RESOLUTION COPPER COMPANY
SURFACE WATER BASELINE REPORT
OCTOBER 2002 THROUGH FEBRUARY 2006

VOLUME I OF II – TEXT, TABLES, FIGURES

Submitted to:

Resolution Copper Company
102 Magma Heights
Superior, Arizona 85273

Submitted by:

Golder Associates Inc.
4730 N. Oracle Rd., Suite 210
Tucson, Arizona 85705

Distribution:

2 Copies - Dr. Casey McKeon, Resolution Copper Company
1 Copy - Golder Associates Inc.

June 30, 2006 063-2565

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VOLUME II OF II – APPENDICES A THROUGH F

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EXECUTIVE SUMMARY

The Resolution Copper Company (RCC) commissioned Golder Associates Inc. (Golder) to establish a program for the collection of baseline surface water data near the future RCC mine and associated facilities. The intended uses of the data are primarily to (1) support an Environmental Impact Statement, if needed; (2) develop a sound conceptual site model as a basis for predicting future impacts; and (3) document current conditions as a baseline for judging future impacts. Initially, the program focused on areas near the Resolution orebody (i.e., Apache Leap Area, Devils Canyon, and upper Queen Creek). Other areas (i.e., Arnett Creek, lower Queen Creek, and Telegraph Canyon) received less attention.

Preliminary fieldwork and a workplan for initial design of the program were presented to RCC on December 16, 2002 (Golder, 2002). The subsequent clarification of scope letter was submitted on January 23, 2003 (Golder, 2003a). The monitoring network was implemented during 2003, with 2004 being the first full year of data collection. During the implementation process, Golder trained and phased in RCC staff to take over the monitoring program. By mid-2004, RCC was performing all of the monitoring activities, with only minor technical assistance from Golder. This report summarizes data collected through February 2006.

The **types of data** that were collected can generally be defined as occurrence, quality, and quantity:

- **Occurrence** refers to the spatial and temporal variation in the presence or absence of surface water features as documented during surface water inventories.

- Surface water **quality** was documented by field parameters measured during sampling events, laboratory analysis of water quality samples, and collection of continuous field parameter measurements with data sondes at strategic locations in Devils Canyon.

- Surface water **quantity** was documented by discrete discharge measurements during sampling events and by surrogate measurements of flow depth with the continuously recording data sondes.

Data quality was ensured by a combination of Standard Operating Procedures (SOPs), training, audits (field and laboratory), Quality Assurance Plan (QAP) (required by Arizona Department of Environmental Quality [ADEQ]), and third-party data verification/validation of water quality data by Innovative Technology Solutions, Inc. (ITSI). Golder prepared and submitted the SOP manual to RCC in December 2003 (Golder, 2003c) and re-submitted it (with minor edits) as part of the QAP (submitted to RCC for submittal to ADEQ on January 23, 2006) (Golder, 2006).

Dr. Paul Taufen performed a laboratory audit, under contract to RCC, in 2003 (Geochemistry Solutions, 2003). Golder performed a field audit during the November 2004 sampling event (Golder, 2004d). The QAP was prepared by Golder for RCC submittal to ADEQ on January 26, 2006. ITSI performed data verification and validation (June 2006) and found no rejected data.

Ten surface water inventories were performed between November 2002 and September 2005 to document the occurrence and nature of surface water features. Ten quarterly surface water sampling events were performed between May 2003 and August 2005 to monitor quality and quantity at 19 sampling stations. Six data sondes were deployed in Devils Canyon during 2003 for continuous monitoring of field parameters and flow depths; they are still collecting data. Eighty-five years of precipitation data collected at the West Plant Site indicate that 3 of 4 years monitored have had below average rainfall, with 2002 (the onset of the program) being approximately twice as dry as the driest year on record. Consequently, all data collected represent a drought cycle.

Results of the surface water inventories (i.e., **occurrence**) indicate that the Devils Canyon watershed has more surface water features than the Queen Creek watershed. In Devils Canyon, inventories indicate that approximately 2.5 kilometers (km) of perennially flowing surface water features exist along the main channel of Devils Canyon between the US60 bridge and Rawhide Canyon. Numerous springs and seeps occur along a 5.5 km reach of Devils Canyon, from the confluence with Rancho Rio Canyon to approximately 2.4 km downstream of the Crater Tanks. The springs emanate along the banks of Devils Canyon, or within side canyons near their confluence with Devils Canyon. Observed spring flows range from 12 to less than 1 gallons per minute (gpm). Upstream of the Crater Tanks, all substantial springs emanate from the west bank of the canyon. Downstream of the Crater Tanks, all substantial springs emanate from the east bank of the canyon.

In the Queen Creek watershed (which includes the Apache Leap Area, Arnett Creek, and Telegraph Canyon), there were six perennial reaches documented. These include:

- Upper Queen Creek
  - Pump Station Spring (approximately 40-meter (m) reach emanating from a spring).
- Lower Queen Creek
  - Effluent-dependent reach (an approximately 2-km reach) associated with the Town of Superior Wastewater Treatment Plant and dewatering activities at the Perlite Mine owned by Harborlite.
- Arnett Creek

- Two short flowing reaches (combined length approximately 60 m) immediately upstream and downstream of the confluence with Telegraph Creek.

- Telegraph Canyon
  - Two flowing reaches separated by short, dry reach (combined length approximately 350 m) located immediately upstream of confluence with Arnett Canyon.

Seven perennial springs were identified within the inventoried area of the Queen Creek watershed. Three were located along Queen Creek, three along the west side of the Apache Leap escarpment, and one in Telegraph Canyon.

The cumulative length of flowing reaches in both watersheds was seasonally longest in March, with the shortest lengths occurring immediately before the summer rains.

Water quality results did not exceed standards for most regulated constituents in both watersheds. The pH, total suspended solids, dissolved oxygen (DO), E. Coli, Cu, and Se occasionally exceeded standards. Effects of drought and grazing are likely the main contributors to DO and E. Coli exceedances. Watershed geology (i.e., the low-solubility siliceous bedrock of Devils Canyon that adds no alkalinity) is likely responsible for low pH exceedances in Devils Canyon. The most significant water quality issue was the 14 dissolved Cu exceedances of aquatic and wildlife (warm water) surface water quality standards. All but one exceedance was in Devils Canyon. The majority of the Devils Canyon Cu exceedances occurred during runoff flow (i.e., no baseflow contribution). Copper concentrations in Devils Canyon decreased with distance downstream, suggesting that Cu is either related to airfall emissions (likely from local smelters) or undetected mineralization upstream of the sampling stations.

General **surface water classification** indicates differences in geochemistry that corresponded to the general geology of the watersheds for upper Queen Creek, Apache Leap, and Devils Canyon. General surface water classifications (based on the first two sampling events) were:

- calcium sodium bicarbonate water – Devils Canyon downstream of Rancho Rio Creek, the start of the perennially flowing reaches;

- calcium bicarbonate water – Pump Station Spring in Upper Queen Creek;

- magnesium calcium bicarbonate and calcium magnesium bicarbonate water – Kane Spring and Hidden Spring, respectively, along the Apache Leap; and

- mixed waters (approximately equal major anion and cation normalities) – intermittent reach of Devils Canyon upstream of Rancho Rio Creek and adjacent to the Resolution orebody.

Water types and mixing relationships derived from Tri-linear (Piper) diagrams indicate that baseflow in Devils Canyon is derived from shallow Apache Leap Tuff groundwater. Data from both high- and low-flow sampling events, as well as from deep and shallow Apache Leap Tuff groundwater samples, were used to generate the diagrams. Samples taken during high surface flow events were shown to have higher sulfate levels than those collected during low flows.

Discharge measurements were taken during every sampling event. In Devils Canyon, baseflow conditions during dry periods indicated a baseflow of approximately 10 to 20 gpm in the perennial reaches. High-flow sampling events recorded flows up to approximately 33,000 gpm. Baseflow in upper Queen Creek was approximately 1 to 3 gpm during dry periods. High-flow sampling events in upper Queen Creek recorded flows as large as 100 gpm. Springs in Devils Canyon had flows ranging from 12 to less than 1 gpm. Flows from springs along the Apache Leap ranged from 30 gpm at intermittent Karst Spring to less than 1 gpm.

The six **data sondes** installed in Devils Canyon generated a continuous record of field parameters and flow depths, providing a context for the discrete quarterly sampling. All instantaneous field parameter measurements were within the observed sonde ranges. However, comparison of sonde data with field parameters revealed that sampling events did not capture the high specific conductance associated with first-flush, high flow events in summer. In sum, sonde data indicated that (with the exception of water quality during first-flush events) the majority of the analytical results represent water quality in the canyon.

Sonde data indicated that some reaches of Devils Canyon went dry between sampling and surface water inventory events, hence providing valuable information about the presence or absence of water. Sondes responded as expected to diurnal influences, precipitation, runoff, and dry periods between runoff.

Golder recommends that baseline surface water characterization be conducted in any new basins used in the brownfields or greenfields mine concepts in the pre-feasibility study. Monitoring programs initiated in new basins or other areas should follow the same general protocols as those used for the current study. If the drought persists, redeployment of the Devils Canyon data sondes to the new basins is an option to conserve resources. Depending on discharge scheduling for the new treatment plant, it may be possible to collect valuable baseline data that will aid in classifying the surface flow regime and identifying water quality exceedances with water quality sampling.

With respect to recommendations for continuing the existing program without redeployment to other areas, the geographic scope is considered appropriate and should not be changed. However, the activities to be performed, frequencies, and analytical suites can be substantially reduced as long as the drought persists. The following table summarizes the recommended changes with respect to the primary watersheds. However, we recommend reinstituting the program for a year or two after the drought is over.

	Inventories	**Sampling**	**Analytical List**
Devils Canyon	Discontinue	Semi-annual	Major ions; Metals (Cu, Al, Fe, and Mn); Hardness ;and Alkalinity
Upper Queen Creek/ Apache Leap	Discontinue	Semi-annual	Major ions; Metals (Cu, Al, Fe, and Mn); Hardness; and Alkalinity
Lower Queen Creek	Quarterly	Semi-annual	Current comprehensive list (minus total recoverable metal fractions)

Golder recommends that RCC implement a formal data management program to ensure easily accessible and accurate data. Additional work should be performed to assess the Cu exceedances in Devils Canyon. Re-evaluation of metals analysis from the PM10 filters, leachate results from ongoing Apache Leap Dacite testing, and the collection of surface water samples from water pockets on the dacite may aid in understanding the origin of the Cu exceedances.

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1.0 INTRODUCTION

Golder Associates Inc. (Golder) prepared this report summarizes the surface water data collection program from October 2002 through February 2006 for baseline resource characterization. The report presents all of the data collected to date and includes basic data reduction, interpretations, and recommendations for future data collection efforts.

The purpose of the surface water investigation is to define background quantity, quality, and spatial and temporal occurrences of surface water in areas that could potentially be impacted by future Resolution Copper Company (RCC) operations. There are several regulatory and non-regulatory "drivers" for collecting baseline surface water data, as discussed in the 2002 work plan (Golder, 2002). Regulatory drivers are related to controlling discharges to surface water to meet water quality standards for specified designated uses. Non-regulatory drivers are related to establishing a sound conceptual model of the physical system as a basis for predicting potential impacts from the RCC and non-RCC activities (e.g., grazing, recreation, and industrial mineral mines).

The overall scope of the program was to document the spatial and temporal occurrences of surface water; measure flow rates; and analyze water quality in Devils Canyon, upper Queen Creek, Arnett/Telegraph Canyons, and the Apache Leap Area, with an emphasis on Devils Canyon. A general site location map is included as Figure 1.

There are two types of data being collected for the program. The types of data being collected and the rationale for their collection are as follows:

- **Surface Water Quality and Quantity -** The first data type relates to evaluating the concentrations of metals, major anions and cations, inorganic non-metallics, physical properties, and biological contaminants in surface water over time with respect to surface water quality standards associated with the applicable state-mandated designated uses. In addition, flow measurements were taken to supplement the water quality data.

- **Surface Water Occurrence -** The second data type relates to evaluating the spatial occurrence of surface water and its temporal variations.

These data needs have been fulfilled with two types of activities:

- **Surface Water Quality and Quantity Sampling Events -** Surface water quality sampling and field parameter collection (including discharge). At some locations, the field parameters (including at a minimum, electrical conductivity, temperature, and depth) were collected on hourly intervals with data sondes and downloaded during water quality sampling events.

- **Surface Water Inventories -** Documenting the existence and nature (i.e., dry or flowing, approximate flow rates, channel morphology, etc.) of surface water at various locations in the study area at various times.

The possible end uses and benefits of this report include, but are not limited to:

- evaluating the level of effort applied thus far, and adjusting the future level of effort for maximum cost effectiveness regarding ultimate data requirements (i.e., do we need to continue water quality sampling at the same frequency, etc.);

- providing comprehensive data compilation to ensure that data are complete and that no quality control issues have arisen since the last data compilation;

- providing baseline data that can be used for future permitting efforts and to support permit requirements;

- developing a conceptual site model of the physical system as a basis for predicting potential impacts from future mining activities; and

- supporting preparation of an Environmental Impact Study, if needed, for future mining activities.

This report is intended to be a repository and guide to all activities and data collected to date. For this reason, some portions of the *Resolution Baseline Data Collection – 2003 Technical Memorandum for Surface Water* (Golder, 2003b) are being reissued. Data being reissued include the 2003 water quality, data sonde, and surface water inventory results. The only significant change to reissued data includes the applicable designated uses from the Arizona Administrative Code (AAC) (Title 18, Chapter 11, Article 1). The designated uses for some sampling stations were changed from the 2003 Technical Memorandum upon re-inspection of the surface water quality standards published in the AAC.

This report is organized into six sections and six appendices as follows:

- **Section 1.0 – Introduction** discusses the scope, purpose, and organization of this report.

- **Section 2.0 –Surface Water Data Collection** describes the geographic areas where data were collected; identifies the permanent monitoring stations that were selected; and lists field and laboratory methods used in collecting samples, measuring flow, and operating data sondes.

- **Section 3.0 – Surface Water Data** summarizes the occurrence, discharge, and water quality data collected during the program.
- **Section 4.0 – Interpretations** presents limited interpretations of the programs dataset.
- **Section 5.0 – Recommendations** suggests an overall program for moving forward with the surface water data collection program.
- **Section 6.0 – References** lists the references used in preparation of this report.
- **Appendix A –** Surface Water Inventory Summary Tables presents the March, June, and September 2005 results of the surface water inventories.
- **Appendix B –** Sample Station Hydrographs and Devils Canyon Rating Curves
- **Appendix C –** Water Quality/Exceedance Tables presents all the water quality data and identifies exceedances to surface water standards.
- **Appendix D –** Box and Whisker Plots and Time Series Graphs presents statistical and graphical representations of water quality data.
- **Appendix E** - Data Validation Reports presents the results of the data validation performed by Innovative Technology Solutions, Inc. (ITSI).
- **Appendix F –D**ata Sonde Graphs and Summary Information presents graphical representations of the data sonde results.

2.0 SURFACE WATER DATA COLLECTION

The following sections review the rationale used for the development and implementation of the data collection program.

2.1 Geographical Areas

The geographical areas for baseline investigation were defined by the 2002 work plan (Golder, 2002), which focused the highest level of effort on those areas near the future mine at Shaft No. 9. The tentative RCC land uses for the project (Study Areas) include tailings impoundment facilities, utility corridors, and facilities associated with the area of ore deposit (i.e., headframes, mill, etc.). The amount of effort expended to complete the surface water inventories, water quality sampling, flow measurements, and data sonde monitoring varied based on relative importance of these activities to the Study Areas. The level of effort was adjusted at some locations based on an evolving understanding of the areas that needed more or less attention. The following summarizes the general rationale for monitoring effort as it pertains to geographic area.

- **Areas for observations (surface water inventories)** – An initial survey was performed in November 2002 to identify all surface water features in, or close to, the Study Areas. Data collected during the initial survey were used to prepare the 2002 work plan. The 2003 surface water inventory covered the same geographical extent and used the same methods as the initial survey. Seven subsequent surveys were performed between 2004 and 2005; these surveys did not include lower Queen Creek or lower Devils Canyon. These surveys (10 total: 3 full surveys and 7 with a slightly reduced geographical scope) were performed for the purpose of identifying spatial and temporal trends in the occurrence of surface water.

- **Areas for long-term monitoring stations** – Areas near the ore deposit that could be affected by future dewatering were selected for long-term monitoring. These areas include Devils Canyon; Upper Queen Creek (i.e., upstream of Superior); and Apache Leap. Surface water sampling was performed in all three areas. In addition, data sondes were installed in Devils Canyon for continuous monitoring. Water quality sampling and sonde data collection occur at the same locations for a better understanding of the geochemical conditions.

- **Areas not included for long-term monitoring stations** – Areas associated with the utility corridor (i.e., lower Queen Creek) and possible tailings impoundments (e.g., Telegraph Canyon, Dromedary Peak, and Desert Wells) were not included because the mine plan was not sufficiently advanced to warrant baseline data collection. Because of issues associated with discharge from the water treatment plant (currently under construction to aid in dewatering the historical workings), lower Queen Creek will likely be added to the long-term monitoring sites.

2.2 Surface Water Monitoring Stations

Station identification, nomenclature, and selection are discussed in the following sections. Detailed surveys of the sonde locations are included in the Golder 2004 technical memorandum *Detailed Surveys of Data Sonde Locations* (Golder, 2004b).

2.2.1 Station Identification

All of the significant water features identified during the initial November 2002 surface water inventory survey that are in close proximity to the ore deposit (or are considered to be potentially impacted by future dewatering associated with the Resolution ore deposit) have been included in the surface water sampling network. Locations of the sondes and/or sampling stations are included on Figure 2 (Devils Canyon) and Figure 3 (Queen Creek). Table 1 summarizes the surface water sampling stations. This includes coordinates, ID/name, geologic units, and type of feature. The names of the stations in Devils Canyon denote the location relative to river kilometers upstream from the confluence with Mineral Creek. For instance, station name DC13.5C denotes a station that is in Devils Canyon (DC), is 13.5 kilometers upstream from the confluence with Mineral Creek, and is located in the channel (C). An E or W denotes spring samples located on the east or west bank of Devils Canyon, while a T before the kilometer number denotes a tributary. Spring/seep names were given common names either found in the Arizona Department of Water Resources database (i.e., Hidden and Kane); from a 7.5 minute U.S. Geological Survey (USGS) topographic map (Pump Station); or in some cases, as in Boulder Hole, a name describing the channel morphology.

2.2.2 Station Selection – Apache Leap and Queen Creek

Two sampling stations in the Apache Leap Area, Hidden Spring and Kane Spring, were initially chosen because they were the only permanent sampleable water features observed. However, during the May 2004 sampling event, Bored Spring was added to the sampling network. Blue Spring was also added to the Apache Leap sample network in May 2004. This site was added to expand the Apache Leach sampling network geographic coverage. As with the initial Apache Leap stations, the two upper Queen Creek sampling stations were chosen because they are the only permanent sampleable surface water features in the basin that are in close proximity to the Resolution ore deposit. In February 2005, two additional sites were added to the Queen Creek sampling network. Sampling station QC27.3C was added to monitor a temporally intermittent reach of Queen Creek. Sampling station QC22.6E (Karst) was added after the discovery of this location during a wet season surface water inventory (i.e., March survey). This site has water only during wet periods.

No data sondes were installed at the Apache Leap or Upper Queen Creek Areas because there was little to no perennial discharge.

2.2.3 Station Selection – Devils Canyon

Station locations along the main stem of Devils Canyon were selected based upon the following criteria:

- suitable rock for attaching the data sondes,
- bedrock that forces alluvial underflow to the surface and provides stable channel conditions for establishing a stage discharge relationship,
- sufficient water depth for sonde sensors to remain submerged,
- relatively smooth flow that will continually bathe sensors in new water and is strong enough to flush away accumulations of algal or detrital material,
- proximity to Resolution ore deposit, and
- proximity to springs and tributaries that might change quality or quantity of water over time.

The data collected by the sondes varies depending upon the array of sensors installed on the sonde. A list of the sensors on each sonde is available in Table 1. All the sondes have at minimum sensors for conductivity, temperature, and water depth. If the sonde was thought to be installed in an area of perennial water flow, a pH sensor (which needs to be continuously wet for proper function) was added to the sonde. In addition, DC8.8C was outfitted with a turbidity sensor.

The locations of the specific sample or sampling/sonde stations in Devils Canyon were chosen using the following rationale:

- DC15.2C – This station is located upstream of the ore deposit or potential mine influences as currently understood by Golder and was selected to document non-Resolution impacts, if any, to Devils Canyon. No data sonde has been installed at this site.
- DC14.70C – Floodflow sampling location at Arizona Highway 60 bridge. Only sampled during floodflows when drainage is too dangerous to access at other sampling stations. No data sonde has been installed at this site.
- DC13.5C – This station is located adjacent to the Resolution ore deposit. Because this site is located on an ephemeral subreach of the canyon, the sonde installed at this site has no pH sensor.

- DC10.9C – This station is located adjacent to the Resolution ore deposit. Because this site is located on an ephemeral subreach of the canyon, the sonde installed at this site has no pH sensor.

- DC8.8C – This station is located at the start of perennial flow in Devils Canyon with extensive riparian habitat. The sonde installed at this site has both pH and turbidity sensors in addition to the standard sensor array.

- DC8.2W – This station is located at the largest spring in Devils Canyon. Conditions at the spring allowed for the permanent installation of a cutthroat flume and sonde with a pH sensor. The spring is of interest because continuous flow measurements over long periods of time can be used to assess the spring's response to precipitation and to infer aquifer characteristics.

- DC7.1C – This station is located at the approximate center of what was thought to be the longest perennial reach of Devils Canyon. However, the site went dry during late summer 2003 and is no longer considered perennial. The sonde installed at this site contains a pH meter in addition to the standard sensor array. In addition to the sonde, this station has two separate pressure transducers (i.e., depth sensors) located 48 and 100 feet downstream from the data sonde to indirectly measure flood discharges.

- DCT6.6W – This tributary was chosen because it contains a spring with riparian vegetation. This site has no data sonde installed due to lack of bedrock for attaching a sonde and because of low discharge.

- DC6.1E – This site is located at a hanging garden on the east side of the canyon immediately below the lowermost Crater Tanks (also known as Five Pools) waterfall. No data sonde has been installed at this site.

- DC5.5C – This station is located at the end of what was thought to be the longest perennial reach along Devils Canyon. A data sonde equipped with the standard sensor array is installed at this site.

- DC4.1E – This site is located at a hanging garden on the east side of the canyon. No data sonde has been installed at this site.

2.3 Field Methods

Field methods included surface water inventory observations, water quality sampling, flow measurements, and data sonde operation. Golder staff initially conducted all inventories and sampling events, but over time the program was transferred to RCC staff, as shown below:

Approximate Dates	Inventories	Sampling Events/Sondes
2002	Golder	None performed
2003	Golder	Golder
2004	Golder (December Survey performed by RCC)	Transitional to RCC
2005 - 2006	RCC	RCC

Golder provided training to RCC staff during the transition period. A 1-day performance audit of the RCC sampling crew was performed during the November 2004 sampling event to ensure field procedures were consistent with the SOPs (Golder, 2004c). The audit showed all of the technical aspects of the audited data collection event were completed correctly with the exception of:

- dissolved oxygen (DO) measurements at DCT6.6W, and
- sample preservation of the coliform/E. coli samples.

The DO measurement error was unavoidable because inadequate water was available to move the sensor at the prescribed rate of 1 foot per second. However, the data need to be qualified on the surface water sample log.

The E. Coli sampling protocol was difficult to follow correctly because samples needed to be kept cool immediately after sample acquisition, and holding times were not met. Holding times were exceeded due to site remoteness. However, samples should be kept on ice between the time they are collected and placed in the field vehicle ice chest.

Additional problems noted during the audit included a lack of proper note-taking procedures in the field book. In particular, the calibration of field parameter instrumentation and maintenance issues were not adequately recorded.

Standard Operating Procedures (SOPs) for the surface water monitoring (with the exception of Surface Water Inventories) were initially published by Golder (2003c), and reissued with minor edits in the Quality Assurance Plan (QAP) published by Golder (2006). The QAP contains four primary sections that describe the procedures used for:

- project management,
- data generation and acquisition,
- assessment and oversight, and
- data validation and usability.

Procedures used for the surface water inventories were initially contained in the Golder (2002) work plan. Updated surface water inventory methodologies were detailed in the Golder *Request for*

Change Order – Resolution Surface Water Baseline Data Collection – Additional Surface Water Inventories for 2004, dated May 28, 2004 (Golder, 2004a).

2.3.1 Surface Water Inventories (Formerly known as the Seep and Spring Surveys)

An initial surface water inventory was performed in November/December 2002. Several sources of information were reviewed for the initial survey to identify surface water features before going to the field. These sources included 1:24,000 7.5 minute USGS topographic maps; the Arizona State Groundwater Site Inventory (GWSI) database; aerial photography (1:2,000 from Cooper Aerial); and IKONUS satellite imagery. GWSI database information was also queried for information regarding quality and quantity of identified surface water features. None of the springs identified using the GWSI database had water quality or quantity information available.

The major areas physically investigated for the surveys included (but were not limited to) the following:

- Devils Canyon – Highway US60 down to the ASARCO Ray Mine;
- Ranch Rio Creek – From Forest Service Road 315 to confluence with Devils Canyon;
- Hackberry Creek – From Forest Service Road 315 to confluence with Hackberry Creek;
- Upper Queen Creek – Pump Station Spring, Queen Seep, Vent Seep, Eddies Spring, and Boulder Hole Seep;
- Lower Queen Creek – Superior Wastewater Treatment Plant (WWTP) down to the end of surface flow, and Potts, Benson, and Lower Railroad Springs;
- Apache Leap – Bored, Hidden, Kane, and Wild Horse Springs;
- Arnett Creek – Blue Springs and Perlite quarry (above confluence with Telegraph Canyon) down to Highway US60 bridge; and
- Telegraph Canyon – Trough, Filaria, South Filaria, and jeep trail down to confluence with Arnett Creek.

When visiting a surface water feature, a series of observations and activities were performed:

- GPS coordinates in NAD 27 zone 12;
- photographs;

- field water quality parameters (i.e., pH, specific conductance [SC], and temperature);
- geologic and morphologic setting;
- type classification (e.g., spring, seep, reach, etc); and
- visual estimate of the discharge.

DO was added to the field parameters list for the 2003 surveys. Documentation of the aforementioned was made in a field book, and the location of the site was marked on a 7.5 minute USGS topographic map.

The surface water features were classified as one of five features: tinaja, stagnant pool, seep, spring, and flowing reach. For this project, definitions were:

- **Seep** was defined as a moist or wet location without discernable surface flow.
- **Spring** was defined as a location identified as such on a USGS topographic map, listed in the GWSI database, is developed (whether it is flowing or not), or has discernable surface flow emanating from a localized area.
- **Tinaja** was defined as a bedrock plunge pool below a dry waterfall that gets its water solely from surface runoff and has no (or very little) groundwater component.
- **Stagnant pool** was defined as a water feature that has some groundwater component (local stream bed storage), but is not maintained by consistent groundwater or surface water inflow and hence becomes stagnant.
- **Flowing Reach** was defined as a section of drainage bottom that has surface flow.

Stationing for the June 2003 survey was used for all subsequent surveys. Drainages with stationing included: Devils Canyon, Rancho Rio, Queen Creek, Arnett Creek, and Telegraph Canyon. Stationing along Queen Creek was measured in kilometers upstream of Whitlow Dam. Devils Canyon stationing was measured in kilometers above the confluence with Mineral Creek. Arnett, Telegraph, and Rancho Rio were measured in kilometers upstream of their confluence with a major named drainage (i.e., Queen Creek, Arnett Creek, and Devils Canyon, respectively).

The first four surveys (i.e., November/December 2002 through March 2004) were performed using the same methodology and covered the geographic area. The last six surveys (June 2004 through September 2005) were performed on a reduced area with a modified methodology (Golder, 2004a).

The reduction in geographic area included the elimination of areas associated with the utility corridor (i.e., lower Queen Creek) and potential tailings impoundment locations (i.e., Telegraph and Arnett Canyon). In addition, lower Devils Canyon (below the Crater Tanks) was removed from the survey due to the dangerous conditions associated with hiking around the falls.

Modifications to the methodologies included a change in focus from documentation of all surface water features to documentation of flowing reaches and stagnant pools greater than 1,000 gallons in size (with the exception of Tinaja Canyon, which had all stagnant pools recorded). Additionally, field parameters were taken at every second or third feature instead of every feature, as previously performed.

Surveys were predominantly performed during the months of March, June, September, or December (with the exception of the first survey, which was performed in November). This frequency and timing correspond to the typical seasonality in Arizona and allow for observation of seasonal patterns in the spatial distribution of water occurrences.

2.3.2 Water Quality Sampling

Ten water quality sampling events have been performed thus far. The sampling events were performed on quarterly intervals in February, May, August, and November. Sampling commenced in May 2003 and continued on a quarterly schedule until August 2005. The sampling months were chosen to coincide with typical precipitation patterns that generally result in low flows in May; high flows in February and August (i.e., spring runoff and monsoon thunderstorms, respectively); and intermediate flows in November. Because the regulatory drivers for this work mainly pertain to baseflow conditions, an extended list of analytes was analyzed for the first two May events due to the likelihood that this month would represent baseflow conditions.

SOPs were written for all sampling tasks. The SOPs used during water quality sampling were:

- SOP – Field Records and Sample Labeling;
- SOP – Measurement of Field Parameters;
- SOP – Surface Water Sampling;
- SOP – Sample Filtering, Preservation, and Containerization;
- SOP – Field Quality Control;
- SOP – Chain-of-Custody; and

- SOP – Sample Handling and Shipping.

Before sampling, the bottles and preservatives were obtained from the analytical lab pursuant to SOP – Sample Filtering, Preservation, and Containerization. Sample numbers used for the sampling event were obtained from RCC staff pursuant to SOP – Field Records and Sample Labeling. Filters and associated equipment were prepared prior to the sampling event pursuant to SOP – Sample Filtering, Preservation, and Containerization.

The samples were collected and field parameters were measured upon arrival at the station pursuant to SOP – Surface Water Sampling and SOP – Measurement of Field Parameters. Records of the sampling event and bottle labeling were documented pursuant to SOP – Field Records and Labeling. An equipment blank, field blank, and duplicate sample were submitted for each of the sampling events pursuant to SOP – Field Quality Control. Analytes with short hold times were picked up daily by a courier from Del Mar Labs in Phoenix. Prior to shipping, the chains-of-custody were completed pursuant to SOP – Chain-of-Custody. Samples were shipped on ice pursuant to SOP – Sample Handling and Shipping.

2.3.3 Discharge Measurements

Flow measurements were performed using various techniques (pursuant to SOP – Discharge Measurements). The technique chosen was based on the flow conditions. Techniques included:

- Bucket/Stopwatch – Calculates discharge based on the amount of time required to fill a vessel of known volume;
- Cutthroat Flume – Depth of flow through flume under specific conditions correlates to discharge on look-up table; and
- Current Meter – The flow is divided into approximately 20 cross-sectional areas, the velocity is measured in each, and the sum of the areas multiplied by velocities equals discharge.

2.3.4 Data Sonde Operation

Data sondes were removed from their casings pursuant to SOP – In-Situ Data Sondes upon arrival at the stations. Once removed from the casings, sonde data were downloaded following the directions in the SOP. The sondes were then recalibrated. After calibration, new test criteria were defined and the test was started. Measurements were programmed to be taken on an hourly basis at the top of each hour. The data must be taken on an hourly schedule at the top of the hour (i.e., 12:00:00, 13:00:00, etc.) so the hourly barometric readings from the weather station KC-1 at Shaft No. 9 can be used for adjusting the pressure transducer data. Upon completion of the test definition, the sondes were reinstalled into their casings.

2.4 Laboratory Analysis

Water quality samples were sent to four laboratories under direct contract to RCC. The laboratories used, and the general classification of analytes they tested, were as follows:

- SVL Analytical, Inc. (SVL) in Kellogg, Idaho – analyzed metals, inorganic non-metallics with long holding times, major anions and cations, and physical properties.
- ACZ in Steamboat Springs, Colorado – analyzed radionuclides.
- Del Mar in Phoenix, Arizona – analyzed inorganic non-metallics with short holding times and biological constituents.
- FiberQuant in Phoenix, Arizona – analyzed for asbestos.

Listings of the short hold time and long hold time analytes are included as Tables 2 and 3, respectively. Containerization, preservatives, holding times, U.S. Environmental Protection Agency (EPA) method or standard methods, and practical quantitation limits are included in the tables.

Initial reporting levels for data packages only allowed for EPA Level 3 review (i.e., data verification). To perform data validation (EPA Level 2 review), three data packages were re-assessed and re-issued with EPA Level 2 review criteria included to allow for data validation. The data packages were chosen to represent data from the beginning (May 2003 sampling event – SVL - metals and general chemistry), middle (November 2004 sampling event - Del Mar – short hold time analytes), and most recent (August 2005 sampling event – SVL - metals and general chemistry) sampling events.

2.5 Relevant Weather Data

Precipitation, evaporation, and barometric pressure data were collected at site KC-1, which is located next to Shaft No. 9, near the Oak Flat National Forest Campground. This site was selected over site KC-2 (located at the West Plant Site) because of its proximity to the Devils Canyon sonde network. The barometric pressure data were used to correct barometric effects on water level data collected by the non-vented pressure transducers in Devils Canyon. Precipitation and evaporation data from KC-1 were graphed and plotted for comparison to data sonde results.

Long-term annual graphs (starting in 1920) were prepared from precipitation records collected by RCC at the West Plant Site. Data from station KC-2 (installed by Golder in February 2002) were not used for the long-term precipitation graphs.

2.6 Data Management

Final data packages of water quality results were issued as electronic copies from the analytical laboratories directly to RCC. All data were archived on-site at RCC in Microsoft EXCEL® spreadsheet format.

Data were transferred electronically from RCC to Golder by means of ftp sites set up by Golder for that purpose.

Field parameters, discharge data, and sonde data were initially kept by Golder until mid-2004, when control of the field program was transferred to RCC.

Meteorological data were collected or managed by RCC. Adjustments to evaporation pan readings were made by RCC. The data were delivered to Golder via the internet in Microsoft EXCEL® spreadsheet format.

3.0 SURFACE WATER DATA

The meteorological data, spatial occurrence, quantity, and quality of the surface water features monitored are presented in the following sections.

3.1 Occurrence – Seep and Spring Surveys

The March, June, and September 2005 surface water features surveyed in the Devils Canyon and Queen Creek watershed are represented on GIS Figures 4, 5, and 6. Summary tables are included in Appendix A, which are organized with respect to drainage basin (i.e., Devils Canyon or Queen Creek). Names indicated on the figures can be cross-referenced with the tables to obtain additional descriptive information (i.e., geology, morphology, field water quality parameters, etc.) and to view a photograph of the site taken at the time of the survey.

Temporal changes in flowing reaches for all 10 inventories (taken between November/December 2002 and September 2005) for both the Queen Creek and Devils Canyon watersheds are depicted on Figures 7, 8, and 9. The inventories (with the exception of the three most recent) were included in four prior publications (Golder 2002, 2003b, 2004c, and 2005). Table 4 summarizes the cumulative length of flowing reaches. A channel profile of Devils Canyon that includes all 10 inventories, geology, sampling stations, potentiometric surface, and significant features is depicted on Figure 10.

3.2 Discharge Measurements

A summary of the discharge measurements and data sonde water depths (where available) is included in Tables 5a and 5b (Devils Canyon and Queen Creek, respectively). Appendix B contains this same data plotted as hydrographs (sample date versus discharge) and plotted as rating curves developed from plotting depth (from data sondes) versus discharge.

3.3 Water Quality

Depending on the area being monitored and the activity being performed, three levels of effort were used for water quality monitoring. In increasing order of magnitude, they were:

- for the surface water inventories, water quality monitoring consisted of measuring field parameters at the time of the survey (i.e., pH, temperature, SC, and DO [during some events]);
- at the stations, water quality monitoring consisted of collecting samples and measuring field parameters at the time of sampling; and

- at the stations with data sondes, water quality monitoring consisted of collecting samples, measuring field parameters at the time of sampling, and continuously measuring field parameters with the data sondes.

3.3.1 Surface Water Inventory Water Quality Parameters

Field parameters measured during the surface water inventories are included in Appendix A.

3.3.2 Laboratory Data Validation

In accordance with the QAP (Golder, 2006), one data package from the beginning, middle, and end of the sampling program (amounting to one from each year) was subjected to EPA Level 2 review (i.e., data validation). Five samples from 2003 (samples RESE-1001009 to 1001012), two samples from 2004 (RESE-1001176 and 1001177) and four samples from 2005 (samples RESE-1001222 to RESE-1001226) were validated. ITSI provided data validation services under contract to RCC in May and June 2006. Validation was performed for general chemistry, microbiology, and metals analytical results.

After validation, data quality was assessed to reconcile data quality with end uses and project objectives, and also to reconcile potential effects on usability of the data. The Data Validation Reports are included in Appendix E.

The overall quality of the analytical results was deemed sufficient to meet project objectives. Overall quality was assessed by the quantitative parameters of reporting limits, accuracy, precision, completeness, and by the qualitative parameters of representativeness and comparability. The overall levels of accuracy and precision were considered acceptable based on laboratory quality control measures. Based on the results of the data review, no general chemistry, microbiology, or metals analytical results were qualified as rejected.

3.3.3 Sampling Station Water Quality Results

The list of constituents for laboratory analysis is based on regulatory and non-regulatory drivers, as discussed in the work plan (Golder, 2002). Two lists of constituents were used for the sampling events: a long list and short list (Table 6). Radionuclides and cyanide are excluded from the short list. The regulatory and non-regulatory drivers are also shown in Table 6. Standards for some metals are hardness dependent; these metals are also indicated in Table 6. Tentative designated surface water uses for the stations are shown in Table 7. The sampling history for each sample station are included in Tables 8 and 9 for Devils Canyon and Queen Creek, respectively. Detailed tables comparing the water quality and field parameter results to exceedances by designated use is included in Appendix C.

Sampling stations identified to have exceedances in Appendix C are summarized in Tables 10 and 11 for Devils Canyon and Queen Creek, respectively. Qualitative statistical evaluation using box and whisker plots of constituents that have exceedances (i.e., DO, Cu, and E. Coli) are included in Appendix D. Also included in Appendix D are sample station time series plots of the constituents with exceedances. A Tri-linear Piper diagram showing the relative concentrations of major ions was plotted for low- and high-flow conditions, and deep and shallow Apache Leap Tuff groundwater (Wells HRES-2, 3, 4, and 5) for the Devils Canyon watershed to illustrate water types and mixing relationships Figure 11. Interpretations are discussed in Section 4.0.

3.3.4 Data Sonde Results

Monthly graphs of sonde data, with the addition of precipitation and evaporation, are included in Appendix F. Annual graphs for 2004, a data sonde summary table, and data summaries are also included in Appendix F. This includes monitoring periods, parameters recorded, sonde serial numbers, and background pressure reading adjustments.

Pressure transducer data from the data sondes were corrected for barometric pressure by taking the difference in pressure readings at the sonde stations (while the pressure transducers are out of the water they are essentially a barometer) and a reading taken at a weather station near Shaft No. 9 (KC-1) for the same time. Because the sonde stations are all at a lower elevation than KC-1, the difference was added to all KC-1 barometric readings. Pressure transducer correction factors are included in Table 12. With the KC-1 readings adjusted for elevation difference, the readings were directly subtracted from the sonde station readings. With barometric pressure removed from the sondes, only the pressure due to overlying water is registered.

4.0 INTERPRETATIONS

Interpretations focus on the four main types of data collected during the investigation:

- temporal and spatial occurrence of surface water as seen in the surface water inventories;
- discharge measurements;
- surface water quality; and
- continuous field parameter measurements (i.e., the data sonde results).

Interpretations include trends in surface water quality, quantity, and occurrence as they relate to precipitation events, dry periods, evapotranspiration, watershed geology, and biochemical activity.

4.1 Occurrence

Ten surface water inventories have been performed thus far. Although some of the surveys extended more than 1 month, surveys were mainly performed during the months of March, June, September, and December. The first four inventories had a more comprehensive methodology and larger geographic scope than the six most recent surveys. However, the primary observation, documenting the occurrence of flowing water, was consistent for all surveys. Inventory results can be compared to evaluate the seasonal and spatial distribution of flowing reaches (at a minimum). Observations during surface water sampling events (and sonde data) can be combined with inventory observations to assess the presence or absence of water between inventories.

4.1.1 Perennial Water Occurrences

Because no sondes were installed in the Queen Creek watershed, the assessment of perennial flow depended solely on surface water inventories and observations during water quality sampling events. Surface water inventories are the primary data source for identifying flowing reaches. However, observations during surface water quality sampling events (i.e., no flow or flowing) substantiate flow conditions observed during surface water inventories. Additionally, sondes (in Devils Canyon) were installed such that conductivity probes would go dry (with the exception of sonde station DC7.1E) during periods of little or no flow. Zero conductivity readings suggest no surface flow. The following summarizes perennial springs and flowing reaches for each major geographic area.

Devils Canyon

Perennial reaches for Devils Canyon between channel stations 14.70 and 5.44 include the following intervals:

- station 9.14 to 7.53 (total flowing length = 1.61 kilometers [km]), and
- station 6.10 to 5.44 (total flowing length = 0.66 km).

The cumulative perennial flowing reaches for Devils Canyon between channel stations 14.70 and 5.44 is 2.27 km. The lower section of Devils Canyon (station 5.44 down to the confluence with Mineral Creek [i.e., station 0.00]) had several short perennial reaches associated with bedrock channel reaches and adjacent springs. Due to problems in converting coordinates to stationing, inconsistent surveying techniques, and minimal surveying in this area, exact stationing cannot be provided. However, based on Golder's experience in the canyon, the cumulative extent of perennially flowing reaches is approximately 200 meters (m).

Numerous perennial springs exist in the Devils Canyon watershed. The breadth of the canyon, scale of the Study Area, and rugged nature of the terrain made a comprehensive survey during initial site reconnaissance difficult; additional springs were being discovered during the second and third surveys. These issues also made it difficult to classify springs as perennial or not. However, springs or spring clusters that were identified as flowing during all surveys include:

- Spring cluster (as many as five springs identified) between Rancho Rio and Hackberry Canyon (stationing 8.9 to 8.3). The larger springs in the cluster occur on west side of canyon near the canyon floor.
- Spring cluster immediately below Hackberry Canyon on west side of Devils Canyon. Includes largest spring identified in canyon (DC8.2W – water sampling station).
- Spring in tributary on west side of canyon (T6.6W – water sampling station).
- Spring adjacent to lowermost Crater Tanks pool (DC6.12E).
- Spring immediately below lowermost Crater Tanks pool (DC6.1E).
- Long seep/spring face with abundant vegetation high on slope (DC5.0E).
- Hanging garden on east side of canyon (DC4.1E-former sampling station).
- Hanging garden on east side of canyon (DC3.7E).

With the exception of DCT6.6W, no perennial springs were identified in any of the Devils Canyon tributaries. However, perennial pools and springs/seeps (present for all but one of the 10 surveys) were identified in both Rancho Rio Creek and Hackberry Canyon.

All perennial springs in Devils Canyon emanate from the west bank above the Crater Tanks and from the east bank below the Crater Tanks.

Queen Creek

With the exception of one approximately 40-m long reach associated with Pump Station Spring, no perennial reaches were identified in the Queen Creek watershed. Perennial springs and reaches along the main channel of Queen Creek between stations 30.72 and 21.80 include:

- Pump Station Spring (30.72 to 30.68, total flowing length = 40 m).
- Eddies Spring.
- Boulder Hole Spring.
- WWTP and Perlite Pit Dewatering outfall discharge (17.39 [confluence with WWTP side drainage] to 15.55). Although this perennial reach is heavily influenced by discharge from the WWTP and Perlite Mine, the presence of large cottonwood and willow trees, and the historical old Pinal townsite suggest that perennial water may have existed in this location prior to discharge from these facilities.

Apache Leap

Perennial water along the Apache Leap escarpment includes:

- Bored Spring,
- Hidden Spring, and
- Kane Spring.

No perennial reaches were identified along the Apache Leap.

Arnett Creek

Perennial reaches along Arnett Creek include:

- stationing 4.53 to 4.49 (total flowing reach = 40 m), and

- Stationing 4.84 to 4.82 (total flowing reach = 20 m).

Based on four surveys, the cumulative length of perennial flowing reaches for Arnett Canyon is 60 m. The minimum cumulative length of flowing reaches for an individual survey event is 230 m. This discrepancy is due to changing spatial coverage of flowing reaches between surveys resulting in very limited reaches that had perennial flowing water during all four surveys.

No perennial springs were identified along Arnett Creek. However, a pool located at station 4.0 had flow during three of the four surveys and could be classified as a spring.

Telegraph (sub-reach of Arnett)

Perennial water in Telegraph Canyon includes:

- Trough Spring (no flow but permanent water in stilling well),
- stations 1.03 to 1.00 (total flowing reach = 30 m), and
- stations 0.84 to 0.52 (total flowing reach = 320 m).

Based on four surveys, the cumulative length of perennial flowing reaches for Telegraph Canyon is 350 m. The minimum cumulative length of flowing reaches for an individual survey event is also 230 m. The location of flowing reaches was consistent between surveys in Telegraph Canyon.

4.1.2 Seasonal Effects on Spatial Distribution of Flowing Reaches

When comparing all of the surface water inventories, significant changes were observed in the spatial distribution of the flowing reaches**.** Figures 7, 8, and 9 depict the location of flowing reaches and the extent of the inventories. Figure 10 depicts the flowing reaches along a channel profile for all inventories performed in Devils Canyon. Table 4 summarizes the cumulative length of flowing reaches for the main drainages surveyed during the 10 inventories. The following discussion summarizes observations in seasonal trends.

Devils Canyon

In Devils Canyon, the shortest cumulative length of flowing reaches generally was in the June inventories with a range of 2.72 to 5.76 km flowing. The longest cumulative length of flowing reaches was in the March inventories when all of Devils Canyon was flowing. The cumulative length of flowing reaches for the December inventories was generally between the low-flow periods (June and September) and the high-flow period (March).

Inventoried tributaries to Devils Canyon have a similar pattern of cumulative flowing reach lengths as Devils Canyon. That is, mostly to completely flowing during the spring (March), minimum flowing reach lengths during June and September, and intermediate flowing reach lengths during late fall surveys (December).

Queen Creek

In Queen Creek, the cumulative length of flowing reaches (between stations 30.72 and 21.80 km) was at a minimum (0.03 km) during the first three inventories (November 2002, June 2003, and September 2003). This is not consistent with the Devils Canyon observations where the June and September 2003 had significant cumulative flowing reach lengths. This suggest that precipitation can be very localized, resulting in very different discharge patterns between adjacent drainages. As with Devils Canyon, Queen Creek had the maximum cumulative flowing reaches during the March inventories. During the March 2005 inventory, Queen Creek was flowing for the entire surveyed reach (8.92 km). June and September surveys had the shortest cumulative flowing reaches, with September consistently having the minimum cumulative length of flowing reaches.

In lower Queen Creek (Town of Superior to Whitlow Ranch Flood Retention Basin), the only significant flowing reach starts at the Superior WWTP, which is located on a tributary to Queen Creek. The cumulative length of flowing reaches along lower Queen Creek were the shortest (1.84 km) during both the June and September 2003 surveys, longer during the November 2002 survey (2.41 km), and the longest during the March 2004 survey (2.88 km). This pattern of short flowing reaches during the warm month surveys (i.e., June and September); intermediate flowing reach lengths during November; and longest during the late winter/early fall is consistent with the general patterns seen in Devils Canyon and upper Queen Creek.

Arnett Creek and Telegraph Canyon

The pattern of the shortest cumulative flowing reach lengths during the warm months (June and September), intermediate lengths during November, and the longest during March is consistent with the general trends observed in Devils Canyon and Queen Creek.

4.2 Quantity

Discharge (i.e., quantity) was measured during the sampling events and the results are presented in Tables 5a and 5b (Devils Canyon and Queen Creek, respectively). Appendix B contains sample station hydrographs and Devils Canyon rating curves (stage/discharge relationship). The rating curves need more intermediate discharge measurements to develop a usable curve for estimating flows from stage measurements. For the purpose of this discussion, baseflow is defined as the minimum flow measured at a sampling station. Losses due to subflow and evapotranspiration are not included in the baseflow estimate. An assessment of the baseflow, floodflows, variability, and seasonal trends for each primary watershed or geographic area are summarized in the following subsections.

4.2.1 Devils Canyon

Discharge measurements taken at sampling stations during sampling events ranged from 0 (no discharge) to approximately 33,000 gallons per minute (gpm). Baseflow for both perennial reaches identified in Devils Canyon was approximately 10 to 20 gpm. Seasonal trends (observed in both the discharge measurements and stage readings from the data sondes) indicate that high-flow events typically occur during the winter/early spring (December through March). Low-flow events occur during the summer (June through August), and intermediate flows occur during the fall and spring. Stage data from sondes indicate that flow in the main channel of Devils Canyon responds differently to storm type. Flow due to monsoon storms causes short duration, sporadic high discharge events, whereas winter storms cause large discharge events, followed by long moderate flow events. The maximum stage reading obtained for the entire period of record in Devils Canyon (for all sonde stations) was 140 inches (approximately 11.5 feet) recorded by the upper transducer at station DC7.1C. The accuracy of the transducer readings was field-verified (at all locations during one sampling event) by measuring the height of flood debris above the transducers. Flood debris heights were consistent with the transducer readings, indicating that the transducers were working correctly.

4.2.2 Queen Creek

Discharge measurements taken at sampling stations during sampling events ranged from 0 (no discharge) to approximately 100 gpm. Only one perennial flowing reach of Queen Creek was sampled (Pump Station Spring). The baseflow at this location was approximately 1 to 3 gpm, with low-flow measurements averaging 3 gpm. Seasonal trends (observed in the sample event discharge measurements, as there are no data sondes in this drainage) were consistent with the Devils Canyon observations. That is, high flows typically occur during the late winter/early spring (February/March). Low-flow events occur during the summer (June through August), and intermediate flow events occur during the fall and late spring.

4.2.3 Apache Leap

Discharge measurements taken at sampling stations during sampling events ranged from 0 (no discharge) to approximately 7 gpm. With the exception of Kane and Blue Springs, all of the

Apache Leap sampling stations are springs with very little to no potential for surface flow contribution. Consequently, there is very little variation in discharge at these sampling stations. The highest discharge measured was at Blue Springs, likely due to surface- or near-surface flow inputs.

4.3 Surface Water Quality

Quarterly surface water quality results and continuous field parameter data (as measured by sondes) are interpreted individually in the subsections below. The primary goal of the water quality sampling was to characterize baseline conditions and evaluate the results with respect to surface water quality standards for the applicable designated uses as defined in the AAC. The primary goal of the data sondes was to collect field parameters and stage readings (for possible rating curve development) between sampling events.

4.3.1 Surface Water Quality Sampling Results

Water quality results were compared to surface water quality standards for designated uses obtained from the AAC to evaluate whether any standards were exceeded. Comparison to the standards indicated exceedances (or out of acceptable range) of the following parameters:

- pH - (3 in Devils Canyon watershed),
- Total Suspended Solids (TSS) – (1 in Queen Creek watershed),
- DO – (24 in Devils Canyon watershed and 27 in Queen Creek watershed),
- E. Coli – (4 in Devils Canyon watershed and 6 in Queen Creek watershed),
- Cu – (14 in Devils Canyon watershed and 1 in Queen Creek watershed), and
- Se – (1 in Queen Creek watershed).

Tables 10 and 11 summarize the history of exceedances and designated uses for Devils Canyon and Queen Creek, respectively. The majority of exceedances are for the Aquatic and Wildlife warm water (acute and chronic) standards. To evaluate temporal and spatial trends of the exceeded constituents (with the exception of Se, pH, and TSS), comparative descriptive statistics (i.e., box and whisker plots) were prepared for all sampling stations and are included in Appendix D. In addition, to evaluate temporal trends at individual sampling stations, time series plots of the concentrations of Cu, E. Coli., and DO were graphed and are included in Appendix D. Aquatic and Wildlife (warm water) designated use standards for Cu (chronic and acute) vary according to sample hardness, and are graphed on the time series plots as lines along with Cu concentration for each site. Standards for E.

Coli and DO were also included on the time series plots but do not vary based on hardness. Because the dissolved fraction of Cu was responsible for the majority of the copper exceedances, all plots and statistical evaluation of Cu are performed for the dissolved fraction.

The results of the comparative statistics and time series are discussed below according to watershed and sample station.

Devils Canyon

Patterns in the water quality results become clearer when considering the origin of the water (i.e., groundwater or surface water) being analyzed. Flow regimes and associated sampling stations in Devils Canyon can be summarized as follows:

- *Runoff Flow* – Flow is derived from surface flow to near-surface flow. This occurs at intermittent flowing sampling stations DC15.2C, DC13.5, and DC10.9C.
- *Spring Flow* - Flow is derived from groundwater with little or no surface flow inputs – DC8.2W, DCT6.6W, DC6.1E, and DC4.1E
- *Mixed Flow* - Flow is derived from combination of groundwater (i.e., "spring flow") and surface to near-surface water flow (i.e., "runoff flow"). This occurs at perennial flowing stations DC8.8C and DC5.5C. Although not perennially flowing, DC7.1C is grouped with these stations due to the inputs of spring flow at this station.

The following is a brief geochemical assessment of Devils Canyon.

Dissolved Copper

The comparative descriptive statistics (i.e., box and whisker plots) indicate a general decrease in mean and median dissolved Cu concentrations with distance downstream, suggesting some degree of spatial control on this constituent (Figure 12); Appendix D contains a descriptive key for the box and whisker plots). The highest median and mean Cu concentrations, and the widest range in Cu concentrations, are from sampling stations located along runoff flow reaches (presumably surface- or near-surface flow dominated) in the upper portion of the watershed. Results from mixed flow sampling stations (DC8.8C, DC7.1C, and DC5.5C) have similar average copper concentrations (3.5 to 3.9 micrograms per liter) and similar copper concentration ranges. Most spring flow sampling stations (no surface water addition – DC8.2W, DCT6.6W, and DC4.1E) have the lowest mean and median Cu concentrations and smallest range in concentrations. These results suggest that Cu is controlled by surface processes, such as airfall from nearby smelters or unidentified surface mineralization upstream of the sampling stations.

Time series from runoff flow sampling stations in the upper Devils Canyon watershed indicate that dissolved Cu concentrations were highest and most variable at these locations. All of the runoff flow sampling stations had elevated concentrations during the February 2005 sampling event. This high concentration in February 2005 was also noted at mixed flow stations (with the exception of the farthest downstream mixed flow station: DC5.5C). Copper concentration time series for spring flow sampling stations (stations with little or no surface water input) had consistently lower Cu concentrations than the other locations, in agreement with the corresponding box and whisker plots.

Dissolved Oxygen

Trends observed in the box and whisker plots indicate that springs with sample collection stations at, or near, the point at which water surfaces (DC8.2W and DC4.1E) have lowest median DO concentrations and the lowest range of concentrations. The low concentrations at these springs suggest little or no interaction between spring waters and the atmosphere prior to surfacing. The lowest mean DO concentration in Devils Canyon occurs at DCT6.6W, a spring that has abundant cattle grazing activity and likely increased microbial respiration during low sunlight conditions. Results from spring DC6.1E displayed a relatively high median and a wide range of concentrations. This is likely due to the sample collection station being at the base of a free-falling, dripping spring that causes sample aeration and increased DO. Runoff sampling stations also had high median DO concentrations and relatively large ranges in DO concentration values. The large range of values may correlate with the large range in flow measured at these stations. In general, high flows have high DO due to turbulence/aeration, and low flows correspond to low DO concentrations and microbial respiration.

Time series of the runoff flow and mixed flow reaches (all locations in the main stem of the canyon) indicate a general trend of high DO concentrations during the winter months and low DO concentrations during the summer months. This trend suggests that high winter flows may produce enough turbulence to aerate the water and may decrease the residence time of fresh water in otherwise stagnant pools, resulting in high DO levels. Additionally, cold water can hold more DO. During the summer months, low flows, higher biochemical activity, warm water, and early sampling times result in low DO levels. Devils Canyon stations are typically sampled early (before sunlight has triggered photosynthesis) to avoid mid-day summer heat. With the exception of DCT6.6W (which receives some surface flow during wet periods) spring flow sampling stations generally show no temporal trends and little variation in DO levels.. DCT6.6W shows the same general trend of low levels during summer months and high levels during winter months.

E. Coli

Box and whisker plots of E. Coli levels by station in Devils Canyon indicate that mean E. Coli levels are highest at DC10.9C, a sampling station located in a cattle grazing area. E. Coli numbers are negligible at all stations below station DC8.8C and, interestingly, above station DC13.5C. No trends were noted in the time series plots for E. Coli, indicating a primarily spatial control on this constituent.

Queen Creek

The following is a brief geochemical assessment of Queen Creek.

Dissolved Copper

Box and whisker plots of dissolved Cu concentrations by station in Queen Creek do not show significant differences between springs. For the most part, Cu concentrations are consistent throughout the entire basin. The one notable exception to this is Bored Spring, which was the only spring to exceed the Cu standard for the Aquatic and Wildlife warm water (acute and chronic) designated uses. While the geology and degree of development at Bored Spring differs from other springs in the area, the differences are not considered significant, and there is no obvious reason for the difference in distribution between station Cu levels and Cu levels throughout the rest of the basin.

Time series graphs of dissolved Cu concentrations for Queen Creek stations show no discernible trends, in agreement with the corresponding box and whisker plots (Appendix D).

Dissolved Oxygen

Box and whisker plots indicate considerably more variation in DO levels between springs in the Queen Creek basin relative to Devils Canyon, but these differences do not correlate to any particular differences in physical or geologic characteristics between springs. In sum, the Queen Creek basin box and whisker plots do not suggest a spatial control on this parameter.

Time series plots of DO concentrations in Queen Creek infer some difference between levels measured during sampling events in warmer months and those in winter and spring. Springs in the Queen Creek basin show no appreciable response to precipitation and they do not flood in response to high winter flows, so aeration due to turbulence and inputs of fresh water recently in equilibrium with the atmosphere are not plausible explanations for higher DO levels. As in Devils Canyon, Queen Creek basin stations are typically sampled early in the morning during the warmer months (before sunlight has triggered photosynthesis) to avoid mid-day summer heat. The relationship between sampling times and the diurnal fluctuation in photosynthesis/respiration are possible explanations for these differences.

E. Coli

The box and whisker plots indicate that mean E. Coli levels are highest at Hidden Springs, the sampling station with the highest visible animal activity (javelina wallows and javelina sign). This suggests that animal waste may cause elevated E. Coli levels at this location. The lowest mean E. Coli levels are from Bored Spring. This suggests that the elevated cattle trough encasing this spring (no grazing was noted during the program) may not allow for animal fecal matter to have an impact on water quality, probably because no surface water or animal bathing (besides birds) occurs at this location. No trends were noted in the time series plots for E. Coli.

4.3.2 Data Sonde Results

The data sondes provide continuous hourly readings at five stations in Devils Canyon and at the largest spring in Devils Canyon upstream of the Crater Tanks” These continuous data reveal trends that cannot be determined from discrete measurements of field parameters during quarterly sampling events (including the presence or absence of water). Trends detected in the continuous sonde data include, but are not limited to, diurnal fluctuations, responses to precipitation, and responses to dry periods between precipitation. To more accurately reflect variations in dissolved constituents, and to allow for easier comparison between sondes, conductivity measurements were corrected for temperature (converted to specific conductivity). Monthly graphs are included in Appendix F. A summary of the period of record, active sensors, and background pressure adjustments is included in Table 12.

Temperature effects on the sonde electronics may have a significant impact on final readings. Unraveling the influence of temperature is difficult because the diurnal signals of biochemical activity and evapotranspiration follow approximately the same frequency as changes in temperature. Consequently, it becomes difficult to discern whether or not the diurnal changes are a result of temperature fluctuations, or are truly due to changes in physical and chemical conditions. The sonde manufacturer claims the sondes are corrected for drift in temperature. However, given the hot conditions the sondes are exposed to, it is possible that the temperature compensation is not adequate for their application in Devils Canyon. Mineral and biological fouling of the sensors may also result in inaccurate data by affecting the accuracy of the pH and conductivity measurements. The amount of fouling at each station is dependent upon site-specific water quality. Interpretations for each station (summarized in order from upstream stations to downstream stations - Appendix F) assume that sonde readings are not affected by temperature or sensor fouling.

General Data Sonde Observations and Interpretations

Table 12 summarizes graphically inspected data collected by the sondes.

Diurnal Fluctuations

Diurnal fluctuations in pH, SC, and depth were observed at all stations. Diurnal fluctuations in pH and SC were interpreted as being a result of biochemical activity (i.e., photosynthesis and microbial respiration). Biochemical activity changes the partial pressure of carbon dioxide (P_{CO_2}), which affects the carbonic acid concentration (H_2CO_3). The result is fluctuating pH and SC. High pH and low SC were typically observed around 2:00 PM, consistent with high sunlight conditions and corresponding high photosynthetic activity. Water depths were typically at a minimum during the warmest part of the day, suggesting evapotranspiration was controlling the depth fluctuations.

Diurnal seasonal trends in pH, SC, and depth indicate that summer months have larger fluctuations than winter months. This trend indicates that increasing sunlight and temperatures result in increased diurnal fluctuations, which is consistent with anticipated results.

Effects of Flow Regimes on Diurnal Fluctuations

Flow regimes greatly affect diurnal fluctuations. Station DC8.2W is dominated by spring flow and exhibited the smallest diurnal fluctuations in pH, SC, and depth observed in the canyon. This trend indicates that water leaving the spring has a short contact period with biological media, hence limiting diurnal pH, SC, and water depth fluctuations.

Flow regimes dominated by runoff had the largest diurnal fluctuations in SC and moderate depth diurnal fluctuation. The large diurnal fluctuations in SC may indicate that the low flow to near-stagnant conditions at these stations (DC13.5C and DC10.9C) allow extended contact with biological media, resulting in large diurnal swings in SC. This is not the case at spring flow stations like DC8.2W. In comparison to mixed flow stations, moderate diurnal fluctuations in depth at runoff flow stations are likely due to less plant transpiration as a result of reduced riparian vegetation.

Mixed flow stations (DC8.8C, DC7.1C, and DC5.5C) had the largest diurnal depth fluctuations, intermediate SC fluctuations, and pH fluctuations greater than spring flow stations. Large depth variations are interpreted to result from the abundant transpiration of the thick riparian vegetation associated with these stations. The pH is elevated relative to the spring flow station (the only other flow regime monitored) due to greater contact time with biochemically active media.

Drought and Flood Effects

Periods of drought result in elevated SC at all locations due to evapoconcentration of dissolved constituents. This trend is especially evident at stations dominated by runoff flow. At these stations, the SC steadily climbs until the station reaches a minimum water depth or goes dry. At mixed flow stations, the drought conditions result in a steady increase in SC until surface water inputs have ceased and the SC reflects the typically higher SC groundwater. In addition to elevated SC, mixed flow stations with pH sensors indicate that pH increases during drought cycles. This is likely due to evapoconcentration and a corresponding increase in alkalinity.

There are three primary responses to floodflows. These include:

- First Flushes – Elevated SC and pH when floodflows are proceeded by drought/low runoff conditions,
- Continued Flooding – Decreased SC and pH when floodflows are proceeded by wet conditions/high flows, and
- Diminished Diurnal Fluctuations – decrease in pH and SC diurnal fluctuations during all high flow events.

Responses to first flushes are evident at all sonde stations (regardless of flow regime). The elevated SC during these events are likely due to pulses of either organic acids (i.e., tree tannins) or dissolved mineral salts. The elevated pH noted during first-flush events would suggest that dissolved mineral salts (which may increase alkalinity) are the primary contributor to elevated SC. If organic acids were the primary contributor, the pH would likely decrease.

Continued surface runoff events result in decreased SC and pH at all sonde stations (with the exception of DC8.2W, which is typically not exposed to surface water runoff). Once the basin has been flushed of soluble surface/near-surface constituents, surface runoff becomes dominated by the pH and SC of rainwater, which is comparatively low.

Typically, during high-flow events, diurnal fluctuations in SC and pH are diminished. This suggests that pH and SC changes induced by biochemical demand are diluted/masked by high flows.

Data Ranges (Sonde Versus Instantaneous Field Measurements)

Ranges in sonde measurements were compared to ranges in instantaneous field measurements (i.e., pH and SC) to assess the degree at which the water quality samples were representative of the range of conditions at the individual sonde stations. All instantaneous field parameter measurements were within the range of observed sonde measurements with the exception of one high SC reading taken at sampling station DC5.5C. This reading of 2,061 microSiemens per centimeter was approximately 3 times greater than the highest concentration recorded by the data sonde and was considered an outlier. Instantaneous measurements of SC indicate that the high SC measurements associated with first-flush events recorded by the sondes were not sampled.

4.3.3 Devils Canyon Conceptual Model

The following is a conceptual model of the Devils Canyon surface water hydrology. This section is organized into the following sections:

- Precipitation/Evaporation,
- Occurrence,
- Discharge, and
- Water Quality.

Precipitation/Evaporation

Long-term precipitation records (85 years) collected at the West Plant Site indicate an average annual precipitation of approximately 18 inches (Figure 13). Extreme precipitation years occurred in 1979 and 1992 when rainfall amounts exceeded 35 inches. The last 10 years have been a drought cycle, with 9 out of 10 years having below-average precipitation. In 2002, when the surface water inventories were initiated, the lowest annual precipitation over the period of record of approximately 5 inches was recorded. This was approximately twice as dry as the next driest year in the 85-year period of record. Consequently, the baseline resource study has been conducted during the most significant drought cycle on record.

Hourly precipitation and evaporation data were collected at weather station KC-1, located at Shaft No. 9, near the Oak Flat Forest Service campground (Figure 14). These data are useful when reviewing the seasonal/temporal distribution of flowing reaches in Devils Canyon. As anticipated, these data, when coupled with cumulative flowing reach data (Table 4) and the Devils Canyon Channel Profile (Figure 10), indicate a strong correlation between high evaporation rates and low rainfall with decreased occurrences of flowing reaches. And, in contrast, high precipitation rates with low evaporation rates strongly correlate with increase occurrences of flowing reaches.

Occurrence

The majority of Devils Canyon has intermittent flow conditions. Two perennial reaches of significant length exist. The uppermost and longest reach starts immediately below the confluence with Rancho Rio Canyon and continues for approximately 1.6 km (Figure 10). The second perennial reach starts at springs located at the base of the Crater Tanks waterfalls area and extends approximately 0.7 km down to the confluence of the largest side canyon coming from the east. Three additional small perennial reaches associated with springs DC5.0E, DC4.1E, and DC3.7E are located below the 0.7 km reach (immediately below the Crater Tanks). These reaches are approximately 50 to 100 m each (approximately 200 m of additional perennial reaches).

Although the cumulative perennial flowing reaches between stations 14.70 (US60 bridge) and 6.14 (top of first Crater Tanks waterfalls) is 1.6 km (the uppermost reach is in this section), the minimum cumulative flowing reach calculated from 10 surface water inventories was 2.72 km. This indicates that though some reaches are always flowing (perennial), other intermittent reaches always exist but their locations move around. The locations of these intermittent reaches are likely due to responses to uneven precipitation patterns within the watershed.

Numerous springs and seeps occur along a 5.5-km reach of Devils Canyon from the confluence with Rancho Rio Canyon to approximately 2.4 km downstream from the Crater Tanks. The springs emanate along the banks of Devils Canyon or within side canyons near the confluence with Devils Canyon. Maximum observed flows range from 12 to less than 1 gpm. Above the Crater Tanks, all substantial springs emanate from the west bank of the canyon. Below the Crater Tanks, all substantial springs emanate from the east bank of the canyon. These relations suggest that the recharge zone for the springs above the Crater Tanks is from the uplands on the west side of the canyon, and the recharge zone for the springs below the Crater Tanks is from the uplands on the east side of the canyon.

The largest concentration of springs occurs above Crater Tanks between Rancho Rio Canyon and Oak Creek. Locations of these springs appear to be largely controlled by geologic structures within the Apache Leap Tuff. Below the Crater Tanks, the presence of several springs and a flowing stream reach starting at the base of the Crater Tanks is believed to be due to outcropping of the poorly permeable Whitetail Conglomerate beneath the tuff in this area. These springs emanate from a devitrified megaspheroid zone (“the bowling ball unit”) that occurs above a vitrophyre obsidian unit near the base of the Apache Leap Tuff. Several hanging-garden springs located along the lower sections of the canyon (DC4.1E and DC3.7E) emanate from a series of sub-parallel fractures/joints in the Apache Leap Tuff. Flow from these springs is believed to result from recharge of these fractures/joints by periodic surface flow in Rawhide Canyon, which is perched approximately 500 feet above Devils Canyon to the east.

Discharge

Discharge was highest during the months of January, February, and March, with creek stages recorded as large as 145 inches during flood events. Floodflow calculations indicated that a 10-foot stage at station DC7.1C has a flow rate of 1,650 cubic feet per second and a return period of 5 to 10 years (Golder, 2003b). Minimum flows occur before the summer rains (typically July and August). The summer rains typically produce moderate high flows of short duration. Intermediate flows typically occur between the wet and dry seasons (i.e., May/June and October/November). Baseflow during the dry periods in the perennial reach are approximately 10 to 20 gpm.

Water Quality

Water quality from the intermittent reach sampling stations (runoff flow) was significantly different than baseflow water quality from perennial reaches (mixed flow) or spring flow sampling stations.

Water quality classifications based on the major anion and cation normalities from the first two sampling events (May and August 2003) indicate that there are two general water types supplying surface flow to Devils Canyon. These include:

- calcium sodium bicarbonate water (stations supplied by baseflow/spring flow [DC8.8C, DC8.2W, DC7.1C, and DCT6.6W, and DC4.1E]); and
- mixed waters (approximately equal major anion and cation normalities) – stations supplied by surface or near-surface flow include stations DC10.9C and DC13.5C.

A Tri-linear Piper plot of water quality results from high- and low-flow sampling events (February 2005 and November 2004, respectively) and deep and shallow Apache Leap Tuff groundwater samples (from Wells HRES-2, 3, 4 and 5) was plotted to graphically represent water types and mixing relationships (Figure 11).

Deep groundwater from the Apache Leap formation plots distinctly, as a sodium-bicarbonate/ sodium-carbonate type. These deep groundwater points plot in contrast with those that represent shallow Apache Leap groundwater, a calcium-sodium-bicarbonate type, suggesting that the two represent different systems and are not hydraulically connected.

Samples from those stations that experience perennial flow (mixed flow stations - predominantly calcium-sodium-bicarbonate types) are grouped with shallow groundwater samples, suggesting that flow in the perennial reaches of Devils Canyon is supplemented by shallow groundwater from the Apache Leap formation in drier times of the year.

Samples collected during periods of relatively higher surface flow plot closer to the sulfate apex of the diagram, indicating a higher sulfate input with increased contribution from runoff.

Constituents or water quality parameters with standards that were exceeded included:

- dissolved Cu,
- pH,
- DO, and
- E. Coli.

The dissolved Cu exceedances occur at the intermittent surface flow locations (runoff stations) upstream of the perennial reaches. Because of this spatial pattern, cu may be derived from surface or near-surface sources. Potential sources include airfall emissions or unidentified mineralized zones upstream of the sampling stations. Copper exceedances at the perennial flow stations only occur during high-flow sampling events and are thought to be a result of runoff from upstream of the perennial reaches.

The pH exceedances occur exclusively at the upper intermittent sampling stations. The low pH values reflect the lack of buffering provided by the low-solubility siliceous bedrock in the watershed. Consequently, the surface water at stations DC15.2C, DC13.5C, and DC10.9C retains a pH close to rainwater, which is less than allowed by standard.

The DO exceedances occurred throughout the canyon (with the exception of DC13.5C, DC7.1C, and DC4.1E). The low DO readings are likely a result of nutrient loading caused by the decomposition of algal blooms that deplete the oxygen level in water. Springs with DO exceedances likely have low DO because spring water is not in contact with the atmosphere long enough to become oxygenated.

The E. Coli exceedances occurred at two of the three upper intermittent sampling stations (DC13.5C and DC10.9C) and the upper perennial station (DC8.8C). Cattle grazing is believed to be the primary cause of the exceedances.

5.0 RECOMMENDATIONS

The surface water monitoring program, technical aspects, quality assurance/quality control (QA/QC) measures, and training activities need to be adjusted as the program evolves. Overall program recommendations with respect to the upcoming pre-feasibility study are discussed in Section 5.1. Detailed recommendations for continuing the existing program are presented in Sections 5.2 through 5.4 with respect to data collection, data management, and additional data reduction.

5.1 Program-level Recommendations

Golder understands that RCC will soon fix at least two mine concepts for the pre-feasibility study: a brownfields concept and a greenfields concept. The brownfields concept is likely to include the mill at the Pinto Valley Mine and tailings disposal at the open pit and perhaps a nearby basin (e.g., Ruin Basin). The greenfields concept is likely to include the mill at the West Plant Site with tailings disposal in a nearby basin (e.g., Silver King/Whitford Basin). Furthermore, we understand that the new water treatment plant at the West Plant Site will discharge to Queen Creek in the near future.

Golder recommends that baseline surface water characterization be conducted in any new basins used in the mine concepts in the pre-feasibility study. We suggest the characterization be similar to that for Devils Canyon and include inventories for occurrence, flow measurements, and water quality sampling. The deployment of data sondes could be coupled with inventories as in Devils Canyon to assess the flow regimes. Because a minimum of four quarters of sampling are required to establish baseline conditions, it is recommended that the studies begin soon.

Depending on discharge scheduling for the new treatment plant, it may be possible to collect valuable baseline data that will aid in classifying the surface flow regime (i.e., ephemeral, intermittent, or perennial), and performing comprehensive water quality sampling to identify surface water quality exceedances.

Because Devils Canyon has been comprehensively monitored during a long drought cycle, additional monitoring could be postponed until a wet cycle occurs. This would make Devils Canyon monitoring resources available for re-deployment (i.e., data sondes and effort required for monitoring) to lower Queen Creek (for the new treatment plant), or potential tailings impoundment basins (i.e., Pinto Creek or Silver King/Whitford Basin).

5.2 Detailed Recommendations for Data Collection in the Existing Program

Recommendations for the data collection are organized as follows:

- geographic scope,
- sampling frequency (including flood flow sampling),
- changes in analytical suite,
- discharge measurements,
- system maintenance,
- training, and
- audits.

5.2.1 Devils Canyon

The following summarizes data collection recommendations for the Devils Canyon watershed.

Geographic Scope

The geographic scope of the Devils Canyon monitoring program is considered appropriate and should not be changed.

Monitoring Frequency

The monitoring frequency for sampling can be reduced from quarterly to semi-annual frequency. A typical baseline investigation for an Environmental Impact Statement (EIS) requires four quarters of monitoring; consequently sufficient data exist for completing an EIS. However, because of the unique aesthetic quality (and potential biological significance) of Devils Canyon, and consequent likely scrutinizing of data collection efforts, continued monitoring is recommended, albeit at a lower frequency and intensity. Semi-annual sampling events are recommended to be performed during February and August (current sampling months), with the May and November samplings being discontinued. High flows have typically occurred during February or March, while low flows occur before major summer rain events. Consequently, the best range of flows (and the largest variations in water quality) using a semi-annual sampling frequency will occur during the selected months of February and August. In addition to the semi-annual sampling schedule, floodflow sampling of initial summer flush events at the US60 bridge should be performed to assess the high total dissolved solids water events associated with the first-flush events.

Surface water inventory events are recommended to be discontinued. We feel that sufficient data exist for the classification of intermittent and perennial reaches.

The data sondes should remain in operation. Besides the hourly field parameter and stage data, they provide valuable data regarding the presence or absence of flow. Maintenance and calibration should be performed during the semi-annual sampling events.

Analytical Suite

We recommend that the list of constituents be reduced. The new list of monitored constituents will include:

- Cu - for continued monitoring of potential exceedances;
- major ions Ca, Mg, Na, K, Cl, SO_4, HCO_3 (for quality control); and major oxide/hydroxide formers Fe, Mn, and Al – (for transport assessment);
- physical properties (alkalinity and hardness) – for calculation of hardness-dependent standards; and
- field parameters, including pH, DO, turbidity, and SC – for continued monitoring of potential exceedances, basic water quality profiling, and comparison to data sonde results.

Copper analysis will include total and dissolved fractions. A lower practical quantitation limit (PQL) should be requested for cu to ensure adequacy for comparison to standards. In addition to the aforementioned constituent list, the constituents with PQLs that are insufficient for comparison to standards (Table 10) should be analyzed for 1 year (i.e., two semi-annual sampling events) to perform an adequate comparison to standards. These constituents include Pb, Hg, Se, and sulfide.

Discharge Measurements

Discharge measurements should be collected during sampling events as previously performed. However, intermediate- to high-flow discharge measurements need to be obtained to adequately build a rating curve. Consequently, discharge-specific trips are recommended to obtain this data. Winter and spring time flows are likely the best time to get this data due to the extended moderate flows that occur during this time of the year.

System Maintenance

We recommend that all the pH and conductivity sensors on the data sondes be replaced as needed. Steel strapping used to affix the sondes to the channel has been damaged at several locations and requires repair before the sondes are lost to flood (i.e., DC5.5C and DC7.1C). We recommend removing the flume and sonde located at sampling station DC8.2W due to the lack of water flowing through the system (e.g., water rerouted around flume in such away that it cannot be routed back through the flume).

Training

Data sonde operation needs to be clearly explained and reviewed with RCC staff to ensure proper calibration and maintenance. In addition, pygmy meter (used for discharge measurements) training may be required for new RCC staff.

Audit

Audits should be performed at an annual frequency to ensure proper and consistent field methodologies.

5.2.2 Queen Creek/Apache Leap

The following summarizes data collection recommendations for the Queen Creek watershed (including the Apache Leap).

Geographic Scope

The geographic scope of upper Queen Creek (Pump Station Spring down to Concentrator Fault) and Apache Leap Area monitoring program is considered appropriate and should not be changed. Additional sampling stations are recommended along lower Queen Creek to characterize baseline conditions prior to, and after, the new water treatment plant goes on line. A reconnaissance trip of lower Queen Creek should be performed to establish the new station locations.

Monitoring Frequency

The monitoring frequency for sampling can be reduced from quarterly to semi-annual. The semi-annual sampling events are recommended to be performed during February and August (current sampling months), with the May and November samplings being discontinued. This is consistent with the Devils Canyon schedule. In addition to the semi-annual sampling schedule, floodflow sampling of initial summer flush events are recommended as at Devils Canyon. Preliminary locations of sample collection points would include the upper US60 bridge (near the Oak Flat Campground turn-off), immediately above the Town of Superior, and below the effluent-dependent reach (potentially at the US60 bridge below the Boyce Thompson Arboretum).

Surface water inventory events are recommended to be continued on a semi-annual schedule (March and September) along upper Queen Creek and on a quarterly schedule (March, June, September, and December) from the West Plant Site water treatment plant down to the Whitlow Ranch Flood Retention Basin. The higher frequency along lower Queen Creek is designed to provide a comprehensive profile of the drainage conditions before and after the water treatment plant begins operations.

Analytical Suite

For newly established sampling stations along lower Queen Creek, we recommend that the list of monitored constituents remains the same (with the exception of the elimination of total recoverable metals constituents). The total fraction can be substituted for the total recoverable because the total analysis uses a more vigorous digestion, and is therefore a conservative estimate of the total recoverable concentrations.

We recommend that the list of monitored constituents be greatly reduced for pre-existing stations. The new list of monitored constituents will include:

- Cu and Se - for continued monitoring of potential exceedances;
- major ions Ca, Mg, Na, K, Cl, SO_4, HCO_3 (for quality control); and major oxide/hydroxide formers Fe, Mn, and Al – (for transport assessment);
- physical properties (alkalinity and hardness) – for calculation of hardness dependent standards; and
- field parameters, including pH, DO, turbidity, and SC – for continued monitoring of potential exceedances, basic water quality profiling, and comparison to data sonde results.

Copper analysis will include total and dissolved fractions. Selenium analysis will include the total fraction. A PQL should be requested for copper to ensure adequacy for comparison to standards. In addition to the aforementioned constituent list, the constituents with PQLs that are insufficient for comparison to standards (Table 11) should be analyzed for 1 year (i.e., two semi-annual sampling events) to perform an adequate comparison to standards. These constituents include: Pb, Hg, and sulfide.

Discharge Measurements

Discharge measurements should be collected during sampling events as previously performed.

System Maintenance

There are no maintenance issues because no data sondes are operating in the Queen Creek watershed.

Training

As with Devils Canyon, pygmy meter (used for discharge measurements) training may be required for new RCC staff.

Audit

Audits should be performed at an annual frequency to ensure proper and consistent field methodologies.

5.3 Detailed Recommendations for Data Management in the Existing Program

Recommendations for data management are organized as follows:

- completeness checks,
- verification/validation,
- QA/QC,
- database, and
- GIS projects.

We recommend that a strict protocol of data management procedures is followed to ensure easily accessible and accurate data. To do this, we recommend data completeness checks be performed following the receipt of data (in 2003, RCC staff was trained by Golder staff to perform this function). In addition, all data must be verified as described in the QAP (Golder, 2006). Validation of one sample delivery group from each sampling event must be performed (Golder, 2006). The lab needs to be informed that EPA Level 3 reporting must be performed to allow for proper data validation (Golder, 2006).

The surface water inventory data should be compiled into one interactive GIS project to allow for easy access to data and for analysis.

We strongly recommend that all data collected is uploaded into a database. A system of unique identifiers for surface water sampling has already been established and should be continued. The unique identifiers should aid in creating the database.

5.4 Detailed Recommendations for Additional Work in the Existing Program

Recommendations for additional data reduction are organized as follows:

- watershed characterization (i.e., size, slope, etc.);
- floodflow estimates;
- documenting cause of rock staining; and
- conditions leading to Cu exceedances.

5.4.1 Watershed Characterization

The watershed size of basins, sub-basins, and areas above sampling stations should be calculated. In addition, channel gradients should be calculated. These are basic watershed characteristics that are included in all EIS type documents.

5.4.2 Floodflow Estimates

Understanding the magnitude and frequency of floodflows is relevant to understanding both ecological and geochemical processes in Devils Canyon. With respect to ecology, recruitment of trees in Devils Canyon and the resultant age stratification of some species are related to flood frequency and magnitude. With respect to geochemistry, assessing dissolved and suspended constituent flux (based on discharge and concentration) through the canyon is relevant to loading calculations. Estimates of floodflows can be made using three methods;

- HEC-RAS (U.S. Army Corps of Engineers [USACE], 2005) – direct method using water levels from transducers (station DC7.1C) to back-calculate the discharge, as described in the 2003 technical memorandum (Golder, 2003b).
- HEC-HMS (USACE, 2003) – indirect methods using hydrologic data such as curve numbers, time of concentration, basin area, and precipitation.
- USGS Regional Curves – indirect method estimates of discharge based on basin area, elevation, location, and design storm.

5.4.3 Document Staining on Rocks

Many of the rocks in the drainages studied have a dark surface discoloration. This is typically due to manganese oxides; however, the presence of this discoloration could be misinterpreted as impacts from RCC. A simple study documenting the presence of the stained rocks and analysis of the stains (potentially micro-probe) to verify their chemical make-up may help protect RCC from frivolous claims.

5.4.4 Conditions Leading to Copper Exceedances

Factors contributing to exceedances in Cu should be evaluated. A review of available information and a small sampling event could help identify the cause of Cu exceedances. Studies are currently underway by others (Geochemica) to assess the leachability of Cu from Apache Leap Tuff samples. In addition, existing metals data from PM10 filters from the Shaft No. 9 meteorological station may provide insight on airborne Cu. If Cu is shown to leach from the Apache Leap Tuff, the source could be natural background. If the Cu concentrations are elevated on the PM10 filters, airfall Cu from adjacent smelter activity, or tailings dust from adjacent facilities, could be responsible for the exceedances. If Cu concentrations are elevated on the PM10 filters, a sampling event that targets runoff captured in water pockets on the Apache Leap Tuff may provide supporting data. Such an assessment with existing information and limited sampling of waterpockets would be relatively inexpensive.

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TABLE 1
SURFACE WATER SAMPLING AND DATA SONDE STATIONS

Drainage/Area	Station ID/ Name	UTMx	UTMy	Approximate Elevation From Topographic Map (ft amsl)	Type	Location	On/Off Channel	Sonde (yes/no)	If Yes, Type Sensors	Geologic Unit	Designated Uses
Devils Canyon	DC15.2C	497,069	3,687,707	4,040	Reach	channel	on	no	na	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC13.5C	496,860	3,686,136	3,900	Reach	channel	on	yes	depth, conductivity, and temperature	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC10.9C	497,011	3,683,735	3,730	Reach	channel	on	yes	depth, conductivity, and temperature	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC8.8C	497,444	3,681,778	3,580	Reach	channel	on	yes	depth, conductivity, pH, and temperature	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC8.2W	497,540	3,681,190	3,540	Spring	~ 1 meter above main channel on west bank	off	yes	depth, conductivity, pH, and temperature	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC7.1C	497,932	3,680,306	3,390	Reach	channel	on	yes	depth, conductivity, pH, turbidity, temperature, and two additional depth probes ~ 15 and 30 meters downstream of sonde	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DCT6.6W	497,458	3,679,879	3,520	Spring	~ 200 meters above Main Stem of Devils Canyon	off	no	na	Whitetail Conglomerate	A&Ww, FBC, and FC
	DC6.1E	498,130	3,679,540	3,160	Spring	Hanging Garden emanating from Apache Leap	off	no	na	Apache Leap Tuff - top of vitrophyre - devitrified spheroids	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC5.5C	498,290	3,679,170	2,960	Reach	channel	on	yes	depth, conductivity, pH, and temperature	Whitetail Conglomerate	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
	DC4.1E	499,273	3,678,440	2,720	Spring	Hanging Garden emanating from Apache Leap	off	no	na	Apache Leap Tuff	FC, FBC, AgL, Acute A&Ww, and Chronic A&Ww
Apache Leap/Queen Creek	Hidden	491,312	3,679,413	3,040	Spring	Below Apache Leap	off	no	na	Limestone	A&Ww, FBC, and FC
	Kane	493,099	3,678,202	3,160	Spring	Below Apache Leap	off	no	na	Limestone	A&Ww, FBC, and FC
	Blue Springs	491,980	3,676,333	2,950	Spring	Arnett Creek Channel	on	no	na	Silicous Volcanics	A&Ww, FBC, and FC
	Bored	491,192	3,680,961	2,880	Spring	Small drainage immediately east of AZ highway 177	off	no	na	Limestones with diabase sills/dikes	A&Ww, FBC, and FC
Queen Creek	Pump Station	494,104	3,688,819	4,390	Spring	channel	on	no	na	Apache Leap Tuff	A&We, PBC, and AgL
	Upper QC (QC27.3C)	494,970	3,686,239	3,950	Reach	intermittent channel	on	no	na	Apache Leap Tuff	A&We, PBC, and AgL
	Boulder Hole	492,297	3,684,549	3,060	Seep	channel	on	no	na	Apache Leap Tuff	A&We, PBC, and AgL
	Karst Spring (QC22.6E)	491,722	3,684,033	2,940	Spring	Solution void in limestone on east bank of creek (~3 meters from channel) - immediately upstream of old highway bridge	off	no	na	Limestone	A&We, PBC, and AgL

Notes:
ft amsl = feet above mean sea level
FC = fish consumption
FBC = full-body contact
PBC = partial body contact
AgL = Agriculture Livestock watering
A&Ww = Aquatic and Wildlife (warm water)
A&We = Aquatic and Wildlife (ephemeral)

TABLE 2
ANALYTICAL SUITE
SHORT HOLD ANALYTES, PRACTICAL QUANTITATION LIMITS, AND CONTAINERIZATION AND PRESERVATION REQUIREMENTS

Name	Symbol	Type	Lab	Volume - Container Type	Preservative	Filtered (Y/N)	Hold Time (days)	Method	Practical Quantitation Limit (in mg/L except where otherwise indicated)
Bottle # 1									
Nitrite (as N)	NO_2--N	T	Del Mar	500 ml - HDPE	---	N	2	EPA 300.0 IC	0.1
Nitrate (as N)	NO_3--N	T	Del Mar	500 ml - HDPE	---	N	2	EPA 300.0 IC	0.1
Nitrate + Nitrite (as N)	NO_2-+NO_3--N	T	Del Mar	500 ml - HDPE	---	N	2	calculated	0.2
Orthophosphate	PO_4	T	Del Mar	500 ml - HDPE	---	N	2	EPA 300.0 IC	0.5
Color	---	---	Del Mar	500 ml - HDPE	---	N	2	SM2120, EPA 110.2	1.0 color units
Bottle # 2									
Coliform	---	T	Del Mar	125 ml - HDPE	sodium thiosulfate	N	6 hours	SM9223	Presence/Absence
Bottle #3									
E. Coli	---	T	Del Mar	125 ml - HDPE	sodium thiosulfate	N	6 hours	SM9223	Presence/Absence
Long List Analytes Discontinued After May 2004									
Asbestos	---	T	Fiber Quant	1L - HDPE	---	N	2	EPA 100.0 TEM	N/A

Notes:
T = total
TR = total recoverable
D = dissolved
HDPE = high density polyethylene
TEM = transmission electron microscope
L = liter
ml = milliliter
N/A = not applicable
mg/L = milligrams per liter
EPA = U.S. Environmental Protection Agency

TABLE 3
ANALYTICAL SUITE
LONG HOLD ANALYTES, PRACTICAL QUANTITATION LIMITS, AND CONTAINERIZATION AND PRESERVATION REQUIREMENTS

Name	Symbol	Type	Lab	Volume - Container Type	Preservative	Filtration (Y/N)	Holding Time (days)	Method	Practical Quantitation Limit (mg/L)
Bottle #4									
Aluminum	Al	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.03
Antimony	Sb	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 208.0 ICP-MS	0.003
Arsenic	As	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 208.0 ICP-MS	0.003
Beryllium	Be	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.002
Boron	B	T	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7 ICP-AES	0.04
Cadmium	Cd	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 213.2 GF	0.0001
								EPA 208.0 ICP-MS	0.0002
Chromium (total)	Cr	TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.006
Cobalt	Co	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.006
Copper	Cu	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.01
Iron	Fe	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.06
Lead	Pb	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7	0.0075
								EPA 208.0 ICP-MS	0.003
Manganese	Mn	TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.004
Mercury	Hg	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 245.1 CVAAS	0.0002
Molybdenum	Mo	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.008
Nickel	Ni	TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.01
Selenium	Se	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 208.0 ICP-MS	0.003
Silver	Ag	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 272.2 GF	0.0001
Thallium	Tl	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 208.0 ICP-MS	0.002
Zinc	Zn	T, TR	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.01
Silica	SiO_2	T	SVL	500 ml - HDPE	H_2NO_3	N	180	EPA 200.7 ICP-AES	0.171
Bottle #5									
Antimony	Sb	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 208.0 ICP-MS	0.003
Arsenic	As	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 208.0 ICP-MS	0.003
Barium	Ba	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7 ICP-AES	0.002
Beryllium	Be	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7 ICP-AES	0.002
Cadmium	Cd	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 213.2 GF	0.0001
								EPA 208.0 ICP-MS	0.0002
Chromium (total)	Cr	D	SVL	500 ml - HDPE	H_2NO_3	y	180	EPA 200.7 ICP-AES	0.006
Copper	Cu	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7 ICP-AES	0.01
Lead	Pb	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7	0.0075
								EPA 208.0 ICP-MS	0.003
Mercury	Hg	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 245.1 CVAAS	0.0002
Nickel	Ni	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7 ICP-AES	0.01
Silver	Ag	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 272.2 GF	0.0001
Thallium	Tl	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 208.0 ICP-MS	0.002
Zinc	Zn	D	SVL	500 ml - HDPE	H_2NO_3	Y	180	EPA 200.7 ICP-AES	0.01
Bottle # 6									
Chloride	Cl	T	SVL	1,000 ml - HDPE	---	---	28	EPA 300.0 IC	0.2
Sulfate	SO_4	T	SVL	1,000 ml - HDPE	---	---	28	EPA 300.0 IC	0.3
Carbonate	CO_3^{-2}	T	SVL	1,000 ml - HDPE	---	---	14	SM2320B	1
Bicarbonate	HCO_3-	T	SVL	1,000 ml - HDPE	---	---	14	SM2320B	1
Calcium	Ca	T	SVL	1,000 ml - HDPE	---	---	na	EPA 200.7 ICP-AES	0.04
Magnesium	Mg	T	SVL	1,000 ml - HDPE	---	---	na	EPA 200.7 ICP-AES	0.06
Potassium	K	T	SVL	1,000 ml - HDPE	---	---	na	EPA 200.7 ICP-AES	0.5
Sodium	Na	T	SVL	1,000 ml - HDPE	---	---	na	EPA 200.7 ICP-AES	0.5
Alkalinity (total)	---	T	SVL	1,000 ml - HDPE	---	---	na	SM2320B	1
Hardness	---	T	SVL	1,000 ml - HDPE	---	---	na	EPA 200.7 ICP-AES	0.35
Total suspended solids	TSS	T	SVL	1,000 ml - HDPE	---	---	7	EPA 160.2 G	5
Fluoride	F	T	SVL	1,000 ml - HDPE	---	---	28	EPA 300.0 IC	0.1
Bromide	Br	T	SVL	1,000 ml - HDPE	---	---	28	EPA 300.0 IC	0.1
Total dissolved solids	TDS	D	SVL	1,000 ml - HDPE	---	---	7	EPA 160.1 G	10
Bottle # 7									
Sulfide	S	T	SVL	1000 ml - HDPE	Zinc Acetate and NaOH	N	7	EPA 376.1 Ti	1
Long List Analytes Discontinued After May 2004									
Cyanide (free)	CN	T	SVL	250 ml - HDPE	NaOH	N	14	SM4500F-CN	0.1
Cyanide (WAD)	CN	T	SVL	250 ml - HDPE	NaOH	N	14	SM4500I-CN	0.01
Gross alpha activity	---	T	ACZ	3,780 ml - HDPE	H_2NO_3	N	180	EPA SW 9310	N/A*
Gross beta activity	---	T	ACZ	3,780 ml - HDPE	H_2NO_3	N	180	EPA SW 9310	N/A*
Radium 226	---	T	ACZ	3,780 ml - HDPE	H_2NO_3	N	180	EPA SW 9315	N/A*
Radium 228	---	T	ACZ	3,780 ml - HDPE	H_2NO_3	N	180	EPA SW 9320	N/A*
Uranium	U	T	ACZ	3,780 ml - HDPE	H_2NO_3	N	180	EPA 200.8 (ICPMS)	0.001

Notes:
T = total
TR = total recoverable
D = dissolved
HDPE = high density polyethylene
G = gravimetric
ml = milliliters
N/A = not applicable
mg/L = milligrams per liter

ICPOES = inductively coupled plasma optical emissions spectrometer
ICPMS = inductively coupled plasma mass spectrometer
CVAA = cold vapor atomic adsorption
IC = ion chromatography
Ti = titration
EPA = U.S. Environmental Protection Agency

*radiochemistry lower limits of detection are sample specific

TABLE 4
CUMULATIVE REACH LENGTHS FOR SURVEYED REACHES

Survey	Cumulative Reach Lengths (km)			
	Devils Canyon [a]	Queen Creek [b]	Arnett Creek	Telegraph Canyon
November-02	4.06	0.03	0.46	0.73
June-03	5.26	0.03	0.78	0.35
September-03	4.46	0.03	0.23	0.39
March-04	8.56	4.87	4.15	1.05
June-04	2.72	0.10	---	---
September-04	3.13	0.04	---	---
December-04	4.13	0.17	---	---
March-05	8.56	8.92	---	---
June-05	3.55	1.06	---	---
September-05	4.00	0.30	---	---

Notes:
--- denotes not surveyed
[a]Between stations 14.70 and 6.14
[b]Between stations 30.72 and 21.80

TABLE 5A
DEVILS CANYON DISCHARGE DATA

Sample No..	Sample Date	Flow Rate (gpm)	Flow Rate (L/s)	Flow Rate (cfs)	Flow Method
DC4.1E					
RESE-1001007	21-May-03	none taken	none taken	none taken	N/A
RESE-1001019	26-Aug-03	none taken	none taken	none taken	N/A
RESE-1001040	11-Nov-03	none taken	none taken	none taken	N/A
RESE-1001058	10-Feb-04	1.50	0.09	0.00	observe/estimate
DC5.5C					
RESE-1001039	10-Nov-03	21.60	1.36	0.05	cutthroat flume
RESE-1001067	25-Feb-04	507.14	32.00	1.13	pygmy meter
RESE-1001076	20-May-04	11.3	0.71	0.03	cutthroat flume
RESE-1001158	23-Aug-04	9.00	0.57	0.02	cutthroat flume
RESE-1001176	18-Nov-04	60.80	3.84	0.14	cutthroat flume
RESE-1001198	28-Feb-05	10492.94	662.10	23.38	pygmy meter
RESE-1001216	24-May-05	17.60	1.11	0.04	cutthroat flume
RESE-1001229	23-Aug-05	39.70	2.51	0.09	cutthroat flume
DC6.1E					
RESE-1001077	20-May-04	2	0.13	0.00	observe/estimate
RESE-1001159	23-Aug-04	0.80	0.05	0.00	bucket/stopwatch
RESE-1001177	18-Nov-04	2.00	0.13	0.00	observe/estimate
RESE-1001199	28-Feb-05	none taken	none taken	none taken	observe
RESE-1001217	24-May-05	0.50	0.03	0.00	observe/estimate
RESE-1001231	23-Aug-05	none taken	none taken	none taken	N/A
DC T6.6W					
RESE-1001010	29-May-03	0.50	0.03	0.00	NR
RESE-1001033	04-Nov-03	1.50	0.09	0.00	observe/estimate
RESE-1001064	18-Feb-04	0.96	0.06	0.00	bucket/stopwatch
RESE-1001074	05-May-04	0.5	0.03	0.00	observe/estimate
RESE-1001155	19-Aug-04	0.30	0.02	0.00	bucket/stopwatch
RESE-1001022	03-Sep-04	0.50	0.03	0.00	NR
RESE-1001170	12-Nov-04	0.69	0.04	0.00	bottle/stopwatch
RESE-1001192	16-Feb-05	32.50	2.05	0.07	cutthroat flume
RESE-1001214	17-May-05	0.50	0.03	0.00	observe/estimate
RESE-1001232	07-Sep-05	none taken	none taken	none taken	N/A
DC7.1C					
RESE-1001009	29-May-03	3.80	1.45	0.01	cutthroat flume
RESE-1001034	04-Nov-03	15.00	0.95	0.03	cutthroat flume
RESE-1001065	18-Feb-04	95.40	6.02	0.21	cutthroat flume, pre-calibration
RESE-1001075	05-May-04	30.2	1.91	0.07	cutthroat flume
RESE-1001156	19-Aug-04	30.80	1.94	0.07	cutthroat flume, pre-calibration
RESE-1001171	12-Nov-04	47.60	3.00	0.11	cutthroat flume
RESE-1001193	16-Feb-05	30311.95	1912.68	67.54	pygmy meter
RESE-1001215	17-May-05	10.90	0.69	0.02	cutthroat flume
RESE-1001232	07-Sep-05	3.06	0.19	0.01	cutthroat flume
DC8.2W					
RESE-1001006	20-May-03	10.90	0.69	0.02	cutthroat flume
RESE-1001017	21-Aug-03	10.90	0.69	0.02	NR
RESE-1001044	12-Nov-03	8.12	0.51	0.02	cutthroat flume
RESE-1001063	17-Feb-04	10.90	0.69	0.02	cutthroat flume
RESE-1001079	21-May-04	11.9	0.75	0.03	cutthroat flume
RESE-1001152	16-Aug-04	9.00	0.57	0.02	cutthroat flume
RESE-1001175	16-Nov-04	2.24	0.14	0.00	cutthroat flume-estimate, pre-calibration
RESE-1001196	25-Feb-05	3.00	0.19	0.01	observe/estimate
RESE-1001212	11-May-05	10.00	0.63	0.02	observe/estimate
RESE-1001227	16-Aug-05	1.00	0.06	0.002	observe/estimate
DC8.8C					
RESE-1001005	20-May-03	13.00	0.24	0.03	cutthroat flume
RESE-1001018	21-Aug-03	3.00	0.19	0.01	pre-calibration
RESE-1001042	12-Nov-03	24.50	1.55	0.05	cutthroat flume
RESE-1001062	17-Feb-04	83.90	5.29	0.19	cutthroat flume
Flow Measurement	6-Apr-04	3065.30	193.40	6.80	pygmy meter
RESE-1001078	21-May-04	13.4	0.85	0.03	cutthroat flume
RESE-1001151	16-Aug-04	5.06	0.32	0.01	cutthroat flume
RESE-1001174	16-Nov-04	17.00	1.07	0.04	cutthroat flume
RESE-1001197	25-Feb-05	33040.66	2084.87	73.62	pygmy meter
RESE-1001211	11-May-05	20.30	1.28	0.05	cutthroat flume
RESE-1001228	16-Aug-05	1.00	0.06	0.002	1 liter bottle
DC10.9C					
RESE-1001004	16-May-03	23.00	0.82	0.05	cutthroat flume
RESE-1001020	27-Aug-03	1.00	0.06	0.00	NR
RESE-1001036	05-Nov-03	17.60	1.11	0.04	cutthroat flume, pre-calibration
RESE-1001060	11-Feb-04	29.20	1.84	0.07	cutthroat flume
Flow Measurement	09-Mar-04	7912.34	499.27	17.63	pygmy meter
RESE-1001091	27-May-04	13.00	0.82	0.03	cutthroat flume
RESE-1001099	11-Aug-04	1.00	0.06	0.00	observe/estimate, pre-calibration
RESE-1001169	05-Nov-04	3.24	0.20	0.01	cutthroat flume
RESE-1001189	15-Feb-05	32192.42	2031.34	71.73	pygmy meter
RESE-1001208	11-May-05	15.20	0.96	0.03	cutthroat flume
RESE-1001225	10-Aug-05	35.00	2.21	0.08	observe/estimate
DC13.5C					
RESE-1001011	30-May-03	2.25	0.14	0.01	NR
RESE-1001021	27-Aug-03	0.30	0.02	0.00	pre-calibration
RESE-1001037	05-Nov-03	2.50	0.16	0.01	estimate
RESE-1001059	11-Feb-04	47.60	3.00	0.11	cutthroat flume
Flow Measurement	24-Mar-04	448.80	28.32	1.00	pygmy meter
Flow Measurement	06-Apr-04	2809.49	177.28	6.26	pygmy meter
RESE-1001086	26-May-04	2.72	0.17	0.01	cutthroat flume, pre-calibration
RESE-1001190	15-Feb-05	27120.98	1711.33	60.43	pygmy meter
RESE-1001209	11-May-05	5.76	0.36	0.01	cutthroat flume
RESE-1001226	10-Aug-05	none taken	none taken	none taken	N/A
RESE-1001191	15-Feb-05	none taken	none taken	none taken	observe
RESE-1001227	10-Aug-05	none taken	none taken	none taken	N/A
DC15.2C					
RESE-1001210	09-May-05	7.00	0.44	0.02	cutthroat flume
Hwy 60 Bridge					
RESE-1001069	05-Mar-04	rushing	N/A	N/A	observe
Flow Measurement	09-Mar-04	6556.97	413.74	14.61	pygmy meter

Notes:
N/A denotes "not applicable"
*denotes an estimated time
NR denotes "probe did not record." For locations with no probe, denotes "not recorded."
Verbal descriptions of flow rate are graphed assuming 0.01 gpm
gpm = gallons per minute
L/s = liters per second
cfs = cubic feet per second

TABLE 5B
QUEEN CREEK DISCHARGE DATA

Sample No..	Sample Date	Flow Rate (gpm)	Flow Rate (L/s)	Flow Rate (cfs)	Flow Method
Blue Spring					
RESE-1001087	26-May-04	none	NA	NA	observe
RESE-1001093	03-Aug-04	0.00	0	0.00	observe
RESE-1001185	09-Feb-05	6.50	0.41	0.01	cutthroat flume
RESE-1001200	03-May-05	2.00	0.13	0.00	observe/estimate
RESE-1001219	03-Aug-05	< 0.1	NR	NR	observe/estimate
Bored Spring					
RESE-1001088	26-May-04	drip	drip	drip	observe
RESE-1001163	03-Nov-04	trickle	trickle	trickle	observe
RESE-1001188	09-Feb-05	1.06	0.07	0.00	bucket/stopwatch
RESE-1001204	03-May-05	1.33	0.08	0.00	bucket/stopwatch
RESE-1001221	03-Aug-05	0.50	0.03	0.00	observe/estimate
Boulder Hole					
RESE-1001008	22-May-03	none taken	none taken	none taken	N/A
RESE-1001023	04-Sep-03	none taken	none taken	none taken	N/A
RESE-1001028	03-Nov-03	none seen	none taken	none taken	observe
RESE-1001054	09-Feb-04	16.00	1.01	0.04	bucket/stopwatch
RESE-1001083	24-May-04	none	none taken	none taken	observe
RESE-1001094	03-Aug-04	none	none taken	none taken	observe
RESE-1001165	03-Nov-04	none	none taken	none taken	observe
RESE-1001181	08-Feb-05	95.00	5.99	0.21	observe/estimate
RESE-1001205	04-May-05	none taken	none taken	none taken	N/A
Hidden Spring					
RESE-1001003	15-May-03	none taken	none taken	none taken	N/A
RESE-1001015	20-Aug-03	none taken	none taken	none taken	N/A
RESE-1001027	03-Nov-03	>2drips/sec	>2drips/sec	>2drips/sec	observe
RESE-1001052	09-Feb-04	dripping	dripping	dripping	observe
RESE-1001082	24-May-04	drip	drip	drip	observe
RESE-1001097	04-Aug-04	drip	drip	drip	observe
RESE-1001162	03-Nov-04	drip	drip	drip	observe
RESE-1001187	09-Feb-05	drips	drips	drips	observe
RESE-1001202	03-May-05	1.00	0.06	0.00	observe/estimate
RESE-1001220	03-Aug-05	2.00	0.13	0.00	observe/estimate
Kane Spring					
RESE-1001002	15-May-03	none taken	none taken	none taken	N/A
RESE-1001014	20-Aug-03	none taken	none taken	none taken	N/A
RESE-1001026	03-Nov-03	drips	drips	drips	observe
RESE-1001051	09-Feb-04	dripping	dripping	dripping	observe
RESE-1001161	03-Nov-04	seep	seep	seep	observe
RESE-1001186	09-Feb-05	drips	drips	drips	observe
RESE-1001201	03-May-05	0.50	0.03	0.00	observe/estimate
RESE-1001218	03-Aug-05	0.10	NR	NR	observe/estimate
Karst Spring					
RESE-1001180	08-Feb-05	29.20	1.84	0.07	cutthroat flume
Pump Station					
RESE-1001001	15-May-03	3.24	0.20	0.01	cutthroat flume
RESE-1001029	03-Nov-03	1.50	0.09	0.00	observe
RESE-1001056	09-Feb-04	1.50	0.09	0.00	observe/estimate
RESE-1001084	25-May-04	1	0.06	0.00	observe/estimate
RESE-1001096	03-Aug-04	trickle	trickle	trickle	observe
RESE-1001024	04-Sep-04	1.50	0.09	0.00	NR
RESE-1001166	03-Nov-04	0.25	0.02	0.00	observe/estimate
RESE-1001182	08-Feb-05	45.60	2.88	0.10	cutthroat flume
RESE-1001206	04-May-05	20.30	1.28	0.05	cutthroat flume
RESE-1001222	08-Aug-05	5.00	0.32	0.01	observe/estimate
QC27.3C					
RESE-1001184	08-Feb-05	73.10	4.61	0.16	cutthroat flume
RESE-1001207	04-May-05	8.12	0.51	0.02	cutthroat flume

Notes:
N/A denotes "not applicable"
*denotes an estimated time
NR denotes "method not recorded."
Verbal descriptions of flow rate are graphed assuming 0.01 gpm
gpm = gallons per minute
L/s = liters per second
cfs = cubic feet per second

TABLE 6
LIST OF CONSTITUENTS FOR SURFACE WATER SAMPLING

Name	Symbol	Type	Hardness Dependent	Regulatory Drivers		Other Drivers			Sampling Lists	
				Designated Uses	TMDL	Potential Mining Impacts	Other Potential Impacts	Classification	Long List	Short List
Field										
pH	pH	---	---	x	x	x	x	x	●	●
Temperature	°C	---	---	---	---	x	x	x	●	●
Conductivity	EC	---	---	---	---	x	x	---	●	●
Dissolved oxygen	DO	---	---	x	---	x	x	---	●	●
Turbidity		---	---	x	---	x	x	---	●	●
Metals										
Aluminum	Al	T	---	---	---	x	---	---	●	●
Antimony	Sb	T, TR, D	---	x	---	x	---	---	●	●
Arsenic	As	T, TR, D	---	x	---	x	---	---	●	●
Barium	Ba	D	---	x	---	x	---	---	●	●
Beryllium	Be	T, TR, D	---	x	x	x	---	---	●	●
Cadmium	Cd	T, TR, D	Y	x	---	x	---	---	●	●
Chromium (total)	Cr	TR, D	---	x	---	x	---	---	●	●
Cobalt	Co	T	---	---	---		---	---	●	●
Copper	Cu	T, TR, D	Y	x	x	x	---	---	●	●
Iron	Fe	T	---	---	---	x	---	---	●	●
Lead	Pb	T, TR, D	Y	x	---	x	---	---	●	●
Manganese	Mn	TR	---	x	---	x	---	---	●	●
Mercury	Hg	T, D	---	x	---	x	---	---	●	●
Molybdenum	Mo	T	---	---	---	x	---	---	●	●
Nickel	Ni	TR, D	Y	x	---	x	---	---	●	●
Selenium	Se	T, TR	---	x	---	x	---	---	●	●
Silver	Ag	T, TR, D	Y	x	---	x	---	---	●	●
Thallium	Tl	T, D	---	x	---	x	---	---	●	●
Zinc	Zn	T, TR, D	Y	x	x	x	---	---	●	●
Inorganic Non-metallics										
Asbestos	---	T	---	---	---	---	---	---	●	---
Boron	B	T	---	x	---	x	---	---	●	●
Bromide	Br	T							●	●
Cyanide (free)	CN	T	---	x	---	x	---	---	●	---
Fluoride	F	T	---	x	---	x	x	---	●	●
Nitrite (as N)	NO_2--N	T	---	x	---	x	x	---	●	●
Nitrate (as N)	NO_3--N	T	---	x	---	x	x	---	●	●
Nitrate + Nitrite (as N)	NO_2-+NO_3--N	T	---	---	---	x	x	---	●	●
Orthophosphate	PO_4	T	---	---	---	---	x	---	●	●
Silica	SiO_2	T	---	---	---	---	---	x	●	●
Sulfide	SO_2	T	---	x	---	---	x	---	●	●
Major Anions										
Chloride	Cl	T	---	---	---	x	x	x	●	●
Sulfate	SO_4	T	---	---	---	x	x	x	●	●
Carbonate	CO_3-	T	---	---	---	---	---	x	●	●
Bicarbonate	$CaCO_3$-	T	---	---	---	---	---	x	●	●
Major Cations										
Calcium	Ca	T	---	---	---	---	---	x	●	●
Magnesium	Mg	T	---	---	---	---	---	x	●	●
Potassium	K	T	---	---	---	---	---	x	●	●
Sodium	Na	T	---	---	---	---	---	x	●	●
Radionuclides										
Gross alpha activity	---	T	---	---	---	x	---	---	●	---
Gross beta activity	---	T	---	---	---	x	---	---	●	---
Radium 226+228	---	T	---	---	---	x	---	---	●	---
Uranium	U	T	---	---	---	x	---	---	●	---
Physical Properties										
Alkalinity (total)	---	T	---	---	---	---	---	x	●	●
Hardness	---	T	---	---	---	---	---	x	●	●
Total dissolved solids	TDS	D	---	---	---	x	x	x	●	●
Total suspended solids	TSS	T	---	x	---	x	x	x	●	●
Color	---	---	---	---	---	---	---	x	●	●
Biologicals										
Coliforms (total)	---	T	---	---	---	---	x	---	●	●
E. Coli	---	T	---	x	---	---	x	---	●	●

Notes:
Other Potential Impacts: ranching, septic tanks, quarrying, wastewater treatment, etc.
TMDL = total maximum daily loac
T = total
TR = total recoverable
D = dissolved

TABLE 7
CURRENT DESIGNATED USES FOR BASELINE SURFACE WATER SAMPLING STATIONS

Watershed	Station	Listed	Elev. (feet)	Possible Designated Uses						
				FC	FBC	PBC	AgL	A&We	A&Ww	
									chronic	acute
Queen Creek	Pump Station	Yes	<5,000	---	---	●	●	●	---	---
	Upper QC (QC27.3C)	Yes	<5,000	---	---	●	●	●	---	---
	Boulder Hole	Yes	<5,000	---	---	●	●	●	---	---
	Karst Spring (QC22.6E)	Yes	<5,000	---	---	●	●	●	---	---
Apache Leap	Hidden	No	<5,000	●	●	---	---	---	●	●
	Kane	No	<5,000	●	●	---	---	---	●	●
	Blue Springs	No	<5,000	●	●	---	---	---	●	●
	Bored	No	<5,000	●	●	---	---	---	●	●
Devils Canyon	DC15.2C	Yes	<5,000	●	●	---	●	---	●	●
	DC13.5C	Yes	<5,000	●	●	---	●	---	●	●
	DC10.9C	Yes	<5,000	●	●	---	●	---	●	●
	DC8.8C	Yes	<5,000	●	●	---	●	---	●	●
	DC8.2W	Yes	<5,000	●	●	---	●	---	●	●
	DC7.1C	Yes	<5,000	●	●	---	●	---	●	●
	DCT6.6W	No	<5,000	●	●	---	---	---	●	●
	DC6.1E	Yes	<5,000	●	●	---	●	---	●	●
	DC5.5C	Yes	<5,000	●	●	---	●	---	●	●
	DC4.1E	Yes	<5,000	●	●	---	●	---	●	●

Notes:
FC = fish consumption
FBC = full body contact
PBC = partial body contact
AgI = agriculture irrigation
AgL = agriculture livestock
A&We = aquatic and wildlife ephemeral (less than 5,000 feet elevation)
A&Ww = aquatic and wildlife warm water
DWS = domestic water source
A&Wc = aquatic and wildlife cold water
A&Wedw = aquatic and wildlife effluent dependent waters
DWS, AgI, A&Wc, and A&Wedw do not apply to the current list of sampling stations.
Ephemeral means a surface water that has a channel that is at all times above the water table and that flows only in direct response to precipitation.
Intermittent means a surface water that flows continuously for 30 days or more at times of the year when the surface water receives water from a spring or from another source such as melting snow.
Perennial means a surface water that flows continuously throughout the year.

TABLE 8
DEVILS CANYON SAMPLING STATION HISTORY

Sampling Station ID/Name	Number of Samples from Station	Sample Dates	Sample ID	Comments
DC15.2C	3	2/15/2005	RESE-1001191	Newly established uppermost sampling station. Sampled the most recent 3 events.
		5/9/2005	RESE-1001210	
		8/10/2005	RESE-1001226	
DC14.7C	1	3/5/2004	RESE-1001069	Floodflow sample location at US60 Bridge.
DC13.5C	8	6/1/2003	RESE-1001011	Station not sampled twice due to dry conditions.
		8/27/2003	RESE-1001021	
		11/5/2003	RESE-1001037	
		2/11/2004	RESE-1001059	
		5/26/2004	RESE-1001086	
		2/15/2005	RESE-1001190	
		5/11/2005	RESE-1001209	
		8/10/2005	RESE-1001225	
DC10.9C	10	5/16/2003	RESE-1001004	Sampled every event.
		8/27/2003	RESE-1001020	
		11/5/2003	RESE-1001036	
		2/11/2004	RESE-1001060	
		5/27/2004	RESE-1001091	
		8/11/2004	RESE-1001099	
		11/5/2004	RESE-1001169	
		2/15/2005	RESE-1001189	
		5/11/2005	RESE-1001208	
		8/10/2005	RESE-1001224	
DC8.8C	10	5/20/2003	RESE-1001005	Sampled every event.
		8/21/2003	RESE-1001018	
		11/12/2003	RESE-1001042	
		2/17/2004	RESE-1001062	
		5/21/2004	RESE-1001078	
		8/16/2004	RESE-1001151	
		11/16/2004	RESE-1001174	
		2/25/2005	RESE-1001197	
		5/11/2005	RESE-1001211	
		8/16/2005	RESE-1001228	
DC8.2W	10	5/20/2003	RESE-1001006	Sampled every event.
		8/21/2003	RESE-1001017	
		11/12/2003	RESE-1001044	
		2/17/2004	RESE-1001063	
		5/21/2004	RESE-1001079	
		8/16/2004	RESE-1001152	
		11/16/2004	RESE-1001175	
		2/25/2005	RESE-1001196	
		5/11/2005	RESE-1001212	
		8/16/2005	RESE-1001227	
DC7.1C	9	5/29/2003	RESE-1001009	One sample event skipped due to stagnant pool conditions.
		11/4/2003	RESE-1001034	
		2/18/2004	RESE-1001065	
		5/5/2004	RESE-1001075	
		8/19/2004	RESE-1001156	
		11/12/2004	RESE-1001171	
		2/16/2005	RESE-1001193	
		5/17/2005	RESE-1001215	
		9/7/2005	RESE-1001231	
DCT6.6W	10	5/29/2003	RESE-1001010	Sampled every event.
		9/3/2003	RESE-1001022	
		11/4/2003	RESE-1001033	
		2/18/2004	RESE-1001064	
		5/5/2004	RESE-1001074	
		8/19/2004	RESE-1001155	
		11/12/2004	RESE-1001170	
		2/16/2005	RESE-1001192	
		5/17/2005	RESE-1001214	
		9/7/2005	RESE-1001232	
DC6.1E	6	5/20/2004	RESE-1001077	Station established to substitute for DC4.1E after first 3 sampling events.
		8/23/2004	RESE-1001159	
		11/18/2004	RESE-1001177	
		2/28/2005	RESE-1001199	
		5/24/2005	RESE-1001217	
		8/23/2005	RESE-1001230	
DC5.5C	8	11/10/2003	RESE-1001039	Station not established until third sampling event due to rough access conditions.
		2/25/2004	RESE-1001067	
		5/20/2004	RESE-1001076	
		8/23/2004	RESE-1001158	
		11/18/2004	RESE-1001176	
		2/28/2005	RESE-1001198	
		5/24/2005	RESE-1001216	
		8/23/2005	RESE-1001229	
DC4.1E	4	5/21/2003	RESE-1001007	Station replaced by DC6.1E after first 3 sampling events.
		8/26/2003	RESE-1001019	
		11/11/2003	RESE-1001040	
		2/10/2004	RESE-1001058	

TABLE 9
QUEEN CREEK SAMPLING STATION HISTORY

Sampling Station ID/Name	Number of Samples from Station	Sample Dates	Sample ID	Comments
Pump Station	10	5/15/2003	RESE-1001001	Sampled every event
		9/4/2003	RESE-1001024	
		11/3/2003	RESE-1001029	
		2/9/2004	RESE-1001056	
		5/25/2004	RESE-1001084	
		8/3/2004	RESE-1001096	
		11/3/2004	RESE-1001166	
		2/8/2005	RESE-1001182	
		5/4/2005	RESE-1001206	
		8/8/2005	RESE-1001222	
QC27.3C	2	2/8/2005	RESE-1001184	Newly established sampling station. Sampled most recent 2 events.
		5/4/2005	RESE-1001207	
Boulder Hole	9	5/22/2003	RESE-1001008	Sampled every event with exception of the most recent event due to dry conditions.
		9/4/2003	RESE-1001023	
		11/3/2003	RESE-1001028	
		2/9/2004	RESE-1001054	
		5/24/2004	RESE-1001083	
		8/3/2004	RESE-1001094	
		11/3/2004	RESE-1001165	
		2/8/2005	RESE-1001181	
		5/4/2005	RESE-1001205	
Karst-QC22.6E	1	2/8/2005	RESE-1001180	Newly established station that only flows during wet conditions.
Bored	5	5/26/2004	RESE-1001088	Station added to sampling list in May 2005. Sampled every event since station creation.
		11/3/2004	RESE-1001163	
		2/9/2005	RESE-1001188	
		5/3/2005	RESE-1001204	
		8/3/2005	RESE-1001221	
Hidden	10	5/15/2003	RESE-1001003	Sampled every event.
		9/20/2003	RESE-1001015	
		11/3/2003	RESE-1001027	
		2/9/2004	RESE-1001052	
		5/24/2004	RESE-1001082	
		8/4/2004	RESE-1001097	
		11/3/2004	RESE-1001162	
		2/9/2005	RESE-1001187	
		5/3/2005	RESE-1001202	
		8/3/2005	RESE-1001220	
Kane	8	5/15/2003	RESE-1001002	Sampling station has developed spring that is inaccessible for sampling. Sampling station consists of small pool in channel adjacent to spring box. During the summer of 2004, this station was not sampled twice due to a lack of water. However, spring flow was likely occurring but is inaccessible for sampling.
		8/20/2003	RESE-1001014	
		11/3/2003	RESE-1001026	
		2/9/2004	RESE-1001051	
		11/3/2004	RESE-1001161	
		2/9/2005	RESE-1001186	
		5/3/2005	RESE-1001201	
		8/3/2005	RESE-1001218	
Blue	5	5/26/2004	RESE-1001087	Station added to sampling list in May 2005. Sampled every event since station creation.
		8/3/2004	RESE-1001093	
		2/9/2005	RESE-1001185	
		5/3/2005	RESE-1001200	
		8/3/2005	RESE-1001219	

TABLE 10
DEVILS CANYON BASIN EXCEEDANCES

Site	Constituent	Exceeded Use*	Date of Exceedance	Flow Rate on Date of Exceedance (gpm)	Constituents With Detection Limits Above the Standard
DC15.2C	Cu	A&WwwA, A&WwwC, A&WeA	2/15/2005	Not Recorded	Cu, Pb, Hg, Se, Sulfide
	pH	FBC, PBC, AgL, A&WwwC, AA&WwwA, A&WeA	8/10/2005	No Flow	
	DO	A&WwwA, A&WwwC	8/10/2005	No Flow	
DC13.5C	Cu	A&WwwC	6/1/2003	2.3	Cu, Pb, Hg, Se, Sulfide
	Cu	A&WwwA, A&WwwC, A&WeA	8/27/2003	0.3	
	Cu	A&WwwA, A&WwwC	11/5/2003	2.5	
	pH	FBC, PBC, AgL, A&WwwC, AA&WwwA, A&WeA	2/11/2004	47.6	
	Cu	A&WwwA, A&WwwC	2/11/2004	47.6	
	Cu	A&WwwC	5/26/2004	2.7	
	Cu	A&WwwA, A&WwwC, A&WeA	2/15/2005	27,121	
	E. Coli	FBC, PBC	8/10/2005	Not Recorded	
DC10.9C	DO	A&WwwA, A&WwwC	5/16/2003	23.0	Cu, Pb, Hg, Se, Sulfide
	Cu	A&WwwA, A&WwwC	5/16/2003	23.0	
	pH	FBC, AgL	8/27/2003	1.0	
	DO	A&WwwA, A&WwwC	8/27/2003	1.0	
	Cu	A&WwwA, A&WwwC, A&WeA	11/5/2003	17.6	
	Cu	A&WwwA, A&WwwC	2/11/2004	29.2	
	DO	A&WwwA, A&WwwC	5/27/2004	13.0	
	DO	A&WwwA, A&WwwC	8/11/2004	1.0	
	E. Coli	FBC, PBC	8/11/2004	1.0	
	DO	A&WwwA, A&WwwC	11/5/2004	3.2	
	Cu	A&WwwA, A&WwwC, A&WeA	2/15/2005	32,192	
	E. Coli	FBC, PBC	8/10/2005	35.0	
DC8.8C	D.O.	A&WwwA, A&WwwC	8/21/2003	3.0	Cu, Pb, Hg, Se, Sulfide
	E. Coli	FBC, PBC	11/12/2003	24.5	
	DO	A&WwwA, A&WwwC	8/16/2004	5.0	
	Cu	A&WwwA, A&WwwC, A&WeA	2/25/2005	33,041	
DC8.2W	DO	A&WwwA, A&WwwC	8/21/2003	10.9	Cu, Pb, Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	5/20/2003	10.9	
	DO	A&WwwA, A&WwwC	11/12/2003	8.1	
	DO	A&WwwA, A&WwwC	5/21/2004	11.9	
	DO	A&WwwA, A&WwwC	11/16/2004	2.2	
DC7.1C	Cu	A&WwwA, A&WwwC, A&WeA	2/16/2005	30,312	Cu, Pb, Hg, Se, Sulfide
T6.6W	DO	A&WwwA, A&WwwC	5/29/2003	0.5	Cu, Pb, Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	9/3/2003	0.5	
	DO	A&WwwA, A&WwwC	11/4/2003	1.5	
	DO	A&WwwA, A&WwwC	5/5/2004	0.5	
	DO	A&WwwA, A&WwwC	8/19/2004	0.3	
	DO	A&WwwA, A&WwwC	11/12/2004	0.7	
	DO	A&WwwA, A&WwwC	5/17/2005	0.5	
	Cu	A&WwwC	5/17/2005	0.5	
	DO	A&WwwA, A&WwwC	9/7/2005	No Flow	
DC6.1E	DO	A&WwwA, A&WwwC	11/18/2004	2.0	Cu, Pb, Hg, Se, Sulfide
DC5.5C	DO	A&WwwA, A&WwwC	5/20/2004	11.3	Cu, Pb, Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	8/23/2004	9.0	
DC4.1E	N/A	N/A	N/A	N/A	Pb, Hg, Se, Sulfide

Notes:
*Red font denotes uses exceeded that are presumed to apply. Black font denotes uses exceeded that are presumed irrelevant to site.
N/A denotes not applicable
DO denotes dissolved oxygen. Because the DO standard is a minimum requirement, exceedances refer to values below the standard.
E. Coli denotes the bacterium *Escherichia Coli.*
A&WwwA denotes **Aquatic & Wildlife (warm water) Acute**
A&WwwC denotes **Aquatic & Wildlife (warm water) Chronic**
FBC denotes **Full Body Contact**
PBC denotes **Partial Body Contact**
AgL denotes **Agricultural Livestock Watering**
A&WeA denotes **Aquatic and Wildlife (ephemeral)**
gpm = gallons per minute

TABLE 11
QUEEN CREEK BASIN EXCEEDANCES

Site	Constituent	Exceeded Use*	Date of Exceedance	Flow Rate on Date of Exceedance (gpm)	Constituents With Detection Limits Above the Standard
Pump Station	DO	A&WwwA, A&WwwC	9/4/2003	1.5	Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	2/9/2004	1.5	
	DO	A&WwwA, A&WwwC	5/25/2004	1.0	
	DO	A&WwwA, A&WwwC	8/3/2004	0.05	
	DO	A&WwwA, A&WwwC	11/3/2004	0.25	
	Se	A&WwwC	2/8/2005	45.6	
	E. Coli	FBC, PBC	8/8/2005	5.0	
Karst Spring	DO	A&WwwA, A&WwwC	2/8/2005	29.2	Hg, Se, Sulfide
QC27.3	TSS	A&WwwA, A&WwwC	2/8/2005	73.1	Hg, Se, Sulfide
Boulder Hole	DO	A&WwwA, A&WwwC	5/22/2003	Not Recorded	Cu, Pb, Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	9/4/2003	Not Recorded	
	DO	A&WwwA, A&WwwC	11/3/2003	No Flow	
	DO	A&WwwA, A&WwwC	2/9/2004	16.0	
	DO	A&WwwA, A&WwwC	5/24/2004	No Flow	
	DO	A&WwwA, A&WwwC	8/3/2004	No Flow	
	DO	A&WwwA, A&WwwC	11/3/2004	No Flow	
	E. Coli	FBC, PBC	11/3/2004	No Flow	
	DO	A&WwwA, A&WwwC	5/4/2005	Not Recorded	
Hidden Spring	DO	A&WwwA, A&WwwC	5/15/2003	Not Recorded	Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	8/20/2003	Not Recorded	
	DO	A&WwwA, A&WwwC	11/3/2003	0.01	
	E. Coli	FBC, PBC	5/24/2004	0.01	
	DO	A&WwwA, A&WwwC	8/4/2004	0.01	
	E. Coli	FBC, PBC	8/4/2004	0.01	
	DO	A&WwwA, A&WwwC	11/3/2004	0.01	
	DO	A&WwwA, A&WwwC	2/9/2005	0.01	
	DO	A&WwwA, A&WwwC	8/3/2005	2.0	
	E. Coli	FBC, PBC	8/3/2005	2.0	
Bored Spring	pH	FBC, PBC, AgL	5/26/2004	0.01	Hg, Se, Sulfide
	Cu	A&WwwA, A&WwwC	5/26/2004	0.01	
	DO	A&WwwA, A&WwwC	8/3/2005	0.5	
Kane Spring	DO	A&WwwA, A&WwwC	8/20/2003	Not Recorded	Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	11/3/2003	0.01	
	DO	A&WwwA, A&WwwC	8/3/2005	<0.1	
	E. Coli	FBC, PBC	8/3/2005	<0.1	
Blue Springs	DO	A&WwwA, A&WwwC	5/26/2004	No Flow	Hg, Se, Sulfide
	DO	A&WwwA, A&WwwC	8/3/2005	<0.1	

Notes:
*Red font denotes uses exceeded that are presumed to apply. Black font denotes uses exceeded that are presumed irrelevant to site
N/A denotes not applicable
DO denotes dissolved oxygen. Because the DO standard is a minimum requirement, exceedances refer to values below the standard.
E. Coli denotes the bacterium *Escherichia Coli.*
A&WwwA denotes **Aquatic & Wildlife (warm water) Acute**
A&WwwC denotes **Aquatic & Wildlife (warm water) Chronic**
FBC denotes **Full Body Contact**
PBC denotes **Partial Body Contact**
AgL denotes **Agricultural Livestock Watering**
A&WeA denotes **Aquatic and Wildlife (ephemeral)**
gpm = gallons per minute

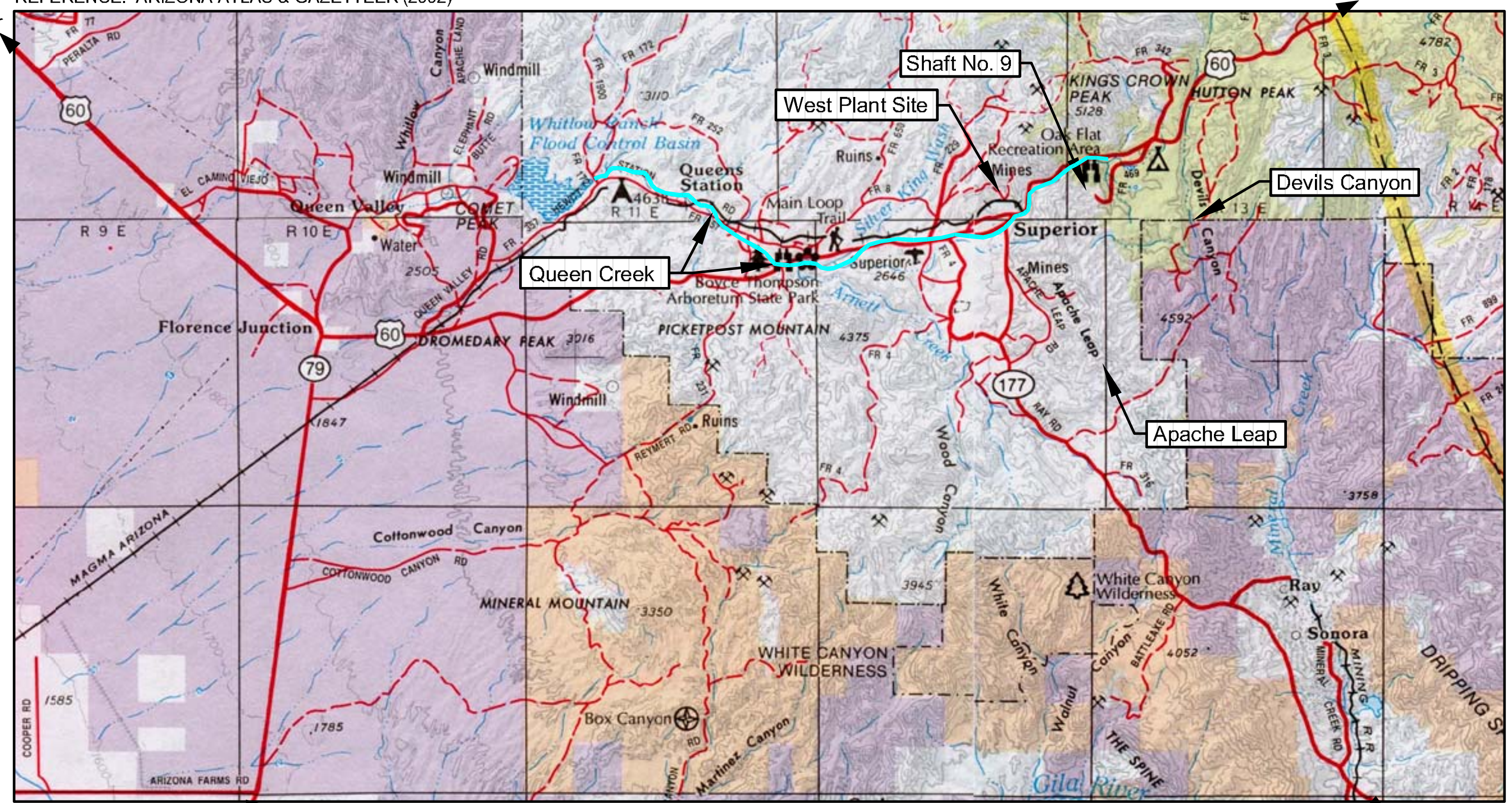
TABLE 12
DATA SONDE SUMMARY

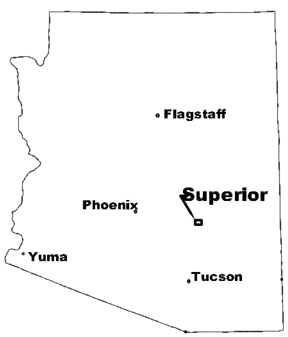
Flow Regime	Sonde Station	Average		Observed Range			Diurnal		
		SC	pH	Depth (inches)	SC	pH	Depth (inches)	SC	pH
Runoff Flow	DC135C	150	NA	0 - 107	20 - 400	NA	0.25 - 1	5 - 40	NA
	DC10.9C	150	NA	1 - 115	20 - 280	NA	0.25 - 1	5 - 40	NA
Mixed Flow	DC8.8C	300	7.5	1 - 117	20 - 450	7 - 8	0.25 - 2	3 - 20	0.1 - 0.8
	DC7.1C	300	7.5	0 - 145	20 - 600	6 - 9	0.25 - 3	5 - 20	0.1 - 1.3
	DC5.5C	300	7.2	0.5 - 91	20 - 750	6 - 8.5	0.25 - 2.25	1 - 100[-b-]	0.2 - 1
Spring Flow	DC8.2W	280	7.3	4.5 - 5	250 - 280	6 - 7.5[-a-]	0.25 - 0.5	1 - 5	0 - 0.1

Notes:
Based on inspection of graphs
[-a-] = Low pH occurred after sensor fouling.
[-b-] = High reading likely due to partial sensor submergence.
SC = specific conductance
NA = Not Available

Drawing file: 0632565A008.dwg Jun 30, 2006 – 3:41pm

REFERENCE: ARIZONA ATLAS & GAZETTEER (2002)





STATE OF ARIZONA

NORTH

Approx. Scale
1"≈ 4 miles

Privileged and Confidential
Attorney-Client Work Product

PROJECT
Resolution Copper Company

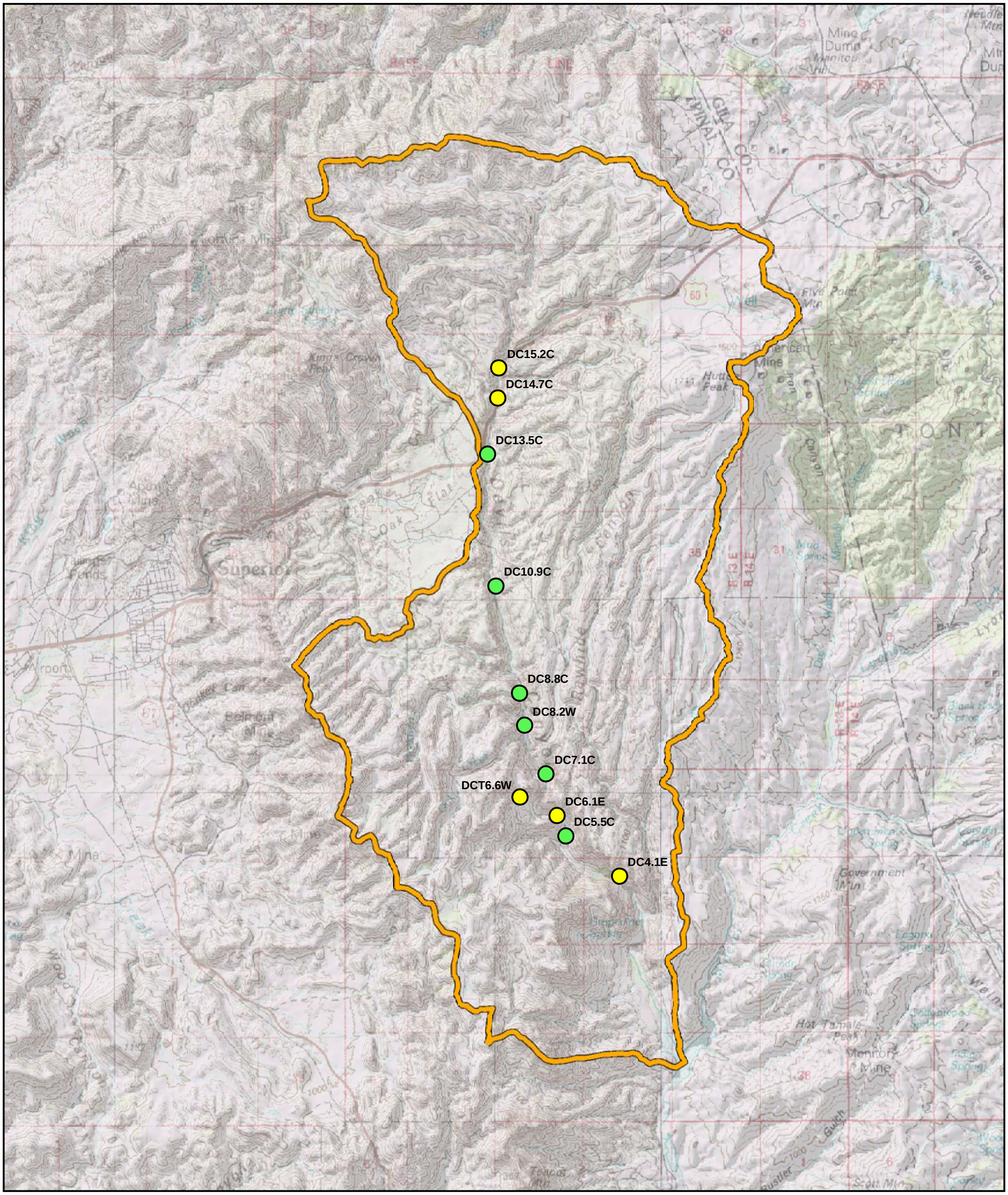
SURFACE WATER
BASELINE REPORT
SUPERIOR, ARIZONA

TITLE

SITE LOCATION MAP

Golder Associates
Tucson, Arizona

PROJECT No.		063–2565	FILE No.	0632565A008
DESIGN	JJM	06/26/06	SCALE AS SHOWN	REV. A
CADD	NIL	06/26/06		
CHECK	JJM	06/30/06	**FIGURE 1**	
REVIEW	KRJ	06/30/06		



LEGEND

- Sampling Station without Data Sonde
- Sampling Station with Data Sonde
- Devils Canyon Watershed

0 2500

Scale in Meters

Map Projection:
UTM Zone 12, NAD 27, Meters

Source: USGS, Golder Associates

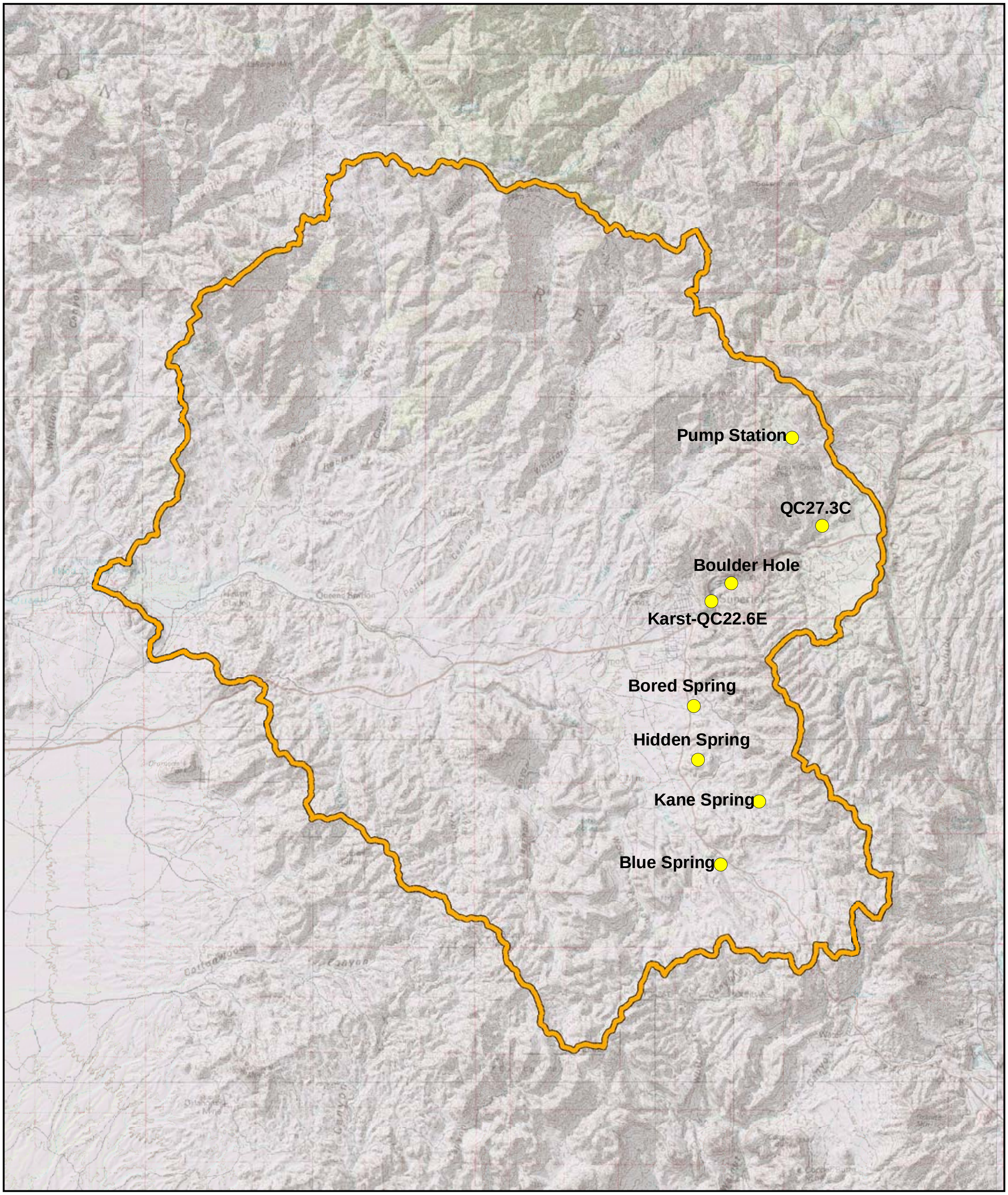
N

This figure was originally produced in color. Reproduction in black and white may result in a loss of information.

FIGURE 2
DEVILS CANYON WATERSHED SAMPLING STATIONS
RESOLUTION COPPER COMPANY

06325652F2R05.mxd | MOD: 6/30/2006 | KBD

Golder Associates



LEGEND

Sampling Station

Queen Creek Watershed

0 4000

Scale in Meters

Map Projection:
UTM Zone 12, NAD 27, Meters

Source: USGS, Golder Associates

N

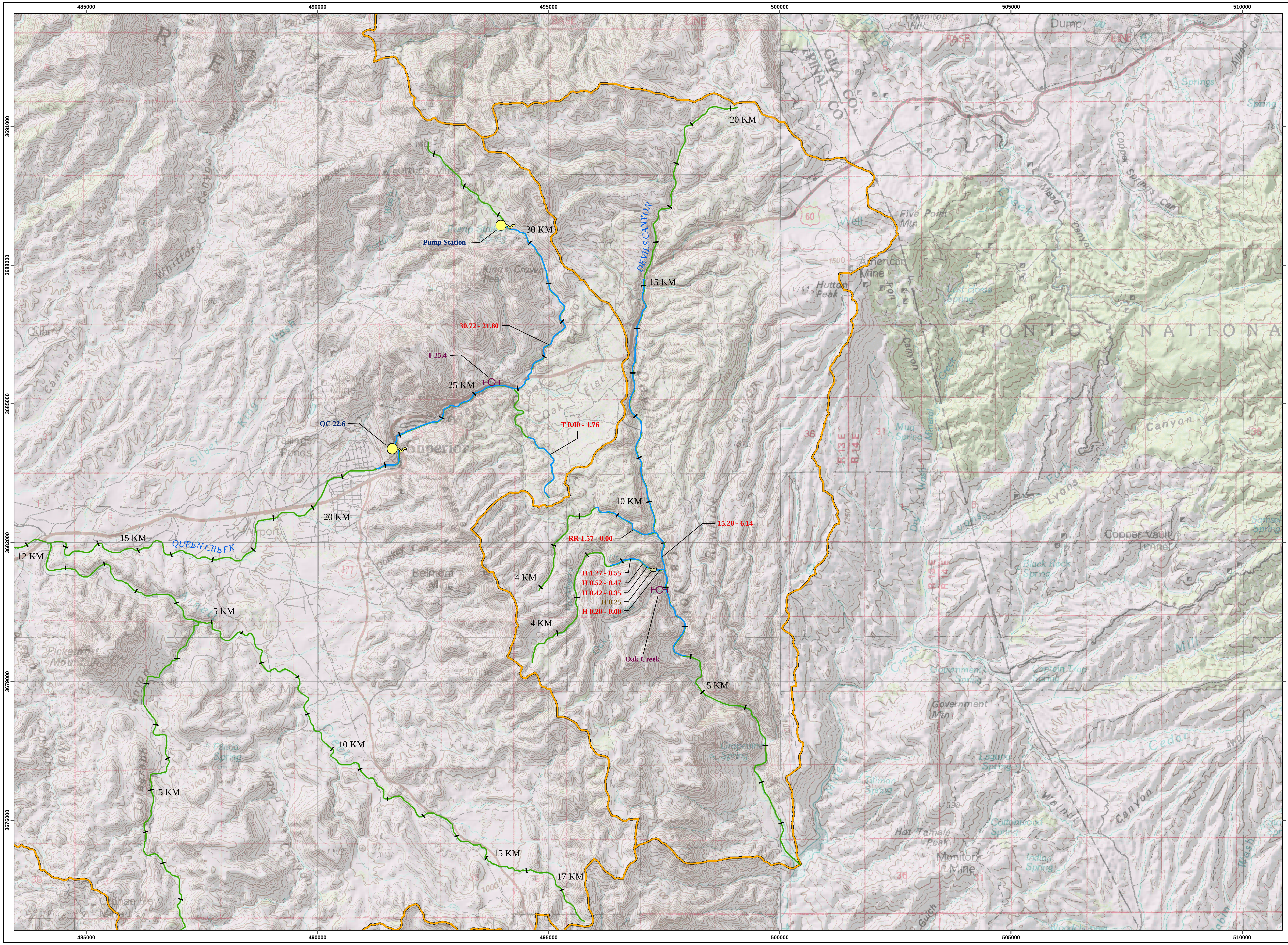
This figure was originally produced in color. Reproduction in black and white may result in a loss of information.

FIGURE 3
QUEEN CREEK WATERSHED SAMPLING STATIONS

RESOLUTION COPPER COMPANY

06325652F9R01.mxd | MOD: 6/30/2006 | KBD

Golder Associates



LEGEND

- Devils Canyon and Queen Creek Watershed Boundaries
- Stagnant Pool
- Dry Reach Surveyed
- Not Surveyed
- (10.81 - 8.35) Flowing Reach between Stations 10.81 and 8.35 Surveyed
- Tributary

Spring Discharge (L/s)

- 0
- 0.01 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50

1 0 1 2
scale 1:40,000 Kilometers

N

Map Projection:
UTM Zone 12, NAD 27, Meters

Source: USGS, Golder Associates Inc.

This figure was originally produced in color. Reproduction in black and white may result in loss of information.

RESOLUTION COPPER COMPANY

SUPERIOR, ARIZONA

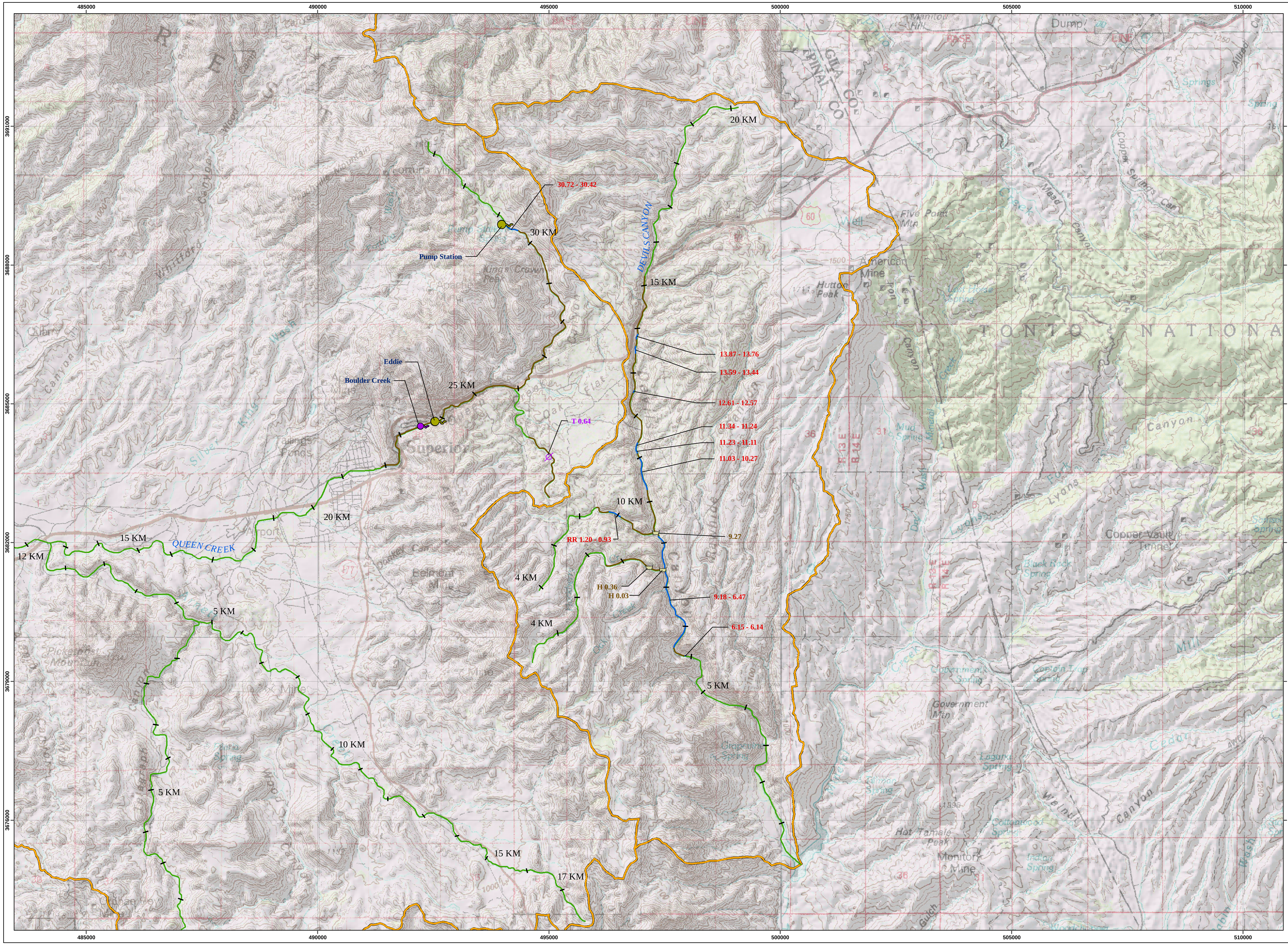
March 2005 Surface Water Inventory
Devils Canyon and Queen Creek Watersheds

Golder Associates

PROJECT: #0632565			REV. 4
DESIGN	KAV	Jul. 12, 2004	FIGURE 4
GIS	KBD	April 10, 2006	
CHECK			
REVIEW			

06325652F1R05.mxd

LEGEND
Devils Canyon and Queen Creek Watershed Boundaries
Stagnant Pool
Dry Reach Surveyed
Not Surveyed
(10.81 - 8.35)
Flowing Reach between Stations 10.81 and 8.35 Surveyed
Well
Tinajas
Spring Discharge (L/s)
0
0.01 - 0.50
0.50 - 1.00
1.00 - 1.50
scale 1:40,000
Kilometers
Map Projection: UTM Zone 12, NAD 27, Meters
Source: USGS, Golder Associates Inc.
This figure was originally produced in color. Reproduction in black and white may result in loss of information.
RESOLUTION COPPER COMPANY
SUPERIOR, ARIZONA
June 2005 Surface Water Inventory
Devils Canyon and Queen Creek Watersheds
Golder Associates
PROJECT #0632565
FIGURE 5
DEVILS CANYON
QUEEN CREEK
Hand Dug Well
Eddie
Boulder Hole
Superior
30 KM
25 KM
20 KM
15 KM
10 KM
5 KM
4 KM
12 KM
17 KM
30.72 - 30.36
30.29 - 30.24
30.14 - 30.05
30.02 - 29.97
29.89 - 29.64
29.55 - 29.29
27.21
T 0.64
13.95 - 13.94
13.86
13.85 - 13.45
13.03 - 13.02
12.66 - 12.65
11.27 - 11.26
11.19 - 11.18
11.15 - 10.34
9.86 - 9.77
9.62 - 9.53
9.27
9.17 - 7.42
7.38 - 7.27
7.17 - 7.08
6.82 - 6.74
6.60 - 6.52
6.68
6.14
H 0.36
H 0.03
06325652F3R08.mxd



LEGEND

- Devils Canyon and Queen Creek Watershed Boundaries
- Stagnant Pool
- Dry Reach Surveyed
- Not Surveyed
- (10.81 - 8.35) Flowing Reach between Stations 10.81 and 8.35 Surveyed
- Well
- Tinajas

Spring Discharge (L/s)

- 0
- 0.01 - 0.50
- 0.50 - 1.00
- 1.00 - 1.50

1 0 1 2
scale 1:40,000 Kilometers

Map Projection:
UTM Zone 12, NAD 27, Meters

Source: USGS, Golder Associates Inc.

This figure was originally produced in color. Reproduction in black and white may result in loss of information.

RESOLUTION COPPER COMPANY
SUPERIOR, ARIZONA

September 2005 Surface Water Inventory
Devils Canyon and Queen Creek Watersheds

PROJECT #0632565 REV. 3
DESIGN KAV Jul. 12, 2004
GIS KBD April 10, 2006
CHECK
REVIEW

Golder Associates

FIGURE 6

06325652F4R04.mxd

Scale 1 cm = 625 Meters

Map Projection:
UTM Zone 12, NAD27, Meters

Source: USGS, Golder Associates

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RESOLUTION COPPER COMPANY
SUPERIOR, ARIZONA

Temporal Changes in Reaches

PROJECT # 0432542_4			REV. 2
DESIGN	ATB	Jun. 18, 2003	
GIS	KAV	Aug 03, 2004	
CHECK	JJM	Aug. 17, 2004	
REVIEW	KJ	Aug. 17, 2004	

FIGURE 7

06325652F6R02.MXD

Scale 1 cm = 625 Meters

Map Projection:
UTM Zone 12, NAD27, Meters

Source: USGS, Golder Associates

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RESOLUTION COPPER COMPANY

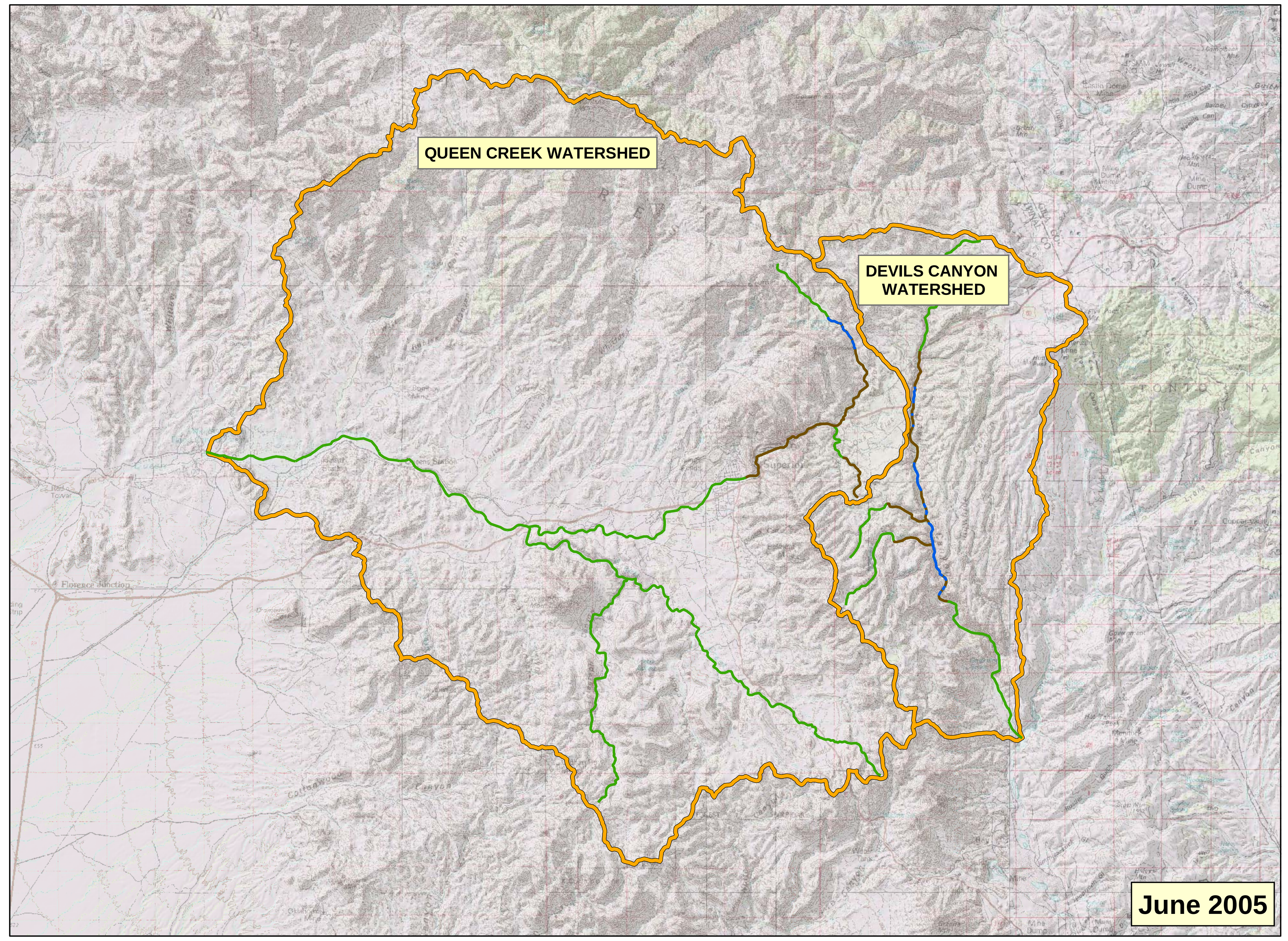
SUPERIOR, ARIZONA

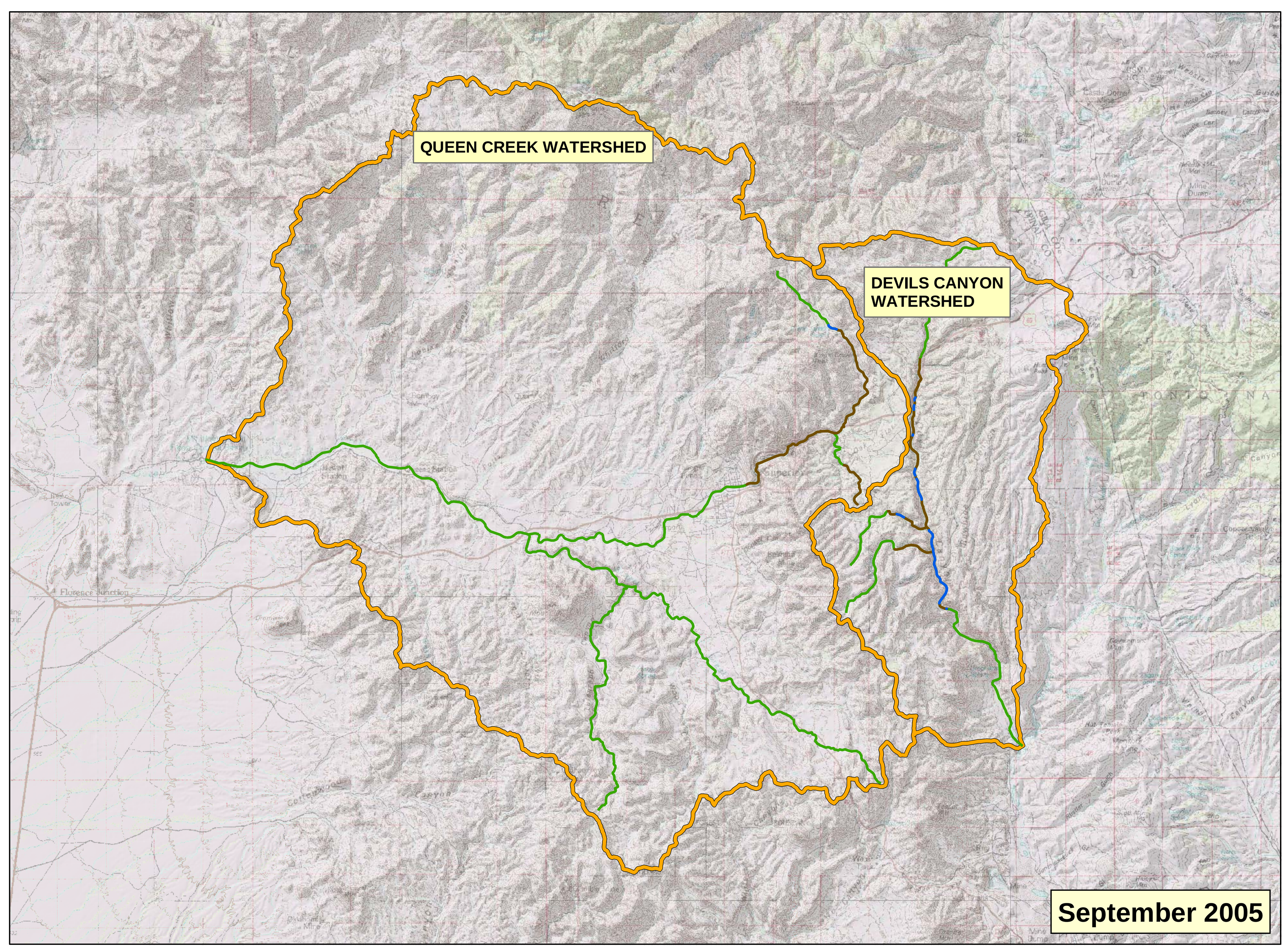
Temporal Changes in Reaches

Golder Associates

PROJECT # 0432542_4			REV.
DESIGN	ATB	Jun. 18, 2003	FIGURE 8
GIS	KBD	Apr. 10, 2006	
CHECK			
REVIEW			

06325652F7R01.MXD





LEGEND

Watershed Boundaries
Dry Reach Surveyed
Not Surveyed
Flowing Reach

N

0 2.5 5 Kilometers

Scale 1 cm = 625 Meters

Map Projection:
UTM Zone 12, NAD27, Meters

Source: USGS, Golder Associates

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RESOLUTION COPPER COMPANY

SUPERIOR, ARIZONA

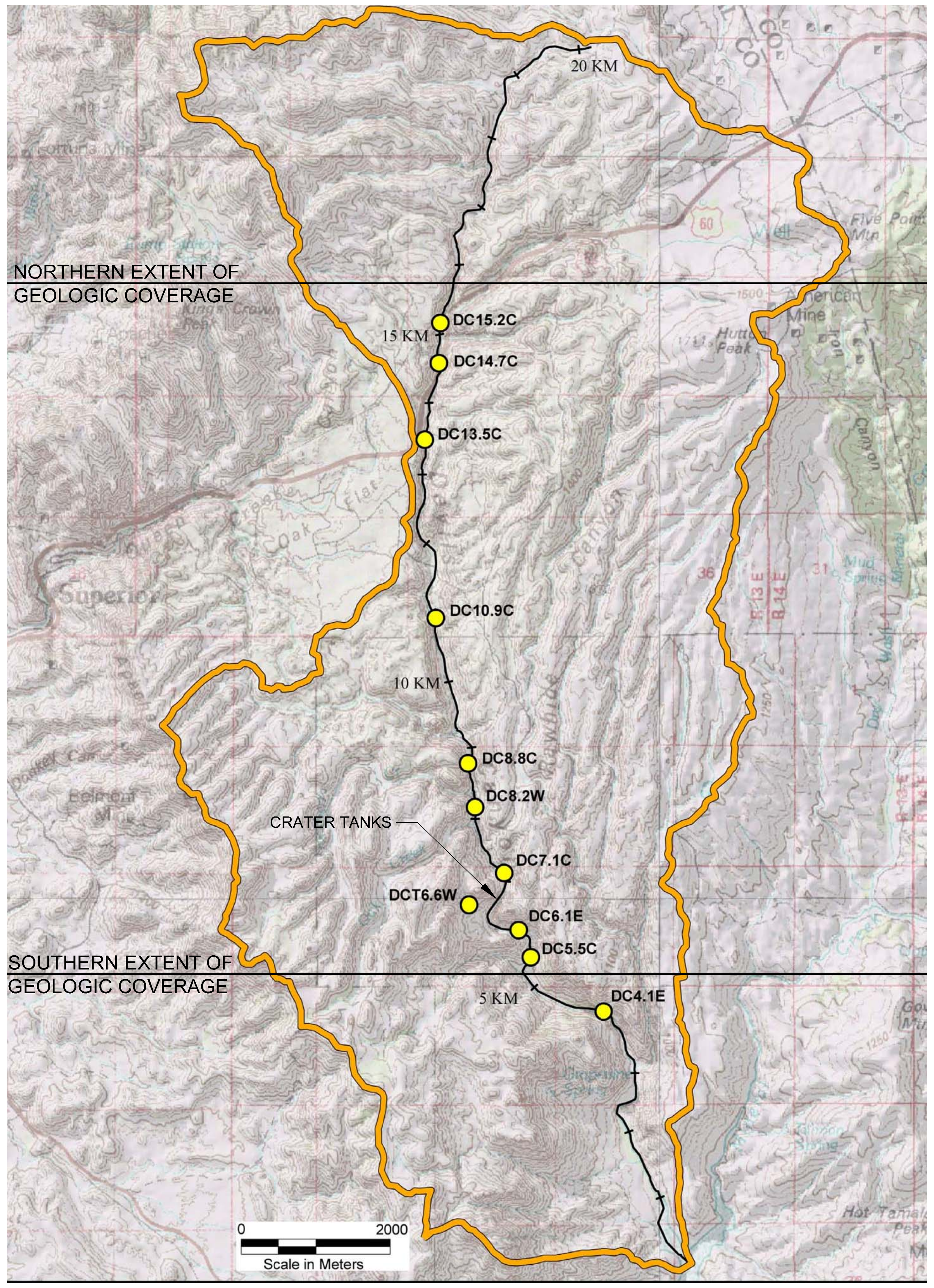
Temporal Changes in Reaches

Golder Associates

PROJECT # 0432542_4			REV.
DESIGN	ATB	Jun. 18, 2003	
GIS	KBD	Apr. 10, 2006	
CHECK			
REVIEW			

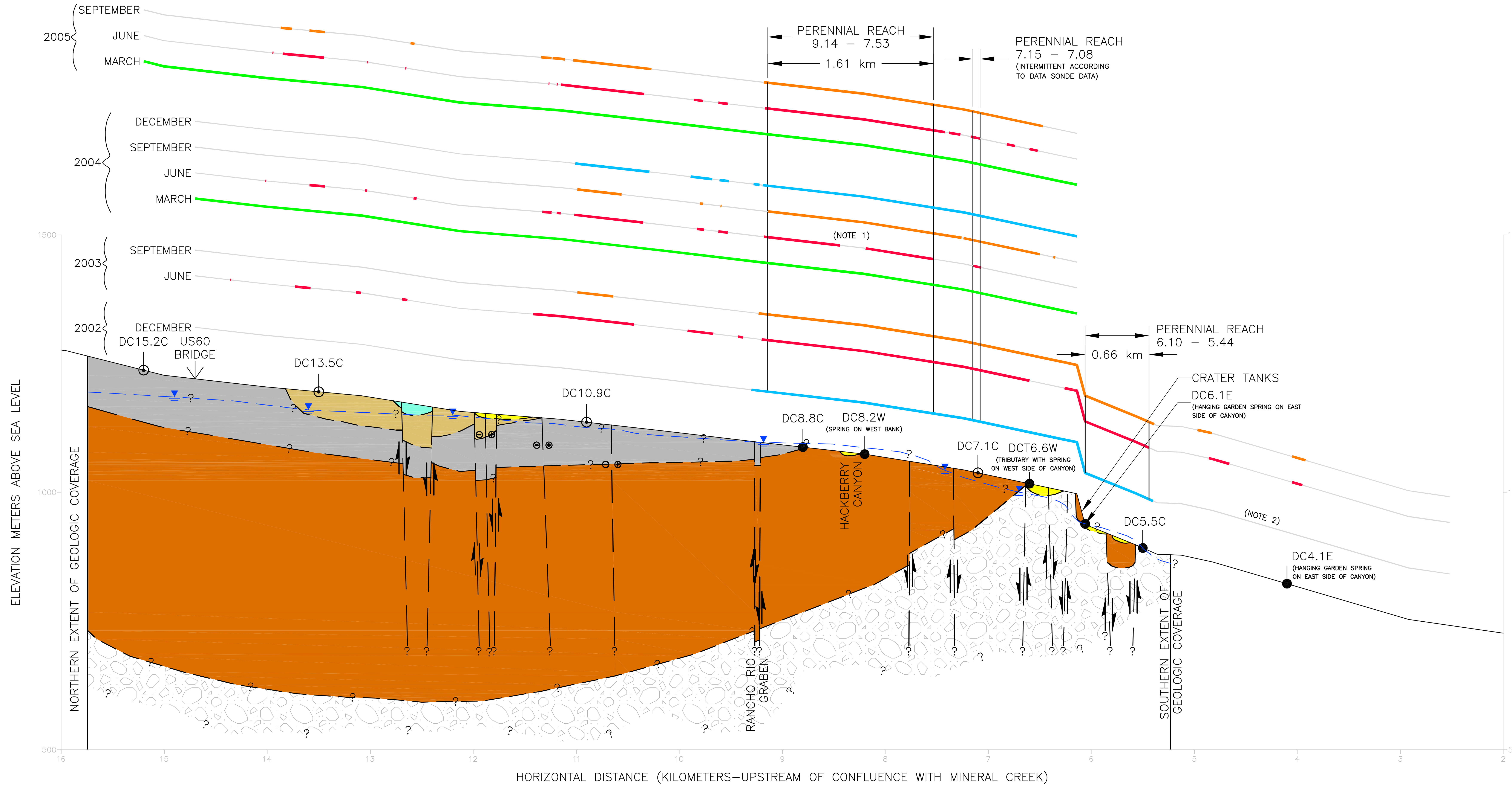
FIGURE 9

06325652F8R01.MXD



DEVILS CANYON CHANNEL PLAN VIEW

1000 0 1000 2000
SCALE APPROX. 1:50000 METERS



DEVILS CANYON CHANNEL PROFILE

500 0 500 1000
SCALE 1:25000 METERS
VERTICAL EXAGGERATION X5

NOTES

1.) NUMEROUS INTERCONNECTED POOLS FED BY SUBFLOW AND TRACE SURFACE FLOW; REACH CONSIDERED PERENNIAL.

2.) SMALL REACHES NOT DEPICTED IN LOWER PORTION OF CANYON DUE TO LACK OF DAYLIGHT. (NOT ENOUGH TIME TO GPS COORDINATES)

LEGEND

- SURVEYED DRY REACHES
- FLOWING REACHES SURVEYED IN DECEMBER
- FLOWING REACHES SURVEYED IN SEPTEMBER
- FLOWING REACHES SURVEYED IN JUNE
- FLOWING REACHES SURVEYED IN MARCH
- INFERRED GEOLOGIC CONTACT
- INFERRED FAULT
- INFERRED WATER LEVEL
- SAMPLE LOCATION WITH INTERMITTENT FLOW
- SAMPLE LOCATION WITH PERENNIAL FLOW
- STRIKE SLIP FAULT + INDICATES RELATIVE MOVEMENT INTO PAGE
- QUARTERNARY ALLUVIUM
- TERTIARY APACHE LEAP DACITE –UPPER WHITE UNIT
- TERTIARY APACHE LEAP DACITE –LOWER WHITE UNIT
- TERTIARY APACHE LEAP DACITE –GREY UNIT
- TERTIARY APACHE LEAP DACITE –BROWN UNIT
- WHITETAIL CONGLOMERATE

REFERENCES

1.) GEOLOGY MODIFIED FROM SURFACE MAPPING BY RESOLUTION COPPER COMPANY (JOHN GANT AND JOEY WILKINS); RECIEVED VIA EMAIL, APRIL 2006.

2.) POTENTIOMETRIC SURFACE AND GEOLOGIC UNIT THICKNESS MODIFIED FROM ERROL L. MONTGOMERY & ASSOCIATES, 2005, "*RESULTS OF PRELIMINARY HYDROGEOLOGIC CHARACTERIZATION FOR APACHE LEAP TUFF AQUIFER SYSTEM IN DEVILS CANYON AND UPPER QUEEN CREEK WATERSHEDS, PINAL AND GILA COUNTIES, ARIZONA*"; DRAFT REPORT PREPARED FOR RESOLUTION COPPER COMPANY, JUNE 3, 2005.

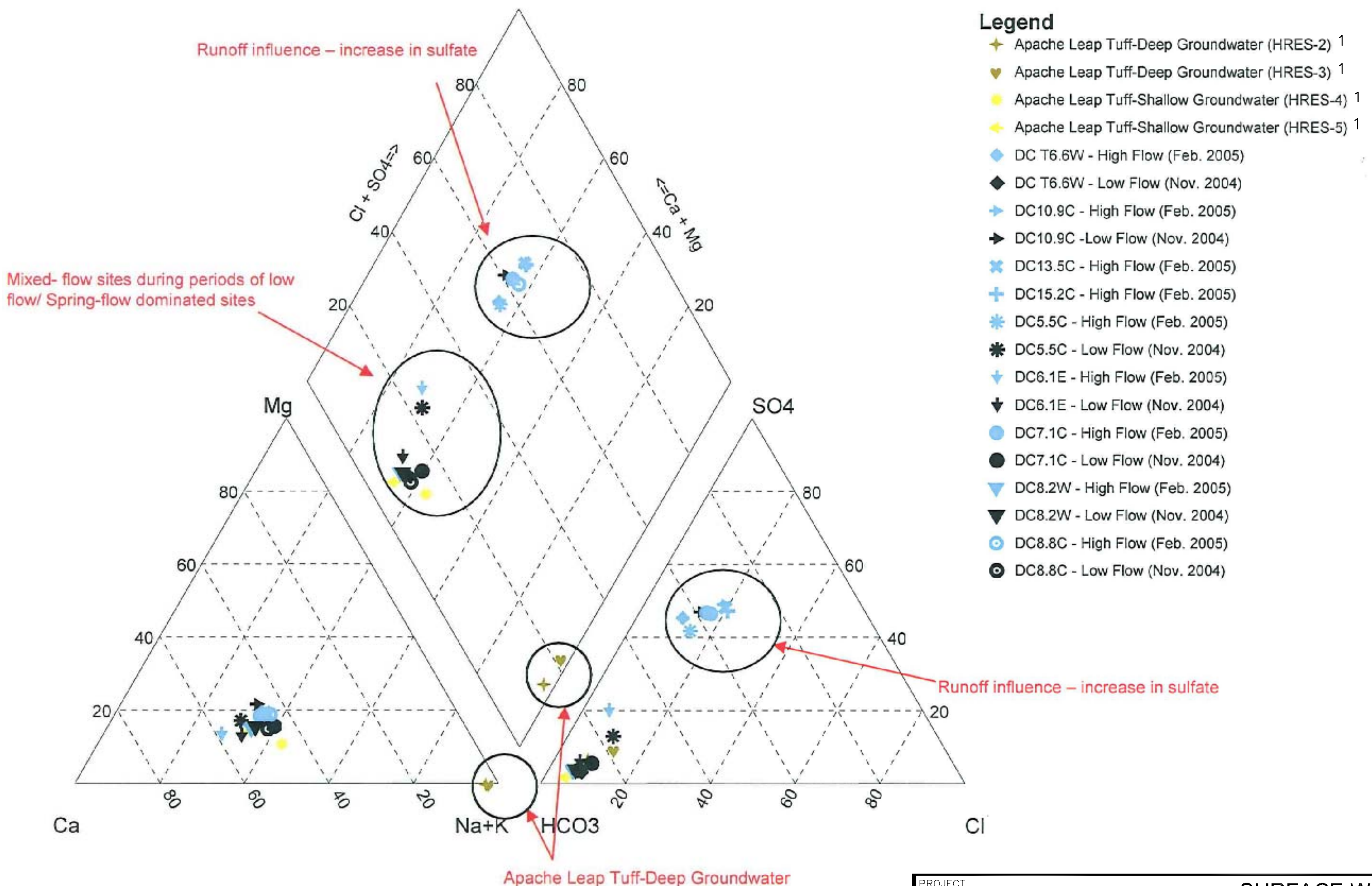
PROJECT
RESOLUTION COPPER COMPANY
SURFACE WATER BASELINE REPORT
SUPERIOR, ARIZONA

TITLE
DEVILS CANYON CHANNEL PROFILE

Golder Associates
Tucson, Arizona

PROJECT No.		063-2565	FILE No.	0632565A002
DESIGN	OM	04/17/06	SCALE AS SHOWN	REV. C
CADD	ANV	04/17/06	FIGURE	
CHECK	JJM	05/02/06	10	
REVIEW	KRJ	06/30/06		

Drawing file: 0632565A007.dwg Jun 30, 2006 - 3:43pm



REFERENCES

1.) ERROL L. MONTGOMERY & ASSOCIATES, 2005, *"RESULTS OF PRELIMINARY HYDROGEOLOGIC CHARACTERIZATION FOR APACHE LEAP TUFF AQUIFER SYSTEM IN DEVILS CANYON AND UPPER QUEEN CREEK WATERSHEDS, PINAL AND GILA COUNTIES, ARIZONA"*: DRAFT REPORT PREPARED FOR RESOLUTION COPPER COMPANY, JUNE 3, 2005.

PROJECT
Resolution Copper Company

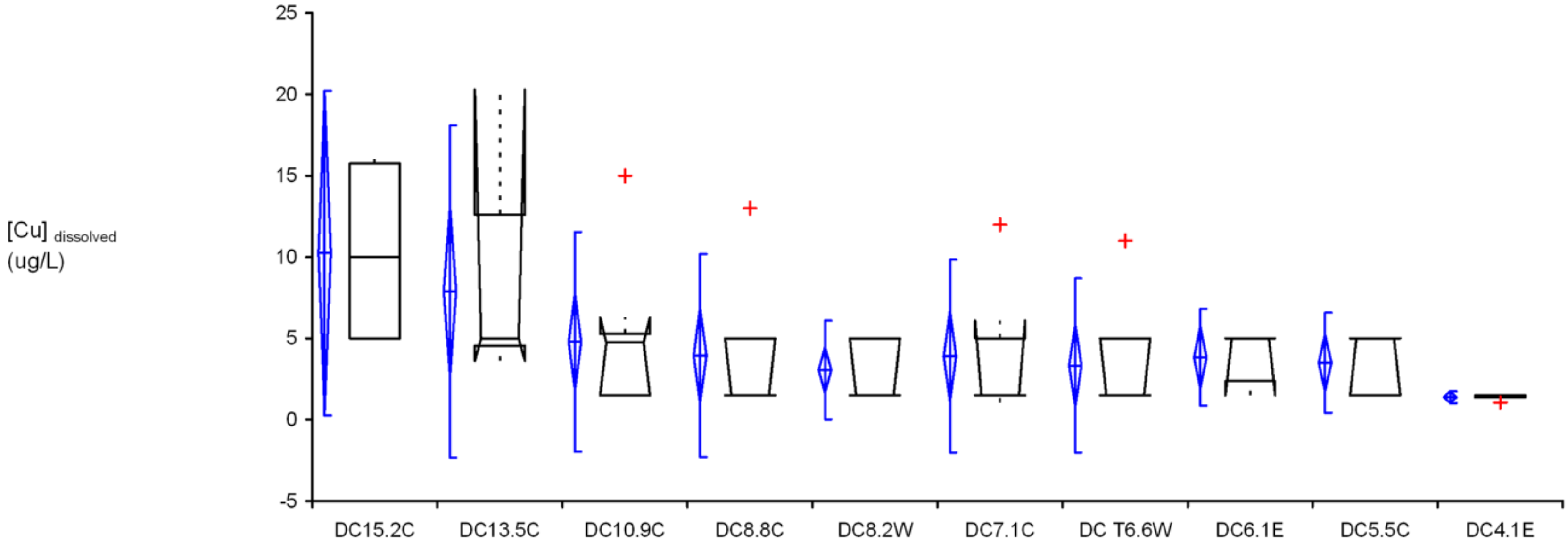
SURFACE WATER BASELINE REPORT SUPERIOR, ARIZONA

TITLE

TRI-LINEAR PLOT DEVILS CANYON

Golder Associates
Tucson, Arizona

PROJECT No.		063–2565	FILE No.	0632565A007
DESIGN	JJM	06/26/06	SCALE AS SHOWN	REV. A
CADD	NIL	06/26/06	**FIGURE 11**	
CHECK	JJM	06/30/06		
REVIEW	KRJ	06/30/06		



Cu	n	Mean	SD	SE	95% CI of Mean	Median	IQR	95% CI of Median
DC15.2C	4	10.250	6.0759	3.0380	0.582 to 19.918	10.000	10.750	- to -
DC13.5C	8	7.888	6.2153	2.1974	2.691 to 13.084	5.000	8.050	3.600 to 20.300
DC10.9C	10	4.790	4.1057	1.2983	1.853 to 7.727	4.750	3.775	1.500 to 6.300
DC8.8C	9	3.944	3.7951	1.2650	1.027 to 6.862	1.500	3.500	1.500 to 5.000
DC8.2W	9	3.056	1.8447	0.6149	1.638 to 4.473	1.500	3.500	1.500 to 5.000
DC7.1C	9	3.906	3.6061	1.2020	1.134 to 6.677	1.500	3.500	1.500 to 6.100
DC T6.6W	9	3.333	3.2500	1.0833	0.835 to 5.832	1.500	3.500	1.500 to 5.000
DC6.1E	6	3.833	1.8074	0.7379	1.937 to 5.730	5.000	2.625	1.500 to 5.000
DC5.5C	7	3.500	1.8708	0.7071	1.770 to 5.230	5.000	3.500	1.500 to 5.000
DC4.1E	4	1.388	0.2250	0.1125	1.029 to 1.746	1.500	0.113	- to -

PROJECT
Resolution Copper Company

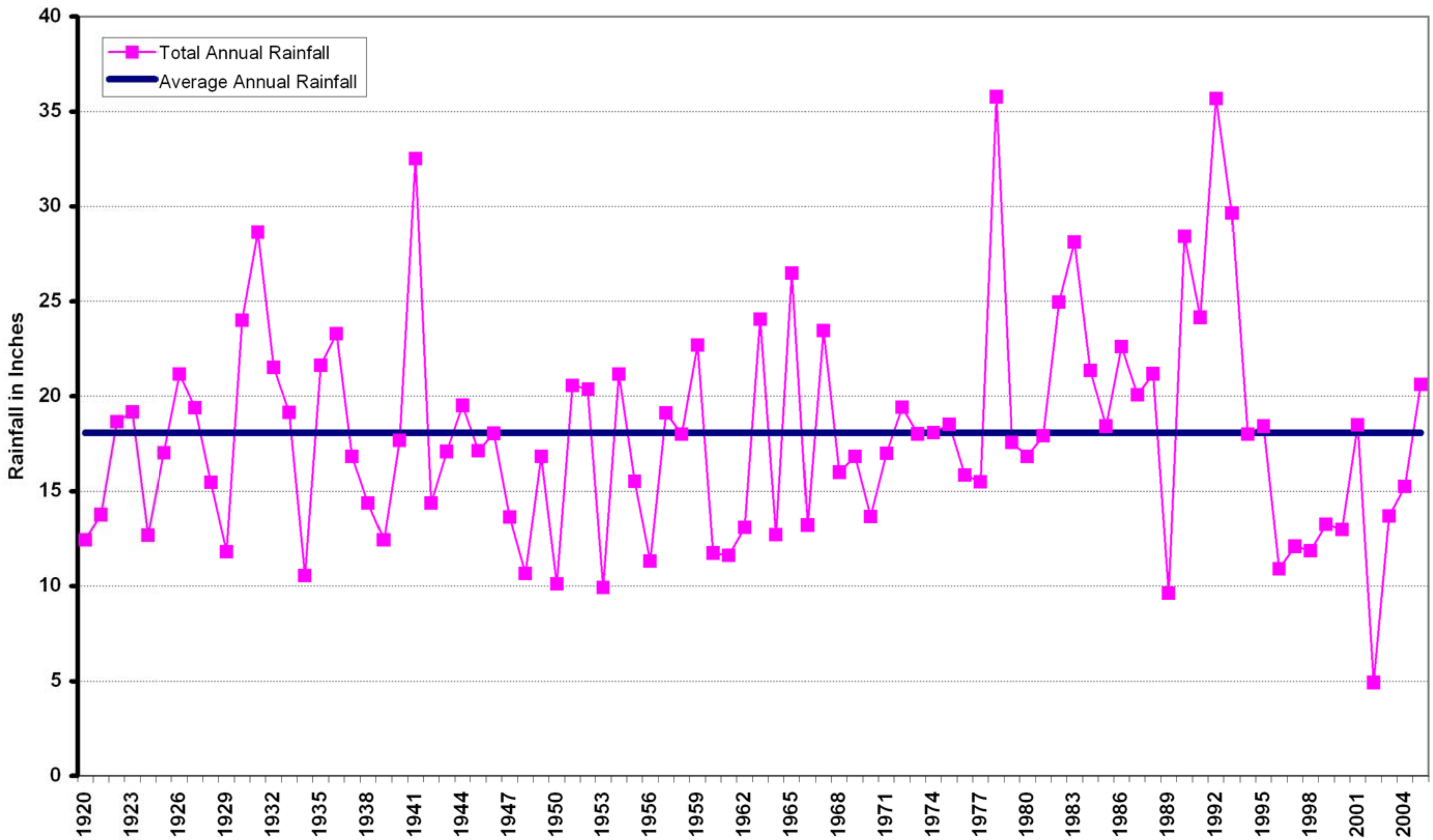
SURFACE WATER
BASELINE REPORT
SUPERIOR, ARIZONA

TITLE
COMPARATIVE DESCRIPTIVE STATISTICS FOR DISSOLVED COPPER DEVILS CANYON

Golder Associates
Tucson, Arizona

PROJECT No.		063-2565	FILE No.	0632565A004
DESIGN	JJM	06/26/06	SCALE AS SHOWN	REV. A
CADD	NIL	06/26/06	**FIGURE 12**	
CHECK	JJM	06/30/06		
REVIEW	KRJ	06/30/06		

Drawing file: 0632565A006.dwg Jun 30, 2006 - 3:46pm



PROJECT

Resolution Copper Company

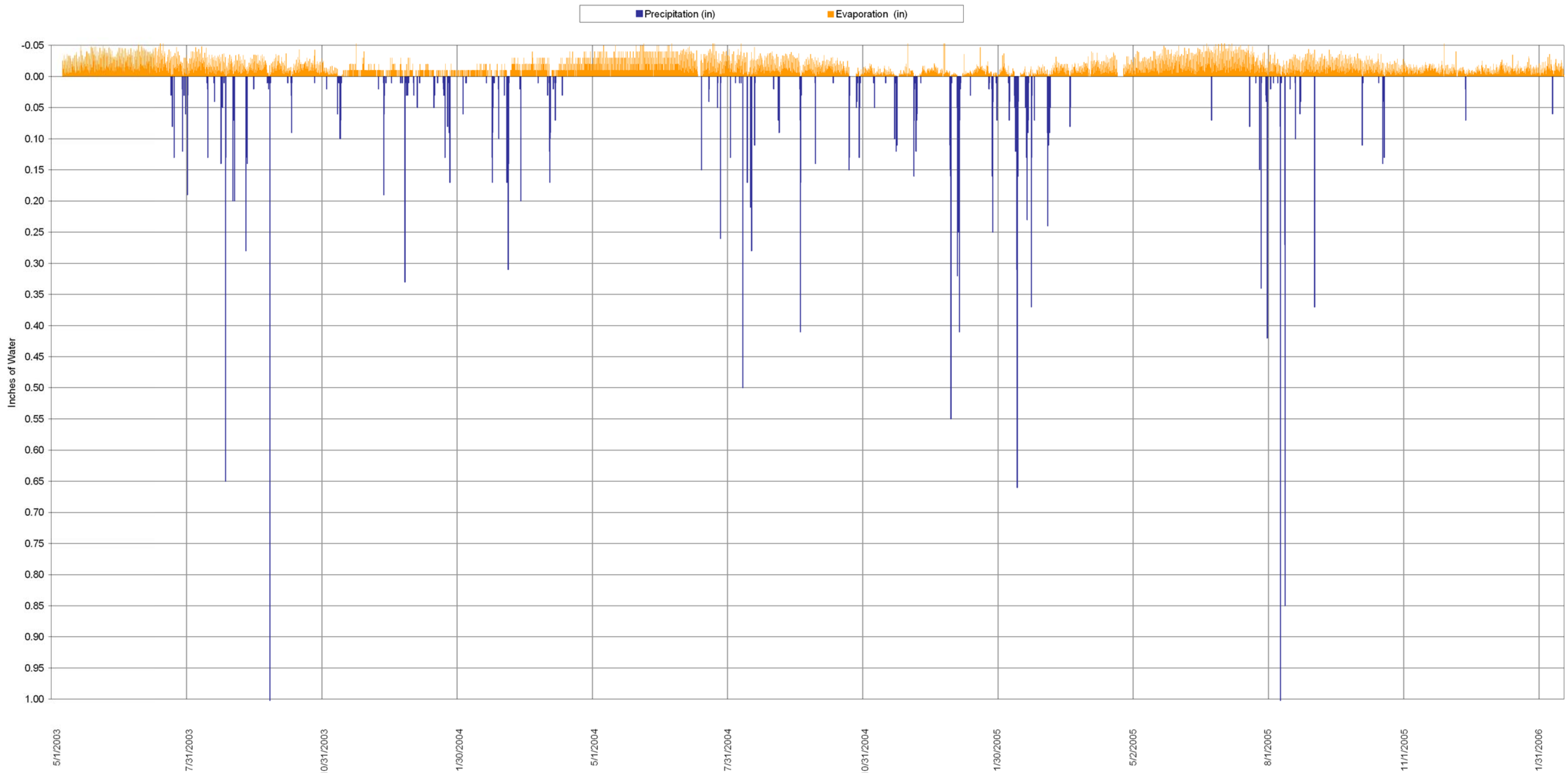
SURFACE WATER
BASELINE REPORT
SUPERIOR, ARIZONA

TITLE

ANNUAL RAINFALL
WEST PLANT SITE
1920 TO 2005

Golder Associates
Tucson, Arizona

PROJECT No.		063-2565	FILE No.	0632565A006
DESIGN	JJM	06/26/06	SCALE AS SHOWN	REV. A
CADD	NIL	06/26/06		
CHECK	JJM	06/30/06	**FIGURE 13**	
REVIEW	KRJ	06/30/06		



PROJECT
Resolution Copper Company

SURFACE WATER
BASELINE REPORT
SUPERIOR, ARIZONA

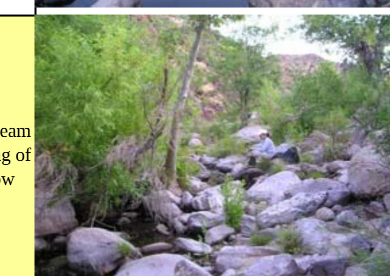
TITLE

HOURLY PRECIPITATION AND EVAPORATION AT SHAFT No. 9 (KC-1) MAY 8, 2003 TO FEBRUARY 17, 2006

Golder Associates
Tucson, Arizona

PROJECT No.		063-2565	FILE No.	0632565A005
DESIGN	JJM	06/27/06	SCALE AS SHOWN	REV. A
CADD	NIL	06/27/06	**FIGURE 14**	
CHECK	JJM	06/30/06		
REVIEW	KRJ	06/30/06		

Drawing file: 0632565A005.dwg Jun 30, 2006 – 3:47pm

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
13.95	Devils Canyon	Reach	start	10 m flowing reach.	6/20/2005	496,941	3,686,595	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.03	Short flowing reach	
13.94	Devils Canyon	Reach	end	-	6/20/2005	496,941	3,686,585	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
13.86	Devils Canyon	Stagnant Pool	point	~4,000 gallon pool.	6/20/2005	496,913	3,686,496	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool	
13.85	Devils Canyon	Reach	start	Flow issues from the southernmost of a series of interconnected pools. Field parameters taken at sample station DC13.5C, where flow was estimated at ~0.06 L/s.	6/20/2005	496,900	3,686,497	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.8	165	18.7	0.06	View downstream from beginning of instream flow	
13.45	Devils Canyon	Reach	end	Flow ends in a pool below DC13.5C.	6/20/2005	496,834	3,686,105	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool at end of flow below DC13.5C	
13.03	Devils Canyon	Reach	start	10 m flowing reach. Film on water surface possibly due to residue from fire retardant. Small burnt area near flowing reach.	6/20/2005	496,834	3,685,701	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.03	View of instream flow near burn area	

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
13.02	Devils Canyon	Reach	end	-	6/20/2005	496,834	3,685,691	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
12.66	Devils Canyon	Reach	start	10 m flowing reach connecting two pools.	6/20/2005	496,852	3,685,340	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
12.65	Devils Canyon	Reach	end	-	6/20/2005	496,852	3,685,330	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View downstream of reach terminus	
11.27	Devils Canyon	Reach	start	10 m flowing reach.	6/20/2005	496,906	3,684,082	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	<0.03	View near beginning of flow showing extensive algal growth in pool	
11.26	Devils Canyon	Reach	end	-	6/20/2005	496,906	3,684,072	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
11.19	Devils Canyon	Reach	start	10 m flowing reach.	6/20/2005	496,876	3,684,005	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool at top of instream flow	

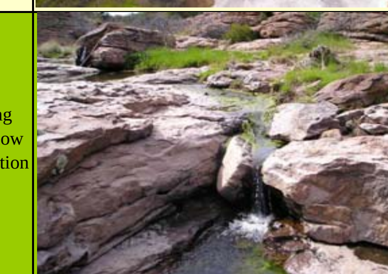
Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
11.18	Devils Canyon	Reach	end	-	6/20/2005	496,873	3,683,998	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool at flow terminus	
11.15	Devils Canyon	Reach	start	Flowing reach. Field parameters taken from DC10.9C. Strong sulfur odor at beginning of reach	6/20/2005	496,892	3,683,966	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.1	110	20.3	0.2	View of shallow pool at top of flow	
10.34	Devils Canyon	Reach	end	-	6/20/2005	497,095	3,683,209	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View downstream near end of flow	
9.86	Devils Canyon	Reach	start	Approximately 100 m flowing reach.	6/20/2005	497,255	3,682,754	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.05	View of heavily vegetated area and boulders near top of flow	
9.77	Devils Canyon	Reach	end	Flow ends in pool.	6/20/2005	497,278	3,682,673	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Pool at end of flow	
9.62	Devils Canyon	Reach	start	Approximately 100 m flowing reach.	6/20/2005	497,269	3,682,515	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-		

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
9.53	Devils Canyon	Reach	end	Flow ends in a long, narrow pool.	6/20/2005	497,263	3,682,443	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-		
9.27	Devils Canyon	Stagnant Pool	point	~9,000 gallon pool at confluence of Rancho Rio and Devils Canyon.	6/20/2005	497,312	3,682,226	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool at confluence of Devils Canyon and Rancho Rio	
9.17	Devils Canyon	Reach	start	Beginning of perennial reach. Field parameters taken at DC8.8C.	6/20/2005	497,375	3,682,122	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.4	277	18.3	0.3	View near beginning of flow	
7.42	Devils Canyon	Reach	end	Flow ends in a series of small, seemingly stagnant pools.	6/28/2005	497,740	3,680,517	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View near end of flow and stagnant pools	
H 0.36	Hackberry Canyon	Stagnant Pool	point	~ 3,000 gallon pool below falls in middle Hackberry Canyon.	6/28/2005	497,166	3,681,477	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	8.1	181	22.5	-	View of pool in middle Hackberry Canyon	
H 0.03	Hackberry Canyon	Stagnant Pool	point	Large pool at base of Hackberry Canyon near confluence with Devils Canyon. Approximately 20,000 to 30,000 gallons.	6/28/2005	497,480	3,681,348	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	8.8	203	25.0	-	-	-

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
7.38	Devils Canyon	Reach	start	Flowing reach.	6/28/2005	497,738	3,680,474	11	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.03	Pool at base of bedrock near start of flow	
7.27	Devils Canyon	Reach	end	-	6/28/2005	497,791	3,680,377	7	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Pool at flow terminus	
7.17	Devils Canyon	Reach	start	Flowing reach. Field parameters taken from DC7.1C.	6/28/2005	497,912	3,680,365	5	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.6	298	24.0	0.1	View of DC7.1C	
7.08	Devils Canyon	Reach	end	Flow terminates in 2 pools, each <500 gallons.	6/28/2005	497,959	3,680,272	6	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Boulders near flow terminus	
6.82	Devils Canyon	Reach	start	Flowing reach.	6/28/2005	497,900	3,680,013	6	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View upstream toward beginning of flow	
6.74	Devils Canyon	Reach	end	-	6/28/2005	497,834	3,679,968	6	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Flow ponding, going underground behind boulder dam	

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
6.68	Devils Canyon	Stagnant Pool	point	Pool ~6,000 gallons.	6/28/2005	497,790	3,679,927	6	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool with abundant algal growth	
6.60	Devils Canyon	Reach	start	Beginning of instream flow. Flow issues from a pool.	6/28/2005	497,738	3,679,865	6	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of pool at start of flow	
6.52	Devils Canyon	Reach	end	-	6/28/2005	497,701	3,679,788	9	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	
6.14	Devils Canyon	Stagnant Pool	point	Uppermost "Crater Tank". End of survey.	6/28/2005	497,932	3,679,581	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of lower Crater Tanks showing no flow between pools	

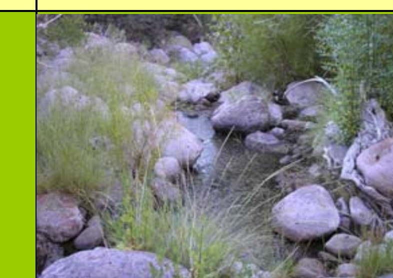
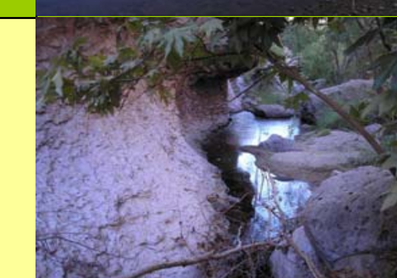
DEVILS CANYON
MARCH 2005 SURFACE WATER SURVEY

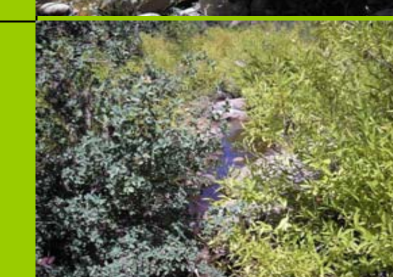
Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
15.20	Devils Canyon	Reach	start	Flowing reach at uppermost sampling station (near confluence of Iron and Devils Canyon). Flow was continuous for entire surveyed reach of canyon. Field parameters taken at DC15.2.	3/22/2005	497,069	3,687,707	8	-	GPS	Primarily Mid-Tertiary Apache Leap Dacite Tuff, with small sections of Whitetail Conglomerate in lower portion of reach.	7.6	112	8.8	20	View of DC15.2C	
6.14	Devils Canyon	Reach	end	Field parameters taken at 7.1C. Average estimated discharge for the entire flowing reach was approximately 15 L/s.	3/30/2005	497,932	3,679,581	5	-	GPS	Primarily Mid-Tertiary Apache Leap Dacite Tuff, with small sections of Whitetail Conglomerate in lower portion of reach.	7.8	130	13.7	15	View of Uppermost "Crater Tank"	
RR 1.57	Rancho Rio	Reach	start	Field parameters taken at UTM: 496,126 3,682,670. Flow was continuous for the surveyed reach of Rancho Rio. Some short sections of subflow. No flowing tributaries noted in Rancho Rio. Average estimated discharge for the entire flowing reach was 0.5 L/s.	3/22/2005	496,013	3,682,817	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.8	82	19.3	0.6	View looking upstream at flow in bedrock section of canyon	
RR 0.00	Rancho Rio	Reach	end	Field parameters taken at bottom of surveyed reach.	3/22/2005	497,273	3,682,243	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.7	74	16.9	0.3	View of lower Rancho Rio near Devils Canyon confluence	
H 1.27	Hackberry Canyon	Reach	start	Uppermost flowing reach begins immediately downstream of windmill.	3/30/2005	496,322	3,681,532	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	8.1	116	11.3	0.6	View of Upper Hackberry Canyon	
H 0.55	Hackberry Canyon	Reach	end	-	3/30/2005	497,000	3,681,571	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View of end of flow	

MARCH 2005 SURFACE WATER SURVEY

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
H 0.52	Hackberry Canyon	Reach	start	Surface flow re-emerges from beneath boulder drain (~0.3 L/s).	3/30/2005	497,036	3,681,566	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.3	Re-emergence of surface flow	
H 0.47	Hackberry Canyon	Reach	end	-	3/30/2005	497,076	3,681,532	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Surface flow disappearing beneath boulders and sand	
H 0.42	Hackberry Canyon	Reach	start	Surface flow re-emerges from beneath boulder drain (~0.3 L/s). Estimated discharge shown is from Station 6. Field parameters taken from Station 7 (UTM: 497,147 3,681,471). Station 7 is a clear pool fed by falls (~0.6 L/s).	3/30/2005	497,095	3,681,481	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	8.1	116	11.3	0.3	Re-emergence of surface flow; pools	
H 0.35	Hackberry Canyon	Reach	end	Flow goes underground.	3/30/2005	497,168	3,681,457	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Surface flow disappearing beneath boulders and sand	
H 0.25	Hackberry Canyon	Pool	point	Pool near cedar tree. Estimated volume = 3,000 gallons.	3/30/2005	497,276	3,681,419	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Looking downstream at pool with large juniper	
H 0.20	Hackberry Canyon	Reach	start	Surface flow re-emerges.	3/30/2005	497,310	3,681,418	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.6	Re-emergence of surface flow	

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
H 0.00	Hackberry Canyon	Reach	end	The confluence of Hackberry Canyon with Devils Canyon. Field parameters taken at UTM: 497,440 3,681,440, a pool at the base of Hackberry Canyon, surface inflow at pool was ~0.6 L/s, surface outflow ~0.3 L/s. No tributaries were observed in Hackberry Canyon.	3/30/2005	497,517	3,681,448	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	8.1	117	12.2	0.1	Large pool at the base of Hackberry Canyon, near confluence with Devils Canyon	
Oak Creek	Oak Canyon	Tributary	point	Flow was continuous for the surveyed length of Oak Creek Canyon.	3/30/2005	497,394	3,680,982	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.8	135	13.2	0.3	View upstream near pool at top of surveyed reach.	

