-0.003
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.274	0.293	0.064	0.028	0.015	0.174	0.338	0.382
		P-value	0.000	0.000	0.008	0.125	0.205	0.000	0.000	0.000
		Intercept	3.049	2.951	7.714	6.989	7.427	66.119	8.399	13.641
		Slope	3.007	2.765	-0.137	-0.076	-0.299	-7.793	-23.636	-0.015
	Natural Log <i>E. coli</i>	r^2	0.250	0.273	0.069	0.031	0.010	0.181	0.315	0.393
		P-value	0.000	0.000	0.006	0.102	0.318	0.000	0.000	0.000
		Intercept	3.850	3.790	6.273	5.879	5.761	38.154	6.506	9.378
		Slope	1.495	1.390	-0.076	-0.043	-0.126	-4.258	-12.248	-0.008
	(Natural Log <i>E. coli</i>) ²	r^2	0.274	0.293	0.064	0.028	0.015	0.174	0.338	0.382
		P-value	0.000	0.000	0.008	0.125	0.205	0.000	0.000	0.000
		Intercept	16.167	15.646	40.901	37.052	39.377	350.558	44.528	72.325
		Slope	15.944	14.658	-0.726	-0.402	-1.587	-41.318	-125.313	-0.079

Segment	Parameter	Statistic	Flow Severity	Days Since Precipitation	Turbidity (NTU)
0805 Downstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	r^2	0.068	0.032	
		P-value	0.000	0.009	
		Intercept	-2883.865	1020.381	
		Slope	807.115	-136.599	
	Log ₁₀ <i>E. coli</i>	r^2	0.227	0.184	
		P-value	0.000	0.000	
		Intercept	-0.557	2.465	
		Slope	0.604	-0.132	
	(Log ₁₀ <i>E. coli</i>) ²	r^2	0.233	0.174	
		P-value	0.000	0.000	
		Intercept	-6.975	6.597	
		Slope	2.729	-0.575	
	Natural Log <i>E. coli</i>	r^2	0.227	0.184	
		P-value	0.000	0.000	
		Intercept	-1.282	5.675	
		Slope	1.392	-0.304	
(Natural Log <i>E. coli</i>) ²	r^2	0.233	0.174		
	P-value	0.000	0.000		
	Intercept	-36.982	34.975		
	Slope	14.470	-3.050		

Appendix D
Pearson Correlation
Coefficients

All Segments	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E. coli</i>	(Log ₁₀ <i>E. coli</i>) ²	Natural Log <i>E.</i> <i>coli</i>	(Natural Log <i>E.</i> <i>coli</i>) ²
Flow (cfs)	0.014	0.116	0.107	0.116	0.107
Log ₁₀ Flow	0.094	0.235	0.239	0.235	0.239
Natural Log Flow	0.094	0.235	0.239	0.235	0.239
24-hr Precipitation Total (inches)	0.241	0.366	0.406	0.366	0.406
48-hr Precipitation Total (inches)	0.250	0.418	0.464	0.418	0.464
72-hr Precipitation Total (inches)	0.216	0.429	0.460	0.429	0.460
96-hr Precipitation Total (inches)	0.173	0.414	0.430	0.414	0.430
120-hr Precipitation Total (inches)	0.154	0.419	0.425	0.419	0.425
144-hr Precipitation Total (inches)	0.147	0.409	0.409	0.409	0.409
168-hr Precipitation Total (inches)	0.134	0.395	0.390	0.395	0.390
Water Temperature (Celsius)	-0.012	-0.101	-0.078	-0.101	-0.078
Air Temperature (Celsius)	-0.021	-0.125	-0.097	-0.125	-0.097
DO (mg/L)	-0.014	-0.127	-0.102	-0.127	-0.102
pH (SU)	-0.050	-0.246	-0.217	-0.246	-0.217
Secchi Depth (m)	-0.232	-0.342	-0.350	-0.342	-0.350
Specific Conductance (us/cm)	-0.088	-0.042	-0.084	-0.042	-0.084
Flow Severity	0.187	0.370	0.377	0.370	0.377
Days Since Precipitation	-0.206	-0.496	-0.492	-0.496	-0.492
Turbidity (NTU)	0.047	0.283	0.280	0.283	0.280

0806	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E.</i> <i>coli</i>	(Log ₁₀ <i>E.</i> <i>coli</i>) ²	Natural Log <i>E.</i> <i>coli</i>	(Natural Log <i>E.</i> <i>coli</i>) ²
Flow (cfs)	0.058	0.217	0.212	0.217	0.212
Log ₁₀ Flow	0.189	0.583	0.571	0.583	0.571
Natural Log Flow	0.189	0.583	0.571	0.583	0.571
24-hr Precipitation Total (inches)	0.334	0.570	0.630	0.570	0.630
48-hr Precipitation Total (inches)	0.235	0.593	0.623	0.593	0.623
72-hr Precipitation Total (inches)	0.211	0.623	0.632	0.623	0.632
96-hr Precipitation Total (inches)	0.146	0.561	0.546	0.561	0.546
120-hr Precipitation Total (inches)	0.124	0.534	0.507	0.534	0.507
144-hr Precipitation Total (inches)	0.133	0.513	0.484	0.513	0.484
168-hr Precipitation Total (inches)	0.103	0.461	0.422	0.461	0.422
Water Temperature (Celsius)	-0.007	-0.002	0.000	-0.002	0.000
Air Temperature (Celsius)	0.037	-0.015	-0.030	-0.015	-0.030
DO (mg/L)	0.028	-0.163	-0.111	-0.163	-0.111
pH (SU)	-0.034	-0.184	-0.186	-0.184	-0.186
Secchi Depth (m)	-0.592	-0.662	-0.691	-0.662	-0.691
Specific Conductance (us/cm)	-0.051	-0.106	-0.119	-0.106	-0.119
Flow Severity	0.185	0.530	0.518	0.530	0.518
Days Since Precipitation	-0.188	-0.537	-0.530	-0.537	-0.530
Turbidity (NTU)	0.028	0.136	0.123	0.136	0.123

0841	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E.</i> <i>coli</i>	(Log ₁₀ <i>E.</i> <i>coli</i>) ²	Natural Log <i>E.</i> <i>coli</i>	(Natural Log <i>E.</i> <i>coli</i>) ²
Flow (cfs)	0.230	0.391	0.408	0.391	0.408
Log ₁₀ Flow	0.320	0.528	0.545	0.528	0.545
Natural Log Flow	0.320	0.528	0.545	0.528	0.545
24-hr Precipitation Total (inches)	0.273	0.492	0.509	0.492	0.509
48-hr Precipitation Total (inches)	0.441	0.638	0.670	0.638	0.670
72-hr Precipitation Total (inches)	0.352	0.616	0.628	0.616	0.628
96-hr Precipitation Total (inches)	0.296	0.628	0.624	0.628	0.624
120-hr Precipitation Total (inches)	0.268	0.622	0.610	0.622	0.610
144-hr Precipitation Total (inches)	0.241	0.584	0.567	0.584	0.567
168-hr Precipitation Total (inches)	0.218	0.545	0.527	0.545	0.527
Water Temperature (Celsius)	-0.011	-0.085	-0.070	-0.085	-0.070
Air Temperature (Celsius)	-0.008	-0.059	-0.047	-0.059	-0.047
DO (mg/L)	0.002	-0.037	-0.029	-0.037	-0.029
pH (SU)	-0.068	-0.063	-0.070	-0.063	-0.070
Secchi Depth (m)	-0.352	-0.536	-0.517	-0.536	-0.517
Specific Conductance (us/cm)	-0.348	-0.519	-0.510	-0.519	-0.510
Flow Severity	0.356	0.544	0.570	0.544	0.570
Days Since Precipitation	-0.279	-0.600	-0.576	-0.600	-0.576
Turbidity (NTU)	0.539	0.672	0.704	0.672	0.704

0805	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E.</i> <i>coli</i>	(Log ₁₀ <i>E.</i> <i>coli</i>) ²	Natural Log <i>E.</i> <i>coli</i>	(Natural Log <i>E.</i> <i>coli</i>) ²
Flow (cfs)	0.104	0.294	0.285	0.294	0.285
Log ₁₀ Flow	0.170	0.392	0.378	0.392	0.378
Natural Log Flow	0.170	0.392	0.378	0.392	0.378
24-hr Precipitation Total (inches)	0.378	0.377	0.410	0.377	0.410
48-hr Precipitation Total (inches)	0.417	0.472	0.513	0.472	0.513
72-hr Precipitation Total (inches)	0.387	0.494	0.522	0.494	0.522
96-hr Precipitation Total (inches)	0.333	0.501	0.513	0.501	0.513
120-hr Precipitation Total (inches)	0.295	0.508	0.508	0.508	0.508
144-hr Precipitation Total (inches)	0.260	0.464	0.459	0.464	0.459
168-hr Precipitation Total (inches)	0.252	0.462	0.454	0.462	0.454
Water Temperature (Celsius)	-0.021	-0.109	-0.093	-0.109	-0.093
Air Temperature (Celsius)	-0.034	-0.094	-0.084	-0.094	-0.084
DO (mg/L)	-0.135	-0.156	-0.170	-0.156	-0.170
pH (SU)	-0.077	-0.275	-0.243	-0.275	-0.243
Secchi Depth (m)	-0.338	-0.571	-0.587	-0.571	-0.587
Specific Conductance (us/cm)	-0.354	-0.562	-0.556	-0.562	-0.556
Flow Severity	0.271	0.428	0.429	0.428	0.429
Days Since Precipitation	-0.277	-0.567	-0.540	-0.567	-0.540
Turbidity (NTU)	-1.000	-1.000	-1.000	-1.000	-1.000