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
13.87	Devils Canyon	Reach	start	Flowing reach.	9/30/2005	496,898	3,986,514	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.03	-	-
13.76	Devils Canyon	Reach	end	-	9/30/2005	496,902	3,986,408	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
13.59	Devils Canyon	Reach	start	Flowing reach.	9/30/2005	496,866	3,686,244	5	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.06	-	
13.44	Devils Canyon	Reach	end	-	9/30/2005	496,857	3,686,097	10	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	
12.61	Devils Canyon	Reach	start	Flowing reach.	9/30/2005	496,864	3,685,279	12	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff		-	-	0.20	-	
12.57	Devils Canyon	Reach	end	-	9/30/2005	496,862	3,685,232	16	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
11.34	Devils Canyon	Reach	start	Flowing reach.	9/30/2005	496,915	3,684,156	8	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	
11.24	Devils Canyon	Reach	end	-	9/30/2005	496,876	3,684,045	7	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	
11.23	Devils Canyon	Reach	start	Flowing reach.		496,867	3,684,039	7	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	
11.11	Devils Canyon	Reach	end	-		496,884	3,683,930	5	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	
11.03	Devils Canyon	Reach	start	Flowing reach. Field parameters taken at sample station DC10.9C.	9/30/2005	496,939	3,683,852	5	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.8	107	20.3	0.30	-	
10.27	Devils Canyon	Reach	end	-	9/30/2005	497,121	3,683,144	6	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
9.27	Devils Canyon	Stagnant Pool	point	Large (>1,000 gallon pool at confluence of Rancho Rio and Devils Canyon.	10/12/2005	497,312	3,682,226	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
RR 1.20	Rancho Rio	Reach	start	Series of bedrock pools with flow between pools.	9/30/2005	496,312	3,682,692	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.06	-	-
RR 0.93	Rancho Rio	Reach	end	-	9/30/2005	496,647	3,682,713	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
9.18	Devils Canyon	Reach	start	Flowing reach - beginning of perennial reach.	9/30/2005	497,380	3,682,134	8	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.60	-	-
6.47	Devils Canyon	Reach	end	End of instream flow.	9/30/2005	497,647	3,679,738	10	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
H 0.36	Hackberry	Stagnant Pool	point	Large pool formerly referred to as Kent's Pool.	10/12/2005	497,166	3,681,477	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
H 0.03	Hackberry	Stagnant Pool	point	Large pool at base of Hackberry Canyon near confluence with Devils Canyon.	10/12/2005	497,480	3,681,348	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
6.15	Devils Canyon	Reach	start	Flowing reach that starts approximately 10 m above first "Crater Tank" and ends at the tank that is the end point of the survey.	10/12/2005	497,916	3,679,563	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.30	-	-
6.14	Devils Canyon	Reach	end	-	10/12/2005	497,946	3,679,583	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
Pump Station	Queen Creek	Spring	point	Field parameters taken from Pump Station.	6/16/2005	494,058	3,688,879	-	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	7.7	830	14.9	0.13	-	-
30.72	Queen Creek	Reach	start	Reach starts at Pump Station Spring. Flow begins approximately where road crosses Queen Creek in parking area.	6/16/2005	494,058	3,688,879	-	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	-	-	-	0.13	Algal growth at Pump Station Spring	
30.36	Queen Creek	Reach	end	End of instream flow.	6/16/2005	494,373	3,688,715	-	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	-	-	-	-	-	-
30.29	Queen Creek	Reach	start	Flowing reach.	6/16/2005	494,442	3,688,670	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.03	Top of flowing reach	
30.24	Queen Creek	Reach	end	-	6/16/2005	494,479	3,688,669	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	View downstream showing end of flow	
30.14	Queen Creek	Reach	start	Approximately 100 m flowing reach. Several small pools (<100 gallons) immediately downstream of flowing reach.	6/16/2005	494,531	3,688,592	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.05	Flow re-emerging from beneath boulders	

QUEEN CREEK
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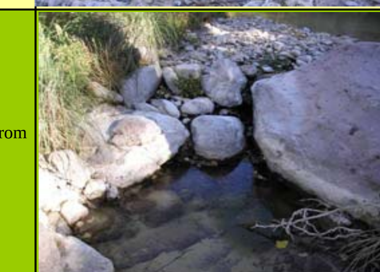
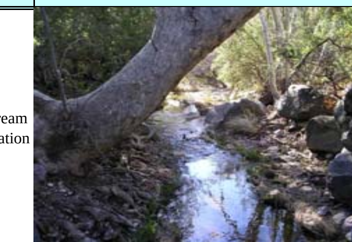
Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
30.05	Queen Creek	Reach	end	Surface flow stops just short of a series of small pools.	6/16/2005	494,555	3,688,507	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	Looking upstream from terminal pool	
30.02	Queen Creek	Reach	start	Flowing reach.	6/16/2005	494,565	3,688,473	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.1	View downstream from top of flow	
29.97	Queen Creek	Reach	end	-	6/16/2005	494,609	3,688,439	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
29.89	Queen Creek	Reach	start	Flowing reach.	6/16/2005	494,672	3,688,407	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0	View downstream from top of flow	
29.64	Queen Creek	Reach	end	Flowing reach ends immediately above series of small pools.	6/16/2005	494,746	3,688,291	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0	Terminal pool	
29.55	Queen Creek	Reach	start	Flowing reach - A small (~7 m) length of instream flow was noted immediately upstream of this reach.	6/16/2005	494,843	3,688,118	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.06	-	-

QUEEN CREEK
JUNE 2005 SURFACE WATER INVENTORY

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (µS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
29.29	Queen Creek	Reach	end	End of instream flow.	6/16/2005	494,954	3,687,898	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
27.21	Queen Creek	Stagnant Pool	point	Slot pool. Typically the largest stagnant pool in Upper Queen Creek.	6/16/2005	494,909	3,686,228	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	9.2	409	18.6	-	View of rock flume/slot pool	
Hand Dug Well	Queen Creek	Hand Dug Well	point	Historical hand dug well with water located near confluence of Queen Creek and drainage from Oak Flat campground.	6/17/2005	494,505	3,685,545	-	1161	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
T 0.64	Tinaja	Tinaja	point	Slotted portion of canyon with tinaja. ~4 gallons. Driest observed so far.	6/17/2005	494,998	3,683,855	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.9	121.7	15.7	-	-	-
Eddie	Queen Creek	Spring	point	Three different, small spring areas. ~750 gallons total in pool below spring area.	6/17/2005	492,618	3,684,622	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.7	403	18.5	0.03	-	-
Boulder Hole	Queen Creek	Spring	point	Water level extremely low for this site (~20 gallons).	6/17/2005	492,281	3,684,522	-	940	GPS	Mid-Tertiary Apache Leap Dacite Tuff	7.6	559	20.1	-	-	-

QUEEN CREEK
MARCH 2005 SURFACE WATER INVENTORY

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (μS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
Pump Station	Queen Creek	Spring	point	Surface flow in channel above spring location.	3/16/2005	494,058	3,688,879	12	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	8.1	595	8.8	1	View downstream from Pump Station	
30.72	Queen Creek	Reach	start	Reach starts at Pump Station Spring. Flow was continuous from Pump Station to the town of Superior. The average estimated flow for the entire reach was 1 L/s (varied between 0.5 and 1.6 L/s).	3/16/2005	494,058	3,688,879	12	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	8.1	595	8.8	1	View upstream at Pump Station	
21.80	Queen Creek	Reach	end	-	3/16/2005	491,263	3,683,598	5	-	GPS	Tilted Paleozoic Limestone	-	-	-	-	Instream flow at bridge downstream of QC22.6E	
T0.00	Tinaja Canyon	Reach	start	Reach begins just above culvert across #9 Road. Flow was continuous for the length of the canyon (<20' of dry surface sections between visible flows). The estimated flow shown is an average value. Field parameters shown were taken at Tinaja sample site.	3/16/2005	495,146	3,683,404	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	8.0	54	9.1	0.04		
T1.76	Tinaja Canyon	Reach	end	-	3/16/2005	494,569	3,684,274	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
25.40	Queen Creek	Tributary	point	Tributary of Queen Creek that drains the Kings Crown Peak area. Waterfalls in tributary are easily seen from US60.	3/16/2005	493,766	3,685,468	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	-	-
22.6	Queen Creek	Spring	point	Karst Spring - Emerges from limestone void/cave on left bank (looking downstream), approximately 5 to 10 feet above thalweg.	3/16/2005	491,722	3,684,033	-	-	GPS	Tilted Paleozoic Limestone	7.6	327	14.6	0.5		-

QUEEN CREEK
SEPTEMBER 2005 SURFACE WATER INVENTORY

Name/Stationing (km)	Drainage	Feature Type	Data Type (start, end, or point)	Feature Description	Date Observed	UTMx	UTMy	Horizontal Accuracy (+/-m)	Elevation (m)	Source	Geologic Unit	pH	Specific Conductance (μS/cm)	Temperature (Celsius)	Estimated Discharge (L/s)	Description of Photograph	Photograph
Pump Station	Queen Creek	Spring	point	Spring at beginning of surveyed reach of Queen Creek.	9/24/2004	494,058	3,688,879	7	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	6.9	779	15.8	0.20	-	-
30.72	Queen Creek	Reach	start	Reach starts at Pump Station Spring.	9/24/2004	494,058	3,688,879	6	-	GPS	Near contact of Haunted Canyon Rhyolite and Marble	-	-	-	0.20	Start of flow at Pump Station	
30.42	Queen Creek	Reach	end	-	9/24/2005	494,327	3,688,744	7	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	-	End of flow below Pump Station	
Eddie	Queen Creek	Spring	point	Three different, small spring areas. Flow estimated at 0.5 gpm.	9/24/2005	492,618	3,684,622	-	-	GPS	Mid-Tertiary Apache Leap Dacite Tuff	-	-	-	0.03	-	-
Boulder Hole	Queen Creek	Spring	point	Small pool that is always present with clear water. No flow noted, but must be flowing to maintain clear water conditions.	9/27/2005	492,281	3,684,522	-	940	GPS	Silicified Paleozoic Limestone	-	-	-	-	-	-

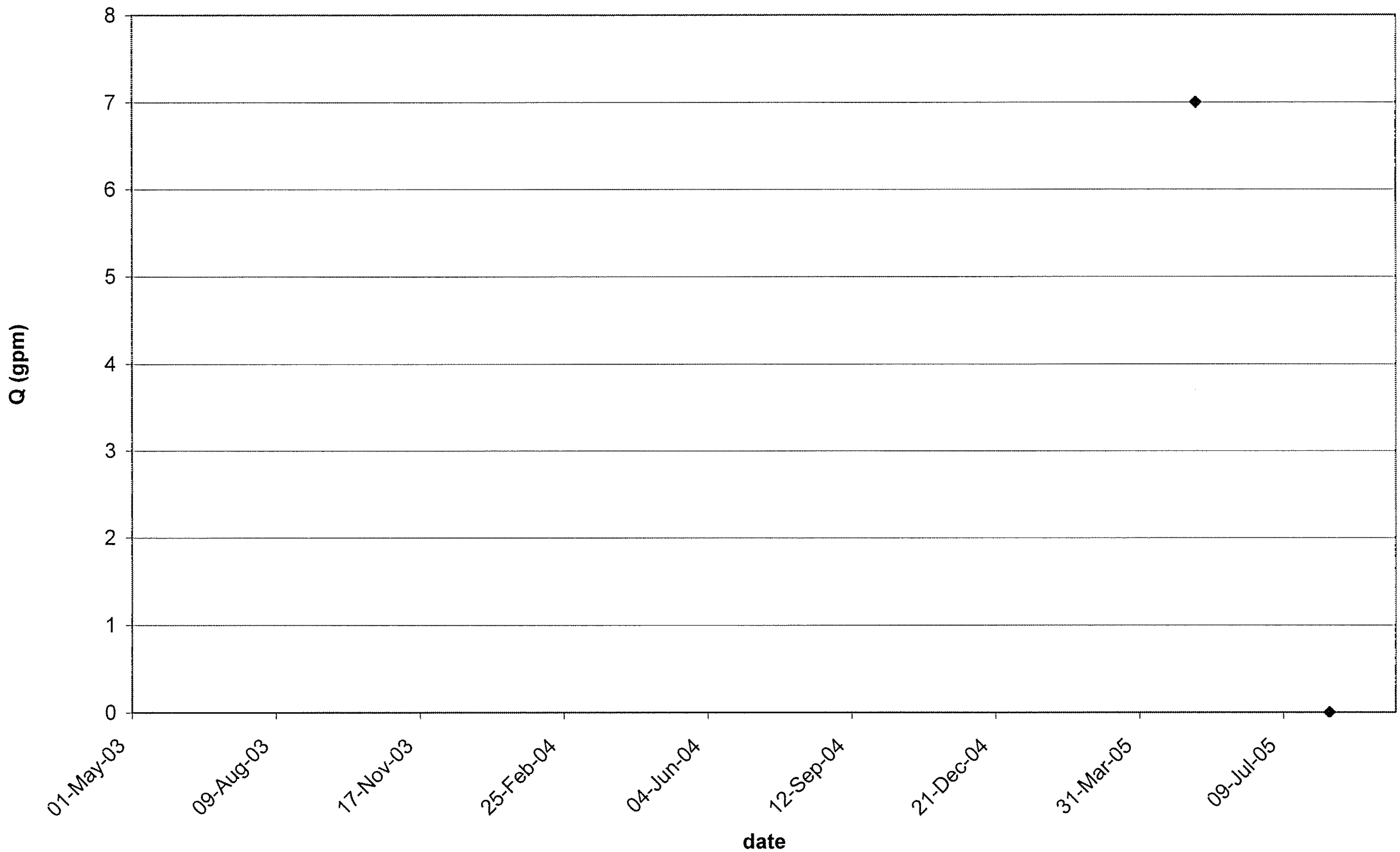
APPENDIX B

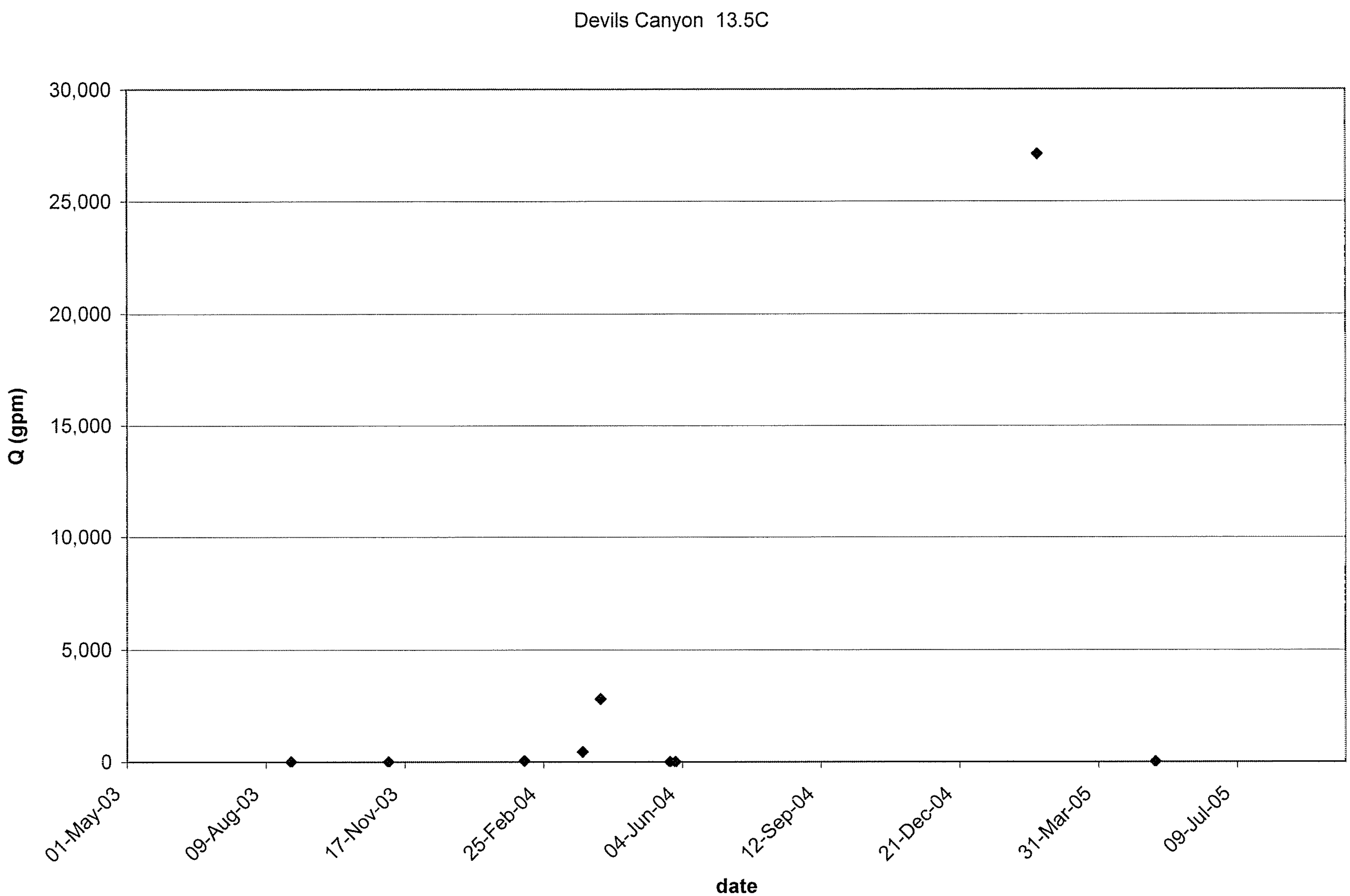
SAMPLE STATION HYDROGRAPHS AND DEVILS CANYON RATING CURVES

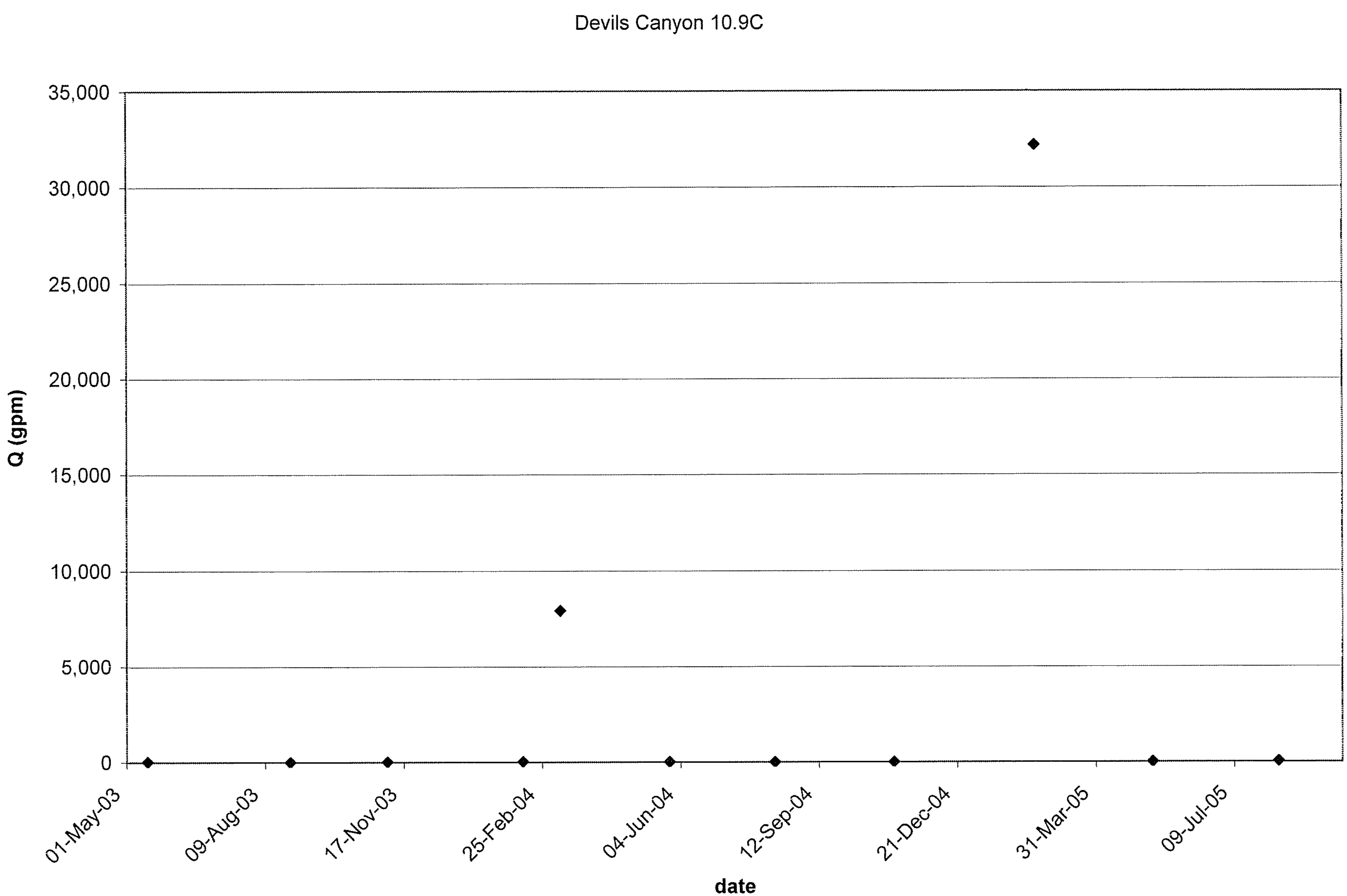
SAMPLE STATION HYDROGRAPHS

DEVILS CANYON WATERSHED

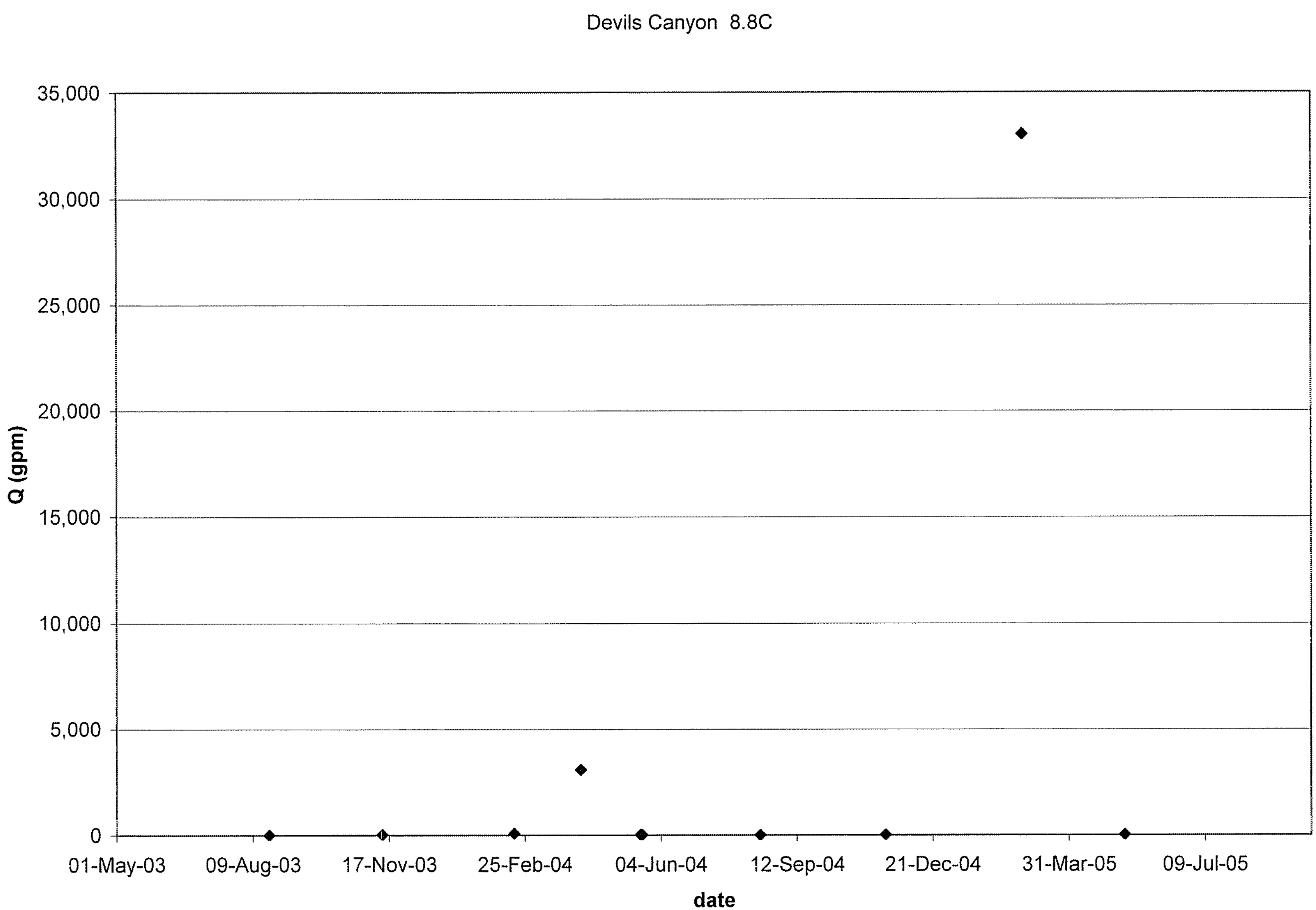
Devils Canyon 15.2C



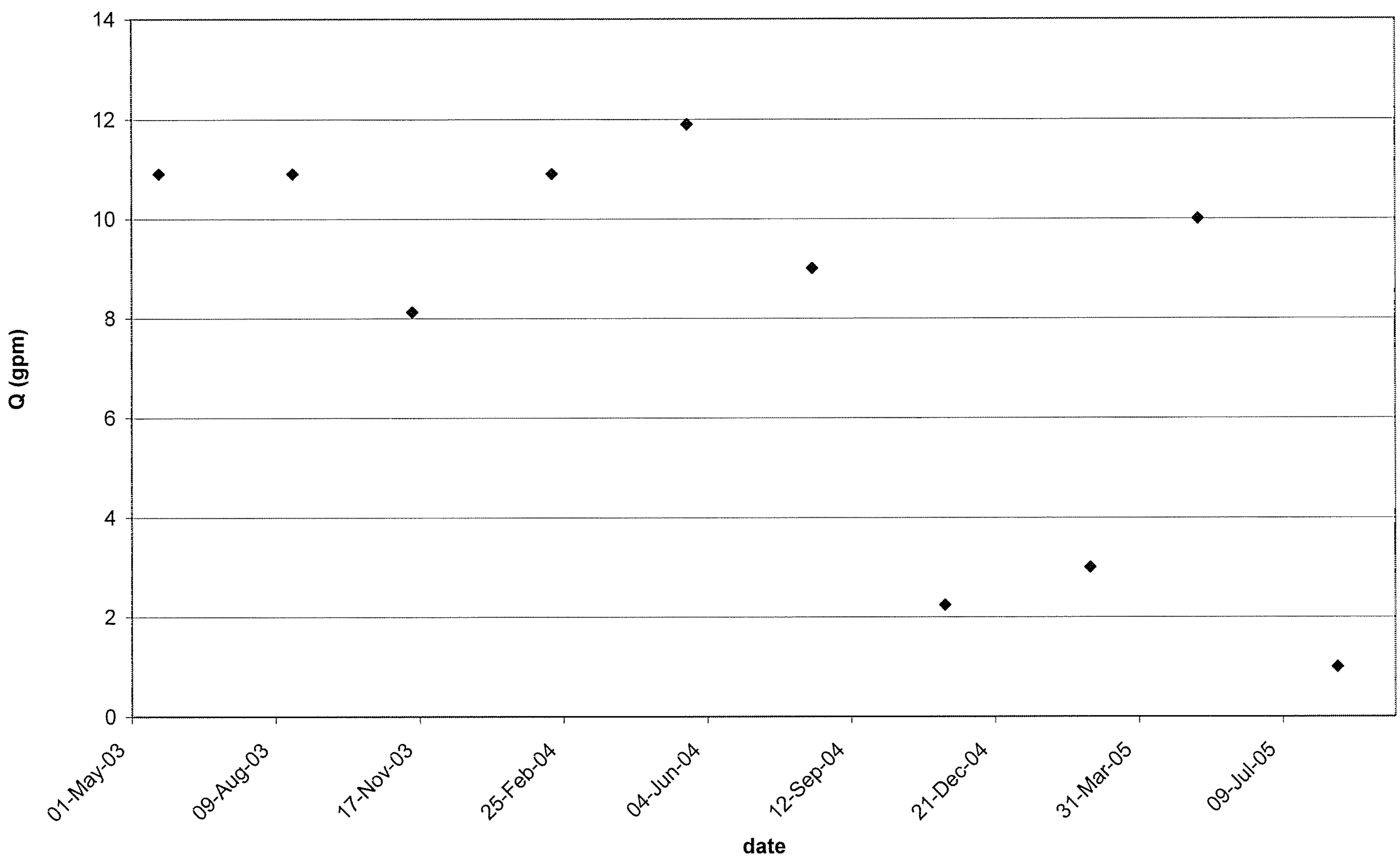

Devils Canyon 13.5C
Q (gpm)
30,000
25,000
20,000
15,000
10,000
5,000
0
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date



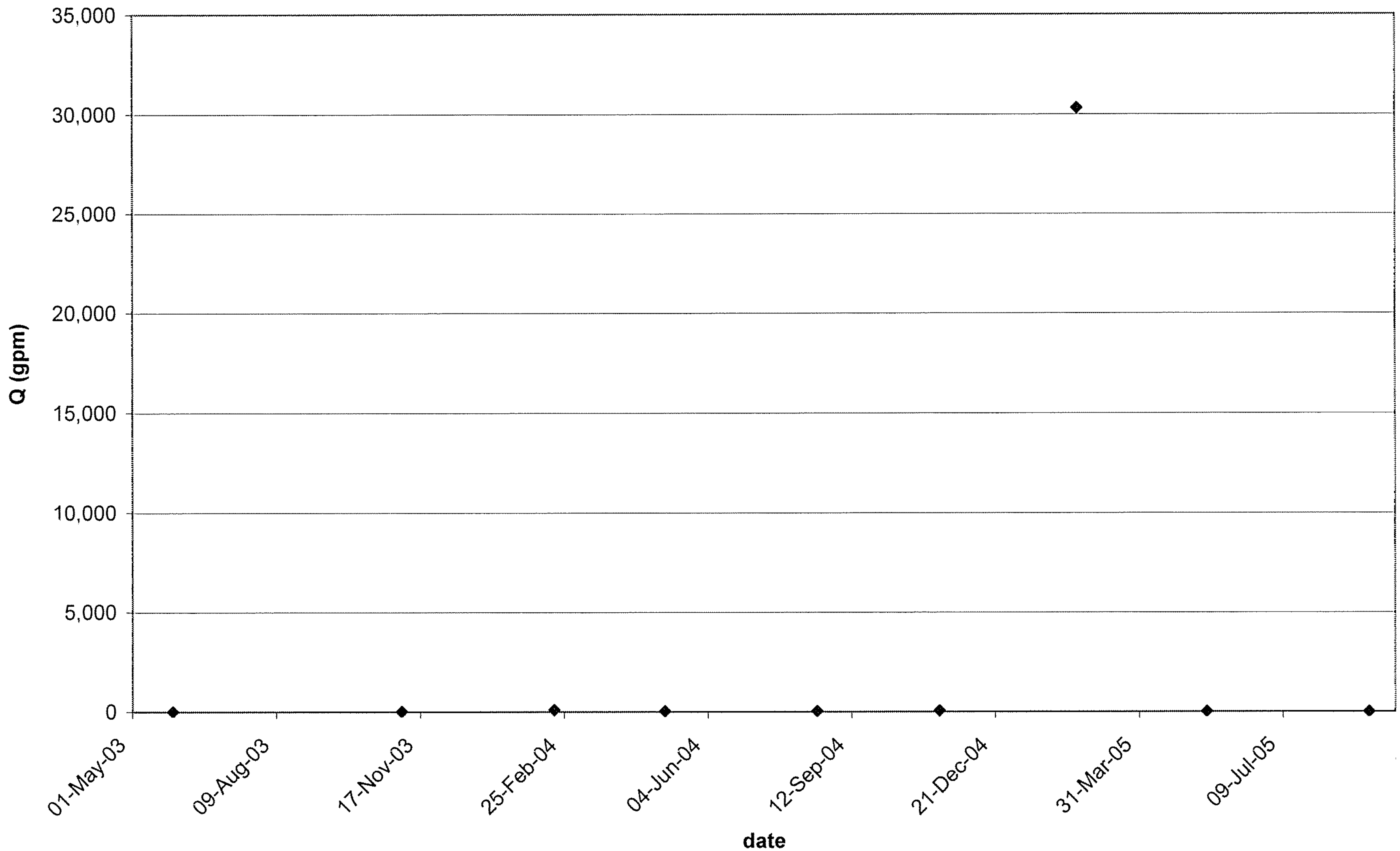
Devils Canyon 10.9C
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Q (gpm)
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

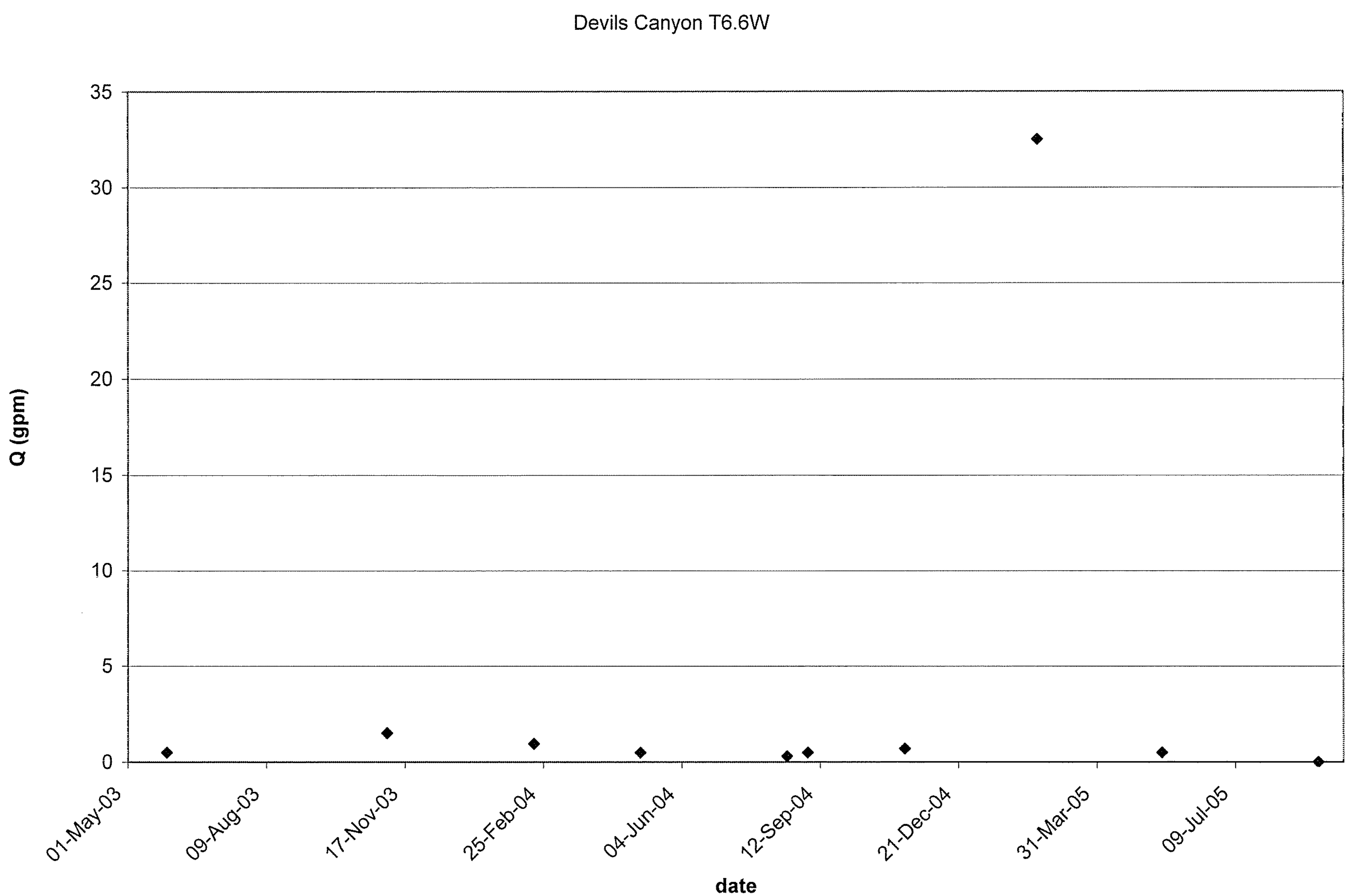

Devils Canyon 8.8C
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Q (gpm)
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

Devils Canyon 8.2W



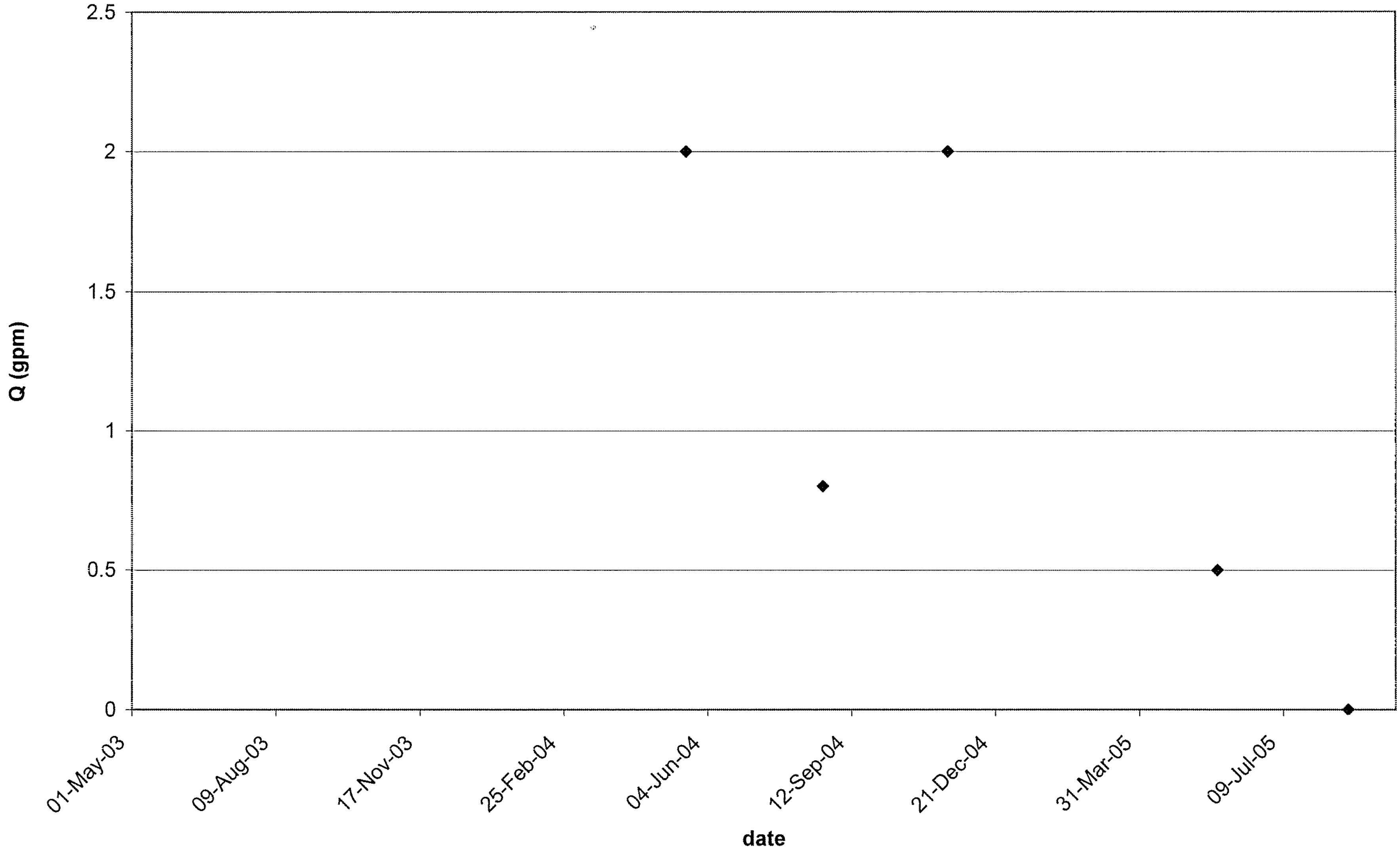
Devils Canyon 7.1C

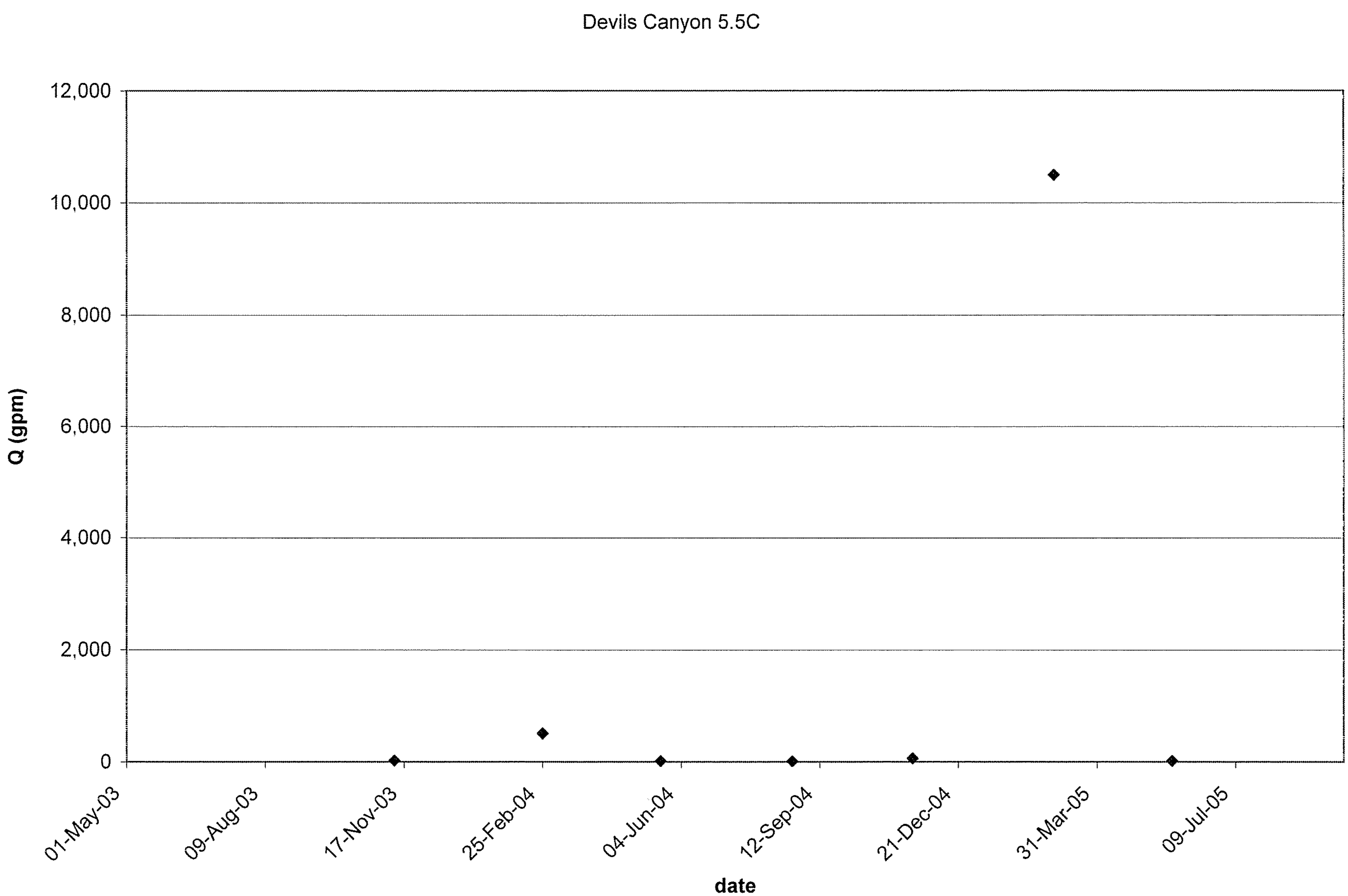




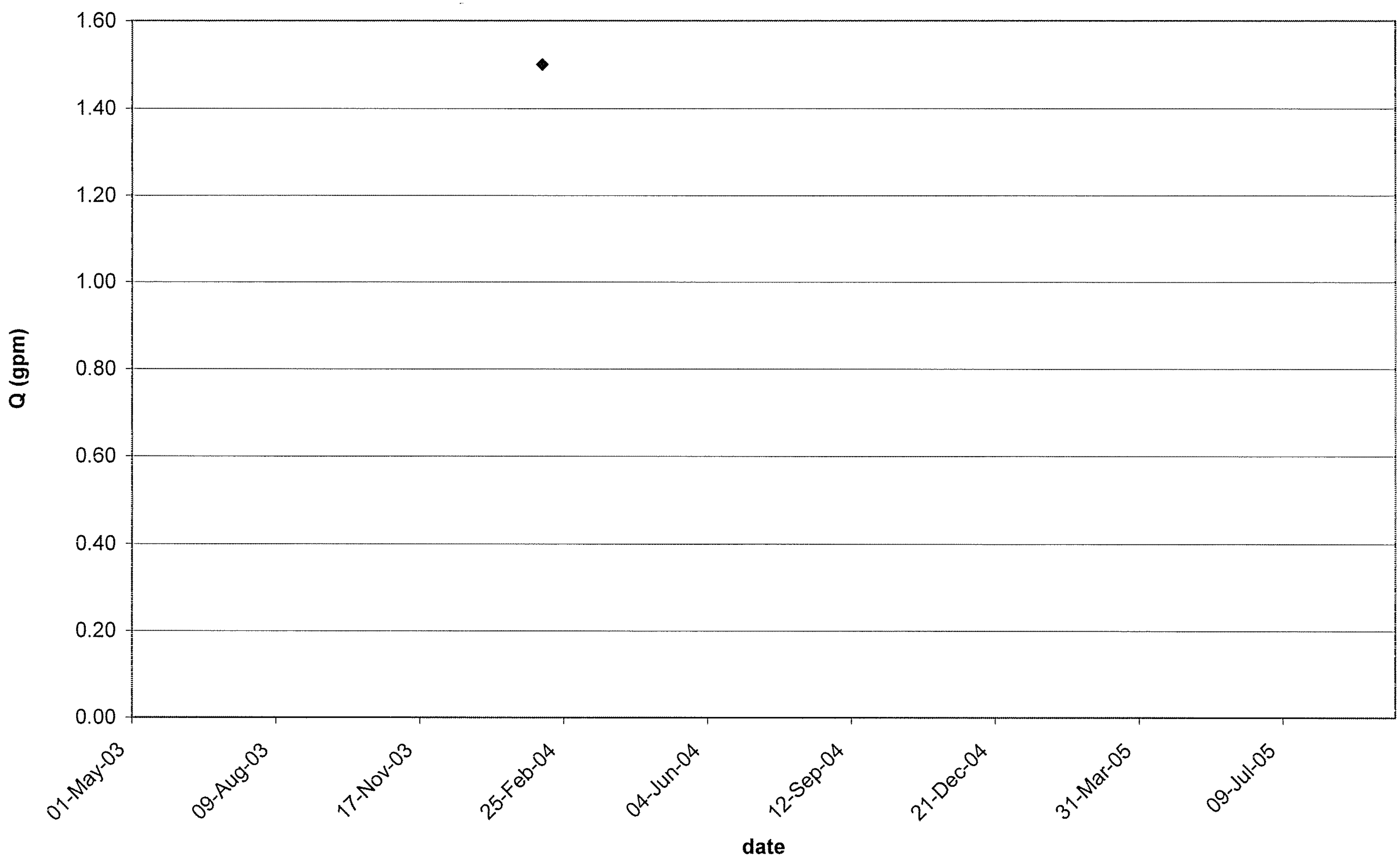
Devils Canyon T6.6W
Q (gpm)
35
30
25
20
15
10
5
0
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

Devils Canyon 6.1E



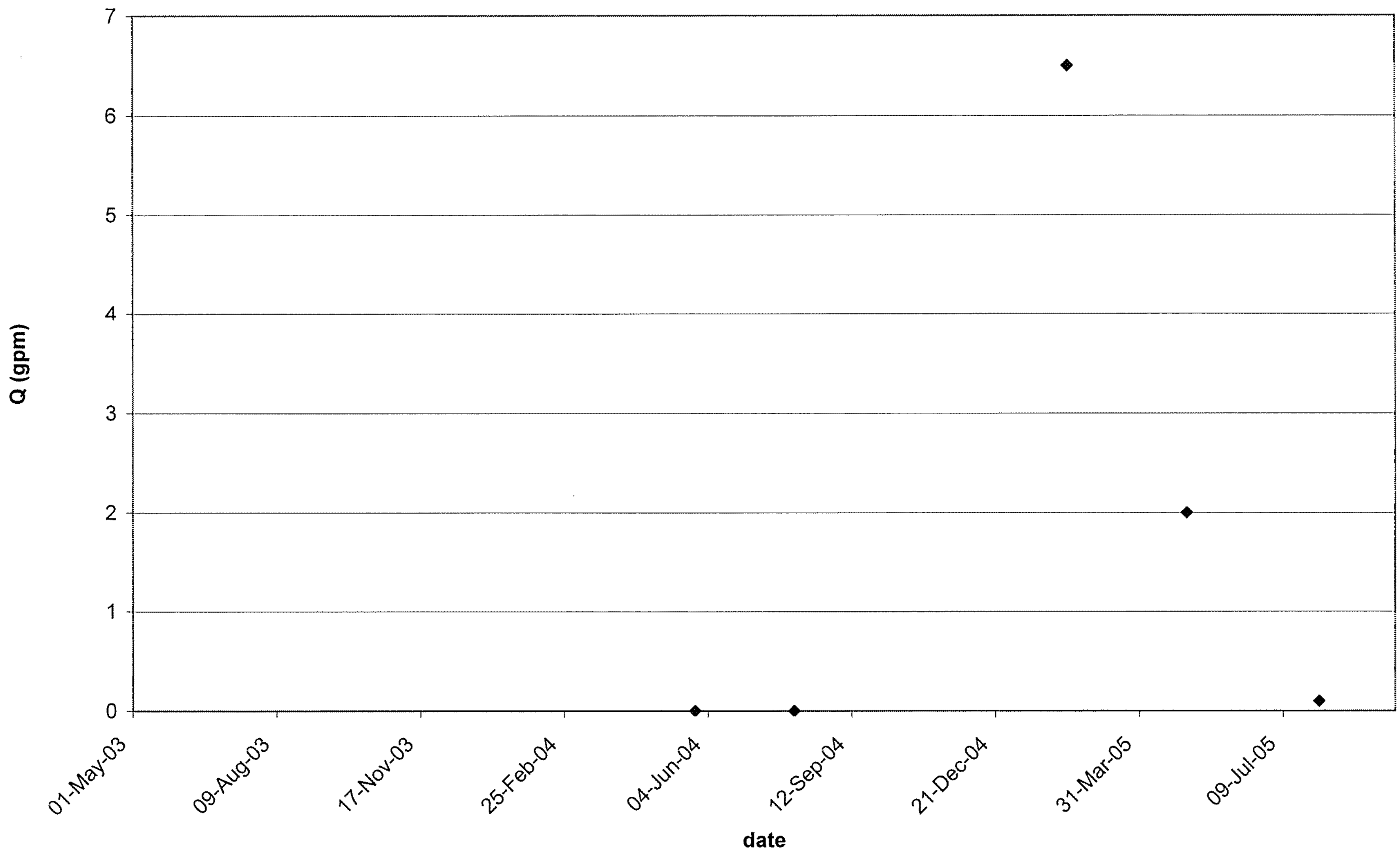

Devils Canyon 5.5C
Q (gpm)
12,000
10,000
8,000
6,000
4,000
2,000
0
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

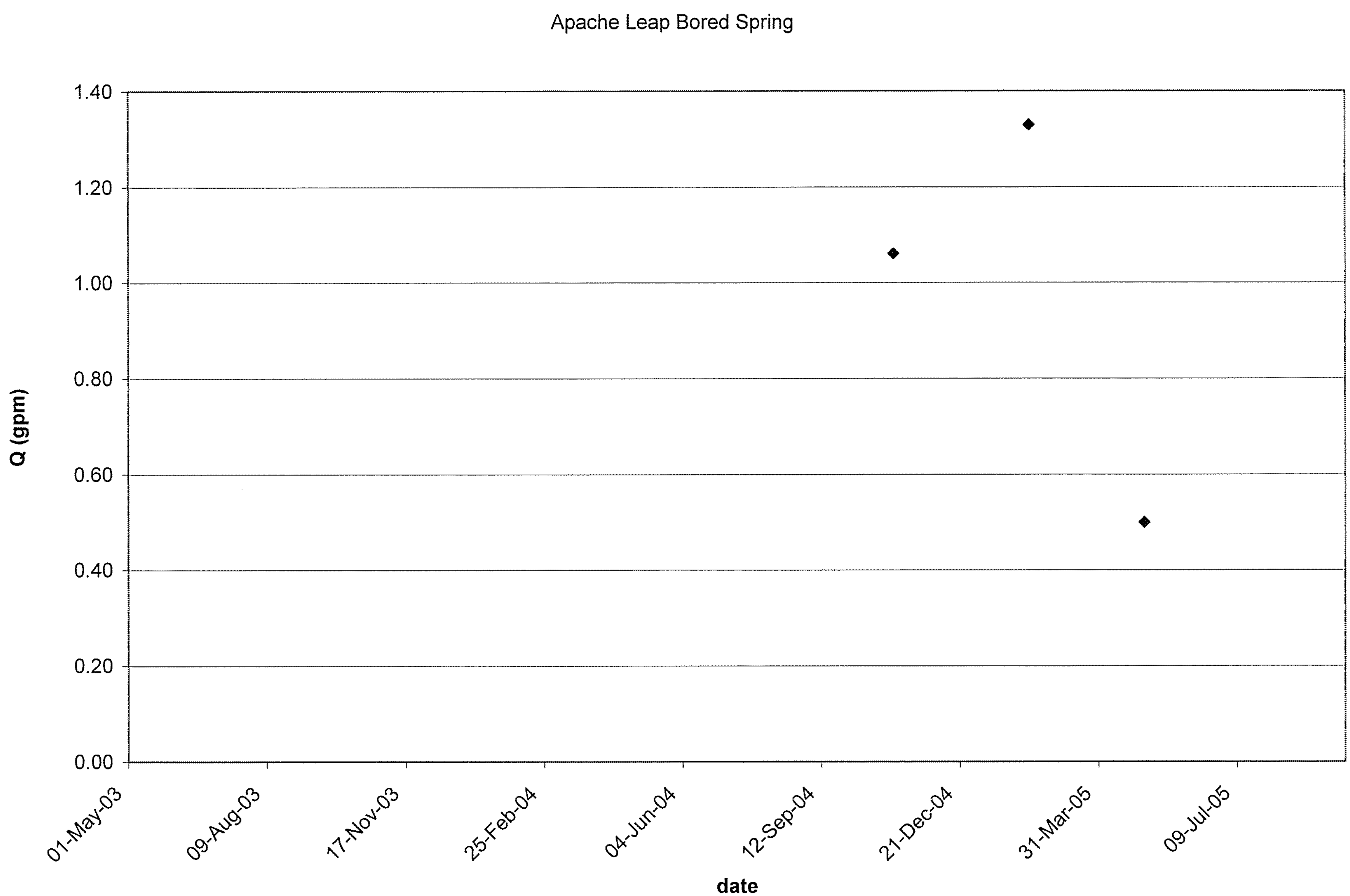
Devils Canyon 4.1E



QUEEN CREEK WATERSHED

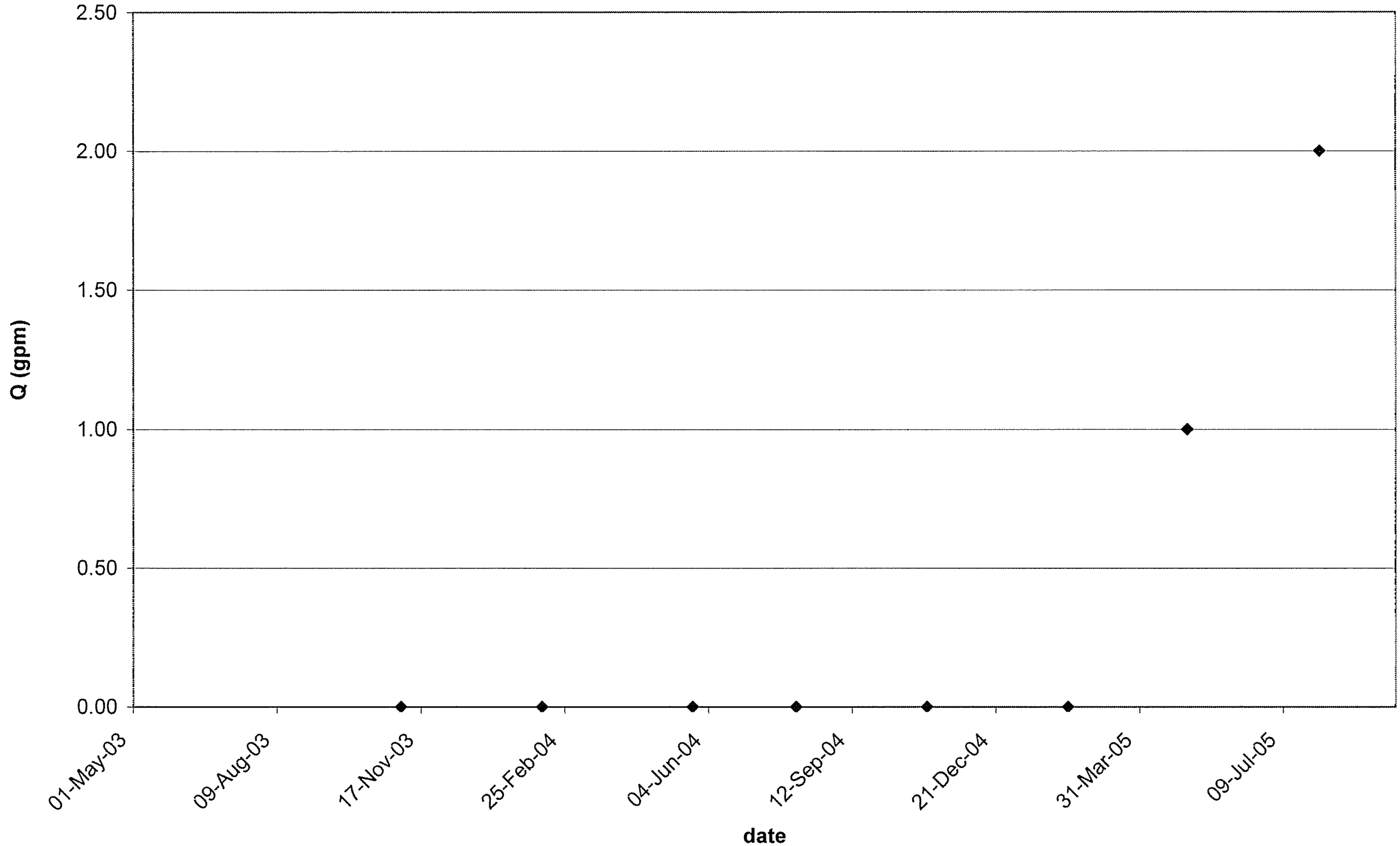
Apache Leap Blue Springs

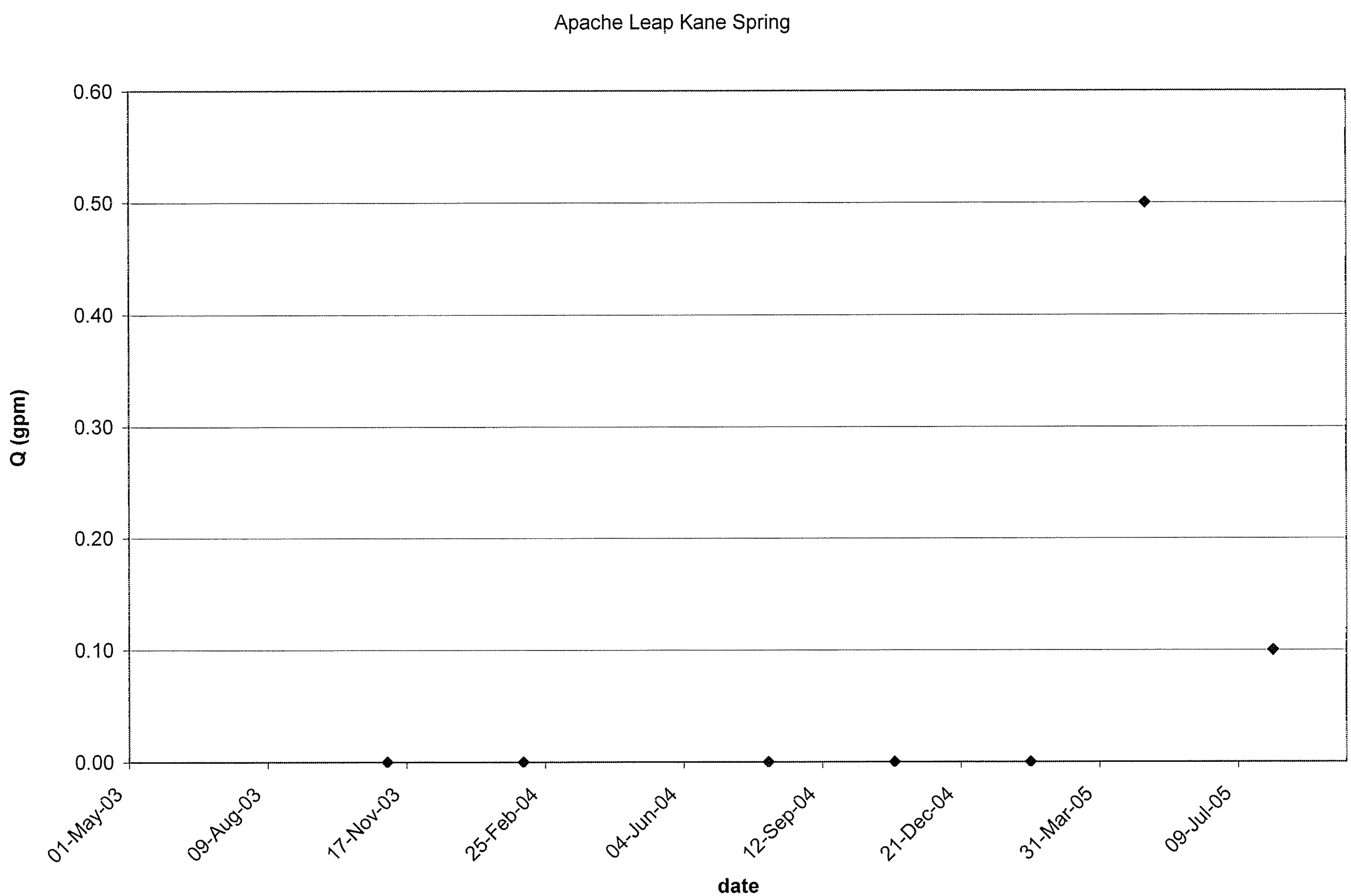




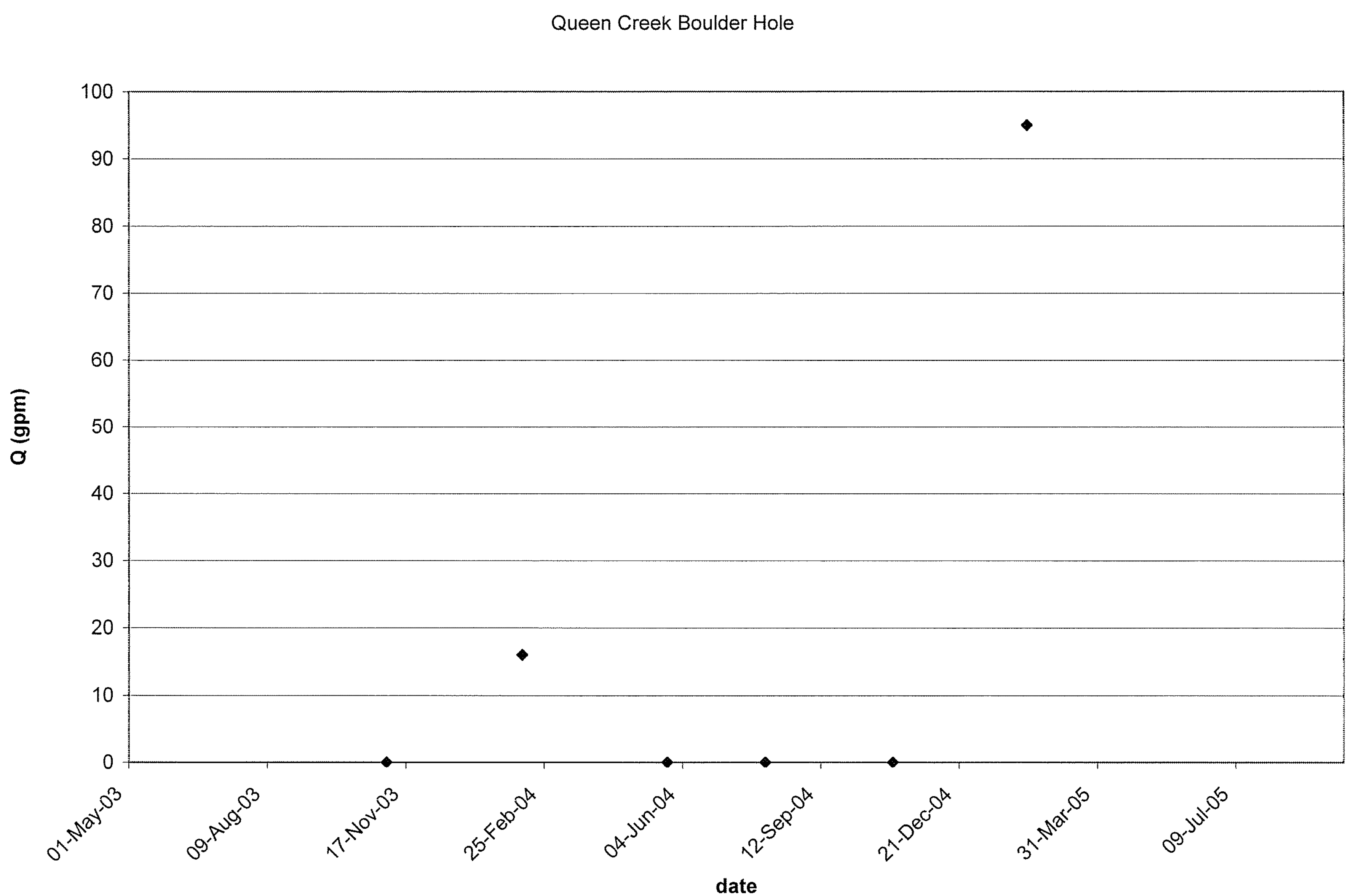
Apache Leap Bored Spring
Q (gpm)
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

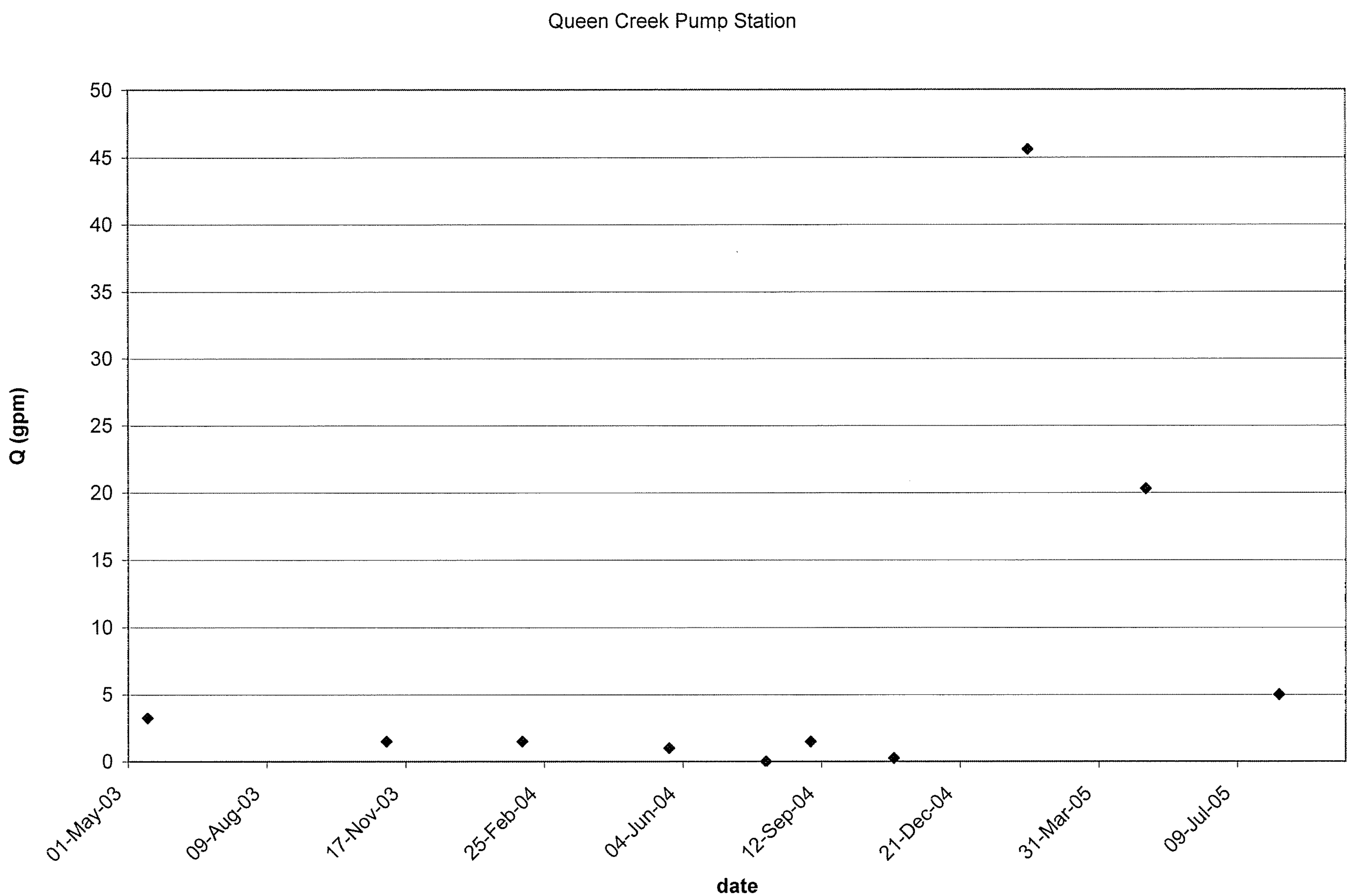
Apache Leap Hidden Spring



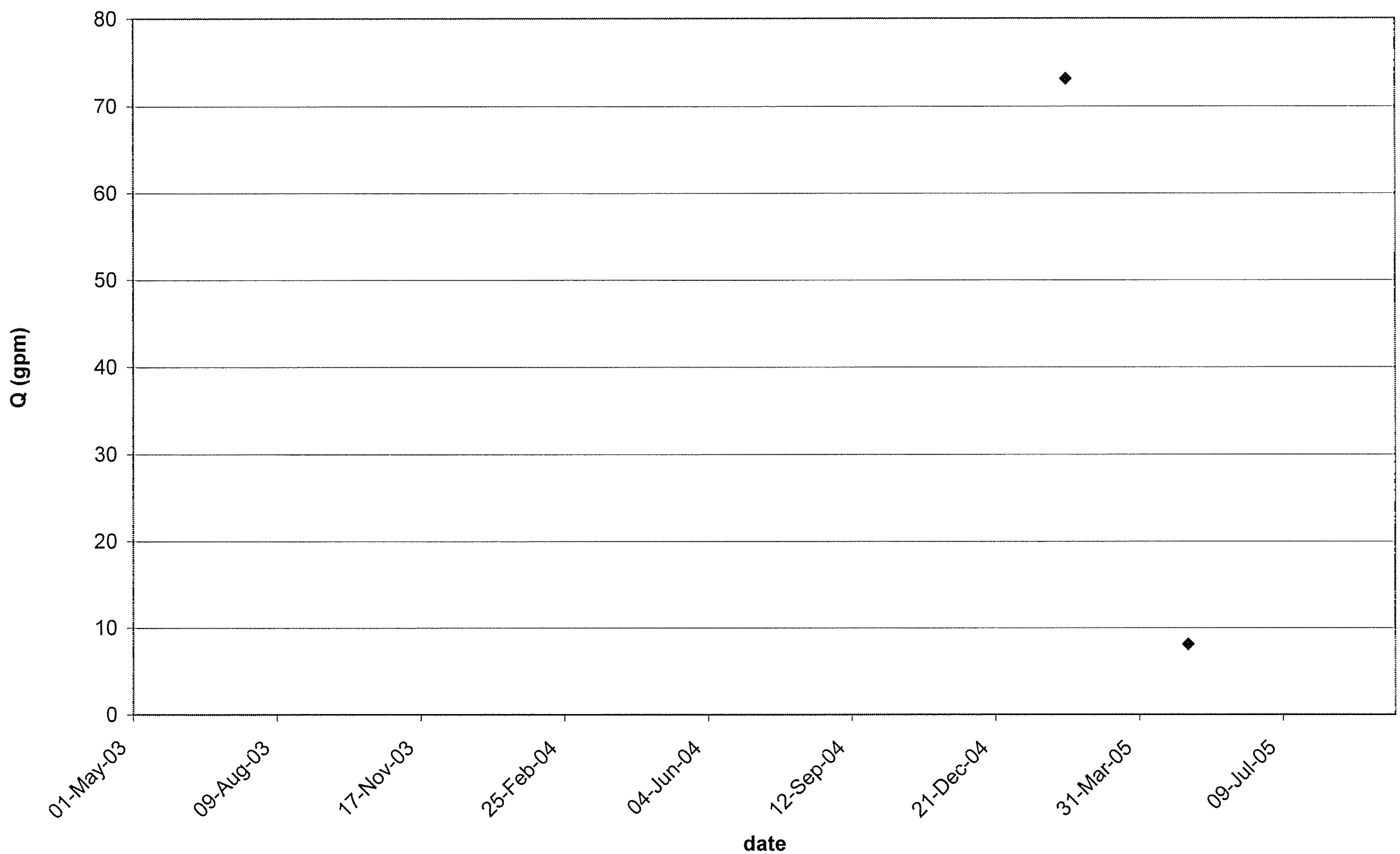


Apache Leap Kane Spring
Q (gpm)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date


Queen Creek Boulder Hole
Q (gpm)
100
90
80
70
60
50
40
30
20
10
0
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

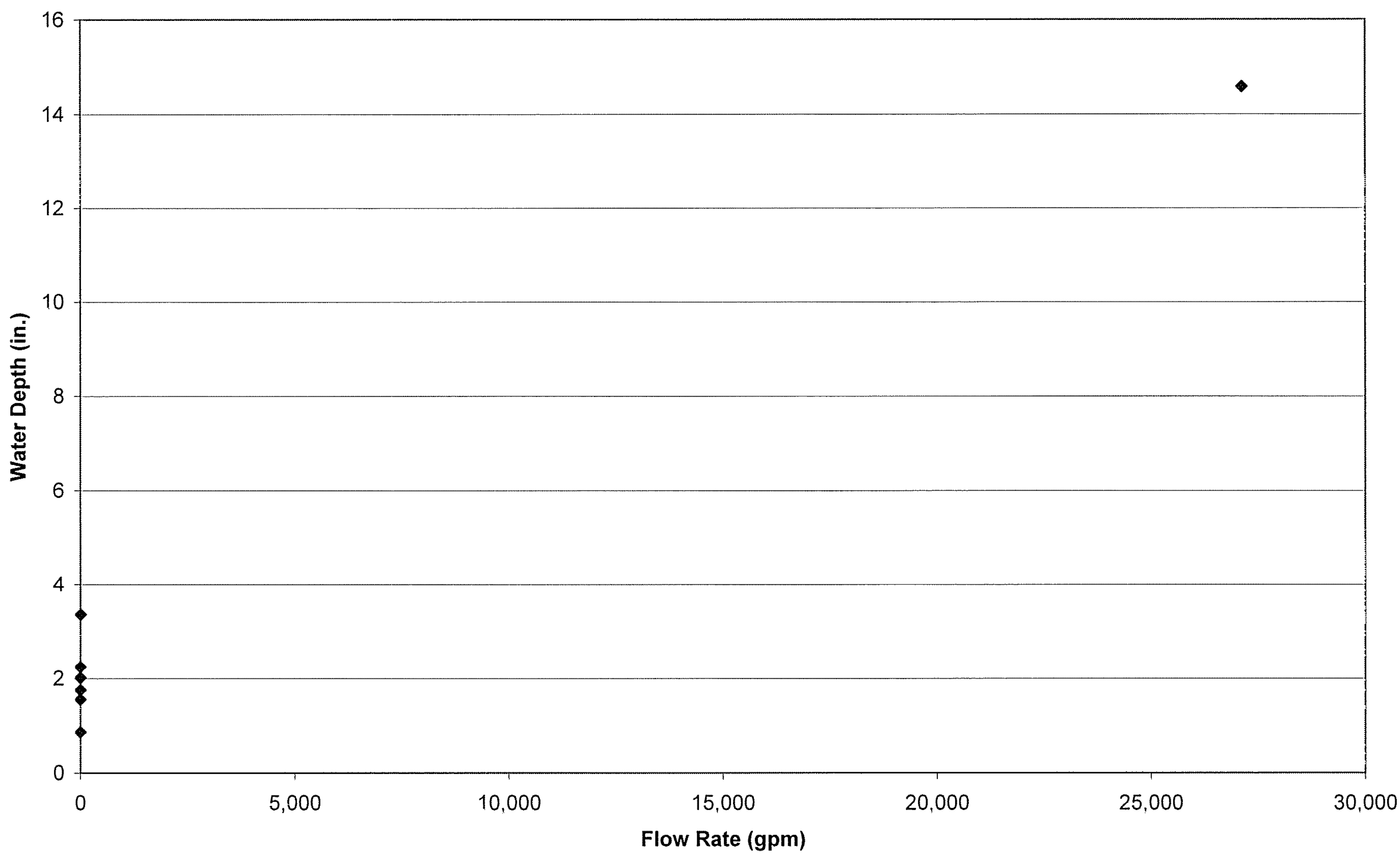

Queen Creek Pump Station
Q (gpm)
50
45
40
35
30
25
20
15
10
5
0
01-May-03
09-Aug-03
17-Nov-03
25-Feb-04
04-Jun-04
12-Sep-04
21-Dec-04
31-Mar-05
09-Jul-05
date

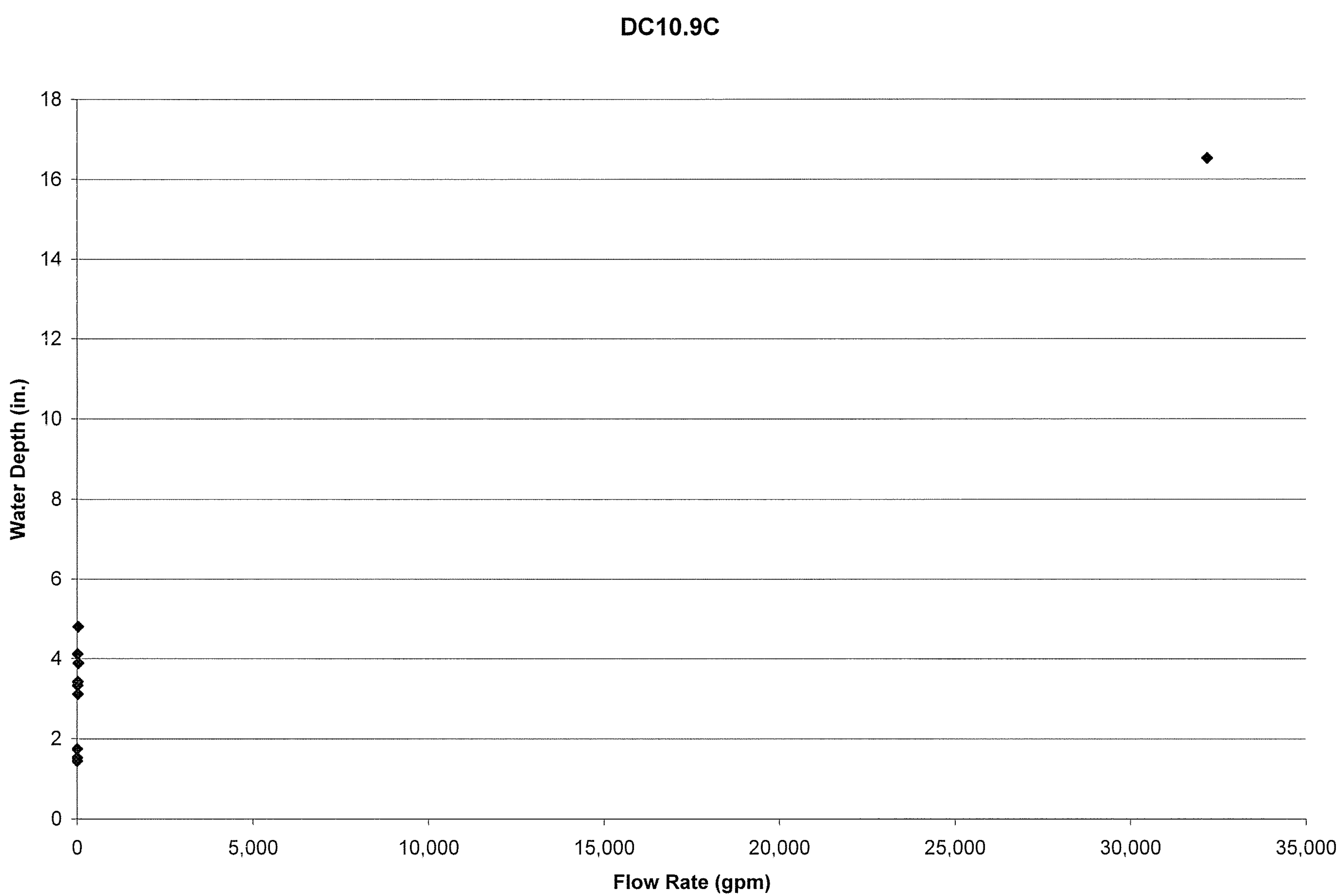
Queen Creek 27.3



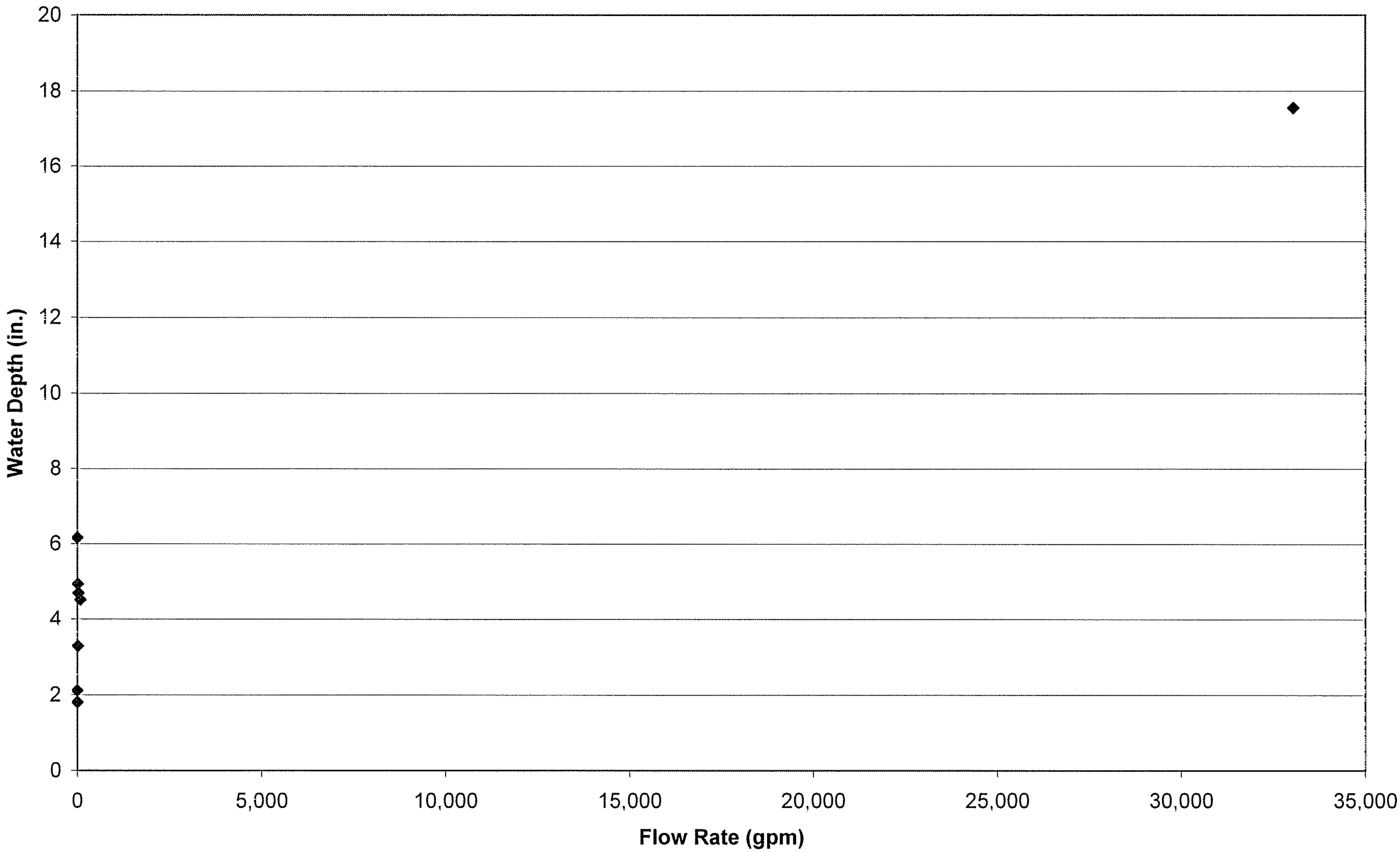
DEVILS CANYON RATING CURVES

DC13.5C

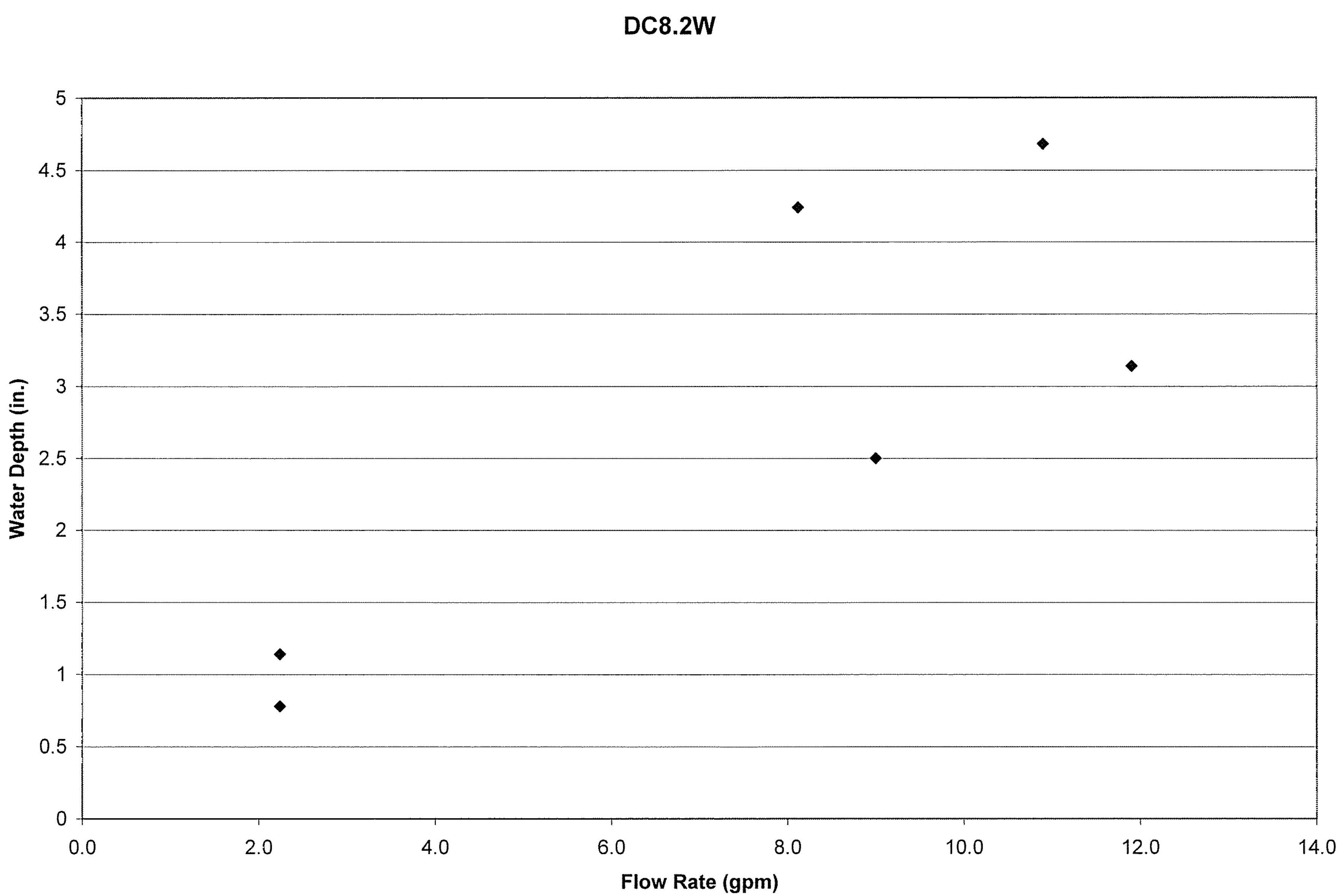

16
14
12
10
8
6
4
2
0
Water Depth (in.)
0
5,000
10,000
15,000
20,000
25,000
30,000
Flow Rate (gpm)

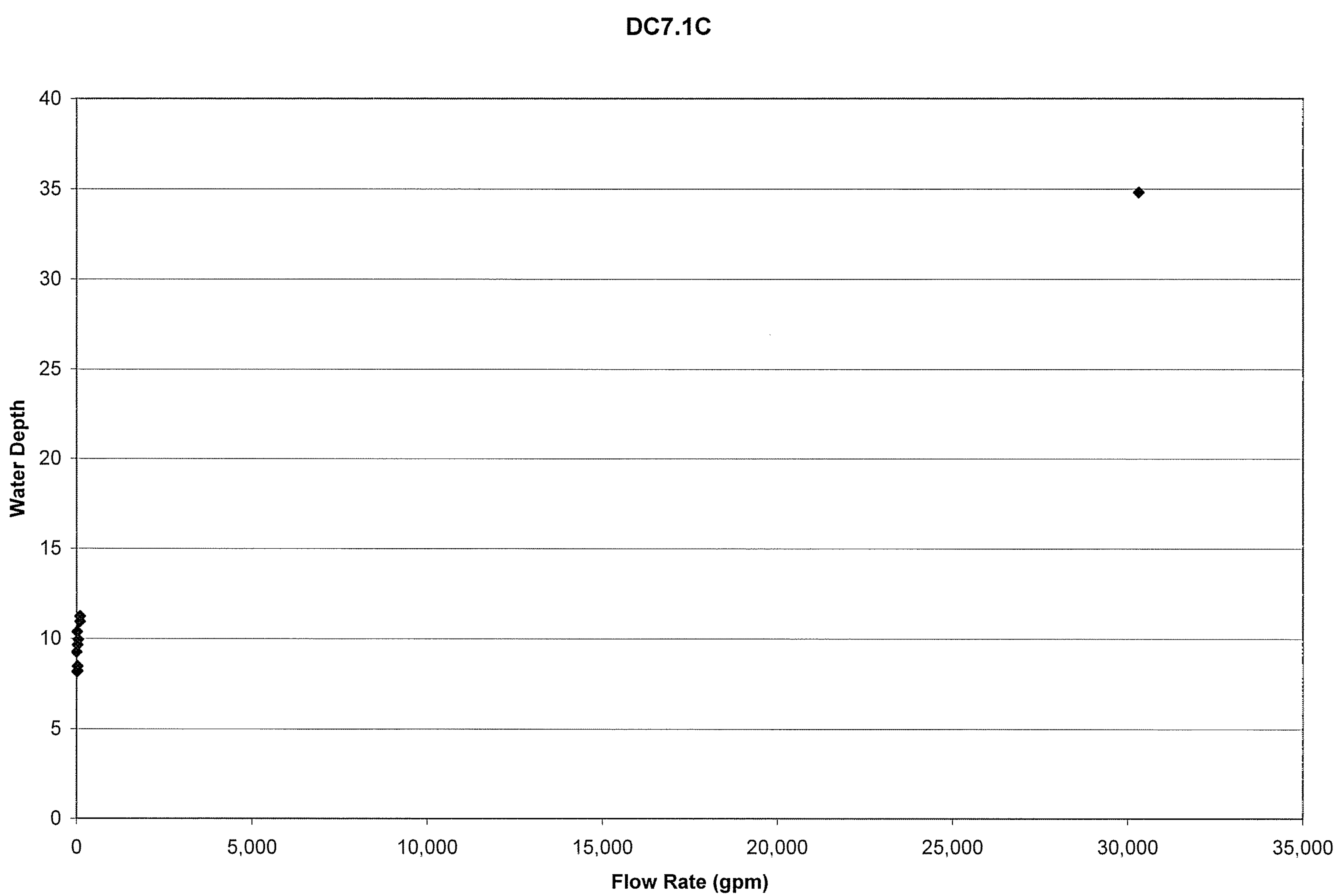

DC10.9C
Water Depth (in.)
0
2
4
6
8
10
12
14
16
18
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
Flow Rate (gpm)

DC8.8C

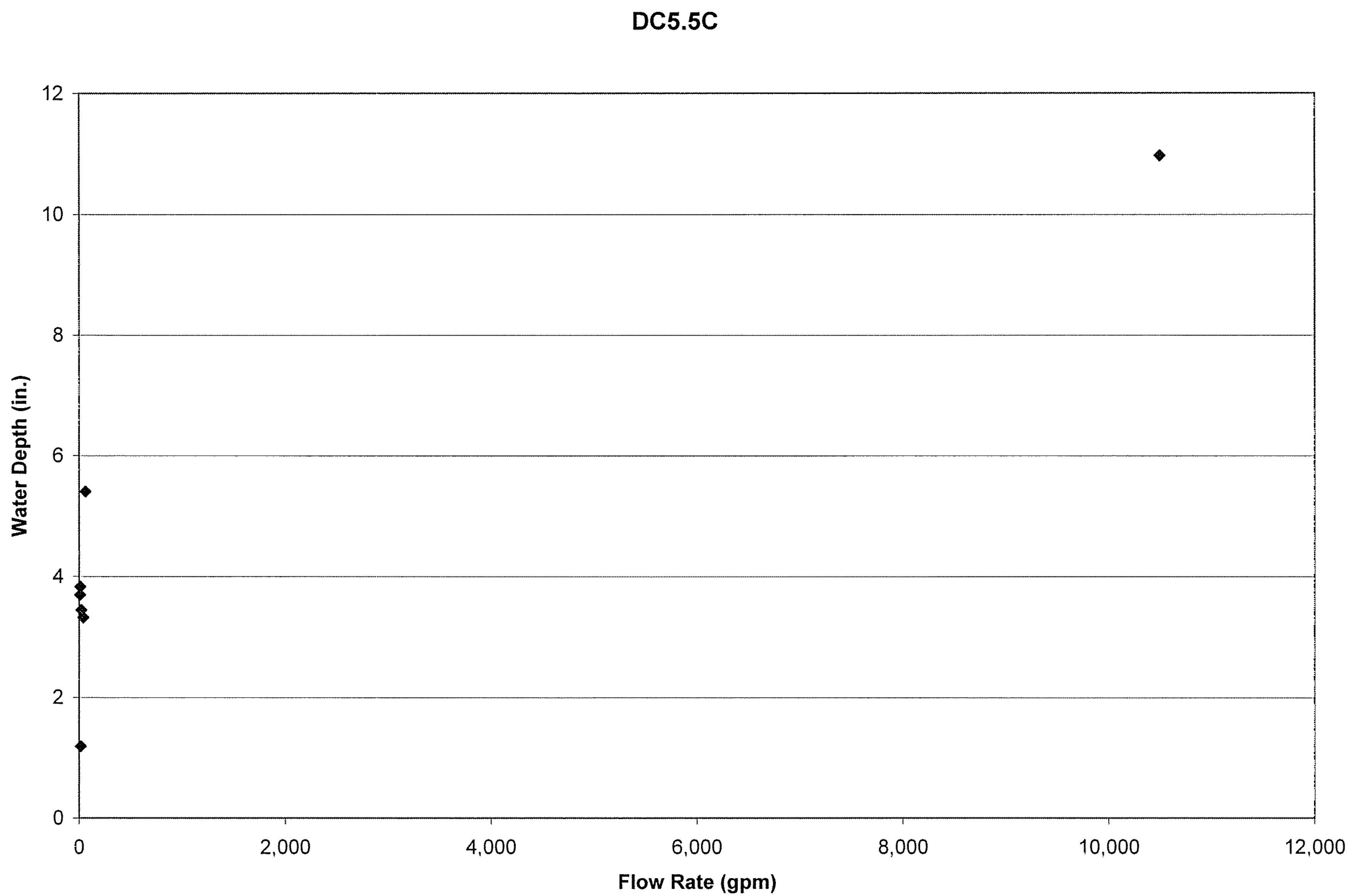


Water Depth (in.)
20
18
16
14
12
10
8
6
4
2
0
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
Flow Rate (gpm)


DC8.2W
Water Depth (in.)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Flow Rate (gpm)



DC7.1C
Water Depth
40
35
30
25
20
15
10
5
0
0
5,000
10,000
15,000
20,000
25,000
30,000
35,000
Flow Rate (gpm)



DC5.5C
Water Depth (in.)
12
10
8
6
4
2
0
0
2,000
4,000
6,000
8,000
10,000
12,000
Flow Rate (gpm)

APPENDIX C

WATER QUALITY/EXCEEDANCE TABLES

DEVILS CANYON

DC 15.2C

Sample Location: DC 15.2C
Sample ID: RESE-1001191
Sample Date: 2/15/2005
Flow Rate (gpm):

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	64	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.8	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	714	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	3.2	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.8	D	0.7	D	12	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.0	D	2.3	D	5.3	D	15	17	16	---	A&WwwA, A&WwwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	376	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	11.2	D	0.4	D	24	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	11	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	124	D	14	D	1,097	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	31	D	31	D	293	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	103	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	390	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	390	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,450	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,460	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,870	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,470	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,860	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,120	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,460	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	280	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	4	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 15.2C
Sample ID: RESE-1001210
Sample Date: 5/9/2005
Flow Rate (gpm): 7

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	214	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.6	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.68	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	25	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.1	D	1.8	D	47	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	10.1	D	6.9	D	18	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	46.6	D	1.8	D	98	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	5.9	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	364	D	40	D	3,231	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	2.1	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	91	D	92	D	864	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	121	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,200	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47,800	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,800	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,510	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,930	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,900	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,800	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 15.2C
Sample ID: RESE-1001226
Sample Date: 8/10/2005
Flow Rate (gpm): none

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.3	FBC, PBC, AgL, A&WwwA, A&WwwC, A&WeA
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	235	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.4	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.2	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	533	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	3.7	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	54	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.2	D	1.8	D	48.5	D	<0.2	2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	10.5	D	7.1	D	18.1	D	<10	11	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	466	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	48.4	D	1.9	D	102.1	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	103	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.3	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	375	D	42	D	3,326.1	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	2.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	94	D	94	D	889.1	D	10	16	16	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	2,500	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,500	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14,500	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	58,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,300	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,740	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,110	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,930	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	156,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	14	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

HWY 60 BRIDGE

Sample Location: DC Hwy 60 bridge
Sample ID: RESE-1001069
Sample Date: 3/5/2004
Flow Rate (gpm): rushing

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.2	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	12	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,530	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<6	5	5	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	17	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.8	D	0.7	D	12	D	<0.2	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.0	D	2.3	D	5	D	16	29	25	---	A&WwwA & A&WwwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,650	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	11.1	D	0.4	D	23	D	<3	3	3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	85	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	123	D	14	D	1,088	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.2	D	<0.1	0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	31	D	31	D	290	D	<5	10	9.3	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	440	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	440	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,900	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,850	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,800	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,540	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,620	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,400	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,150	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,800	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	35,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	54	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	69	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	50	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 13.5C

Sample Location: **DC 13.5C**
Sample ID: **RESE-1001011**
Sample Date: June 1, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	8.3	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	25	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	125	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7.37	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	2.7	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	35	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5	6	6	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		13.5	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	1.5	D	1.1	D	22.9	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	5.5	D	4.0	D	9.5	D	4.7	8.5	7.6		A&Ww chronic
Iron	Fe	---		---		---		---		---		---		---		---	217	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	22.5	D	0.9	D	47.5	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	80.4	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28000	TR	28,000	TR	---		208.8	D	23.2	D	1,854.5	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.00	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		0.7	D	---		0.7	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	52.2	D	52.6	D	495.3	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<700	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		170	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	35,100	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	7,600	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	19,200	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	27,800	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	10,700	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	2,880	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	2,300	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	7,730	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-1.6	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-4	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-1.7	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	-0.00005	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	27,800	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	38,500	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	91,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	20	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		350	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC 13.5C**
Sample ID: **RESE-1001021**
Sample Date: August 27, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC		FBC		PBC		AgL		A&Ww Acute		A&Ww Chronic		A&We Acute		D Result	T Result	TR Result	Field Parameters	Use Exceeded
		(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)		
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	6.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	26.3	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	139	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7.18	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	3	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	123	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	11	13	11	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		17.6	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	1.5	D	1.1	D	23.3	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	5.5	D	4.0	D	9.6	D	20.3	24.8	25.2	---	A&Ww acute, A&Ww chronic, A&We acute
Iron	Fe	---		---		---		---		---		---		---		---	144	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	22.9	D	0.9	D	48.2	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	113	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		211.1	D	23.4	D	1,874.8	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		0.7	D	---		0.7	D	0.1	0.1	0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	<2.0		---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	52.8	D	53.2	D	500.7	D	9.1	12.6	13.8	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		<100.0	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	1,400	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	1,400	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---		---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	23,200	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	4,440	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	14,600	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	27,700	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	11,000	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	2,780	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	2,300	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	7,170	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	27,700	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	39,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	121,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	6	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	61	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg L unless otherwise indicated
µg L = micrograms per liter
mg L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS cm = microSiemens per centimeter
pCi L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC 13.5C**
Sample ID: **RESE-1001037**
Sample Date: **11/5/2003**
Flow Rate (gpm): **2.5**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	111	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	11	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	86	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	7.6	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.3	D	1.0	D	19.5	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.7	D	3.5	D	8.2	D	5.4	5.5	6.4	---	A&WwwA & A&WwwC
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	273	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	19.0	D	0.7	D	40	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	21	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	184	D	20	D	1,632	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	46	D	46	D	436	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	470	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	120	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,600	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,890	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,790	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,500	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,230	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,440	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,700	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,030	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,500	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	96,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	8	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 13.5C
Sample ID: RESE-1001059
Sample Date: 2/11/2004
Flow Rate (gpm): 47.6

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.5	FBC, PBC, AgL, A&WwwA, A&WwwC, A&WeA
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.8	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	81	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8.2	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	482	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<0.5	<0.5	<0.5	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	0.69	0.65	0.83	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	10	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<0.2	<0.2	<0.2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.9	D	0.8	D	14	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<0.3	---	<0.3	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.5	D	2.7	D	6	D	4.1	6.1	5.9	---	A&WwwA & A&WwwC
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	309	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	13.3	D	0.5	D	28	D	<1	<1	<1	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	20	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	140	D	16	D	1,248	D	4.8	---	1.5	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	<0.8	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.3	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<0.4	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	35	D	35	D	333	D	0.91	1.2	1.6	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<5000	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,600	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,600	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,140	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,860	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,370	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,290	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,140	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	76,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 13.5C
Sample ID: RESE-1001086
Sample Date: 5/26/2004
Flow Rate (gpm): 2.72

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	113	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8.1	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.8	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	12	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.3	D	1.0	D	20	D	1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.8	D	3.5	D	8.3	D	3.6	6.7	4.5	---	A&WwwC
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	308	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	19.4	D	0.8	D	41	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	75	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	187	D	21	D	1,657	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	47	D	47	D	442	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,900	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,700	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,960	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,750	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,200	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,700	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	123,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	26	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	9	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 13.5C
Sample ID:	RESE-1001190
Sample Date:	2/15/2005
Flow Rate (gpm):	27120.98

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	62	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	11	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,430	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.2	3.3	3.3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	12	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.8	D	0.7	D	12	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.1	D	2.3	D	5.3	D	15	17	16	---	A&WwwA, A&WwwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	697	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	11.3	D	0.4	D	24	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	9	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	124	D	14	D	1,102	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.2	D	<0.1	<0.1	0.13	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	31	D	31	D	294	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	104	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	350	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,190	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,900	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,220	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,790	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,550	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,780	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,090	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,220	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	75,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	8	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **DC 13.5**
Sample ID: **RESE-1001209**
Sample Date: **5/11/2005**
Flow Rate (gpm): **5.76**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	151	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	11	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.71	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	15	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.9	D	1.3	D	29	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	6.6	D	4.7	D	11	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	209	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	28.2	D	1.1	D	60	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	61	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	248	D	28	D	2,199	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.9	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	62	D	62	D	588	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	116	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,700	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,900	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,200	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,400	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,270	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,930	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,900	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	122,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 13.5
Sample ID: RESE-1001225
Sample Date: 8/10/2005
Flow Rate (gpm):

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.5	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.6	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	154	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	8.4	8.8	7.8	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	16	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.0	D	0.8	D	16	D	<0.2	0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.9	D	2.9	D	6.8	D	<10	13	13	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	211	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	15.1	D	0.6	D	32	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	142	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	155	D	17	D	1,374	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	39	D	39	D	367	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	510	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	550	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,650	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,780	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15,400	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,540	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,990	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,750	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15,400	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	8	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	1,600	---	---	FBC & PBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 10.9C

Sample Location: **DC 10.9C**
Sample ID: **RESE-1001004**
Sample Date: May 16, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	6.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	18.2	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	79.5	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	4.45	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.8	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	182	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.01	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		12.8	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	1.01	D	0.8	D	15.2	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0		---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	3.8	D	2.9	D	6.6	D	6.1	8.9	8.6	---	A&Ww acute, A&Ww chronic
Iron	Fe	---		---		---		---		---		---		---			198		---	*
Lead	Pb	---		15	TR	15	TR	100	TR	14.8	D	0.6	D	31.15	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	22.4	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2		---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		151.8	D	16.9	D	1347.7	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		0.35	D	---		0.3	D	<0.1	0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	37.9	D	38.2	D	359.8	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<700	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0		---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		<100.0	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	32,800	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	5,590	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	17,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	14,500	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	7,230	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	2,020	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,800	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	5,950	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-3	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	14,500	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	26,400	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	110,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	16	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	20	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---						---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---						---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC 10.9C**
Sample ID: **RESE-1001020**
Sample Date: August 27, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	5.9	FBC, AgL
Temperature	°C	---		---		---		---		---		---		---		---	---	---	23.2	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	216	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	1.05	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	2.9	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---			40	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	11	13	13	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		35.8	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	2.6	D	1.6	D	39.1	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	8.7	D	6.0	D	15.0	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	8260		---	*
Lead	Pb	---		15	TR	15	TR	100	TR	38.8	D	1.5	D	82.0	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	826	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		316.3	D	35.1	D	2,809.2	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		1.6	D	---		1.6	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	79.1	D	79.8	D	750.8	D	5.5	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		<10.0	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	790	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	790	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	53,600	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	10,900	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	52,600	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	11,800	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	17,600	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	4,580	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	2,800	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	10,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	11,800	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	62,900	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	195,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	17	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	92	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		210	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location:	DC 10.9C
Sample ID:	RESE-1001036
Sample Date:	11/5/2003
Flow Rate (gpm):	17.6

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	82	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.2	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.9	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	199	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	11	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.3	D	0.3	D	3.9	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	1.2	D	1.0	D	2.0	D	6.3	9	8.9	---	A&WwwA, A&WwwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	679	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	3.5	D	0.1	D	7.5	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	60	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	53	D	6	D	467	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0.04	D	---	---	0.04	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	13	D	13	D	124	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,160	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,580	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,100	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,730	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,830	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,810	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,100	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.5	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	4	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **DC 10.9C**
Sample ID: **RESE-1001060**
Sample Date: **2/11/2004**
Flow Rate (gpm): **29.2**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	93	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	11	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	499	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<0.5	<0.5	<0.5	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<0.6	1	<0.6	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	8.9	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<0.2	<0.2	<0.2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.2	D	0.9	D	18	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<0.3	---	0.43	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.3	D	3.2	D	8	D	4.5	7.8	7.4	---	A&WwwA & A&WwwC
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	220	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	17.1	D	0.7	D	36	D	<1	<1	<1	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	9.2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.4	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	170	D	19	D	1,506	D	3.9	---	2.4	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	<0.8	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<0.4	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	42	D	43	D	402	D	1.2	1.4	2.9	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,440	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,300	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,260	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,300	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,480	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,560	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,300	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	113,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 10.9C
Sample ID:	RESE-1001091
Sample Date:	5/27/2004
Flow Rate (gpm):	13

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	5.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.9	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	192	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	11	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.9	D	0.8	D	14	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.5	D	2.6	D	6.1	D	<3	8.8	6.1	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	696	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	13.3	D	0.5	D	28	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	77	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	140	D	16	D	1,243	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.3	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	35	D	35	D	332	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,080	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,390	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,200	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,440	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,930	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,700	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,030	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,200	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	95,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **DC 10.9C**
Sample ID: **RESE-1001099**
Sample Date: **8/11/2004**
Flow Rate (gpm): **1**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	**6.6**	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23**	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**123**	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	0.43	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.2**	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**123**	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	**<3**	**<3**	**<3**	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	**14**	**13**	**14**	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	**17**	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	**<2**	**<2**	**<2**	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.2	D	1.0	D	18	D	**<0.1**	**<0.1**	**<0.1**	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	**<6**	---	**<6**	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**<6**	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.5	D	3.3	D	7.8	D	**<3**	**<3**	**<3**	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**5,450**	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	18.0	D	0.7	D	38	D	**<3**	**<3**	**<3**	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	**532**	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	**<0.2**	**<0.2**	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**<8**	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	176	D	20	D	1,565	D	**<10**	---	**<10**	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	**<3**	**<3**	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.5	D	**<0.1**	**<0.1**	**<0.1**	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	**<2**	**<2**	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	44	D	44	D	418	D	**<5**	**<5**	**<5**	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	**<40**	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**160**	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	**<100**	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	**<100**	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	**<100**	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**<200**	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**<500**	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**37,100**	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	**<1000**	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11,200**	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2,490**	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**<1000**	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**39,400**	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**8,700**	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2,380**	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2,000**	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**7,860**	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**39,400**	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**32**	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**91,000**	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	**19**	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**92**	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1,600**	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	1,600	---	---	FBC & PBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 10.9C
Sample ID: RESE-1001169
Sample Date: 11/5/2004
Flow Rate (gpm): 3.24

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.1	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.2	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	4	4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	25	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.9	D	1.3	D	29	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	6.8	D	4.8	D	12	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,410	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	29.0	D	1.1	D	61	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	229	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	—	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	253	D	28	D	2,247	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	1.0	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	63	D	64	D	600	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,750	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,100	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,820	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,180	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,100	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	117,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	6	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC 10.9C**
Sample ID:	**RESE-1001189**
Sample Date:	**2/15/2005**
Flow Rate (gpm):	**32192.42**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.5	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.3	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	58	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	10	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,150	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.5	3.6	3.5	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	11	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.7	D	0.7	D	11	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	2.9	D	2.2	D	5.1	D	15	17	17	---	A&WwwA, A&WwwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	553	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	10.7	D	0.4	D	23	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	9.9	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	119	D	13	D	1,057	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.2	D	<0.1	<0.1	0.31	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	30	D	30	D	282	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	290	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	290	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,100	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,870	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,670	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,470	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,490	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,660	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,020	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,670	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 10.9C
Sample ID: RESE-1001208
Sample Date: 5/11/2005
Flow Rate (gpm): 15.2

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	89	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	9.1	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	275	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	12	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.0	D	0.8	D	16	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.9	D	2.9	D	6.8	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	436	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	15.1	D	0.6	D	32	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	42	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	154	D	17	D	1,369	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	39	D	39	D	366	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,230	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,500	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,460	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,010	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,670	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,970	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,500	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **DC 10.9C**
Sample ID: **RESE-1001224**
Sample Date: **8/10/2005**
Flow Rate (gpm): **35**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	106	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.2	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.7	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	407	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5.3	7.6	7.3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	25	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.3	D	1.0	D	20	D	<0.2	1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.9	D	3.6	D	8.5	D	<10	17	17	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,420	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	19.7	D	0.8	D	42	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	225	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	189	D	21	D	1,678	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	47	D	48	D	448	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	102	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	670	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	720	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,380	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,900	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,440	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,580	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,540	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,630	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,900	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	93,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	900	---	---	FBC & PBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 8.8C

Sample Location: **DC 8.8C**
Sample ID: **RESE-1001005**
Sample Date: May 20, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.9	---
Temperature	°C	---		---		---		---		---		---		---		---	---	---	17.2	---
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	218	---
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7.71	---
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.15	---
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	---
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		20			---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	3.1	D	1.8	D	47.1	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	10.2	D	7.0	D	17.7	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	72	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	46.9	D	1.8	D	99.1	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	10.6	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		365.8	D	40.6	D	3,249.0	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		2.09	D	---		2.1	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0		<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	91.5	D	92.3	D	868.5	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<200	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR		<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		230	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	56,000	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	6,020	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	12,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	96,100	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	22,500	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	4,500	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,200	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	19,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.1	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.4	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.6	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00014	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	96,100	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	74,700	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	241,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		120	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC 8.8C**
Sample ID: **RESE-1001018**
Sample Date: August 21, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	22.4	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	302	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.05	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.6	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0		---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5	5	5	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		24.7	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	4.4	D	2.3	D	67.4	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	13.9	D	9.3	D	24.1	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	115	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	67.4	D	2.6	D	142.2	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	54.4	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		484.0	D	53.8	D	4,298.6	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<6.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		3.7	D	---		3.7	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	121.1	D	122.1	D	1,149.6	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		420	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	82,300	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	5,950	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	4,710	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	163,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	31,300	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	6,280	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	<1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	27,500	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	163,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	104,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	241,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---		---				---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: DC 8.8C
Sample ID: RESE-1001042
Sample Date: 11/12/2003
Flow Rate (gpm): 24.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	233	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.4	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	25	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.1	D	2.2	D	62	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.0	D	8.7	D	22	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	94	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	62.1	D	2.4	D	131	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	17	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	454	D	50	D	4,035	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	114	D	115	D	1,079	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	66,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,020	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	127,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,400	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,200	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,300	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	127,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	97	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	198,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	900	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	900	---	---	FBC & PBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.8C
Sample ID:	RESE-1001062
Sample Date:	2/17/2004
Flow Rate (gpm):	83.9

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	129	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	11	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	118	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	---	<0.3	---	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	---	1.3	---	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	---	<0.2	---	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.6	D	1.2	D	25	D	---	<0.1	---	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	---	---	---	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	5.8	D	4.2	D	10	D	---	2.3	---	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	114	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	24.4	D	0.9	D	51	D	---	<1	---	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	---	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.1	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	222	D	25	D	1,968	D	---	---	---	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	---	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.8	D	---	<0.1	---	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	---	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	55	D	56	D	526	D	---	0.63	---	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	137	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,500	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,200	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,200	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,300	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,570	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,080	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,200	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	41	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:

Green cell color indicates ADEQ designated uses that are assumed to apply to site location.

s.u. = standard units

°C = degrees Celsius

µS/cm = microSiemens per centimeter

mg/L = milligrams per liter

NTUs = Nephelometric Turbidity Units

µg/L = micrograms per liter

MFL = Million Fibers per Liter

ml = milliliters

MPN/100 ml = most probable number per 100 milliliter

- - - = not applicable

T = total

TR = total recoverable

D = dissolved

ND = not detected

* = No designated uses exceeded

= Standard is lower than detection limit

= Exceedances (except for Dissolved Oxygen and pH)

Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.

Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.8C
Sample ID:	RESE-1001078
Sample Date:	5/21/2004
Flow Rate (gpm):	13.4

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	220	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.3	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	20	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.1	D	1.8	D	46	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	10.1	D	6.9	D	17	D	<3	<3	3.4	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	86	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	46.3	D	1.8	D	98	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	18	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	362	D	40	D	3,212	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	2.0	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	90	D	91	D	859	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	290	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2000	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	59,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,950	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,060	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	109,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,300	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,400	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,200	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19,300	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	109,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	190,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	240	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **DC 8.8C**
Sample ID: **RESE-1001151**
Sample Date: **8/16/2004**
Flow Rate (gpm): **5.06**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	338	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	3.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.85	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5	5	4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	26	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.6	D	2.4	D	69	D	<0.1	0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.3	D	9.5	D	25	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	212	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	69.5	D	2.7	D	147	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	62	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	496	D	55	D	4,403	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.9	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	124	D	125	D	1,178	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	390	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,100	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,850	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,060	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	176,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,700	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,030	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,400	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	176,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	107	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	256,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	22	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.8C
Sample ID:	RESE-1001174
Sample Date:	11/16/2004
Flow Rate (gpm):	17

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	297	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.4	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	23	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.4	D	2.3	D	66	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.7	D	9.1	D	24	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	151	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	66.0	D	2.6	D	139	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	24	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	476	D	53	D	4,229	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.6	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	119	D	120	D	1,131	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	120	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,420	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,340	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	148,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,100	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,220	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,800	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	148,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	102	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	242,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:

Green cell color indicates ADEQ designated uses that are assumed to apply to site location.

s.u. = standard units

°C = degrees Celsius

µS/cm = microSiemens per centimeter

mg/L = milligrams per liter

NTUs = Nephelometric Turbidity Units

µg/L = micrograms per liter

MFL = Million Fibers per Liter

ml = milliliters

MPN/100 ml = most probable number per 100 milliliter

--- = not applicable

T = total

TR = total recoverable

D = dissolved

ND = not detected

* = No designated uses exceeded

= Standard is lower than detection limit

= Exceedances (except for Dissolved Oxygen and pH)

Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.

Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.8C
Sample ID:	RESE-1001197
Sample Date:	2/25/2005
Flow Rate (gpm):	33040.66

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	67	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	9.4	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.4	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	905	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.4	3.6	3.7	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	12	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.8	D	0.7	D	12	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.0	D	2.3	D	5.2	D	13	15	14	---	A&WwwA, A&WwwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	454	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	11.0	D	0.4	D	23	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	7.9	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	122	D	14	D	1,084	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	30	D	31	D	289	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	220	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	220	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,810	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,800	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,700	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,680	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,460	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,700	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	76,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **DC 8.8C**
Sample ID: **RESE-1001211**
Sample Date: **5/11/2005**
Flow Rate (gpm): **20.3**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	170	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	9.1	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.92	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	56	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	2.3	D	1.5	D	35	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	7.9	D	5.5	D	14	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	121	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	34.6	D	1.3	D	73	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	11	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	290	D	32	D	2,573	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	1.3	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	72	D	73	D	688	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	164	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,380	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,690	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,600	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,460	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,220	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,600	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	57	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	96,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	6	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 8.8C
Sample ID: RESE-1001228
Sample Date: 8/16/2005
Flow Rate (gpm):

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	116	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.3	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	205	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5.7	5.2	5.2	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	24	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.3	D	1.0	D	20	D	<0.2	0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.9	D	3.6	D	8.5	D	<10	12	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	203	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	19.8	D	0.8	D	42	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	30	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	189	D	21	D	1,682	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.5	D	---	<0.1	---	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	47	D	48	D	449	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	330	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	330	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	35,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,370	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14,900	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,500	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,790	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,390	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,210	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,920	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,500	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	111,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	6	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	50	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 8.2W

Sample Location: **DC 8.2W**
Sample ID: **RESE-1001017**
Sample Date: August 21, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC		FBC		PBC		AgL		A&Ww Acute		A&Ww Chronic		A&We Acute		D Result	T Result	TR Result	Field Parameters	Use Exceeded
		(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)		
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---	---	---	---	---	7.2	*
Temperature	°C	---		---		---		---		---		---		---	---	---	---	---	23.4	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---	---	---	---	---	229	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---	---	---	---	---	5.89	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---	---	---	---	---	0.27	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---	---	---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---	---	<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---	---	20	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---	---	<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	4.2	D	2.2	D	63.9	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---	---	<6.0	---	---	---	*
Cobalt	Co	---		---		---		---		---		---		---	---	---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	13.3	D	8.9	D	23.0	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---	---	---	---	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	63.9	D	2.5	D	134.8	D	<3.0	---	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---	---	---	---	<2.0	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---	---	---	---	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		464.3	D	51.6	D	4,123.1	D	---	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		3.4	D	---		3.4	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	<2.0		---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	116.2	D	117.1	D	1,102.6	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---	---	---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---	---	---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---	---	370		---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---	---	---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---	---	---	380	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---	---	---	380	---	---	*
Phosphorous	P	---		---		---		---		---		---		---	---	---		---	---	*
Silica	SiO_2	---		---		---		---		---		---		---	---	---	76,100	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---	---	---	4,700	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---	---	---	3,630	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---	---	---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---	---	---	144,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---	---	---	29,600	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---	---	---	6,050	---	---	*
Potassium	K	---		---		---		---		---		---		---	---	---	<1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---	---	---	22,100	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---	---	---		---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---	---	---		---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---	---	---		---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---	---	---		---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---	---	---	144,000	---	---	*
Hardness	---	---		---		---		---		---		---		---	---	---	99,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---	---	---	218,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---	---	---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---	---	---		---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---	---	---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---	---	---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---	---	<100	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---	---	---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC 8.2W**
Sample ID: **RESE-1001006**
Sample Date: May 20, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.6	---
Temperature	°C	---		---		---		---		---		---		---		---	---	---	23.6	---
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	266	---
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.89	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.52	---
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	---
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		17.6	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	4.1	D	2.2	D	61.6	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---						---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	12.9	D	8.6	D	22.3	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	<20.0	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	61.6	D	2.4	D	129.9	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	<2.0	---	*
Mercury	Hg	1	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<2.0	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	8.5	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		451.1	D	50.1	D	4,006.6	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<6.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		3.20	D	---		3.2	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	112.9	D	113.8	D	1,071.3	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<200	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		340	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	490	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	490	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	70,400	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	4,770	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	4,140	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	136,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	29,300	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	5,500	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	22,100	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.3	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.4	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.5	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.0005	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	136,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	95,700	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	231,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---				---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---		---				---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: DC 8.2W
Sample ID: RESE-1001044
Sample Date: 11/12/2003
Flow Rate (gpm): 8.12

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	274	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	5.2	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.49	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	20	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.1	D	2.2	D	63	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.1	D	8.8	D	23	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	62.8	D	2.4	D	132	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	—	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	458	D	51	D	4,067	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.3	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	115	D	116	D	1,087	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	—	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	390	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	300	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,900	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,110	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	134,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,200	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,970	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,200	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	134,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	97	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	197,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	900	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	8	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.2W
Sample ID:	RESE-1001063
Sample Date:	2/17/2004
Flow Rate (gpm):	10.9

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.2	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	244	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.3	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.81	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	---	<0.3	---	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	---	3.4	---	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	---	<0.2	---	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.9	D	2.1	D	59	D	---	<0.1	---	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	---	---	---	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.4	D	8.3	D	21	D	---	<2.1	---	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	58.8	D	2.3	D	124	D	---	<1	---	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	---	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	435	D	48	D	3,864	D	---	---	---	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	---	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.0	D	---	<0.1	---	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	---	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	109	D	110	D	1,033	D	---	0.31	---	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	343	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	570	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	570	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,770	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	135,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,300	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,070	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,010	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	135,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	180,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	240	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:

Green cell color indicates ADEQ designated uses that are assumed to apply to site location.

s.u. = standard units

°C = degrees Celsius

µS/cm = microSiemens per centimeter

mg/L = milligrams per liter

NTUs = Nephelometric Turbidity Units

µg/L = micrograms per liter

MFL = Million Fibers per Liter

ml = milliliters

MPN/100 ml = most probable number per 100 milliliter

- - - = not applicable

T = total

TR = total recoverable

D = dissolved

ND = not detected

* = No designated uses exceeded

= Standard is lower than detection limit

= Exceedances (except for Dissolved Oxygen and pH)

Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.

Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 8.2W
Sample ID: RESE-1001079
Sample Date: 5/21/2004
Flow Rate (gpm): 11.9

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	276	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	5.5	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.9	D	2.1	D	59	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.4	D	8.3	D	21	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	58.9	D	2.3	D	124	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	436	D	48	D	3,872	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.0	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	109	D	110	D	1,035	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	120	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	400	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	400	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	71,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,650	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,980	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	143,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,260	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,700	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	143,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	198,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.2W
Sample ID:	RESE-1001152
Sample Date:	8/16/2004
Flow Rate (gpm):	9

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	274	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.29	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.9	D	2.1	D	59	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.3	D	8.3	D	21	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	58.6	D	2.3	D	124	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	434	D	48	D	3,854	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.0	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	109	D	109	D	1,030	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	340	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	340	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,940	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,090	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,150	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,200	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	91	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	210,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.2W
Sample ID:	RESE-1001175
Sample Date:	11/16/2004
Flow Rate (gpm):	2.24

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	311	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	3.7	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	22	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.3	D	2.3	D	65	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.6	D	9.0	D	23	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	161	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	65.3	D	2.5	D	138	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	19	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	—	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	472	D	52	D	4,193	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	118	D	119	D	1,121	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	—	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	—	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	—	320	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	150	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,640	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,450	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,930	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,020	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	221,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 8.2W
Sample ID: RESE-1001196
Sample Date: 2/25/2005
Flow Rate (gpm): 3

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.5	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	274	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.7	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.51	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	61	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.1	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.0	D	2.1	D	60	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.6	D	8.5	D	22	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	60.1	D	2.3	D	127	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	443	D	49	D	3,932	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.1	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	111	D	112	D	1,051	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	282	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	510	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	510	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,610	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,650	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,300	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,110	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	94	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	201,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 8.2W
Sample ID:	RESE-1001212
Sample Date:	5/11/2005
Flow Rate (gpm):	10

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	206	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.4	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	19	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.9	D	2.1	D	59	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.5	D	8.4	D	22	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	59.5	D	2.3	D	125	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	439	D	49	D	3,900	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.0	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	110	D	111	D	1,043	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	293	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	490	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	490	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	67,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,040	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,170	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	131,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,500	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,200	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	870	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,700	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	131,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	93	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	158,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	29	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	6	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 8.2W
Sample ID: RESE-1001227
Sample Date: 8/16/2005
Flow Rate (gpm): 1 gpm

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	268	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.9	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.82	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	173	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.9	D	2.1	D	59	D	<0.2	0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.4	D	8.3	D	21	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	137	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	58.6	D	2.3	D	124	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	12	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	434	D	48	D	3,857	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.0	D	---	<0.1	---	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	109	D	110	D	1,031	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	117	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	266	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	460	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	460	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,800	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,020	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	133,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,900	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,270	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,030	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	133,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	212,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	31	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 7.1C

Sample Location: **DC 7.1C**
Sample ID: **RESE-1001009**
Sample Date: May 29, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	8.1	---
Temperature	°C	---		---		---		---		---		---		---		---	---	---	24.6	---
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	287	---
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7.24	---
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.81	---
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	---
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	8	9	9	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		24.6	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	4.5	D	2.3	D	68.8	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	14.20	D	9.41	D	24.6	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---			206	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	68.8	D	2.7	D	145.2	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	137	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		491.9	D	54.6	D	4,368.5	D	<10.0	---	10	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		3.8	D	---		3.8	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	123.1	D	124.1	D	1,168.3	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<1,000	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		210	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	51,500	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	7,920	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	920	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	148,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	31,200	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	6,720	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	2,400	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	21,700	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.5	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-4.3	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-1.8	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00018	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	148,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	106,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	199,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	20	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		150	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location:	DC 7.1C
Sample ID:	RESE-1001034
Sample Date:	11/4/2003
Flow Rate (gpm):	15

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	352	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8.9	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.45	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5	6	5	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	29	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.9	D	2.4	D	74	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	15.1	D	9.9	D	26	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	79	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	73.8	D	2.9	D	156	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	42	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	519	D	58	D	4,611	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	4.3	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	130	D	131	D	1,233	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,710	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,800	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,170	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,200	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	113	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	218,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 7.1C
Sample ID: RESE-1001065
Sample Date: 2/18/2004
Flow Rate (gpm): 95.4

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	184	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	10	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<0.3	---	<0.3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.5	3	3.6	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	16	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<0.2	---	<0.2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	2.6	D	1.6	D	39	D	<0.1	---	0.17	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<0.3	---	<0.3	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	8.6	D	6.0	D	15	D	<2.1	---	<2.1	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	38.5	D	1.5	D	81	D	<1	---	<1	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	7.6	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	---	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	314	D	35	D	2,790	D	4.8	---	2.6	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	---	<0.8	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	1.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<0.4	---	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	79	D	79	D	746	D	<0.2	---	0.99	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	104	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	227	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,320	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,800	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	80,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,860	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	80,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	62	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	138,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	90	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 7.1C
Sample ID:	RESE-1001075
Sample Date:	5/5/2004
Flow Rate (gpm):	30.2

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	204	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.2	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.71	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	20	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	2.8	D	1.7	D	43	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	9.4	D	6.5	D	16	D	<3	5.7	4.1	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	42.9	D	1.7	D	91	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	18	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	341	D	38	D	3,031	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	1.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	85	D	86	D	810	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	170	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,440	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,890	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	91,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,210	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	91,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	69	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	126,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	240	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 7.1C
Sample ID: RESE-1001156
Sample Date: 8/19/2004
Flow Rate (gpm): 30.8

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	379	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.7	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.78	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	5	4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	43	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	6.1	D	2.9	D	93	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	18.5	D	11.9	D	32	D	6.1	9.6	9.7	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	93.0	D	3.6	D	196	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	13	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	622	D	69	D	5,528	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<6	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	6	D	---	---	6.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	156	D	157	D	1,479	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	120	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	220	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	900	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	900	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,700	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	71,100	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	127,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	41,400	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,820	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	127,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	320,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	6	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	17	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 7.1C
Sample ID: RESE-1001171
Sample Date: 11/12/2004
Flow Rate (gpm): 47.6

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	279	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8.8	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4	3	3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	22	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.3	D	2.3	D	65	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.6	D	9.0	D	23	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	65.3	D	2.5	D	138	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	14	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	472	D	52	D	4,193	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	118	D	119	D	1,121	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	360	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	49,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,690	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,940	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	144,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,440	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,700	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	144,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	186,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	17	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC 7.1C**
Sample ID:	**RESE-1001193**
Sample Date:	**2/16/2005**
Flow Rate (gpm):	**30311.95**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	13	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	570	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3	3.1	3.3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	0.9	D	0.8	D	13	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.4	D	2.6	D	5.9	D	12	13	12	---	A&WwA, A&WwC, A&WeA
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	279	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	12.8	D	0.5	D	27	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	7.3	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	137	D	15	D	1,213	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.3	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	34	D	34	D	324	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	280	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	280	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,020	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,600	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,700	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,670	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,620	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,510	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,670	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,700	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	80,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	4	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 7.1C
Sample ID: RESE-1001215
Sample Date: 5/17/2005
Flow Rate (gpm): 10.9

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	205	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8.8	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.61	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5.3	4.7	4.9	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	19	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	2.8	D	1.7	D	43	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	9.4	D	6.5	D	16	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	76	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	42.6	D	1.7	D	90	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	17	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	340	D	38	D	3,016	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	1.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	85	D	86	D	806	D	<10	16	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	101	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,300	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,330	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92,900	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,300	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,310	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,800	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92,900	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	68	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	161,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	7	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 7.1C
Sample ID:	RESE-1001231
Sample Date:	9/7/2005
Flow Rate (gpm):	3.06

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.9	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.6	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	8.8	8.1	7.7	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	29	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.4	D	1.9	D	52	D	<0.08	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	11.1	D	7.6	D	19	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	109	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	51.9	D	2.0	D	110	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	45	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	395	D	44	D	3,512	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	2.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	99	D	100	D	939	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	165	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	209	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,210	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,380	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	119,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,280	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,530	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,900	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	119,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	82	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	173,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	240	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	7	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC T6.6W

Sample Location: **DC T6.6W**
Sample ID: **RESE-1001010**
Sample Date: May 29, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	8	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	25.4	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	325	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.55	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	9.9	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	52	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4	4	3	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		23.8	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	4.9	D	2.4	D	73.7	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	15.1	D	9.9	D	26.1	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	61	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	73.8	D	2.9	D	155.7	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	8.6	---	*
Mercury	Hg	1	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		519.2	D	57.7	D	4,611.3	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<6.0	<6.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		4.3	D	---		4.3	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	130.0	D	131.0	D	1,233.3	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		<200	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cynanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		420	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	83,100	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	7,850	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	7,090	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	156,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	32,700	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	7,700	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,600	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	26,600	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.7	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-4.3	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	ND	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	156,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	113,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	258,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC T6.6W**
Sample ID: **RESE-1001022**
Sample Date: September 3, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	6.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	22.6	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	362	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	3.16	A&Ww acute, A&Ww chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.1	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		32.4	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	5.4	D	2.6	D	81.5	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	16.5	D	10.8	D	28.5	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	264	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	81.6	D	3.2	D	172.1	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	323	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	8.8	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		561.7	D	62.4	D	4,988.3	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<15.0	<15.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		5.0	D	---		5.0	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	140.6	D	141.8	D	1,334.3	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		420	<10.0	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	93,300	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	7,960	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	11,600	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	164,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	36,100	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	8,270	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,800	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	26,800	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	164,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	124,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	200,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		120	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: DC T6.6W
Sample ID: RESE-1001033
Sample Date: 11/4/2003
Flow Rate (gpm): 1.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	412	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	0.73	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4	6	5	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	36	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.5	D	1.1	D	23	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	5.5	D	4.0	D	10	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	433	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	22.7	D	0.9	D	48	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	415	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	210	D	23	D	1,863	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<6	<15	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	1	D	---	---	0.7	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	52	D	53	D	497	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	—	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	280	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	—	500	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	98,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,260	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,300	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	192,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,400	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	192,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	293,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	4	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC T6.6W
Sample ID: RESE-1001064
Sample Date: 2/18/2004
Flow Rate (gpm): 0.96

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	155	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.3	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.79	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	---	<0.3	---	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	---	4.3	---	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	---	<0.2	---	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.2	D	2.2	D	64	D	---	<0.1	---	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	---	---	---	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.3	D	8.9	D	23	D	---	<2.1	---	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	128	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	63.9	D	2.5	D	135	D	---	<1	---	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	---	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.4	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	465	D	52	D	4,127	D	---	---	---	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	---	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.4	D	---	<0.1	---	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	---	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	116	D	117	D	1,104	D	---	<0.2	---	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	127	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	407	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,410	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,180	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,480	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,210	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,900	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	99	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	235,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	13	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC T6.6W
Sample ID: RESE-1001074
Sample Date: 5/5/2004
Flow Rate (gpm): 0.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	318	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	5.7	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.24	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	30	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.6	D	2.4	D	69	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.3	D	9.5	D	25	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	277	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	69.5	D	2.7	D	147	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	110	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	496	D	55	D	4,403	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<6	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.9	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	124	D	125	D	1,178	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	—	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	—	300	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	89,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,800	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,390	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	162,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,200	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,000	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,200	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	162,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	107	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	228,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC T6.6W**
Sample ID:	**RESE-1001155**
Sample Date:	**8/19/2004**
Flow Rate (gpm):	**0.3**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	224	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	1.6	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.16	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4	3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	26	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	5.1	D	2.5	D	77	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	15.7	D	10.3	D	27	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	77.3	D	3.0	D	163	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	20	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	539	D	60	D	4,783	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<6	<15	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	5	D	---	---	4.6	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	135	D	136	D	1,279	D	7.5	8.4	8.8	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	410	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,200	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	166,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,300	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,790	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	166,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	118	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	305,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	240	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC T6.6W
Sample ID: RESE-1001170
Sample Date: 11/12/2004
Flow Rate (gpm): 0.694

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.2	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	179	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.7	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.99	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	26	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.6	D	2.4	D	69	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.3	D	9.5	D	25	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	134	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	69.5	D	2.7	D	147	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	70	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	496	D	55	D	4,403	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<15	<15	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.9	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	124	D	125	D	1,178	D	<5	6	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	440	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	89,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,770	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,020	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	156,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,280	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,200	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,900	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	156,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	107	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	245,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	90	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC T6.6W**
Sample ID:	**RESE-1001192**
Sample Date:	**2/16/2005**
Flow Rate (gpm):	**32.5**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.5	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	12	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	325	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	17	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.2	D	1.0	D	19	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	4.6	D	3.4	D	8.0	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	18.4	D	0.7	D	39	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	180	D	20	D	1,594	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	45	D	45	D	426	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	125	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,500	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,260	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19,200	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,400	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,970	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,370	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,380	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,780	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,400	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	68,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	8	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC T6.6W
Sample ID: RESE-1001214
Sample Date: 5/17/2005
Flow Rate (gpm): 0.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	303	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	2.4	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.51	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	41	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4.8	5	4.9	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	25	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.5	D	2.3	D	68	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.1	D	9.3	D	24	D	11	<10	<10	---	A&WwwC
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	403	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	68.1	D	2.7	D	144	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	152	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	488	D	54	D	4,334	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	122	D	123	D	1,159	D	<10	17	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	249	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	86,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,150	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,820	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	149,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,500	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,970	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	149,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	105	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	245,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC T6.6W
Sample ID: RESE-1001232
Sample Date: 9/7/2005
Flow Rate (gpm): none

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	6.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	298	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	2.7	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.39	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4.8	4.6	4.2	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	31	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.3	D	2.2	D	65	D	<0.08	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.4	D	8.9	D	23	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	90	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	64.5	D	2.5	D	136	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	19	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	468	D	52	D	4,155	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	117	D	118	D	1,111	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	113	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	370	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	85,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,560	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	142,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,700	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,640	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	142,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	239,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	220	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 6.1E

Sample Location:	DC 6.1E
Sample ID:	RESE-1001077
Sample Date:	5/20/2004
Flow Rate (gpm):	2

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.2	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	297	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.6	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.5	D	2.3	D	68	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.1	D	9.3	D	24	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	68.1	D	2.7	D	144	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	488	D	54	D	4,334	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	122	D	123	D	1,159	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	310	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	650	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	650	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,780	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,810	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	148,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,100	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,200	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	148,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	105	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	234,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC 6.1E**
Sample ID:	**RESE-1001159**
Sample Date:	**8/23/2004**
Flow Rate (gpm):	**0.8**

Parameters and Constituents		Surface Water Standards														Results				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)						
										Acute		Chronic		Acute						
Name	**Units**	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	**Dissolved Results**	**Total Results**	**Total Recoverable Results**	**Field Parameters**	**Use Exceeded**
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	296	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.6	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.4	D	2.3	D	67	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.8	D	9.2	D	24	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	66.7	D	2.6	D	141	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	480	D	53	D	4,264	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.6	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	120	D	121	D	1,140	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	310	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	520	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	520	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	69,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,970	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,840	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	153,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,040	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	153,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	103	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	226,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 6.1E
Sample ID: RESE-1001177
Sample Date: 11/18/2004
Flow Rate (gpm): 2

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	274	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	0	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	18	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.5	D	2.3	D	68	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.1	D	9.3	D	24	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	68.1	D	2.7	D	144	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	488	D	54	D	4,334	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	122	D	123	D	1,159	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	320	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	510	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	510	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	67,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,970	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,660	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	132,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,700	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,090	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	132,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	105	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	226,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 6.1E
Sample ID:	RESE-1001199
Sample Date:	2/28/2005
Flow Rate (gpm):	

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	374	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	-----	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.39	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	23	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	5.9	D	2.8	D	89	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	17.8	D	11.6	D	31	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	89.4	D	3.5	D	189	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	604	D	67	D	5,360	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	6	D	---	---	5.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	151	D	152	D	1,434	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	230	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,500	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,560	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	145,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,280	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,130	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,900	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	145,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	135	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	275,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 6.1E
Sample ID:	RESE-1001217
Sample Date:	5/24/2005
Flow Rate (gpm):	0.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	N/A	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	20	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.6	D	2.4	D	70	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	14.4	D	9.6	D	25	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	70.2	D	2.7	D	148	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	500	D	56	D	4,438	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.9	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	125	D	126	D	1,187	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	102	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	272	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	770	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	770	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	69,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,530	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,900	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,020	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,050	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	140,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	108	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	240,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<2	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 6.1E
Sample ID:	RESE-1001230
Sample Date:	8/23/2005
Flow Rate (gpm):	none

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	---	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	302	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.3	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	164	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	19	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.8	D	2.4	D	73	D	<0.2	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	15.0	D	9.9	D	26	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	73.0	D	2.8	D	154	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	515	D	57	D	4,577	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	4.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	129	D	130	D	1,224	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	295	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	700	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	700	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,200	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,200	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	142,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36,200	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,360	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,130	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	142,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	112	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	220,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:

Green cell color indicates ADEQ designated uses that are assumed to apply to site location.

s.u. = standard units

°C = degrees Celsius

µS/cm = microSiemens per centimeter

mg/L = milligrams per liter

NTUs = Nephelometric Turbidity Units

µg/L = micrograms per liter

MFL = Million Fibers per Liter

ml = milliliters

MPN/100 ml = most probable number per 100 milliliter

- - - = not applicable

T = total

TR = total recoverable

D = dissolved

ND = not detected

* = No designated uses exceeded

= Standard is lower than detection limit

= Exceedances (except for Dissolved Oxygen and pH)

Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.

Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 5.5C

Sample Location:	DC 5.5C
Sample ID:	RESE-1001039
Sample Date:	11/10/2003
Flow Rate (gpm):	21.6

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	341	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.55	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4	4	4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	41	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	7.1	D	3.2	D	107	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	20.9	D	13.4	D	36	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	107.3	D	4.2	D	226	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	13	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.3	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	697	D	77	D	6,189	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	8	D	---	---	7.7	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	175	D	176	D	1,656	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	190	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,100	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	166,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,500	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,200	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,300	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	166,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	160	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	296,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	4	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC 5.5C**
Sample ID:	**RESE-1001067**
Sample Date:	**2/25/2004**
Flow Rate (gpm):	**507.144**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.5	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	206	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	10	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	---	<0.3	---	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	---	4.1	---	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	---	<0.2	---	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.0	D	1.8	D	46	D	---	<0.1	---	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	---	---	---	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	9.9	D	6.8	D	17	D	---	2.9	---	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	45.4	D	1.8	D	96	D	---	<1	---	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	---	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	357	D	40	D	3,167	D	---	---	---	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	---	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	2.0	D	---	<0.1	---	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	---	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	89	D	90	D	847	D	---	3	---	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	174	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,140	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19,200	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88,750	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,400	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,640	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,570	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88,750	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:

Green cell color indicates ADEQ designated uses that are assumed to apply to site location.

s.u. = standard units

°C = degrees Celsius

µS/cm = microSiemens per centimeter

mg/L = milligrams per liter

NTUs = Nephelometric Turbidity Units

µg/L = micrograms per liter

MFL = Million Fibers per Liter

ml = milliliters

MPN/100 ml = most probable number per 100 milliliter

--- = not applicable

T = total

TR = total recoverable

D = dissolved

ND = not detected

* = No designated uses exceeded

= Standard is lower than detection limit

= Exceedances (except for Dissolved Oxygen and pH)

Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.

Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Hardness for this sample was not given in the lab report, but rather was calculated from the concentrations of Calcium and Magnesium after Hem, 1998.

Sample Location: **DC 5.5C**
Sample ID: **RESE-1001076**
Sample Date: **5/20/2004**
Flow Rate (gpm): **11.3**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	280	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.83	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4	5	4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	26	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.3	D	2.3	D	65	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	13.6	D	9.0	D	23	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	65.3	D	2.5	D	138	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	47	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	472	D	52	D	4,193	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	4	D	---	---	3.5	D	<0.1	0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	118	D	119	D	1,121	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	—	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	150	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	—	180	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,500	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,130	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,300	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	135,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,200	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,280	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19,300	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	135,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	101	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	192,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 5.5C
Sample ID: RESE-1001158
Sample Date: 8/23/2004
Flow Rate (gpm): 9

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.2	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	466	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.6	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.27	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5	6	6	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	54	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	8.4	D	3.6	D	127	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	24.2	D	15.3	D	42	D	<3	5.9	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	57	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	126.8	D	4.9	D	268	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	26	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.1	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	795	D	88	D	7,062	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	10	D	---	---	10	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	199	D	201	D	1,890	D	8.6	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	190	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	240	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,000	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	41,600	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	225,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	55,900	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,400	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,200	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	225,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	187	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	321,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	4	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 5.5C
Sample ID:	RESE-1001176
Sample Date:	11/18/2004
Flow Rate (gpm):	60.8

Parameters and Constituents		Surface Water Standards														Results				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)						
										Acute		Chronic		Acute						
Name	Units	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	299	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.7	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.45	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	27	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	5.1	D	2.5	D	77	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	15.6	D	10.2	D	27	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	76.6	D	3.0	D	162	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	5.6	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.33	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	535	D	59	D	4,749	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	5	D	---	---	4.5	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	134	D	135	D	1,270	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	200	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,000	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	129,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	35,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,130	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,210	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	129,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	117	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	214,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC 5.5C**
Sample ID:	**RESE-1001198**
Sample Date:	**2/28/2005**
Flow Rate (gpm):	**10492.94**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.9	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.8	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	13	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.4	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	658	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.2	3.4	3.2	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	1.0	D	0.8	D	16	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	3.9	D	2.9	D	6.8	D	<10	10	11	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	328	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	15.1	D	0.6	D	32	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	4.6	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	154	D	17	D	1,369	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	0	D	---	---	0.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	39	D	39	D	366	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	150	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,370	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,100	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,780	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,820	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,430	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,720	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,100	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	89,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	7	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**DC 5.5C**
Sample ID:	**RESE-1001216**
Sample Date:	**5/24/2005**
Flow Rate (gpm):	**17.6**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	254	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.1	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.32	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	5.3	5	5.2	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	25	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.9	D	2.1	D	59	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.5	D	8.4	D	22	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	59.2	D	2.3	D	125	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	47	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	438	D	49	D	3,886	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.0	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	109	D	110	D	1,039	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	124	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	144	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,690	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,700	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,580	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,020	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	92	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	DC 5.5C
Sample ID:	RESE-1001229
Sample Date:	8/23/2005
Flow Rate (gpm):	39.7

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	224	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,061	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	9.6	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.47	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	6	6.1	5.6	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	23	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.2	D	1.9	D	49	D	<0.2	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	10.6	D	7.2	D	18	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	106	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	49.0	D	1.9	D	103	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	45	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	378	D	42	D	3,359	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	2	D	---	---	2.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	95	D	95	D	898	D	<10	<10	20	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	144	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44,100	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,280	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84,700	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,500	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,640	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,280	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84,700	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	78	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	136,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	50	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

DC 4.1E

Sample Location: **DC 4.1E**
Sample ID: **RESE-1001007**
Sample Date: May 21, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC		FBC		PBC		AgL		A&Ww Acute		A&Ww Chronic		A&We Acute		D Result	T Result	TR Result	Field Parameters	Use Exceeded
		(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)		
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	8	---
Temperature	°C	---		---		---		---		---		---		---		---	---	---	23.2	---
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	247	---
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	6.08	---
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.2	---
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	---
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		12.6	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	3.7	D	2.0	D	56.7	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	12.0	D	8.1	D	20.78	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	<20.0	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	56.7	D	2.21	D	119.6	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	<2.0	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	<8.0	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		423.1	D	47.0	D	3757.2	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		2.8	D	---		2.8	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	105.9	D	106.7	D	1004.6	D	9.6	21.5	22.4	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<200	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		360	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	480	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	480	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	68,600	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	4,470	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	3,120	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	131,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	28,200	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	4,470	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	22,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.3	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.4	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.5	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00024	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	131,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	88,700	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	224,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---				---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---		---				---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **DC 4.1E**
Sample ID: **RESE-1001019**
Sample Date: August 26, 2003

PARAMETERS AND CONSTITUENTS

Name	Symbol	FC (µg/L)	Fraction	FBC (µg/L)	Fraction	PBC (µg/L)	Fraction	AgL (µg/L)	Fraction	A&Ww Acute (µg/L)	Fraction	A&Ww Chronic (µg/L)	Fraction	A&We Acute (µg/L)	Fraction	D Result (µg/L)	T Result (µg/L)	TR Result (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	24.8	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	264	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	6.13	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.34	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		13.2	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	3.8	D	2.1	D	56.8	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	12.0	D	8.1	D	20.8	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	<20.0	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	56.8	D	2.2	D	119.9	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	<2.0	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	8.1	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		423.9	D	47.1	D	3,764.4	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		2.8	D	---		2.8	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700.0	D	150.0	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	106.1	D	106.9	D	1,006.5	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		340	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	220	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	220	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	72,200	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	4,370	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	3,110	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	134,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	28,400	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	4,350	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	<1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	21,600	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	134,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	88,900	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	208,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		<100.0	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Exceedances (except for DO and pH)
AZ state DO standards correspond to minima, therefore values less than the requirements are highlighted
AZ state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: DC 4.1E
Sample ID: RESE-1001040
Sample Date: 11/11/2003
Flow Rate (gpm):

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	261	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.7	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.09	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	14	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.7	D	2.0	D	56	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.0	D	8.1	D	21	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	56.4	D	2.2	D	119	D	<3	<5	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<2	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	421	D	47	D	3,743	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	2.8	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	105	D	106	D	1,001	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	320	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	320	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,100	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,620	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,250	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	128,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,500	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,730	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	128,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	175,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: DC 4.1E
Sample ID: RESE-1001058
Sample Date: 2/10/2004
Flow Rate (gpm): 1.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.8	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.6	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.2	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<0.5	<0.5	<0.5	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	1.2	1.8	1.1	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<0.2	<0.2	<0.2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	3.6	D	2.0	D	55	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	0.33	---	0.4	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.7	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	11.6	D	7.8	D	20	D	<2.1	<2.1	<2.1	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<13	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	54.5	D	2.1	D	115	D	<1	<1	<1	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<1	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.9	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	411	D	46	D	3,646	D	3.9	---	<1.3	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<0.8	<0.8	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	2.6	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<0.4	<0.4	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	103	D	104	D	975	D	0.7	1.4	1.8	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<7	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	102	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	313	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	380	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	380	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,290	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	129,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,340	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	972	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	129,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	86	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	202,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	900	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

QUEEN CREEK

PUMP STATION

Sample Location: **Pump Station**
Sample ID: **RESE-1001001**
Sample Date: May 15, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	14.8	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	746	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7.5	*
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	0.79	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	454	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		21.9	---	<2.0	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5	D	---		<2.0	<2.0	---	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	20	D	7	D	310	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	53	D	31	D	91	D	<3.0	4	3.9	---	*
Iron	Fe	---		---		---		---		---		---		---		---	593	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	300	D	12	D	632	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	268	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	22.5	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,596	D	177	D	14,171	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		42	D	---		42	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	400	D	403	D	3,797	D	<5.0	<5.0	<5.0	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<1.7	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.70	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		230	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	2,700	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	2,700	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	43,800	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	9,810	---	---	*
Sulfate	SO_4	---		---		---		---		---		---		---		---	54,200	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	323,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	123,000	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	29,100	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1400	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	11,300	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.4	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.6	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.2	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00071	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	323,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	426,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	523,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	18.8	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	20	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	---	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	---	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		130	---	---	---	*
Orthophosphate	PO_4	---		6.5 to 9.1		4.5 to 9.1		6.5 to 9.1		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Pump Station**
Sample ID: **RESE-1001024**
Sample Date: September 4, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
Name	Symbol	Fish Consumption (µg/L)	Fraction	Full-body Contact (µg/L)	Fraction	Partial-body Contact (µg/L)	Fraction	Agricultural Livestock Watering (µg/L)	Fraction	Aquatic and Wildlife (warm water) Acute (µg/L)	Fraction	Aquatic and Wildlife (warm water) Chronic (µg/L)	Fraction	Aquatic and Wildlife (ephemeral) Acute (µg/L)	Fraction	Dissolved Results (µg/L)	Total Results (µg/L)	Total Recoverable Results (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	18.7	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	770	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	2.8	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.6	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	38	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		16.4	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	24.49	D	7.36	D	371	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	61.57	D	35.61	D	107	D	<3.0	3.2	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	20	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	354.65	D	13.82	D	748	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	50.2	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	15.4	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,837	D	203.98	D	16,310	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<9.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		55.53	D	---		56	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	460.57	D	464.34	D	4,371	D	<5.0	<5.0	<5.0	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---		---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		250		---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	9,200	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	9,200	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---		---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	49,500	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	10,200	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	56,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	374,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	151,000	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	30,300	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,400	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	11,200	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	374,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	503,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	496,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	33	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		170	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg L unless otherwise indicated
µg L = micrograms per liter
mg L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN 100 ml = most probable number per 100 milliliter
µS cm = microSiemens per centimeter
pCi L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Pump Station**
Sample ID: **RESE-1001029**
Sample Date: November 3, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.5	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	13.6	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	872	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	6.9	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.3	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	21	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		16.7	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	5.34	D	2.6	D	80.8	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<3.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	16.3	D	10.7	D	28.3	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	<20	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	80.8	D	3.2	D	170.63	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	6.7	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	15.1	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		557.9	D	62.0	D	4954.3	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		4.93	D	---		4.9	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	139.6	D	140.8	D	1325.2	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	<40	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		<100.0	240	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	11,000	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	11,000	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	45,700	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	10,100	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	60,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	275,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	130,000	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	29,900	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,200	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	11,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	375,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	123,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	602,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	5.0	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	500	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	2.0	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	170	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Pump Station**
Sample ID: **RESE-1001056**
Sample Date: February 9, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
Name	Symbol	Fish Consumption (µg/L)	Fraction	Full-body Contact (µg/L)	Fraction	Partial-body Contact (µg/L)	Fraction	Agricultural Livestock Watering (µg/L)	Fraction	Aquatic and Wildlife (warm water) Acute (µg/L)	Fraction	Aquatic and Wildlife (warm water) Chronic (µg/L)	Fraction	Aquatic and Wildlife (ephemeral) Acute (µg/L)	Fraction	Dissolved Results (µg/L)	Total Results (µg/L)	Total Recoverable Results (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	9.3	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	820	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.1	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.9	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	39.1	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<0.5	<0.5	<0.5	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	0.83	1.1	0.87	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		14.1	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<0.2	0.22	<0.2	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	18.45	D	6.1	D	279.4	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		0.41	---	0.53	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<0.7	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	48.1	D	28.5	D	83.2	D	3	4	2.9	---	*
Iron	Fe	---		---		---		---		---		---		---		---	25.8	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	271.5	D	10.6	D	572.94	D	<1.0	<1.0	<1.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	2.5	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	10.6	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1471.2	D	163.4	D	13065.4	D	1.7	---	<1.3	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<1.6	1.4	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		35.37	D	---		35.4	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<0.4	<0.4	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	368.8	D	371.8	D	3500.0	D	0.4	3.9	<0.2	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<7.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	240	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	9.8	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	9.8	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	---	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	11,200	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	61,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	385,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	104,000	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	31,000	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,060	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	10,900	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	385,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	387,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	545,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	350	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ND	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	192	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
[box] = Standard is lower than detection limit
[red] = Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Pump Station**
Sample ID: **RESE-1001084**
Sample Date: May 25, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5 to 9.0		4.5 to 9.0		6.5 to 9.0		---		---		---		---	---	---	7.3	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	16.8	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	845	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.7	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	2	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	51	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		14.1	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	15.83	D	5.5	D	239.8	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	42.1	D	25.2	D	72.9	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	25	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	234.6	D	9.1	D	495.21	D	<3.0	<3.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	6.8	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	13.7	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1305.4	D	145.0	D	11593.2	D	<10	---	<10	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		27.74	D	---		27.7	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	327.2	D	329.9	D	3105.1	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	250	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	9.8	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	9.8	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	45,600	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	10,600	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	58,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	393,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	85,400	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	29,800	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,100	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	10,800	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	4.02	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	2.38	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	5.24	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.0013	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	393,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	336,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	544,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	8	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	23	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	130	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	---	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Pump Station**
Sample ID: **RESE-1001096**
Sample Date: August 3, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.7	•
Temperature	°C	---		---		---		---		---		---		---		---	---	---	18	•
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	830	•
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	2.9	A&Ww Acute and Chronic
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	0.01	•
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20	---	---	•
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	•
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	•
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		14.4	---	---	---	•
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.30	D	---		<2.0	<2.0	<2.0	---	•
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	14.87	D	5.24	D	225	D	<0.1	<0.1	<0.1	---	•
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	•
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	•
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	40	D	24	D	69	D	<3.0	<3.0	<3.0	---	•
Iron	Fe	---		---		---		---		---		---		---		---	<20	---	---	•
Lead	Pb	---		15	TR	15	TR	100	TR	221	D	8.61	D	466	D	<3.0	<3.0	<3.0	---	•
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	4.90	---	•
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2	D	0.01	D	5	D	<0.2	<0.2	---	---	•
Molybdenum	Mo	---		---		---		---		---		---		---		---	10.2	---	---	•
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,243	D	138	D	11,036	D	<10	---	<10	---	•
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	•
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		25	D	---		25	D	<0.1	<0.1	<0.1	---	•
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	•
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	311	D	314	D	2,956	D	<5.0	<5.0	<5.0	---	•
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	•
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	•
Cynanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	•
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	260	---	---	•
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	•
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	12,000	---	---	•
Nitrate + Nitrite (as N)	$NO_2^-+NO_3^-$-N	---		---		---		---		---		---		---		---	12,000	---	---	•
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	•
Silica	SiO_2	---		---		---		---		---		---		---		---	45,100	---	---	•
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	•
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	11,900	---	---	•
Sulfate	SO_4	---		---		---		---		---		---		---		---	60,100	---	---	•
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	•
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	393,000	---	---	•
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	778,000	---	---	•
Magnesium	Mg	---		---		---		---		---		---		---		---	29,900	---	---	•
Potassium	K	---		---		---		---		---		---		---		---	1,300	---	---	•
Sodium	Na	---		---		---		---		---		---		---		---	11,600	---	---	•
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	•
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	393,000	---	---	•
Hardness	---	---		---		---		---		---		---		---		---	317,000	---	---	•
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	536,000	---	---	•
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	•
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	•
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	•
E. Coli	---	---		235	T	576	T	---		---		---		---		---	130	---	---	•
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	180	---	---	•
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	•

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location:	**Queen Creek: Pump Station**
Sample ID:	**RESE-1001166**
Sample Date:	**11/3/2004**
Flow Rate (gpm):	**0.25**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	857	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.88	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	16	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	16.7	D	5.7	D	252.9	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	44.1	D	26.3	D	76.3	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	246.9	D	9.6	D	521.2	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	2.7	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,361	D	151	D	12,087.5	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<6	<6	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	30	D	---	---	30.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	341	D	344	D	3,237.7	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	310	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	220	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	12,000	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,000	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,800	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	76,100	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	395,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	90,500	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,900	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,300	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	395,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	353	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	554,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Queen Creek: Pump Station
Sample ID: RESE-1001182
Sample Date: 2/8/2005
Flow Rate (gpm): 45.6

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.9	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	634	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	9.2	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	3.1	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.6	3.7	3.4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	20	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	14.0	D	5.0	D	211	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	37.7	D	22.8	D	65	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	207.9	D	8.1	D	439	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	—	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,183	D	131	D	10,504	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	8.5	7.7	---	A&WwwC
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	23	D	---	---	23	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	296	D	299	D	2,813	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	155	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	343	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	26,000	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,000	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40,500	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,400	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	48,800	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	245,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84,400	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,600	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,450	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	245,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	299	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	440,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	280	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Queen Creek: Pump Station
Sample ID: RESE-1001206
Sample Date: 5/4/2005
Flow Rate (gpm): 20.3

Parameters and Constituents		Surface Water Standards														Results				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)						
										Acute		Chronic		Acute						
Name	Units	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.9	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	710	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	12	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.66	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.5	3.6	3.5	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	22	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	18.9	D	6.2	D	286	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	49.0	D	29.0	D	85	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	277.2	D	10.8	D	585	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,497	D	166	D	13,294	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	37	D	---	---	37	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	375	D	378	D	3,561	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	—	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	172	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	—	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	—	254	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	130	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	11,000	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,000	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38,900	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,000	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	276,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	104,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,600	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,730	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,640	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	276,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	395	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	453,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**Queen Creek: Pump Station**
Sample ID:	**RESE-1001222**
Sample Date:	**8/8/2005**
Flow Rate (gpm):	**5**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.5	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	832	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.6	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.93	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	3.2	3.9	3.1	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.3	3.8	3.3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	26	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	20.9	D	6.6	D	317	D	<0.2	5	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	53.7	D	31.5	D	93	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	306.0	D	11.9	D	646	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,624	D	180	D	14,424	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	3.1	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	43	D	---	---	43	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	407	D	411	D	3,865	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	217	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	280	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	130	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	20,000	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,000	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	66,500	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,700	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	82,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	286,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	114,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36,200	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,670	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,400	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	286,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	435	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	541,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	1,600	---	---	FBC & PBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

QUEEN CREEK 27.3

Sample Location:	**Queen Creek: 27.3**
Sample ID:	**RESE-1001184**
Sample Date:	**2/8/2005**
Flow Rate (gpm):	**73.1**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	-	-	6.5-9.0	-	6.5-9.0	-	6.5-9.0	-	6.5-9.0	-	6.5-9.0	-	6.5-9.0	-	-	-	-	8.3	-
Temperature	°C	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-
Specific Conductance	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	336	-
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	6	-	6	-	-	-	-	-	-	10	-
Turbidity	NTUs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	913	-
Metals																				
Aluminum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,320	-	-	-
Antimony	µg/L	4,300	TR	560	TR	560	TR	-	-	88	D	30	D	-	-	<3	<3	<3	-	-
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4.9	7.8	7.3	-	-
Barium	µg/L	-	-	98,000	D	98,000	D	-	-	-	-	-	-	-	-	19	-	-	-	-
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	-	-	65	D	5.3	D	-	-	<2	<2	<2	-	-
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	12.1	D	4.6	D	184	D	<0.2	0.21	0.32	-	-
Chromium (total)	µg/L	-	-	100	TR	100	TR	1,000	TR	-	-	-	-	-	-	<6	-	<6	-	-
Cobalt	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<6	-	-	-
Copper	µg/L	-	-	1,300	TR	1,300	TR	500	TR	33.4	D	20.5	D	58	D	<10	24	20	-	-
Iron	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,110	-	-	-
Lead	µg/L	-	-	15	TR	15	TR	100	TR	181.8	D	7.1	D	384	D	<3	7.7	7.8	-	-
Manganese	µg/L	-	-	196,000	TR	196,000	TR	-	-	-	-	-	-	-	-	-	-	120	-	-
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	-	-	-
Molybdenum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<8	-	-	-
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	-	-	1,061	D	118	D	9,423	D	<10	-	<10	-	-
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	-	<3	<3	-	-
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	-	-	18	D	-	-	18	D	<0.1	<0.1	<0.1	-	-
Thallium	µg/L	7.2	TR	112	TR	112	TR	-	-	700	D	150	D	-	-	<2	<2	-	-	-
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	266	D	268	D	2,523	D	<10	20	18	-	-
Inorganic Non-metallics																				
Asbestos	MFL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	—	-	-	-
Boron	µg/L	-	-	126,000	TR	126,000	TR	-	-	-	-	-	-	-	-	-	<40	-	-	-
Bromide	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	321	-	-	-
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	-	—	-	-	-
Fluoride	µg/L	-	-	84,000	T	84,000	T	-	-	-	-	-	-	-	-	-	135	-	-	-
Nitrite (as N)	µg/L	-	-	140,000	T	140,000	T	-	-	-	-	-	-	-	-	-	<100	-	-	-
Nitrate (as N)	µg/L	-	-	2,240,000	T	2,240,000	T	-	-	-	-	-	-	-	-	-	2,100	-	-	-
Nitrate + Nitrite (as N)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,100	-	-	-
Orthophosphate	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	-	-	-
Silica	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	69,700	-	-	-
Sulfide	µg/L	-	-	-	-	-	-	-	-	100	T	-	-	100	T	-	<1000	-	-	-
Major Anions																				
Chloride	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,800	-	-	-
Sulfate	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24,400	-	-	-
Carbonate (as $CaCO_3$)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1000	-	-	-
Bicarbonate (as $CaCO_3$)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218,000	-	-	-
Major Cations																				
Calcium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	81,900	-	-	-
Magnesium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,100	-	-	-
Potassium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,520	-	-	-
Sodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,410	-	-	-
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	218,000	-	-	-
Hardness	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	263	-	-	-
Total Dissolved Solids	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	295,000	-	-	-
Total Suspended Solids	mg/L	-	-	-	-	-	-	-	-	80	T	80	T	-	-	-	164	-	-	A&WwwA & A&WwwC
Color	color units	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	-	-	-
Biologicals																				
Coliforms (total)	MPN/100 ml	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	-	-	-
E. Coli	MPN/100 ml	-	-	235	-	576	-	-	-	-	-	-	-	-	-	-	<2	-	-	-

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **Queen Creek: 27.3**
Sample ID: **RESE-1001207**
Sample Date: **5/4/2005**
Flow Rate (gpm): **8.12**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	442	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	14	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.9	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4.2	4.3	4	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	23	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	10.2	D	4.1	D	155	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	28.7	D	17.8	D	50	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	153.5	D	6.0	D	324	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	—	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	926	D	103	D	8,227	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	14	D	---	---	14	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	232	D	234	D	2,202	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	220	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	125	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	2,100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,100	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,100	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,300	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	131,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60,900	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17,500	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,810	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,440	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	131,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	224	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	298,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

QUEEN CREEK - BOULDER HOLE

Sample Location: **Queen Creek - Boulder Hole**
Sample ID: **RESE-1001008**
Sample Date: May 22, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.8	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	19.8	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	441	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.1	*
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	2	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	14	15	14	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		40.8	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	10.81	D	4.22	D	164	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	30.18	D	18.65	D	52	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	31	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	162.2	D	6.32	D	342	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	94.2	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5	D	<0.2	---	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	---	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		968	D	107.53	D	8,598	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	---	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		15.11	D	---		15	D	<0.1	---	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	242.56	D	244.55	D	2,302	D	9.9	9.4	10.4	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<200	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cynanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		130	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	41,500	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	13,400	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	20,700	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	240,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	74,800	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	12,000	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	2,500	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	16,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.4	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.6	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.6	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00129	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	240,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	236,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	333,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	6	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	20	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ABSENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		240	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Boulder Hole**
Sample ID: **RESE-1001023**
Sample Date: September 4, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.5	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	24.2	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	412	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	0.9	A&Ww Acute and Chronic
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	0.65	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	30	33	29	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		48.1	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	8.01	D	3.44	D	121	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	23.26	D	14.73	D	40	D	<3.0	3.8	3.4	---	*
Iron	Fe	---		---		---		---		---		---		---		---	48	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	120.98	D	4.71	D	255	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	124	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	9.7	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		766	D	85.11	D	6,805	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		9.39	D	---		9	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	191.91	D	193.48	D	1,821	D	5.1	<5.0	<5.0	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	43	---	---	*
Cynanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		120	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	160	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	160	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	33,200	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	8,110	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	23,000	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	174,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	56,100	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	9,400	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	4,300	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	12,300	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	174,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	179,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	214,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	37	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		140	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Boulder Hole**
Sample ID: **RESE-1001028**
Sample Date: November 3, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.5	•
Temperature	°C	---		---		---		---		---		---		---		---	---	---	15.8	•
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	747	•
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	4	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.67	•
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<2.0	---	---	•
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	•
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	15	16	16	---	•
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		69.6	---	---	---	•
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	•
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	16.7	D	5.7	D	252.9	D	<0.1	<0.1	<0.1	---	•
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	•
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	•
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	44.1	D	26.3	D	76.3	D	3.3	5.1	3.9	---	•
Iron	Fe	---		---		---		---		---		---		---		---	46	---	---	•
Lead	Pb	---		15	TR	15	TR	100	TR	246.9	D	9.6	D	521.2	D	<3.0	<5.0	5.0	---	•
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	51	---	•
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5.00	D	<0.2	<0.2	---	---	•
Molybdenum	Mo	---		---		---		---		---		---		---		---	12.7	---	---	•
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,361.1	D	151.2	D	12,087.5	D	<10.0	---	<10.0	---	•
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33.0	TR	---	<3.0	<3.0	---	•
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		30.2	D	---		30.2	D	<0.1	<0.1	<0.1	---	•
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	<2.0	---	•
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	341.2	D	344.0	D	3,237.7	D	<5.0	<5.0	<5.0	---	•
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	•
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	40	---	---	•
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41.0	TR	9.7	TR	84	TR	---	---	---	---	•
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		210	140	---	---	•
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	•
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	•
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	•
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	•
Silica	SiO_2	---		---		---		---		---		---		---		---	45,200	---	---	•
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	•
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	18,500	---	---	•
Sulfate	SO4	---		---		---		---		---		---		---		---	62,300	---	---	•
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	•
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	327,000	---	---	•
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	112,000	---	---	•
Magnesium	Mg	---		---		---		---		---		---		---		---	17,700	---	---	•
Potassium	K	---		---		---		---		---		---		---		---	3,300	---	---	•
Sodium	Na	---		---		---		---		---		---		---		---	23,200	---	---	•
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	•
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	327,000	---	---	•
Hardness	---	---		---		---		---		---		---		---		---	353,000	---	---	•
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	473,000	---	---	•
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	•
Color (color units)	---	---		---		---		---		---		---		---		---	15	---	---	•
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	300	---	---	•
E. Coli	---	---		235	T	576	T	---		---		---		---		---	2.0	---	---	•
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	350	---	---	•
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	•

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
• = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Boulder Hole**
Sample ID: **RESE-1001054**
Sample Date: February 9, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	14.5	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	417.1	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.3	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.46	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	11	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<0.5	0.78	<0.5	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	10.9	9.4	12.8	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		24.5	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<0.2	<0.2	<0.2	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	8.0	D	3.4	D	120.6	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<0.3	---	<0.3	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<0.7	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	23.1	D	14.7	D	40	D	4.2	6.6	5.1	---	*
Iron	Fe	---		---		---		---		---		---		---		---	15	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	120.3	D	4.7	D	253.8	D	<1.0	<1.0	<1.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	4.6	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	7.8	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		762.6	D	84.7	D	6,772.9	D	2.9	---	<1.3	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33	TR	---	<0.8	<0.8	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		9.3	D	---		9.3	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<0.4	<0.4	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	191.0	D	192.6	D	1,812.5	D	0.31	0.46	0.41	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<7.0	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41.0	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	156	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	0.24	---	---	*
Nitrate + Nitrite (as N)	$NO_2^-+NO_3^-$-N	---		---		---		---		---		---		---		---	0.24	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	---	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	8,730	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	33,600	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	178,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	55,900	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	9,310	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,820	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	15,400	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	178,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	178,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	276,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	70	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	2.0	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	158	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Boulder Hole**
Sample ID: **RESE-1001083**
Sample Date: May 24, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results		
										Acute		Chronic		Acute						
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.6	•
Temperature	°C	---		---		---		---		---		---		---		---	---	---	17.6	•
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	502	•
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	3	A&Ww Acute & Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.2	•
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20	---	---	•
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	•
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	16	17.4	16	---	•
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		44.7	---	---	---	•
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	•
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	10.7	D	4.2	D	162.1	D	<0.1	<0.1	<0.1	---	•
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	•
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	•
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	29.9	D	18.5	D	51.8	D	<3.0	5.6	<3.0	---	•
Iron	Fe	---		---		---		---		---		---		---		---	38	---	---	•
Lead	Pb	---		15	TR	15	TR	100	TR	160.7	D	6.3	D	339.3	D	<3.0	<3.0	<3.0	---	•
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	138	---	•
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5.00	D	---	<0.2	---	---	•
Molybdenum	Mo	---		---		---		---		---		---		---		---	13.5	---	---	•
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		961.2	D	106.8	D	8,536.4	D	<10	---	<10	---	•
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33.0	TR	---	<3.0	---	---	•
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		14.9	D	---		14.9	D	<0.1	<0.1	<0.1	---	•
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	<3.0	---	•
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	240.8	D	242.8	D	2,285.3	D	<5.0	<5.0	<5.0	---	•
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	< 5.2	---	---	•
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	•
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41.0	TR	9.7	TR	84	TR	---	<10	---	---	•
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	150	---	---	•
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	•
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	•
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	•
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	•
Silica	SiO_2	---		---		---		---		---		---		---		---	40,000	---	---	•
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	•
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	11,000	---	---	•
Sulfate	SO4	---		---		---		---		---		---		---		---	15,900	---	---	•
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	•
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	254,000	---	---	•
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	74,800	---	---	•
Magnesium	Mg	---		---		---		---		---		---		---		---	11,500	---	---	•
Potassium	K	---		---		---		---		---		---		---		---	2,300	---	---	•
Sodium	Na	---		---		---		---		---		---		---		---	15,200	---	---	•
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	2.32	---	---	•
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	4.93	---	---	•
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	0.81	---	---	•
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.0011	---	---	•
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	254,000	---	---	•
Hardness	---	---		---		---		---		---		---		---		---	234,000	---	---	•
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	320,000	---	---	•
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	•
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	•
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	•
E. Coli	---	---		235	T	576	T	---		---		---		---		---	30.0	---	---	•
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	280	---	---	•
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	< 0.10	---	---	•

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
• = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
☐ = Standard is lower than detection limit
■ = Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Queen Creek - Boulder Hole**
Sample ID: **RESE-1001094**
Sample Date: August 3, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
Name	Symbol	Fish Consumption (µg/L)	Fraction	Full-body Contact (µg/L)	Fraction	Partial-body Contact (µg/L)	Fraction	Agricultural Livestock Watering (µg/L)	Fraction	Aquatic and Wildlife (warm water) Acute (µg/L)	Fraction	Aquatic and Wildlife (warm water) Chronic (µg/L)	Fraction	Aquatic and Wildlife (ephemeral) Acute (µg/L)	Fraction	Dissolved Results (µg/L)	Total Results (µg/L)	Total Recoverable Results (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.7	•
Temperature	°C	---		---		---		---		---		---		---		---	---	---	24.1	•
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	536	•
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	0.42	A&Ww Acute and Chronic
Turbidity (NTU's)	T	---		---		---		---		---		---		---		---	---	---	1.4	•
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20	---	---	•
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	•
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	34	40	39	---	•
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		73.4	---	---	---	•
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.30	D	---		<2.0	<2.0	<2.0	---	•
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	12	D	4.41	D	175	D	<0.1	<0.1	<0.1	---	•
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	•
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	•
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	32	D	20	D	55	D	<3.0	<3.0	<3.0	---	•
Iron	Fe	---		---		---		---		---		---		---		---	58	---	---	•
Lead	Pb	---		15	TR	15	TR	100	TR	173	D	6.74	D	365	D	<3.0	<3.0	<3.0	---	•
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	565	---	•
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2	D	0.01	D	5	D	<0.2	<0.2	---	---	•
Molybdenum	Mo	---		---		---		---		---		---		---		---	8.5	---	---	•
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,020	D	113	D	9,058	D	<10	---	<10	---	•
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	•
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		17	D	---		17	D	<0.1	<0.1	<0.1	---	•
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	•
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	256	D	258	D	2,425	D	<5.0	<5.0	<5.0	---	•
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	•
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	•
Cynanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	10	TR	84	TR	---	---	---	---	•
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	210	---	---	•
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	•
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	•
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	•
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	•
Silica	SiO_2	---		---		---		---		---		---		---		---	42,700	---	---	•
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	•
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	14,800	---	---	•
Sulfate	SO_4	---		---		---		---		---		---		---		---	19,500	---	---	•
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	•
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	278,000	---	---	•
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	78,000	---	---	•
Magnesium	Mg	---		---		---		---		---		---		---		---	13,600	---	---	•
Potassium	K	---		---		---		---		---		---		---		---	6,800	---	---	•
Sodium	Na	---		---		---		---		---		---		---		---	19,200	---	---	•
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	•
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	278,000	---	---	•
Hardness	---	---		---		---		---		---		---		---		---	251,000	---	---	•
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	349,000	---	---	•
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	•
Color (color units)	---	---		---		---		---		---		---		---		---	46	---	---	•
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	•
E. Coli	---	---		235	T	576	T	---		---		---		---		---	9	---	---	•
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	220	---	---	•
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	•

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
• = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location:	**Queen Creek: Boulder Hole**
Sample ID:	**RESE-1001165**
Sample Date:	**11/3/2004**
Flow Rate (gpm):	**none**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	599	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	1.7	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	26	28	29	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	71	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	13.5	D	4.9	D	203.7	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	36.5	D	22.2	D	63.2	D	7.1	8	7.8	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	200.6	D	7.8	D	423.4	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	51	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,149	D	128	D	10,205.6	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	21	D	---	---	21.4	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	288	D	290	D	2,732.9	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	180	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	120	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	110	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	1,200	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,300	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,700	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	64,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	381,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	91,700	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14,600	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,200	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,200	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	281,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	289	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	408,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	900	---	---	FBC & PBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	Queen Creek: Boulder Hole
Sample ID:	RESE-1001181
Sample Date:	2/8/2005
Flow Rate (gpm):	95

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.9	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.7	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	8.6	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	19	17	18	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	4.1	D	2.2	D	62	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	12.9	D	8.6	D	22	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	61.6	D	2.4	D	130	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	452	D	50	D	4,010	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	3	D	---	---	3.2	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	113	D	114	D	1,072	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	112	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	135	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	940	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	940	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6,360	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74,800	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,100	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,510	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,060	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74,800	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	96	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	171,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **Queen Creek: Boulder Hole**
Sample ID: **RESE-1001205**
Sample Date: **5/4/2005**
Flow Rate (gpm):

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	415	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	1.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.59	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	18	17	17	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	36	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	9.4	D	3.8	D	142	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	26.7	D	16.7	D	46	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	141.2	D	5.5	D	298	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	194	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	867	D	96	D	7,695	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	12	D	---	---	12	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	217	D	219	D	2,060	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	155	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	105	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36,500	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,200	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	195,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	66,200	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,300	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,410	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	195,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	207	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

QUEEN CREEK – KARST SPRING

Sample Location: **Queen Creek: Karst Spring**
Sample ID: **RESE-1001180**
Sample Date: **2/8/2005**
Flow Rate (gpm): **29.2**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.5	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	366	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4.4	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.92	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<7.5	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	11	9.9	9.8	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	7.3	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	7.5	D	3.3	D	114	D	<0.2	<0.2	<0.5	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	22.0	D	14.0	D	38	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	113.8	D	4.4	D	240	D	<3	<3	<7.5	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	—	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	730	D	81	D	6,482	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	9	D	---	---	8.5	D	<0.1	<0.1	<0.25	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	183	D	184	D	1,735	D	21	20	20	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	135	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	162	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	840	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	840	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,600	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,390	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8,960	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,150	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,750	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	147,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	169	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	254,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

APACHE LEAP – BORED SPRING

Sample Location: **Apache Leap - Bored Spring**
Sample ID: RESE-1001088
Sample Date: May 26, 2004

PARAMETERS AND CONSITITUENTS: Name	Symbol	SURFACE WATER STANDARDS: Fish Consumption (µg/L)	Fraction	Full-body Contact (µg/L)	Fraction	Partial-body Contact (µg/L)	Fraction	Agricultural Livestock Watering (µg/L)	Fraction	Aquatic and Wildlife (warm water) Acute (µg/L)	Fraction	Aquatic and Wildlife (warm water) Chronic (µg/L)	Fraction	Aquatic and Wildlife (ephemeral) Acute (µg/L)	Fraction	RESULTS: Dissolved Results (µg/L)	Total Results (µg/L)	Total Recoverable Results (µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	10.1	FBC, PBC, AgL
Temperature	°C	---		---		---		---		---		---		---		---	---	---	26.7	•
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	446	•
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	>20	•
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	4.5	•
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	79	---	---	•
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	---	---	•
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	9.0	8.0	9.0	---	•
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		10.2	---	---	---	•
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	•
Cadmium	Cd	84.0	TR	700	TR	700	TR	50	TR	6.0	D	2.8	D	90.1	D	<0.1	<0.1	<0.1	---	•
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	•
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	•
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	18.0	D	11.6	D	31.1	D	22.1	25.4	24.8	---	A&Ww Acute & Chronic
Iron	Fe	---		---		---		---		---		---		---		---	92	---	---	•
Lead	Pb	---		15	TR	15	TR	100	TR	90.1	D	3.5	D	190	D	<3.0	<3.0	<3.0	---	•
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	46.9	---	•
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	•
Molybdenum	Mo	---		---		---		---		---		---		---		---	13.2	---	---	•
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		607	D	67	D	5,394	D	<10	---	<10	---	•
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33.0	TR	---	<3.0	<3.0	---	•
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		6	D	---		5.9	D	<0.1	<0.1	<0.1	---	•
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	•
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	152	D	153	D	1,443	D	<5.0	<5.0	<5.0	---	•
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	•
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	•
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	•
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	550	---	---	•
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	•
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	•
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	•
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	•
Silica	SiO_2	---		---		---		---		---		---		---		---	10,300	---	---	•
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	•
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	20,800	---	---	•
Sulfate	SO4	---		---		---		---		---		---		---		---	22,700	---	---	•
Carbonate	CO_3	---		---		---		---		---		---		---		---	156000	---	---	•
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	76,000	---	---	•
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	15,800	---	---	•
Magnesium	Mg	---		---		---		---		---		---		---		---	23,400	---	---	•
Potassium	K	---		---		---		---		---		---		---		---	11,200	---	---	•
Sodium	Na	---		---		---		---		---		---		---		---	53,000	---	---	•
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	0.56	---	---	•
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	11.20	---	---	•
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	0.66	---	---	•
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	ND	---	---	•
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	232,000	---	---	•
Hardness	---	---		---		---		---		---		---		---		---	136,000	---	---	•
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	332,000	---	---	•
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	•
Color (color units)	---	---		---		---		---		---		---		---		---	61	---	---	•
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	2.0	---	---	•
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ND	---	---	•
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	320	---	---	•
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	---	---	---	•

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
• = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: Apache Leap: Bored Spring
Sample ID: RESE-1001163
Sample Date: 11/3/2004
Flow Rate (gpm): trickle

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.9	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	540	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	13	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.76	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	11.3	D	4.3	D	170.4	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	31.3	D	19.3	D	54.1	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	99	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	168.7	D	6.6	D	356.1	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	19	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	999	D	111	D	8,874.7	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	16	D	---	---	16.1	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	250	D	252	D	2,376.0	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	290	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	41,000	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,950	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,200	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	305,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	42,500	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,800	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,400	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,900	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	305,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	245	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	354,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	Apache Leap: Bored Spring
Sample ID:	RESE-1001188
Sample Date:	2/9/2005
Flow Rate (gpm):	1.06

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	598	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.4	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.7	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	12	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	11.7	D	4.5	D	177	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	32.3	D	19.9	D	56	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	175.2	D	6.8	D	370	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	47	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,030	D	114	D	9,150	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	17	D	---	---	17	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	258	D	260	D	2,450	D	12	11	11	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	163	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	405	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	140	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,370	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	269,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	35,100	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,890	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,300	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	269,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	254	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	353,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	17	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Apache Leap: Bored Spring
Sample ID: RESE-1001204
Sample Date: 5/3/2005
Flow Rate (gpm): 1.33

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	523	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	10	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.38	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	12	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	11.6	D	4.4	D	175	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	32.0	D	19.7	D	55	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	173.1	D	6.7	D	365	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	99	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,020	D	113	D	9,058	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	17	D	---	---	17	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	256	D	258	D	2,425	D	<10	<10	15	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	175	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	318	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	250	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,600	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44,100	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	246,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	43,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,500	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4,100	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22,700	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	246,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	251	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	330,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **Apache Leap: Bored Spring**
Sample ID: **RESE-1001221**
Sample Date: **8/3/2005**
Flow Rate (gpm): **0.5**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	609	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	3.6	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.9	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	115	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	13	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	13.1	D	4.8	D	198	D	<0.2	0.3	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	35.7	D	21.7	D	62	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	214	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	195.5	D	7.6	D	413	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	1,340	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9.3	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,126	D	125	D	9,996	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	21	D	---	---	21	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	282	D	284	D	2,677	D	<10	41	44	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	247	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	—	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	304	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	210	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	210	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39,200	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,200	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51,400	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	265,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	52,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	36,900	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,540	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	265,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	282	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	383,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	22	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

APACHE LEAP – HIDDEN SPRING

Sample Location: **Apache Leap-Hidden Spring**
Sample ID: **RESE-1001003**
Sample Date: May 15, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	18.3	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	642	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	3.3	A&Ww Acute and Chronic
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	3.1	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	42	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		26.9	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	17.42	D	5.84	D	264	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	45.75	D	27.20	D	79	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	97	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	257.05	D	10.02	D	542	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	22.5	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	21.6	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,407	D	156.23	D	12,492	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		32.29	D	---		32	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	352.61	D	355.5	D	3,346	D	9.5	10.8	11.7	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<700	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	---	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		210	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	780	---	---	*
Nitrate + Nitrite (as N)	$NO_2^-+NO_3^-$-N	---		---		---		---		---		---		---		---	780	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	24,600	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	14,100	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	81,800	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	263,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	90,200	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	34,400	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	<1000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	13,400	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.5	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.5	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.4	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00067	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	263,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	367,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	447,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		150	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
⬚ = Standard is lower than detection limit
■ = Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Hidden Spring**
Sample ID: **RESE-1001015**
Sample Date: August 20, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	23.1	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	710	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	0.22	A&Ww Acute and Chronic
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	2.1	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		27.3	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	17.73	D	5.91	D	268	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	46.46	D	27.58	D	80	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	213	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	261.38	D	10.19	D	552	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	21.1	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	9.2	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,426	D	158.39	D	12,664	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		33.20	D	---		33	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0		---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	357.49	D	360.41	D	3,392	D	<5.0	17.2	17.3	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	45	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		210	---	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	300	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	300	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	26,500	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	12,100	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	75,300	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	308,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	93,300	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	34,000	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,500	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	13,700	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	308,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	373,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	442,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		160	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg L unless otherwise indicated
µg L = micrograms per liter
mg L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN 100 ml = most probable number per 100 milliliter
µS cm = microSiemens per centimeter
pCi L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Hidden Spring**
Sample ID: **RESE-1001027**
Sample Date: November 3, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	18	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	767	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	0.48	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	3.2	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	20	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440.0	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		26.9	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84.0	TR	700	TR	700	TR	50	TR	17.8	D	5.9	D	269.2	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	46.6	D	27.6	D	80.6	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	302	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	262.1	D	10.2	D	553.2	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	29.4	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	15.5	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,429	D	159	D	12,693.2	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		33	D	---		33.4	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	358	D	361	D	3,400.2	D	10	24.6	28.3	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		75	49	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		370	220	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	130	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	130	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	25,600	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	12,300	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	75,300	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	317,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	93,600	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	33,900	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	<1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	13,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	317,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	374,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	410,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1600	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	21	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	150	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Hidden Spring**
Sample ID: **RESE-1001052**
Sample Date: February 9, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	8.0	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	11.5	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	485	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7.3	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.2	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<6.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<0.5	0.61	<0.5	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	0.94	<0.6	1.2	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		22.8	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<0.2	<0.2	<0.2	---	*
Cadmium	Cd	84.0	TR	700	TR	700	TR	50	TR	16.9	D	5.7	D	256	D	<0.06	<0.06	<0.06	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		0.47	---	0.68	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<0.7	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	44.6	D	26.6	D	77	D	<2.1	<2.1	<2.1	---	*
Iron	Fe	---		---		---		---		---		---		---		---	28.3	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	249.8	D	9.7	D	527	D	<1.0	<1.0	<1.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	3.4	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	11.3	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,374	D	153	D	12,203	D	2.1	---	<1.3	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33	TR	---	<0.8	<0.8	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		31	D	---		31	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<0.4	0.4	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	344	D	347	D	3,269	D	5.6	6.6	6.9	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	29	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	213	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	700	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	700	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	24,700	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	12,300	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	79,600	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	305,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	85,600	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	34,200	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	502	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	13,200	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	305,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	357,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	413,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	110	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ND	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	169	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: Apache Leap - Hidden Spring
Sample ID: RESE-1001082
Sample Date: May 24, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	17.6	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	716	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	18	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.99	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	66	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440.0	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		26.5	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84.0	TR	700	TR	700	TR	50	TR	17.4	D	5.8	D	263.0	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	45.6	D	27.1	D	79.0	D	<3.0	<3.0	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	65	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	256.3	D	10.0	D	541.0	D	<3.0	<3.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	14.9	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	13.5	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,403	D	156	D	12,463.1	D	<10	---	<10	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33.0	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		32	D	---		32.1	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	352	D	355	D	3,338.4	D	9.6	7.9	8.6	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	< 0.7	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	240	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	0.78	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	0.78	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	23,700	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	11,800	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	75,900	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	331,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	90,700	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	33,900	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	<1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	12,700	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	0.65	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	2.95	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	0.78	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.0007	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	331,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	366,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	427,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	ND	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	900	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	900	---	---	FBC & PBC
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	140	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	< 0.10	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Hidden Spring**
Sample ID: **RESE-1001097**
Sample Date: August 4, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.8	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	23.3	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	342	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	0.11	A&Ww Acute and Chronic
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	5.2	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	59	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		27.8	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.30	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	18	D	5.95	D	271	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	47	D	28	D	81	D	<3.0	<3.0	3.4	---	*
Iron	Fe	---		---		---		---		---		---		---		---	475	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	264	D	10	D	556	D	<3.0	<3.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	49.50	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	11.3	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,436	D	159	D	12,751	D	<10	---	<10	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		34	D	---		34	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	360	D	363	D	3,416	D	<5.0	5.4	<5.0	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	*
Cynanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	220	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	25,100	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	12,200	---	---	*
Sulfate	SO_4	---		---		---		---		---		---		---		---	76,200	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	359,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	91,600	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	35,800	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	13,800	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	359,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	376,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	435,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	19	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	1,600	---	---	FBC and PBC
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	140	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location:	**Apache Leap: Hidden Spring**
Sample ID:	**RESE-1001162**
Sample Date:	**11/3/2004**
Flow Rate (gpm):	**drip**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.4	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	694	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	0.56	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.4	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	27	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	16.6	D	5.7	D	251.4	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	43.9	D	26.2	D	75.9	D	<3	<3	<3	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	134	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	245.5	D	9.6	D	518.1	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	36	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,355	D	150	D	12,029.6	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	30	D	---	---	29.9	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	340	D	342	D	3,222.1	D	<5	7.1	7.8	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	43	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	200	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	190	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,200	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74,500	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	346,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	84,600	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33,900	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	346,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	351	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	420,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	900	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	110	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Apache Leap: Hidden Spring
Sample ID: RESE-1001187
Sample Date: 2/9/2005
Flow Rate (gpm): drips

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.5	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	709	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	5.6	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4.1	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	23	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	16.4	D	5.6	D	249	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	43.5	D	26.0	D	75	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	243.3	D	9.5	D	514	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,345	D	149	D	11,943	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	29	D	---	---	29	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	337	D	340	D	3,199	D	<10	<10	11	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	179	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	254	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	1,300	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,300	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,600	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	74,300	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	292,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	86,700	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	32,000	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,300	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	292,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	348	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	431,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	Apache Leap: Hidden Spring
Sample ID:	RESE-1001202
Sample Date:	5/3/2005
Flow Rate (gpm):	1

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	22	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	628	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.7	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.98	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	22	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	16.3	D	5.6	D	247	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	43.2	D	25.8	D	75	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	241.2	D	9.4	D	509	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.2	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,335	D	148	D	11,855	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	29	D	---	---	29	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	335	D	337	D	3,175	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	156	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	234	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	1,800	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,800	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,900	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	69,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	278,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,400	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	12,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	278,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	345	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	389,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Apache Leap: Hidden Spring
Sample ID: RESE-1001220
Sample Date: 8/3/2005
Flow Rate (gpm): 2

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	663	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	4	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.56	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	24	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	16.4	D	5.6	D	249	D	<0.2	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	43.5	D	26.0	D	75	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	243.3	D	9.5	D	514	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,345	D	149	D	11,943	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	29	D	---	---	29	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	337	D	340	D	3,199	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	208	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	1,300	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,300	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	25,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,900	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	65,800	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	289,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	88,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,700	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11,700	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	289,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	348	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	412,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	300	---	---	FBC

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

KANE SPRING

Sample Location: **Kane Spring**
Sample ID: **RESE-1001002**
Sample Date: May 15, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	8.5	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	27.7	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	397	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	12	*
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	4.7	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	3	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		49.3	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	16.75	D	5.69	D	254	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		---	---	<6.0	---	*
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	44.22	D	26.38	D	77	D	<3.0	4.1	4.2	---	*
Iron	Fe	---		---		---		---		---		---		---		---	26	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	247.66	D	9.65	D	523	D	<3.0	<5.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	<2.0	---	*
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5.00	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	27.9	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,364	D	151.54	D	12,116	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		30.35	D	---		30	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	---	<2.0	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	342	D	344.80	D	3,245	D	<5.0	<5.0	<5.0	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	<700	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		75		---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<100.0	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		370		---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---		---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	29,800	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	32,600	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	29,400	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	68,800	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	225,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	52,400	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	54,300	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	<1000	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	24,200	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	-2.5	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	-3.5	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	-2.4	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.00039	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	294,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	354,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	420,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	30	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		210	---	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Kane Spring**
Sample ID: **RESE-1001014**
Sample Date: August 20, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	8.1	•
Temperature	°C	---		---		---		---		---		---		---		---	---	---	22.7	•
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	790	•
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	3	A&Ww Acute and Chronic
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	4	•
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	---	---	---	•
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	•
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3	<3.0	<3.0	---	•
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		40.7	---	---	---	•
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	•
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	18.14	D	6.00	D	275	D	<0.1	<0.1	<0.1	---	•
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	•
Cobalt	Co	---		---		---		---				---		---		---	<6.0	---	---	•
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	47.39	D	28.09	D	82	D	<3.0	<3.0	<3.0	---	•
Iron	Fe	---		---		---		---		---		---		---		---	---	---	---	•
Lead	Pb	---		15	TR	15	TR	100	TR	267.15	D	10.41	D	564	D	<3.0	<5.0	<3.0	---	•
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	<2.0	---	•
Mercury	Hg	0.6	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.5	---	---	•
Molybdenum	Mo	---		---		---		---		---		---		---		---	8.2	---	---	•
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,452	D	161.26	D	12,894	D	<10.0	---	<10.0	---	•
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<3.0	<3.0	---	•
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		34.44	D	---		34	D	<0.1	<0.1	<0.1	---	•
Thallium	Tl	7.2	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	•
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	363.98	D	366.95	D	3,454	D	<5.0	<5.0	<5.0	---	•
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	•
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	88	---	---	•
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10.0	---	---	•
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		300	---	---	---	•
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	•
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	•
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	•
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	•
Silica	SiO_2	---		---		---		---		---		---		---		---	40,700	---	---	•
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1000	---	---	•
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	30,300	---	---	•
Sulfate	SO4	---		---		---		---		---		---		---		---	25,000	---	---	•
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	•
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	397,000	---	---	•
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	47,600	---	---	•
Magnesium	Mg	---		---		---		---		---		---		---		---	63,600	---	---	•
Potassium	K	---		---		---		---		---		---		---		---	2,200	---	---	•
Sodium	Na	---		---		---		---		---		---		---		---	26,400	---	---	•
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	•
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	•
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	397,000	---	---	•
Hardness	---	---		---		---		---		---		---		---		---	381,000	---	---	•
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	476,000	---	---	•
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	10	---	---	•
Color (color units)	---	---		---		---		---		---		---		---		---	46	---	---	•
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	PRESENT	---	---	•
E. Coli	---	---		235	T	576	T	---		---		---		---		---	PRESENT	---	---	•
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		230	---	---	---	•
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	•

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
• = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Kane Spring**
Sample ID: **RESE-1001026**
Sample Date: November 3, 2003

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	8.1	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	14.6	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	903	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	3.8	A&Ww Acute and Chronic
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	5.3	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	29	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<6.0	<6.0	<6.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.0	4.0	3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		33.1	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	14.6	D	5.2	D	220.6	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	39.1	D	23.6	D	67.7	D	3.3	4.3	4.1	---	*
Iron	Fe	---		---		---		---		---		---		---		---	37	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	216.6	D	8.4	D	457.0	D	<3.0	<3.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	23.4	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	20.4	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,222.8	D	135.8	D	10,859.1	D	<10.0	---	<10.0	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33	TR	---	<3.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		24.3	D	---		24.3	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	306.5	D	309.0	D	2,908.2	D	7.1	9.4	10	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		<40.0	69	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41.0	TR	9.7	TR	84.0	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	340	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	33,200	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	44,100	---	---	*
Sulfate	SO_4	---		---		---		---		---		---		---		---	62,400	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	392,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	43,500	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	75,600	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	5,100	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	35,000	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	392,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	311,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	528,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	9	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	110	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	11	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	120	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Kane Spring**
Sample ID: **RESE-1001051**
Sample Date: February 9, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.6	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	4.2	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	771	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	7	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	0.65	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<6.0	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<1.0	<0.5	<0.5	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<0.6	1.8	1.9	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		31.7	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<0.2	<0.2	<0.2	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	18.2	D	6.0	D	275.5	D	<0.06	<0.06	<0.06	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		0.61	---	0.65	---	*
Cobalt	Co	---		---		---		---				---		---		---	<0.7	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	47.5	D	28.1	D	82.2	D	2.6	3.1	2.9	---	*
Iron	Fe	---		---		---		---		---		---		---			<13	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	267.9	D	10.4	D	565.3	D	<1.0	<1.0	<1.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	3.4	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	13.2	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,455.1	D	161.6	D	12,922.5	D	2.3	---	1.3	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2	TR	33	TR	---	<0.8	<0.8	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		34.6	D	---		34.6	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7	TR	112	TR	112	TR	---		700	D	150	D	---		<0.4	<0.4	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	364.8	D	367.8	D	3,461.7	D	1	0.52	0.77	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	29	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41.0	TR	9.7	TR	84.0	TR	---		---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	277	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---		---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	29	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	30,200	---	---	*
Sulfate	SO_4	---		---		---		---		---		---		---		---	46,500	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	357,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	59,400	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	56,600	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	7,470	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	23,100	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	357,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	382,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	440,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	7	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	37	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	9.0	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	ND	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	117	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: Apache Leap: Kane Spring
Sample ID: RESE-1001161
Sample Date: 11/3/2004
Flow Rate (gpm): seep

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.2	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.9	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	757	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	6.7	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.84	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<20	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	27	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	17.9	D	5.9	D	270.8	D	<0.1	<0.1	<0.1	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	46.8	D	27.8	D	81.0	D	4.2	5	4.7	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	77	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	263.5	D	10.3	D	556.2	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	8.1	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.00	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,436	D	159	D	12,750.6	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33.0	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	34	D	---	---	33.7	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	360	D	363	D	3,415.6	D	<5	<5	<5	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	50	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<100	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	330	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	31,400	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,000	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	394,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	45,800	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	63,600	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7,800	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	394,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	376	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	501,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	900	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	13	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Apache Leap: Kane Spring
Sample ID: RESE-1001201
Sample Date: 5/3/2005
Flow Rate (gpm): 0.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	752	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	13	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.53	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	44	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	19.9	D	6.4	D	302	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	51.5	D	30.3	D	89	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	292.4	D	11.4	D	617	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	4.7	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,564	D	174	D	13,889	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	40	D	---	---	40	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	392	D	395	D	3,721	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	56	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	204	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	350	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28,300	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	45,700	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	371,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	76,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	54,900	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	680	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	371,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	416	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	460,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	11	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: Apache Leap: Kane Spring
Sample ID: RESE-1001186
Sample Date: 2/9/2005
Flow Rate (gpm): drips

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	8.3	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.9	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	698	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	10	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	3.3	3.4	3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	29	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	16.2	D	5.6	D	245	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	42.9	D	25.7	D	74	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	239.7	D	9.3	D	506	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	<4	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,328	D	148	D	11,797	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	29	D	---	---	29	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	333	D	336	D	3,160	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	41	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	151	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	388	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,300	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21,800	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29,300	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3,980	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	335,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	53,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51,200	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2,230	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18,100	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	339,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	343	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	416,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
--- = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	**Apache Leap: Kane Spring**
Sample ID:	**RESE-1001218**
Sample Date:	**8/3/2005**
Flow Rate (gpm):	**< 0.1**

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.8	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,019	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	5.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	4.7	5	4.7	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	51	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	23.1	D	7.1	D	350	D	<0.2	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	58.6	D	34.0	D	101	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	336.1	D	13.1	D	709	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	11	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,756	D	195	D	15,594	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	51	D	---	---	51	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	440	D	444	D	4,178	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	90	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	275	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	269	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	72,400	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	102,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	403,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	62,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	78,300	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5,170	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51,000	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	403,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	477	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	713,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	10	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	1,600	---	---	FBC & PBC

Notes:

Green cell color indicates ADEQ designated uses that are assumed to apply to site location.

s.u. = standard units

°C = degrees Celsius

µS/cm = microSiemens per centimeter

mg/L = milligrams per liter

NTUs = Nephelometric Turbidity Units

µg/L = micrograms per liter

MFL = Million Fibers per Liter

ml = milliliters

MPN/100 ml = most probable number per 100 milliliter

--- = not applicable

T = total

TR = total recoverable

D = dissolved

ND = not detected

* = No designated uses exceeded

= Standard is lower than detection limit

= Exceedances (except for Dissolved Oxygen and pH)

Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.

Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

APACHE LEAP – BLUE SPRINGS

Sample Location: **Apache Leap - Blue Springs**
Sample ID: **RESE-1001087**
Sample Date: May 26, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	25.8	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	558	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	5.9	*
Turbidity (NTUs)	Turb.	---		---		---		---		---		---		---		---	---	---	1.8	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	<20	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440.0	D	<3.0	<3.0	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		30.5	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.3	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84.0	TR	700	TR	700	TR	50	TR	9.2	D	3.8	D	139.0	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	26.2	D	16.4	D	45.3	D	<3.0	3.3	<3.0	---	*
Iron	Fe	---		---		---		---		---		---		---		---	201	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	138.3	D	5.4	D	291.9	D	<3.0	<3.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	44.3	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	8.6	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		852	D	95	D	7,569	D	<10	---	<10	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.0	TR	33.0	TR	---	<30	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		12	D	---		11.7	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	213	D	215	D	2,026	D	<5.0	<5.0	<5.0	---	*
Inorganic Non-metallics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	<10	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	400	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	NO_2^-+NO_3^--N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	72,900	---	---	*
Sulfide	---	---		---		---		---		100	T	---		100	T	---	<1,000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	12,200	---	---	*
Sulfate	SO4	---		---		---		---		---		---		---		---	6,100	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1,000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	299,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	59,200	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	13,500	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	1,700	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	32,500	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	3.03	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	0.56	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	0.52	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	0.0004	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	299,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	203,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	370,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	<5	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	10	---	---	*
Biologicals (MPN/100 ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	1,600	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	50	---	---	*
Additions or Changes (mg/L)																				
Bromide	Br	---		---		---		---		---		---		---		---	110	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	---	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
- - - = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location: **Apache Leap - Blue Springs**
Sample ID: **RESE-1001093**
Sample Date: August 3, 2004

PARAMETERS AND CONSITITUENTS		SURFACE WATER STANDARDS														RESULTS				
		Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results		
Name	Symbol	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	Fraction	(µg/L)	(µg/L)	(µg/L)	Field Parameters	Use Exceeded
Field																				
pH	pH	---		6.5-9.0		4.5-9.0		6.5-9.0		---		---		---		---	---	---	7.4	*
Temperature	°C	---		---		---		---		---		---		---		---	---	---	22.9	*
Specific Conductance (µS/cm)	EC	---		---		---		---		---		---		---		---	---	---	809	*
Dissolved oxygen (mg/L)	DO	---		---		---		---		6		6		---		---	---	---	---	*
Turbidity (NTUs)	T	---		---		---		---		---		---		---		---	---	---	2.1	*
Metals																				
Aluminum	Al	---		---		---		---		---		---		---		---	41	---	---	*
Antimony	Sb	4,300	TR	560	TR	560	TR	---		88	D	30	D	---		<3.0	<3.0	<3.0	---	*
Arsenic	As	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3.0	4	<3.0	---	*
Barium	Ba	---		98,000	D	98,000	D	---		---		---		---		60.1	---	---	---	*
Beryllium	Be	1,130	TR	2,800	TR	2,800	TR	---		65	D	5.30	D	---		<2.0	<2.0	<2.0	---	*
Cadmium	Cd	84	TR	700	TR	700	TR	50	TR	15.07	D	5.29	D	228.24	D	<0.1	<0.1	<0.1	---	*
Chromium (total)	Cr	---		100	TR	100	TR	1,000	TR	---		---		---		<6.0	---	<6.0	---	*
Cobalt	Co	---		---		---		---		---		---		---		---	<6.0	---	---	*
Copper	Cu	---		1,300	TR	1,300	TR	500	TR	40.33	D	24.26	D	69.80	D	<3.0	<3.0	3	---	*
Iron	Fe	---		---		---		---		---		---		---		---	993	---	---	*
Lead	Pb	---		15	TR	15	TR	100	TR	223.79	D	8.72	D	472.30	D	<3.0	<3.0	<3.0	---	*
Manganese	Mn	---		196,000	TR	196,000	TR	---		---		---		---		---	---	789	---	*
Mercury	Hg	0.60	TR	420	TR	420	TR	10	TR	2.40	D	0.01	D	5	D	<0.2	<0.2	---	---	*
Molybdenum	Mo	---		---		---		---		---		---		---		---	10.5	---	---	*
Nickel	Ni	4,600	TR	28,000	TR	28,000	TR	---		1,255.94	D	139.50	D	11,153.82	D	<10	---	<10	---	*
Selenium	Se	9,000	TR	7,000	TR	7,000	TR	50	TR	20	TR	2.00	TR	33	TR	---	<6.0	<3.0	---	*
Silver	Ag	107,700	TR	7,000	TR	7,000	TR	---		25.65	D	---		25.65	D	<0.1	<0.1	<0.1	---	*
Thallium	Tl	7.20	TR	112	TR	112	TR	---		700	D	150	D	---		<2.0	<2.0	---	---	*
Zinc	Zn	69,000	TR	420,000	TR	420,000	TR	25,000	TR	314.79	D	317.36	D	2,987.21	D	<5.0	<5.0	<5.0	---	*
Inorganic Nonmetalics																				
Asbestos (MFL)	---	---		---		---		---		---		---		---		---	---	---	---	*
Boron	B	---		126,000	TR	126,000	TR	---		---		---		---		---	<40	---	---	*
Cyanide (free)	CN	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	10	TR	84	TR	---	---	---	---	*
Fluoride	F	---		84,000	T	84,000	T	---		---		---		---		---	270	---	---	*
Nitrite (as N)	NO_2^--N	---		140,000	T	140,000	T	---		---		---		---		---	ND	---	---	*
Nitrate (as N)	NO_3^--N	---		2,240,000	T	2,240,000	T	---		---		---		---		---	ND	---	---	*
Nitrate + Nitrite (as N)	$NO_2^-+NO_3^-$-N	---		---		---		---		---		---		---		---	ND	---	---	*
Phosphorous	P	---		---		---		---		---		---		---		---	---	---	---	*
Silica	SiO_2	---		---		---		---		---		---		---		---	69,200	---	---	*
Sulfide		---		---		---		---		100	T	---		100	T	---	<1000	---	---	*
Major Anions																				
Chloride	Cl	---		---		---		---		---		---		---		---	23,800	---	---	*
Sulfate	SO_4	---		---		---		---		---		---		---		---	123,000	---	---	*
Carbonate	CO_3	---		---		---		---		---		---		---		---	<1000	---	---	*
Bicarbonate	HCO_3	---		---		---		---		---		---		---		---	344,000	---	---	*
Major Cations																				
Calcium	Ca	---		---		---		---		---		---		---		---	89,400	---	---	*
Magnesium	Mg	---		---		---		---		---		---		---		---	23,600	---	---	*
Potassium	K	---		---		---		---		---		---		---		---	3,900	---	---	*
Sodium	Na	---		---		---		---		---		---		---		---	43,400	---	---	*
Radionuclides																				
Gross alpha activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Gross beta activity (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Radium 226+228 (pCi/L)	---	---		---		---		---		---		---		---		---	---	---	---	*
Uranium (mg/L)	U	---		---		---		---		---		---		---		---	---	---	---	*
Physical Properties																				
Alkalinity (total)	---	---		---		---		---		---		---		---		---	344,000	---	---	*
Hardness	---	---		---		---		---		---		---		---		---	321,000	---	---	*
Total dissolved solids	TDS	---		---		---		---		---		---		---		---	594,000	---	---	*
Total suspended solids	TSS (mg/L)	---		---		---		---		80	T	80	T	---		---	6	---	---	*
Color (color units)	---	---		---		---		---		---		---		---		---	19	---	---	*
Biologicals (MPN/100ml)																				
Coliforms (total)	---	---		---		---		---		---		---		---		---	900	---	---	*
E. Coli	---	---		235	T	576	T	---		---		---		---		---	11	---	---	*
Additions or Changes																				
Bromide	Br	---		---		---		---		---		---		---		---	190	---	---	*
Orthophosphate	PO_4	---		---		---		---		---		---		---		---	ND	---	---	*

Notes:
Cell color indicates ADEQ designated uses that are assumed to apply to site location.
Units are µg/L unless otherwise indicated
µg/L = micrograms per liter
mg/L = milligrams per liter
T = Totals
TR = Total Recoverable
D = Dissolved
ND = Not Detected
* = No designated uses exceeded
--- = Not Tested
MPN/100 ml = most probable number per 100 milliliter
µS/cm = microSiemens per centimeter
pCi/L = picoCuries per liter
NTUs = Nephelometric Turbidity Units
MFL = Million Fibers per Liter
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted

Sample Location:	Apache Leap: Blue Springs
Sample ID:	RESE-1001185
Sample Date:	2/9/2005
Flow Rate (gpm):	6.5

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.7	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	519	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	7.3	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	3.1	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	26	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	10.1	D	4.0	D	152	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	28.4	D	17.6	D	49	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	151.3	D	5.9	D	319	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	36	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	916	D	102	D	8,133	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	13	D	---	---	13	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	229	D	231	D	2,177	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	174	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	300	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	46,700	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16,700	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	41,200	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	212,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	63,400	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15,300	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,480	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24,800	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	212,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	221	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	347,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	<2	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location:	Apache Leap: Blue Springs
Sample ID:	RESE-1001200
Sample Date:	5/3/2005
Flow Rate (gpm):	2

Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water)				Aquatic and Wildlife (ephemeral)		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
										Acute		Chronic		Acute						
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.6	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	746	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	10	---
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.3	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	35	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	17.6	D	5.9	D	266	D	<0.2	<0.2	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	46.1	D	27.4	D	80	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<60	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	259.2	D	10.1	D	547	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	35	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8.2	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	1,416	D	157	D	12,578	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	—	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	33	D	---	---	33	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	355	D	358	D	3,369	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	—	48	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	380	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	—	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	—	301	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	57,800	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51,400	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	107,000	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	281,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	103,000	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27,200	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,800	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	44,500	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	281,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	370	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	564,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	<5	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	—	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	—	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

Sample Location: **Apache Leap: Blue Springs**
Sample ID: **RESE-1001219**
Sample Date: **8/3/2005**
Flow Rate (gpm): **< 0.1**

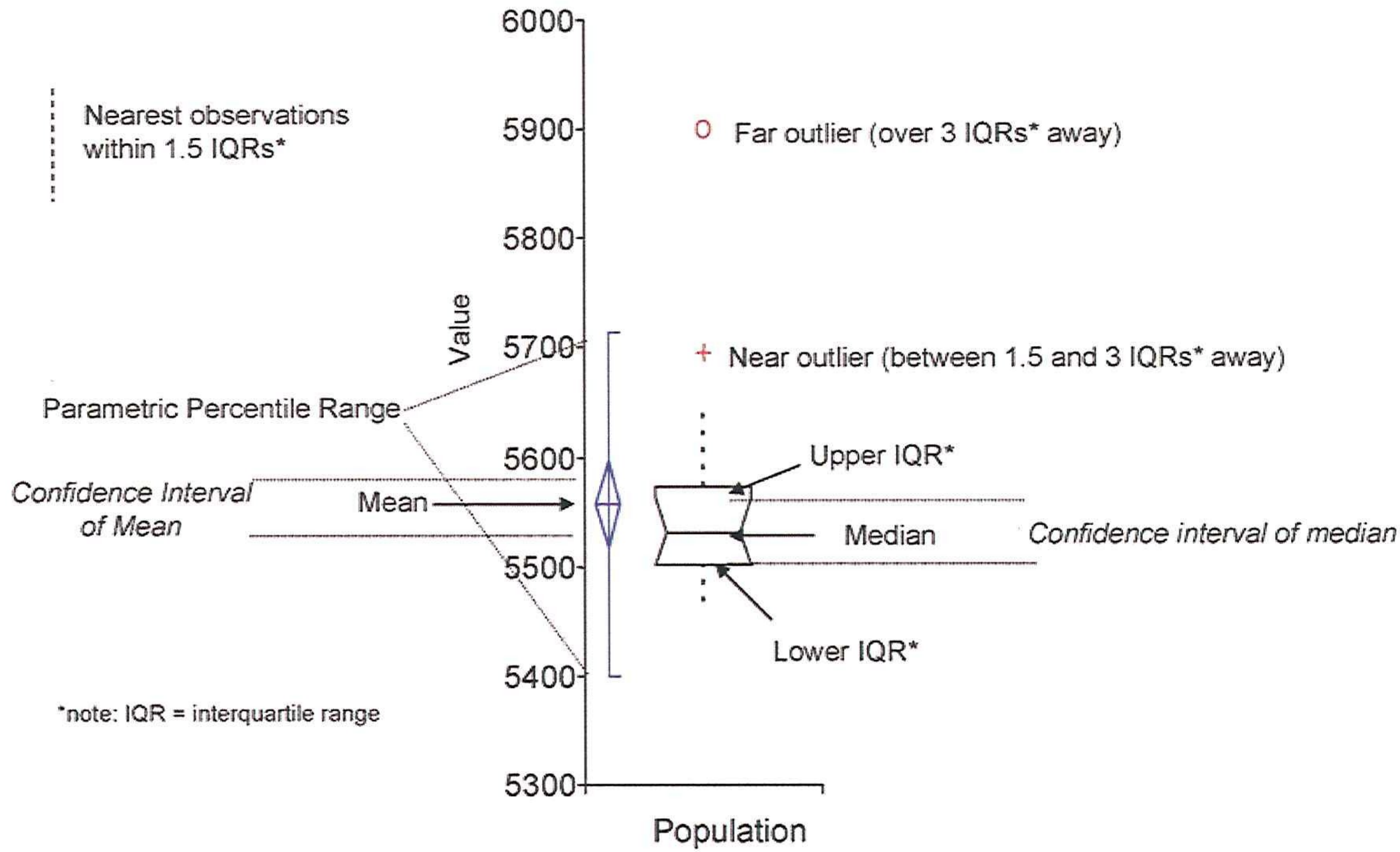
Parameters and Constituents		Surface Water Standards														Results				
Name	Units	Fish Consumption		Full-body Contact		Partial-body Contact		Agricultural Livestock Watering		Aquatic and Wildlife (warm water) Acute		Aquatic and Wildlife (warm water) Chronic		Aquatic and Wildlife (ephemeral) Acute		Dissolved Results	Total Results	Total Recoverable Results	Field Parameters	Use Exceeded
		Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction	Standard	Fraction					
Field																				
pH	s.u.	---	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	6.5-9.0	---	---	---	---	7.1	---
Temperature	°C	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	---
Specific Conductance	µS/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	444	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	6	---	6	---	---	---	---	---	---	3.9	A&WwwA & A&WwwC
Turbidity	NTUs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.38	---
Metals																				
Aluminum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<30	---	---	---
Antimony	µg/L	4,300	TR	560	TR	560	TR	---	---	88	D	30	D	---	---	<3	<3	<3	---	---
Arsenic	µg/L	1,450	TR	50	TR	420	TR	200	TR	360	D	190	D	440	D	<3	<3	<3	---	---
Barium	µg/L	---	---	98,000	D	98,000	D	---	---	---	---	---	---	---	---	29	---	---	---	---
Beryllium	µg/L	1,130	TR	2,800	TR	2,800	TR	---	---	65	D	5.3	D	---	---	<2	<2	<2	---	---
Cadmium	µg/L	84	TR	700	TR	700	TR	50	TR	8.2	D	3.5	D	124	D	<0.2	<0.1	<0.2	---	---
Chromium (total)	µg/L	---	---	100	TR	100	TR	1,000	TR	---	---	---	---	---	---	<6	---	<6	---	---
Cobalt	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<6	---	---	---
Copper	µg/L	---	---	1,300	TR	1,300	TR	500	TR	23.6	D	14.9	D	41	D	<10	<10	<10	---	---
Iron	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243	---	---	---
Lead	µg/L	---	---	15	TR	15	TR	100	TR	123.1	D	4.8	D	260	D	<3	<3	<3	---	---
Manganese	µg/L	---	---	196,000	TR	196,000	TR	---	---	---	---	---	---	---	---	---	---	78	---	---
Mercury	µg/L	0.6	TR	420	TR	420	TR	10	TR	2.4	D	0.01	D	5.0	D	<0.2	<0.2	---	---	---
Molybdenum	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<8	---	---	---
Nickel	µg/L	4,600	TR	28,000	TR	28,000	TR	---	---	777	D	86	D	6,901	D	<10	---	<10	---	---
Selenium	µg/L	9,000	TR	7,000	TR	7,000	TR	50	TR	20.0	TR	2.0	TR	33	TR	---	<3	<3	---	---
Silver	µg/L	107,700	TR	7,000	TR	7,000	TR	---	---	10	D	---	---	9.7	D	<0.1	<0.1	<0.1	---	---
Thallium	µg/L	7.2	TR	112	TR	112	TR	---	---	700	D	150	D	---	---	<2	<2	---	---	---
Zinc	µg/L	69,000	TR	420,000	TR	420,000	TR	25,000	TR	195	D	196	D	1,847	D	<10	<10	<10	---	---
Inorganic Non-metallics																				
Asbestos	MFL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Boron	µg/L	---	---	126,000	TR	126,000	TR	---	---	---	---	---	---	---	---	---	<40	---	---	---
Bromide	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	124	---	---	---
Cyanide (free)	µg/L	215,000	TR	28,000	TR	28,000	TR	200	TR	41	TR	9.7	TR	84	TR	---	---	---	---	---
Fluoride	µg/L	---	---	84,000	T	84,000	T	---	---	---	---	---	---	---	---	---	276	---	---	---
Nitrite (as N)	µg/L	---	---	140,000	T	140,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate (as N)	µg/L	---	---	2,240,000	T	2,240,000	T	---	---	---	---	---	---	---	---	---	<100	---	---	---
Nitrate + Nitrite (as N)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<200	---	---	---
Orthophosphate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<500	---	---	---
Silica	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	64,600	---	---	---
Sulfide	µg/L	---	---	---	---	---	---	---	---	100	T	---	---	100	T	---	<1000	---	---	---
Major Anions																				
Chloride	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10,300	---	---	---
Sulfate	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	20,100	---	---	---
Carbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1000	---	---	---
Bicarbonate (as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	208,000	---	---	---
Major Cations																				
Calcium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	57,100	---	---	---
Magnesium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	9,680	---	---	---
Potassium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,750	---	---	---
Sodium	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23,600	---	---	---
Physical Properties																				
Alkalinity (total as $CaCO_3$)	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	208,000	---	---	---
Hardness	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	182	---	---	---
Total Dissolved Solids	µg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	320,000	---	---	---
Total Suspended Solids	mg/L	---	---	---	---	---	---	---	---	80	T	80	T	---	---	---	11	---	---	---
Color	color units	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1	---	---	---
Biologicals																				
Coliforms (total)	MPN/100 ml	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1,600	---	---	---
E. Coli	MPN/100 ml	---	---	235	---	576	---	---	---	---	---	---	---	---	---	---	50	---	---	---

Notes:
Green cell color indicates ADEQ designated uses that are assumed to apply to site location.
s.u. = standard units
°C = degrees Celsius
µS/cm = microSiemens per centimeter
mg/L = milligrams per liter
NTUs = Nephelometric Turbidity Units
µg/L = micrograms per liter
MFL = Million Fibers per Liter
ml = milliliters
MPN/100 ml = most probable number per 100 milliliter
- - - = not applicable
T = total
TR = total recoverable
D = dissolved
ND = not detected
* = No designated uses exceeded
= Standard is lower than detection limit
= Exceedances (except for Dissolved Oxygen and pH)
Arizona state Dissolved Oxygen standards correspond to minima, therefore values less than the requirements are highlighted.
Arizona state pH standards correspond to ranges, therefore values outside of the requirements are highlighted.

APPENDIX D

BOX AND WHISKER PLOTS AND TIME SERIES GRAPHS

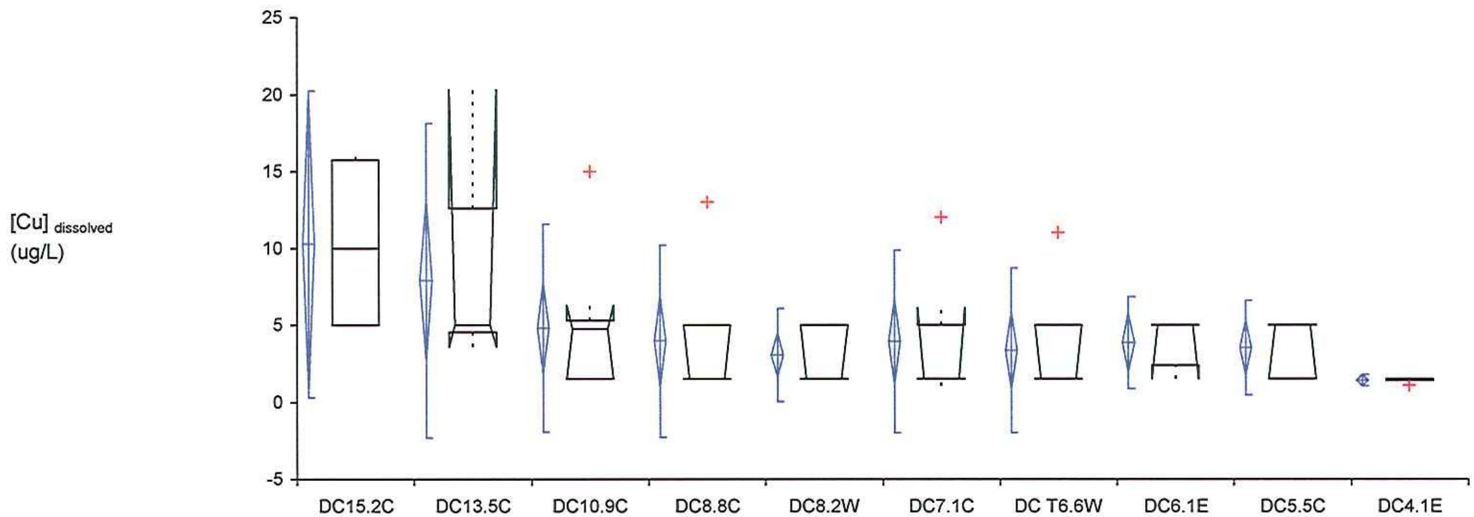
Key to Box and Whisker Plots



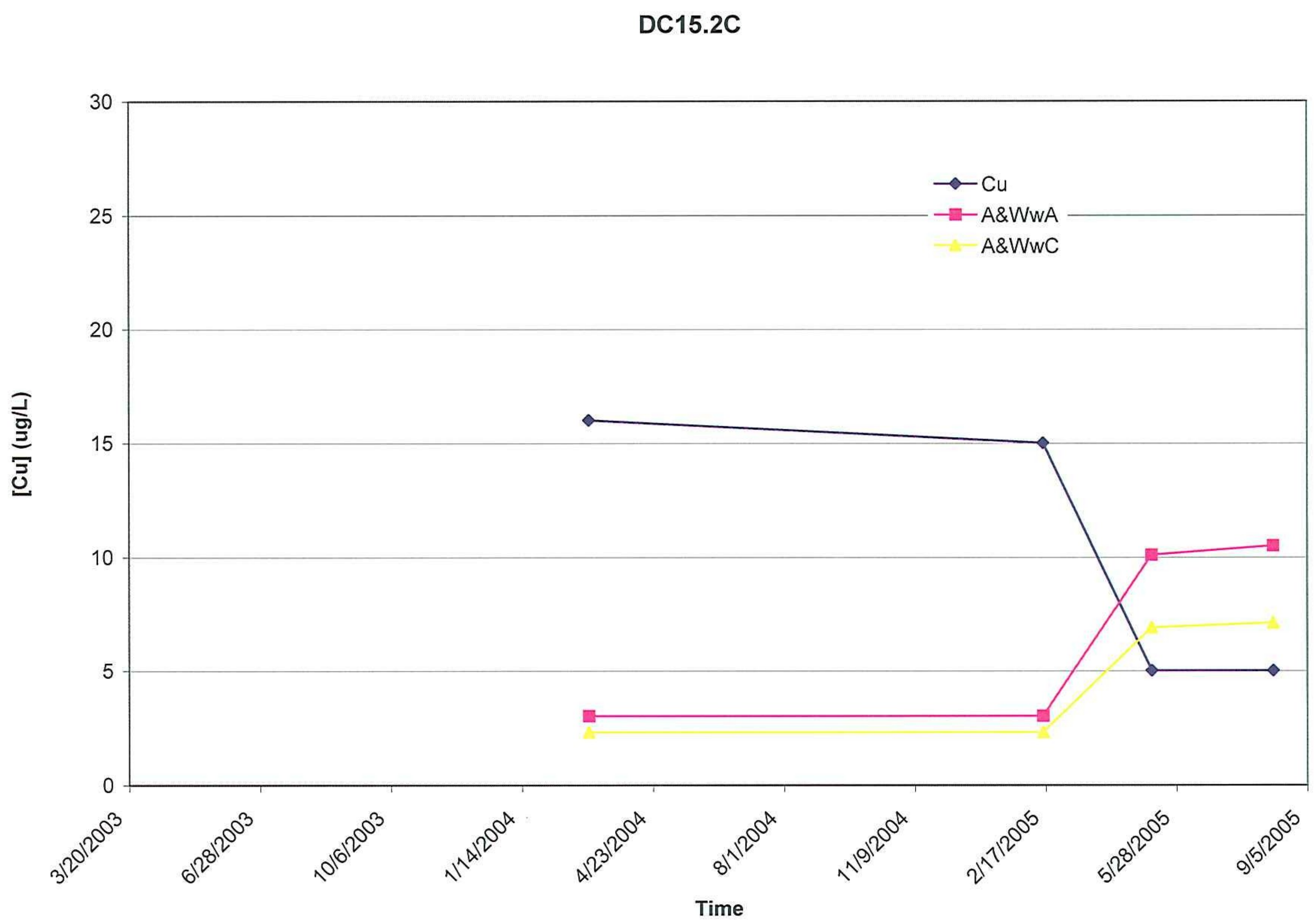
DEVILS CANYON

analysed with: Analyse-it + General 1.69

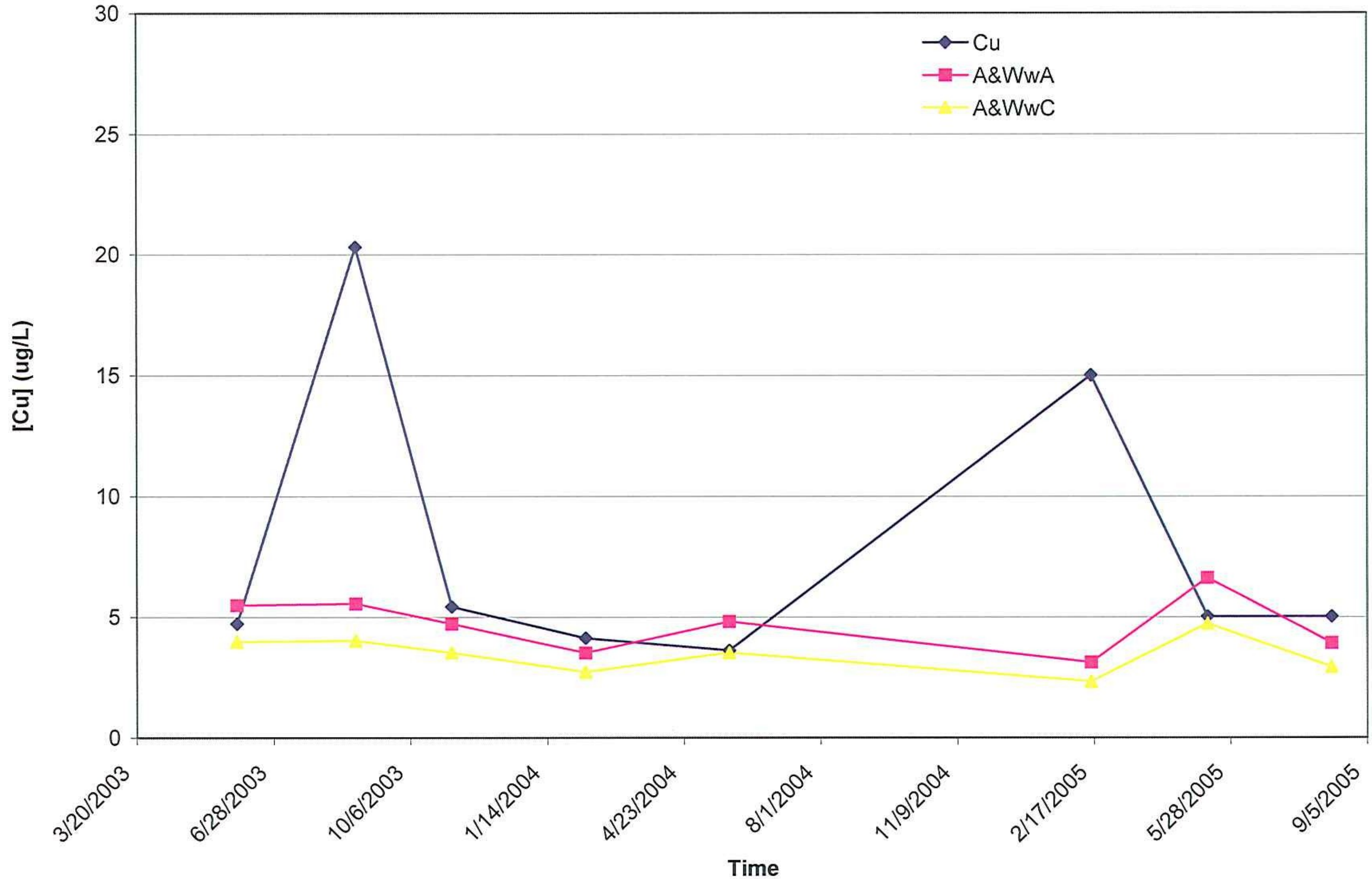
Test	**Comparative descriptives**
Variables	Cu: DC15.2C, DC13.5C, DC10.9C, DC8.8C, DC8.2W, DC7.1C, DC T6.6W, DC6.1E, DC5.5C, DC4.1E
Performed by	omorfin
Date	21 June 2006



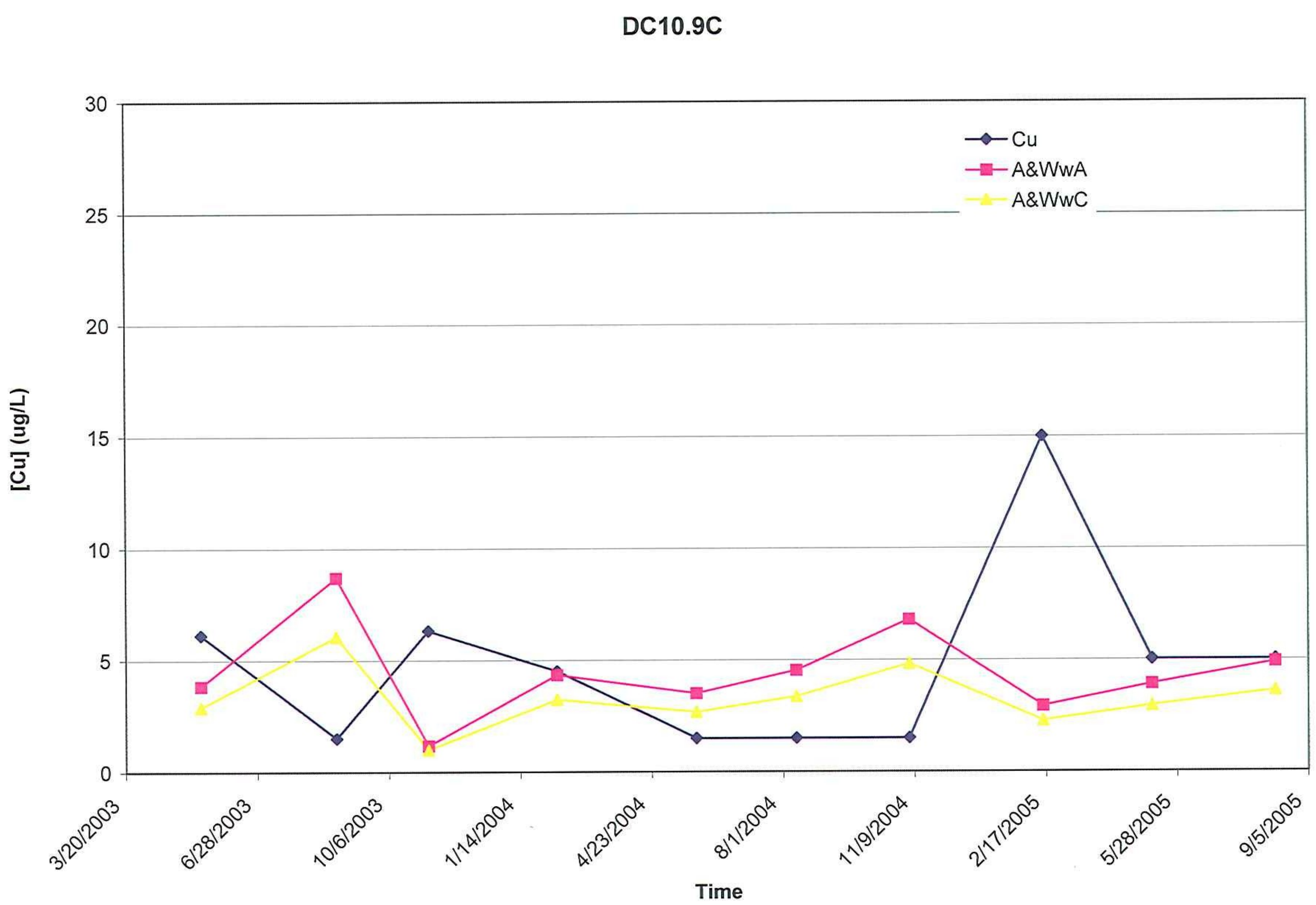
Cu	n	Mean	SD	SE	95% CI of Mean	Median	IQR	95% CI of Median
DC15.2C	4	10.250	6.0759	3.0380	0.582 to 19.918	10.000	10.750	- to -
DC13.5C	8	7.888	6.2153	2.1974	2.691 to 13.084	5.000	8.050	3.600 to 20.300
DC10.9C	10	4.790	4.1057	1.2983	1.853 to 7.727	4.750	3.775	1.500 to 6.300
DC8.8C	9	3.944	3.7951	1.2650	1.027 to 6.862	1.500	3.500	1.500 to 5.000
DC8.2W	9	3.056	1.8447	0.6149	1.638 to 4.473	1.500	3.500	1.500 to 5.000
DC7.1C	9	3.906	3.6061	1.2020	1.134 to 6.677	1.500	3.500	1.500 to 6.100
DC T6.6W	9	3.333	3.2500	1.0833	0.835 to 5.832	1.500	3.500	1.500 to 5.000
DC6.1E	6	3.833	1.8074	0.7379	1.937 to 5.730	5.000	2.625	1.500 to 5.000
DC5.5C	7	3.500	1.8708	0.7071	1.770 to 5.230	5.000	3.500	1.500 to 5.000
DC4.1E	4	1.388	0.2250	0.1125	1.029 to 1.746	1.500	0.113	- to -


DC15.2C
30
25
20
15
10
5
0
[Cu] (ug/L)
Cu
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

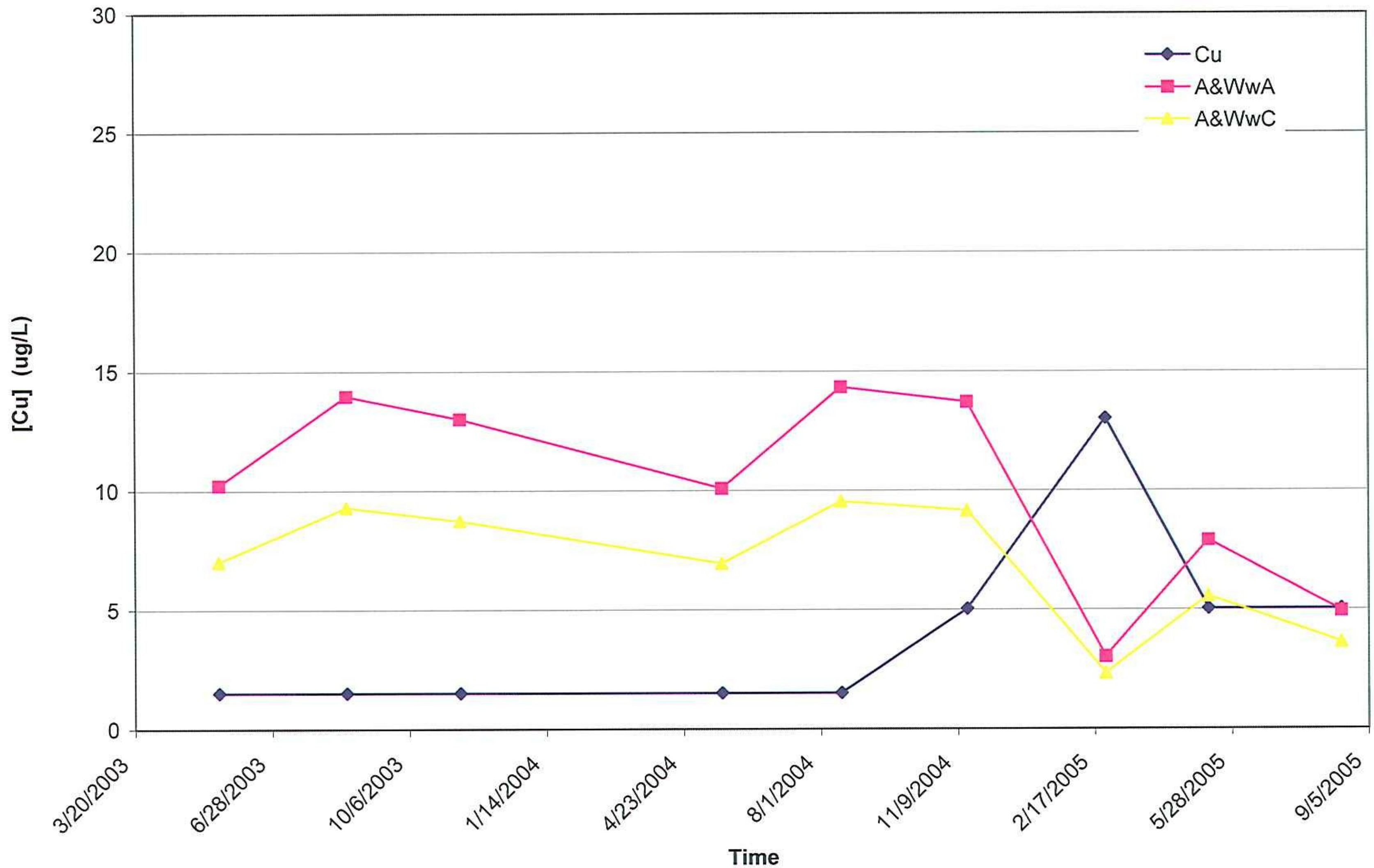
DC13.5C



Cu
A&WwA
A&WwC
[Cu] (ug/L)
30
25
20
15
10
5
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

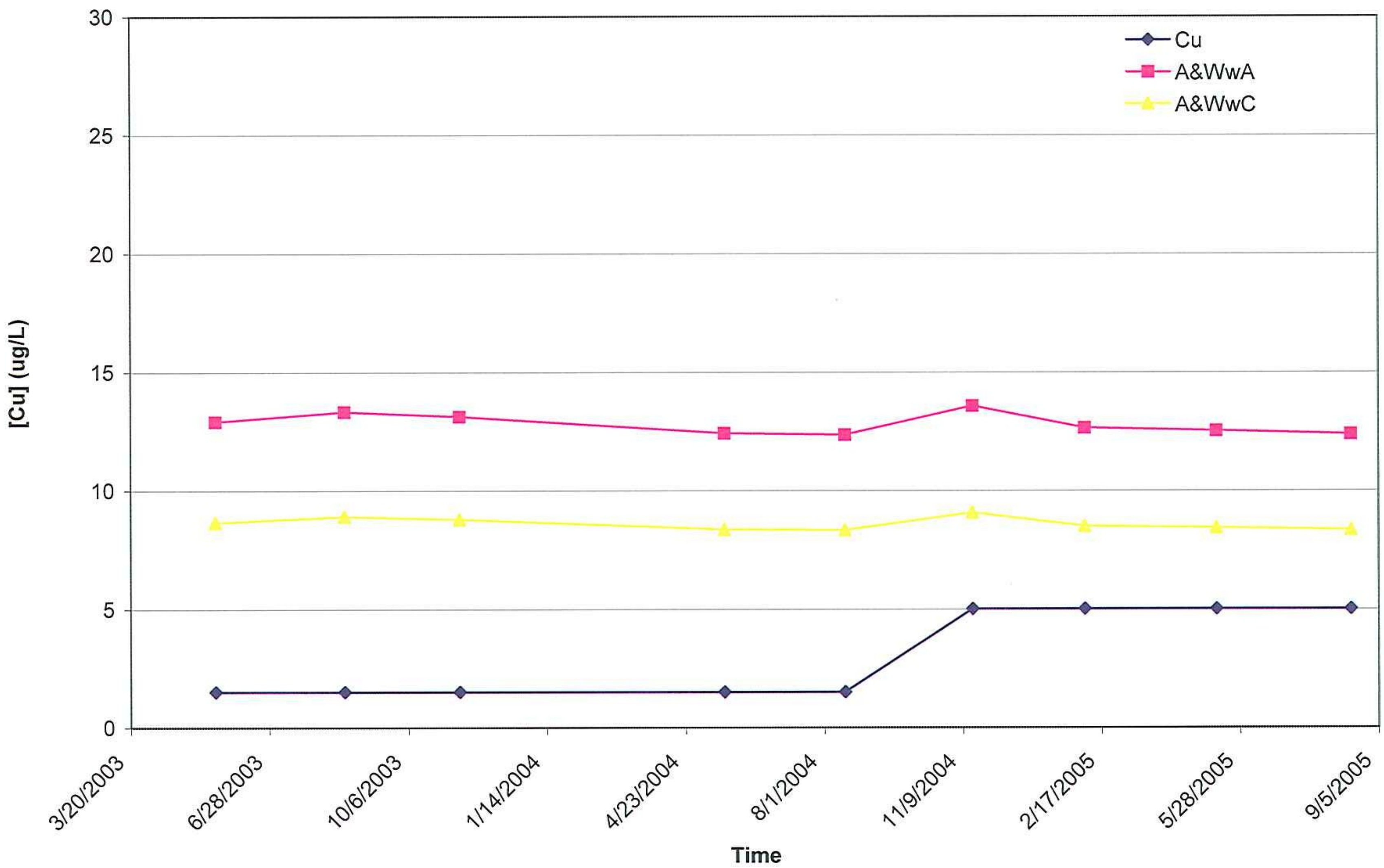

DC10.9C
Cu
A&WwA
A&WwC
[Cu] (ug/L)
30
25
20
15
10
5
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC8.8C

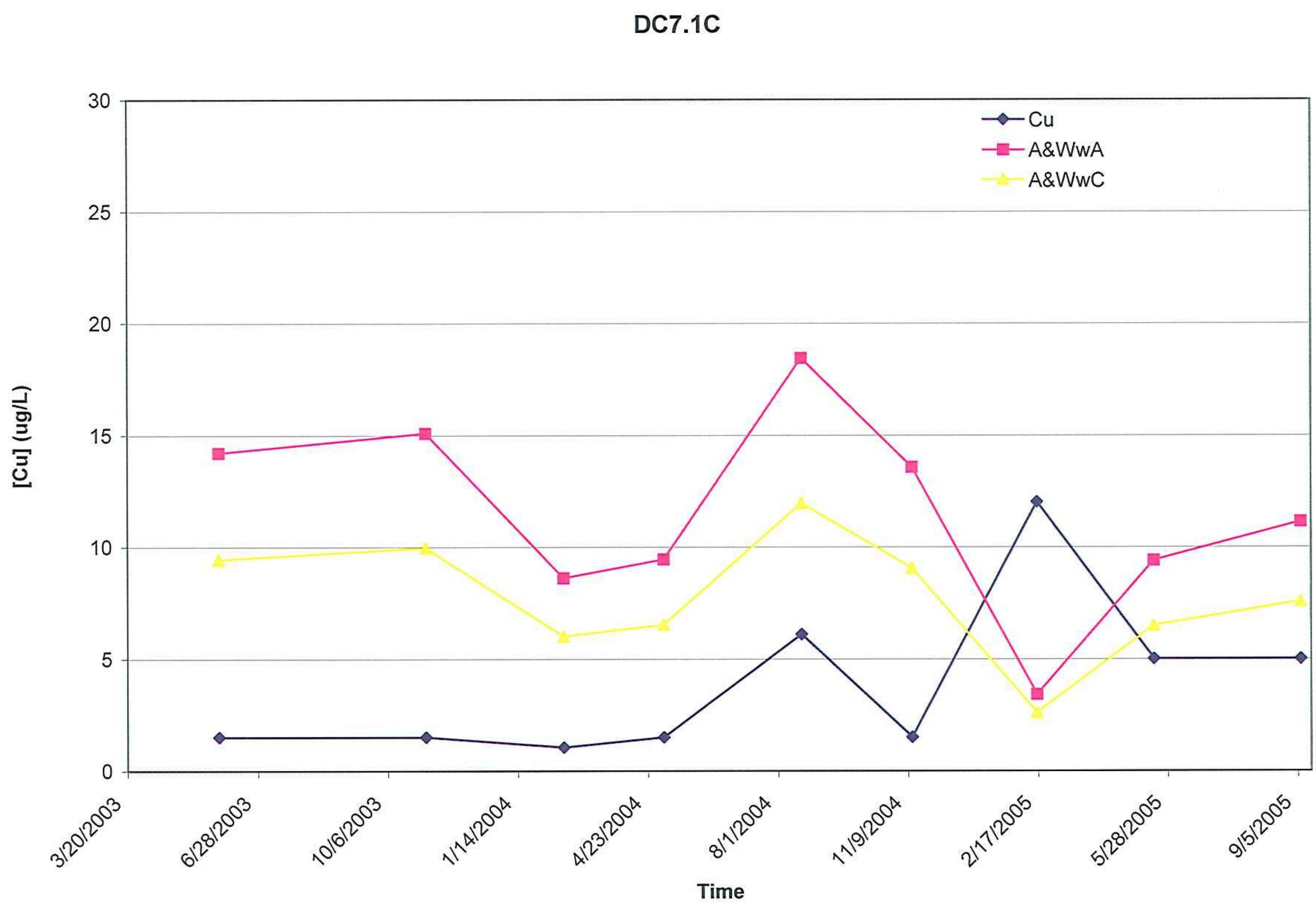


Cu
A&WwA
A&WwC
[Cu] (ug/L)
30
25
20
15
10
5
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC8.2W

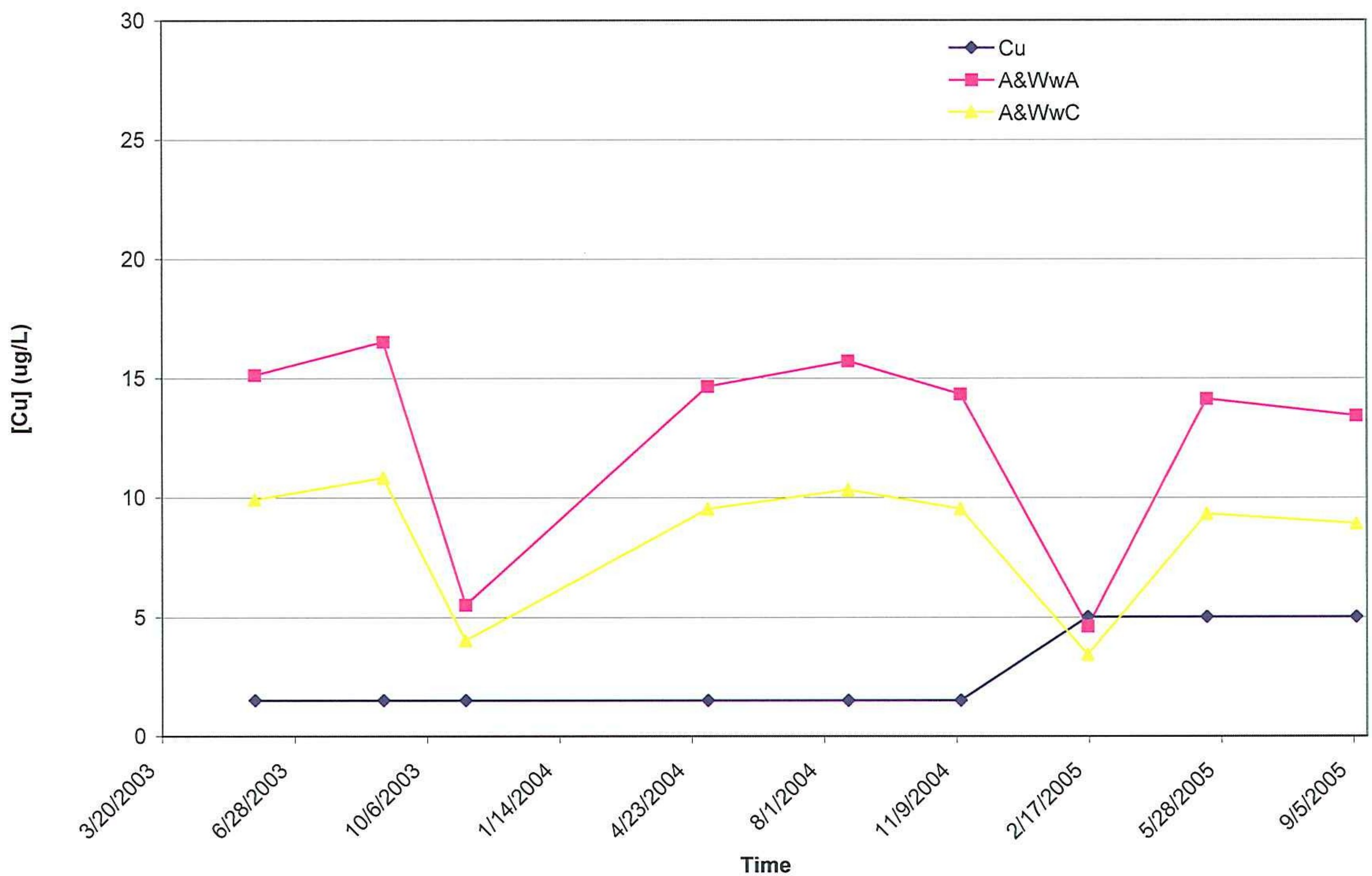


30
25
20
15
10
5
0
[Cu] (ug/L)
Cu
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time



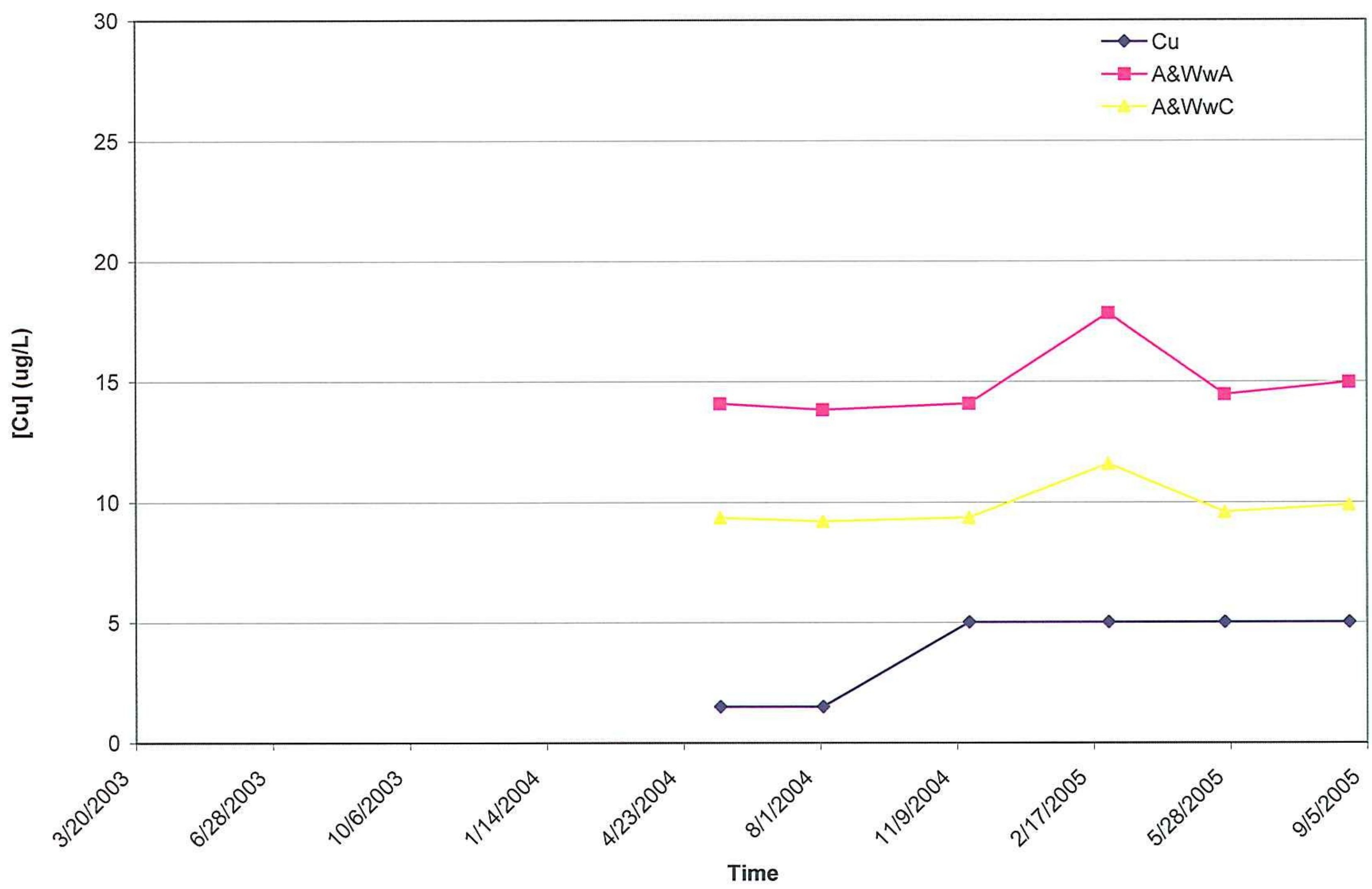
DC7.1C
Cu
A&WwA
A&WwC
[Cu] (ug/L)
30
25
20
15
10
5
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC T6.6W



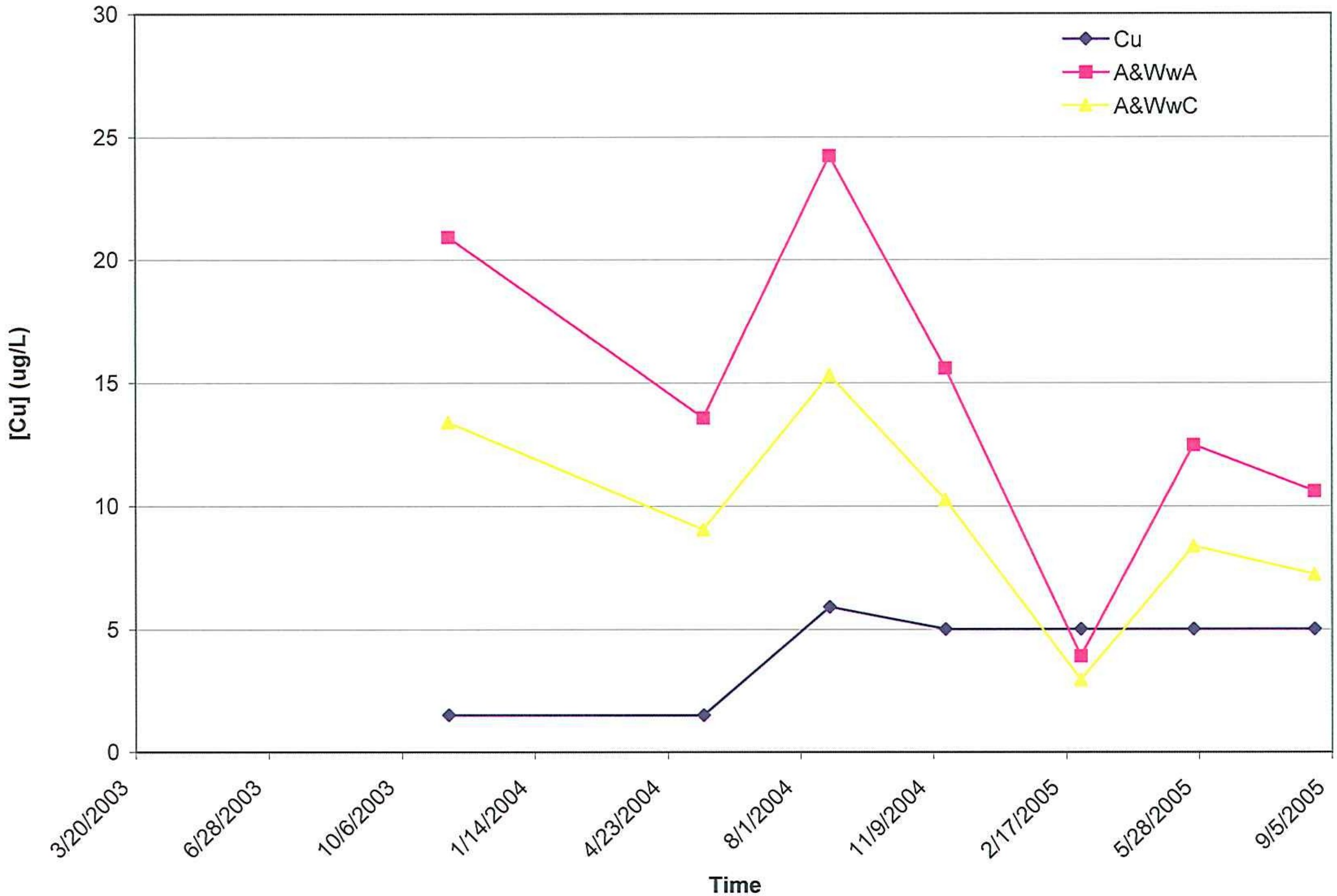
[Cu] (ug/L)
30
25
20
15
10
5
0
Cu
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC6.1E



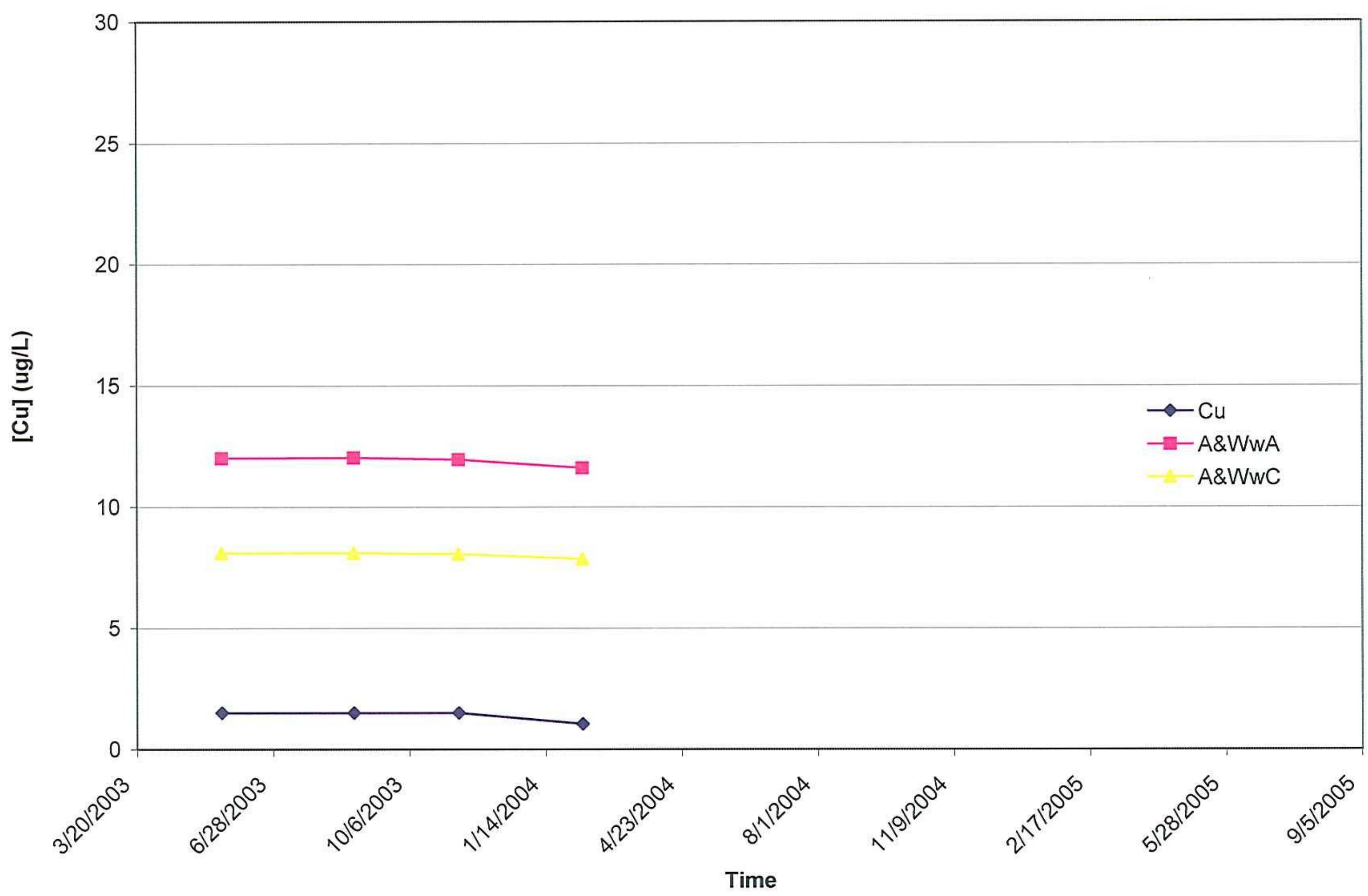
Cu
A&WwA
A&WwC
[Cu] (ug/L)
30
25
20
15
10
5
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC5.5C



30
25
20
15
10
5
0
[Cu] (ug/L)
Cu
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

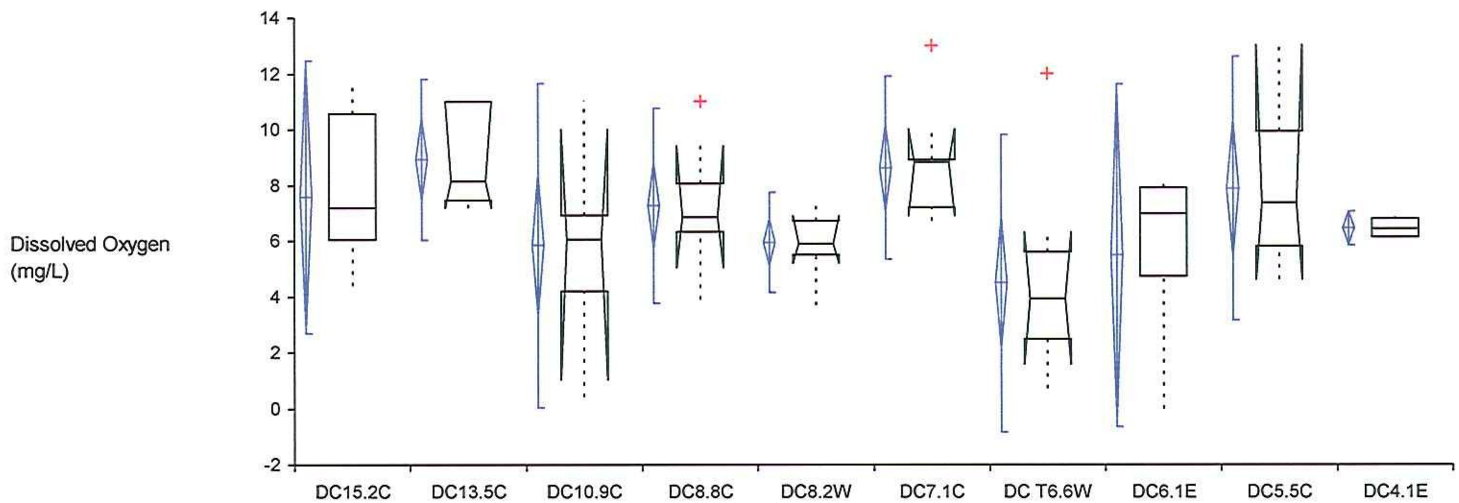
DC4.1E



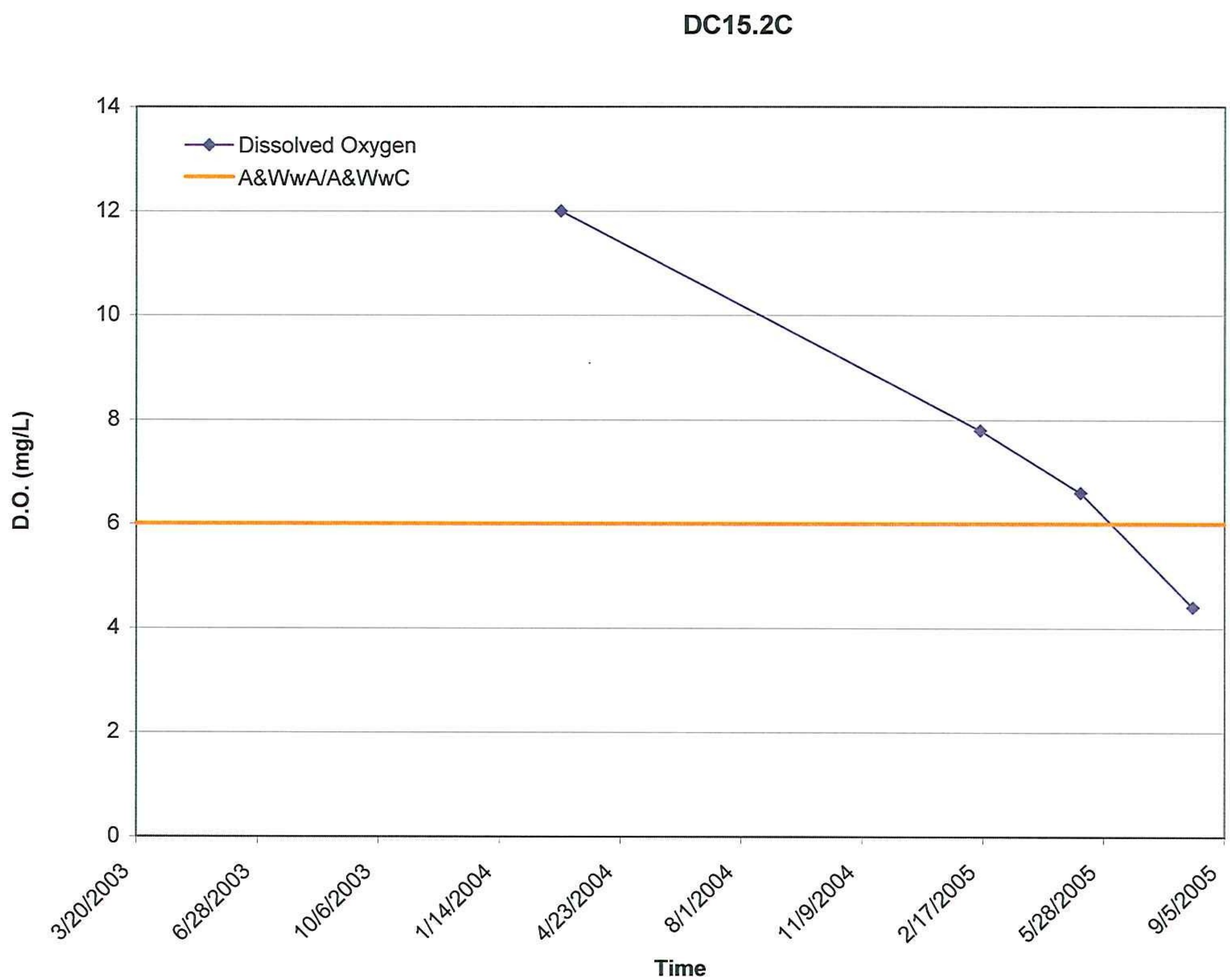
30
25
20
15
10
5
0
[Cu] (ug/L)
Cu
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

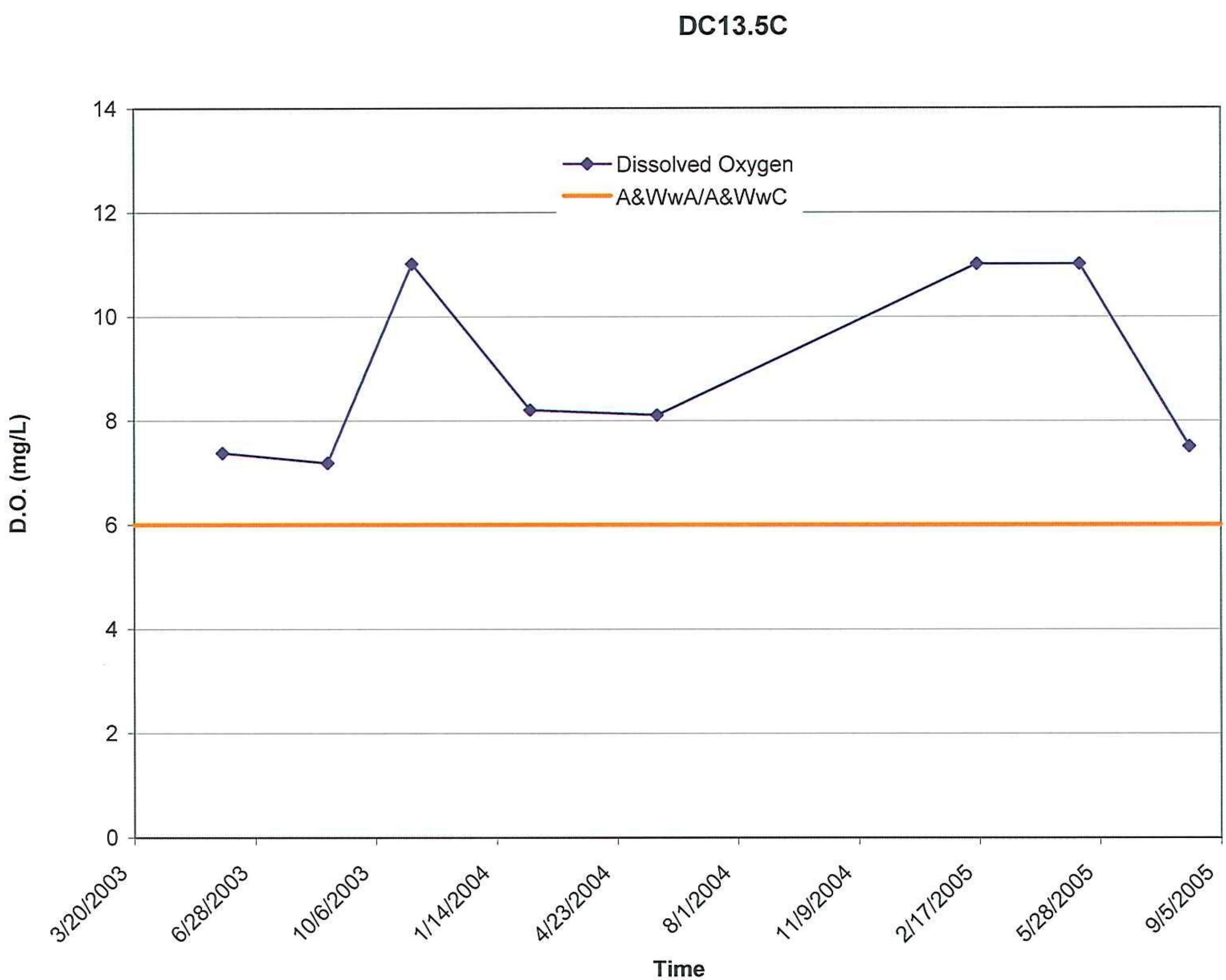
analysed with: Analyse-it + General 1.69

Test	**Comparative descriptives**
Variables	Dissolved Oxygen: DC15.2C, DC13.5C, DC10.9C, DC8.8C, DC8.2W, DC7.1C, DC T6.6W, DC6.1E, DC5.5C, DC4.1E
Performed by	omorfin
Date	5 May 2006

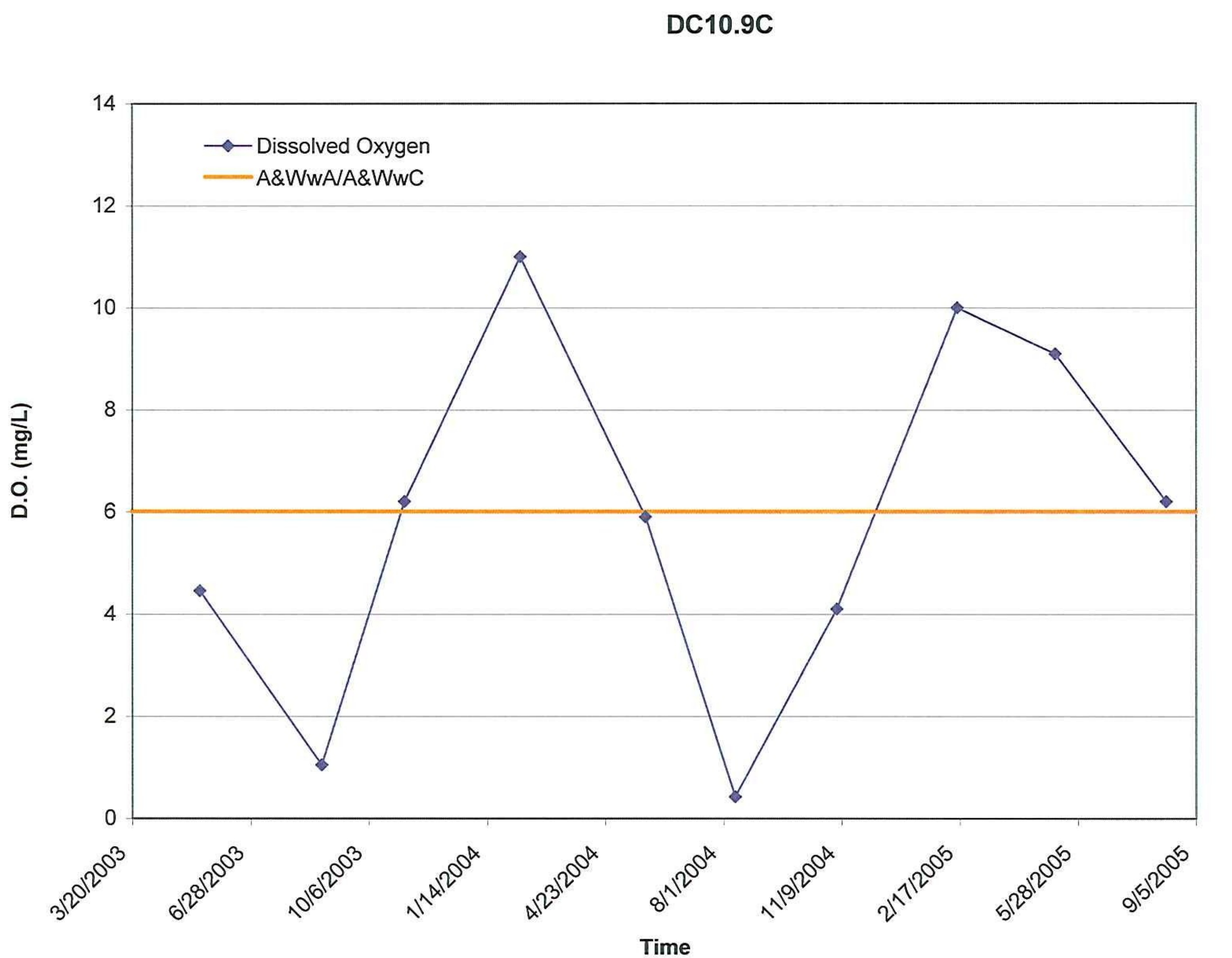


Dissolved Oxygen	n	Mean	SD	SE	95% CI of Mean	Median	IQR	95% CI of Median
DC15.2C	4	7.575	2.9714	1.4857	2.847 to 12.303	7.200	4.525	- to -
DC13.5C	8	8.919	1.7573	0.6213	7.450 to 10.388	8.150	3.533	7.180 to 11.000
DC10.9C	10	5.843	3.5276	1.1155	3.320 to 8.366	6.050	2.738	1.050 to 10.000
DC8.8C	10	7.256	2.1274	0.6727	5.734 to 8.778	6.850	1.733	5.050 to 9.400
DC8.2W	9	5.942	1.0911	0.3637	5.104 to 6.781	5.890	1.200	5.200 to 6.900
DC7.1C	9	8.616	1.9937	0.6646	7.083 to 10.148	8.800	1.700	6.900 to 10.000
DC T6.6W	10	4.484	3.2342	1.0227	2.170 to 6.798	3.930	3.113	1.600 to 6.300
DC6.1E	4	5.475	3.7214	1.8607	-0.447 to 11.397	6.950	3.175	- to -
DC5.5C	8	7.863	2.8755	1.0166	5.459 to 10.266	7.350	4.100	4.600 to 13.000
DC4.1E	4	6.433	0.3691	0.1845	5.845 to 7.020	6.415	0.653	- to -

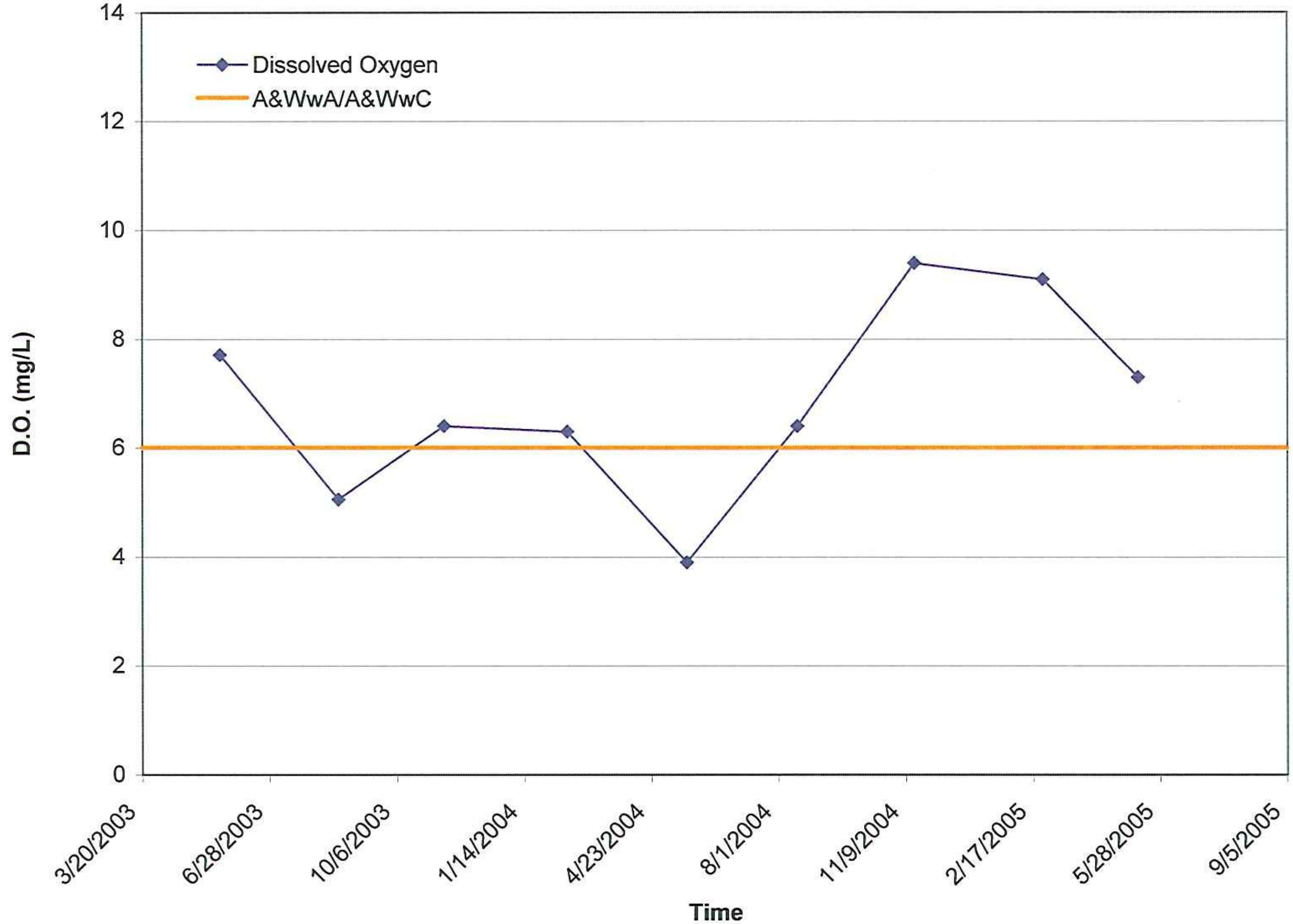

DC15.2C
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time



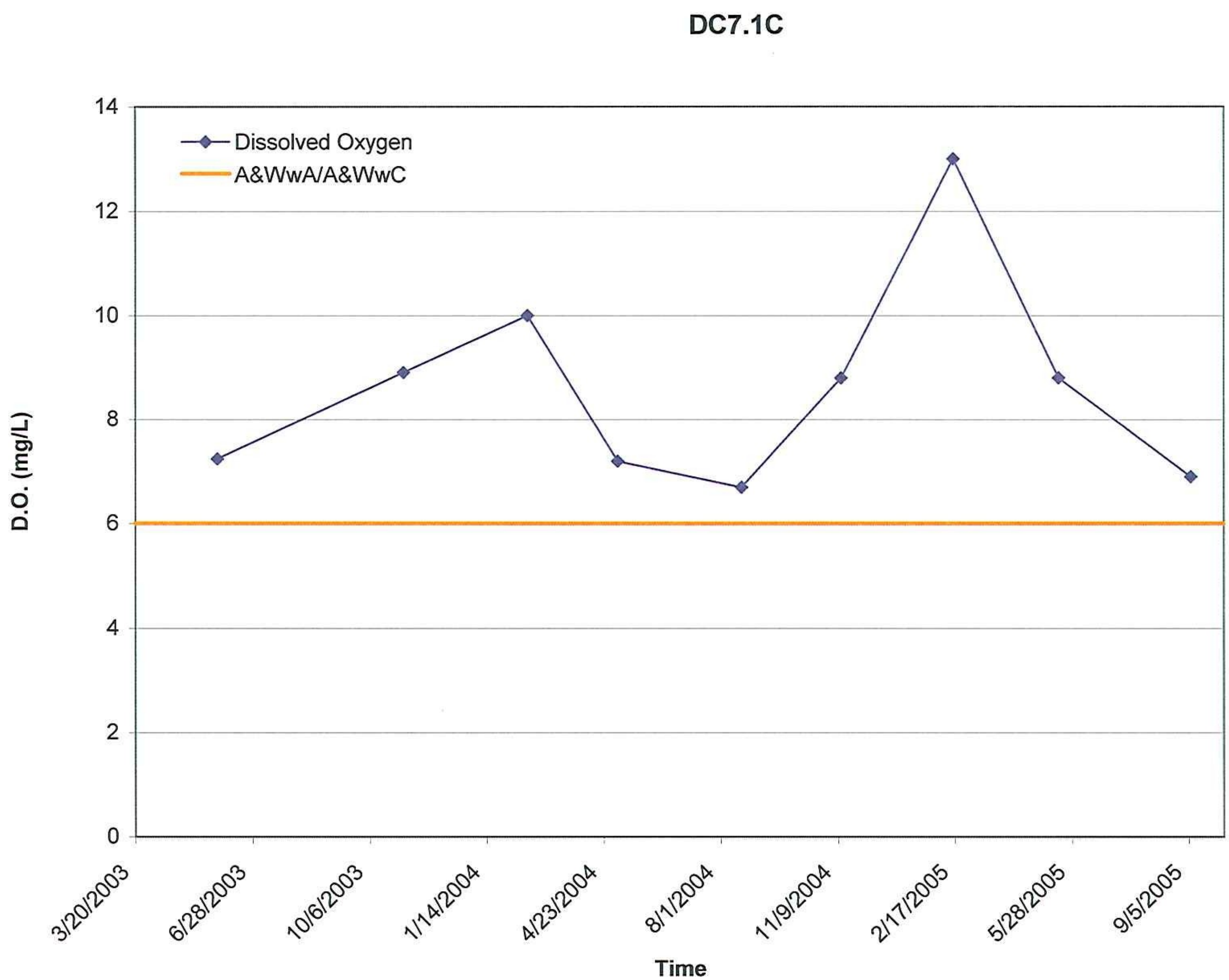
DC13.5C
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time


DC10.9C
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

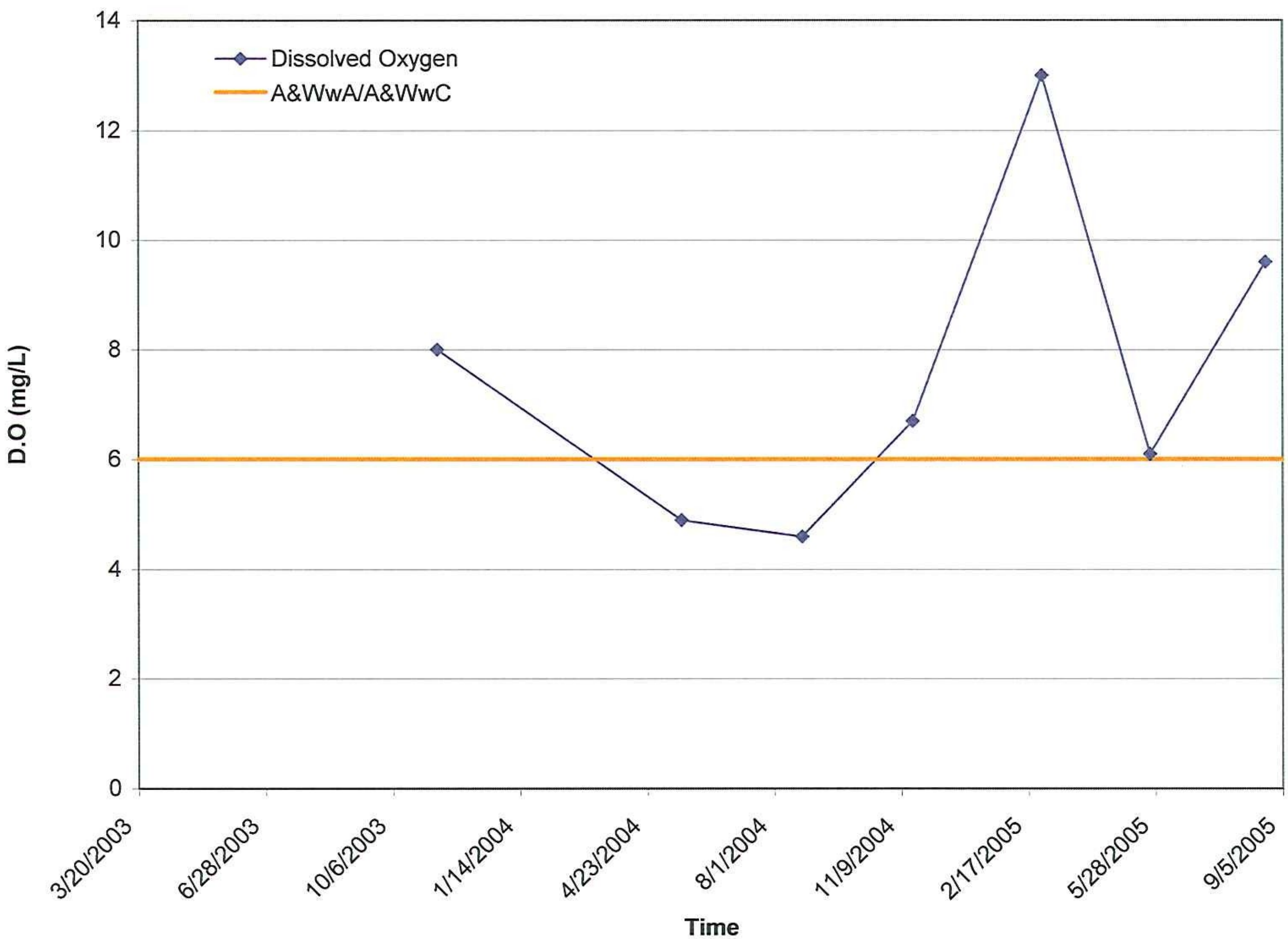
DC8.8C

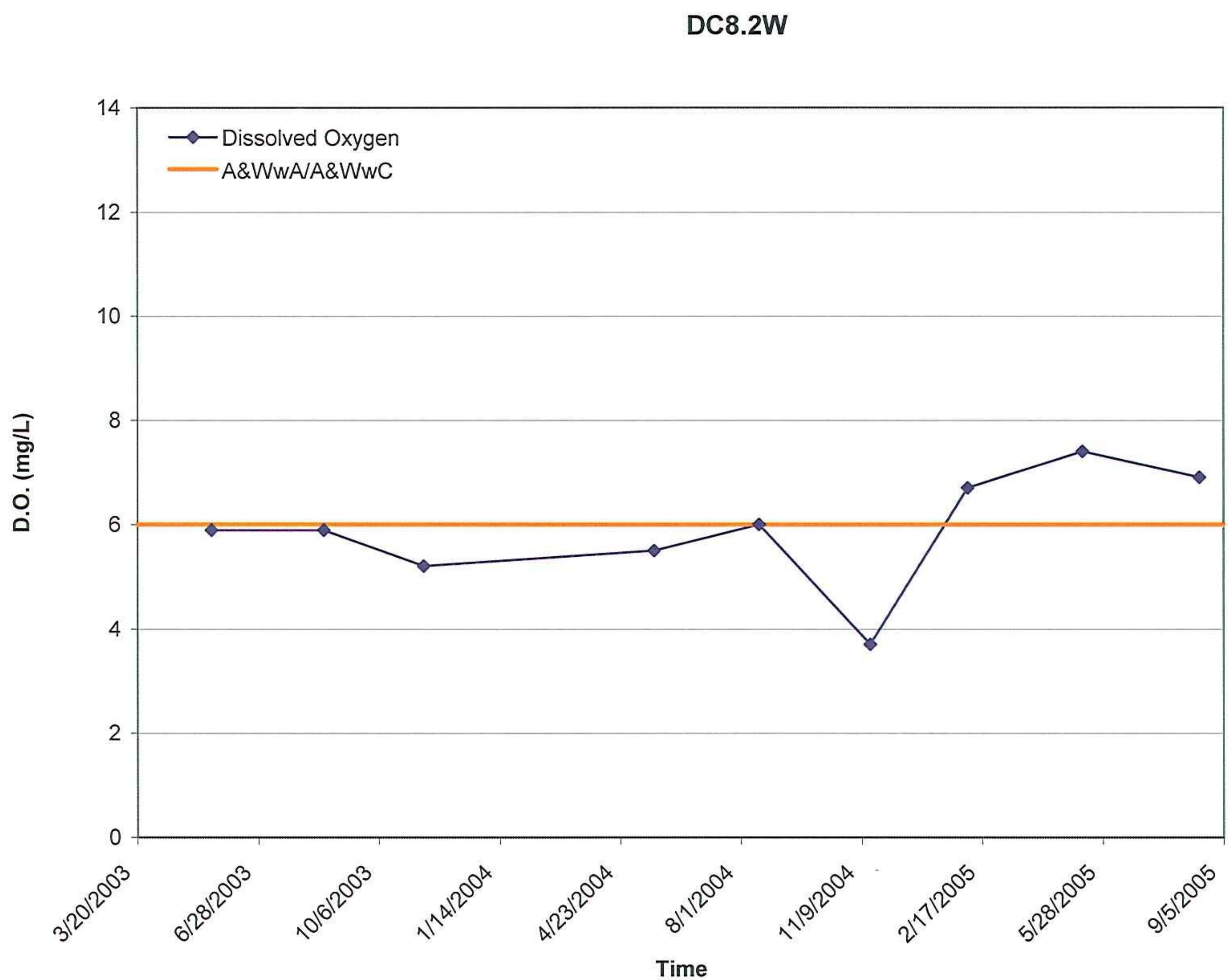


Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

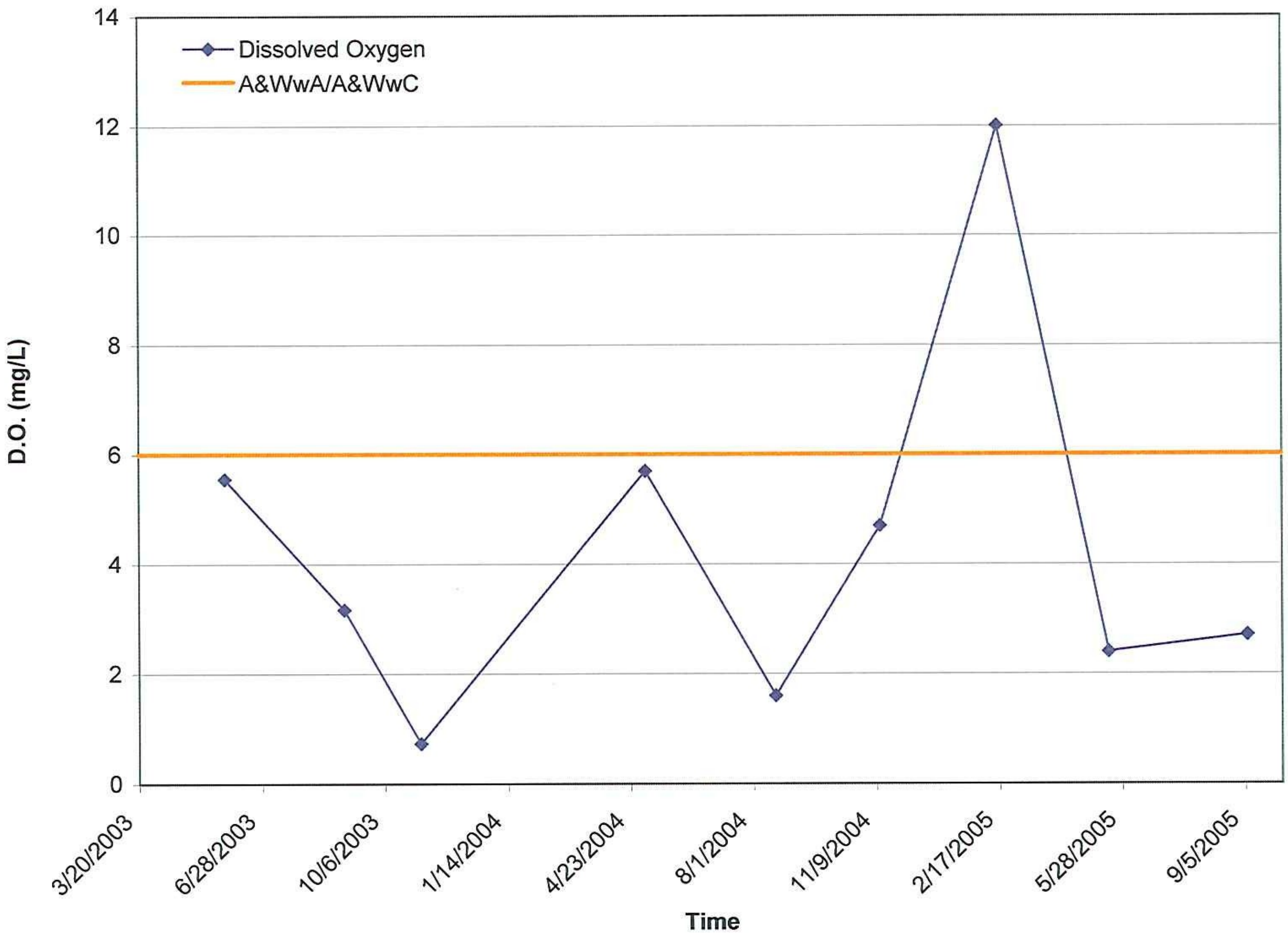

DC7.1C
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC5.5C


Dissolved Oxygen
A&WwA/A&WwC
D.O (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

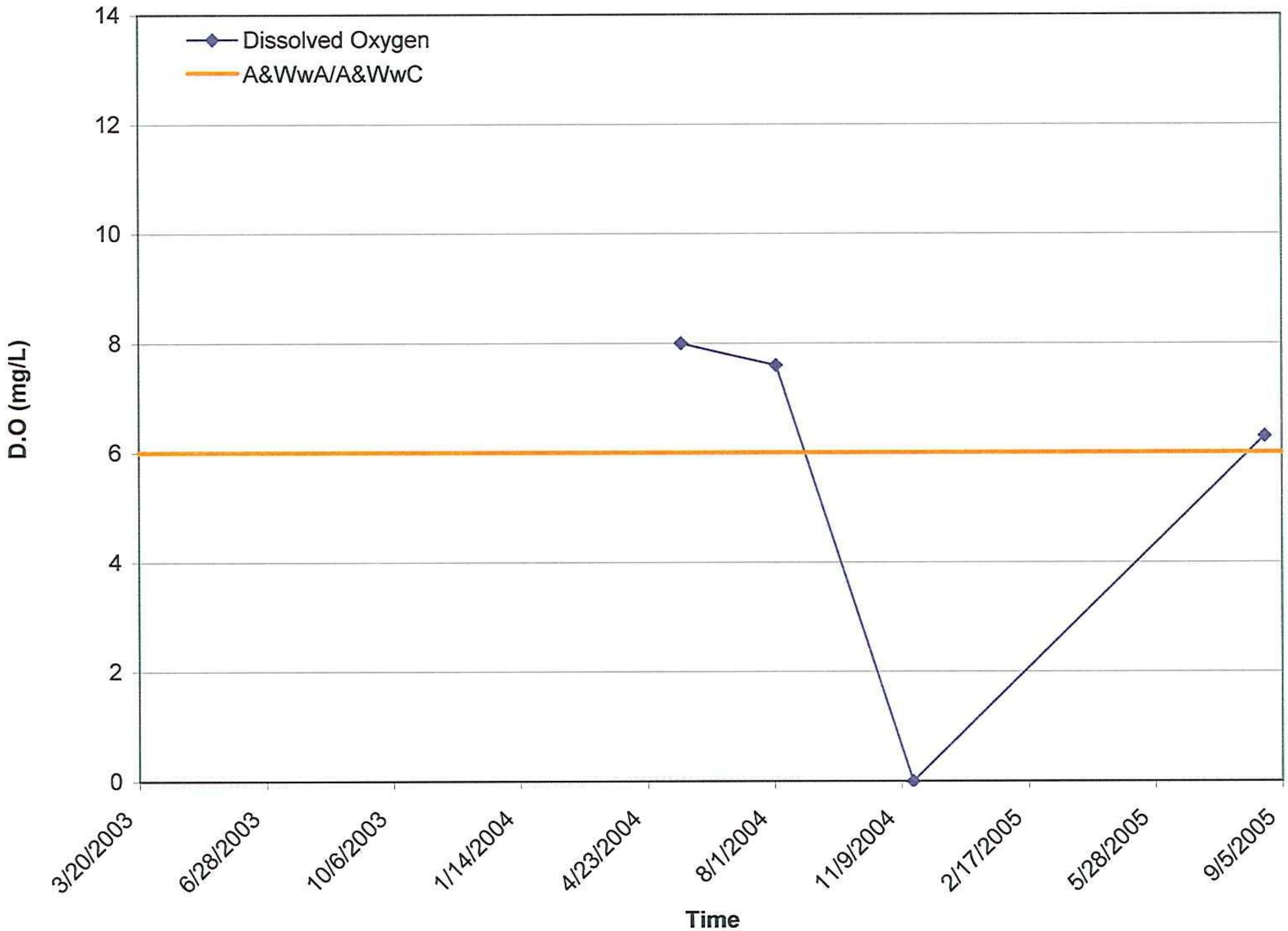

DC8.2W
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC T6.6W



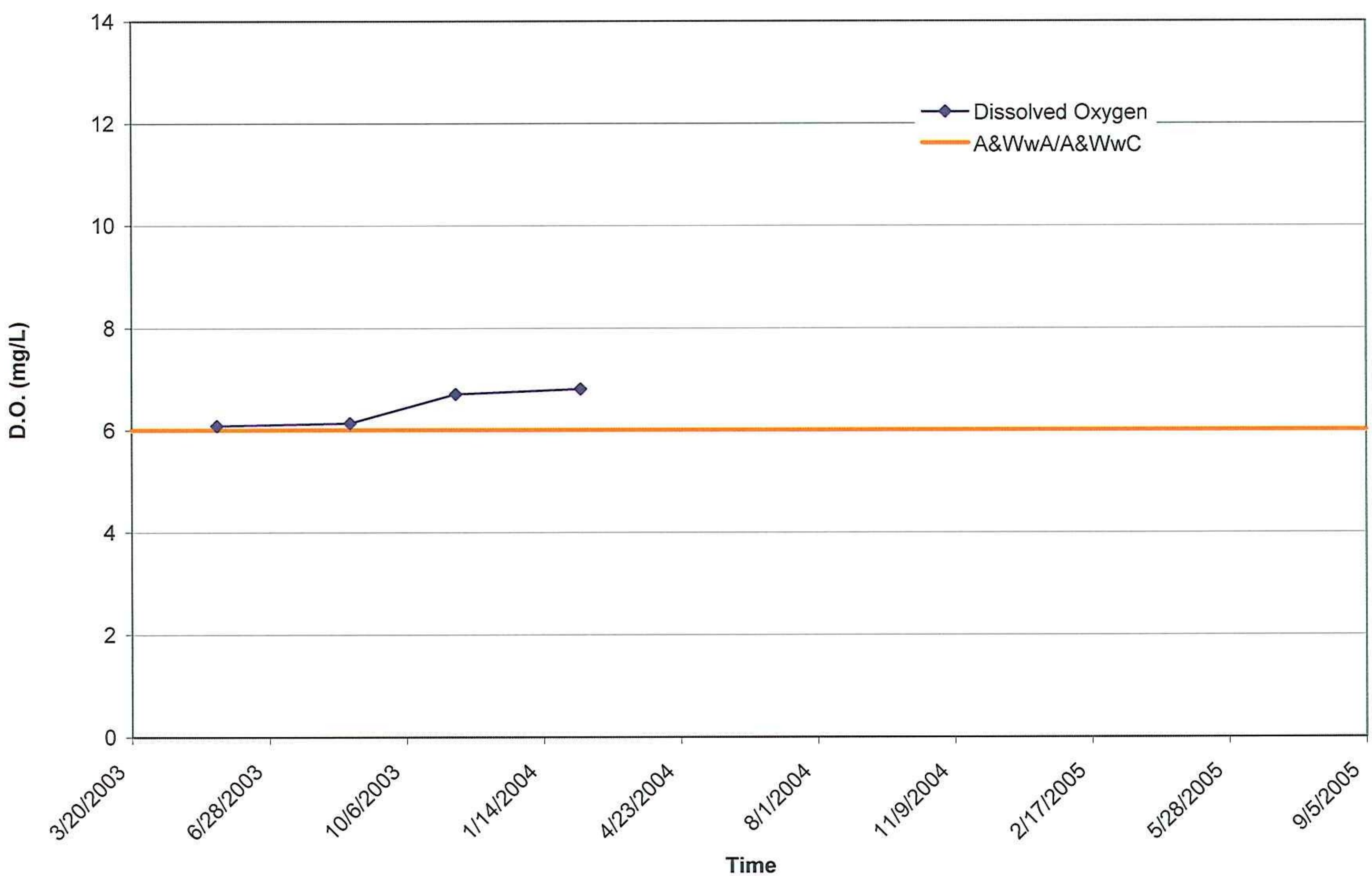
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC6.1E



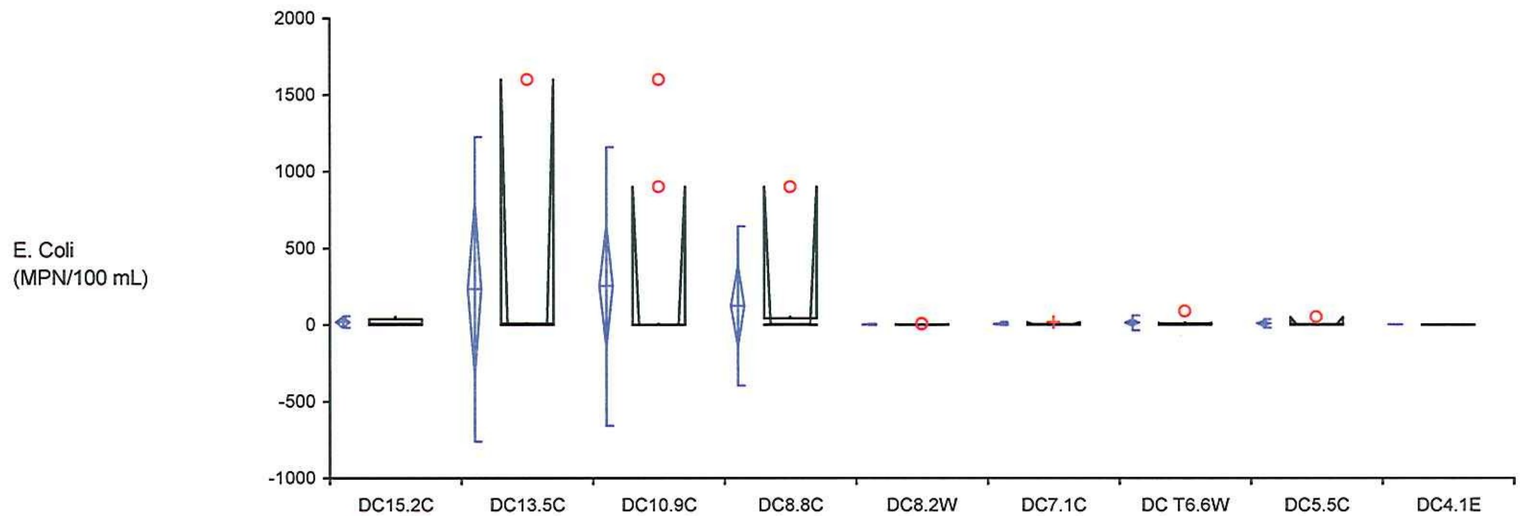
Dissolved Oxygen
A&WwA/A&WwC
D.O (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC4.1E



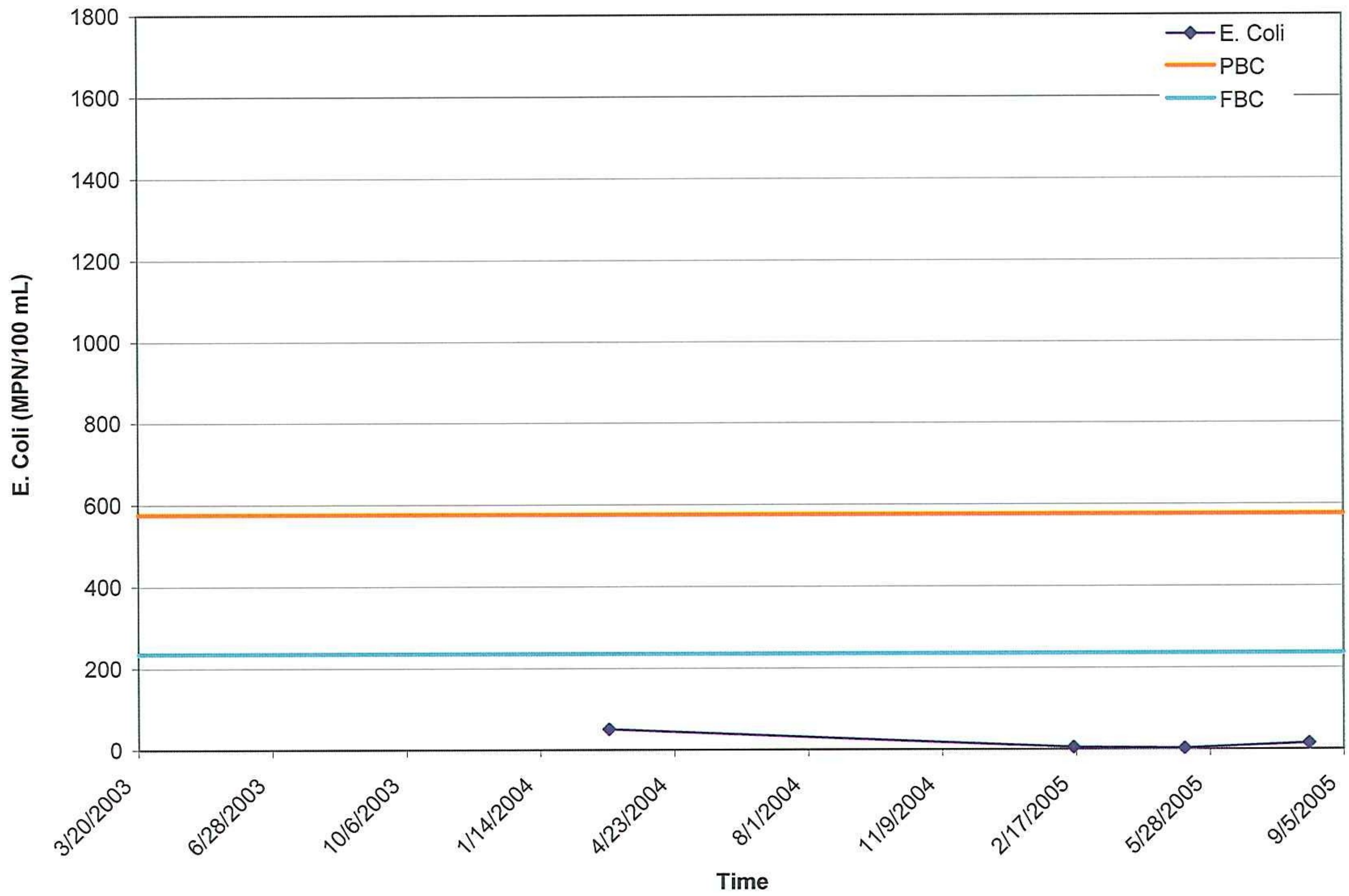
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

Test	**Comparative descriptives**
Variables	E. Coli: DC15.2C, DC13.5C, DC10.9C, DC8.8C, DC8.2W, DC7.1C, DC T6.6W, DC5.5C, DC4.1E
Performed by	omorfin
Date	5 May 2006



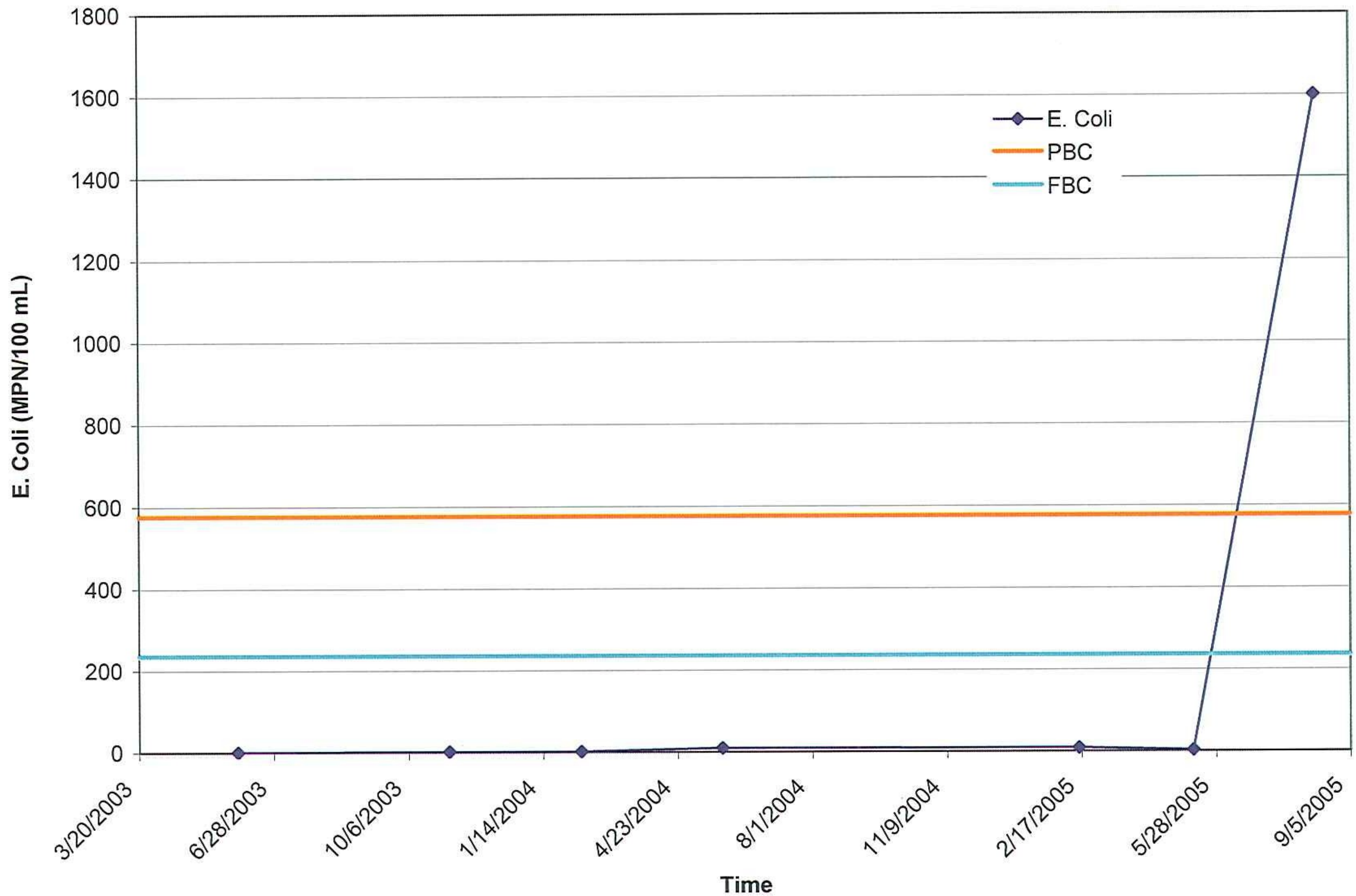
E. Coli	n	Mean	SD	SE	95% CI of Mean	Median	IQR	95% CI of Median
DC15.2C	4	17.250	22.5296	11.2648	-18.600 to 53.100	9.000	37.750	- to -
DC13.5C	7	231.571	603.4310	228.0755	-326.509 to 789.652	2.000	7.500	0.000 to 1600.000
DC10.9C	10	251.000	551.7663	174.4838	-143.710 to 645.710	1.000	1.500	0.000 to 900.000
DC8.8C	8	122.875	314.4703	111.1820	-140.029 to 385.779	4.000	42.000	1.000 to 900.000
DC8.2W	10	2.400	2.5906	0.8192	0.547 to 4.253	2.000	1.000	0.000 to 6.000
DC7.1C	9	6.222	6.6102	2.2034	1.141 to 11.303	4.000	6.000	1.000 to 17.000
DC T6.6W	9	13.333	29.0603	9.6868	-9.004 to 35.671	2.000	7.000	1.000 to 13.000
DC5.5C	8	8.625	16.8602	5.9610	-5.471 to 22.721	2.500	5.250	1.000 to 50.000
DC4.1E	4	0.500	0.5774	0.2887	-0.419 to 1.419	0.500	1.000	- to -

DC15.2C



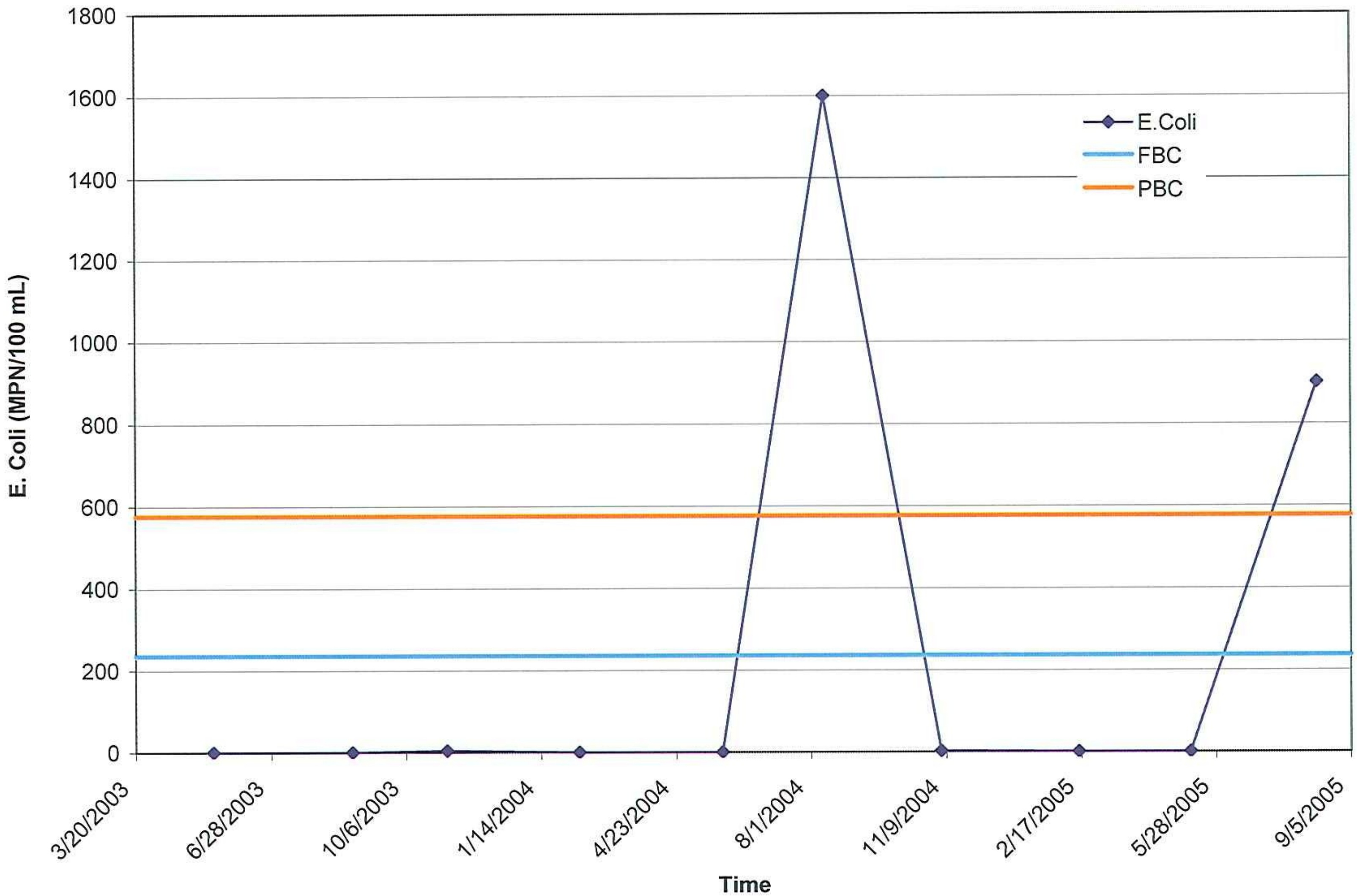
E. Coli
PBC
FBC
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli (MPN/100 mL)
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC13.5C



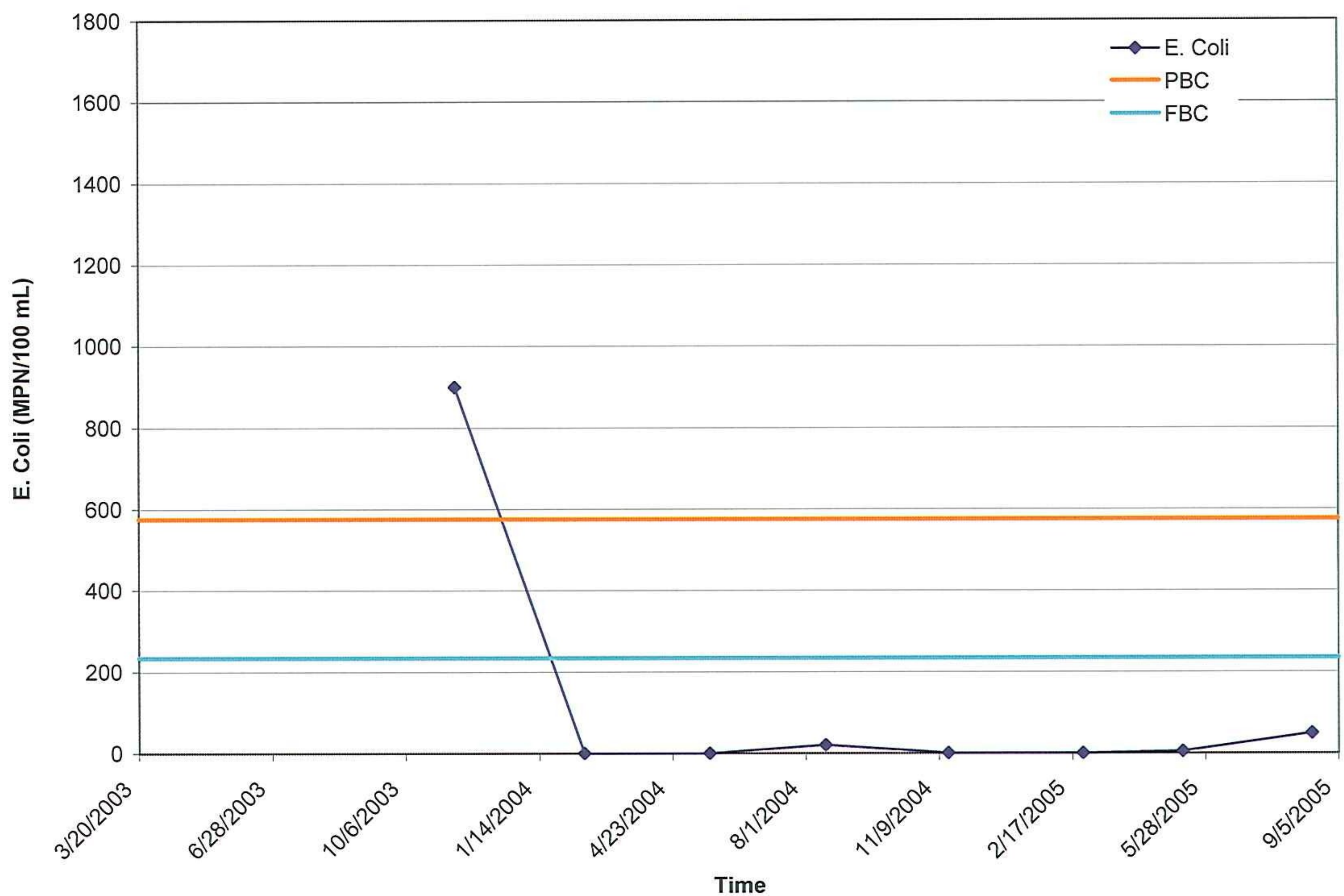
E. Coli
PBC
FBC
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli (MPN/100 mL)
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC10.9C

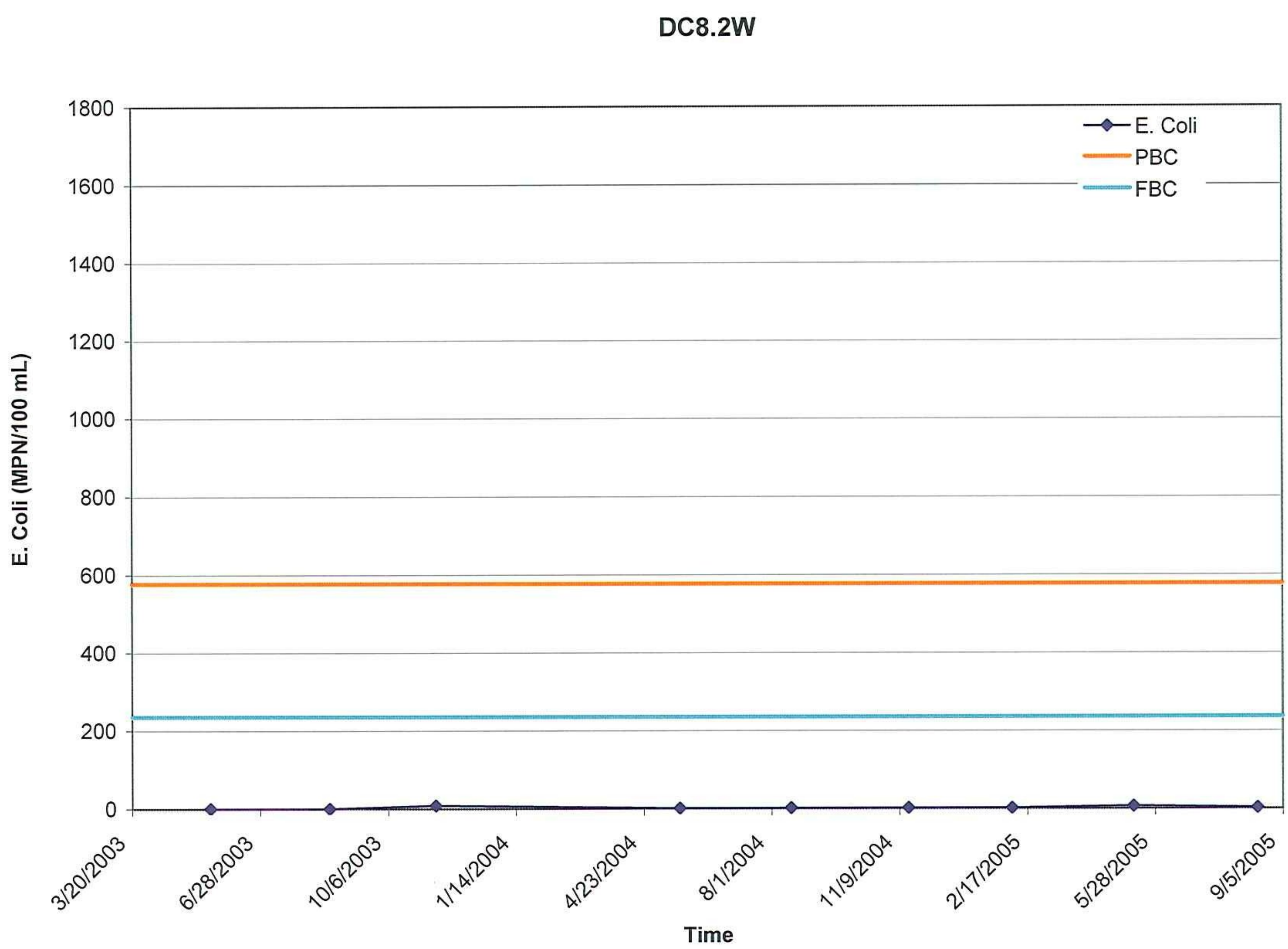


1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli (MPN/100 mL)
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time
E.Coli
FBC
PBC

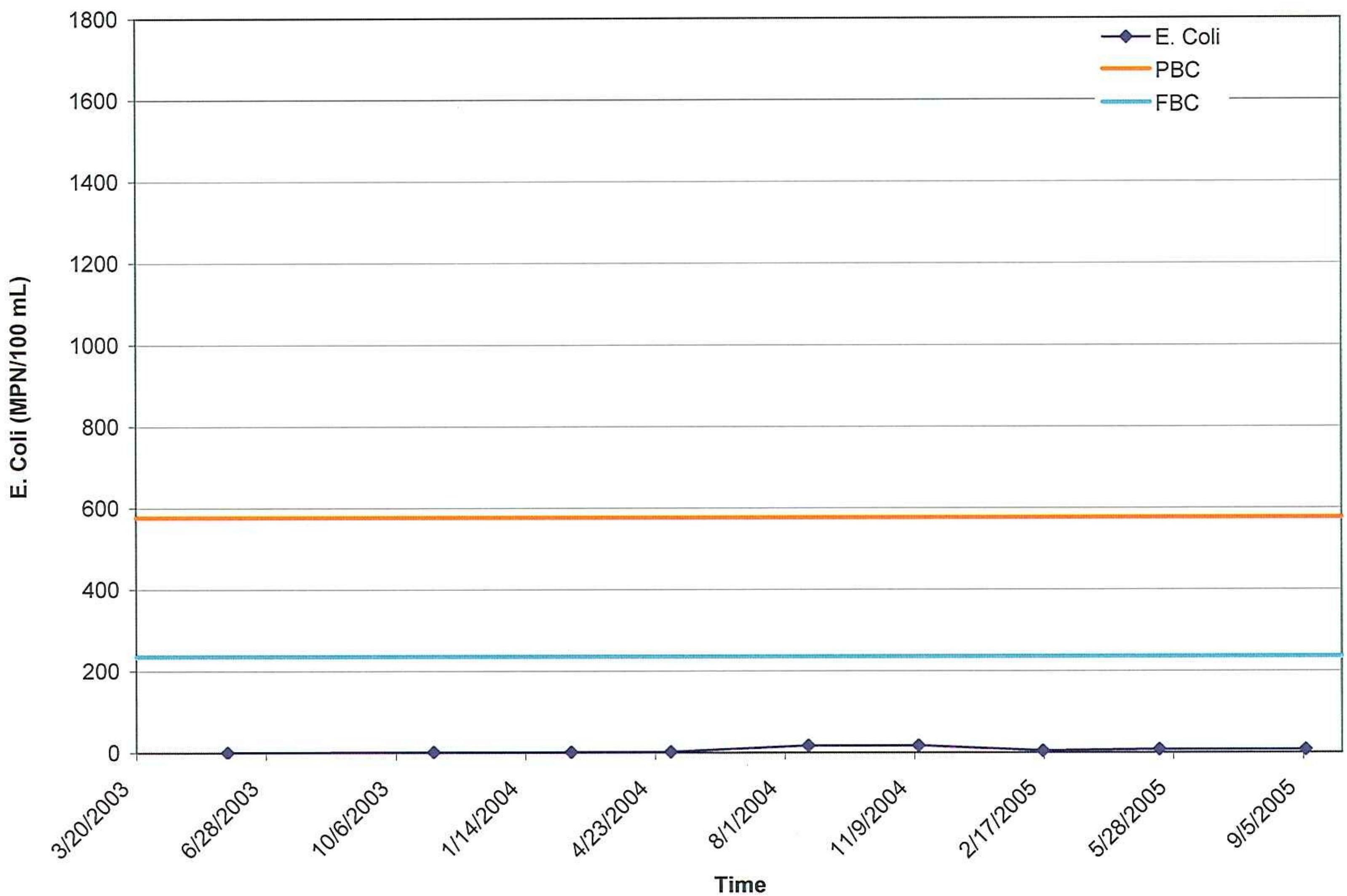
DC8.8C



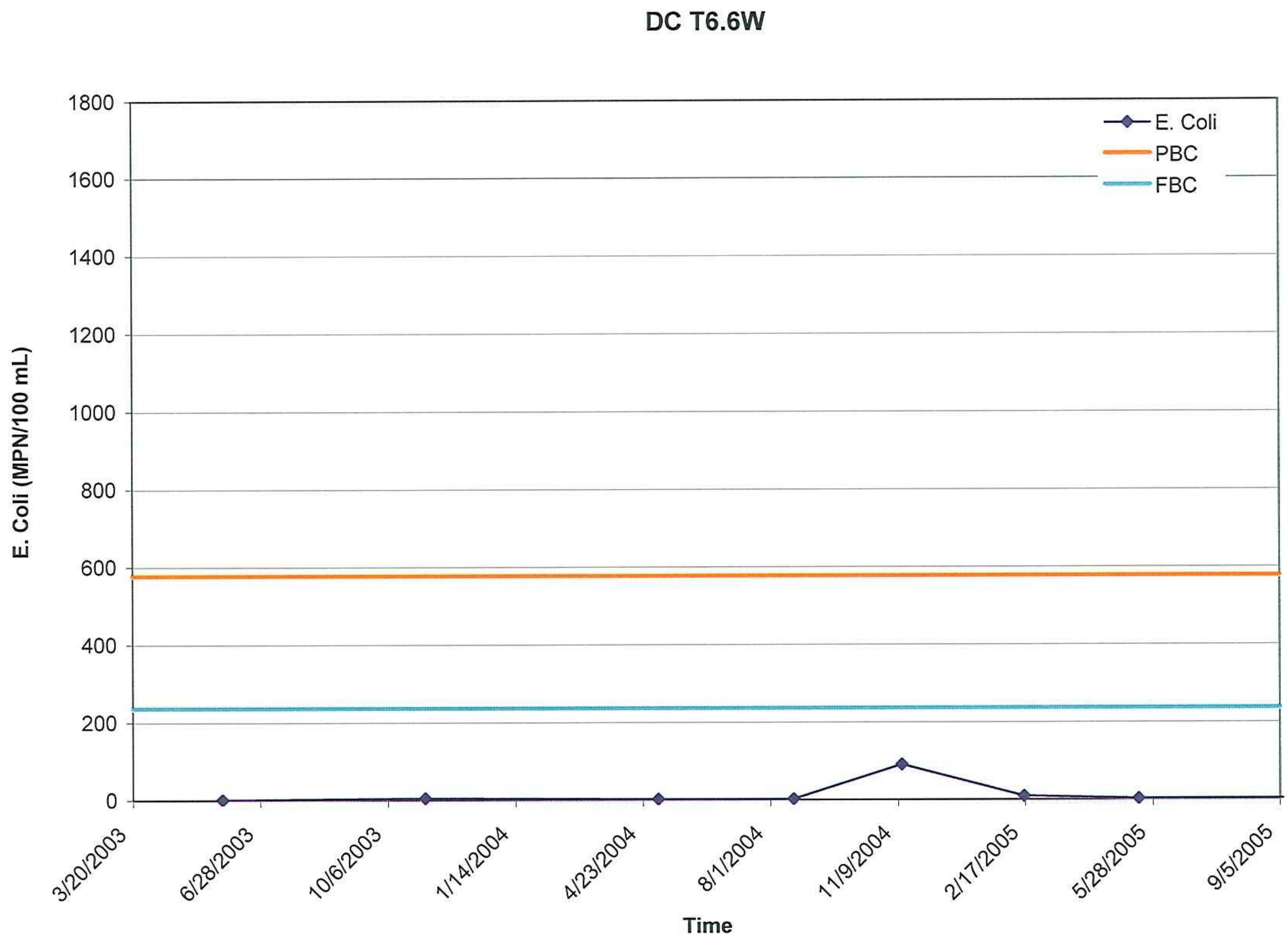
E. Coli
PBC
FBC
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli (MPN/100 mL)
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time


DC8.2W
E. Coli
PBC
FBC
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

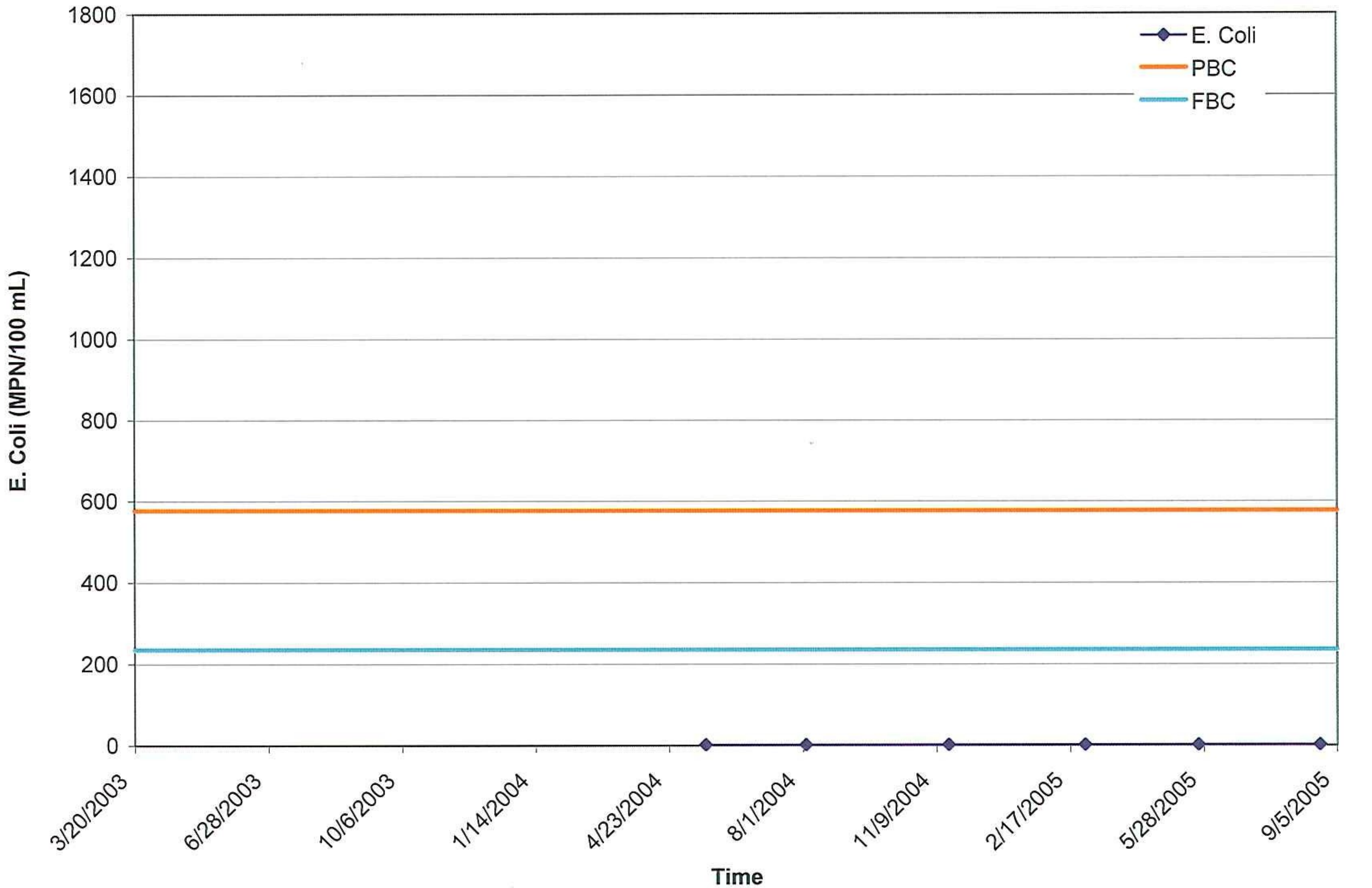
DC7.1C



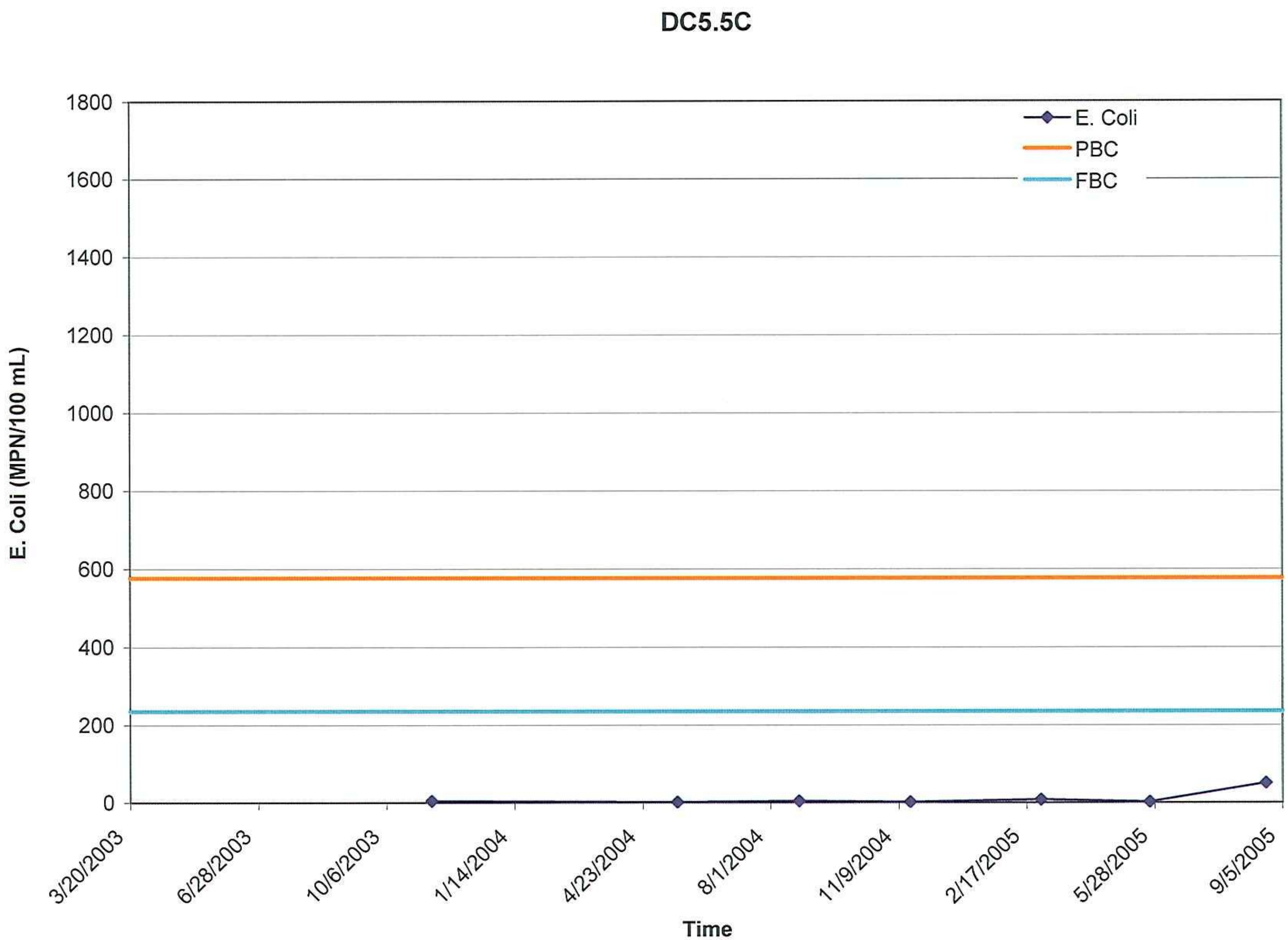
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli (MPN/100 mL)
E. Coli
PBC
FBC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time


DC T6.6W
E. Coli
PBC
FBC
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

DC 6.1E

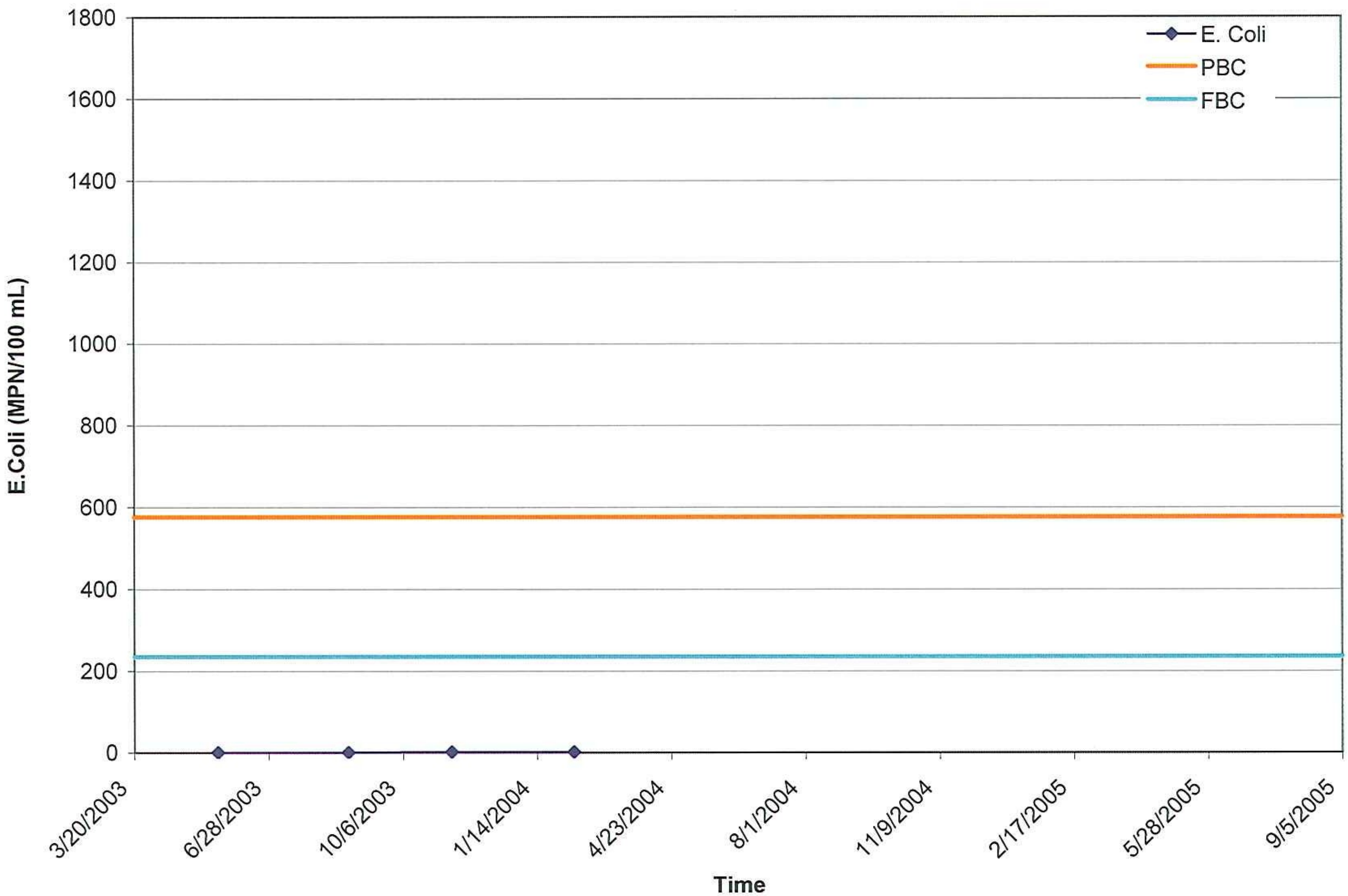


E. Coli
PBC
FBC
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli (MPN/100 mL)
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time



DC5.5C
E. Coli
PBC
FBC
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

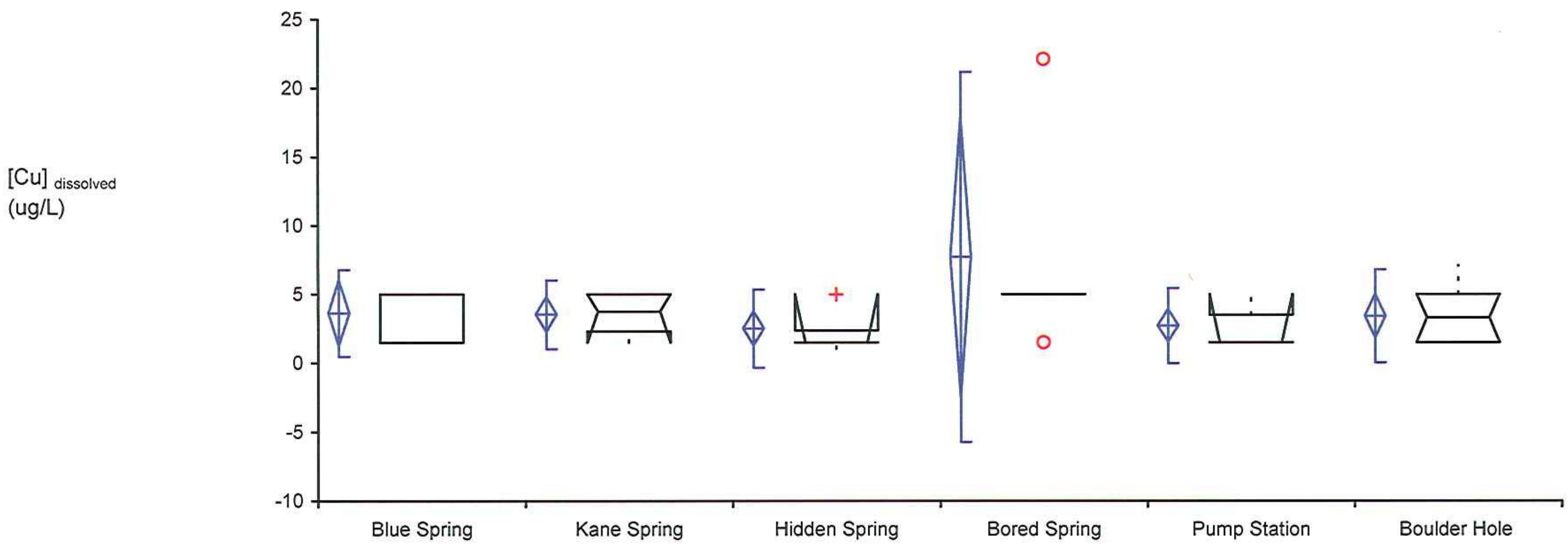
DC4.1E


E. Coli
PBC
FBC
E.Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

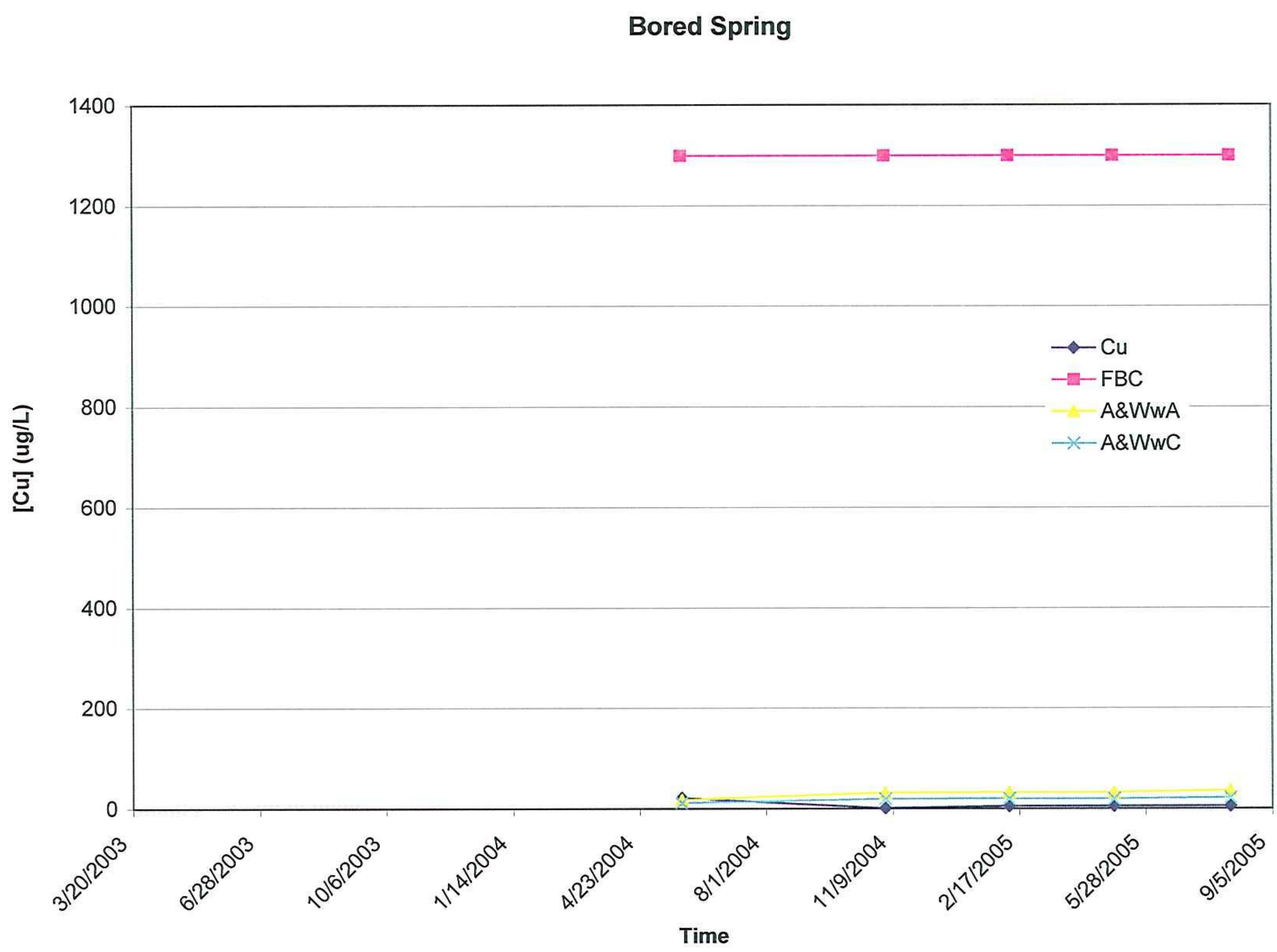
QUEEN CREEK

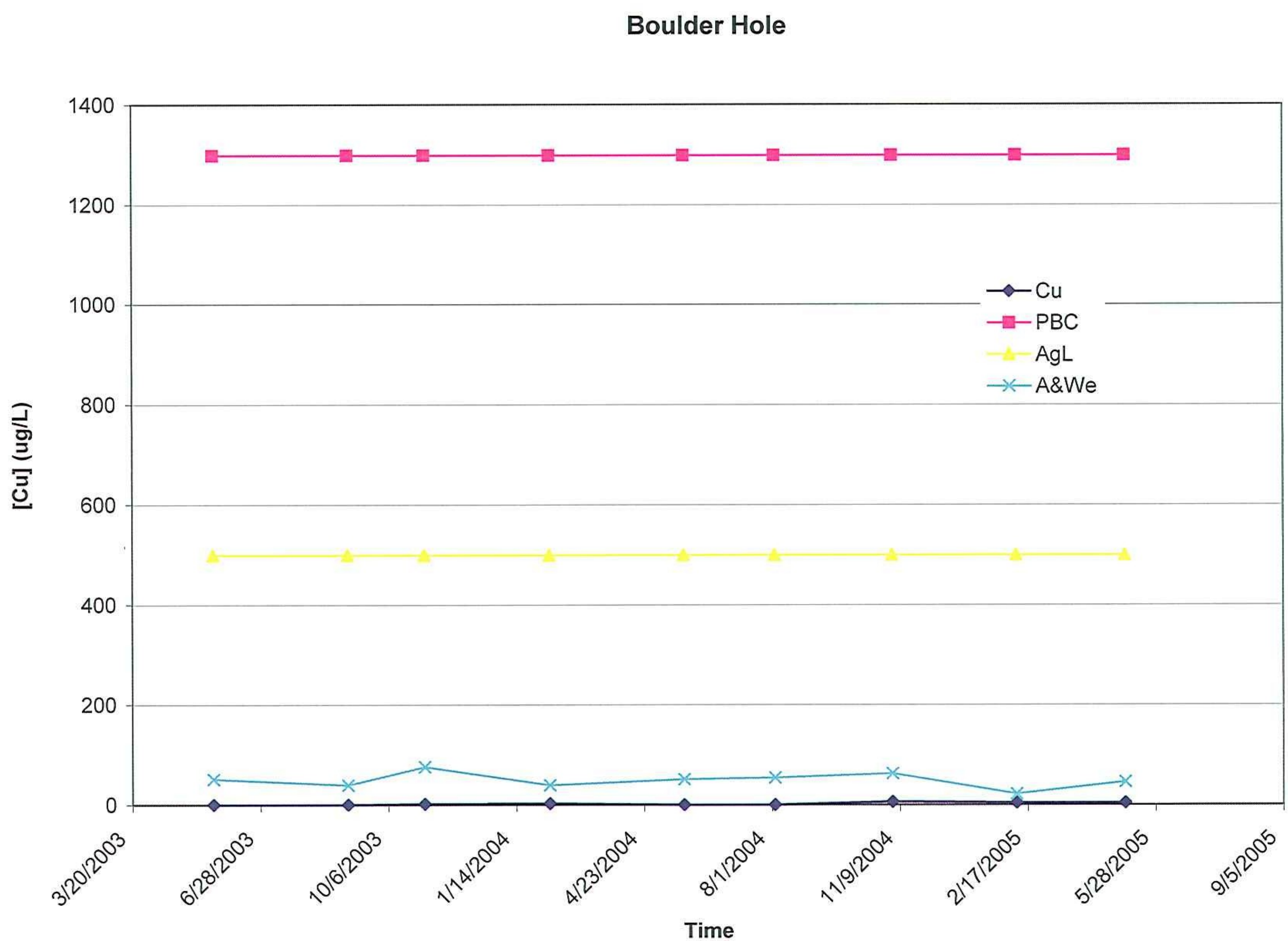
analysed with: Analyse-it + General 1.69

Test	**Comparative descriptives**
Variables	Cu: Blue Spring, Kane Spring, Hidden Spring, Bored Spring, Pump Station, Boulder Hole
Performed by	omorfin
Date	20 June 2006



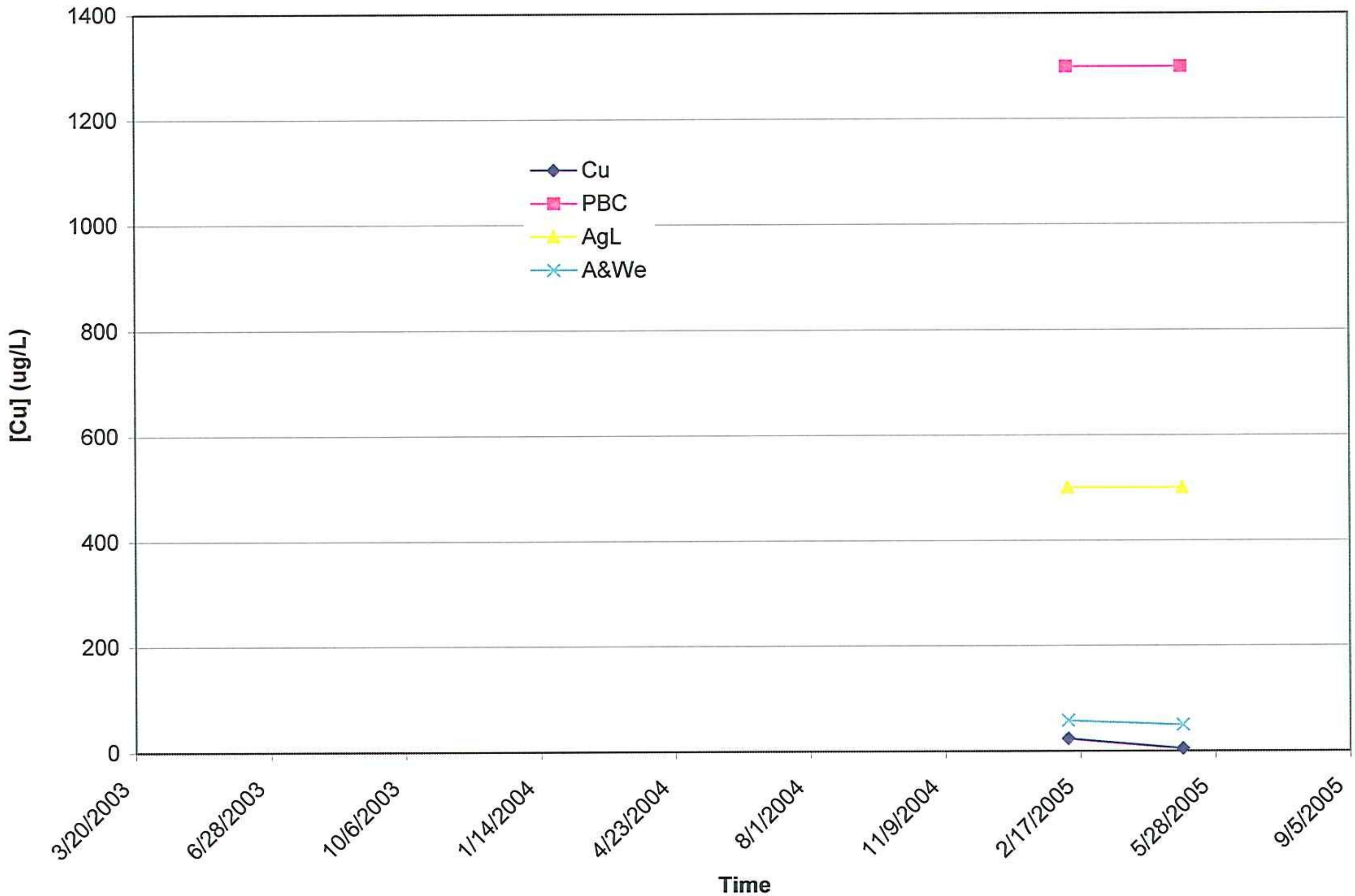
Cu	n	Mean	SD	SE	95% CI of Mean	Median	IQR	95% CI of Median
Blue Spring	5	3.600	1.9170	0.8573	1.220 to 5.980	5.000	3.500	- to -
Kane Spring	8	3.513	1.5160	0.5360	2.245 to 4.780	3.750	2.675	1.500 to 5.000
Hidden Spring	10	2.505	1.7273	0.5462	1.269 to 3.741	1.500	0.875	1.500 to 5.000
Bored Spring	5	7.720	8.1803	3.6583	-2.437 to 17.877	5.000	0.000	- to -
Pump Station	10	2.700	1.6533	0.5228	1.517 to 3.883	1.500	2.000	1.500 to 5.000
Boulder Hole	9	3.400	2.0585	0.6862	1.818 to 4.982	3.300	3.500	1.500 to 5.000

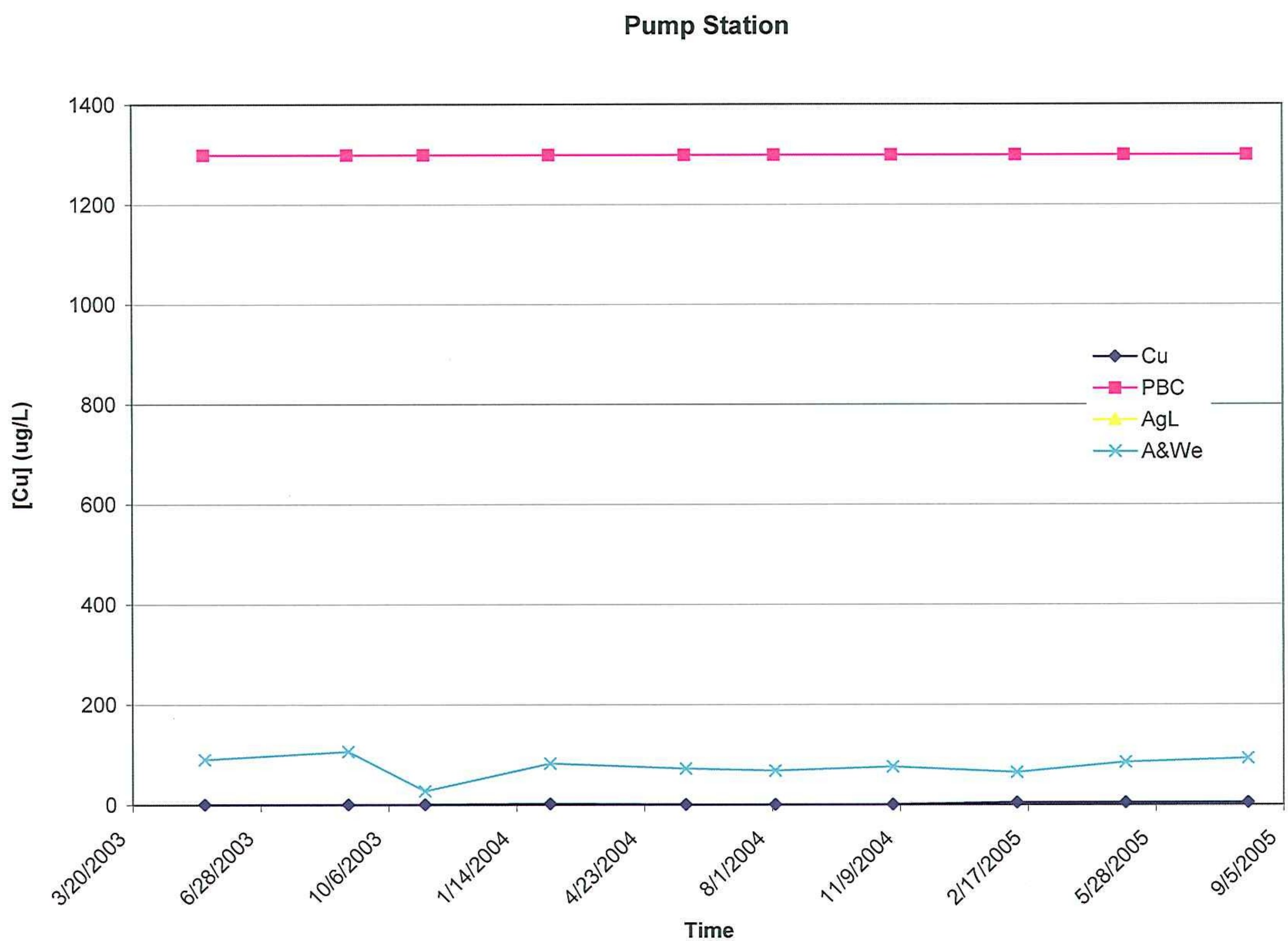

Bored Spring
1400
1200
1000
800
600
400
200
0
[Cu] (ug/L)
Cu
FBC
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time



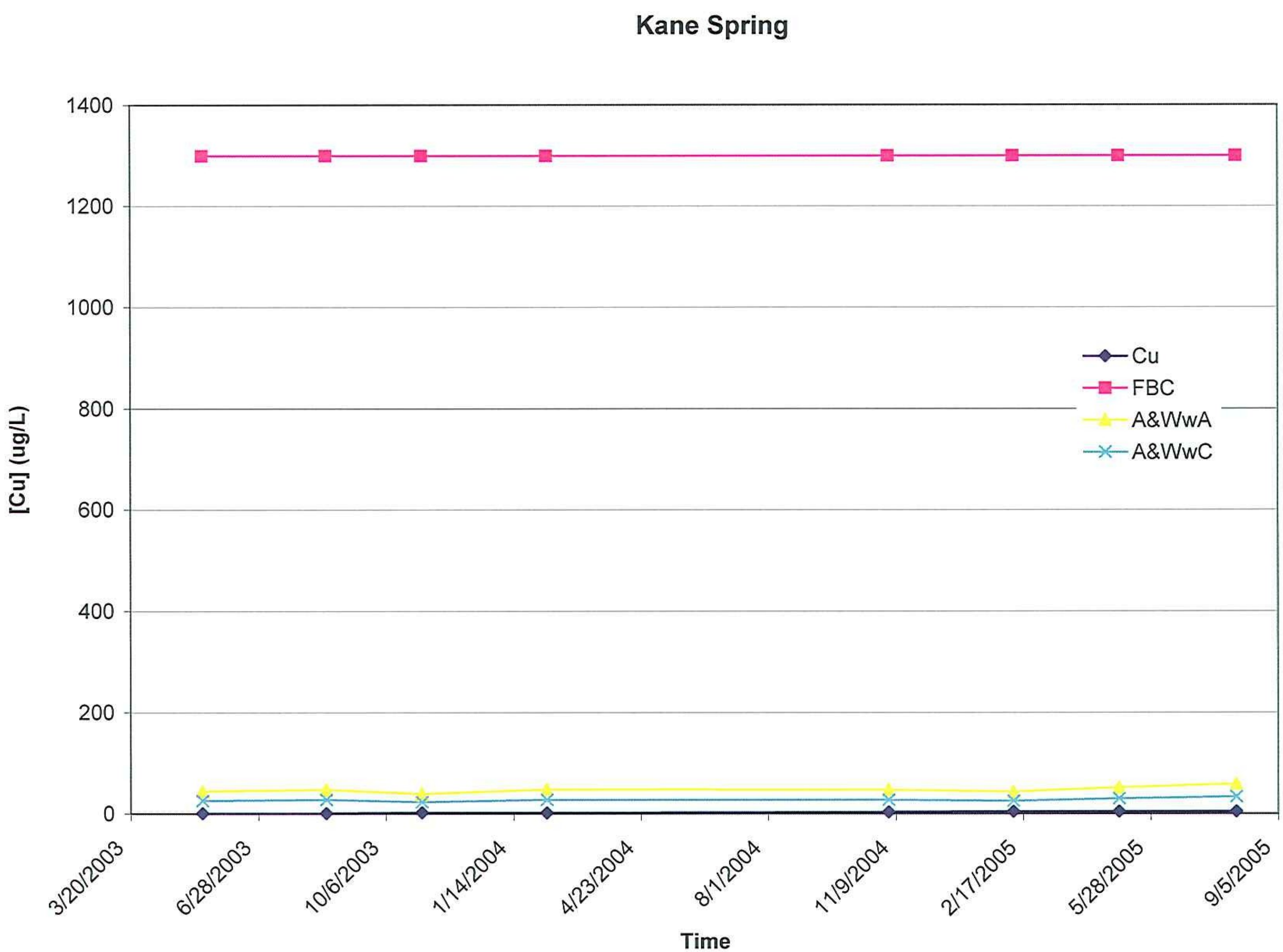
Boulder Hole
[Cu] (ug/L)
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time
Cu
PBC
AgL
A&We

Queen Creek 27.3

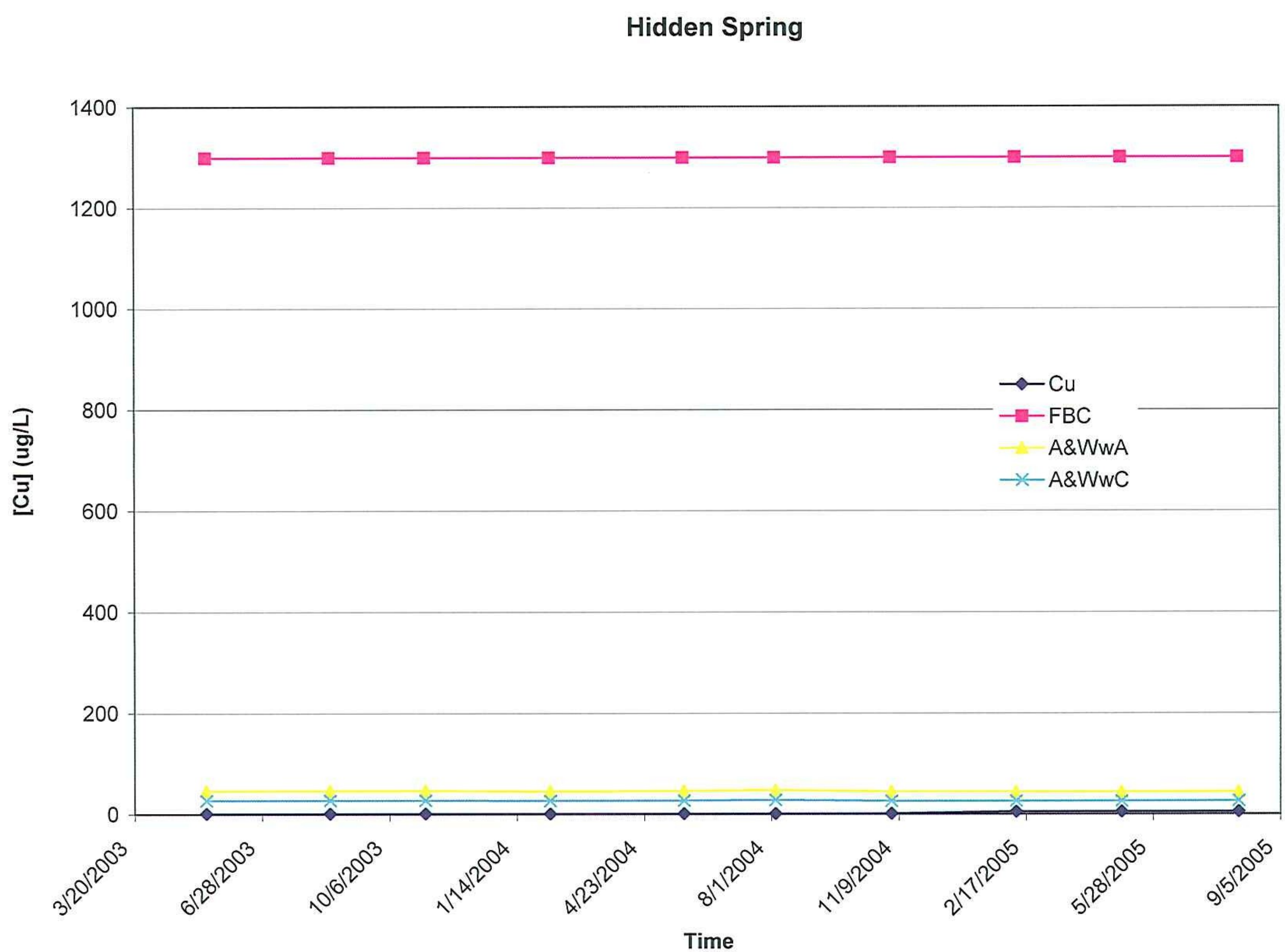




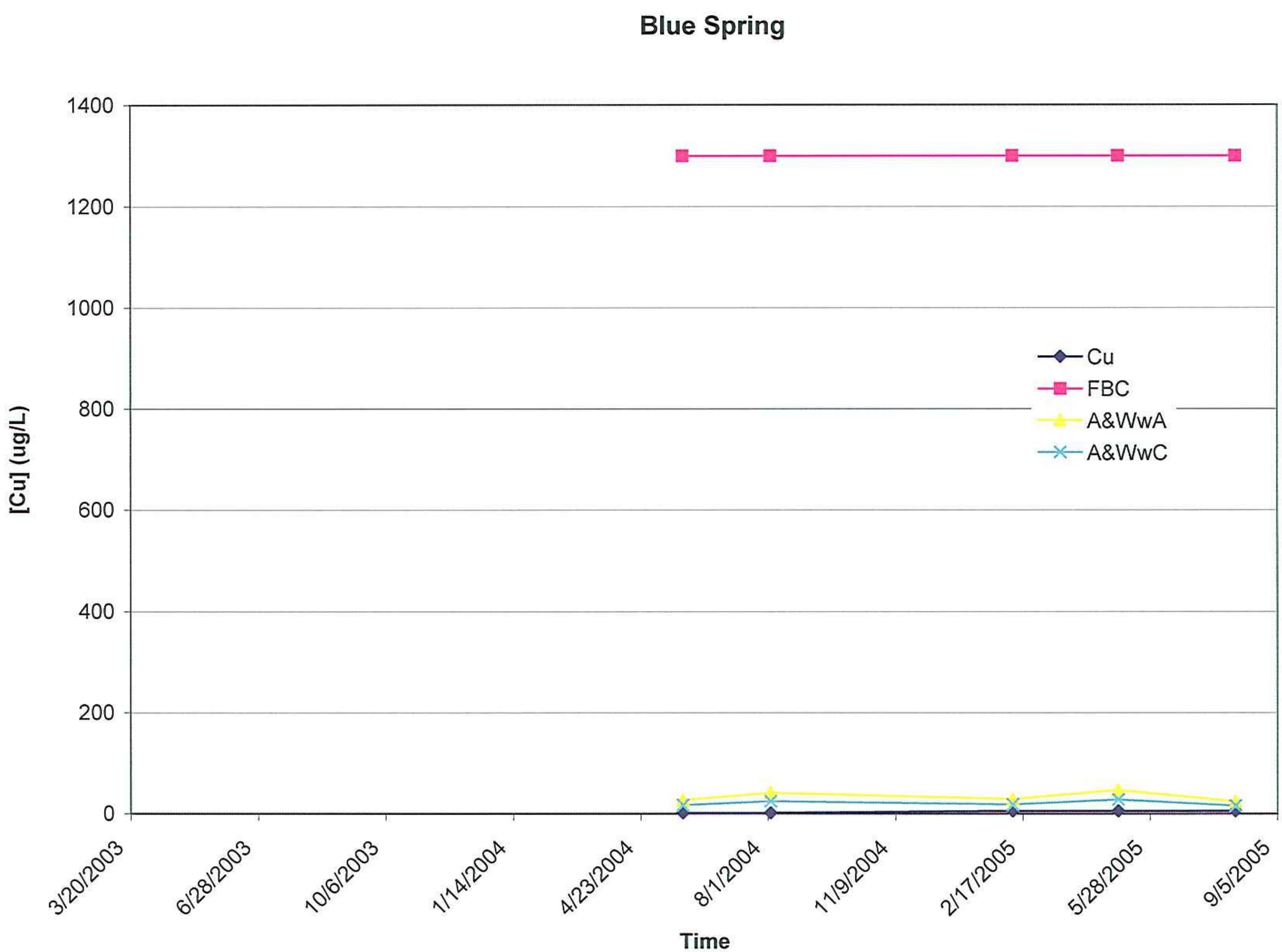
Pump Station
1400
1200
1000
800
600
400
200
0
[Cu] (ug/L)
Cu
PBC
AgL
A&We
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time



Kane Spring
1400
1200
1000
800
600
400
200
0
[Cu] (ug/L)
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time
Cu
FBC
A&WwA
A&WwC

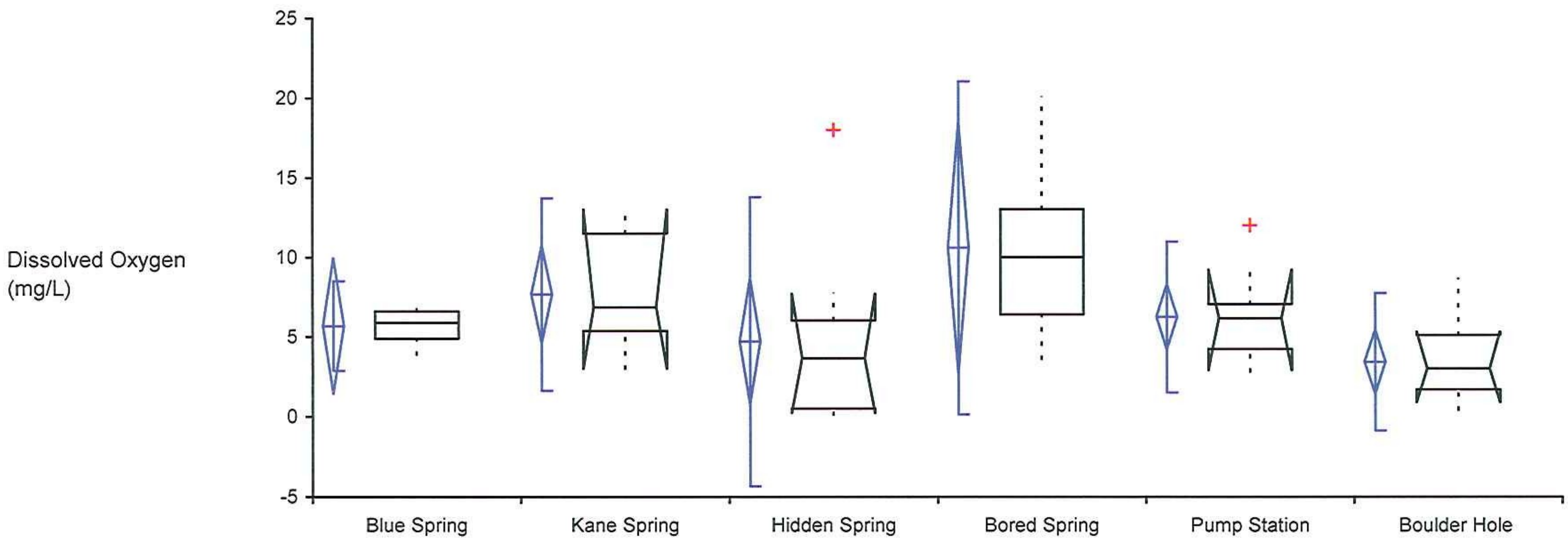


Hidden Spring
[Cu] (ug/L)
1400
1200
1000
800
600
400
200
0
Cu
FBC
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

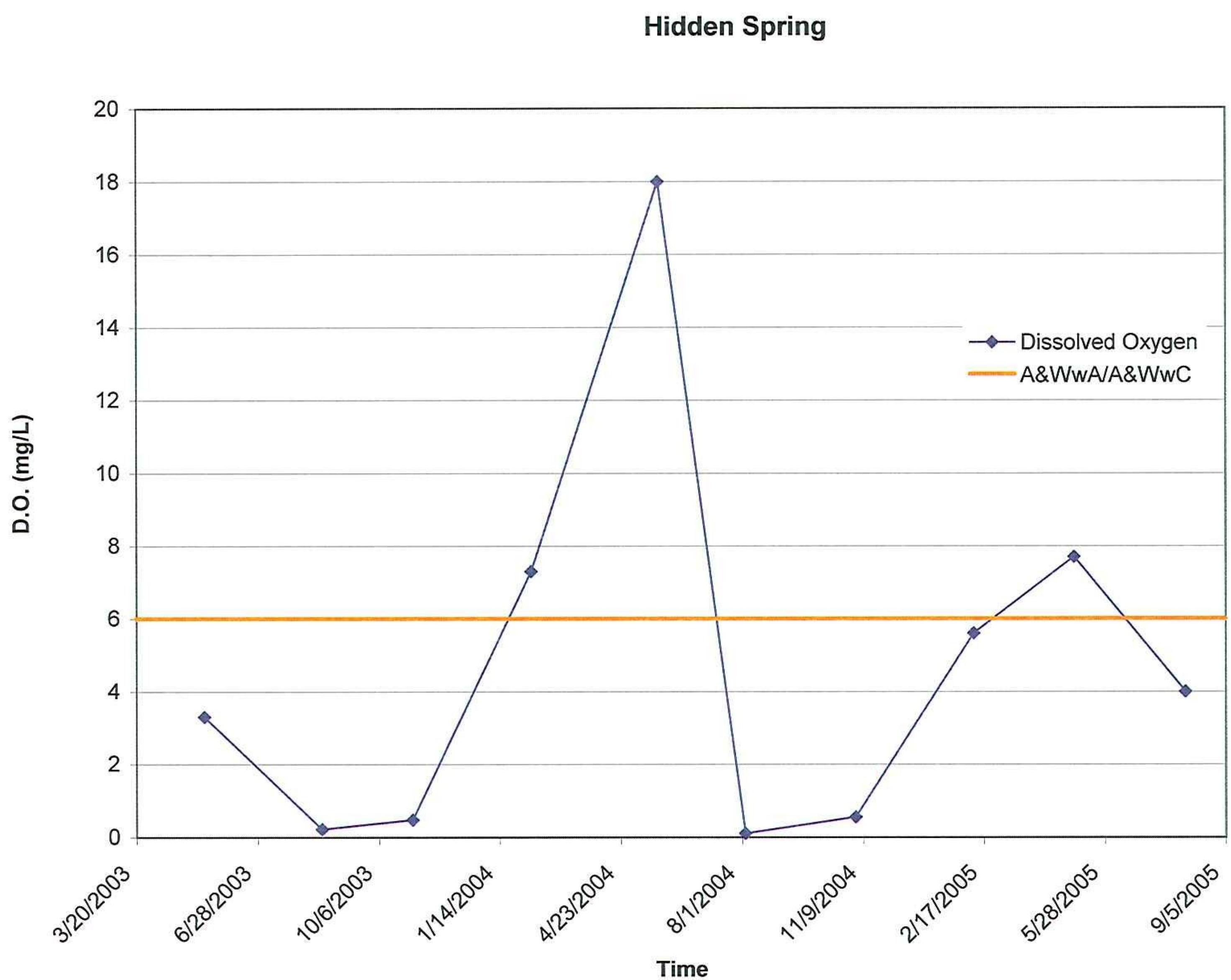


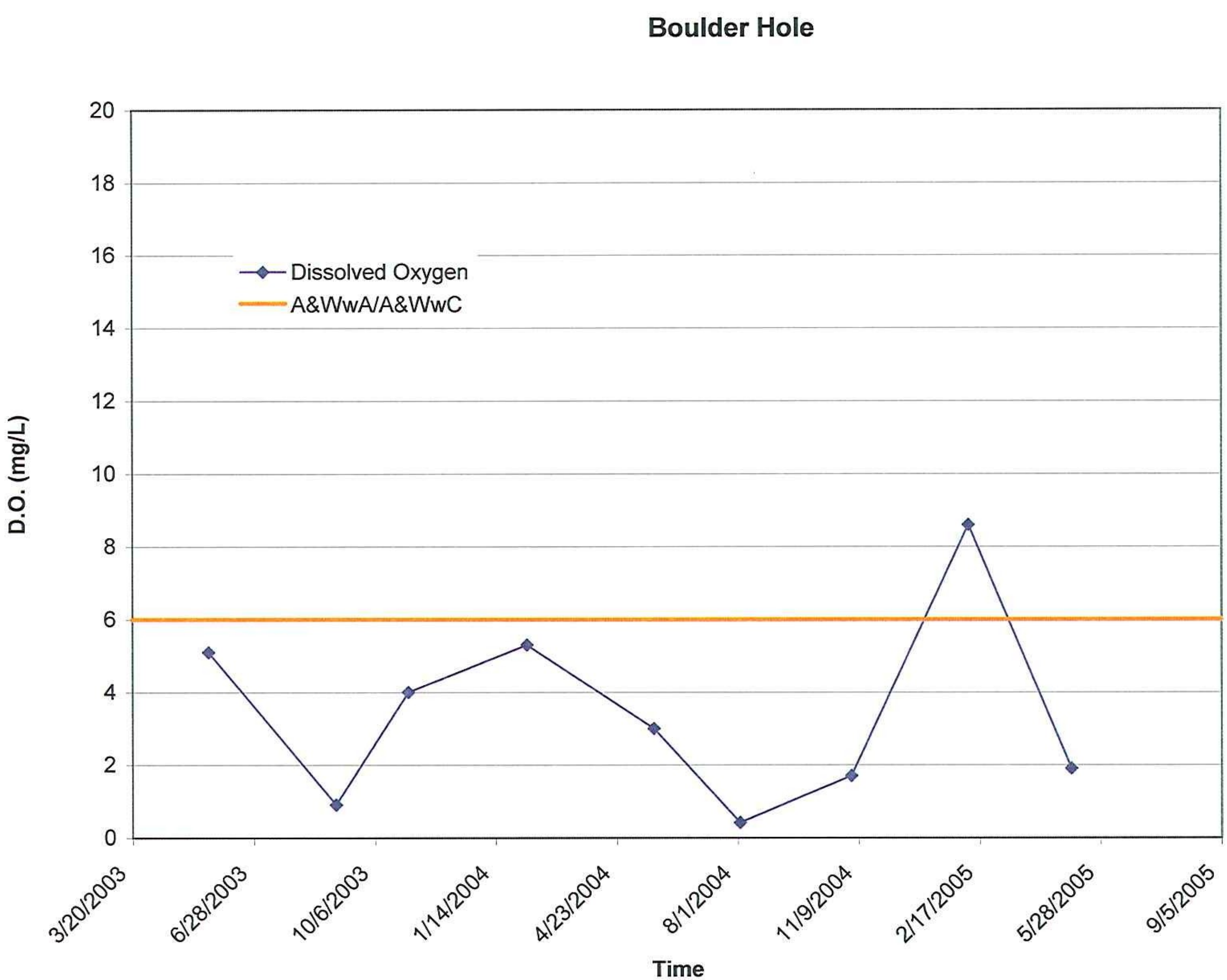
Blue Spring
[Cu] (ug/L)
1400
1200
1000
800
600
400
200
0
Cu
FBC
A&WwA
A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

Test	**Comparative descriptives**
Variables	Dissolved Oxygen: Blue Spring, Kane Spring, Hidden Spring, Bored Spring, Pump Station, Boulder Hole
Performed by	omorfin
Date	8 June 2006

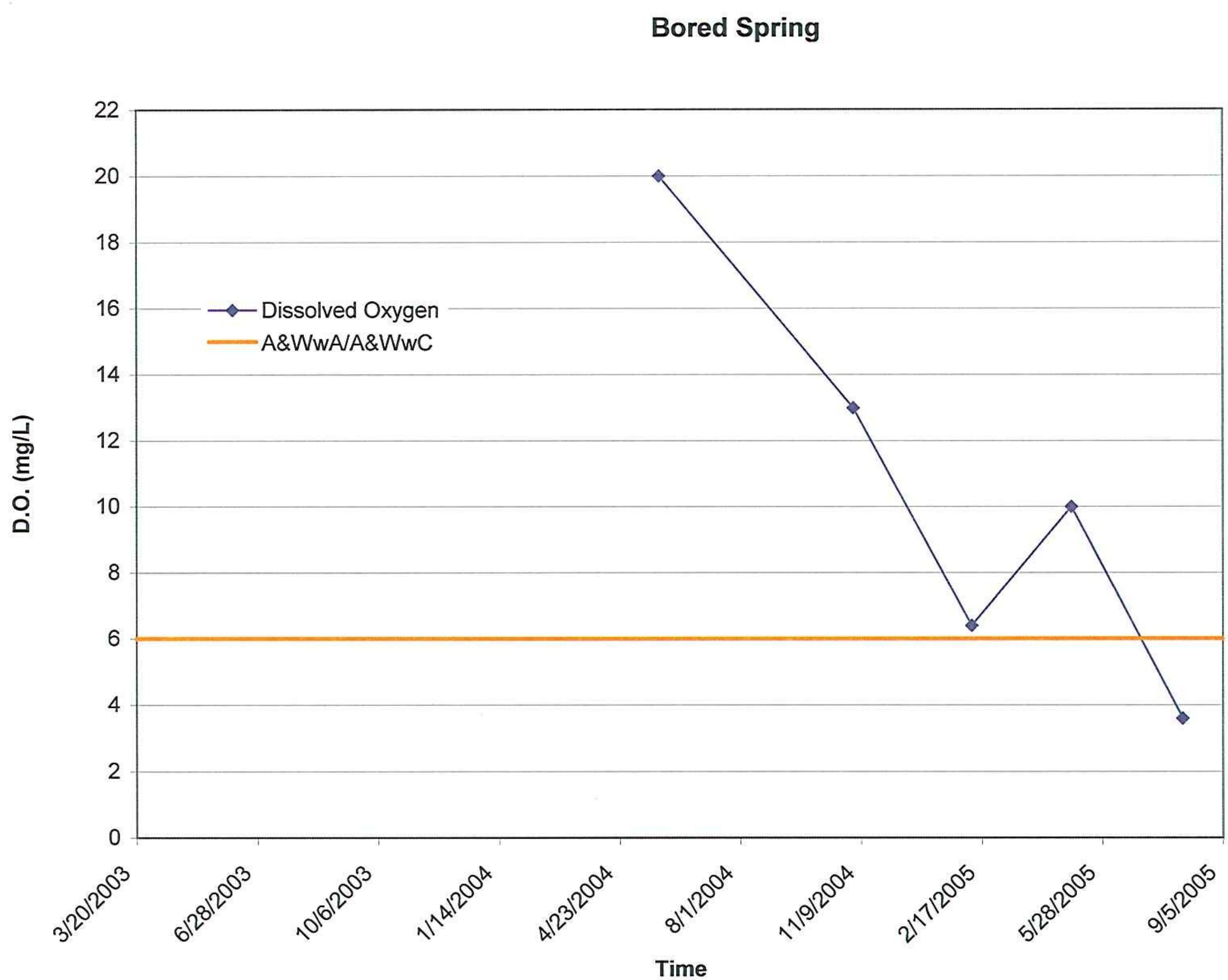


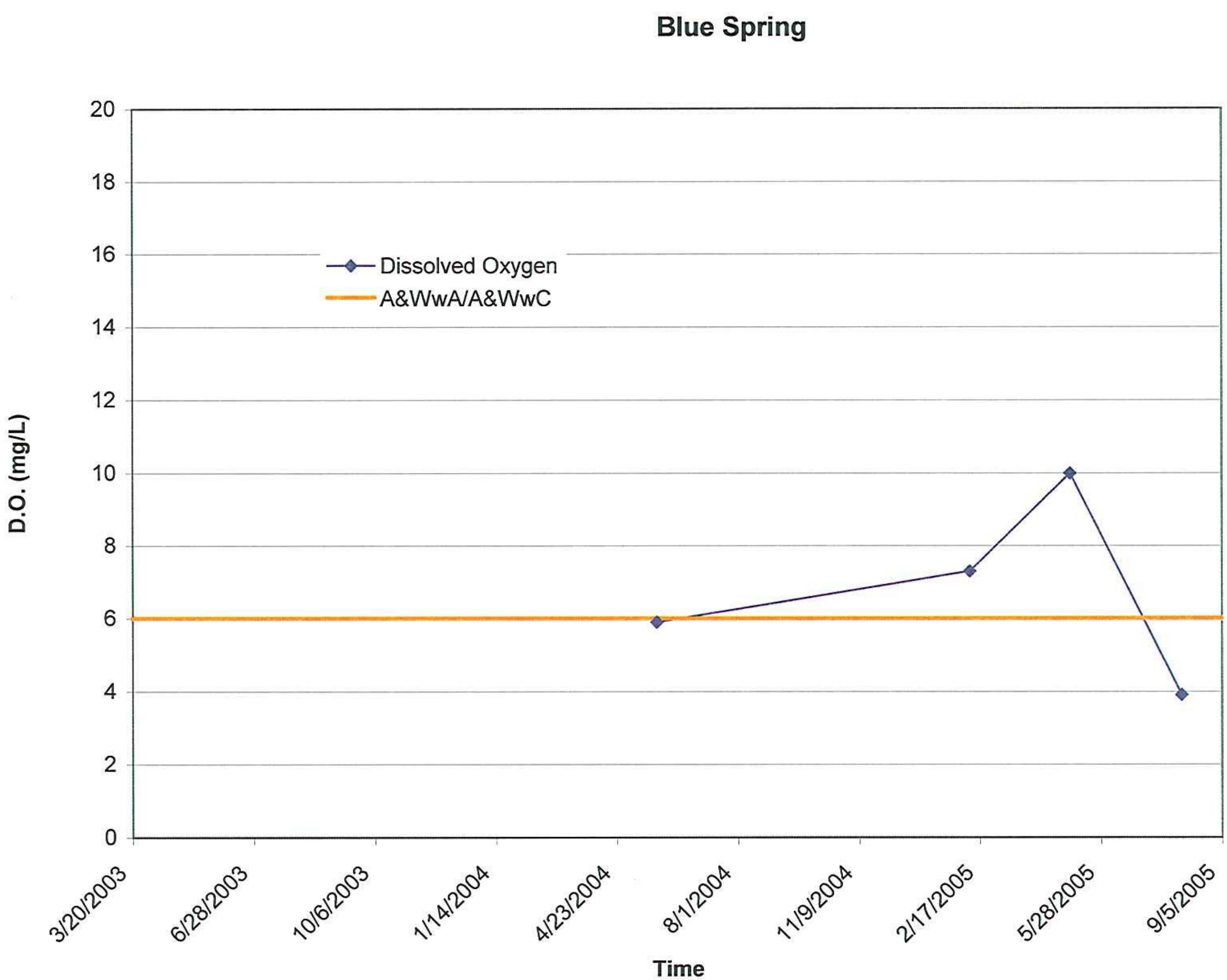
Dissolved Oxygen	n	Mean	SD	SE	95% CI of Mean	Median	IQR	95% CI of Median
Blue Spring	3	5.700	1.7088	0.9866	1.455 to 9.945	5.900	1.700	- to -
Kane Spring	8	7.675	3.6625	1.2949	4.613 to 10.737	6.850	6.125	3.000 to 13.000
Hidden Spring	10	4.727	5.4974	1.7384	0.794 to 8.660	3.650	5.525	0.220 to 7.700
Bored Spring	5	10.600	6.3467	2.8383	2.720 to 18.480	10.000	6.600	- to -
Pump Station	10	6.250	2.8710	0.9079	4.196 to 8.304	6.150	2.825	2.900 to 9.200
Boulder Hole	9	3.436	2.6057	0.8686	1.433 to 5.439	3.000	3.400	0.900 to 5.300

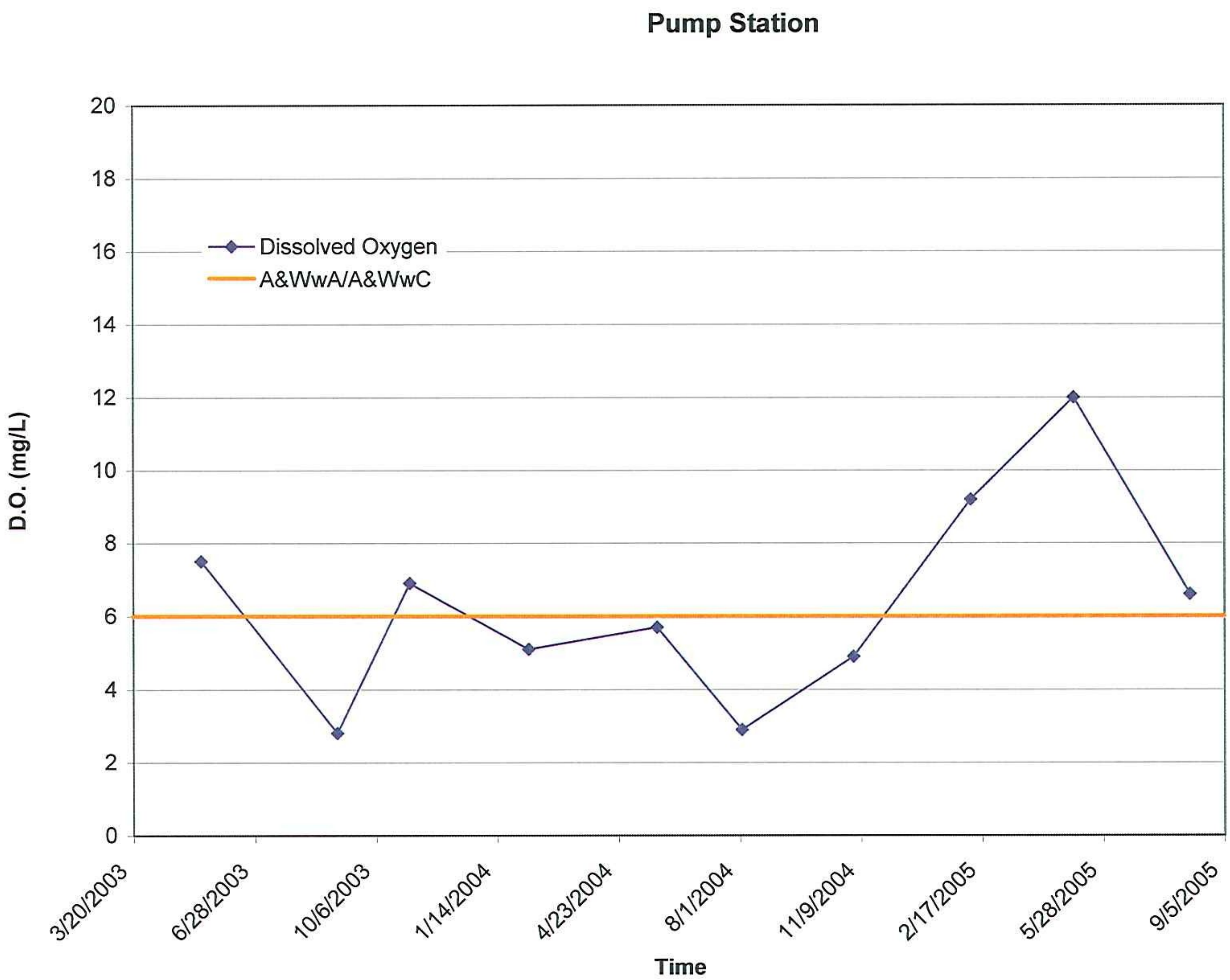

Hidden Spring
D.O. (mg/L)
20
18
16
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time
Dissolved Oxygen
A&WwA/A&WwC



Boulder Hole
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
0
2
4
6
8
10
12
14
16
18
20
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

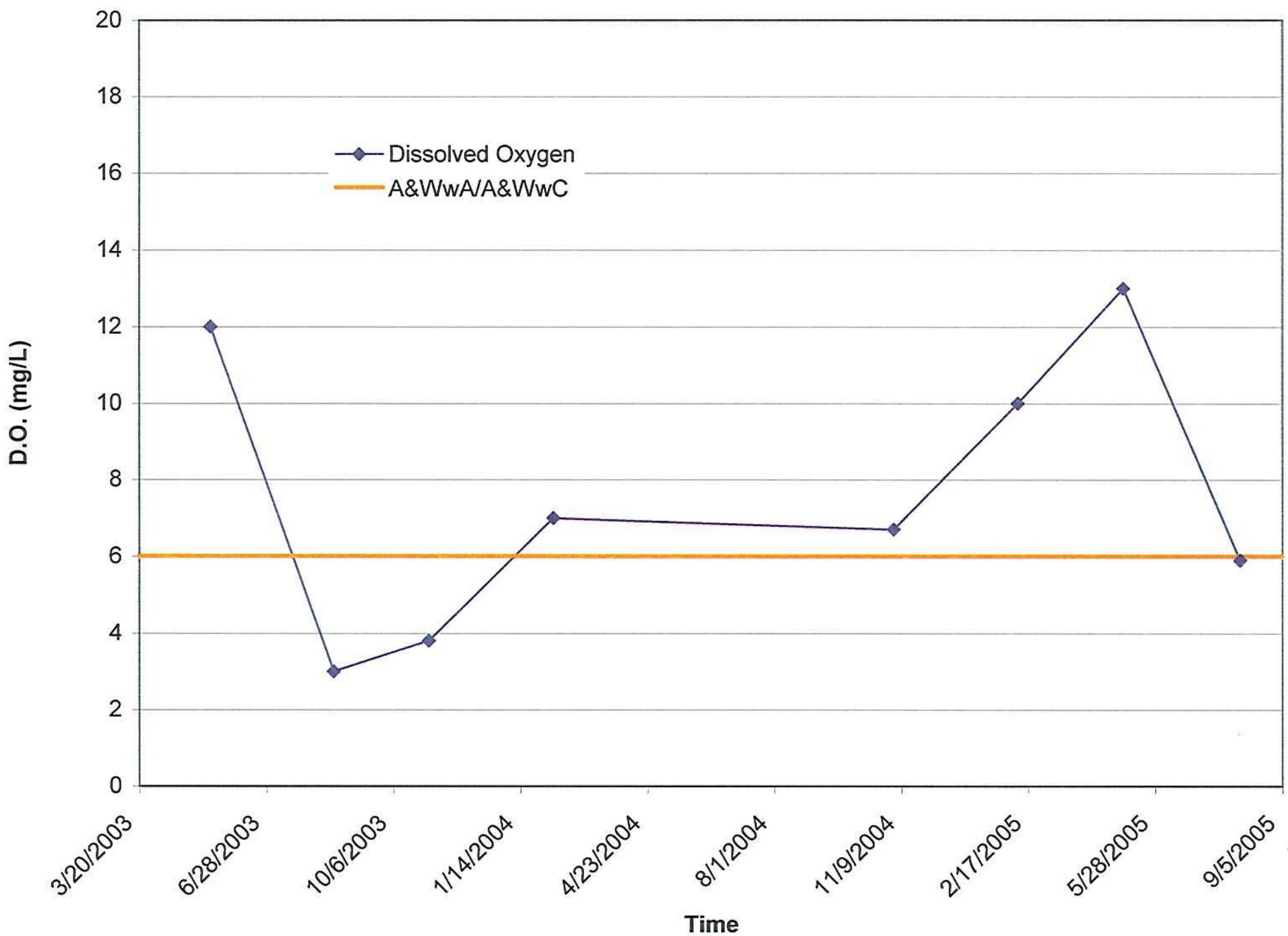

Bored Spring
D.O. (mg/L)
22
20
18
16
14
12
10
8
6
4
2
0
Dissolved Oxygen
A&WwA/A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time


Blue Spring
Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
20
18
16
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

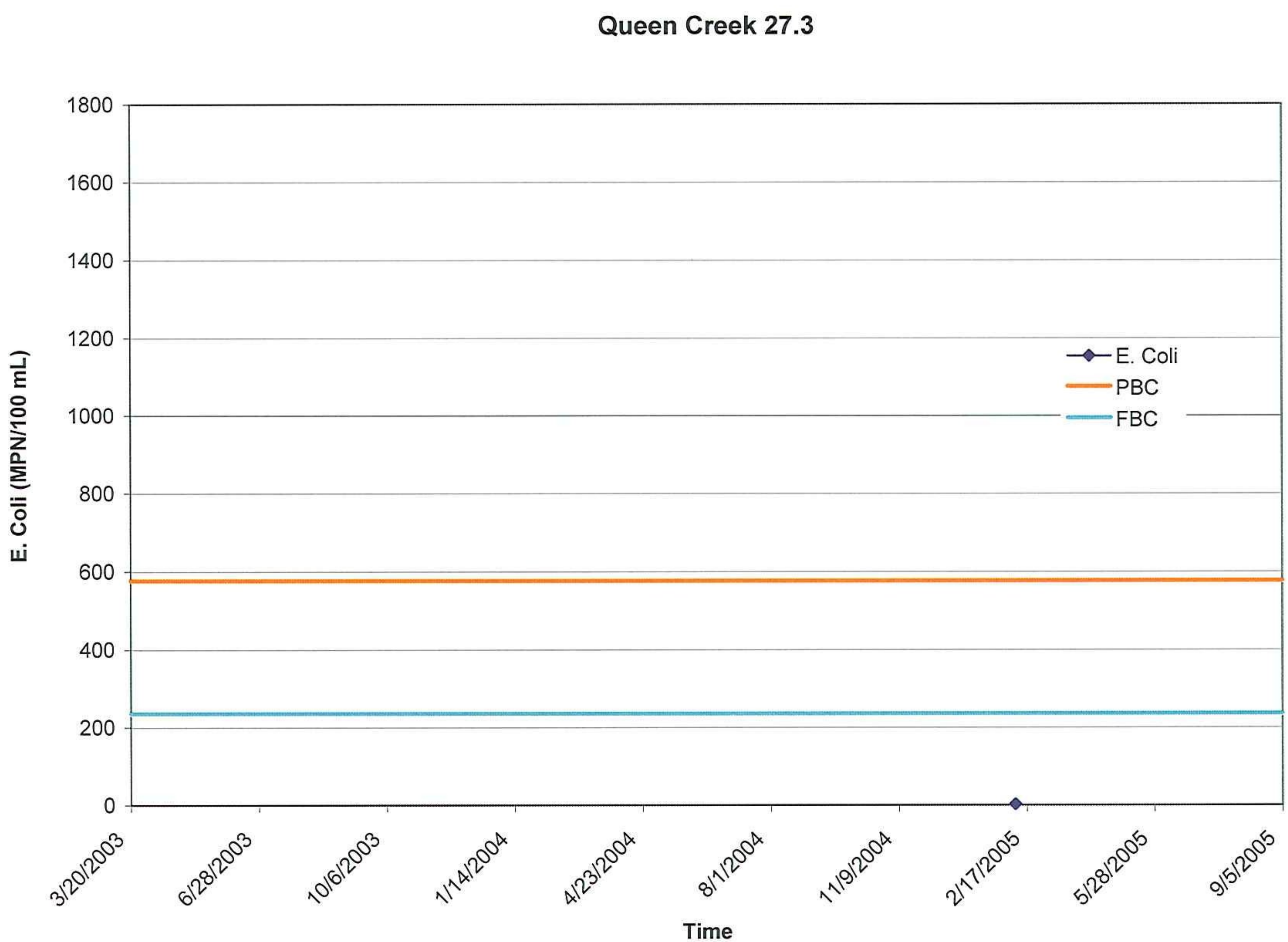


Pump Station
D.O. (mg/L)
20
18
16
14
12
10
8
6
4
2
0
Dissolved Oxygen
A&WwA/A&WwC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

Kane Spring



Dissolved Oxygen
A&WwA/A&WwC
D.O. (mg/L)
20
18
16
14
12
10
8
6
4
2
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time


Queen Creek 27.3
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli
PBC
FBC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

APPENDIX E

DATA VALIDATION REPORTS

MAY 2003 SAMPLING EVENT

June 2, 2006

Dr. Casey McKeon
Resolution Copper Company
47206 North Magma Shaft #9 Road
Superior, Arizona 85273

RE: ITSI DATA VALIDATION REPORT
RESOLUTION COPPER
PURCHASE ORDER NO. H00414
SDG 106003

Dear Dr. McKeon:

Innovative Technical Solutions, Inc. (ITSI) has completed the data review for Resolution Copper Company (RCC) for its surface water baseline resource investigation. ITSI performed data review as described in the U.S. Environmental Protection Agency's (EPA) *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004; the *Quality Assurance Plan Surface Water Baseline Resource Investigation for Resolution Copper Company*, January 23, 2006; and using criteria in the referenced methods.