0805 Upstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E. coli</i>	(Log ₁₀ <i>E. coli</i>) ²	Natural Log <i>E. coli</i>	(Natural Log <i>E. coli</i>) ²
Flow (cfs)	0.124	0.283	0.270	0.283	0.270
Log ₁₀ Flow	0.224	0.438	0.422	0.438	0.422
Natural Log Flow	0.224	0.438	0.422	0.438	0.422
24-hr Precipitation Total (inches)	0.454	0.458	0.496	0.458	0.496
48-hr Precipitation Total (inches)	0.455	0.543	0.570	0.543	0.570
72-hr Precipitation Total (inches)	0.416	0.547	0.557	0.547	0.557
96-hr Precipitation Total (inches)	0.363	0.546	0.543	0.546	0.543
120-hr Precipitation Total (inches)	0.312	0.533	0.521	0.533	0.521
144-hr Precipitation Total (inches)	0.259	0.459	0.443	0.459	0.443
168-hr Precipitation Total (inches)	0.253	0.450	0.433	0.450	0.433
Water Temperature (Celsius)	-0.001	-0.019	-0.018	-0.019	-0.018
Air Temperature (Celsius)	0.001	-0.005	-0.010	-0.005	-0.010
DO (mg/L)	-0.144	-0.173	-0.179	-0.173	-0.179
pH (SU)	0.043	-0.025	-0.025	-0.025	-0.025
Secchi Depth (m)	-0.422	-0.761	-0.741	-0.761	-0.741
Specific Conductance (us/cm)	-0.381	-0.564	-0.558	-0.564	-0.558
Flow Severity	0.300	0.418	0.424	0.418	0.424
Days Since Precipitation	-0.326	-0.654	-0.615	-0.654	-0.615

0805 Downstream of East Fork Trinity River Confluence	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E.</i> <i>coli</i>	(Log ₁₀ <i>E.</i> <i>coli</i>) ²	Natural Log <i>E.</i> <i>coli</i>	(Natural Log <i>E.</i> <i>coli</i>) ²
Flow (cfs)	0.206	0.415	0.441	0.415	0.441
Log ₁₀ Flow	0.236	0.527	0.530	0.527	0.530
Natural Log Flow	0.236	0.527	0.530	0.527	0.530
24-hr Precipitation Total (inches)	0.058	0.183	0.173	0.183	0.173
48-hr Precipitation Total (inches)	0.340	0.332	0.391	0.332	0.391
72-hr Precipitation Total (inches)	0.344	0.406	0.470	0.406	0.470
96-hr Precipitation Total (inches)	0.283	0.442	0.484	0.442	0.484
120-hr Precipitation Total (inches)	0.267	0.491	0.518	0.491	0.518
144-hr Precipitation Total (inches)	0.261	0.500	0.523	0.500	0.523
168-hr Precipitation Total (inches)	0.265	0.523	0.541	0.523	0.541
Water Temperature (Celsius)	-0.179	-0.263	-0.253	-0.263	-0.253
Air Temperature (Celsius)	-0.130	-0.177	-0.166	-0.177	-0.166
DO (mg/L)	-0.141	-0.098	-0.124	-0.098	-0.124
pH (SU)	-0.296	-0.426	-0.417	-0.426	-0.417
Secchi Depth (m)	-0.449	-0.561	-0.582	-0.561	-0.582
Specific Conductance (us/cm)	-0.440	-0.627	-0.618	-0.627	-0.618
Flow Severity	0.260	0.476	0.483	0.476	0.483
Days Since Precipitation	-0.179	-0.429	-0.417	-0.429	-0.417

Appendix E
Multiple Least-Squares Linear Regressions
from Single Regression-Selected
Parameters

All River Segments - 4 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.555
r^2	0.308
Adjusted r^2	0.304
Standard Error	3.191
Observations	794

ANOVA	df	SS	MS	F	Significance F
Regression	4	3575.522	893.881	87.781	1.042E-61
Residual	789	8034.492	10.183		
Total	793	11610.014			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	27.834	3.026	9.197	3.215E-19	21.893	33.775
Log_{10} Flow	-0.219	0.131	-1.668	0.096	-0.477	0.039
48-hr Precipitation Total	2.537	0.208	12.185	2.043E-31	2.128	2.945
pH	-2.699	0.379	-7.119	2.455E-12	-3.443	-1.955
Secchi Depth	-5.976	0.798	-7.485	1.913E-13	-7.544	-4.409

All River Segments - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.510
r^2	0.260
Adjusted r^2	0.258
Standard Error	3.218
Observations	1222

ANOVA	df	SS	MS	F	Significance F
Regression	3	4423.327	1474.442	142.354	4.542E-79
Residual	1218	12615.504	10.358		
Total	1221	17038.831			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	17.360	1.952	8.894	2.084E-18	13.530	21.189
Log_{10} Flow	0.226	0.097	2.336	0.020	0.036	0.415
48-hr Precipitation Total	3.136	0.184	17.015	2.062E-58	2.774	3.497
pH	-1.736	0.247	-7.028	3.472E-12	-2.221	-1.252

All River Segments - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.512
r^2	0.263
Adjusted r^2	0.260
Standard Error	3.289
Observations	798

ANOVA	df	SS	MS	F	Significance F
Regression	3	3058.733	1019.578	94.260	3.450E-52
Residual	794	8588.427	10.817		
Total	797	11647.160			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	6.661	0.514	12.968	5.064E-35	5.652	7.669
Log_{10} Flow	-0.241	0.135	-1.789	0.074	-0.506	0.024
48-hr Precipitation Total	2.736	0.212	12.884	1.253E-34	2.319	3.153
Secchi Depth	-5.663	0.820	-6.903	1.043E-11	-7.273	-4.053

All River Segments - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.425
r^2	0.181
Adjusted r^2	0.178
Standard Error	3.509
Observations	813

ANOVA	df	SS	MS	F	Significance F
Regression	3	2197.954	732.651	59.497	9.204E-35
Residual	809	9962.161	12.314		
Total	812	12160.115			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	33.315	3.257	10.230	3.498E-23	26.922	39.707
Log_{10} Flow	-0.007	0.143	-0.046	0.963	-0.287	0.274
pH	-3.332	0.409	-8.153	1.353E-15	-4.134	-2.530
Secchi Depth	-8.041	0.855	-9.401	5.413E-20	-9.721	-6.362

All River Segments - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.575
r ²	0.330
Adjusted r ²	0.328
Standard Error	3.044
Observations	1009

ANOVA	df	SS	MS	F	Significance F
Regression	3	4590.978	1530.326	165.154	4.998E-87
Residual	1005	9312.360	9.266		
Total	1008	13903.337			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	24.626	2.416	10.191	2.818E-23	19.884	29.368
48-hr Precipitation Total	2.691	0.181	14.893	1.785E-45	2.337	3.046
pH	-2.409	0.307	-7.847	1.086E-14	-3.012	-1.807
Secchi Depth	-5.310	0.612	-8.679	1.584E-17	-6.510	-4.109

All River Segments - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.497
r ²	0.247
Adjusted r ²	0.246
Standard Error	3.386
Observations	2133

ANOVA	df	SS	MS	F	Significance F
Regression	2	8011.196	4005.598	349.280	6.413E-132
Residual	2130	24427.158	11.468		
Total	2132	32438.353			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.086	0.184	16.742	3.332E-59	2.724	3.447
Log ₁₀ Flow	0.484	0.070	6.912	6.276E-12	0.347	0.621
48-hr Precipitation Total	3.805	0.163	23.349	1.510E-107	3.486	4.125

All River Segments - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.292
r ²	0.085
Adjusted r ²	0.084
Standard Error	3.605
Observations	1245

ANOVA	df	SS	MS	F	Significance F
Regression	2	1500.567	750.283	57.745	1.048E-24
Residual	1242	16137.466	12.993		
Total	1244	17638.033			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	21.753	2.154	10.098	4.288E-23	17.527	25.980
Log ₁₀ Flow	0.654	0.104	6.267	5.052E-10	0.449	0.858
pH	-2.359	0.272	-8.670	1.332E-17	-2.892	-1.825

All River Segments - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.337
r ²	0.113
Adjusted r ²	0.111
Standard Error	3.645
Observations	817

ANOVA	df	SS	MS	F	Significance F
Regression	2	1381.033	690.516	51.971	5.732E-22
Residual	814	10815.246	13.287		
Total	816	12196.279			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	7.214	0.566	12.744	4.732E-34	6.103	8.325
Log ₁₀ Flow	-0.014	0.148	-0.096	0.923	-0.305	0.276
Secchi Depth	-7.829	0.887	-8.826	6.573E-18	-9.571	-6.088

All River Segments - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.490
r ²	0.240
Adjusted r ²	0.240
Standard Error	3.188
Observations	2112

ANOVA	df	SS	MS	F	Significance F
Regression	2	6788.014	3394.007	333.847	1.092E-126
Residual	2109	21440.833	10.166		
Total	2111	28228.846			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	16.050	1.328	12.086	1.448E-32	13.446	18.654
48-hr Precipitation Total	3.079	0.133	23.151	7.614E-106	2.818	3.340
pH	-1.505	0.169	-8.897	1.211E-18	-1.836	-1.173

All River Segments - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.534
r ²	0.286
Adjusted r ²	0.284
Standard Error	3.140
Observations	1017

ANOVA	df	SS	MS	F	Significance F
Regression	2	3996.285	1998.142	202.662	9.037E-75
Residual	1014	9997.532	9.859		
Total	1016	13993.817			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	5.687	0.194	29.272	5.100E-137	5.306	6.069
48-hr Precipitation Total	2.871	0.185	15.562	3.973E-49	2.509	3.233
Secchi Depth	-4.957	0.622	-7.971	4.229E-15	-6.177	-3.737

All River Segments - 2 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.432
r^2	0.186
Adjusted r^2	0.185
Standard Error	3.392
Observations	1036

ANOVA	df	SS	MS	F	Significance F
Regression	2	2724.589	1362.294	118.380	5.137E-47
Residual	1033	11887.612	11.508		
Total	1035	14612.201			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	29.271	2.617	11.184	1.730E-27	24.135	34.407
pH	-2.833	0.334	-8.480	7.709E-17	-3.489	-2.177
Secchi Depth	-8.216	0.643	-12.771	8.768E-35	-9.478	-6.953

0806 - 4 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.867
r ²	0.752
Adjusted r ²	0.740
Standard Error	2.366
Observations	89

ANOVA	df	SS	MS	F	Significance F
Regression	4	1426.596	356.649	63.725	1.174E-24
Residual	84	470.121	5.597		
Total	88	1896.717			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	44.742	9.165	4.882	4.944E-06	26.517	62.968
Log ₁₀ Flow	2.069	0.453	4.568	1.676E-05	1.168	2.970
72-hr Precipitation Total	2.997	0.571	5.245	1.149E-06	1.861	4.134
pH	-5.092	1.180	-4.314	4.353E-05	-7.439	-2.745
Secchi Depth	-12.435	2.579	-4.822	6.265E-06	-17.563	-7.306

0806 - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.718
r ²	0.515
Adjusted r ²	0.508
Standard Error	3.004
Observations	209

ANOVA	df	SS	MS	F	Significance F
Regression	3	1964.485	654.828	72.562	5.072E-32
Residual	205	1849.999	9.024		
Total	208	3814.484			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	13.795	4.861	2.838	0.005	4.212	23.379
Log ₁₀ Flow	2.495	0.388	6.433	8.648E-10	1.731	3.260
72-hr Precipitation Total	3.703	0.505	7.334	5.093E-12	2.708	4.699
pH	-1.915	0.622	-3.079	0.002	-3.142	-0.689

0806 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.834
r ²	0.695
Adjusted r ²	0.684
Standard Error	2.601
Observations	90

ANOVA	df	SS	MS	F	Significance F
Regression	3	1325.223	441.741	65.283	4.255E-22
Residual	86	581.927	6.767		
Total	89	1907.150			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	5.963	1.589	3.754	3.161E-04	2.805	9.121
Log ₁₀ Flow	1.519	0.475	3.201	0.002	0.576	2.463
72-hr Precipitation Total	3.599	0.608	5.918	6.467E-08	2.390	4.808
Secchi Depth	-14.564	2.786	-5.227	1.193E-06	-20.103	-9.024

0806 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.810
r ²	0.656
Adjusted r ²	0.645
Standard Error	2.789
Observations	93

ANOVA	df	SS	MS	F	Significance F
Regression	3	1322.238	440.746	56.674	1.398E-20
Residual	89	692.137	7.777		
Total	92	2014.375			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	54.883	10.368	5.294	8.555E-07	34.282	75.483
Log ₁₀ Flow	2.842	0.505	5.629	2.077E-07	1.839	3.846
pH	-6.317	1.343	-4.704	9.278E-06	-8.986	-3.649
Secchi Depth	-15.346	2.775	-5.529	3.178E-07	-20.860	-9.831

0806 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.831
r ²	0.691
Adjusted r ²	0.680
Standard Error	2.628
Observations	89

ANOVA	df	SS	MS	F	Significance F
Regression	3	1309.832	436.611	63.235	1.383E-21
Residual	85	586.885	6.905		
Total	88	1896.717			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	40.514	10.127	4.000	1.345E-04	20.378	60.650
72-hr Precipitation Total	3.721	0.610	6.101	3.018E-08	2.508	4.933
pH	-3.868	1.277	-3.030	0.003	-6.407	-1.330
Secchi Depth	-16.785	2.662	-6.305	1.235E-08	-22.077	-11.492

0806 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.714
r ²	0.510
Adjusted r ²	0.507
Standard Error	3.572
Observations	314

ANOVA	df	SS	MS	F	Significance F
Regression	2	4127.891	2063.945	161.766	6.962E-49
Residual	311	3968.001	12.759		
Total	313	8095.891			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-0.767	0.774	-0.990	0.323	-2.290	0.757
Log ₁₀ Flow	2.370	0.402	5.890	1.002E-08	1.578	3.162
72-hr Precipitation Total	5.609	0.511	10.979	6.429E-24	4.604	6.615

0806 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.633
r ²	0.401
Adjusted r ²	0.396
Standard Error	3.342
Observations	219

ANOVA	df	SS	MS	F	Significance F
Regression	2	1616.012	808.006	72.340	0.000
Residual	216	2412.618	11.170		
Total	218	4028.630			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	21.054	5.223	4.031	7.698E-05	10.759	31.348
Log ₁₀ Flow	4.067	0.359	11.332	1.149E-23	3.360	4.775
pH	-3.108	0.658	-4.723	4.180E-06	-4.405	-1.811

0806 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.748
r ²	0.560
Adjusted r ²	0.551
Standard Error	3.128
Observations	94

ANOVA	df	SS	MS	F	Significance F
Regression	2	1133.909	566.954	57.959	5.854E-17
Residual	91	890.154	9.782		
Total	93	2024.063			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	7.291	1.839	3.965	1.461E-04	3.638	10.944
Log ₁₀ Flow	2.275	0.549	4.143	7.663E-05	1.184	3.366
Secchi Depth	-19.609	2.964	-6.615	2.503E-09	-25.497	-13.720

0806 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.618
r ²	0.382
Adjusted r ²	0.379
Standard Error	3.343
Observations	401

ANOVA	df	SS	MS	F	Significance F
Regression	2	2752.728	1376.364	123.132	2.360E-42
Residual	398	4448.820	11.178		
Total	400	7201.548			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	10.677478	3.473	3.075	0.002	3.850	17.505
72-hr Precipitation Total	5.011494	0.335	14.969	1.681E-40	4.353	5.670
pH	-0.952700	0.438	-2.176	0.030	-1.813	-0.092

0806 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.811
r ²	0.659
Adjusted r ²	0.651
Standard Error	2.736
Observations	90

ANOVA	df	SS	MS	F	Significance F
Regression	2	1255.910	627.955	83.889	5.024E-21
Residual	87	651.240	7.486		
Total	89	1907.150			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	9.968	1.029	9.683	1.797E-15	7.922	12.014
72-hr Precipitation Total	4.024	0.624	6.446	6.166E-09	2.783	5.264
Secchi Depth	-17.627	2.752	-6.404	7.441E-09	-23.097	-12.156

0806 - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.731
r ²	0.534
Adjusted r ²	0.524
Standard Error	3.229
Observations	93

ANOVA	df	SS	MS	F	Significance F
Regression	2	1075.794	537.897	51.579	1.188E-15
Residual	90	938.581	10.429		
Total	92	2014.375			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	53.186	12.001	4.432	2.628E-05	29.345	77.028
pH	-5.023	1.532	-3.278	0.001	-8.067	-1.979
Secchi Depth	-23.476	2.744	-8.554	2.910E-13	-28.928	-18.023

0841 - 4 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.833625
r ²	0.694931
Adjusted r ²	0.674926
Standard Error	2.516330
Observations	66

ANOVA	df	SS	MS	F	Significance F
Regression	4	879.847905	219.961976	34.738614	4.173E-15
Residual	61	386.246864	6.331916		
Total	65	1266.094769			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-6.6588190	4.0495888	-1.6443198	0.1052547	-14.756472	1.438834
Log ₁₀ Flow	5.7036312	1.1859707	4.8092515	1.030E-05	3.332136	8.075126
48-hr Precipitation Total	2.3906141	0.8483612	2.8179200	0.0065064	0.694211	4.087017
Secchi Depth	-4.0981222	2.1913457	-1.8701396	0.0662648	-8.479989	0.283744
Specific Conductance	-0.0017986	0.0020631	-0.8717975	0.3867374	-0.005924	0.002327

0841 - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.831342
r ²	0.691130
Adjusted r ²	0.676184
Standard Error	2.511455
Observations	66

ANOVA	df	SS	MS	F	Significance F
Regression	3	875.035454	291.678485	46.243793	8.113E-16
Residual	62	391.059315	6.307408		
Total	65	1266.094769			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-9.297742	2.684863	-3.463023	9.738E-04	-14.664706	-3.930778
Log ₁₀ Flow	6.271354	0.989267	6.339392	2.948E-08	4.293836	8.248872
48-hr Precipitation Total	2.385756	0.846700	2.817713	0.006481	0.693228	4.078285
Secchi Depth	-4.577525	2.117118	-2.162150	0.034474	-8.809584	-0.345467

0841 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.783595
r ²	0.614022
Adjusted r ²	0.600071
Standard Error	2.764183
Observations	87

ANOVA	df	SS	MS	F	Significance F
Regression	3	1008.864076	336.288025	44.012665	4.027E-17
Residual	83	634.178958	7.640710		
Total	86	1643.043034			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-5.652754	4.016122	-1.407515	0.163009	-13.640659	2.335151
Log ₁₀ Flow	5.096941	1.131850	4.503195	2.168E-05	2.845737	7.348145
48-hr Precipitation Total	3.167530	0.871599	3.634160	4.822E-04	1.433955	4.901106
Specific Conductance	-0.002701	0.002123	-1.272058	0.206905	-0.006923	0.001522

0841 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.803565
r ²	0.645716
Adjusted r ²	0.629612
Standard Error	2.733542
Observations	70