The acronym listing is included as Appendix A. Data review qualifiers have been marked in red directly on the analytical reports provided by the laboratory and are attached as Appendix B. A summary of all qualified data is provided in a qualified results table (QRT) as Appendix C. Laboratory communications are provided as Appendix D. The ITSI standard legal notice is provided as Appendix E.

1.0 CROSS REFERENCE OF SAMPLES VERIFIED

The analytical data in the laboratory Sample Delivery Group (SDG) indicated below were reviewed. This SDG contained data for the following methods and compounds.

- Metals
  - Inductively coupled plasma (ICP) metals by EPA Method 200.7
  - Cold vapor atomic absorption (CVAA) mercury by EPA Method 245.1
  - Atomic absorption (AA), furnace technique for antimony (EPA Method 204.2), arsenic (EPA Method 206.2), cadmium (EPA Method 213.2), lead (EPA Method 239.2), selenium (EPA Method 270.2), silver (EPA Method 272.2) and thallium (EPA Method 279.2)

- General Chemistry Methods
  - Alkalinity, $CaCO_3$ by Standard Method (SM) 2320B
  - Cyanide-free by EPA SM 4500F
  - Ion chromatography (IC) anions by EPA Method 300.0
  - Sulfide by EPA 376.1
  - Total dissolved solids (TDS) by EPA Method 160.1
  - Total Settable Solids (TSS) by EPA Method 160.2

The samples were analyzed by SVL Analytical of Kellogg, Idaho (SVL). The table below provides an analytical summary and cross reference for the sample(s). All samples underwent a level 2 data validation.

Field Sample ID	SVL SDG	Type	Sample Matrix	Metals	General Chemistry
RESE-1001009	W334213	Total	Water	X	X
RESE-1001010	W334214	Total	Water	X	X
RESE-1001011	W334215	Total	Water	X	X
RESE-1001012	W334216	Total	Water	X	X
RESE-1001013	W334217	Total	Water	X	X
RESE-1001009	W334218	Dissolved	Water	X	
RESE-1001010	W334219	Dissolved	Water	X	
RESE-1001011	W334220	Dissolved	Water	X	
RESE-1001012	W334221	Dissolved	Water	X	
RESE-1001013	W334222	Dissolved	Water	X	
RESE-1001009	W334534	Total Recoverable	Water	X	
RESE-1001010	W334535	Total Recoverable	Water	X	
RESE-1001011	W334536	Total Recoverable	Water	X	
RESE-1001012	W334537	Total Recoverable	Water	X	
RESE-1001013	W334538	Total Recoverable	Water	X	

2.0 LABORATORY REPORT

The laboratory used data qualifier flags that are addressed in Section 4.0 to indicate quality control (QC) exceedences. There were no anomalies in the case narrative except as noted below.

- "SVL not certified for cyanide-free (Method 4500F) in AZ."

3.0 SAMPLE INTEGRITY

The chains-of-custody (COC) were available for review. There was one anomaly concerning the temperature of the samples upon receipt at the laboratory. Any qualification of the data due to the temperature anomaly is discussed for each method in section 4.0.

4.0 DATA EVALUATION

4.1 ICP METALS BY EPA METHOD 200.7 AND AA METALS BY EPA METHODS 204.2, 206.2, 213.2, 239.2, 270.2, 272.2 AND 279.2

4.1.1 Sample Receipt and Holding Times

The samples were extracted and analyzed within the method-recommended holding time. There were no anomalies concerning the receipt of the samples that required qualification of the data.

4.1.2 Blank Evaluation

Preparation and calibration blanks were analyzed to assess laboratory contamination. The same preparation blank is associated with all total dissolved and total recoverable metal analyses. There were no anomalies in the reported blanks that required qualification of the data.

4.1.3 Initial and Continuing Calibration

The initial and continuing calibration data and summaries were reviewed. All calibration standards were analyzed at the proper frequency and met the method or Quality Assurance Project Plan (QAPP) criteria except as noted below.

- The percent recoveries for arsenic were out of the criteria of 90 to 100 percent in the continuing calibrations associated with all total metal samples and dissolved metal sample RESE-1001009. Since the recovery was biased low, the associated positive results have been flagged "J" for an estimated value and the non-detect results have been flagged "UJ" for an estimated reporting limit (RL).

4.1.4 Second Source Calibration Verification (SSCV)

The SSCVs were reviewed. There were no anomalies that required qualification of the data.

4.1.5 Laboratory Control Samples (LCS)/Laboratory Control Samples Duplicate (LCSD)

A single LCS was analyzed for all of the total, dissolved and total recoverable metal samples. There were no anomalies that required qualification of the data.

4.1.6 Matrix Spike (MS)/Matrix Spike Duplicate (MSD) and Duplicate Samples

An MS and sample duplicate were analyzed for each metal analysis. There were no anomalies that required qualification of the data except as noted below.

- The percent recovery for antimony was out of the QAPP criteria of 86 to 115 percent at 80 percent in the MS associated with the total recoverable metal analysis. Since the recovery indicated a low bias and the LCS recoveries were acceptable, only the results in the spiked sample RESE-1009009, which was non-detect, has been flagged "UJ" for an estimated RL.

4.1.7 Detection Limit Check Standard (CRDL)

A CRDL check standard was analyzed prior to the samples analysis. There were no anomalies that required qualification of the data except as noted below.

- The percent recoveries for calcium, copper, iron and manganese were out of the criteria of 70 to 130 percent at 64, 60, 67 and 60 percent, respectively, in the CRDL associated with the ICP analysis of all the metal fractions. The associated results that were less than two times the RL have been flagged "J-" for an estimated result with a low bias. The non-detect results have been flagged "UJ" for an estimated RL.

4.1.8 Serial Dilution

A serial dilution was performed on a sample from this SDG to check for physical or chemical interferences in the sample matrix. There were no anomalies that required qualification of the data except as noted below.

- The percent difference for silica was out of the criteria of less than 10 percent at 11 percent in the serial dilution associated with the total metal analysis. The associated positive results have been flagged "J" for an estimated value. No qualifier flags are required for the non-detect results.

4.1.9 Practical Quantitation Limits (PQLs) and Compound Quantitation

The laboratory PQLs and results were reviewed. There were no quantitation anomalies except as noted below.

- The laboratory PQL for total potassium is 1.0 mg/L, which is greater than the QAPP criteria of 0.50 mg/L. Since there is no Arizona Surface Water Standard for potassium, the data are useable for their intended purpose.

4.1.10 Instrument Performance

The interference check sample was reviewed. There were no anomalies that required qualification of the data.

4.1.11 Field Duplicate Samples

Field duplicate samples were not identified

4.1.12 Assessment for Metals

There were no rejected metal analytical results. Based on the available information, the data as qualified are considered useable for their intended purposes.

4.2 GENERAL CHEMISTRY METHODS

4.2.1 Sample Receipt and Holding Times

There were no anomalies concerning the receipt of the samples or holding time that required qualification of the data except as noted below.

- The temperatures of the samples upon receipt at the laboratory were out of the criteria of 4 ± 2 degrees Celsius (°C) at 7 °C and 8 °C. The associated results for alkalinity, TDS, TSS, cyanide, sulfate and sulfide have either been flagged "J" for an estimated value or "UJ" for an estimated RL. No data qualifiers are required for the chloride, bromide and fluoride results.

- The samples were analyzed three or four days past the holding time of 14 days for alkalinity. The associated positive results have been flagged "J" for an estimated value, and the non-detect results have been flagged "UJ" for an estimated RL.

4.2.2 Blank Evaluation

Method blanks were analyzed to assess laboratory contamination. There were no anomalies in the reported blanks that required qualification of the data.

4.2.3 Initial and Continuing Calibration Evaluation

The laboratory case narrative and laboratory data flags did not indicate any anomalies concerning the calibration that required qualification of the data. The calibration data and summaries were reviewed for the level 2 data validation. All initial and continuing standards were analyzed at the proper frequency, and the standards met the method or QAPP criteria.

4.2.4 SSCV

The SSCVs were reviewed. There were no anomalies that required qualification of the data.

4.2.5 LCS/LCSD

A single LCS was reported for each analysis. There were no anomalies that required qualification of the data.

4.2.6 MS/MSD and Duplicate Samples

MS and/or sample duplicates were analyzed for each analysis except sulfide. There were no anomalies that required qualification of the data.

4.2.7 PQLs and Compound Quantitation

The laboratory PQLs and results were reviewed. There were no quantitation anomalies that required qualification of the data.

4.2.8 Field Duplicate Samples

Field duplicate samples were not identified.

4.2.9 Assessment for General Chemistry

There were no rejected general chemistry analytical results. Based on the available information, the data as qualified are considered useable for their intended purposes.

5.0 OVERALL ASSESSMENT FOR SDG

There were no rejected analytical results in this SDG. Based on the available information, the data as qualified are considered useable for their intended purposes.

6.0 RECOMMENDATIONS

ITSI has the following recommendations.

- The laboratory should analyze an MSD or LCSD with each method to ensure that the analytical batch has precision in the event that the sample duplicate fails or the results of the original sample and the sample duplicate are non-detect.

- The laboratory should provide measurement of precision for the sulfide analysis.

- The laboratory should dry and weigh all samples for TDS and TSS until a constant weight is obtained or the weight loss is less than 0.5 milligrams (mg).

We thank you for the opportunity to serve you and look forward to supporting RCC with data verification in the future.

Sincerely,
Innovative Technical Solutions, Inc.

Evelyn H. Dawson
Senior Project Chemist

Enclosures:

Appendix A – List of Acronyms and Abbreviations
Appendix B – Qualified Report Pages
Appendix C – Qualified Results Table
Appendix D – Laboratory Communications
Appendix E – ITSI Standard Legal Notice

cc: John Malusa
Golder Associates, Inc.
4730 North Oracle Road, Suite 210
Tucson, Arizona, 85705

APPENDIX A

LIST OF ACRONYMS AND ABBREVIATIONS

LIST OF ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
COC	chain-of-custody
CRDL	Detection Limit Check Standard
AA	atomic absorption
CVAA	cold vapor atomic absorption
EPA	U.S. Environmental Protection Agency
IC	ion chromatography
ICP	inductively coupled plasma
ITSI	Innovative Technical Solutions, Inc.
LCS/LCSD	laboratory control samples/laboratory control samples duplicate
MS/MSD	matrix spike/matrix spike duplicate
PQL	practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	quality control
QRT	qualified results table
RCC	Resolution Copper Company
RL	reporting limit
SDG	Sample Delivery Group
SM	Standard Method
SSCV	Second Source Calibration Verification
SVL	SVL Analytical
TDS	Total Dissolved Solids
TSS	Total Settable Solids

LIST OF VALUE FLAGS

J	estimated value
J-	estimated value, low bias
J+	estimated value, high bias
R	rejected, not useable
U	not detected
UJ	estimated reporting limit
UR	rejected, unusable RL

APPENDIX B

QUALIFIED REPORT PAGES

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SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001009
Sample Collected: 5/29/03
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334213
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	Alkalinity,CaCO3	148	mg CaCO3/L		2320	6/16/03	J
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	HCO3, CaCO3	148	mg CaCO3/L		2320	6/16/03	J
T	TDS	199	mg/L		160.1	6/05/03	J
T	TSS	<5.0	mg/L		160.2	6/05/03	J
T	Calcium	31.2	mg/L		200.7	6/09/03	
T	Chloride	7.92	mg/L		300.0	6/12/03	
T	CYANIDE - FREE	<0.10	mg/L		4500F	6/09/03	J
T	Hardness	106	mg CaCO3/L		200.7	6/09/03	
T	Potassium	2.4	mg/L		200.7	6/09/03	
T	Magnesium	6.72	mg/L		200.7	6/09/03	
T	Sodium	21.7	mg/L		200.7	6/09/03	
T	Sulfide	<1.0	mg/L		376.1	6/05/03	J
T	Sulfate, SO4	0.92	mg/L		300.0	6/12/03	J
T	Silver	<0.00010	mg/L		272.2	6/09/03	
T	Aluminum	<0.020	mg/L		200.7	6/09/03	
T	Arsenic	0.0090	mg/L		206.2	6/10/03	J
T	Beryllium	<0.0020	mg/L		200.7	6/09/03	
T	Cadmium	<0.00010	mg/L		213.2	6/09/03	
T	Cobalt	<0.0060	mg/L		200.7	6/09/03	
T	Copper	<0.0030	mg/L		200.7	6/09/03	J
T	Iron	0.206	mg/L		200.7	6/09/03	
T	Mercury	<0.00020	mg/L		245.1	6/13/03	
T	Molybdenum	<0.0080	mg/L		200.7	6/09/03	
T	Lead	<0.0050	mg/L		200.7	6/09/03	
T	Antimony	<0.0030	mg/L		204.2	6/10/03	
T	Selenium	<0.0030	mg/L		270.2	6/09/03	
T	Silica	51.5	mg/L		200.7	6/09/03	J
T	Zinc	<0.0050	mg/L		200.7	6/09/03	
D	Bromide	0.15	mg/L		300.0	6/12/03	
D	Fluoride	0.21	mg/L		300.0	6/12/03	
D	Silver	<0.00010	mg/L		272.2	6/09/03	
D	Arsenic	0.0080	mg/L		206.2	6/10/03	J
D	Boron	<0.040	mg/L		200.7	6/09/03	
D	Barium	0.0246	mg/L		200.7	6/09/03	
D	Beryllium	<0.0020	mg/L		200.7	6/09/03	

CalcTDS: 225.2	TDS/Cond:	CATION SUM:	3.12meq/L	BALANCE	
TDS/CalcTDS: 0.9	CalcTDS/Cond:	ANION SUM:	3.21meq/L	-1.42%	

Filtered fraction: 334218

Reviewed By: [signature] Date 9/23/03

9/23/03 12:36

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6/2/06

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SVL ANALYTICAL, INC.
One Government Gulch • P.O. Box 929 • Kellogg, Idaho 83837-0929 • Phone: (208)784-1258 • Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001009
Sample Collected: 5/29/03
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334218
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Cadmium	<0.00010	mg/L		213.2	6/09/03	
D	Copper	<0.0030	mg/L		200.7	6/09/03	J
D	Mercury	<0.00020	mg/L		245.1	6/13/03	
D	Nickel	<0.010	mg/L		200.7	6/09/03	
D	Lead	<0.0030	mg/L		239.2	6/09/03	
D	Antimony	<0.0030	mg/L		204.2	6/10/03	
D	Thallium	<0.0020	mg/L		279.2	6/10/03	
D	Zinc	<0.0050	mg/L		200.7	6/09/03	
TR	Silver	<0.00010	mg/L		272.2	6/09/03	
TR	Arsenic	0.0090	mg/L		206.2	6/10/03	
TR	Beryllium	<0.0020	mg/L		200.7	6/09/03	
TR	Cadmium	<0.00010	mg/L		213.2	6/09/03	
TR	Chromium	<0.0060	mg/L		200.7	6/09/03	
TR	Copper	<0.0030	mg/L		200.7	6/09/03	J
TR	Manganese	0.137	mg/L		200.7	6/09/03	
TR	Nickel	<0.010	mg/L		200.7	6/09/03	
TR	Lead	<0.0030	mg/L		239.2	6/09/03	
TR	Antimony	<0.0030	mg/L		204.2	6/10/03	J
TR	Selenium	<0.0030	mg/L		270.2	6/09/03	
TR	Thallium	<0.0020	mg/L		279.2	6/10/03	
TR	Zinc	<0.0050	mg/L		200.7	6/09/03	

Tot.Rec. fraction: 334534
M3(SIO2)THE ACCURACY OF THE SPIKE RECOVERY VALUE IS REDUCED SINCE THE ANALYTE CONCENTRATION IN THE SAMPLE IS DISPROPORTIONATE TO SPIKE LEVEL.THE METHOD CONTROL SAMPLE RECOVERY WAS ACCEPTABLE.
M5(AS,SB,SE)ANALYTE CONCENTRATION WAS DETERMINED BY THE METHOD OF STANDARD ADDITION
H1(ALK,CO3,HC03)SAMPLE ANALYSIS PERFORMED PAST HOLDING TIME
SVL NOT CERTIFIED FOR CYANIDE-FREE(METHOD 4500F) IN AZ

Reviewed By: ________ Date 9/23/03
9/23/03 12:36

PC LTJ)
6/2/04

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SVL ANALYTICAL, INC.

One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001010
Sample Collected: 5/29/03
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334214
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	Alkalinity, CaCO3	156	mg CaCO3/L		2320	6/16/03	J
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	HCO3, CaCO3	156	mg CaCO3/L		2320	6/16/03	J
T	TDS	258	mg/L		160.1	6/05/03	J
T	TSS	<5.0	mg/L		160.2	6/05/03	J
T	Calcium	32.7	mg/L		200.7	6/09/03	
T	Chloride	7.85	mg/L		300.0	6/12/03	
T	CYANIDE - FREE	<0.10	mg/L		4500F	6/09/03	J
T	Hardness	113	mg CaCO3/L		200.7	6/09/03	
T	Potassium	1.6	mg/L		200.7	6/09/03	
T	Magnesium	7.70	mg/L		200.7	6/09/03	
T	Sodium	26.6	mg/L		200.7	6/09/03	
T	Sulfide	<1.0	mg/L		376.1	6/05/03	J
T	Sulfate, SO4	7.09	mg/L		300.0	6/12/03	J
T	Silver	<0.00010	mg/L		272.2	6/09/03	
T	Aluminum	0.052	mg/L		200.7	6/09/03	
T	Arsenic	0.0040	mg/L		206.2	6/10/03	J
T	Beryllium	<0.0020	mg/L		200.7	6/09/03	
T	Cadmium	<0.00010	mg/L		213.2	6/09/03	
T	Cobalt	<0.0060	mg/L		200.7	6/09/03	
T	Copper	<0.0030	mg/L		200.7	6/09/03	J
T	Iron	0.061	mg/L		200.7	6/09/03	
T	Mercury	<0.00020	mg/L		245.1	6/13/03	
T	Molybdenum	<0.0080	mg/L		200.7	6/09/03	
T	Lead	<0.0050	mg/L		200.7	6/09/03	
T	Antimony	<0.0030	mg/L		204.2	6/10/03	
T	Selenium	<0.0060	mg/L	2	270.2	6/09/03	
T	Silica	83.1	mg/L		200.7	6/09/03	J
T	Zinc	<0.0050	mg/L		200.7	6/09/03	
D	Bromide	<0.10	mg/L		300.0	6/12/03	
D	Fluoride	0.42	mg/L		300.0	6/12/03	
D	Silver	<0.00010	mg/L		272.2	6/09/03	
D	Arsenic	0.0040	mg/L		206.2	6/10/03	
D	Boron	<0.040	mg/L		200.7	6/09/03	
D	Barium	0.0238	mg/L		200.7	6/09/03	
D	Beryllium	<0.0020	mg/L		200.7	6/09/03	

CalcTDS: 283.1	TDS/Cond:	CATION SUM:	3.47meq/L	BALANCE	
TDS/CalcTDS: 0.9	CalcTDS/Cond:	ANION SUM:	3.51meq/L	-0.57%	

Filtered fraction: 334219

Reviewed By: [signature] Date 9/23/03

9/23/03 12:36

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85

SVL ANALYTICAL, INC. Certificate: AZ AZ0538
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

CLIENT : Resolution Copper Company SVL JOB: 106003
PROJECT: 033-2504.2 SAMPLE: 334219
CLIENT SAMPLE ID: RESE-1001010 T/D/TR
Sample Collected: 5/29/03
Sample Receipt : 6/03/03 Matrix: WATERS
Date of Report : 6/18/03

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Cadmium	<0.00010	mg/L		213.2	6/09/03	
D	Copper	<0.0030	mg/L		200.7	6/09/03	J
D	Mercury	<0.00020	mg/L		245.1	6/13/03	
D	Nickel	<0.010	mg/L		200.7	6/09/03	
D	Lead	<0.0030	mg/L		239.2	6/09/03	
D	Antimony	<0.0030	mg/L		204.2	6/10/03	
D	Thallium	<0.0020	mg/L		279.2	6/10/03	
D	Zinc	<0.0050	mg/L		200.7	6/09/03	
TR	Silver	<0.00010	mg/L		272.2	6/09/03	
TR	Arsenic	0.0030	mg/L		206.2	6/10/03	
TR	Beryllium	<0.0020	mg/L		200.7	6/09/03	
TR	Cadmium	<0.00010	mg/L		213.2	6/09/03	
TR	Chromium	<0.0060	mg/L		200.7	6/09/03	
TR	Copper	<0.0030	mg/L		200.7	6/09/03	J
TR	Manganese	0.0086	mg/L		200.7	6/09/03	
TR	Nickel	<0.010	mg/L		200.7	6/09/03	
TR	Lead	<0.0030	mg/L		239.2	6/09/03	
TR	Antimony	<0.0030	mg/L		204.2	6/10/03	
TR	Selenium	<0.0060	mg/L	2	270.2	6/09/03	
TR	Thallium	<0.0020	mg/L		279.2	6/10/03	
TR	Zinc	<0.0050	mg/L		200.7	6/09/03	

Tot.Rec. fraction: 334535
M3(SIO2)THE ACCURACY OF THE SPIKE RECOVERY VALUE IS REDUCED SINCE THE ANALYTE CONCENTRATION IN THE SAMPLE IS DISPROPORTIONATE TO SPIKE LEVEL.THE METHOD CONTROL SAMPLE RECOVERY WAS ACCEPTABLE.
M5(AS,SB,SE)ANALYTE CONCENTRATION WAS DETERMINED BY THE METHOD OF STANDARD ADDITION
D1(SE)SAMPLE REQUIRED DILUTION DUE TO MATRIX INTERFERENCE.
H1(ALK,CO3,HCO3)SAMPLE ANALYSIS PERFORMED PAST HOLDING TIME
SVL NOT CERTIFIED FOR CYANIDE-FREE(METHOD 4500F) IN AZ

Reviewed By: LDCrow Date 9/23/03
9/23/03 12:36

PC ITJI
6/2/04

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SVL ANALYTICAL, INC.

One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001011
Sample Collected: 5/30/03
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334215
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	Alkalinity,CaCO3	27.8	mg CaCO3/L		2320	6/16/03	J
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	HCO3, CaCO3	27.8	mg CaCO3/L		2320	6/16/03	J
T	TDS	91	mg/L		160.1	6/05/03	J
T	TSS	<5.0	mg/L		160.2	6/05/03	J
T	Calcium	10.7	mg/L		200.7	6/09/03	
T	Chloride	7.60	mg/L		300.0	6/12/03	
T	CYANIDE - FREE	<0.10	mg/L		4500F	6/09/03	J
T	Hardness	38.5	mg CaCO3/L		200.7	6/09/03	
T	Potassium	2.3	mg/L		200.7	6/09/03	
T	Magnesium	2.88	mg/L		200.7	6/09/03	
T	Sodium	7.73	mg/L		200.7	6/09/03	
T	Sulfide	<1.0	mg/L		376.1	6/05/03	J
T	Sulfate, SO4	19.2	mg/L		300.0	6/12/03	J
T	Silver	<0.00010	mg/L		272.2	6/09/03	
T	Aluminum	0.035	mg/L		200.7	6/09/03	
T	Arsenic	0.0060	mg/L		206.2	6/10/03	J
T	Beryllium	<0.0020	mg/L		200.7	6/09/03	
T	Cadmium	<0.00010	mg/L		213.2	6/09/03	
T	Cobalt	<0.0060	mg/L		200.7	6/09/03	
T	Copper	0.0085	mg/L		200.7	6/09/03	
T	Iron	0.217	mg/L		200.7	6/09/03	
T	Mercury	<0.00020	mg/L		245.1	6/13/03	
T	Molybdenum	<0.0080	mg/L		200.7	6/09/03	
T	Lead	<0.0050	mg/L		200.7	6/09/03	
T	Antimony	<0.0030	mg/L		204.2	6/10/03	
T	Selenium	<0.0030	mg/L		270.2	6/09/03	
T	Silica	35.1	mg/L		200.7	6/09/03	J
T	Zinc	<0.0050	mg/L		200.7	6/09/03	
D	Bromide	0.35	mg/L		300.0	6/12/03	
D	Fluoride	0.17	mg/L		300.0	6/12/03	
D	Silver	<0.00010	mg/L		272.2	6/09/03	
D	Arsenic	0.0050	mg/L		206.2	6/10/03	
D	Boron	<0.040	mg/L		200.7	6/09/03	
D	Barium	0.0135	mg/L		200.7	6/09/03	
D	Beryllium	<0.0020	mg/L		200.7	6/09/03	

CalcTDS: 112.0	TDS/Cond:	CATION SUM:	1.18meq/L	BALANCE
TDS/CalcTDS: 0.8	CalcTDS/Cond:	ANION SUM:	1.18meq/L	0.00%

Filtered fraction: 334220

Reviewed By: [signature]

Date 9/23/03

9/23/03 12:36

PC ID1
4/25/06

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SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891
Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001011
Sample Collected: 5/30/03
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334220
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Cadmium	<0.00010	mg/L		213.2	6/09/03	
D	Copper	0.0047	mg/L		200.7	6/09/03	J-
D	Mercury	<0.00020	mg/L		245.1	6/13/03	
D	Nickel	<0.010	mg/L		200.7	6/09/03	
D	Lead	<0.0030	mg/L		239.2	6/09/03	
D	Antimony	<0.0030	mg/L		204.2	6/10/03	
D	Thallium	<0.0020	mg/L		279.2	6/10/03	
D	Zinc	<0.0050	mg/L		200.7	6/09/03	
TR	Silver	<0.00010	mg/L		272.2	6/09/03	
TR	Arsenic	0.0060	mg/L		206.2	6/10/03	
TR	Beryllium	<0.0020	mg/L		200.7	6/09/03	
TR	Cadmium	<0.00010	mg/L		213.2	6/09/03	
TR	Chromium	<0.0060	mg/L		200.7	6/09/03	
TR	Copper	0.0076	mg/L		200.7	6/09/03	
TR	Manganese	0.0804	mg/L		200.7	6/09/03	
TR	Nickel	<0.010	mg/L		200.7	6/09/03	
TR	Lead	<0.0030	mg/L		239.2	6/09/03	
TR	Antimony	<0.0030	mg/L		204.2	6/10/03	
TR	Selenium	<0.0030	mg/L		270.2	6/09/03	
TR	Thallium	<0.0020	mg/L		279.2	6/10/03	
TR	Zinc	<0.0050	mg/L		200.7	6/09/03	

Tot.Rec. fraction: 334536
M3(SIO2) THE ACCURACY OF THE SPIKE RECOVERY VALUE IS REDUCED SINCE THE ANALYTE CONCENTRATION IN THE SAMPLE IS DISPROPORTIONATE TO SPIKE LEVEL. THE METHOD CONTROL SAMPLE RECOVERY WAS ACCEPTABLE.
M5(AS,SB,SE) ANALYTE CONCENTRATION WAS DETERMINED BY THE METHOD OF STANDARD ADDITION
H1(ALK,CO3,HCO3) SAMPLE ANALYSIS PERFORMED PAST HOLDING TIME
SVL NOT CERTIFIED FOR CYANIDE-FREE(METHOD 4500F) IN AZ

Reviewed By: [signature] Date 9/23/03
9/23/03 12:36

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6/2/04

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SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001012
Sample Collected:
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334216
T/D/TR
Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	Alkalinity,CaCO3	27.9	mg CaCO3/L		2320	6/16/03	J
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	HCO3, CaCO3	27.9	mg CaCO3/L		2320	6/16/03	J
T	TDS	91	mg/L		160.1	6/05/03	J
T	TSS	<5.0	mg/L		160.2	6/05/03	J
T	Calcium	10.6	mg/L		200.7	6/09/03	
T	Chloride	7.62	mg/L		300.0	6/12/03	
T	CYANIDE - FREE	<0.10	mg/L		4500F	6/09/03	J
T	Hardness	38.5	mg CaCO3/L		200.7	6/09/03	
T	Potassium	2.3	mg/L		200.7	6/09/03	
T	Magnesium	2.90	mg/L		200.7	6/09/03	
T	Sodium	7.71	mg/L		200.7	6/09/03	
T	Sulfide	<1.0	mg/L		376.1	6/05/03	J
T	Sulfate, SO4	19.3	mg/L		300.0	6/12/03	J
T	Silver	<0.00010	mg/L		272.2	6/09/03	
T	Aluminum	0.044	mg/L		200.7	6/09/03	
T	Arsenic	0.0060	mg/L		206.2	6/10/03	J
T	Beryllium	<0.0020	mg/L		200.7	6/09/03	
T	Cadmium	<0.00010	mg/L		213.2	6/09/03	
T	Cobalt	<0.0060	mg/L		200.7	6/09/03	
T	Copper	0.0087	mg/L		200.7	6/09/03	
T	Iron	0.223	mg/L		200.7	6/09/03	
T	Mercury	<0.00020	mg/L		245.1	6/13/03	
T	Molybdenum	<0.0080	mg/L		200.7	6/09/03	
T	Lead	<0.0050	mg/L		200.7	6/09/03	
T	Antimony	<0.0030	mg/L		204.2	6/10/03	
T	Selenium	<0.0030	mg/L		270.2	6/09/03	
T	Silica	34.6	mg/L		200.7	6/09/03	J
T	Zinc	<0.0050	mg/L		200.7	6/09/03	
D	Bromide	0.12	mg/L		300.0	6/12/03	
D	Fluoride	0.18	mg/L		300.0	6/12/03	
D	Silver	<0.00010	mg/L		272.2	6/09/03	
D	Arsenic	0.0050	mg/L		206.2	6/10/03	
D	Boron	<0.040	mg/L		200.7	6/09/03	
D	Barium	0.0135	mg/L		200.7	6/09/03	
D	Beryllium	<0.0020	mg/L		200.7	6/09/03	

CalcTDS:	111.3	TDS/Cond:	CATION SUM:	1.18meq/L	BALANCE
TDS/CalcTDS:	0.8	CalcTDS/Cond:	ANION SUM:	1.18meq/L	0.00%

Filtered fraction: 334221

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9/23/03 12:36

PC ITRI
6/2/06

SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001012
Sample Collected:
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334221
T/D/TR
Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed
D	Cadmium	<0.00010	mg/L		213.2	6/09/03
D	Copper	0.0046	mg/L		200.7	6/09/03 J-
D	Mercury	<0.00020	mg/L		245.1	6/13/03
D	Nickel	<0.010	mg/L		200.7	6/09/03
D	Lead	<0.0030	mg/L		239.2	6/09/03
D	Antimony	<0.0030	mg/L		204.2	6/10/03
D	Thallium	<0.0020	mg/L		279.2	6/10/03
D	Zinc	<0.0050	mg/L		200.7	6/09/03
TR	Silver	<0.00010	mg/L		272.2	6/09/03
TR	Arsenic	0.0060	mg/L		206.2	6/10/03
TR	Beryllium	<0.0020	mg/L		200.7	6/09/03
TR	Cadmium	<0.00010	mg/L		213.2	6/09/03
TR	Chromium	<0.0060	mg/L		200.7	6/09/03
TR	Copper	0.0077	mg/L		200.7	6/09/03
TR	Manganese	0.0776	mg/L		200.7	6/09/03
TR	Nickel	<0.010	mg/L		200.7	6/09/03
TR	Lead	<0.0030	mg/L		239.2	6/09/03
TR	Antimony	<0.0030	mg/L		204.2	6/10/03
TR	Selenium	<0.0030	mg/L		270.2	6/09/03
TR	Thallium	<0.0020	mg/L		279.2	6/10/03
TR	Zinc	<0.0050	mg/L		200.7	6/09/03

Tot.Rec. fraction: 334537
NO SAMPLE DATE ON COC
M3(SIO2)THE ACCURACY OF THE SPIKE RECOVERY VALUE IS REDUCED SINCE THE ANALYTE CONCENTRATION IN THE SAMPLE IS DISPROPORTIONATE TO SPIKE LEVEL.THE METHOD CONTROL SAMPLE RECOVERY WAS ACCEPTABLE.
M5(AS,SB,SE)ANALYTE CONCENTRATION WAS DETERMINED BY THE METHOD OF STANDARD ADDITION
H1(ALK,CO3,HCO3)SAMPLE ANALYSIS PERFORMED PAST HOLDING TIME
SVL NOT CERTIFIED FOR CYANIDE-FREE(METHOD 4500F) IN AZ

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SVL ANALYTICAL, INC.

One Government Gulch • P.O. Box 929 • Kellogg, Idaho 83837-0929 • Phone: (208)784-1258 • Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT: 033-2504.2
CLIENT SAMPLE ID: RESE-1001013
Sample Collected:
Sample Receipt : 6/03/03
Date of Report : 6/18/03

SVL JOB: 106003
SAMPLE: 334217
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	Alkalinity,CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	HCO3, CaCO3	<1.0	mg CaCO3/L		2320	6/16/03	J
T	TDS	<10	mg/L		160.1	6/05/03	J
T	TSS	<5.0	mg/L		160.2	6/05/03	J
T	Calcium	<0.040	mg/L		200.7	6/09/03	J
T	Chloride	1.56	mg/L		300.0	6/12/03	
T	CYANIDE - FREE	<0.10	mg/L		4500F	6/09/03	J
T	Hardness	<0.265	mg CaCO3/L		200.7	6/09/03	
T	Potassium	<1.0	mg/L		200.7	6/09/03	
T	Magnesium	<0.040	mg/L		200.7	6/09/03	
T	Sodium	<0.50	mg/L		200.7	6/09/03	
T	Sulfide	<1.0	mg/L		376.1	6/05/03	J
T	Sulfate, SO4	<0.30	mg/L		300.0	6/12/03	J
T	Silver	<0.00010	mg/L		272.2	6/09/03	
T	Aluminum	<0.020	mg/L		200.7	6/09/03	
T	Arsenic	<0.0030	mg/L		206.2	6/10/03	J
T	Beryllium	<0.0020	mg/L		200.7	6/09/03	
T	Cadmium	<0.00010	mg/L		213.2	6/09/03	
T	Cobalt	<0.0060	mg/L		200.7	6/09/03	
T	Copper	<0.0030	mg/L		200.7	6/09/03	J
T	Iron	<0.020	mg/L		200.7	6/09/03	
T	Mercury	<0.00020	mg/L		245.1	6/13/03	
T	Molybdenum	<0.0080	mg/L		200.7	6/09/03	
T	Lead	<0.0050	mg/L		200.7	6/09/03	
T	Antimony	<0.0030	mg/L		204.2	6/10/03	
T	Selenium	<0.0030	mg/L		270.2	6/09/03	
T	Silica	<0.171	mg/L		200.7	6/09/03	
T	Zinc	<0.0050	mg/L		200.7	6/09/03	
D	Bromide	<0.10	mg/L		300.0	6/12/03	
D	Fluoride	<0.10	mg/L		300.0	6/12/03	
D	Silver	<0.00010	mg/L		272.2	6/09/03	
D	Arsenic	<0.0030	mg/L		206.2	6/10/03	
D	Boron	<0.040	mg/L		200.7	6/09/03	
D	Barium	<0.0020	mg/L		200.7	6/09/03	
D	Beryllium	<0.0020	mg/L		200.7	6/09/03	

Filtered fraction: 334222

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6/2/06

SVL ANALYTICAL, INC. Certificate: AZ AZ0538
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

CLIENT : Resolution Copper Company SVL JOB: 106003
PROJECT: 033-2504.2 SAMPLE: 334222
CLIENT SAMPLE ID: RESE-1001013 T/D/TR
Sample Collected:
Sample Receipt : 6/03/03 Matrix: WATERS
Date of Report : 6/18/03

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Cadmium	<0.00010	mg/L		213.2	6/09/03	
D	Copper	<0.0030	mg/L		200.7	6/09/03	J
D	Mercury	<0.00020	mg/L		245.1	6/13/03	
D	Nickel	<0.010	mg/L		200.7	6/09/03	
D	Lead	<0.0030	mg/L		239.2	6/09/03	
D	Antimony	<0.0030	mg/L		204.2	6/10/03	
D	Thallium	<0.0020	mg/L		279.2	6/10/03	
D	Zinc	<0.0050	mg/L		200.7	6/09/03	
TR	Silver	<0.00010	mg/L		272.2	6/09/03	
TR	Arsenic	<0.0030	mg/L		206.2	6/10/03	
TR	Beryllium	<0.0020	mg/L		200.7	6/09/03	
TR	Cadmium	<0.00010	mg/L		213.2	6/09/03	
TR	Chromium	<0.0060	mg/L		200.7	6/09/03	
TR	Copper	<0.0030	mg/L		200.7	6/09/03	J
TR	Manganese	<0.0020	mg/L		200.7	6/09/03	J
TR	Nickel	<0.010	mg/L		200.7	6/09/03	
TR	Lead	<0.0030	mg/L		239.2	6/09/03	
TR	Antimony	<0.0030	mg/L		204.2	6/10/03	
TR	Selenium	<0.0030	mg/L		270.2	6/09/03	
TR	Thallium	<0.0020	mg/L		279.2	6/10/03	
TR	Zinc	<0.0050	mg/L		200.7	6/09/03	

Tot.Rec. fraction: 334538
NO SAMPLE DATE ON COC
M3(SIO2)THE ACCURACY OF THE SPIKE RECOVERY VALUE IS REDUCED SINCE THE ANALYTE CONCENTRATION IN THE SAMPLE IS DISPROPORTIONATE TO SPIKE LEVEL.THE METHOD CONTROL SAMPLE RECOVERY WAS ACCEPTABLE.
M5(AS,SB,SE)ANALYTE CONCENTRATION WAS DETERMINED BY THE METHOD OF STANDARD ADDITION
H1(ALK,CO3,HCO3)SAMPLE ANALYSIS PERFORMED PAST HOLDING TIME
SVL NOT CERTIFIED FOR CYANIDE-FREE(METHOD 4500F) IN AZ

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APPENDIX C

QUALIFIED RESULTS TABLE

Qualified Results Table for
Resolution Copper Company
SDG 106003
May 2003

Sample	Lab ID	Type	Parameter	Original Value	Original Qualifier	Added Qualifier	New Value	Units	Reason	Type	Method	Validator
RESE-1001009	W334213	Total	Total Dissolved Solids	199		J	199 J	mg/L	Temperature	Water	160.1	ITSI
RESE-1001009	W334213	Total	Total Settable Solids	<5.0		J	5.0 UJ	mg/L	Temperature	Water	160.2	ITSI
RESE-1001009	W334213	Total	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001009	W334213	Total	Silica	51.5	M3	J	51.5 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1001009	W334213	Total	Arsenic	0.0090	M5	J	0.0090 J	mg/L	CCV	Water	206.2	ITSI
RESE-1001009	W334213	Total	Sulfate, SO4	0.92		J	0.92 J	mg/L	Temperature	Water	300	ITSI
RESE-1001009	W334213	Total	Sulfide	<1.0		J	1.0 UJ	mg/L	Temperature	Water	376.1	ITSI
RESE-1001009	W334213	Total	Alkalinity, CaCO3	148	H1	J	148 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001009	W334213	Total	CO3, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001009	W334213	Total	HCO3, CaCO3	148	H1	J	148 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001009	W334213	Total	Cyanide-Free	<0.10		J	0.10 UJ	mg/L	Temperature	Water	SM4500F	ITSI
RESE-1001010	W334214	Total	Total Dissolved Solids	258		J	258 J	mg/L	Temperature	Water	160.1	ITSI
RESE-1001010	W334214	Total	Total Settable Solids	<5.0		J	5.0 UJ	mg/L	Temperature	Water	160.2	ITSI
RESE-1001010	W334214	Total	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001010	W334214	Total	Silica	83.1	M3	J	83.1 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1001010	W334214	Total	Arsenic	0.0040	M5	J	0.0040 J	mg/L	CCV	Water	206.2	ITSI
RESE-1001010	W334214	Total	Sulfate, SO4	7.09		J	7.09 J	mg/L	Temperature	Water	300	ITSI
RESE-1001010	W334214	Total	Sulfide	<1.0		J	1.0 UJ	mg/L	Temperature	Water	376.1	ITSI
RESE-1001010	W334214	Total	Alkalinity, CaCO3	156	H1	J	156 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001010	W334214	Total	CO3, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001010	W334214	Total	HCO3, CaCO3	156	H1	J	156 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001010	W334214	Total	Cyanide-Free	<0.10		J	0.10 UJ	mg/L	Temperature	Water	SM4500F	ITSI
RESE-1001011	W334215	Total	Total Dissolved Solids	91		J	91 J	mg/L	Temperature	Water	160.1	ITSI
RESE-1001011	W334215	Total	Total Settable Solids	<5.0		J	5.0 UJ	mg/L	Temperature	Water	160.2	ITSI
RESE-1001011	W334215	Total	Silica	35.1	M3	J	35.1 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1001011	W334215	Total	Arsenic	0.0060	M5	J	0.0060 J	mg/L	CCV	Water	206.2	ITSI
RESE-1001011	W334215	Total	Sulfate, SO4	19.2		J	19.2 J	mg/L	Temperature	Water	300	ITSI
RESE-1001011	W334215	Total	Sulfide	<1.0		J	1.0 UJ	mg/L	Temperature	Water	376.1	ITSI
RESE-1001011	W334215	Total	Alkalinity, CaCO3	27.8	H1	J	27.8 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001011	W334215	Total	CO3, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001011	W334215	Total	HCO3, CaCO3	27.8	H1	J	27.8 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001011	W334215	Total	Cyanide-Free	<0.10		J	0.10 UJ	mg/L	Temperature	Water	SM4500F	ITSI
RESE-1001012	W334216	Total	Total Dissolved Solids	91		J	91 J	mg/L	Temperature	Water	160.1	ITSI
RESE-1001012	W334216	Total	Total Settable Solids	<5.0		J	5.0 UJ	mg/L	Temperature	Water	160.2	ITSI
RESE-1001012	W334216	Total	Silica	34.6	M3	J	34.6 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1001012	W334216	Total	Arsenic	0.0060	M5	J	0.0060 J	mg/L	CCV	Water	206.2	ITSI
RESE-1001012	W334216	Total	Sulfate, SO4	19.3		J	19.3 J	mg/L	Temperature	Water	300	ITSI
RESE-1001012	W334216	Total	Sulfide	<1.0		J	1.0 UJ	mg/L	Temperature	Water	376.1	ITSI

Qualified Results Table for
Resolution Copper Company
SDG 106003
May 2003

Sample	Lab ID	Type	Parameter	Original Value	Original Qualifier	Added Qualifier	New Value	Units	Reason	Type	Method	Validator
RESE-1001012	W334216	Total	Alkalinity, CaCO3	27.9	H1	J	27.9 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001012	W334216	Total	CO3, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001012	W334216	Total	HCO3, CaCO3	27.9	H1	J	27.90 J	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001012	W334216	Total	Cyanide-Free	<0.10		J	0.10 UJ	mg/L	Temperature	Water	SM4500F	ITSI
RESE-1001013	W334217	Total	Total Dissolved Solids	<10		J	10 UJ	mg/L	Temperature	Water	160.1	ITSI
RESE-1001013	W334217	Total	Total Settable Solids	<5.0		J	5.0 UJ	mg/L	Temperature	Water	160.2	ITSI
RESE-1001013	W334217	Total	Calcium	<0.040		J	0.040 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001013	W334217	Total	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001013	W334217	Total	Iron	<0.020		J	0.020 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001013	W334217	Total	Arsenic	<0.0030	M5	J	0.0030 UJ	mg/L	CCV	Water	206.2	ITSI
RESE-1001013	W334217	Total	Sulfate, SO4	<0.30		J	0.30 UJ	mg/L	Temperature	Water	300	ITSI
RESE-1001013	W334217	Total	Sulfide	<1.0		J	1.0 UJ	mg/L	Temperature	Water	376.1	ITSI
RESE-1001013	W334217	Total	Alkalinity, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001013	W334217	Total	CO3, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001013	W334217	Total	HCO3, CaCO3	<1.0	H1	J	1.0 UJ	mg/L	Temperature; HT	Water	SM2320	ITSI
RESE-1001013	W334217	Total	Cyanide-Free	<0.10		J	0.10 UJ	mg/L	Temperature	Water	SM4500F	ITSI
RESE-1001009	W334218	Dissolved	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001009	W334218	Dissolved	Arsenic	0.0080	M5	J	0.0080 J	mg/L	CCV	Water	202.6	ITSI
RESE-1001010	W334219	Dissolved	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001011	W334220	Dissolved	Copper	0.0047		J-	0.0047 J-	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001012	W334221	Dissolved	Copper	0.0046		J-	0.0046 J-	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001013	W334222	Dissolved	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001009	W334534	Total Recoverable	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001009	W334534	Total Recoverable	Antimony	<0.0030	M5	J	0.0030 UJ	mg/L	%R MS	Water	204.2	ITSI
RESE-1001010	W334535	Total Recoverable	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001013	W334538	Total Recoverable	Copper	<0.0030		J	0.0030 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI
RESE-1001013	W334538	Total Recoverable	Manganese	<0.0020		J	0.0020 UJ	mg/L	%R CRDL SPK	Water	200.7	ITSI

Abbreviations

SDG = sample delivery group
mg/L = milligrams per liter
CCV = continuing calibration verification
CRDL = client required detection limit
HT = holding time
MS = matrix spike
%R = percent recovery
SD = serial dilution
SPK = spike

Data Qualifier Flags

J = estimated value
J- = estimated value, low bias
UJ = estimated reporting limit

APPENDIX D

LABORATORY COMMUNICATIONS

Peggy Cota

From: Peggy Cota [pcota@itsi.com]
Sent: Friday, May 12, 2006 10:25 AM
To: 'kirby@svl.net'
Cc: 'Casey.Mckeon@resolutioncopper.com'
Subject: RCC Laboratory Questions
Attachments: RCC SVL Questions 051206.pdf

Kirby,

Our company is currently working on data validation for Resolution Copper Company (RCC) and require some additional data or information (see attached) to complete our review. RCC will contact SVL to give you permission to release the data to us.

The data can be e-mailed or faxed to me at the address or number listed below.

Thank you in advance for your help. Please feel free to contact me if you have any questions.

Peggy Cota
Project Chemist
Innovative Technical Solutions, Inc.
1501 W. Fountainhead Parkway, Suite 360
Tempe, Arizona 85282
(480)-706-6488 ext. 3397
(480)-704-2952 fax
pcota@itsi.com

ITSI Innovative Technical Solutions, Inc.

May 12, 2006

Laboratory Questions for Resolution Copper Company

No.	Lab	Date	SDG	Method	Question/Concern
1	SVL	05/12/06	106003	300.0	The ICAL raw data and summary evaluation were not in the level IV data package. Please provide copies of this data.
2	SVL	05/12/06	106003	300.0	Please provide the true concentration of the anions in the CCV and ICV.
3	SVL	05/12/06	106003	GFAA	Please provide the volume of the standard analyte solution V(s) and sample volume V(x) used in the single addition method for As, Sb and Se.
4	SVL	05/12/06	106003	all	Please provide the identity of any second source standards or spikes used in each analyses.

May 22, 2006

Resolution Copper Company
Attn: Casey McKeon (Casey.Mckeon@resolutioncopper.com)

Ref: Resolution Copper Company

Addendum as requested to Kirby Gray, Technical Director.

Please call if there are questions.

Thank you.

Melba Bencich
Document Control Officer

cc: Innovative Technical Solutions, Inc.
Attn: Peggy Cote (pcota@itsi.com)

ITSI Innovative Technical Solutions, Inc.

May 12, 2006

Laboratory Questions for Resolution Copper Company

PAGE	No.	Lab	Date	SDG	Method	Question/Concern
A1-24	1	SVL	05/12/06	106003	300.0	The ICAL raw data and summary evaluation were not in the level IV data package. Please provide copies of this data.
A25	2	SVL	05/12/06	106003	300.0	Please provide the true concentration of the anions in the CCV and ICV.
A26-27	3	SVL	05/12/06	106003	GFAA	Please provide the volume of the standard analyte solution V(s) and sample volume V(x) used in the single addition method for As, Sb and Se.
A28-~~34~~ A-35	4	SVL	05/12/06	106003	all	Please provide the identity of any second source standards or spikes used in each analyses.

[illegible]
05/22/06

A 1

DIONEX METHOD PARAMETERS - ANIONS1.MET

05/23/03

Method Comment:
Column ID: AG4A-SC/AS4A-SC   INST: DX100
Analyst ID: A. COSTELLO

System Parameters

System Name: DX 100

Number of Detectors	1
Run Time (minutes)	8.50
Sampling Rate (seconds)	0.50
Detector 1 Type	OTHER
Detector 1 real time plot scale maximum (US)	40.00
minimum	-4.00
Detector 1 Output Equivalent to 1 Volt (in US)	40.00
Detector 1 ACI Analog Input Connection	DET2
Save Data File	Yes

Data File Name: C:\DX\DATA\RT105351.D02

-- DETECTOR 1 PARAMETERS --

Report Options

Create ASCII Report File	No
Print Report	Yes
Print All Components	No
Print Components Found	Yes
Print Missing Components	No
Print All Peaks	No
Print Unknown Peaks	No
Print Chromatogram	Yes
Autoscale Chromatogram Maximum	No
Autoscale Chromatogram Minimum	No
Fill Peaks with Color	No
Draw Grid Lines on Chromatogram	No
Show Component Fraction Numbers	No
Label with Peak Number	No
Label with Retention Times on Chromatogram	No
Label with Component Name	Yes

Format File Name: C:\DX\METHOD\DEFAULT.PRF

Integration Parameters

Starting Peak Width (seconds)	5.0
Peak Threshold	3.000
Peak Area Reject	100
Area Reject for Reference Peaks	1000

Data Events

Time	Description
0.00	Force baseline at start of all peaks
0.00	Stop peak detection
0.70	Force baseline at start of all peaks
0.70	End peaks on baseline penetration
0.70	Start peak detection

A 2

Data Events

Time	Description
0.80	Void volume treatment for this peak

Calibration Parameters

Number Of Levels for Calibration..........................	6
Force Calibration Curve Through Origin....................	No
Calibration Fit Type......................................	Linear
Replace Or Average Calibrations...........................	Replace
External or Internal Calibration..........................	External
Calculate Unknowns by Area or Height......................	Area
Default Sample Volume.....................................	1.0
Default Dilution Factor...................................	1.0
Default Response Factor for Unknown Peaks.................	0.0
Calibration Standard Volume	1.0
Internal Standard Amount in Samples	1.0
Amount Units	MG/L

Component Table -- Last Modified: 10:49 on Fri, 23 May 2003

Component # 1 F
Reference Comp. none
Amount = K0 + K1*Area
K0 = 4.03360E-002
K1 = 1.97446E-006

Retention Time 1.16
Window Size 6.00 %

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	1.00000E-001	47322	10615
3	5.00000E-001	231862	52179
4	1.00000E+000	468420	106799
5	2.00000E+000	957101	220518
6	5.00000E+000	2528338	582775

Component # 2 CL
Reference Comp. none
Amount = K0 + K1*Area
K0 = 1.01156E-001
K1 = 2.95996E-006

Retention Time 1.77
Window Size 10.00 %

Level	Amount	Area	Height
1	0.00000E+000	9887	2712
2	2.00000E-001	65153	14181
3	1.00000E+000	297928	63025
4	2.00000E+000	599636	129117
5	5.00000E+000	1588310	348908
6	1.00000E+001	3382763	752764

Component # 3 NO2/N
Reference Comp. none
Amount = K0 + K1*Area
K0 = 2.40486E-002
K1 = 1.39989E-006

Retention Time 2.11
Window Size 6.00 %

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	5.00000E-002	29327	5974
3	2.00000E-001	133017	25095
4	5.00000E-001	331549	62808
5	2.00000E+000	1367308	266405
6	5.00000E+000	3571857	702418

A 4

Component # 4 BR
Reference Comp. none
Amount = K0 + K1*Area
K0 = 4.56221E-002
K1 = 7.42150E-006

Retention Time 3.09
Window Size 6.00 %

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	1.00000E-001	11606	1887
3	5.00000E-001	64084	9416
4	2.00000E+000	255718	38607
5	5.00000E+000	654108	98232
6	1.00000E+001	1349088	207684

Component # 5 NO3/N
Reference Comp. none
Amount = K0 + K1*Area
K0 = 3.91089E-002
K1 = 1.21944E-006

Retention Time 3.48
Window Size 7.00

Level	Amount	Area	Height
1	0.00000E+000	6930	759
2	5.00000E-002	28632	4328
3	2.00000E-001	145080	18907
4	5.00000E-001	359842	47278
5	2.00000E+000	1521150	194555
6	5.00000E+000	4101306	499858

Component # 6 PO4/P
Reference Comp. none
Amount = K0 + K1*Area
K0 = 7.40747E-002
K1 = 3.43292E-006

Retention Time 5.58
Window Size 10.00 %

Level	Amount	Area	Height
1	0.00000E+000	7126	695
2	2.00000E-001	38072	3119
3	5.00000E-001	134471	8934
4	2.00000E+000	533677	38370
5	5.00000E+000	1401000	101226
6	1.00000E+001	2912148	216420

A5

Component # 7 SO4
Reference Comp. none
Amount = K0 + K1*Area
K0 = 2.30769E-001
K1 = 4.17880E-006

Retention Time 7.35
Window Size 10.00 %

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	3.00000E-001	50407	3648
3	2.00000E+000	430121	27608
4	5.00000E+000	1102159	70612
5	1.00000E+001	2236887	144833
6	2.50000E+001	5971618	387587

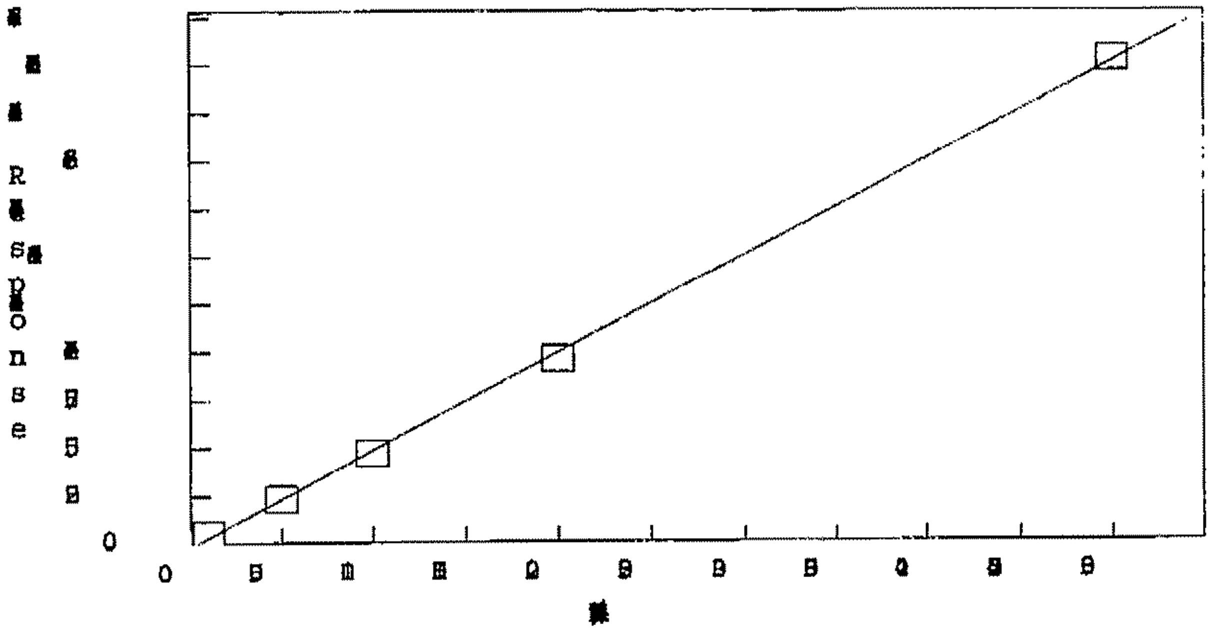
Timed Events File: C:\DX\METHOD\ANIONS1.TE

Step	Time	Description
Init		ACI INJECT OFF
Init		ACI A/O OFF
Init		ACI 10x OFF
Init		ACI PUMP ON
Init		ACI A/S OFF
Init		ACI TTL 3 OFF
Init		ACI TTL 4 OFF
Init		ACI Regen OFF
Init		ACI AC 2 OFF
1	0.0	ACI A/S ON
2	0.2	ACI A/S OFF
3	2.2	ACI INJECT ON
3	2.2	ACI A/O ON
3	2.2	Start Sampling
4	10.8	ACI INJECT OFF
4	10.8	ACI A/O OFF

A C

-Method Updated: 10:49 on Fri, 23 May 2003

Component: F ✓
Fit Type: Linear
r^2 = 0.999447 ✓
Amt = Resp * 1.974e-006 + 0.04034
Resp = Amt * 5.065e+005 + -2.043e+004
Standardization: External
Calibration: Area



A 7

-Method Updated: 10:49 on Fri, 23 May 2003

Component: CL

Fit Type: Linear

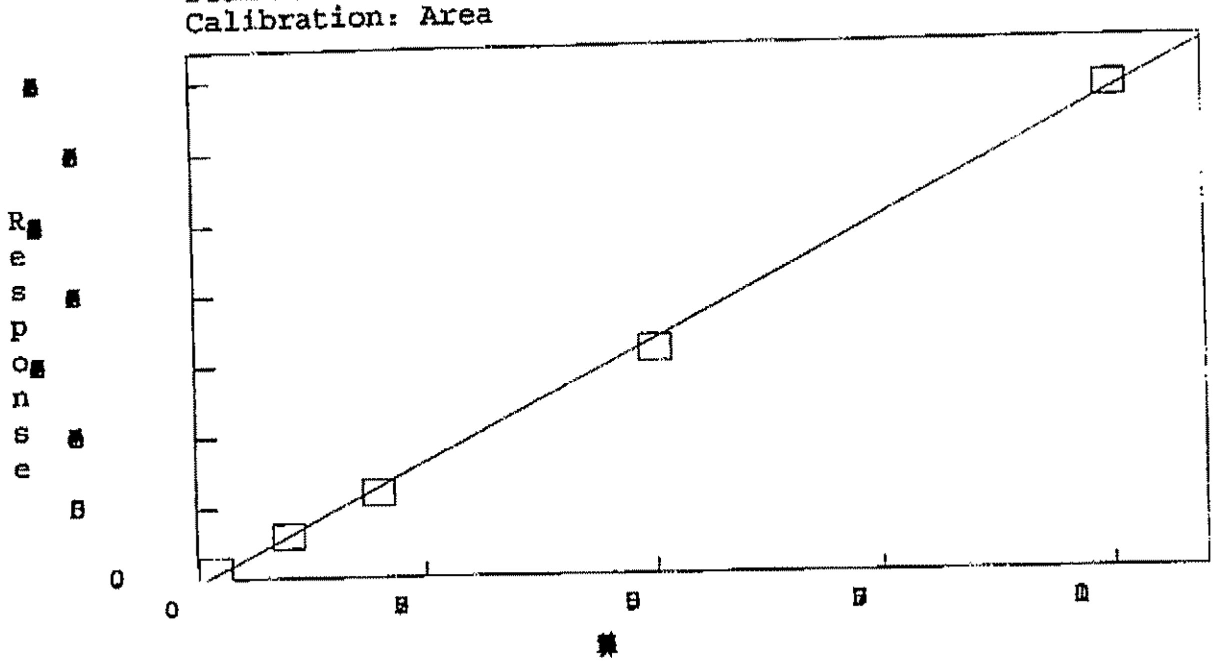
$r^2 = 0.998751$

Amt = Resp * 2.96e-006 + 0.1012

Resp = Amt * 3.378e+005 + -3.417e+004

Standardization: External

Calibration: Area



A 8

-Method Updated: 10:49 on Fri, 23 May 2003

Component: NO2/N NA

Fit Type: Linear

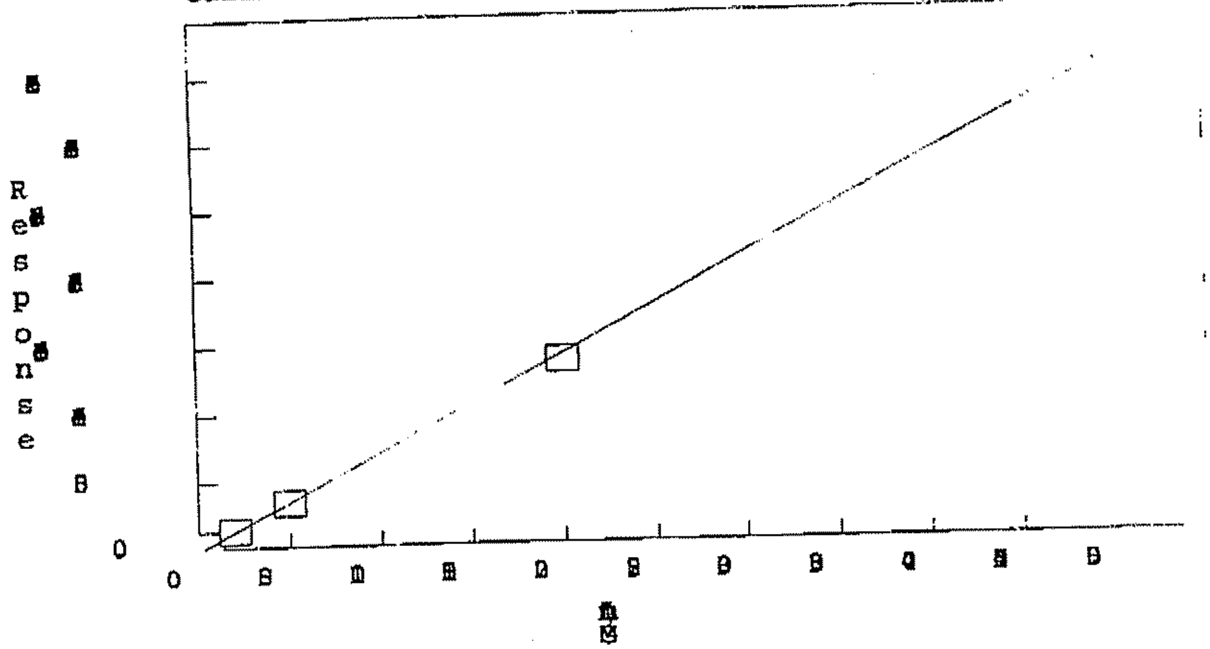
r² = 0.999716

Amt = Resp * 1.4e-006 + 0.02405

Resp = Amt * 7.143e+005 + -1.718e+004

Standardization: External

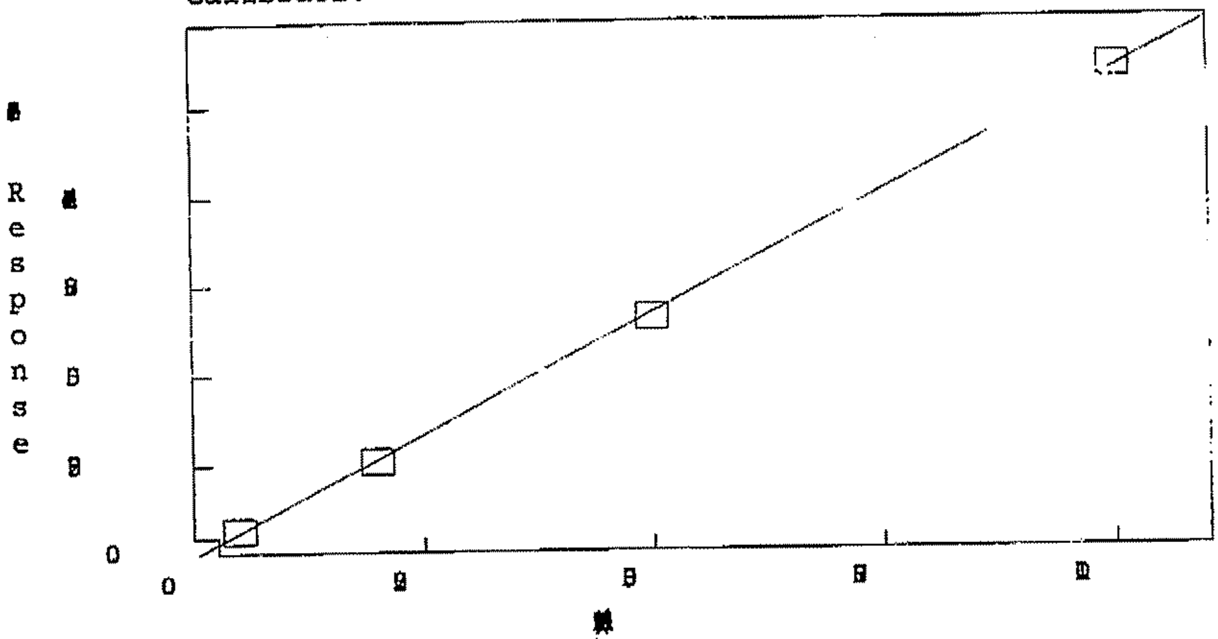
Calibration: Area



A9

-Method Updated: 10:49 on Fri, 23 May 2003

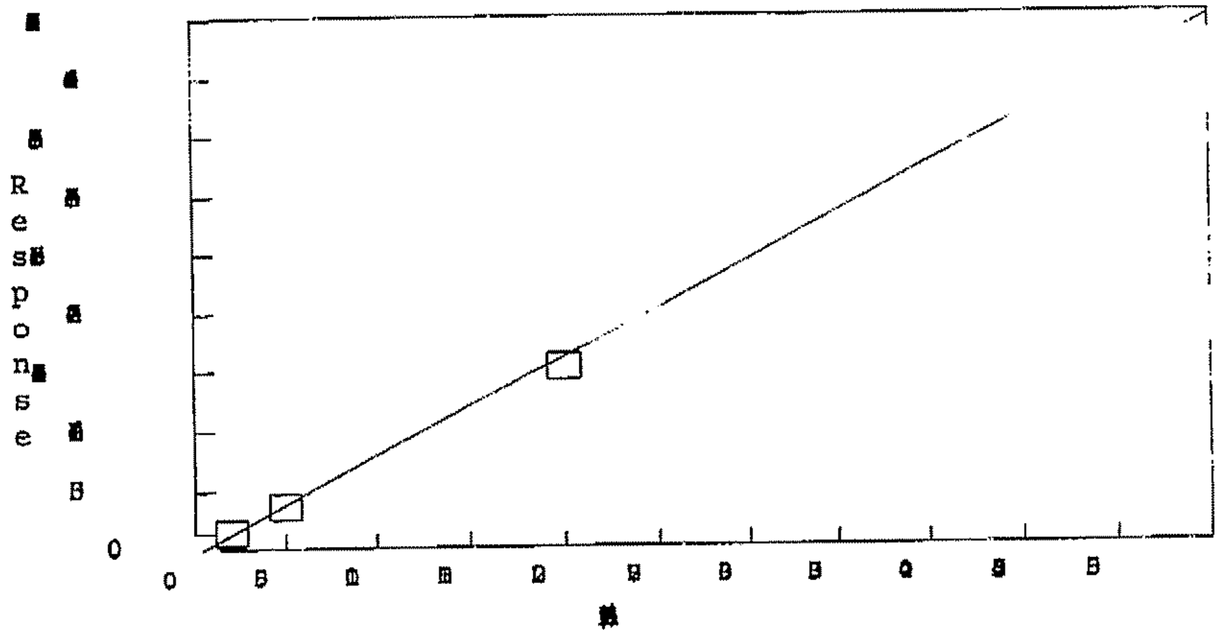
Component: BR
Fit Type: Linear
r^2 = 0.999741
Amt = Resp * 7.422e-006 + 0.04562
Resp = Amt * 1.347e+005 + -6147
Standardization: External
Calibration: Area



A 10

-Method Updated: 10:49 on Fri, 23 May 2003

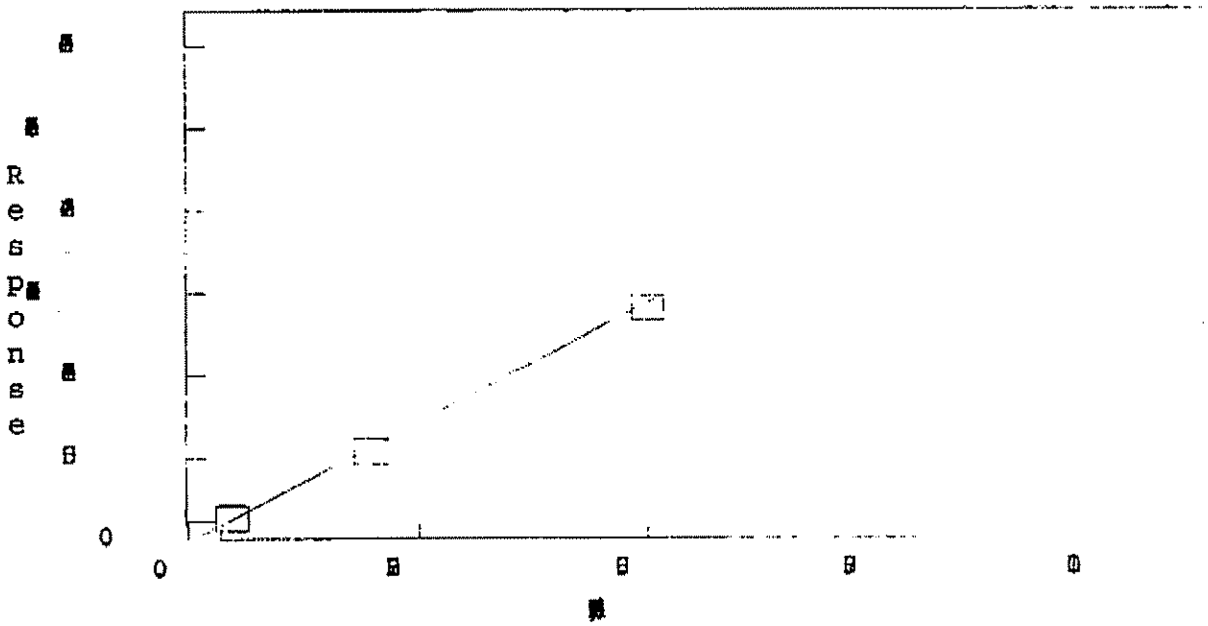
Component: NO3/N
Fit Type: Linear
$r^2 = 0.999147$
Amt = Resp * 1.219e-006 + 0.03911
Resp = Amt * 8.2e+005 + -3.207e+004
Standardization: External
Calibration: Area



-Method Updated: 10:49 on Fri, 23 May 2003

A 11

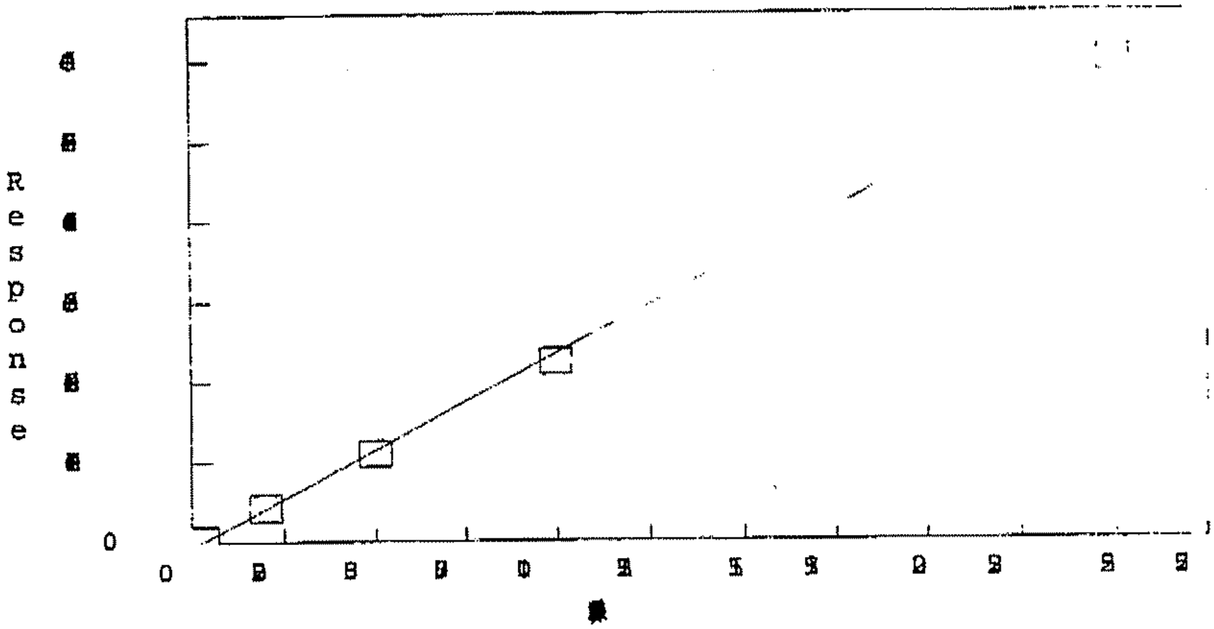
Component: PO4/P
Fit Type: Linear
$r^2 = 0.999501$
Amt = Resp * 3.433e-006 + 0.07407
Resp = Amt * 2.913e+005 + -2.158e+004
Standardization: External
Calibration: Area



A 12

-Method Updated: 10:49 on Fri, 23 May 2003

Component: SO4
Fit Type: Linear
$r^2 = 0.999314$
Amt = Resp * 4.179e-006 + 0.2308
Resp = Amt * 2.393e+005 + -5.522e+004
Standardization: External
Calibration: Area



A.13

******************** AUTOMATIC CALIBRATION UPDATE ********************

Sample Name: AUTOCAL1	Date: Fri May 23 09:54:32 2003
Raw File : C:\DX\DATA\ACDX1141.D01	
Method : C:\DX\METHOD\ANIONS1.MET	Calibration Level: 1
ACI Address: 1 System : 1 Inject#: 1	Detector: OTHER

******************** Components Not Found In This Run ********************

Name	Adjusted Ret Time	Reference Peak
F	1.16	0
CL	1.78	0
NO2/N	2.13	0
BR	3.19	0
NO3/N	3.63	0
PO4/P	5.63	0
SO4	7.43	0

******************** COMPONENTS FOUND IN THIS RUN ********************

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE

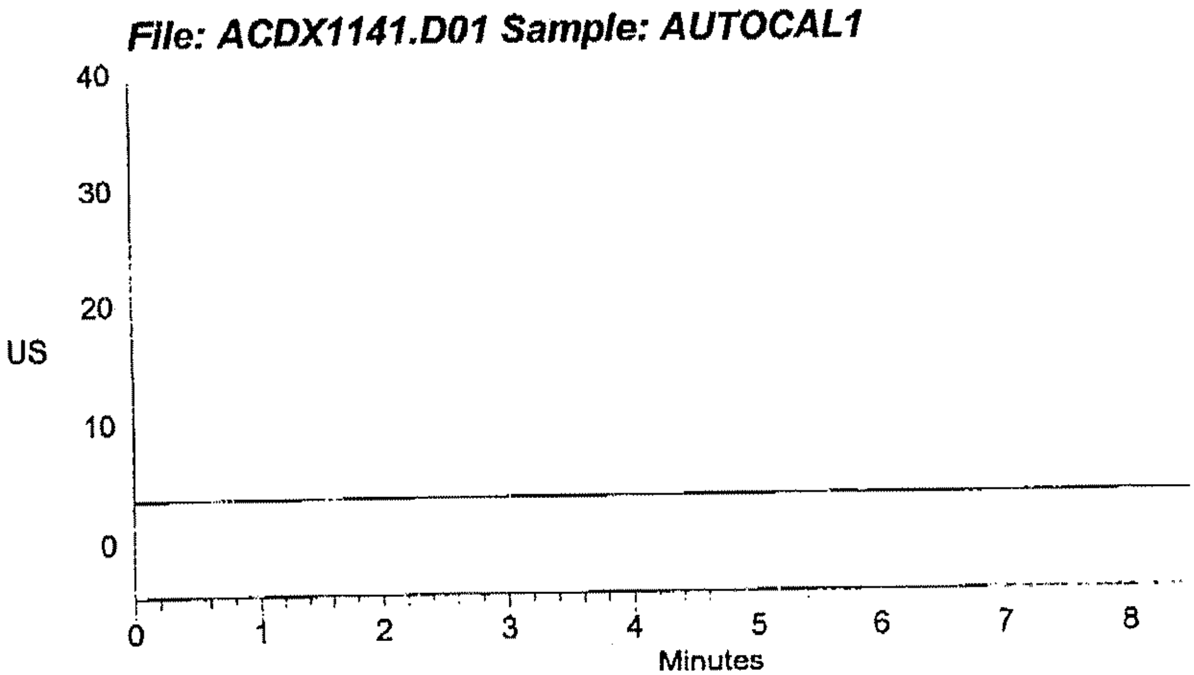
A 14

```
==========================================================================
| Sample Name: AUTOCAL1                       Date: 05/23/2003 09:54:32   |
| Data File   : C:\DX\DATA\ACDX1141.D01                                   |
| Method      : C:\DX\METHOD\ANIONS1.MET                                  |
| ACI Address: 1  System: 1  Inject#: 1   Vial:          Detector:OTHER  |
| Analyst     : A. COSTELLO    Column: AG4A-SC/AS4A-SC    INST: DX100     |
==========================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	1020	2Hz	0.00	8.49	100

********************** Component Report: Components Found **********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		



A 15

********************* AUTOMATIC CALIBRATION UPDATE **********************

Sample Name: AUTOCAL2	Date: Fri May 23 10:05:30 2003
Raw File : C:\DX\DATA\ACDX1141.D02	
Method : C:\DX\METHOD\ANIONS1.MET	Calibration Level: 2
ACI Address: 1 System : 1 Inject#: 2	Detector: OTHER

************************ Components Not Found In This Run ********************

Name	Adjusted Ret Time	Reference Peak
BR	3.19	0

******************* COMPONENTS FOUND IN THIS RUN ************************

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	1.16	1.16	1.16	5.034e+004	4.732e+004	4.732e+004
2	CL	1.78	1.76	1.76	6.114e+004	6.515e+004	6.515e+004
3	NO2/N	2.13	2.10	2.10	4.008e+004	2.933e+004	2.933e+004
5	NO3/N	3.63	3.59	3.59	4.057e+004	2.863e+004	2.863e+004
6	PO4/P	5.63	5.66	5.66	5.100e+004	3.807e+004	3.807e+004
7	SO4	7.43	7.43	7.43	6.261e+004	5.041e+004	5.041e+004

A 16

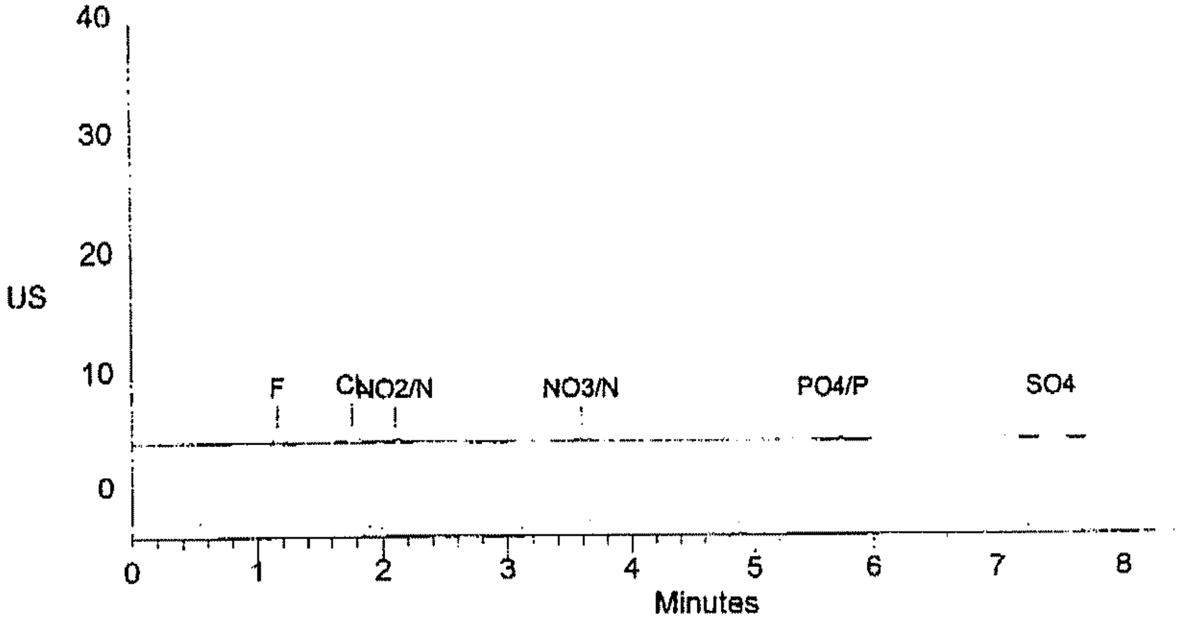
```
==============================================================================
| Sample Name: AUTOCAL2                              Date: 05/23/2003 10:05:30 |
| Data File   : C:\DX\DATA\ACDX1141.D02                                         |
| Method      : C:\DX\METHOD\ANIONS1.MET                                        |
| ACI Address: 1  System: 1  Inject#: 2   Vial:          Detector:OTHER        |
| Analyst     : A. COSTELLO    Column: AG4A-SC/AS4A-SC   INST: DX100          |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	1020	2Hz	0.00	8.49	100

********************** Component Report: Components Found **********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
1	1.16	F	0.100	10615	47322	1	-0.14
2	1.76	CL	0.200	14181	65153	1	-1.22
3	2.10	NO2/N	0.050	5974	29327	1	-1.41
4	3.59	NO3/N	0.050	4328	28632	1	-1.06
5	5.66	PO4/P	0.200	3119	38072	1	0.50
6	7.43	SO4	0.300	3648	50407	1	-0.07
		Totals	0.900	41864	258911		

File: ACDX1141.D02 Sample: AUTOCAL2



A17

********************* AUTOMATIC CALIBRATION UPDATE *********************

Sample Name: AUTOCAL3 Date: Fri May 23 10:16:28 2003
Raw File : C:\DX\DATA\ACDX1141.D03
Method : C:\DX\METHOD\ANIONS1.MET Calibration Level: 3
ACI Address: 1 System : 1 Inject#: 3 Detector: OTHER

******************** COMPONENTS FOUND IN THIS RUN ***********************

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	1.16	1.16	1.16	2.277e+005	2.319e+005	2.319e+005
2	CL	1.76	1.76	1.76	2.934e+005	2.979e+005	2.979e+005
3	NO2/N	2.10	2.10	2.10	1.288e+005	1.330e+005	1.330e+005
4	BR	3.19	3.13	3.13	6.039e+004	6.408e+004	6.408e+004
5	NO3/N	3.59	3.58	3.58	1.350e+005	1.451e+005	1.451e+005
6	PO4/P	5.66	5.67	5.67	1.270e+005	1.345e+005	1.345e+005
7	SO4	7.43	7.40	7.40	4.237e+005	4.301e+005	4.301e+005

A 18

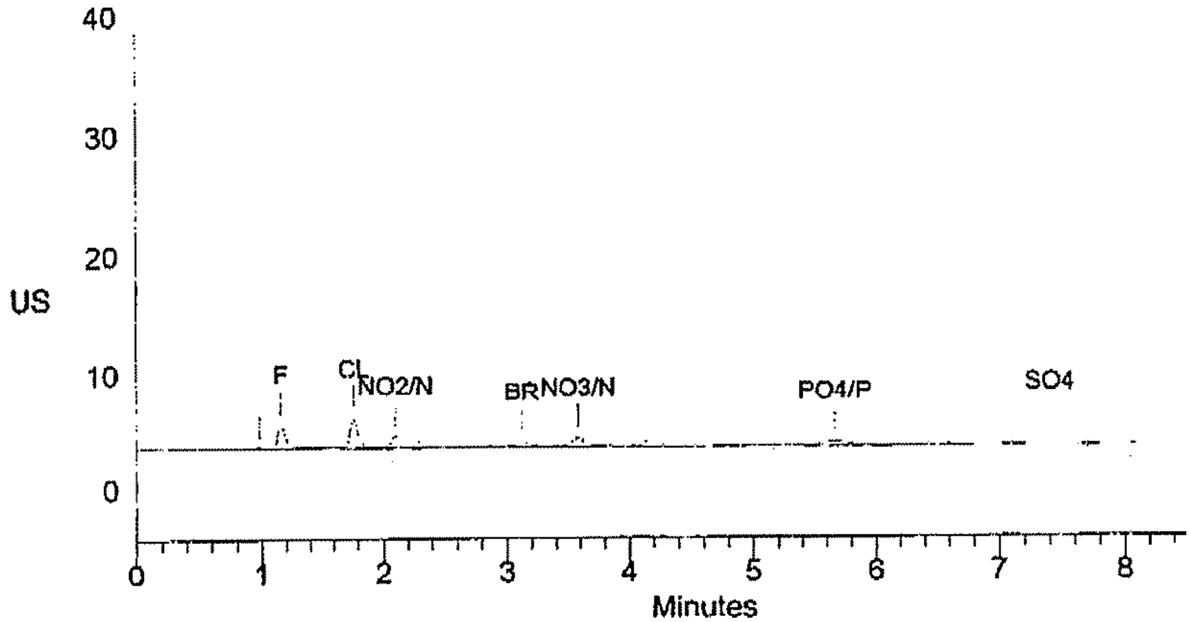
Sample Name: AUTOCAL3		Date: 05/23/2003 10:16:28	
Data File : C:\DX\DATA\ACDX1141.D03			
Method : C:\DX\METHOD\ANIONS1.MET			
ACI Address: 1 System: 1	Inject#: 3	Vial:	Detector:OTHER
Analyst : A. COSTELLO	Column: AG4A-SC/AS4A-SC		INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	1020	2Hz	0.00	8.49	100

********************** Component Report: Components Found ********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	÷Delta
2	1.16	F	0.500	52179	231862	1	0.00
3	1.76	CL	1.000	63025	297928	1	[illegible].00
4	2.10	NO2/N	0.200	25095	133017	1	[illegible]
5	3.13	BR	0.500	9416	64084	1	[illegible].04
6	3.58	NO3/N	0.200	18907	145080	1	-0.23
7	5.67	PO4/P	0.500	8934	134471	1	0.15
8	7.40	SO4	2.000	27608	430121	1	-0.34
		Totals	4.900	205165	1436562		

File: ACDX1141.D03 Sample: AUTOCAL3



A.19

********************** AUTOMATIC CALIBRATION UPDATE **********************

Sample Name: AUTOCAL4 Date: Fri May 23 10:27:27 2003
Raw File : C:\DX\DATA\ACDX1141.D04
Method : C:\DX\METHOD\ANIONS1.MET Calibration Level: 4
ACI Address: 1 System : 1 Inject#: 4 Detector: OTHER

******************** COMPONENTS FOUND IN THIS RUN ************************

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	1.16	1.16	1.16	4.712e+005	4.684e+005	4.684e+005
2	CL	1.76	1.76	1.76	6.014e+005	5.996e+005	5.996e+005
3	NO2/N	2.10	2.10	2.10	3.282e+005	3.315e+005	3.315e+005
4	BR	3.13	3.13	3.13	2.548e+005	2.557e+005	2.557e+005
5	NO3/N	3.58	3.57	3.57	3.580e+005	3.598e+005	3.598e+005
6	PO4/P	5.67	5.64	5.64	5.355e+005	5.337e+005	5.337e+005
7	SO4	7.40	7.41	7.41	1.091e+006	1.102e+006	1.102e+006

A 20

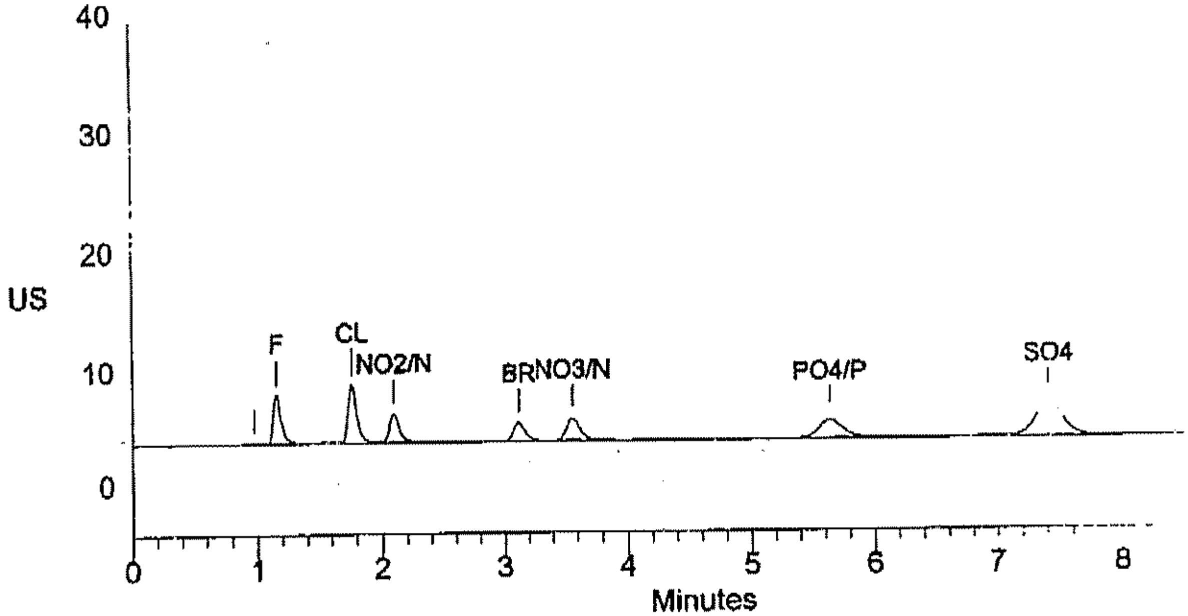
Sample Name: AUTOCAL4	Date: 05/23/2003 10:27:27
Data File : C:\DX\DATA\ACDX1141.D04	
Method : C:\DX\METHOD\ANIONS1.MET	
ACI Address: 1 System: 1 Inject#: 4 Vial:	Detector:OTHER
Analyst : A. COSTELLO Column: AG4A-SC/AS4A-SC	INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	1020	2Hz	0.00	8.49	100

********************** Component Report: Components Found ********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.16	F	1.000	106799	468420	1	0.00
3	1.76	CL	2.000	129117	599636	1	0.00
4	2.10	NO2/N	0.500	62808	331549	1	0.00
5	3.13	BR	2.000	38607	255718	1	0.00
6	3.57	NO3/N	0.500	47278	359842	1	-0.47
7	5.64	PO4/P	2.000	38370	533677	1	-0.44
8	7.41	SO4	5.000	70612	1102159	1	0.11
		Totals	13.000	493591	3650999		

File: ACDX1141.D04 Sample: AUTOCAL4



A21

********************* AUTOMATIC CALIBRATION UPDATE *********************

Sample Name: AUTOCAL5			Date: Fri May 23 10:38:22 2003
Raw File : C:\DX\DATA\ACDX1141.D05			
Method : C:\DX\METHOD\ANIONS1.MET			Calibration Level: 5
ACI Address: 1	System : 1	Inject#: 5	Detector: OTHER

******************** COMPONENTS FOUND IN THIS RUN ********************

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	1.16	1.16	1.16	9.597e+005	9.571e+005	9.571e+005
2	CL	1.76	1.77	1.77	1.595e+006	1.588e+006	1.588e+006
3	NO2/N	2.10	2.10	2.10	1.379e+006	1.367e+006	1.367e+006
4	BR	3.13	3.11	3.11	6.587e+005	6.541e+005	6.541e+005
5	NO3/N	3.57	3.53	3.53	1.519e+006	1.521e+006	1.521e+006
6	PO4/P	5.64	5.62	5.62	1.408e+006	1.401e+006	1.401e+006
7	SO4	7.41	7.39	7.39	2.243e+006	2.237e+006	2.237e+006

A 22

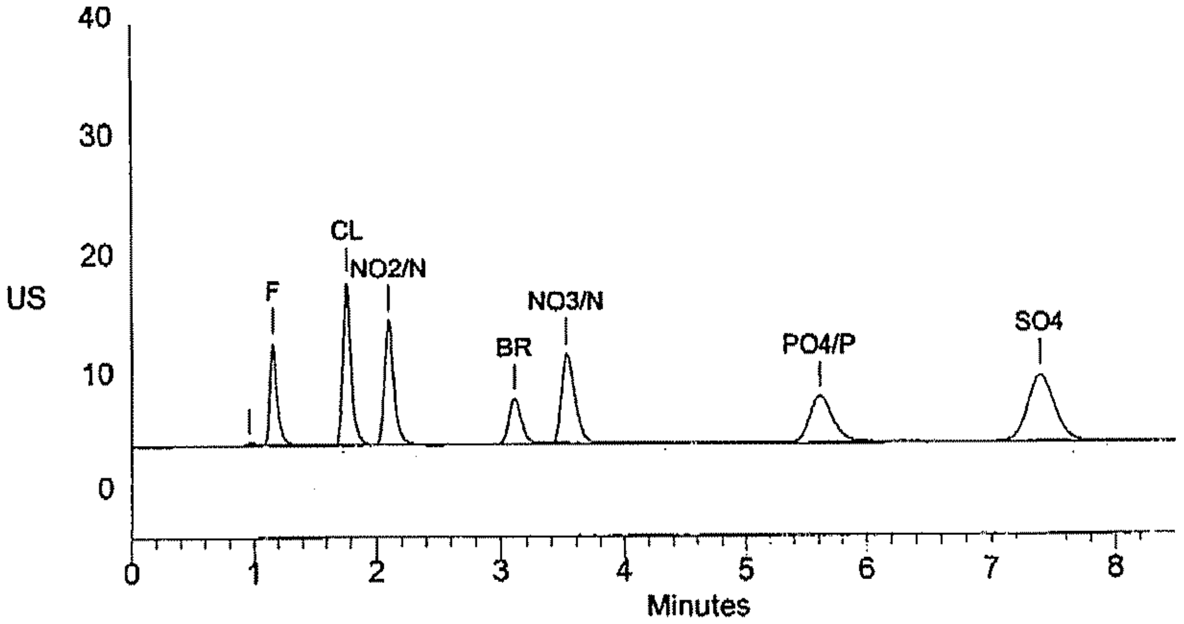
Sample Name: AUTOCAL5	Date: 05/23/2003 10:38:22
Data File : C:\DX\DATA\ACDX1141.D05	
Method : C:\DX\METHOD\ANIONS1.MET	
ACI Address: 1 System: 1 Inject#: 5 Vial:	Detector:OTHER
Analyst : A. COSTELLO Column: AG4A-SC/AS4A-SC	INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	1020	2Hz	0.00	8.49	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.16	F	2.000	220518	957101	1	0.00
3	1.77	CL	5.000	348908	1588310	1	0.47
4	2.10	NO2/N	2.000	266405	1367308	1	0.00
5	3.11	BR	5.000	98232	654108	1	-0.53
6	3.53	NO3/N	2.000	194555	1521150	1	-1.17
7	5.62	PO4/P	5.000	101226	1401000	1	-0.44
8	7.39	SO4	10.000	144833	2236887	1	-0.22
		Totals	31.000	1374678	9725864		

File: ACDX1141.D05 Sample: AUTOCAL5



A 23

********************* AUTOMATIC CALIBRATION UPDATE *********************

Sample Name: AUTOCAL6	Date: Fri May 23 10:49:21 2003
Raw File : C:\DX\DATA\ACDX1141.D06	
Method : C:\DX\METHOD\ANIONS1.MET	Calibration Level: 6
ACI Address: 1 System : 1 Inject#: 6	Detector: OTHER

******************** COMPONENTS FOUND IN THIS RUN ************************

COMP NUM	COMPONENT NAME	OLD RET.TIME	MEASURED RET.TIME	NEW RET.TIME	OLD RESPONSE	MEASURED RESPONSE	NEW RESPONSE
1	F	1.16	1.16	1.16	2.562e+006	2.528e+006	2.528e+006
2	CL	1.77	1.77	1.77	3.421e+006	3.383e+006	3.383e+006
3	NO2/N	2.10	2.11	2.11	3.621e+006	3.572e+006	3.572e+006
4	BR	3.11	3.09	3.09	1.351e+006	1.349e+006	1.349e+006
5	NO3/N	3.53	3.48	3.48	4.102e+006	4.101e+006	4.101e+006
6	PO4/P	5.62	5.58	5.58	2.986e+006	2.912e+006	2.912e+006
7	SO4	7.39	7.35	7.35	5.947e+006	5.972e+006	5.972e+006

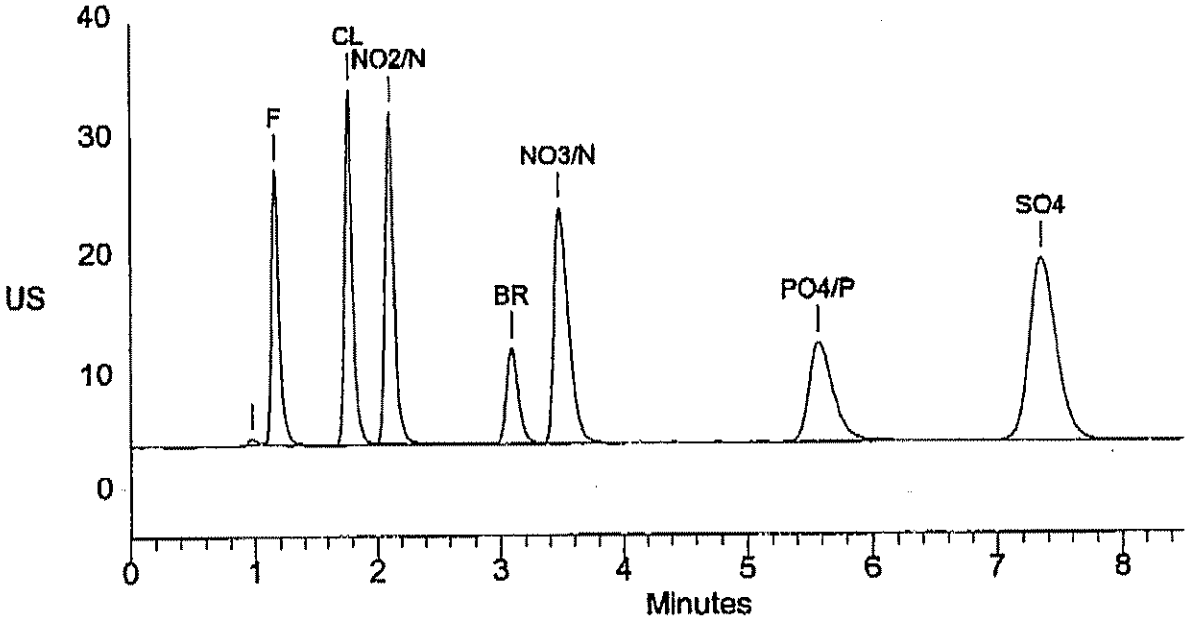
Sample Name: AUTOCAL6		Date: 05/23/2003 10:49:21	
Data File : C:\DX\DATA\ACDX1141.D06			
Method : C:\DX\METHOD\ANIONS1.MET			
ACI Address: 1 System: 1 Inject#: 6	Vial:		Detector:OTHER
Analyst : A. COSTELLO	Column: AG4A-SC/AS4A-SC		INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	1020	2Hz	0.00	8.49	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.16	F	5.000	582775	2528338	1	0.00
3	1.77	CL	10.000	752764	3382763	1	0.00
4	2.11	NO2/N	5.000	702418	3571857	1	0.40
5	3.09	BR	10.000	207684	1349088	1	-0.54
6	3.48	NO3/N	5.000	499858	4101306	1	-1.42
7	5.58	PO4/P	10.000	216420	2912148	1	-0.74
8	7.35	SO4	25.000	387587	5971618	1	-0.56
		Totals	70.000	3349506	23817118		

File: ACDX1141.D06 Sample: AUTOCAL6



A 25

Date: 06/12/2003

QC WORKSHEET

Client: Resolution Copper Co.

Analyst: ac

	SVL #:	Fluoride	Chloride	Nitrite/N	Bromide	Nitrate/N	Phosphate/P	Sulfate
1	ICV	2.51	4.93		5.09			9.94
	ICV True	2.5	5.0		5.0			10.0
2	ICB	<0.1	<0.2		<0.1			<0.3
3	CCV True	2.0	2.0		5.0			10.0
4	CCV 1	1.97	1.92		5.04			9.84
5	CCB 1	<0.1	<0.2		<0.1			<0.3
6	CCV2	1.97	1.94		5.11			9.96
7	CCB2	<0.1	<0.2		<0.1			<0.3
8	CCV3	1.96	1.89		5.00			9.78
9	CCB3	<0.1	<0.2		<0.1			<0.3
10	CCV4	1.94	1.91		4.95			9.71
11	CCB4	<0.1	<0.2		<0.1			<0.3
12	CCV5	1.91	1.88		4.96			9.79
13	CCB5	<0.1	<0.2		<0.1			<0.3
14								
15								
16								
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SVL ANALYTICAL, INC.

SDG: 106003
Single Addition Method of Standard Additions

$$C_X = \frac{S_B V_S C_S}{(S_A - S_B) V_X}$$

S_A = Spiked Sample Absorbance

S_B = Sample Absorbance

V_S = Spike Volume = 0.05 mL

C_S = Spike concentration = 400 ug/L

V_X = Sample Volume = 0.95 mL

SVL ANALYTICAL, INC.

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QC SOURCES FOR SDG 106003

ICP SOURCES

	Lab ID
ICV	19-40-7
CCV	19-40-7
CRI	19-37-7
LCS	QC1975SN8
ICSA	19-40-1
ICSAB	19-40-3
Matrix Spike	QC1975SN8

QC1975SN8	Lab ID
N5	19-11-1
SVL7	19-24-2
	Lot #
QC19	CPI 3BB133
QC7	CPI 3CB013
QCSN	CPI 1FM085
QCSC	CPI 1BS126

GFAA SOURCES

As,Pb,Sb,Se,Tl	Lab ID
Standard stock 1	18-7-6
Standard stock 2	18-7-7
ICV	18-7-2
CCV	18-7-6
LCS	18-4-4
Matrix Spike	18-4-4
Analytical Spike	18-8-1

Cd,Ag	Lab ID
Standard stock	18-7-8
ICV	18-7-5
CCV	18-7-8
LCS	18-4-4
Matrix Spike	18-4-4
Analytical Spike	18-7-9

Hg	Lot #
ICV	SPEX 18-7-3
CCV	CPI 2HT082
Matrix Spike	CPI 2HT082

Classical Chemistry Sources

IC	Lab ID
ICV	21-1-1
CCV	21-1-2

ALK	Lot #
LCS	NSI QC1-110-123102

Sulfide	Lot #
LCS	ERA 02112

TDS/TSS	Lot #
LCS	ERA 020303

LAB ID's refer to LAB ID# column found on Metals Standards Prep Logbook sheets included with this page.

Lot # refers to manufacturer's lot number for commercially prepared solutions.

ICP Standards are made from single element standards from CPI. The ICV solution is made from a multi-element standard.

ICP Source

SVL ANALYTICAL, INC.

Metals Standards Prep Logbook

Notebook#__________

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	3/10/03	AP	AE 3/10/03 ~~QC~~ N5	Na	CPI	2FM053	8/22/04	10,000	95	500	1900	19-11-1	8/22/03	~~AE~~ NO ACID
			N5	Ca		2FT008	1/22/04		95					
				Mg		2CT#81	2/13/04		95					
				K		2EF066	1/12/04		100		2000			
				Fe		1KM103	8/27/03		45		900			
2	3/11/03	At	QC19 & 7	QC19	CPI	2FM131	7/30/04	mult	20	1000	mult	19-11-2	6/13/03	2% HNO3 5% HCl
				QC7		2IT001	7/30/04		20					
				Si		2HTD51	7/30/04	10,000	0.9		10			
				P		2FT022	5/22/04		1.0		10			
				Sc		1BS126	9/15/03		0.1		1			
				Sr		1LM065	9/15/03		0.2		2			
				Bi		2KT004	7/30/04		0.4		4			
				Ga		1HM103	6/13/03							
				La		1LF007	6/19/03							
				Li		2JT103	5/20/04							
				Sn		1FM055	9/15/03							
				Na		2FM053	1/22/04		1.8		20			
				U		2IT018	7/30/04	1000	1.0		1			
3	3/12/03	AS	S1	QC21	spex	23-70-AS	1/30/04	mult	6	200	mult	19-11-3	6/13/03	2% HNO3 5% HCl
				QC7		6-169-VX	1/30/04		6					
				MIX	SVL	12-249-1	6/13/03		2					
4	3/12/03	AS	S4	Ce	CPI	3BB065	8/18/04	1000	0.2	200	1	19-11-4	9-12-03	
5	3/12/03	AS	S5	U	CPI	2DT006	12/21/03	1000	0.4	200	2	19-11-5	9/12/03	

Reviewed by:__________ Date:__________

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ICP Source

SVL ANALYTICAL, INC.

Metals Standards Prep Logbook

Notebook#________

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	4/29/03	AT	QC19 #7	QC19	CPI	2FM131	6/12/04	Must	20	1000	Must	19-24-1	~~6/12/03~~ 7/15/03 9/29/03	2% HNO3 5% HCl
1				QC7		2IT001	7/30/04	↓	20		4			
1				Bi		2KT004	7/30/04	10,000	0.4					
				Ga		3BB170	10/24/04							
				La		1LF067	10/24/04							
				Li		2JT103	5/20/04				↓			
				Sn		1FM085	9/15/03		↓					
				Sc		1BS126	9/15/03		0.1		1			
				Sr		1LM065	9/15/03		0.2		2			
				Si		2HT081	7/30/04		0.9		10			
				P		2FT020	5/20/04		1.0		10			
				Na		2FM053	1/22/04		1.8		20			
				Y		2LT018	7/30/04	1400	1.0		1			
2	4/29/03	AT	SVL7	Bi	CPI	2KT004	7/30/04	10,000	5.0	200	250	19-24-2	9/15/03	10% HNO3
				Ga		3BB170	10/24/04							
				La		1LF067	10/24/04							
				Li		2JT103	5/20/04							
				P		2FT020	5/20/04							
				Sr		1LM065	9/15/03							
				Si		2HT081	7/30/04		9.0		450			
3	5/4/03	AT	5Q	HNO3	Fisher	1102100	NA	NA	20	1000	2%	19-24-3	NA	—
1	↓	↓	↓	HCl	↓	4102050	NA	↓	50	↓	5%	↓	↓	—
4	5/4/03	AT	Lu int. Std	Lu	CPI	1LF014	2/15/04	10,000	1.2	3L	4	19-24-4	11-4-03	2% HNO3

Reviewed by:________ Date:________

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ICP Source

Notebook#__________ **Metals Standards Prep Logbook** **SVL ANALYTICAL, INC.**

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	5/27/03	AJ	S4	Ge	CPI	3BB065	8/18/04	1000	0.2	200	1	19-37-1	11/27/03	2% HNO_3 5% HCl
2	5/25/03	AJ	S0	HNO_3	Fisher	102406	NA	NA	20	1000	2%	19-37-2	NA	
↓	↓	↓	↓	HCl	↓	4102057	↓	↓	50	↓	5%	↓	↓	
3	5/28/03	AJ	S2	Al	CPI	2FF143	4/3/04	10,000	1.8	200	50	19-37-3	11/28/03	2% HNO_3 5% HCl
				Ca		25T068	6/12/04							
				Mg		2FT105	6/12/04							
				Fe		2LT009	6/12/04							
↓	↓	↓	↓	Na	↓	2FM055	1/22/04	↓	↓	↓	↓	↓	↓	
4	5/28/03	AJ	S3	Be	CPI	2DT164	7/30/04	10,000	0.02	0.1	E 200	19-37-4	7/17/03	
				La		1LF067	10/24/04		0.2	10				
				Sc		1BS126	9/15/03		0.04	2				
↓	↓	↓	↓	Si	↓	1OS064	7/17/03	↓	0.5	25	↓	↓	↓	↓
5	5/29/03	AJ	Lu Int Std	Lu	CPI	1LF014	2/15/04	10,000	1.2	36	4	19-37-5	11/29/03	2% HNO_3
6	5/29/03	AJ	S1	QC21	Spex	23-70-AS	1/30/04	Mult	6	200	Mult	19-37-6	9/15/03	2% HNO_3 5% HCl
				QC7	Spex	6105VY	1/30/04		6					
↓	↓	↓	↓	MIX1	SVL	19-32.5	9/15/03	↓	2	↓	↓	↓	↓	
7	5/29/03	AJ	CR1	Mult	SVL	19-29.1	7/17/03	Mult	5	500	Mult	19-37-7	7/17/03	
8	5/29/03	AJ	QC19&7	QC19	CPI ~~mult~~	3BB133	10/2/04	Mult	20	1000	Mult	19-37-8	9/15/03	
				QC7	CPI	3CB013	10/2/04	↓	20		↓			
				Si		2H7081	7/30/04	10,000	0.5		10			
				P		2FT020	5/20/04		1.0		10			
				Sc		1BS126	9/15/03		0.1		1			
↓	↓	↓	↓	Sr	↓	11M065	9/15/03	↓	0.2	↓	2	↓	↓	↓

Reviewed by:__________ Date:__________

ICP SOURCE

Notebook#__________

Metals Standards Prep Logbook

SVL ANALYTICAL, INC.

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	6/4/03	AB	ICSAB	ICSA	CPI	3BF045	10/2/04	mult	20	200	mult	19-40-1	7/17/03	2% HNO3 5% HCl
↓	↓	↓	↓	ICSAB	↓	19-26-3	7/17/03	↓	2	↓	↓	↓	↓	↓
↓	↓	↓	↓	Ag	↓	2AT088	~~7/30/03~~	1000	0.1	↓	0.5	↓	↓	↓
2	6/5/03	AB	SB	Be	CPI	2BT164	~~9/19/03~~ 7/31/04	1000	0.02	200	0.1	19-40-2	9/15/03	2% HNO3 5% HCl
↓	↓	↓	↓	La	↓	1LF067	10/24/04	10,000	0.2	↓	10	↓	↓	↓
↓	↓	↓	↓	Sc	↓	1BS126	9/15/03	↓	0.04	↓	2	↓	↓	↓
↓	↓	↓	↓	Si	↓	3BB183	11/26/04	↓	0.5	↓	25	↓	↓	↓
3	6/5/03	AB	ICSA	ICSA	CPI	3BF046	10/2/04	mult	20	200	mult	19-40-3	11/7/03	↓
↓	↓	↓	↓	Cr	↓	2LT034	7/30/04	10,000	2.0	↓	10	↓	↓	↓
↓	↓	↓	↓	Cu	↓	2DT025	11/7/03	↓	↓	↓	↓	↓	↓	↓
↓	↓	↓	↓	Mn	↓	2DT166	6/13/04	↓	↓	↓	↓	↓	↓	↓
↓	↓	↓	↓	Ni	↓	2AT257	12/12/03	↓	↓	↓	↓	↓	↓	↓
↓	↓	↓	↓	Ti	↓	2LT055	6/12/04	↓	↓	↓	↓	↓	↓	↓
↓	↓	↓	↓	V	↓	2BT022	6/12/04	↓	↓	↓	↓	↓	↓	↓
4	6/8/03	AB	Lu Int Std	Lu	CP	1LF014	2/15/04	10,000	1.2	3 L	4	19-40-4	12/8/03	2% HNO3
5	6/8/03	AB	50	HNO3	Fisher	1102100	NA	NA 70%	20 ~~200~~	1000	2%	19-40-5	NA	—
↓	↓	↓	↓	HCl	↓	4102050	NA	NA 37%	50	↓	5%	↓	↓	—
6	6/8/03	AB	S4	Ce	CPI	3BB065	5/18/04	1000	0.2	200	1	19-40-6	12/8/03	2% HNO3 5% HCl
7	6/4/03	AB	QC19 & 7	QC19	CPI	3BB133	10/2/04	mult	20	1000	mult	19-40-7	9/15/03	ICV
↓	↓	↓	↓	QC7	↓	3CB013	10/2/04	↓	20	↓	↓	↓	↓	↓
↓	↓	↓	↓	Si	↓	2HT081	7/30/04	10,000	0.9	↓	10	↓	↓	↓
↓	↓	↓	↓	P	↓	2FT020	5/26/04	↓	1.0	↓	10	↓	↓	↓
↓	↓	↓	↓	Sc	↓	1BS126	9/15/03	↓	0.1	↓	1	↓	↓	↓

Reviewed by:__________ Date:__________

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GFAA SOURCE

Metals Standards Prep Logbook

Notebook# 13

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	2/11/03	KW	MS# Add 1	As	Analytical spike stock	18-3-9	5/16/03	100	0.2	100	0.01	18-4-1	5/16/03	2% HNO_3 1102140
				Tl										
				Pb							0.005			
				Se				50						
				Sb										
2	2/11/03	KW	MSF Add 2	As	Analytical spike stock	18-3-9	5/16/03	100	0.4	100	0.02	18-4-2	5/16/03	2% HNO_3 1102041
				Tl										
				Pb							0.01			
				Sb				5						
				Se										
3	2/11/03	KW	MSA Add 3	As	Analytical spike stock	18-3-9	5/16/03	100	0.6	100	0.03	18-4-3	5/16/03	2% HNO_3 1102046
				Tl										
				Pb							0.02			
				Se				5						
				Sb										
4	2/14/03	KW	GQC 1947	QC19	CPI	2FM131	7/30/04	100	25	500	5.0	18-4-4	6/11/04	2% HNO_3 1102040
				QC7	CPI	2ET001	6/12/04	100	25	500	5.0			

KW 2/19/03

Reviewed by:________ Date:________

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GFAA SOURCES
+
Hg ICV Source

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1-4 13	4/21/03	KH	Stock 2	Tl	CPI	2HT086	7/30/04	1000	0.04	200	0.2	18-6-13	5/16/03	2% HNO3 11/02/00
↓	↓	↓	↓	Cr	↓	2LT034	7/30/04	↓	0.02	↓	0.1	↓	↓	↓
1	4/21/03	KH	Analytical SPK	QC19	CPI	2EM131	6/12/04	100	0.4	200	0.4	18-7-1	6/11/03	2% HNO3 11/02/00
2	4/28/03	KH	GFAA ICV	QC19	CPI	2FM131	6/12/04	100	0.05	200	0.025	18-7-2	6/12/04	2% HNO3 11/02/00
3	5/12/03	KH	Hg ICV	Hg	SPEX	PLHG2-1Y	8/31/04	100	0.5	100	0.5	18-7-3	[illegible]	10% HNO3 [illegible]
4	5/13/03	KH	Ag-Cd ICV	QC7	CPI	3CB013	10/2/04	100	1.0	100	1.0	18-7-4	11/13/03	2% HNO3 11/02/00
↓	↓	↓	Stock	QC19	↓	3BB133	↓	↓	1.0	100	1.0	↓	↓	↓
5	5/13/03	KH	Ag-Cd ICV	Cd-Ag	ICV Stock	18-7-4	11/13/03	1.0	0.25	100	0.025	18-7-5	11/13/03	2% HNO3 11/02/00
6	5/15/03	KH	GFAA	As	CPI	13M169	7/17/03	1000	1.00	200	5.0	18-7-6	7/17/03	2% HNO3 11/02/00
			Standard	Sb		3BB014	10/24/04		1.00		5.0			
			Stock	Se		3CB149	10/24/04		1.00		5.0			
				Pb		1EM061	7/17/03		1.00		5.0			
				Tl		2HT080	7/30/04		1.00		5.0			
↓	↓	↓	↓	Cr		2LT034	7/30/04		1.00		5.0	↓	↓	
7	5/15/03	KH	GFAA	As		13M169	7/17/03		0.06		0.3	18-7-7	7/17/03	
			Standard	Sb		3BB014	10/24/04		0.06		0.3			
			Stock	Se		3CB149	10/24/04		0.06		0.3			
			2	Pb		1EM061	7/17/03		0.06		0.3			
				Tl		2HT080	7/30/04		0.04		0.2			
↓	↓	↓	↓	Cr	↓	2LT034	7/30/04	↓	0.02	↓	0.1	↓	↓	↓
8	5/15/03	KH	Ag-Cd 1PPM	Ag	CPI	2AT088	9/15/03	1000	0.100	100	1.0	18-7-8	9/15/03	2% HNO3 11/02/00
↓	↓	↓	Stock	Cd	↓	3DB144	10/24/04	↓	↓	↓	1.0	↓	↓	↓
9	5/15/03	KH	Ag-Cd Analytical SPK	Ag-Cd	CPI	18-7-9	9/15/03	1 PPM	4.0	100	0.04	18-7-9	9/15/03	2% HNO3 11/02/00

Reviewed by:__________ Date:__________

GFAA Source

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	5/21/03	KH	Analytical/SPK	QC19	CPI	388133	10/2/04	100	0.4	100	0.4	18-8-1	10/2/04	2% HNO3 11/02/00
2	5/27/03	KH	Analytical/	As	CPI	3AD064	11/20/03	1000	10.0	100	100	18-8-2	11/27/03	2% HNO3 11/02/00
			SPK	Pb		2LF025	11/28/04	1000	10.0	100	100		11/27/03	
			Stock	Tl		2NT080	6/30/04	1000	10.0	100	100			
			Level	Se		3C8119	10/29/04	1000	5.0	100	50			
			3	Sb		388014	10/29/04	1000	5.0	100	50			
3	5/27/03	KH	MSA	As	Analytical stock std 1	18-8-2	11/27/03	100	0.2	100	0.2 ~~0.01~~ KG	18-8-3	11/27/03	2% HNO3 11/02/00
			Add 1	Pb										
				Tl							0.1 ~~0.005~~ KG			
				Se				50						
				Sb										
4	5/27/03	KH	MSA Add	As				100	0.4		0.4 ~~0.02~~ KG	18-8-4		
			2	Pb										
				Tl							0.2 ~~0.01~~ KG			
				Se				50						
				Sb										
5	5/27/03	KH	MSA Add	As				100	0.6		0.6 ~~0.03~~ KG	18-8-5		
			3	Pb										
				Tl							0.3 ~~0.015~~ KG			
				Se				50						
				Sb										
6	6/15/03	KH	GFAA [illegible]	QC19	CPI	388133	11/20/04	100	0.05	200	0.025	18-8-6	12/20/03	2% HNO3 11/02/00
7	6/18/03	KH	GFAA Analytical SPK	QC19	CPI	388133	4/20/04	100	0.4	100	0.4	18-8-7	12/20/03	2% HNO3 11/02/00

Reviewed by:__________ Date:__________

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IC Sources

Notebook# 21 | Anions Standards Prep Logbook | SVL ANALYTICAL, INC.

Line #	Date	Initials	Standard	Analyte	Source	Lot#	Exp.Date (Source)	Conc. (PPM)	Amount (mL)	Final Vol. (mL)	Final Conc. (PPM)	Lab ID #	Exp.Date (Std)	Comment
1	06/12/03	QC	ICV	F	CPI	3AF072	09/17/04	1000	.25	100	2.5	21-1-1	12/12/03	1ml of 13-198-4
				Cl		2HF211			.5		5			
				NO_2-N		2JF109			.25		2.5			
				Br		2FT137			.5		5			
				NO_3-N		2JF110			.25		2.5			
				PO_4-P		2IT020			.5		5			
				SO_4		3CF083			1.0		10			
2	06/12/03	QC	CCV	F	13-196-2	—	11/05/03	1000	.5	250	2	21-1-2	06/13/03	2.5ml of 13-198-4
				Cl	-3				.5		2			
				NO_2-N	-4				.5		2			
				Br	-5				1.25		5			
				NO_3-N	-6				.5		2			
				PO_4-P	-7				1.25		5			
				SO_4	-8				2.5		10			
3	06/13/03	QC	CCV	See	21-1-2							21-1-3	06/16/03	
4	06/16/03	QC	CCV	See	21-1-2							21-1-4	06/19/03	
5	06/17/03	QC	CCV	See	21-1-2							21-1-5	06/20/03	
6	06/18/03	QC	CCV	See	21-1-2							21-1-6	06/21/03	
7	06/18/03	QC	BrO_3 Stock standard	BrO_3	Baker $KBrO_3$	1026340	—	Neat	.3264g	250	1000	21-1-7	12/18/03	
8	06/18/03	QC	BrO_3 STD 1	BrO_3	21-1-7	—	12-18-03	1000	.1	100	1	21-1-8	9/18/03	
9	06/18/03	QC	BrO_3 STD 2	BrO_3	21-1-7	—	12-18-03	1000	.2	100	2	21-1-9	9/18/03	
10	06/18/03	QC	BrO_3 STD 3	BrO_3	21-1-7	—	12-18-03	1000	.5	100	5	21-1-10	9/18/03	
11	06/18/03	QC	BrO_3 STD 4	BrO_3	21-1-7	—	12-18-03	1000	1.0	100	10	21-1-11	9/18/03	

Reviewed by:__________ Date:__________

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APPENDIX E

ITSI STANDARD LEGAL NOTICE

ITSI STANDARD LEGAL NOTICE

ITSI is issuing this report at the request of the Client and based upon information furnished by Client. Further, the presence of environmental contamination can be influenced by many factors, including unknown and changing underground conditions. Therefore: 1. This report may not be relied upon by anyone for financial decision-making. 2. No one other than Client is authorized to use this report for any purpose. 3. Any conclusions or opinions included in this report are subject to reasonable revision based upon any new environmental or other data which is later developed. 4. Any results or conclusions stated are to be considered limited by the quality of the underlying sample or other data on which they are based, the budget established by the Client or otherwise for gathering and analyzing data, and by any assumptions and qualifications contained within this report.

APPENDIX E

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NOVEMBER 2004 SAMPLING EVENT

ITSI Innovative Technical Solutions, Inc.

May 25, 2006

Dr. Casey McKeon
Resolution Copper Company
47206 North Magma Shaft #9 Road
Superior, Arizona 85273

RE: ITSI DATA VALIDATION REPORT
RESOLUTION COPPER
PURCHASE ORDER NUMBER H00414
SDG PNK0605

Dear Dr. McKeon:

Innovative Technical Solutions, Inc. (ITSI) has completed the data review for Resolution Copper Company (RCC) for its Surface Water Baseline Investigation. ITSI performed data review as described in the U.S. Environmental Protection Agency's (EPA) *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004; the *Quality Assurance Plan Surface Water Baseline Resource Investigation for Resolution Copper Company*, January 23, 2006; and using criteria in the referenced methods.

The acronym listing is included as Appendix A. Data review qualifiers have been marked in red directly on the analytical reports provided by the laboratory and are attached as Appendix B. A summary of all qualified data is provided in a qualified results table (QRT) as Appendix C. Laboratory communications are provided as Appendix D. The ITSI standard legal notice is provided as Appendix E.

1.0 CROSS REFERENCE OF SAMPLES VERIFIED

The analytical data in the laboratory Sample Delivery Group (SDG) indicated below were reviewed. This SDG contained data for the following methods and compounds.

- General Chemistry Methods
  - Ion chromatography (IC) anions by EPA Method 300.0
  - Color by Standard Method (SM)2120B
- Microbiology Methods
  - E. coli by SM9221F
  - Total coliform by SM9221B-C

1501 West Fountainhead Parkway, Suite 360
Tempe, AZ 85282

(480) 706-6488
fax (480) 704-2952
www.itsi.com

The samples were analyzed by Del Mar Analytical of Phoenix, Arizona (DMAP). The color analysis was subcontracted to Del Mar Analytical of Irvine, California (DMAI). The table below provides an analytical summary and cross reference for the samples. All samples underwent a level 2 data validation.

Field Sample ID	Sample Matrix	DMAP SDG	General Chemistry	Microbiology
RESE-1 001 176	Water	PNK0605-01	X	X
RESE-1 001 176	Water	PNK0605-02	X	X

2.0 LABORATORY REPORT

The laboratory used data qualifier flags, which are addressed in Section 4.0 to indicate quality control exceedences. There were no anomalies noted in the case narrative that required qualification of the data except as noted below.

- Not all holding times were met. Results were qualified where the sample analysis did not occur within method specified holding time requirements.

3.0 SAMPLE INTEGRITY

The chains-of-custody (COCs) were available for review, and there were no anomalies that required data qualifier flags.

4.0 DATA EVALUATION

4.1 IC ANIONS BY EPA METHOD 300.0 AND COLOR BY SM2120B

4.1.1 Holding Times

The samples were extracted and analyzed within the method-recommended holding time except as noted below.

- The laboratory data qualifiers indicated that the samples were received and analyzed past the holding time for color. The method recommends that the samples be analyzed as soon as possible after collection. Since the Quality Assurance Plan has defined the holding time as two days and the samples were analyzed within this criteria, no data qualifiers are required.

4.1.2 Blank Evaluation

Method blanks were analyzed to assess laboratory contamination. There were no anomalies in the reported blanks that required qualification of the data.

4.1.3 Initial and Continuing Calibration

The calibration data and summaries were reviewed. All initial and continuing standards were analyzed at the proper frequency and the standards met the method or Quality Assurance Plan criteria.

4.1.4 Second Source Calibration Verification (SSCV)

The SSCV was reviewed. There were no anomalies that required qualification of the data.

4.1.5 Laboratory Control Samples (LCS)/Laboratory Control Samples Duplicate (LCSD)

LCS/LCSD pairs were reported for the IC analyses. There were no anomalies that required qualification of the data.

4.1.6 Matrix Spike (MS), Matrix Spike Duplicate (MSD) and Duplicate Samples

A MS/MSD pair was reported for the IC analysis. A sample duplicate was reported for the color analysis. There were no anomalies that required qualification of the data.

4.1.7 Practical Quantitation Limits (PQLs) and Compound Quantitation

The laboratory reporting limits (RLs) and results were reviewed. There were no quantitation anomalies.

4.1.8 Instrument Performance

Chromatographs were reviewed for the IC analysis. There were no anomalies that required qualification of the data.

4.1.9 Field Duplicate Samples

Field duplicate samples were not identified.

4.1.10 Assessment for General Chemistry

There were no rejected general chemistry analytical results. Based on the available information, the data are considered useable for their intended purposes.

4.2 E. COLI BY SM9221F AND TOTAL COLIFORM BY SM9221B-C

4.2.1 Holding Times

All samples were extracted and analyzed within the method-recommended holding time except as noted below.

- The preparation holding time of six hours between collection and initiation of analysis for E. coli and total coliform was exceeded. The associated positive sample results have been flagged "J" for an estimated value and the non-detect results have been flagged "UJ" for an estimated holding time.

4.2.2 Incubation Temperature

The incubator temperatures were reviewed. There were no anomalies that required qualification of the data.

4.2.3 Quality Control

The laboratory used five tubes per dilution to calculate the five dilution most probable number index with a 95 percent confidence interval.

4.2.4 PQLs and Compound Quantitation

The laboratory RLs and results were reviewed. There were no quantitation anomalies.

4.2.5 Field Duplicate Samples

Field duplicate samples were not identified.

4.2.6 Assessment for Microbiology

There were no rejected microbiology analytical results. Based on the available information, the data as qualified are considered useable for their intended purposes.

5.0 OVERALL ASSESSMENT FOR SDG

There were no rejected analytical results in this SDG. Based on the available information, the data as qualified are considered useable for their intended purposes.

6.0 RECOMMENDATIONS

ITSI recommends that the temperatures of the incubator be documented in the coliform logbook in the designated space.

We thank you for the opportunity to serve you and look forward to supporting RCC with data review in the future.

Sincerely,

Innovative Technical Solutions, Inc.

Evelyn H. Dawson
Project Chemist

Appendix A – List of Acronyms and Abbreviations
Appendix B – Qualified Report Pages
Appendix C – Qualified Results Table
Appendix D – Laboratory Communications
Appendix E – ITSI Standard Legal Notice

cc: John Malusa
Golder Associates, Inc.
4730 North Oracle Road, Suite 210
Tucson, Arizona, 85705

APPENDIX A

LIST OF ACRONYMS AND ABBREVIATIONS

LIST OF ACRONYMS AND ABBREVIATIONS

COC	chain-of-custody
DMAI	Del Mar Analytical of Irvine, California
DMAP	Del Mar Analytical of Phoenix, Arizona
EPA	U.S. Environmental Protection Agency
IC	ion chromatography
ITSI	Innovative Technical Solutions, Inc.
LCS/LCSD	laboratory control spike/laboratory control spike duplicate
MS/MSD	matrix spike/matrix spike duplicate
QRT	qualified results table
RCC	Resolution Copper Company
RL	reporting limit
SDG	sample delivery group
SM	Standard Method

LIST OF DATA VALIDATION QUALIFIER FLAGS

J	estimated value
J-	estimated value, low bias
J+	estimated value, high bias
R	rejected, not useable
U	not detected
UJ	estimated reporting limit
UR	rejected, unusable RL

APPENDIX B

QUALIFIED REPORT PAGES

17461 Derian Ave., Suite 100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (949) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

Del Mar Analytical

Resolution Copper
PO Box 1944, 102 Magma Heights
Superior, AZ 85273
Attention: Mimi Hart

Project ID: [none]

Report Number: PNK0605

Sampled: 11/18/04
Received: 11/19/04

MICROBIOLOGICALS

Analyte	Method	Batch	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: PNK0605-01 (RESE-I 001 176 - Water)								
Reporting Units: MPN/100 ml								
E. Coli	SM9221F	P4K1925	2.0	ND	1	11/19/2004	11/21/2004	H1 J
Total Coliform	SM9221B-C	P4K1925	2.0	23	1	11/19/2004	11/22/2004	H1 J
Sample ID: PNK0605-02 (RESE-I 001 177 - Water)								
Reporting Units: MPN/100 ml								
E. Coli	SM9221F	P4K1925	2.0	ND	1	11/19/2004	11/21/2004	H1 J
Total Coliform	SM9221B-C	P4K1925	2.0	ND	1	11/19/2004	11/22/2004	H1 J

PC III1
5/15/06

Del Mar Analytical - Phoenix
Ken Baker
Project Manager

APPENDIX C

QUALIFIED RESULTS TABLE

Qualified Results Table for
Resolution Copper
SDG PNK0605
November 2004

Sample	DMAP ID	Parameter	Original Value	Original Qualifier	Added Qualifier	New Value	Units	Reason	Type	Method	Validator
RESE-1 001 176	PNK0605-01	E. coli	<2.0	H1	J	2.0 UJ	MPN/100mL	Holding Time	Water	SM9221F	ITSI
RESE-1 001 176	PNK0605-01	Total coliform	23	H1	J	23 J	MPN/100mL	Holding Time	Water	SM922B-C	ITSI
RESE-1 001 177	PNK0605-02	E. coli	<2.0	H1	J	2.0 UJ	MPN/100mL	Holding Time	Water	SM9221F	ITSI
RESE-1 001 177	PNK0605-02	Total coliform	<2.0	H1	J	2.0 UJ	MPN/100mL	Holding Time	Water	SM922B-C	ITSI

Abbreviations

SDG = sample delivery group

MPN/100mL = most probable number per 100 milliliters

Data Qualifier Flags

J = estimated value

UJ = estimated reporting limit

APPENDIX D

LABORATORY COMMUNICATIONS

May 11, 2006

Laboratory Questions for Resolution Copper Company

Lab	Date	No.	SDG	Method	Question/Concern
DMA	05/10/06	1	PNK0605	Color	Please provide the COC, sample temperature and shipping documentation for shipment of samples to DMA, Irvine.
DMA	05/10/06	2	PNK0605	E. Coli Total coliform	The incubation temperatures for E. Coli and total coliform were not documented on the analysis worksheet. Please provide documentation that the incubation temperatures were in control for the time period of the analysis (such as daily temperature log).

Peggy Cota

From: Ken Baker [kbaker@dmalabs.com]
Sent: Thursday, May 11, 2006 4:38 PM
To: Peggy Cota
Subject: RE: RCC Lab Questions
Attachments: PNK0605-INK1550coc.pdf

Peggy,

Hi there! I received your email. I'll get this in motion. Here is the coc. I will be out until next Wednesday. I will touch base with you then.

Ken

From: Peggy Cota [mailto:pcota@itsi.com]
Sent: Thursday, May 11, 2006 4:31 PM
To: Ken Baker
Subject: RCC Lab Questions

Hi Ken,

Please find attached the questions for Resolution Copper Company for SDG PNK0605.

Thank you for your help. Please call if you have any questions.

Peggy Cota
Project Chemist
Innovative Technical Solutions, Inc.
1501 W. Fountainhead Parkway, Suite 360
Tempe, Arizona 85282
(480)-706-6488 ext. 3397
(480)-704-2952 fax
pcota@itsi.com

17461 Derian Ave. Suite 100, Irvine, CA 92614 Ph (949) 261-1022 Fax (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 Ph (909) 370-4667 Fax (909) 370-1046
9484 Chesapeake Drive, Suite 805, San Diego, CA 92123 Ph (619) 505-9596 Fax (619) 505-9689
9830 South 51st Street, Suite B-120, Phoenix, AZ 85044 Ph (480) 785-0043 Fax (480) 785-0851
2520 E. Sunset Rd. Suite #3, Las Vegas, NV 89120 Ph (702) 798-3620 Fax (702) 798-3621

Del Mar Analytical

SUBCONTRACT ORDER - PROJECT # PNK0605

SENDING LABORATORY:	RECEIVING LABORATORY:
Del Mar Analytical - Phoenix 9830 South 51st Street, Suite B-120 Phoenix, AZ 85044 Phone: (480) 785-0043 Fax: (480) 785-0851 Project Manager: Ken Baker	Del Mar Analytical - Irvine 17461 Derian Ave. Suite 100 Irvine, CA 92614 Phone :(949) 261-1022 Fax: (949) 261-1228 INK1550

Analysis	Expiration	Due	Comments
Sample ID: PNK0605-01 Water **Sampled: 11/18/04 08:50**			**Okay to run past hold**
Color	11/20/04 08:50	12/01/04 15:00	
Containers Supplied: 250 ml Poly (PNK0605-01D)			
Sample ID: PNK0605-02 Water **Sampled: 11/18/04 10:45**			**Okay to run past hold**
Color	11/20/04 10:45	12/01/04 15:00	
Containers Supplied: 250 ml Poly (PNK0605-02D)			

AB

SAMPLE INTEGRITY:

All containers intact: ☑ Yes ☐ No	Sample labels/COC agree: ☑ Yes ☐ No	Samples Received On Ice: ☑ Yes ☐ No	
Custody Seals Present: ☐ Yes ☑ No	Samples Preserved Properly: ☑ Yes ☐ No	Samples Received at (temp): 4	

Released By	Date	Time	Received By	Date	Time
[signature]	11-19-04	17:00	FedEx	11-19-04	17:00
			[signature]	11-20-04	9:15

Page 1 of 1

Peggy Cota

From: Ken Baker [kbaker@dmalabs.com]
Sent: Friday, May 19, 2006 3:16 PM
To: Peggy Cota
Subject: RE: RCC data
Attachments: pnk0605-bacti-raw.PDF

Peggy,

Hope this is what you need. Let me know if it is not.

Ken

From: Peggy Cota [mailto:pcota@itsi.com]
Sent: Friday, May 19, 2006 2:09 PM
To: Ken Baker
Subject: RCC data

Hi Ken,

I'm following up on the lab questions for Resolution Copper Company (RCC) that I sent you last week. I received the COC, but not the temperature verifications for the incubator. We need the data to complete our validation report for RCC. Can you please provide the responses by early next week?

Please contact me if you have any questions.

Thank you for your help.

Peggy

Peggy Cota
Project Chemist
Innovative Technical Solutions, Inc.
1501 W. Fountainhead Parkway, Suite 360
Tempe, Arizona 85282
(480)-706-6488 ext. 3397
(480)-704-2952 fax
pcota@itsi.com

DMAP INCUBATOR TEMPERATURE LOG

The temperature must be 35°C ± 0.5°C

Please indicate Incubator # 's & Shelf using the following designators
(Incubators: I - 2 or I - 3 & US = Upper Shelf or LS = Lower Shelf)

Date	Incubator No. & Shelf	Time (AM)	Temperature AM	Time PM	Temperature PM	Analyst Initials & Comments
11.18.04	I-6 5	7:28	35.0	12:59	35.0	LO
	6		34.9		35.2	
	I-3 US		35.4		35.1	
	LS		34.7		34.8	
	I-4 US		35.4		35.3	
	LS		35.1		34.8	
11.19.04	I-6 1	8:04	35.0	12:04	35.0	LO
	2		35.2		35.1	
	3		35.4		35.3	
	4		34.9		34.9	
	5		35.2		35.1	
	6		35.2		35.1	
	I-3 US		35.2		35.4	
	LS		34.7		34.7	
	I-4 US		35.4		35.2	
	LS		35.0		35.2	
11.20.04	I-6 1	8 14:06	34.9	11/21/04 / 14:49	35.0	LO
	2		35.0		35.2	
	3		35.3		35.3	
	4		34.9		34.9	
	5		35.0		35.0	
	6		35.0		35.1	
	I-3 US		35.4		35.4	
	LS		35.0		34.8	
	I-4 US		35.4		35.4	
	LS		35.0		34.8	
11.22.04	I-6 1	7:58	35.0	15:03	34.9	LO
	2		35.1		35.0	
	3		35.3		35.2	
	4		35.0		34.9	
	5		35.1		35.0	
	6		35.3		35.1	
	I-3 US		35.4		35.4	
	LS		35.0		35.0	

DMAP COLIFORM MPN LOGBOOK

E Coli SM 9221F Total coliform SM 9221B Fecal Coliform SM 9221E (Please check one or more)

Incubator Location: I-6 #6 Sample ID: PNL0605-02 Batch ID: P4K1925 Analyst Initials/Date/Time Setup: 11.19.04 RO 14:10

MEDIA	LSB	LSBx2	BGBB	ECB	ECB-MUG	+/- Controls	E. Coli	E. Faecalis	E. Aerogenes	K. Pneumoniae
LOT #	4291	4237	110404	N/A	111504	LOT #	4090232	4090233	N/A	4090235

Dilution Water Lot: N/A Maxi Tip Lot: 01107992 2534 Combi Tip Lot: 5113 2848224 Received 13:15 Res. Chlorine Neg

				10.0					1.0					0.1					Controls -	Controls +	Result MPN / 100mL
Coliform Presumptive	24 Hour Incubation		Growth	+	+	+	+	+	+	+	+	+	+	-	+	+	-	-	-	+	
	Initials\Date\Time Read:	11.20.04 RO 14:44	Gas	+	+	+	-	+	-	-	-	-	-	-	-	-	-	-	-	+	
	48 Hour Incubation		Growth											-			-	-	-	+	
	Initials\Date\Time Read:	11.21.04 RO 15:10	Gas											-			-	-	-	+	
Total Coliform Confirmation	24 Hour Transfer*	11.20.04 RO 15:14	Growth	+	+	+	+	+	+	+	+	+	+	+	+	+			-	+	
	24Hr Initials\Date\Time Read:	11.21.04 RO 15:08	Gas	-	-	-	-	-	-	-	-	-	-		-	-			-	+	
	Reincubate		Growth	+	+	+	+	+	+	+	+	+	+		+	+			-	+	
	48Hr Initials\Date\Time Read:	11.22.04 RO 15:07	Gas	-	-	-	-	-	-	-	-	-	-		-	-			-	+	
	48 Hour Transfer*		Growth																		
	48Hr Initials\Date\Time Read:		Gas																		
	Reincubate		Growth																		
	72Hr Initials\Date\Time Read:		Gas																		
			Number of Positive Tubes	0					0					0					N/A		<2
E-Coli Confirmation	24 Hour Incubation*	11.20.04 RO 15:18	Fluoresence	-	-	-	-	-	-	-	-	-	-		-	-			-	+	
	Initials\Date\Time Read:	11.21.04 RO 15:13																			
	48 Hour Incubation																				
	Date\Time Read:																				
			Number of Positive Tubes	0					0					0					N/A		<2
Fecal Confirmation	24 Hour Incubation*		Growth																		
	Initials\Date\Time Read:		Gas																		
	48 Hour Incubation		Growth																		
	Initials\Date\Time Read:		Gas																		
			Number of Positive Tubes																N/A		

Notes:

* Record the Transfer Time / Temperature °C / Initials

Reviewed by Date : RB 11/30/04

DMAP COLIFORM MPN LOGBOOK

E Coli SM 9221F ☒ Total coliform SM 9221B ☒ Fecal Coliform SM 9221E ☐ (Please check one or more)

Incubator Location: I-6 #6 Sample ID: PNK6605-01 Batch ID: P4K1925 Analyst Initials/Date/Time Setup: 11.19.04 RO 14:04

MEDIA	LSB	LSBx2	BGBB	ECB	ECB-MUG	+/- Controls	E. Coli	E. Faecalis	E. Aerogenes	K. Pneumoniae
LOT #	4281	4237	110404	N/A	111504	LOT #	4090232	4090233	4090233	4090235

Dilution Water Lot: N/A Maxi Tip Lot: 01107992-7536 Combi Tip Lot: 511328452214 Received 13:15 Res. Chlorine Neg

	mLs of Sample:		10.0					1.0					0.1					Controls -	Controls +	Result MPN / 100mL
Coliform Presumptive	24 Hour Incubation	Growth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	Initials\Date\Time Read: 11.20.04 RO 14:42	Gas	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-	-	+	
	48 Hour Incubation	Growth																		
	Initials\Date\Time Read:	Gas																		
Total Coliform Confirmation	24 Hour Transfer* 11.20.04 RO 14:55	Growth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	24Hr Initials\Date\Time Read: 11.21.04 RO 15:04	Gas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	
	Reincubate	Growth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	48Hr Initials\Date\Time Read: 11.22.04 RO 15:06	Gas	+	+	+	+	+	-	-	-	-	-	-	-	-	-	-	-	+	
	48 Hour Transfer*	Growth																		
	48Hr Initials\Date\Time Read:	Gas																		
	Reincubate	Growth																		
	72Hr Initials\Date\Time Read:	Gas																		
		Number of Positive Tubes	5					0					0					N/A		23
E-Coli Confirmation	24 Hour Incubation* 11.20.04 RO 14:58	Fluorescence	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	
	Initials\Date\Time Read: 11.21.04 RO 15:12																			
	48 Hour Incubation																			
	Date\Time Read:																			
		Number of Positive Tubes	0					0					0					N/A		<2
Fecal Confirmation	24 Hour Incubation*	Growth																		
	Initials\Date\Time Read:	Gas																		
	48 Hour Incubation	Growth																		
	Initials\Date\Time Read:	Gas																		
		Number of Positive Tubes																N/A		

Notes:

* Record the Transfer Time / Temperature °C / Initials

G: DMAP/Forms/Logbooks/coliformMPNlog.xls

Reviewed by Date: 11/30/04 ✓

DMAP COLIFORM MPN LOGBOOK

E Coli SM 9221F ☐ Total coliform SM 9221B ☐ Fecal Coliform SM 9221E ✓ (Please check one or more)

Incubator Location: I-6 #3 Sample ID: PUK0592-01 Batch ID: 04K1925 Analyst Initials/Date/Time Setup: 11.19.04 RO 12:03

MEDIA	LSB	LSBx2	BGBB	ECB	ECB-MUG	+/- Controls	E. Coli	E. Faecalis	E. Aerogenes	K. Pneumoniae
LOT #	4281	4237	N/A	111104	N/A	LOT #	4090232	4090233	4090233	N/A

Dilution Water Lot: N/A Maxi Tip Lot: 04072922536 Combi Tip Lot: 5113284JZ214 Received 10:15 Res. Chlorine Neg

			10.0					1.0					0.1					Controls -	Controls +	Result MPN / 100mL
Coliform Presumptive	24 Hour Incubation	Growth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	Initials\Date\Time Read: 11-20.04 RO 14:07	Gas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	48 Hour incubation	Growth																		
	Initials\Date\Time Read:	Gas																		
Total Coliform Confirmation	24 Hour Transfer*	Growth																		
	24Hr Initials\Date\Time Read:	Gas																		
	Reincubate	Growth																		
	48Hr Initials\Date\Time Read:	Gas																		
	48 Hour Transfer*	Growth																		
	48Hr Initials\Date\Time Read:	Gas																		
	Reincubate	Growth																		
	72Hr Initials\Date\Time Read:	Gas																		
		Number of Positive Tubes																N/A		
E-Coli Confirmation	24 Hour Incubation*	Fluoresence																		
	Initials\Date\Time Read:																			
	48 Hour Incubation																			
	Date\Time Read:																			
		Number of Positive Tubes																N/A		
Fecal Confirmation	24 Hour Incubation* 11.20.04 RO 14:17	Growth	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	Initials\Date\Time Read: 11.21.04 RO 14:58	Gas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-	+	
	48 Hour Incubation	Growth																		
	Initials\Date\Time Read:	Gas																		
		Number of Positive Tubes	5					5					5					N/A		≥1600

Notes:

* Record the Transfer Time / Temperature °C / Initials

G: DMAP/Forms/Logbooks/coliformMPNlog.xls

Reviewed by Date: FP 11/30/04 ✓

APPENDIX E

ITSI STANDARD LEGAL NOTICE

ITSI STANDARD LEGAL NOTICE

AUGUST 2005 SAMPLING EVENT

Innovative Technical Solutions, Inc.

June 28, 2006

Dr. Casey McKeon
Resolution Copper Company
47206 North Magma Shaft #9 Road
Superior, Arizona 85273

RE: ITSI DATA VALIDATION REPORT
RESOLUTION COPPER
PURCHASE ORDER NO. H00414
SDG 118381

Dear Dr. McKeon:

Innovative Technical Solutions, Inc. (ITSI) has completed the data review for Resolution Copper Company (RCC) for its surface water baseline resource investigation. ITSI performed data review as described in the U.S. Environmental Protection Agency's (EPA) *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004; the *Quality Assurance Plan Surface Water Baseline Resource Investigation for Resolution Copper Company*, January 23, 2006; and using criteria in the referenced methods.

The list of acronyms and abbreviations is included as Appendix A. Data review qualifiers have been marked in red directly on the analytical reports provided by the laboratory and are attached as Appendix B. A summary of all qualified data is provided in a qualified results table (QRT) as Appendix C. Laboratory communications are provided as Appendix D. The ITSI standard legal notice is provided as Appendix E.

1.0 CROSS REFERENCE OF SAMPLES VERIFIED

The analytical data in the laboratory Sample Delivery Group (SDG) indicated below were reviewed. This SDG contained data for the following methods and compounds.

- Metals
  - Inductively coupled plasma/atomic emission spectroscopy (ICP/AES) metals by EPA Method 200.7
  - ICP/mass spectrometry (MS) metals by EPA Method 200.8
  - Cold vapor atomic absorption (CVAA) mercury by EPA Method 245.1
  - Atomic absorption (AA), furnace technique for cadmium (EPA Method 213.2) and silver (EPA Method 272.2)

1501 West Fountainhead Parkway, Suite 360
Tempe, AZ 85282

(480) 706-6488
fax (480) 704-2952
www.itsi.com

- General Chemistry Methods
  - Alkalinity, $CaCO_3$ by Standard Method (SM) 2320B
  - Ion chromatography (IC) anions by EPA Method 300.0
  - Sulfide by EPA 376.1
  - Total dissolved solids (TDS) by EPA Method 160.1
  - Total Settable Solids (TSS) by EPA Method 160.2

The samples were analyzed by SVL Analytical (SVL) of Kellogg, Idaho. The table below provides an analytical summary and cross reference for the sample(s). All samples underwent a level 2 data validation.

Field Sample ID	SVL SDG	Collection Date	Type	Sample Matrix	Metals	General Chemistry
RESE-1 001 222	W463497	08/08/05	Total	Water	X	X
RESE-1 001 223	W463498	08/08/05	Total	Water	X	X
RESE-1 001 224	W463499	08/10/05	Total	Water	X	X
RESE-1 001 225	W463500	08/10/05	Total	Water	X	X
RESE-1 001 226	W463501	08/10/05	Total	Water	X	X
RESE-1 001 222	W463502	08/08/05	Dissolved	Water	X	
RESE-1 001 223	W463503	08/08/05	Dissolved	Water	X	
RESE-1 001 224	W463504	08/10/05	Dissolved	Water	X	
RESE-1 001 225	W463505	08/10/05	Dissolved	Water	X	
RESE-1 001 226	W463506	08/10/05	Dissolved	Water	X	
RESE-1 001 222	W463523	08/08/05	Total Recoverable	Water	X	
RESE-1 001 223	W463524	08/08/05	Total Recoverable	Water	X	
RESE-1 001 224	W463525	08/10/05	Total Recoverable	Water	X	
RESE-1 001 225	W463526	08/10/05	Total Recoverable	Water	X	
RESE-1 001 226	W463527	08/10/05	Total Recoverable	Water	X	

2.0 LABORATORY REPORT

The laboratory used data qualifier flags that are addressed in Section 4.0 to indicate quality control (QC) exceedences. There were no anomalies in the case narrative except as noted below.

- Note the there are dilutions on the blank and laboratory control samples for Total Metals analysis by ICP-MS. The dilutions are due to the need to reduce the amount of chloride in the samples prior to analysis. The chloride is from the HCl added according to the method digestion.

- For all samples in this job, the (C/A) Balance exceeds the expected range with an apparent deficit of anions. Nitrates are present in these samples; the amounts were not determined or reported but would contribute to the anion sums, providing more acceptable balances.

- Sample RESE-1 001 225 has a poor TDS ratio. The measured TDS was 30 mg/L, and the calculated TDS was 56 mg/L. The expected TDS would be in the range of 45-57 mg/L. Although the sample was well out of holding time for TDS, it was reanalyzed with a result of 101 mg/L. The sample apparently contains something that does not allow an accurate measurement of TDS.

3.0 SAMPLE INTEGRITY

The chains-of-custody (COCs) were available for review. There were no anomalies that required qualification of the data except as noted below.

- The laboratory noted that the dates and times on the COC and sample containers were different. For data validation purposes, the dates and times on the samples containers were used by ITSI for evaluation of holding times.

4.0 DATA EVALUATION

4.1 METALS BY EPA METHODS 200.7, 200.8 245.1, 213.2 AND 272.2

4.1.1 Sample Receipt and Holding Times

The samples were extracted and analyzed within the method-recommended holding time. There were no anomalies concerning the receipt of the samples that required qualification of the data.

4.1.2 Blank Evaluation

Preparation and calibration blanks were analyzed to assess laboratory contamination. There were no anomalies in the reported blanks that required qualification of the data except as noted below.

- Several metals were detected in the initial, continuing and preparation blanks associated with all the metal analysis. The sample results that were less than ten times (10X) the highest blank contamination have been raised to the observed value. No data qualifiers are required for the results that are greater than 10X the highest blank contamination or are non-detect.

4.1.3 Initial and Continuing Calibration

The initial and continuing calibration data and summaries were reviewed. All calibration standards were analyzed at the proper frequency and met the method or Quality Assurance Project Plan (QAPP) criteria.

4.1.4 Second Source Calibration Verification (SSCV)

The SSCVs were reviewed. There were no anomalies that required qualification of the data.

4.1.5 Laboratory Control Samples (LCS)/Laboratory Control Samples Duplicate (LCSD)

A single LCS was analyzed for all of the total, dissolved and total recoverable metal samples. There were no anomalies that required qualification of the data.

4.1.6 Matrix Spike (MS)/Matrix Spike Duplicate (MSD) and Duplicate Samples

An MS and sample duplicate were analyzed for each metal analysis. There were no anomalies that required qualification of the data except as noted below.

- The relative percent difference (RPD) for cadmium was out of the QAPP criteria of less than 20 at 66.7 percent in the sample duplicate associated with the EPA Method 213.2 total metal analysis. The associated positive results in samples RESE-01 001 222, RESE-01 001 224, RESE-01 001 225 and RESE-01 001 226 have been flagged "J" for an estimated value. No data qualifiers are required for the non-detect results.

- The percent recovery for cadmium was out of the QAPP criteria or 85 to 115 percent in the MS associated with the EPA Method 213.2 total metal analysis. Since the LCS recovery was acceptable, only the result in spiked sample RESE-01 001 225 has been flagged "J" for an estimated value.

4.1.7 Detection Limit Check Standard (CRDL)

A CRDL check standard was analyzed prior to the ICP/AES sample analysis. There were no anomalies that required qualification of the data. The following anomaly required qualification of the data for the ICP/MS analysis.

- A CRDL check standard was not analyzed for the metals analyzed by ICP/MS. Since the laboratory did not verify the linearity of the curve near the QAPP RLs, the associated non-detect results have been flagged "UJ" for an estimated reporting limit. No data qualifiers are recommended for the positive results.

4.1.8 Serial Dilution

A serial dilution for the ICP/AES analysis was previously performed on a project matrix sample from SDG 106003 to check for physical or chemical interferences in the sample matrix. A serial dilution was not required for the ICP/MS analysis. There were no anomalies that required qualification of the data except as noted below.

- The percent difference for silica was out of the criteria of less than 10 percent at 11 percent in the serial dilution associated with ICP/AES total metal analysis. The associated results, which were all positive, have been flagged "J" for an estimated value. No qualifier flags are required for the non-detect results.

4.1.9 Practical Quantitation Limits (PQLs) and Compound Quantitation

The laboratory PQLs and results were reviewed. There were no quantitation anomalies.

4.1.10 Instrument Performance

The interference check samples were reviewed for the ICP analyses. There were no anomalies that required qualification of the data.

4.1.11 Field Duplicate Samples

Field duplicate samples were not identified.

4.1.12 Assessment for Metals

There were no rejected metal analytical results. Based on the available information, the data as qualified are considered useable for their intended purposes.

4.2 GENERAL CHEMISTRY METHODS

4.2.1 Sample Receipt and Holding Times

There were no anomalies concerning the receipt of the samples or holding time that required qualification of the data except as noted below.

- Samples RESE-1 001 222 and RESE-1 001 223 were analyzed two days past the holding time of seven days for TDS and TSS and one day past the holding time of seven days for sulfide. The associated positive results have been flagged "J" for an estimated value, and the non-detect results have been flagged "UJ" for an estimated RL.

4.2.2 Blank Evaluation

Method blanks were analyzed to assess laboratory contamination. There were no anomalies in the reported blanks that required qualification of the data.

4.2.3 Initial and Continuing Calibration Evaluation

The initial and continuing calibration data and summaries were reviewed. All calibration standards were analyzed at the proper frequency and met the method or QAPP criteria.

4.2.4 SSCV

The SSCVs were reviewed. There were no anomalies that required qualification of the data.

4.2.5 LCS/LCSD

A single LCS was reported for each analysis. There were no anomalies that required qualification of the data.

4.2.6 MS/MSD and Duplicate Samples

MS and/or sample duplicates were analyzed for each analysis except sulfide. There were no anomalies that required qualification of the data except as noted below.

- The percent recovery for bromide was out of the QAPP criteria of 90 to 110 percent at 87.8 percent in the MS. Since the LCS recovery was acceptable, only the positive result in spiked sample RESE-1 001 222 has been flagged "J" for an estimated value.

4.2.7 PQLs and Compound Quantitation

The laboratory PQLs and results were reviewed. There were no quantitation anomalies that required qualification of the data except as noted below.

- The method for TSS requires that a sample be dried and weighed until the sample weights are constant or the difference is less than 0.5 milligrams (mg). The laboratory only produced a constant weight difference for the method blank and LCS. Since the project samples were dried and weighed once and the difference between the last two weights for the associated LCS was 0.8 mg, the associated positive sample results have been flagged "J" for an estimated value. No data qualifier flags are required for the non-detect results.

4.2.8 Field Duplicate Samples

Field duplicate samples were not identified.

4.2.9 Assessment for General Chemistry

There were no rejected general chemistry analytical results. Based on the available information, the data as qualified are considered useable for their intended purposes.

5.0 OVERALL ASSESSMENT FOR SDG

There were no rejected analytical results in this SDG. Based on the available information, the data as qualified are considered useable for their intended purposes.

6.0 RECOMMENDATIONS

ITSI has the following recommendations.

- The laboratory should analyze an MSD or LCSD with each method to ensure that the analytical batch has precision in the event that the sample duplicate fails or the results of the original sample and the sample duplicate are non-detect.
- The laboratory should analyze a CRDL check standard and serial dilution for the ICP/MS, graphite furnace atomic absorption (GFAA), and CVAA analyses.
- The laboratory should provide measurement of precision for the sulfide analysis.
- The laboratory should dry and weigh all samples for TDS and TSS until a constant weight is obtained or the weight loss is less than 0.5 mg.
- The laboratory follow-up on discrepancies observed in the receipt of the samples.
- The laboratory should analyze a CRDL after the interference check sample ICS and before the, at the beginning and end of each analytical run, and after every 20 analytical samples as outlined in the 2004 EPA Inorganic National Function Guidelines.

We thank you for the opportunity to serve you and look forward to supporting RCC with data review in the future.

Sincerely,
Innovative Technical Solutions, Inc.

Evelyn H. Dawson
Senior Chemist

Enclosures:

Appendix A – List of Acronyms and Abbreviations
Appendix B – Qualified Report Pages
Appendix C – Qualified Results Table
Appendix D – Laboratory Communications
Appendix E – ITSI Standard Legal Notice

cc: John Malusa
Golder Associates, Inc.
4730 North Oracle Road, Suite 210
Tucson, Arizona, 85705

APPENDIX A

LIST OF ACRONYMS AND ABBREVIATIONS

LIST OF ACRONYMS AND ABBREVIATIONS

C/A	cation/anion
COC	chain-of-custody
CRDL	Detection Limit Check Standard
AA	atomic absorption
AES	atomic emission spectroscopy
CVAA	cold vapor atomic absorption
EPA	U.S. Environmental Protection Agency
GFAA	graphite furnace atomic absorption
HCl	hydrochloric acid
IC	ion chromatography
ICP	inductively coupled plasma
ICS	interference check sample
ITSI	Innovative Technical Solutions, Inc.
LCS/LCSD	laboratory control samples/laboratory control samples duplicate
mg	milligram
mg/L	milligrams per liter
MS	mass spectrometry
MS/MSD	matrix spike/matrix spike duplicate
PQL	practical quantitation limit
QAPP	Quality Assurance Project Plan
QC	quality control
QRT	qualified results table
RCC	Resolution Copper Company
RL	reporting limit
RPD	relative percent difference
SDG	Sample Delivery Group
SM	Standard Method
SSCV	Second Source Calibration Verification
SVL	SVL Analytical
TDS	Total Dissolved Solids
TSS	Total Settable Solids

LIST OF VALUE FLAGS

J	estimated value
J-	estimated value, low bias
J+	estimated value, high bias
R	rejected, not useable
U	not detected
UJ	estimated reporting limit
UR	rejected, unusable RL

APPENDIX B

QUALIFIED REPORT PAGES

SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 222
Sample Collected: 8/11/05 8:05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463497
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	ALKALINITY	286	mg CaCO3/L		2320B	8/16/05	
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320B	8/16/05	
T	HCO3, CaCO3	286	mg CaCO3/L		2320B	8/16/05	
T	TDS	541	mg/L		160.1	8/17/05	J
T	TSS	<5.0	mg/L		160.2	8/17/05	J
T	Bromide	0.22	mg/L		300.0	8/23/05	J
T	Calcium	114	mg/L		200.7	8/26/05	
T	Chloride	17.7	mg/L	5	300.0	8/23/05	
T	Fluoride	0.28	mg/L		300.0	8/23/05	
T	Hardness	435	mg CaCO3/L		2340B	8/26/05	
T	Potassium	2.67	mg/L		200.7	8/26/05	
T	Magnesium	36.2	mg/L		200.7	8/26/05	
T	Sodium	11.4	mg/L		200.7	8/26/05	
T	Sulfide	<1.0	mg/L		376.1	8/16/05	J
T	Sulfate, SO4	82.4	mg/L	5	300.0	8/23/05	
T	Silver	<0.00010	mg/L		272.2	9/02/05	
T	Aluminum	<0.030	mg/L		200.7	8/26/05	
T	Arsenic	0.00380	mg/L	8	200.8	9/01/05	
T	Boron	<0.040	mg/L		200.7	8/26/05	
T	Beryllium	<0.0020	mg/L		200.7	8/26/05	
T	Cadmium	0.00500	mg/L		213.2	9/07/05	J
T	Cobalt	<0.0060	mg/L		200.7	8/26/05	
T	Copper	<0.010	mg/L		200.7	8/26/05	
T	Iron	<0.060	mg/L		200.7	8/26/05	
T	Mercury	<0.00020	mg/L		245.1	8/16/05	
T	Molybdenum	0.0262	mg/L		200.7	8/26/05	
T	Lead	<0.0030	mg/L	8	200.8	9/01/05	J
T	Antimony	~~0.00390~~	mg/L	8	200.8	9/01/05	0.00390 UJ
T	Selenium	<0.0030	mg/L	8	200.8	9/01/05	J
T	Silica	66.5	mg/L		200.7	8/26/05	J
T	Thallium	<0.0020	mg/L	8	200.8	9/01/05	J
T	Zinc	<0.010	mg/L		200.7	8/26/05	
D	Silver	<0.00010	mg/L		200.8	8/27/05	J
D	Arsenic	0.0033	mg/L		200.8	8/27/05	
D	Barium	0.0255	mg/L		200.7	8/26/05	
D	Beryllium	<0.0020	mg/L		200.7	8/26/05	
D	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
D	Chromium	<0.0060	mg/L		200.7	8/26/05	
D	Copper	<0.010	mg/L		200.7	8/26/05	
D	Mercury	<0.00020	mg/L		245.1	8/16/05	
D	Nickel	<0.010	mg/L		200.7	8/26/05	
D	Lead	<0.0030	mg/L		200.8	8/27/05	J
D	Antimony	0.0032	mg/L		200.8	8/27/05	

Continued on next page...

PC IWI
6/28/06

SVL ANALYTICAL, INC. Certificate: AZ AZ0538
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 222
Sample Collected: 8/11/05 8:05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463497
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Thallium	<0.0020	mg/L		200.8	8/27/05	J
D	Zinc	<0.010	mg/L		200.7	8/26/05	
TR	Silver	<0.00010	mg/L		200.8	8/27/05	J
TR	Arsenic	0.0033	mg/L		200.8	8/27/05	
TR	Beryllium	<0.0020	mg/L		200.7	8/26/05	
TR	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
TR	Chromium	<0.0060	mg/L		200.7	8/26/05	
TR	Copper	<0.010	mg/L		200.7	8/26/05	
TR	Manganese	<0.0040	mg/L		200.7	8/26/05	
TR	Nickel	<0.010	mg/L		200.7	8/26/05	
TR	Lead	<0.0030	mg/L		200.8	8/27/05	J
TR	Antimony	0.0031	mg/L		200.8	8/27/05	
TR	Selenium	0.0031	mg/L		200.8	8/27/05	
TR	Zinc	<0.010	mg/L		200.7	8/26/05	

CalcTDS:	520	TDS/Cond:	CATION SUM:	9.24meq/L	BALANCE
TDS/CalcTDS:	1.0	CalcTDS/Cond:	ANION SUM:	7.94meq/L	7.57%

Filtered fraction: 463502 Tot.Rec. fraction: 463523
SAMPLE READS 08/08/05 10:35
TOTAL- M5:CD M3:CA,SIO2 D2:CL,SO4 D1:AS,PB,SB,SE,TL
Q9:SULFIDE

Reviewed By: [signature] Date 9/13/05
9/13/05 14:42

AZ: AZ0538 CA: NO. 2080 CO: 8/18/04 ID: ID00019 NV: 7/31/04 WA: C1268

PC ITJ1
6/26/06

SVL ANALYTICAL, INC. Certificate: AZ AZ053[illegible]
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-08[illegible]

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 223
Sample Collected: 8/11/05 10:00
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463498
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	ALKALINITY	288	mg CaCO3/L		2320B	8/16/05	
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320B	8/16/05	
T	HCO3, CaCO3	288	mg CaCO3/L		2320B	8/16/05	
T	TDS	540	mg/L		160.1	8/17/05	J
T	TSS	<5.0	mg/L		160.2	8/17/05	J
T	Bromide	0.21	mg/L		300.0	8/23/05	
T	Calcium	109	mg/L		200.7	8/26/05	
T	Chloride	17.9	mg/L	5	300.0	8/23/05	
T	Fluoride	0.27	mg/L		300.0	8/23/05	
T	Hardness	414	mg CaCO3/L		2340B	8/26/05	
T	Potassium	2.57	mg/L		200.7	8/26/05	
T	Magnesium	34.8	mg/L		200.7	8/26/05	
T	Sodium	10.8	mg/L		200.7	8/26/05	
T	Sulfide	<1.0	mg/L		376.1	8/16/05	J
T	Sulfate, SO4	82.5	mg/L	5	300.0	8/23/05	
T	Silver	<0.00010	mg/L		272.2	9/02/05	
T	Aluminum	<0.030	mg/L		200.7	8/26/05	
T	Arsenic	0.00330	mg/L	8	200.8	9/01/05	
T	Boron	<0.040	mg/L		200.7	8/26/05	
T	Beryllium	<0.0020	mg/L		200.7	8/26/05	
T	Cadmium	<0.0010	mg/L		213.2	9/07/05	
T	Cobalt	<0.0060	mg/L		200.7	8/26/05	
T	Copper	<0.010	mg/L		200.7	8/26/05	
T	Iron	<0.060	mg/L		200.7	8/26/05	
T	Mercury	<0.00020	mg/L		245.1	8/16/05	
T	Molybdenum	0.0248	mg/L		200.7	8/26/05	
T	Lead	<0.0030	mg/L	8	200.8	9/01/05	J
T	Antimony	~~0.00360~~	mg/L	8	200.8	9/01/05	0.00360 UJ
T	Selenium	<0.0030	mg/L	8	200.8	9/01/05	J
T	Silica	63.5	mg/L		200.7	8/26/05	J
T	Thallium	<0.0020	mg/L	8	200.8	9/01/05	J
T	Zinc	<0.010	mg/L		200.7	8/26/05	
D	Silver	<0.00010	mg/L		200.8	8/27/05	J
D	Arsenic	0.0033	mg/L		200.8	8/27/05	
D	Barium	0.0259	mg/L		200.7	8/26/05	
D	Beryllium	<0.0020	mg/L		200.7	8/26/05	
D	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
D	Chromium	<0.0060	mg/L		200.7	8/26/05	
D	Copper	<0.010	mg/L		200.7	8/26/05	
D	Mercury	<0.00020	mg/L		245.1	8/16/05	
D	Nickel	<0.010	mg/L		200.7	8/26/05	
D	Lead	<0.0030	mg/L		200.8	8/27/05	J
D	Antimony	0.0030	mg/L		200.8	8/27/05	

Continued on next page...

PC ITJ1
6/24/06

SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 223
Sample Collected: 8/11/05 10:00
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463498
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Thallium	<0.0020	mg/L		200.8	8/27/05	J
D	Zinc	<0.010	mg/L		200.7	8/26/05	
TR	Silver	<0.00010	mg/L		200.8	8/27/05	J
TR	Arsenic	0.0035	mg/L		200.8	8/27/05	
TR	Beryllium	<0.0020	mg/L		200.7	8/26/05	
TR	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
TR	Chromium	<0.0060	mg/L		200.7	8/26/05	
TR	Copper	<0.010	mg/L		200.7	8/26/05	
TR	Manganese	<0.0040	mg/L		200.7	8/26/05	
TR	Nickel	<0.010	mg/L		200.7	8/26/05	
TR	Lead	<0.0030	mg/L		200.8	8/27/05	J
TR	Antimony	0.0034	mg/L		200.8	8/27/05	
TR	Selenium	<0.0030	mg/L		200.8	8/27/05	J
TR	Zinc	<0.010	mg/L		200.7	8/26/05	

CalcTDS:	511	TDS/Cond:		CATION SUM:	8.84meq/L	BALANCE
TDS/CalcTDS:	1.1	CalcTDS/Cond:		ANION SUM:	7.98meq/L	5.11%

Filtered fraction: 463503 Tot.Rec. fraction: 463524
SAMPLE READS 08/08/05-11:00.
TOTAL- D1:AS,PB,SB,SE,TL M5:CD D2:CL,SO4
M3:CA,SIO2
Q9:SULFIDE

Reviewed By: [signature] Date 9/13/05
9/13/05 14:42

AZ: AZ0538 CA: NO. 2080 CO: 8/18/04 ID: ID00019 NV: 7/31/04 WA: C1268

PC JJJ)
6/26/06

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Certificate: AZ AZ0538

SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 224
Sample Collected: 8/11/05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463499
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	ALKALINITY	21.9	mg CaCO3/L		2320B	8/16/05	
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320B	8/16/05	
T	HCO3, CaCO3	21.9	mg CaCO3/L		2320B	8/16/05	
T	TDS	93	mg/L		160.1	8/17/05	
T	TSS	5.0	mg/L		160.2	8/17/05	J
T	Bromide	0.10	mg/L		300.0	8/23/05	
T	Calcium	9.44	mg/L		200.7	8/26/05	
T	Chloride	9.38	mg/L		300.0	8/23/05	
T	Fluoride	<0.10	mg/L		300.0	8/23/05	
T	Hardness	34.2	mg CaCO3/L		2340B	8/26/05	
T	Potassium	2.54	mg/L		200.7	8/26/05	
T	Magnesium	2.58	mg/L		200.7	8/26/05	
T	Sodium	6.63	mg/L		200.7	8/26/05	
T	Sulfide	<1.0	mg/L		376.1	8/16/05	
T	Sulfate, SO4	10.4	mg/L		300.0	8/23/05	
T	Silver	<0.00010	mg/L		272.2	9/02/05	
T	Aluminum	0.407	mg/L		200.7	8/26/05	
T	Arsenic	0.00760	mg/L	8	200.8	9/01/05	
T	Boron	<0.040	mg/L		200.7	8/26/05	
T	Beryllium	<0.0020	mg/L		200.7	8/26/05	
T	Cadmium	0.00100	mg/L		213.2	9/07/05	J
T	Cobalt	<0.0060	mg/L		200.7	8/26/05	
T	Copper	~~0.017~~	mg/L		200.7	8/26/05	0.0174
T	Iron	1.42	mg/L		200.7	8/26/05	
T	Mercury	<0.00020	mg/L		245.1	8/16/05	
T	Molybdenum	<0.0080	mg/L		200.7	8/26/05	
T	Lead	<0.0030	mg/L	8	200.8	9/01/05	J
T	Antimony	<0.0030	mg/L	8	200.8	9/01/05	J
T	Selenium	<0.0030	mg/L	8	200.8	9/01/05	J
T	Silica	27.7	mg/L		200.7	8/26/05	J
T	Thallium	<0.0020	mg/L	8	200.8	9/01/05	J
T	Zinc	<0.010	mg/L		200.7	8/26/05	
D	Silver	<0.00010	mg/L		200.8	8/27/05	J
D	Arsenic	0.0053	mg/L		200.8	8/27/05	
D	Barium	0.0250	mg/L		200.7	8/26/05	
D	Beryllium	<0.0020	mg/L		200.7	8/26/05	
D	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
D	Chromium	<0.0060	mg/L		200.7	8/26/05	
D	Copper	<0.010	mg/L		200.7	8/26/05	
D	Mercury	<0.00020	mg/L		245.1	8/16/05	
D	Nickel	<0.010	mg/L		200.7	8/26/05	
D	Lead	<0.0030	mg/L		200.8	8/27/05	J
D	Antimony	<0.0030	mg/L		200.8	8/27/05	J

Continued on next page...

PC IJJ1
6/26/06

83

SVL ANALYTICAL, INC.
One Government Gulch ■ P.O. Box 929 ■ Kellogg, Idaho 83837-0929 ■ Phone: (208)784-1258 ■ Fax: (208)783-[illegible]

Certificate: AZ AZ[illegible]

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 224
Sample Collected: 8/11/05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 11838[illegible]
SAMPLE: 46349[illegible]
T/D/TR
Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Thallium	<0.0020	mg/L		200.8	8/27/05	J
D	Zinc	<0.010	mg/L		200.7	8/26/05	
TR	Silver	<0.00010	mg/L		200.8	8/27/05	J
TR	Arsenic	0.0073	mg/L		200.8	8/27/05	
TR	Beryllium	<0.0020	mg/L		200.7	8/26/05	
TR	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
TR	Chromium	<0.0060	mg/L		200.7	8/26/05	
TR	Copper	~~0.017~~	mg/L		200.7	8/26/05	0.017 U
TR	Manganese	0.225	mg/L		200.7	8/26/05	
TR	Nickel	<0.010	mg/L		200.7	8/26/05	
TR	Lead	<0.0030	mg/L		200.8	8/27/05	J
TR	Antimony	<0.0030	mg/L		200.8	8/27/05	J
TR	Selenium	<0.0030	mg/L		200.8	8/27/05	J
TR	Zinc	<0.010	mg/L		200.7	8/26/05	

CalcTDS:	91.1	TDS/Cond:	CATION SUM:	1.14meq/L	BALANCE
TDS/CalcTDS:	1.0	CalcTDS/Cond:	ANION SUM:	0.92meq/L	10.68%

Filtered fraction: 463504 Tot.Rec. fraction: 463525
SAMPLE READS 08/10/05 7:30AM
TOTAL- D1:AS,PB,SB,SE,TL M5:CD M3:CA,SIO2
Q9:SULFIDE

Reviewed By: [signature] Date 9/13/05
9/13/05 14:42

AZ: AZ0538 CA: NO. 2080 CO: 8/18/04 ID: ID00019 NV: 7/31/04 WA: C1268

PC III
6/26/06

84

SVL ANALYTICAL, INC.

One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 225
Sample Collected: 8/11/05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463500
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	ALKALINITY	15.4	mg CaCO3/L		2320B	8/16/05	
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320B	8/16/05	
T	HCO3, CaCO3	15.4	mg CaCO3/L		2320B	8/16/05	
T	TDS	30	mg/L		160.1	8/17/05	
T	TSS	8.0	mg/L		160.2	8/17/05	J
T	Bromide	<0.10	mg/L		300.0	8/23/05	
T	Calcium	7.54	mg/L		200.7	8/26/05	
T	Chloride	7.65	mg/L		300.0	8/23/05	
T	Fluoride	<0.10	mg/L		300.0	8/23/05	
T	Hardness	27.0	mg CaCO3/L		2340B	8/26/05	
T	Potassium	1.75	mg/L		200.7	8/26/05	
T	Magnesium	1.99	mg/L		200.7	8/26/05	
T	Sodium	4.10	mg/L		200.7	8/26/05	
T	Sulfide	<1.0	mg/L		376.1	8/16/05	
T	Sulfate, SO4	6.78	mg/L		300.0	8/23/05	
T	Silver	<0.00010	mg/L		272.2	9/02/05	
T	Aluminum	0.154	mg/L		200.7	8/26/05	
T	Arsenic	0.00880	mg/L	8	200.8	9/01/05	
T	Boron	<0.040	mg/L		200.7	8/26/05	
T	Beryllium	<0.0020	mg/L		200.7	8/26/05	
T	Cadmium	0.00020	mg/L		213.2	9/07/05	J
T	Cobalt	<0.0060	mg/L		200.7	8/26/05	
T	Copper	~~0.013~~	mg/L		200.7	8/26/05	0.013 U
T	Iron	0.211	mg/L		200.7	8/26/05	
T	Mercury	<0.00020	mg/L		245.1	8/16/05	
T	Molybdenum	<0.0080	mg/L		200.7	8/26/05	
T	Lead	<0.0030	mg/L	8	200.8	9/01/05	J
T	Antimony	<0.0030	mg/L	8	200.8	9/01/05	J
T	Selenium	<0.0030	mg/L	8	200.8	9/01/05	J
T	Silica	12.9	mg/L		200.7	8/26/05	J
T	Thallium	<0.0020	mg/L	8	200.8	9/01/05	J
T	Zinc	<0.010	mg/L		200.7	8/26/05	
D	Silver	<0.00010	mg/L		200.8	8/27/05	J
D	Arsenic	0.0084	mg/L		200.8	8/27/05	
D	Barium	0.0158	mg/L		200.7	8/26/05	
D	Beryllium	<0.0020	mg/L		200.7	8/26/05	
D	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
D	Chromium	<0.0060	mg/L		200.7	8/26/05	
D	Copper	<0.010	mg/L		200.7	8/26/05	
D	Mercury	<0.00020	mg/L		245.1	8/16/05	
D	Nickel	<0.010	mg/L		200.7	8/26/05	
D	Lead	<0.0030	mg/L		200.8	8/27/05	J
D	Antimony	<0.0030	mg/L		200.8	8/27/05	J

Continued on next page...

PC ITJ1
6/26/04

85

SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-089

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 225
Sample Collected: 8/11/05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463500
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Thallium	<0.0020	mg/L		200.8	8/27/05	J
D	Zinc	<0.010	mg/L		200.7	8/26/05	
TR	Silver	<0.00010	mg/L		200.8	8/27/05	J
TR	Arsenic	0.0078	mg/L		200.8	8/27/05	
TR	Beryllium	<0.0020	mg/L		200.7	8/26/05	
TR	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
TR	Chromium	<0.0060	mg/L		200.7	8/26/05	
TR	Copper	~~0.013~~	mg/L		200.7	8/26/05	0.0134
TR	Manganese	0.142	mg/L		200.7	8/26/05	
TR	Nickel	<0.010	mg/L		200.7	8/26/05	
TR	Lead	<0.0030	mg/L		200.8	8/27/05	J
TR	Antimony	<0.0030	mg/L		200.8	8/27/05	J
TR	Selenium	<0.0030	mg/L		200.8	8/27/05	J
TR	Zinc	<0.010	mg/L		200.7	8/26/05	

CalcTDS:	55.8	TDS/Cond:	CATION SUM:	0.80meq/L	BALANCE
TDS/CalcTDS:	0.5	CalcTDS/Cond:	ANION SUM:	0.67meq/L	8.84%

Filtered fraction: 463505 Tot.Rec. fraction: 463526
SAMPLE READS 08/10/05 10:30
TOTAL- D1:AS,PB,SB,SE,TL M3:CA,SIO2
Q9:SULFIDE

Reviewed By: [signature] Date 9/13/05
9/13/05 14:42

AZ: AZ0538 CA: NO. 2080 CO: 8/18/04 ID: ID00019 NV: 7/31/04 WA: C1268

PC IJJ1
6/26/06

86

SVL ANALYTICAL, INC.
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

Certificate: AZ AZ0538

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 226
Sample Collected: 8/11/05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463501
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
T	ALKALINITY	11.0	mg CaCO3/L		2320B	8/16/05	
T	CO3, CaCO3	<1.0	mg CaCO3/L		2320B	8/16/05	
T	HCO3, CaCO3	11.0	mg CaCO3/L		2320B	8/16/05	
T	TDS	156	mg/L		160.1	8/17/05	
T	TSS	<5.0	mg/L		160.2	8/17/05	
T	Bromide	0.13	mg/L		300.0	8/23/05	
T	Calcium	21.3	mg/L		200.7	8/26/05	
T	Chloride	14.5	mg/L	2	300.0	8/23/05	
T	Fluoride	<0.10	mg/L		300.0	8/23/05	
T	Hardness	76.8	mg CaCO3/L		2340B	8/26/05	
T	Potassium	4.11	mg/L		200.7	8/26/05	
T	Magnesium	5.74	mg/L		200.7	8/26/05	
T	Sodium	9.93	mg/L		200.7	8/26/05	
T	Sulfide	<1.0	mg/L		376.1	8/16/05	
T	Sulfate, SO4	58.0	mg/L	5	300.0	8/23/05	
T	Silver	<0.00010	mg/L		272.2	9/02/05	
T	Aluminum	0.533	mg/L		200.7	8/26/05	
T	Arsenic	0.00370	mg/L	8	200.8	9/01/05	
T	Boron	<0.040	mg/L		200.7	8/26/05	
T	Beryllium	<0.0020	mg/L		200.7	8/26/05	
T	Cadmium	0.00200	mg/L		213.2	9/07/05	J
T	Cobalt	<0.0060	mg/L		200.7	8/26/05	
T	Copper	~~0.011~~	mg/L		200.7	8/26/05	0.011 u
T	Iron	0.466	mg/L		200.7	8/26/05	
T	Mercury	<0.00020	mg/L		245.1	8/16/05	
T	Molybdenum	~~0.0083~~	mg/L		200.7	8/26/05	0.00834
T	Lead	<0.0030	mg/L	8	200.8	9/01/05	J
T	Antimony	<0.0030	mg/L	8	200.8	9/01/05	J
T	Selenium	<0.0030	mg/L	8	200.8	9/01/05	J
T	Silica	28.9	mg/L		200.7	8/26/05	
T	Thallium	<0.0020	mg/L	8	200.8	9/01/05	J
T	Zinc	0.016	mg/L		200.7	8/26/05	
D	Silver	<0.00010	mg/L		200.8	8/27/05	J
D	Arsenic	<0.0030	mg/L		200.8	8/27/05	J
D	Barium	0.0539	mg/L		200.7	8/26/05	
D	Beryllium	<0.0020	mg/L		200.7	8/26/05	
D	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
D	Chromium	<0.0060	mg/L		200.7	8/26/05	
D	Copper	<0.010	mg/L		200.7	8/26/05	
D	Mercury	<0.00020	mg/L		245.1	8/16/05	
D	Nickel	<0.010	mg/L		200.7	8/26/05	
D	Lead	<0.0030	mg/L		200.8	8/27/05	J
D	Antimony	<0.0030	mg/L		200.8	8/27/05	J

Continued on next page...

PC IT3)
6/24/06

SVL ANALYTICAL, INC.
Certificate: AZ AZ0538
One Government Gulch ▪ P.O. Box 929 ▪ Kellogg, Idaho 83837-0929 ▪ Phone: (208)784-1258 ▪ Fax: (208)783-0891

CLIENT : Resolution Copper Company
PROJECT:
CLIENT SAMPLE ID: RESE-1 001 226
Sample Collected: 8/11/05
Sample Receipt : 8/12/05
Date of Report : 9/13/05

SVL JOB: 118381
SAMPLE: 463501
T/D/TR

Matrix: WATERS

	Determination	Result	Units	Dilution	Method	Analyzed	
D	Thallium	<0.0020	mg/L		200.8	8/27/05	J
D	Zinc	0.010	mg/L		200.7	8/26/05	
TR	Silver	<0.00010	mg/L		200.8	8/27/05	J
TR	Arsenic	<0.0030	mg/L		200.8	8/27/05	J
TR	Beryllium	<0.0020	mg/L		200.7	8/26/05	
TR	Cadmium	<0.00020	mg/L		200.8	8/27/05	J
TR	Chromium	<0.0060	mg/L		200.7	8/26/05	
TR	Copper	<0.010	mg/L		200.7	8/26/05	
TR	Manganese	0.103	mg/L		200.7	8/26/05	
TR	Nickel	<0.010	mg/L		200.7	8/26/05	
TR	Lead	<0.0030	mg/L		200.8	8/27/05	J
TR	Antimony	<0.0030	mg/L		200.8	8/27/05	J
TR	Selenium	<0.0030	mg/L		200.8	8/27/05	J
TR	Zinc	0.016	mg/L		200.7	8/26/05	

CalcTDS:	158	TDS/Cond:		CATION SUM:	2.15meq/L	BALANCE
TDS/CalcTDS:	1.0	CalcTDS/Cond:		ANION SUM:	1.84meq/L	7.77%

Filtered fraction: 463506 Tot.Rec. fraction: 463527
SAMPLE READS 08/10/05 12:33
TOTAL- D1:AS,PB,SB,SE,TL M5:CD D2:CL,SO4 M3:CA,SIO2
Q9:SULFIDE

Reviewed By: [signature] Date 9/13/05
9/13/05 14:43

AZ: AZ0538 CA: NO. 2080 CO: 8/18/04 ID: ID00019 NV: 7/31/04 WA: C1268

PC IXI
6/24/04

APPENDIX C

QUALIFIED RESULTS TABLE

Qualified Results Table for
Resolution Copper
SDG 118381
August 2005

Sample	Lab ID	Type	Parameter	Original Value	Original Qualifier	Added Qualifier	New Value	Units	Reason	Type	Method	Validator
RESE-1-001 222	W463497	Total	TDS	541		J	541 J	mg/L	Holding time	Water	160.1	ITSI
RESE-1-001 222	W463497	Total	TSS	< 5.0		J	5.0 UJ	mg/L	Holding time	Water	160.2	ITSI
RESE-1-001 222	W463497	Total	Silica	66.5	M3	J	66.5 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1-001 222	W463497	Total	Antimony	0.00390	D1	UJ	0.00390 UJ	mg/L	PB; No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463502	Dissolved	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463523	Total Recoverable	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463497	Total	Lead	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463502	Dissolved	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463523	Total Recoverable	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463497	Total	Selenium	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463502	Dissolved	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463523	Total Recoverable	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463497	Total	Thallium	< 0.0020	D1	J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463502	Dissolved	Thallium	< 0.0020		J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 222	W463497	Total	Cadmium	0.00500	M5	J	0.00500 J	mg/L	RPD Spl Dup	Water	213.2	ITSI
RESE-1-001 222	W463497	Total	Bromide	0.22		J	0.22 J	mg/L	MS %R	Water	300.0	ITSI
RESE-1-001 222	W463497	Total	Sulfide	< 1.0		J	1.0 UJ	mg/L	Holding time	Water	376.1	ITSI
RESE-1-001 223	W463498	Total	TDS	540		J	540 J	mg/L	Holding time	Water	160.1	ITSI
RESE-1-001 223	W463498	Total	TSS	< 5.0		J	5.0 UJ	mg/L	Holding time	Water	160.2	ITSI
RESE-1-001 223	W463498	Total	Silica	63.5	M3	J	63.5 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1-001 223	W463498	Total	Antimony	0.00360	D1	UJ	0.00360 UJ	mg/L	PB; No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463503	Dissolved	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463524	Total Recoverable	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463498	Total	Lead	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463503	Dissolved	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463524	Total Recoverable	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463498	Total	Selenium	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463524	Total Recoverable	Selenium	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463503	Dissolved	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463524	Total Recoverable	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463498	Total	Thallium	< 0.0020	D1	J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463503	Dissolved	Thallium	< 0.0020		J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 223	W463498	Total	Sulfide	< 1.0		J	1.0 UJ	mg/L	Holding time	Water	376.1	ITSI
RESE-1-001 224	W463499	Total	TSS	5.0		J	5.0 J	mg/L	Unconfirmed weight	Water	160.2	ITSI
RESE-1-001 224	W463499	Total	Copper	0.017		U	0.017 U	mg/L	CB	Water	200.7	ITSI
RESE-1-001 224	W463525	Total Recoverable	Copper	0.017		U	0.017 U	mg/L	PB	Water	200.7	ITSI
RESE-1-001 224	W463499	Total	Silica	27.7	M3	J	27.7 J	mg/L	%R SD	Water	200.7	ITSI
RESE-1-001 224	W463499	Total	Antimony	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463504	Dissolved	Antimony	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463525	Total Recoverable	Antimony	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI

Qualified Results Table for
Resolution Copper
SDG 118381
August 2005

Sample	Lab ID	Type	Parameter	Original Value	Original Qualifier	Added Qualifier	New Value	Units	Reason	Type	Method	Validator
RESE-1-001 224	W463504	Dissolved	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463525	Total Recoverable	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463499	Total	Lead	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463504	Dissolved	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463525	Total Recoverable	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463499	Total	Selenium	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463525	Total Recoverable	Selenium	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463504	Dissolved	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463525	Total Recoverable	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463499	Total	Thallium	< 0.0020	D1	J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463504	Dissolved	Thallium	< 0.0020		J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 224	W463499	Total	**Cadmium**	**0.00100**	M5	J	**0.00100 J**	mg/L	RPD Spl Dup	Water	213.2	ITSI
RESE-1-001 225	W463500	Total	**TSS**	**8.0**		J	**8.0 J**	mg/L	Unconfirmed weight	Water	160.2	ITSI
RESE-1-001 225	W463500	Total	**Copper**	**0.013**		U	0.013 U	mg/L	PB	Water	200.7	ITSI
RESE-1-001 225	W463526	Total Recoverable	**Copper**	**0.013**		U	0.013 U	mg/L	PB	Water	200.7	ITSI
RESE-1-001 225	W463500	Total	**Silica**	**12.9**	M3	J	**12.9 J**	mg/L	%R SD	Water	200.7	ITSI
RESE-1-001 225	W463500	Total	Antimony	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463505	Dissolved	Antimony	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463526	Total Recoverable	Antimony	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463505	Dissolved	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463526	Total Recoverable	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463500	Total	Lead	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463505	Dissolved	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463526	Total Recoverable	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463500	Total	Selenium	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463526	Total Recoverable	Selenium	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463505	Dissolved	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463526	Total Recoverable	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463500	Total	Thallium	< 0.0020	D1	J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463505	Dissolved	Thallium	< 0.0020		J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 225	W463500	Total	**Cadmium**	**0.00020**	M5	J	**0.00020 J**	mg/L	RPD Spl Dup; MS %R	Water	213.2	ITSI
RESE-1-001 226	W463501	Total	**Copper**	**0.011**		U	0.011 U	mg/L	PB	Water	200.7	ITSI
RESE-1-001 226	W463501	Total	**Molybdenum**	**0.0083**		U	0.0083 U	mg/L	CB	Water	200.7	ITSI
RESE-1-001 226	W463501	Total	**Silica**	**28.9**	M3	J	**28.9 J**	mg/L	%R SD	Water	200.7	ITSI
RESE-1-001 226	W463501	Total	Antimony	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463506	Dissolved	Antimony	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463527	Total Recoverable	Antimony	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463506	Dissolved	Arsenic	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463527	Total Recoverable	Arsenic	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463506	Dissolved	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463527	Total Recoverable	Cadmium	< 0.00020		J	0.00020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463501	Total	Lead	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI

Qualified Results Table for
Resolution Copper
SDG 118381
August 2005

Sample	Lab ID	Type	Parameter	Original Value	Original Qualifier	Added Qualifier	New Value	Units	Reason	Type	Method	Validator
RESE-1-001 226	W463506	Dissolved	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463527	Total Recoverable	Lead	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463501	Total	Selenium	< 0.0030	D1	J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463527	Total Recoverable	Selenium	< 0.0030		J	0.0030 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463506	Dissolved	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463527	Total Recoverable	Silver	< 0.00010		J	0.00010 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463501	Total	Thallium	< 0.0020	D1	J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463506	Dissolved	Thallium	< 0.0020		J	0.0020 UJ	mg/L	No CRDL	Water	200.8	ITSI
RESE-1-001 226	W463501	Total	**Cadmium**	**0.00020**	M5	J	**0.00020 J**	mg/L	RPD Spl Dup	Water	213.2	ITSI

Abbreviations
SDG = sample delivery group
mg/L = milligrams per liter
CB = calibration blank
CRDL = detection limit check standard
MS = matrix spike
PB = preparation blank
%R = percent recovery
RPD = relative percent difference
SD = serial dilution
SPK = spike
Spl Dup = sample duplicate

Data Qualifier Flags
J = estimated value
U = not detected
UJ = estimated reporting limit

APPENDIX D

LABORATORY COMMUNICATIONS

Innovative Technical Solutions, Inc.

June 26, 2006

Laboratory Questions for Resolution Copper Company

No.	Lab	Date	SDG	Method	Question/Concern
1	SVL	06/26/06	118381	GFAA	Please provide the volume of the standard analyte solution V(s) and sample volume V(x) used in the single addition method for Ag and Cd.
2	SVL	06/26/06	118381	300.0	Please provide the ICAL raw data and summary evaluation for all anions and the raw data for the LCS and preparation blank.
3	SVL	06/26/06	118381	200.8	Please provide the results of any serial dilutions performed on project samples.

Peggy Cota

From: Peggy Cota [pcota@itsi.com]
Sent: Monday, June 26, 2006 11:55 AM
To: 'Kirby Gray'
Cc: 'Casey.Mckeon@resolutioncopper.com'
Subject: RCC 118381 Lab Questions
Attachments: RCC SVL Questions 062606.pdf

Hi Kirby,

Here are the laboratory questions for the last set of data validation for SDG 118381. Sorry for the short notice, but can you please respond to the questions as soon as possible? Golder would like to get their report out this Thursday.

Thank you for your help. Please contact me if you have any questions

Peggy Cota
Project Chemist
Innovative Technical Solutions, Inc.
1501 W. Fountainhead Parkway, Suite 360
Tempe, Arizona 85282
(480)-706-6488 ext. 3397
(480)-704-2952 fax
pcota@itsi.com

Peggy Cota

From: Melba Bencich [melba@svl.net]
Sent: Tuesday, June 27, 2006 10:46 AM
To: Casey McKeon
Cc: Peggy Cote
Subject: 6-27-06.pdf
Attachments: 6-27-06.pdf

addendum follows

thanks
Melba

June 27, 2006

Resolution Copper Company
Attn: Casey McKeon

Ref.: Resolution Copper Company
SVL/SDG: 118381

Addendum as requested by Peggy Cote, ITSI.

Please call if there are any questions.

Thank you.

Melba Bencich
Document Control Officer

Cc: Innovative Technical Solutions, Inc.
Attn.: Peggy Cote

One Government Gulch • P.O. Box 929 • Kellogg, Idaho 83837-0929 • (208) 784-1258, FAX: (208) 783-0891

Innovative Technical Solutions, Inc.

June 26, 2006

Laboratory Questions for Resolution Copper Company

No.	Lab	Date	SDG	Method	Question/Concern
1	SVL	06/26/06	118381	GFAA	Please provide the volume of the standard analyte solution V(s) and sample volume V(x) used in the single addition method for Ag and Cd.
2	SVL	06/26/06	118381	300.0	Please provide the ICAL raw data and summary evaluation for all anions and the raw data for the LCS and preparation blank.
3	SVL	06/26/06	118381	200.8	Please provide the results of any serial dilutions performed on project samples.

June 26, 2006

Laboratory Questions for Resolution Copper Company SDG 118381

No. 1 Single addition method of standard additions was not done on silver and cadmium. A post digestion spike of 1 ppb was analyzed with each sample to see if method of standard addition (MSA) was needed. No samples for silver required MSA. All cadmium samples required MSA. A three addition MSA was done for cadmium. The additions were 1, 2, and 3 ug/L spikes.

The volume of sample used for all silver and cadmium analyses was 20 uL.

The volume of the 5 ug/L analytical spike for both silver and cadmium was 4 uL.

Volumes for the Cd MSA spikes were:	4 uL Cd for the 1 ug/L addition
	8 uL Cd for the 2 ug/L addition
	12 uL Cd for the 3 ug/L addition

No. 2 The ICAL raw data and summary evaluation for all anions has been added. The raw data for the LCS and preparation blank are already in the data package that you have. SVL reports the ICV as the LCS and reports the ICB as the preparation blank. Both the ICV and the ICB are prepared fresh daily.

No. 3 No serial dilutions were performed for Method 200.8. Method 200.8 does not require a serial dilution to be performed.

Kirby Gray

Kirby Gray
Technical Director
SVL Analytical, Inc.