ANOVA	df	SS	MS	F	Significance F
Regression	3	898.846990	299.615663	40.097113	7.140E-15
Residual	66	493.168514	7.472250		
Total	69	1392.015504			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-8.554443	4.018515	-2.128757	0.037011	-16.577667	-0.531220
Log ₁₀ Flow	6.749583	1.056408	6.389181	1.945E-08	4.640396	8.858770
Secchi Depth	-5.179117	2.325680	-2.226926	0.029369	-9.822486	-0.535747
Specific Conductance	-0.001927	0.002199	-0.876166	0.384118	-0.006317	0.002464

0841 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.756446
r ²	0.572211
Adjusted r ²	0.563655
Standard Error	2.522193
Observations	154

ANOVA	df	SS	MS	F	Significance F
Regression	3	1276.362569	425.454190	66.879961	1.642E-27
Residual	150	954.218982	6.361460		
Total	153	2230.581551			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	9.129524	0.876849	10.411737	1.916E-19	7.396953	10.862095
48-hr Precipitation Total	4.287520	0.473694	9.051247	6.915E-16	3.351546	5.223494
Secchi Depth	-5.407116	1.728850	-3.127581	0.002118	-8.823159	-1.991073
Specific Conductance	-0.004227	0.001176	-3.594345	4.405E-04	-0.006550	-0.001903

0841 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.728
r ²	0.531
Adjusted r ²	0.526
Standard Error	2.997
Observations	221

ANOVA	df	SS	MS	F	Significance F
Regression	2	2214.716	1107.358	123.256	1.546E-36
Residual	218	1958.565	8.984		
Total	220	4173.282			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-2.246	1.861	-1.207	0.229	-5.914	1.422
Log ₁₀ Flow	2.807	0.735	3.819	1.747E-04	1.358	4.255
48-hr Precipitation Total	7.891	0.745	10.594	2.006E-21	6.423	9.359

0841 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.801
r ²	0.642
Adjusted r ²	0.631
Standard Error	2.729
Observations	70

ANOVA	df	SS	MS	F	Significance F
Regression	2	893.111	446.555	59.970	1.179E-15
Residual	67	498.905	7.446		
Total	69	1392.016			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-11.369	2.410	-4.718	1.254E-05	-16.179	-6.559
Log ₁₀ Flow	7.353	0.800	9.192	1.736E-13	5.756	8.949
Secchi Depth	-5.722	2.238	-2.557	0.013	-10.189	-1.256

0841 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.743
r ²	0.552
Adjusted r ²	0.542
Standard Error	3.004
Observations	91

ANOVA	df	SS	MS	F	Significance F
Regression	2	978.852	489.426	54.219	4.523E-16
Residual	88	794.369	9.027		
Total	90	1773.221			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-8.586	4.076	-2.107	0.038	-16.685	-0.486
Log ₁₀ Flow	6.563	1.054	6.229	1.567E-08	4.469	8.657
Specific Conductance	-0.003	0.002	-1.416	0.160	-0.008	0.001

0841 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.742
r ²	0.551
Adjusted r ²	0.545
Standard Error	2.619
Observations	157

ANOVA	df	SS	MS	F	Significance F
Regression	2	1294.446	647.223	94.327	1.800E-27
Residual	154	1056.672	6.862		
Total	156	2351.119			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	6.684	0.542	12.322	1.031E-24	5.612	7.755
48-hr Precipitation Total	4.663	0.454	10.262	3.748E-19	3.765	5.560
Secchi Depth	-7.271	1.722	-4.222	4.120E-05	-10.672	-3.869

0841 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.729
r ²	0.532
Adjusted r ²	0.527
Standard Error	2.636
Observations	219

ANOVA	df	SS	MS	F	Significance F
Regression	2	1703.422	851.711	122.586	2.653E-36
Residual	216	1500.736	6.948		
Total	218	3204.158			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	8.528	0.771	11.061	7.950E-23	7.009	10.048
48-hr Precipitation Total	4.980	0.441	11.297	1.483E-23	4.111	5.849
Specific Conductance	-0.006	0.001	-5.490	1.124E-07	-0.008	-0.004

0841 - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.597
r ²	0.357
Adjusted r ²	0.349
Standard Error	3.135
Observations	159

ANOVA	df	SS	MS	F	Significance F
Regression	2	851.273	425.636	43.295	1.106E-15
Residual	156	1533.650	9.831		
Total	158	2384.923			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	13.169	0.914	14.415	1.739E-30	11.364	14.973
Secchi Depth	-10.434	2.039	-5.117	9.019E-07	-14.462	-6.406
Specific Conductance	-0.007	0.001	-5.083	1.051E-06	-0.010	-0.004

0805 - 4 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.723172
r ²	0.522977
Adjusted r ²	0.513934
Standard Error	2.933265
Observations	216

ANOVA	df	SS	MS	F	Significance F
Regression	4	1990.345173	497.586293	57.831696	6.846E-33
Residual	211	1815.452684	8.604041		
Total	215	3805.797857			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	10.217030	3.757928	2.718794	0.007097	2.809138	17.624923
Log ₁₀ Flow	0.023486	0.811932	0.028927	0.976951	-1.577051	1.624024
72-hr Precipitation Total	2.643660	0.343407	7.698337	5.247E-13	1.966713	3.320608
Secchi Depth	-8.880759	2.362862	-3.758475	2.213E-04	-13.538600	-4.222918
Specific Conductance	-0.006000	0.002251	-2.665738	0.008277	-0.010437	-0.001563

0805 - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.706403
r ²	0.499006
Adjusted r ²	0.492015
Standard Error	3.113068
Observations	219

ANOVA	df	SS	MS	F	Significance F
Regression	3	2075.337933	691.779311	71.382256	4.495E-32
Residual	215	2083.606767	9.691194		
Total	218	4158.944700			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	3.109445	2.514435	1.236638	0.217571	-1.846654	8.065545
Log ₁₀ Flow	1.180721	0.667725	1.768275	0.078433	-0.135404	2.496846
72-hr Precipitation Total	2.816005	0.344293	8.179093	2.475E-14	2.137383	3.494627
Secchi Depth	-10.363746	2.448090	-4.233401	3.411E-05	-15.189075	-5.538417

0805 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics						
Multiple r	0.685640					
r ²	0.470102					
Adjusted r ²	0.463964					
Standard Error	2.997308					
Observations	263					

ANOVA	df	SS	MS	F	Significance F
Regression	3	2064.248737	688.082912	76.591042	1.701E-35
Residual	259	2326.818779	8.983856		
Total	262	4391.067516			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	6.262169	3.460517	1.809605	0.071516	-0.552163	13.076500
Log ₁₀ Flow	0.963217	0.725942	1.326850	0.185727	-0.466284	2.392717
72-hr Precipitation Total	2.942577	0.332447	8.851272	1.391E-16	2.287934	3.597220
Specific Conductance	-0.007534	0.002138	-3.523581	5.032E-04	-0.011745	-0.003324

Regression Statistics						
Multiple r	0.640098					
r ²	0.409725					
Adjusted r ²	0.401855					
Standard Error	3.301133					
Observations	229					

ANOVA	df	SS	MS	F	Significance F
Regression	3	1701.951786	567.317262	52.059482	1.355E-25
Residual	225	2451.933427	10.897482		
Total	228	4153.885213			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	10.585744	3.950814	2.679383	0.007921	2.800414	18.371074
Log ₁₀ Flow	0.681335	0.856526	0.795463	0.427183	-1.006504	2.369174
Secchi Depth	-12.092298	2.542468	-4.756127	3.525E-06	-17.102392	-7.082205
Specific Conductance	-0.007484	0.002367	-3.161778	0.001784	-0.012149	-0.002820

0805 - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.718179
r ²	0.515781
Adjusted r ²	0.509266
Standard Error	2.921304
Observations	227

ANOVA	df	SS	MS	F	Significance F
Regression	3	2027.127260	675.709087	79.178326	6.573E-35
Residual	223	1903.085530	8.534016		
Total	226	3930.212790			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	10.561259	0.906194	11.654518	7.968E-25	8.775459	12.347059
72-hr Precipitation Total	2.574766	0.339793	7.577465	9.335E-13	1.905151	3.244381
Secchi Depth	-8.876951	2.183628	-4.065229	6.654E-05	-13.180137	-4.573764
Specific Conductance	-0.006255	0.001735	-3.606076	3.836E-04	-0.009673	-0.002837

0805 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.557
r ²	0.310
Adjusted r ²	0.308
Standard Error	3.557
Observations	553

ANOVA	df	SS	MS	F	Significance F
Regression	2	3127.942	1563.971	123.588	4.704E-45
Residual	550	6960.122	12.655		
Total	552	10088.064			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	-2.157	1.353	-1.593	0.112	-4.815	0.502
Log ₁₀ Flow	2.160	0.435	4.972	8.873E-07	1.307	3.014
72-hr Precipitation Total	3.672	0.317	11.571	7.282E-28	3.049	4.296

0805 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.606
r ²	0.367
Adjusted r ²	0.362
Standard Error	3.528
Observations	232

ANOVA	df	SS	MS	F	Significance F
Regression	2	1653.993	826.996	66.446	1.753E-23
Residual	229	2850.159	12.446		
Total	231	4504.152			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	1.702	2.727	0.624	0.533	-3.672	7.076
Log ₁₀ Flow	2.230	0.713	3.128	0.002	0.825	3.634
Secchi Depth	-15.087	2.590	-5.825	1.921E-08	-20.190	-9.983

0805 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.578
r ²	0.334
Adjusted r ²	0.329
Standard Error	3.399
Observations	277