A1

DIONEX METHOD PARAMETERS - ANIONS1.MET

Method Comment: ACDX1771
Column ID: AG4A-SC/AS4A-SC   INST: DX100
Analyst ID: D. Gardner

8/17/05

System Parameters

System Name: DX 100	
Number of Detectors	1
Run Time (minutes)	7.60
Sampling Rate (seconds)	0.50
Detector 1 Type	OTHER
Detector 1 real time plot scale maximum (US)	35.00
minimum	-3.00
Detector 1 Output Equivalent to 1 Volt (in US)	40.00
Detector 1 ACI Analog Input Connection	DET2
Save Data File	Yes
Data File Name: C:\DX\DATA\RT111261.D01	

-- DETECTOR 1 PARAMETERS --

Report Options

Create ASCII Report File	No
Print Report	Yes
Print All Components	No
Print Components Found	Yes
Print Missing Components	No
Print All Peaks	No
Print Unknown Peaks	No
Print Chromatogram	Yes
Autoscale Chromatogram Maximum	No
Autoscale Chromatogram Minimum	No
Fill Peaks with Color	No
Draw Grid Lines on Chromatogram	No
Show Component Fraction Numbers	No
Label with Peak Number	No
Label with Retention Times on Chromatogram	No
Label with Component Name	Yes
Format File Name: C:\DX\METHOD\DEFAULT.PRF	

Integration Parameters

Starting Peak Width (seconds)	5.0
Peak Threshold	10.000
Peak Area Reject	100
Area Reject for Reference Peaks	1000

Data Events

Time	Description
0.00	Stop peak detection
0.70	Enable end of peak detection
0.70	Force baseline at start of all peaks
0.70	Start peak detection
1.09	Void volume treatment for this peak
4.24	Double peak threshold
4.29	Double bunching factor

Calibration Parameters

Number Of Levels for Calibration	6
Force Calibration Curve Through Origin	No
Calibration Fit Type	Linear
Replace Or Average Calibrations	Replace
External or Internal Calibration	External
Calculate Unknowns by Area or Height	Area
Default Sample Volume	1.0
Default Dilution Factor	1.0
Default Response Factor for Unknown Peaks	0.0
Calibration Standard Volume	1.0
Internal Standard Amount in Samples	1.0
Amount Units	MG/L

Component Table -- Last Modified: 10:44 on Wed, 17 Aug 2005

Component # 1 F Retention Time 1.11
Reference Comp. none Window Size 6.00 %
Amount = K0 + K1*Area
K0 = 4.17895E-002
K1 = 1.73166E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	1.00000E-001	55071	10465
3	5.00000E-001	265266	52431
4	1.00000E+000	530067	105708
5	2.00000E+000	1087828	220583
6	5.00000E+000	2883299	576067

Component # 2 CL Retention Time 1.67
Reference Comp. none Window Size 10.00 %
Amount = K0 + K1*Area
K0 = 1.45339E-001
K1 = 2.55056E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	2.00000E-001	72180	13276
3	1.00000E+000	332345	61874
4	2.00000E+000	681318	128102
5	5.00000E+000	1781795	346586
6	1.00000E+001	3926156	765873

Component # 3 NO2/N Retention Time 1.98
Reference Comp. none Window Size 6.00 %
Amount = K0 + K1*Area
K0 = 3.04372E-002
K1 = 1.21508E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	5.00000E-002	38339	6488
3	2.00000E-001	146024	24677
4	5.00000E-001	370309	63284
5	2.00000E+000	1558721	270612
6	5.00000E+000	4114481	725796

Component # 4 BR Retention Time 2.88
Reference Comp. none Window Size 6.00 %
Amount = K0 + K1*Area
K0 = 5.71106E-002
K1 = 6.51720E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	1.00000E-001	11551	1803
3	5.00000E-001	71156	9754
4	2.00000E+000	290985	39902
5	5.00000E+000	737362	103051
6	1.00000E+001	1536914	220106

Component # 5 NO3/N Retention Time 3.24
Reference Comp. none Window Size 7.00 %
Amount = K0 + K1*Area
K0 = 4.15765E-002
K1 = 1.06449E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	5.00000E-002	43387	5534
3	2.00000E-001	161911	19617
4	5.00000E-001	410360	49944
5	2.00000E+000	1731590	204711
6	5.00000E+000	4698888	525221

Component # 6 PO4/P Retention Time 5.03
Reference Comp. none Window Size 10.00 %
Amount = K0 + K1*Area
K0 = 1.38753E-001
K1 = 3.05529E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	2.00000E-001	45182	3791
3	5.00000E-001	121594	9304
4	2.00000E+000	561496	41714
5	5.00000E+000	1527320	113548
6	1.00000E+001	3265160	246282

Component # 7 SO4 Retention Time 6.59
Reference Comp. none Window Size 10.00 %
Amount = K0 + K1*Area
K0 = 2.90394E-001
K1 = 3.61113E-006

Level	Amount	Area	Height
1	0.00000E+000	0	0
2	3.00000E-001	67253	4749
3	2.00000E+000	478243	30881
4	5.00000E+000	1224537	79519
5	1.00000E+001	2556468	167424
6	2.50000E+001	6904778	451728

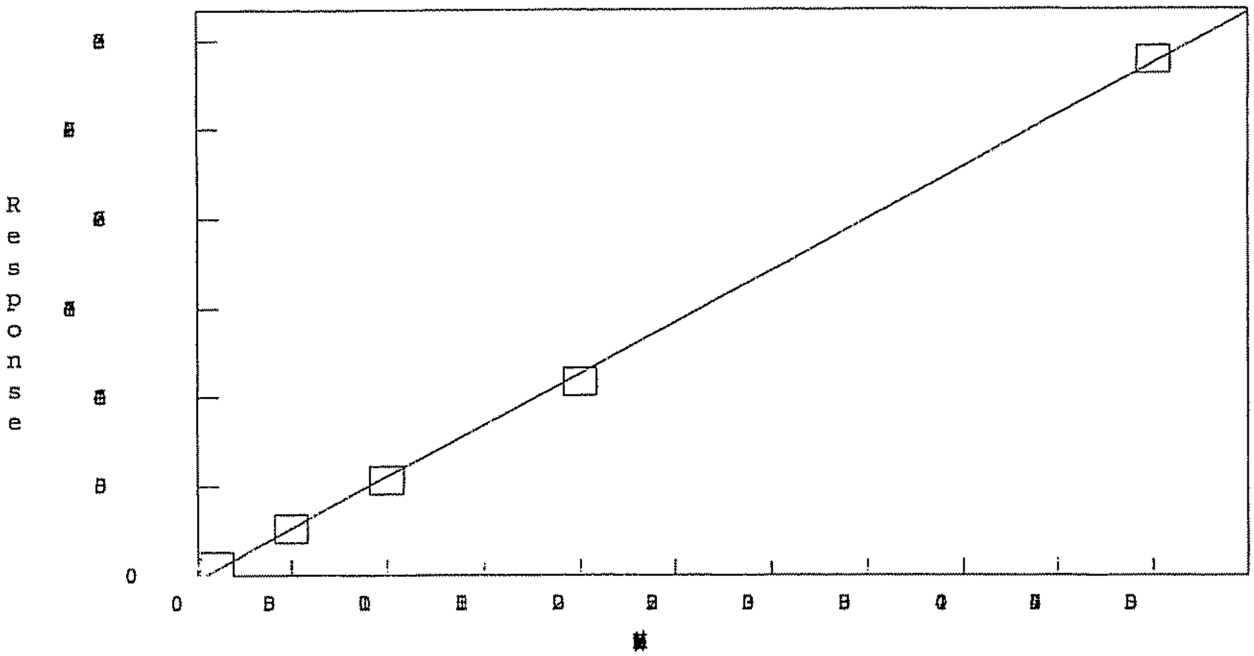
Timed Events File: C:\DX\METHOD\ANIONS1.TE

Step	Time	Description
Init		ACI INJECT OFF
Init		ACI A/O OFF
Init		ACI 10x OFF
Init		ACI PUMP ON
Init		ACI A/S OFF
Init		ACI TTL 3 OFF
Init		ACI TTL 4 OFF
Init		ACI Regen OFF
Init		ACI AC 2 OFF
1	0.0	ACI A/S ON
2	0.2	ACI A/S OFF
3	2.2	ACI INJECT ON
3	2.2	ACI A/O ON
3	2.2	Start Sampling
4	9.9	ACI INJECT OFF
4	9.9	ACI A/O OFF

-Method Updated: 10:44 on Wed, 17 Aug 2005

AS

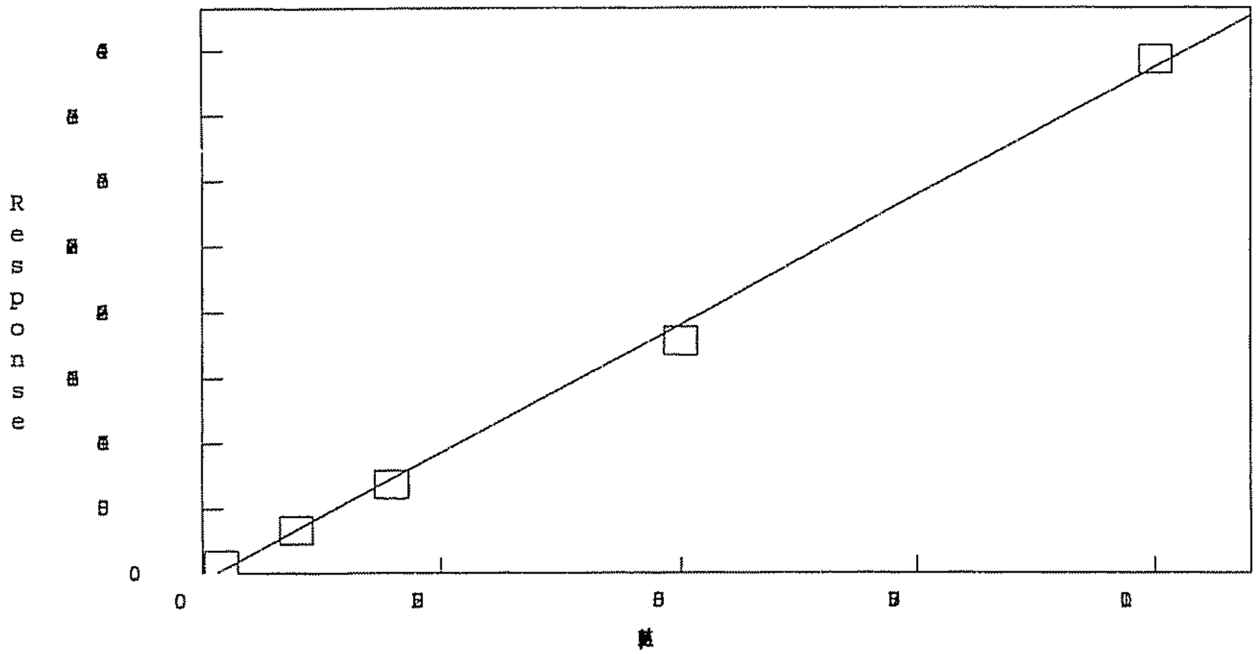
Component: F
Fit Type: Linear
$r^2 = 0.999359$
Amt = Resp * 1.732e-006 + 0.04179
Resp = Amt * 5.775e+005 + -2.413e+004
Standardization: External
Calibration: Area



-Method Updated: 10:44 on Wed, 17 Aug 2005

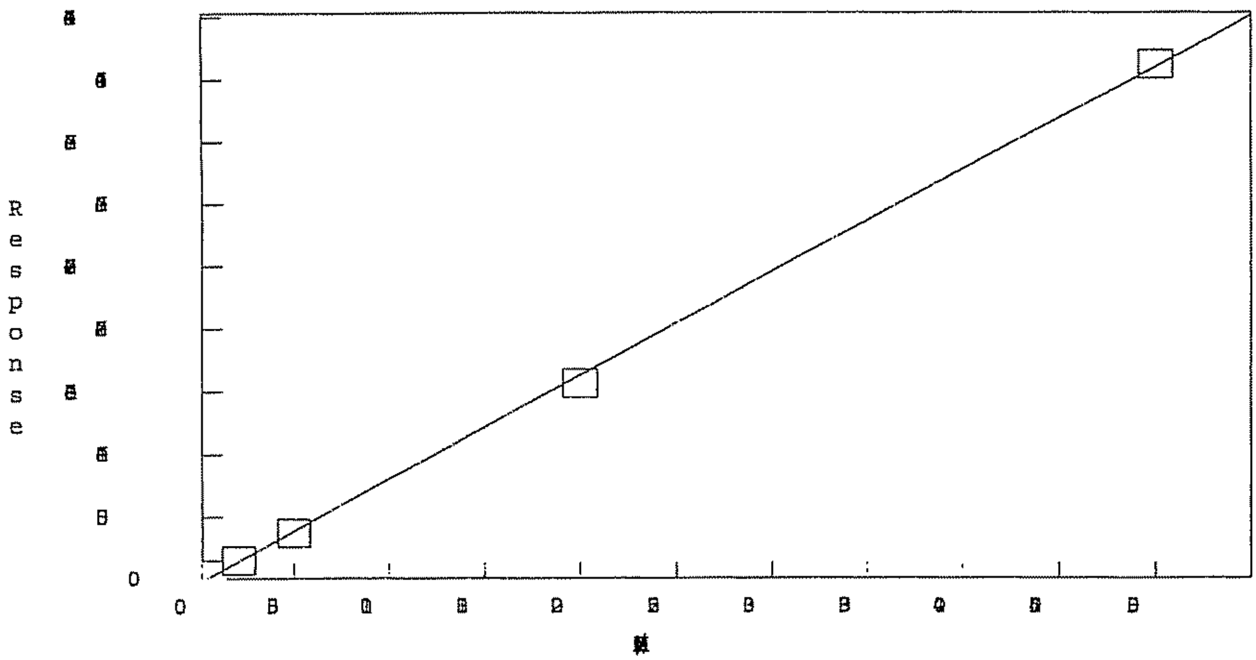
A6

Component: CL
Fit Type: Linear
$r^2 = 0.997687$
Amt = Resp * 2.551e-006 + 0.1453
Resp = Amt * 3.921e+005 + -5.698e+004
Standardization: External
Calibration: Area



-Method Updated: 10:44 on Wed, 17 Aug 2005

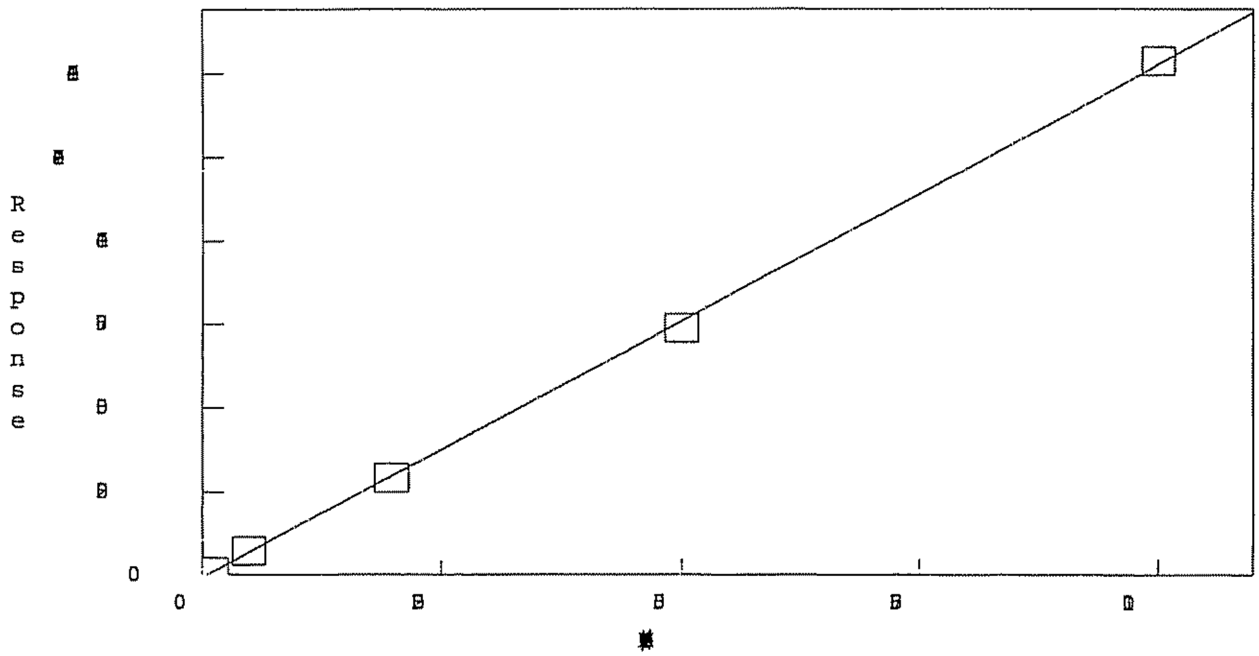
Component: NO2/N
Fit Type: Linear
r² = 0.999548
Amt = Resp * 1.215e-006 + 0.03044
Resp = Amt * 8.23e+005 + -2.505e+004
Standardization: External
Calibration: Area



-Method Updated: 10:44 on Wed, 17 Aug 2005

A8

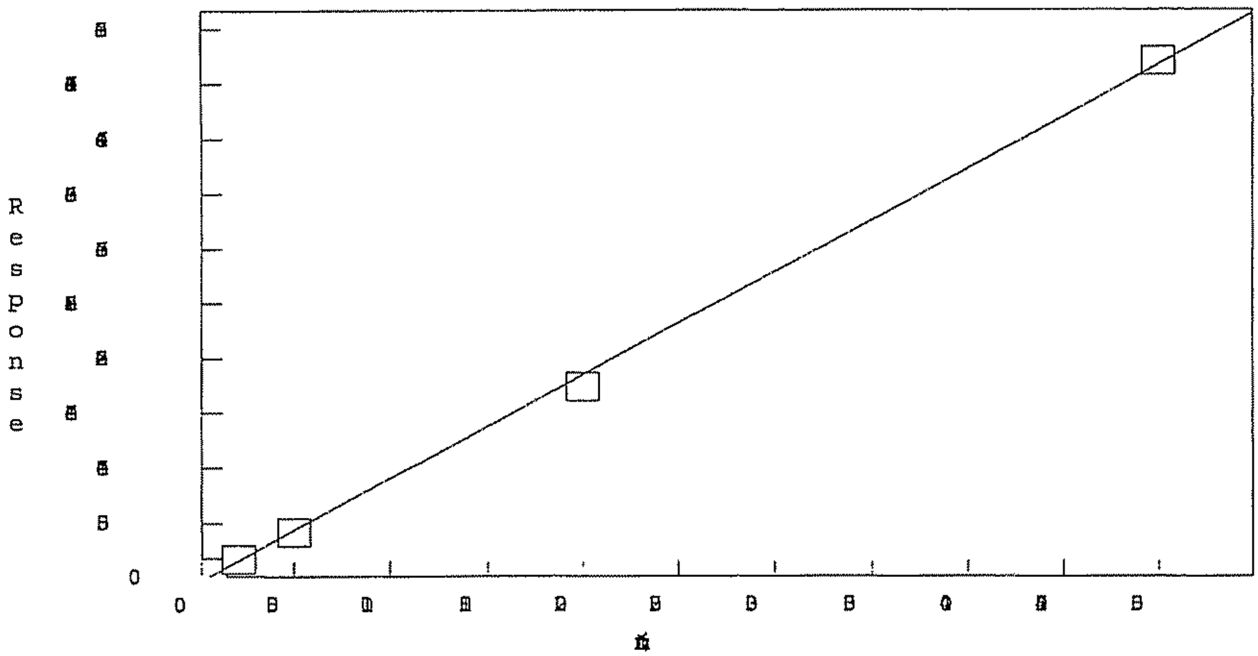
Component: BR
Fit Type: Linear
$r^2 = 0.999598$
Amt = Resp * 6.517e-006 + 0.05711
Resp = Amt * 1.534e+005 + -8763
Standardization: External
Calibration: Area



-Method Updated: 10:44 on Wed, 17 Aug 2005

A9

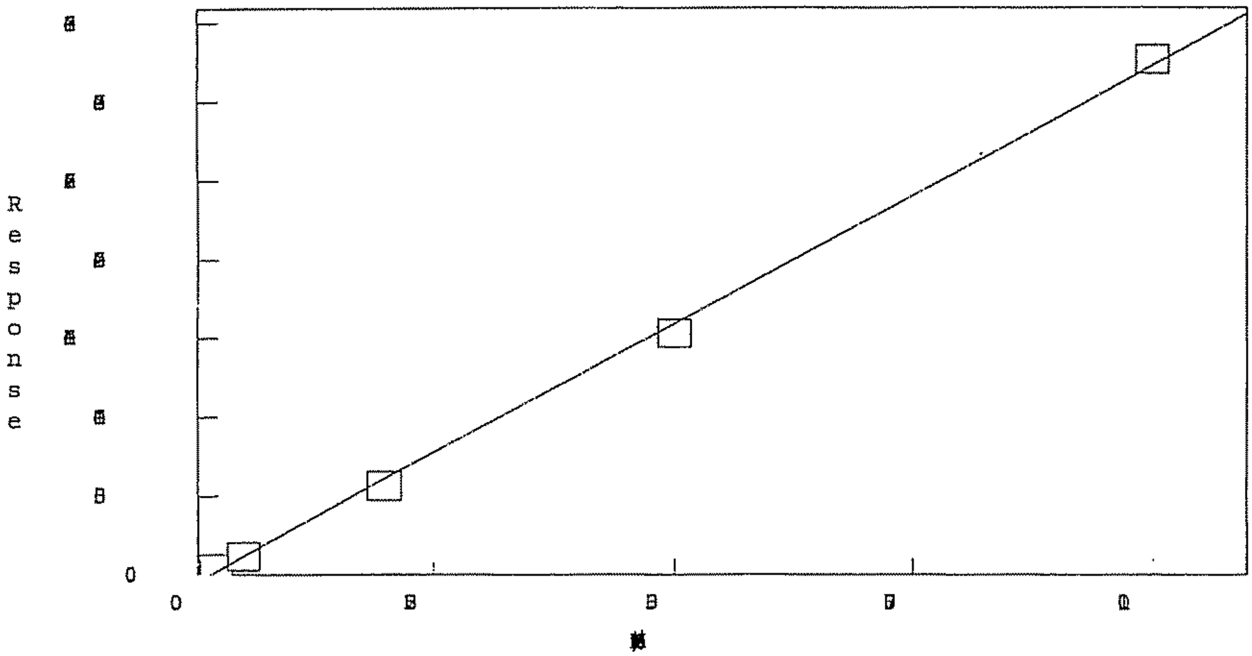
Component: NO3/N
Fit Type: Linear
r² = 0.999016
Amt = Resp * 1.064e-006 + 0.04158
Resp = Amt * 9.394e+005 + -3.906e+004
Standardization: External
Calibration: Area



-Method Updated: 10:44 on Wed, 17 Aug 2005

A10

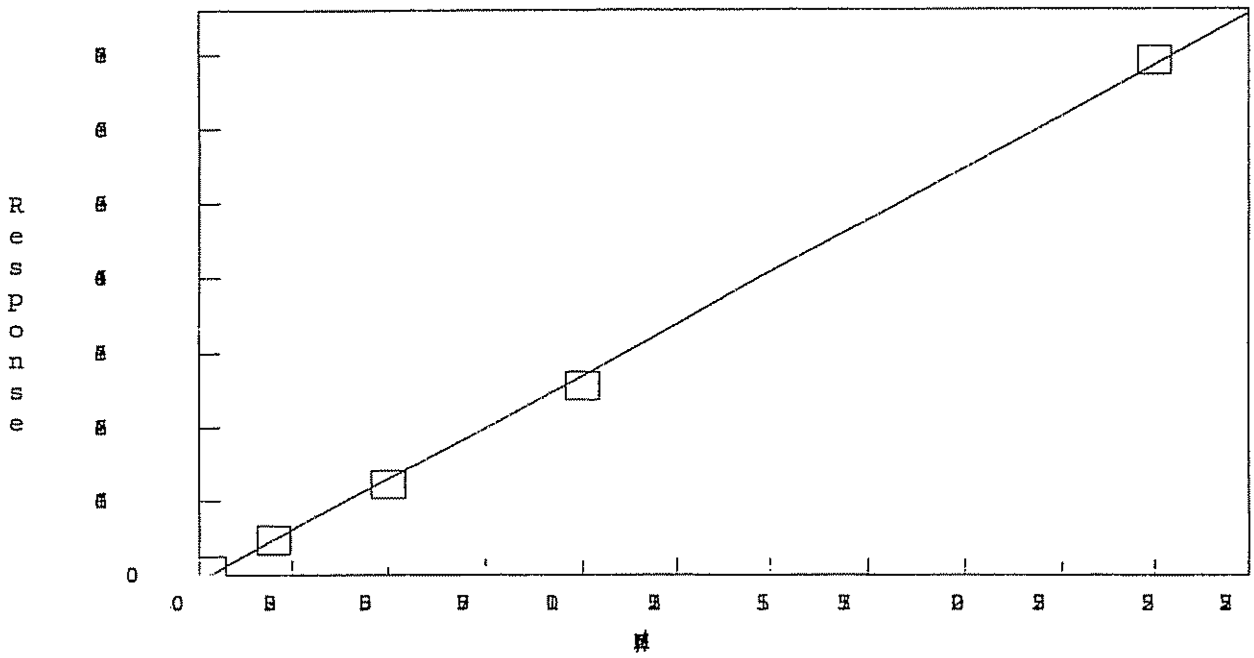
Component: PO4/P
Fit Type: Linear
$r^2 = 0.998733$
Amt = Resp * 3.055e-006 + 0.1388
Resp = Amt * 3.273e+005 + -4.541e+004
Standardization: External
Calibration: Area



-Method Updated: 10:44 on Wed, 17 Aug 2005

A11

Component: SO4
Fit Type: Linear
r² = 0.998902
Amt = Resp * 3.611e-006 + 0.2904
Resp = Amt * 2.769e+005 + -8.042e+004
Standardization: External
Calibration: Area



A12

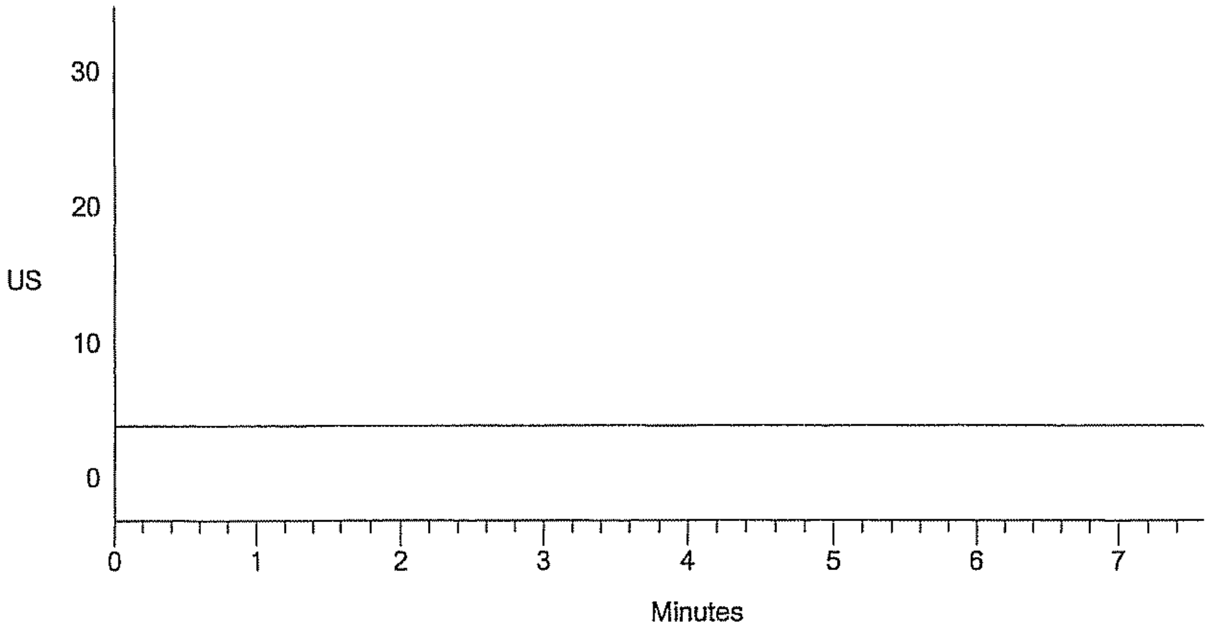
```
===========================================================================
| Sample Name: AUTOCAL1                        Date: 08/17/2005 09:54:18   |
| Data File  : C:\DX\DATA\ACDX1771.D01                                     |
| Method     : C:\DX\METHOD\ANIONS1.MET                                    |
| ACI Address: 1  System: 1  Inject#: 1   Vial:         Detector:OTHER     |
| Analyst    : D. Gardner     Column: AG4A-SC/AS4A-SC    INST: DX100       |
===========================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found ********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

File: ACDX1771.D01 Sample: AUTOCAL1



A13

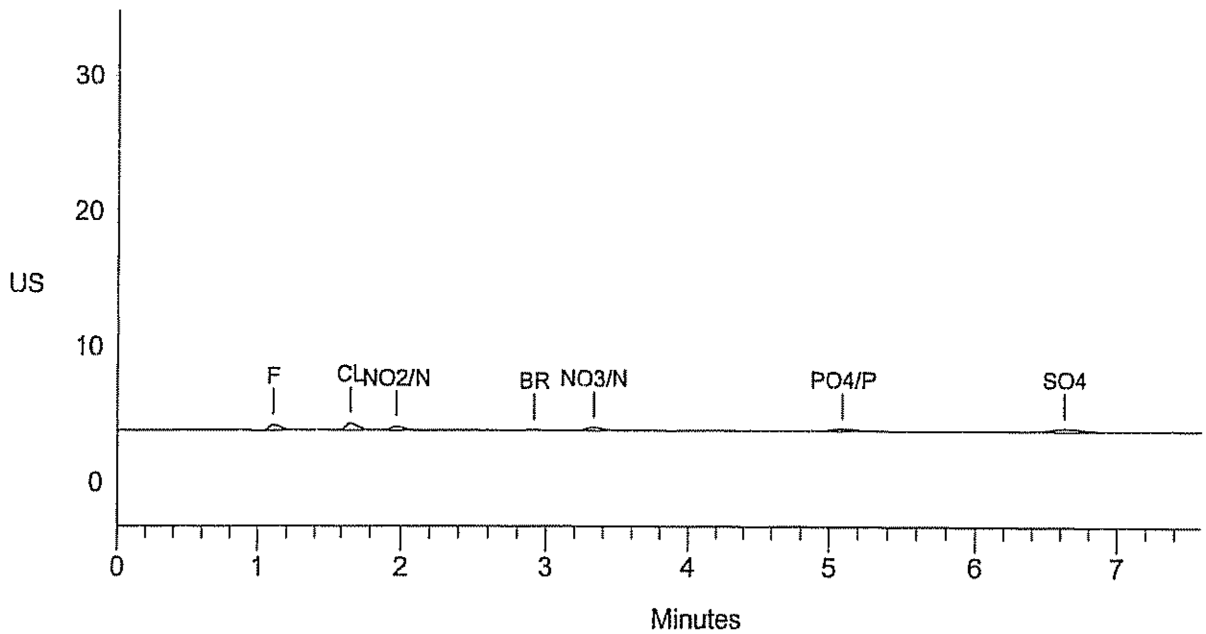
| Sample Name: AUTOCAL2 | Date: 08/17/2005 10:04:22 |
| Data File : C:\DX\DATA\ACDX1771.D02
| Method : C:\DX\METHOD\ANIONS1.MET
| ACI Address: 1 System: 1 Inject#: 2 Vial: Detector:OTHER
| Analyst : D. Gardner Column: AG4A-SC/AS4A-SC INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
1	1.11	F	0.100	10465	55071	1	0.00
2	1.65	CL	0.200	13276	72180	1	0.51
3	1.97	NO2/N	0.050	6488	38339	1	1.29
4	2.92	BR	0.100	1803	11551	1	3.24
5	3.33	NO3/N	0.050	5534	43387	1	3.90
6	5.09	PO4/P	0.200	3791	45182	1	0.66
7	6.63	SO4	0.300	4749	67253	1	-0.50
		Totals	1.000	46105	332962		

File: ACDX1771.D02 Sample: AUTOCAL2



A14

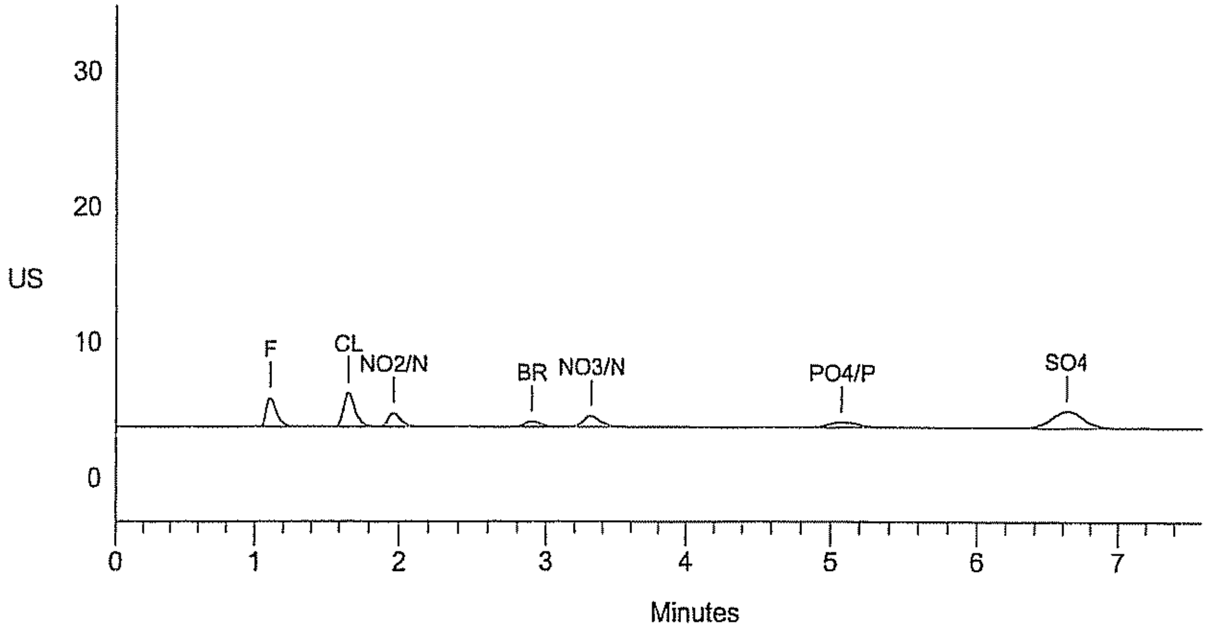
Sample Name: AUTOCAL3	Date: 08/17/2005 10:14:22
Data File : C:\DX\DATA\ACDX1771.D03	
Method : C:\DX\METHOD\ANIONS1.MET	
ACI Address: 1 System: 1 Inject#: 3 Vial:	Detector:OTHER
Analyst : D. Gardner Column: AG4A-SC/AS4A-SC	INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
1	1.11	F	0.500	52431	265266	1	0.00
2	1.65	CL	1.000	61874	332345	1	0.00
3	1.96	NO2/N	0.200	24677	146024	1	-0.42
4	2.90	BR	0.500	9754	71156	1	-0.57
5	3.32	NO3/N	0.200	19617	161911	1	-0.50
6	5.08	PO4/P	0.500	9304	121594	1	-0.33
7	6.63	SO4	2.000	30881	478243	1	0.00
		Totals	4.900	208538	1576538		

File: ACDX1771.D03 Sample: AUTOCAL3



A15

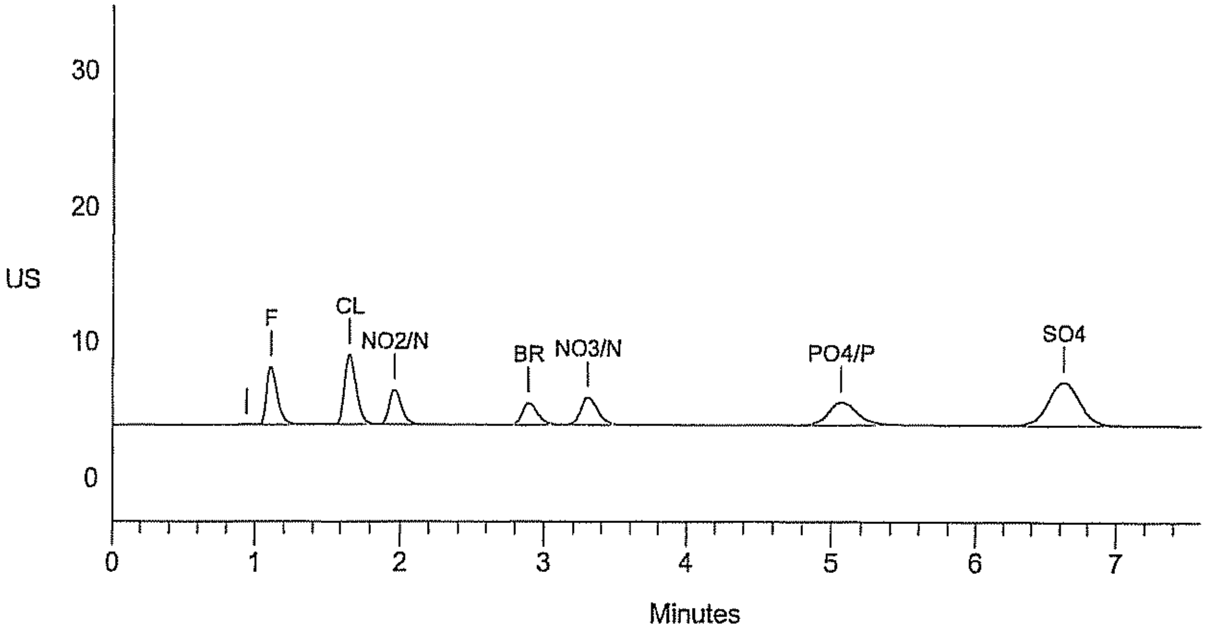
```
=============================================================================
| Sample Name: AUTOCAL4                          Date: 08/17/2005 10:24:22  |
| Data File  : C:\DX\DATA\ACDX1771.D04                                      |
| Method     : C:\DX\METHOD\ANIONS1.MET                                     |
| ACI Address: 1  System: 1  Inject#: 4   Vial:          Detector:OTHER     |
| Analyst    : D. Gardner     Column: AG4A-SC/AS4A-SC    INST: DX100        |
=============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.11	F	1.000	105708	530067	1	0.00
3	1.65	CL	2.000	128102	681318	1	0.00
4	1.96	NO2/N	0.500	63284	370309	1	0.00
5	2.89	BR	2.000	39902	290985	1	-0.29
6	3.30	NO3/N	0.500	49944	410360	1	-0.50
7	5.06	PO4/P	2.000	41714	561496	1	-0.33
8	6.63	SO4	5.000	79519	1224537	1	0.00
		Totals	13.000	508173	4069070		

File: ACDX1771.D04 Sample: AUTOCAL4



A16

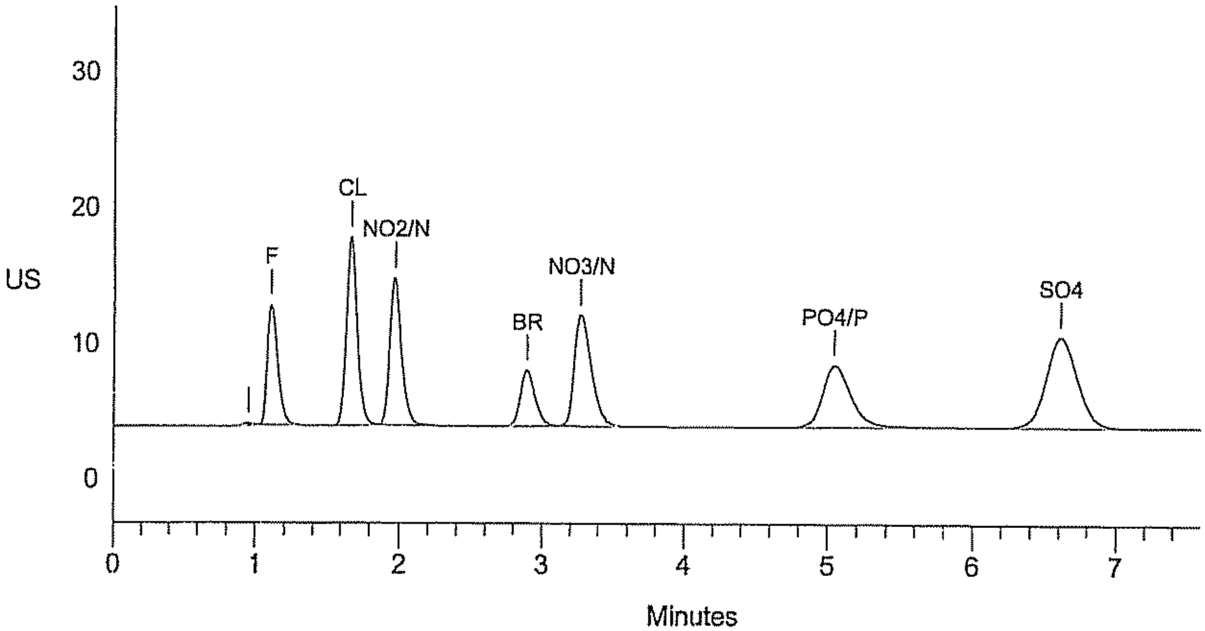
```
| Sample Name: AUTOCAL5                        Date: 08/17/2005 10:34:38  |
| Data File  : C:\DX\DATA\ACDX1771.D05                                    |
| Method     : C:\DX\METHOD\ANIONS1.MET                                   |
| ACI Address: 1  System: 1  Inject#: 5   Vial:          Detector:OTHER   |
| Analyst    : D. Gardner     Column: AG4A-SC/AS4A-SC    INST: DX100      |
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.11	F	2.000	220583	1087828	1	0.00
3	1.66	CL	5.000	346586	1781795	1	0.51
4	1.97	NO2/N	2.000	270612	1558721	1	0.43
5	2.89	BR	5.000	103051	737362	1	0.00
6	3.27	NO3/N	2.000	204711	1731590	1	-1.01
7	5.04	PO4/P	5.000	113548	1527320	1	-0.33
8	6.61	SO4	10.000	167424	2556468	1	-0.25
		Totals	31.000	1426517	10981081		

File: ACDX1771.D05 Sample: AUTOCAL5



A17

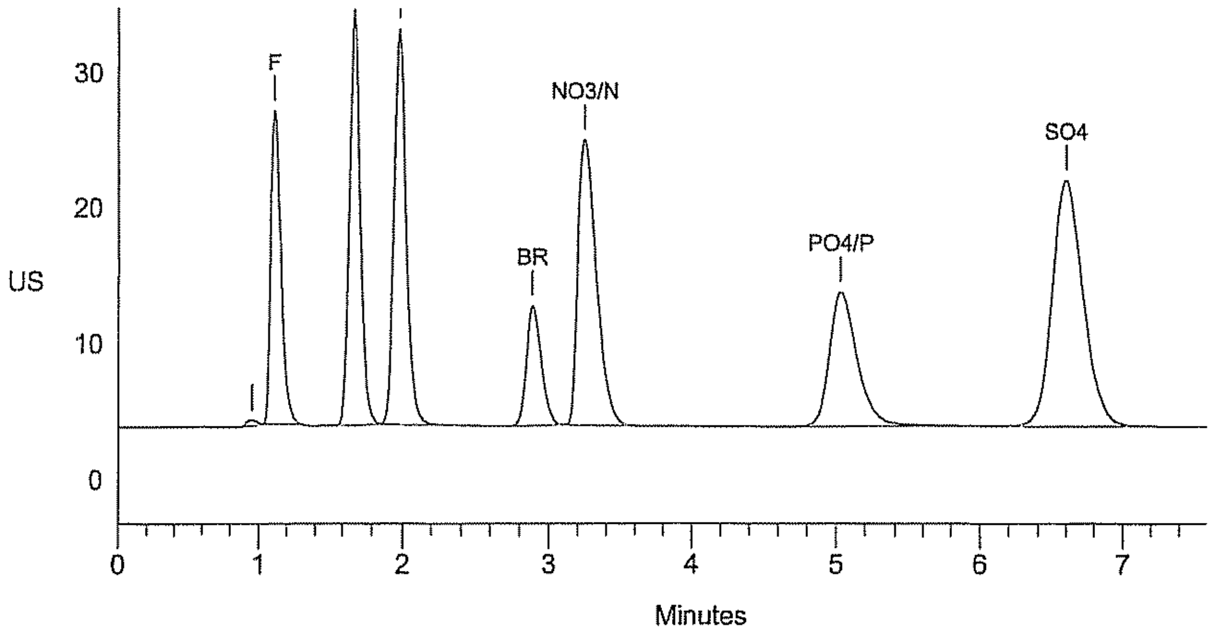
| Sample Name: AUTOCAL6 Date: 08/17/2005 10:44:44
| Data File : C:\DX\DATA\ACDX1771.D06
| Method : C:\DX\METHOD\ANIONS1.MET
| ACI Address: 1 System: 1 Inject#: 6 Vial: Detector:OTHER
| Analyst : D. Gardner Column: AG4A-SC/AS4A-SC INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.11	F	5.000	576067	2883299	1	0.00
3	1.67	CL	10.000	765873	3926156	1	0.50
4	1.98	NO2/N	5.000	725796	4114481	1	0.42
5	2.88	BR	10.000	220106	1536914	1	-0.29
6	3.24	NO3/N	5.000	525221	4698888	1	-0.77
7	5.03	PO4/P	10.000	246282	3265160	1	-0.33
8	6.59	SO4	25.000	451728	6904778	1	-0.25
		Totals	70.000	3511074	27329675		

File: ACDX1771.D06 Sample: AUTOCAL6



A18

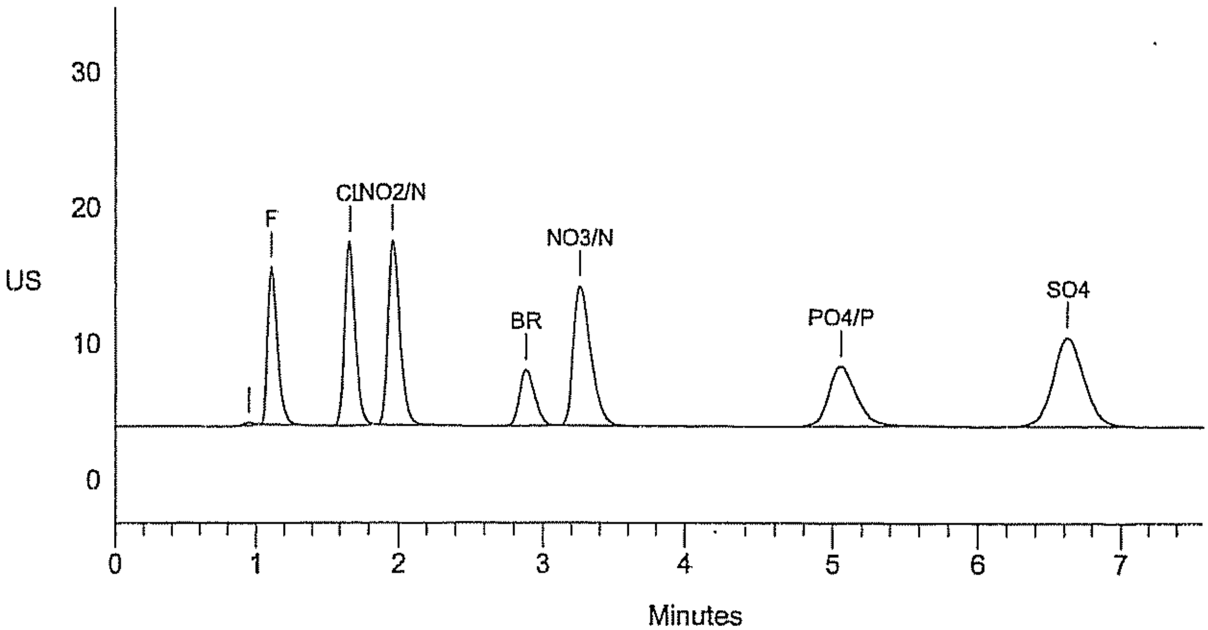
```
==============================================================================
| Sample Name: ICV -1042     161-9-3            Date: 08/17/2005 10:56:13     |
| Data File   : C:\DX\DATA\05229A01.D01                                       |
| Method      : C:\DX\METHOD\ANIONS1.MET                                      |
| ACI Address: 1  System: 1  Inject#: 1   Vial:            Detector:OTHER     |
| Analyst     : D. Gardner     Column: AG4A-SC/AS4A-SC     INST: DX100        |
==============================================================================
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found *********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.11	F	2.496	288512	1417299	1	0.00
3	1.66	CL	4.621	337402	1754715	1	-0.50
4	1.96	NO2/N	2.391	338669	1942663	1	-0.84
5	2.88	BR	4.805	103036	728486	1	0.00
6	3.26	NO3/N	2.365	255952	2183093	1	0.51
7	5.06	PO4/P	4.675	110738	1484718	1	0.66
8	6.63	SO4	9.404	164000	2523684	1	0.51
		Totals	30.757	1598309	12034658		

File: 05229A01.D01 Sample: ICV -1042   161-9-3



A19

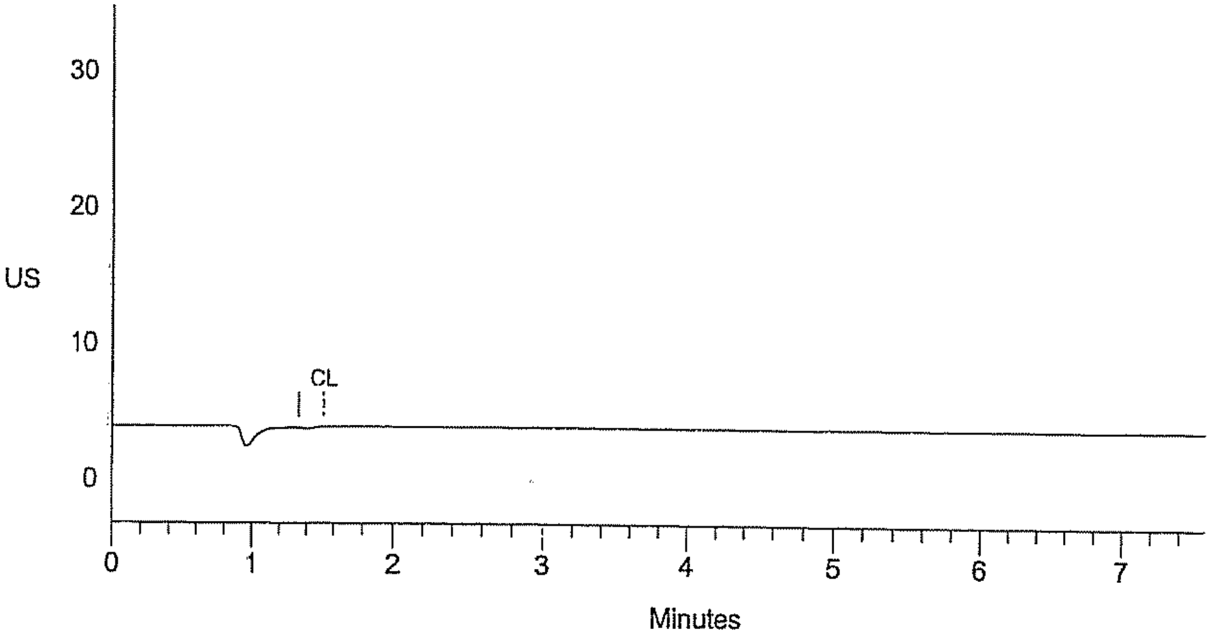
Sample Name: ICB		Date: 08/17/2005 11:06:16
Data File : C:\DX\DATA\05229A01.D02		
Method : C:\DX\METHOD\ANIONS1.MET		
ACI Address: 1 System: 1 Inject#: 2 Vial:		Detector:OTHER
Analyst : D. Gardner	Column: AG4A-SC/AS4A-SC	INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.58	100

********************* Component Report: Components Found ********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.52	CL	0.168	1354	8860	1	-9.00
		Totals	0.168	1354	8860		

File: 05229A01.D02 Sample: ICB



A20

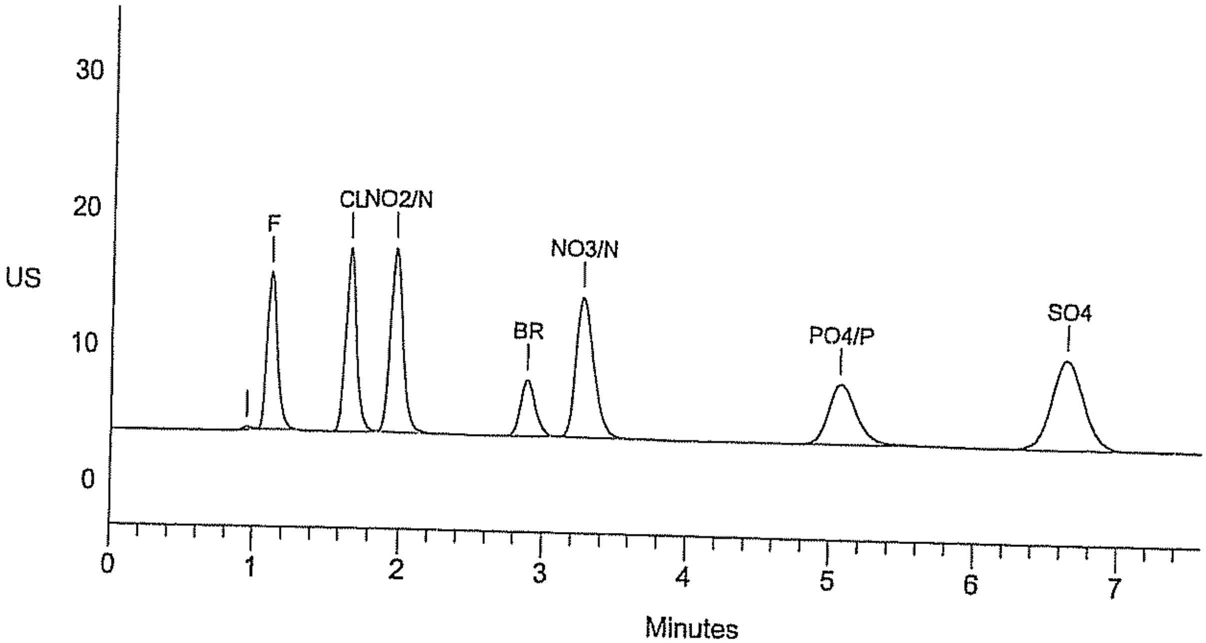
```
Sample Name: CCV     161-9-3
Data File  : C:\DX\DATA\05229A01.D03          Date: 08/17/2005 11:16:20
Method     : C:\DX\METHOD\ANIONS1.MET
ACI Address: 1  System: 1  Inject#: 3   Vial:
Analyst    : D. Gardner    Column: AG4A-SC/AS4A-SC     Detector:OTHER
                                                       INST: DX100
```

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************** Component Report: Components Found **********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
2	1.11	F	2.507	288024	1423472	1	0.00
3	1.65	CL	4.629	336842	1757839	1	-1.00
4	1.96	NO2/N	2.396	338562	1947089	1	-0.84
5	2.88	BR	4.865	103397	737663	1	0.00
6	3.26	NO3/N	2.379	256749	2195866	1	0.51
7	5.06	PO4/P	4.671	110083	1483432	1	0.66
8	6.64	SO4	9.417	164094	2527229	1	0.76
		Totals	30.863	1597751	12072589		

File: 05229A01.D03 Sample: CCV 161-9-3



A21

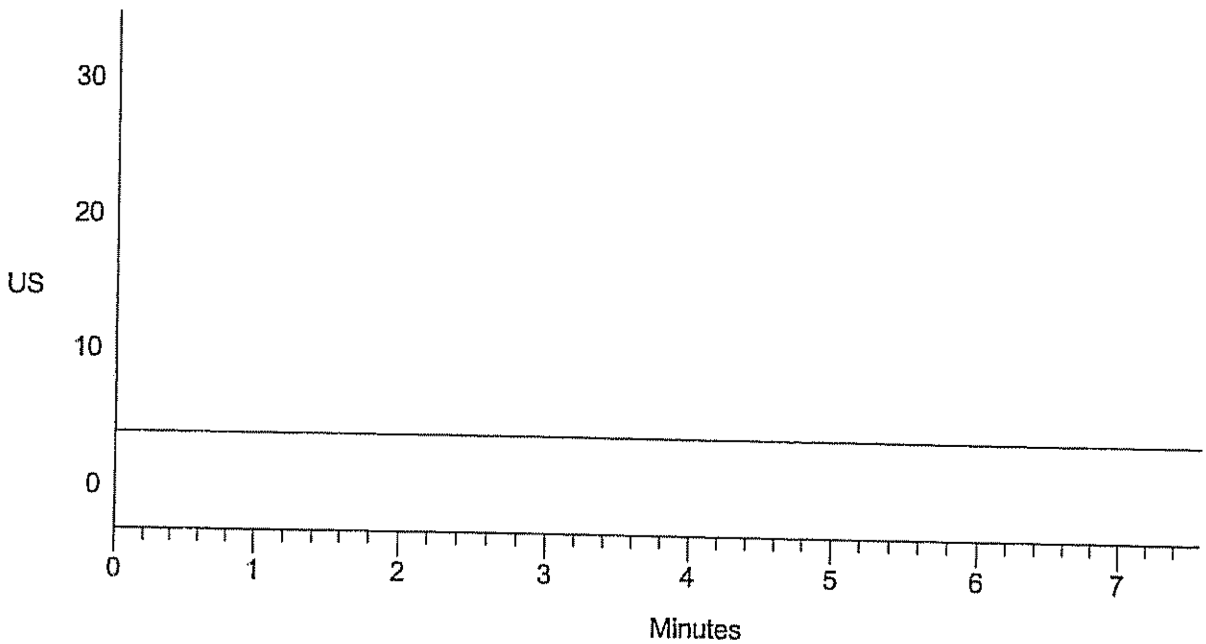
Sample Name: CCB	
Data File : C:\DX\DATA\05229A01.D04	Date: 08/17/2005 11:26:21
Method : C:\DX\METHOD\ANIONS1.MET	
ACI Address: 1 System: 1 Inject#: 4 Vial:	Detector:OTHER
Analyst : D. Gardner Column: AG4A-SC/AS4A-SC	INST: DX100

Calibration	Volume	Dilution	Points	Rate	Start	Stop	Area Reject
External	1	1	912	2Hz	0.00	7.59	100

********************* Component Report: Components Found ********************

Pk. Num	Ret Time	Component Name	Concentration MG/L	Height	Area	Bl. Code	%Delta
		Totals	0.000	0	0		

File: 05229A01.D04 Sample: CCB



QC WORKSHEET

Client: Resolution Copper Co.

Date: 08/23/2005

Analyst: AC

	SVL #:	Fluoride	Chloride	Nitrite/N	Bromide	Nitrate/N	Phosphate/P	Sulfate
1	ICV	2.47	4.83		5.02			9.83
	ICV True	2.50	4.96		4.96			9.97
2	ICB	<0.10	<0.20		<0.10			<0.3
3	CCV True	2.50	4.96		4.96			9.97
4	CCV1	2.45	4.79		5.02			9.79
5	CCB1	<0.1	<0.2		<0.1			<0.3
6	CCV2	2.48	4.80		4.97			9.72
7	CCB2	<0.1	<0.2		<0.1			<0.3
8	CCV3	2.45	4.79		5.03			9.81
9	CCB3	<0.1	<0.2		<0.1			<0.3
10	CCV4	2.45	4.79		5.01			9.80
11	CCB4	<0.1	<0.2		<0.1			<0.3
12	CCV5	2.44	4.78		5.02			9.81
13	CCB5	<0.1	<0.2		<0.1			<0.3
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
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32								
33								
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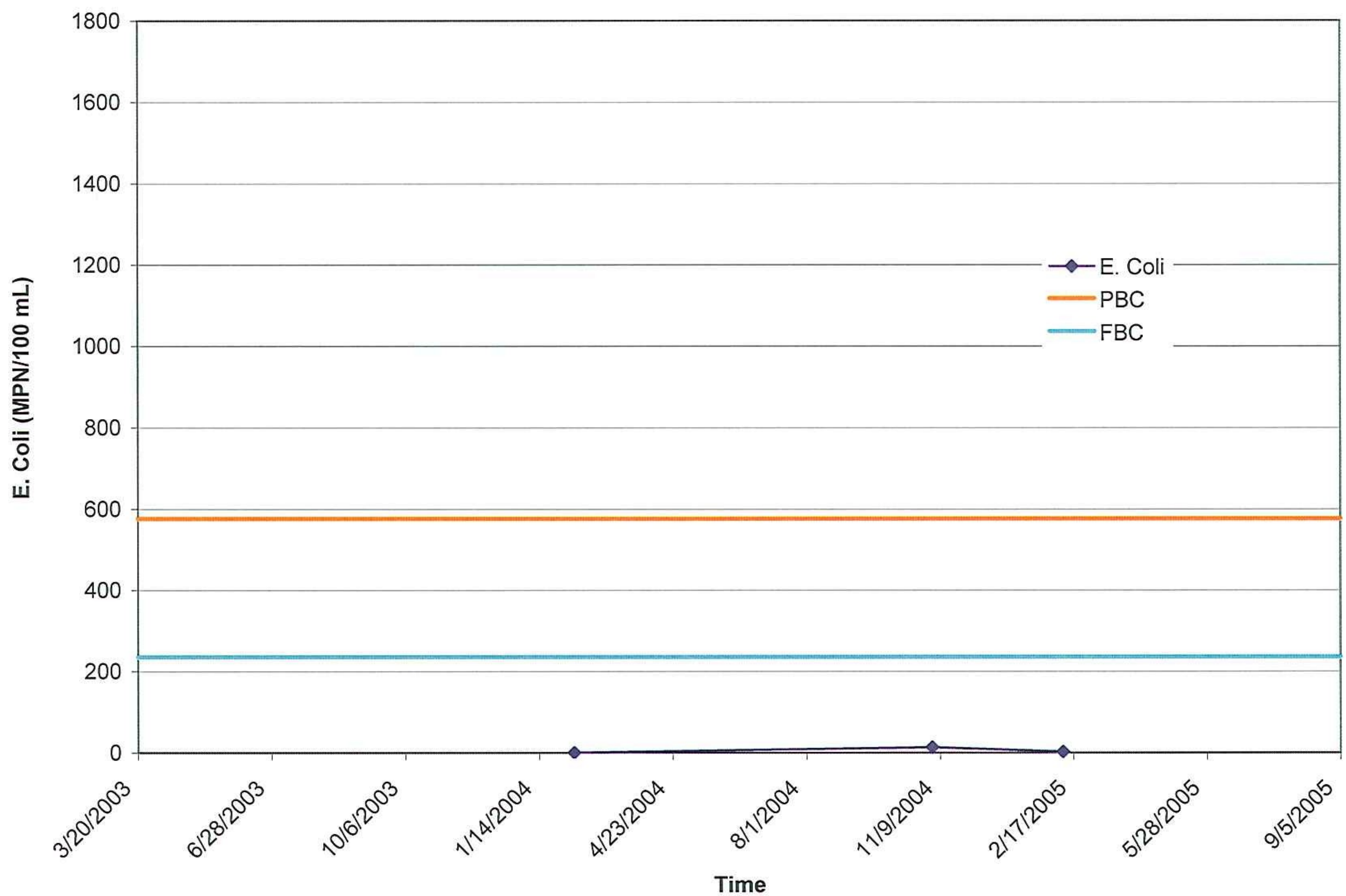
APPENDIX E

ITSI STANDARD LEGAL NOTICE

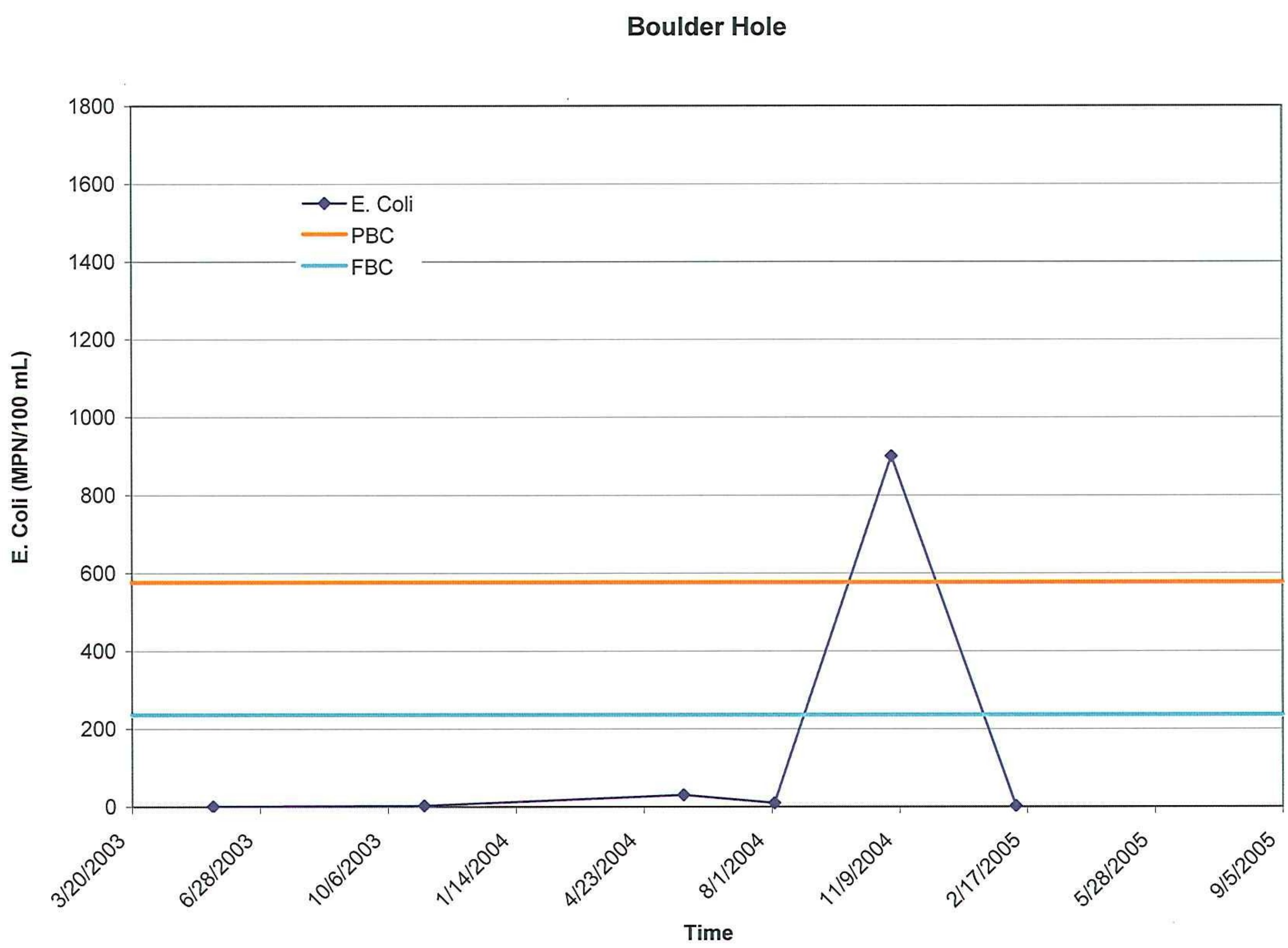
ITSI STANDARD LEGAL NOTICE

ITSI is issuing this report at the request of the Client and based upon information furnished by Client. Further, the presence of environmental contamination can be influenced by many factors, including unknown and changing underground conditions. Therefore: 1. This report may not be relied upon by anyone for financial decision-making. 2. No one other than Client is authorized to use this report for any purpose. 3. Any conclusions or opinions included in this report are subject to reasonable revision based upon any new environmental or other data which is later developed. 4. Any results or conclusions stated are to be considered limited by the quality of the underlying sample or other data on which they are based, the budget established by the Client or otherwise for gathering and analyzing data, and by any assumptions and qualifications contained within this report.

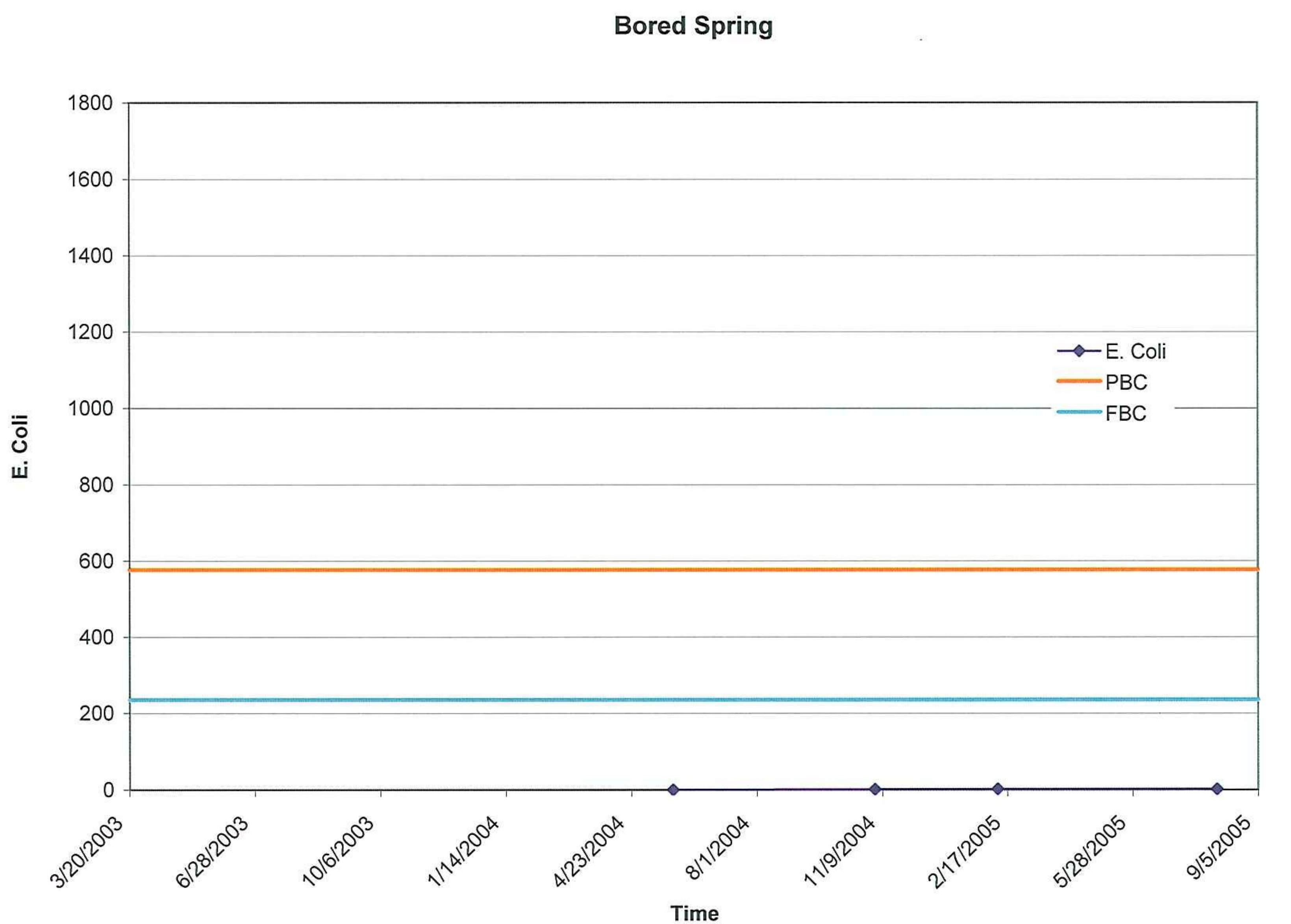
Kane Spring



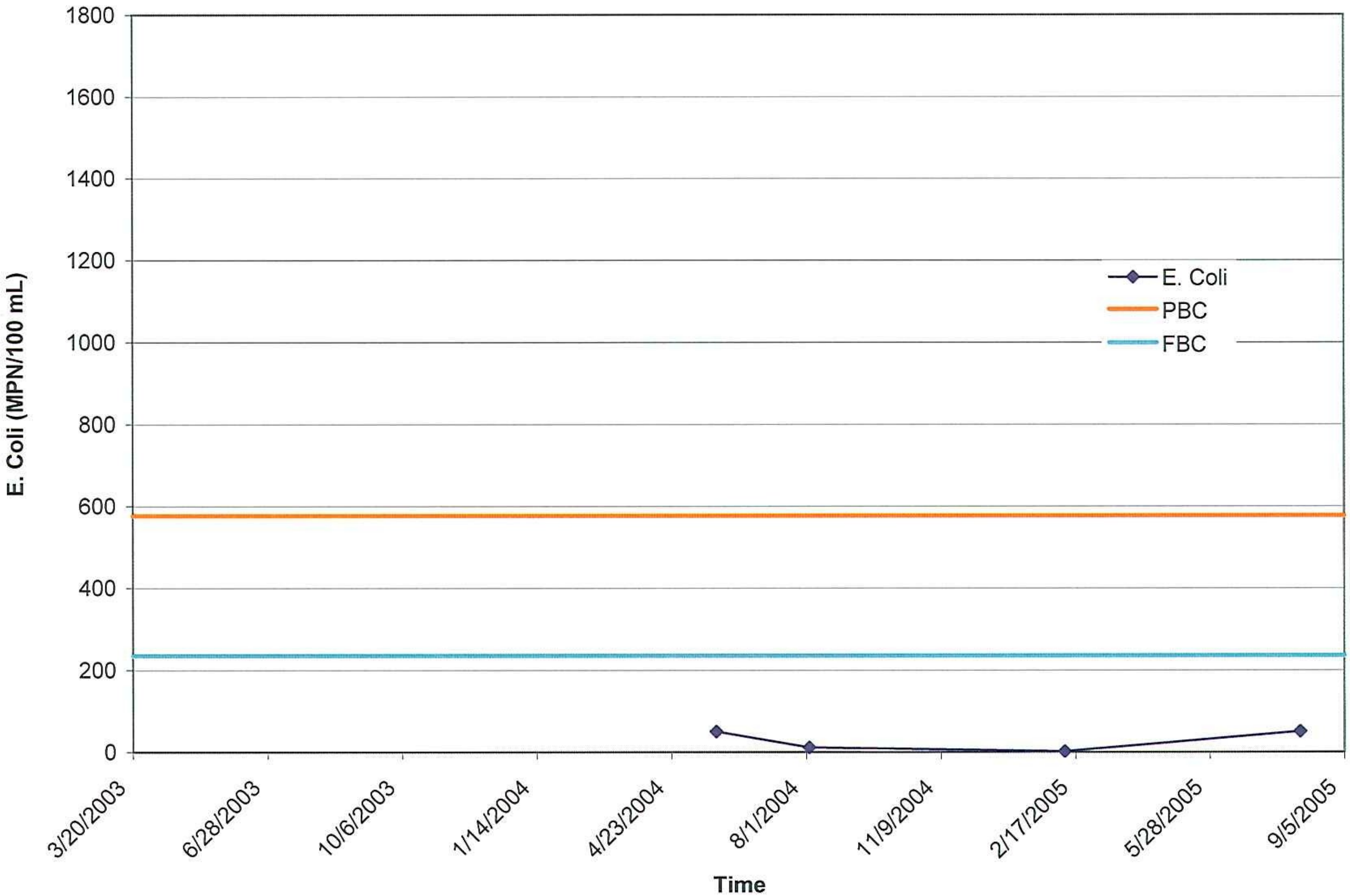
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time
E. Coli
PBC
FBC



Boulder Hole
E. Coli
PBC
FBC
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

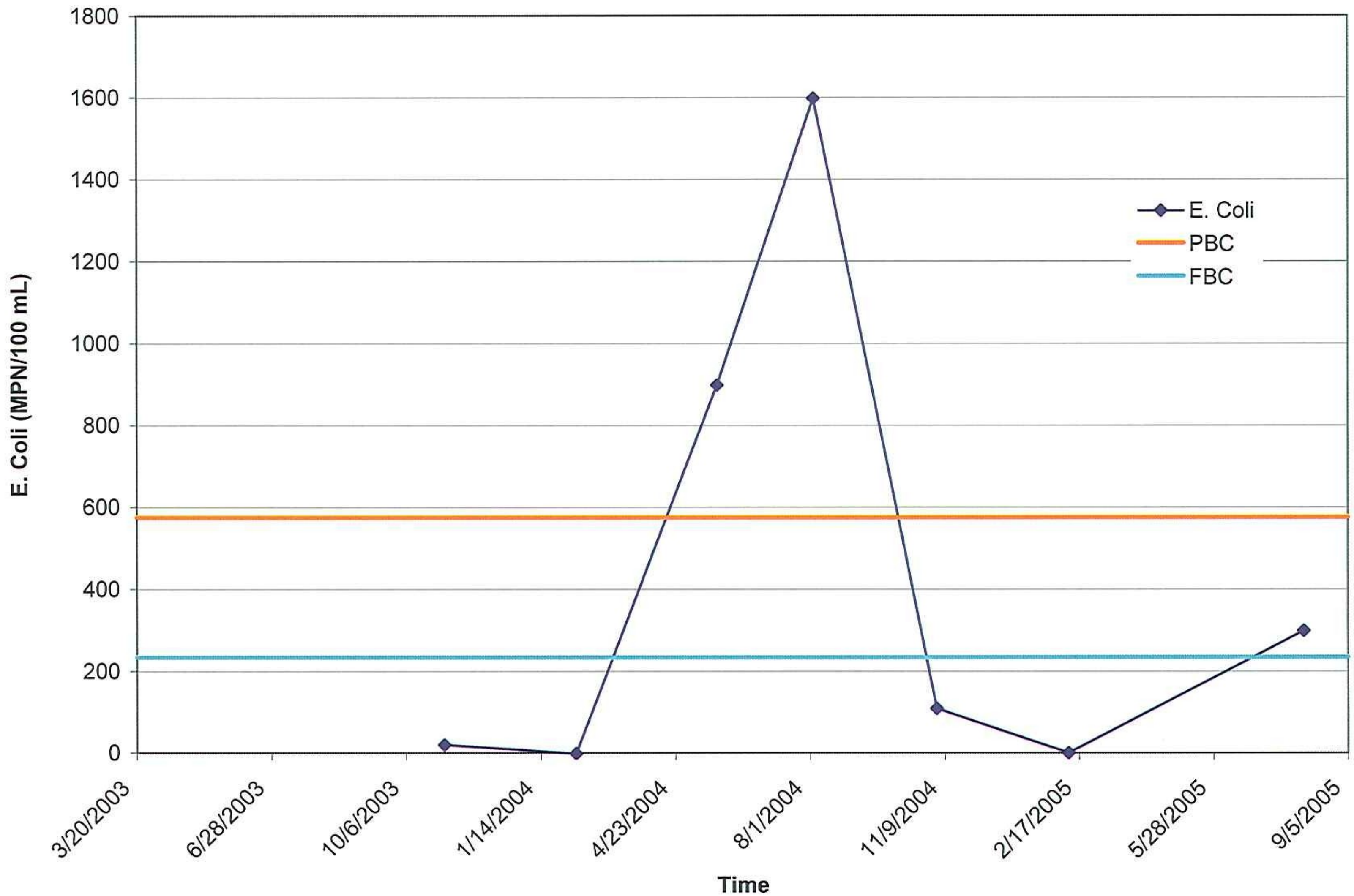

Bored Spring
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli
E. Coli
PBC
FBC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

Blue Spring

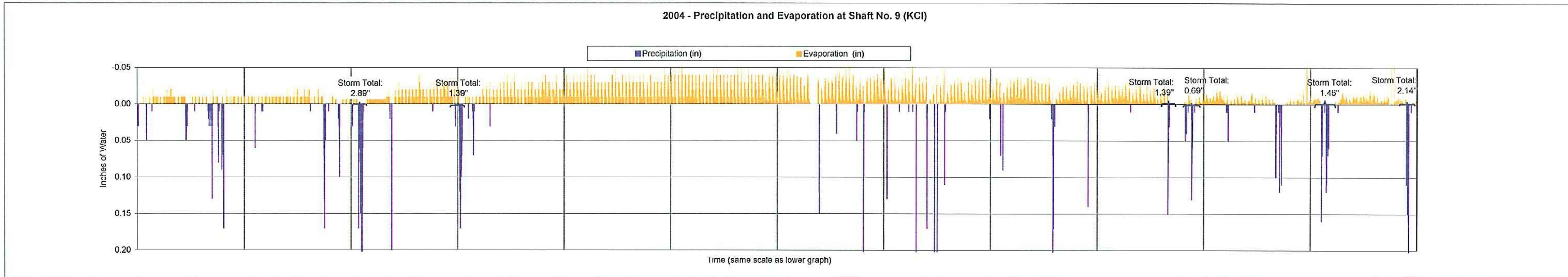


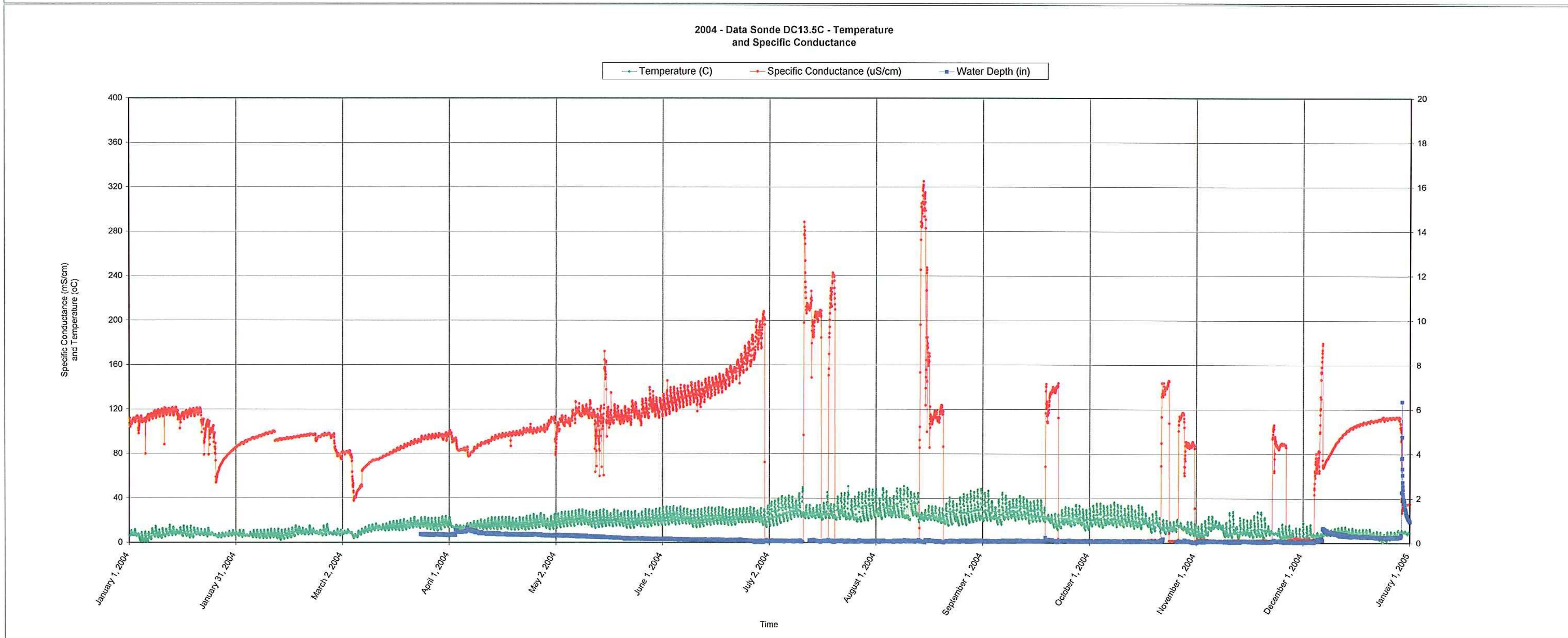
E. Coli (MPN/100 mL)
1800
1600
1400
1200
1000
800
600
400
200
0
E. Coli
PBC
FBC
3/20/2003
6/28/2003
10/6/2003
1/14/2004
4/23/2004
8/1/2004
11/9/2004
2/17/2005
5/28/2005
9/5/2005
Time

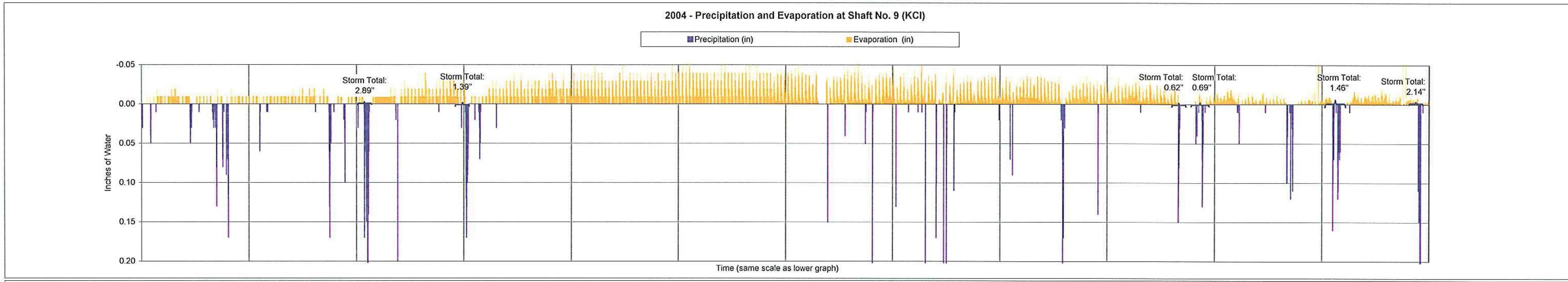
Hidden Spring

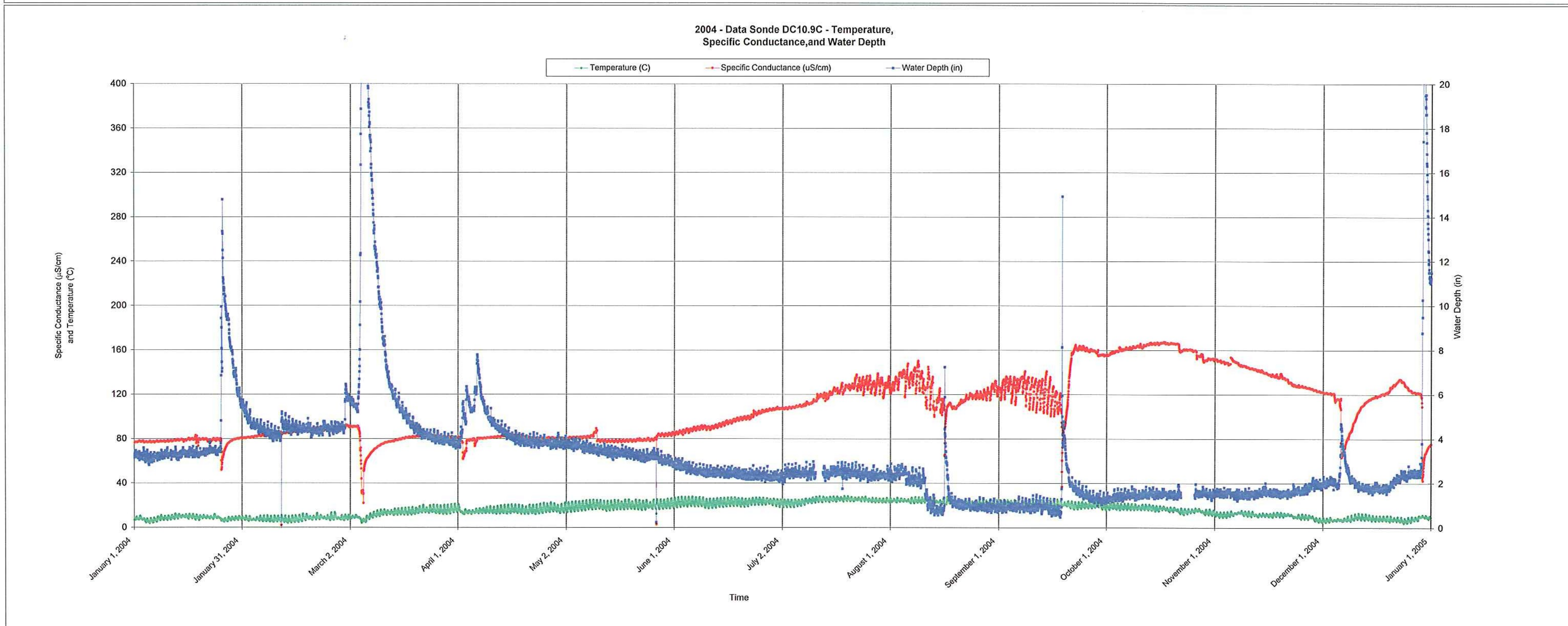


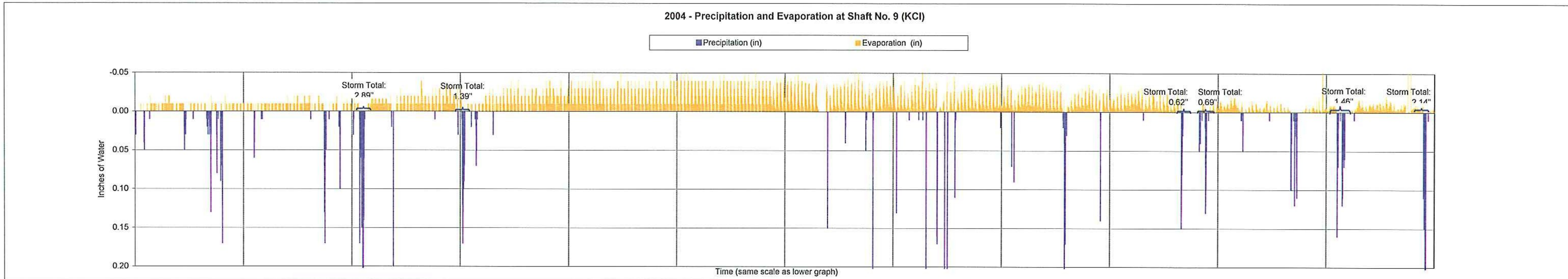
2004 ANNUAL GRAPHS

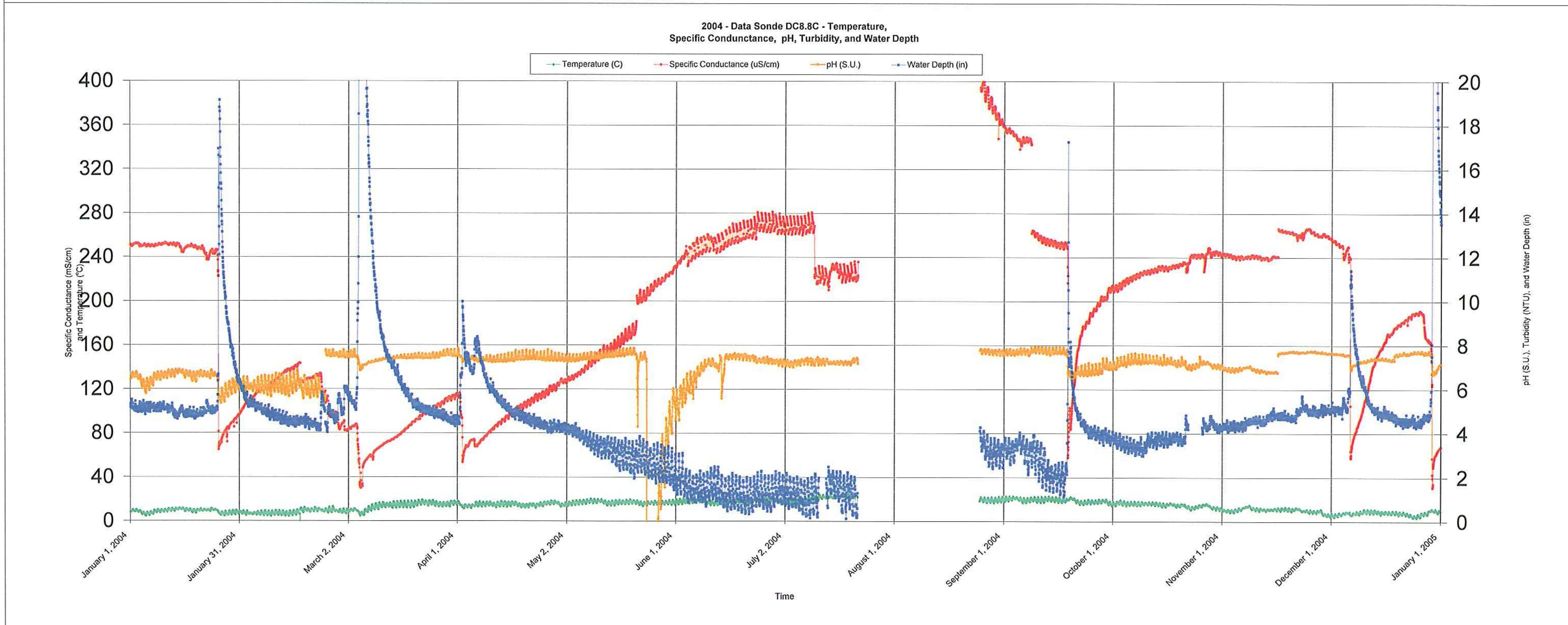

2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Storm Total: 2.89"
Storm Total: 1.39"
Storm Total: 1.39"
Storm Total: 0.69"
Storm Total: 1.46"
Storm Total: 2.14"
Time (same scale as lower graph)

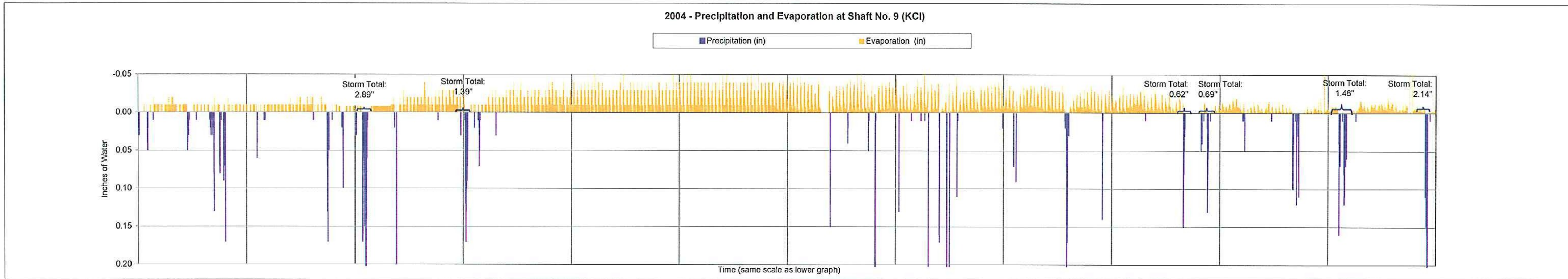

2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Specific Conductance (mS/cm) and Temperature (oC)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
January 1, 2004
January 31, 2004
March 2, 2004
April 1, 2004
May 2, 2004
June 1, 2004
July 2, 2004
August 1, 2004
September 1, 2004
October 1, 2004
November 1, 2004
December 1, 2004
January 1, 2005
Time


2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
Storm Total: 1.39"
Storm Total: 0.62"
Storm Total: 0.69"
Storm Total: 1.46"
Storm Total: 2.14"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

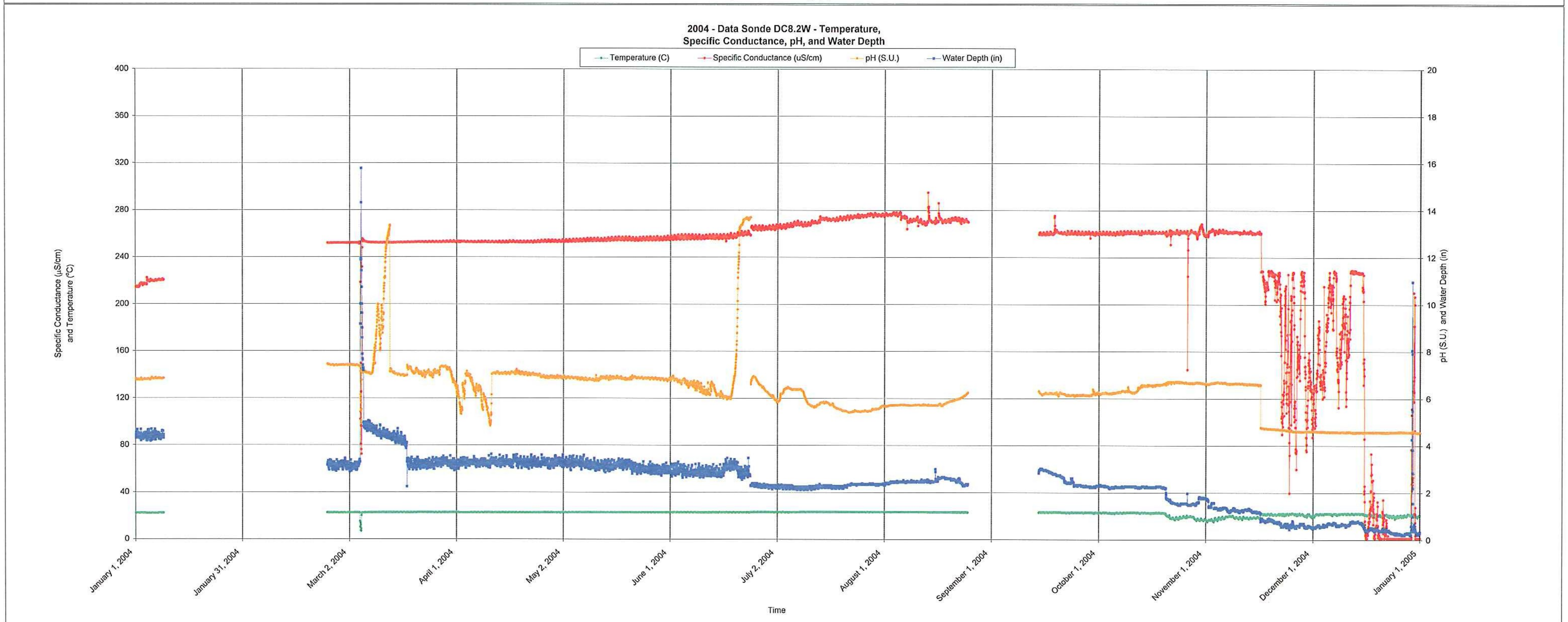

2004 - Data Sonde DC10.9C - Temperature, Specific Conductance,and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Specific Conductance (µS/cm) and Temperature (°C)
0
40
80
120
160
200
240
280
320
360
400
Water Depth (in)
0
2
4
6
8
10
12
14
16
18
20
January 1, 2004
January 31, 2004
March 2, 2004
April 1, 2004
May 2, 2004
June 1, 2004
July 2, 2004
August 1, 2004
September 1, 2004
October 1, 2004
November 1, 2004
December 1, 2004
January 1, 2005
Time


2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
Storm Total: 2.89"
Storm Total: 1.39"
Storm Total: 0.62"
Storm Total: 0.69"
Storm Total: 1.46"
Storm Total: 2.14"
Time (same scale as lower graph)

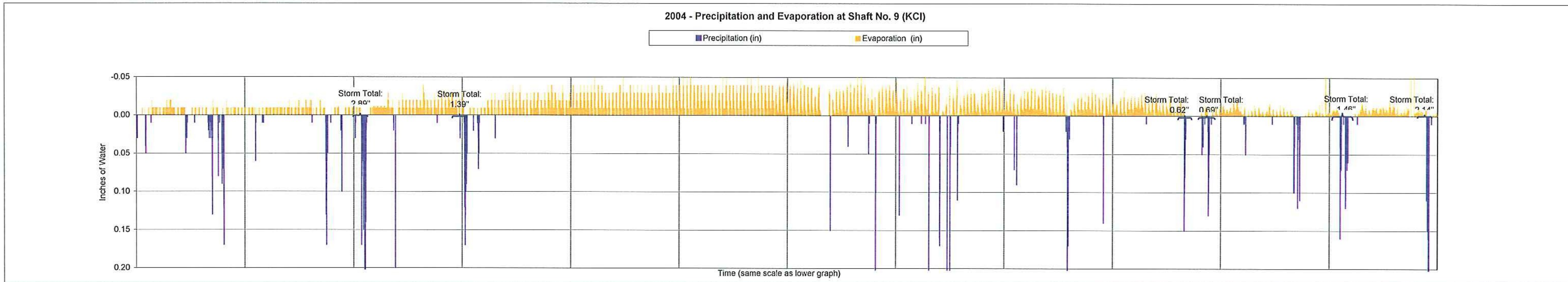

2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
January 1, 2004
January 31, 2004
March 2, 2004
April 1, 2004
May 2, 2004
June 1, 2004
July 2, 2004
August 1, 2004
September 1, 2004
October 1, 2004
November 1, 2004
December 1, 2004
January 1, 2005
Time

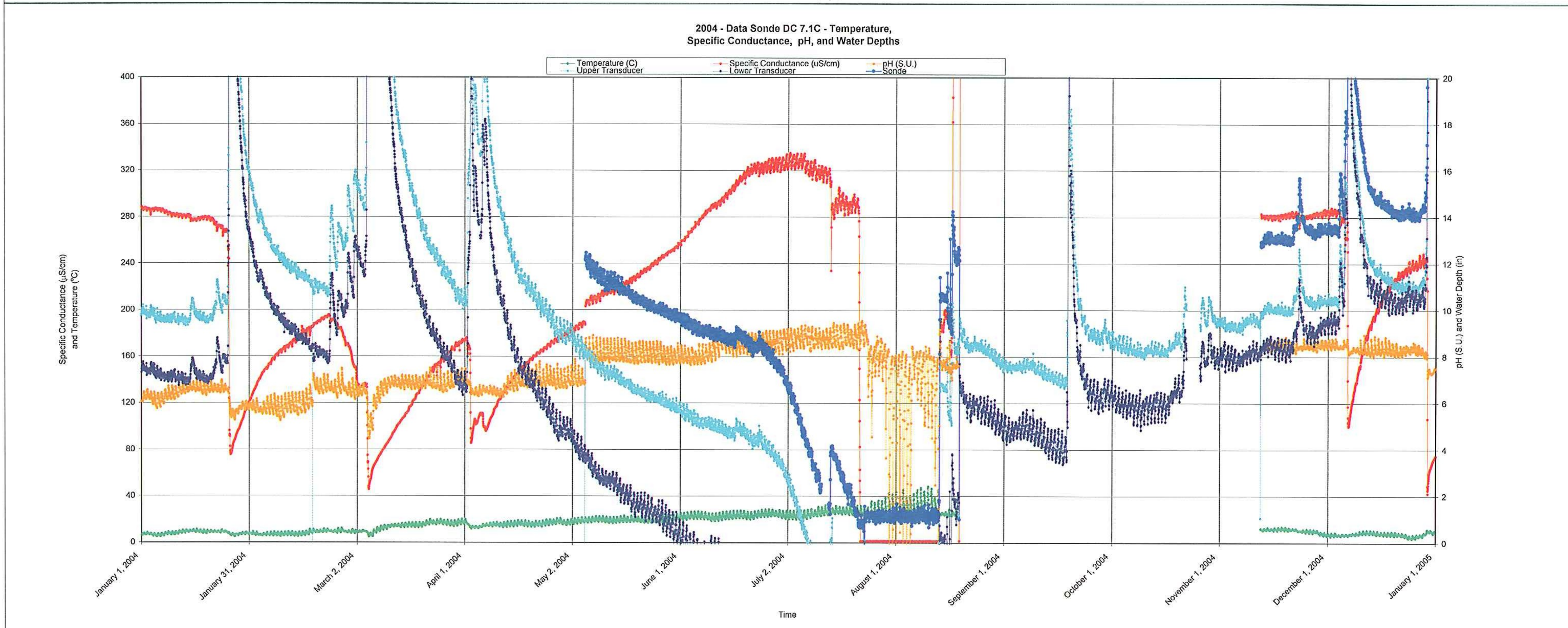


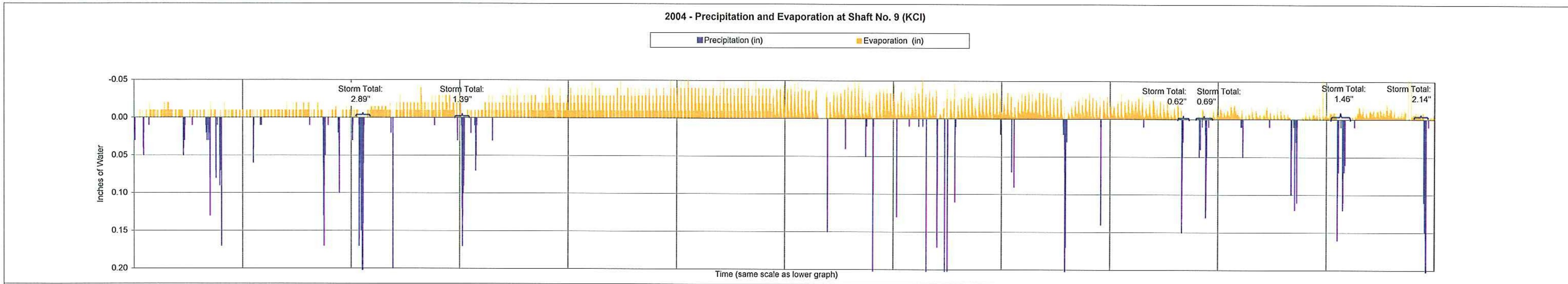
2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
Storm Total: 2.89"
Storm Total: 1.39"
Storm Total: 0.62"
Storm Total: 0.69"
Storm Total: 1.46"
Storm Total: 2.14"
Time (same scale as lower graph)

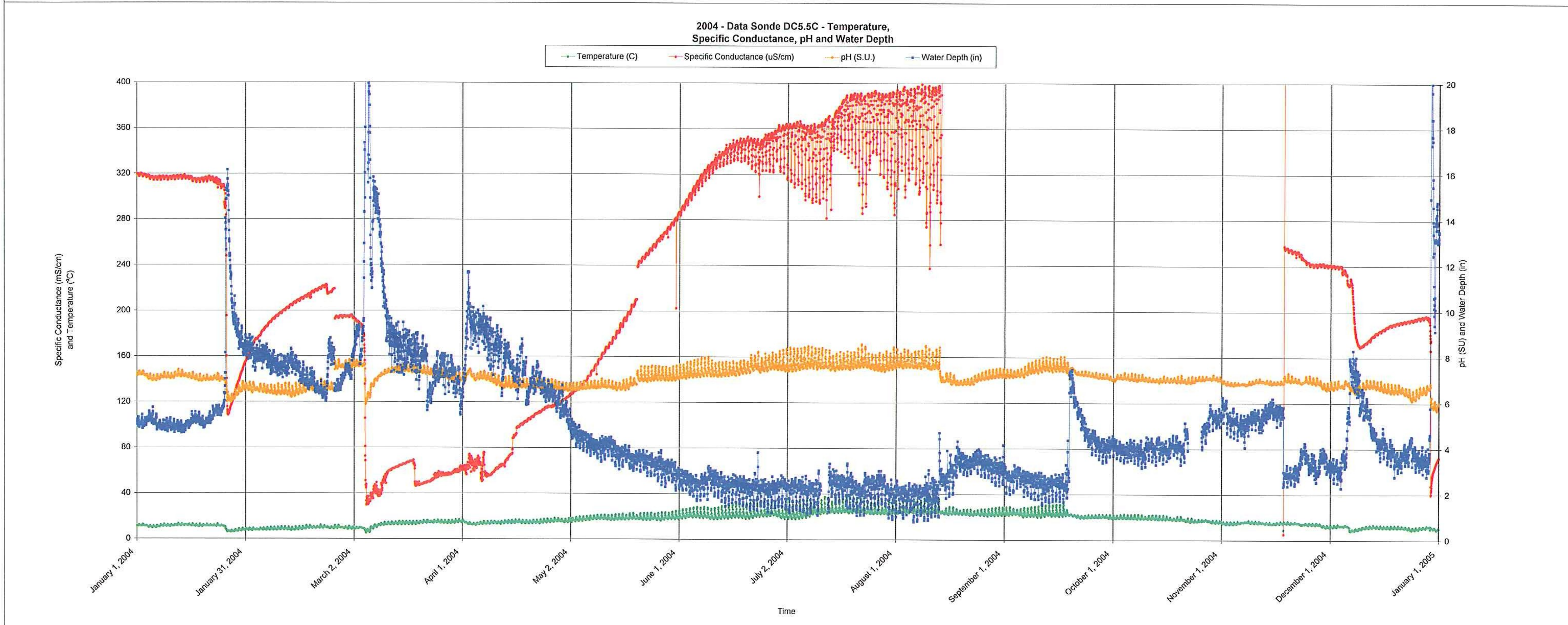


2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
January 1, 2004
January 31, 2004
March 2, 2004
April 1, 2004
May 2, 2004
June 1, 2004
July 2, 2004
August 1, 2004
September 1, 2004
October 1, 2004
November 1, 2004
December 1, 2004
January 1, 2005
Time


2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
Storm Total: 2.89"
Storm Total: 1.39"
Storm Total: 0.62"
Storm Total: 0.69"
Storm Total: 1.46"
Storm Total: 2.14"
Time (same scale as lower graph)


2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
January 1, 2004
January 31, 2004
March 2, 2004
April 1, 2004
May 2, 2004
June 1, 2004
July 2, 2004
August 1, 2004
September 1, 2004
October 1, 2004
November 1, 2004
December 1, 2004
January 1, 2005
Time


2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
Storm Total: 2.89"
Storm Total: 1.39"
Storm Total: 0.62"
Storm Total: 0.69"
Storm Total: 1.46"
Storm Total: 2.14"
Time (same scale as lower graph)


2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
January 1, 2004
January 31, 2004
March 2, 2004
April 1, 2004
May 2, 2004
June 1, 2004
July 2, 2004
August 1, 2004
September 1, 2004
October 1, 2004
November 1, 2004
December 1, 2004
January 1, 2005
Time

DATA SONDE SUMMARIES

Data Sonde DC13.5C

The data sonde at sample station DC13.5C was deployed on May 8, 2003. The sensor array on this sonde includes a pressure transducer, conductivity, and temperature. Depth data obtained from the sonde indicated a maximum stage of 107 inches on February 12, 2005 at 10:00 AM. A minimum stage of approximately 0 inches was periodically recorded during summer and early fall months, suggesting no discharge. This lack of discharge is substantiated by specific conductance readings. The conductivity sensor at this location was installed such that the sensor was pointing downward (sensor is very near bedrock thalweg) and stops recording conductivity when the sensor goes dry. When the sensor goes dry, it suggests that discharge has ceased or flow was extremely low.

During flow events, specific conductance ranged from approximately 20 to 400 microSiemens per centimeters (μs/cm). Typically, specific conductance varied between approximately 80 (during moderate flows) and 250 μs/cm (during low flow drought conditions – likely due to evapoconcentration). Low specific conductance readings occurred during high flow conditions (very little dissolved constituents) and the high readings occurred during first-flush events following long dry periods. Diurnal fluctuations in specific conductance ranged between approximately 5 (typically during the winter months) and 40 μs/cm (typically during the summer months).

Data Sonde DC10.9C

The data sonde at sample station DC10.9C was deployed on September 18, 2003. The sensor array on this sonde includes a pressure transducer, conductivity, and temperature. Depth data obtained from the sonde indicated a maximum stage of 115 inches on February 12, 2005 at 11:00 AM. A minimum stage of approximately 1 inch annually occurred during August and September. This site has had continuous flow since the installation of the sonde.

Specific conductance ranged from approximately 20 to 280 μs/cm. Typically, the specific conductance varied between approximately 120 (during moderate flows) and 150 μs/cm (during low flow drought conditions – likely due to evapoconcentration). Low specific conductance readings (i.e., 20 μs/cm) occurred during high flow conditions (very little dissolved constituents). Diurnal fluctuations in specific conductance ranged between approximately 5 (typically during the winter months) and 40 μs/cm (typically during the summer months).

Data Sonde DC8.8C

The data sonde at sample station DC8.8C was deployed on September 18, 2003. The sensor array on this sonde includes a pressure transducer, conductivity, pH, turbidity, and temperature. Depth data obtained from the sonde indicated a maximum stage of 117 inches on February 12, 2005 at 11:00 AM. A minimum stage of approximately 1 inch annually occurred during July and August. This site has had continuous flow since the installation of the sonde.

Specific conductance ranged from approximately 20 to 450 μs/cm. Typically, the specific conductance varied between approximately 180 (during baseflow conditions) and 100 μs/cm (during moderate flow conditions). High readings (i.e., 450 μs/cm during September 12, 2003) occurred during late summer high flow events. The majority of high flow events resulted in depressed specific conductance readings; however, the late summer flows typically resulted in elevated conductivity. The low specific conductance readings (i.e., 20 μs/cm) occurred during high flow conditions (very little dissolved constituents). Diurnal fluctuations in specific conductance ranged between approximately 3 (typically during the winter months) and 20 μs/cm (typically during the summer months).

pH at this site generally ranged between 7 and 8. Diurnal fluctuations in pH varied between approximately 0.1 and 0.8 pH units and were typically diminished during high flow events. Unlike the specific conductance measurements, a clear seasonal trend of larger diurnal fluctuations during warmer months was not evident as this station. Because this site is dominated by baseflow and is very close to the point where water surfaces, it is likely that residence time of the water is not sufficient for biochemical activity to have an effect on water chemistry. DC8.8C is also located under a canopy of deciduous trees, which may allow more sunlight to reach the water during winter months, thereby promoting elevated algal photosynthetic activity. This would result in an inverse seasonal relationship of increased diurnal changes in winter. This was noted during one winter but was not consistent (potentially flow conditions are also effecting this).

Turbidity readings were collected during the first 2 months of sonde deployment. Readings typically varied between 1 and 10 nephelometric turbidity units. Comparison to the rainfall events indicate that spikes in turbidity readings do correlate with rainfall events. Of particular interest are the late August 2003 rainfall events that indicate turbidity spikes that correlate with rainfall events and a short-term reduction of specific conductance.

Data Sonde DC8.2W

The data sonde at sample station DC8.2W was deployed on July 17, 2003. This station consisted of a cutthroat flume with the data sonde set in the stilling pool immediately upstream of the flume. The sensor array on this sonde includes a pressure transducer, conductivity, pH, and temperature. The sonde and flume were installed to monitor the single largest and most consistent discrete source of spring water entering Devils Canyon. The primary objective of this monitoring location was to collect a long record of spring discharge in attempt to assess discharge response to climate/precipitation records. Numerous technical difficulties were encountered for the duration of the study at this site, and monitoring was permanently discontinued on February 26, 2005. The primary problems included muck (i.e., organic and mineral debris) filling up the upstream stilling pool and submerging the sensors and spring discharge infiltrating prior to entering the flume (e.g., subflow). By September 14, 2004, a significant portion of the spring water was infiltrating prior to flowing through the flume. By late January 2005, all of the flow was bypassing the flume in this way. As a result, data collected after September 2004 are not assessed in this subsection. In addition, because the sonde was readjusted (lifted approximately 1 to 1.5 inches) in an attempt to minimize the sensors being covered with muck, water levels collected after February 23, 2004 require the addition of approximately 1.5 inches for comparison to water levels collected prior to sonde sensor level adjustment.

Depth data obtained from the sonde indicated a maximum stage of approximately 18 inches on February 12, 2005 at 11:00 AM. This relatively elevated water depth was due to creek flow impinging on the flume/sonde station (as made evident by flood debris), and not to elevated flows from the spring. Flow at this location was fairly consistent, with depth readings varying between 4.5 and 5 inches. This site has had continuous flow since the installation of the flume/sonde. Only the path of the water has changed and left the flume/sonde dry.

Specific conductance typically ranged from 250 to 280 μs/cm. High readings associated with small rainfall events were as large as approximately 350 μs/cm. Large rainfall events that result in high creek flows tended to inundate the monitoring system (i.e., March 5, 2004) resulting in specific conductance readings as low as approximately 75 μs/cm. Diurnal fluctuations ranged from 1 to 5 μs/cm.

pH at this site generally ranged between 6 and 7.4. Following calibration, pH would slowly decrease until the next recalibration, averaging between 7.2 and 7.4. This decrease was believed to be a result of mineral deposits on the pH sensor (physically observed on sensor bulb following deployment), and was not due to water quality trends. Diurnal fluctuations in pH were extremely small (generally less than 0.1). This indicates little biochemical activity affecting the water, which was consistent with specific conductance observations.

Data Sonde DC7.1C

The sample station at DC7.1C has two pressure transducers in addition to the data sonde. Data collection at this site started on July 24, 2003. The additional transducers were installed to collect data to calculate the magnitude of flood flow events (using a stage/slope relationship). The sensor array on this sonde includes a pressure transducer, conductivity, pH, and temperature. Depth data obtained from this station indicated a maximum stage of 145 inches on February 12, 2005 at 11:00 AM at the upper transducer (the maximum stage measured at any location thus far in the canyon). This site does not have flowing water for short to moderate durations (few days to approximately 1 month) during the summer months, before monsoons.

Specific conductance ranged from approximately 20 to 600 μs/cm. Typically, the specific conductance averaged approximately 300 μs/cm. High readings (i.e., 600 μs/cm on September 12, 2003) occurred during late summer high flow events. The late summer flows typically resulted in elevated specific conductance. The low specific conductance readings (i.e., 20 μs/cm) occurred during high flow conditions (very little dissolved constituents). Diurnal fluctuations in specific conductance ranged between approximately 5 (during the winter months) and 20 μs/cm (during the summer months).

pH at DC7.1C generally ranged between 6 and 9. During low- to no-flow conditions (the sonde was installed approximately 1 foot below the level at which the pool at this site begins flowing) pH varied from 7.5 to 9. During moderate to high flow conditions, pH typically ranged between 6 and 7.5. High pH values during low- to no-flow conditions are likely due to photosynthetic uptake of CO_2 and evapoconcentration of the dissolved constituents, resulting in high alkalinity and pH. Diurnal fluctuations in pH varied from less than 0.1 to 1.3 pH units and were typically diminished during high flow events. A clear trend of large diurnal fluctuations during the summer months and diminished diurnal pH fluctuations during winter months exist at this site.

Data Sonde DC5.5C

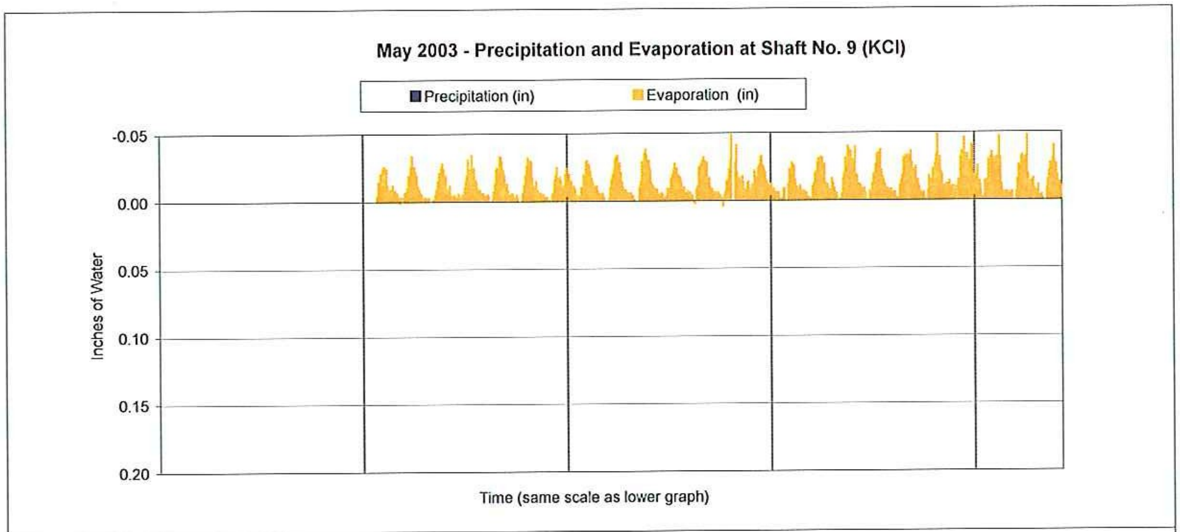
The sonde at DC5.5C was deployed on October 22, 2003. The sensor array on this sonde includes a pressure transducer, conductivity, pH, and temperature. Depth data obtained from this station indicated a maximum stage of 91 inches on February 12, 2005 at 10:00 AM. Prior to the summer rains, a minimum stage reading of approximately 0.5 inch was recorded.

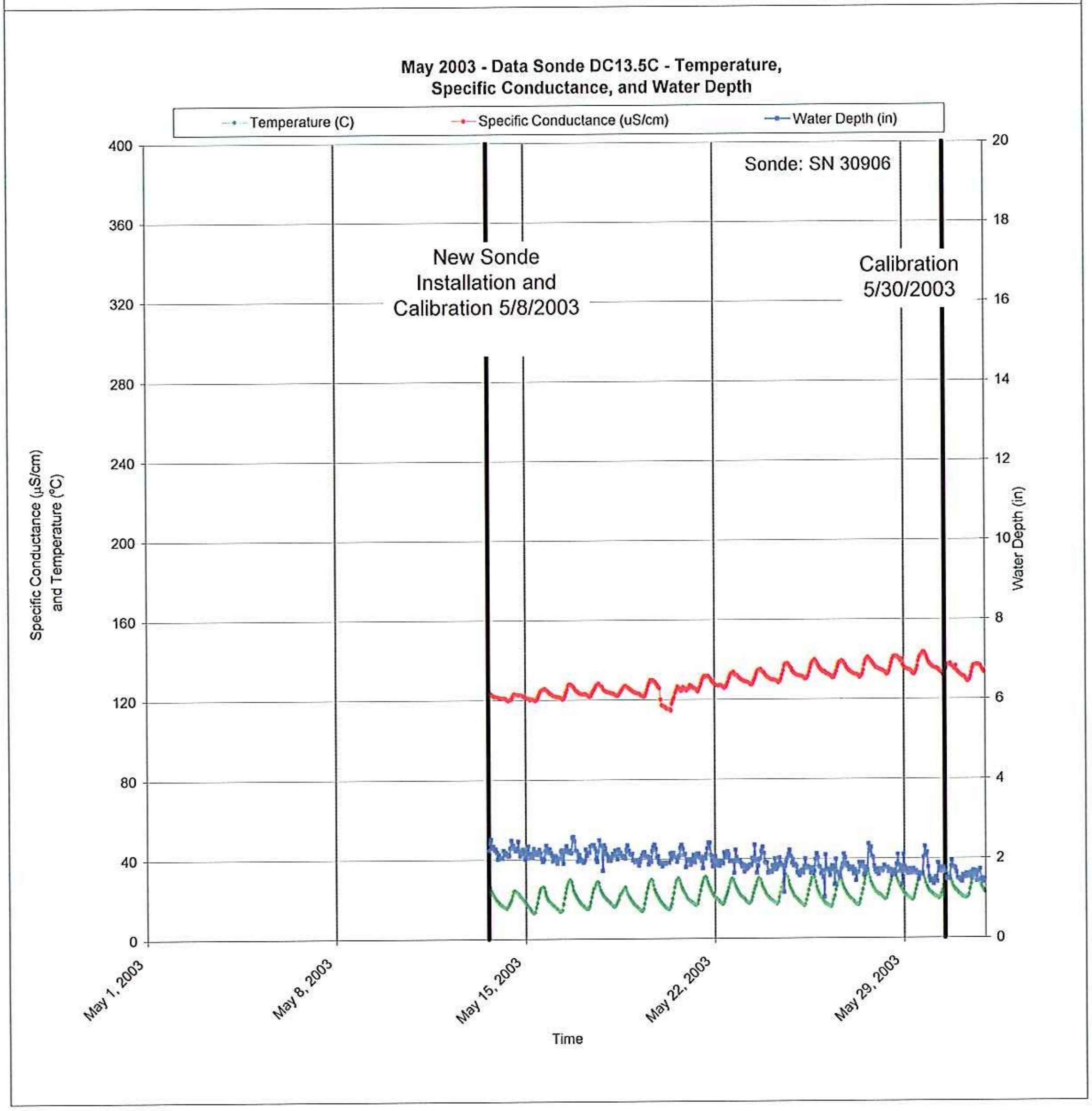
Specific conductance ranged from approximately 20 to 750 μs/cm. The high readings (i.e., 750 μs/cm on August 14, 2004) occurred during late summer high flow events. The low specific conductance readings (i.e., 20 μs/cm) occurred during high flow conditions (very little dissolved constituents). Diurnal fluctuations in specific conductance ranged between approximately 0 and 1 (during the winter months) and up to approximately 100 μs/cm (during the summer months). The very large summer variations in specific conductance are potentially a result of the conductivity sensor going partially dry due to diurnal fluctuations of discharge (suggesting an evapotranspiration driver).

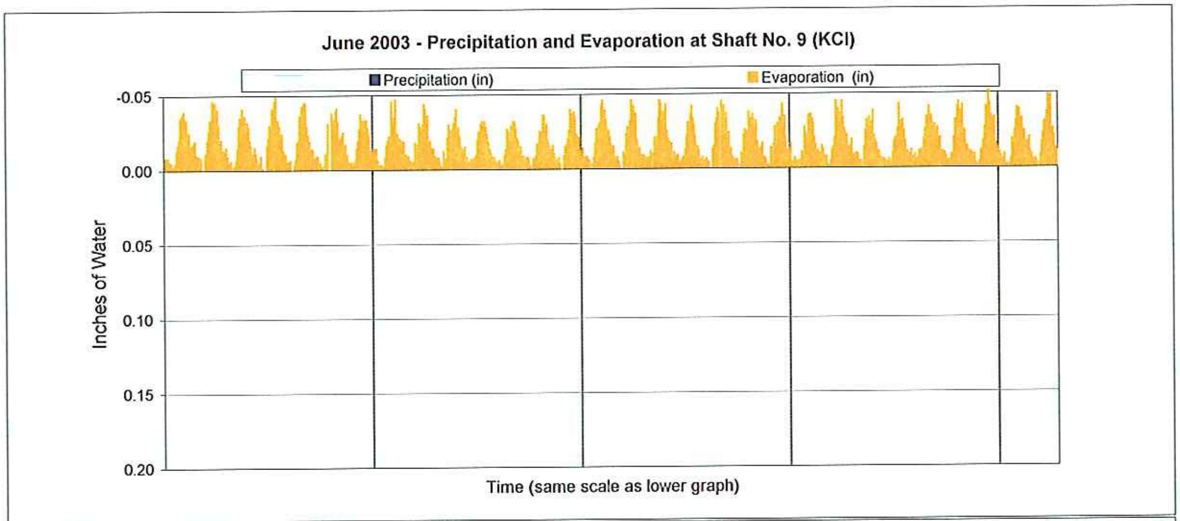
pH at this site generally ranged between 6 and 8.5. During low-flow conditions pH typically ranged from 7 to 8.5. During moderate to high flow conditions, pH typically ranged between 6 and 7. pH readings taken between January and late May 2005 are likely incorrect because subsequent data indicated that pH was approximately 3.5 units less than the actual. This malfunction appeared to happen following a series of high flow events that began in late January 2005. Diurnal fluctuations in pH varied from approximately 0.2 during the winter months and 1.0 during the summer months. A clear trend of large diurnal fluctuations during the summer months and diminished diurnal pH fluctuations during winter months exist at this site.

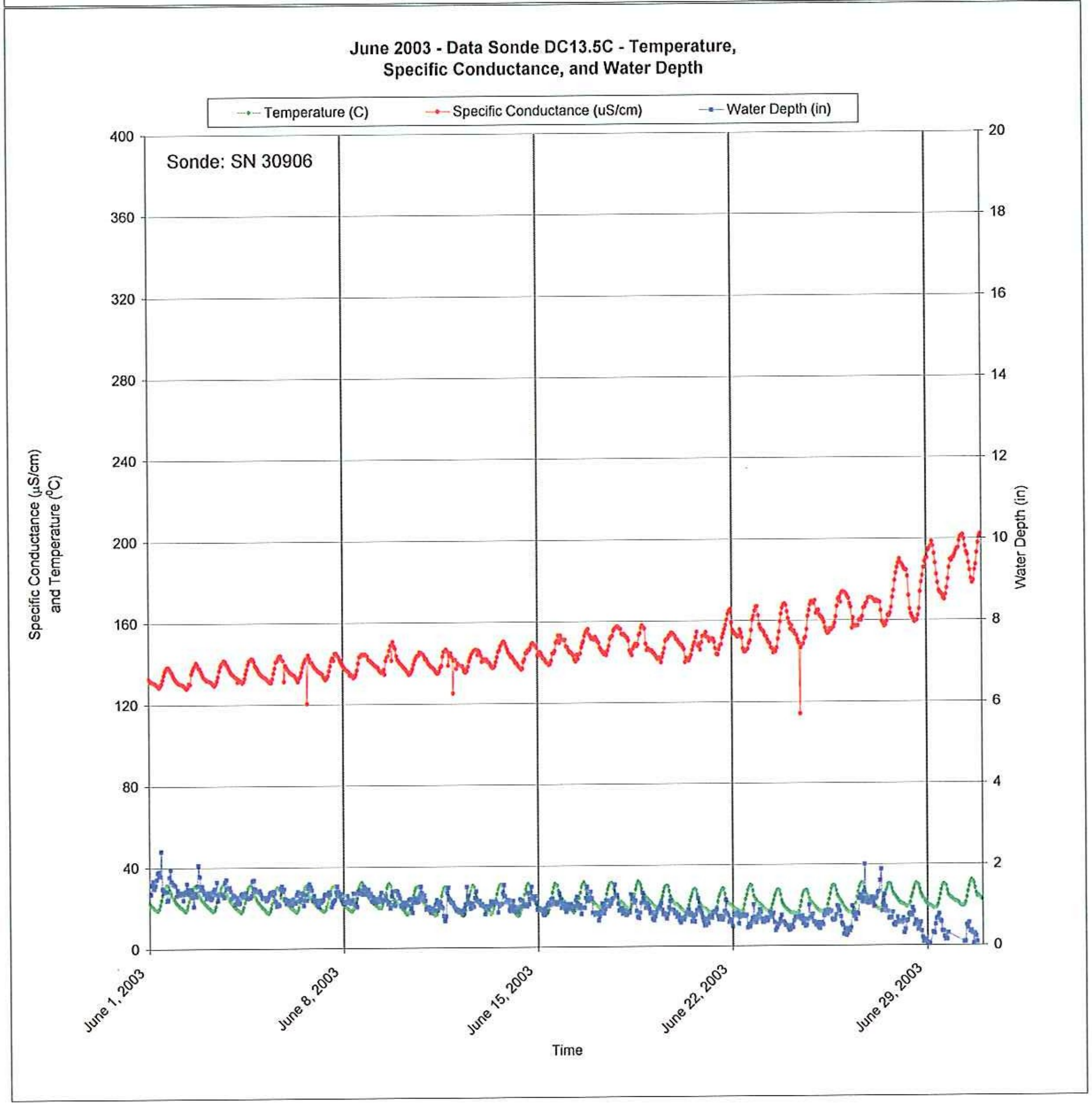
MONTHLY GRAPHS

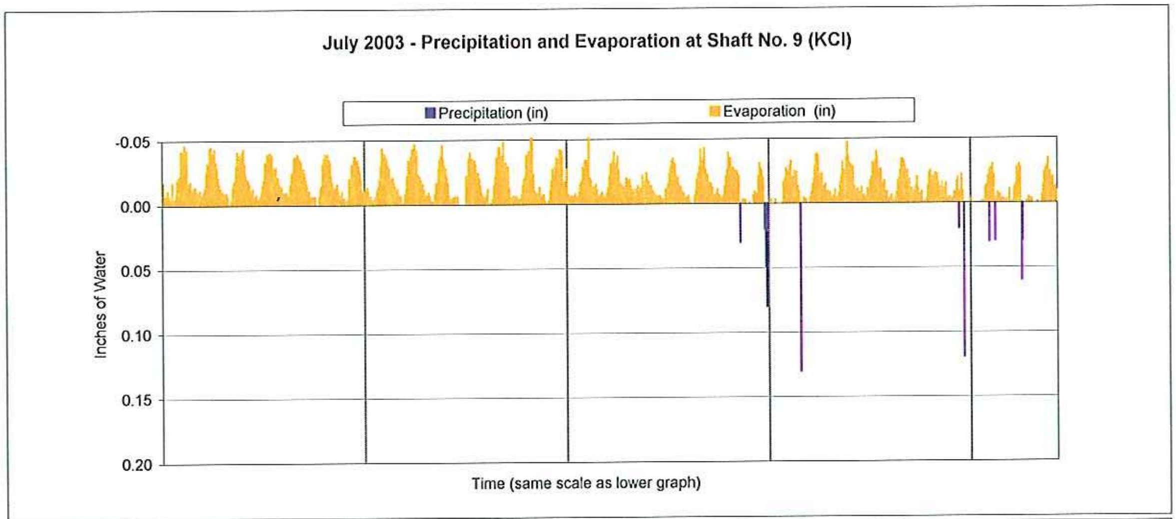
DC 13.5C

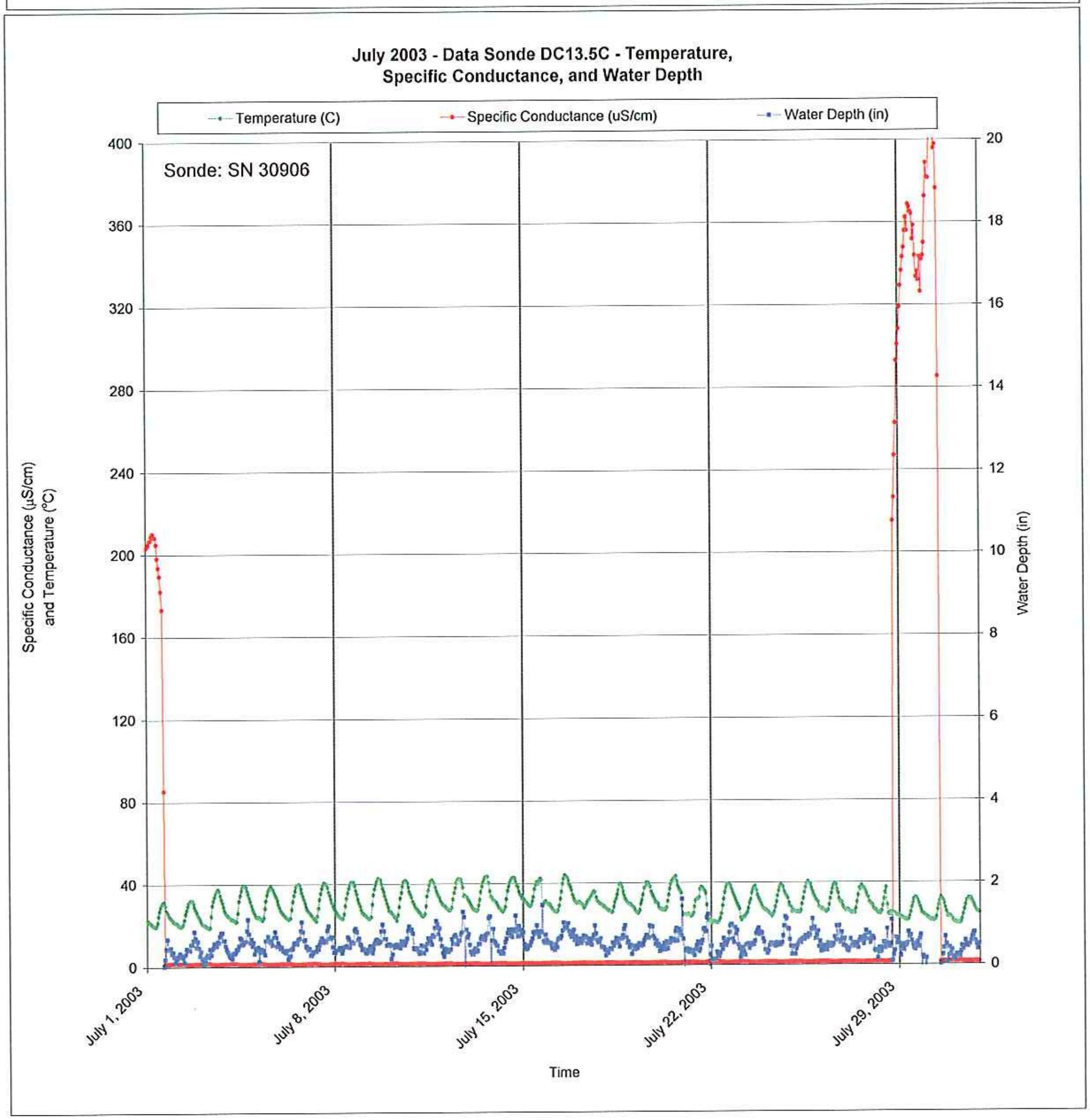

May 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

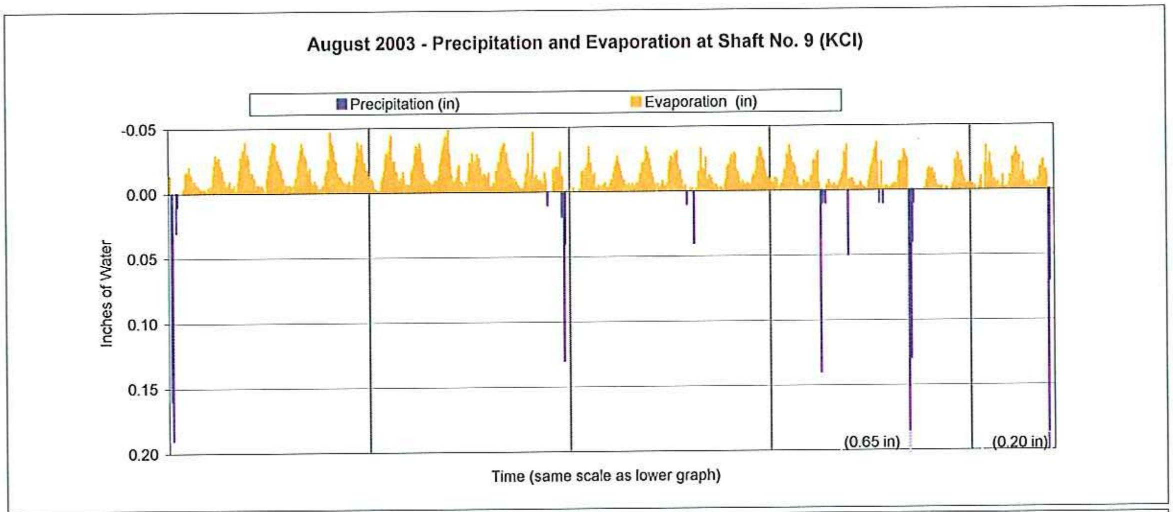

May 2003 - Data Sonde DC13.5C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 30906
New Sonde Installation and Calibration 5/8/2003
Calibration 5/30/2003
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
May 1, 2003
May 8, 2003
May 15, 2003
May 22, 2003
May 29, 2003
Time


June 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

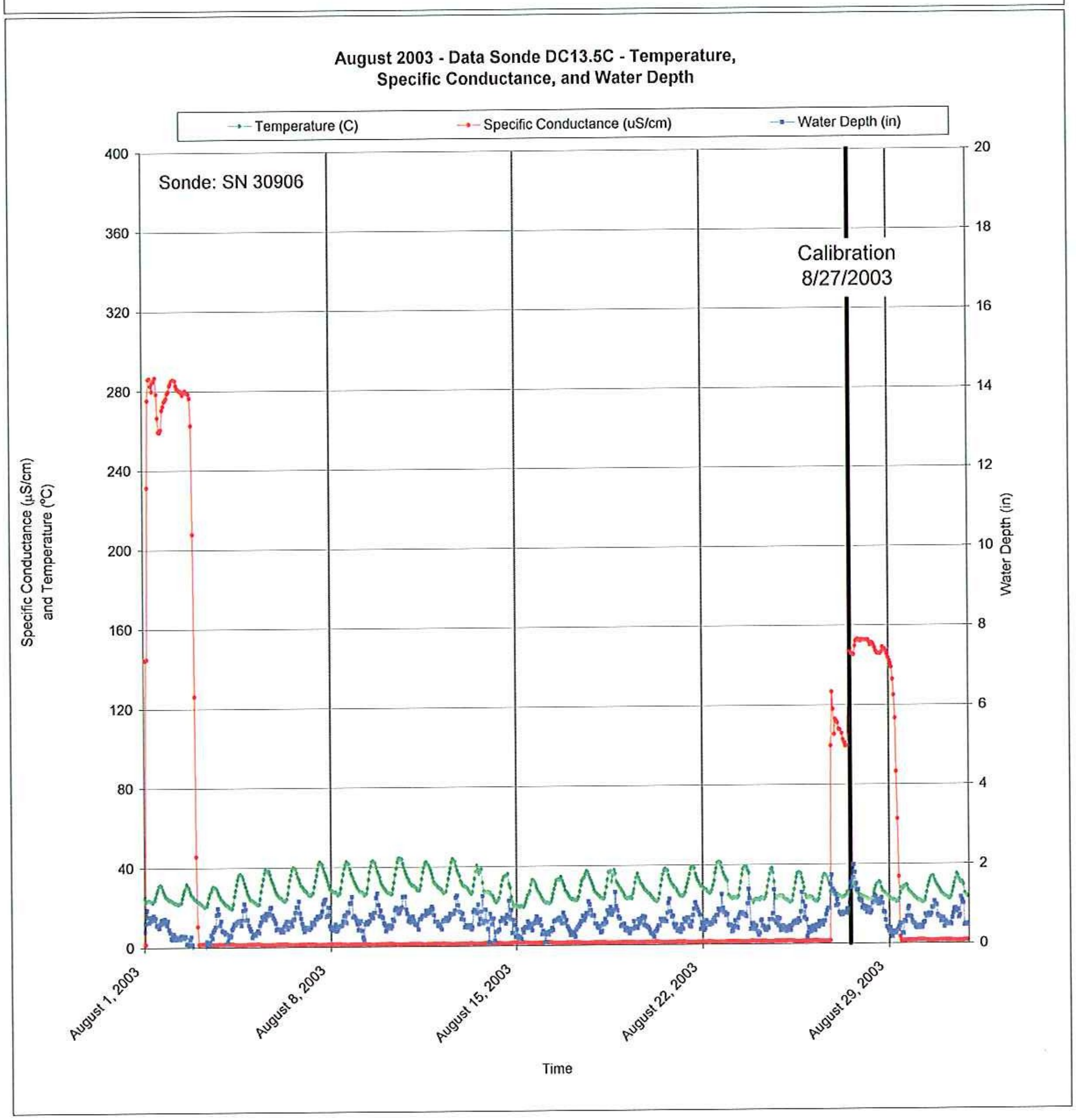

June 2003 - Data Sonde DC13.5C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 30906
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
June 1, 2003
June 8, 2003
June 15, 2003
June 22, 2003
June 29, 2003
Time


July 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

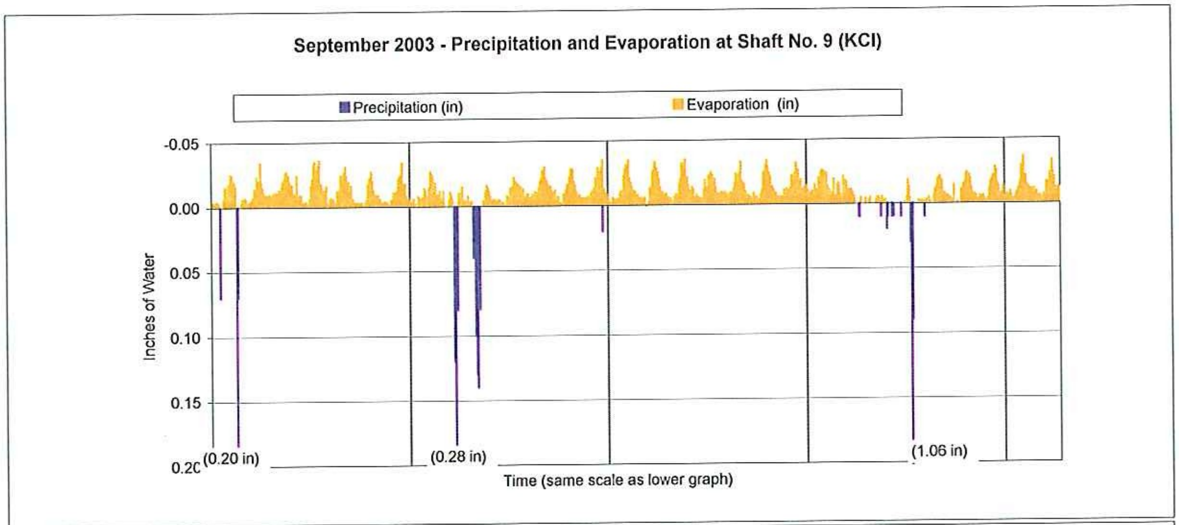

July 2003 - Data Sonde DC13.5C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 30906
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
July 1, 2003
July 8, 2003
July 15, 2003
July 22, 2003
July 29, 2003
Time

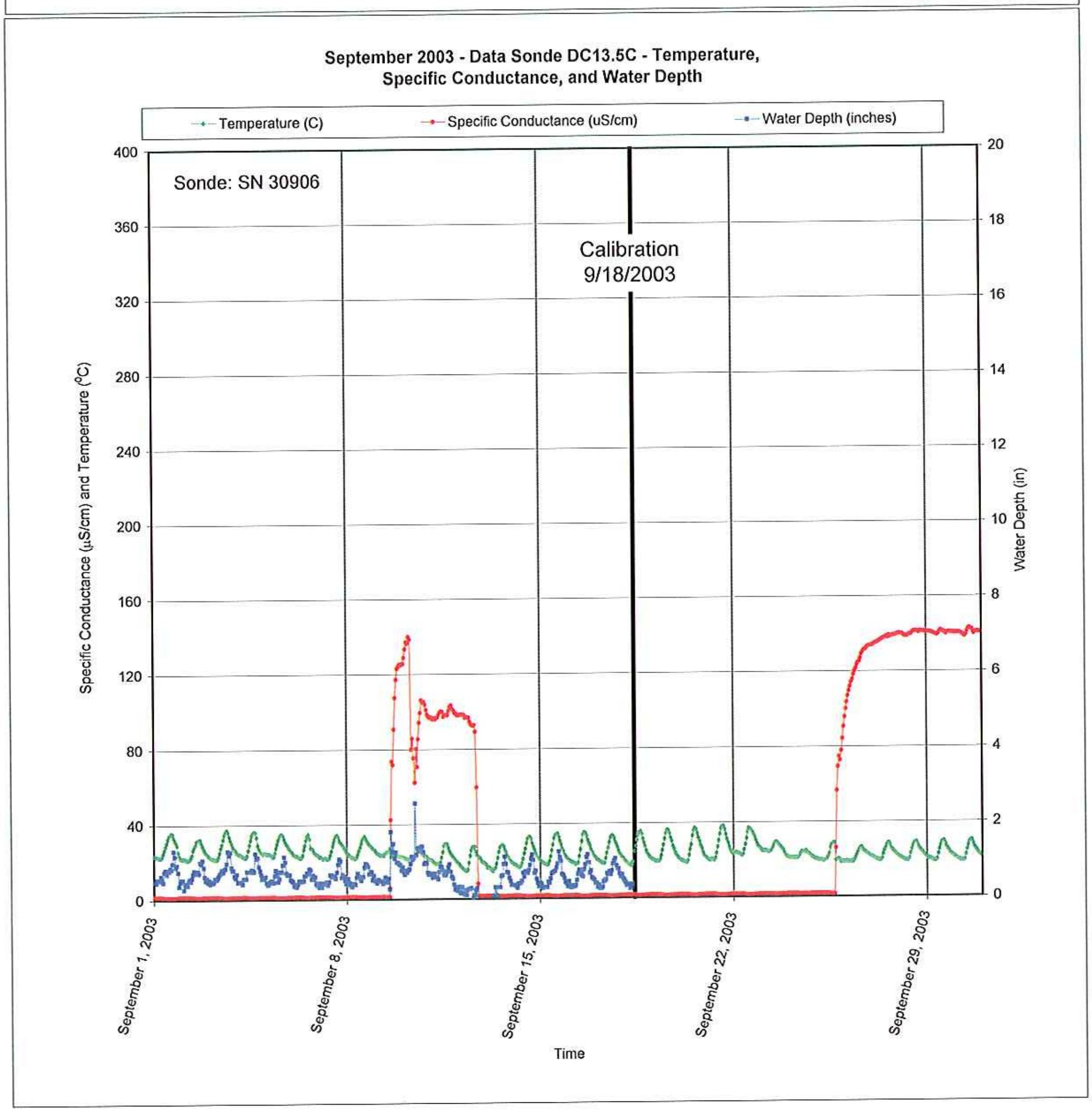


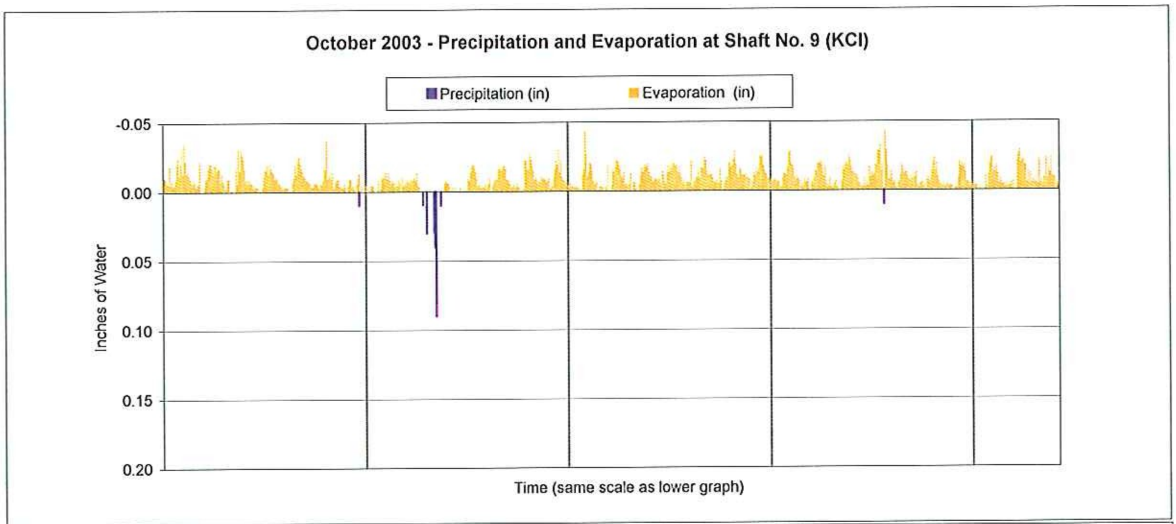
August 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.65 in)
(0.20 in)
Time (same scale as lower graph)

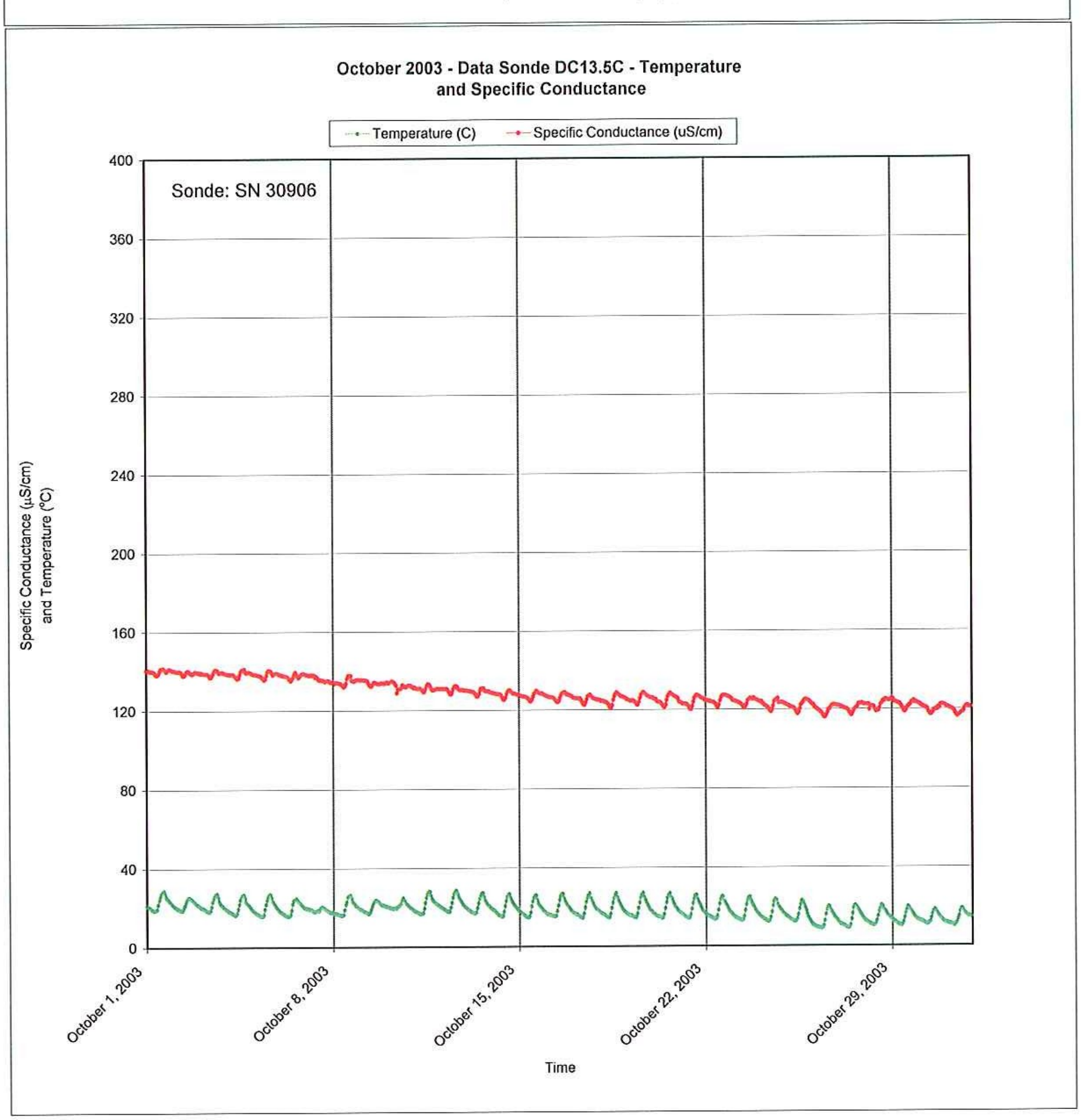


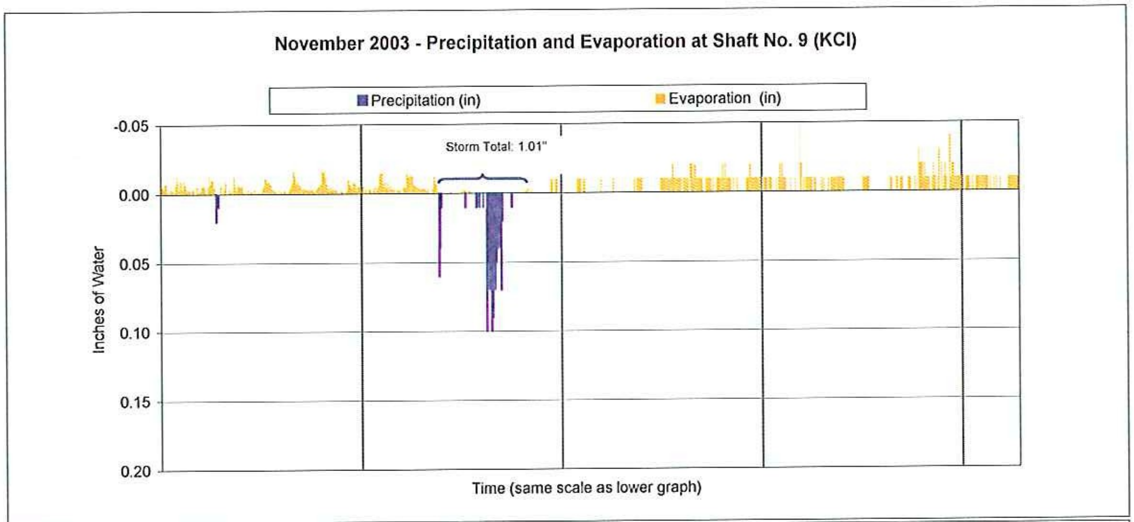
August 2003 - Data Sonde DC13.5C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 30906
Calibration 8/27/2003
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2003
August 8, 2003
August 15, 2003
August 22, 2003
August 29, 2003
Time

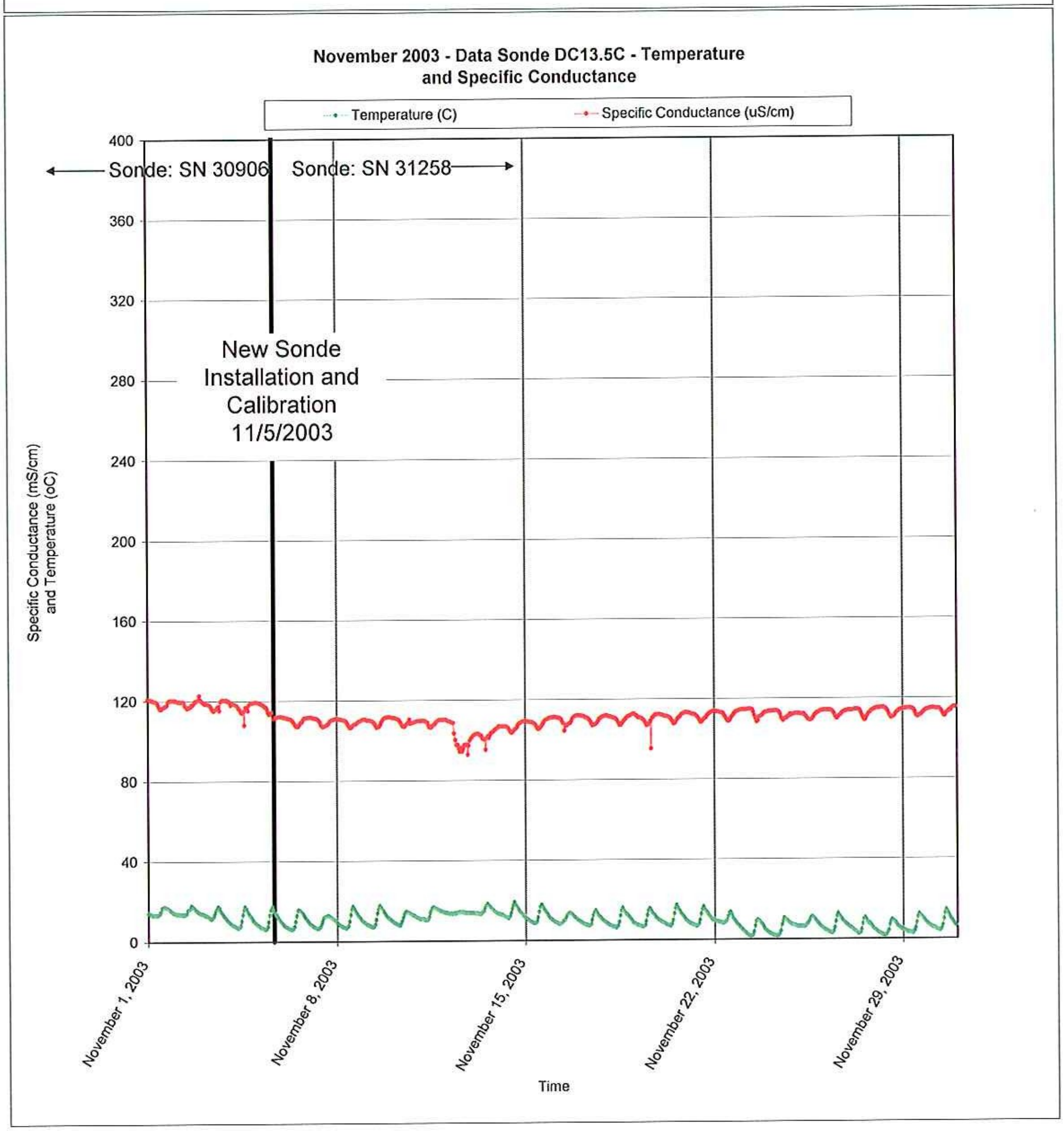

September 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.20 in)
(0.28 in)
(1.06 in)
Time (same scale as lower graph)

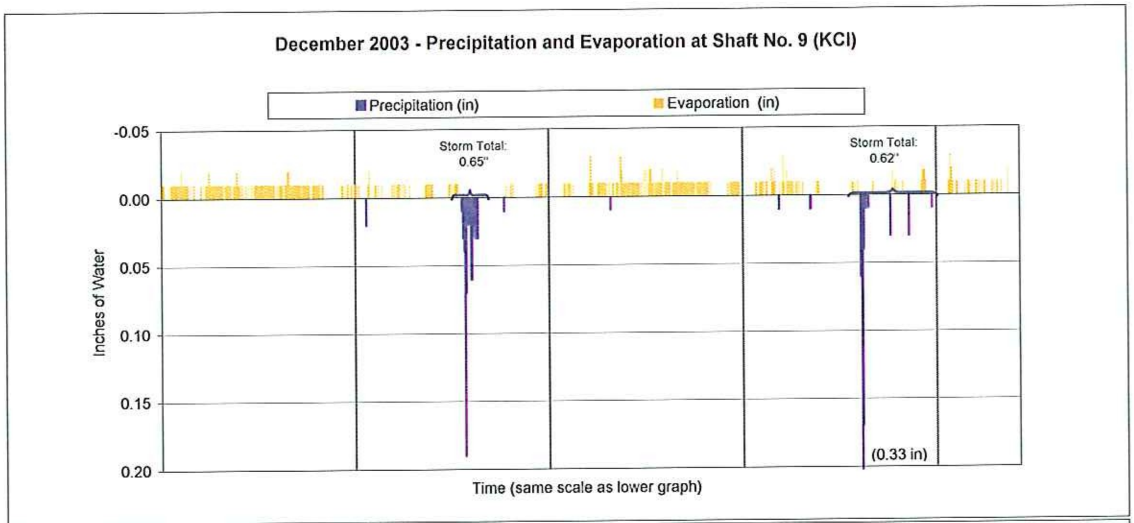

September 2003 - Data Sonde DC13.5C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (inches)
Sonde: SN 30906
Calibration
9/18/2003
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
0
40
80
120
160
200
240
280
320
360
400
0
2
4
6
8
10
12
14
16
18
20
September 1, 2003
September 8, 2003
September 15, 2003
September 22, 2003
September 29, 2003
Time

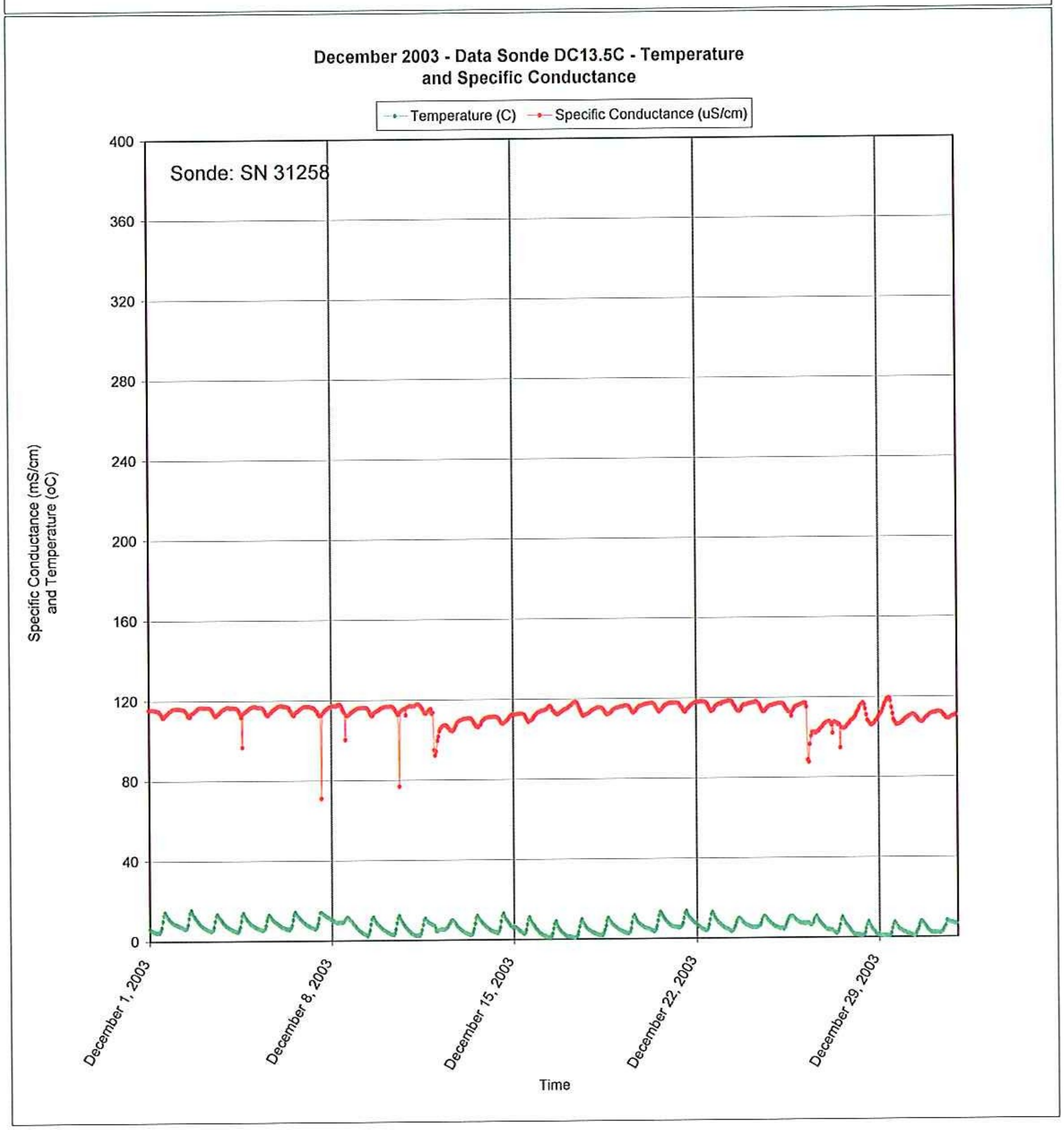

October 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

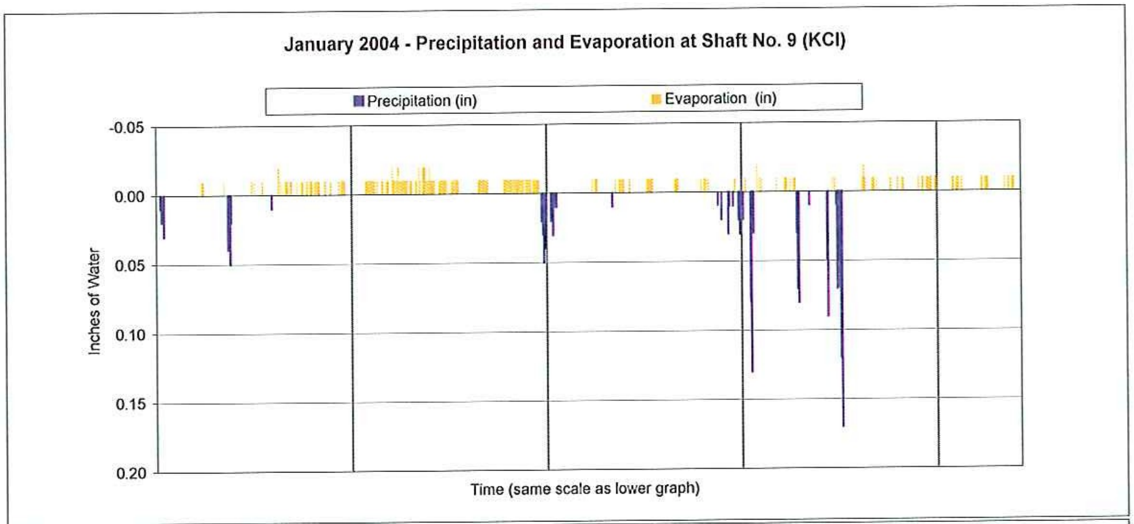

October 2003 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Sonde: SN 30906
400
360
320
280
240
200
160
120
80
40
0
Specific Conductance (µS/cm) and Temperature (°C)
October 1, 2003
October 8, 2003
October 15, 2003
October 22, 2003
October 29, 2003
Time

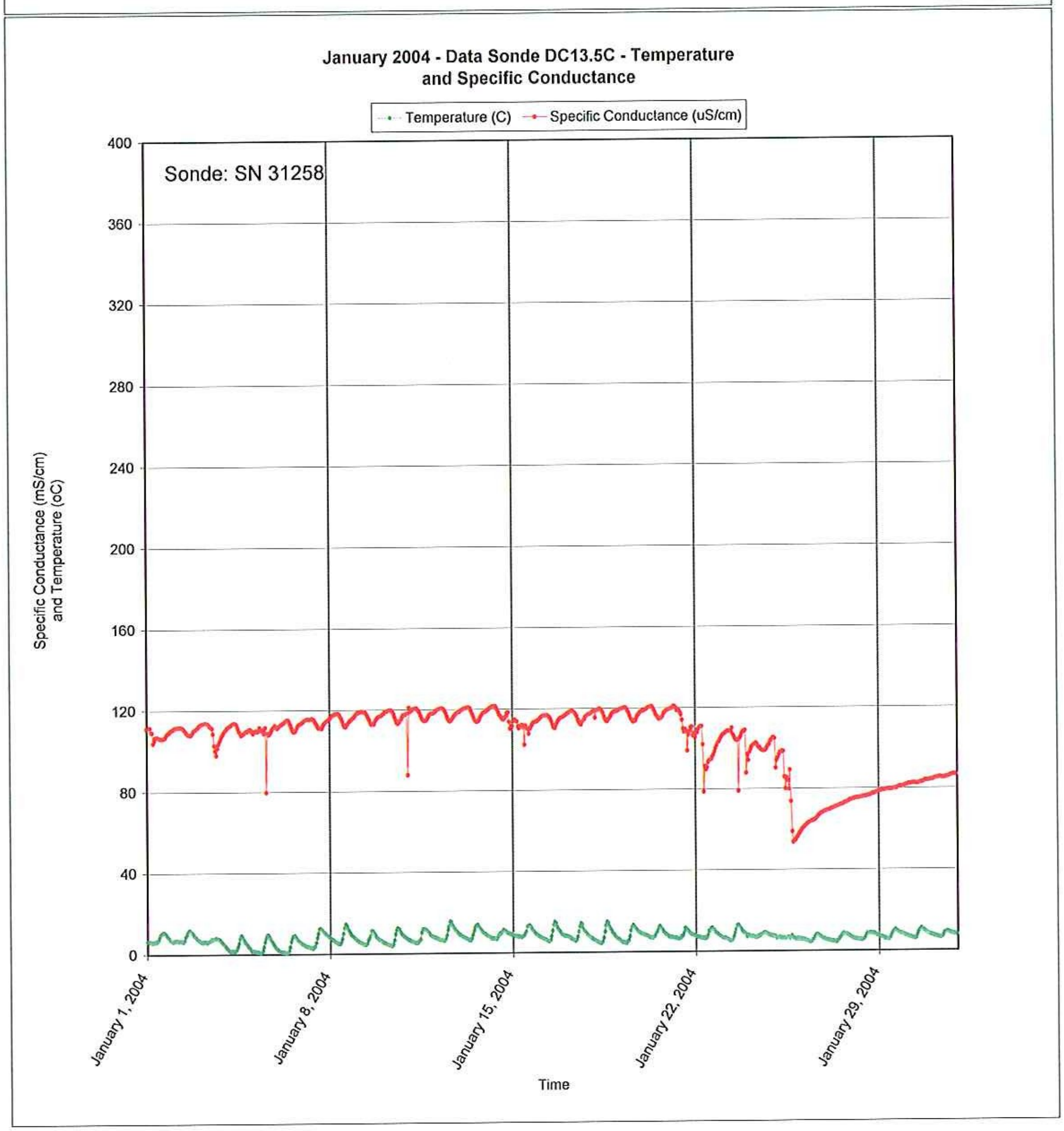

November 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.01"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

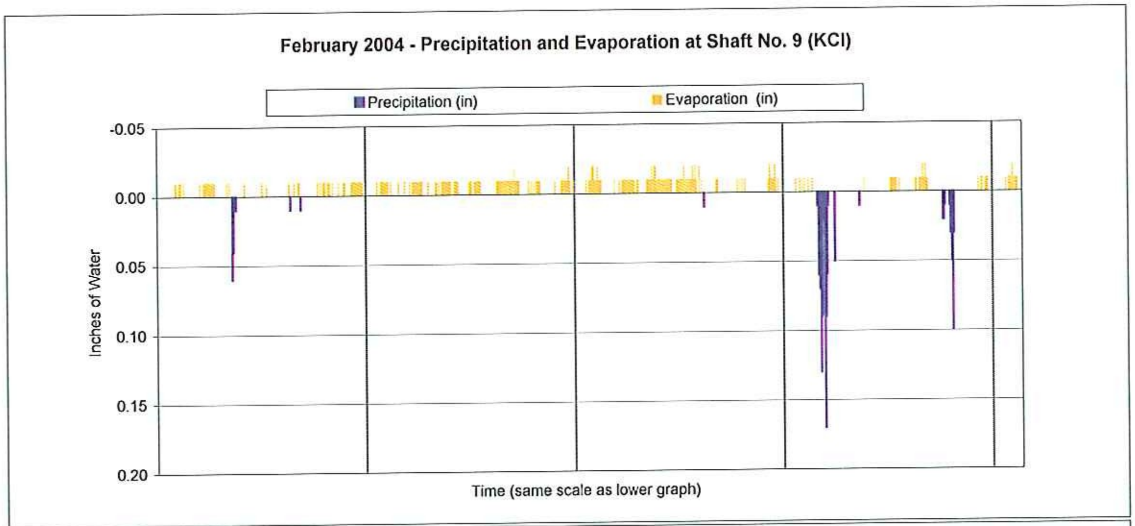

November 2003 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Sonde: SN 30906
Sonde: SN 31258
New Sonde Installation and Calibration 11/5/2003
Specific Conductance (mS/cm) and Temperature (oC)
400
360
320
280
240
200
160
120
80
40
0
November 1, 2003
November 8, 2003
November 15, 2003
November 22, 2003
November 29, 2003
Time

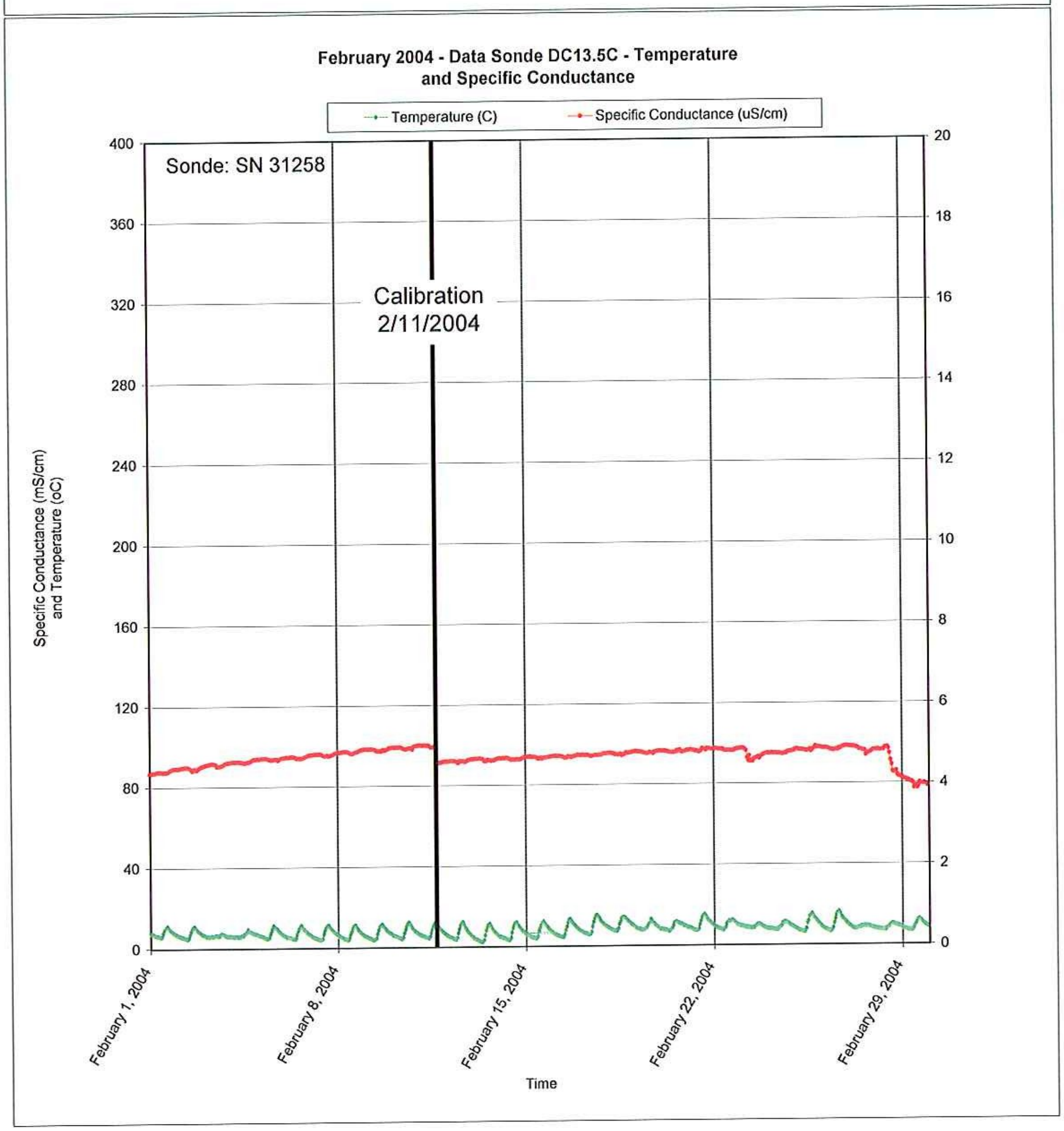

December 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.65"
Storm Total: 0.62"
(0.33 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

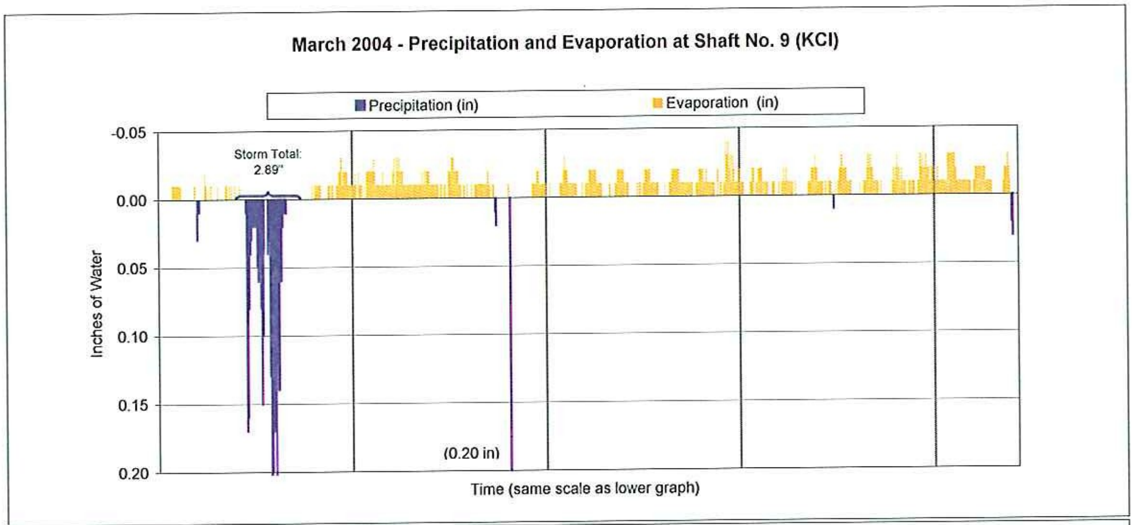

December 2003 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Sonde: SN 31258
Specific Conductance (mS/cm) and Temperature (oC)
400
360
320
280
240
200
160
120
80
40
0
December 1, 2003
December 8, 2003
December 15, 2003
December 22, 2003
December 29, 2003
Time

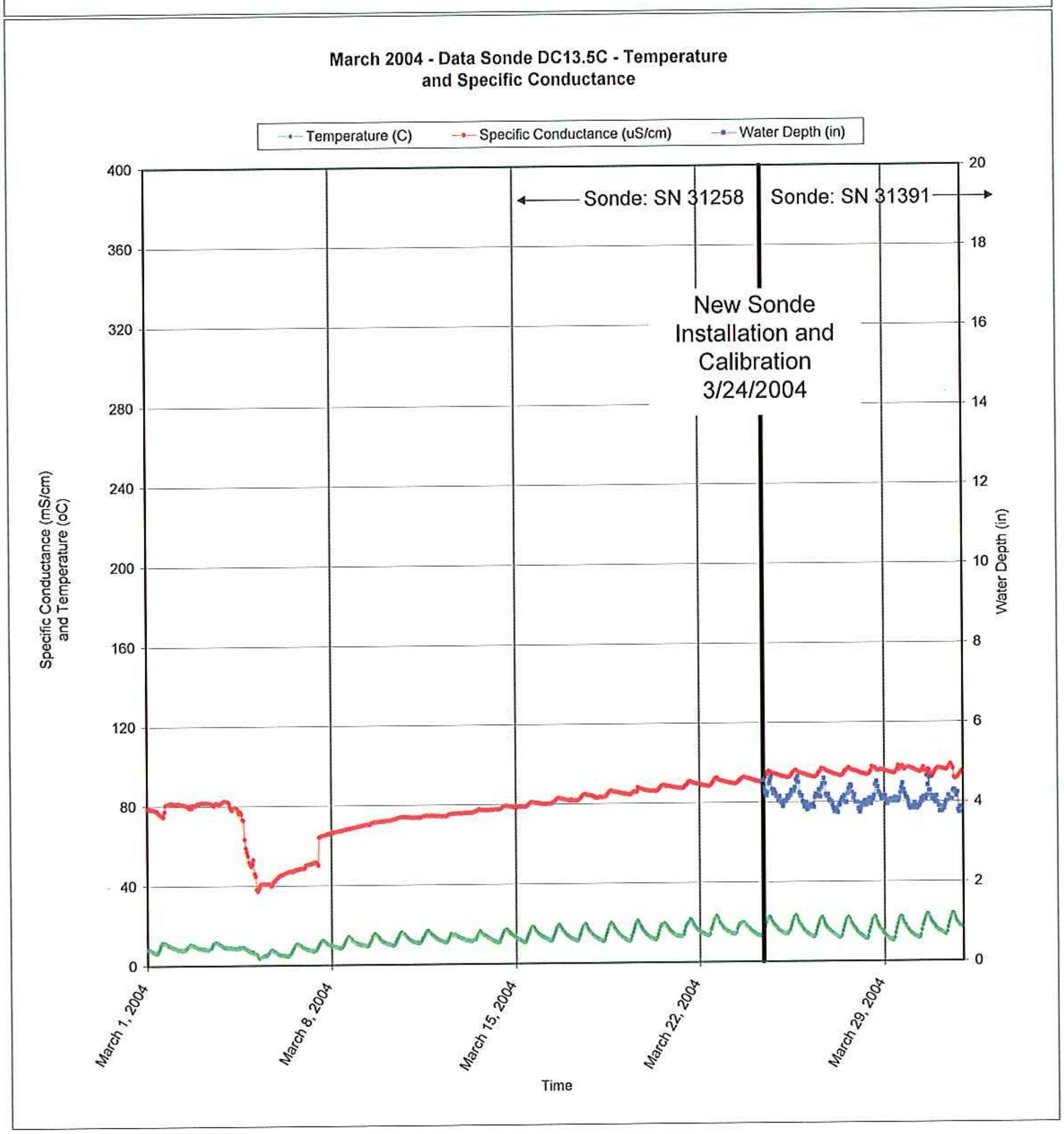

January 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

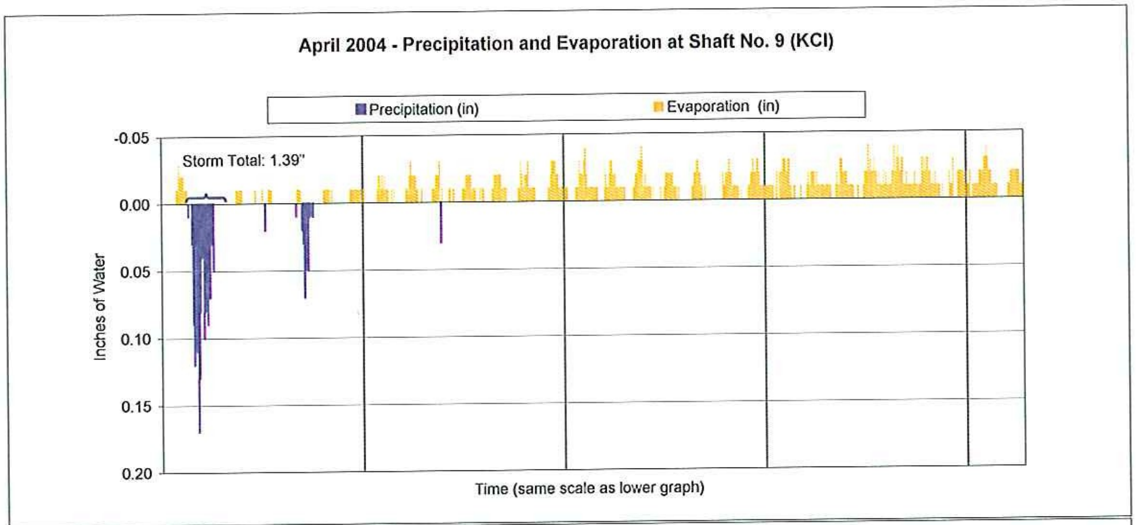

January 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Sonde: SN 31258
Specific Conductance (mS/cm) and Temperature (oC)
400
360
320
280
240
200
160
120
80
40
0
January 1, 2004
January 8, 2004
January 15, 2004
January 22, 2004
January 29, 2004
Time

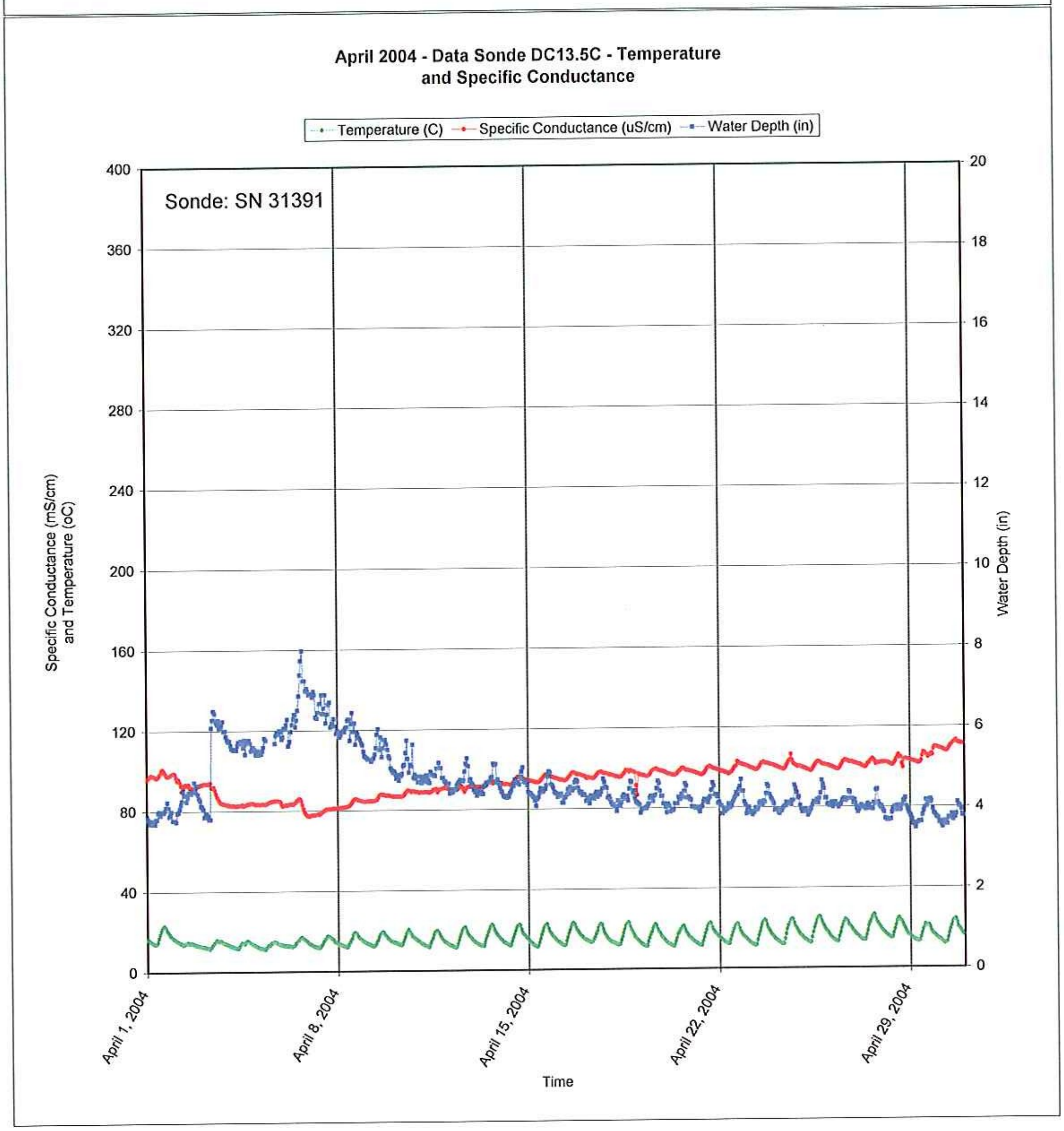

February 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

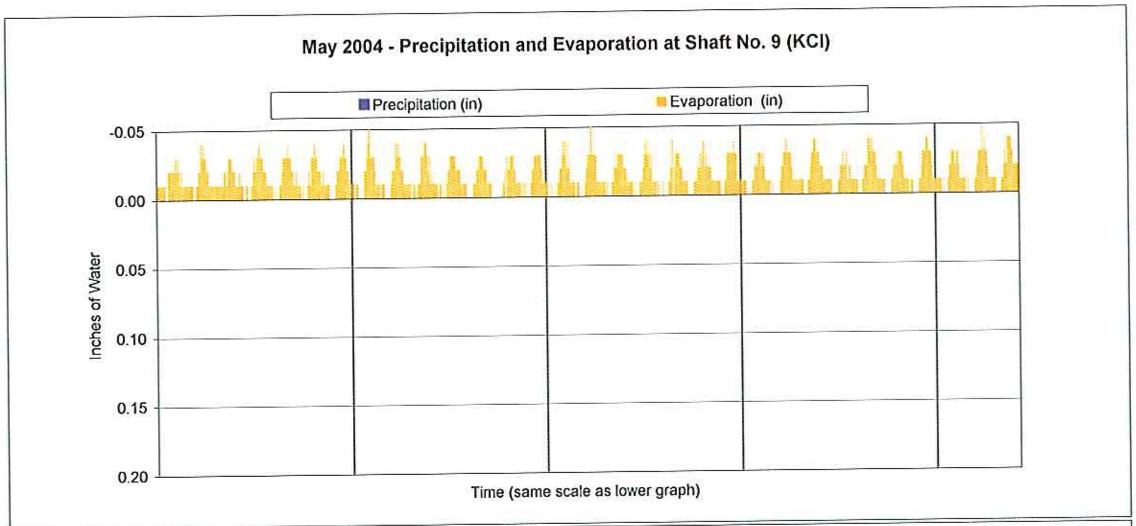

February 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Sonde: SN 31258
Calibration 2/11/2004
Specific Conductance (mS/cm) and Temperature (oC)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2004
February 8, 2004
February 15, 2004
February 22, 2004
February 29, 2004
Time

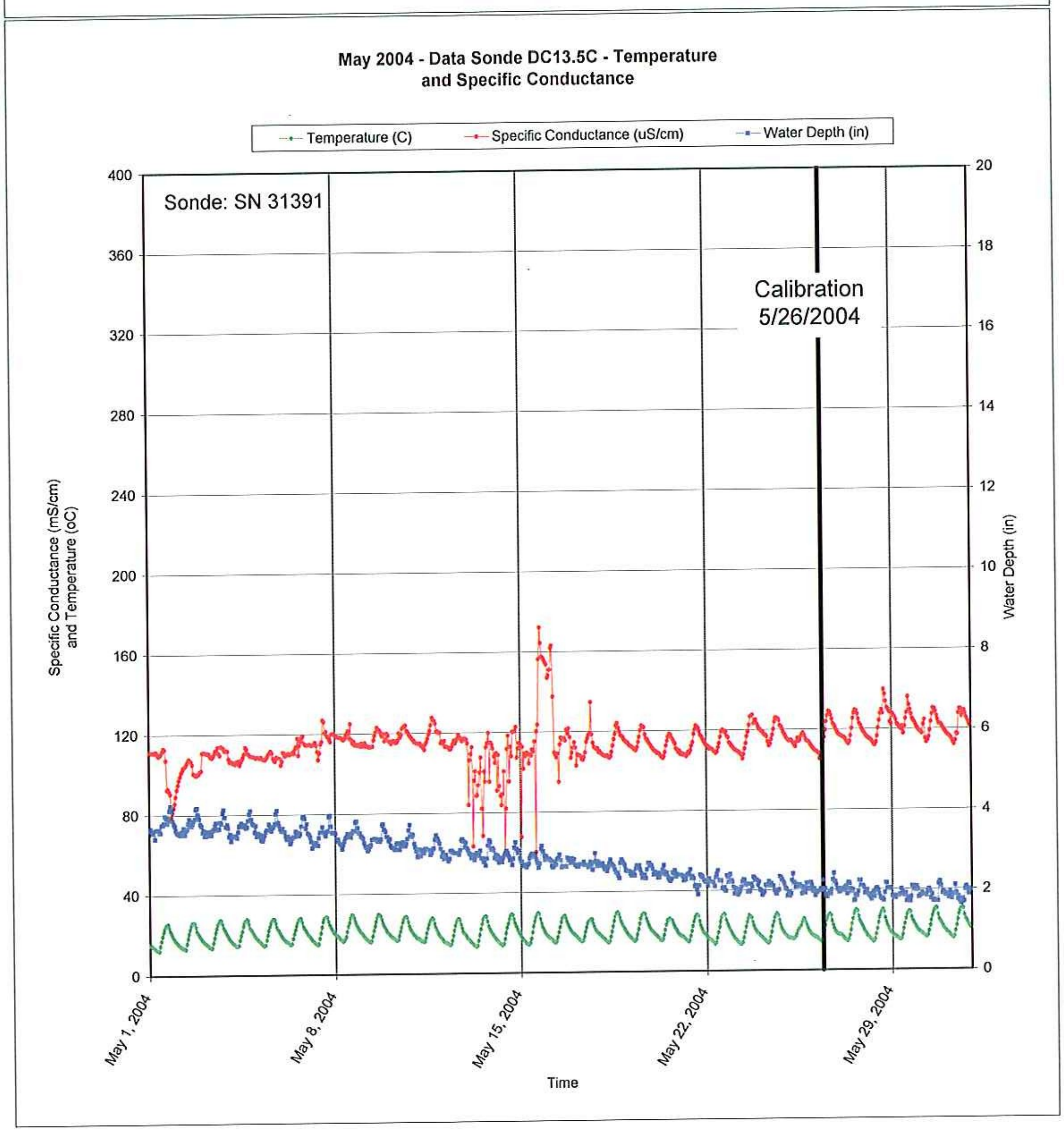

March 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
(0.20 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

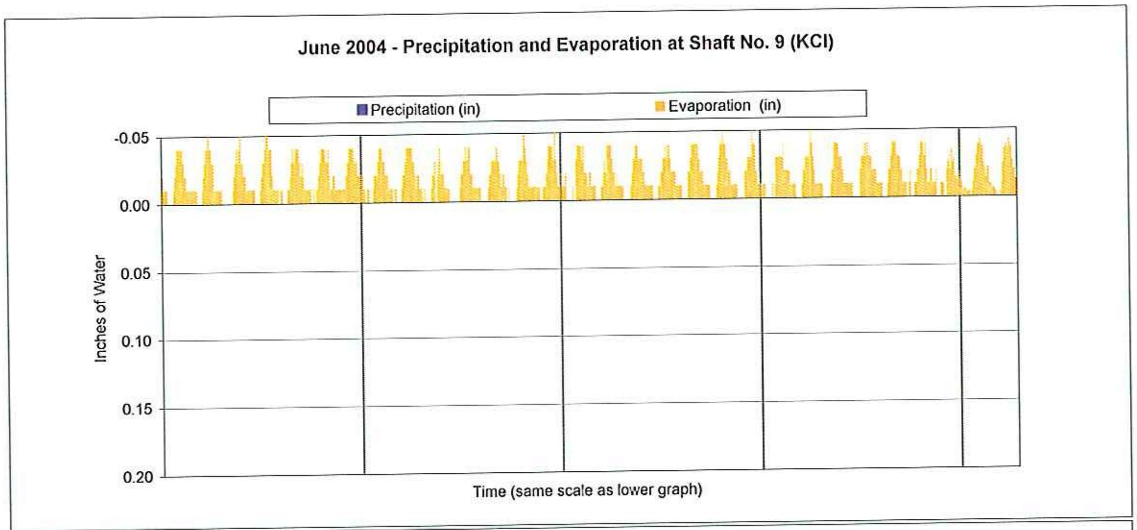

March 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31258
Sonde: SN 31391
New Sonde Installation and Calibration 3/24/2004
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
March 1, 2004
March 8, 2004
March 15, 2004
March 22, 2004
March 29, 2004
Time

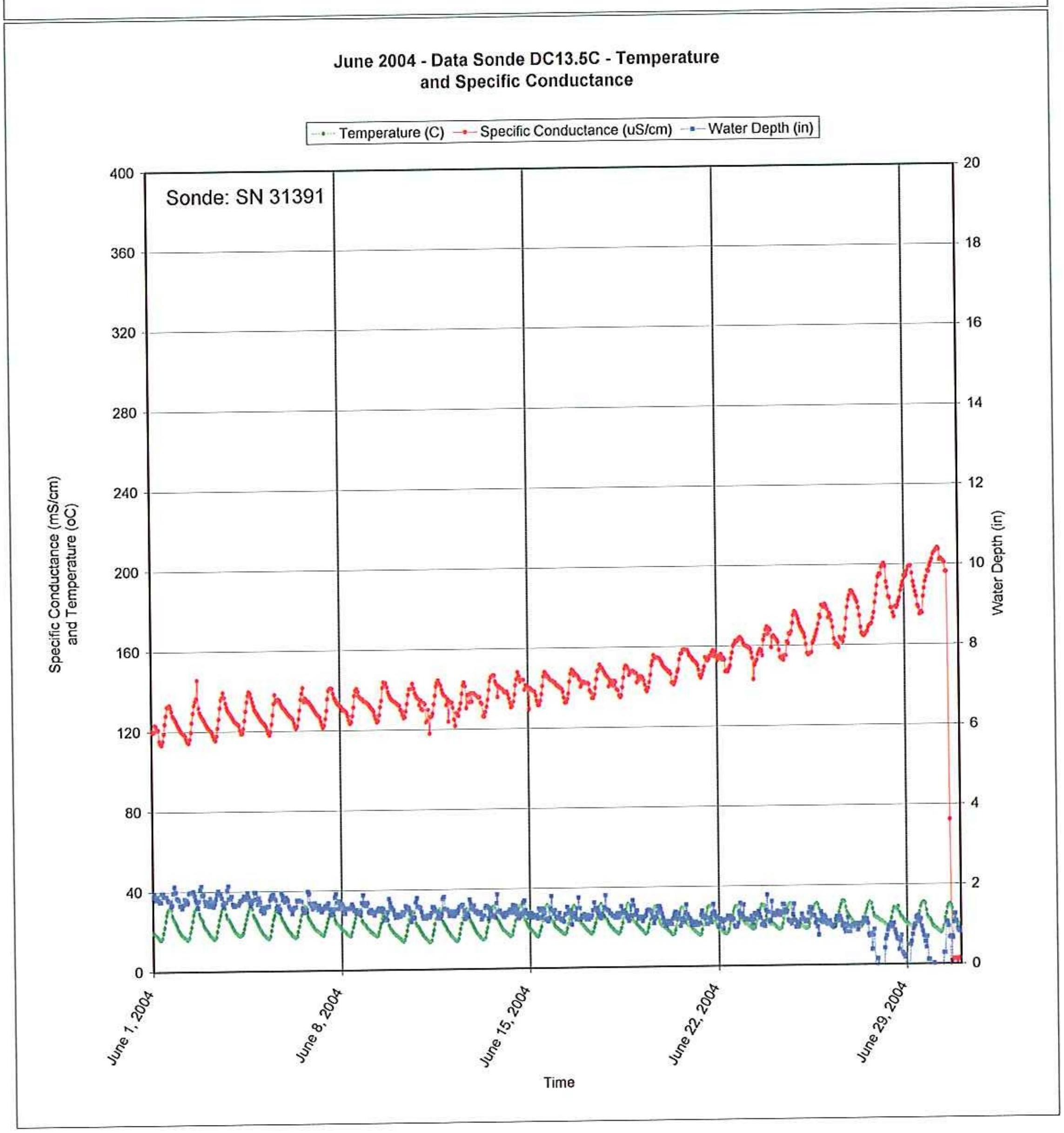

April 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.39"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

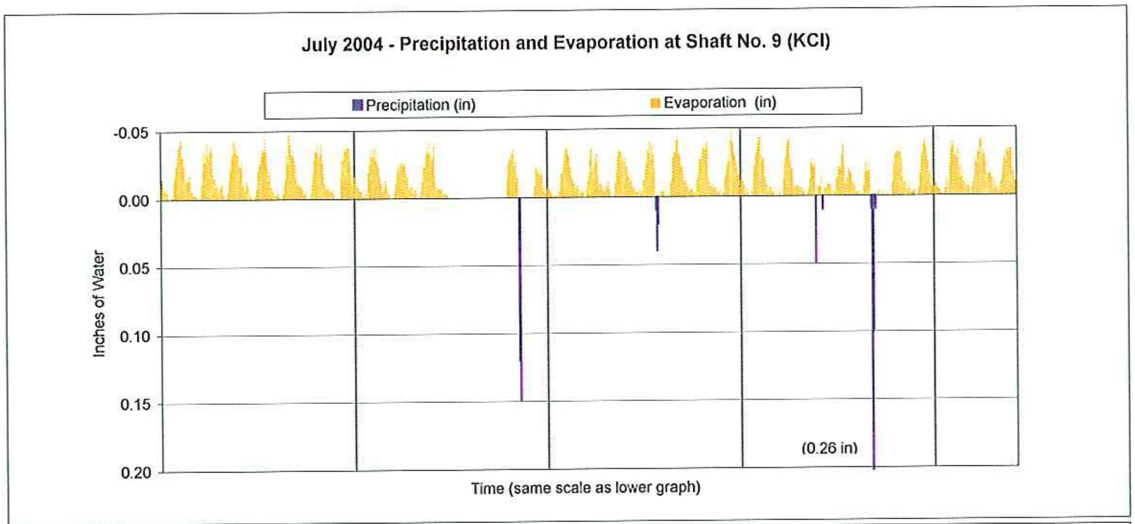

April 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
April 1, 2004
April 8, 2004
April 15, 2004
April 22, 2004
April 29, 2004
Time