ANOVA	df	SS	MS	F	Significance F
Regression	2	1584.698	792.349	68.568	7.174E-25
Residual	274	3166.248	11.556		
Total	276	4750.946			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	6.210	3.714	1.672	0.096	-1.102	13.521
Log ₁₀ Flow	1.822	0.778	2.343	0.020	0.291	3.353
Specific Conductance	-0.010	0.002	-4.673	4.665E-06	-0.015	-0.006

0805 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.695
r ²	0.484
Adjusted r ²	0.479
Standard Error	3.121
Observations	230

ANOVA	df	SS	MS	F	Significance F
Regression	2	2070.554	1035.277	106.290	2.656E-33
Residual	227	2211.009	9.740		
Total	229	4281.563			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	7.628	0.479	15.941	6.803E-39	6.685	8.571
72-hr Precipitation Total	2.848	0.339	8.403	4.778E-15	2.180	3.516
Secchi Depth	-13.245	1.872	-7.077	1.815E-11	-16.933	-9.557

0805 - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.666
r ²	0.444
Adjusted r ²	0.440
Standard Error	3.036
Observations	282

ANOVA	df	SS	MS	F	Significance F
Regression	2	2050.610	1025.305	111.223	3.023E-36
Residual	279	2571.949	9.218		
Total	281	4622.559			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	10.698	0.838	12.767	1.048E-29	9.048	12.347
72-hr Precipitation Total	2.972	0.332	8.953	5.011E-17	2.318	3.625
Specific Conductance	-0.010	0.001	-7.376	1.868E-12	-0.012	-0.007

0805 - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.644
r ²	0.414
Adjusted r ²	0.410
Standard Error	3.264
Observations	242

ANOVA	df	SS	MS	F	Significance F
Regression	2	1802.601	901.301	84.595	1.661E-28
Residual	239	2546.367	10.654		
Total	241	4348.968			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	13.843	0.851	16.258	1.579E-40	12.166	15.521
Secchi Depth	-12.545	2.341	-5.359	1.968E-07	-17.156	-7.933
Specific Conductance	-0.009	0.002	-4.934	1.509E-06	-0.013	-0.005

0805 Upstream of East Fork Trinity River Confluence - 4 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.787
r^2	0.620
Adjusted r^2	0.608
Standard Error	2.755
Observations	134

ANOVA	df	SS	MS	F	Significance F
Regression	4	1597.160	399.290	52.592	3.292E-26
Residual	129	979.403	7.592		
Total	133	2576.563			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	9.078	4.076	2.227	0.028	1.014	17.141
Log_{10} Flow	0.086	0.925	0.093	0.926	-1.744	1.915
48-hr Precipitation Total	2.430	0.411	5.907	2.908E-08	1.616	3.244
Secchi Depth	-20.021	3.022	-6.624	8.555E-10	-26.001	-14.041
Specific Conductance	0.002	0.003	0.700	0.485	-0.003	0.007

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.800
r^2	0.640
Adjusted r^2	0.632
Standard Error	2.793
Observations	136

ANOVA	df	SS	MS	F	Significance F
Regression	3	1828.873	609.624	78.152	4.000E-29
Residual	132	1029.671	7.801		
Total	135	2858.544			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	11.331	3.053	3.711	0.000	5.291	17.371
Log_{10} Flow	-0.323	0.814	-0.397	0.692	-1.933	1.286
48-hr Precipitation Total	2.613	0.399	6.548	1.186E-09	1.824	3.402
Secchi Depth	-19.338	2.732	-7.078	7.787E-11	-24.742	-13.933

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.683
r ²	0.467
Adjusted r ²	0.457
Standard Error	3.140
Observations	164

ANOVA	df	SS	MS	F	Significance F
Regression	3	1381.698	460.566	46.703	9.796E-22
Residual	160	1577.866	9.862		
Total	163	2959.565			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4.562	4.354	1.048	0.296	-4.037	13.160
Log ₁₀ Flow	1.563	0.956	1.634	0.104	-0.326	3.451
48-hr Precipitation Total	2.894	0.449	6.443	1.315E-09	2.007	3.782
Specific Conductance	-0.006	0.003	-2.439	0.016	-0.011	-0.001

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.735
r ²	0.540
Adjusted r ²	0.530
Standard Error	3.062
Observations	139

ANOVA	df	SS	MS	F	Significance F
Regression	3	1486.818	495.606	52.846	1.171E-22
Residual	135	1266.067	9.378		
Total	138	2752.886			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	9.261	4.477	2.069	0.040	0.407	18.114
Log ₁₀ Flow	0.733	1.003	0.731	0.466	-1.250	2.716
Secchi Depth	-23.437	3.258	-7.194	3.932E-11	-29.880	-16.993
Specific Conductance	0.001	0.003	0.230	0.819	-0.005	0.006

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.785
r ²	0.616
Adjusted r ²	0.608
Standard Error	2.707
Observations	145

ANOVA	df	SS	MS	F	Significance F
Regression	3	1657.730	552.577	75.432	3.646E-29
Residual	141	1032.889	7.325		
Total	144	2690.620			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	9.648	1.050	9.192	4.568E-16	7.573	11.723
48-hr Precipitation Total	2.380	0.397	5.996	1.615E-08	1.595	3.165
Secchi Depth	-20.151	2.785	-7.235	2.729E-11	-25.657	-14.645
Specific Conductance	0.002	0.002	0.689	0.492	-0.003	0.006

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.606
r ²	0.367
Adjusted r ²	0.364
Standard Error	3.656
Observations	363

ANOVA	df	SS	MS	F	Significance F
Regression	2	2790.445	1395.222	104.391	1.755E-36
Residual	360	4811.521	13.365		
Total	362	7601.966			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-2.225	1.668	-1.334	0.183	-5.505	1.056
Log ₁₀ Flow	2.415	0.545	4.428	1.262E-05	1.342	3.487
48-hr Precipitation Total	4.550	0.428	10.626	4.040E-23	3.708	5.392

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.738
r ²	0.544
Adjusted r ²	0.537
Standard Error	3.164
Observations	141

ANOVA	df	SS	MS	F	Significance F
Regression	2	1649.032	824.516	82.337	2.913E-24
Residual	138	1381.924	10.014		
Total	140	3030.957			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	10.370	3.369	3.078	0.003	3.708	17.032
Log ₁₀ Flow	0.591	0.884	0.668	0.505	-1.157	2.338
Secchi Depth	-24.122	2.942	-8.199	1.495E-13	-29.939	-18.305

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.589
r ²	0.347
Adjusted r ²	0.339
Standard Error	3.510
Observations	170

ANOVA	df	SS	MS	F	Significance F
Regression	2	1093.083	546.541	44.355	3.547E-16
Residual	167	2057.756	12.322		
Total	169	3150.838			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4.155	4.828	0.861	0.391	-5.377	13.688
Log ₁₀ Flow	2.529	1.043	2.424	0.016	0.469	4.588
Specific Conductance	-0.009	0.003	-3.300	0.001	-0.015	-0.004

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.797
r ²	0.635
Adjusted r ²	0.630
Standard Error	2.743
Observations	147

ANOVA	df	SS	MS	F	Significance F
Regression	2	1888.409	944.204	125.517	2.782E-32
Residual	144	1083.243	7.523		
Total	146	2971.652			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	10.270	0.551	18.633	3.379E-40	9.181	11.360
48-hr Precipitation Total	2.535	0.381	6.656	5.497E-10	1.782	3.288
Secchi Depth	-18.825	1.950	-9.652	2.620E-17	-22.680	-14.970

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.659
r ²	0.434
Adjusted r ²	0.428
Standard Error	3.160
Observations	183

ANOVA	df	SS	MS	F	Significance F
Regression	2	1380.401	690.201	69.115	5.344E-23
Residual	180	1797.533	9.986		
Total	182	3177.934			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	11.403	1.056	10.797	2.853E-21	9.319	13.487
48-hr Precipitation Total	3.033	0.440	6.889	9.117E-11	2.164	3.901
Specific Conductance	-0.009	0.002	-5.761	3.564E-08	-0.013	-0.006

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.739
r ²	0.546
Adjusted r ²	0.539
Standard Error	2.990
Observations	151

ANOVA	df	SS	MS	F	Significance F
Regression	2	1588.850	794.425	88.851	4.473E-26
Residual	148	1323.277	8.941		
Total	150	2912.127			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	12.605	1.020	12.359	1.491E-24	10.589	14.620
Secchi Depth	-23.805	2.986	-7.973	3.864E-13	-29.706	-17.905
Specific Conductance	-0.001	0.002	-0.327	0.744	-0.006	0.004

0805 Downstream of East Fork Trinity River Confluence - 4 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.787
r^2	0.619
Adjusted r^2	0.599
Standard Error	2.266
Observations	83

ANOVA	df	SS	MS	F	Significance F
Regression	4	650.571	162.643	31.684	1.136E-15
Residual	78	400.390	5.133		
Total	82	1050.961			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-5.068	5.673	-0.893	0.374	-16.362	6.225
Log_{10} Flow	2.794	1.191	2.346	0.022	0.423	5.165
168-hr Precipitation Total	1.893	0.360	5.251	1.271E-06	1.175	2.611
Secchi Depth	-6.822	3.475	-1.963	0.053	-13.740	0.096
Specific Conductance	0.000	0.003	0.069	0.945	-0.006	0.007

0805 Downstream of East Fork Trinity River Confluence - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.733
r^2	0.538
Adjusted r^2	0.520
Standard Error	2.490
Observations	84

ANOVA	df	SS	MS	F	Significance F
Regression	3	577.149	192.383	31.025	2.097E-13
Residual	80	496.076	6.201		
Total	83	1073.225			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.022	3.080	-1.306	0.195	-10.152	2.108
Log_{10} Flow	2.500	0.843	2.964	0.004	0.821	4.178
168-hr Precipitation Total	1.744	0.394	4.424	3.022E-05	0.959	2.528
Secchi Depth	-6.384	3.794	-1.682	0.096	-13.935	1.167