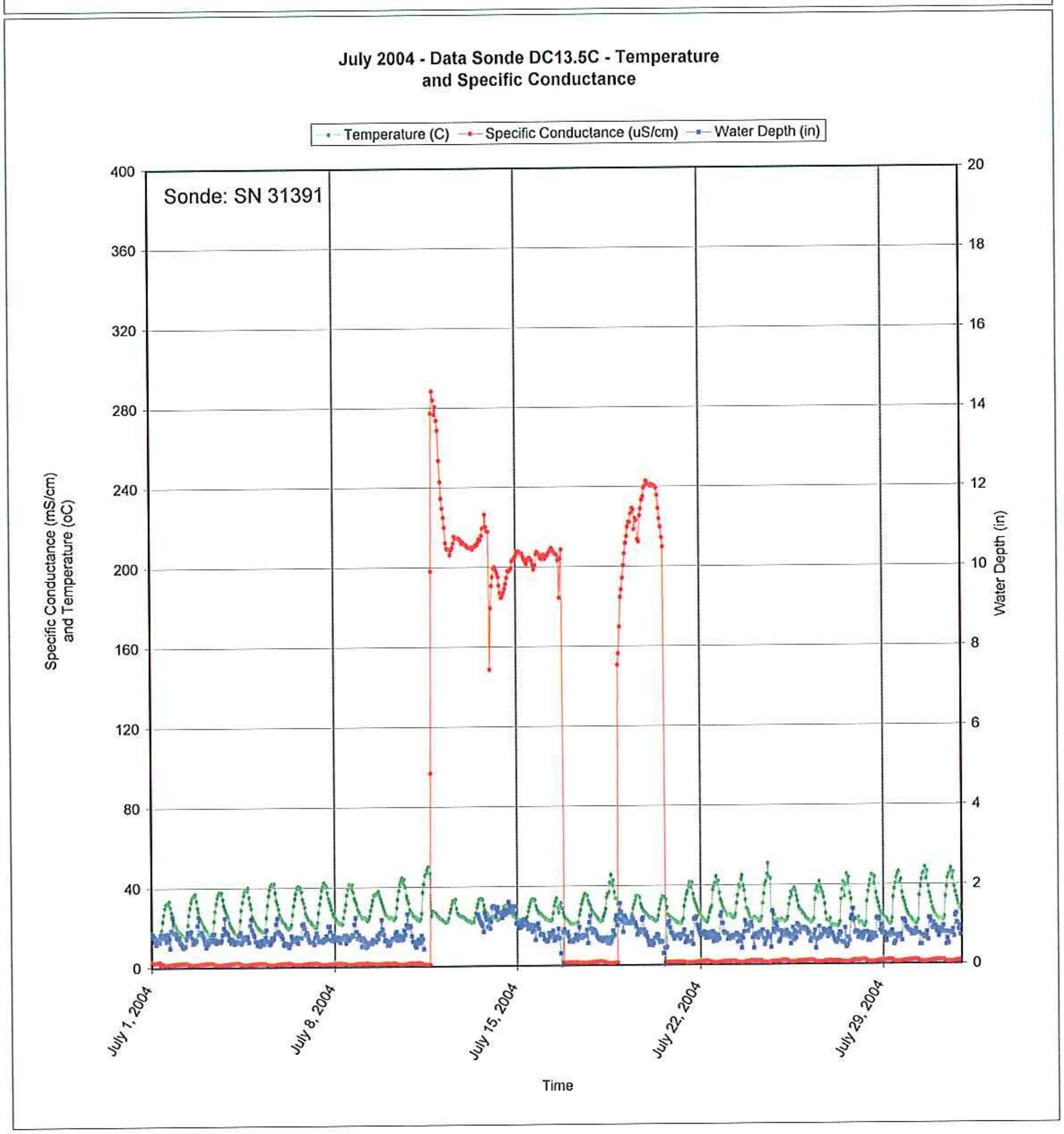

May 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

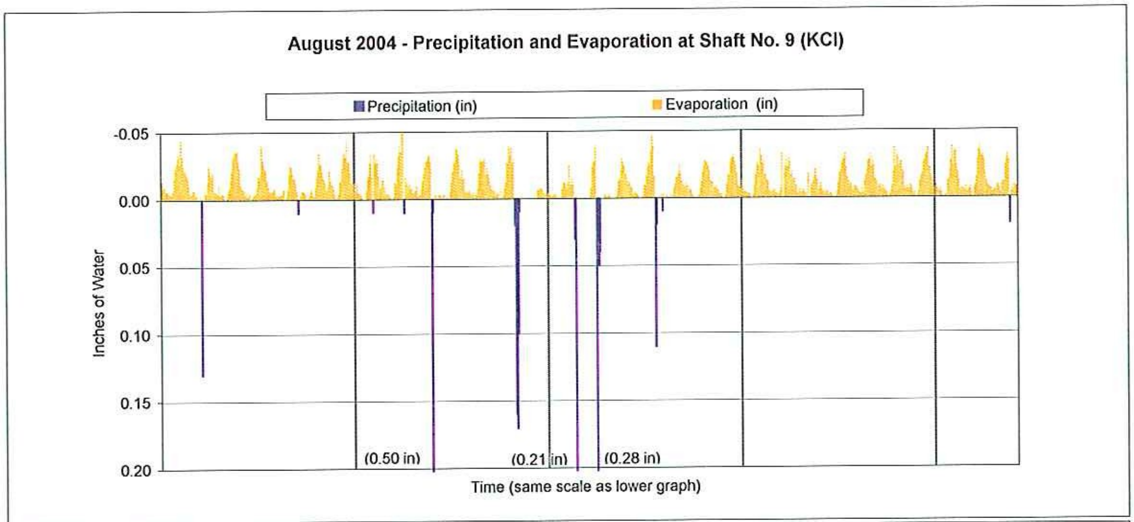

May 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Calibration 5/26/2004
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
May 1, 2004
May 8, 2004
May 15, 2004
May 22, 2004
May 29, 2004
Time


June 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

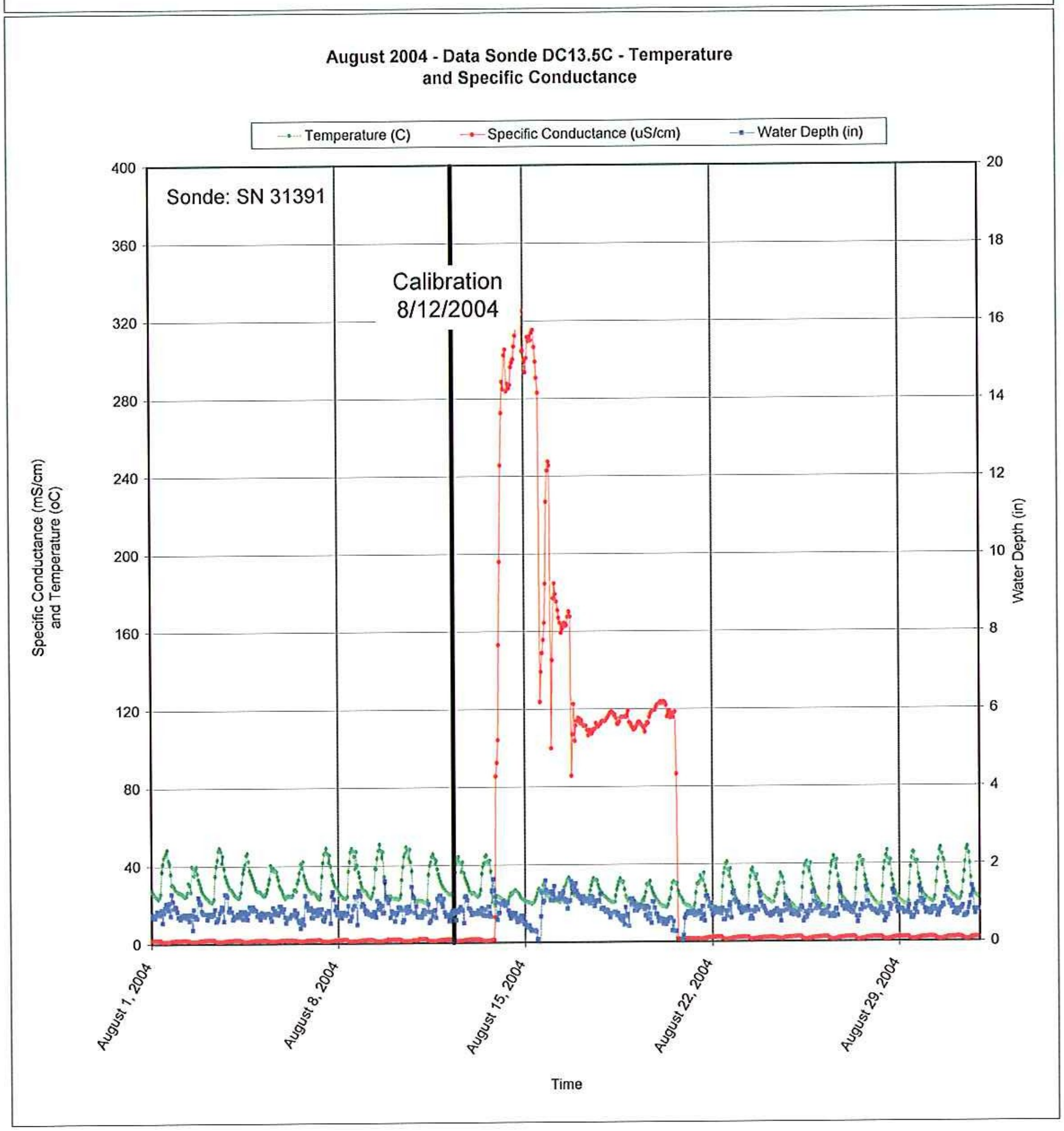

June 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
June 1, 2004
June 8, 2004
June 15, 2004
June 22, 2004
June 29, 2004
Time


July 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.26 in)
Time (same scale as lower graph)

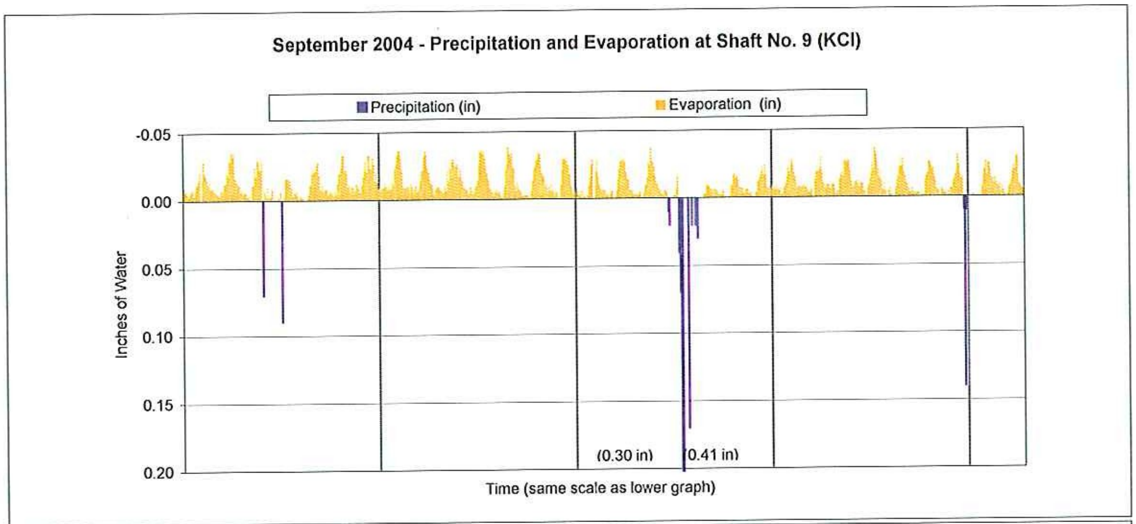

July 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
July 1, 2004
July 8, 2004
July 15, 2004
July 22, 2004
July 29, 2004
Time

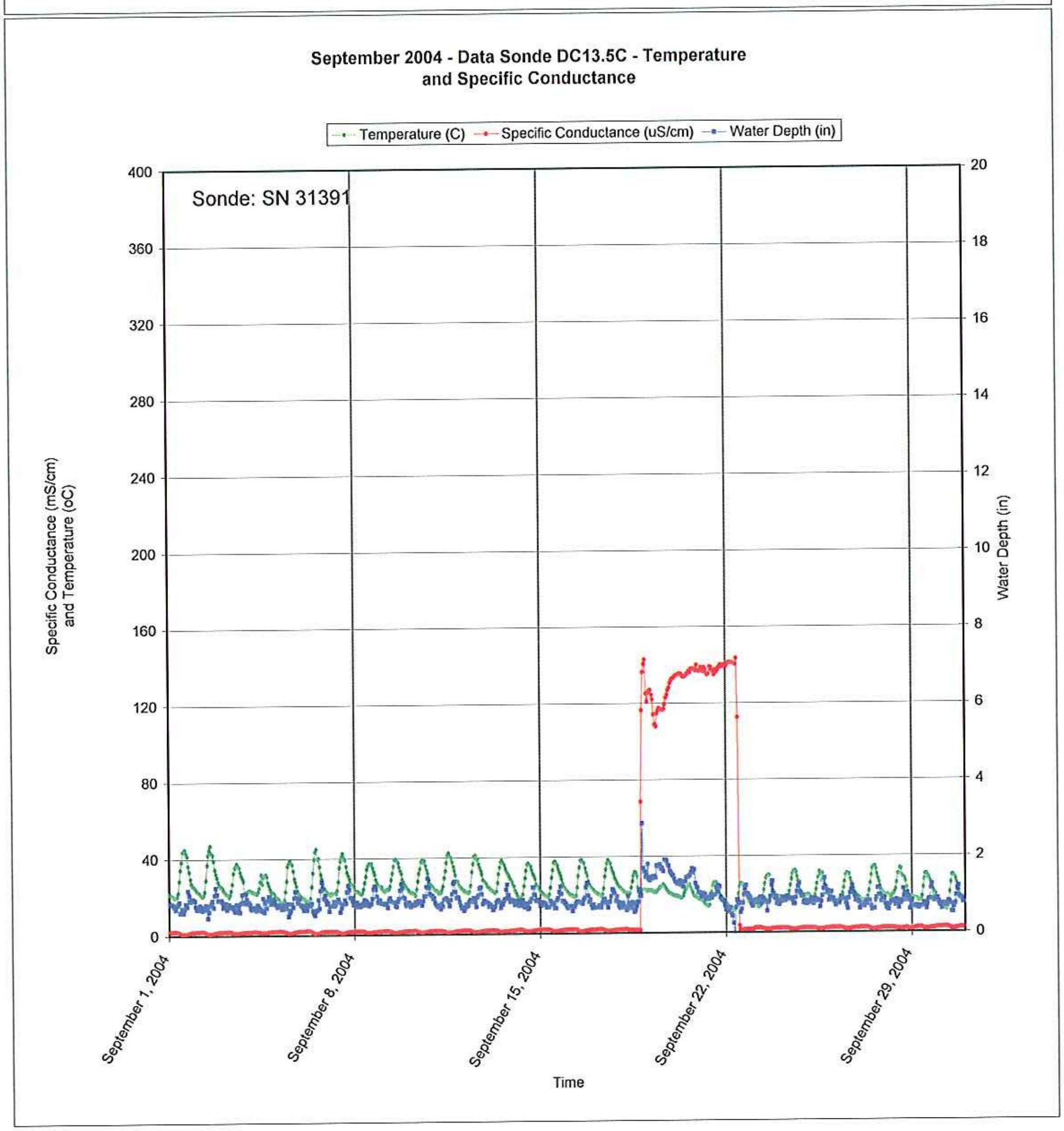


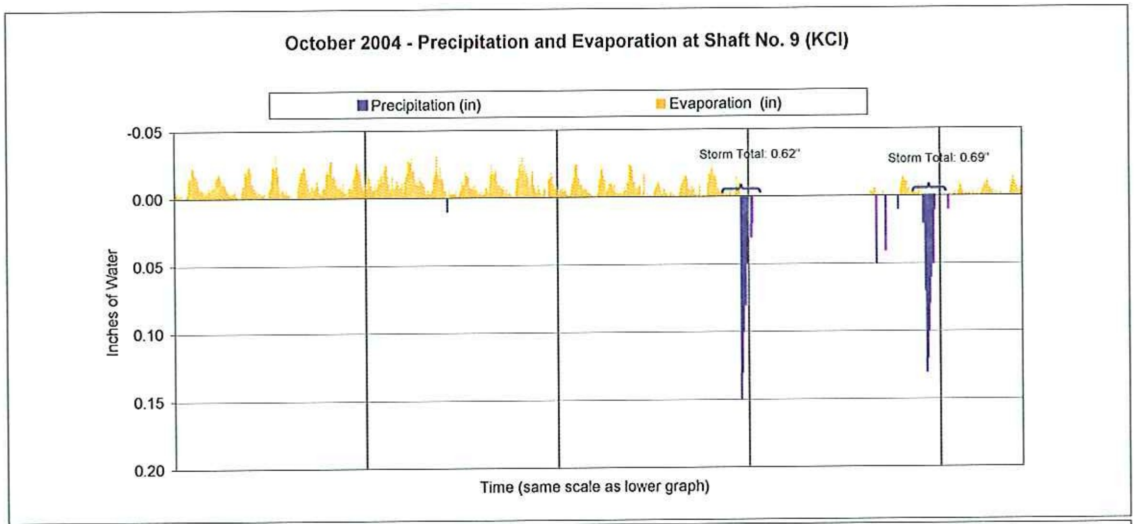
August 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.50 in)
(0.21 in)
(0.28 in)
Time (same scale as lower graph)

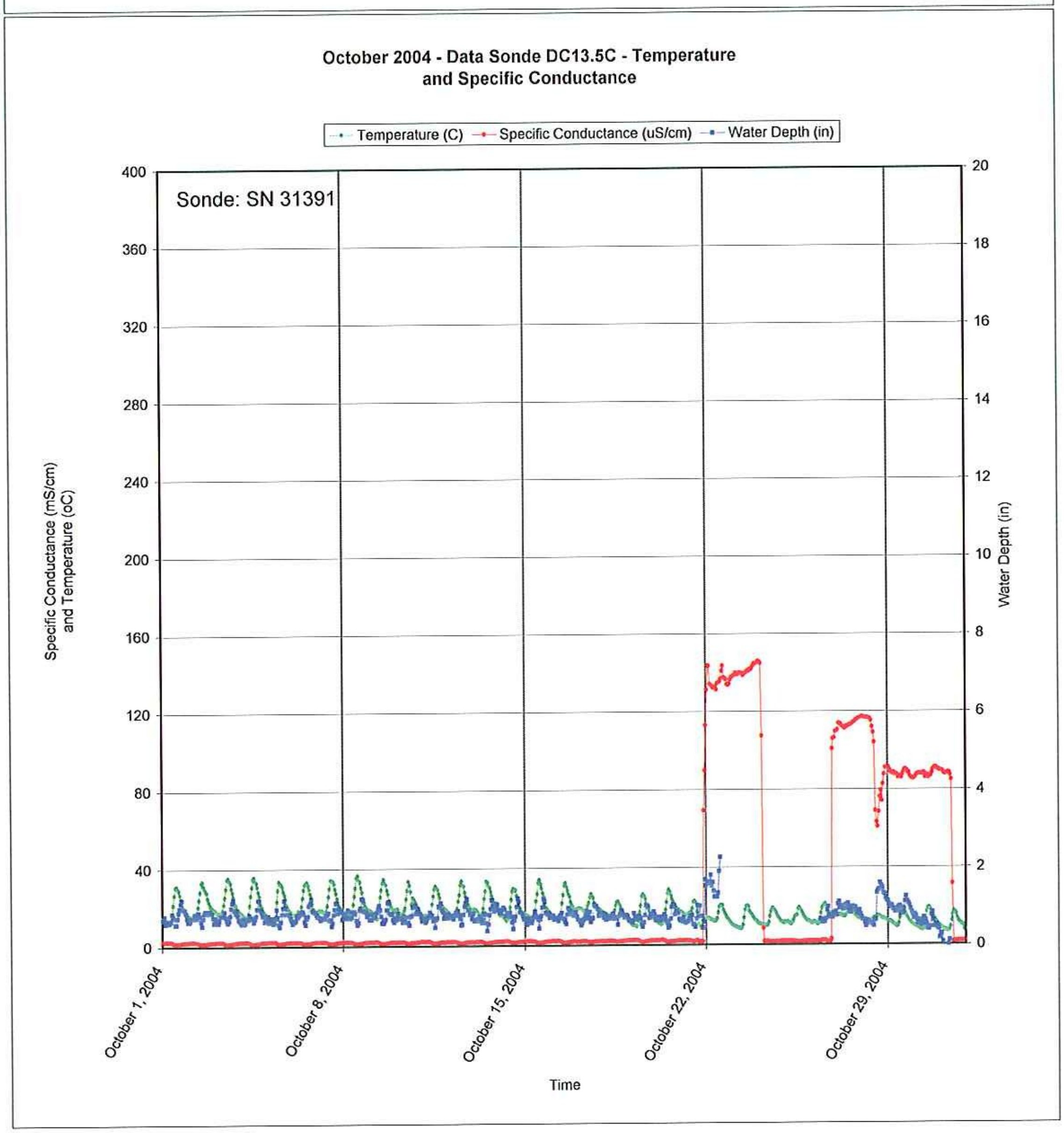


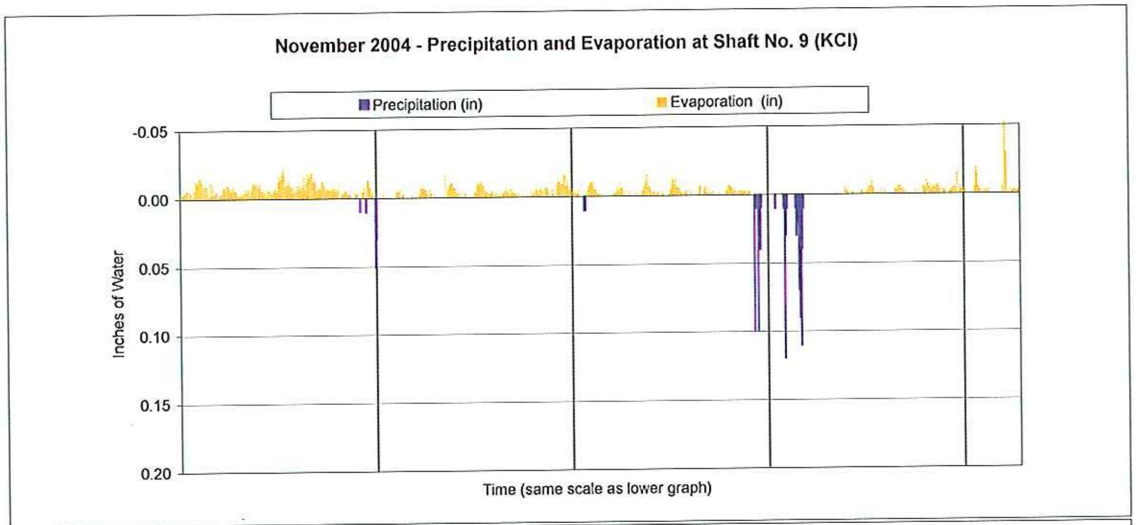
August 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Calibration 8/12/2004
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2004
August 8, 2004
August 15, 2004
August 22, 2004
August 29, 2004
Time

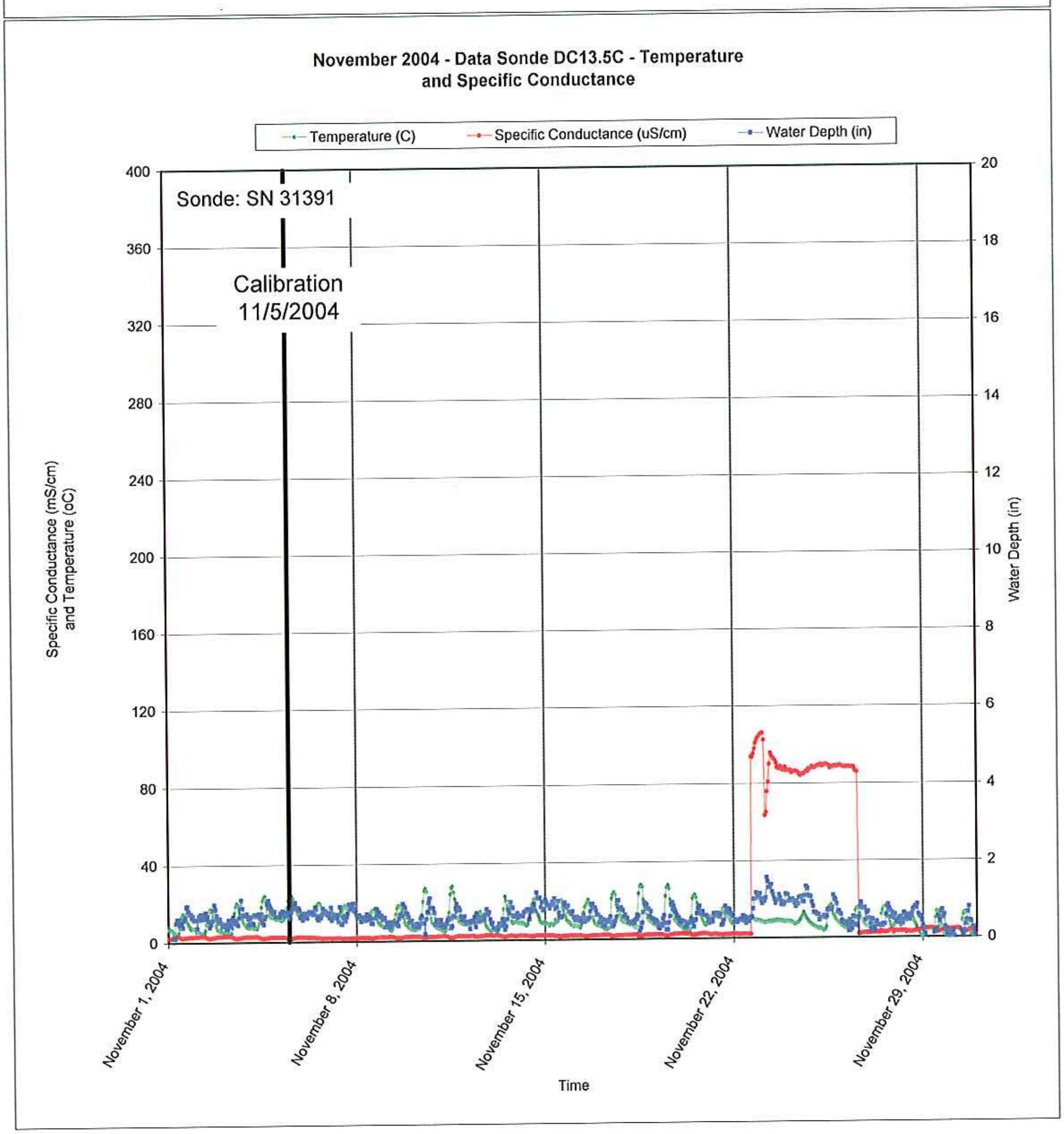

September 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.30 in)
0.41 in)
Time (same scale as lower graph)

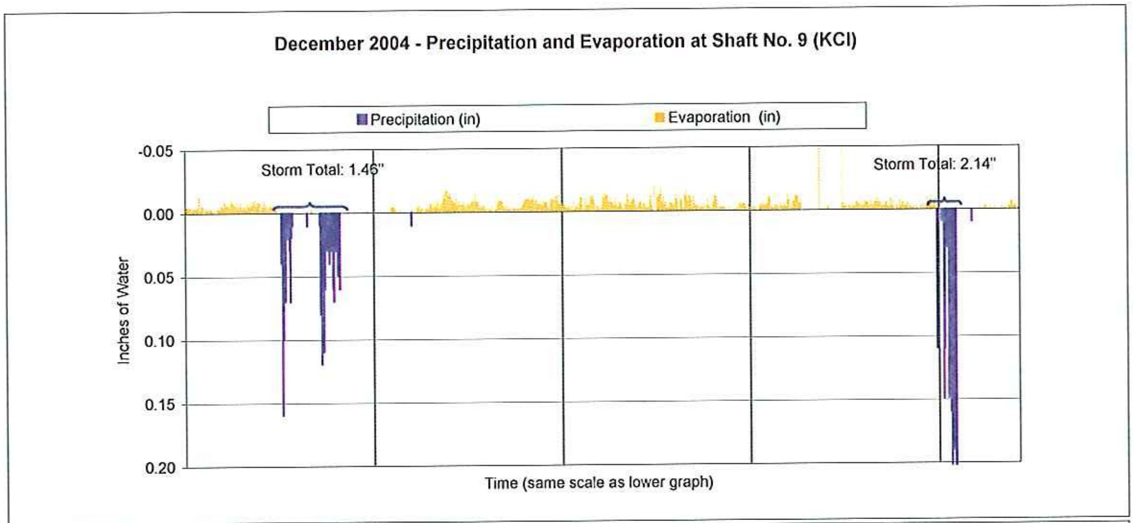

September 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
September 1, 2004
September 8, 2004
September 15, 2004
September 22, 2004
September 29, 2004
Time

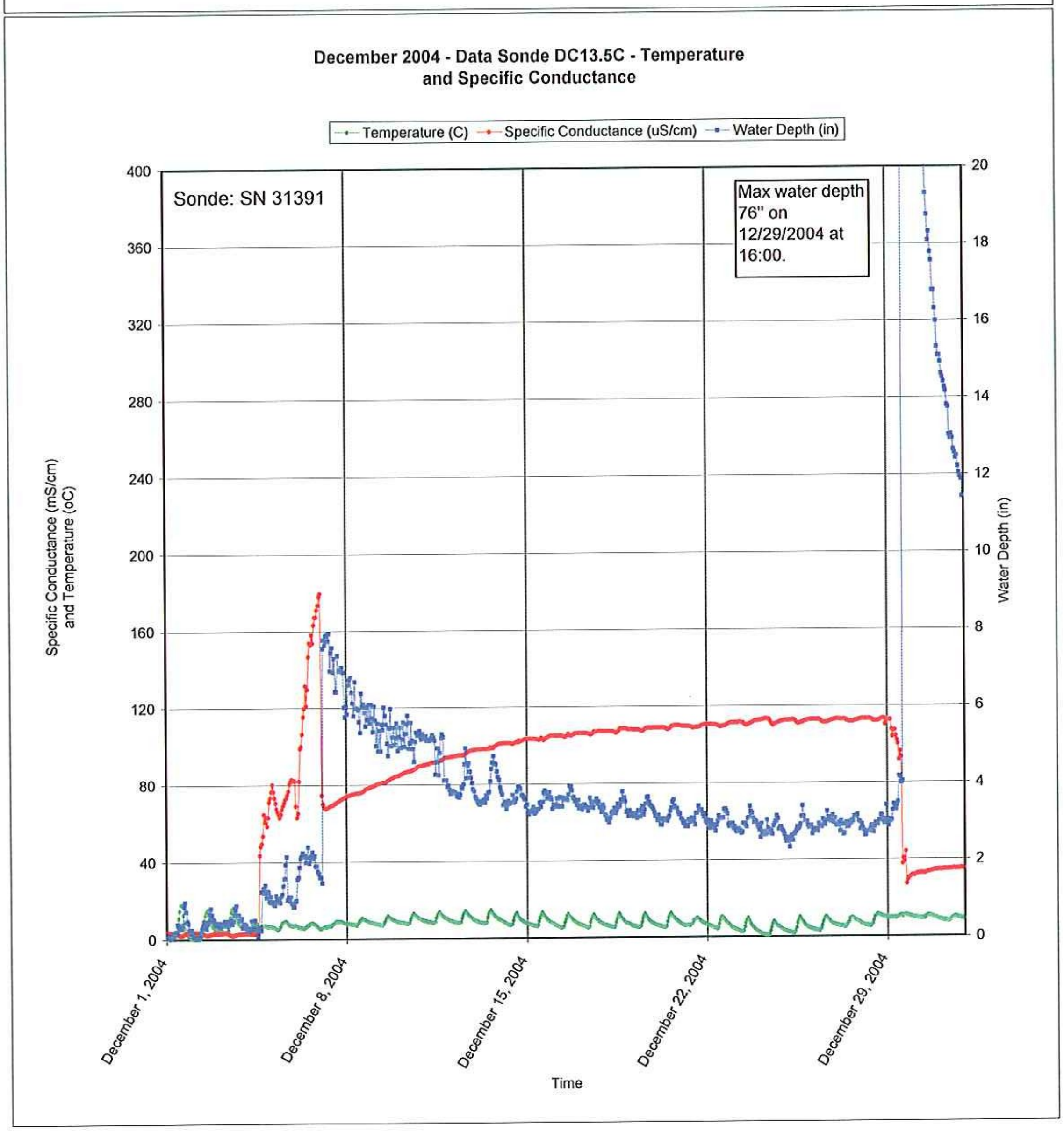

October 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.62"
Storm Total: 0.69"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

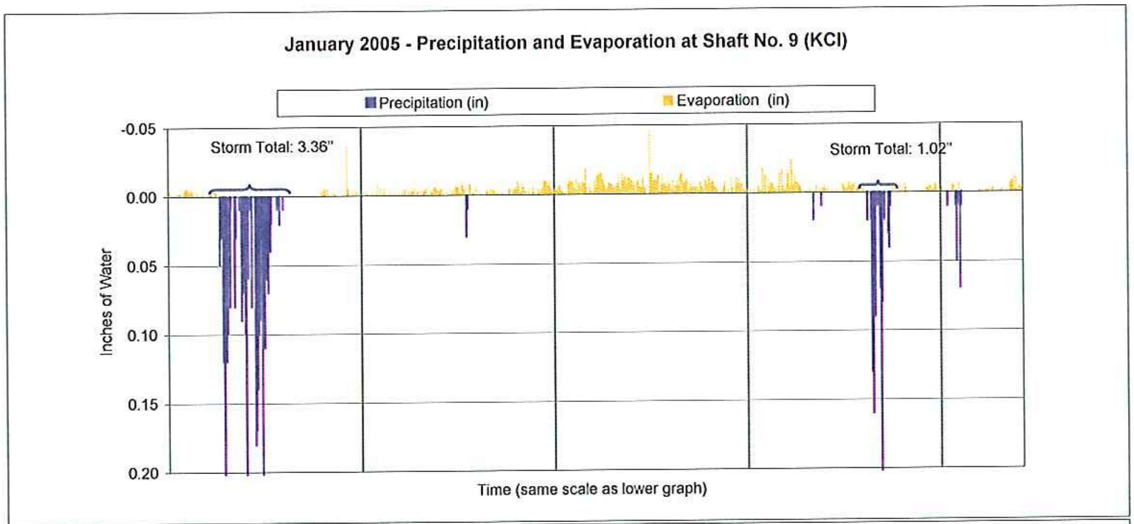

October 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
October 1, 2004
October 8, 2004
October 15, 2004
October 22, 2004
October 29, 2004
Time

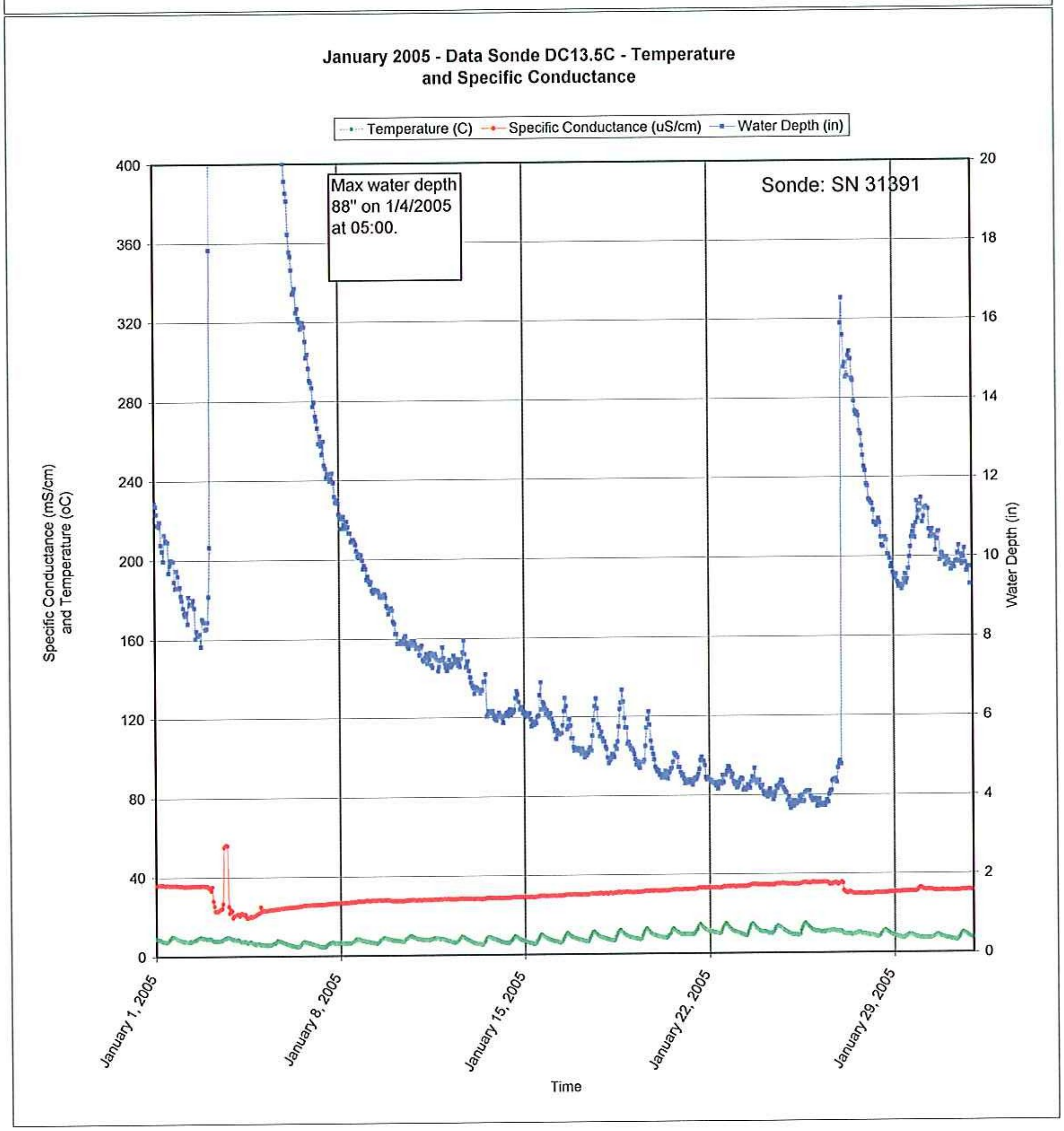

November 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

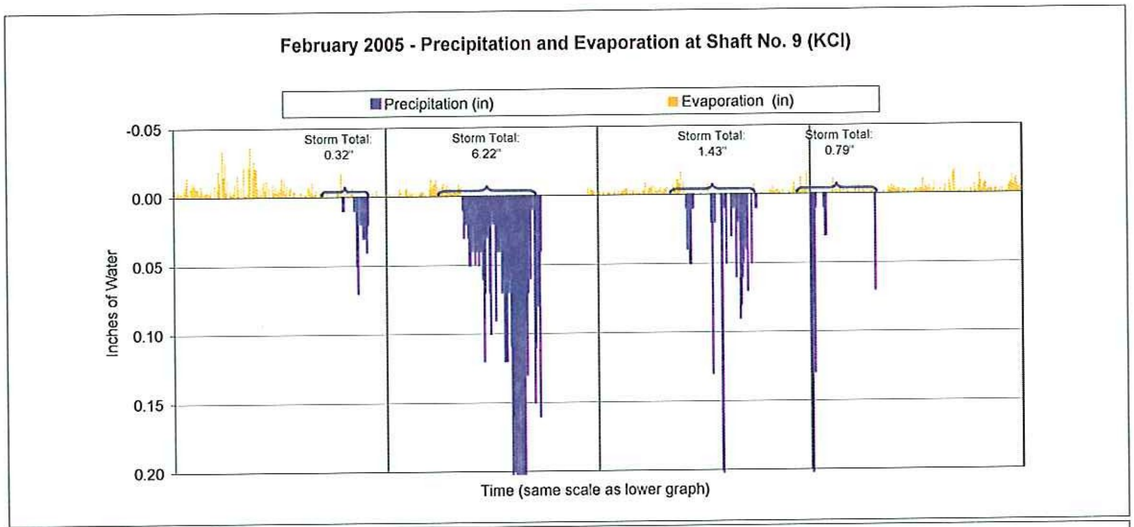

November 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Calibration 11/5/2004
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
November 1, 2004
November 8, 2004
November 15, 2004
November 22, 2004
November 29, 2004
Time

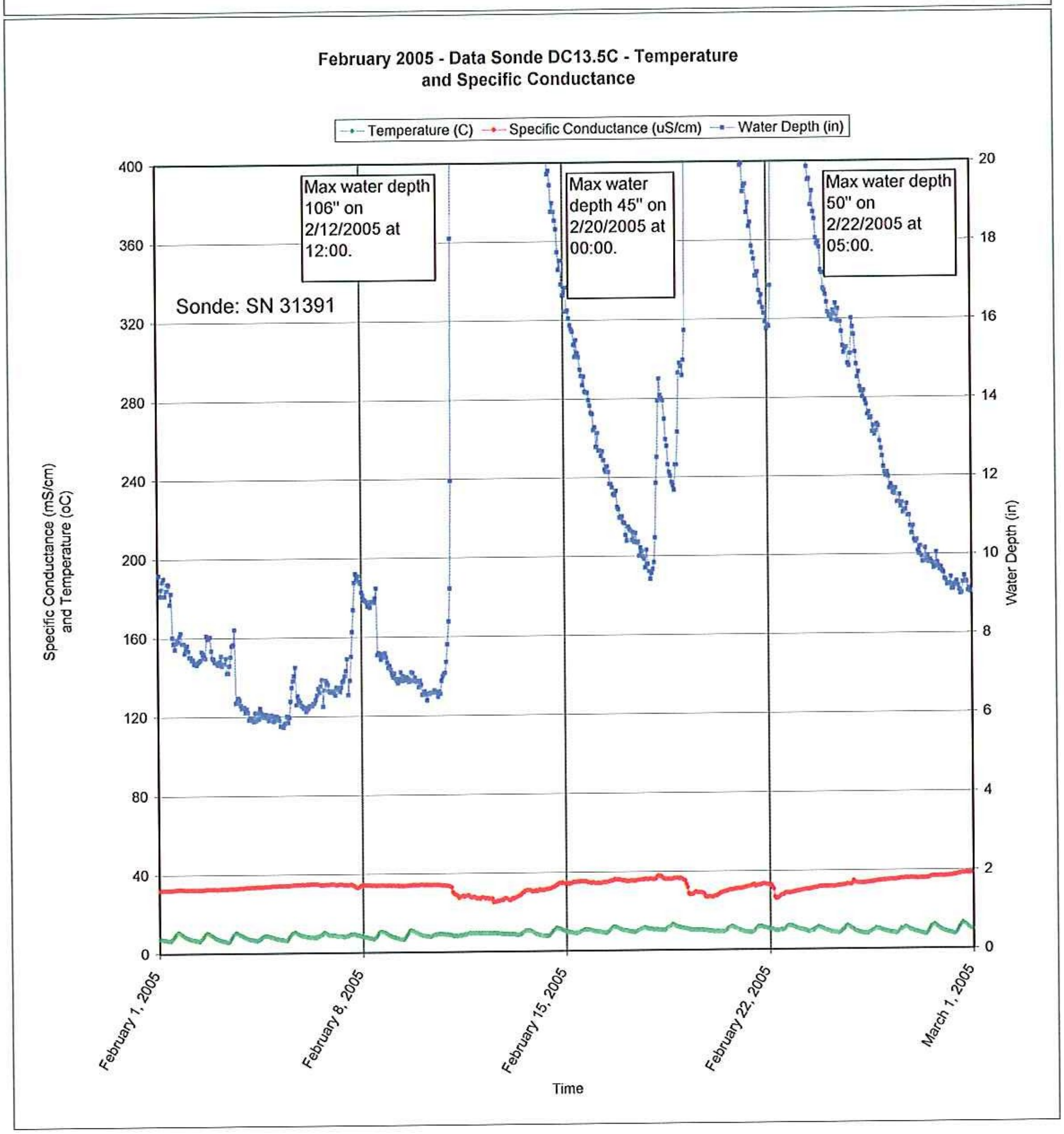

December 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.46"
Storm Total: 2.14"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

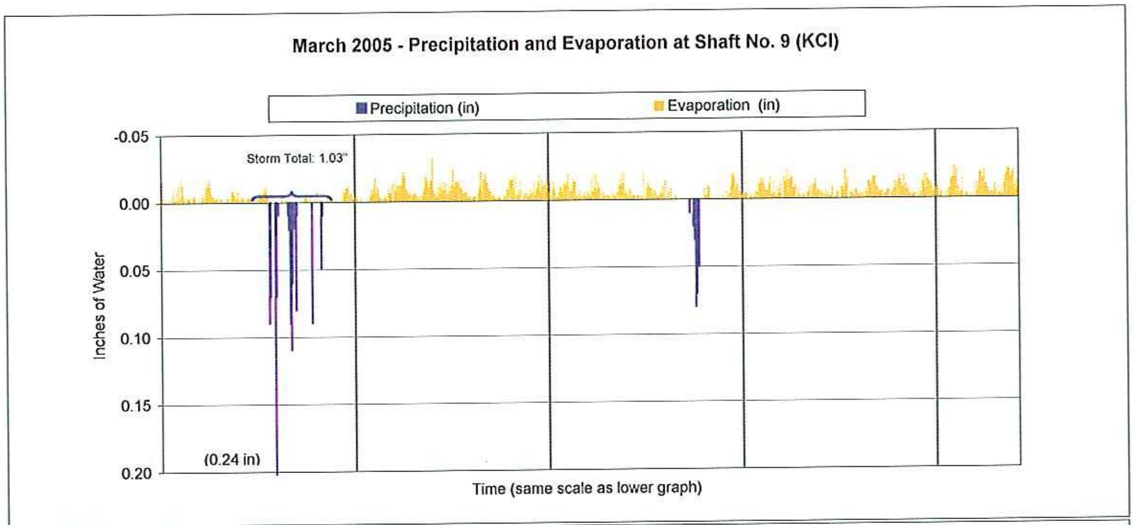

December 2004 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Max water depth 76" on 12/29/2004 at 16:00.
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
December 1, 2004
December 8, 2004
December 15, 2004
December 22, 2004
December 29, 2004
Time

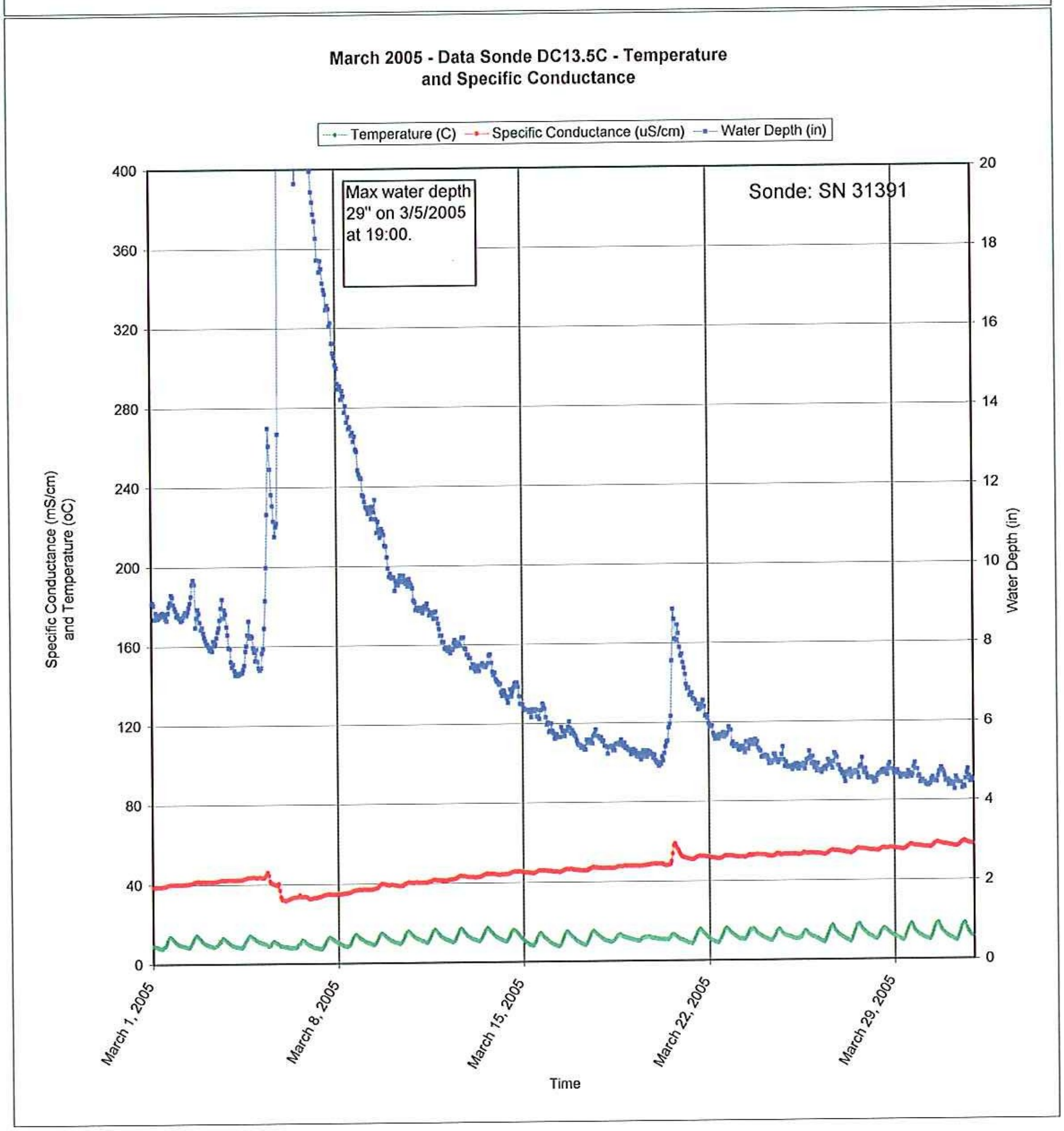

January 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 3.36"
Storm Total: 1.02"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


January 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Max water depth 88" on 1/4/2005 at 05:00.
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
January 1, 2005
January 8, 2005
January 15, 2005
January 22, 2005
January 29, 2005
Time


February 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.32"
Storm Total: 6.22"
Storm Total: 1.43"
Storm Total: 0.79"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


February 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Max water depth 106" on 2/12/2005 at 12:00.
Max water depth 45" on 2/20/2005 at 00:00.
Max water depth 50" on 2/22/2005 at 05:00.
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
February 1, 2005
February 8, 2005
February 15, 2005
February 22, 2005
March 1, 2005
Time





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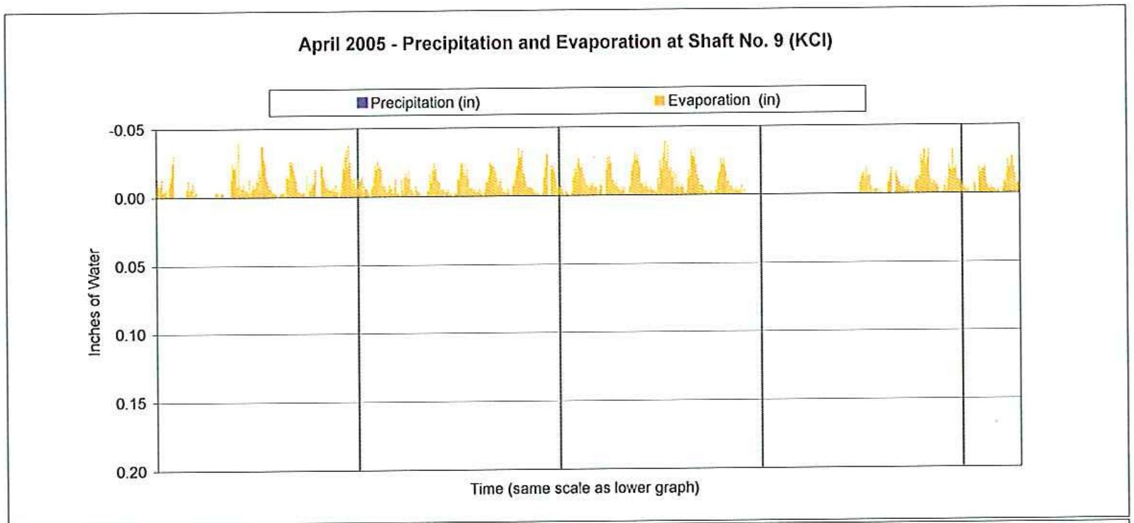
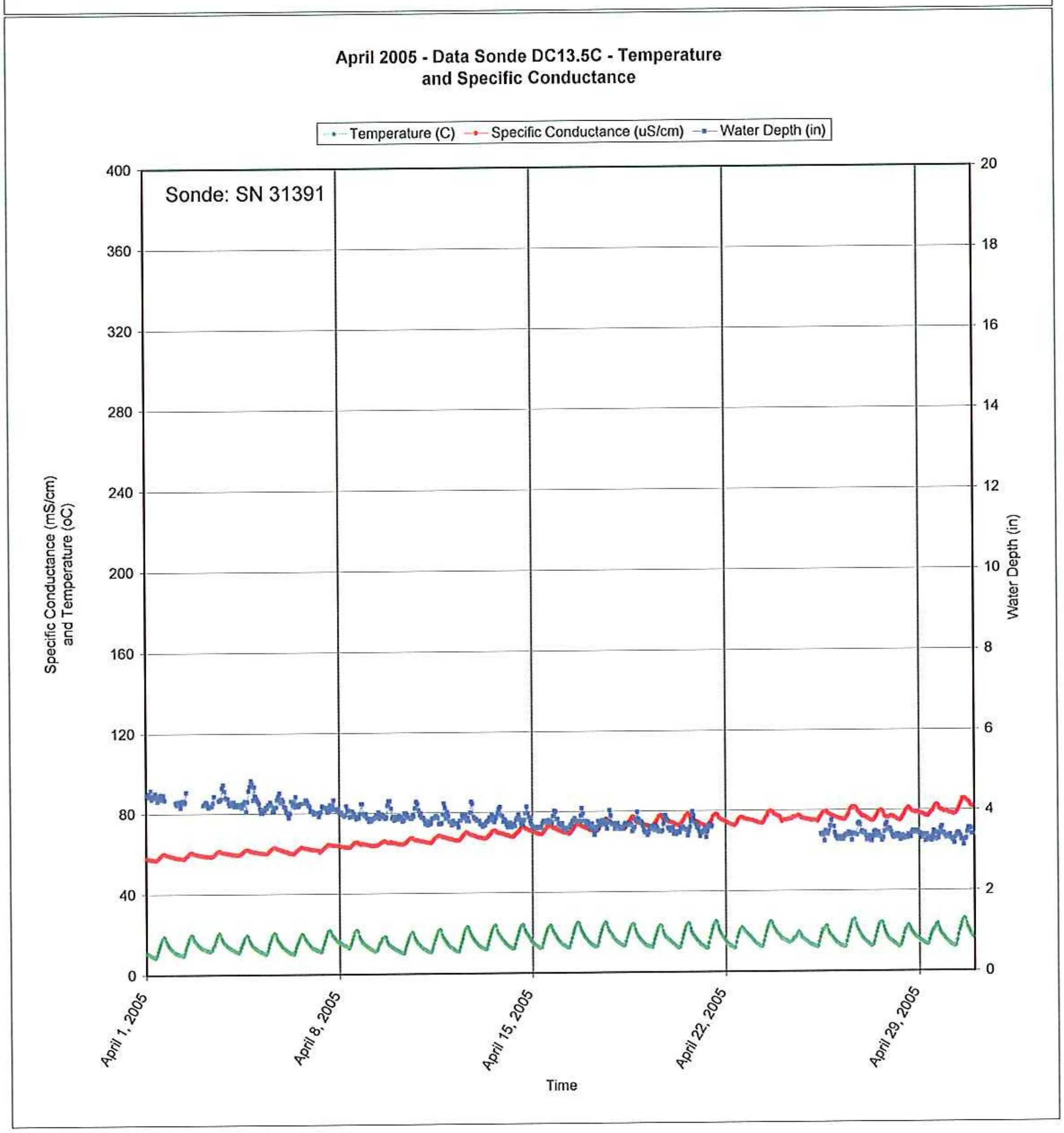
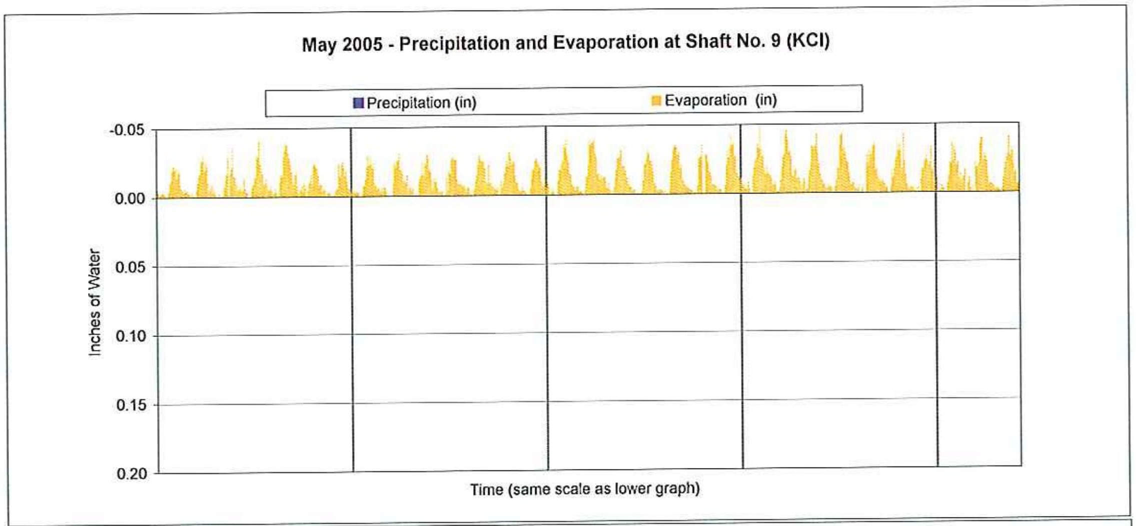
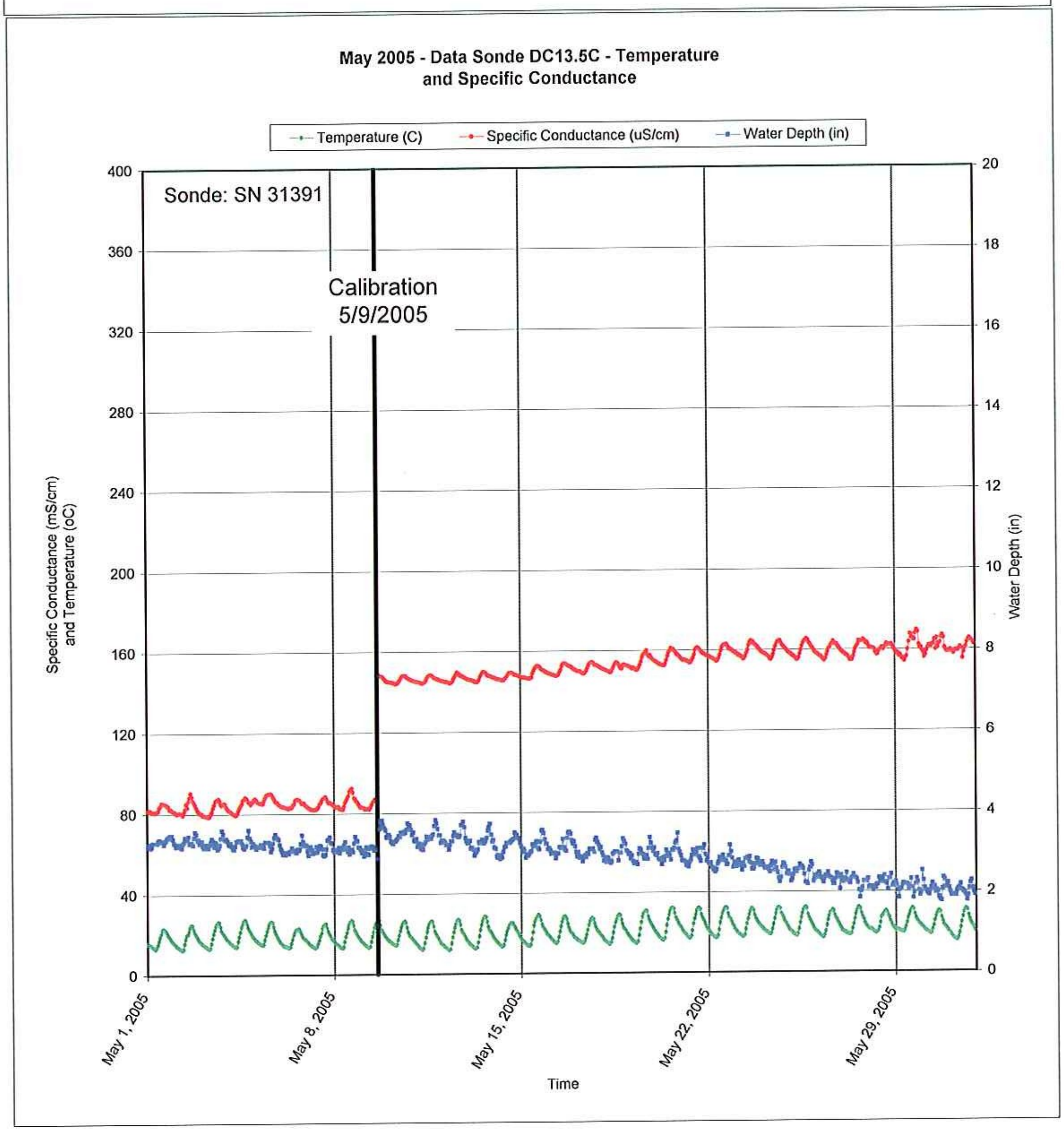
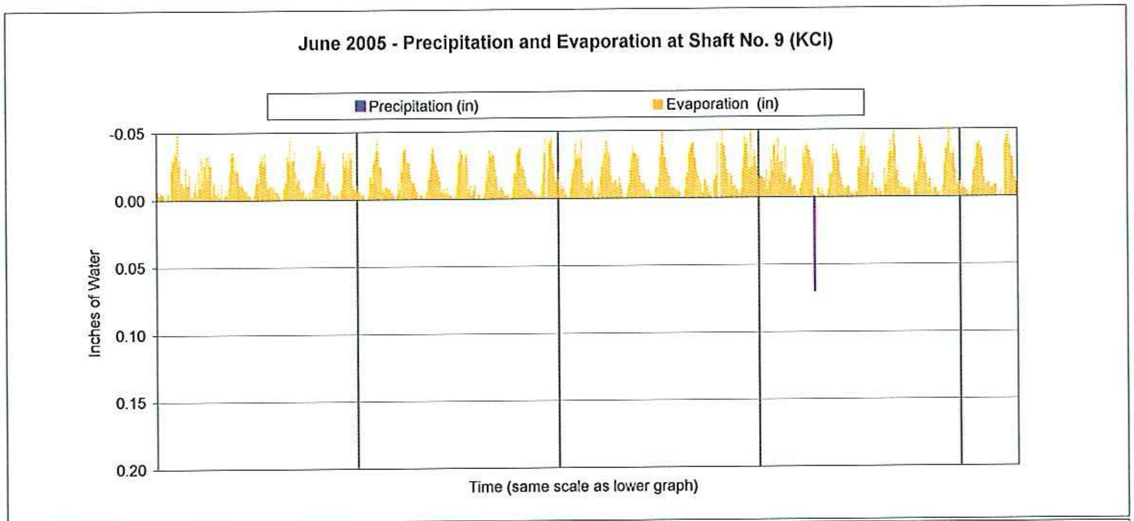
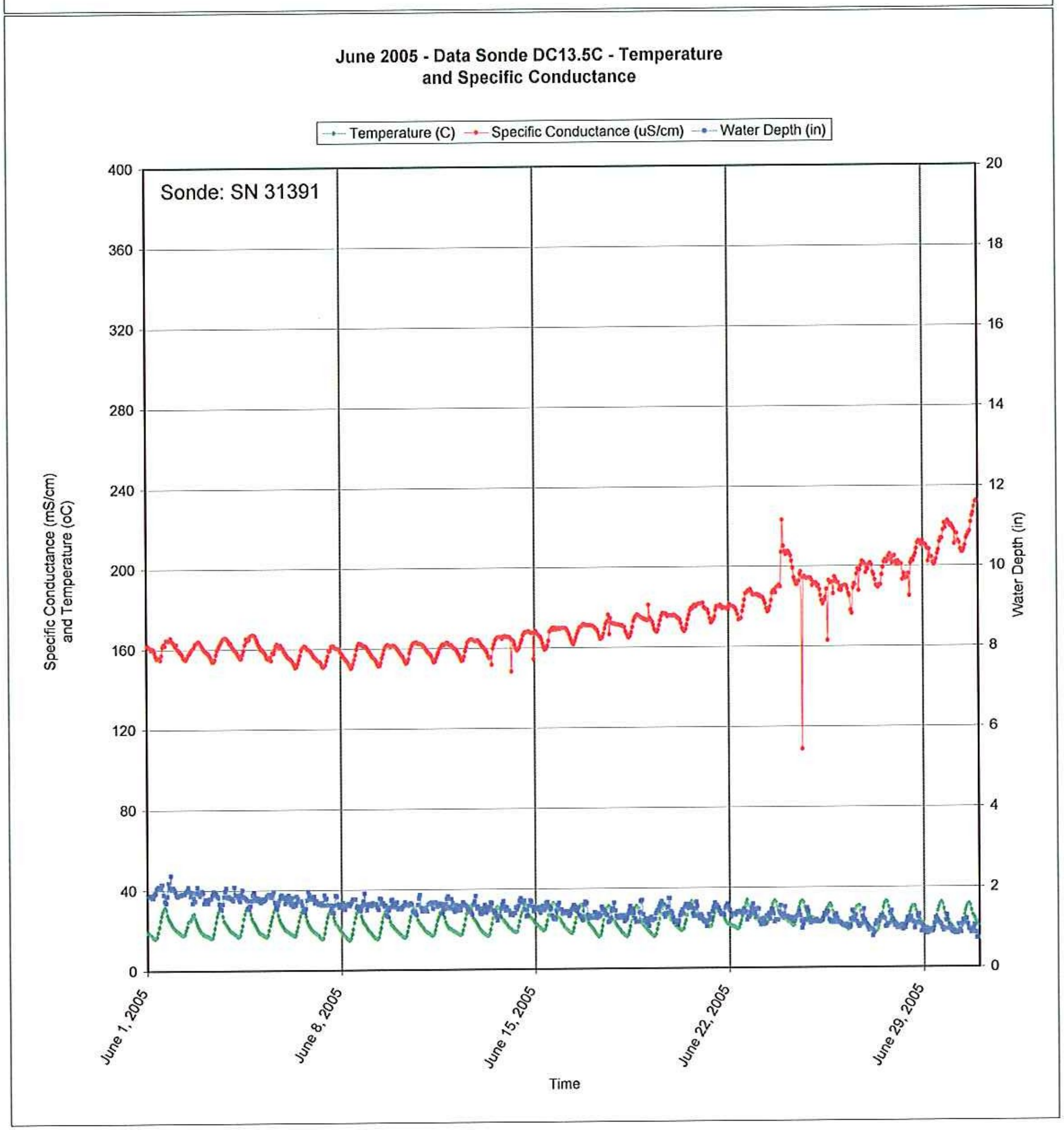

April 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

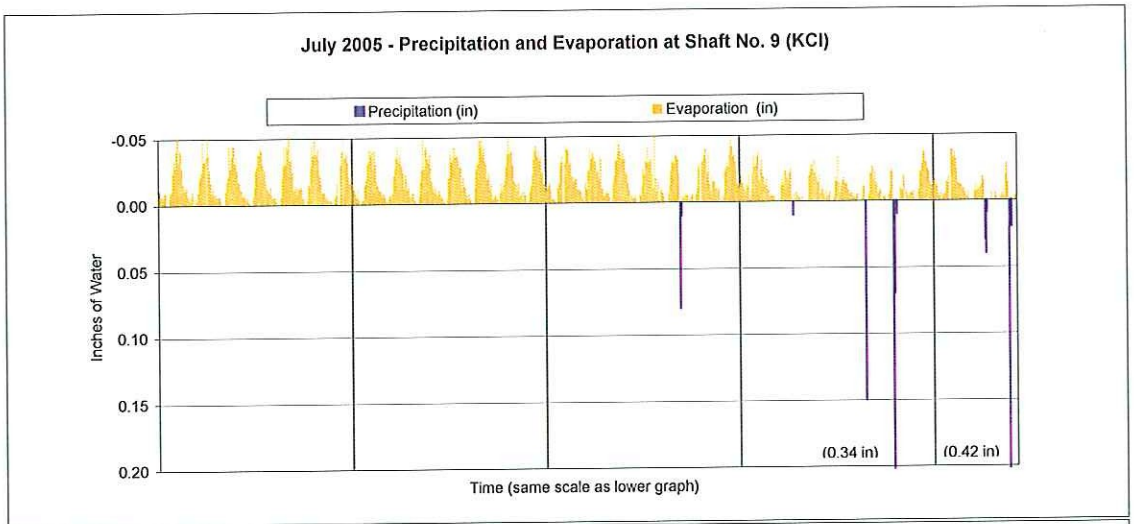

April 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
April 1, 2005
April 8, 2005
April 15, 2005
April 22, 2005
April 29, 2005
Time

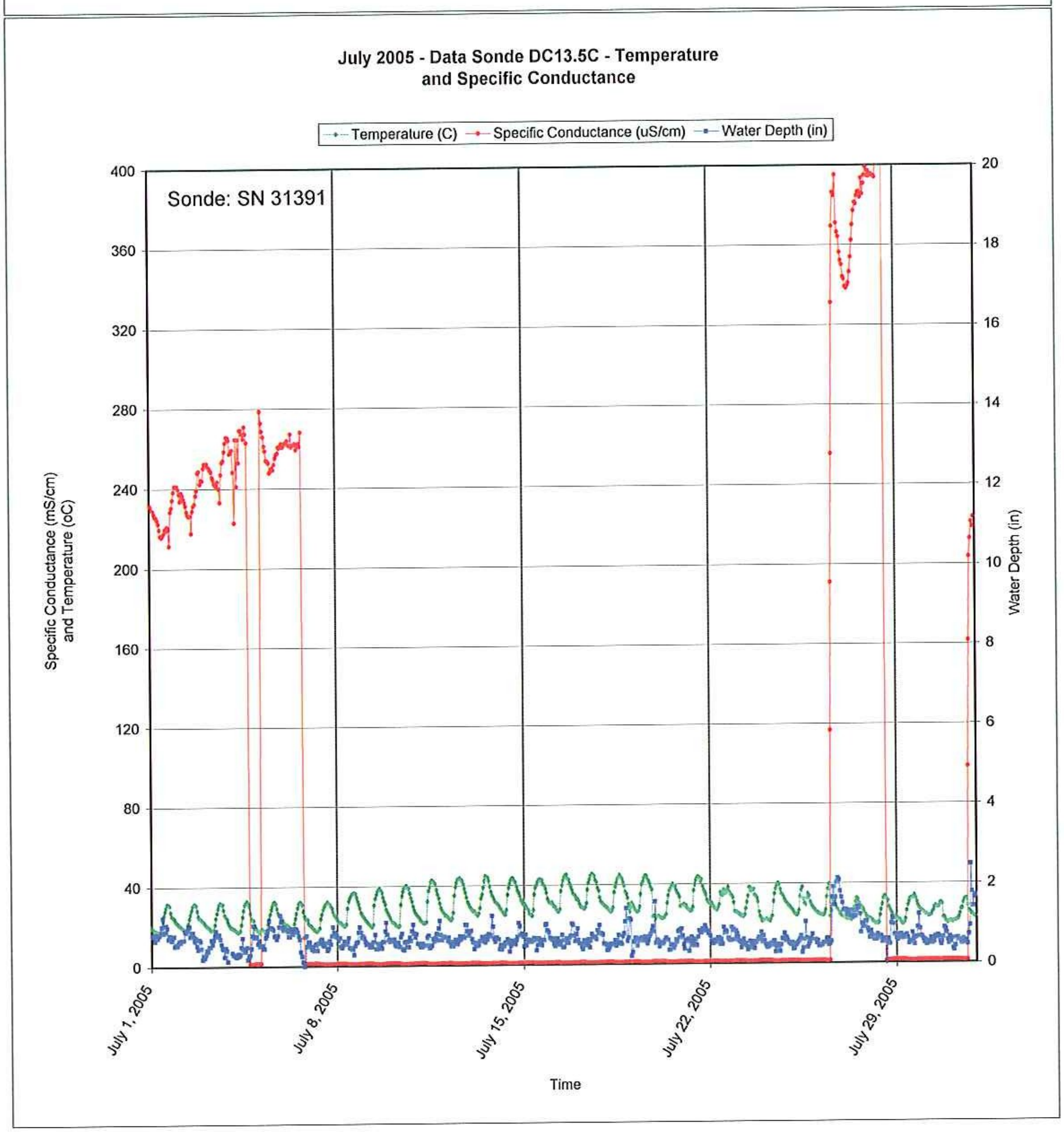

May 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)


May 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Calibration 5/9/2005
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
May 1, 2005
May 8, 2005
May 15, 2005
May 22, 2005
May 29, 2005
Time


June 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)


June 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
June 1, 2005
June 8, 2005
June 15, 2005
June 22, 2005
June 29, 2005
Time





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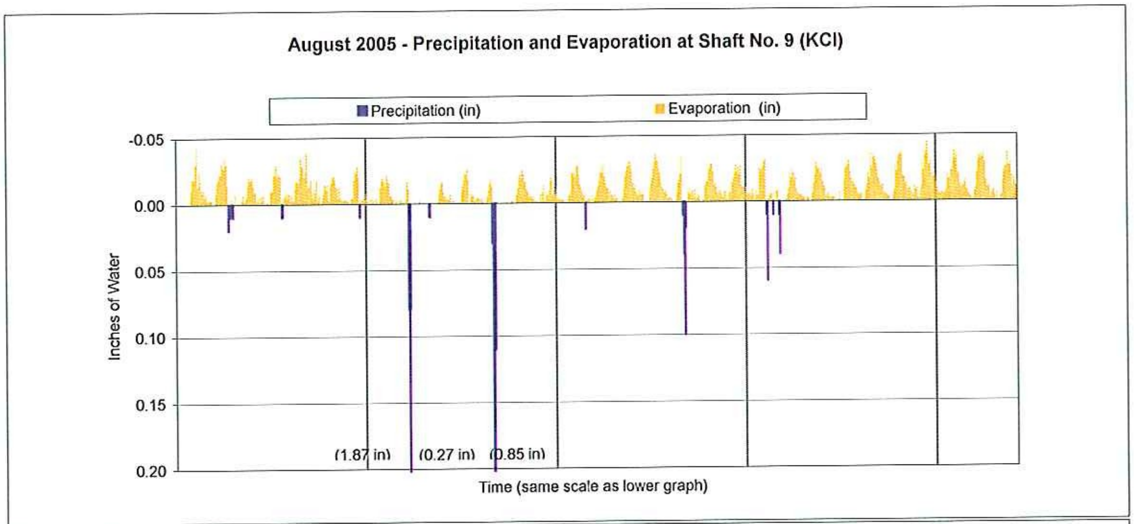
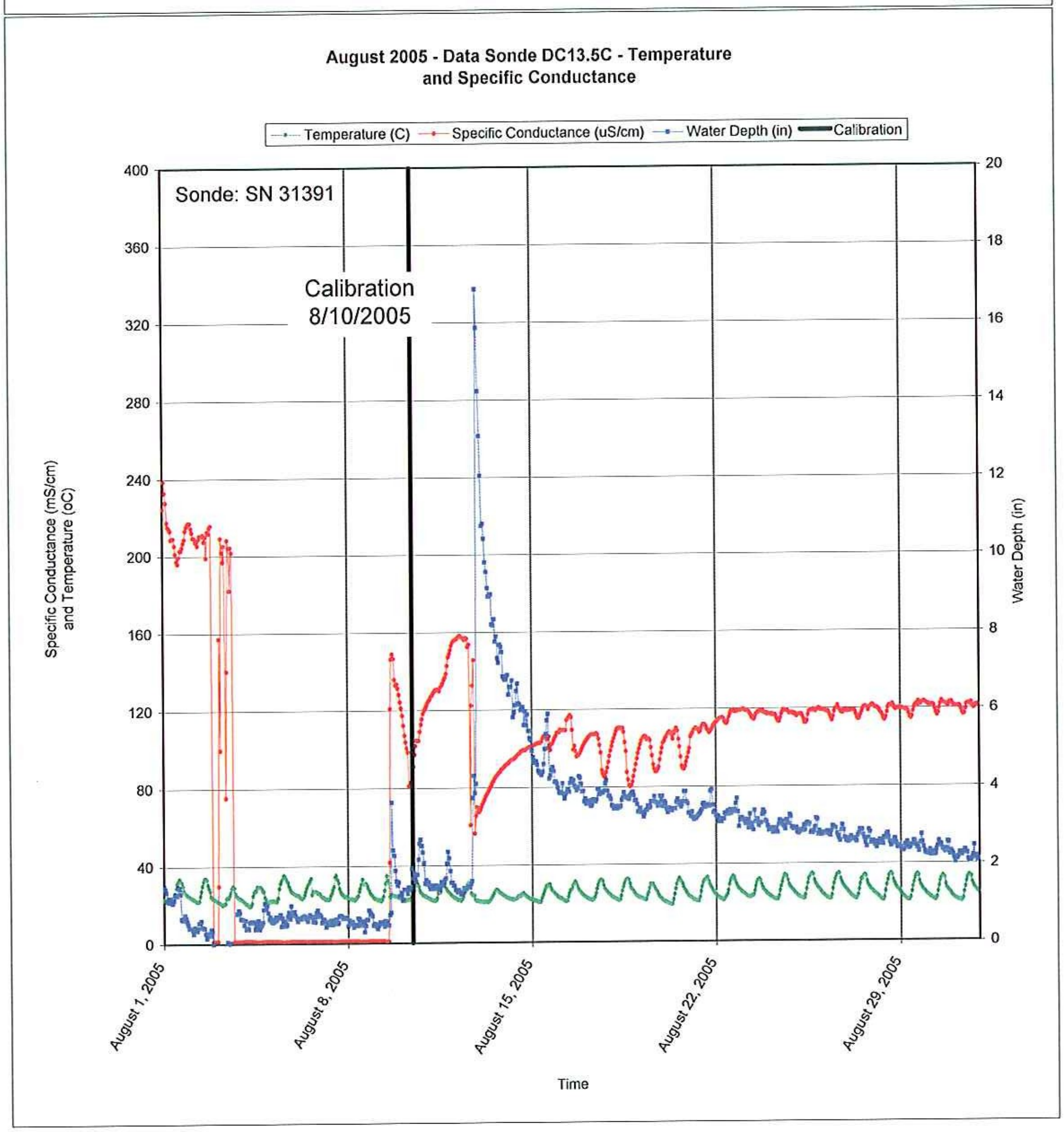
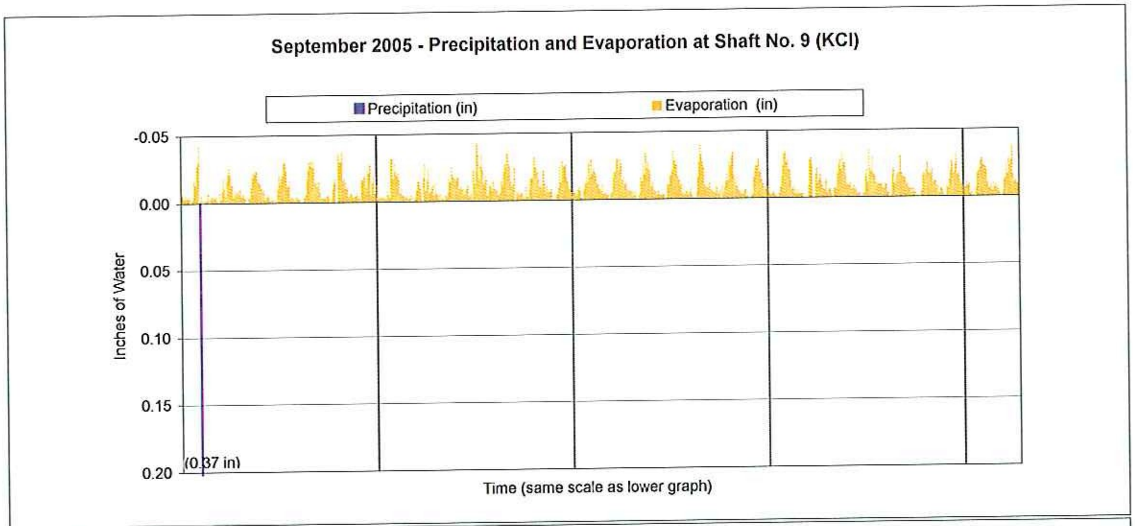
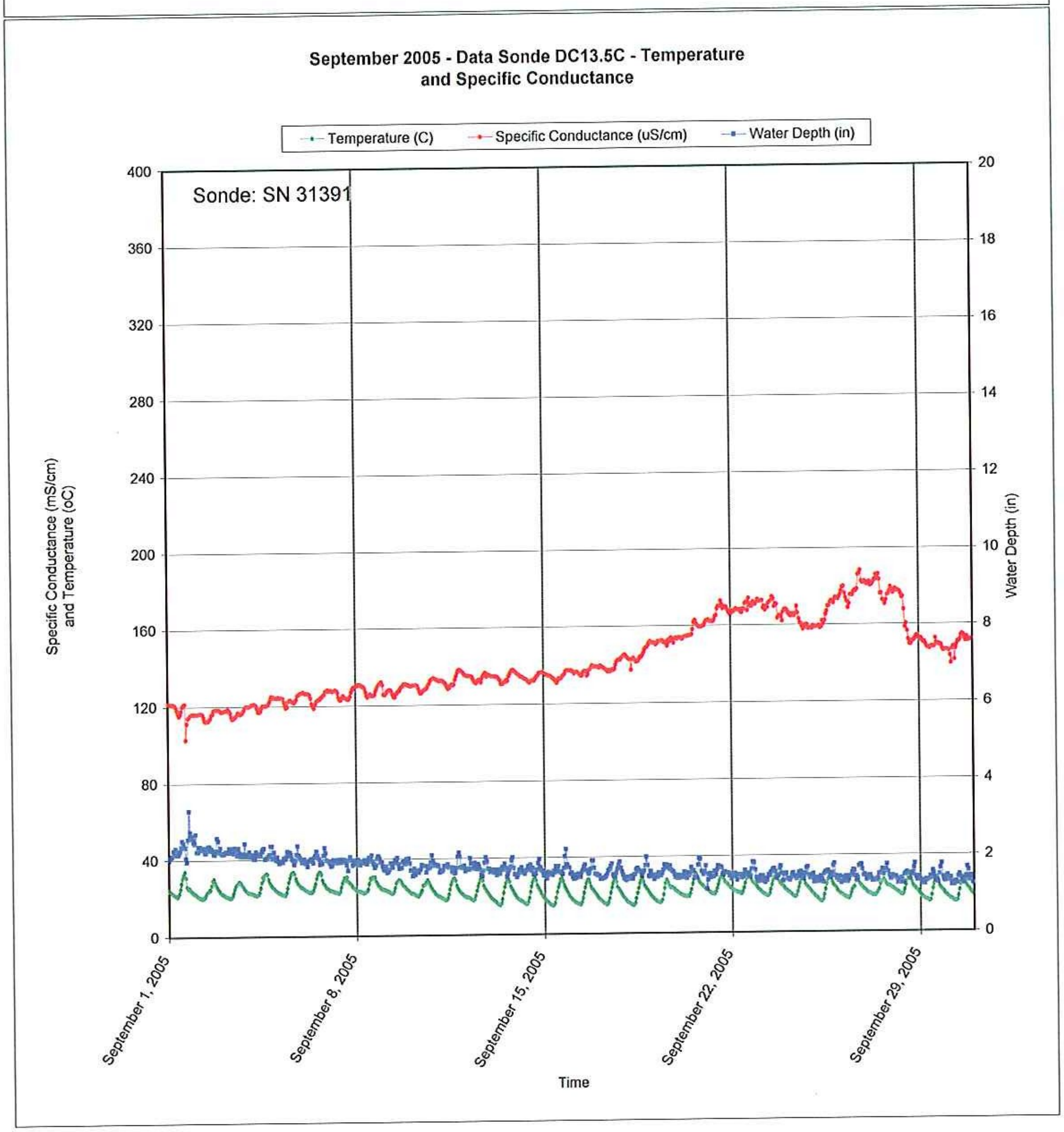
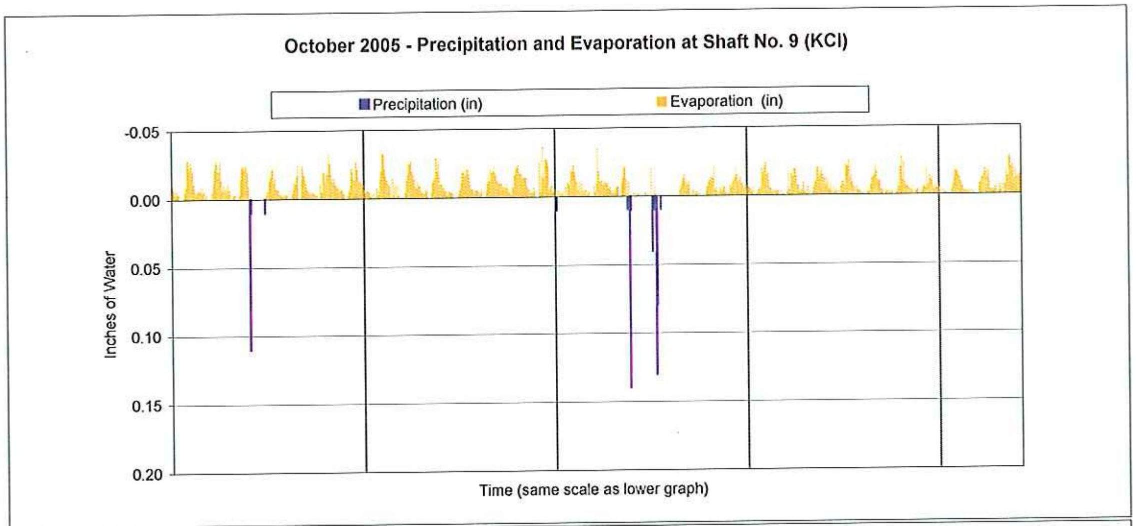
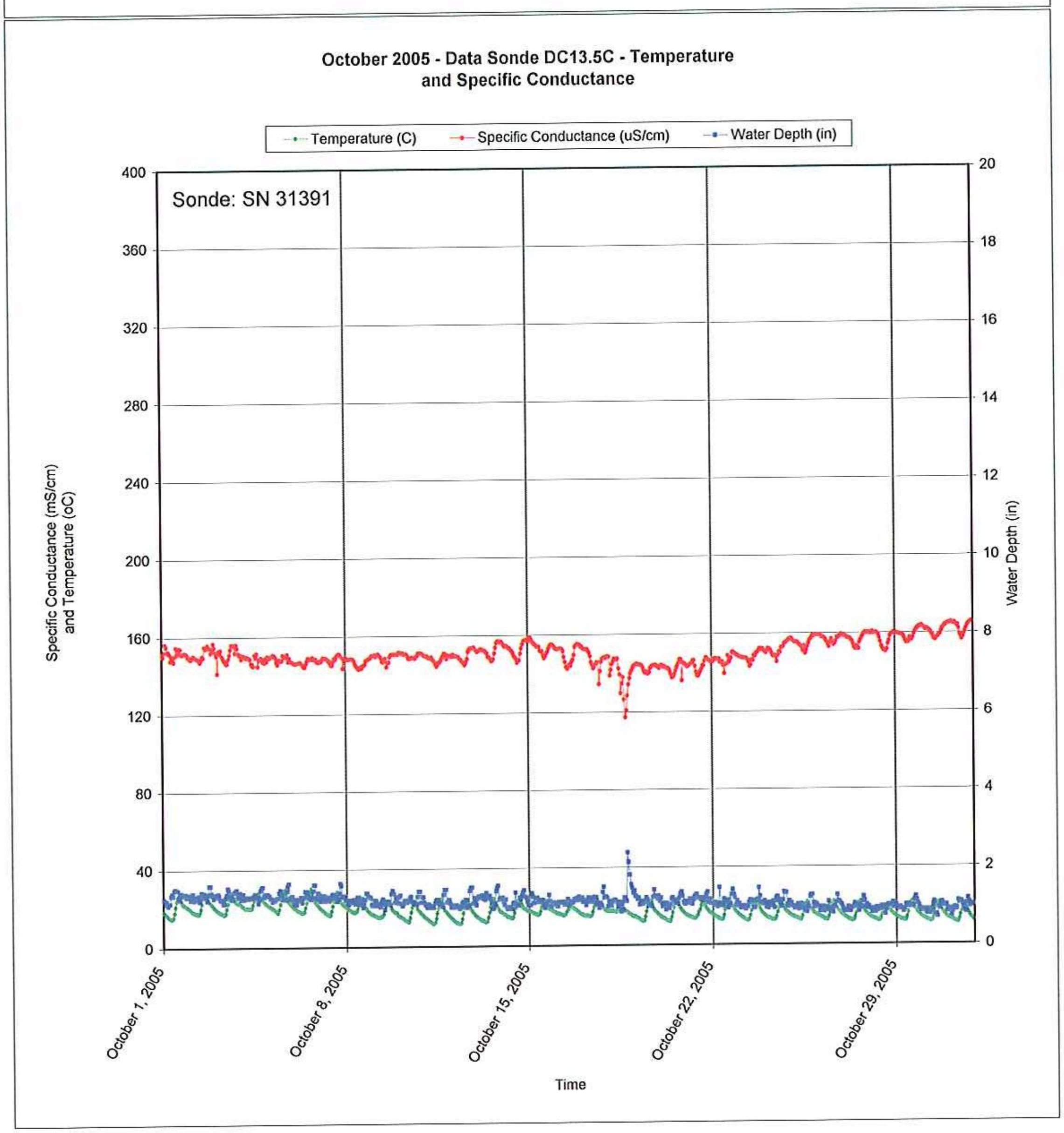

August 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(1.87 in)
(0.27 in)
(0.85 in)
Time (same scale as lower graph)

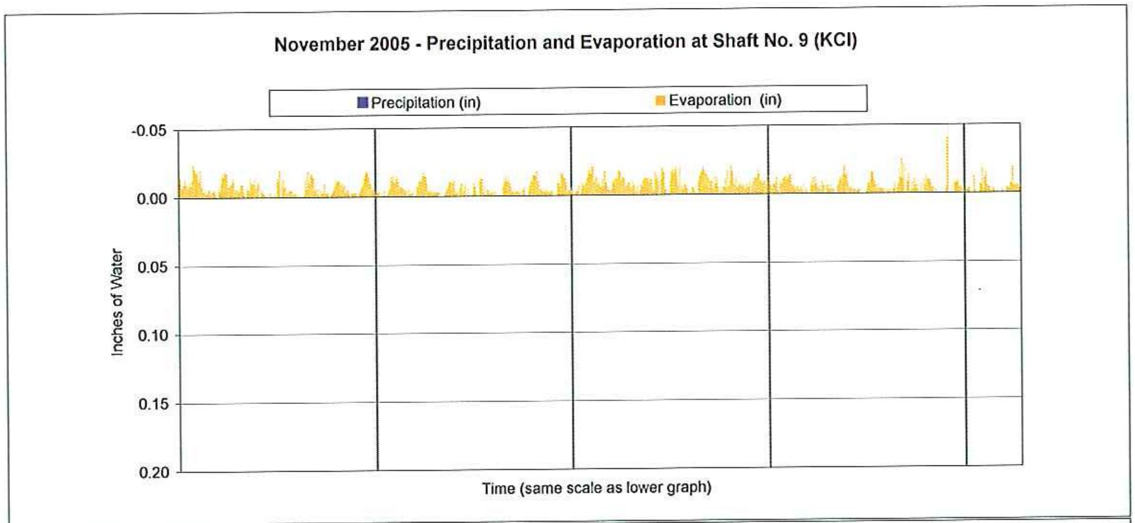

August 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Calibration
Sonde: SN 31391
Calibration 8/10/2005
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2005
August 8, 2005
August 15, 2005
August 22, 2005
August 29, 2005
Time

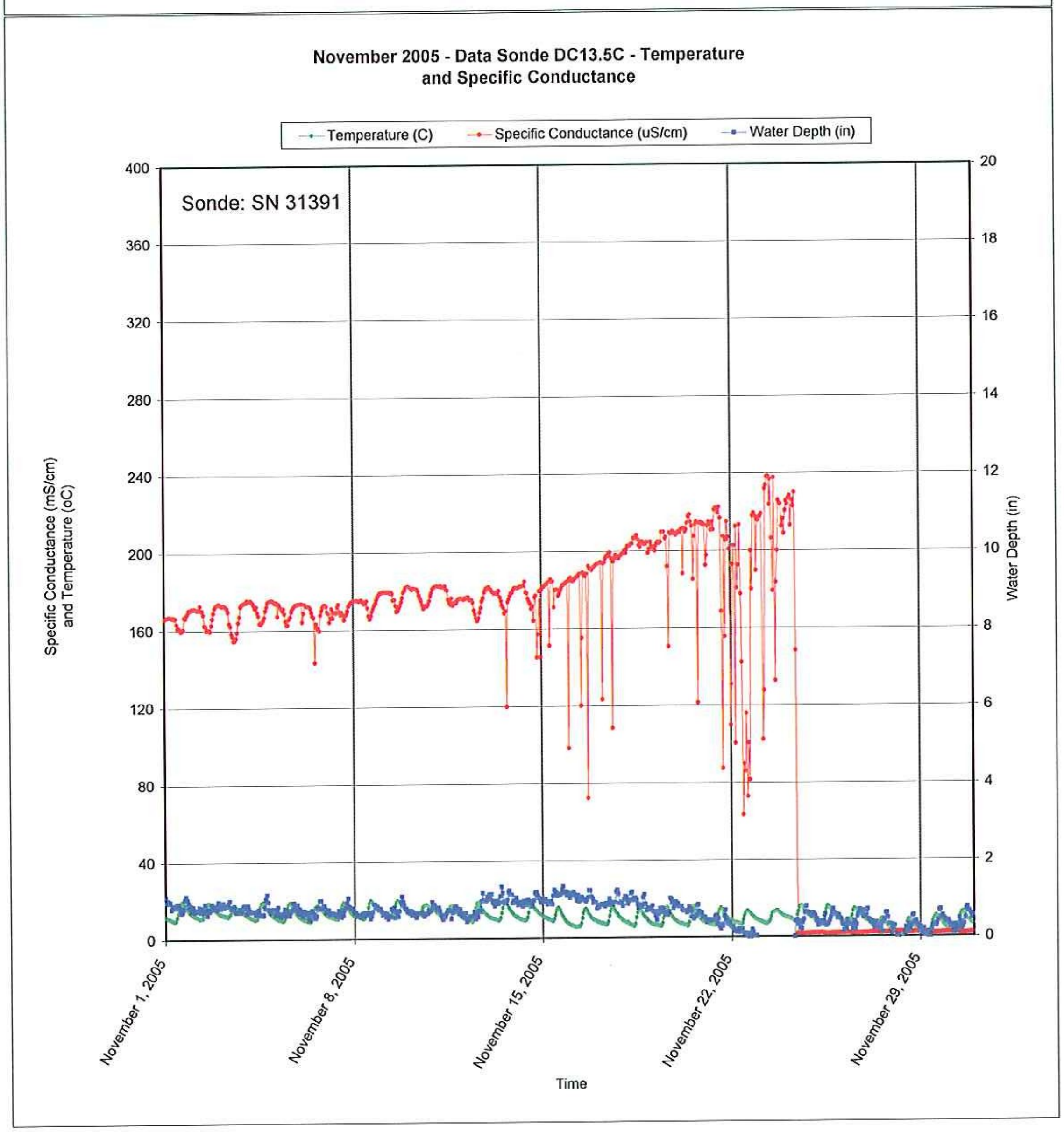

September 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.37 in)
Time (same scale as lower graph)

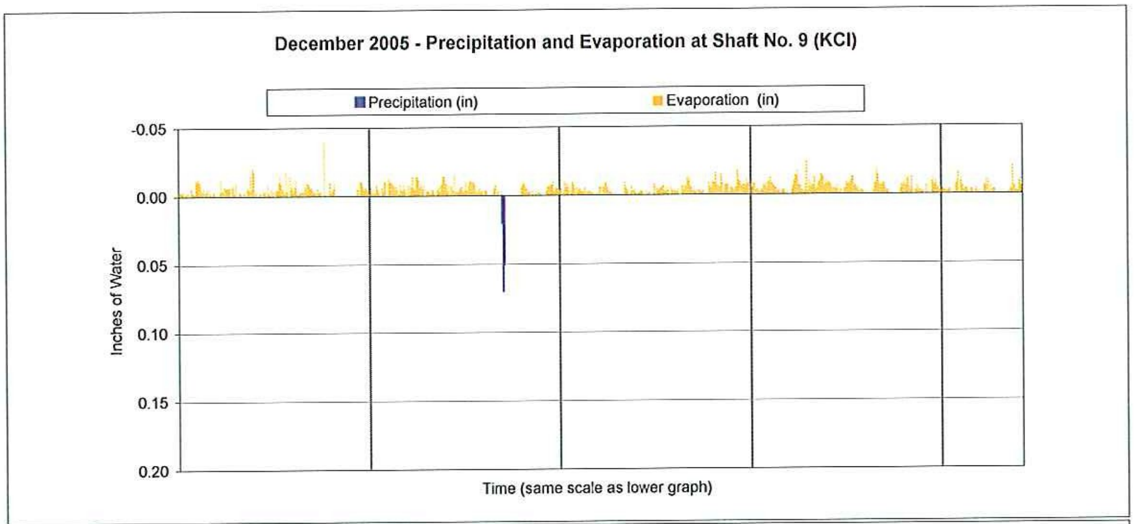

September 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
September 1, 2005
September 8, 2005
September 15, 2005
September 22, 2005
September 29, 2005
Time

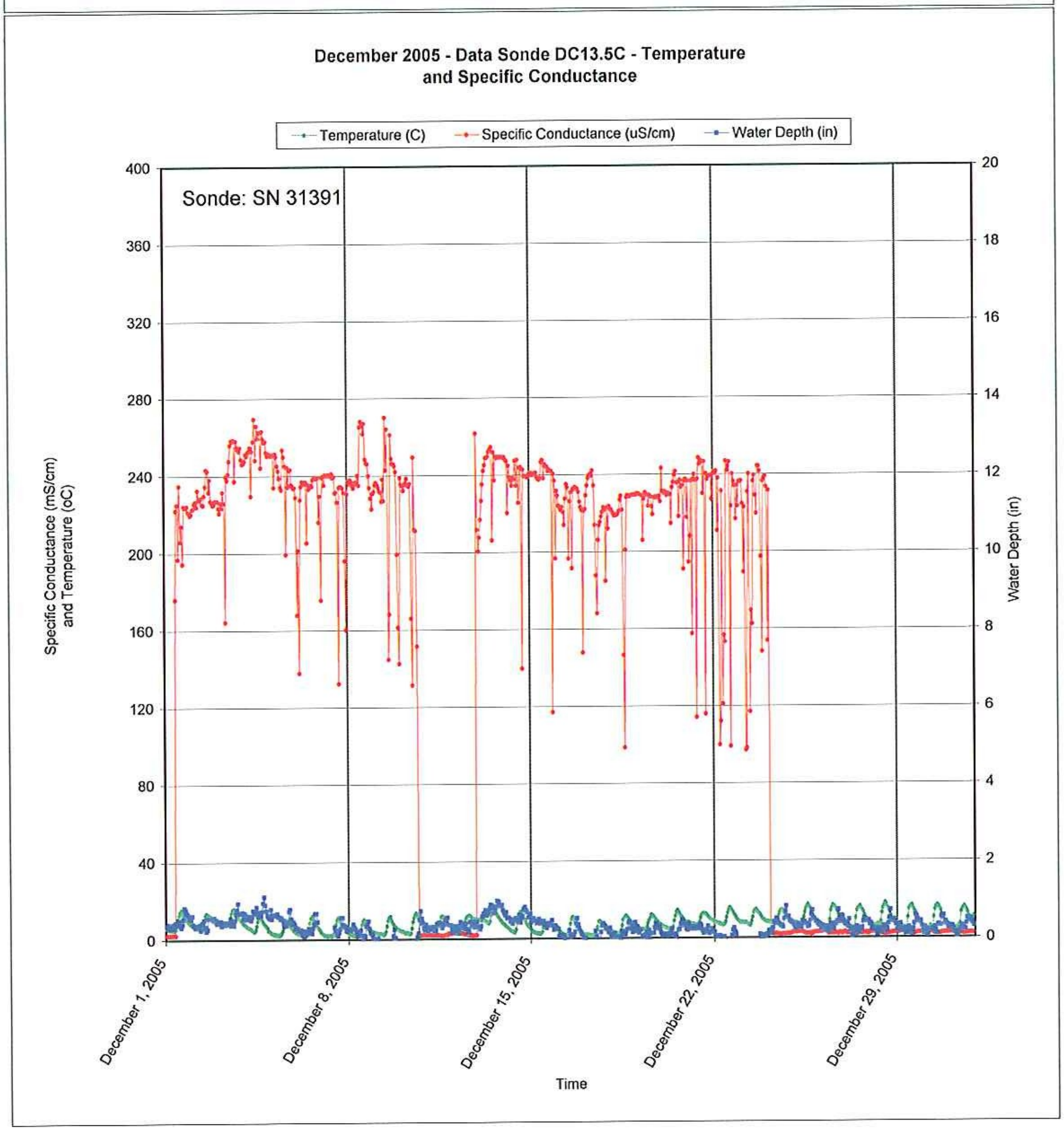

October 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

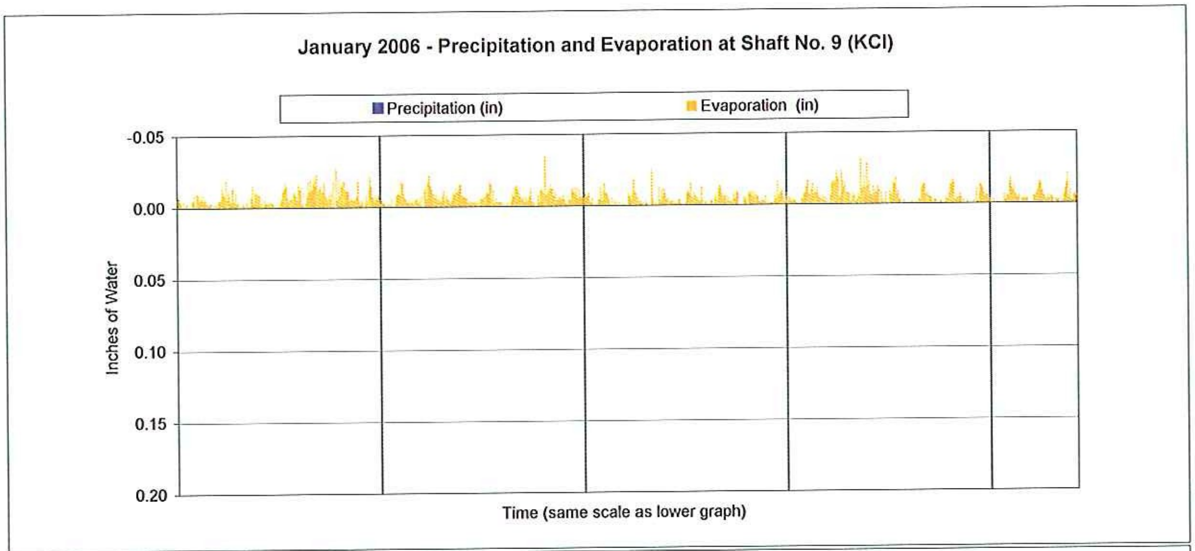

October 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
October 1, 2005
October 8, 2005
October 15, 2005
October 22, 2005
October 29, 2005
Time

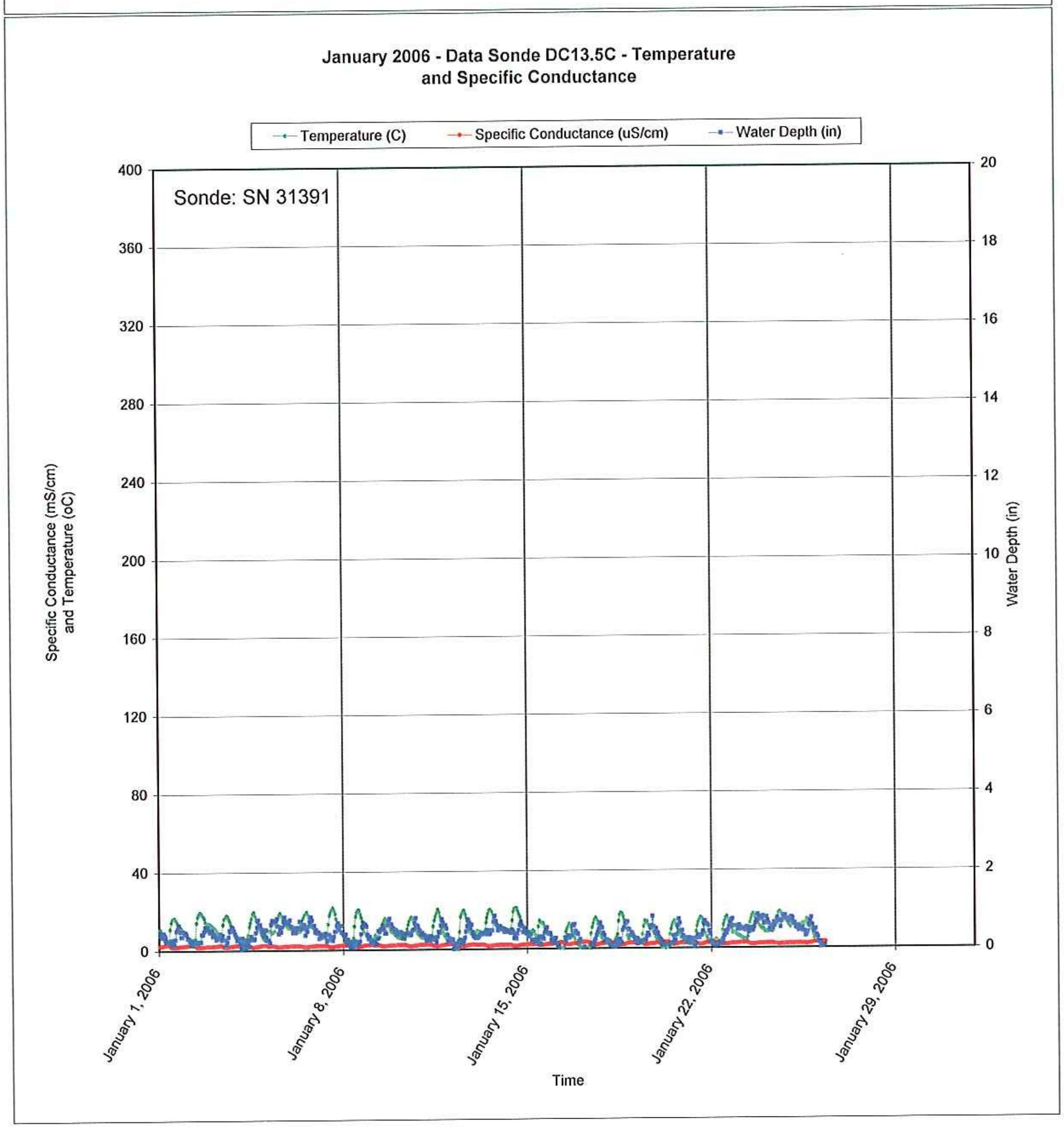

November 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)


November 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
November 1, 2005
November 8, 2005
November 15, 2005
November 22, 2005
November 29, 2005
Time

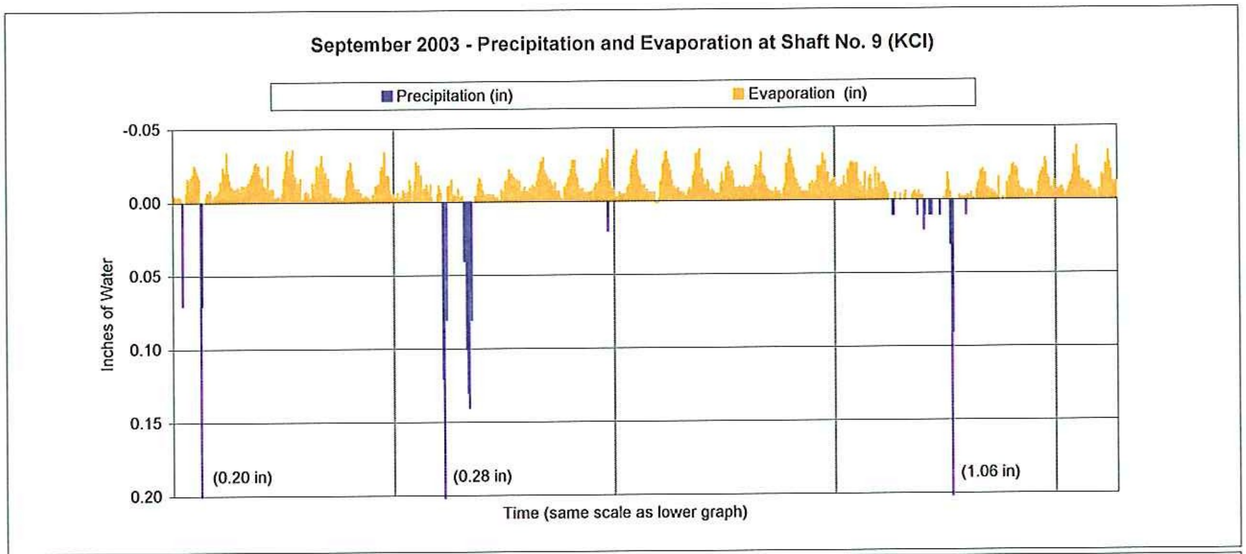

December 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

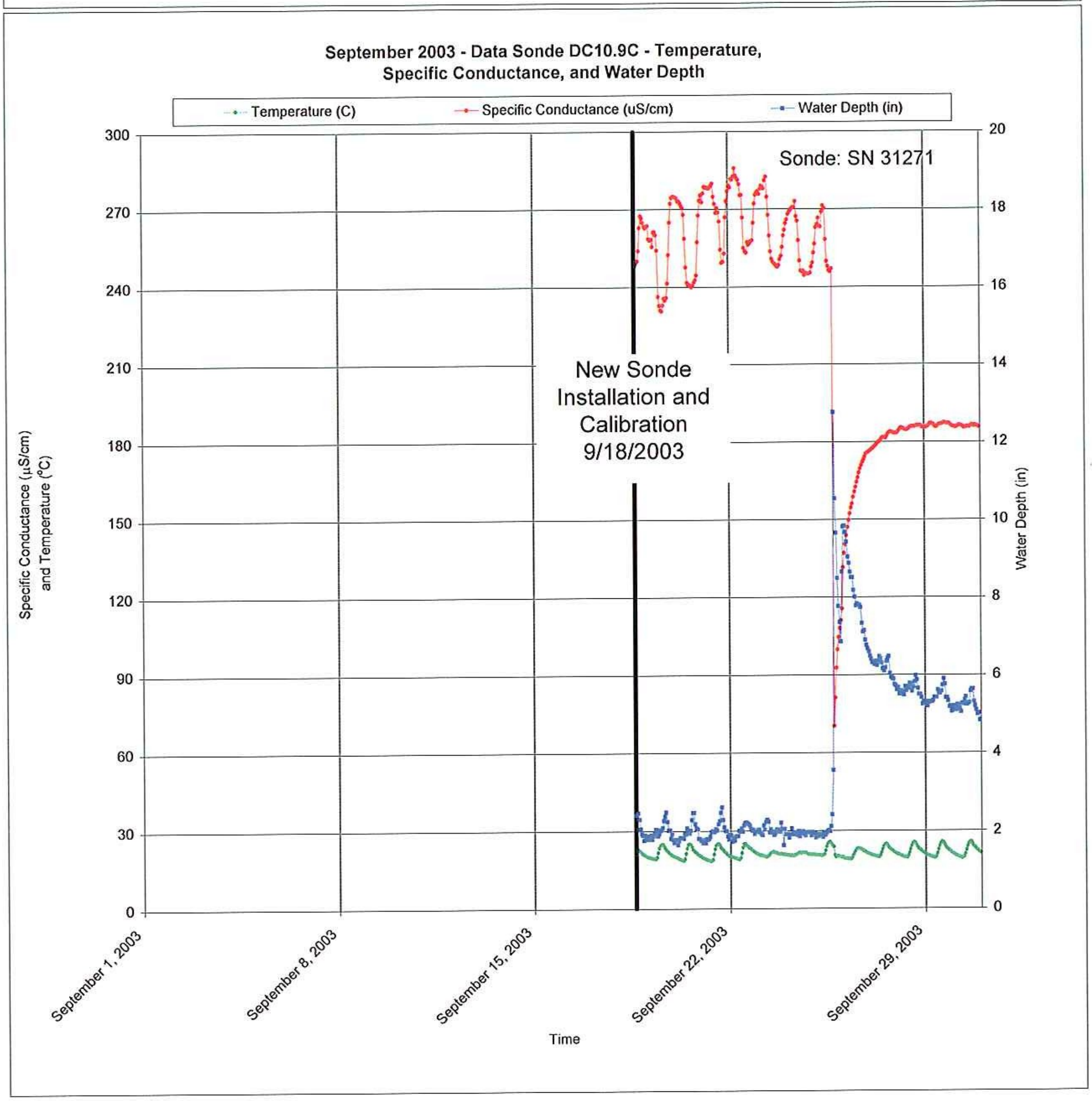

December 2005 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
Specific Conductance (mS/cm) and Temperature (oC)
Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2005
December 8, 2005
December 15, 2005
December 22, 2005
December 29, 2005
Time

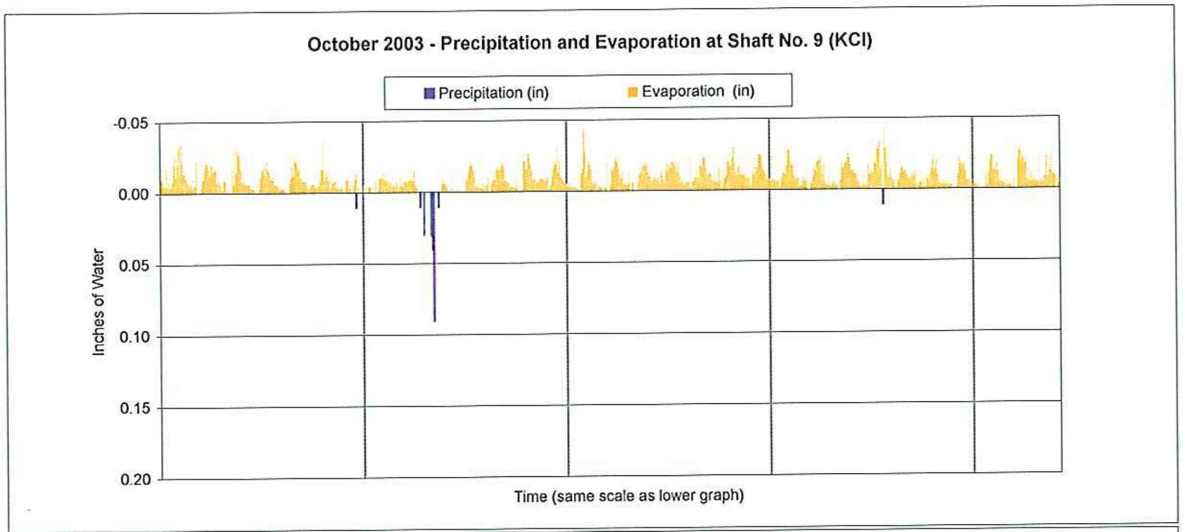

January 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

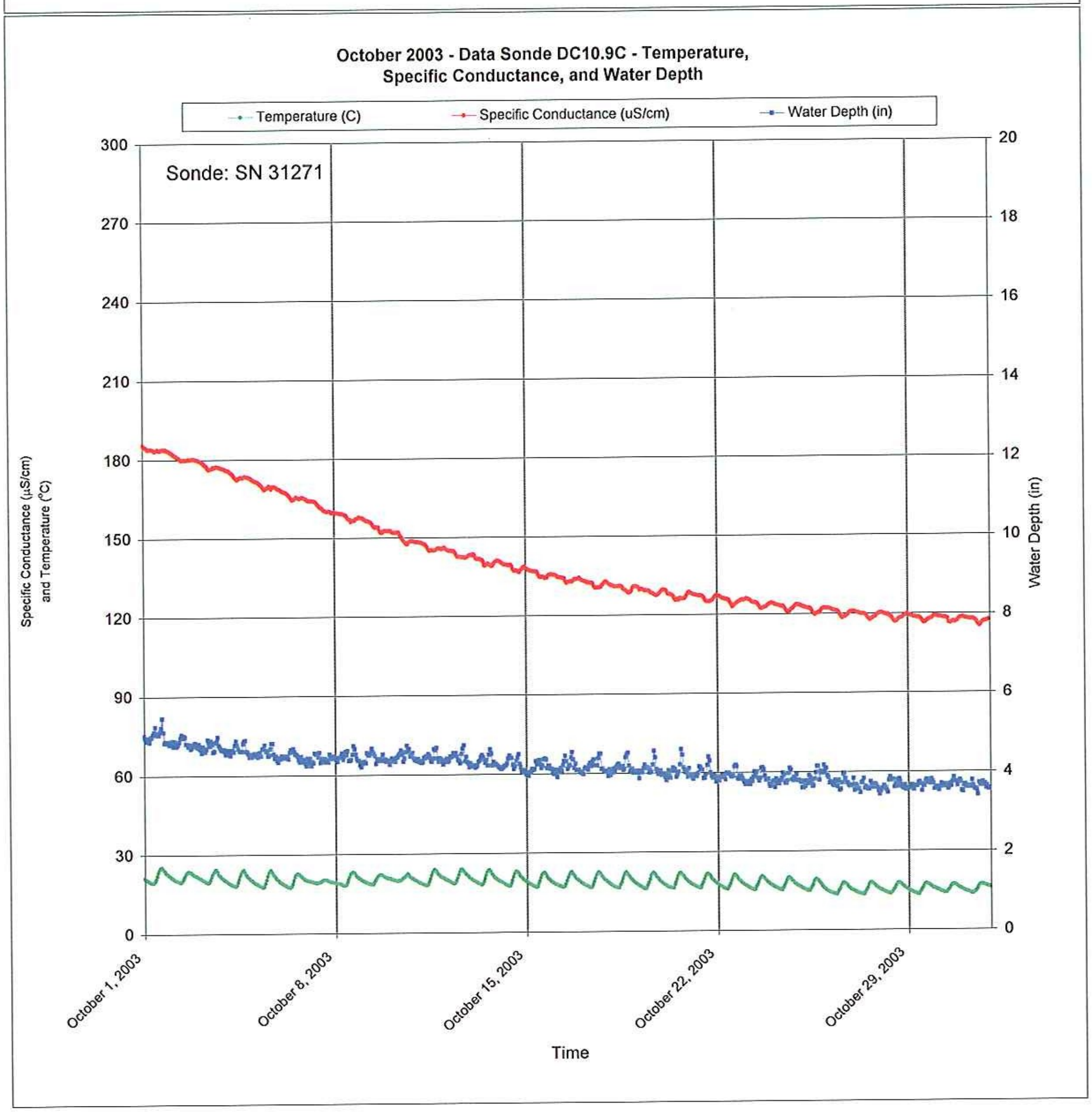

January 2006 - Data Sonde DC13.5C - Temperature and Specific Conductance
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31391
400
360
320
280
240
200
160
120
80
40
0
Specific Conductance (mS/cm) and Temperature (oC)
20
18
16
14
12
10
8
6
4
2
0
Water Depth (in)
January 1, 2006
January 8, 2006
January 15, 2006
January 22, 2006
January 29, 2006
Time

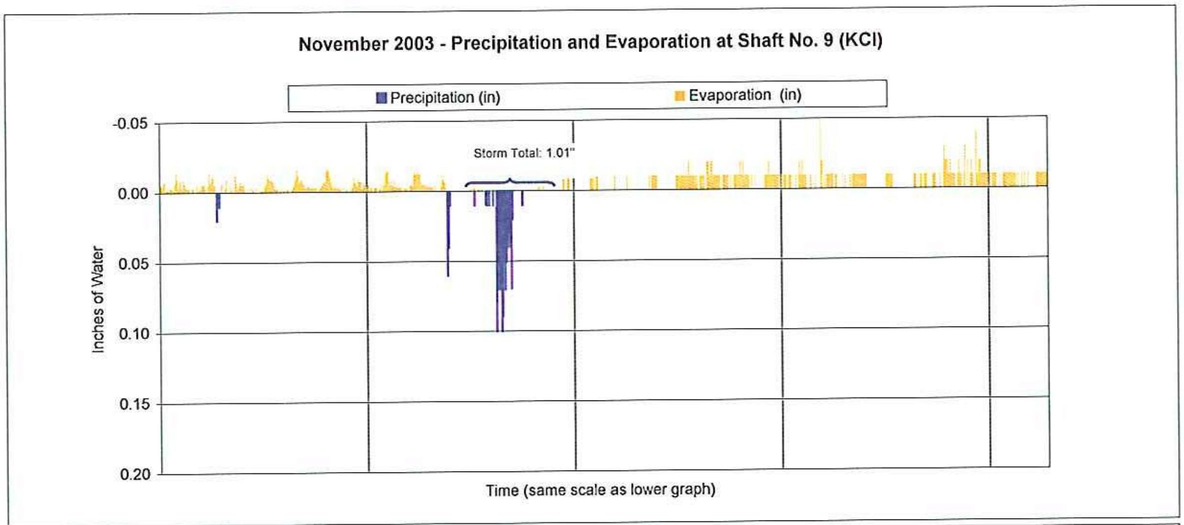
DC 10.9C

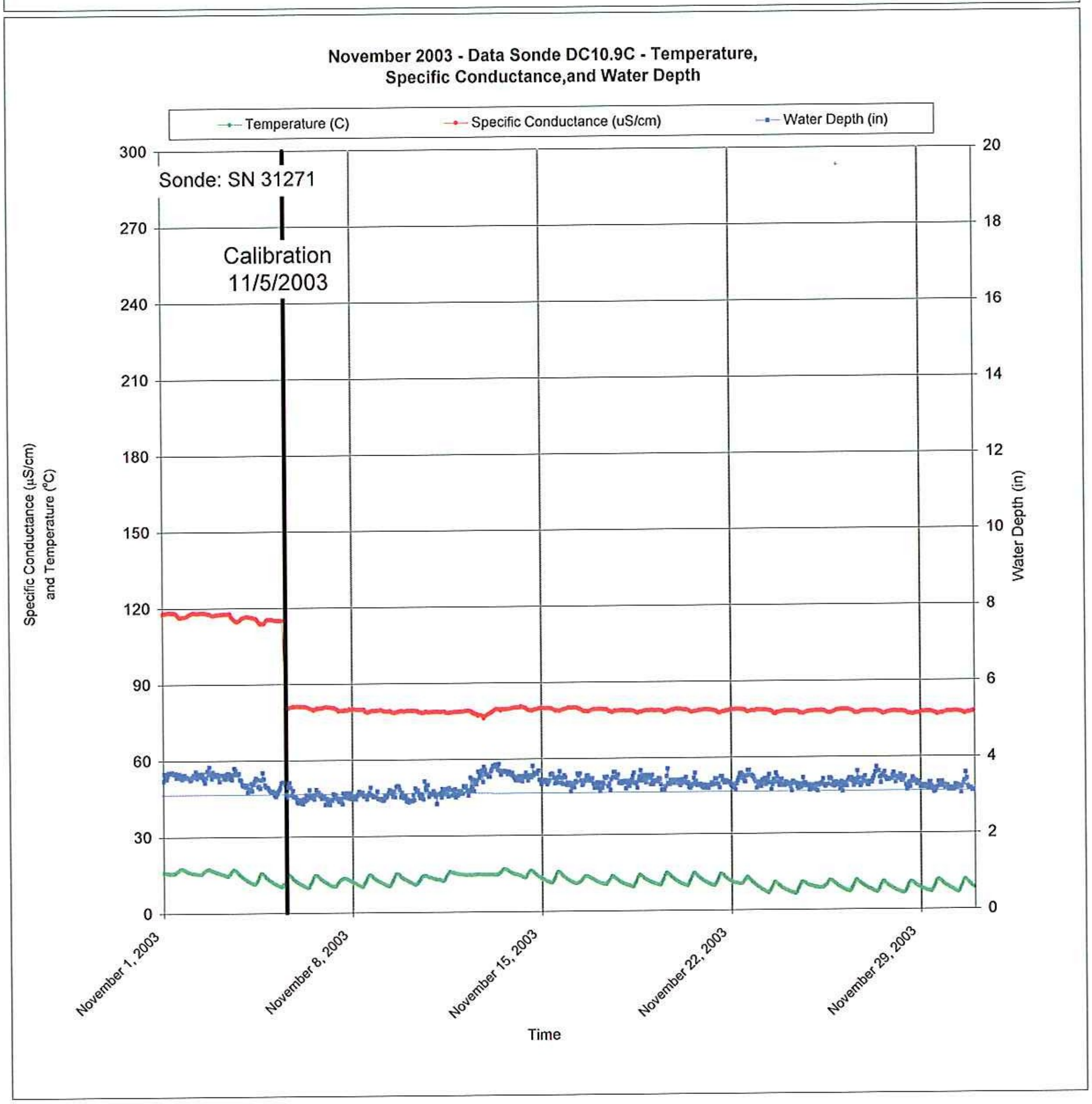

September 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.20 in)
(0.28 in)
(1.06 in)
Time (same scale as lower graph)

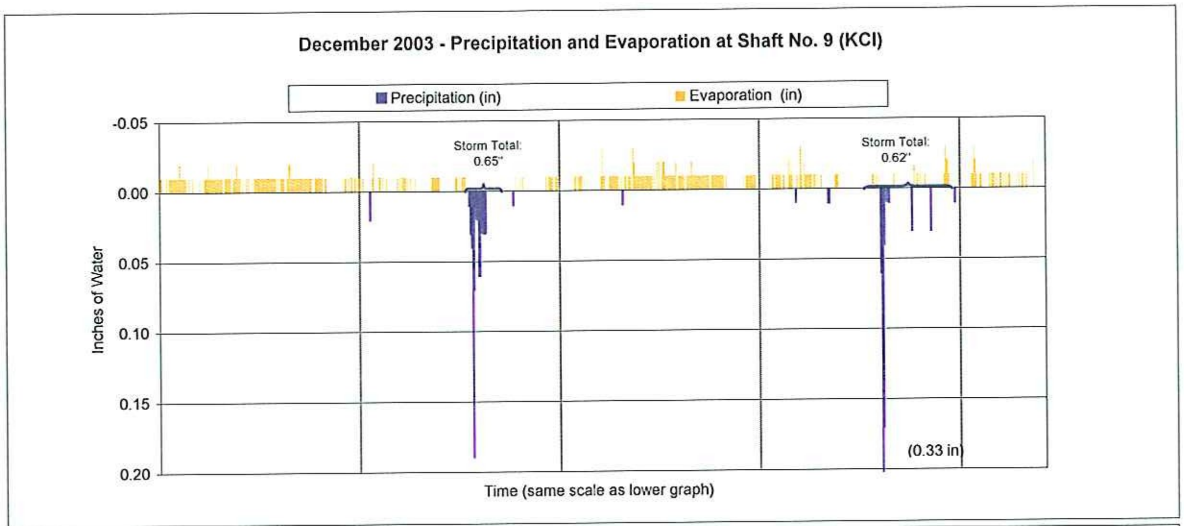

September 2003 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
New Sonde Installation and Calibration 9/18/2003
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
September 1, 2003
September 8, 2003
September 15, 2003
September 22, 2003
September 29, 2003
Time

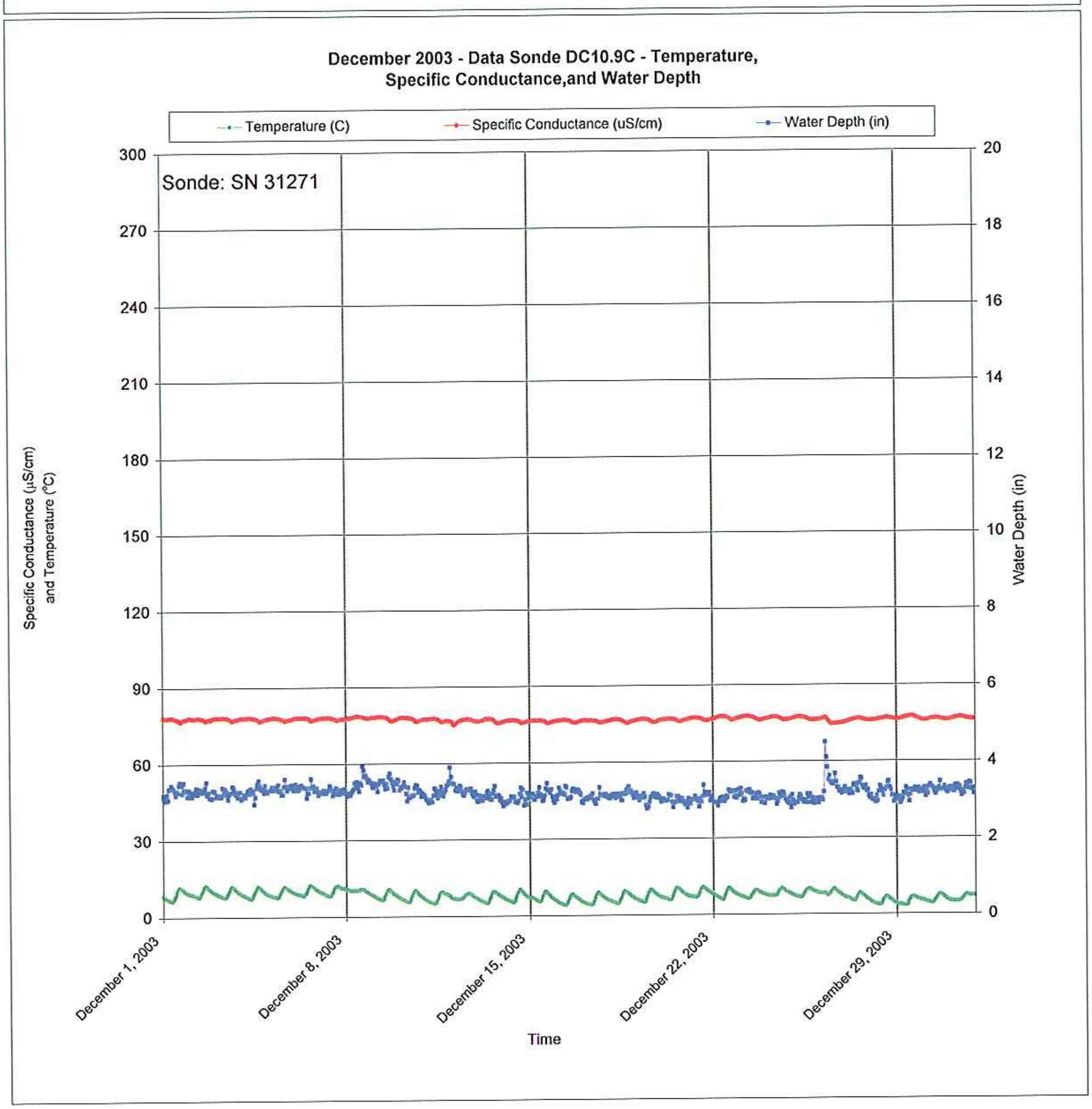

October 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

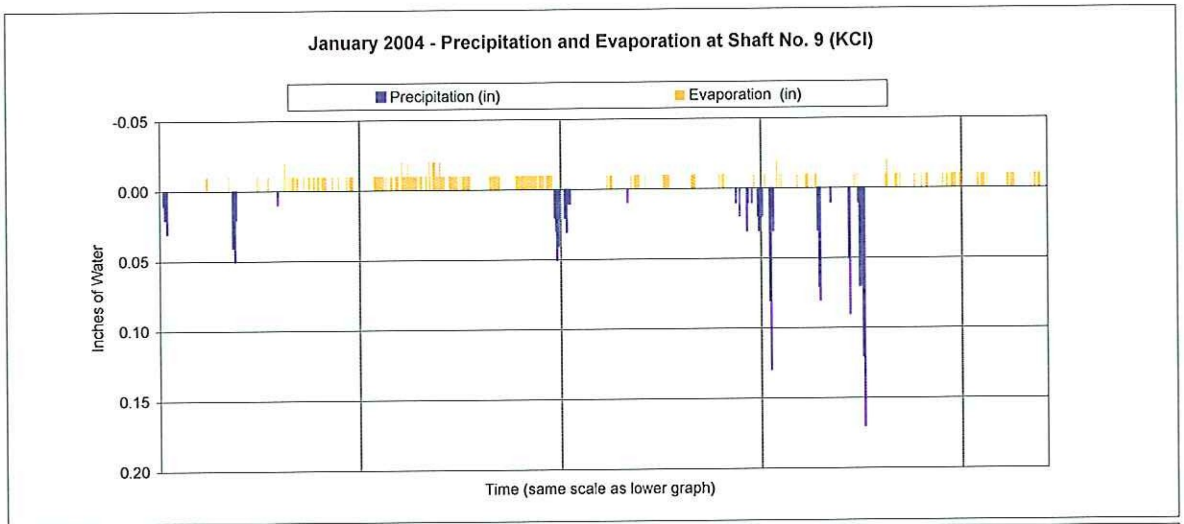

October 2003 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
October 1, 2003
October 8, 2003
October 15, 2003
October 22, 2003
October 29, 2003
Time

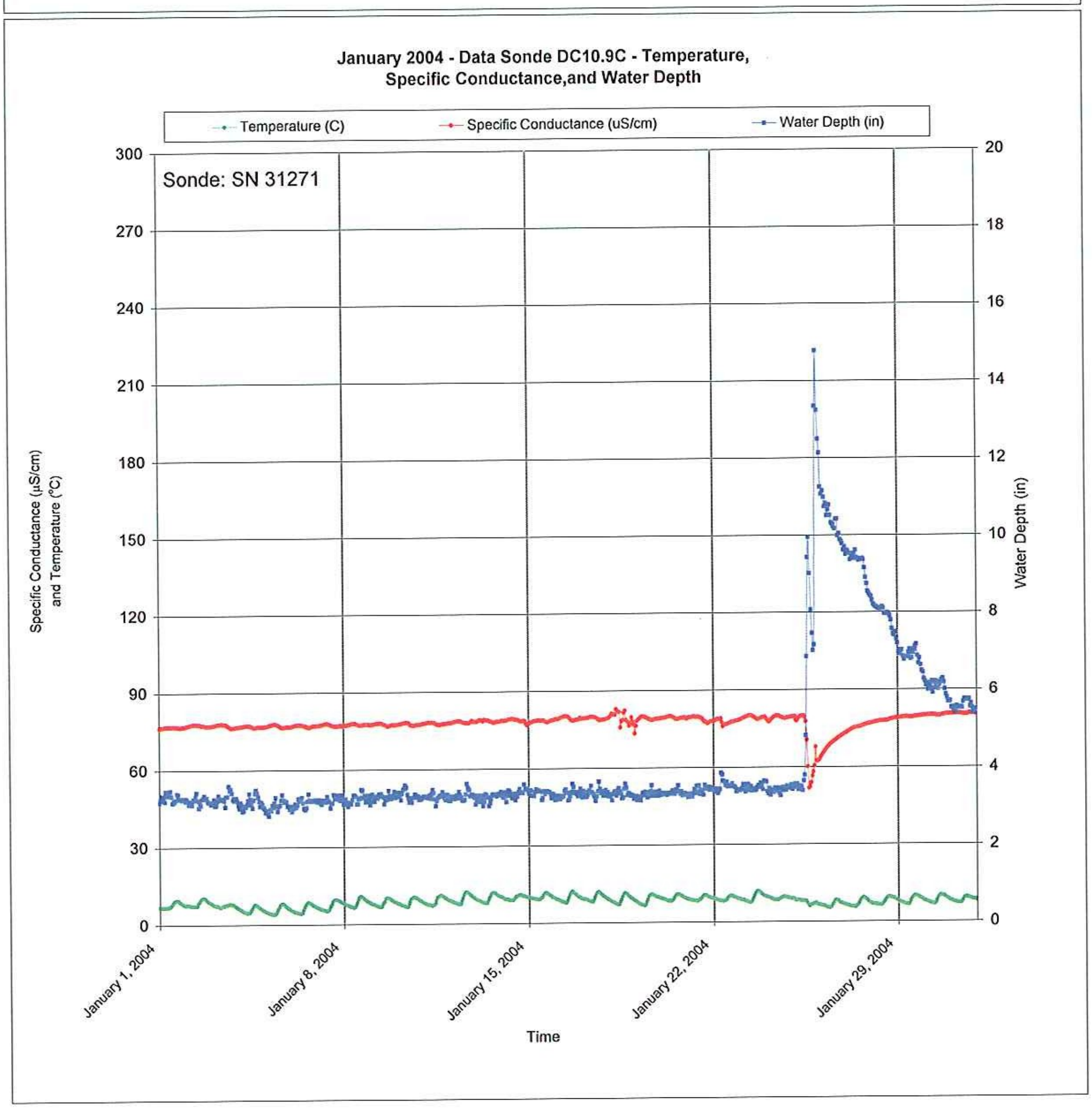

November 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.01"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

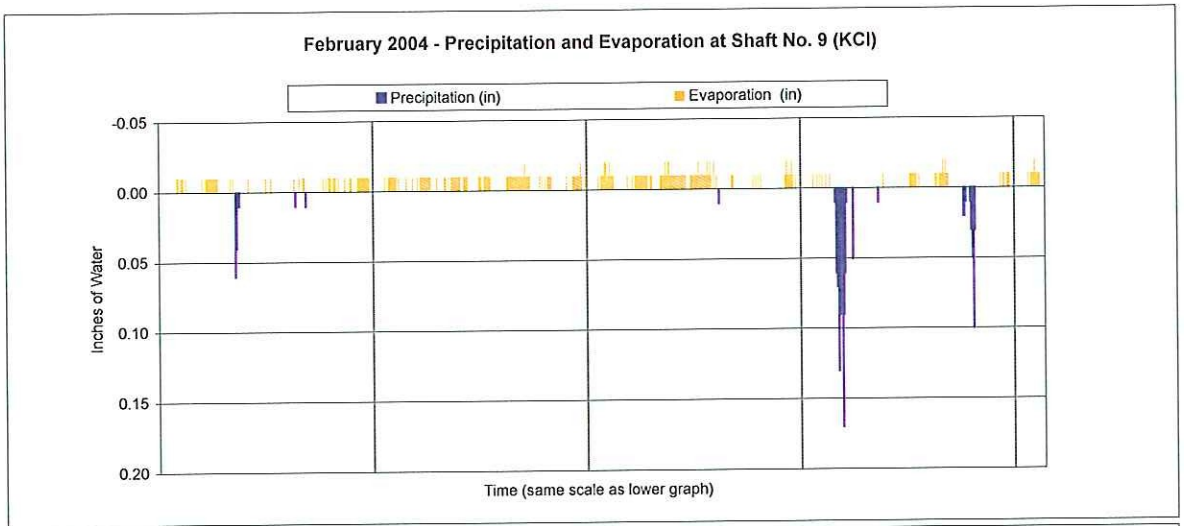

November 2003 - Data Sonde DC10.9C - Temperature, Specific Conductance,and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration 11/5/2003
Specific Conductance (µS/cm) and Temperature (ºC)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
November 1, 2003
November 8, 2003
November 15, 2003
November 22, 2003
November 29, 2003
Time

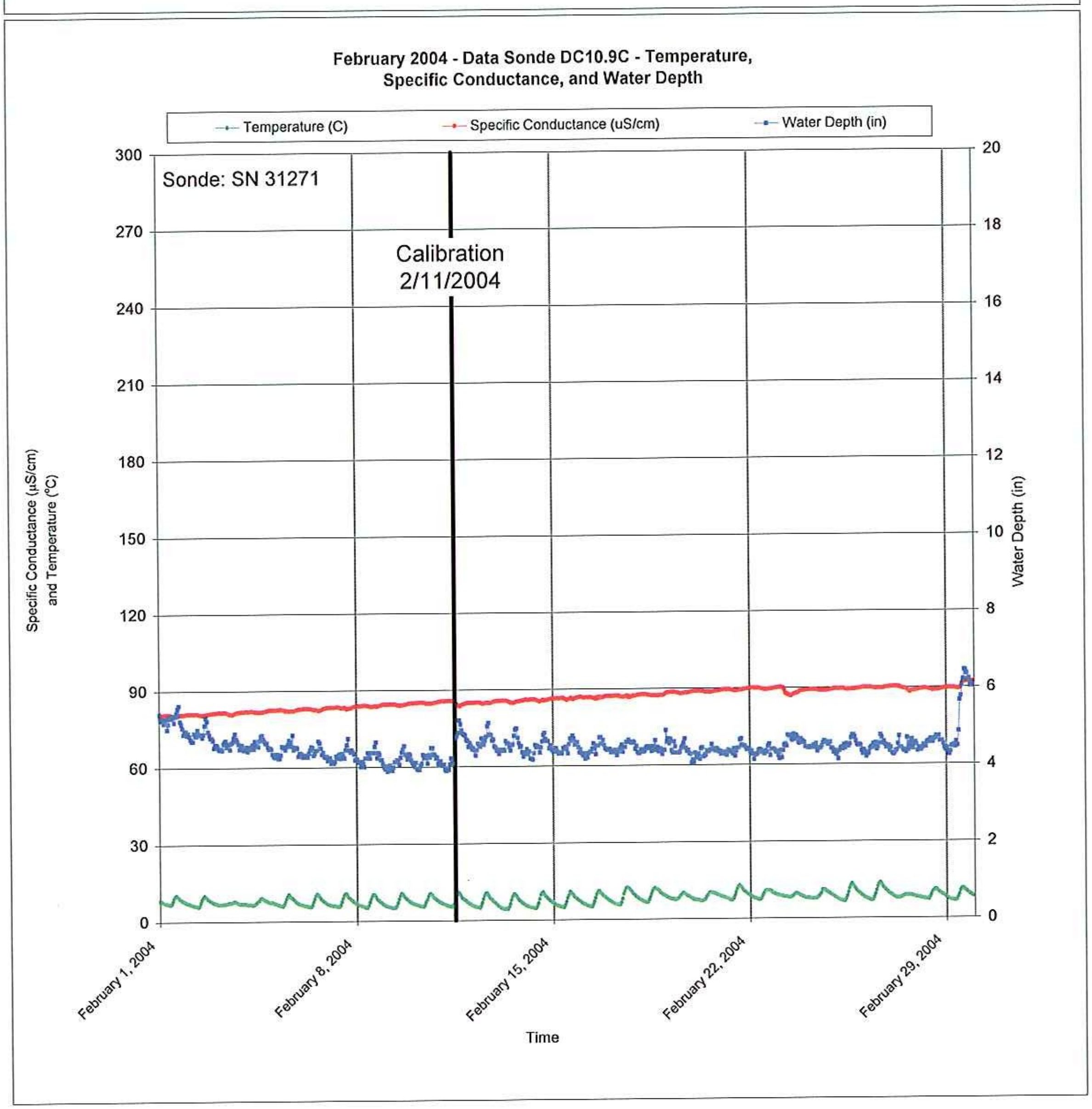

December 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.65"
Storm Total: 0.62"
(0.33 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

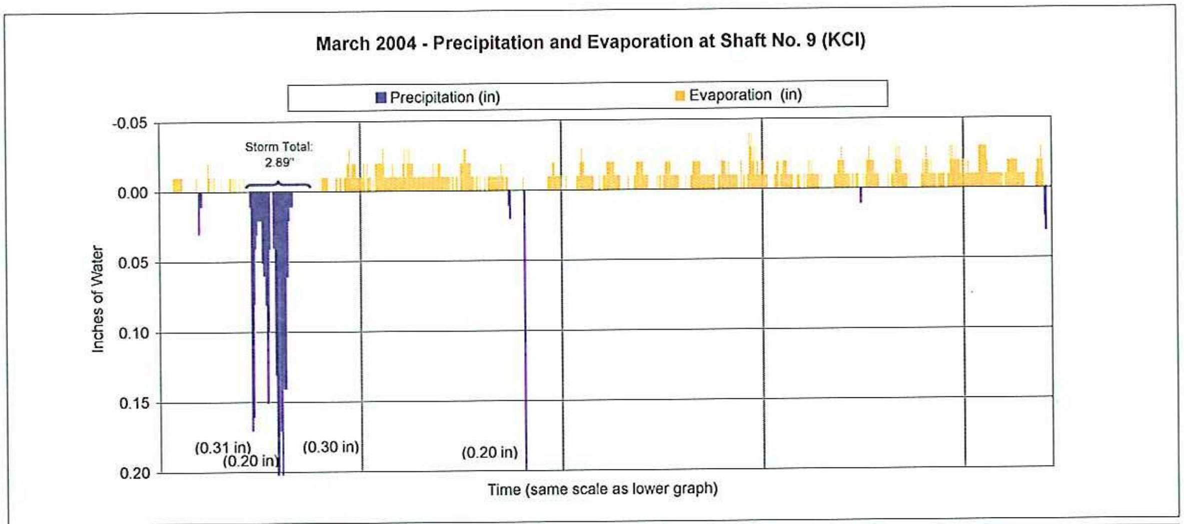

December 2003 - Data Sonde DC10.9C - Temperature, Specific Conductance,and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2003
December 8, 2003
December 15, 2003
December 22, 2003
December 29, 2003
Time

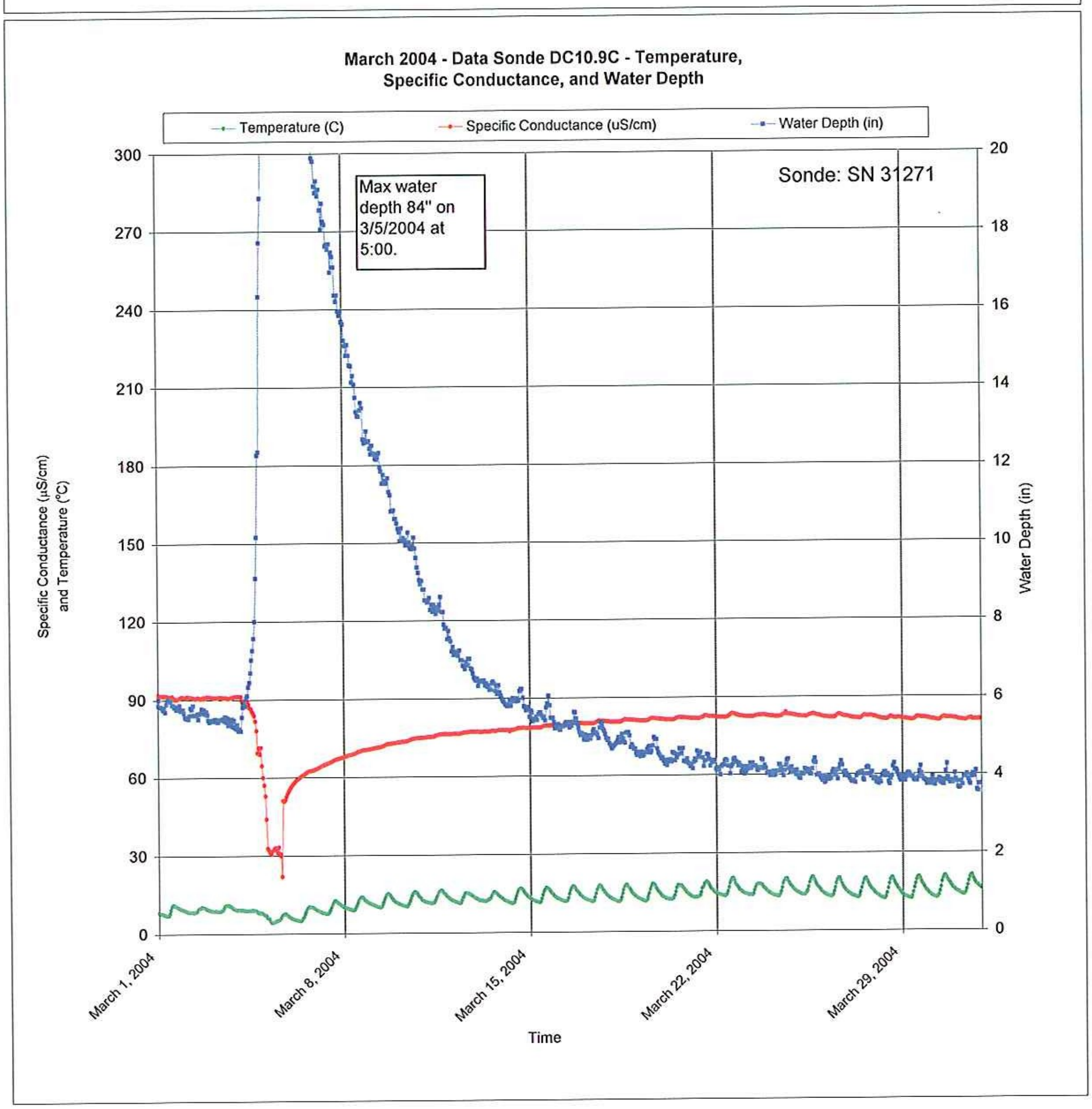

January 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

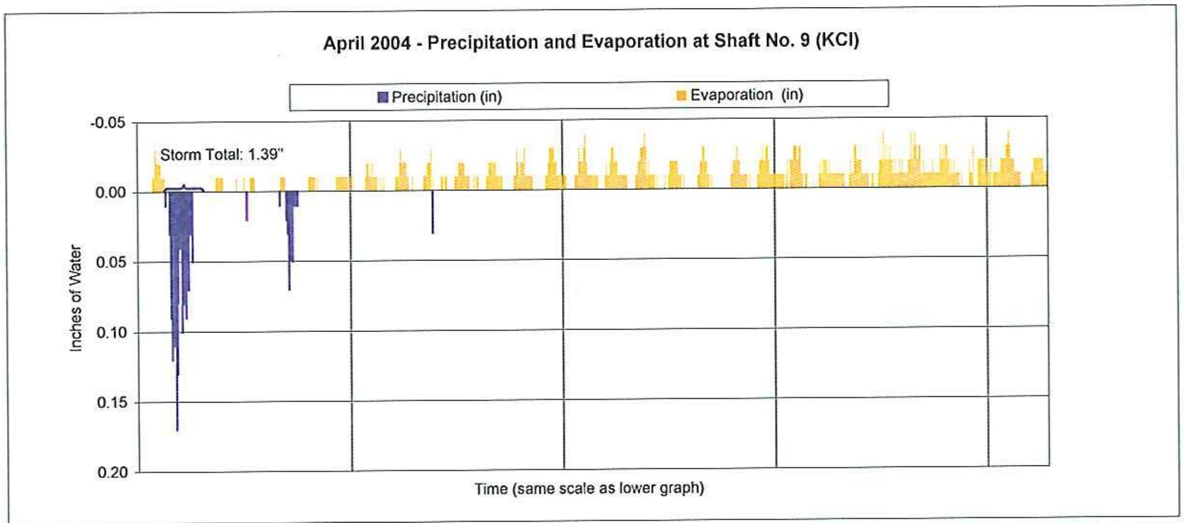

January 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
January 1, 2004
January 8, 2004
January 15, 2004
January 22, 2004
January 29, 2004
Time

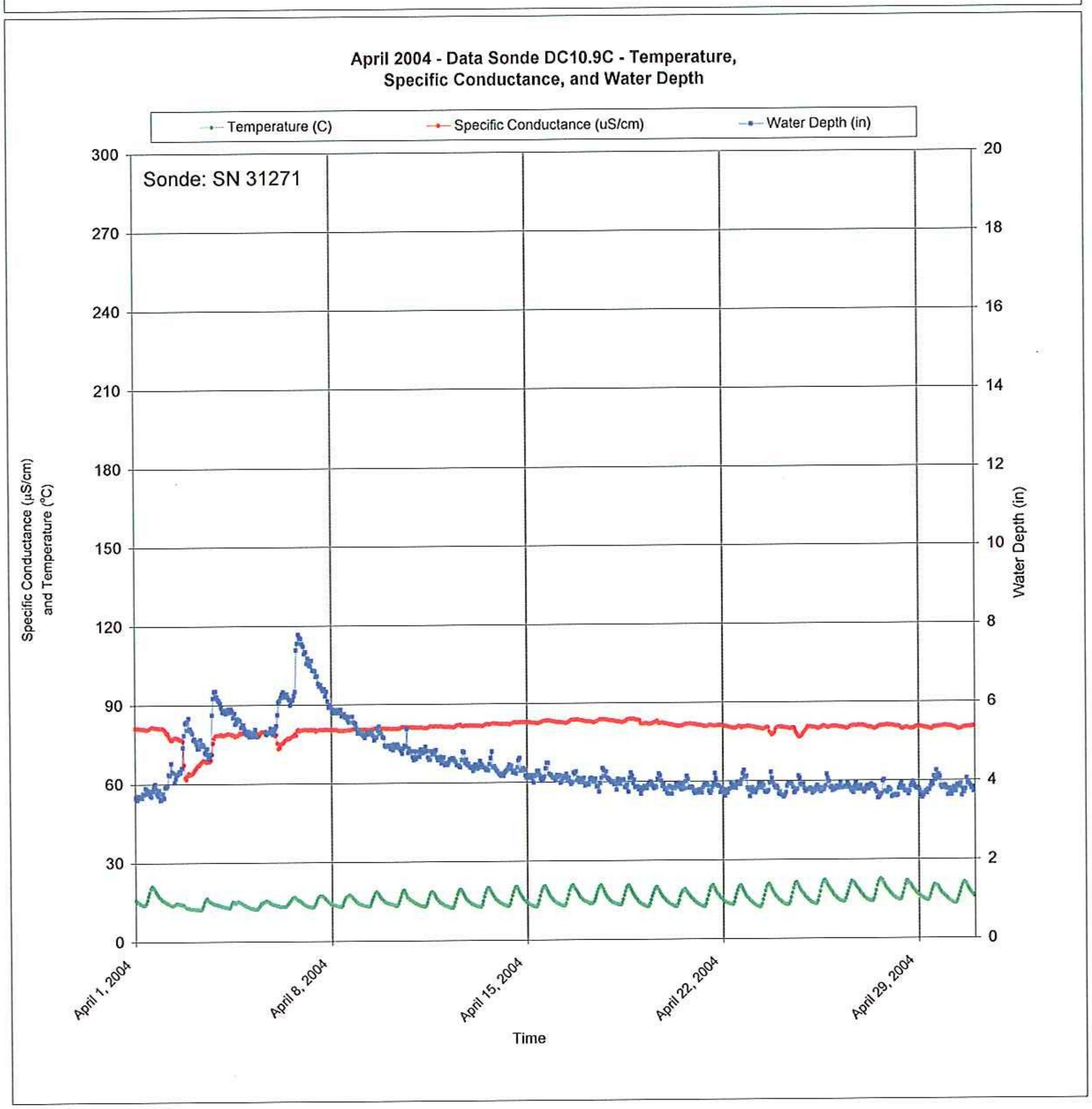

February 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

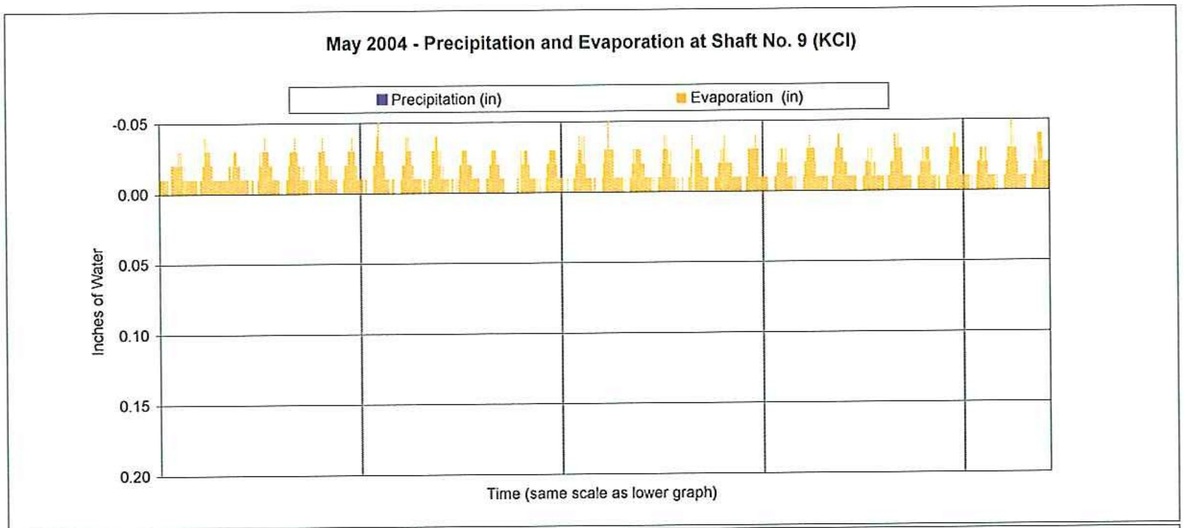

February 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration 2/11/2004
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2004
February 8, 2004
February 15, 2004
February 22, 2004
February 29, 2004
Time

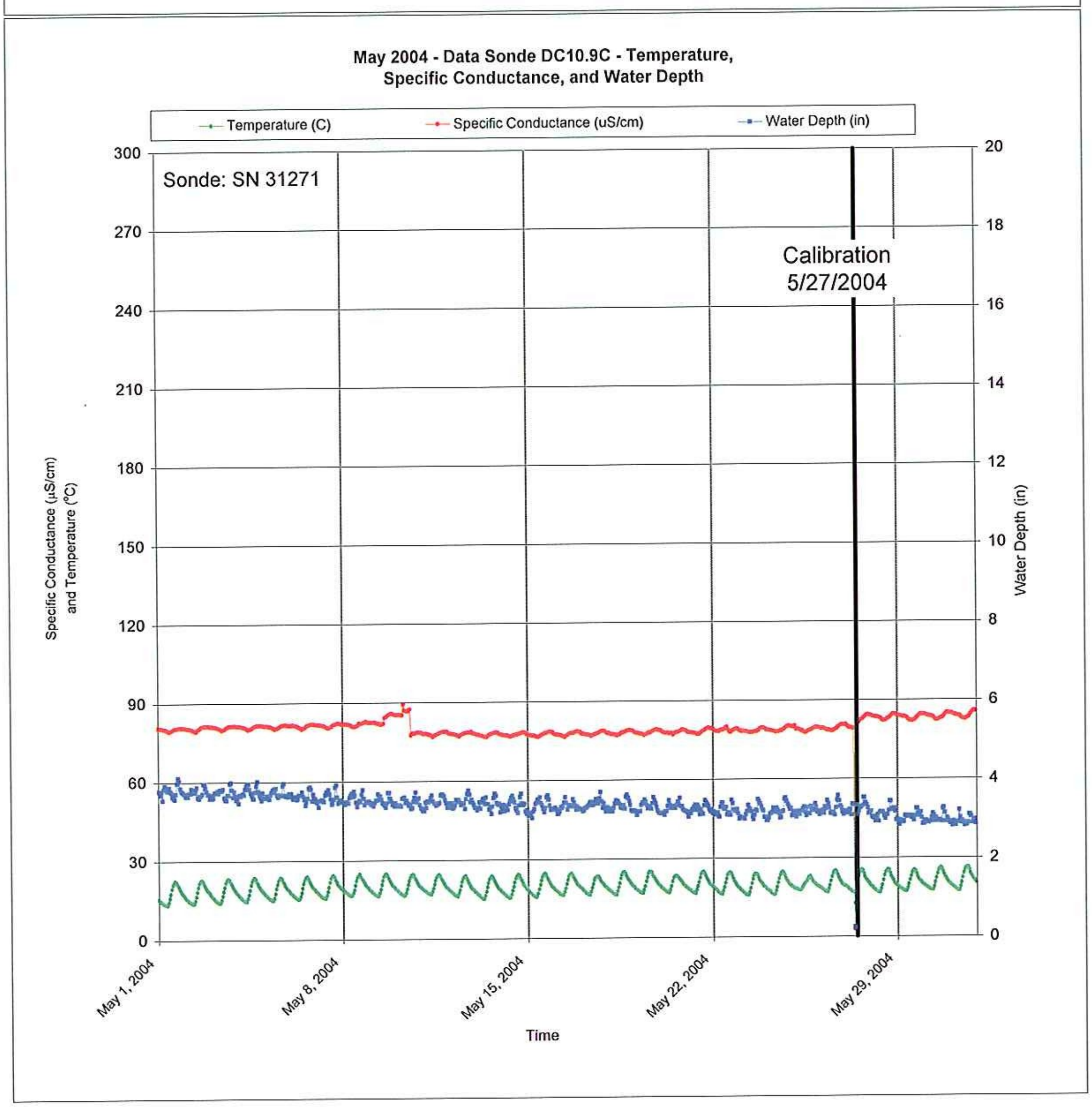

March 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.31 in)
(0.20 in)
(0.30 in)
(0.20 in)
Time (same scale as lower graph)

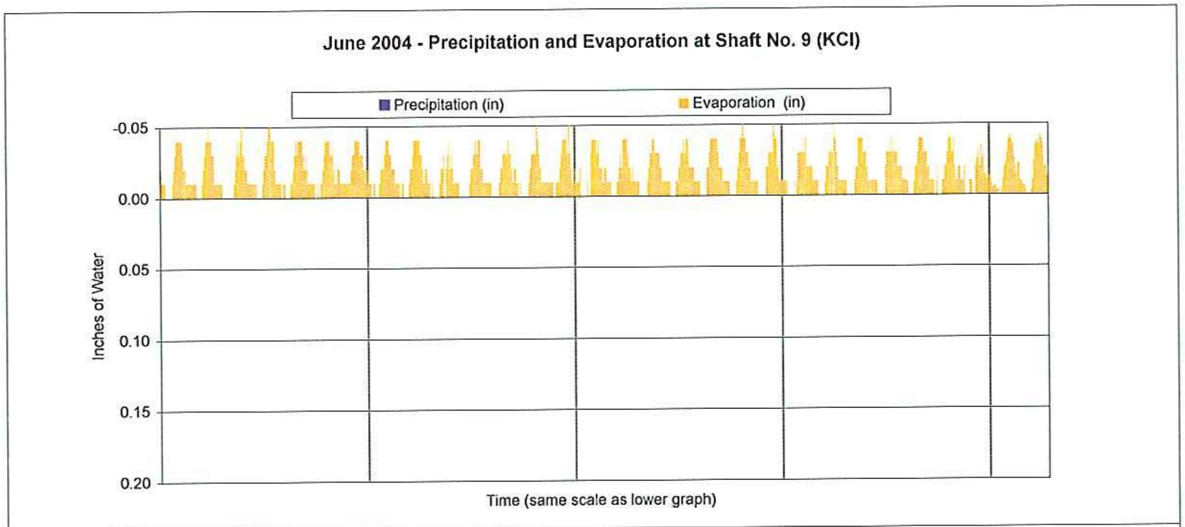

March 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Max water depth 84" on 3/5/2004 at 5:00.
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
March 1, 2004
March 8, 2004
March 15, 2004
March 22, 2004
March 29, 2004
Time


April 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.39"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

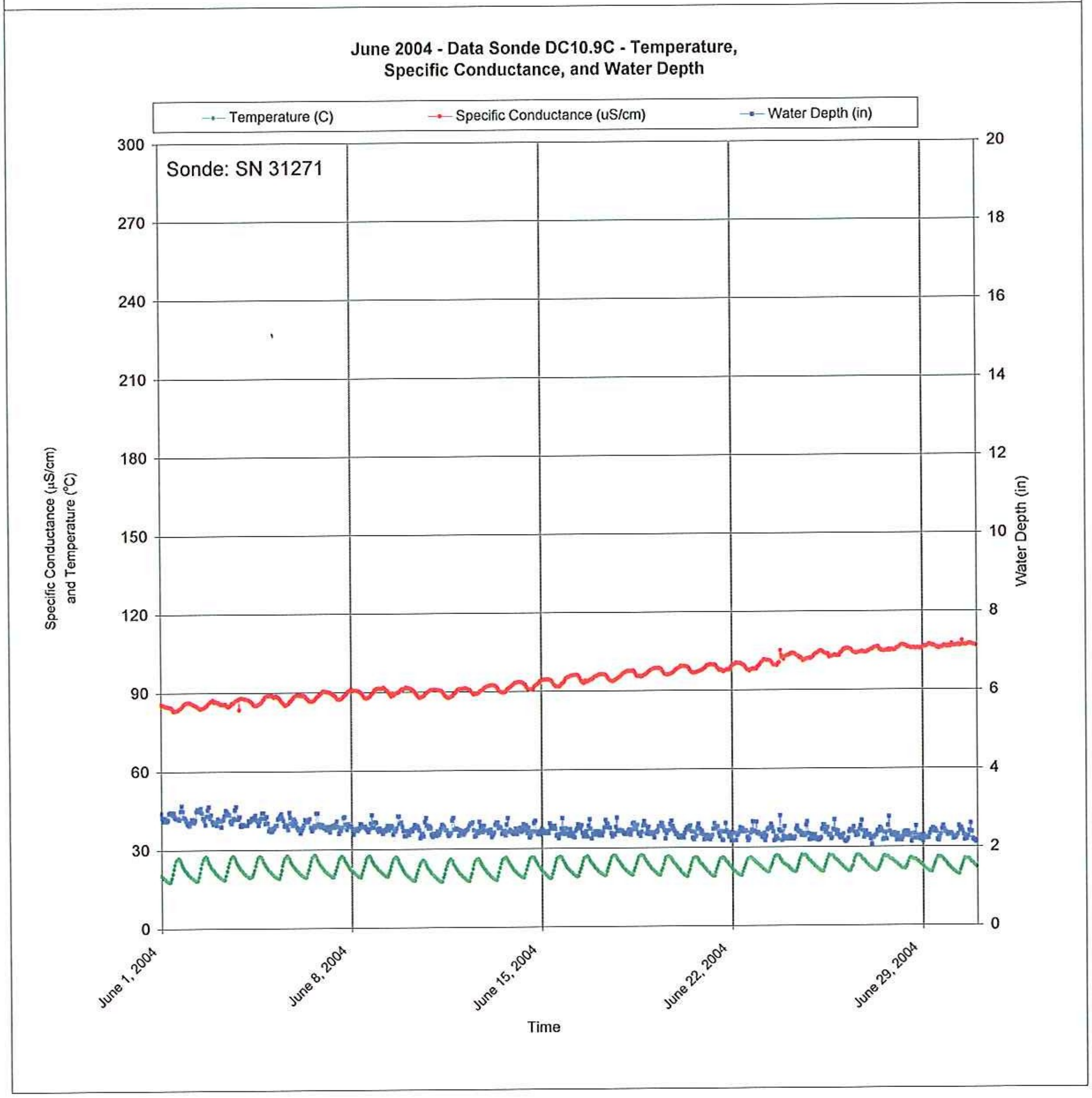

April 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
April 1, 2004
April 8, 2004
April 15, 2004
April 22, 2004
April 29, 2004
Time


May 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

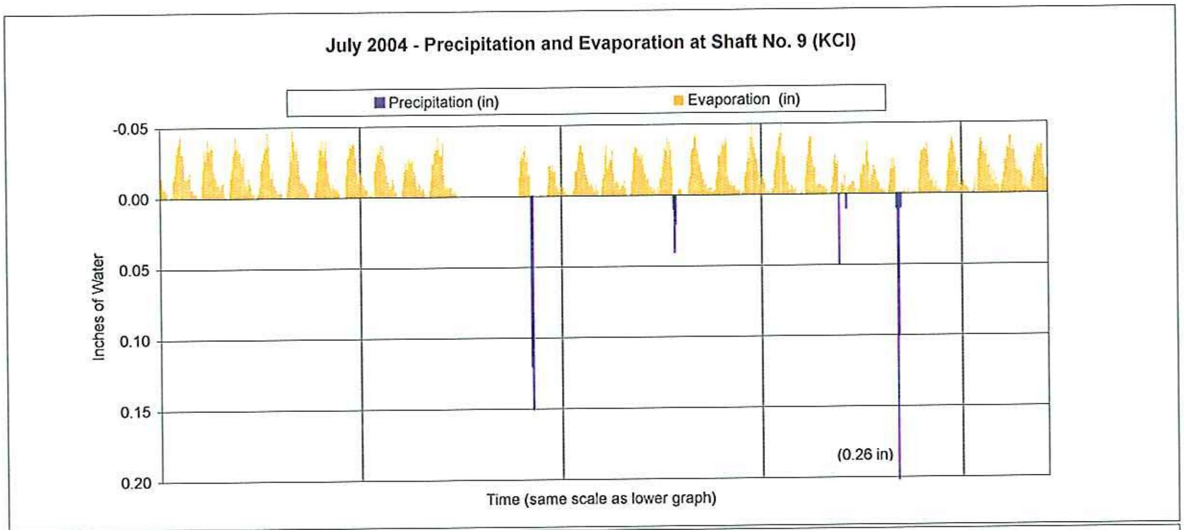

May 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration
5/27/2004
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
May 1, 2004
May 8, 2004
May 15, 2004
May 22, 2004
May 29, 2004
Time

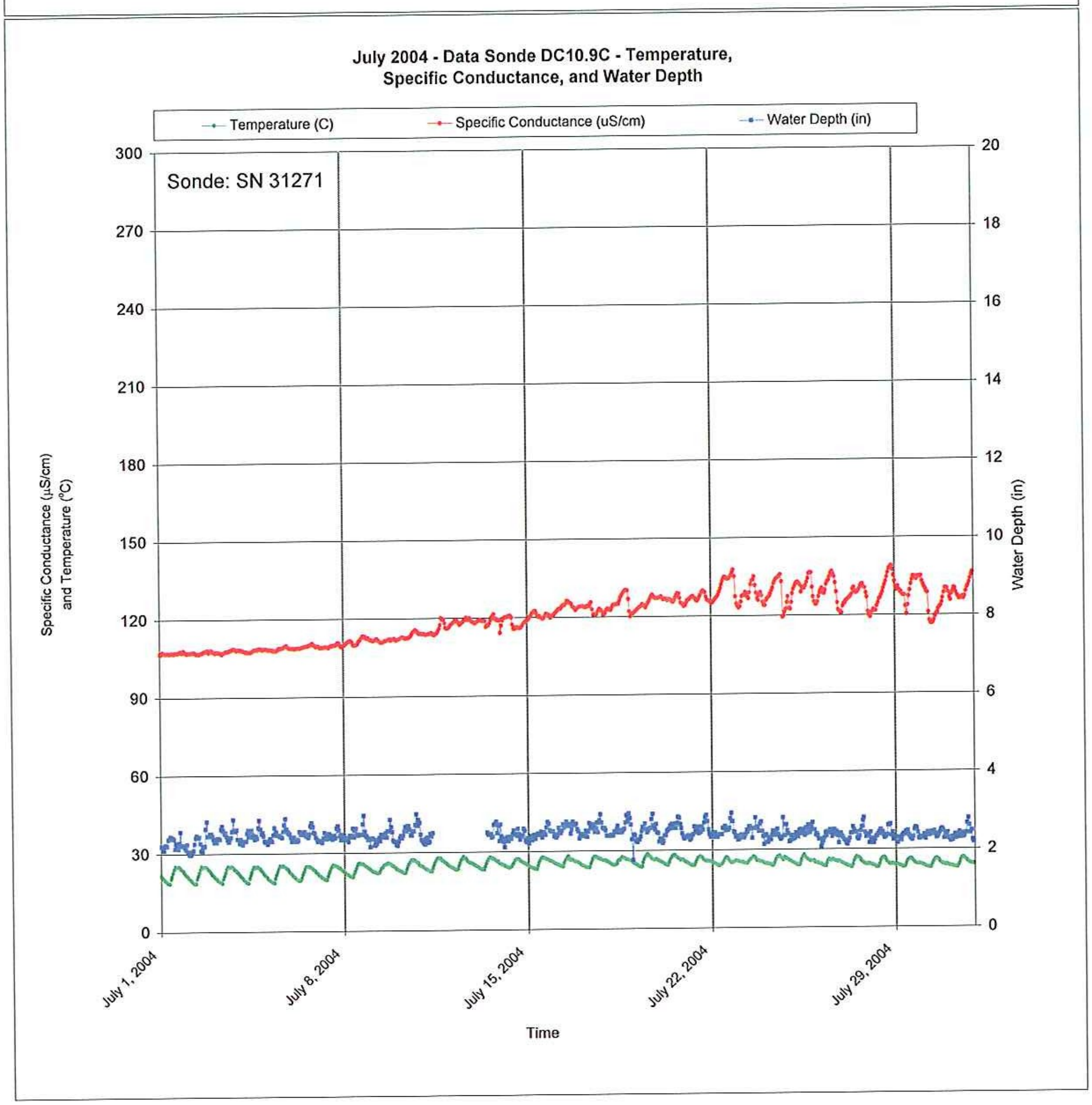


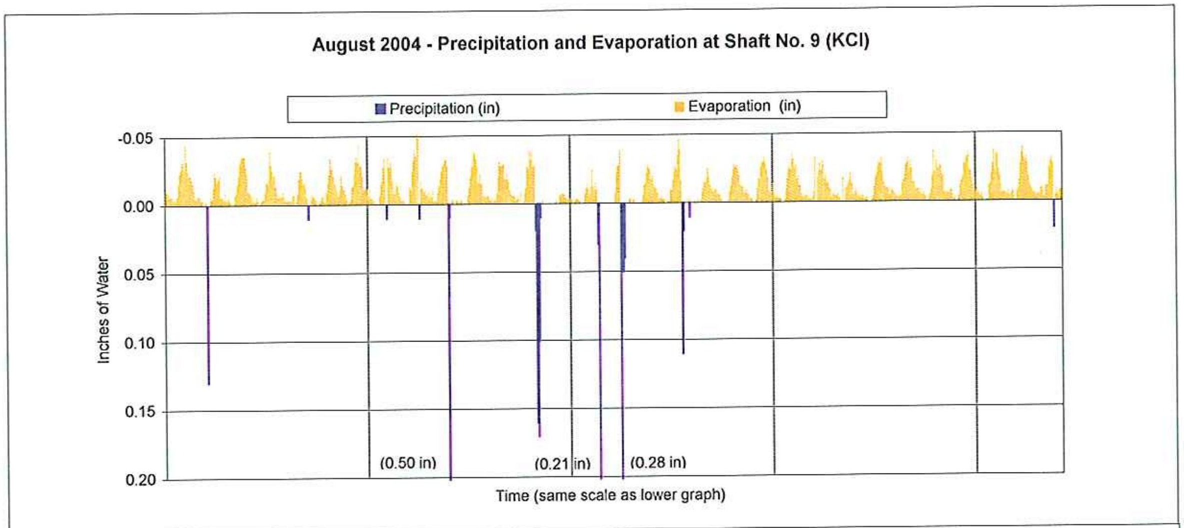
June 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

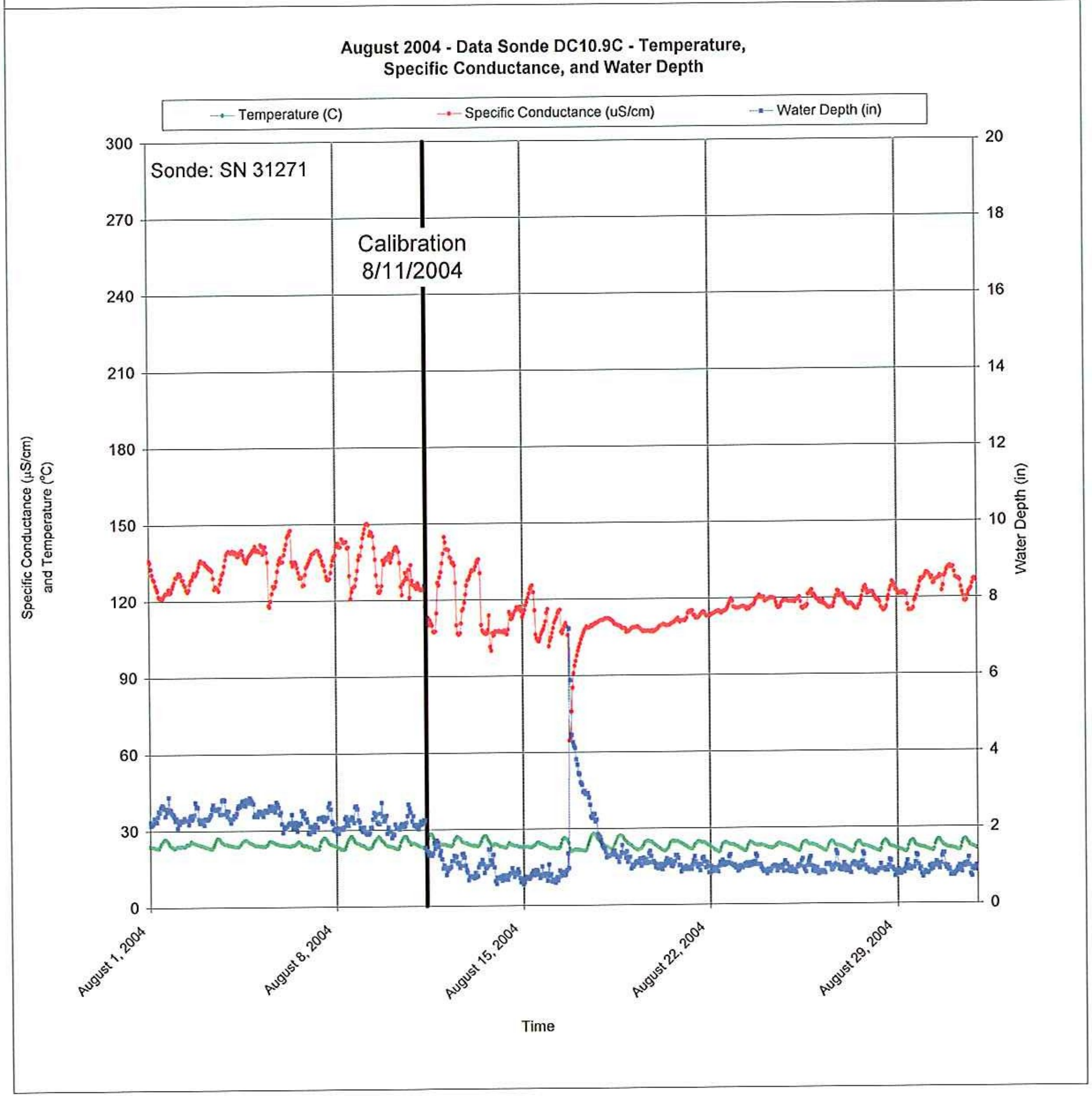


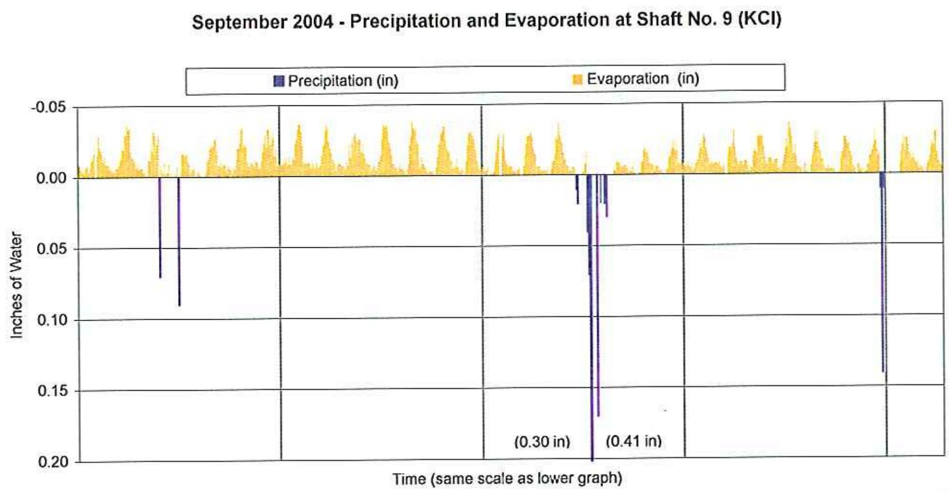
June 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
June 1, 2004
June 8, 2004
June 15, 2004
June 22, 2004
June 29, 2004
Time

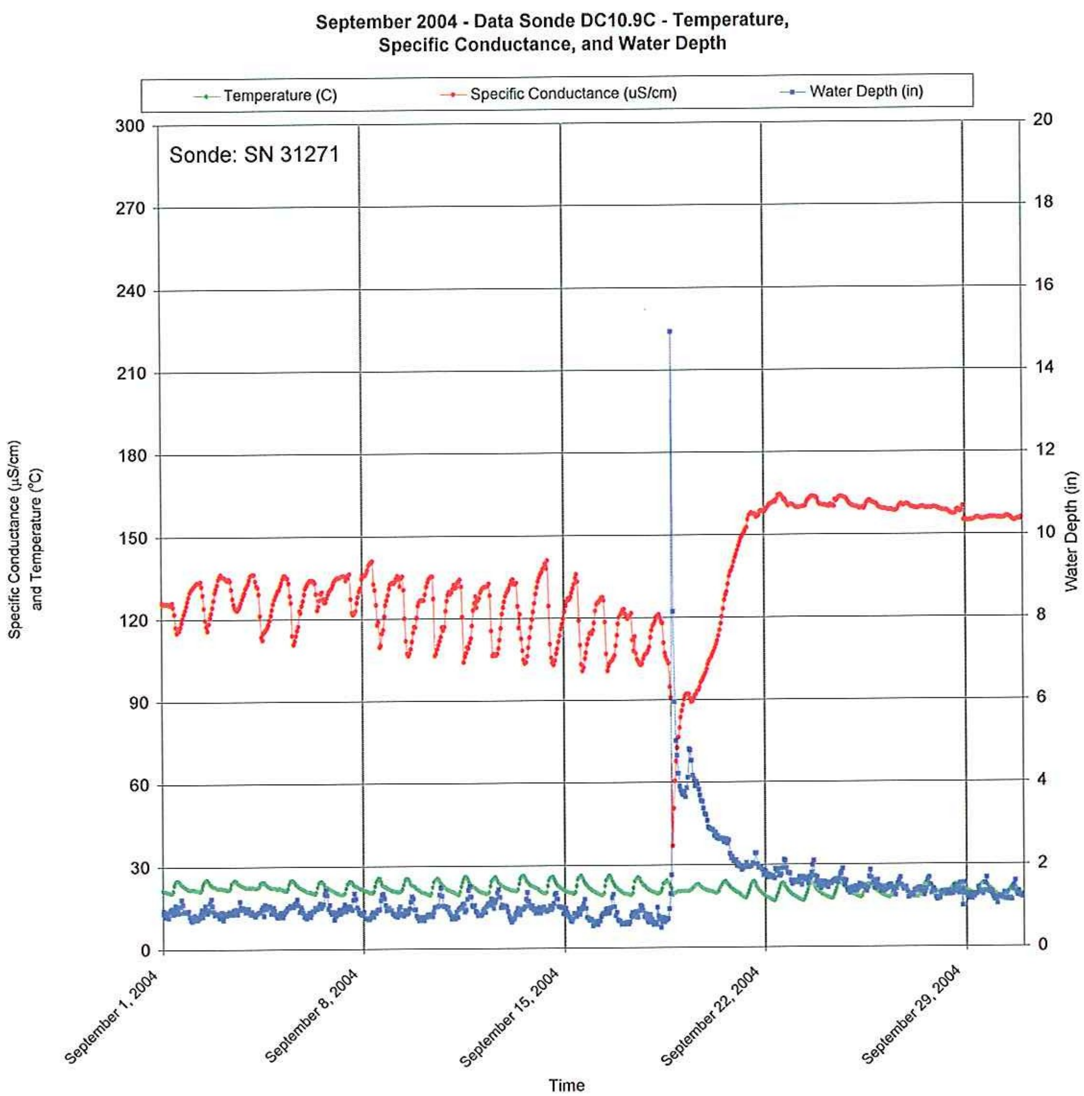

July 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.26 in)
Time (same scale as lower graph)

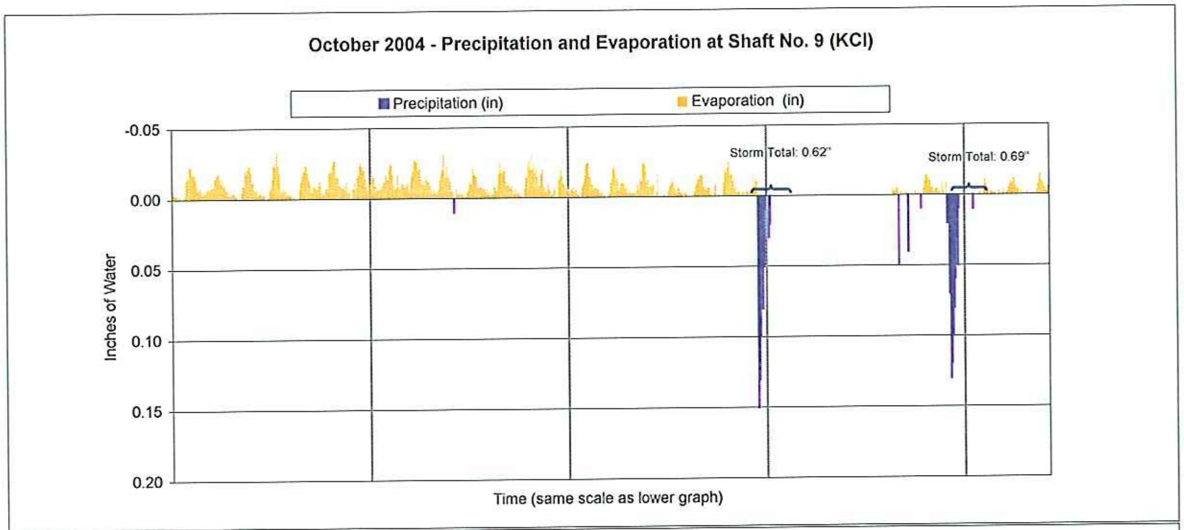

July 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
300
270
240
210
180
150
120
90
60
30
0
Specific Conductance (µS/cm) and Temperature (°C)
20
18
16
14
12
10
8
6
4
2
0
Water Depth (in)
July 1, 2004
July 8, 2004
July 15, 2004
July 22, 2004
July 29, 2004
Time

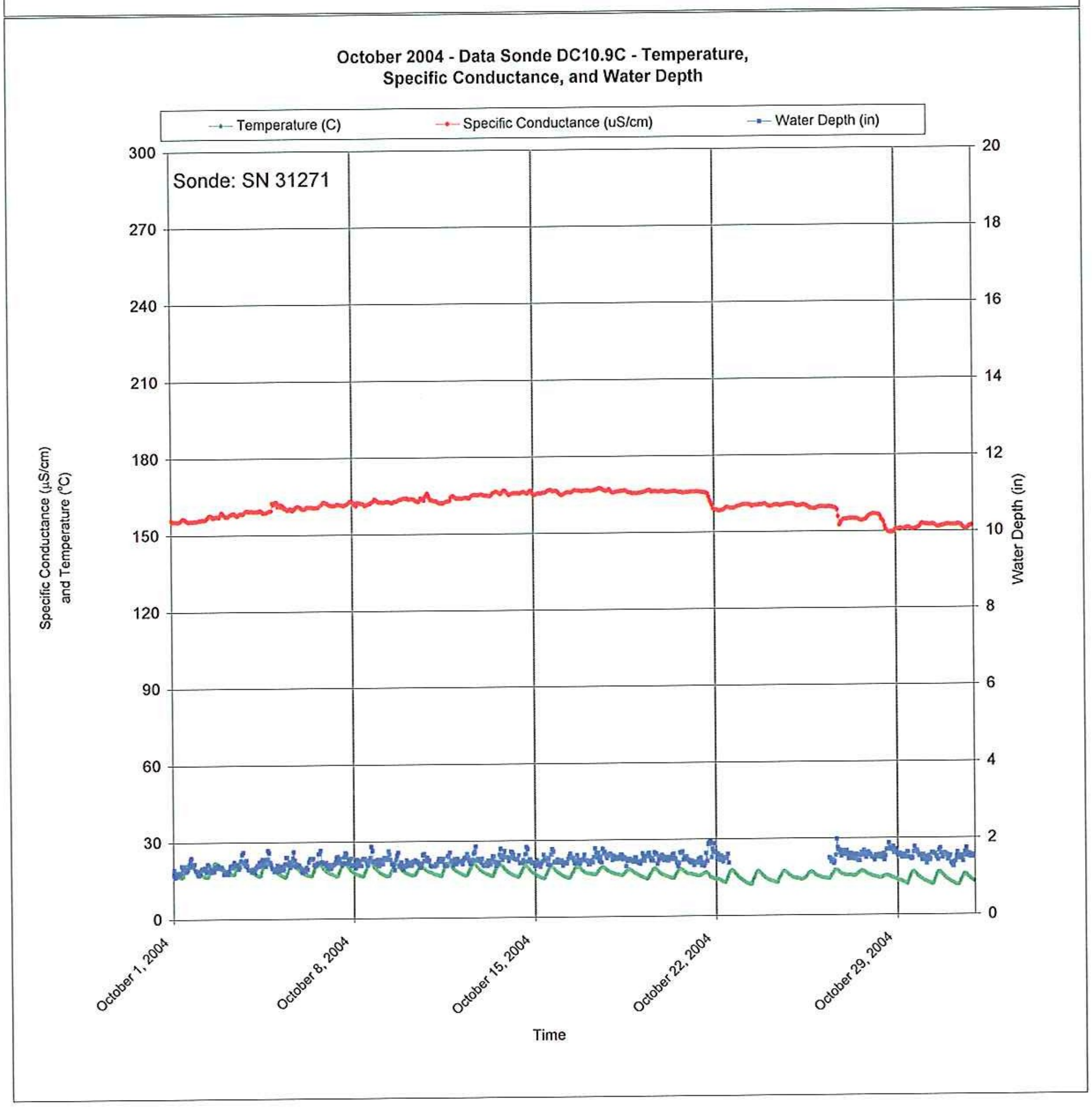

August 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.50 in)
(0.21 in)
(0.28 in)
Time (same scale as lower graph)

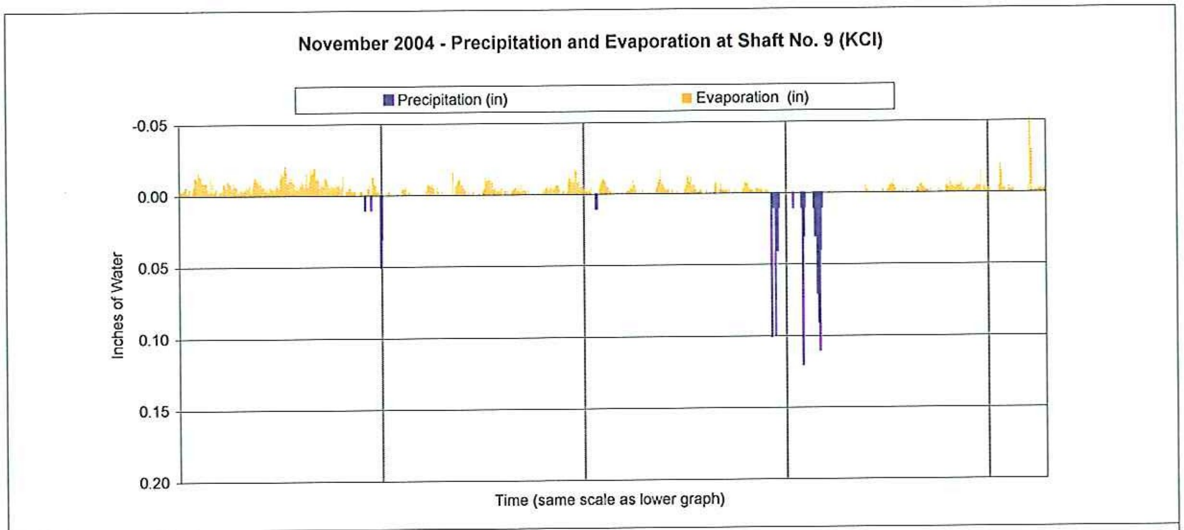

August 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration 8/11/2004
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
August 1, 2004
August 8, 2004
August 15, 2004
August 22, 2004
August 29, 2004
Time

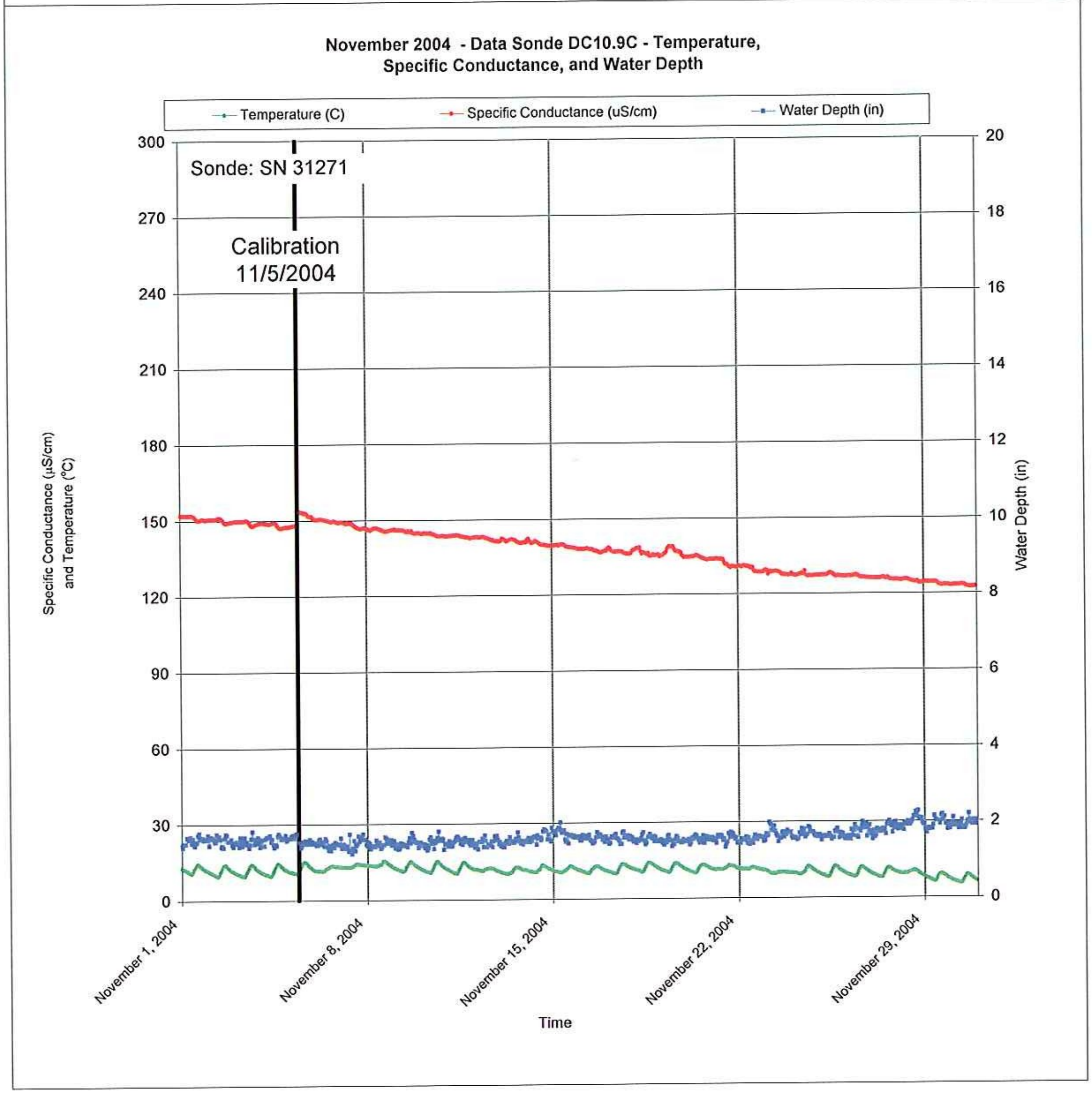

September 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.30 in)
(0.41 in)
Time (same scale as lower graph)


September 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
0
30
60
90
120
150
180
210
240
270
300
0
2
4
6
8
10
12
14
16
18
20
September 1, 2004
September 8, 2004
September 15, 2004
September 22, 2004
September 29, 2004
Time

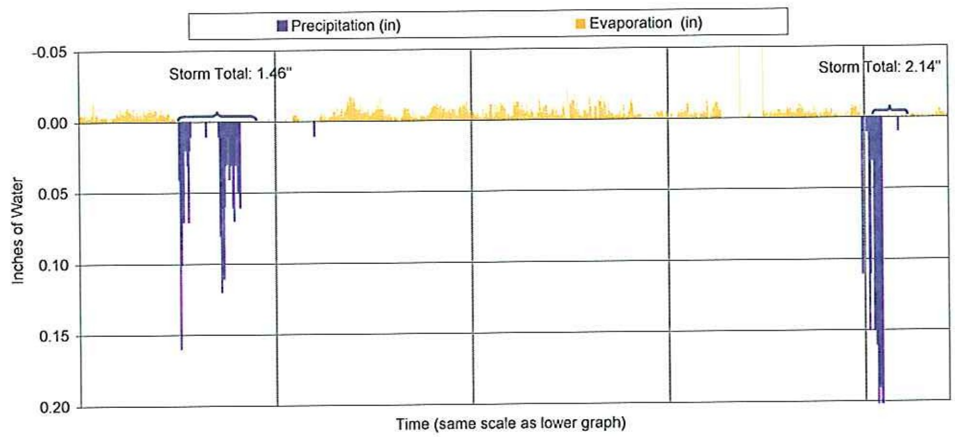

October 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.62"
Storm Total: 0.69"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


October 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
300
270
240
210
180
150
120
90
60
30
0
Water Depth (in)
20
18
16
14
12
10
8
6
4
2
0
October 1, 2004
October 8, 2004
October 15, 2004
October 22, 2004
October 29, 2004
Time

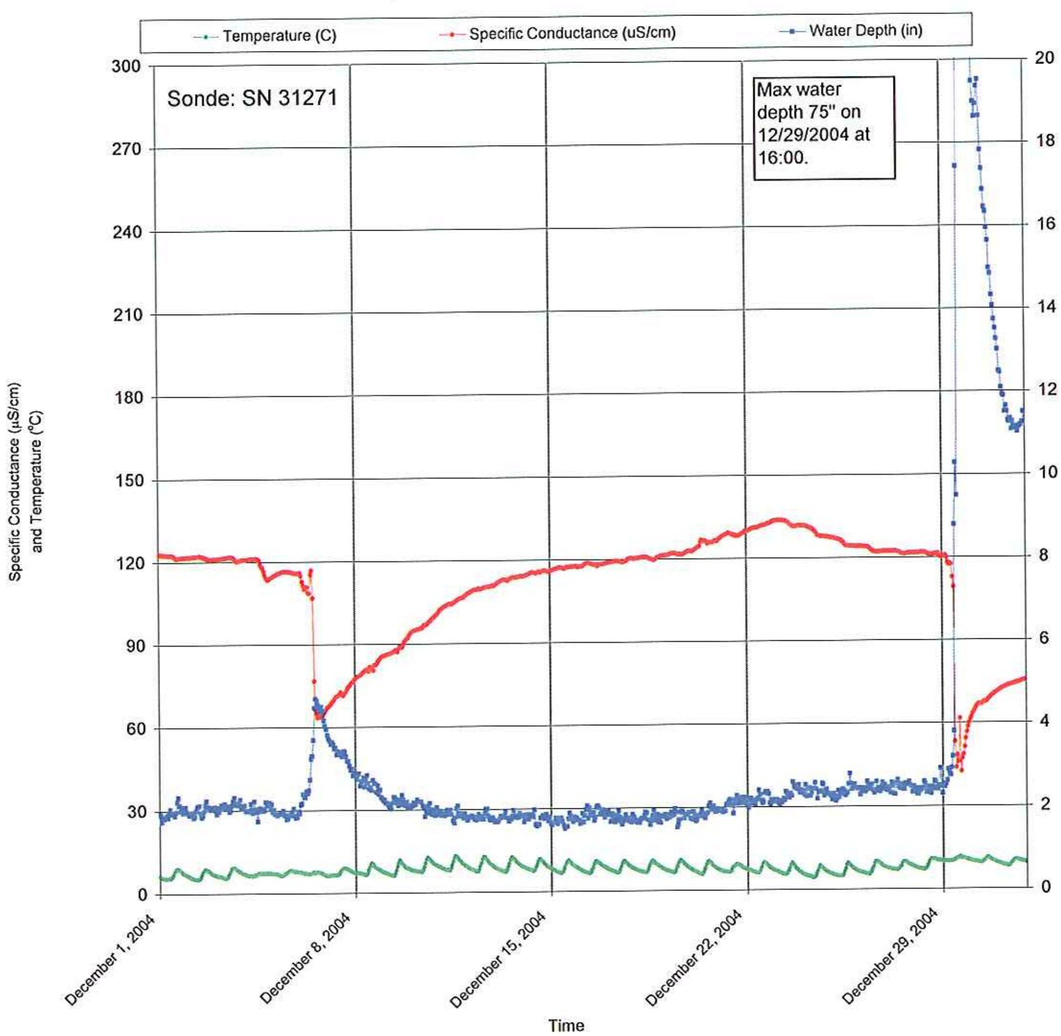

November 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

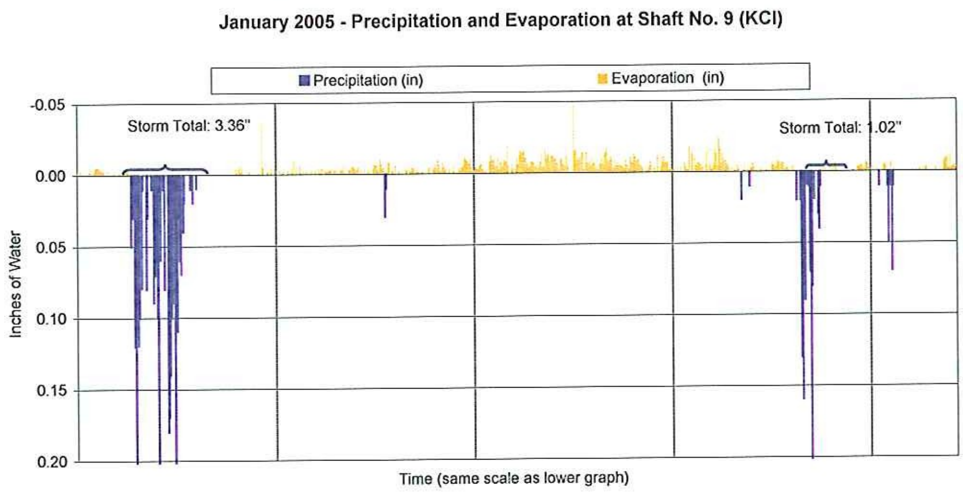

November 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration 11/5/2004
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
November 1, 2004
November 8, 2004
November 15, 2004
November 22, 2004
November 29, 2004
Time

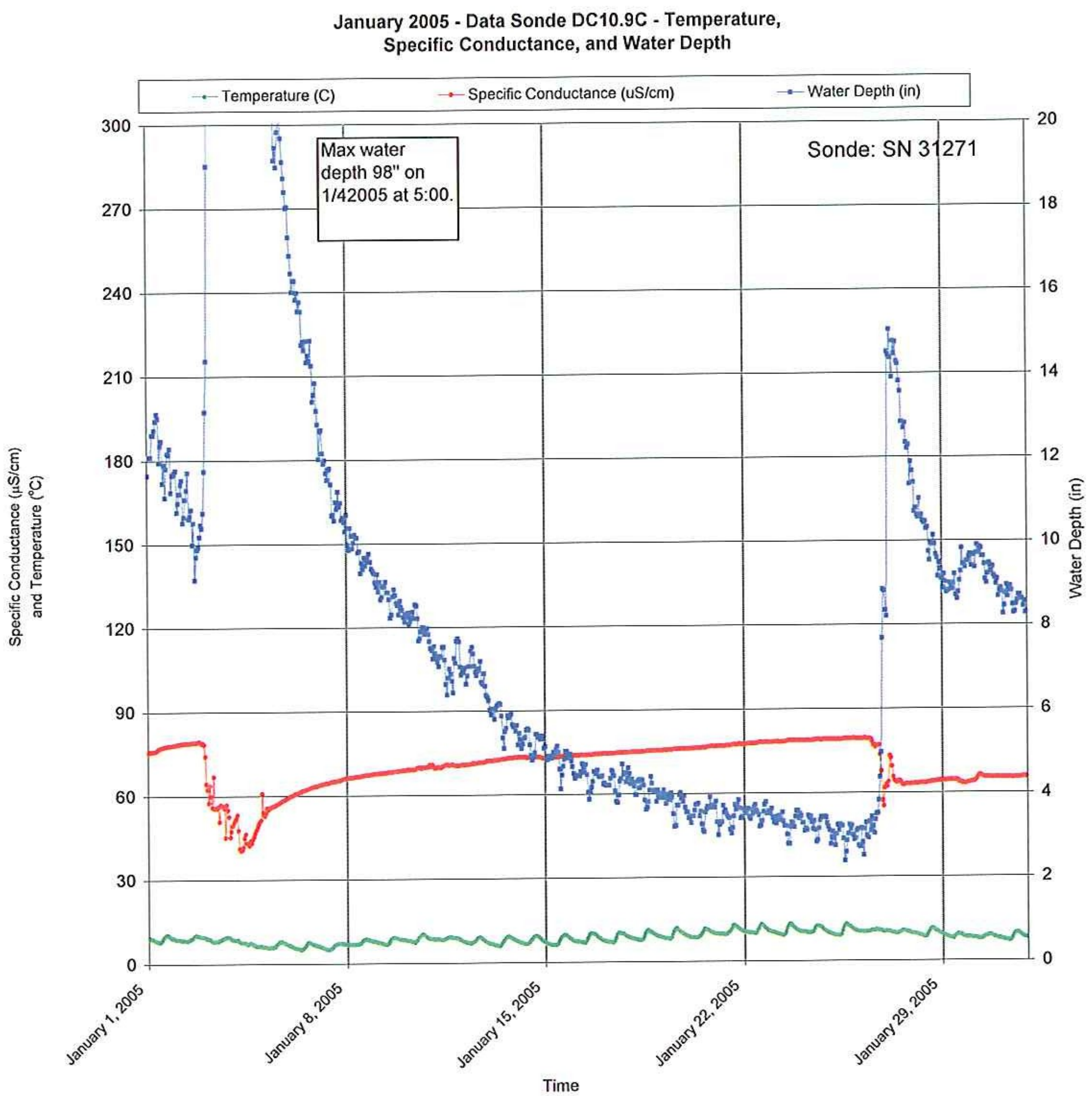
December 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)

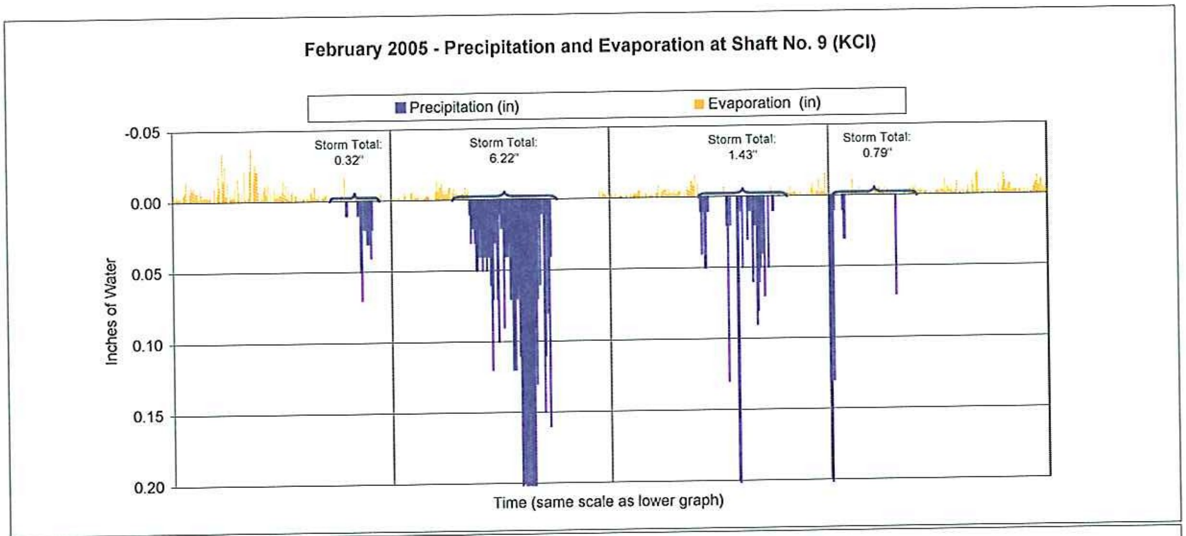


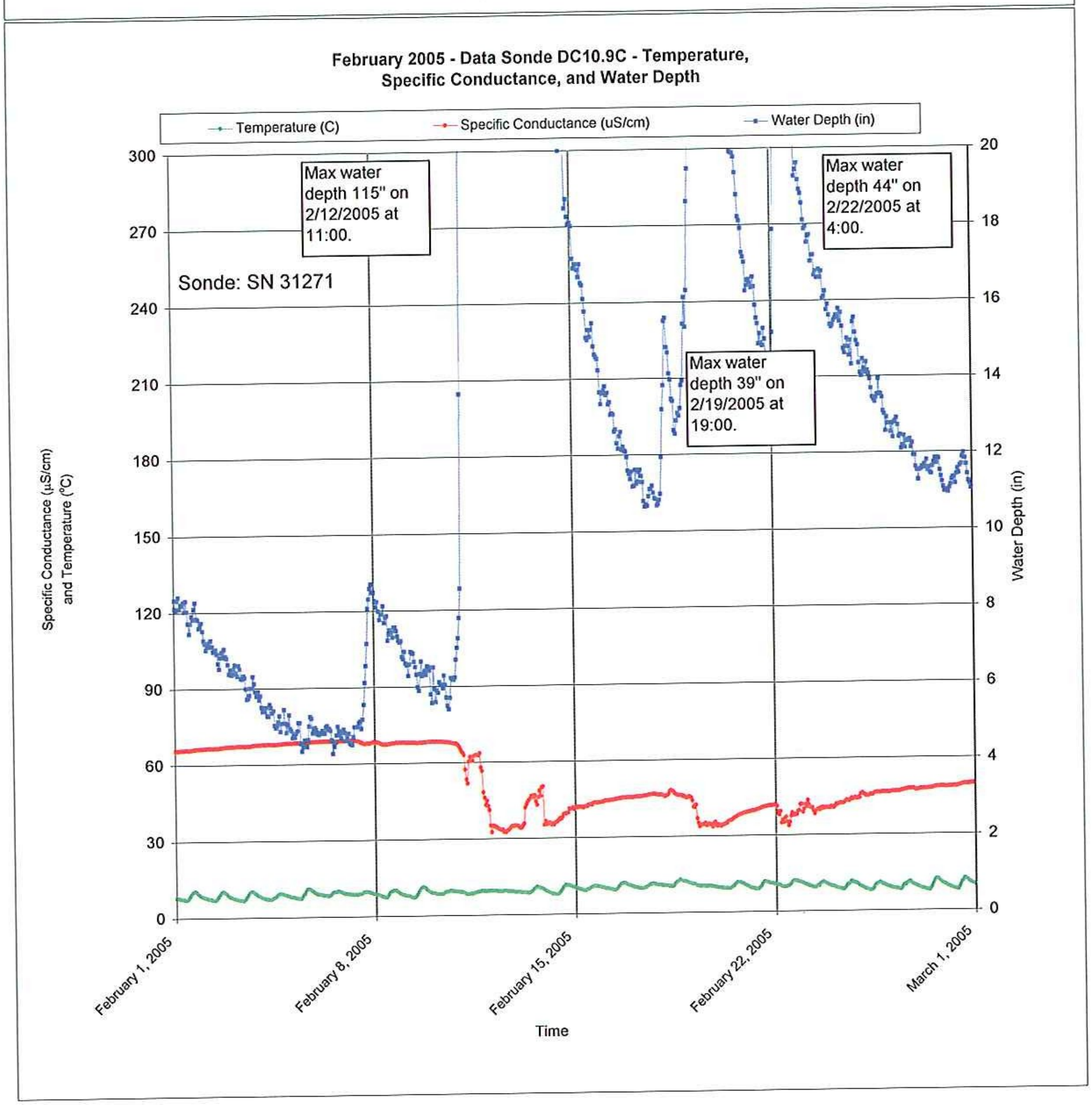
December 2004 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth

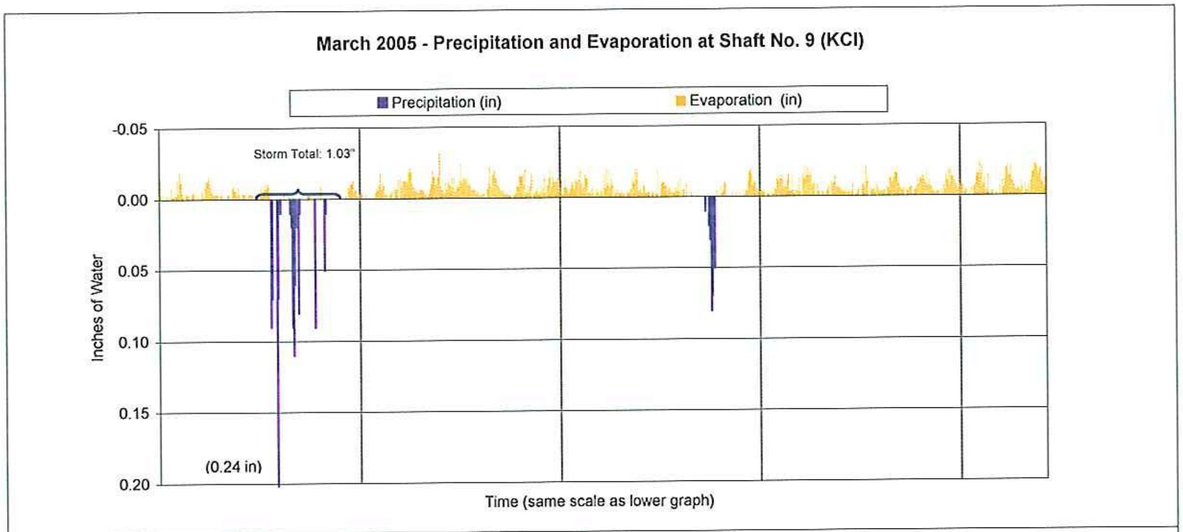


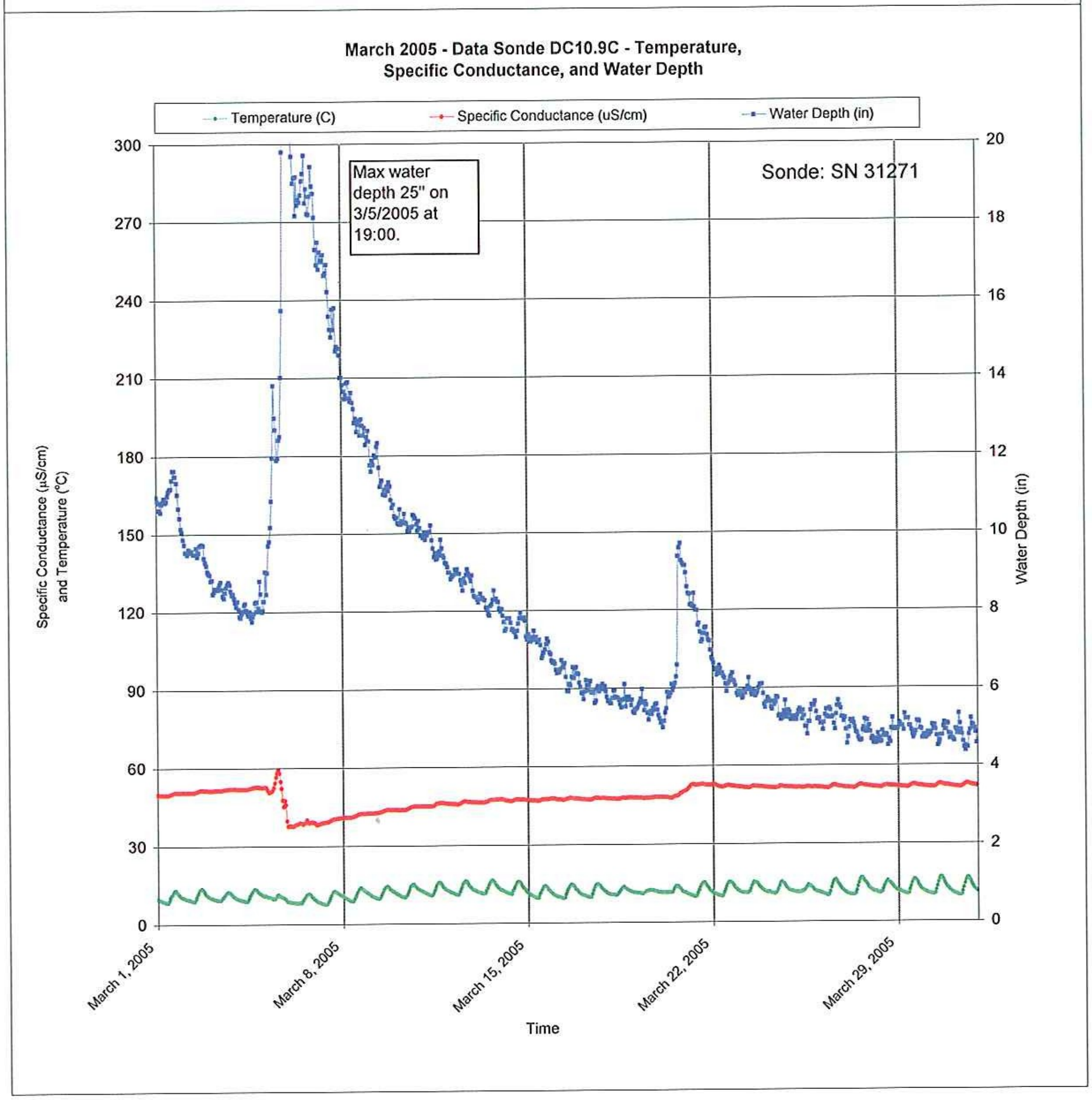

January 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 3.36"
Storm Total: 1.02"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

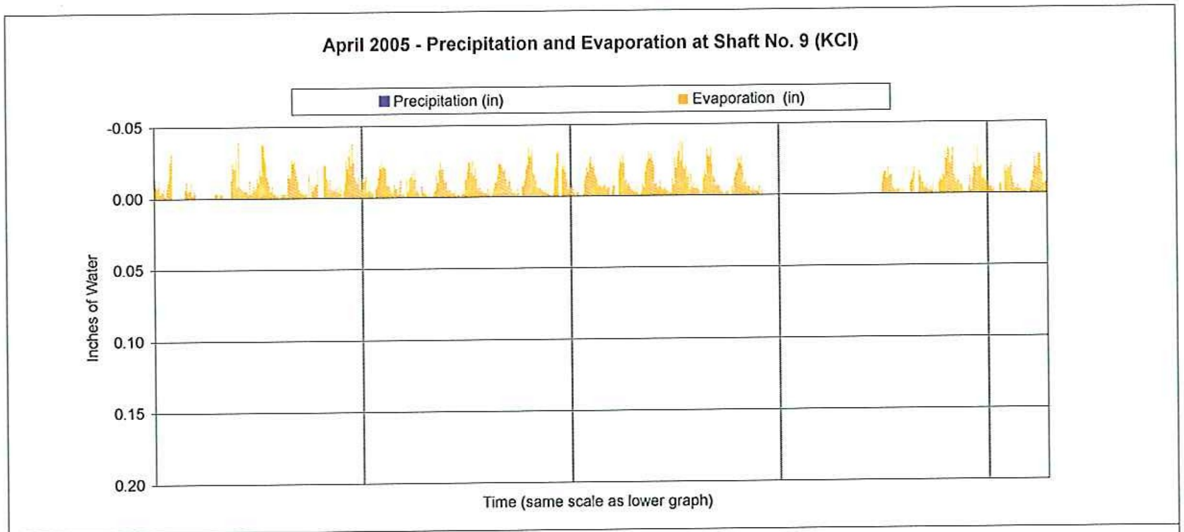

January 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Max water depth 98" on 1/42005 at 5:00.
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
January 1, 2005
January 8, 2005
January 15, 2005
January 22, 2005
January 29, 2005
Time

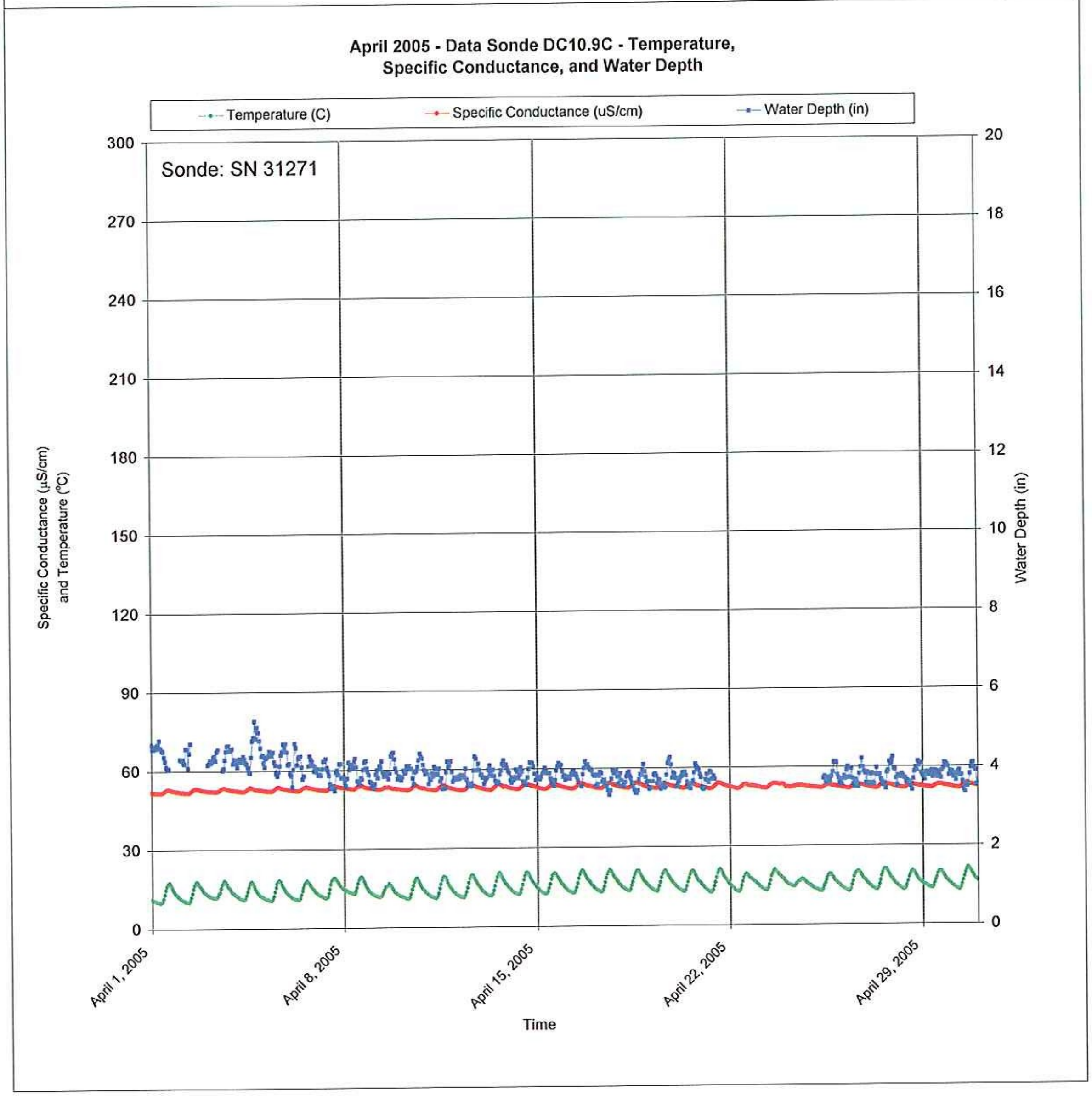

February 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.32"
Storm Total: 6.22"
Storm Total: 1.43"
Storm Total: 0.79"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

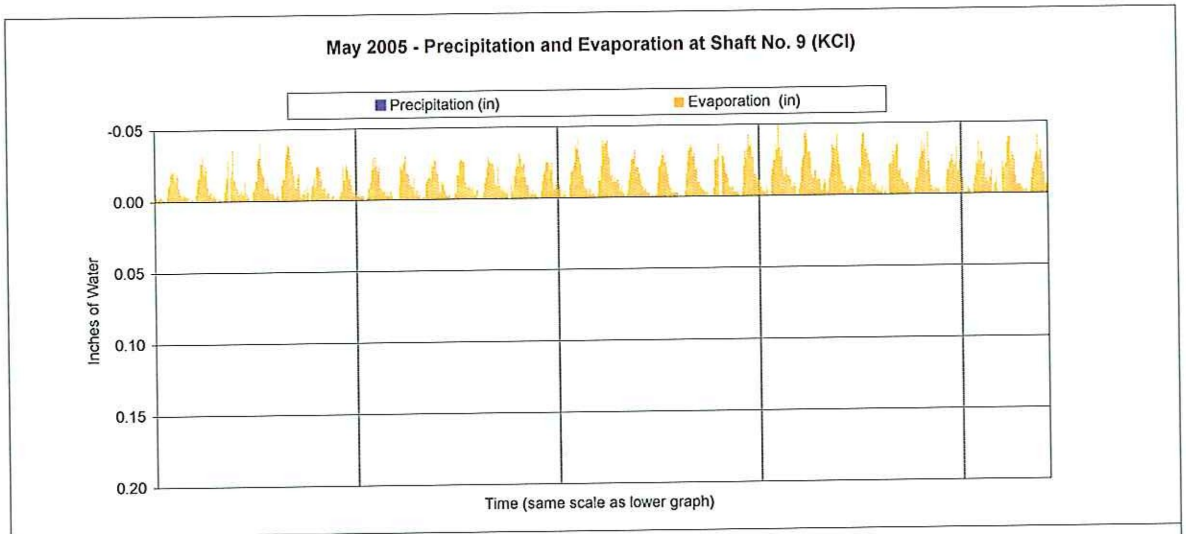

February 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Max water depth 115" on 2/12/2005 at 11:00.
Max water depth 44" on 2/22/2005 at 4:00.
Max water depth 39" on 2/19/2005 at 19:00.
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
February 1, 2005
February 8, 2005
February 15, 2005
February 22, 2005
March 1, 2005
Time

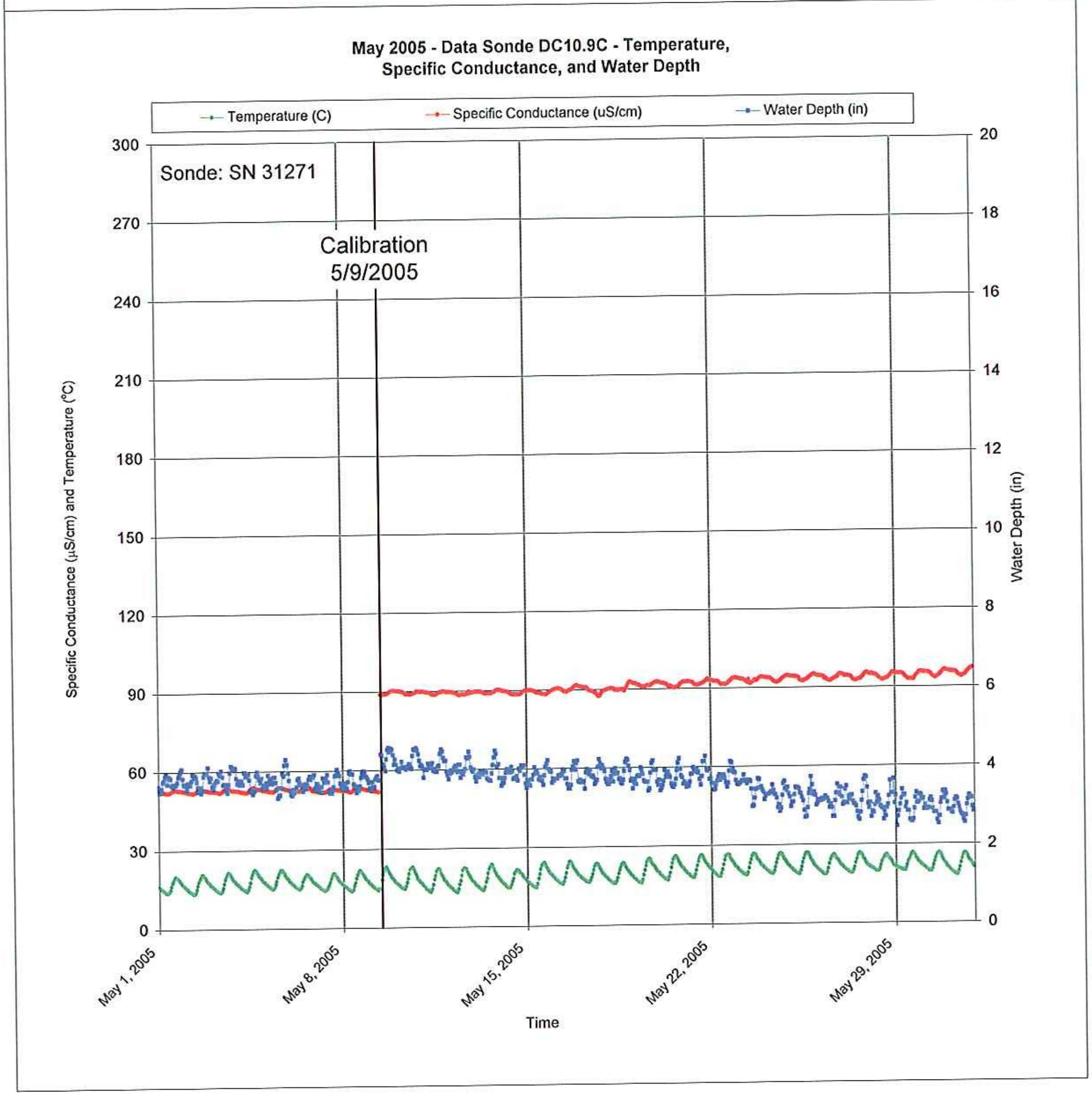

March 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.03"
(0.24 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

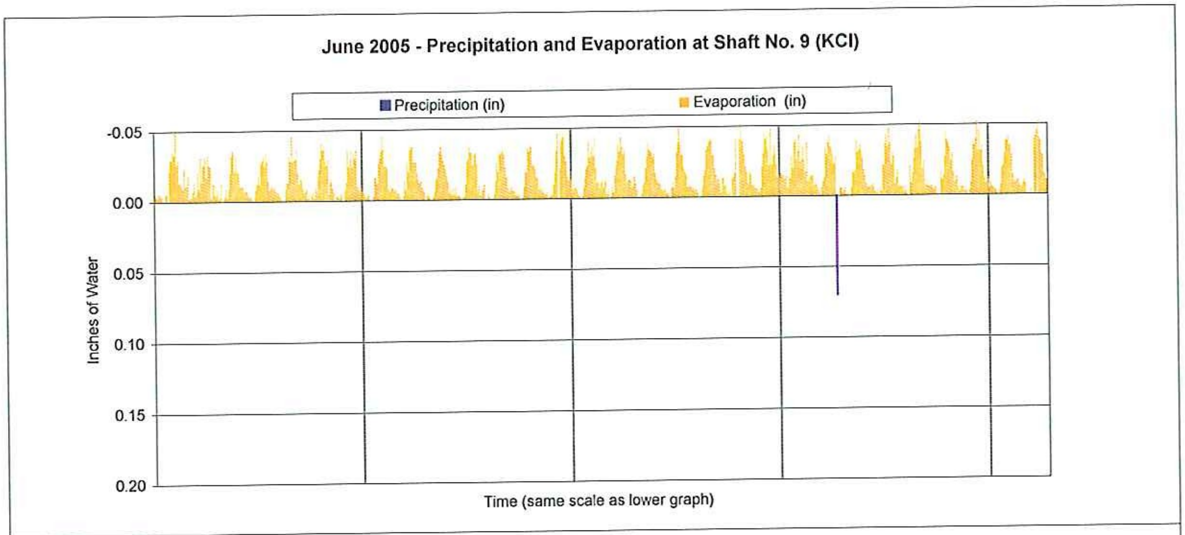

March 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Max water depth 25" on 3/5/2005 at 19:00.
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
March 1, 2005
March 8, 2005
March 15, 2005
March 22, 2005
March 29, 2005
Time

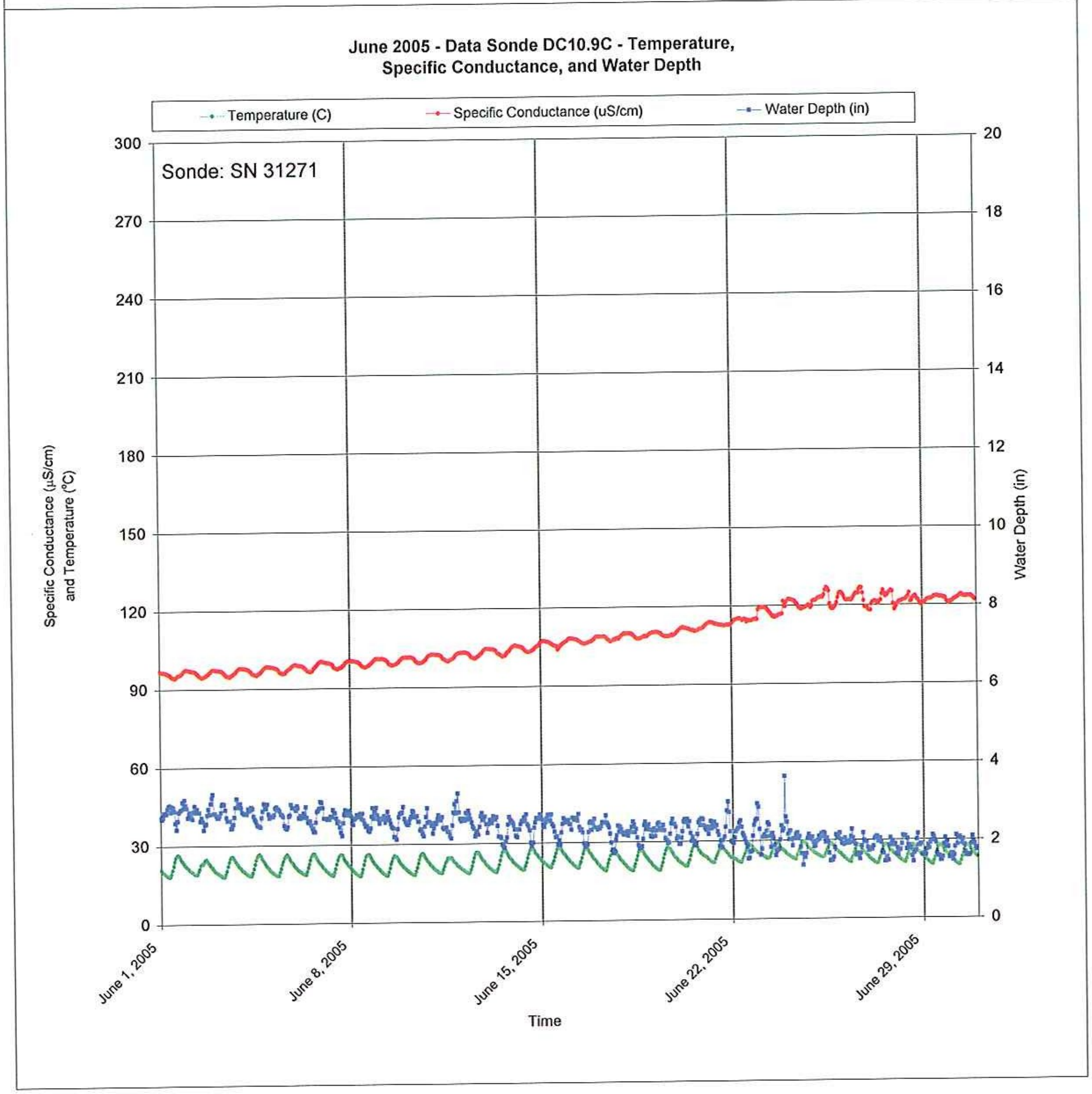

April 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

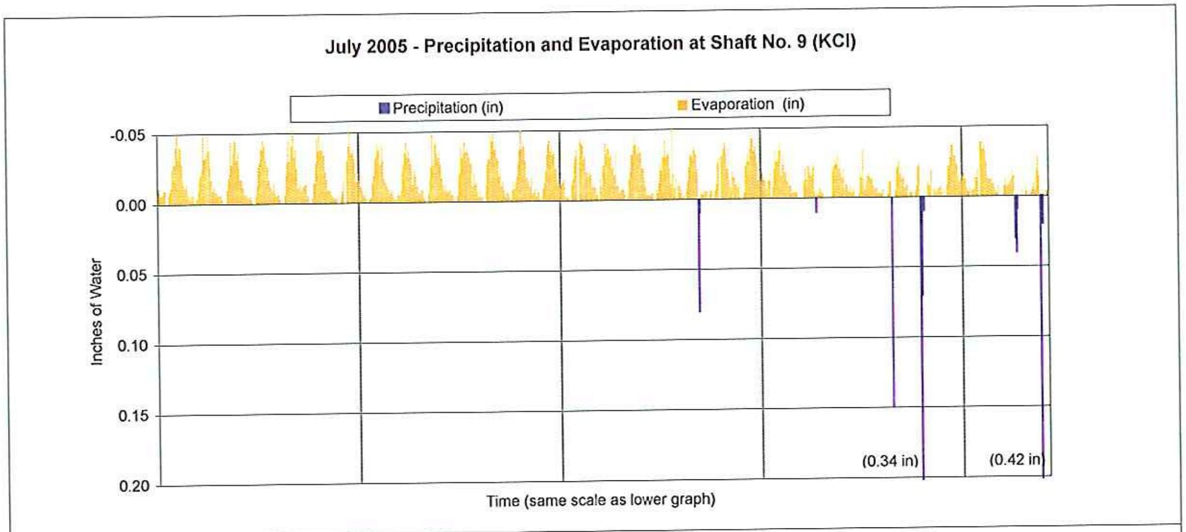

April 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
300
270
240
210
180
150
120
90
60
30
0
Water Depth (in)
20
18
16
14
12
10
8
6
4
2
0
April 1, 2005
April 8, 2005
April 15, 2005
April 22, 2005
April 29, 2005
Time

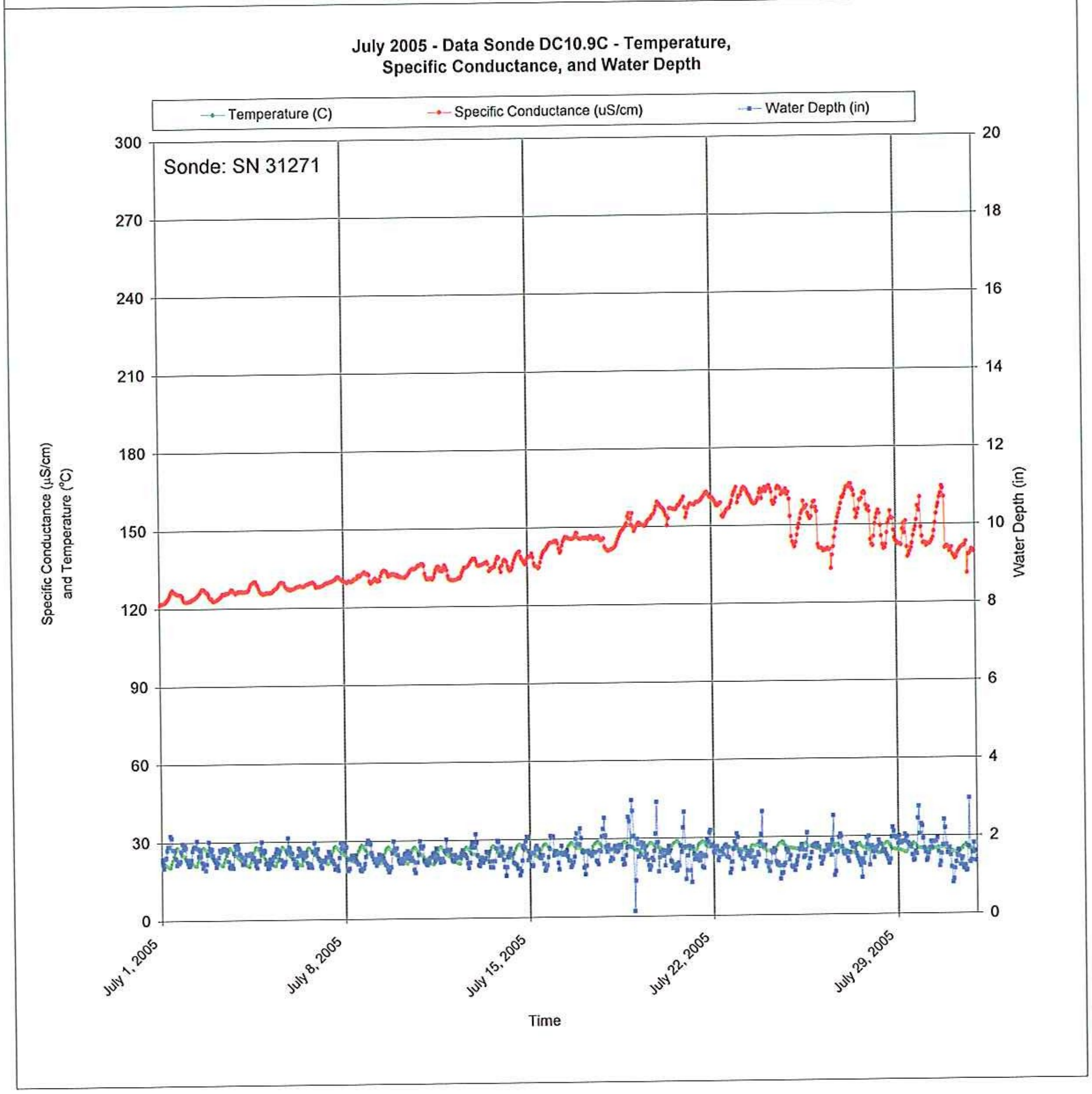

May 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


May 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration 5/9/2005
Specific Conductance (μS/cm) and Temperature (°C)
Water Depth (in)
May 1, 2005
May 8, 2005
May 15, 2005
May 22, 2005
May 29, 2005
Time

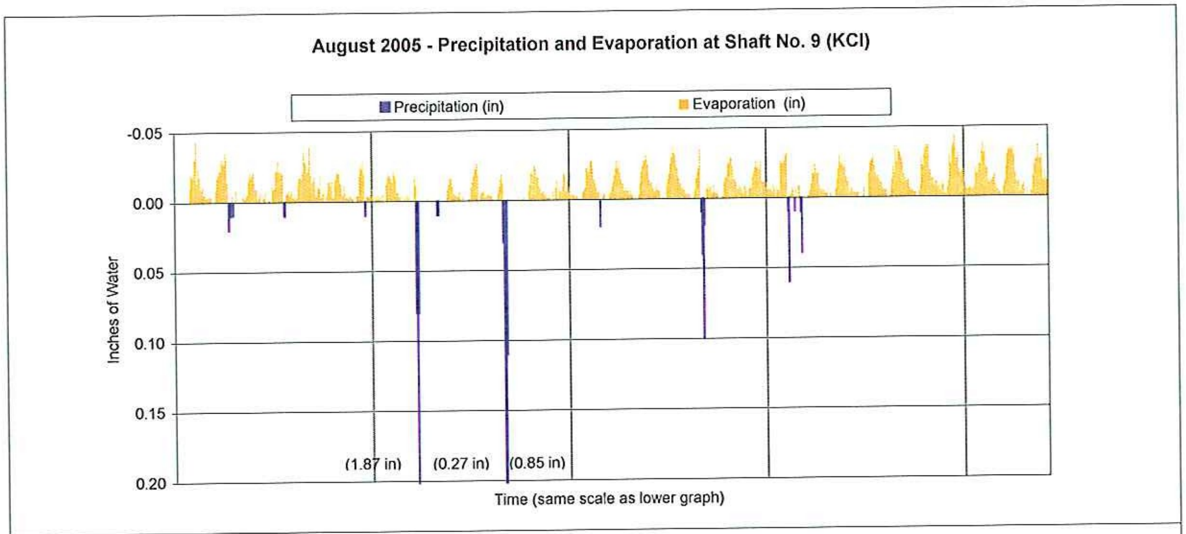

June 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

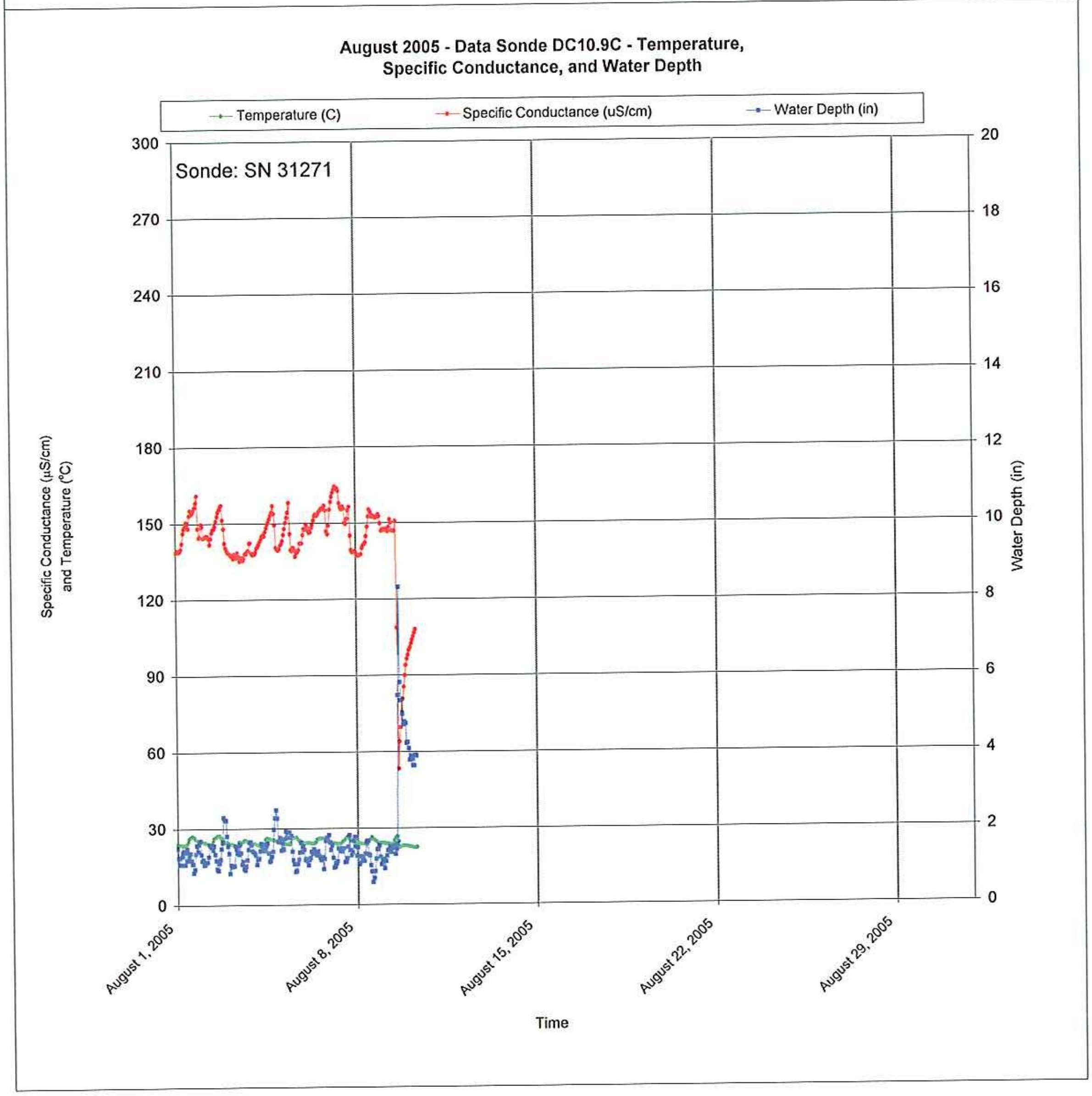

June 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
300
270
240
210
180
150
120
90
60
30
0
Specific Conductance (µS/cm) and Temperature (°C)
20
18
16
14
12
10
8
6
4
2
0
Water Depth (in)
June 1, 2005
June 8, 2005
June 15, 2005
June 22, 2005
June 29, 2005
Time

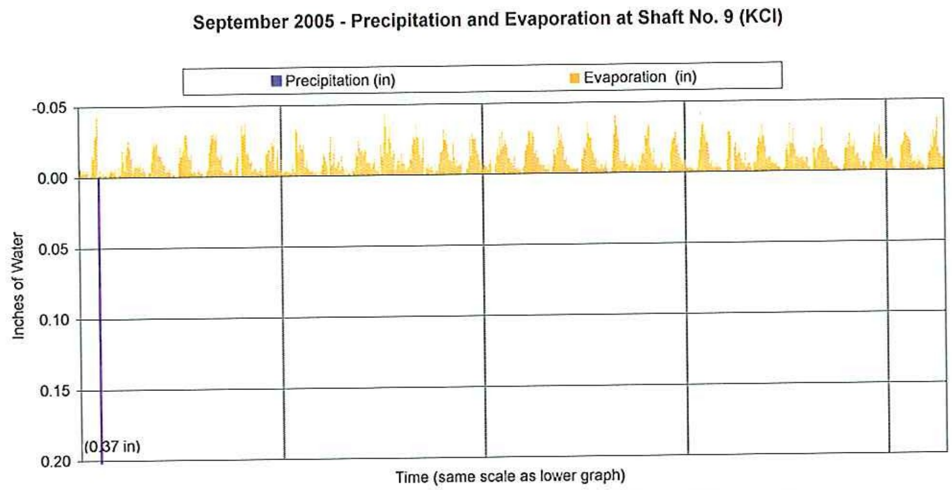


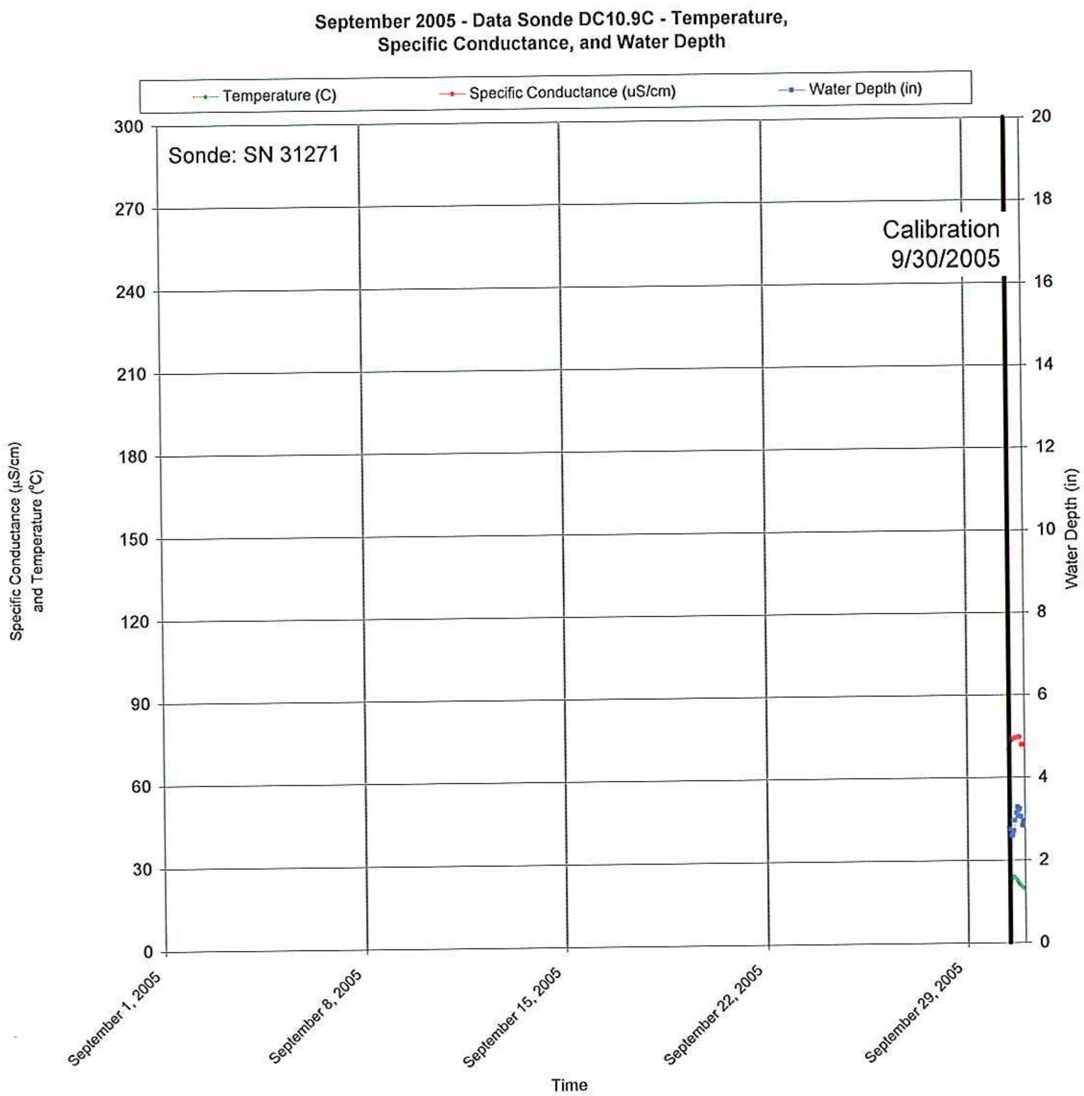


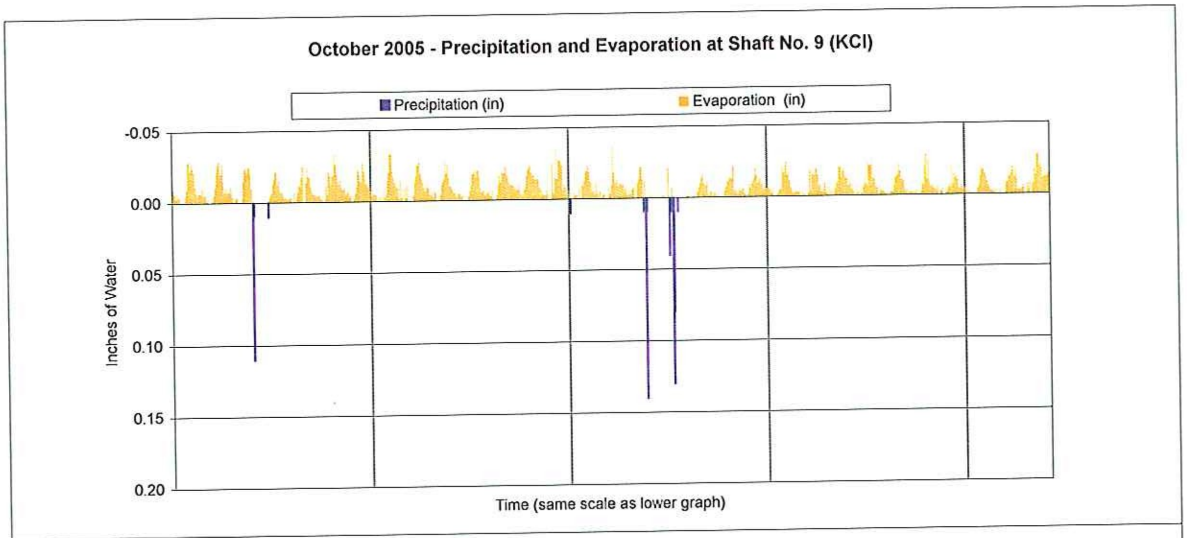
X:\Tucson Projects\06proj\063-2565 Report\Apps F\DataSondePlots(new)\10.9c.xls Jul2005

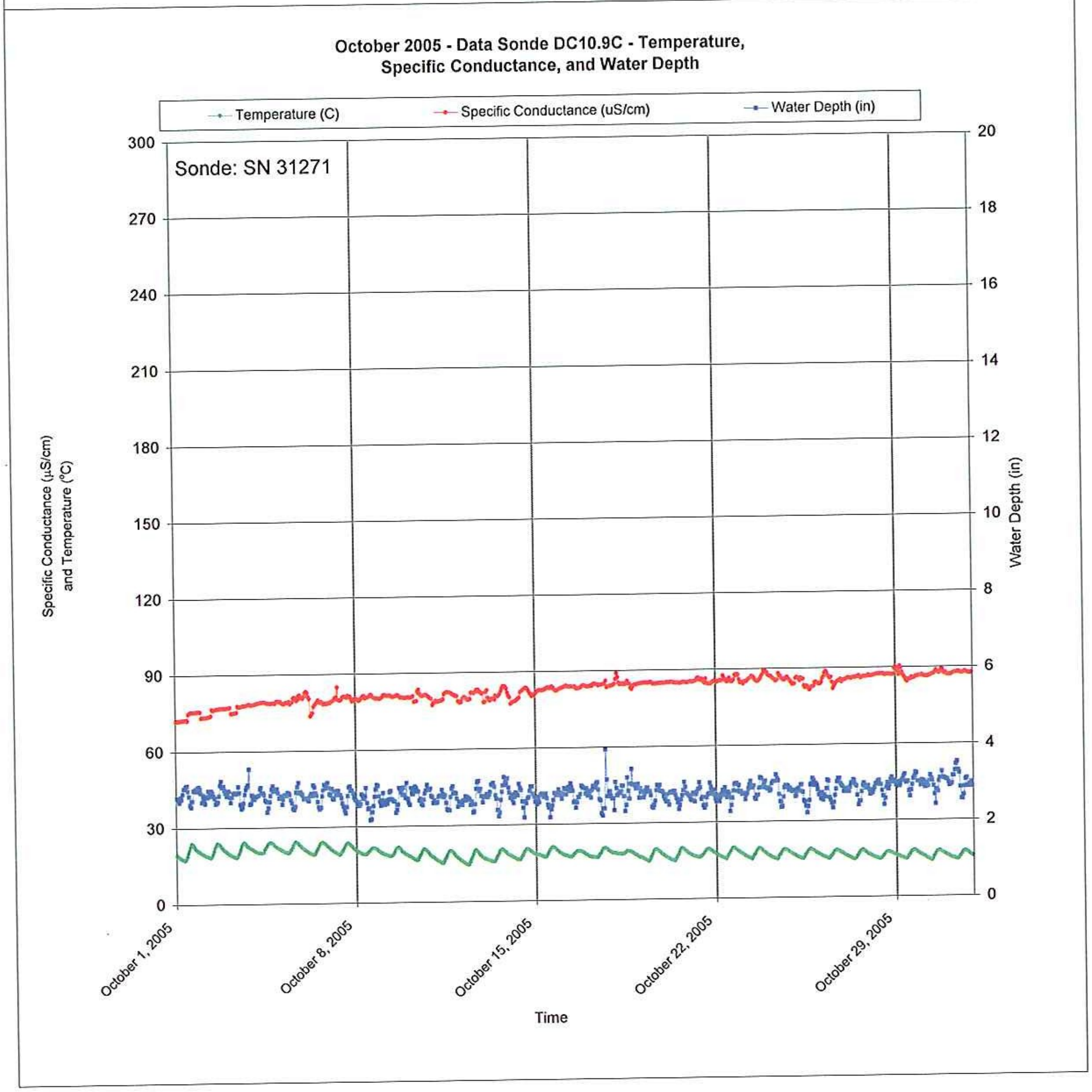

August 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(1.87 in)
(0.27 in)
(0.85 in)
Time (same scale as lower graph)

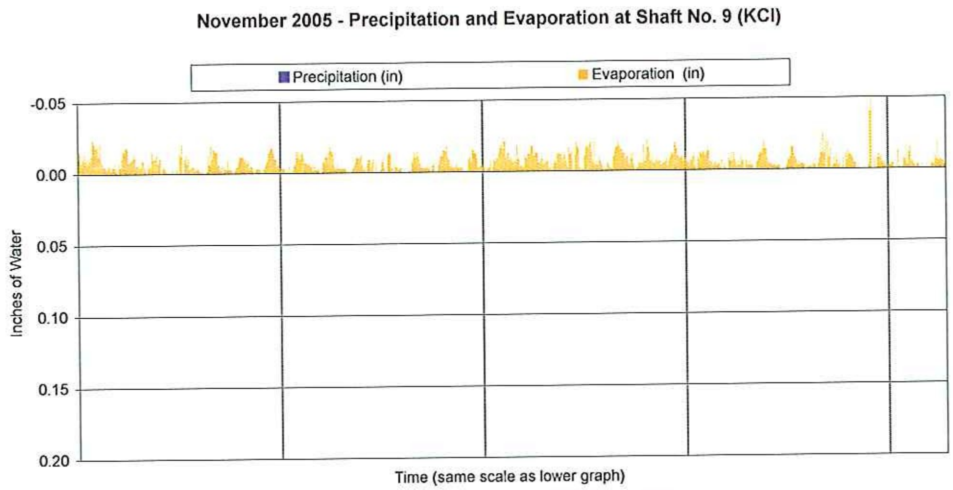

August 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2005
August 8, 2005
August 15, 2005
August 22, 2005
August 29, 2005
Time

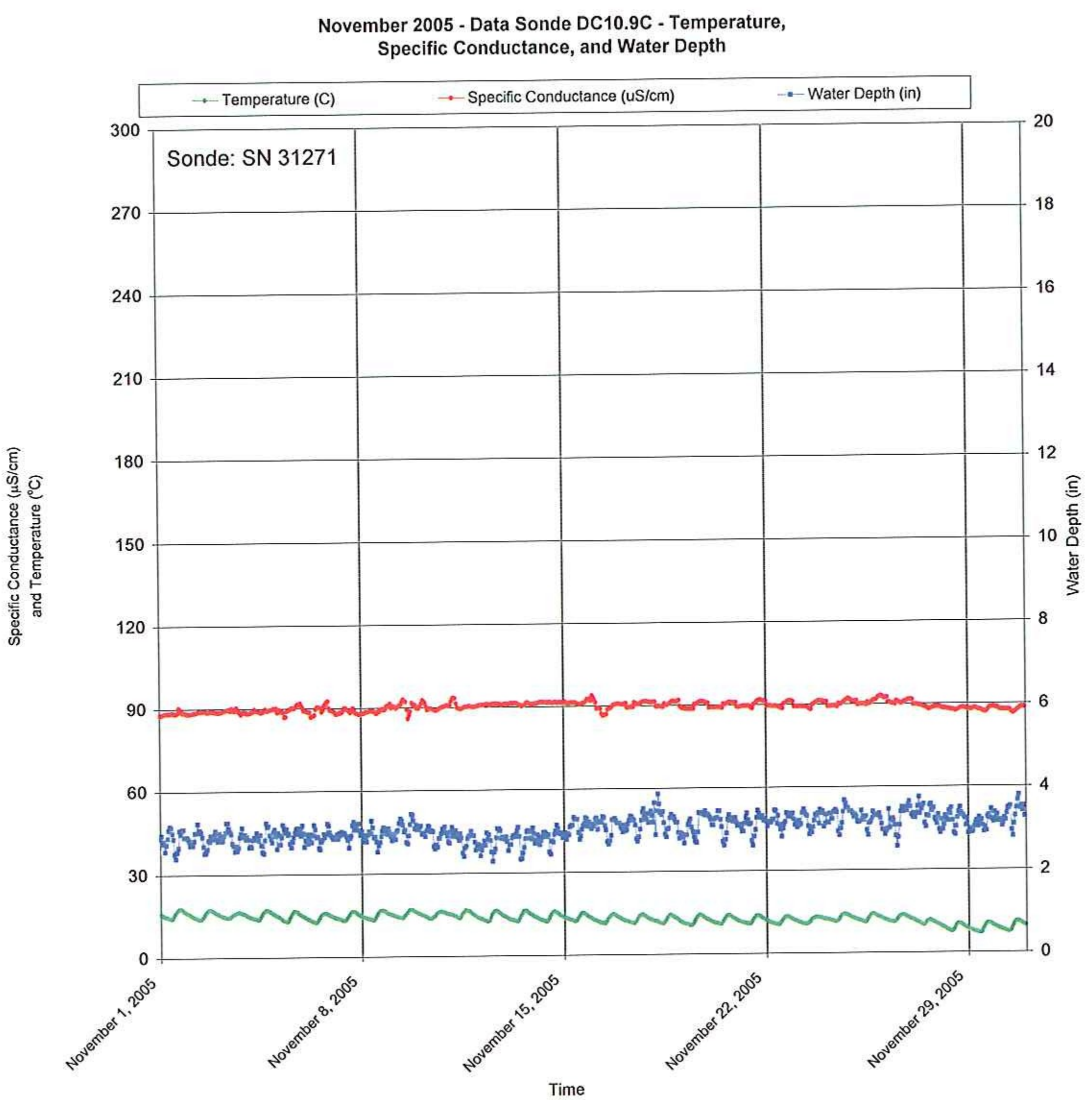

September 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.37 in)
Time (same scale as lower graph)

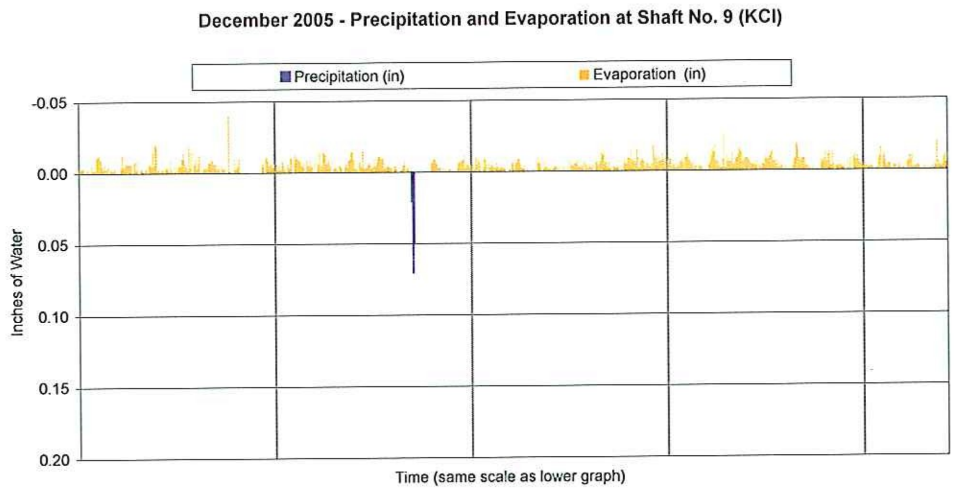

September 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Calibration
9/30/2005
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
September 1, 2005
September 8, 2005
September 15, 2005
September 22, 2005
September 29, 2005
Time

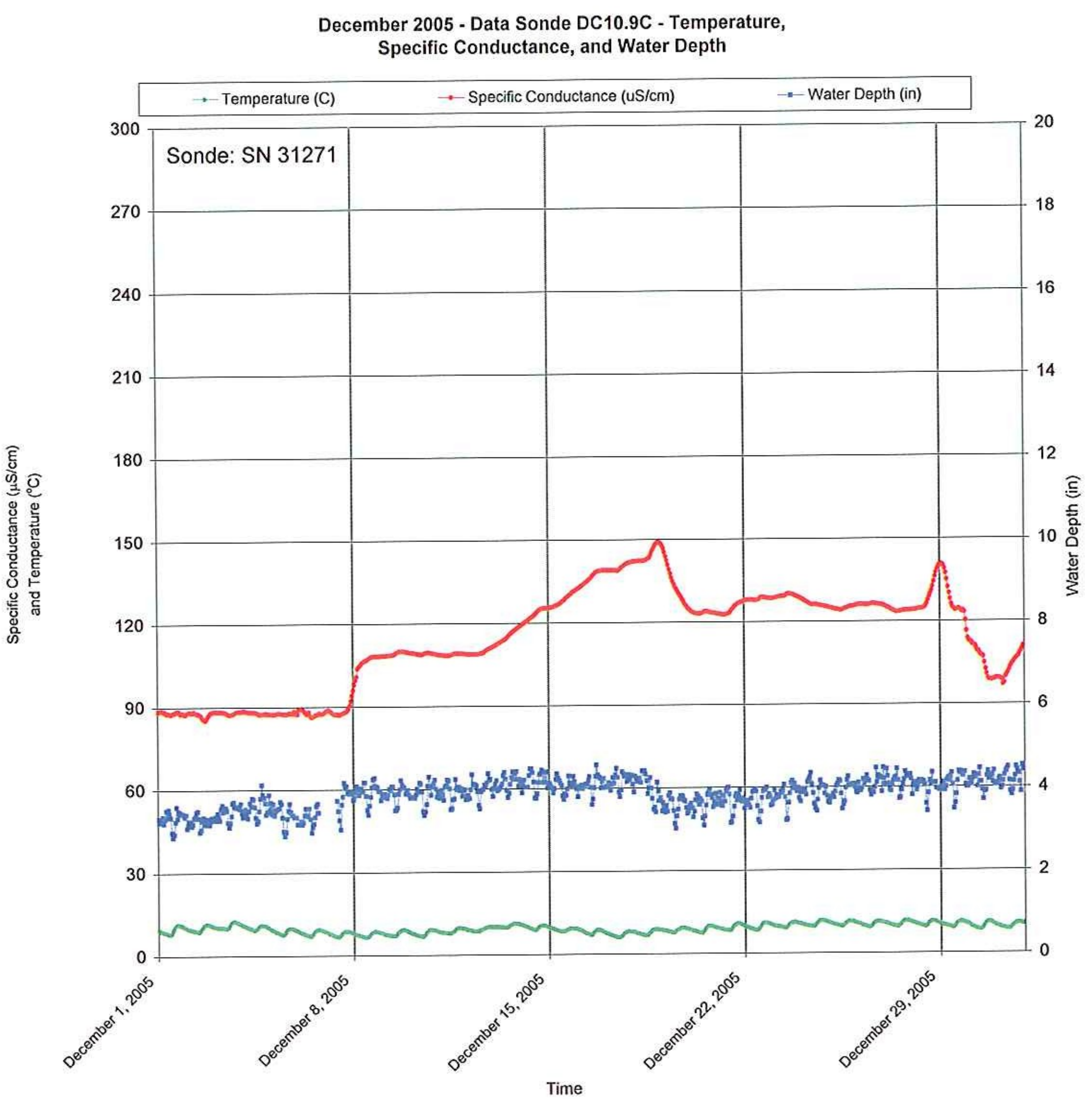

October 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

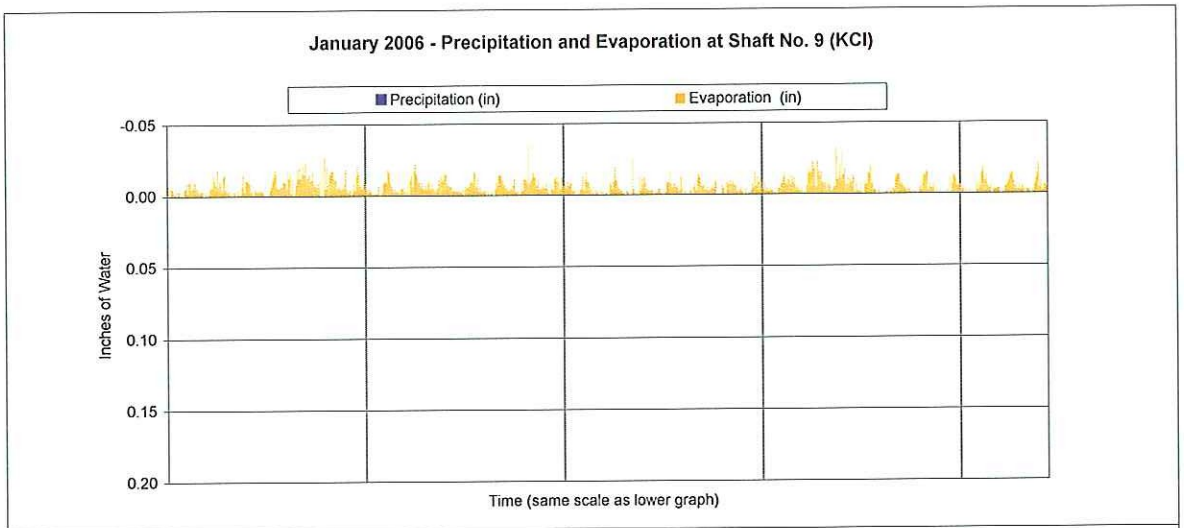

October 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
October 1, 2005
October 8, 2005
October 15, 2005
October 22, 2005
October 29, 2005
Time


November 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

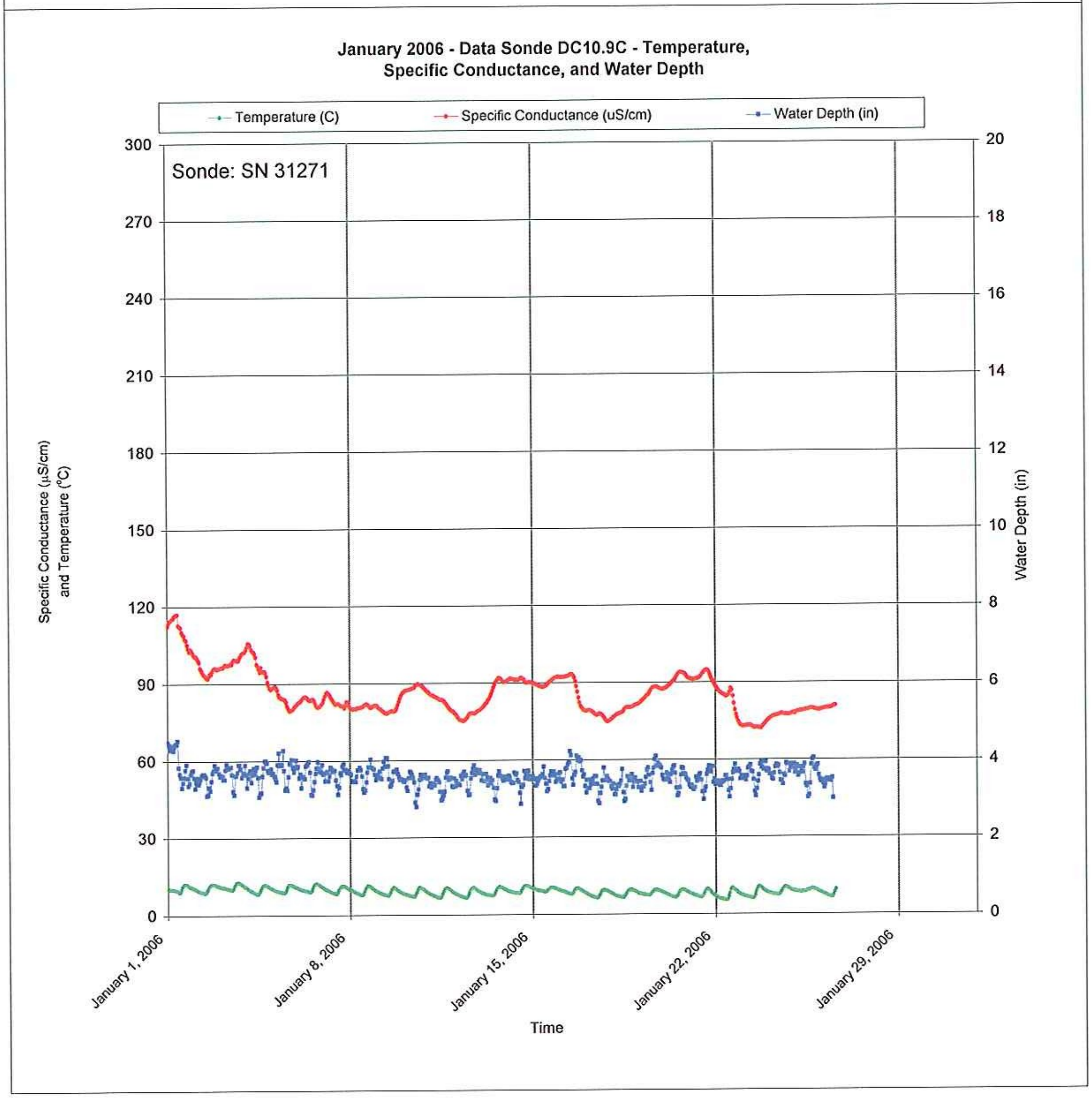

November 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
November 1, 2005
November 8, 2005
November 15, 2005
November 22, 2005
November 29, 2005
Time


December 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)


December 2005 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
December 1, 2005
December 8, 2005
December 15, 2005
December 22, 2005
December 29, 2005
Time

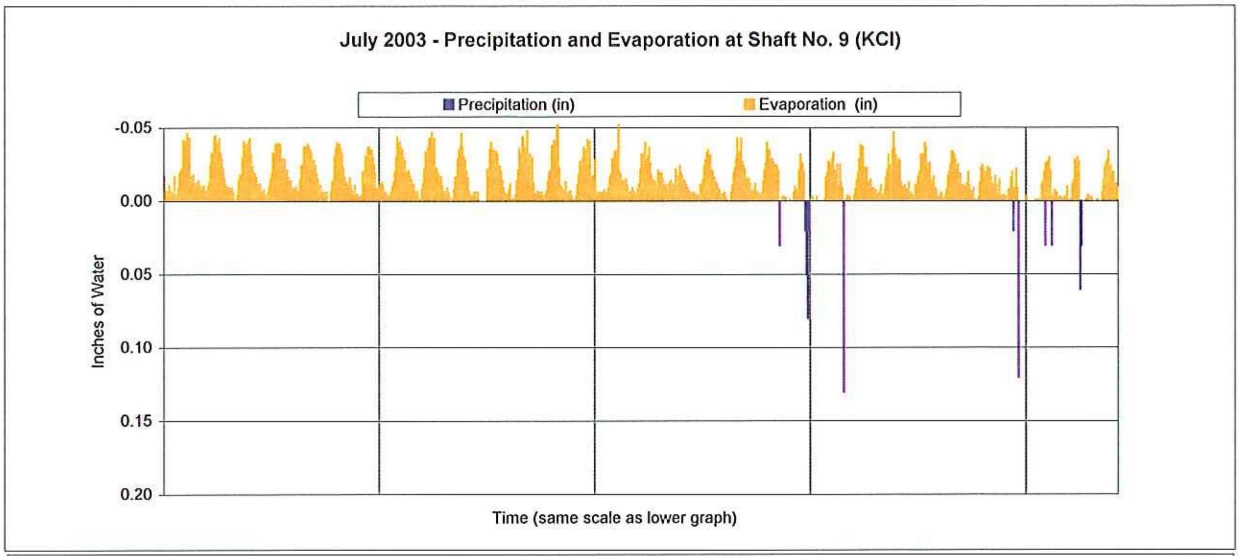


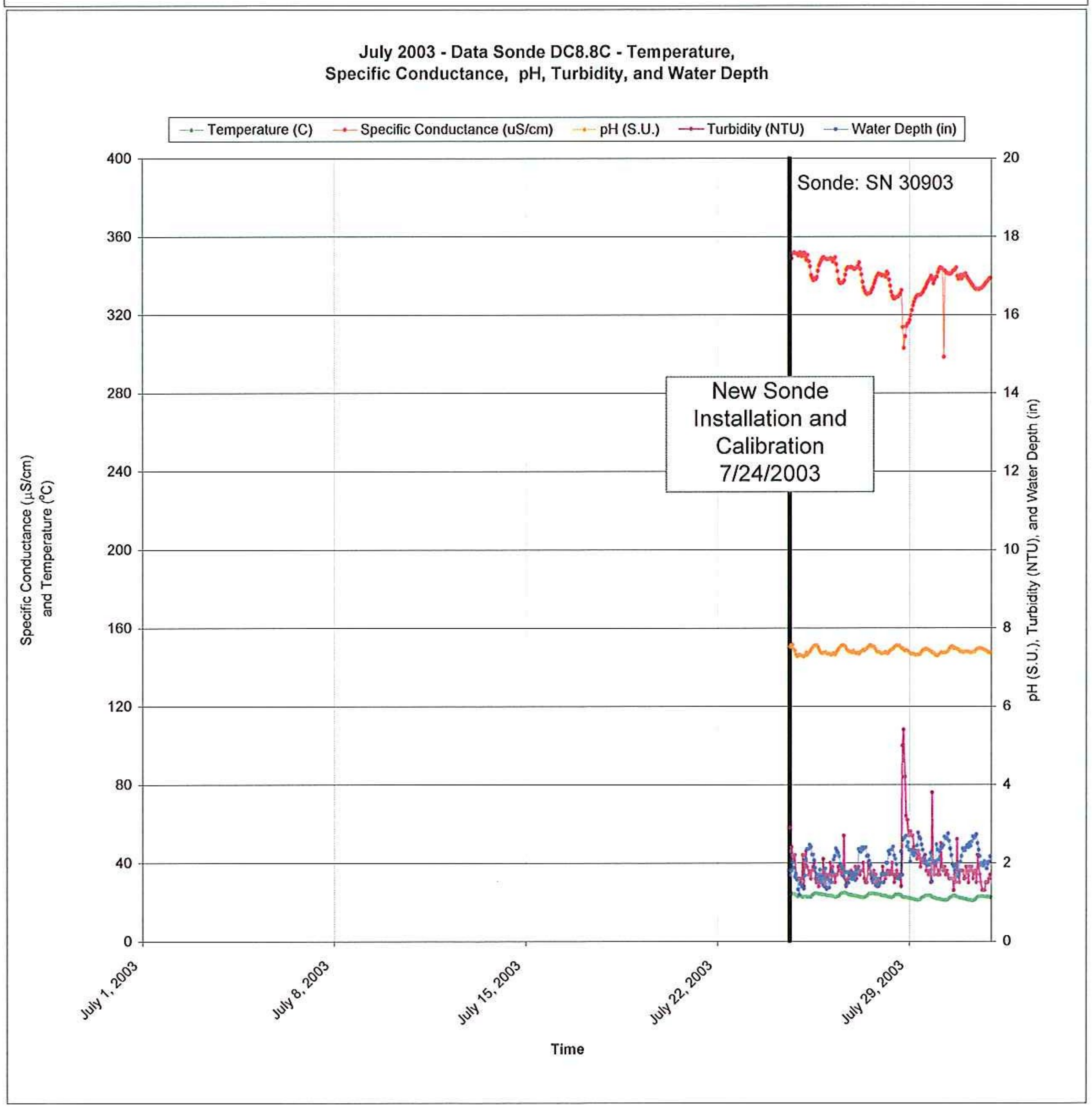
January 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

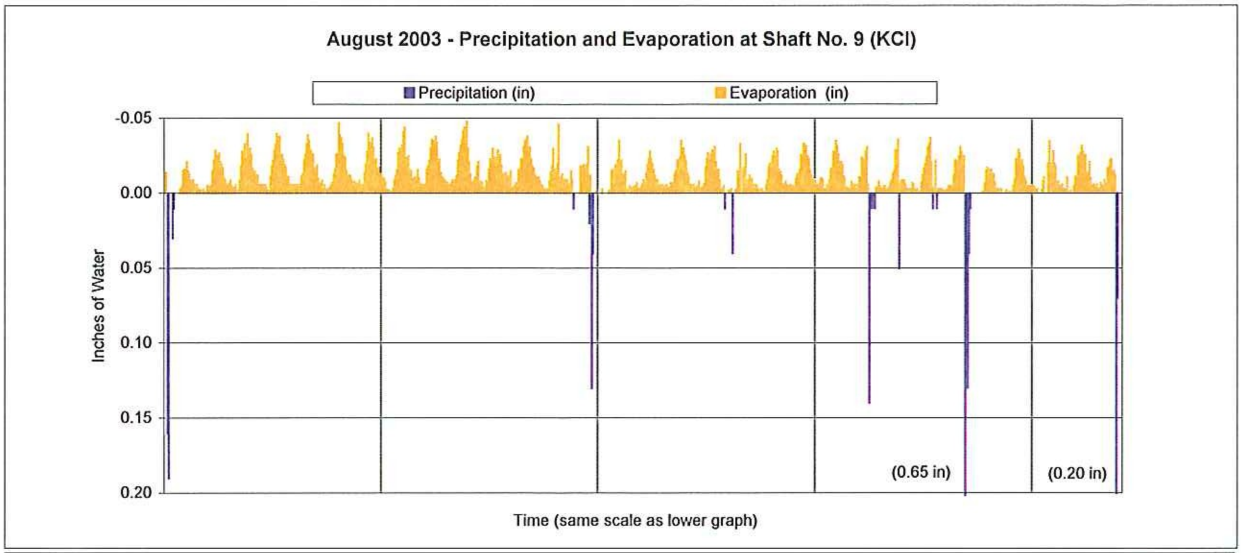


January 2006 - Data Sonde DC10.9C - Temperature, Specific Conductance, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Water Depth (in)
Sonde: SN 31271
300
270
240
210
180
150
120
90
60
30
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
January 1, 2006
January 8, 2006
January 15, 2006
January 22, 2006
January 29, 2006
Time

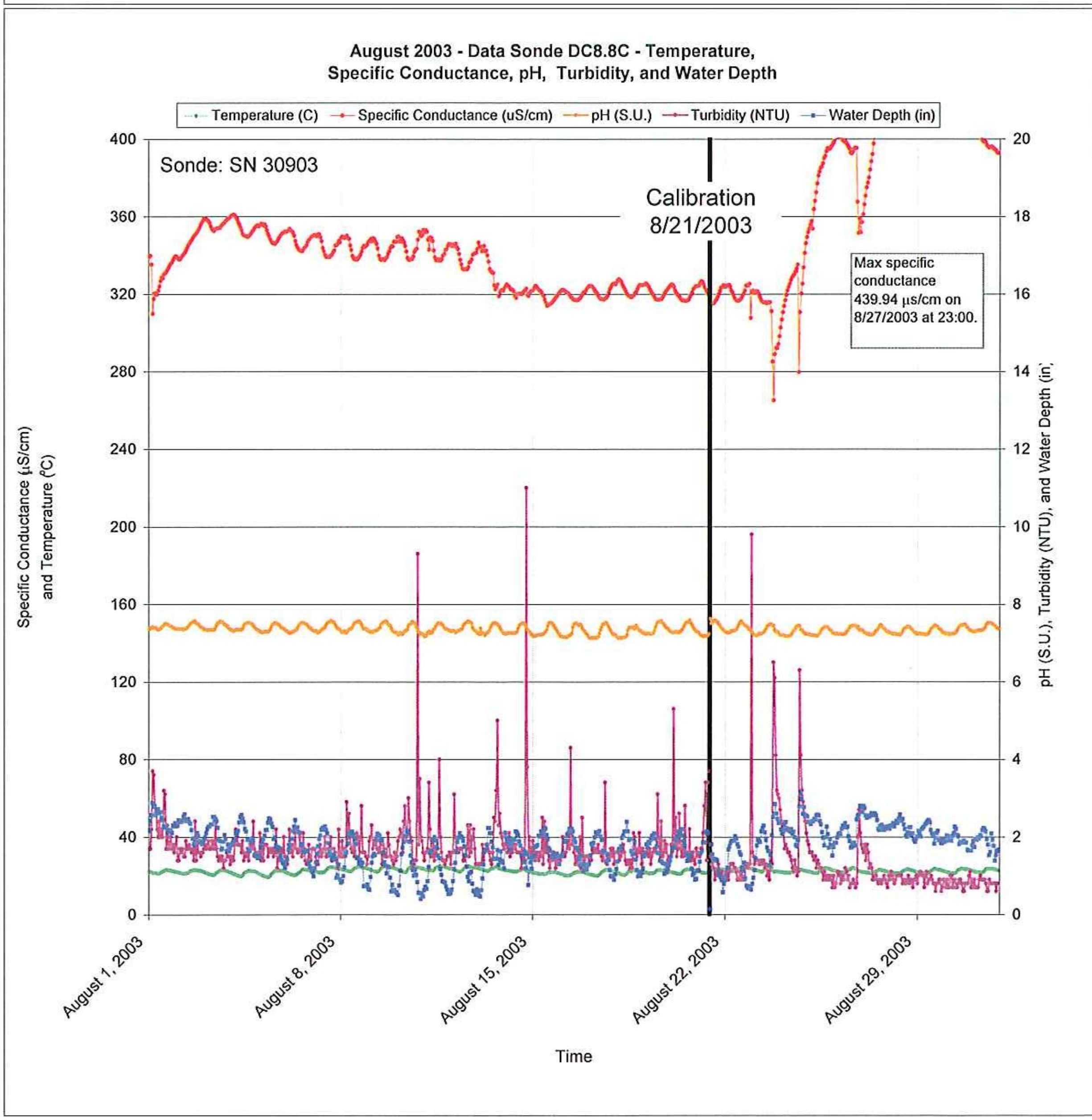
DC 8.8C


July 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

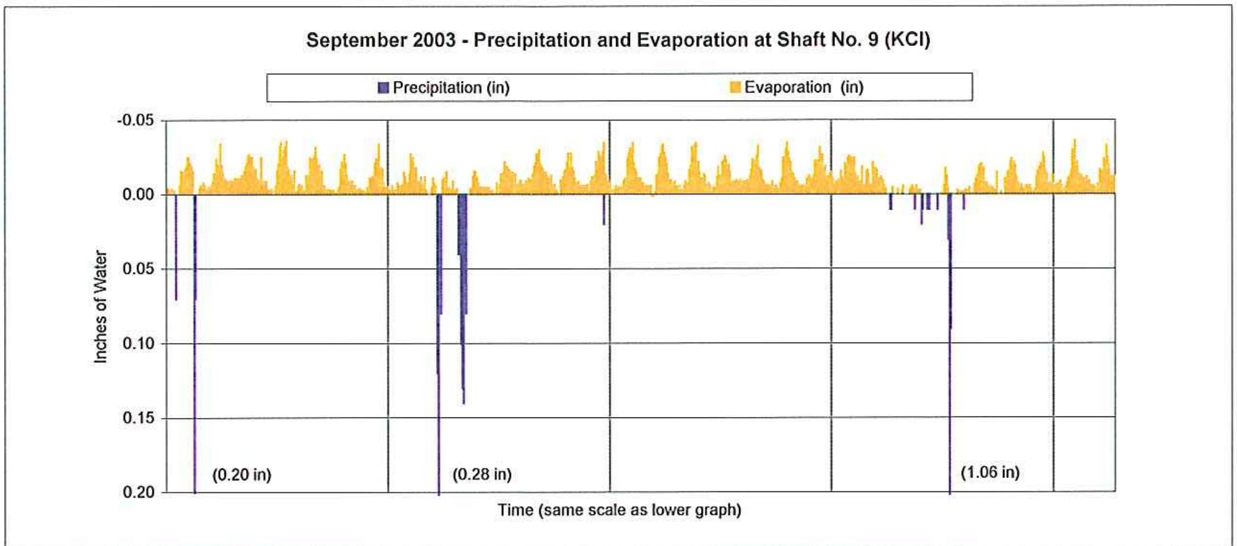

July 2003 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Turbidity (NTU)
Water Depth (in)
Sonde: SN 30903
New Sonde Installation and Calibration 7/24/2003
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
0
40
80
120
160
200
240
280
320
360
400
0
2
4
6
8
10
12
14
16
18
20
July 1, 2003
July 8, 2003
July 15, 2003
July 22, 2003
July 29, 2003
Time

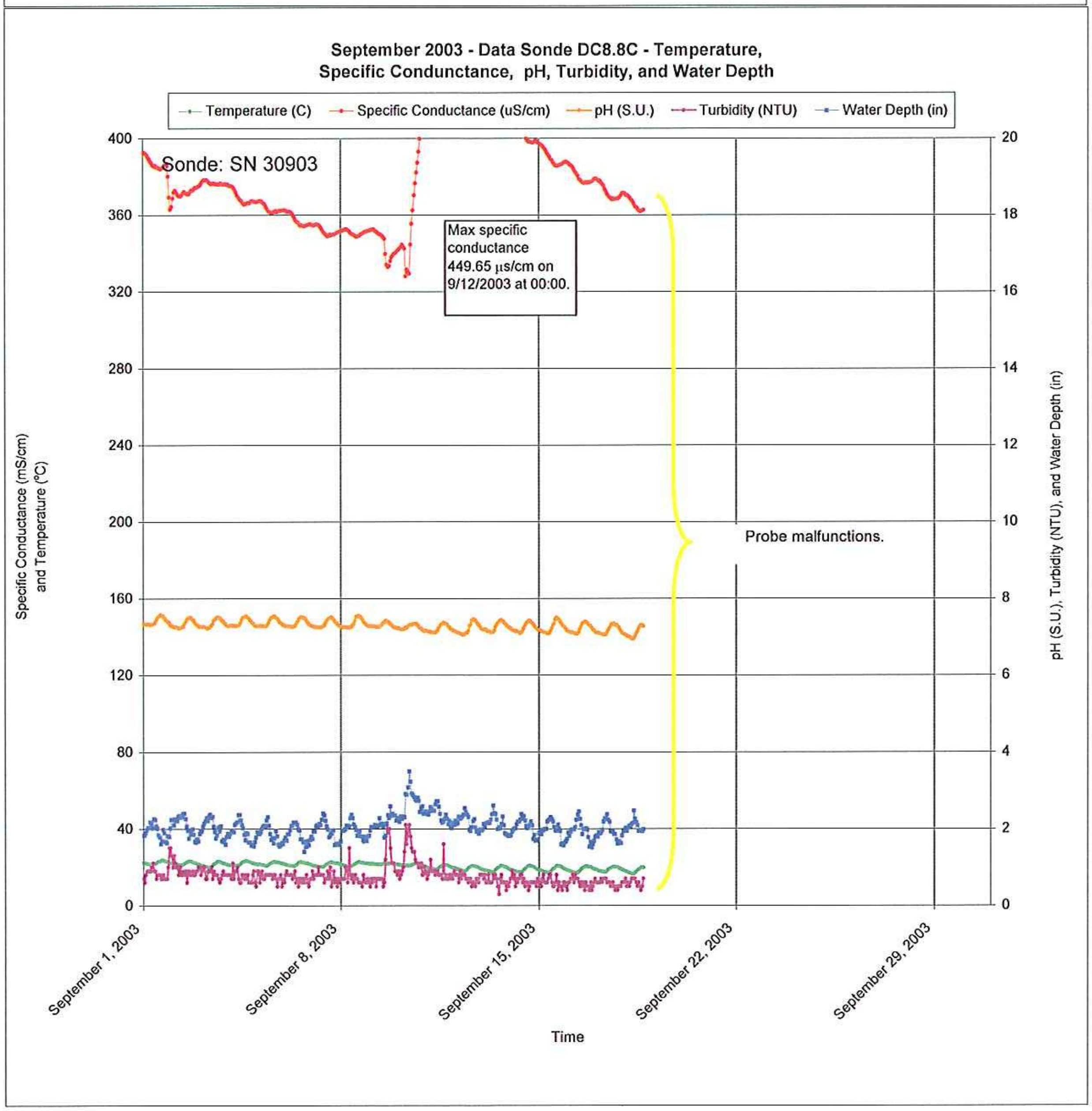


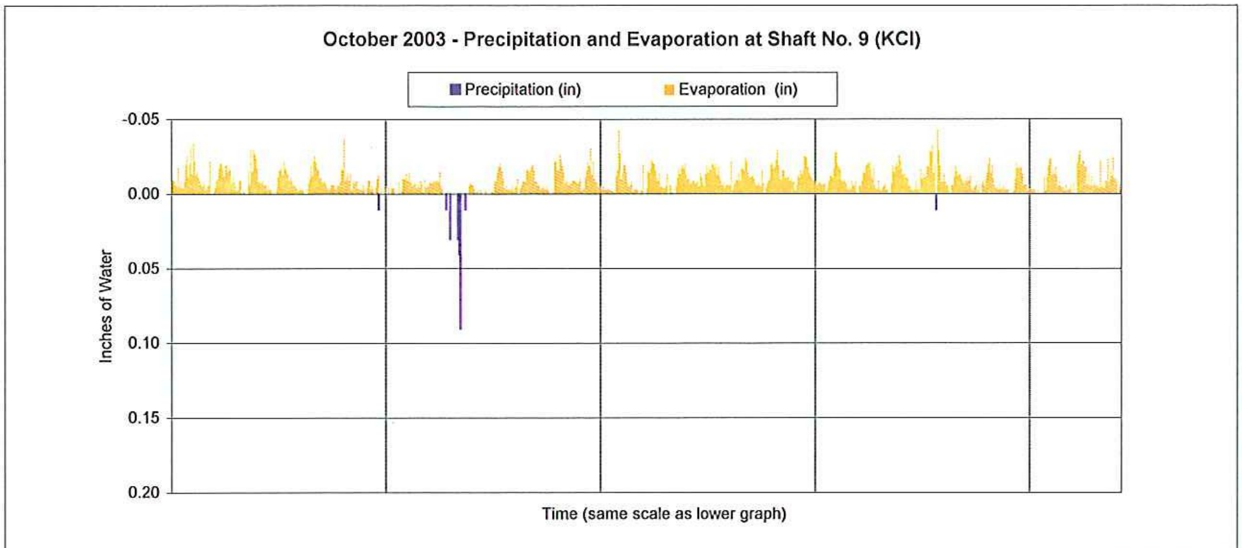
August 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.65 in)
(0.20 in)
Time (same scale as lower graph)

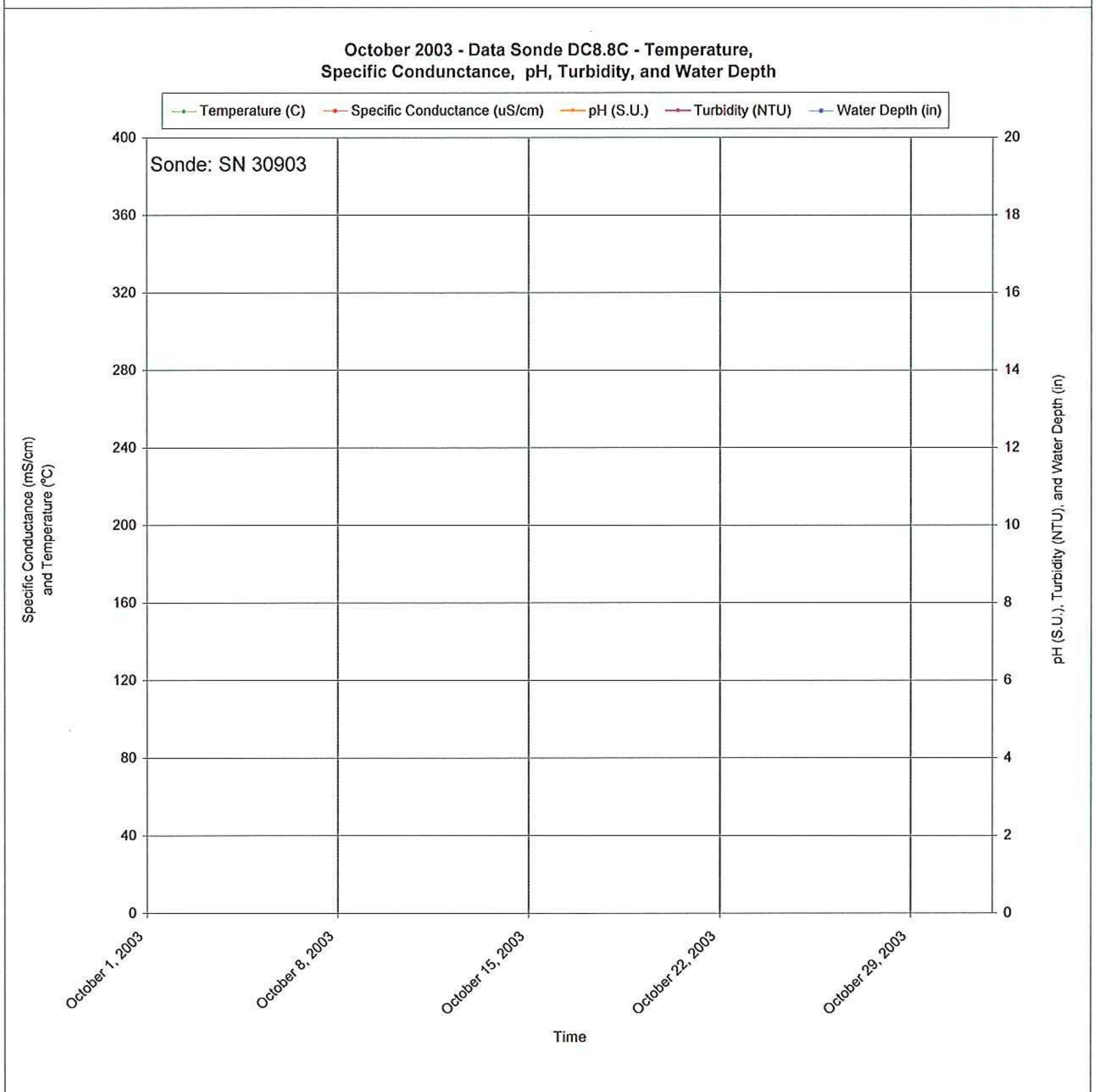


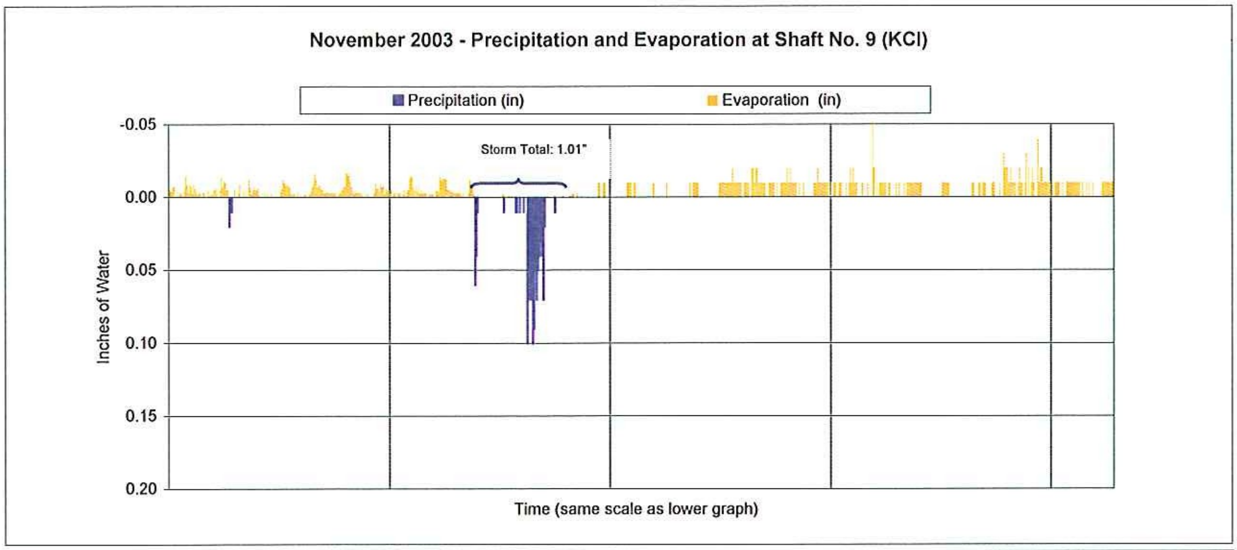
August 2003 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Turbidity (NTU)
Water Depth (in)
Sonde: SN 30903
Calibration 8/21/2003
Max specific conductance 439.94 µs/cm on 8/27/2003 at 23:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
August 1, 2003
August 8, 2003
August 15, 2003
August 22, 2003
August 29, 2003
Time

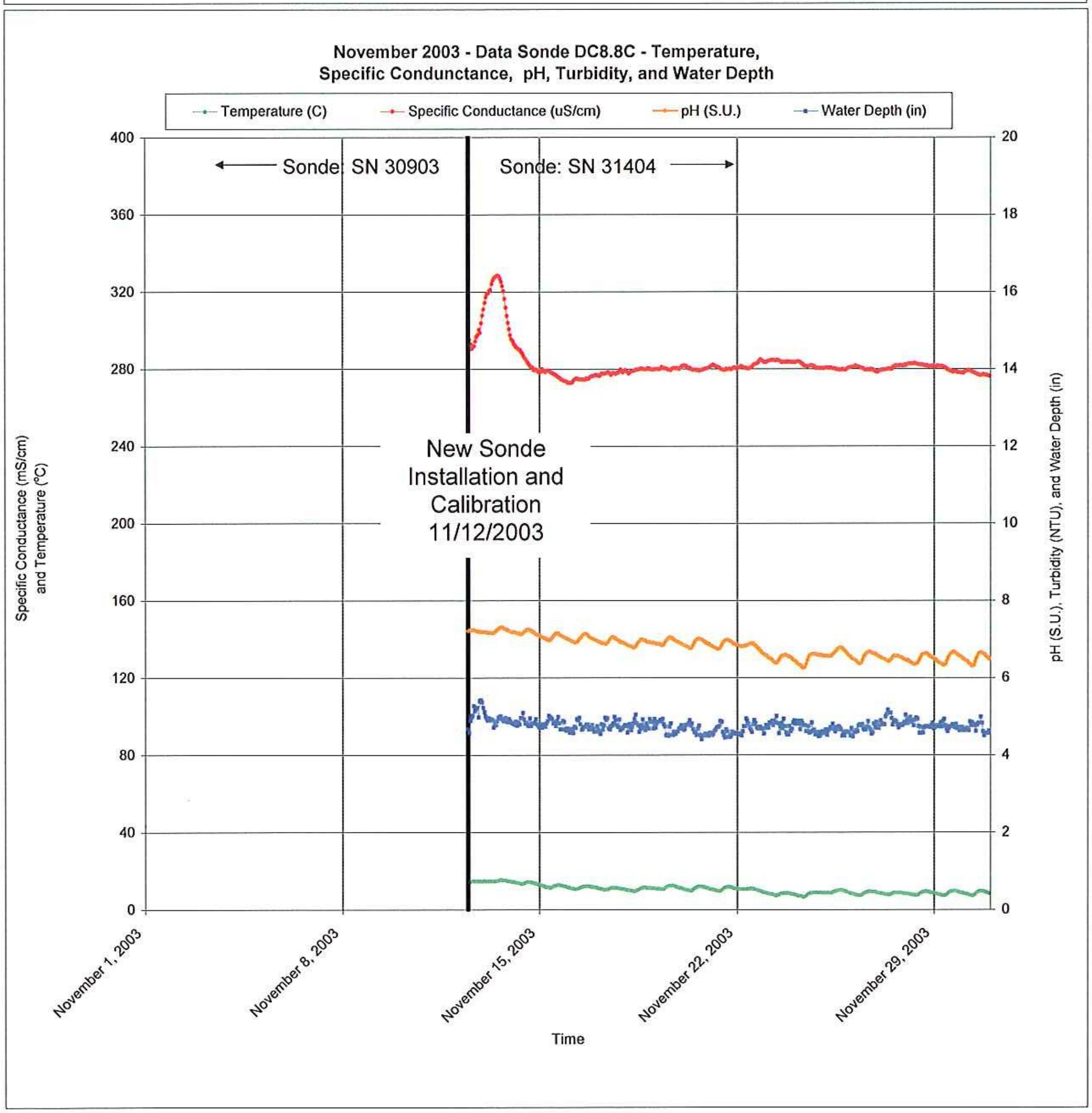

September 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.20 in)
(0.28 in)
(1.06 in)
Time (same scale as lower graph)

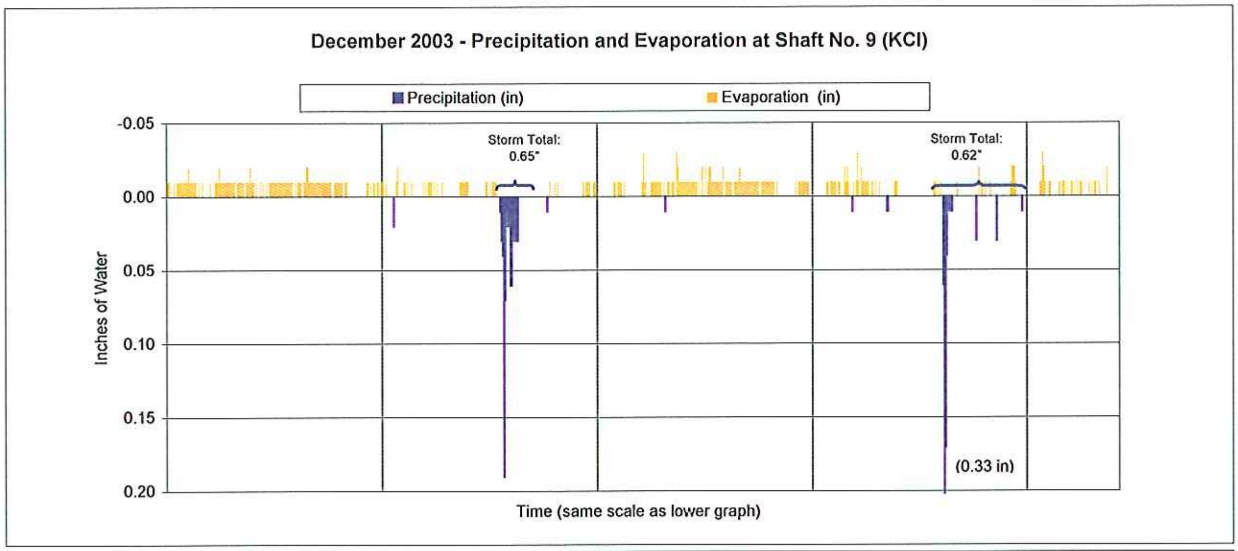

September 2003 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Turbidity (NTU)
Water Depth (in)
Sonde: SN 30903
Max specific conductance 449.65 µs/cm on 9/12/2003 at 00:00.
Probe malfunctions.
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
September 1, 2003
September 8, 2003
September 15, 2003
September 22, 2003
September 29, 2003
Time

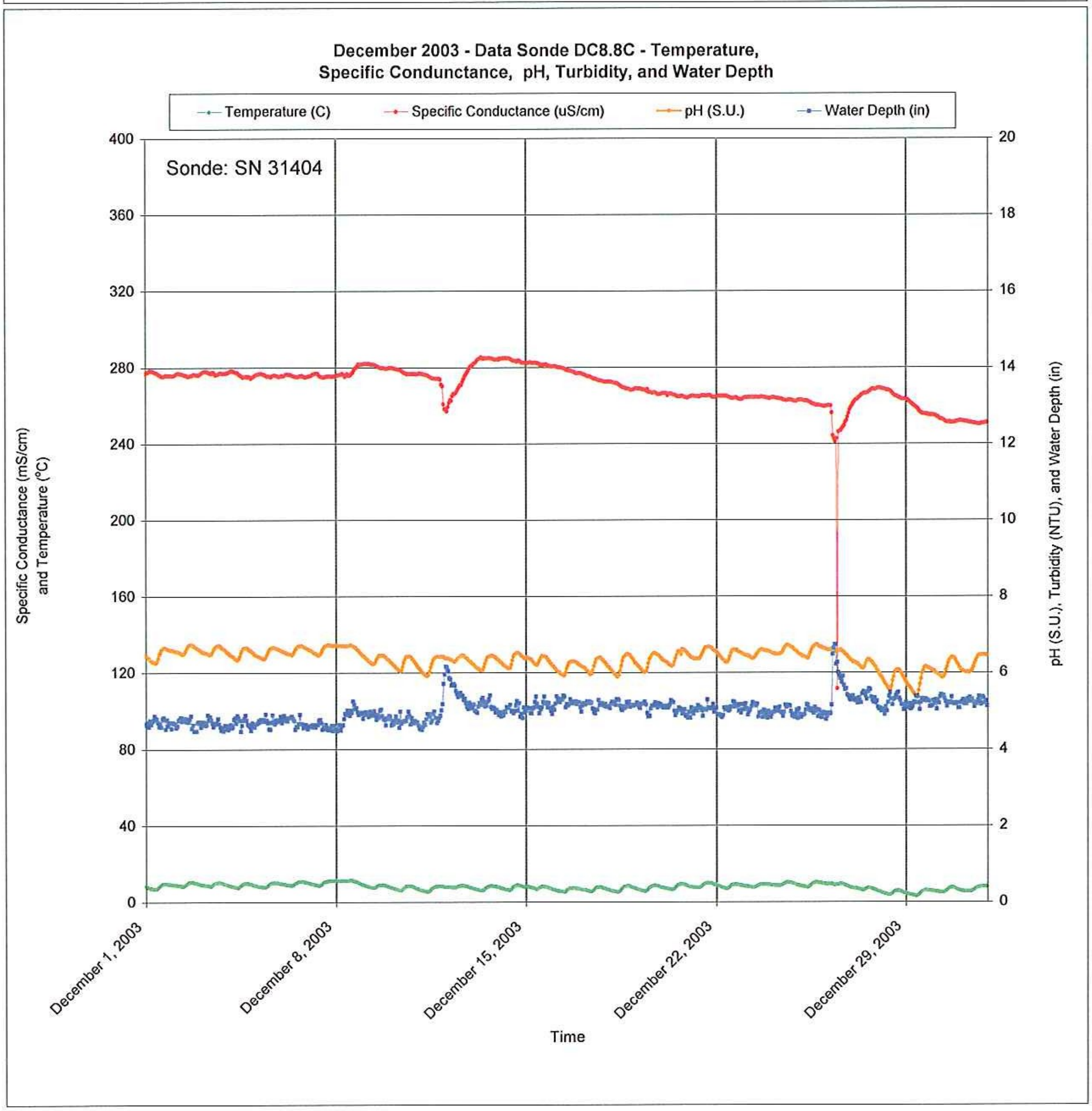

October 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

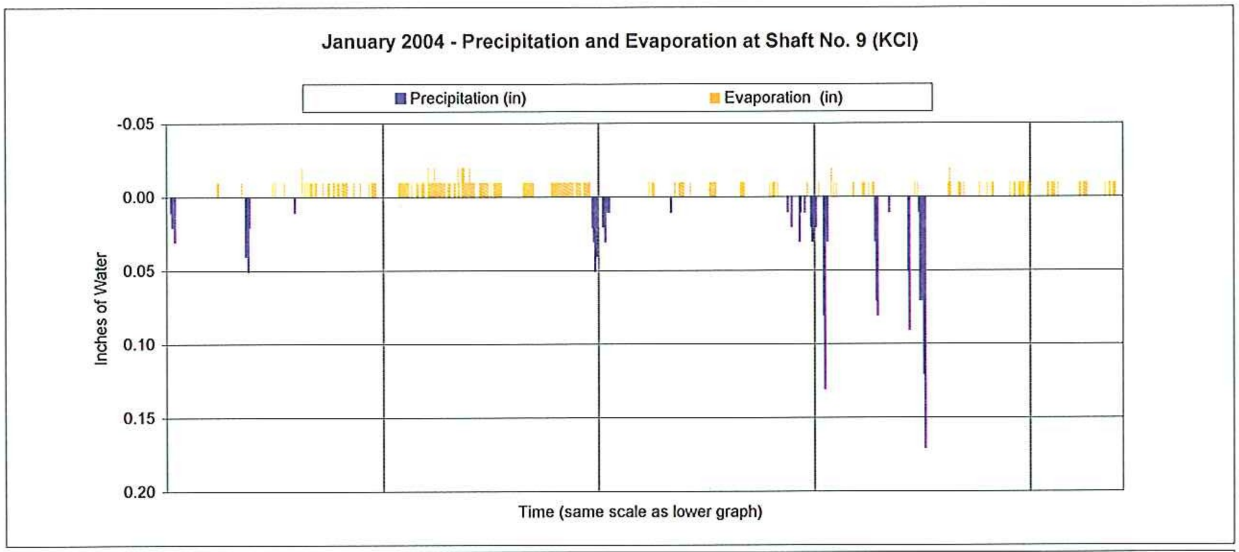

October 2003 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Turbidity (NTU)
Water Depth (in)
Sonde: SN 30903
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
October 1, 2003
October 8, 2003
October 15, 2003
October 22, 2003
October 29, 2003
Time

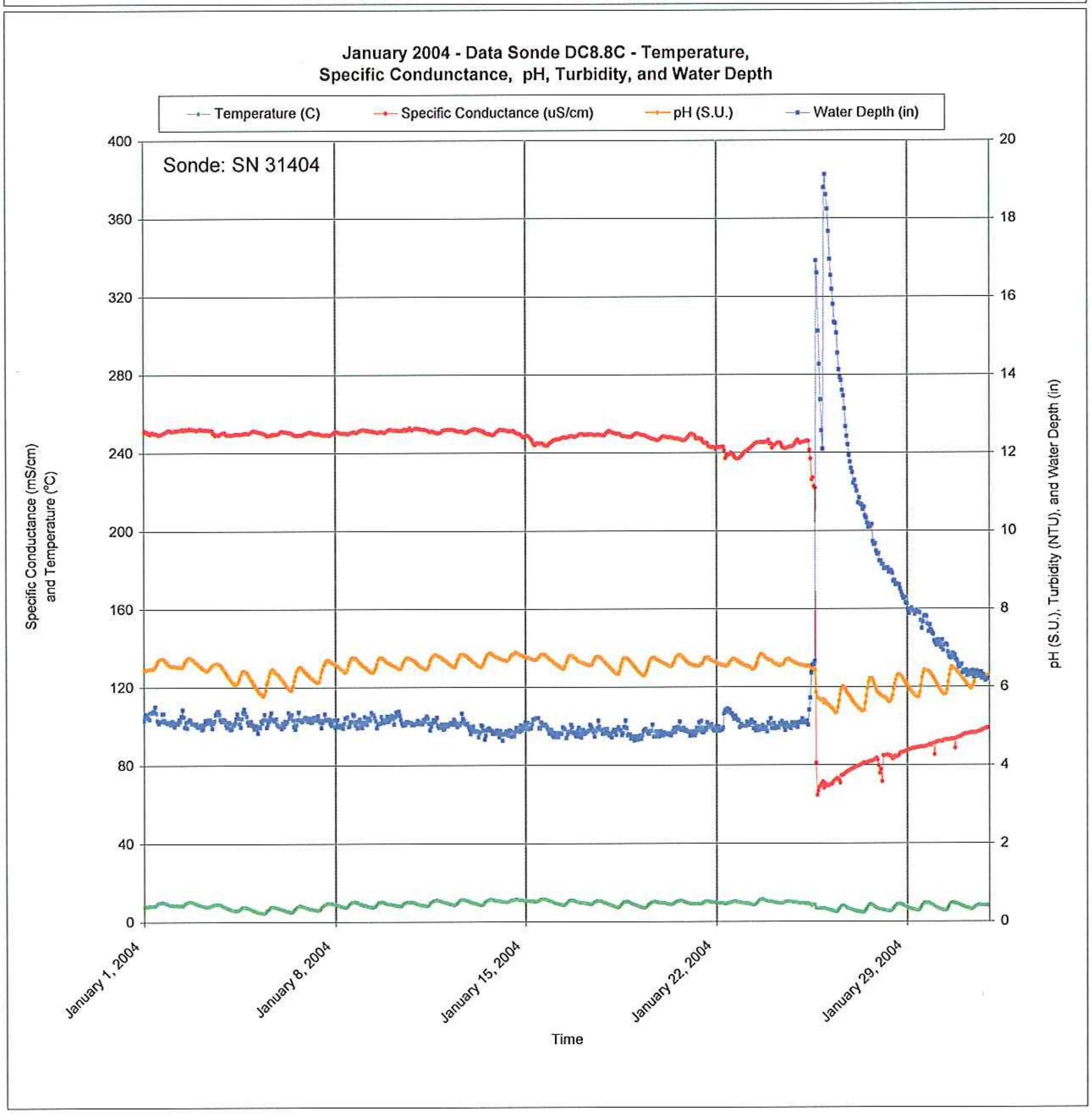

November 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.01"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

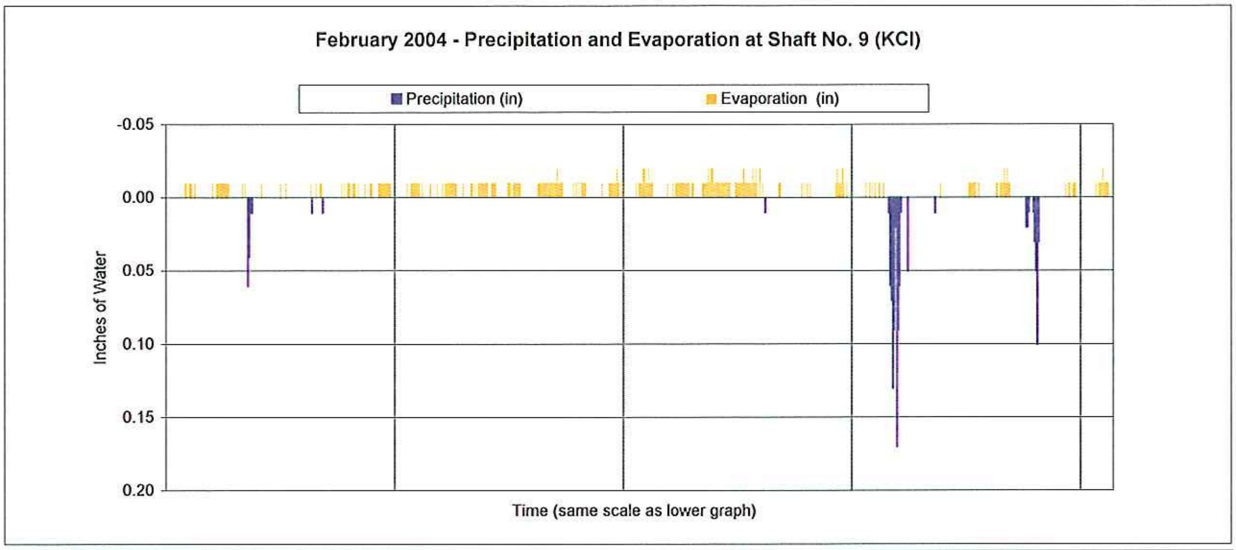

November 2003 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 30903
Sonde: SN 31404
New Sonde Installation and Calibration 11/12/2003
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
November 1, 2003
November 8, 2003
November 15, 2003
November 22, 2003
November 29, 2003
Time

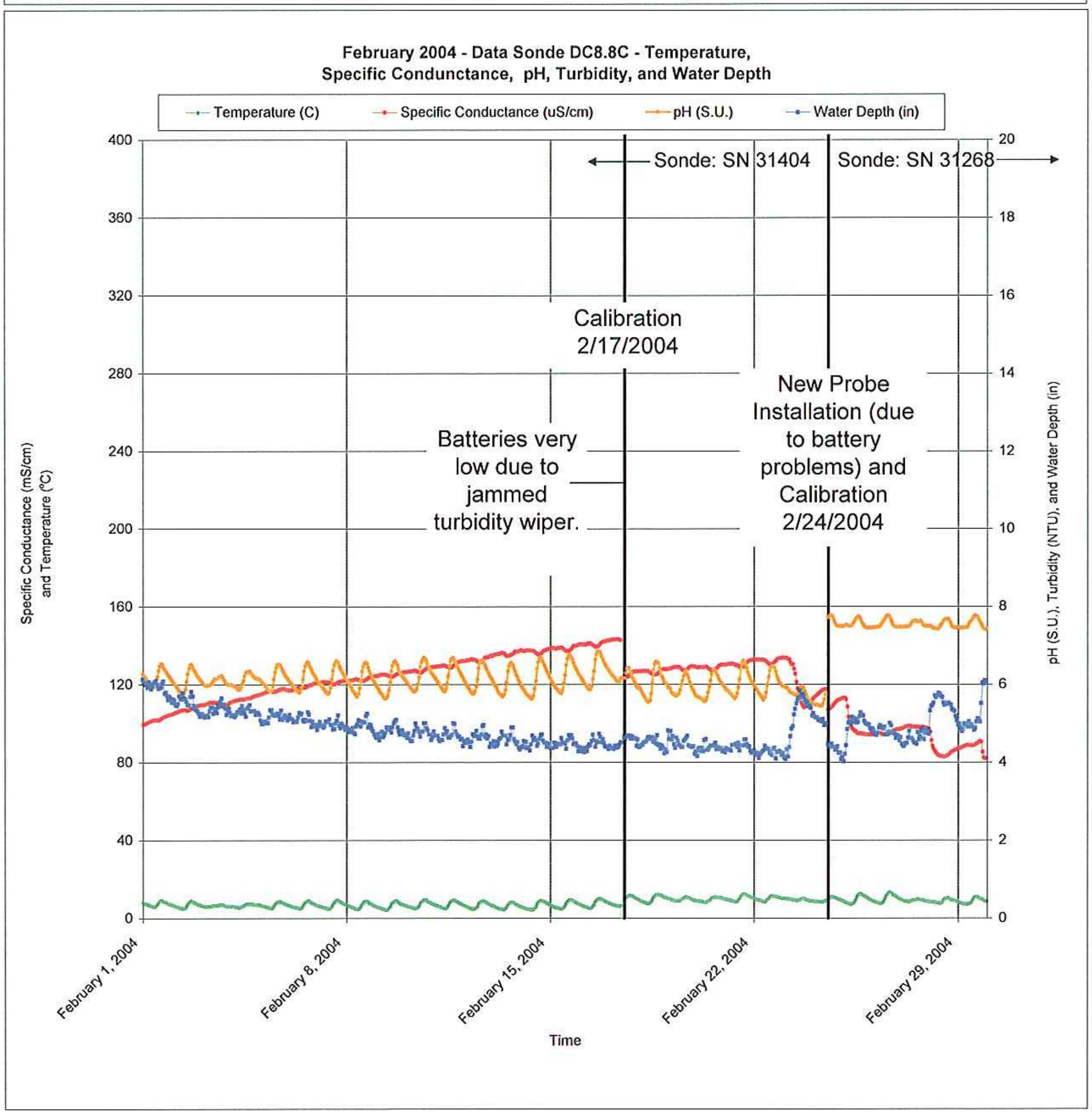

December 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.65"
Storm Total: 0.62"
(0.33 in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

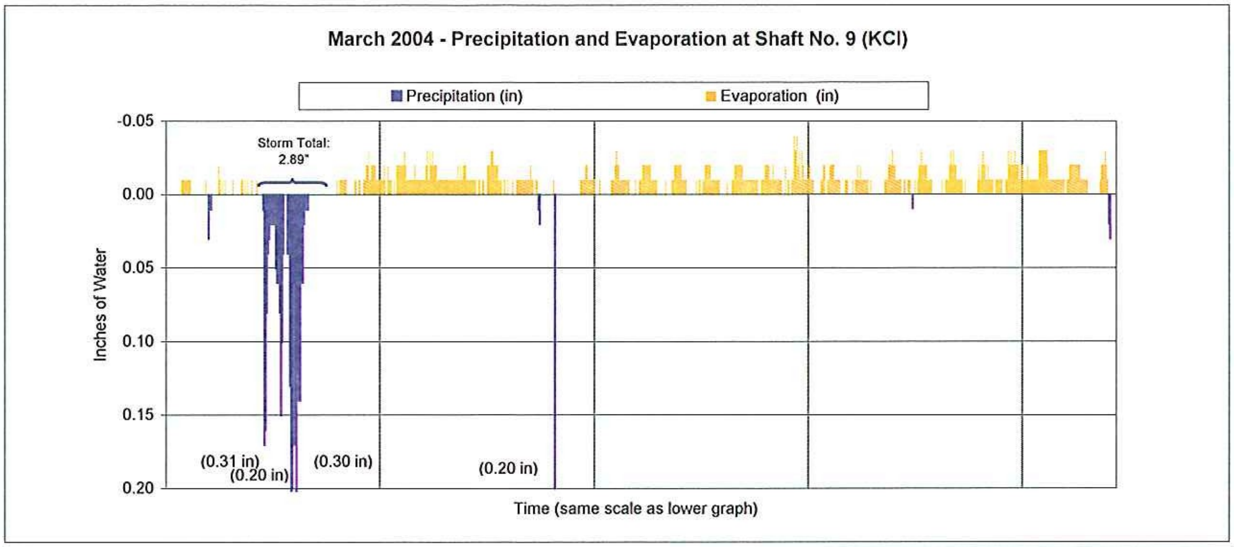

December 2003 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
0
40
80
120
160
200
240
280
320
360
400
0
2
4
6
8
10
12
14
16
18
20
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
December 1, 2003
December 8, 2003
December 15, 2003
December 22, 2003
December 29, 2003
Time

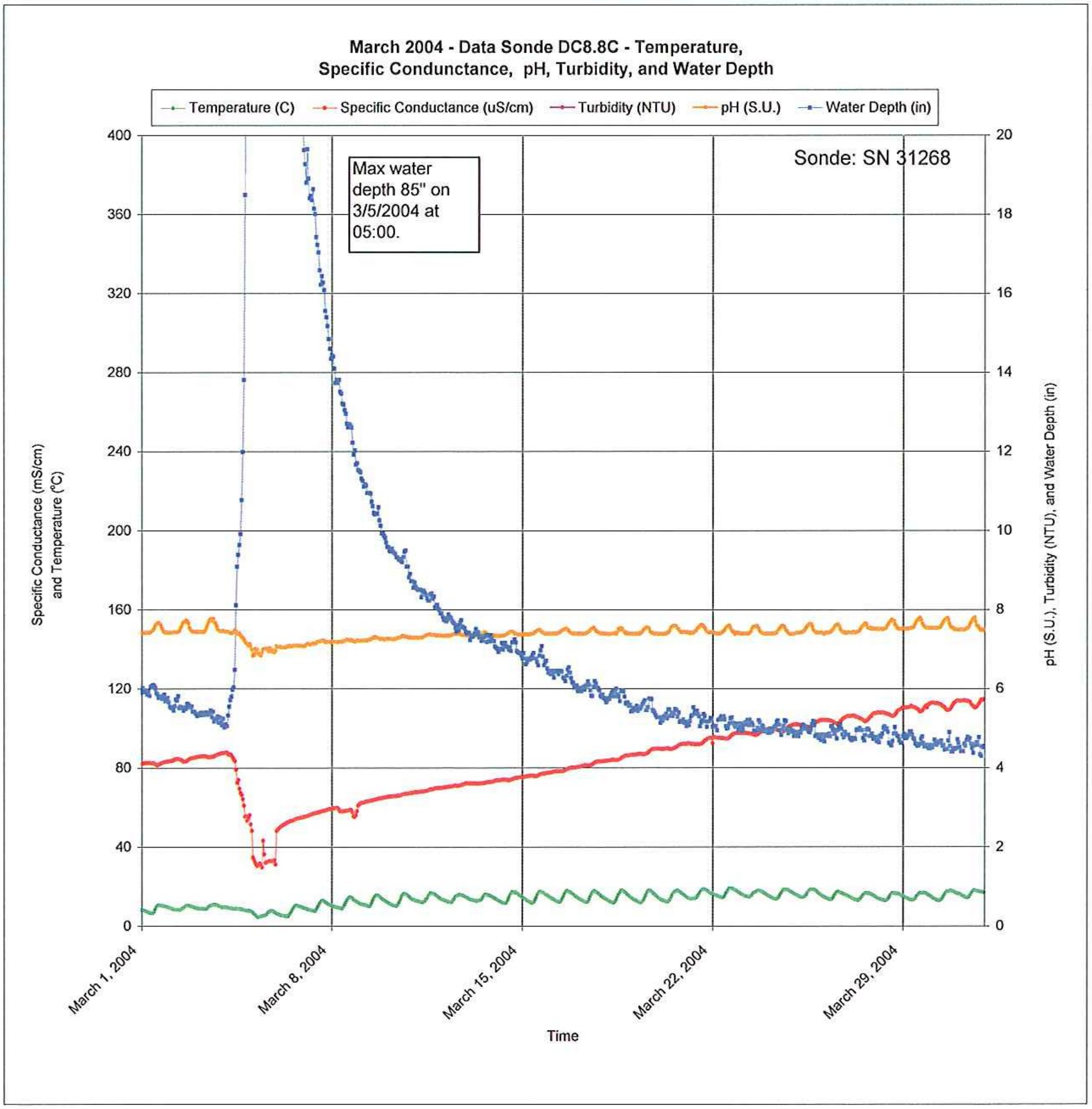

January 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

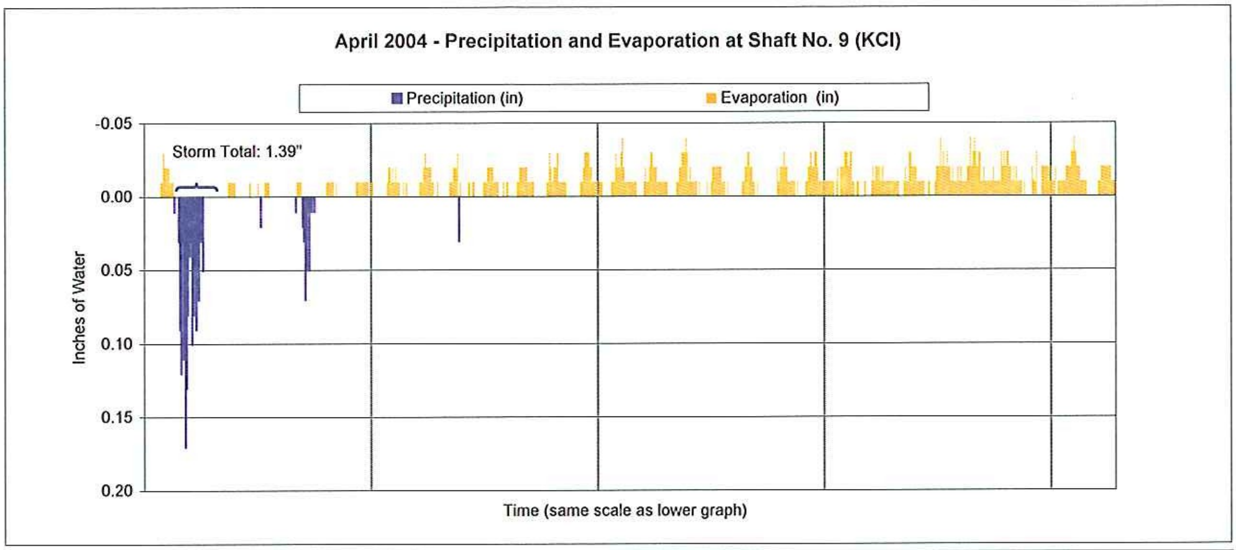

January 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
January 1, 2004
January 8, 2004
January 15, 2004
January 22, 2004
January 29, 2004
Time

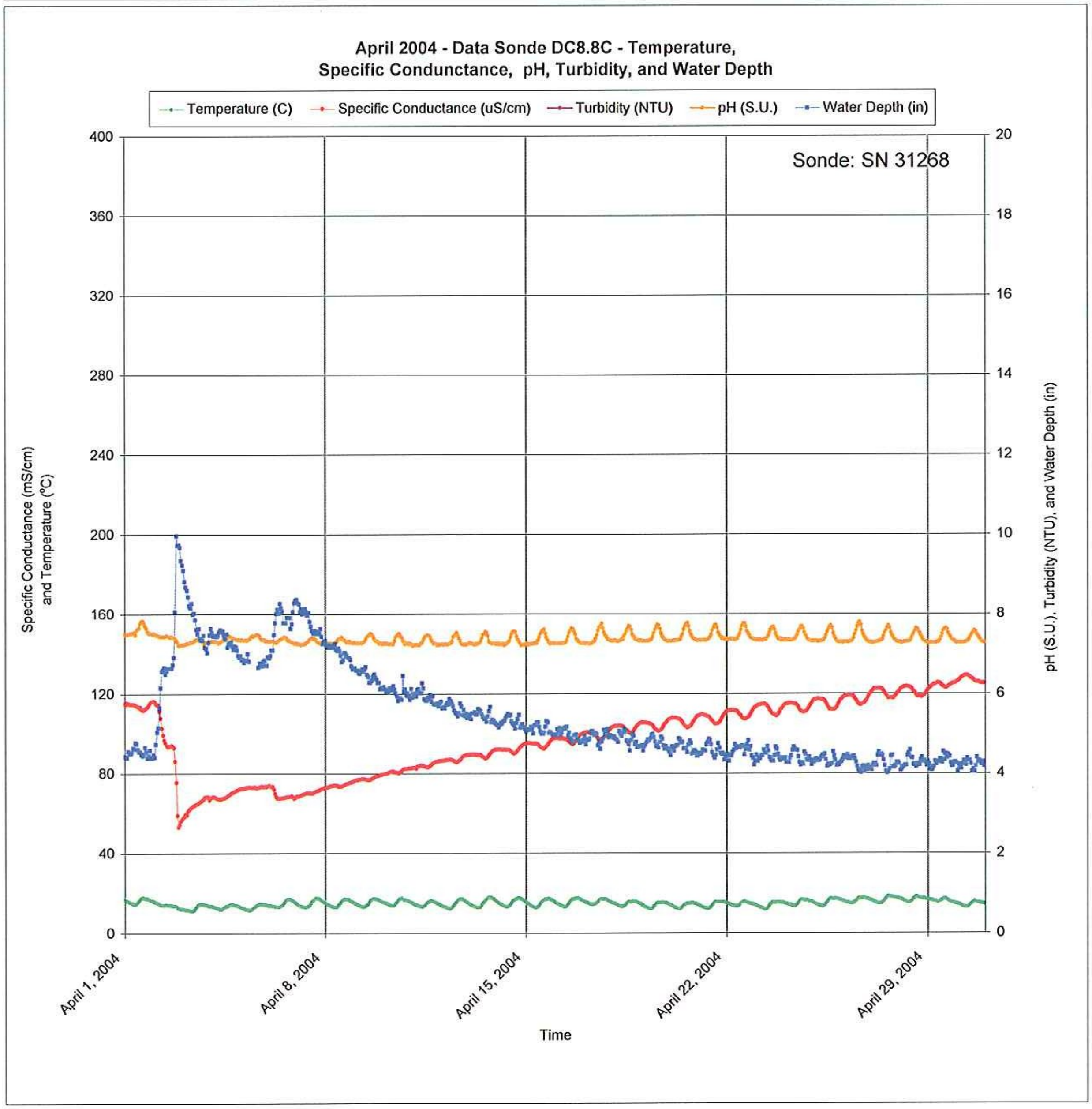

February 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

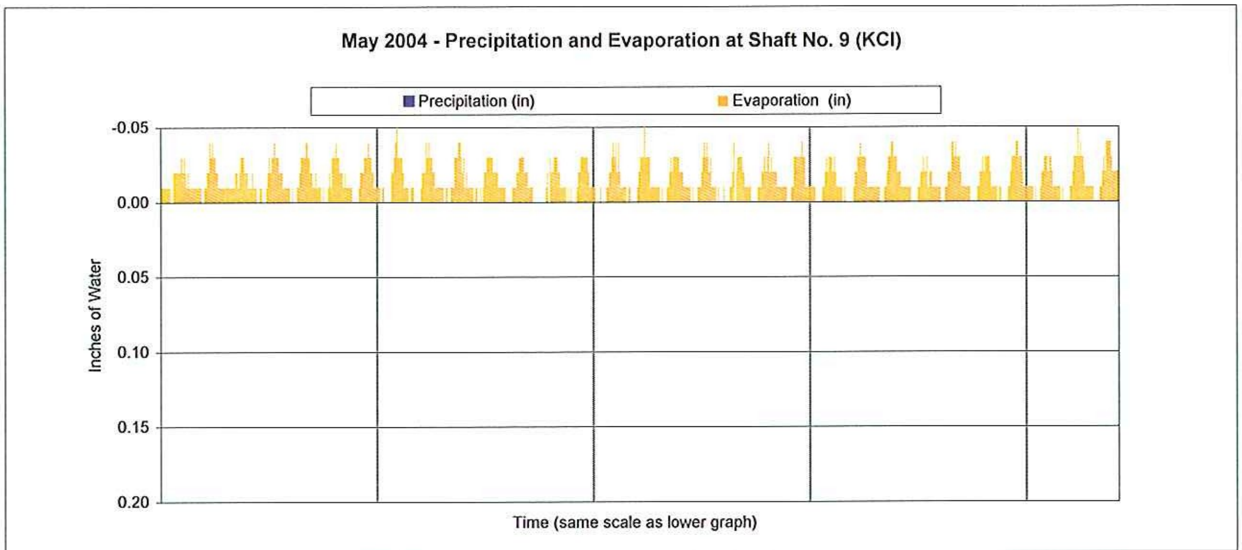

February 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Sonde: SN 31268
Calibration 2/17/2004
Batteries very low due to jammed turbidity wiper.
New Probe Installation (due to battery problems) and Calibration 2/24/2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2004
February 8, 2004
February 15, 2004
February 22, 2004
February 29, 2004
Time

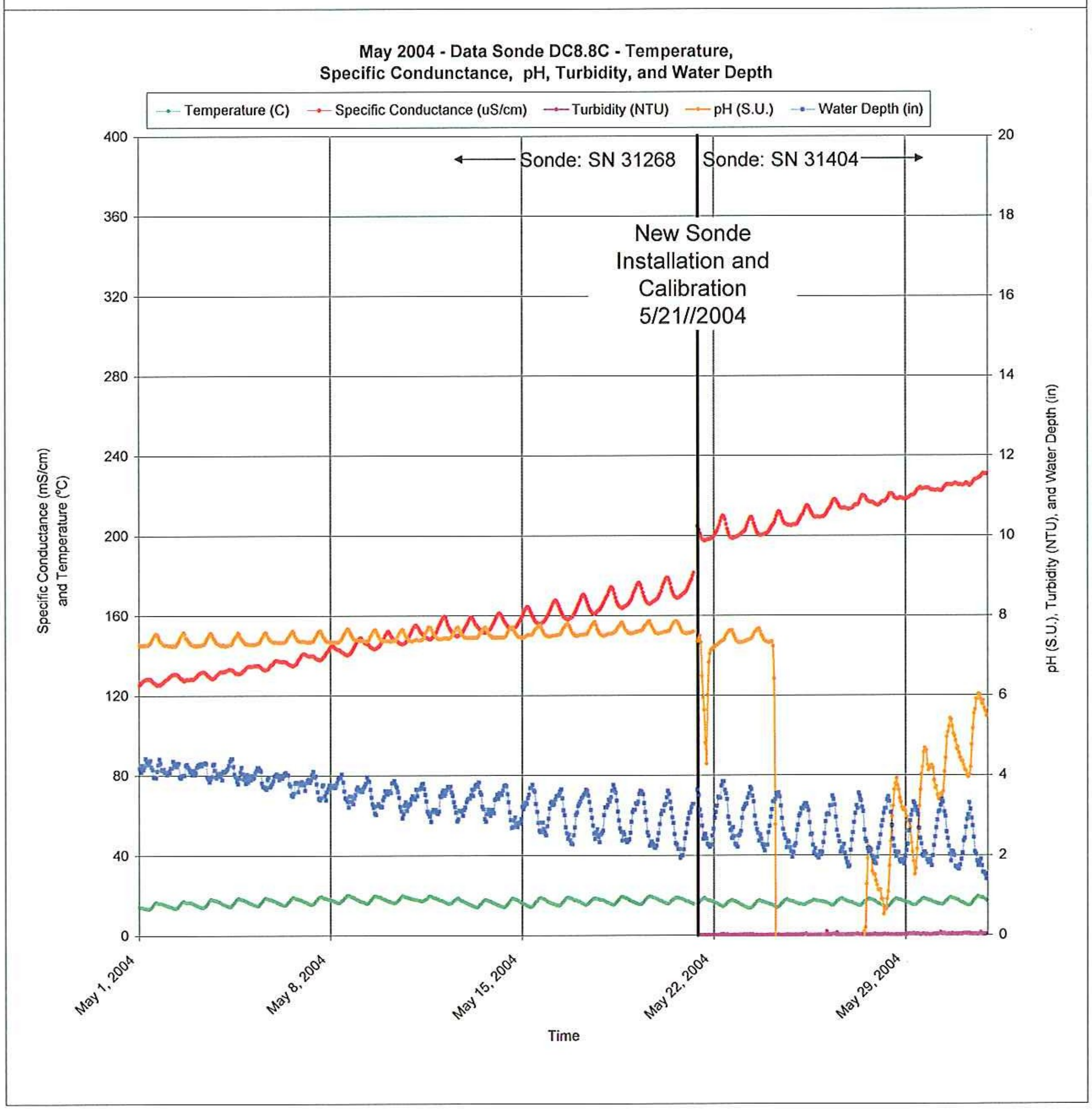

March 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.31 in)
(0.20 in)
(0.30 in)
(0.20 in)
Time (same scale as lower graph)

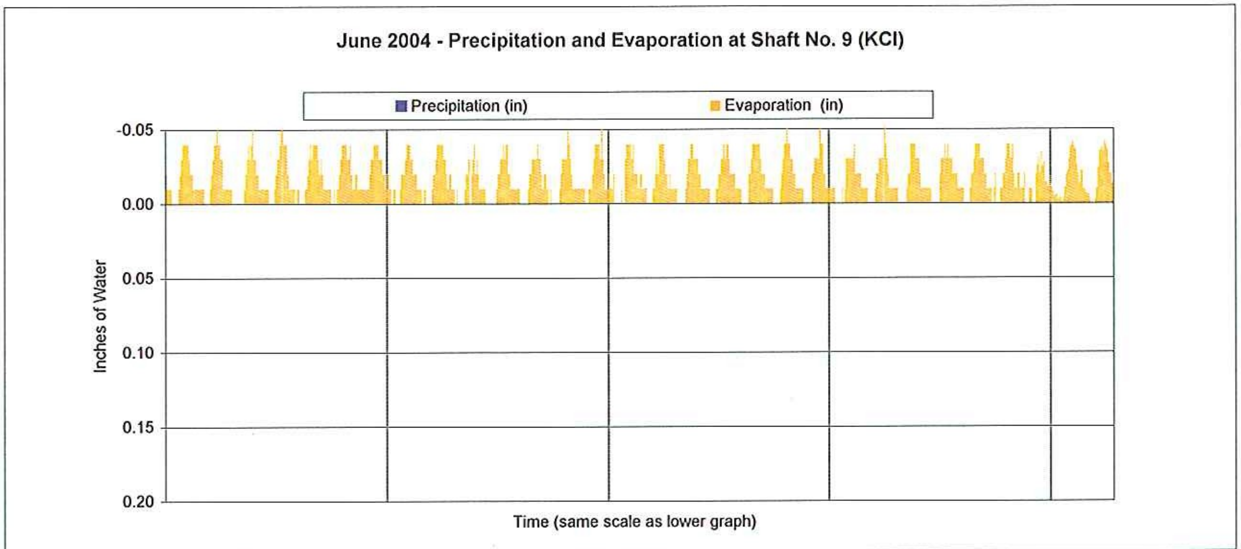

March 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Max water depth 85" on 3/5/2004 at 05:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
March 1, 2004
March 8, 2004
March 15, 2004
March 22, 2004
March 29, 2004
Time

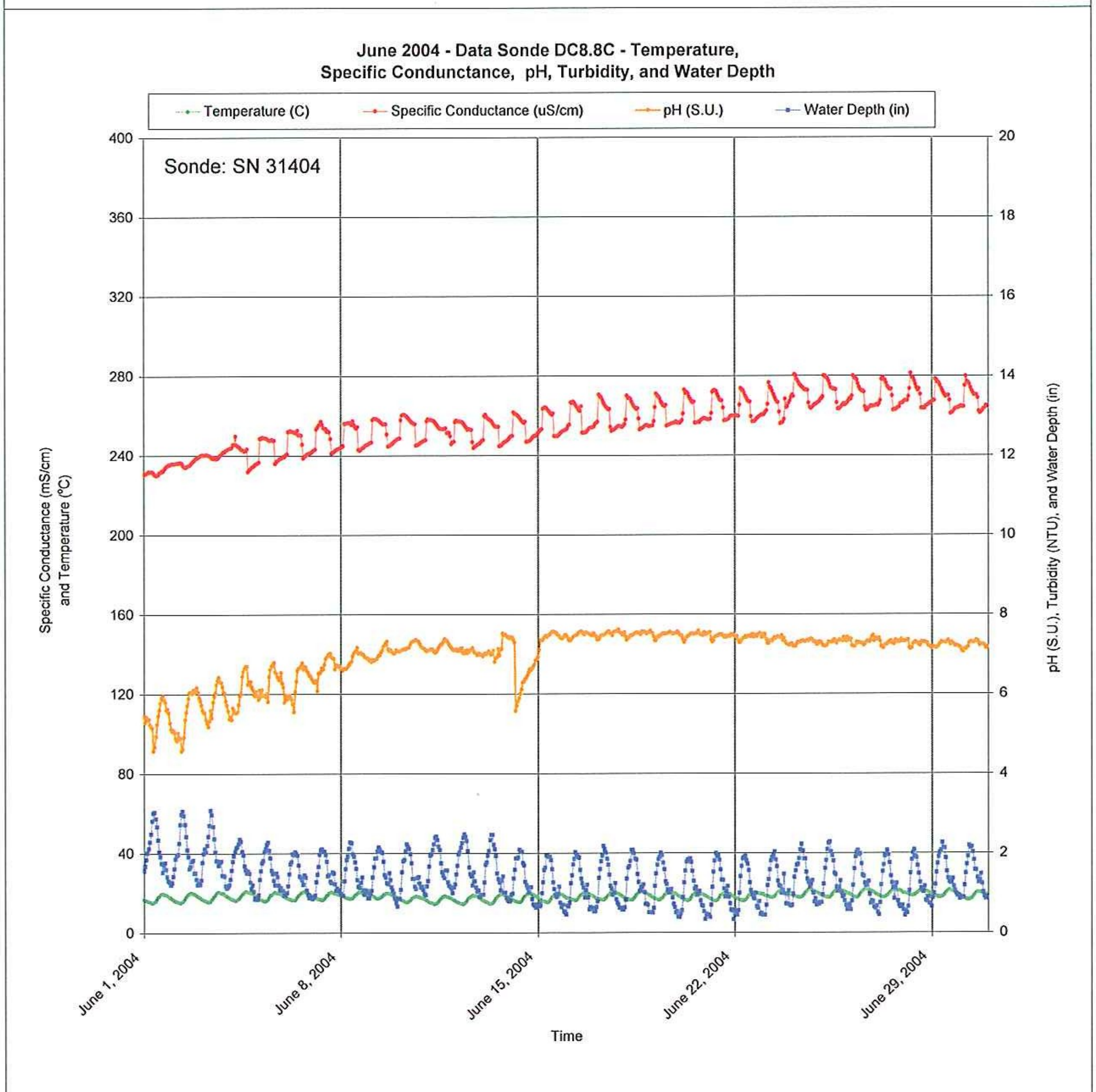

April 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.39"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

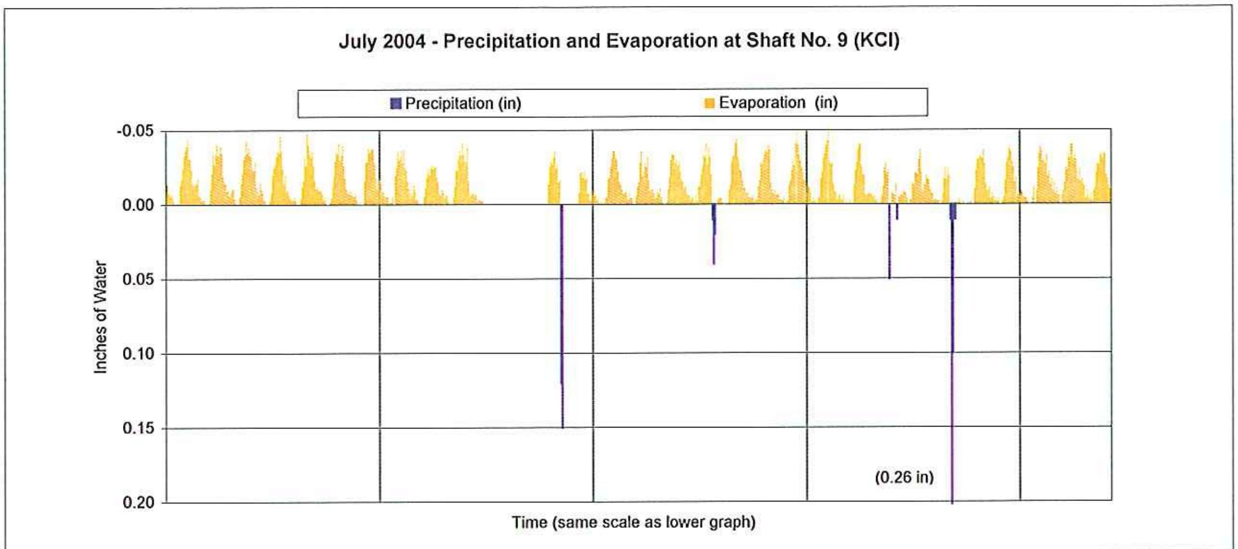

April 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
April 1, 2004
April 8, 2004
April 15, 2004
April 22, 2004
April 29, 2004
Time

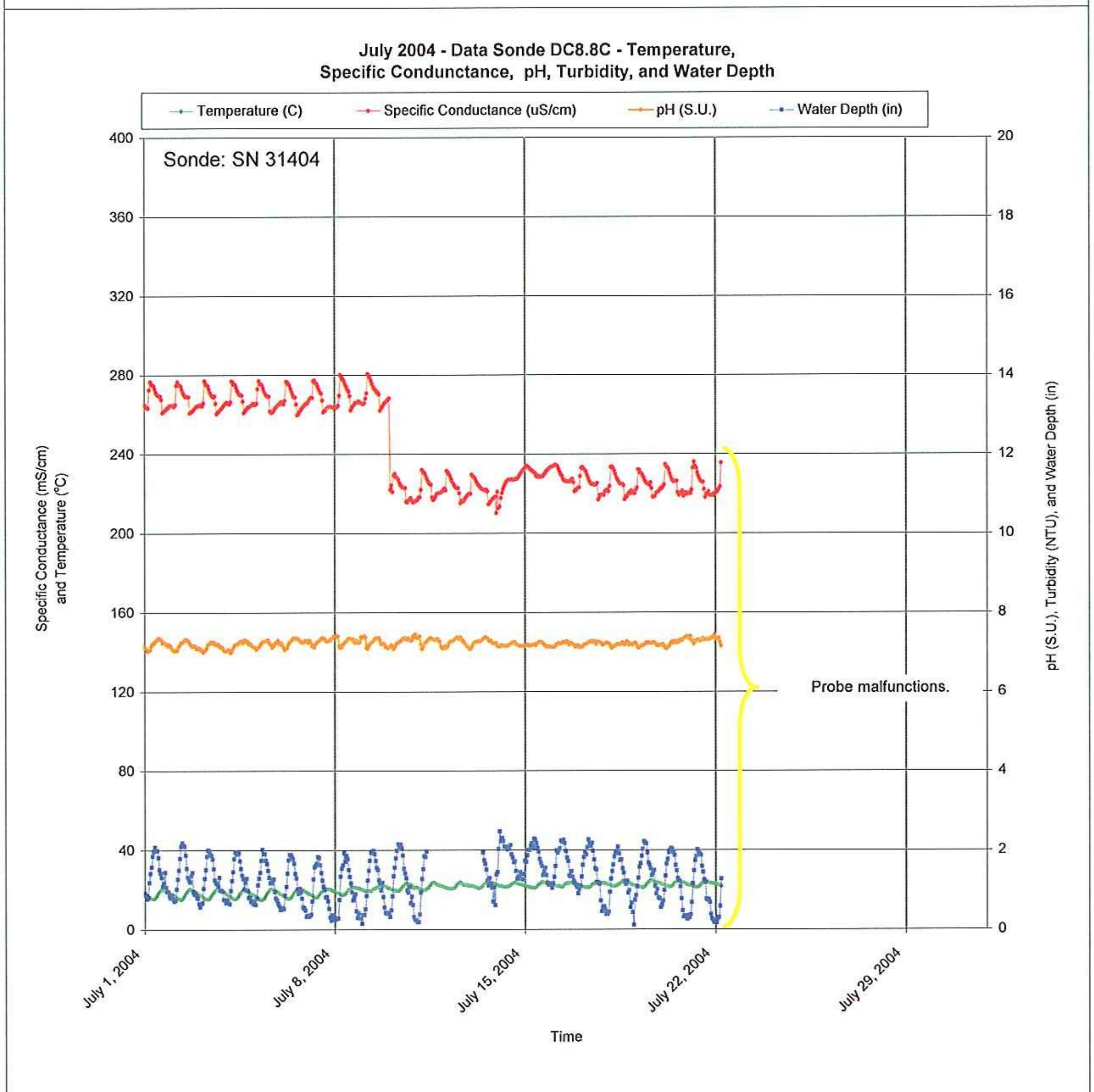

May 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

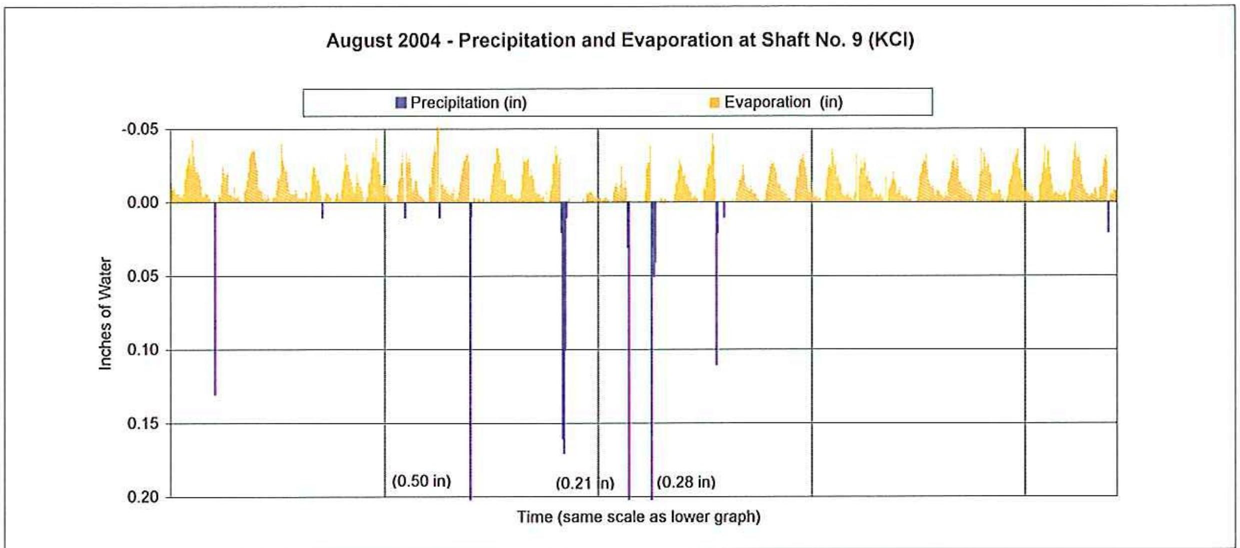

May 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Sonde: SN 31404
New Sonde Installation and Calibration 5/21//2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
May 1, 2004
May 8, 2004
May 15, 2004
May 22, 2004
May 29, 2004
Time


June 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

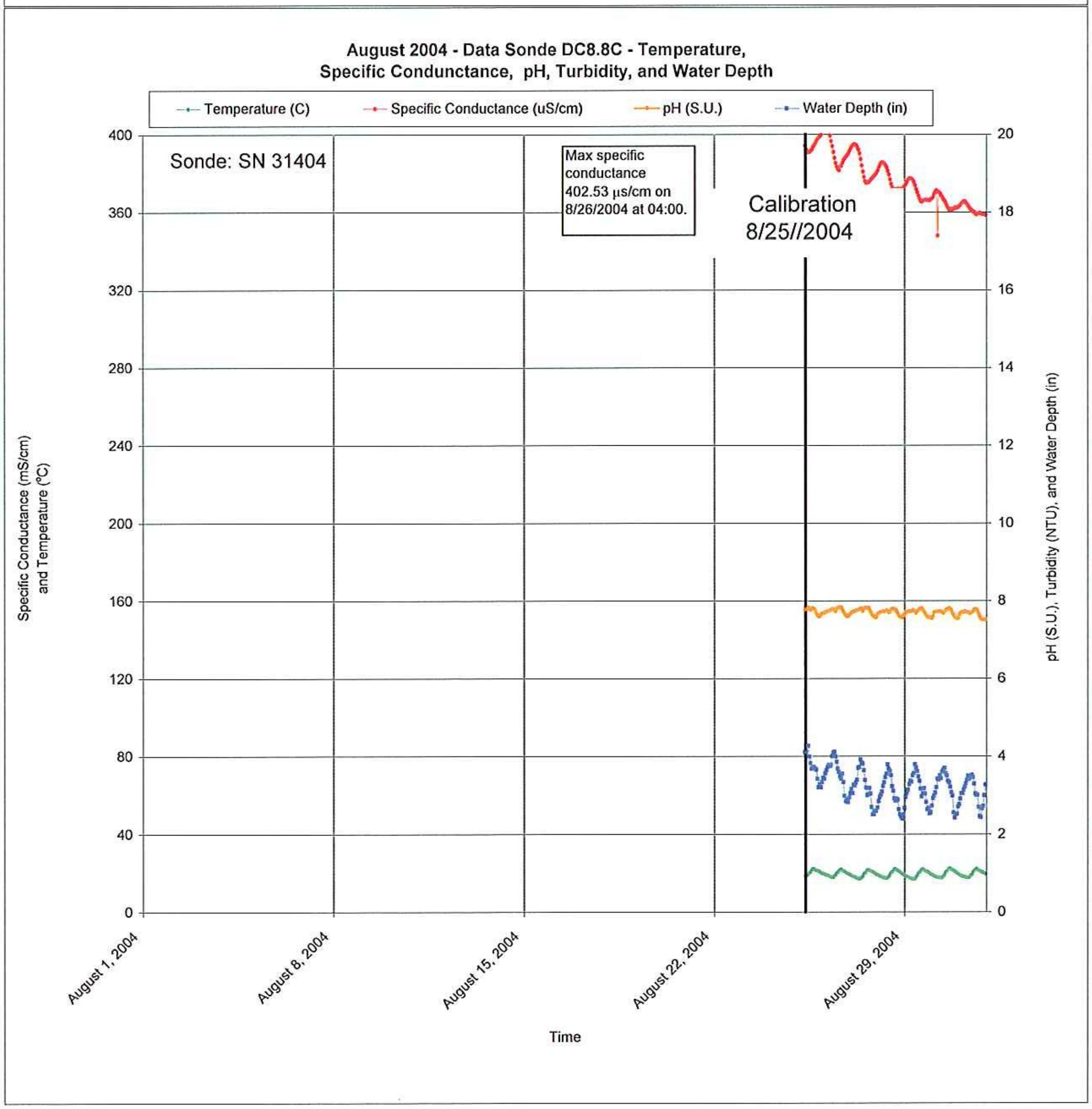

June 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
June 1, 2004
June 8, 2004
June 15, 2004
June 22, 2004
June 29, 2004
Time


July 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.26 in)
Time (same scale as lower graph)

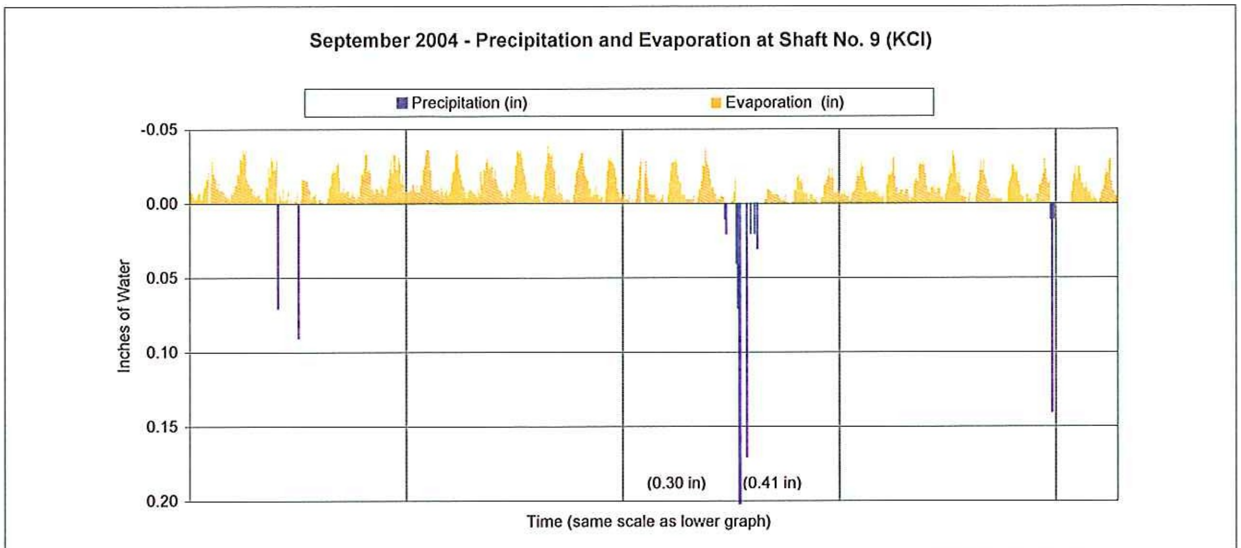

July 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
Probe malfunctions.
July 1, 2004
July 8, 2004
July 15, 2004
July 22, 2004
July 29, 2004
Time

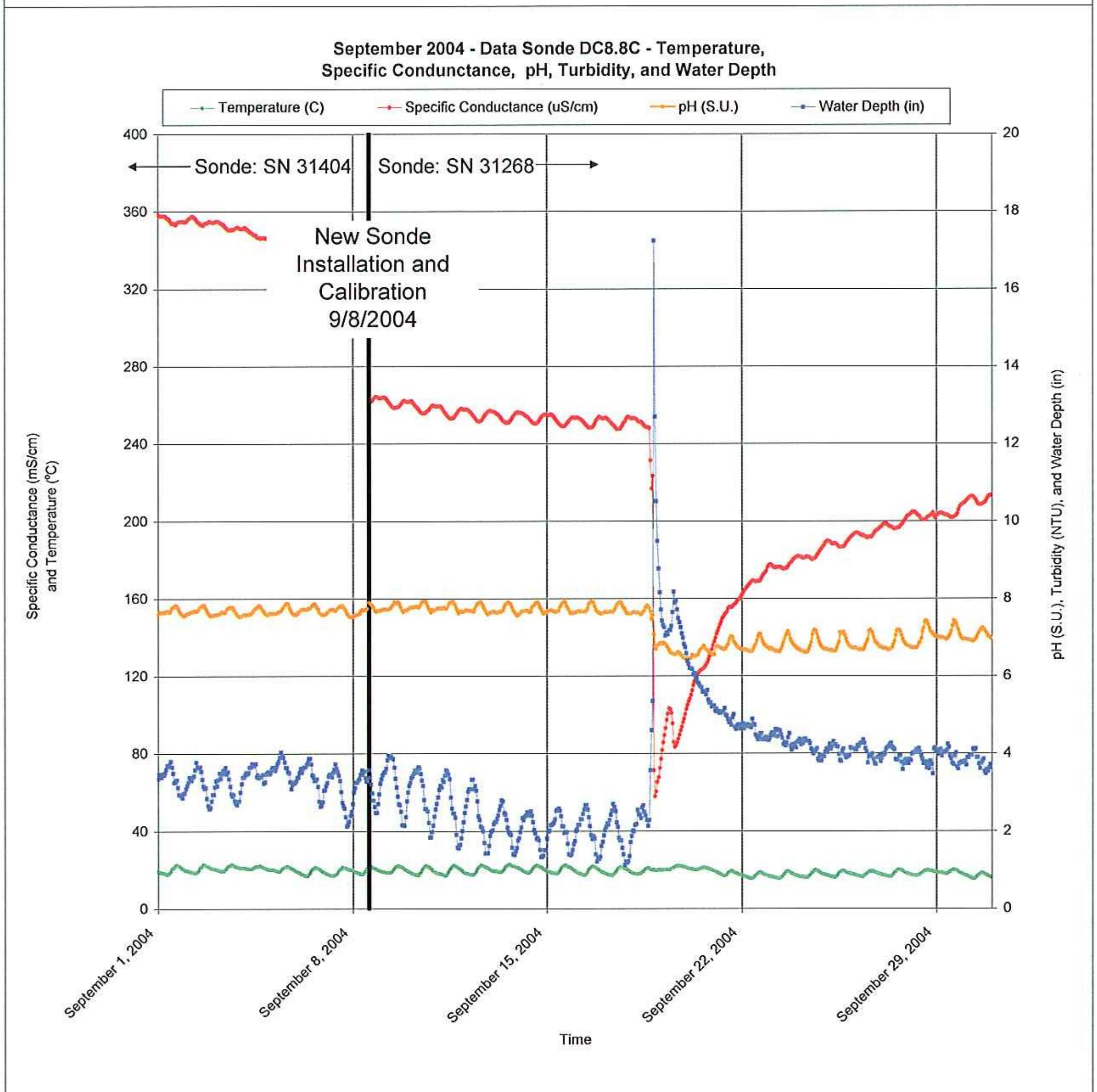


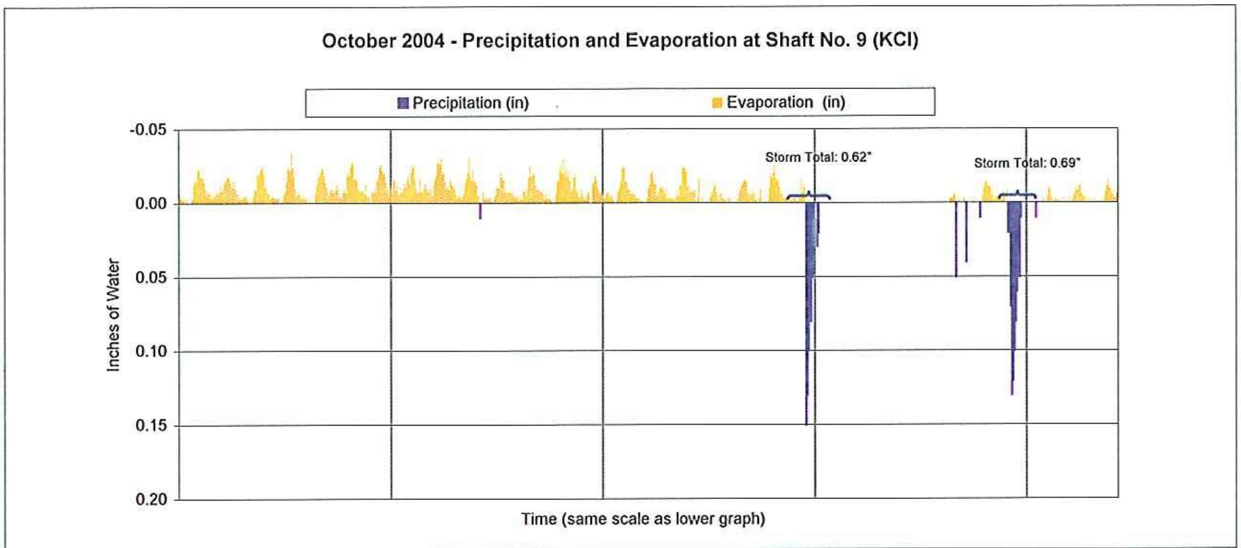
August 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.50 in)
(0.21 in)
(0.28 in)
Time (same scale as lower graph)

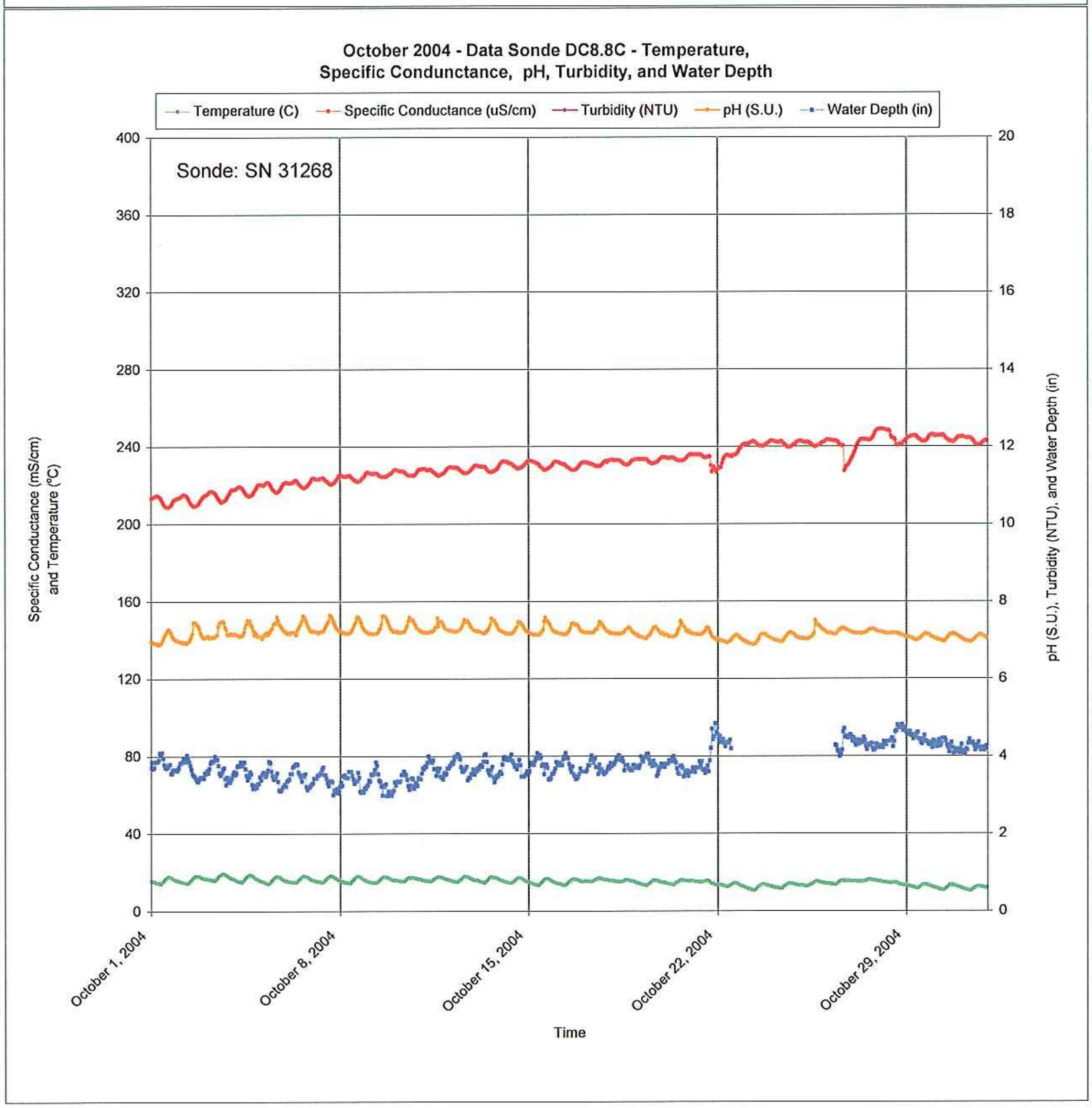


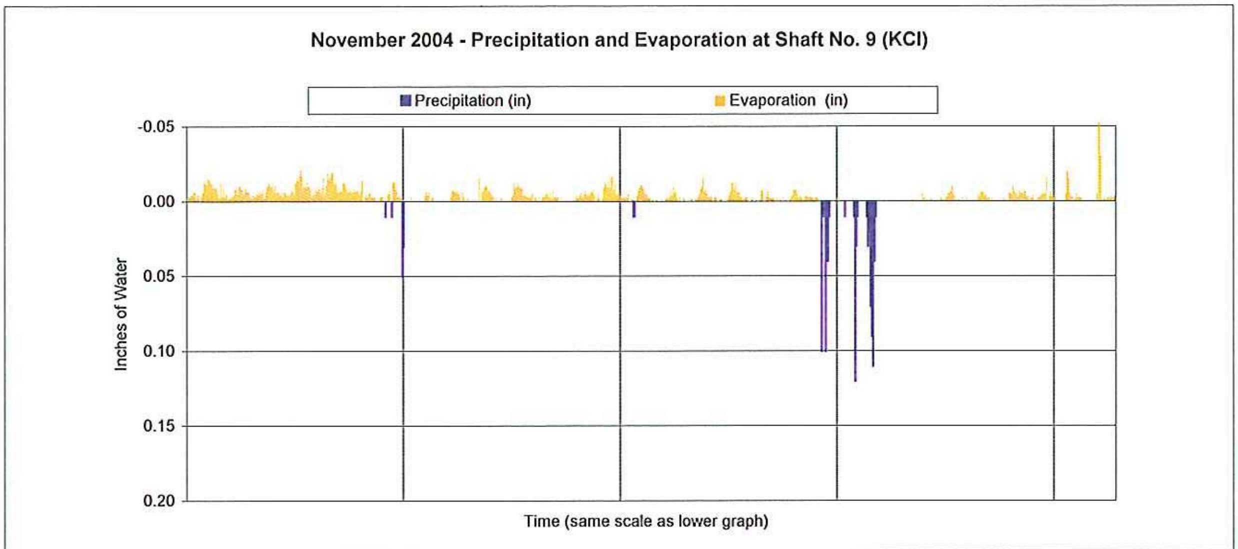
August 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Max specific conductance 402.53 µs/cm on 8/26/2004 at 04:00.
Calibration 8/25//2004
Specific Conductance (mS/cm) and Temperature (ºC)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2004
August 8, 2004
August 15, 2004
August 22, 2004
August 29, 2004
Time

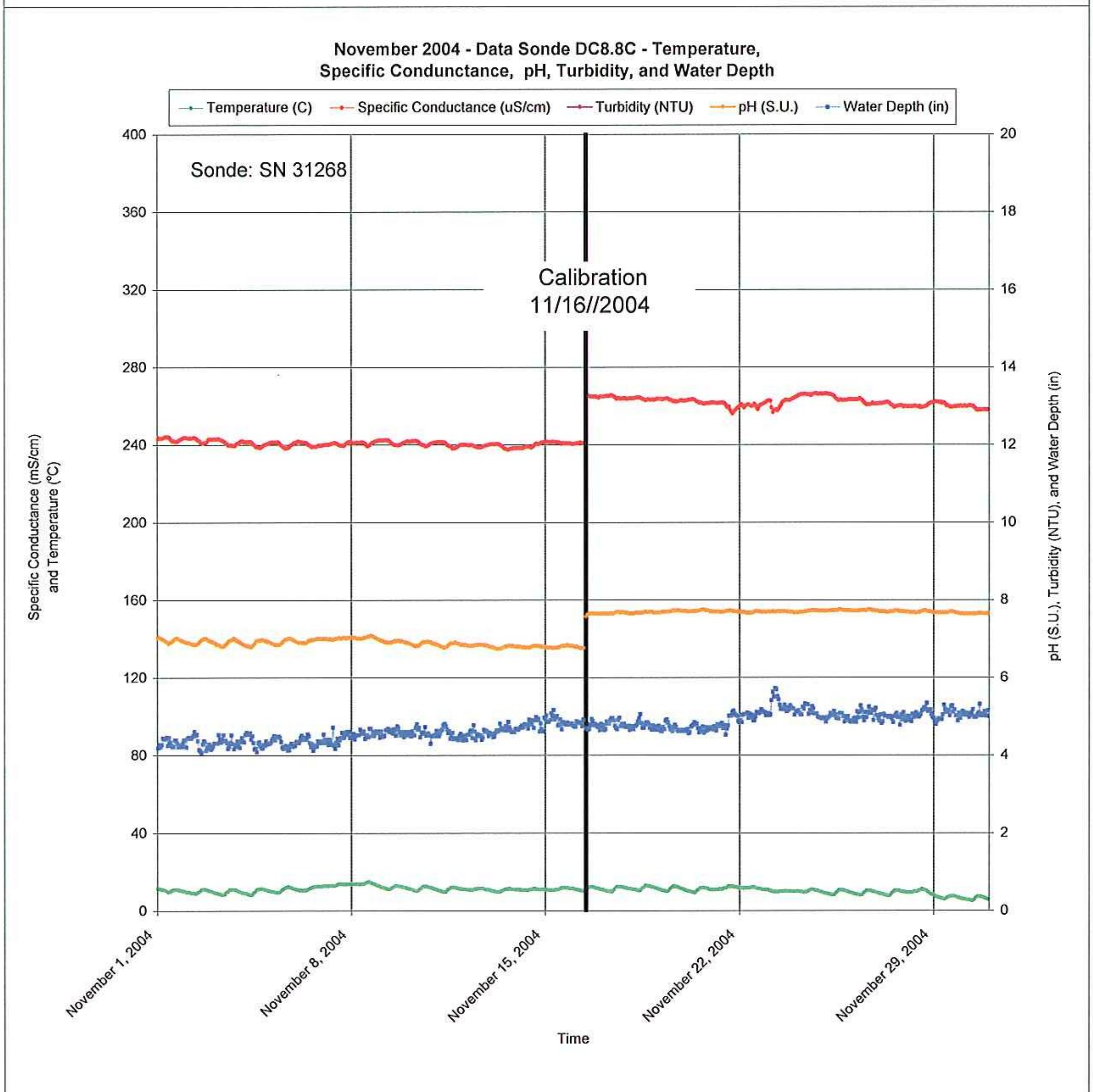

September 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.30 in)
(0.41 in)
Time (same scale as lower graph)

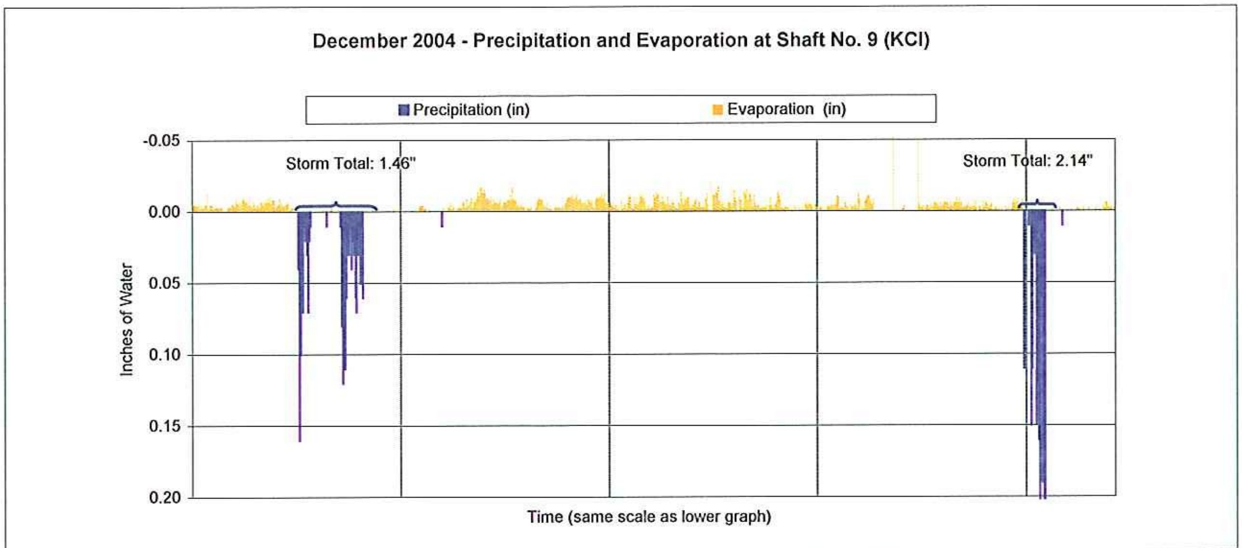

September 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Sonde: SN 31268
New Sonde Installation and Calibration 9/8/2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
September 1, 2004
September 8, 2004
September 15, 2004
September 22, 2004
September 29, 2004
Time

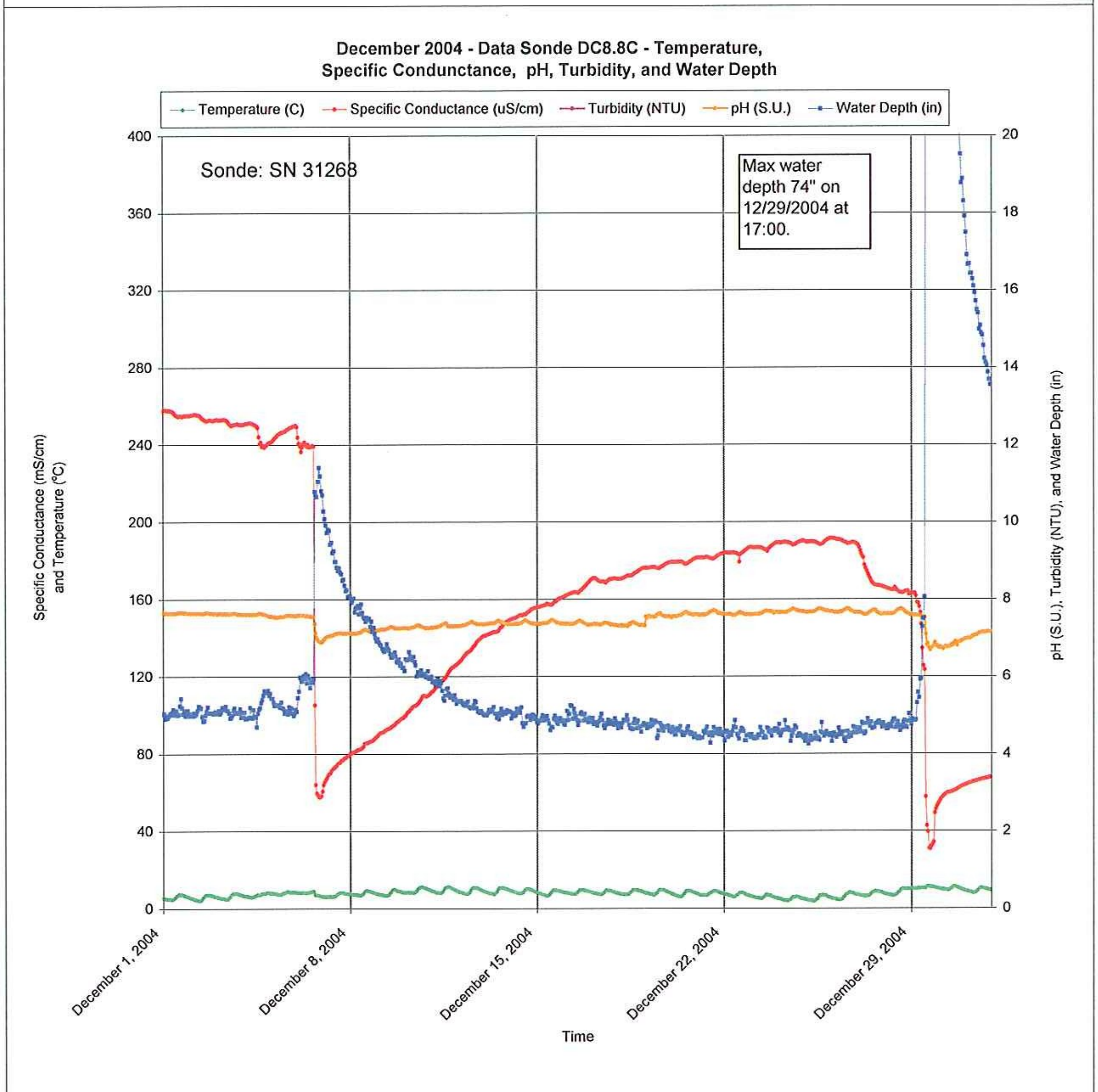

October 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.62"
Storm Total: 0.69"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

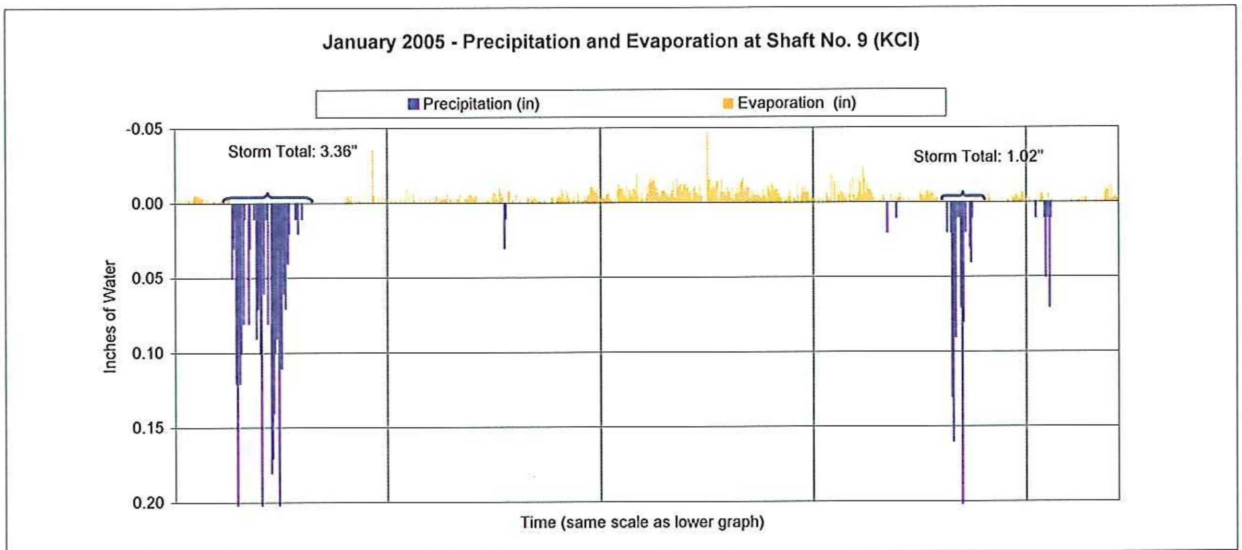

October 2004 - Data Sonde DC8.8C - Temperature, Specific Conduntance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
October 1, 2004
October 8, 2004
October 15, 2004
October 22, 2004
October 29, 2004
Time

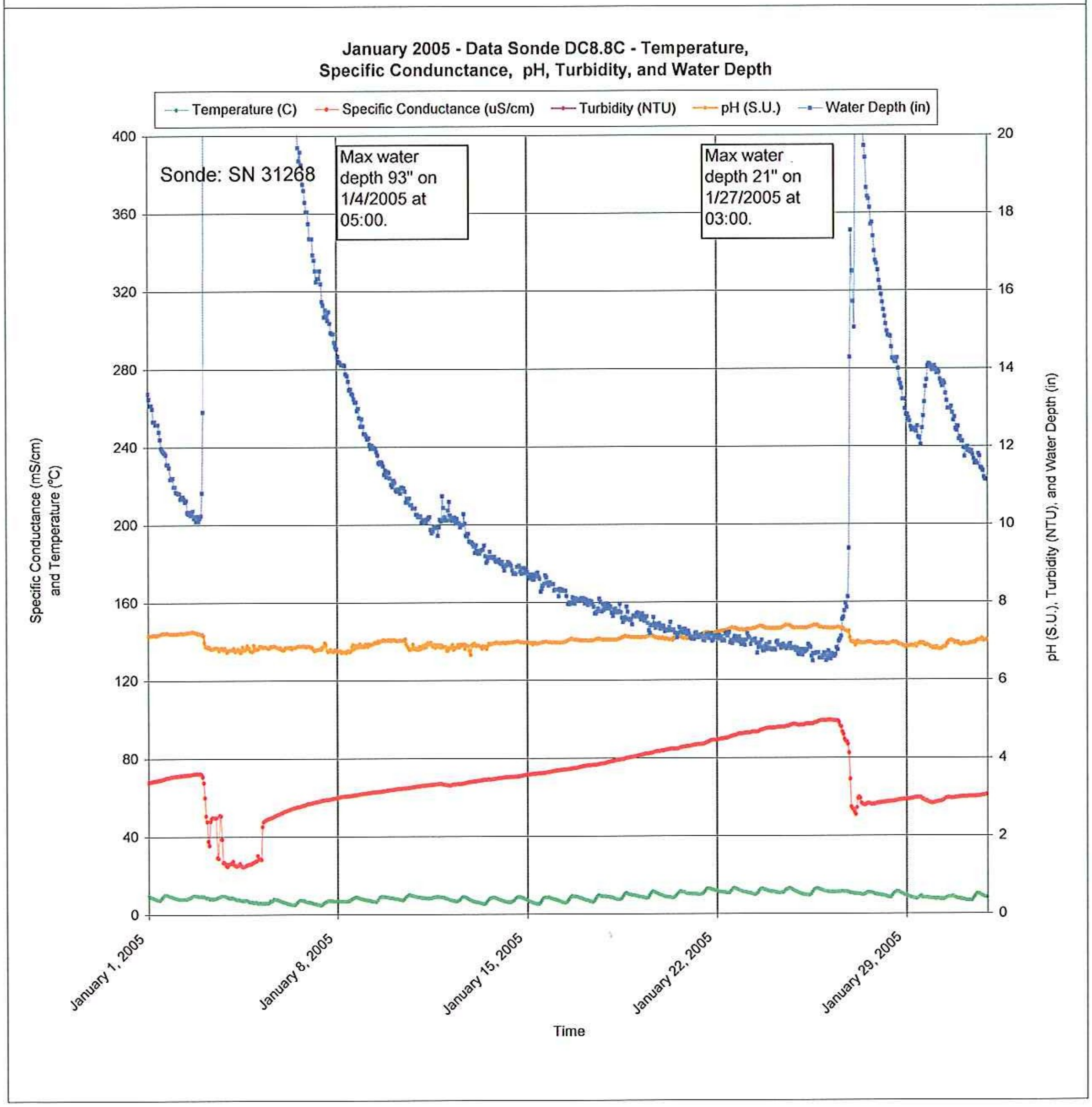

November 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

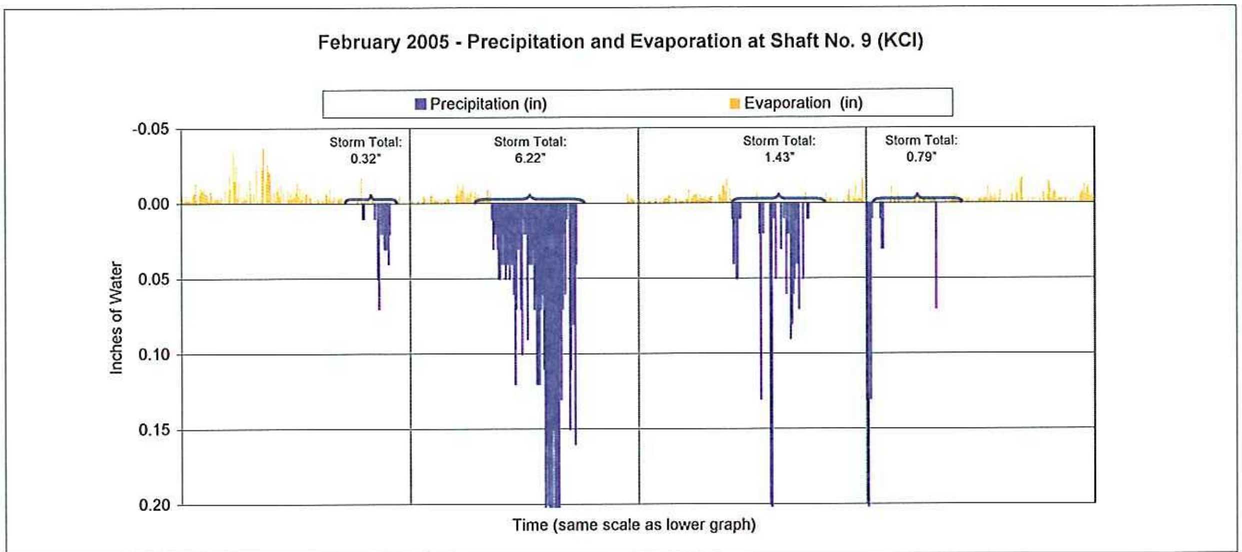

November 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Calibration 11/16//2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
November 1, 2004
November 8, 2004
November 15, 2004
November 22, 2004
November 29, 2004
Time

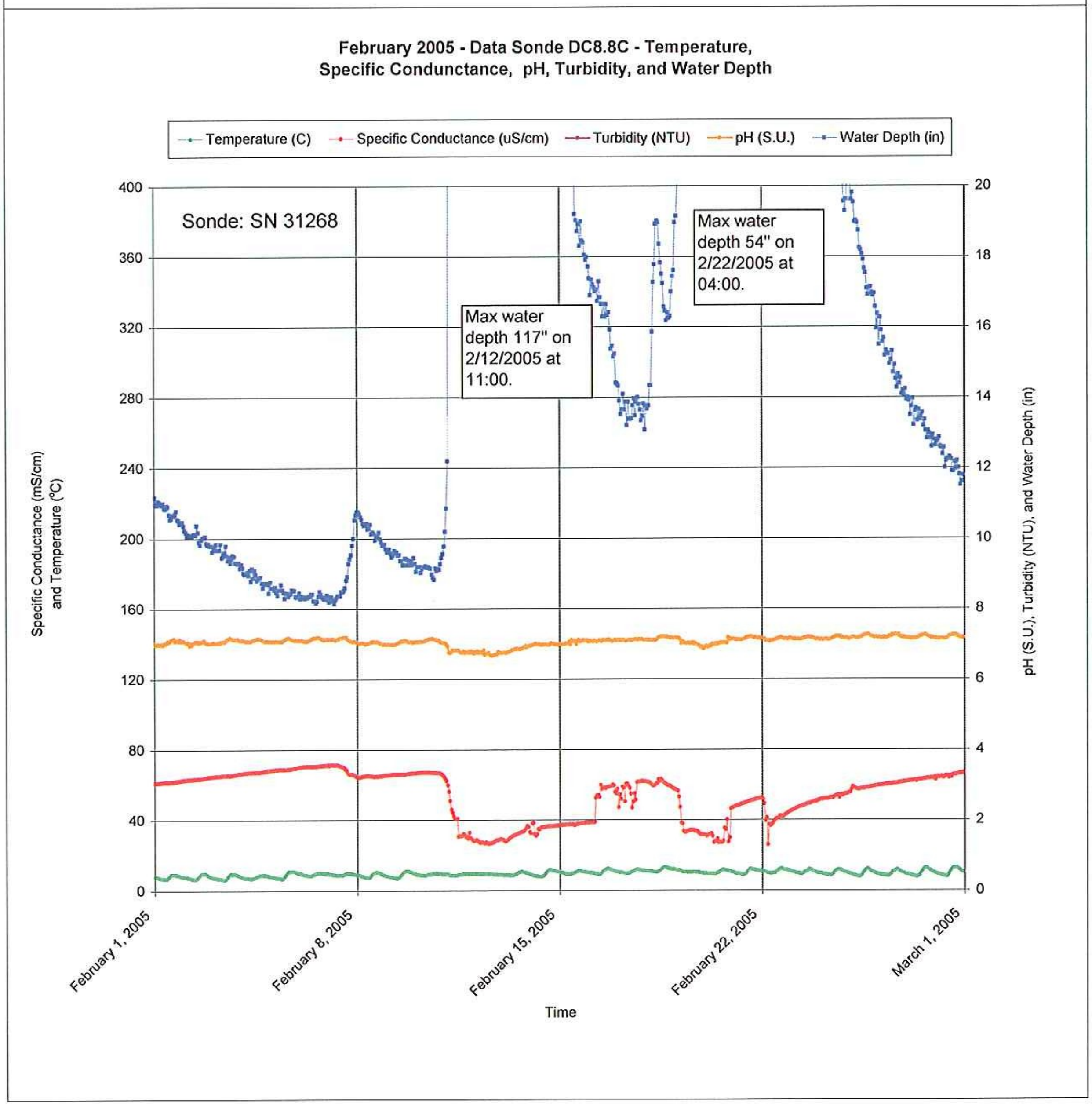

December 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.46"
Storm Total: 2.14"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

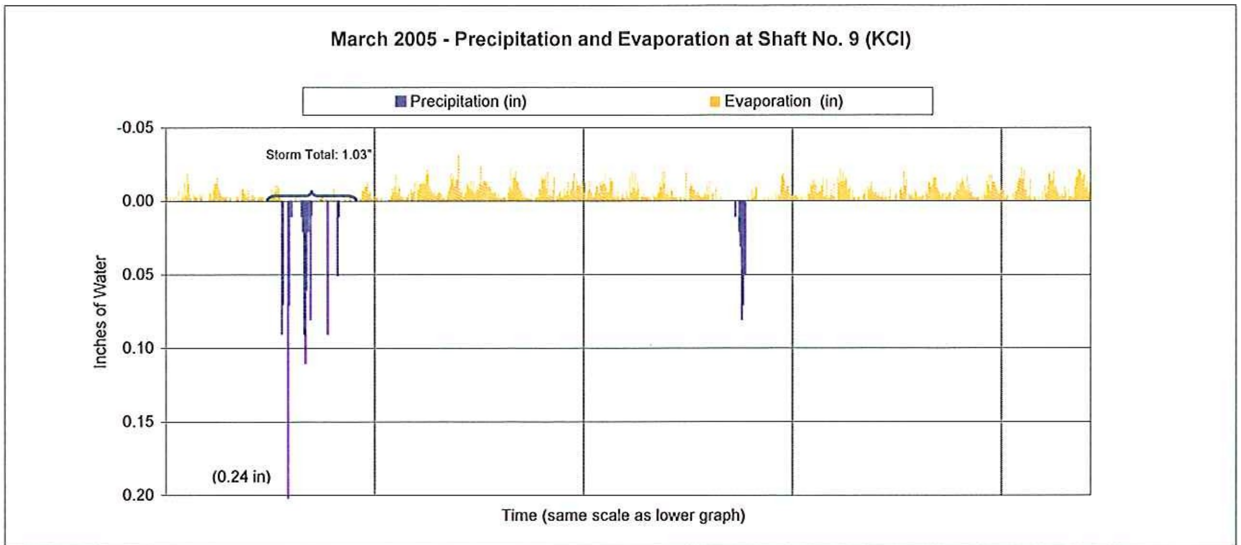

December 2004 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Max water depth 74" on 12/29/2004 at 17:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
December 1, 2004
December 8, 2004
December 15, 2004
December 22, 2004
December 29, 2004
Time

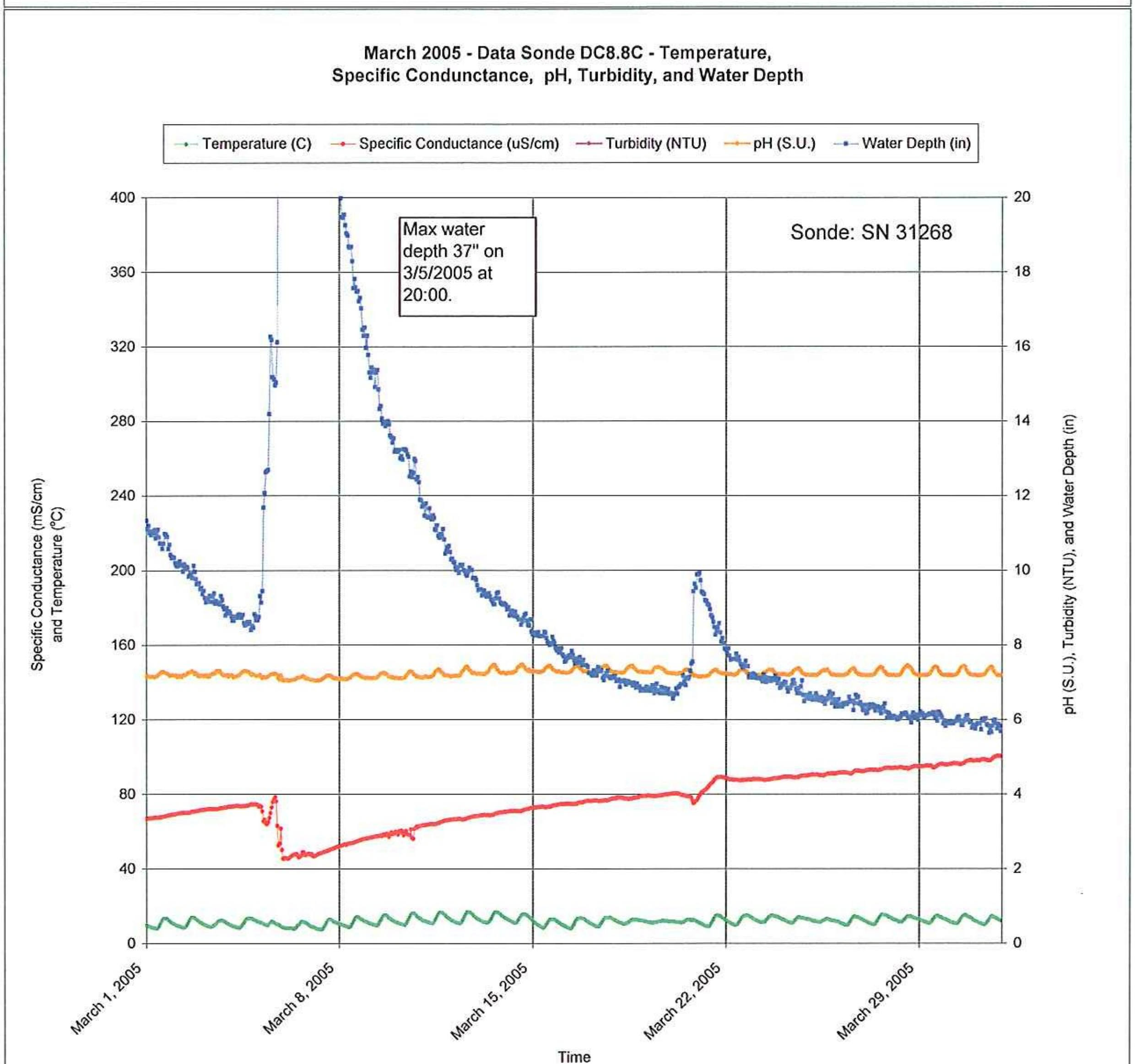

January 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 3.36"
Storm Total: 1.02"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