0805 Downstream of East Fork Trinity River Confluence - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics					
Multiple r	0.775				
r ²	0.600				
Adjusted r ²	0.587				
Standard Error	2.288				
Observations	99				

ANOVA	df	SS	MS	F	Significance F
Regression	3	745.777	248.592	47.494	7.684E-19
Residual	95	497.246	5.234		
Total	98	1243.022			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-7.680	5.079	-1.512	0.134	-17.763	2.403
Log ₁₀ Flow	3.350	1.059	3.163	0.002	1.248	5.452
168-hr Precipitation Total	2.070	0.334	6.199	1.460E-08	1.407	2.733
Specific Conductance	0.000	0.003	-0.107	0.915	-0.006	0.006

0805 Downstream of East Fork Trinity River Confluence - 3 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics					
Multiple r	0.730				
r ²	0.533				
Adjusted r ²	0.516				
Standard Error	2.580				
Observations	90				

ANOVA	df	SS	MS	F	Significance F
Regression	3	652.824	217.608	32.679	3.411E-14
Residual	86	572.664	6.659		
Total	89	1225.488			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.182	5.945	-0.703	0.484	-16.000	7.637
Log ₁₀ Flow	3.594	1.219	2.948	0.004	1.171	6.017
Secchi Depth	-13.011	3.715	-3.502	7.349E-04	-20.398	-5.625
Specific Conductance	-0.002	0.003	-0.539	0.591	-0.009	0.005

0805 Downstream of East Fork Trinity River Confluence - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.770
r^2	0.592
Adjusted r^2	0.577
Standard Error	2.329
Observations	83

ANOVA	df	SS	MS	F	Significance F
Regression	3	622.316	207.439	38.231	2.290E-15
Residual	79	428.645	5.426		
Total	82	1050.961			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	7.885	1.340	5.885	9.147E-08	5.218	10.552
168-hr Precipitation Total	2.041	0.365	5.594	3.074E-07	1.315	2.768
Secchi Depth	-8.285	3.515	-2.357	0.021	-15.281	-1.289
Specific Conductance	-0.006	0.002	-2.593	0.011	-0.010	-0.001

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.626
r^2	0.392
Adjusted r^2	0.386
Standard Error	2.658
Observations	202

ANOVA	df	SS	MS	F	Significance F
Regression	2	908.020	454.010	64.281	2.911E-22
Residual	199	1405.508	7.063		
Total	201	2313.527			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-8.992	2.105	-4.272	3.003E-05	-13.142	-4.841
Log_{10} Flow	3.792	0.663	5.716	3.934E-08	2.484	5.100
168-hr Precipitation Total	1.909	0.320	5.973	1.054E-08	1.279	2.539

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.690
r ²	0.476
Adjusted r ²	0.465
Standard Error	2.727
Observations	91

ANOVA	df	SS	MS	F	Significance F
Regression	2	595.387	297.694	40.035	4.323E-13
Residual	88	654.361	7.436		
Total	90	1249.749			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-6.451	3.106	-2.077	0.041	-12.624	-0.278
Log ₁₀ Flow	3.890	0.801	4.857	5.143E-06	2.299	5.482
Secchi Depth	-12.537	3.862	-3.246	0.002	-20.211	-4.862

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ E. coli)²

Regression Statistics	
Multiple r	0.686
r ²	0.470
Adjusted r ²	0.460
Standard Error	2.690
Observations	107

ANOVA	df	SS	MS	F	Significance F
Regression	2	667.780	333.890	46.152	4.502E-15
Residual	104	752.392	7.235		
Total	106	1420.172			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-8.890	5.559	-1.599	0.113	-19.913	2.133
Log ₁₀ Flow	4.622	1.119	4.129	7.381E-05	2.402	6.842
Specific Conductance	-0.003	0.003	-0.945	0.347	-0.010	0.003

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.698
r ²	0.487
Adjusted r ²	0.474
Standard Error	2.607
Observations	84

ANOVA	df	SS	MS	F	Significance F
Regression	2	522.687	261.343	38.451	1.815E-12
Residual	81	550.538	6.797		
Total	83	1073.225			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4.828	0.791	6.100	3.451E-08	3.253	6.402
168-hr Precipitation Total	2.123	0.390	5.441	5.498E-07	1.347	2.900
Secchi Depth	-11.048	3.615	-3.056	0.003	-18.240	-3.856

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with (Log₁₀ *E. coli*)²

Regression Statistics	
Multiple r	0.747
r ²	0.558
Adjusted r ²	0.549
Standard Error	2.393
Observations	99

ANOVA	df	SS	MS	F	Significance F
Regression	2	693.398	346.699	60.556	9.731E-18
Residual	96	549.624	5.725		
Total	98	1243.022			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	7.927	1.260	6.290	9.398E-09	5.426	10.429
168-hr Precipitation Total	2.346	0.337	6.959	4.208E-10	1.677	3.015
Specific Conductance	-0.008	0.002	-4.272	4.553E-05	-0.012	-0.004

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.697
r^2	0.486
Adjusted r^2	0.474
Standard Error	2.685
Observations	91

ANOVA	df	SS	MS	F	Significance F
Regression	2	599.822	299.911	41.610	1.909E-13
Residual	88	634.277	7.208		
Total	90	1234.099			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	13.032	1.139	11.446	4.107E-19	10.769	15.294
Secchi Depth	-15.612	3.762	-4.150	7.649E-05	-23.088	-8.137
Specific Conductance	-0.010	0.002	-4.366	3.440E-05	-0.014	-0.005

Appendix F
Multiple Least-Squares Linear Regressions
from Correlation-Selected
Parameters

0806 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.661
r ²	0.437
Adjusted r ²	0.434
Standard Error	0.814
Observations	313

ANOVA	df	SS	MS	F	Significance F
Regression	2	159.844	79.922	120.489	1.928E-39
Residual	310	205.627	0.663		
Total	312	365.470			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	0.462	0.174	2.655	0.008	0.120	0.805
Log ₁₀ Flow	0.689	0.090	7.621	3.085E-13	0.511	0.867
96-hr Precipitation Total	0.669	0.089	7.552	4.854E-13	0.495	0.844

0841 - 3 variable regression with Log₁₀ *E. coli*

Regression Statistics						
Multiple r	0.734					
r ²	0.539					
Adjusted r ²	0.530					
Standard Error	0.506					
Observations	151					

ANOVA	df	SS	MS	F	Significance F
Regression	3	43.925	14.642	57.275	1.389E-24
Residual	147	37.579	0.256		
Total	150	81.505			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	2.797	0.212	13.195	1.017E-26	2.378	3.216
120-hr Precipitation Total	0.555	0.077	7.181	3.200E-11	0.403	0.708
Secchi Depth	-1.217	0.349	-3.489	6.402E-04	-1.906	-0.528
Specific Conductance	-6.685E-04	2.667E-04	-2.507	0.013	-0.001	0.000

0841 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics						
Multiple r	0.730					
r ²	0.532					
Adjusted r ²	0.526					
Standard Error	0.515					
Observations	154					

ANOVA	df	SS	MS	F	Significance F
Regression	2	45.558	22.779	85.884	1.235E-25
Residual	151	40.050	0.265		
Total	153	85.608			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	2.369	0.116	20.411	2.891E-45	2.139	2.598
120-hr Precipitation Total	0.624	0.067	9.339	1.194E-16	0.492	0.755
Secchi Depth	-1.436	0.347	-4.143	5.679E-05	-2.121	-0.751

0841 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.719
r ²	0.517
Adjusted r ²	0.512
Standard Error	0.515
Observations	210

ANOVA	df	SS	MS	F	Significance F
Regression	2	58.604	29.302	110.606	2.120E-33
Residual	207	54.839	0.265		
Total	209	113.443			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	2.648	0.179	14.772	3.387E-34	2.295	3.002
120-hr Precipitation Total	0.656	0.069	9.482	6.081E-18	0.519	0.792
Specific Conductance	-0.001	2.354E-04	-4.409	1.670E-05	-0.002	-5.738E-04

0841 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.613
r ²	0.375
Adjusted r ²	0.367
Standard Error	0.600
Observations	159

ANOVA	df	SS	MS	F	Significance F
Regression	2	33.745	16.872	46.884	1.137E-16
Residual	156	56.141	0.360		
Total	158	89.885			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	3.736	0.175	21.378	3.228E-48	3.391	4.082
Secchi Depth	-2.148	0.390	-5.505	1.486E-07	-2.918	-1.377
Specific Conductance	-0.001	2.629E-04	-5.106	9.473E-07	-0.002	-8.231E-04

0805 - 3 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.696
r ²	0.485
Adjusted r ²	0.479
Standard Error	0.603
Observations	258

ANOVA	df	SS	MS	F	Significance F
Regression	3	86.951	28.984	79.646	2.395E-36
Residual	254	92.432	0.364		
Total	257	179.383			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	2.003	0.708	2.829	0.005	0.609	3.398
Log ₁₀ Flow	0.231	0.149	1.555	0.121	-0.062	0.524
144-hr Precipitation Total	0.465	0.050	9.237	1.047E-17	0.366	0.565
Specific Conductance	-0.001	4.378E-04	-2.987	0.003	-0.002	-4.455E-04

0805 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.512
r ²	0.262
Adjusted r ²	0.259
Standard Error	0.739
Observations	543

ANOVA	df	SS	MS	F	Significance F
Regression	2	104.490	52.245	95.683	2.691E-36
Residual	540	294.851	0.546		
Total	542	399.341			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	0.379	0.290	1.306	0.192	-0.191	0.949
Log ₁₀ Flow	0.517	0.094	5.479	6.576E-08	0.332	0.703
144-hr Precipitation Total	0.396	0.045	8.834	1.417E-17	0.308	0.484

0805 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.583
r ²	0.340
Adjusted r ²	0.336
Standard Error	0.690
Observations	277

ANOVA	df	SS	MS	F	Significance F
Regression	2	67.329	33.665	70.721	1.722E-25
Residual	274	130.430	0.476		
Total	276	197.759			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	2.279	0.754	3.023	0.003	0.795	3.762
Log ₁₀ Flow	0.388	0.158	2.461	0.014	0.078	0.699
Specific Conductance	-0.002	4.540E-04	-4.669	4.736E-06	-0.003	-0.001

0805 - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.673
r ²	0.453
Adjusted r ²	0.449
Standard Error	0.615
Observations	277

ANOVA	df	SS	MS	F	Significance F
Regression	2	85.788	42.894	113.566	1.198E-36
Residual	274	103.490	0.378		
Total	276	189.278			

	Coefficients	Standard Error	t Stat	P-value	Lower 95.0%	Upper 95.0%
Intercept	3.103	0.180	17.268	1.025E-45	2.749	3.457
144-hr Precipitation Total	0.444	0.048	9.186	1.043E-17	0.349	0.539
Specific Conductance	-0.002	2.693E-04	-6.812	6.081E-11	-0.002	-0.001

0805 Upstream of East Fork Trinity River Confluence - 4 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.789
r ²	0.622
Adjusted r ²	0.610
Standard Error	0.525
Observations	130

ANOVA	df	SS	MS	F	Significance F
Regression	4	56.793	14.198	51.428	1.556E-25
Residual	125	34.510	0.276		
Total	129	91.304			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2.704	0.840	3.221	0.002	1.042	4.366
Log ₁₀ Flow	0.053	0.185	0.289	0.773	-0.312	0.419
96-hr Precipitation Total	0.380	0.074	5.162	9.320E-07	0.234	0.526
Secchi Depth	-3.784	0.593	-6.383	3.086E-09	-4.957	-2.610
Specific Conductance	3.995E-04	5.447E-04	0.733	0.465	-0.001	0.001

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.801
r ²	0.642
Adjusted r ²	0.633
Standard Error	0.524
Observations	132

ANOVA	df	SS	MS	F	Significance F
Regression	3	62.927	20.976	76.466	2.106E-28
Residual	128	35.113	0.274		
Total	131	98.040			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.165	0.581	5.448	2.515E-07	2.015	4.314
Log ₁₀ Flow	-0.029	0.153	-0.189	0.850	-0.331	0.273
96-hr Precipitation Total	0.396	0.070	5.676	8.766E-08	0.258	0.535
Secchi Depth	-3.624	0.549	-6.606	9.566E-10	-4.710	-2.539

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.688
r ²	0.473
Adjusted r ²	0.463
Standard Error	0.599
Observations	160

ANOVA	df	SS	MS	F	Significance F
Regression	3	50.237	16.746	46.643	1.420E-21
Residual	156	56.007	0.359		
Total	159	106.244			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	1.658	0.890	1.863	0.064	-0.100	3.417
Log ₁₀ Flow	0.355	0.191	1.863	0.064	-0.022	0.732
96-hr Precipitation Total	0.494	0.077	6.386	1.861E-09	0.341	0.647
Specific Conductance	-9.745E-04	5.496E-04	-1.773	0.078	-0.002	1.111E-04

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.752
r ²	0.565
Adjusted r ²	0.555
Standard Error	0.566
Observations	139

ANOVA	df	SS	MS	F	Significance F
Regression	3	56.100	18.700	58.430	2.825E-24
Residual	135	43.206	0.320		
Total	138	99.306			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2.922	0.827	3.534	0.001	1.287	4.558
Log ₁₀ Flow	0.133	0.185	0.718	0.474	-0.233	0.499
Secchi Depth	-4.728	0.602	-7.856	1.107E-12	-5.918	-3.538
Specific Conductance	2.874E-04	5.414E-04	0.531	0.596	-7.833E-04	0.001

0805 Upstream of East Fork Trinity River Confluence - 3 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.786
r ²	0.618
Adjusted r ²	0.610
Standard Error	0.518
Observations	141

ANOVA	df	SS	MS	F	Significance F
Regression	3	59.514	19.838	73.863	1.760E-28
Residual	137	36.795	0.269		
Total	140	96.309			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2.989	0.217	13.760	1.345E-27	2.560	3.419
96-hr Precipitation Total	0.364	0.071	5.092	1.148E-06	0.223	0.505
Secchi Depth	-3.899	0.546	-7.138	5.041E-11	-4.979	-2.819
Specific Conductance	2.922E-04	4.441E-04	0.658	0.512	-5.861E-04	0.001

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.584
r ²	0.342
Adjusted r ²	0.338
Standard Error	0.717
Observations	347

ANOVA	df	SS	MS	F	Significance F
Regression	2	91.743	45.871	89.230	6.066E-32
Residual	344	176.843	0.514		
Total	346	268.586			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.641	0.340	1.885	0.060	-0.028	1.310
Log ₁₀ Flow	0.482	0.113	4.269	2.538E-05	0.260	0.704
96-hr Precipitation Total	0.609	0.069	8.802	6.633E-17	0.473	0.745

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.757
r ²	0.573
Adjusted r ²	0.566
Standard Error	0.573
Observations	141

ANOVA	df	SS	MS	F	Significance F
Regression	2	60.665	30.333	92.443	3.367E-26
Residual	138	45.281	0.328		
Total	140	105.947			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.276	0.610	5.372	3.229E-07	2.070	4.482
Log ₁₀ Flow	0.079	0.160	0.492	0.623	-0.238	0.395
Secchi Depth	-4.715	0.533	-8.853	3.705E-15	-5.768	-3.662

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.595
r ²	0.355
Adjusted r ²	0.347
Standard Error	0.666
Observations	170

ANOVA	df	SS	MS	F	Significance F
Regression	2	40.675	20.338	45.867	1.329E-16
Residual	167	74.049	0.443		
Total	169	114.724			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	1.902	0.916	2.077	0.039	0.094	3.710
Log ₁₀ Flow	0.500	0.198	2.528	0.012	0.110	0.891
Specific Conductance	-0.002	5.401E-04	-3.295	0.001	-0.003	-7.131E-04

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.798
r ²	0.637
Adjusted r ²	0.632
Standard Error	0.517
Observations	143

ANOVA	df	SS	MS	F	Significance F
Regression	2	65.609	32.805	122.881	1.537E-31
Residual	140	37.375	0.267		
Total	142	102.984			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.101	0.117	26.445	2.639E-56	2.869	3.333
96-hr Precipitation Total	0.379	0.067	5.625	9.731E-08	0.246	0.512
Secchi Depth	-3.638	0.397	-9.166	5.559E-16	-4.423	-2.853

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.659
r ²	0.434
Adjusted r ²	0.427
Standard Error	0.609
Observations	179

ANOVA	df	SS	MS	F	Significance F
Regression	2	49.947	24.974	67.383	1.867E-22
Residual	176	65.230	0.371		
Total	178	115.177			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.272	0.222	14.735	1.558E-32	2.833	3.710
96-hr Precipitation Total	0.501	0.077	6.536	6.582E-10	0.350	0.653
Specific Conductance	-0.002	3.350E-04	-5.200	5.488E-07	-0.002	-0.001

0805 Upstream of East Fork Trinity River Confluence - 2 variable regression with Log₁₀ *E. coli*

Regression Statistics	
Multiple r	0.756
r ²	0.572
Adjusted r ²	0.566
Standard Error	0.553
Observations	151

ANOVA	df	SS	MS	F	Significance F
Regression	2	60.443	30.222	98.721	5.750E-28
Residual	148	45.308	0.306		
Total	150	105.751			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	3.533	0.189	18.723	7.244E-41	3.160	3.906
Secchi Depth	-4.824	0.552	-8.732	4.909E-15	-5.916	-3.732
Specific Conductance	3.089E-05	4.476E-04	0.069	0.945	-8.535E-04	9.153E-04

0805 Downstream of East Fork Trinity River Confluence - 3 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics					
Multiple r	0.733				
r^2	0.538				
Adjusted r^2	0.520				
Standard Error	2.490				
Observations	84				

ANOVA	df	SS	MS	F	Significance F
Regression	3	577.149	192.383	31.025	2.097E-13
Residual	80	496.076	6.201		
Total	83	1073.225			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-4.022	3.080	-1.306	0.195	-10.152	2.108
Log_{10} Flow	2.500	0.843	2.964	0.004	0.821	4.178
168-hr Precipitation Total	1.744	0.394	4.424	3.022E-05	0.959	2.528
Secchi Depth	-6.384	3.794	-1.682	0.096	-13.935	1.167

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics					
Multiple r	0.626				
r^2	0.392				
Adjusted r^2	0.386				
Standard Error	2.658				
Observations	202				

ANOVA	df	SS	MS	F	Significance F
Regression	2	908.020	454.010	64.281	2.911E-22
Residual	199	1405.508	7.063		
Total	201	2313.527			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-8.992	2.105	-4.272	3.003E-05	-13.142	-4.841
Log_{10} Flow	3.792	0.663	5.716	3.934E-08	2.484	5.100
168-hr Precipitation Total	1.909	0.320	5.973	1.054E-08	1.279	2.539

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.690
r^2	0.476
Adjusted r^2	0.465
Standard Error	2.727
Observations	91

ANOVA	df	SS	MS	F	Significance F
Regression	2	595.387	297.694	40.035	4.323E-13
Residual	88	654.361	7.436		
Total	90	1249.749			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	-6.451	3.106	-2.077	0.041	-12.624	-0.278
Log_{10} Flow	3.890	0.801	4.857	5.143E-06	2.299	5.482
Secchi Depth	-12.537	3.862	-3.246	0.002	-20.211	-4.862

0805 Downstream of East Fork Trinity River Confluence - 2 variable regression with $(\text{Log}_{10} E. coli)^2$

Regression Statistics	
Multiple r	0.698
r^2	0.487
Adjusted r^2	0.474
Standard Error	2.607
Observations	84

ANOVA	df	SS	MS	F	Significance F
Regression	2	522.687	261.343	38.451	1.815E-12
Residual	81	550.538	6.797		
Total	83	1073.225			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4.828	0.791	6.100	3.451E-08	3.253	6.402
168-hr Precipitation Total	2.123	0.390	5.441	5.498E-07	1.347	2.900
Secchi Depth	-11.048	3.615	-3.056	0.003	-18.240	-3.856

Appendix G
Model Validation

Segment 0806 Model Validation Based On Best Fit Multiple Linear Regression From Regression-Selected Parameters

Segment	Tag	Site	End Date	End Time	<i>E. coli</i> (MPN or CFU/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	Flow (cfs)	Log ₁₀ Flow	72-hr Precipitation Total (inches)	pH (SU)	Secchi Depth (m)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or CFU/100 mL)	Proposed Contact Recreation Warning Level For Signage
0806	TR98019	17863	08/24/11	10:15	150	4.735	27	1.431	0	7.8	0.26	4.754	238.196	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98030	20292	08/24/11	9:40	24	1.905	13	1.114	0	8.2	0.5	-0.924	0.345	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98066	17863	11/02/11	10:15	29	2.139	32	1.505	0	8	0.45	1.526	5.791	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98077	20292	11/02/11	9:50	40	2.567	35	1.544	0	7.9	0.49	1.618	6.441	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98086	20292	02/14/12	10:15	360	6.535	193	2.286	0.26	7.9	0.5	3.807	80.069	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98087	17863	02/14/12	10:45	1300	9.697	167	2.223	0.23	8	0.36	4.819	256.650	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98112	17863	05/14/12	10:00	190	5.193	56	1.748	0.63	8	0.43	4.165	120.964	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98138	17863	08/07/12	9:25	22	1.802	27	1.431	0	7.6	0.32	5.026	325.897	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.

Segment 0841 Model Validation Based On Best Fit Multiple Linear Regression From Regression-Selected Parameters

Segment	Tag	Site	End Date	End Time	<i>E. coli</i> (MPN or CFU/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	Flow (cfs)	Log ₁₀ Flow	48-hr Precipitation Total (inches)	Secchi Depth (m)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or CFU/100 mL)	Proposed Contact Recreation Warning Level For Signage
0841	TR98026	11081	08/24/11	10:45	22	1.802	159	2.201	0	0.28	3.226	41.034	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98073	11081	11/02/11	11:05	72	3.450	200	2.301	0	0.34	3.576	61.410	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98088	11081	02/14/12	11:30	70	3.404	712	2.852	0.31	0.34	7.774	7712.547	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	TR98113	11081	05/14/12	10:45	390	6.714	334	2.524	0	0.15	5.843	834.581	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.
	TR98139	11081	08/07/12	10:55	37	2.459	169	2.228	0	0.29	3.347	47.133	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.

Segment 0805 Model Validation Based On Best Fit Multiple Linear Regression From Regression-Selected Parameters

Segment	Tag	Site	End Date	End Time	<i>E. coli</i> (MPN or CFU/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	72-hr Precipitation Total (inches)	Secchi Depth (m)	Specific Conductance (us/cm)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or CFU/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805	TR98020	10937	08/24/11	12:00	150	4.735	0	0.28	917	2.340	14.787	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98021	10934	08/23/11	9:20	1200	9.481	0	0.28	816	2.972	30.603	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98023	10925	08/22/11	13:30	16	1.450	0	0.23	814	3.428	51.753	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98067	10937	11/02/11	13:00	35	2.384	0	0.43	814	1.652	6.703	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98070	10925	11/14/11	14:07	24	1.905	0.76	0.37	663	5.086	349.323	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98089	10937	02/14/12	13:40	580	7.637	0.33	0.23	563	5.848	839.065	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98091	10934	02/06/12	9:57	66	3.311	0.01	0.25	581	4.734	232.684	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98097	10925	02/07/12	14:00	49	2.857	0.03	0.17	581	5.495	559.233	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98114	10937	05/14/12	13:45	360	6.535	0.81	0.2	638	6.881	2756.296	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98116	10934	05/09/12	9:20	4800	13.552	0.02	0.24	995	2.258	13.465	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98122	10925	05/08/12	14:20	20	1.693	0.36	0.12	831	5.225	409.695	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98140	10937	08/07/12	11:54	36	2.422	0	0.4	849	1.700	7.078	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98142	10934	08/21/12	9:20	340	6.408	1.67	0.14	434	10.904	283013.918	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98147	10925	08/20/12	14:44	3100	12.190	0.84	0.03	349	10.275	137200.437	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.

Segment 0805 Upstream Model Validation Based On Best Fit Multiple Linear Regression From Regression-Selected Parameters

Segment	Tag	Site	End Date	End Time	<i>E. coli</i> (MPN or CFU/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	48-hr Precipitation Total (inches)	Secchi Depth (m)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or CFU/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805 Upstream of East Fork Trinity River Confluence	TR98020	10937	08/24/11	12:00	150	4.735	0	0.28	4.999	315.871	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98021	10934	08/23/11	9:20	1200	9.481	0	0.28	4.999	315.871	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98067	10937	11/02/11	13:00	35	2.384	0	0.43	2.175	12.235	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98089	10937	02/14/12	13:40	580	7.637	0.33	0.23	6.777	2445.795	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98091	10934	02/06/12	9:57	66	3.311	0	0.25	5.564	605.186	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98114	10937	05/14/12	13:45	360	6.535	0.01	0.2	6.530	1841.603	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98116	10934	05/09/12	9:20	4800	13.552	0.02	0.24	5.803	796.830	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98140	10937	08/07/12	11:54	36	2.422	0	0.4	2.740	23.442	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98142	10934	08/21/12	9:20	340	6.408	0	0.14	7.635	6565.678	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.

Segment 0805 Downstream Model Validation Based On Best Fit Multiple Linear Regression From Regression-Selected Parameters

Segment	Tag	Site	End Date	End Time	<i>E. coli</i> (MPN or CFU/100 mL)	(Log ₁₀ <i>E. coli</i>) ²	168-hr Precipitation Total (inches)	Secchi Depth (m)	Specific Conductance (us/cm)	Predicted (Log ₁₀ <i>E. coli</i>) ²	Predicted <i>E. coli</i> (MPN or CFU/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805 Downstream of East Fork Trinity River Confluence	TR98023	10925	08/22/11	13:30	16	1.450	0	0.23	814	1.453	5.329	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98070	10925	11/14/11	14:07	24	1.905	0.98	0.37	663	3.133	36.876	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98097	10925	02/07/12	14:00	49	2.857	0.09	0.17	581	3.430	51.858	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98122	10925	05/08/12	14:20	20	1.693	0.43	0.12	831	3.148	37.489	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98147	10925	08/20/12	14:44	3100	12.190	1.11	0.03	349	7.962	9568.538	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not appropriate for contact recreation.

Segment 0805 Upstream Model Validation Based On Best Fit Multiple Linear Regression From Correlation-Selected Parameters

Segment	Tag	Site	End Date	End Time	<i>E. coli</i> (MPN or CFU/100 mL)	Log ₁₀ <i>E. coli</i>	96-hr Precipitation Total (inches)	Secchi Depth (m)	Predicted Log ₁₀ <i>E. coli</i>	Predicted <i>E. coli</i> (MPN or CFU/100 mL)	Proposed Contact Recreation Warning Level For Signage
0805 Upstream of East Fork Trinity River Confluence	TR98020	10937	08/24/11	12:00	150	2.176	0	0.28	2.082	120.888	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98021	10934	08/23/11	9:20	1200	3.079	0	0.28	2.082	120.888	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98067	10937	11/02/11	13:00	35	1.544	0	0.43	1.537	34.411	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98089	10937	02/14/12	13:40	580	2.763	0.33	0.23	2.389	245.057	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98091	10934	02/06/12	9:57	66	1.820	0.02	0.25	2.199	158.159	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98114	10937	05/14/12	13:45	360	2.556	0.99	0.2	2.748	560.253	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.
	TR98116	10934	05/09/12	9:20	4800	3.681	0.02	0.24	2.235	171.979	Current conditions indicate that <i>E. coli</i> levels may be elevated but may still be appropriate for contact recreation.
	TR98140	10937	08/07/12	11:54	36	1.556	0	0.4	1.646	44.242	Current conditions indicate that <i>E. coli</i> levels may be low and appropriate for contact recreation.
	TR98142	10934	08/21/12	9:20	340	2.531	2.02	0.14	3.357	2273.936	Current conditions indicate that <i>E. coli</i> levels may be elevated and may not be appropriate for contact recreation.

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Biographical Information

Angela was born in Naples, Italy in 1976 and has lived in Texas since the age of three. She attended Mountain View College in Dallas after high school, earning an Associate in Sciences degree in 1996. She received a Bachelor of Science in Biology degree from the University of Texas at Arlington in December 1999. In August 1999, Angela began working at the Trinity River Authority of Texas in the Clean Rivers Program. In January 2007, she returned to UT Arlington to pursue a Master of Science in Earth and Environmental Sciences degree.