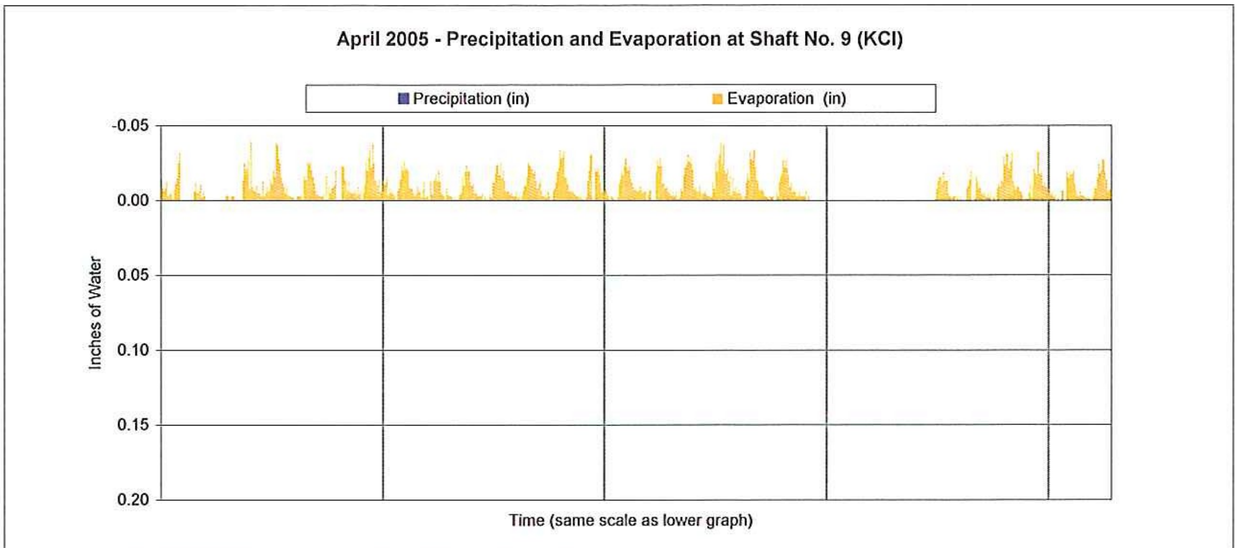

January 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Max water depth 93" on 1/4/2005 at 05:00.
Max water depth 21" on 1/27/2005 at 03:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
January 1, 2005
January 8, 2005
January 15, 2005
January 22, 2005
January 29, 2005
Time

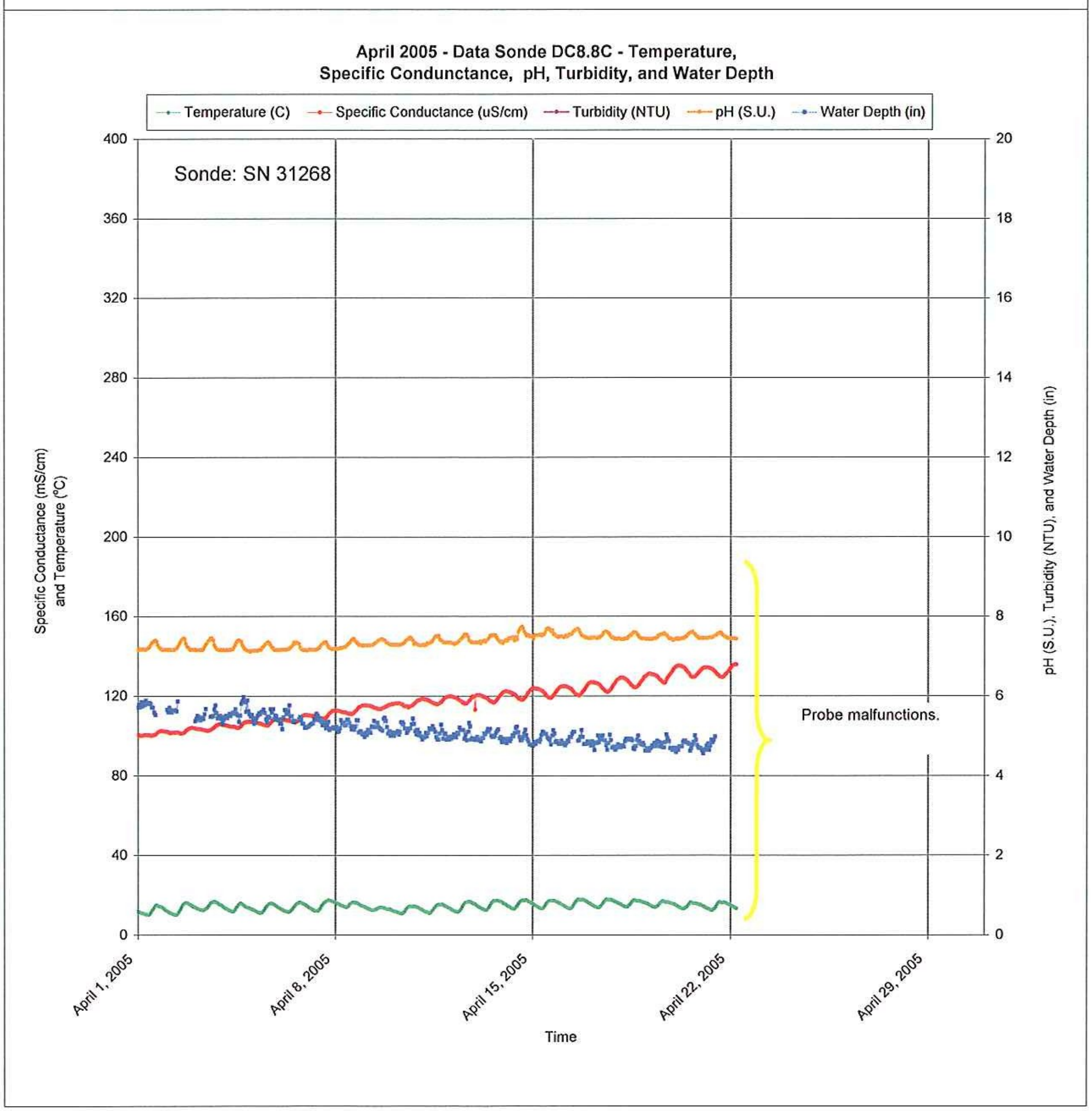

February 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.32"
Storm Total: 6.22"
Storm Total: 1.43"
Storm Total: 0.79"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

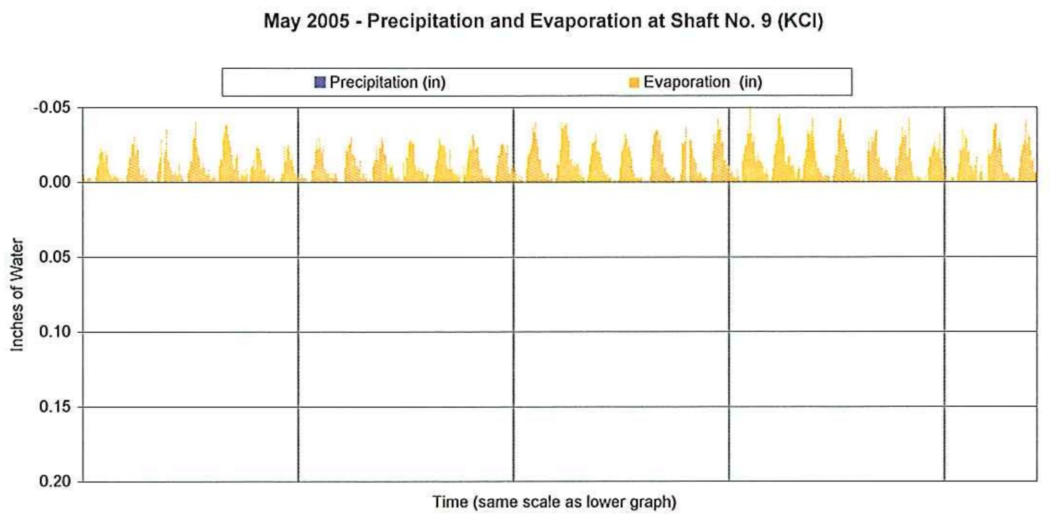

February 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Max water depth 117" on 2/12/2005 at 11:00.
Max water depth 54" on 2/22/2005 at 04:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2005
February 8, 2005
February 15, 2005
February 22, 2005
March 1, 2005
Time

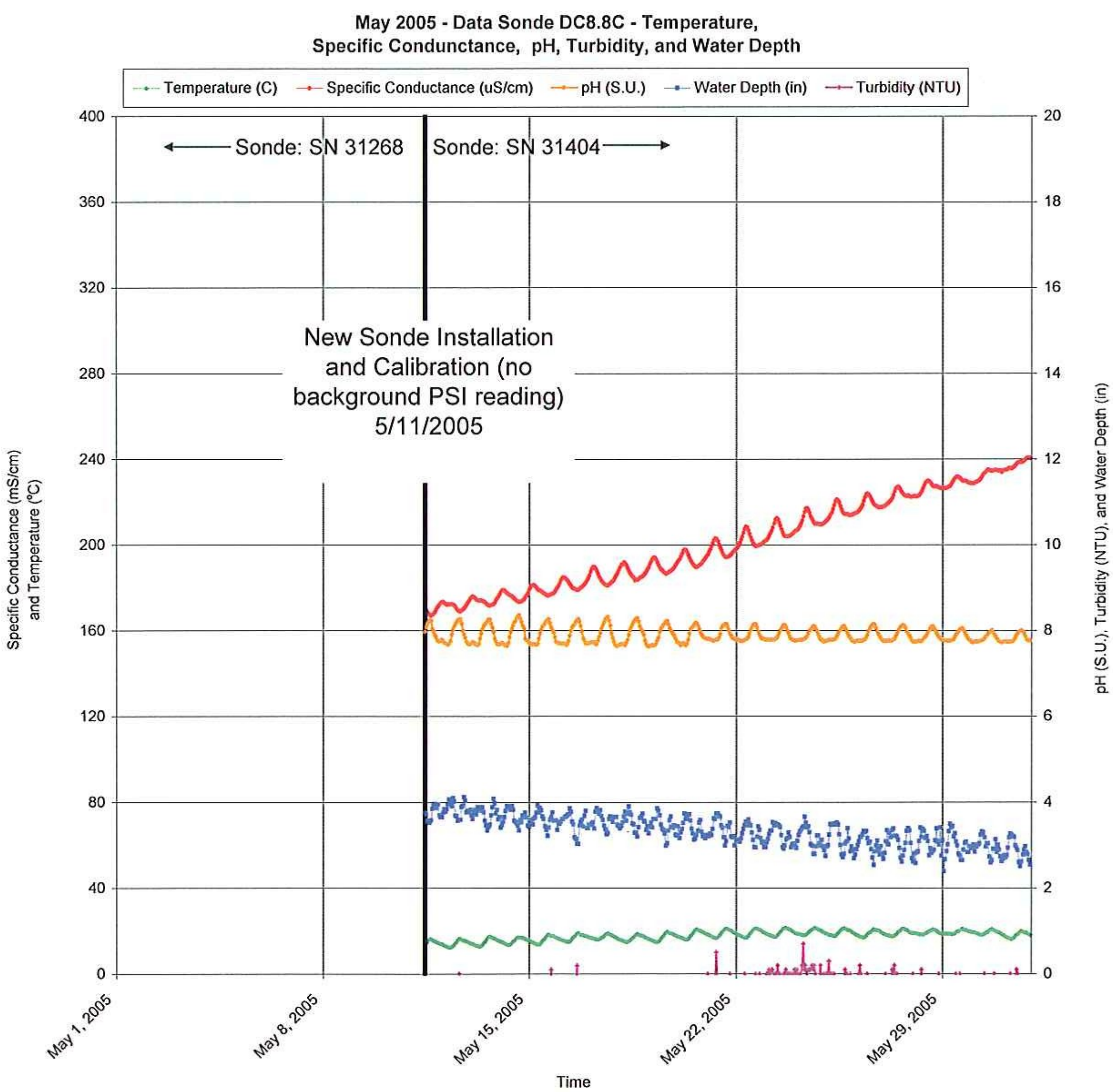

March 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.03"
(0.24 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

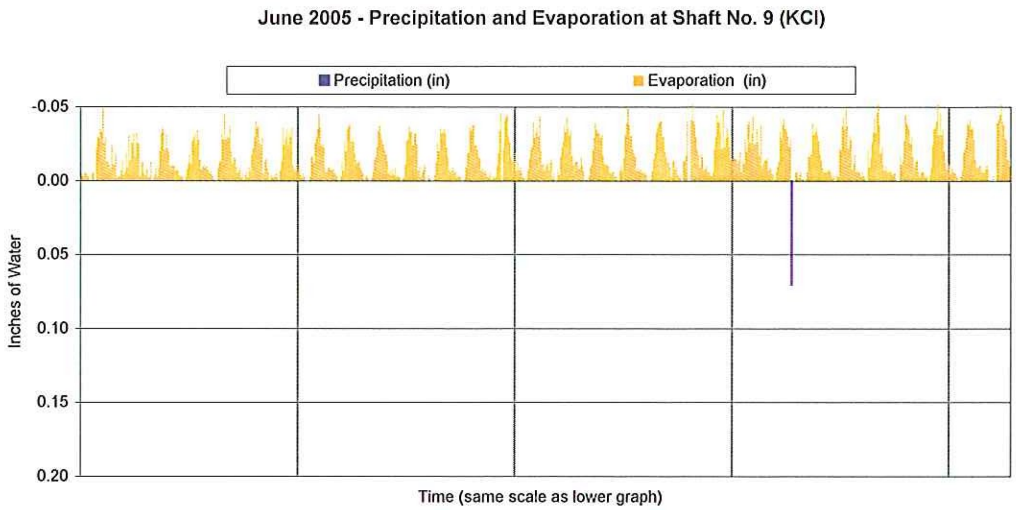

March 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Max water depth 37" on 3/5/2005 at 20:00.
Sonde: SN 31268
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
March 1, 2005
March 8, 2005
March 15, 2005
March 22, 2005
March 29, 2005
Time


April 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

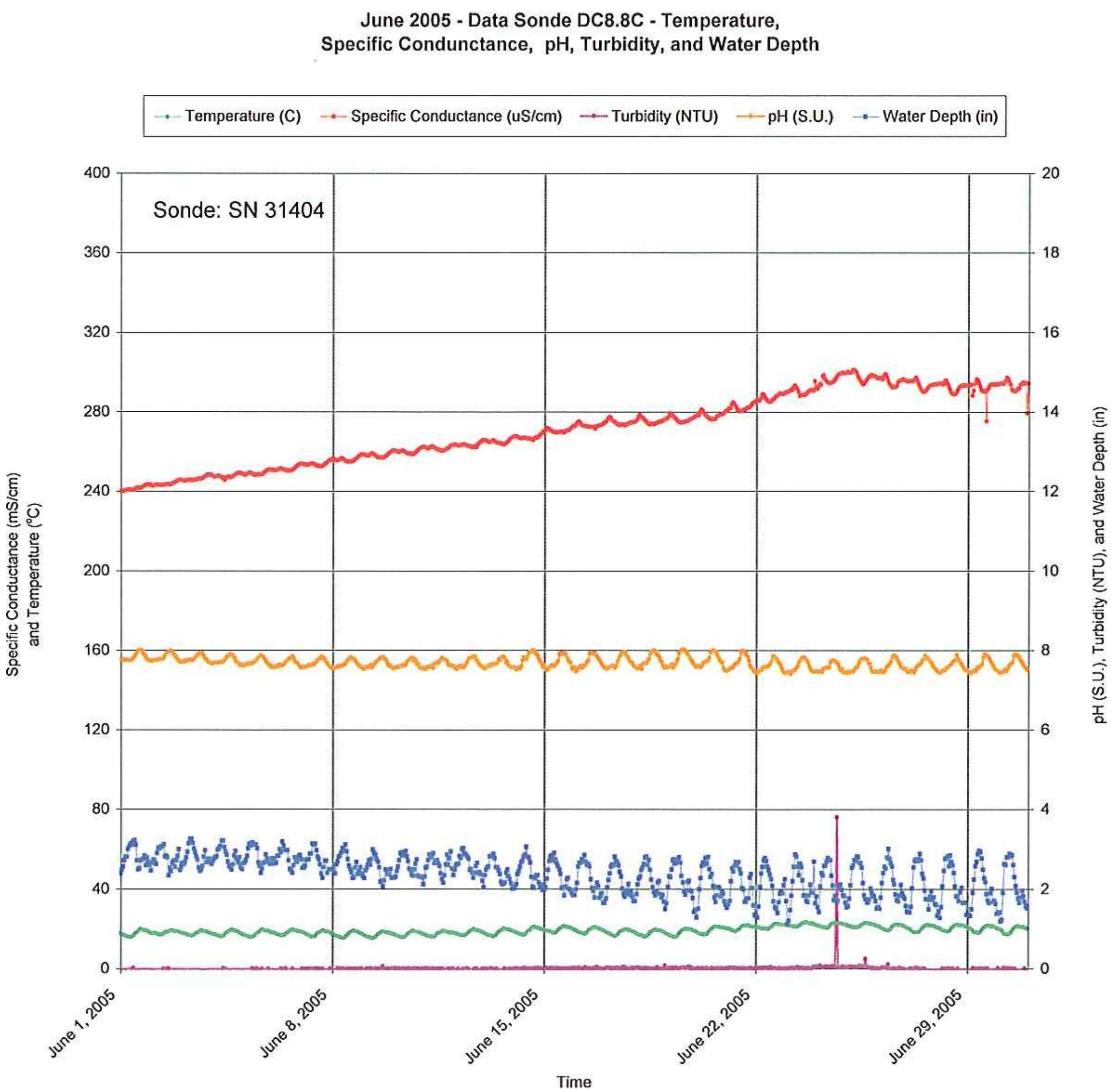

April 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31268
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
Probe malfunctions.
April 1, 2005
April 8, 2005
April 15, 2005
April 22, 2005
April 29, 2005
Time


May 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

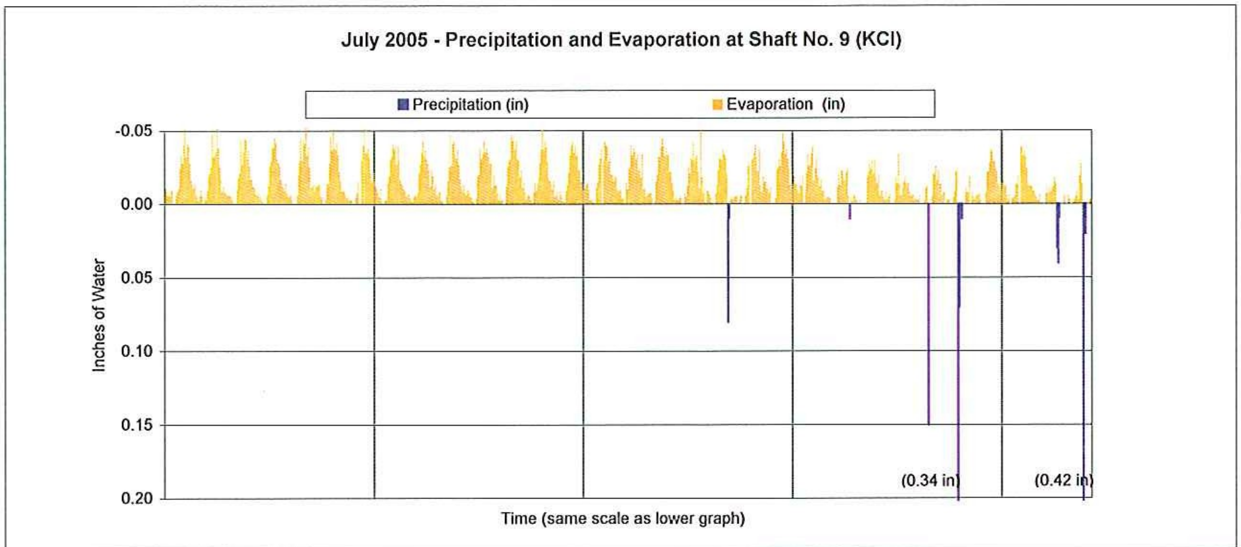

May 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Turbidity (NTU)
Sonde: SN 31268
Sonde: SN 31404
New Sonde Installation and Calibration (no background PSI reading) 5/11/2005
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
May 1, 2005
May 8, 2005
May 15, 2005
May 22, 2005
May 29, 2005
Time

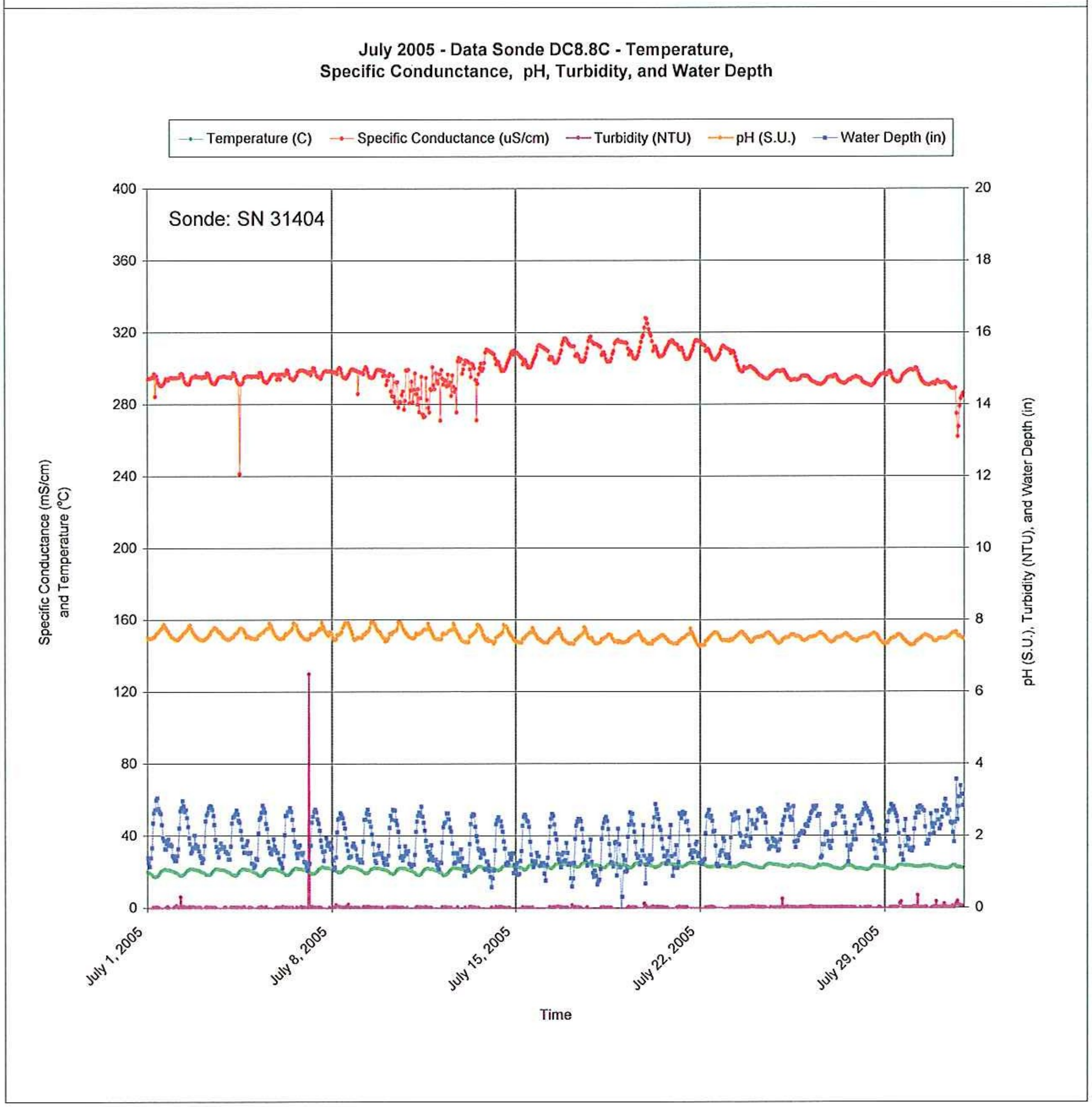


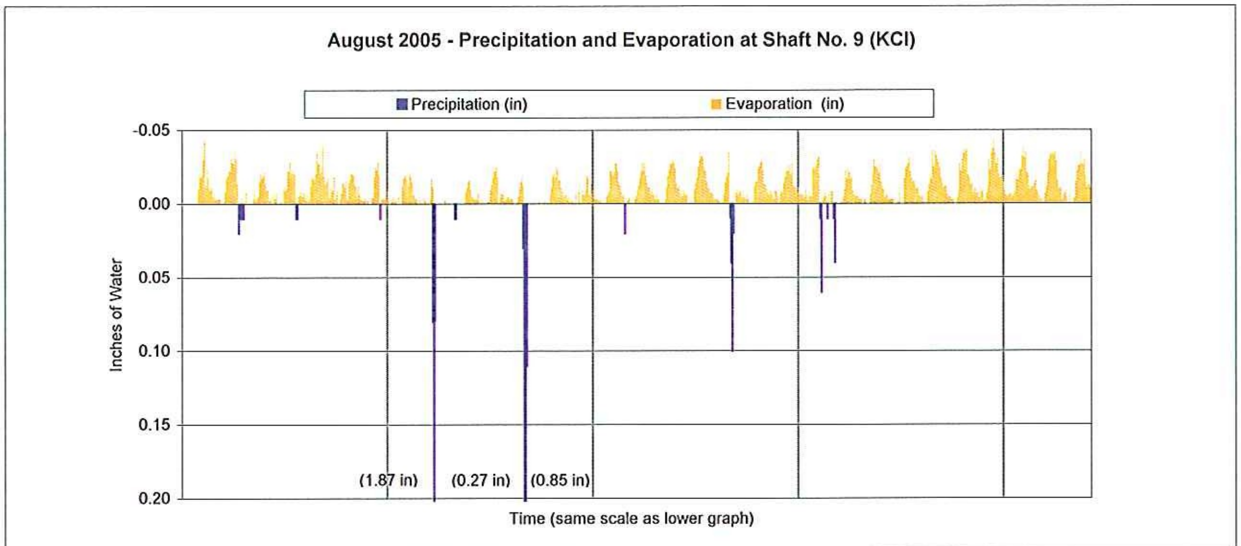
June 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

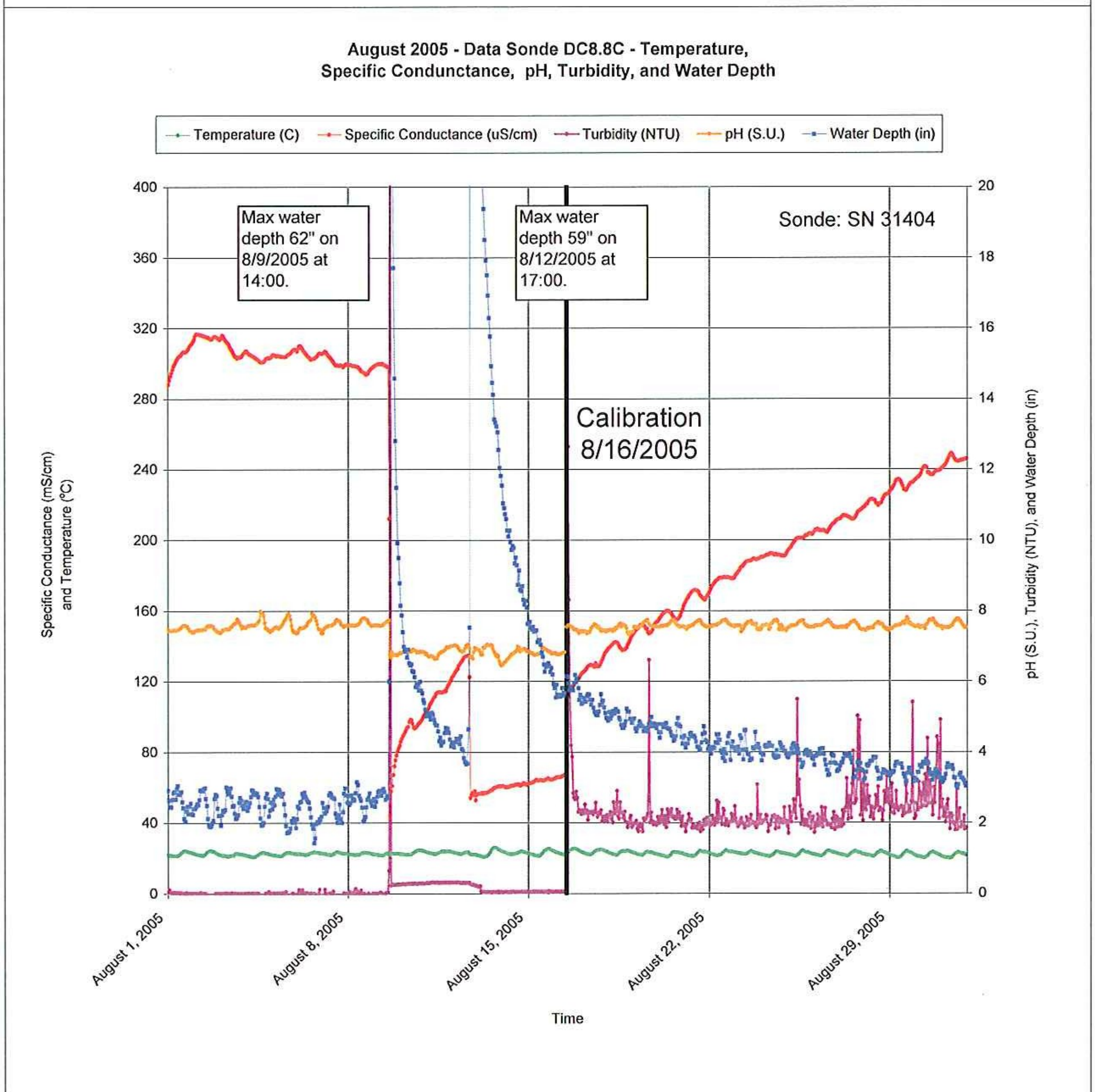


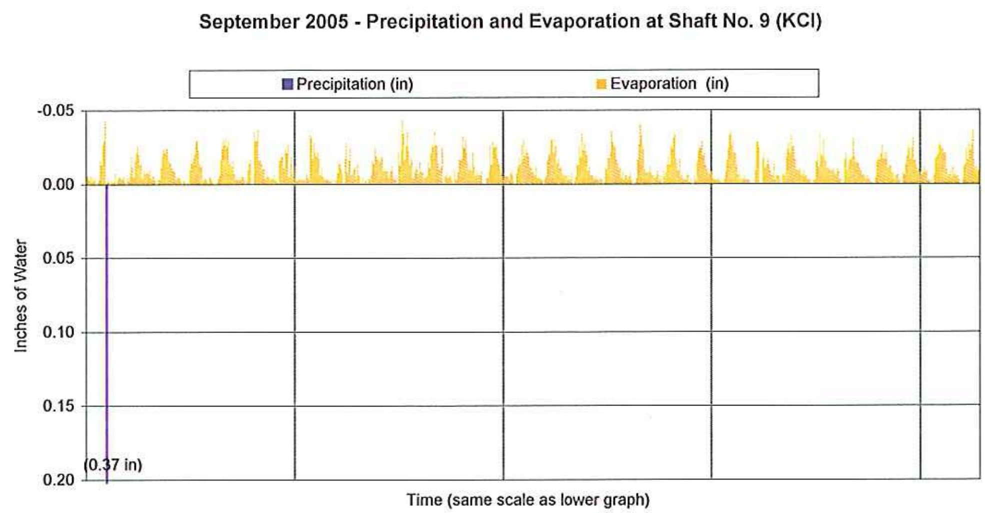
June 2005 - Data Sonde DC8.8C - Temperature,
Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (ºC)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
June 1, 2005
June 8, 2005
June 15, 2005
June 22, 2005
June 29, 2005
Time

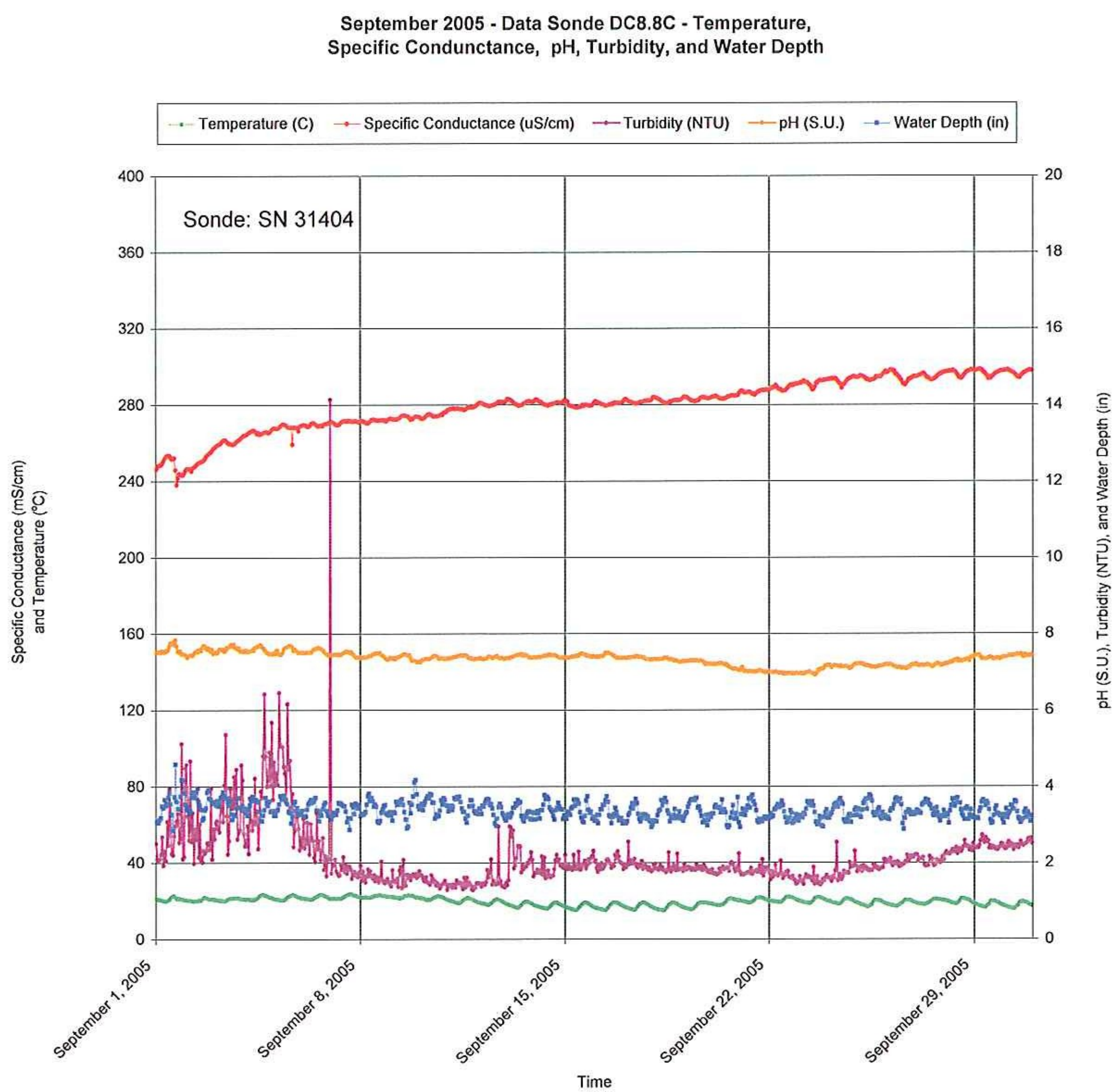

July 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.34 in)
(0.42 in)
Time (same scale as lower graph)

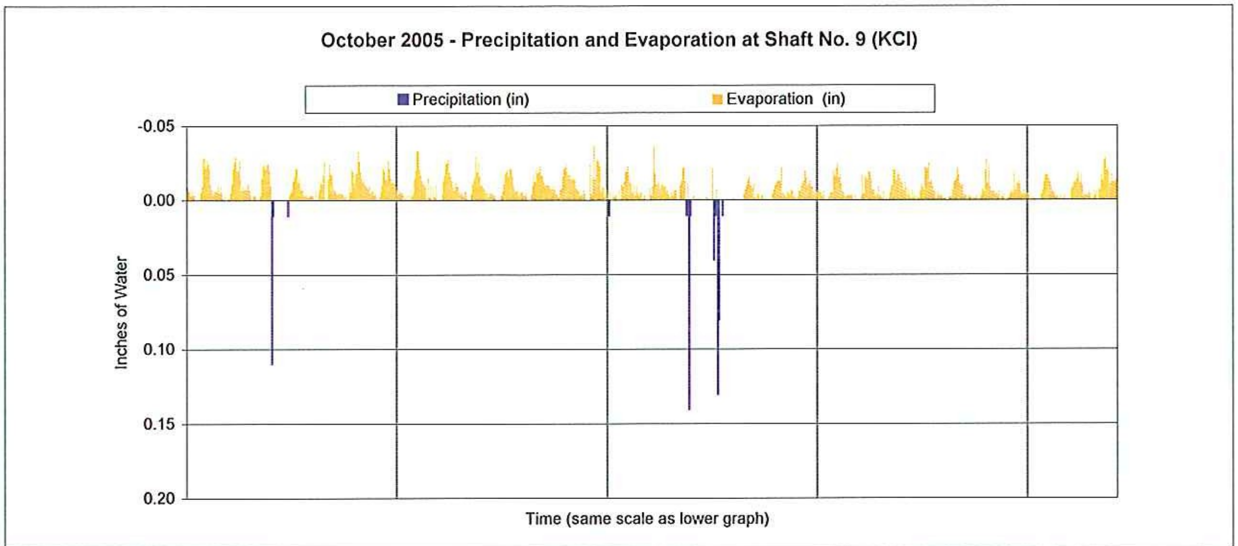

July 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (ºC)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
July 1, 2005
July 8, 2005
July 15, 2005
July 22, 2005
July 29, 2005
Time

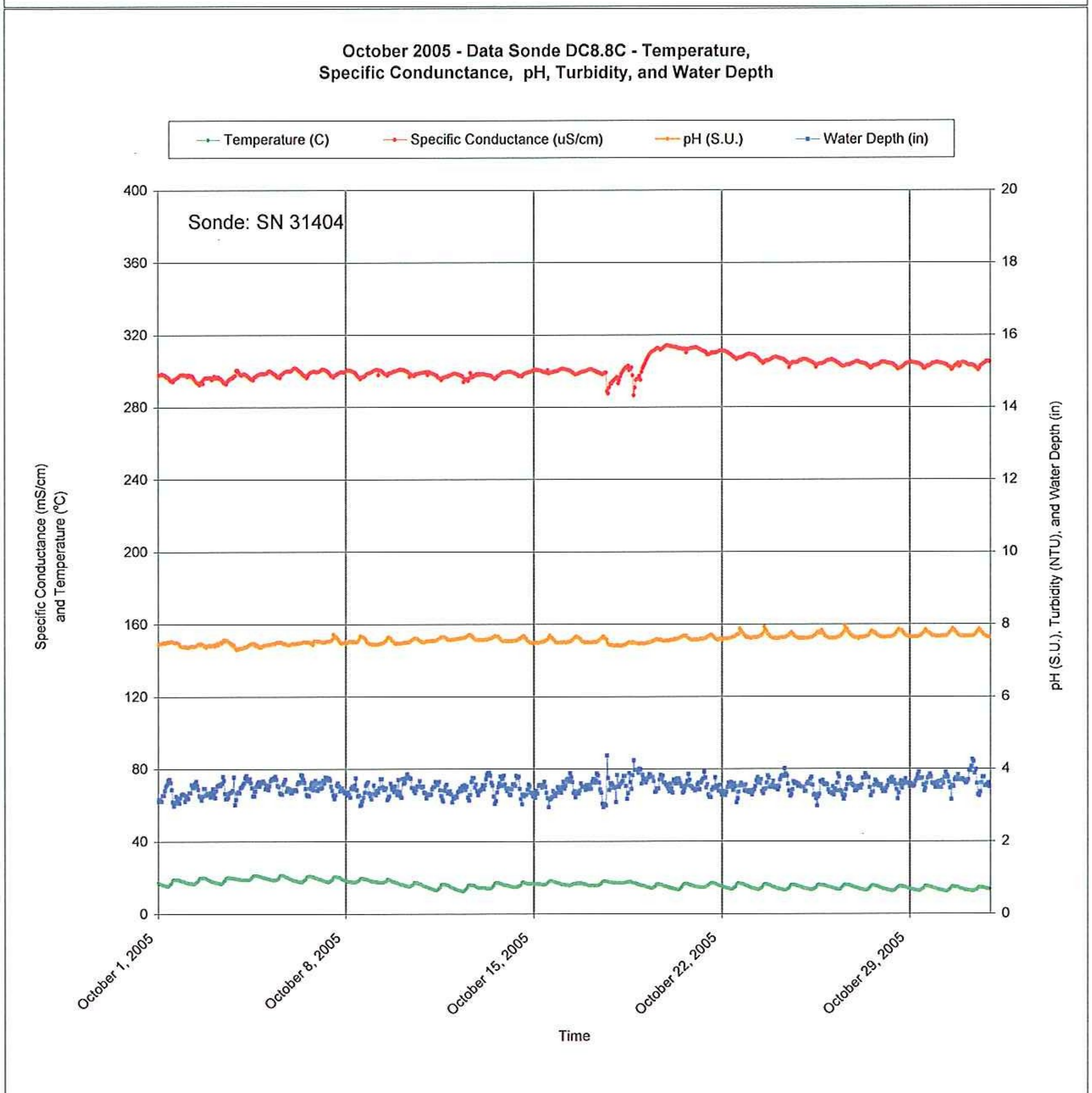

August 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(1.87 in)
(0.27 in)
(0.85 in)
Time (same scale as lower graph)

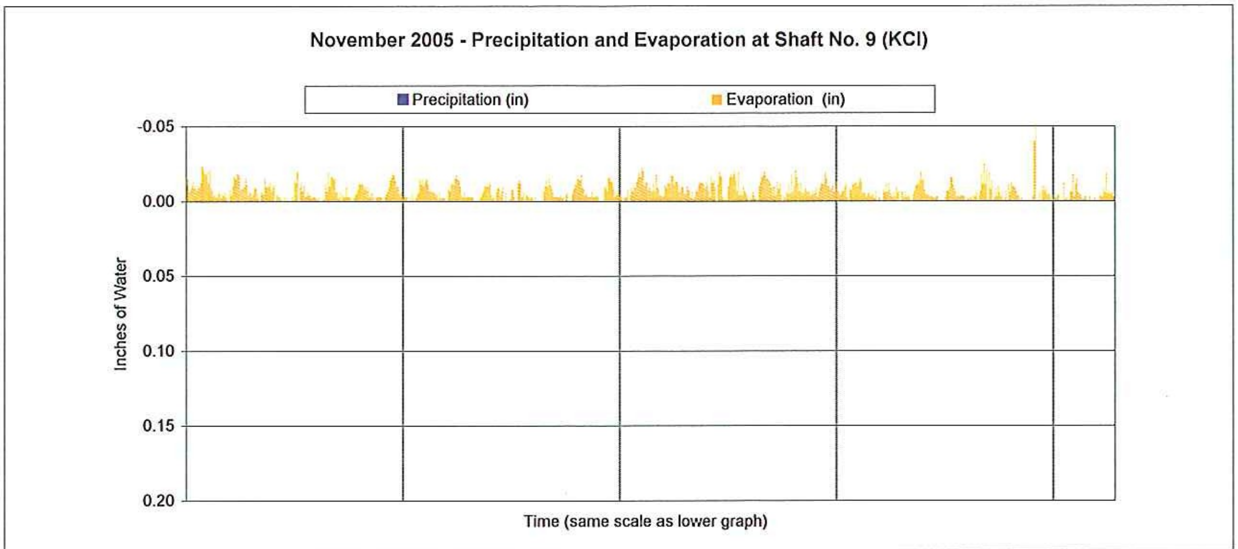

August 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Max water depth 62" on 8/9/2005 at 14:00.
Max water depth 59" on 8/12/2005 at 17:00.
Sonde: SN 31404
Calibration 8/16/2005
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
August 1, 2005
August 8, 2005
August 15, 2005
August 22, 2005
August 29, 2005
Time

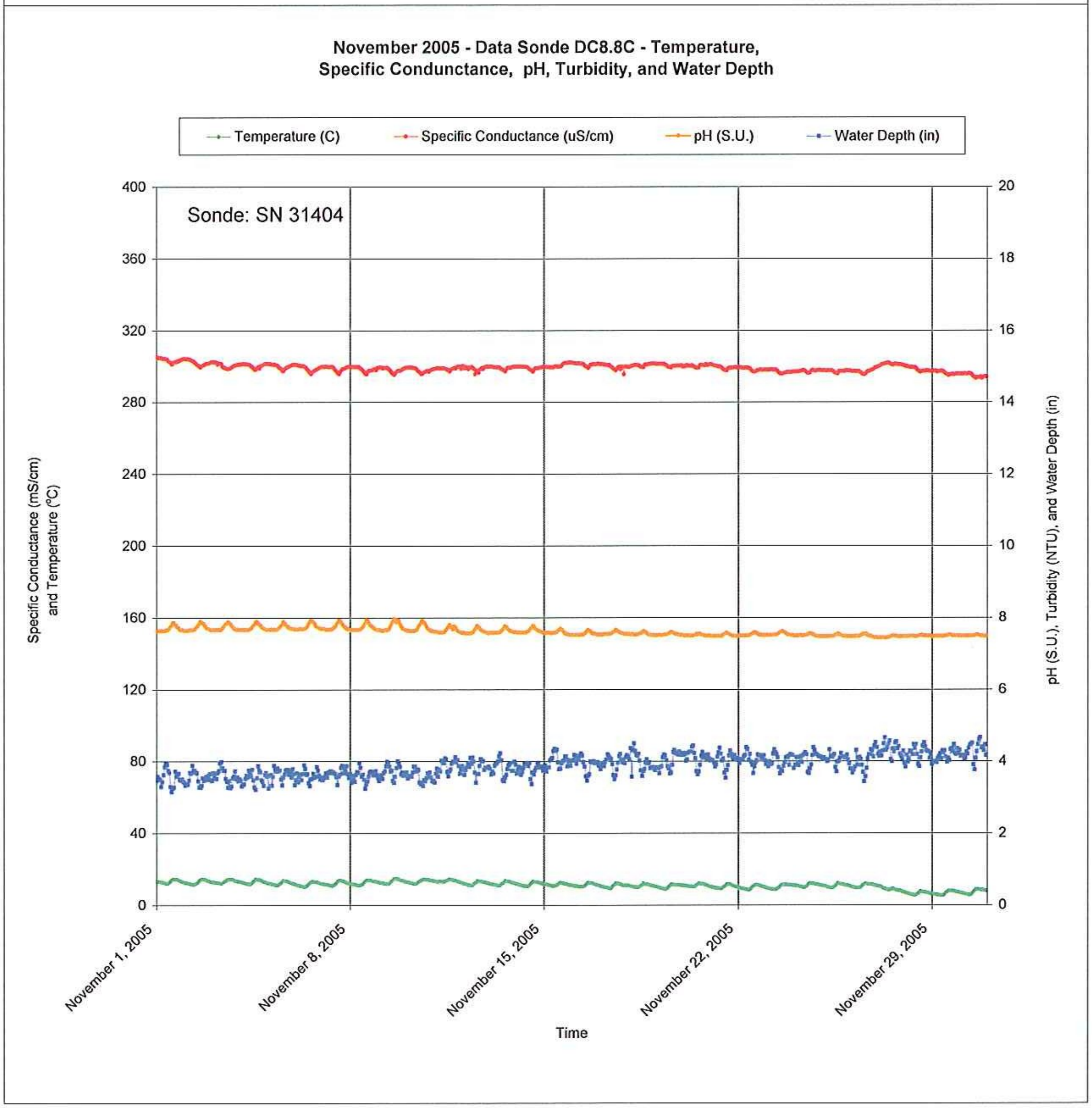

September 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.37 in)
Time (same scale as lower graph)

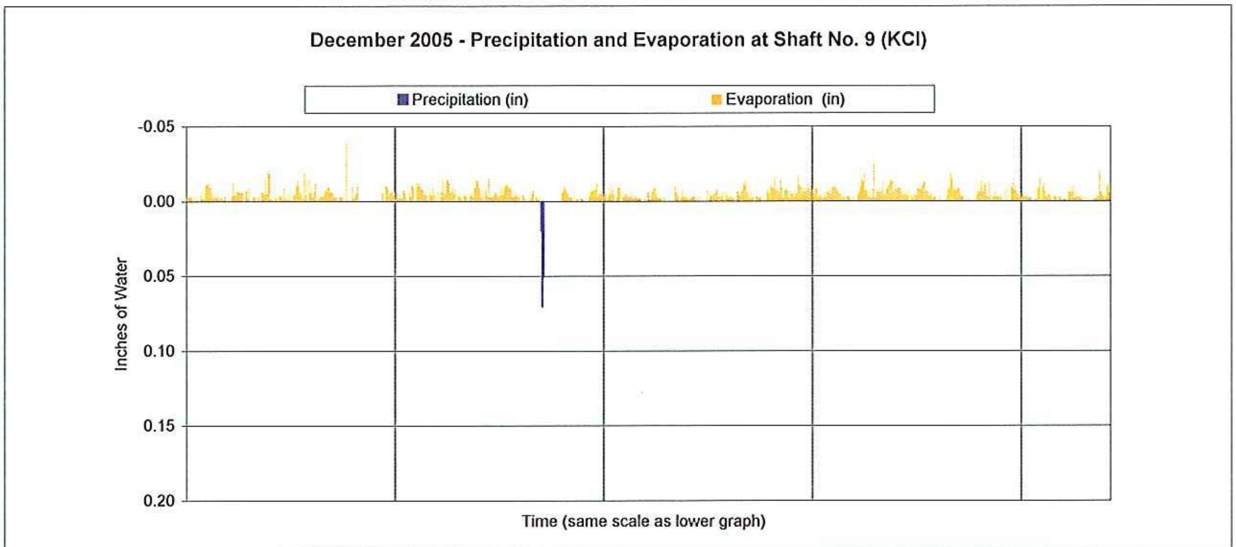

September 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
Turbidity (NTU)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
September 1, 2005
September 8, 2005
September 15, 2005
September 22, 2005
September 29, 2005
Time

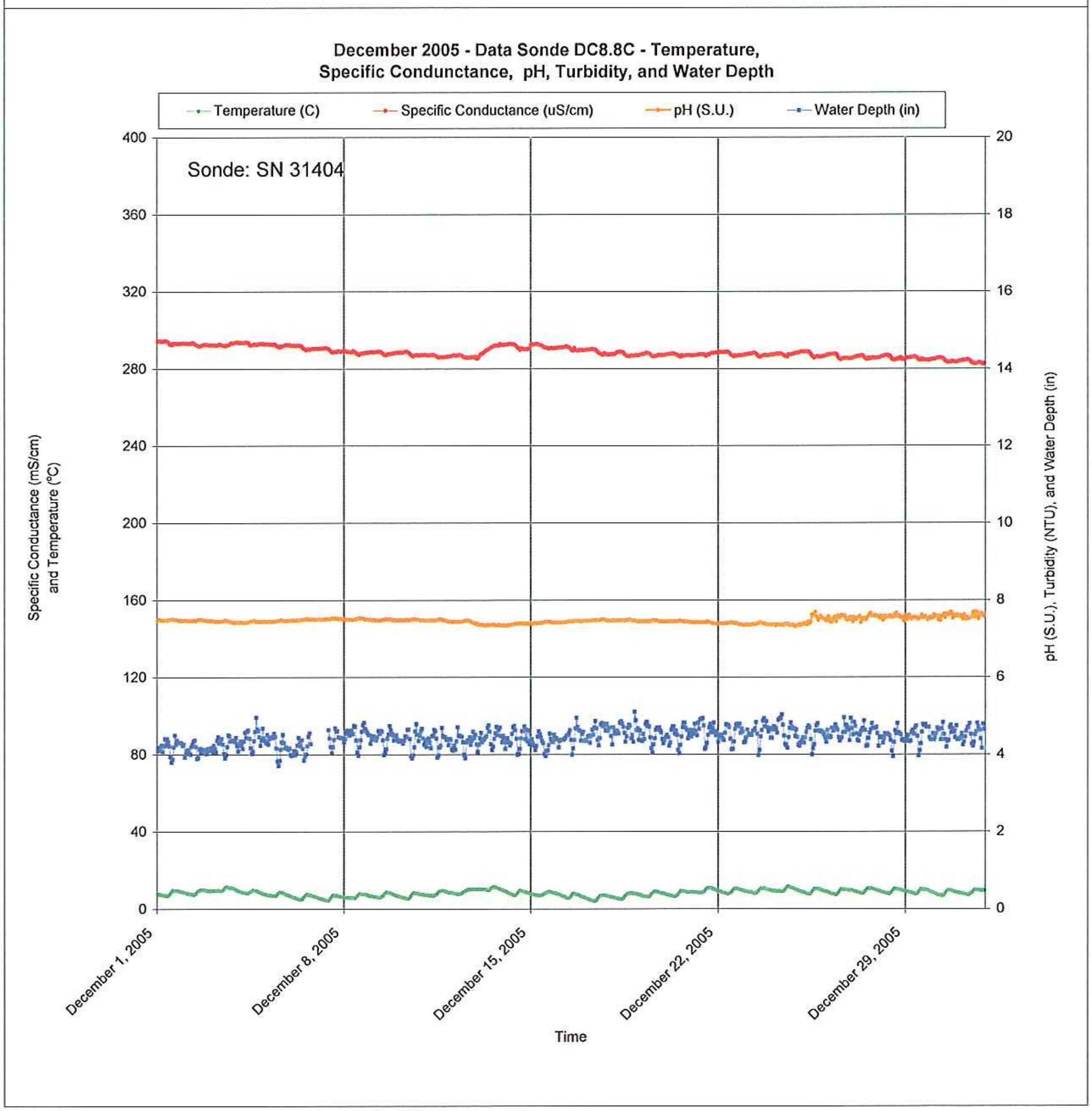

October 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

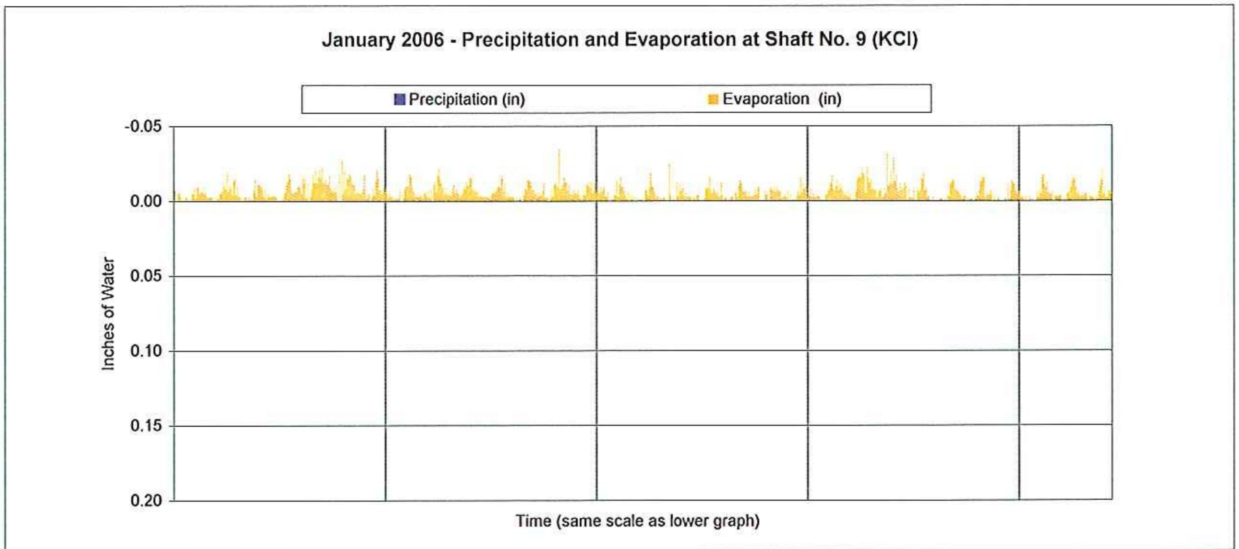

October 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
October 1, 2005
October 8, 2005
October 15, 2005
October 22, 2005
October 29, 2005
Time

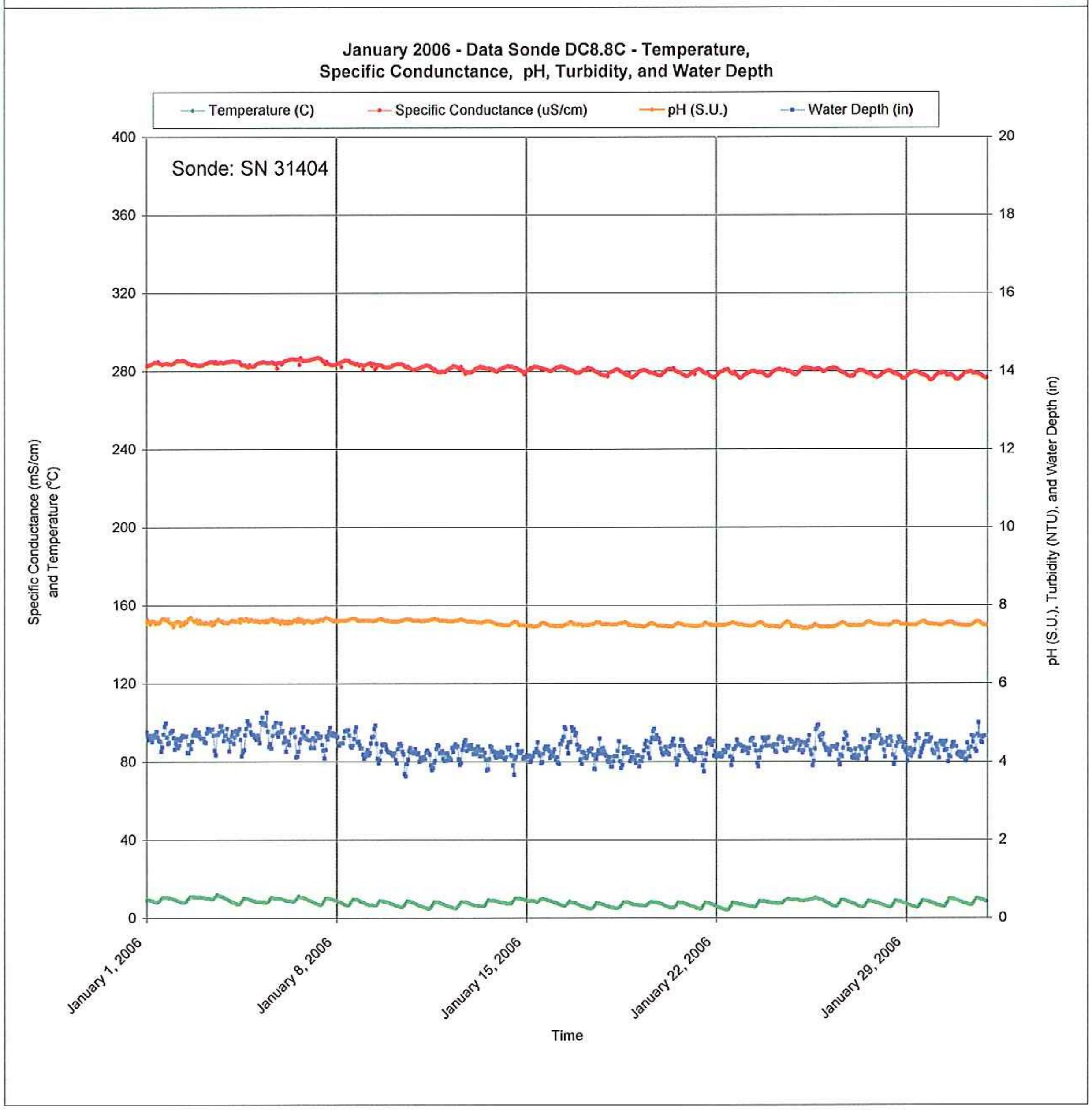

November 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

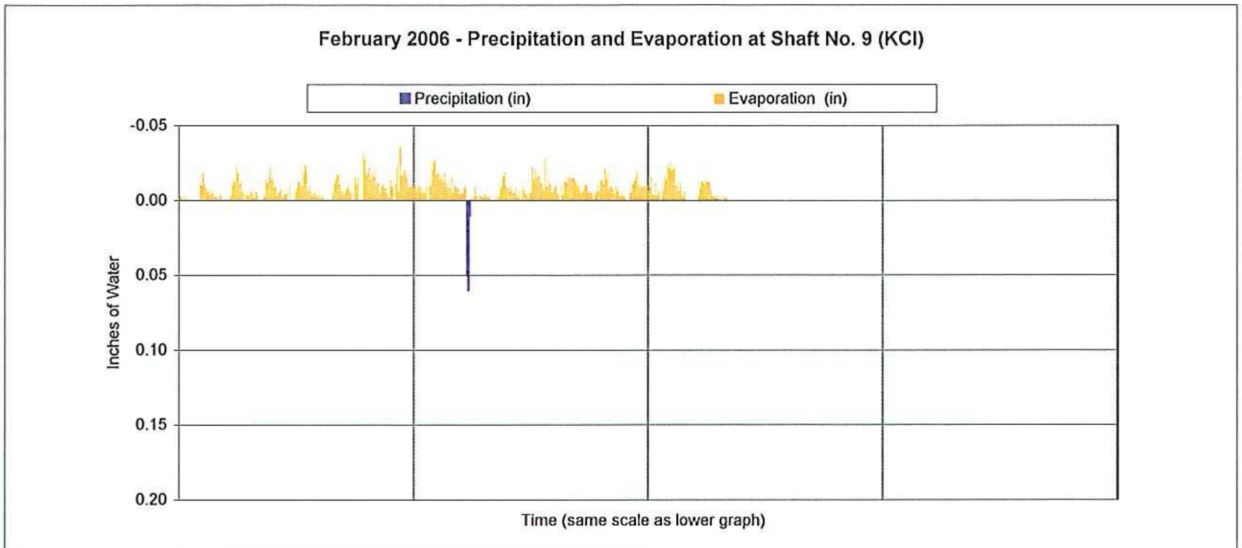

November 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
November 1, 2005
November 8, 2005
November 15, 2005
November 22, 2005
November 29, 2005
Time

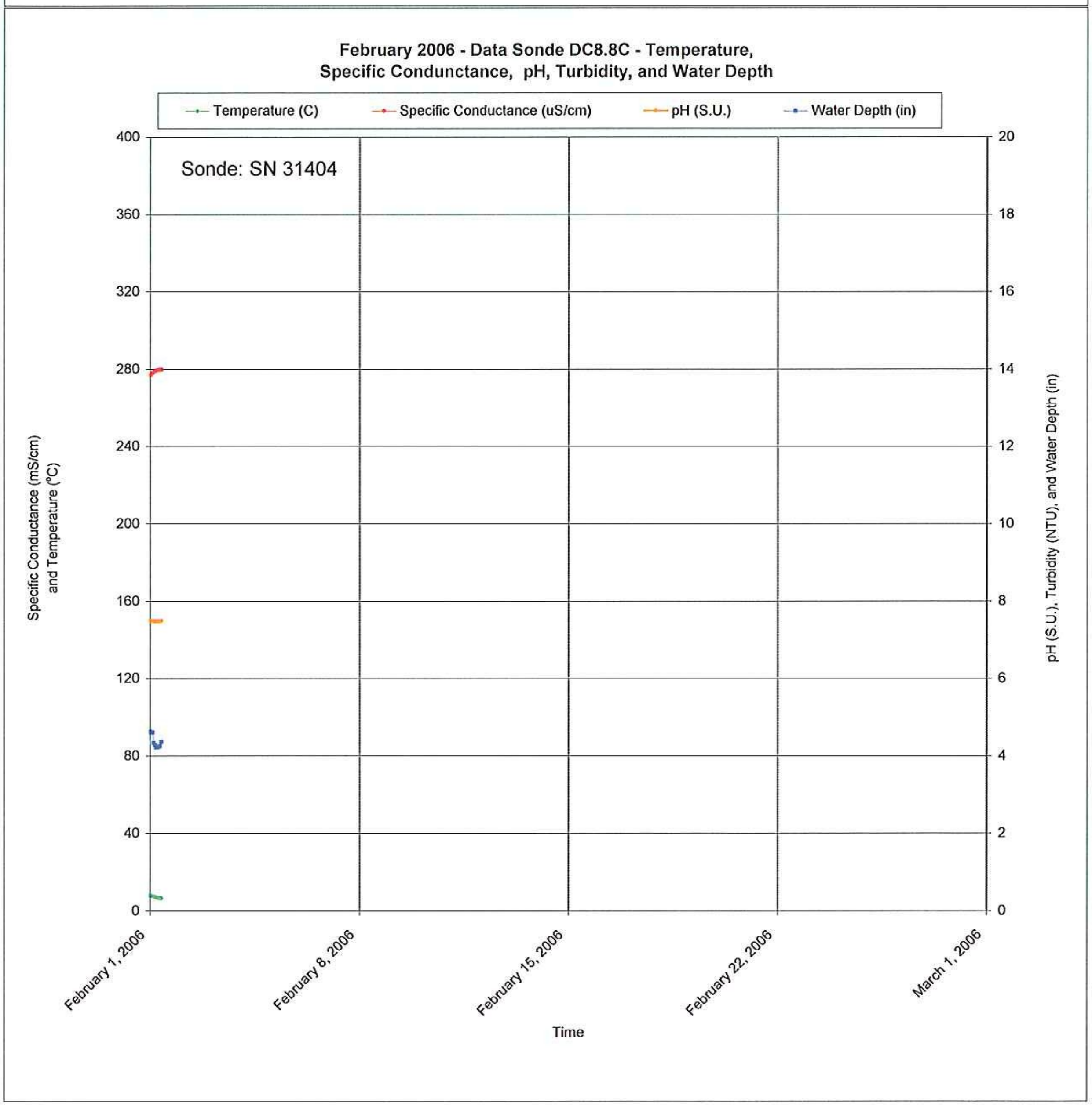

December 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


December 2005 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2005
December 8, 2005
December 15, 2005
December 22, 2005
December 29, 2005
Time

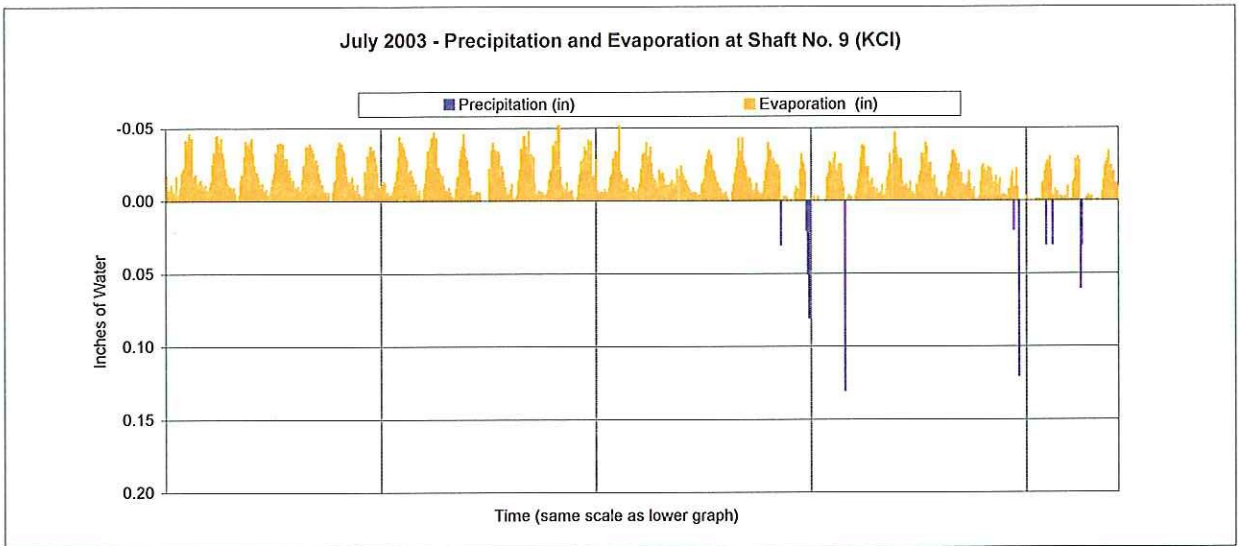

January 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

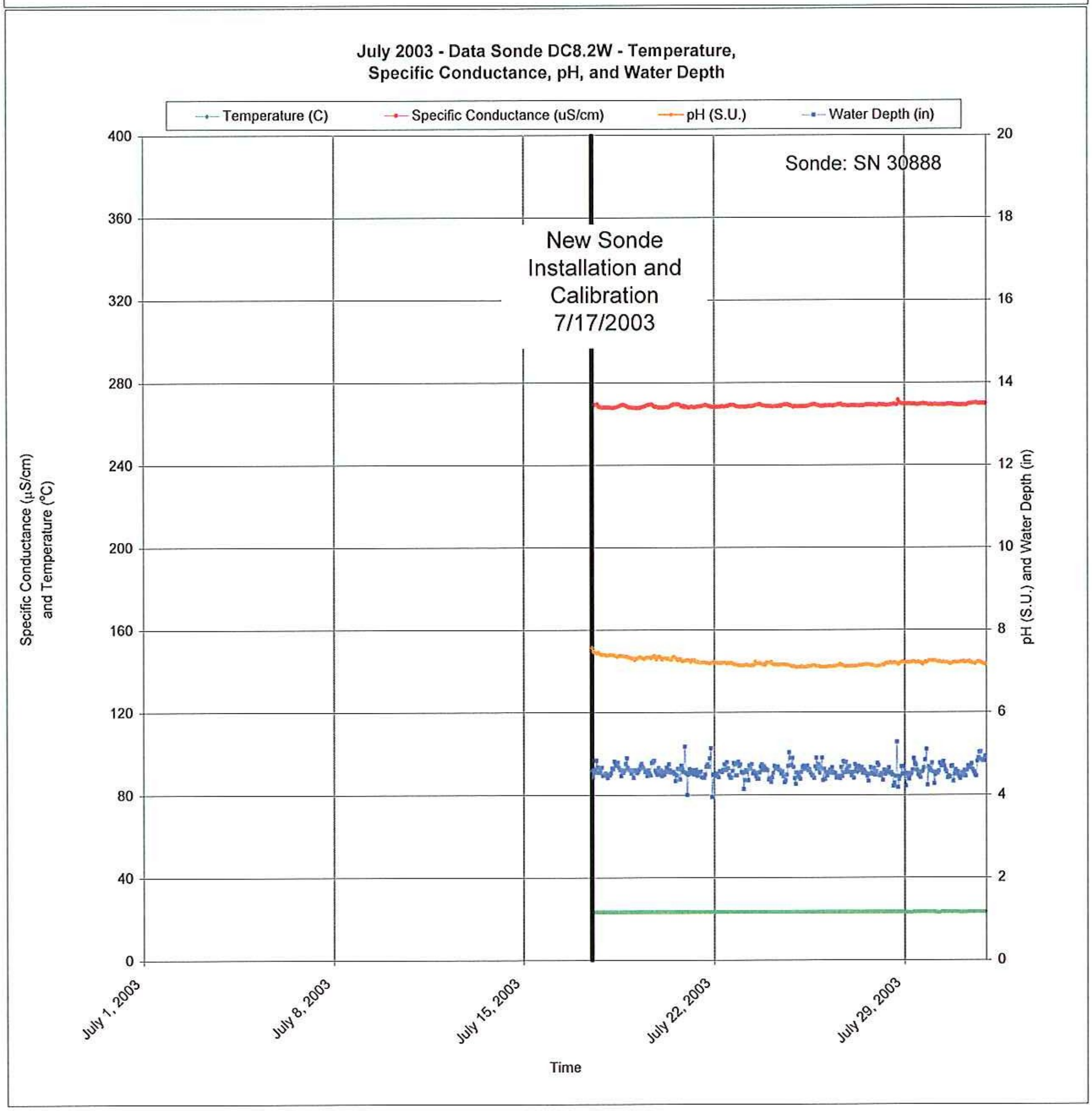

January 2006 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
January 1, 2006
January 8, 2006
January 15, 2006
January 22, 2006
January 29, 2006
Time

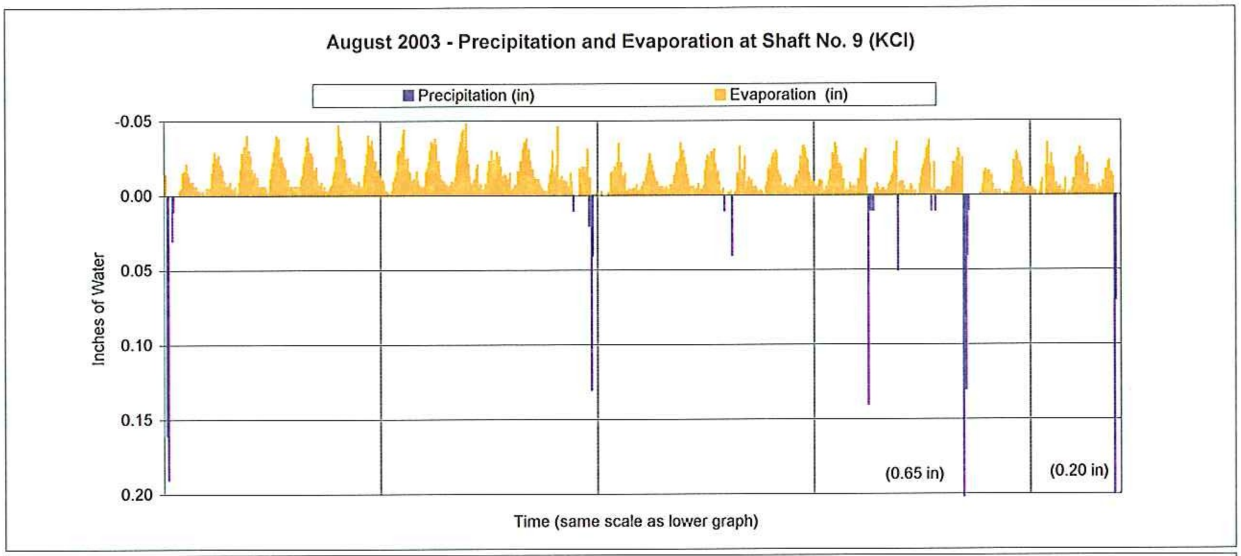

February 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

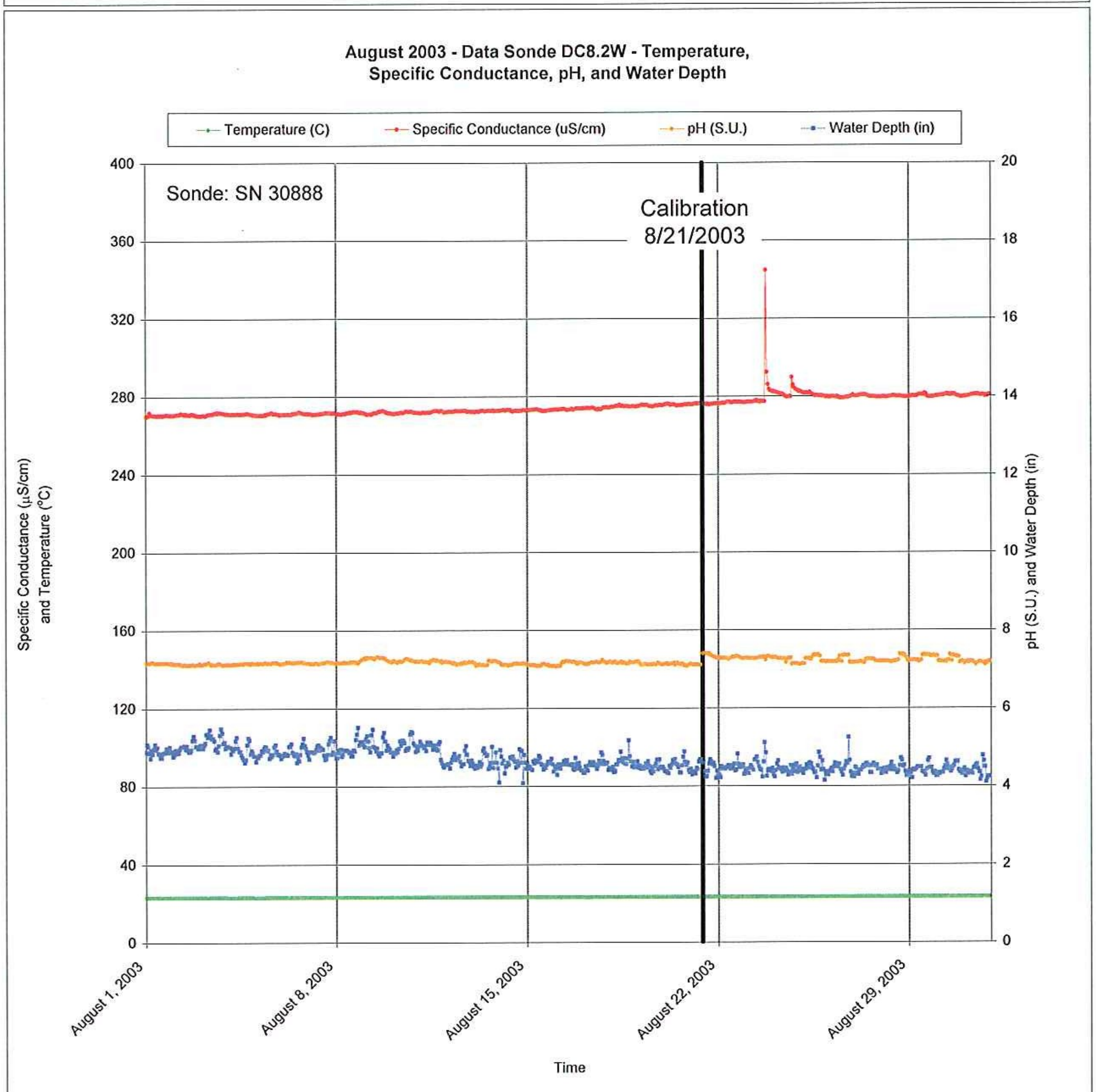

February 2006 - Data Sonde DC8.8C - Temperature, Specific Conductance, pH, Turbidity, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31404
Specific Conductance (mS/cm) and Temperature (°C)
pH (S.U.), Turbidity (NTU), and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2006
February 8, 2006
February 15, 2006
February 22, 2006
March 1, 2006
Time

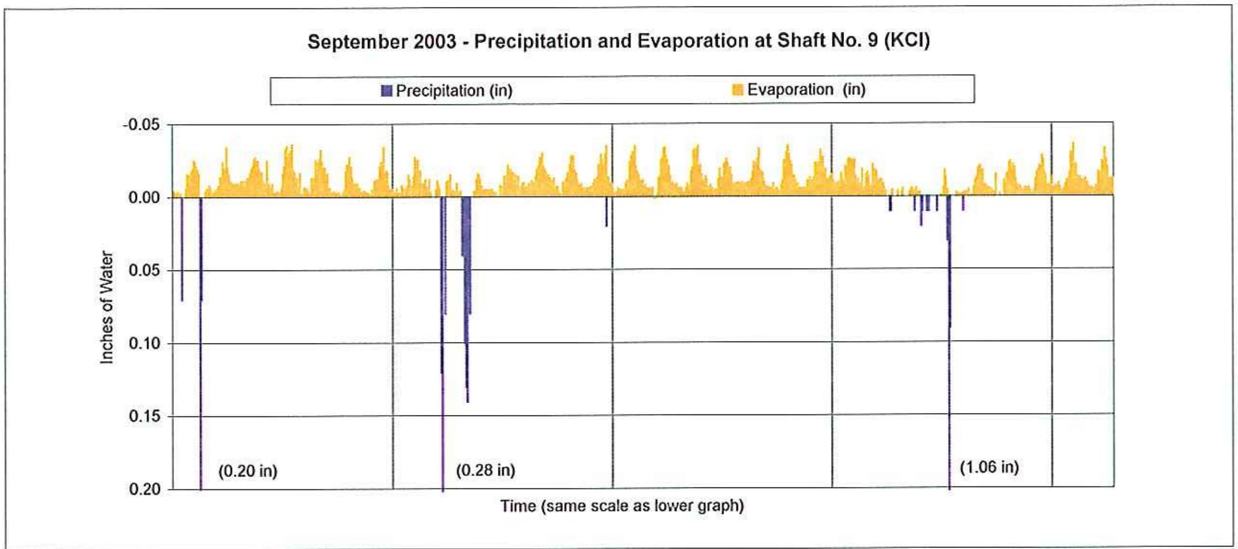
DC 8.2W

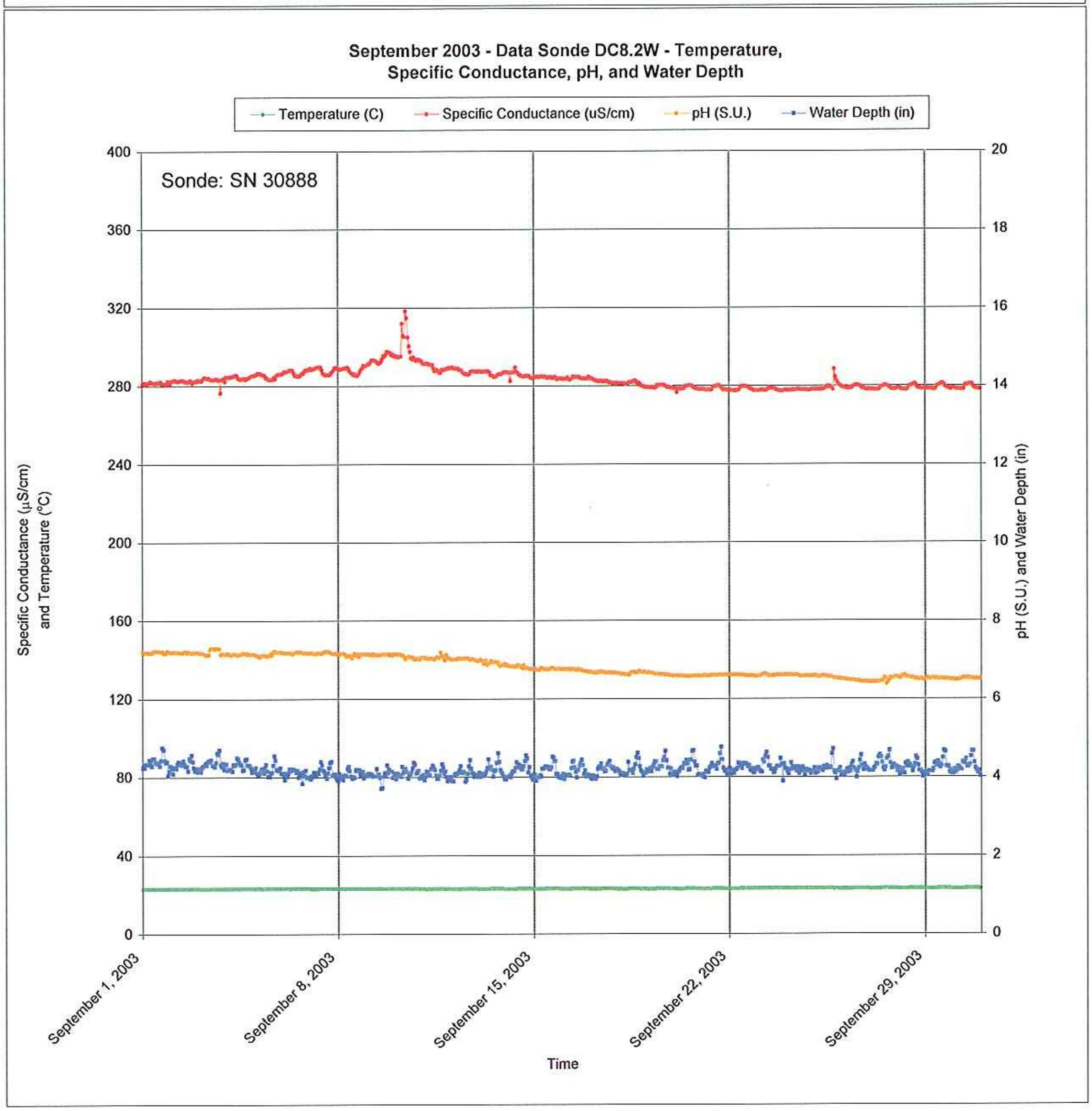

July 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

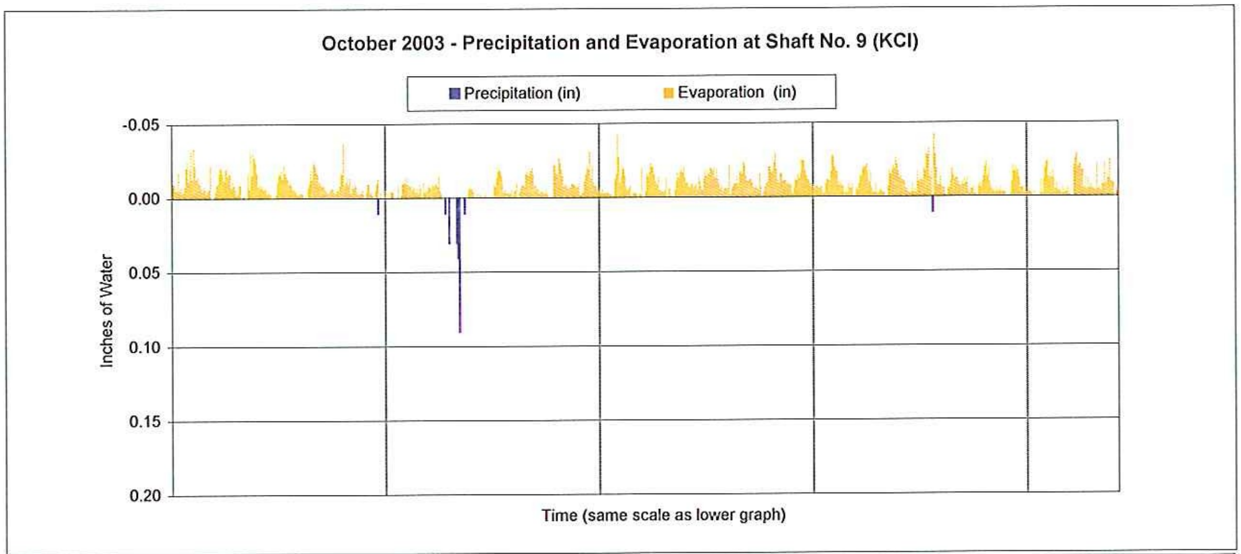

July 2003 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 30888
New Sonde Installation and Calibration 7/17/2003
0
40
80
120
160
200
240
280
320
360
400
0
2
4
6
8
10
12
14
16
18
20
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
July 1, 2003
July 8, 2003
July 15, 2003
July 22, 2003
July 29, 2003
Time

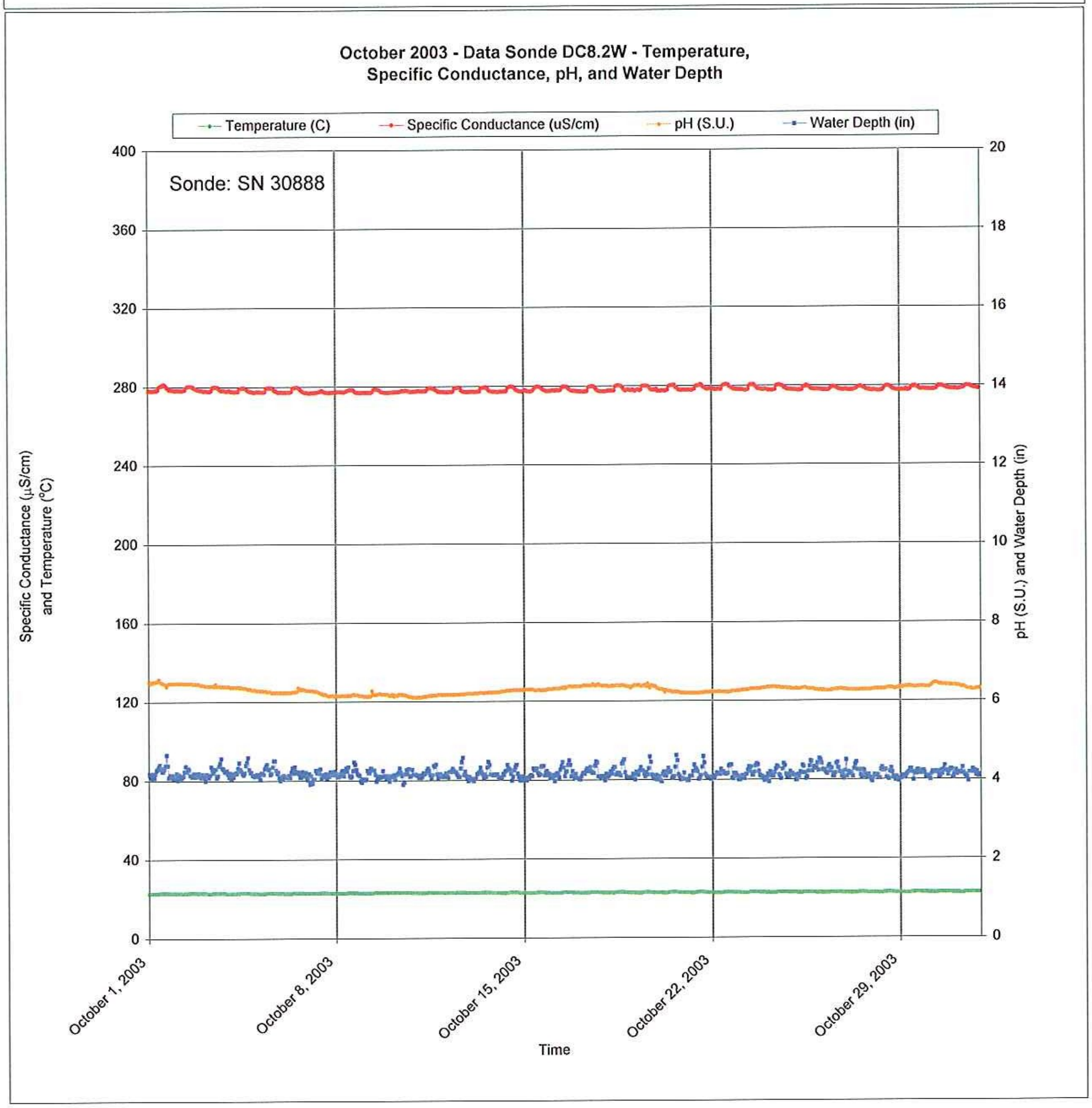

August 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.65 in)
(0.20 in)
Time (same scale as lower graph)

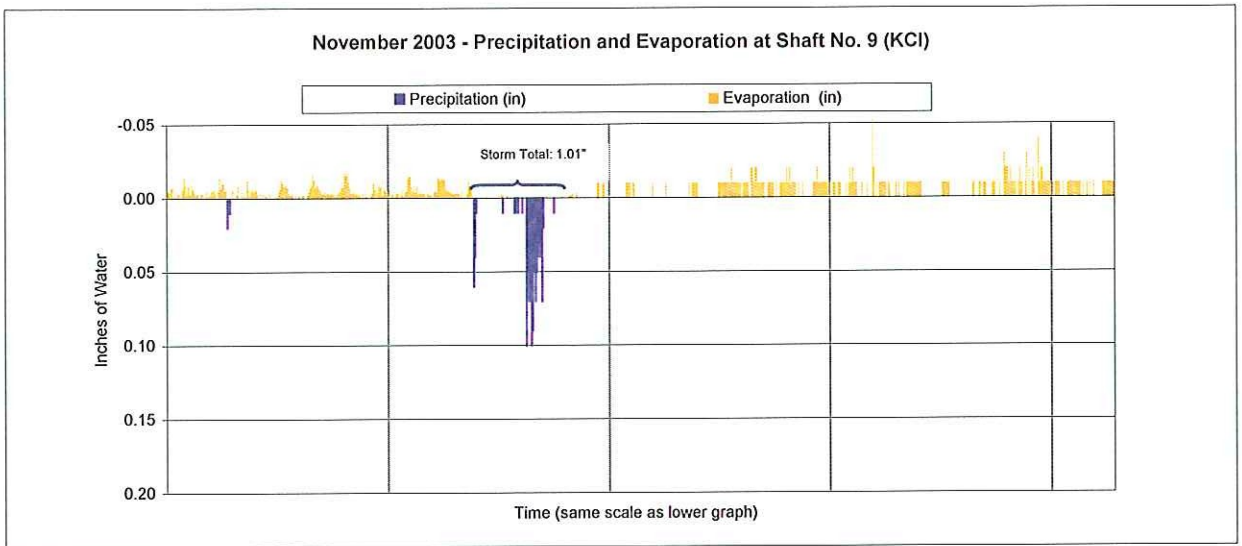

August 2003 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 30888
Calibration 8/21/2003
Specific Conductance (μS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2003
August 8, 2003
August 15, 2003
August 22, 2003
August 29, 2003
Time

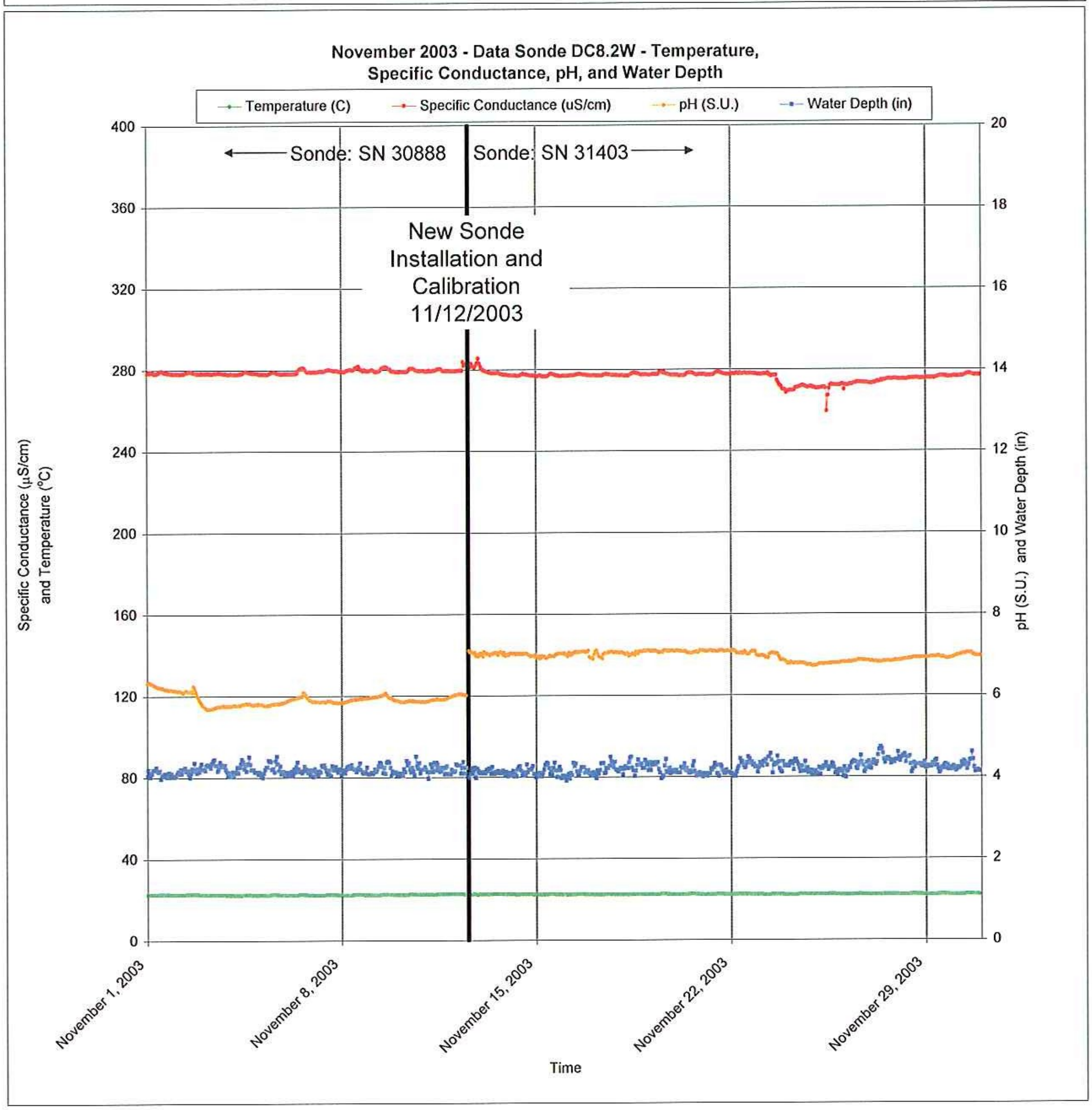

September 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.20 in)
(0.28 in)
(1.06 in)
Time (same scale as lower graph)

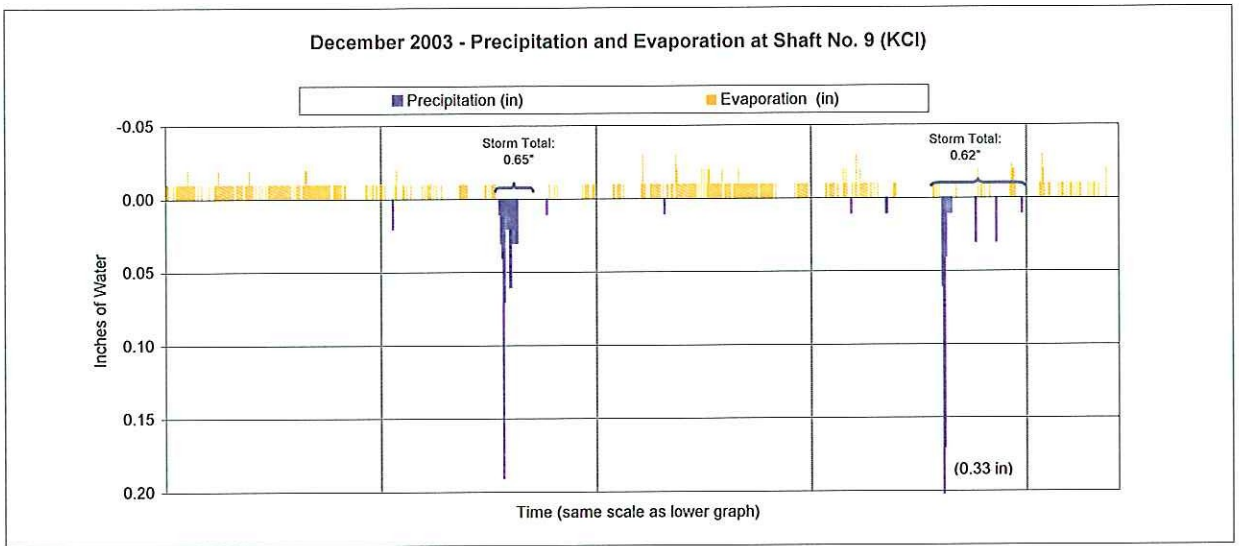

September 2003 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 30888
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
September 1, 2003
September 8, 2003
September 15, 2003
September 22, 2003
September 29, 2003
Time

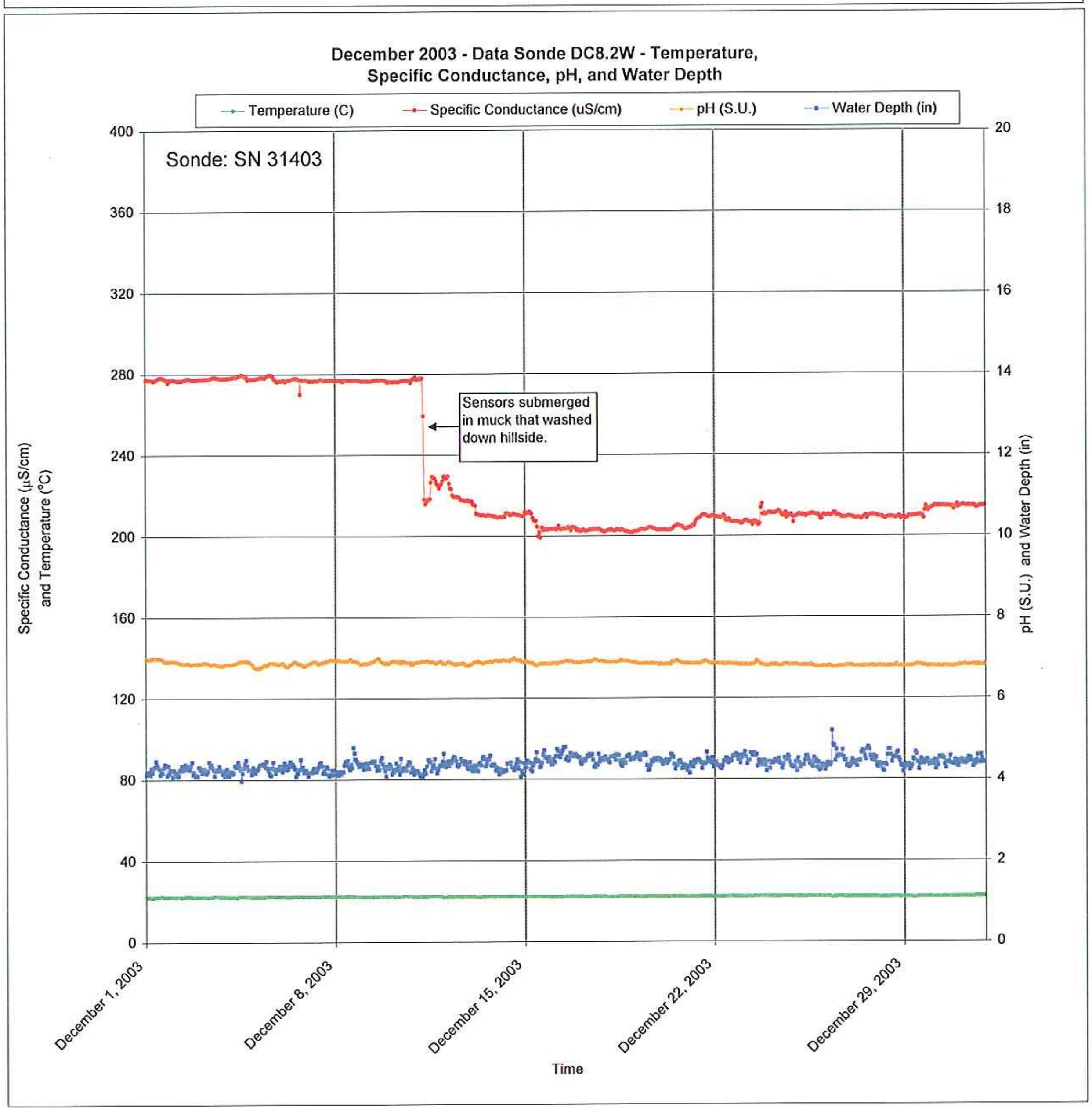

October 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

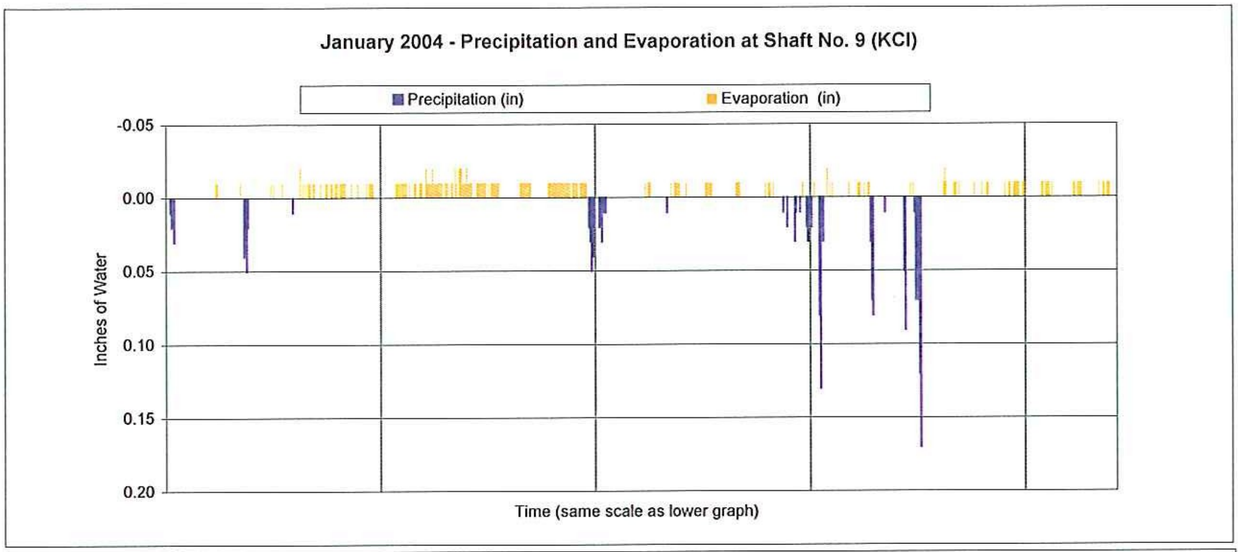

October 2003 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 30888
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
October 1, 2003
October 8, 2003
October 15, 2003
October 22, 2003
October 29, 2003
Time

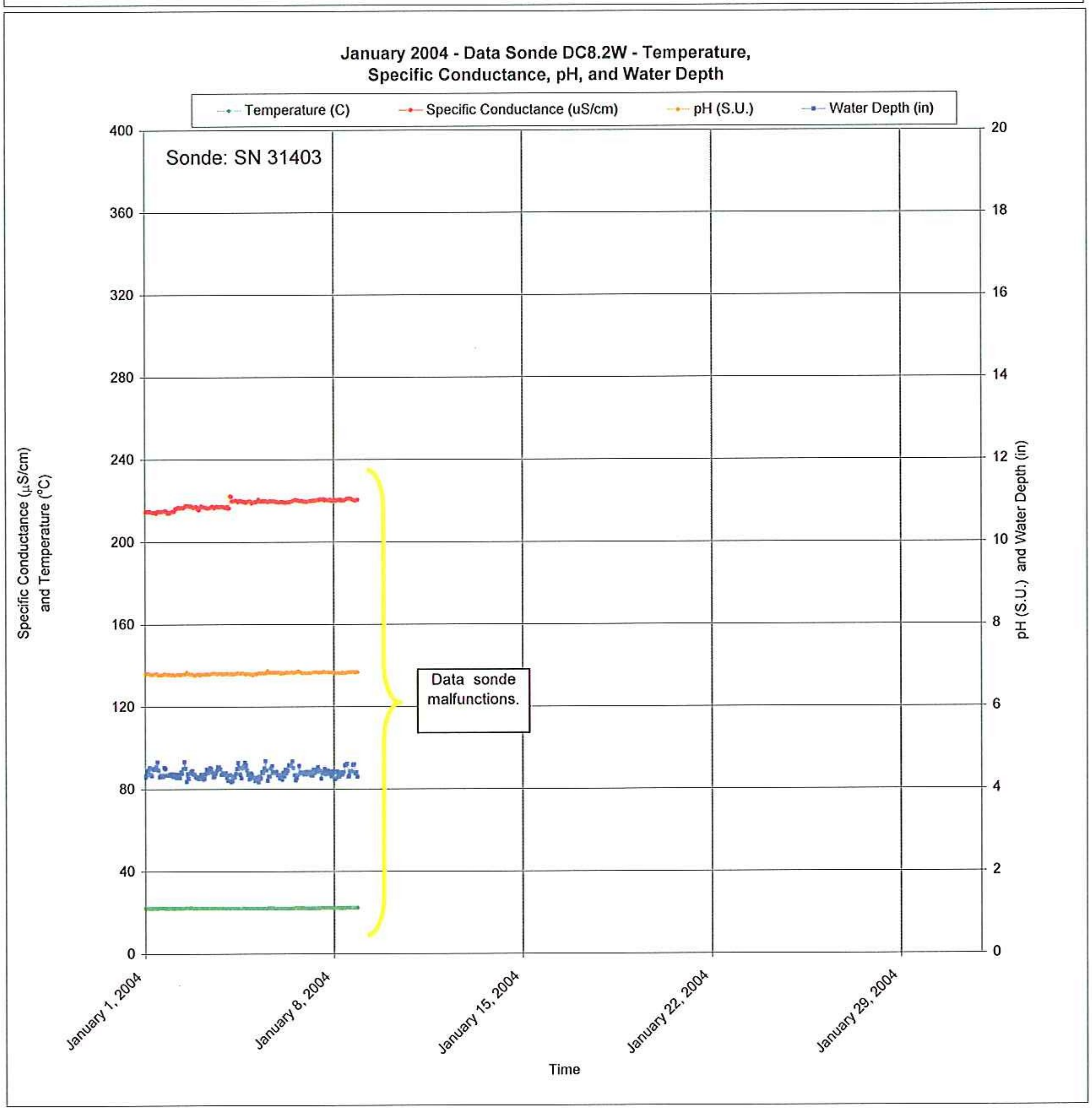

November 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.01"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

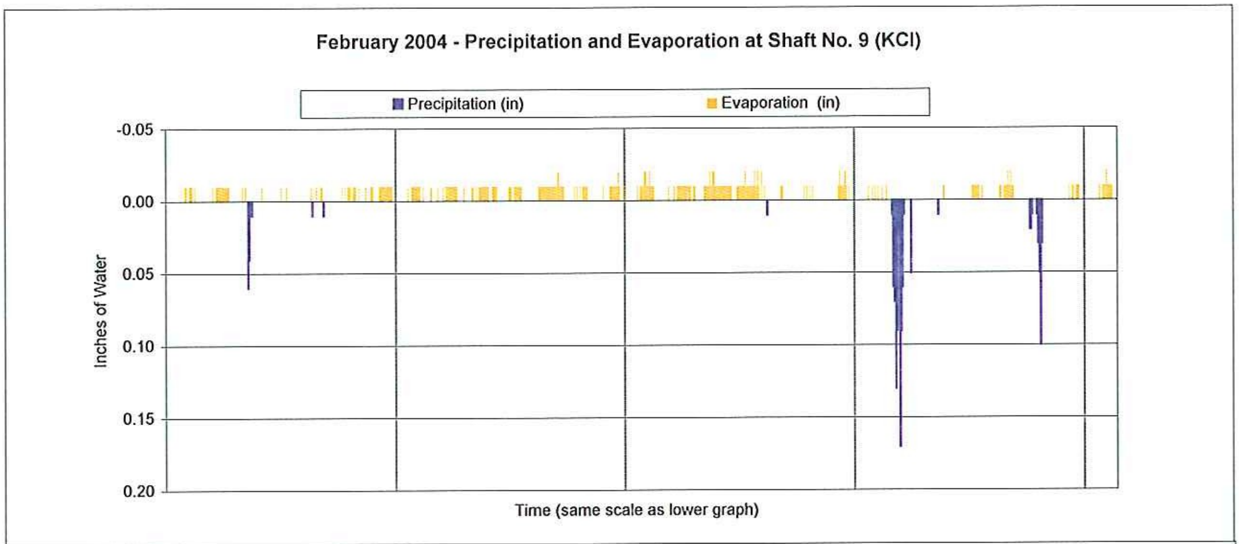

November 2003 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 30888
Sonde: SN 31403
New Sonde Installation and Calibration 11/12/2003
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
November 1, 2003
November 8, 2003
November 15, 2003
November 22, 2003
November 29, 2003
Time

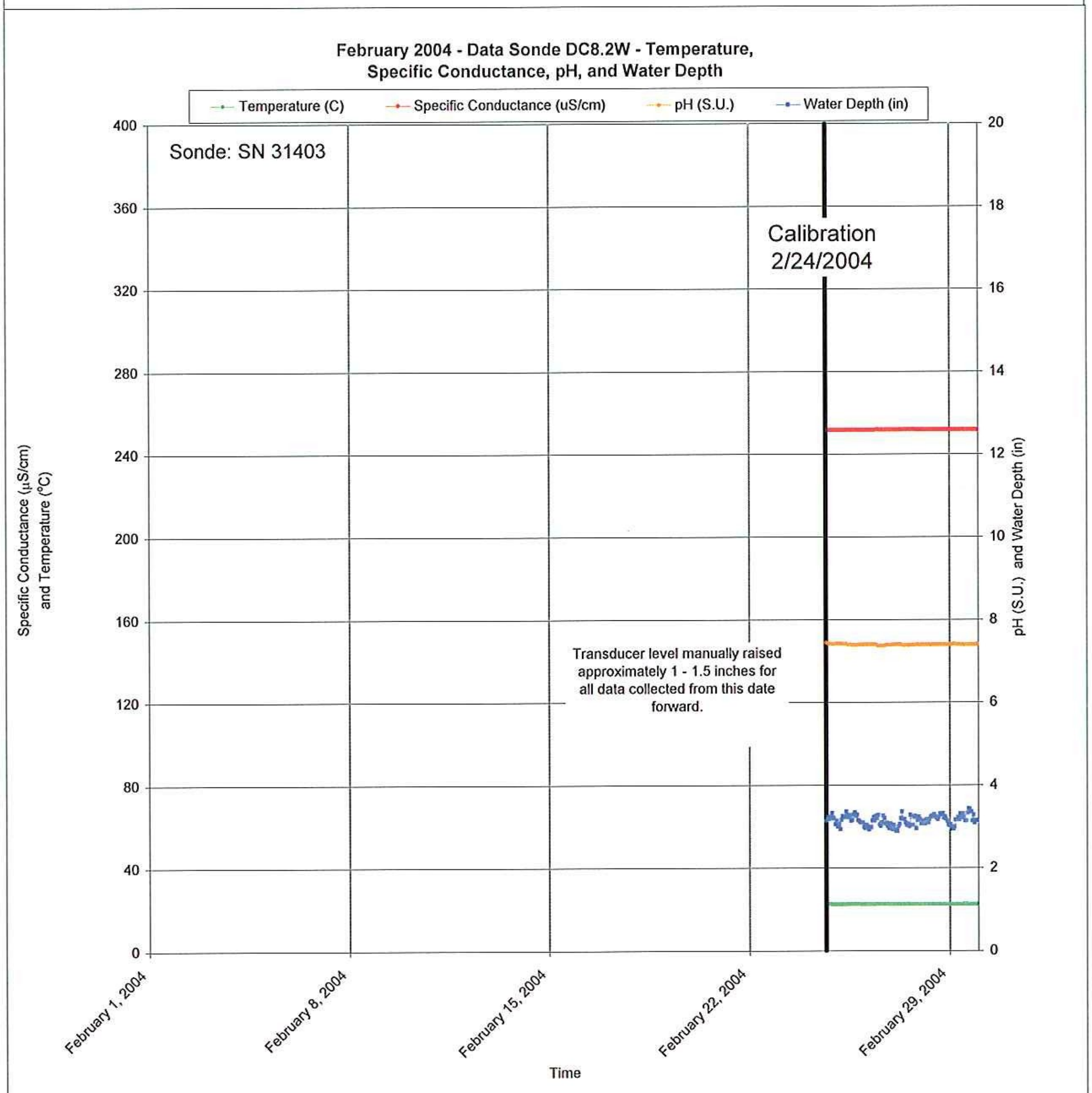

December 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.65"
Storm Total: 0.62"
(0.33 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

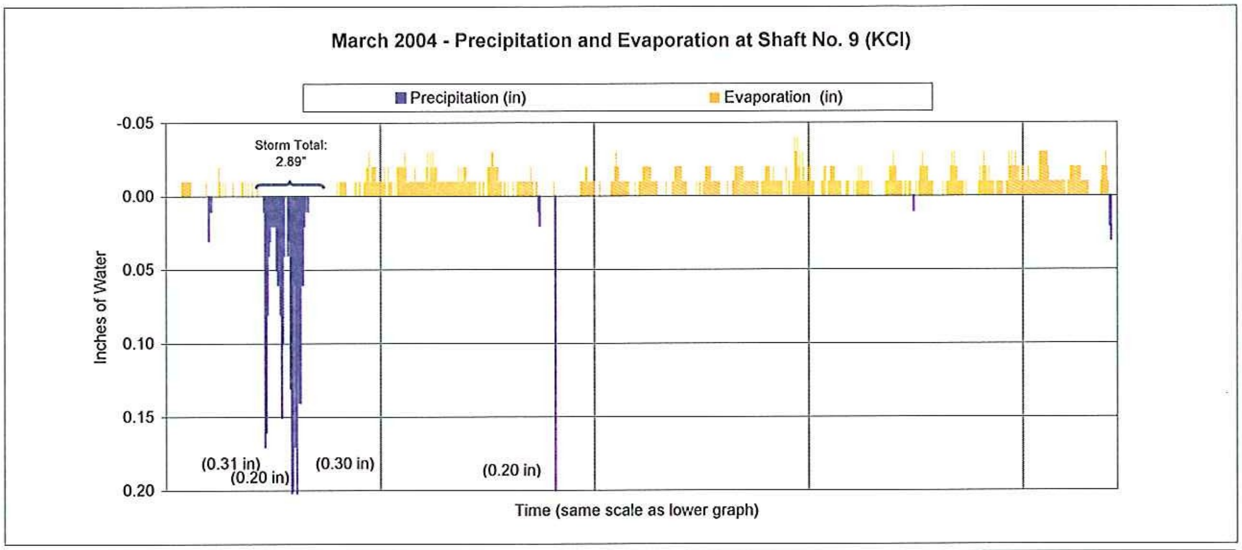

December 2003 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Sensors submerged in muck that washed down hillside.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2003
December 8, 2003
December 15, 2003
December 22, 2003
December 29, 2003
Time

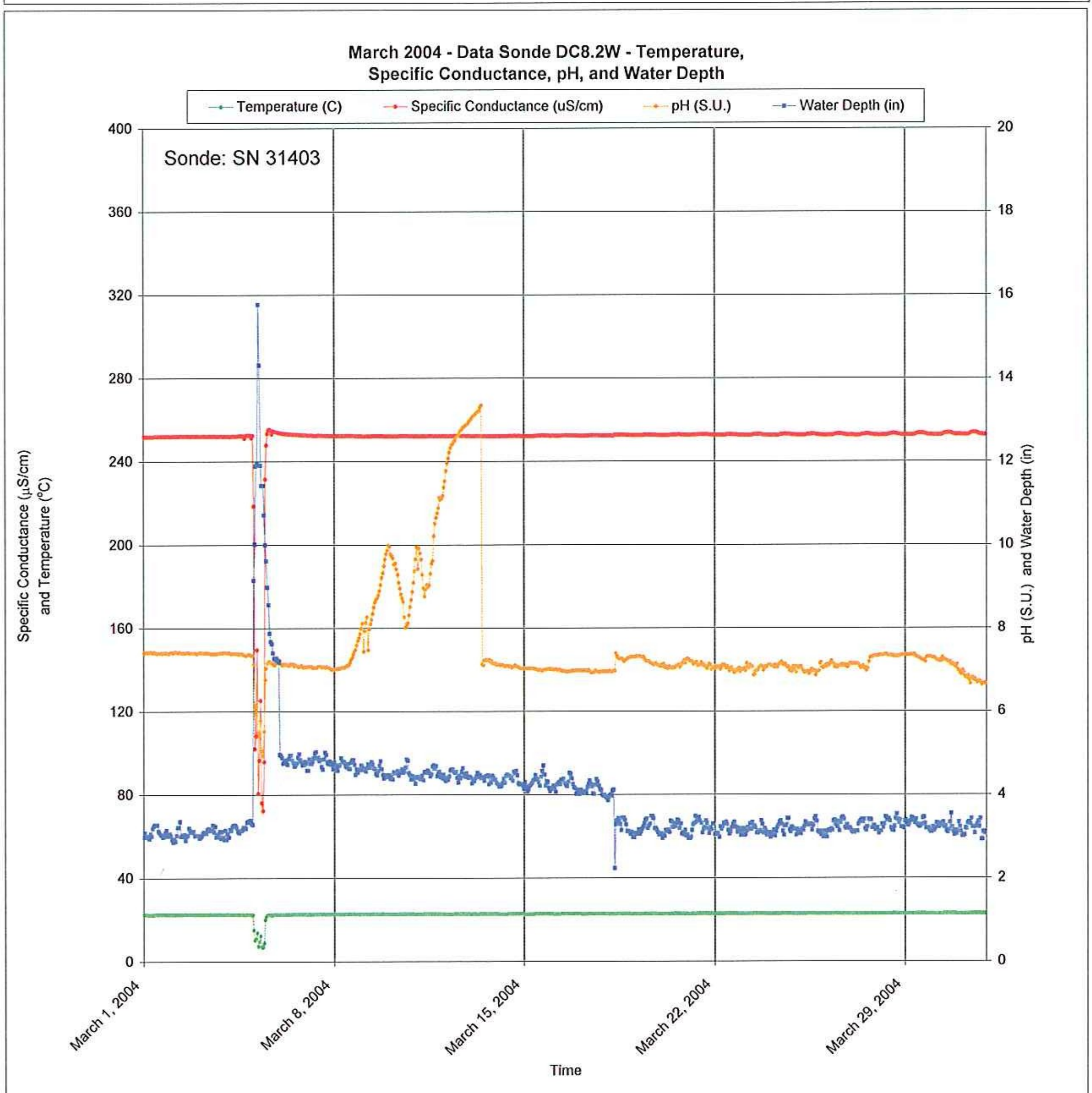

January 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

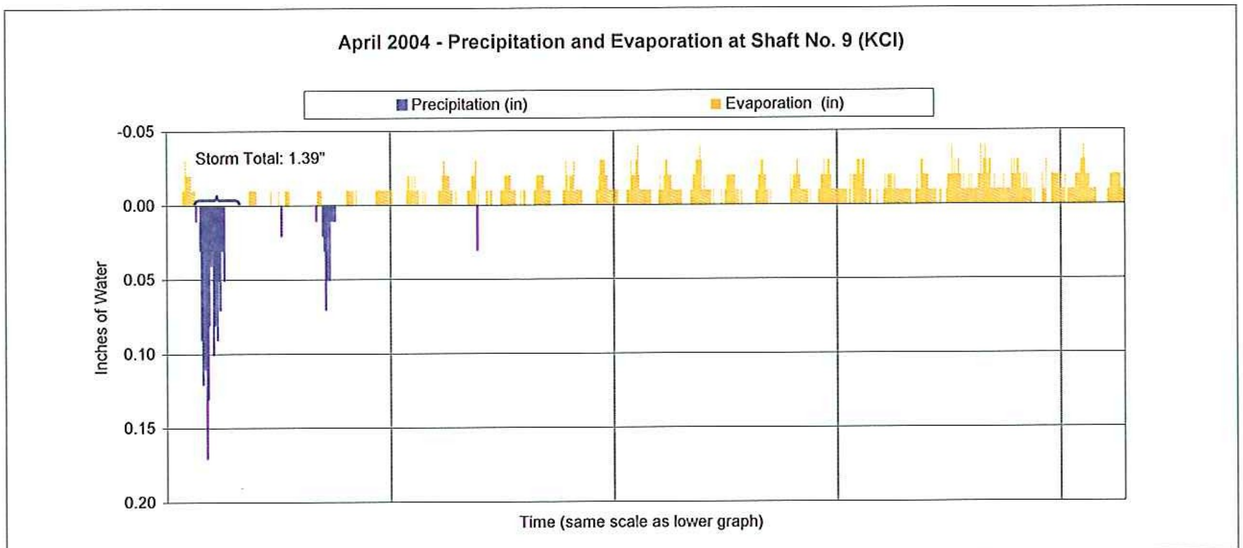

January 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Data sonde malfunctions.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
January 1, 2004
January 8, 2004
January 15, 2004
January 22, 2004
January 29, 2004
Time

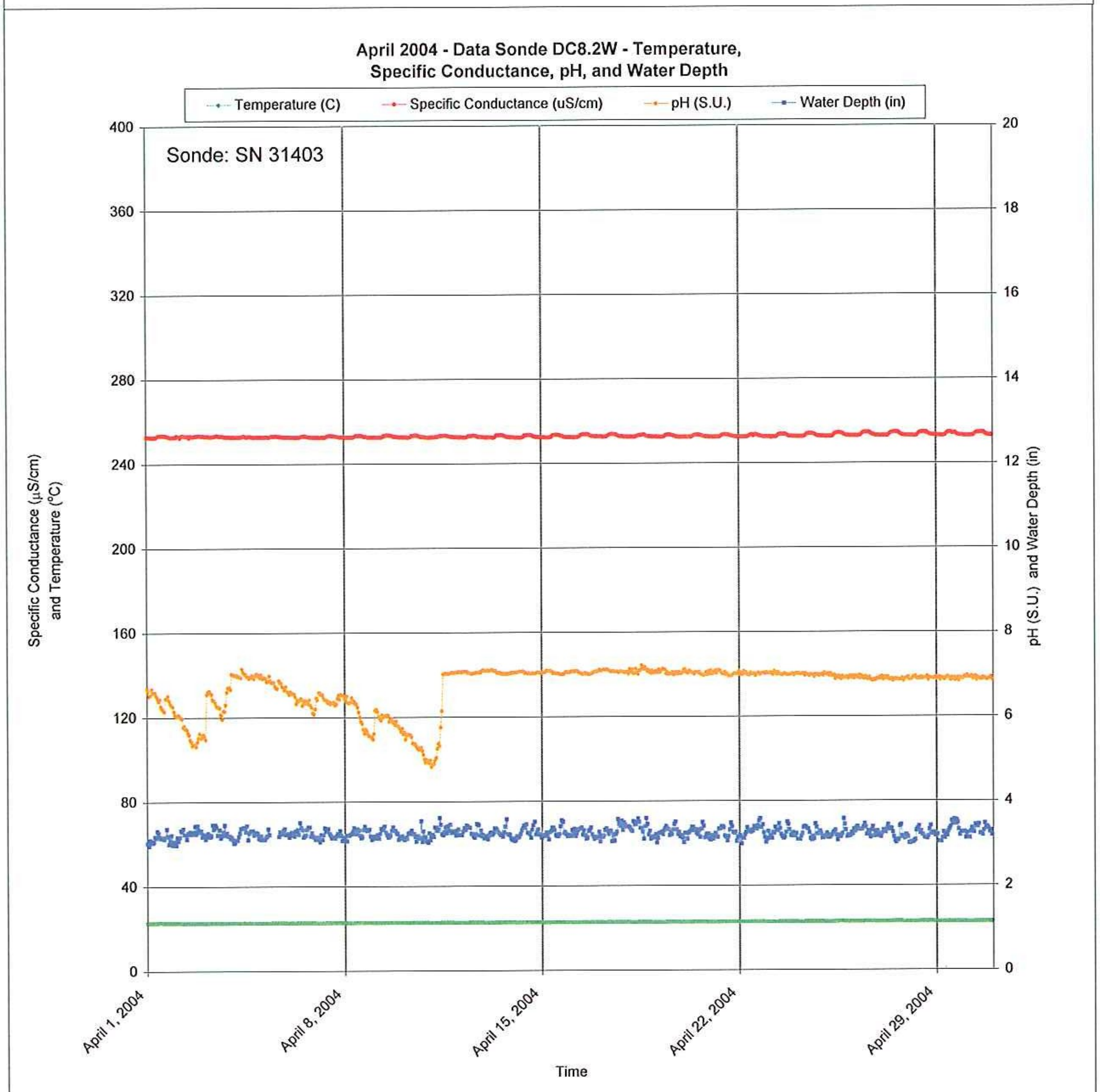

February 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

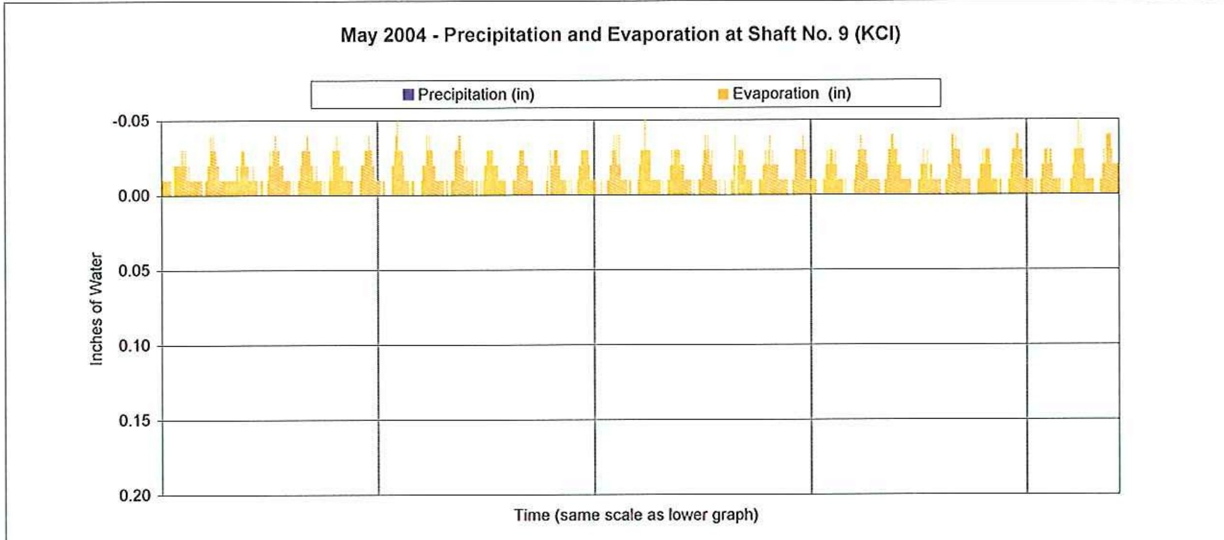

February 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Calibration 2/24/2004
Transducer level manually raised approximately 1 - 1.5 inches for all data collected from this date forward.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2004
February 8, 2004
February 15, 2004
February 22, 2004
February 29, 2004
Time

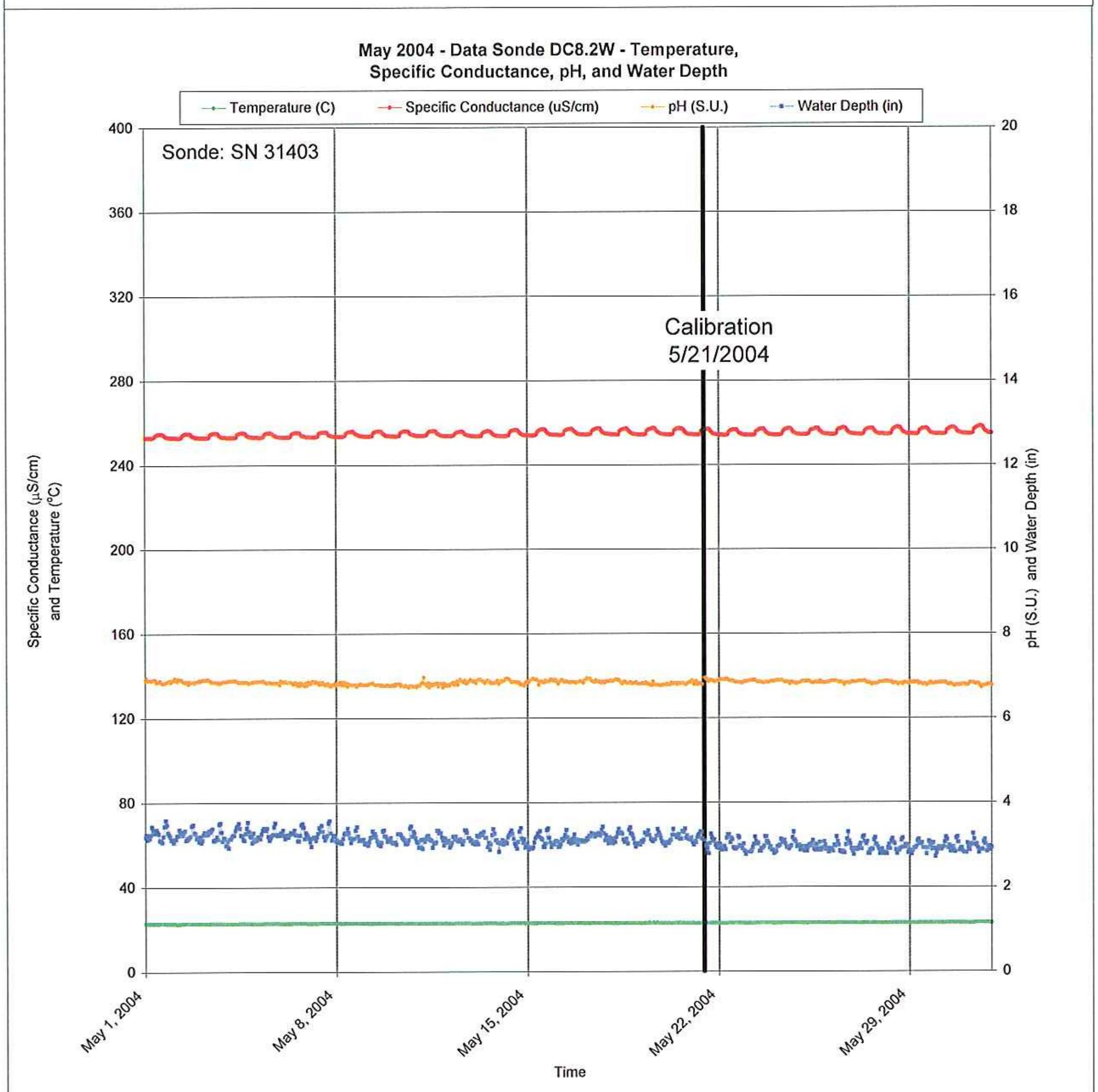

March 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.31 in)
(0.20 in)
(0.30 in)
(0.20 in)
Time (same scale as lower graph)

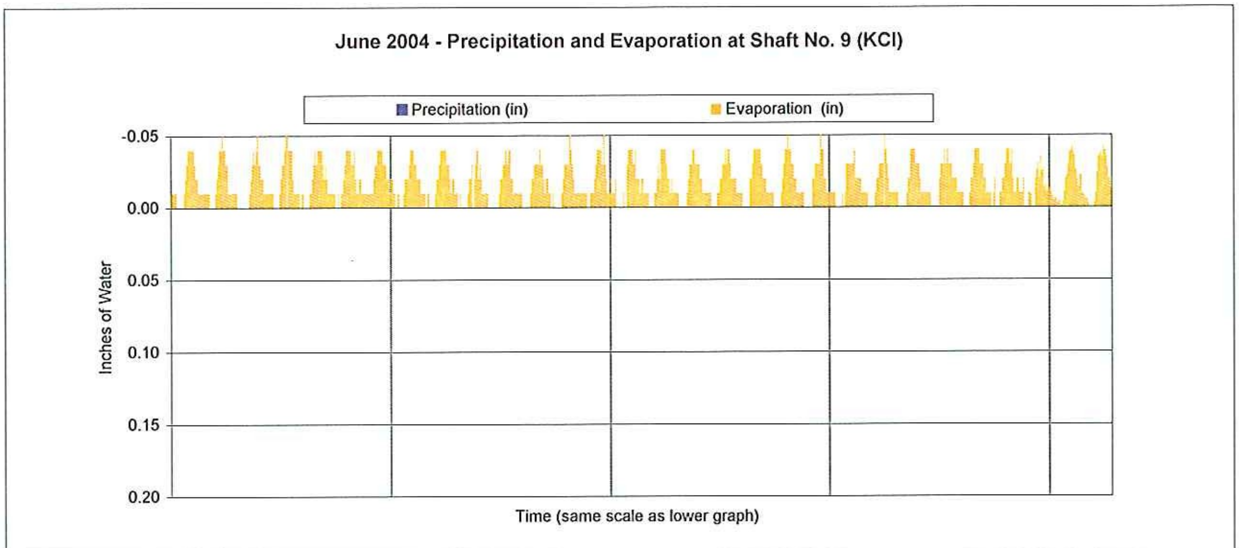

March 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
March 1, 2004
March 8, 2004
March 15, 2004
March 22, 2004
March 29, 2004
Time

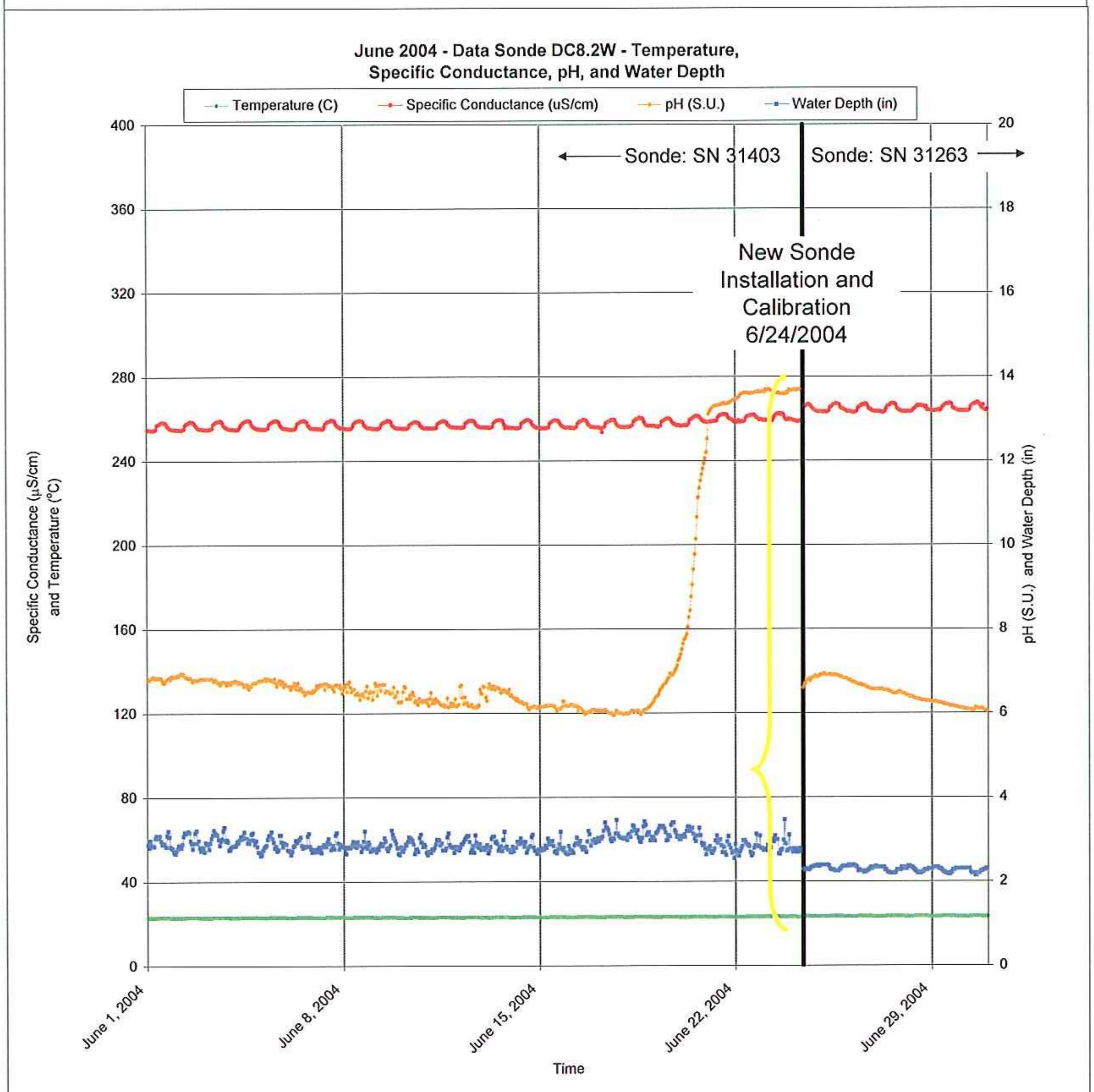

April 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.39"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

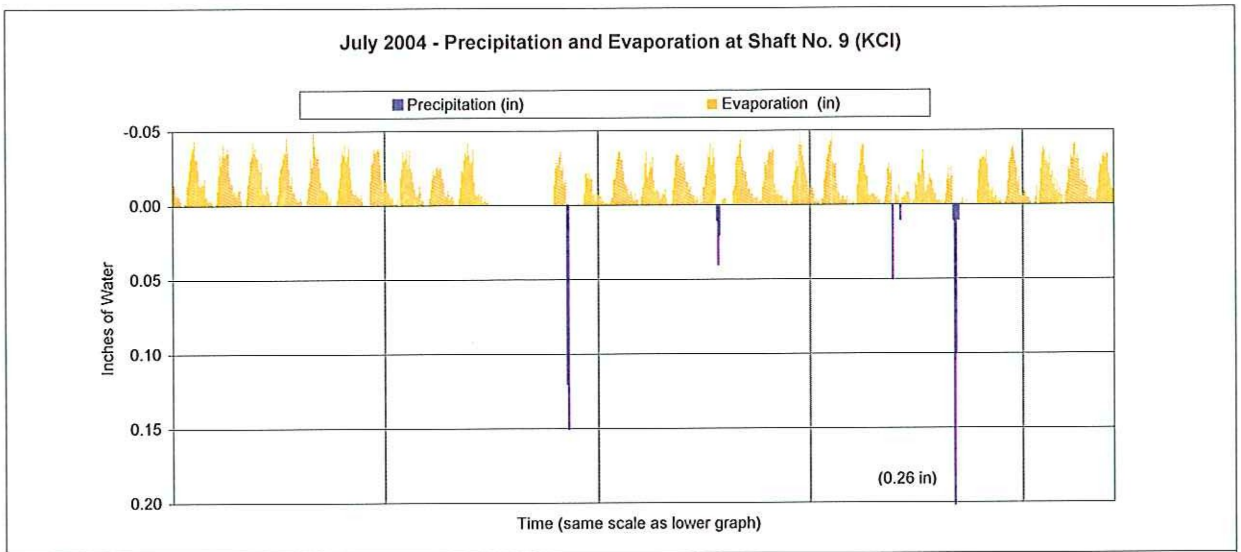

April 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
April 1, 2004
April 8, 2004
April 15, 2004
April 22, 2004
April 29, 2004
Time


May 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

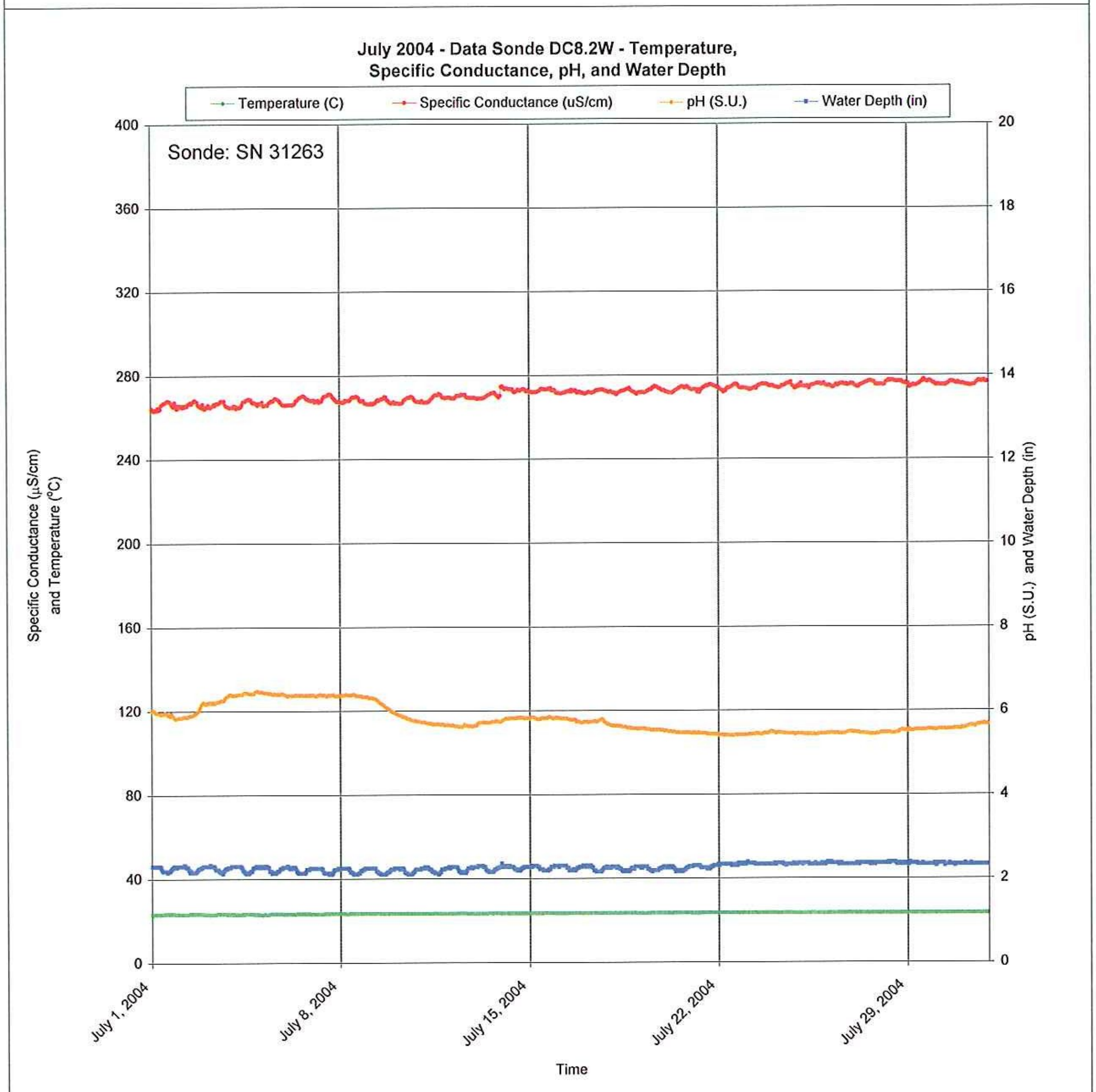

May 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Calibration 5/21/2004
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
May 1, 2004
May 8, 2004
May 15, 2004
May 22, 2004
May 29, 2004
Time


June 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

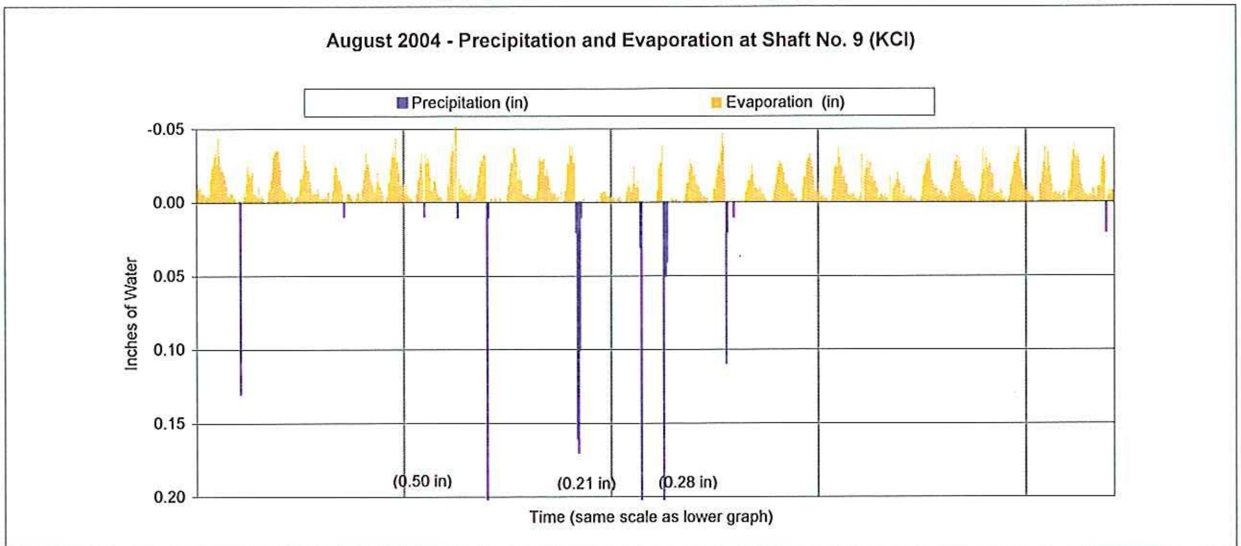

June 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31403
Sonde: SN 31263
New Sonde Installation and Calibration 6/24/2004
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
June 1, 2004
June 8, 2004
June 15, 2004
June 22, 2004
June 29, 2004
Time

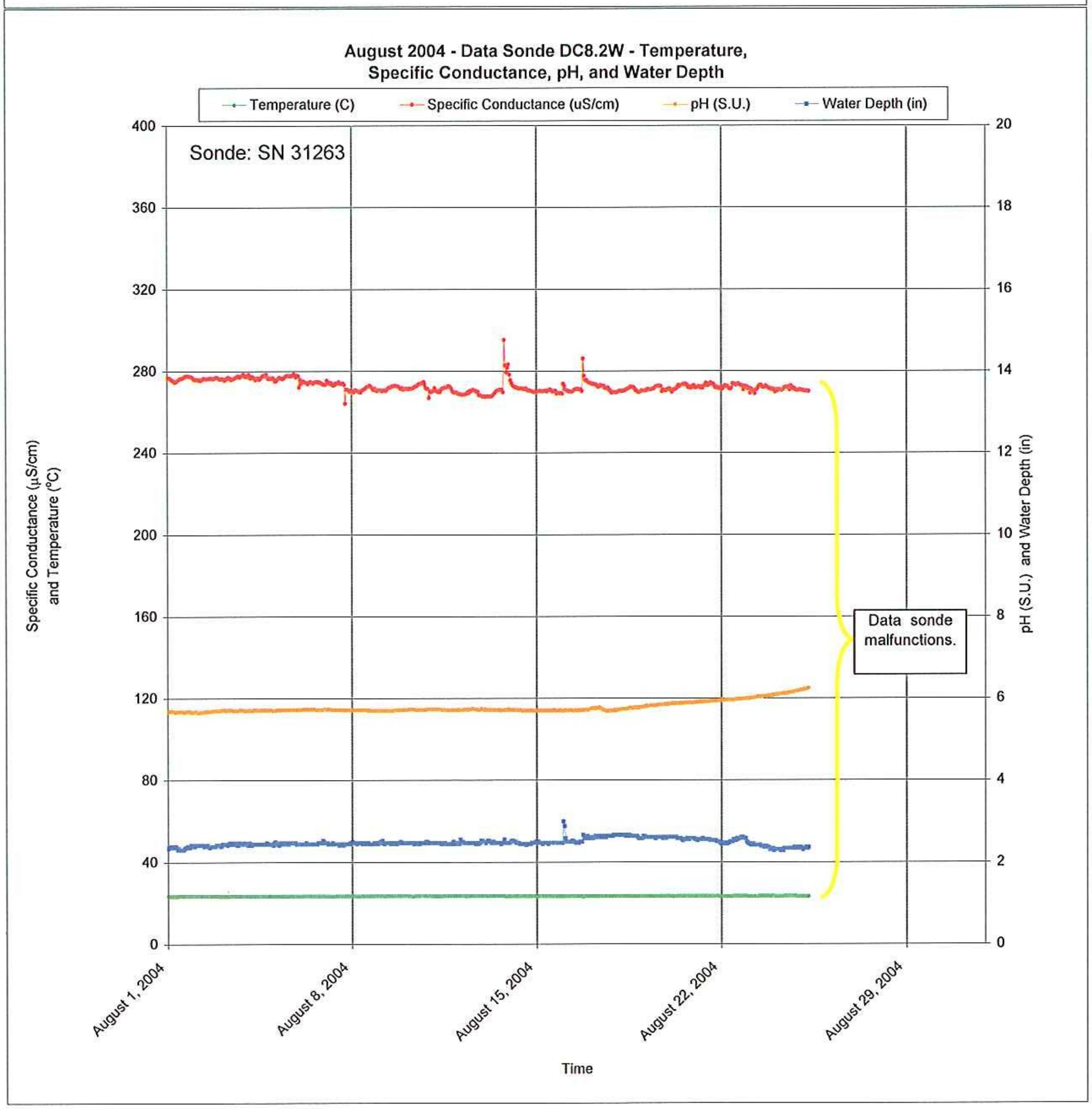


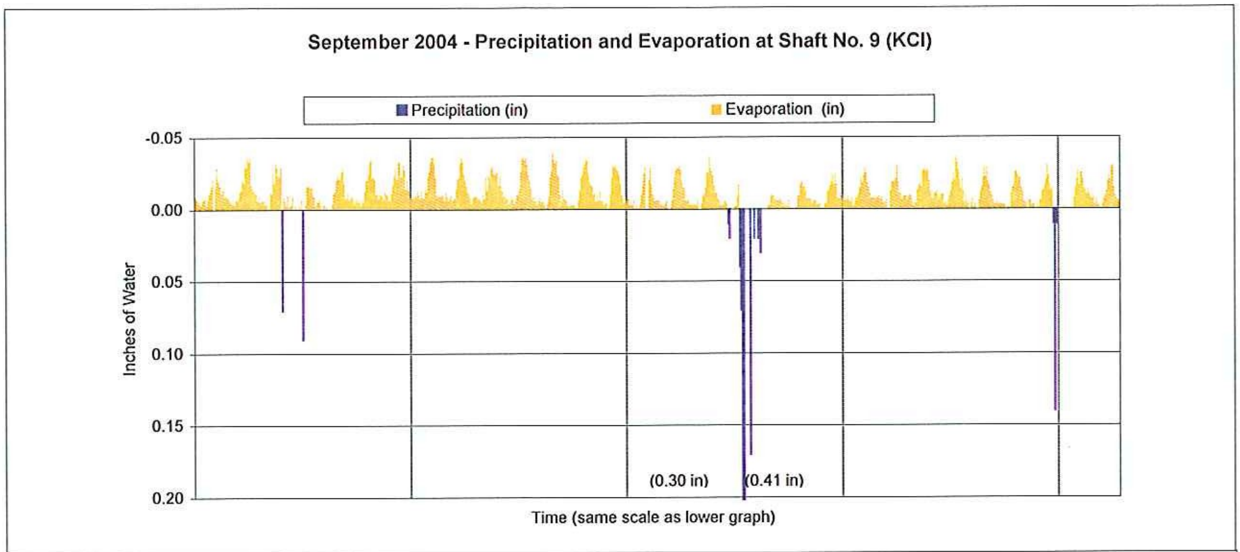
July 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.26 in)
Time (same scale as lower graph)

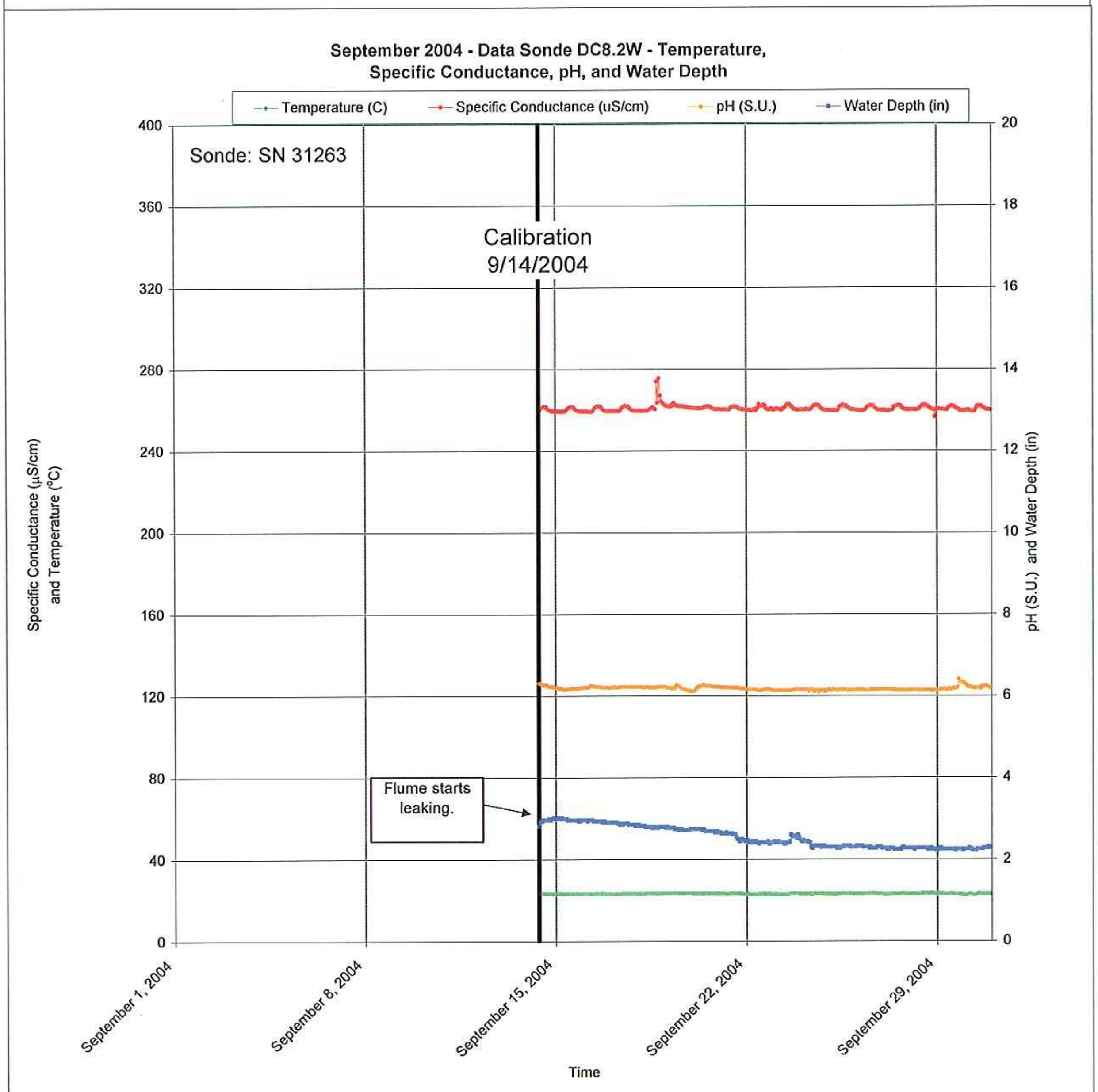


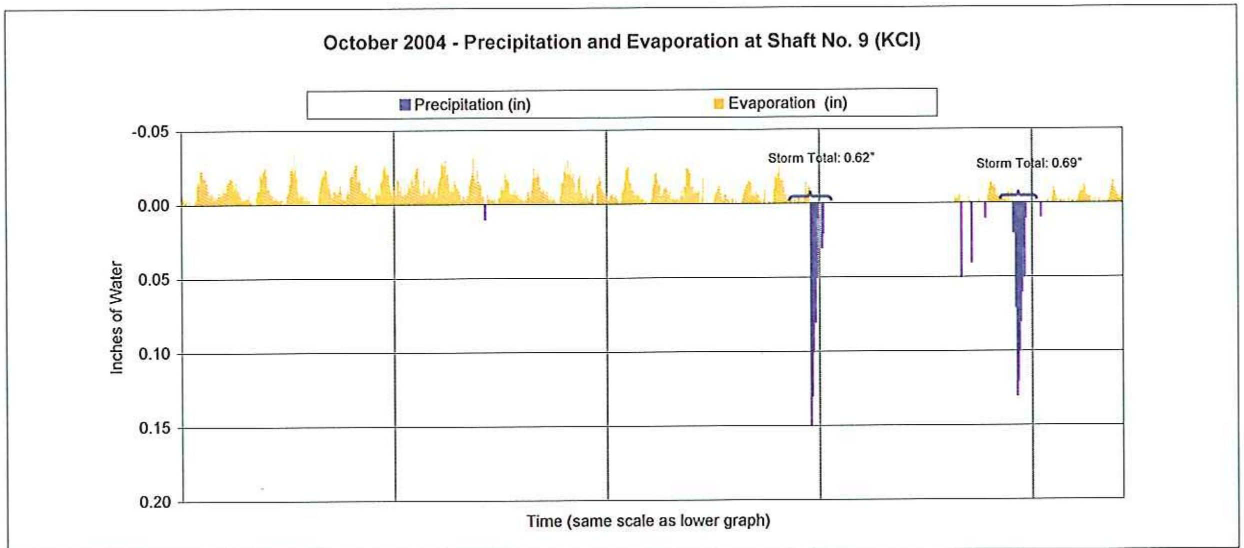
July 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
July 1, 2004
July 8, 2004
July 15, 2004
July 22, 2004
July 29, 2004
Time

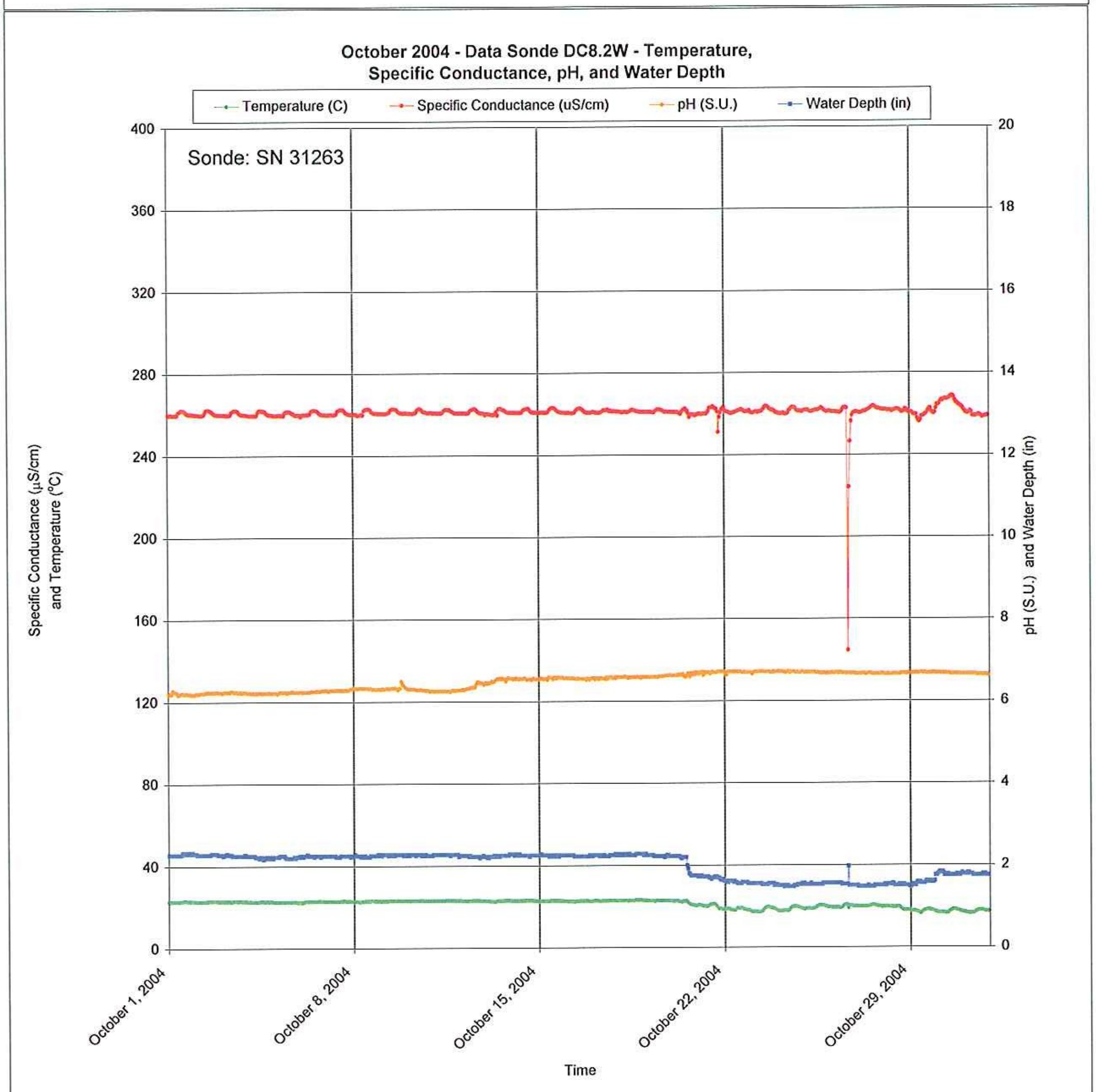

August 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.50 in)
(0.21 in)
(0.28 in)
Time (same scale as lower graph)

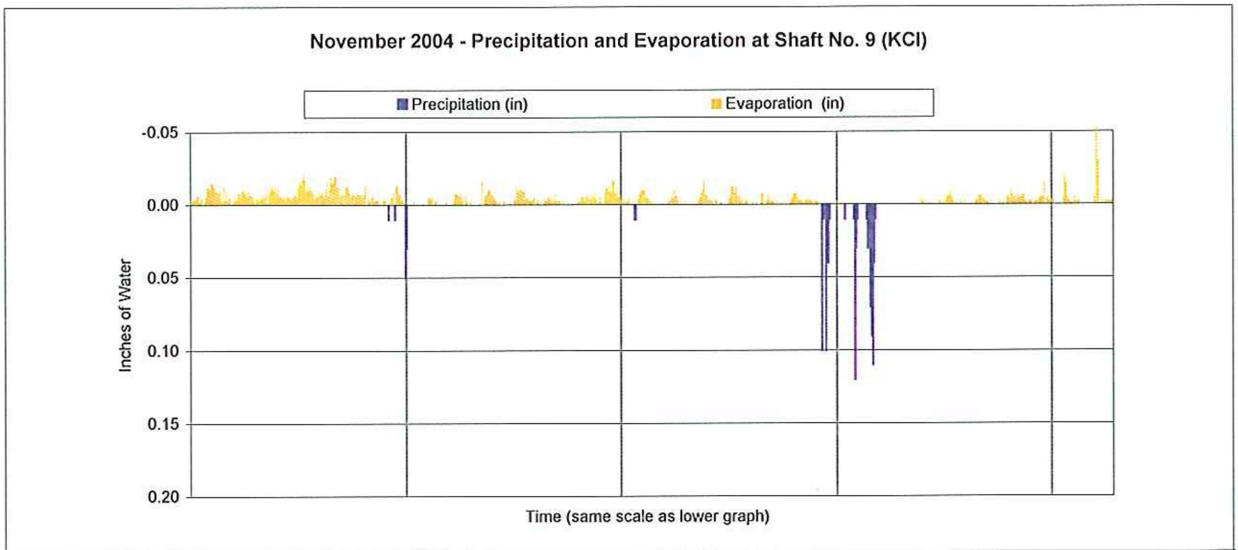

August 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
Data sonde malfunctions.
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2004
August 8, 2004
August 15, 2004
August 22, 2004
August 29, 2004
Time


September 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.30 in)
(0.41 in)
Time (same scale as lower graph)

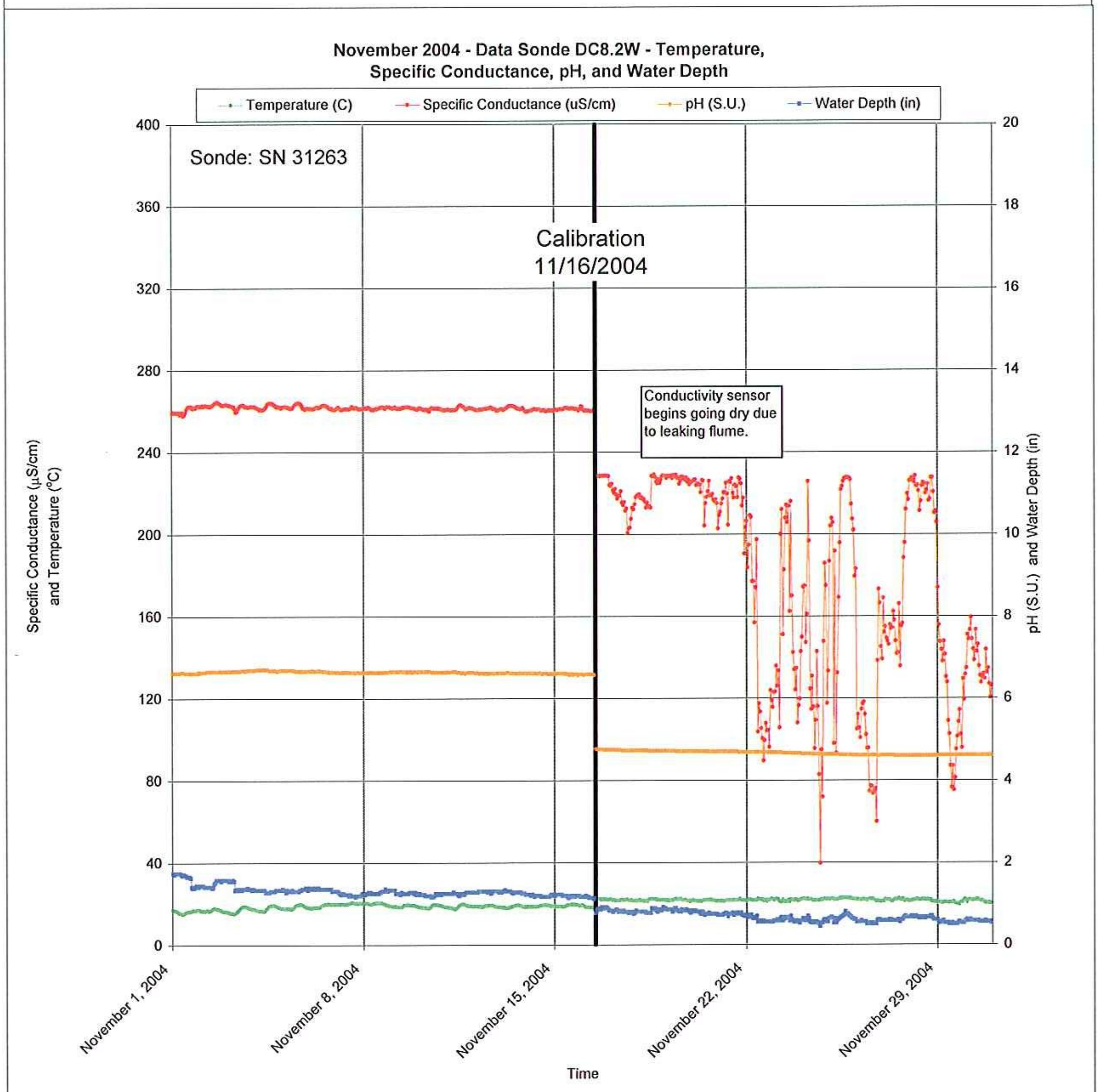

September 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Calibration 9/14/2004
Flume starts leaking.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
September 1, 2004
September 8, 2004
September 15, 2004
September 22, 2004
September 29, 2004
Time


October 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.62"
Storm Total: 0.69"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

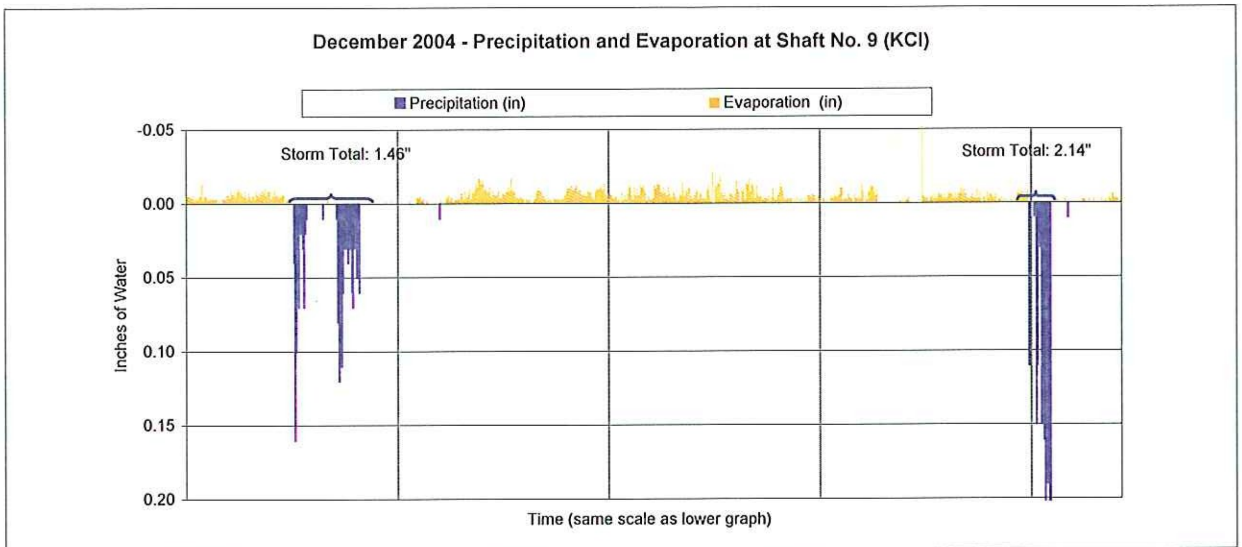

October 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
0
40
80
120
160
200
240
280
320
360
400
20
18
16
14
12
10
8
6
4
2
October 1, 2004
October 8, 2004
October 15, 2004
October 22, 2004
October 29, 2004
Time

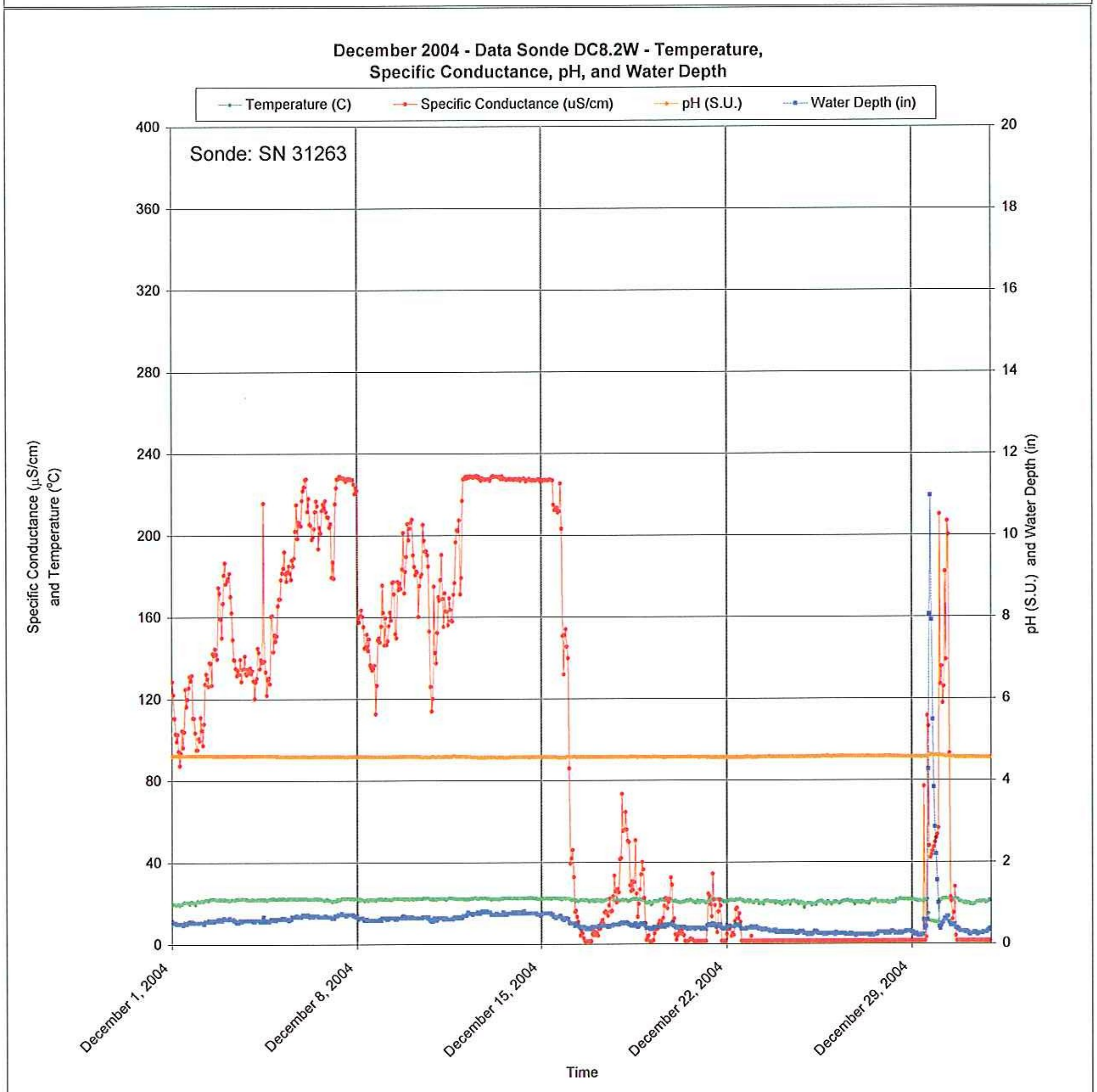


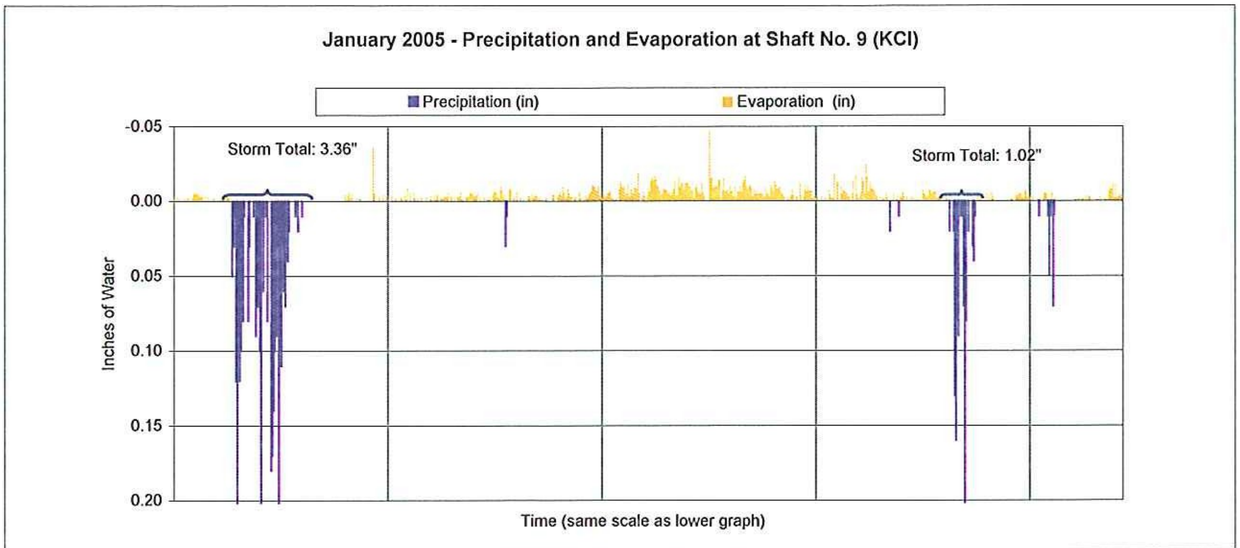
November 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

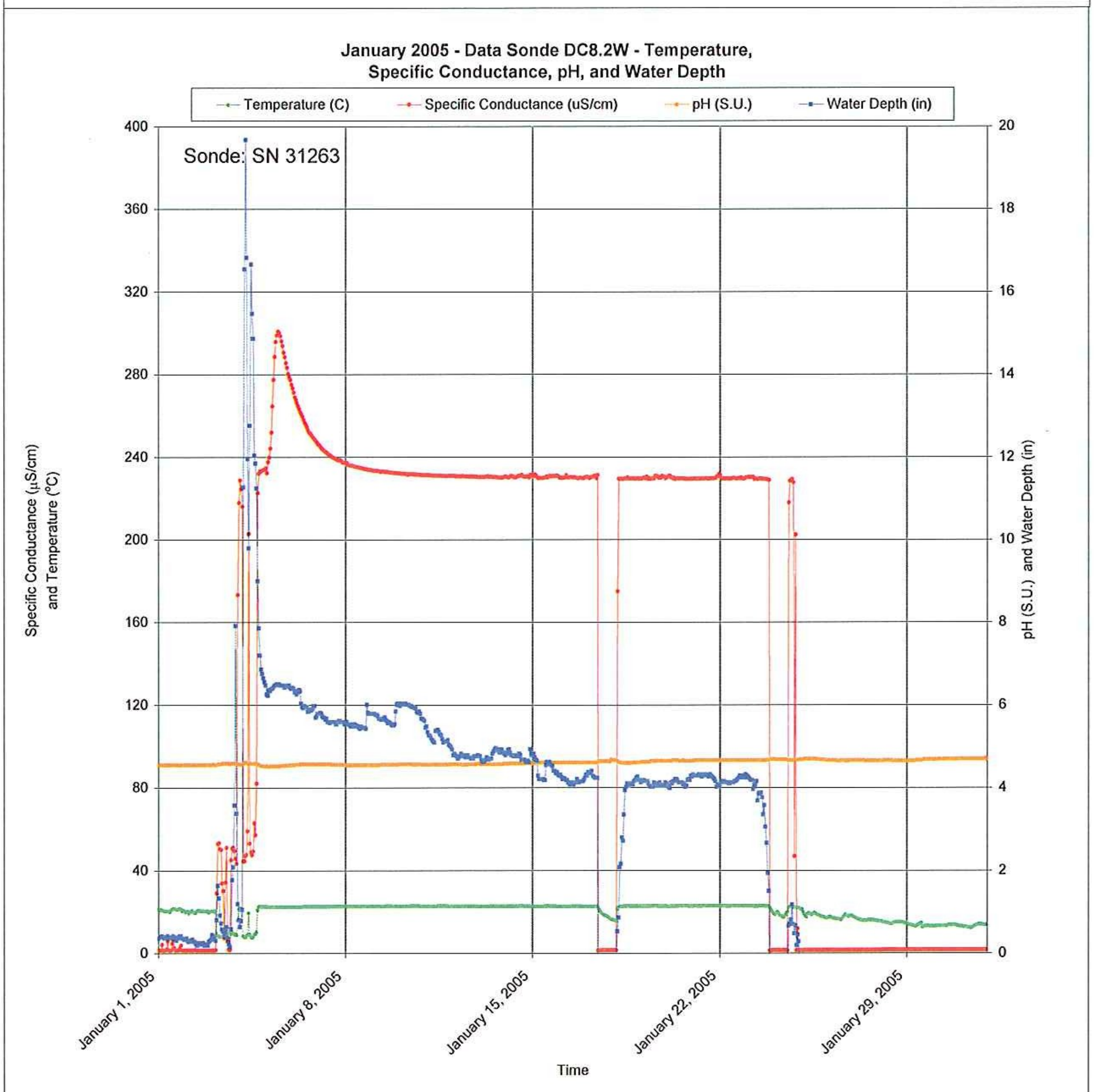


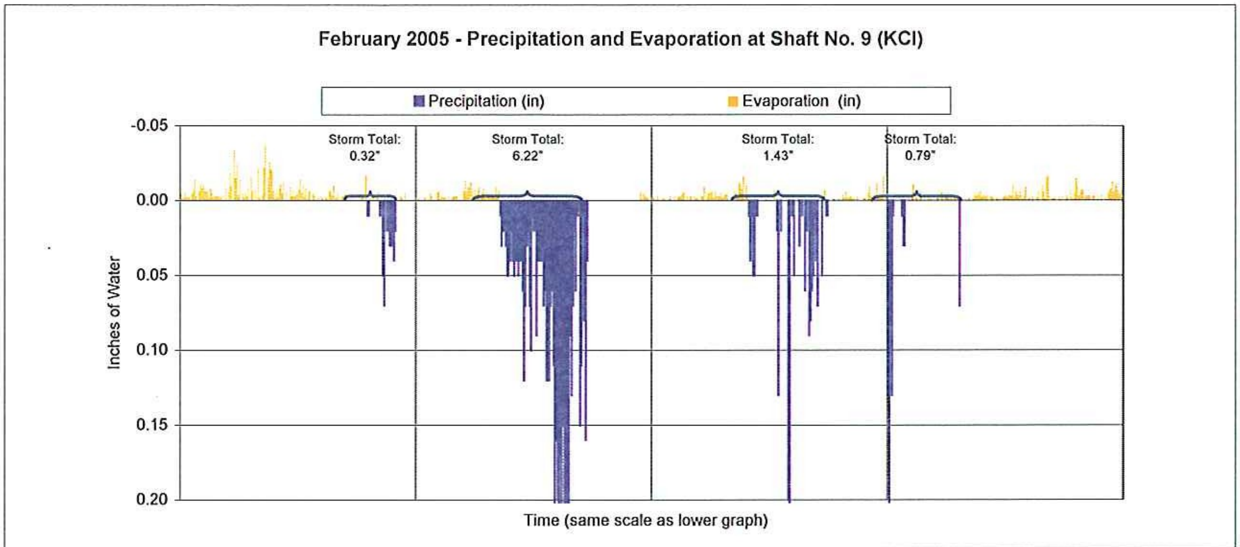
November 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Calibration 11/16/2004
Conductivity sensor begins going dry due to leaking flume.
Specific Conductance (μS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
November 1, 2004
November 8, 2004
November 15, 2004
November 22, 2004
November 29, 2004
Time

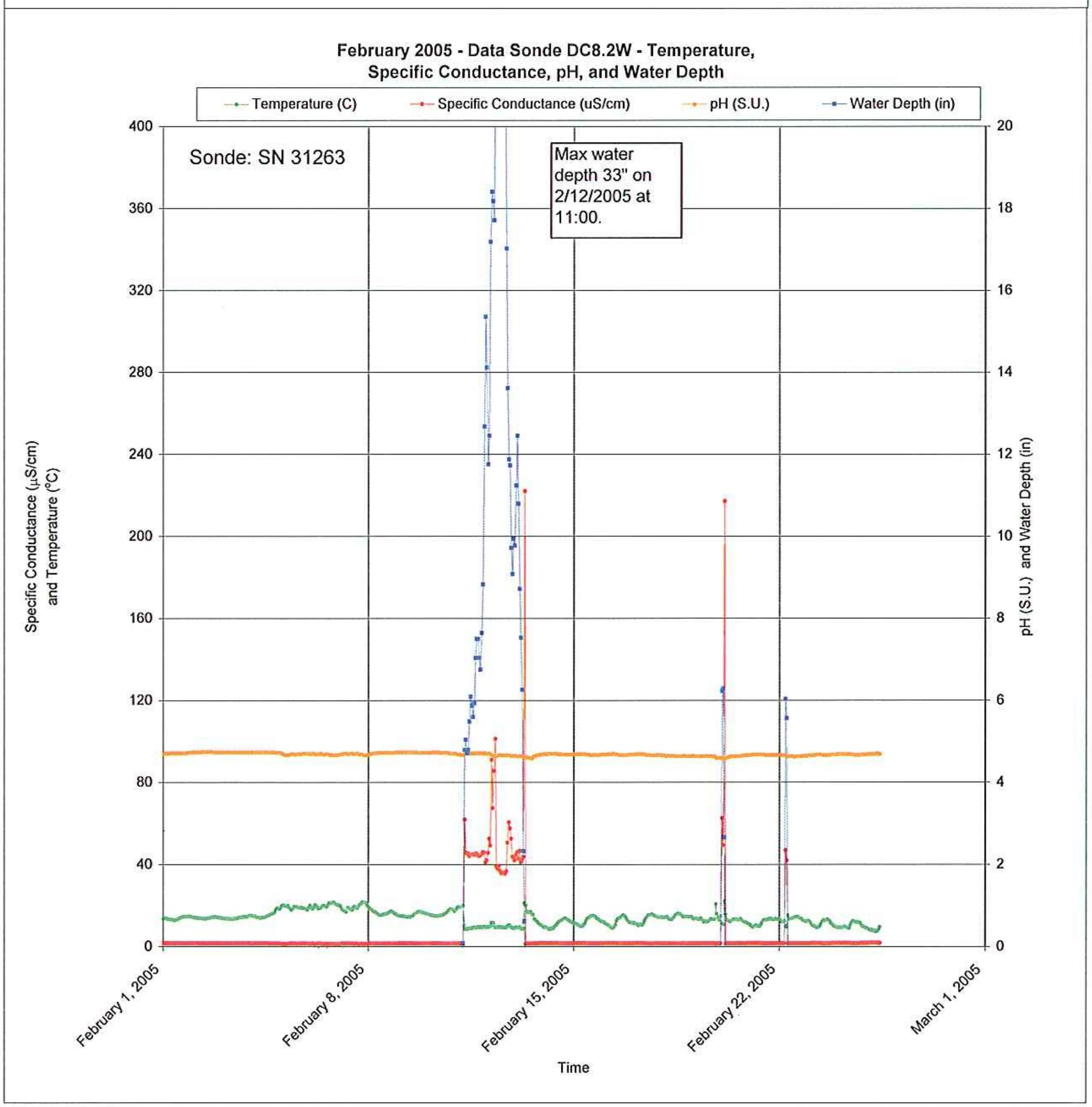

December 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.46"
Storm Total: 2.14"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)


December 2004 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
400
360
320
280
240
200
160
120
80
40
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2004
December 8, 2004
December 15, 2004
December 22, 2004
December 29, 2004
Time

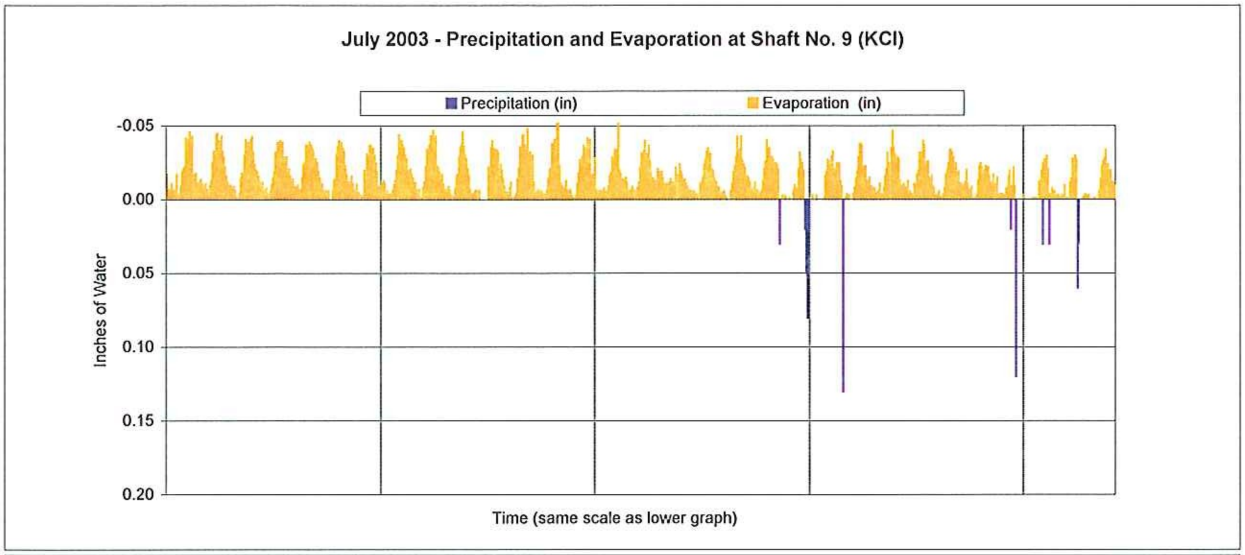

January 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 3.36"
Storm Total: 1.02"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

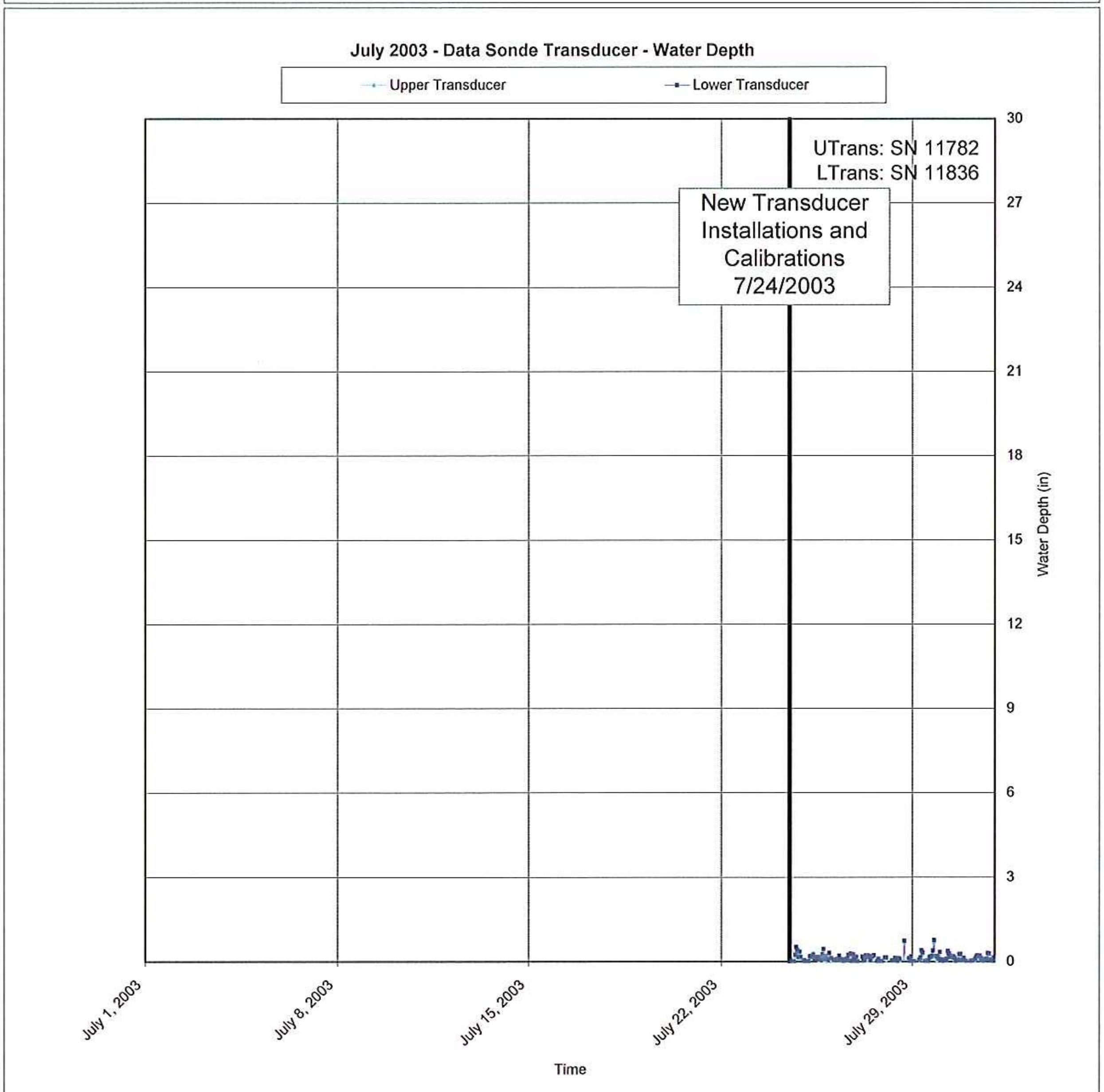

January 2005 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
0
40
80
120
160
200
240
280
320
360
400
0
2
4
6
8
10
12
14
16
18
20
January 1, 2005
January 8, 2005
January 15, 2005
January 22, 2005
January 29, 2005
Time

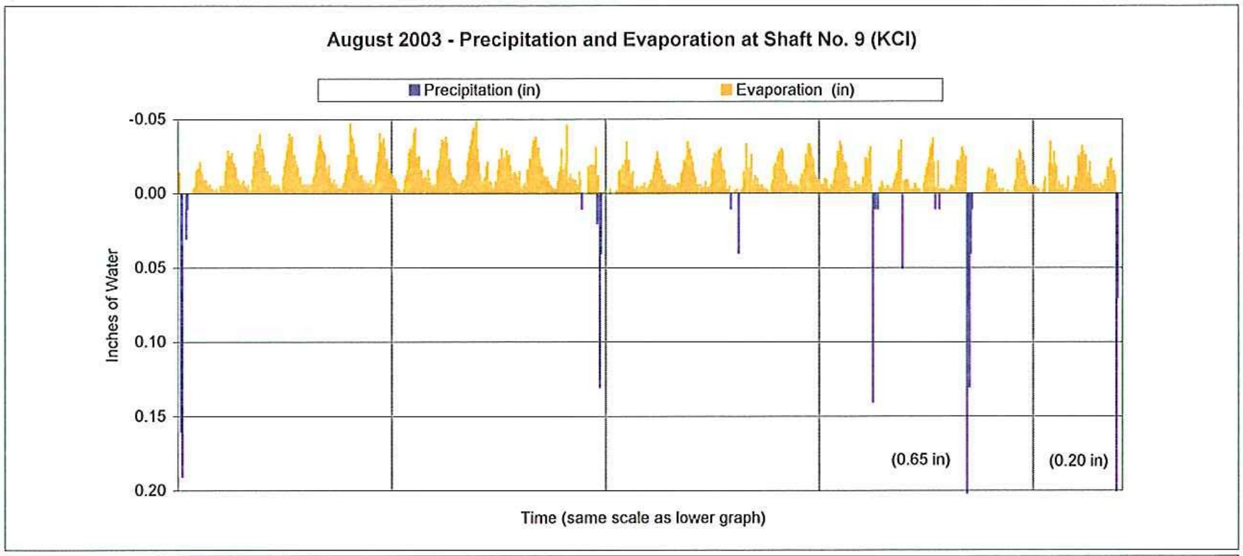

February 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.32"
Storm Total: 6.22"
Storm Total: 1.43"
Storm Total: 0.79"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

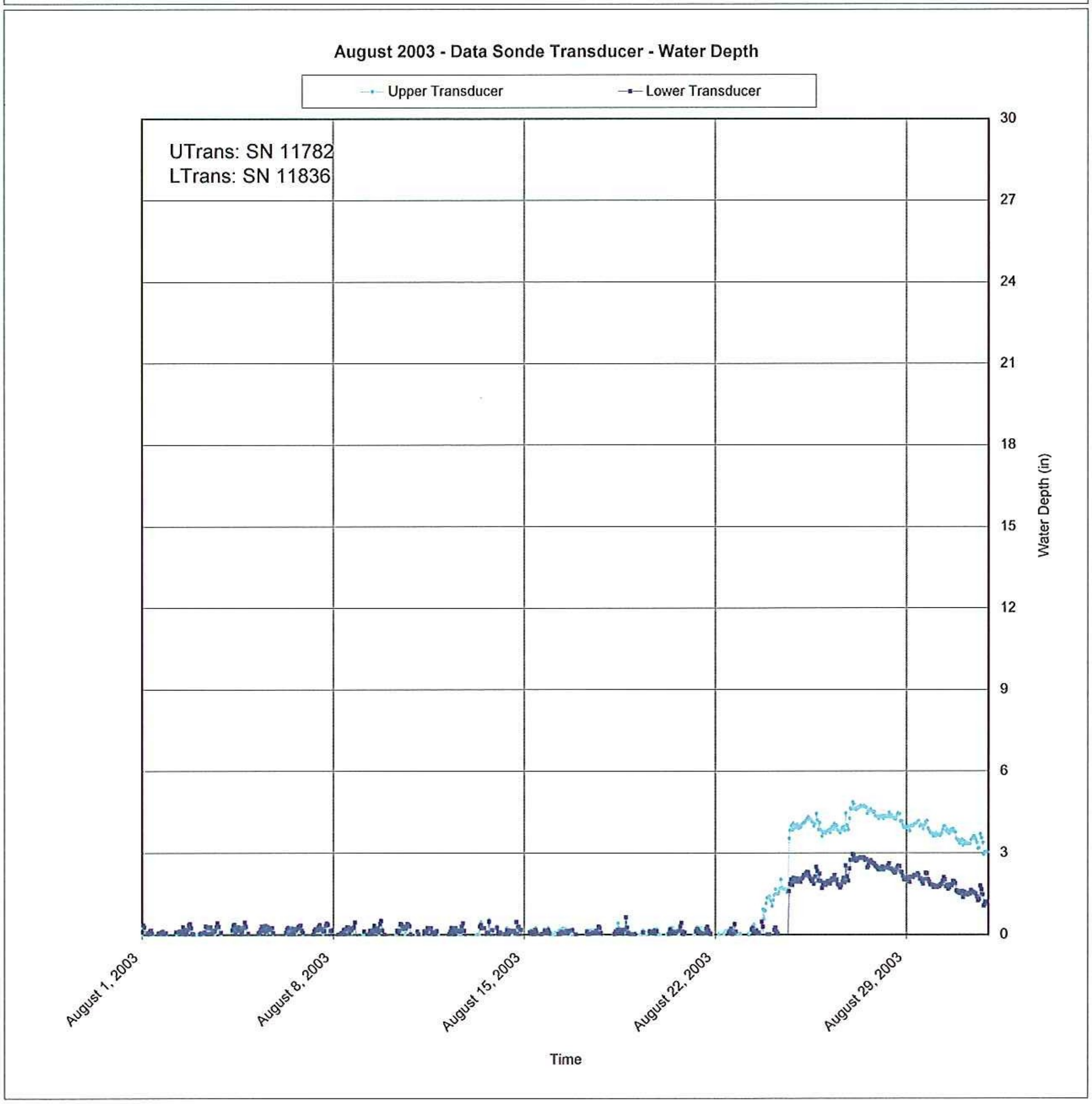

February 2005 - Data Sonde DC8.2W - Temperature, Specific Conductance, pH, and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31263
Max water depth 33" on 2/12/2005 at 11:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
February 1, 2005
February 8, 2005
February 15, 2005
February 22, 2005
March 1, 2005
Time

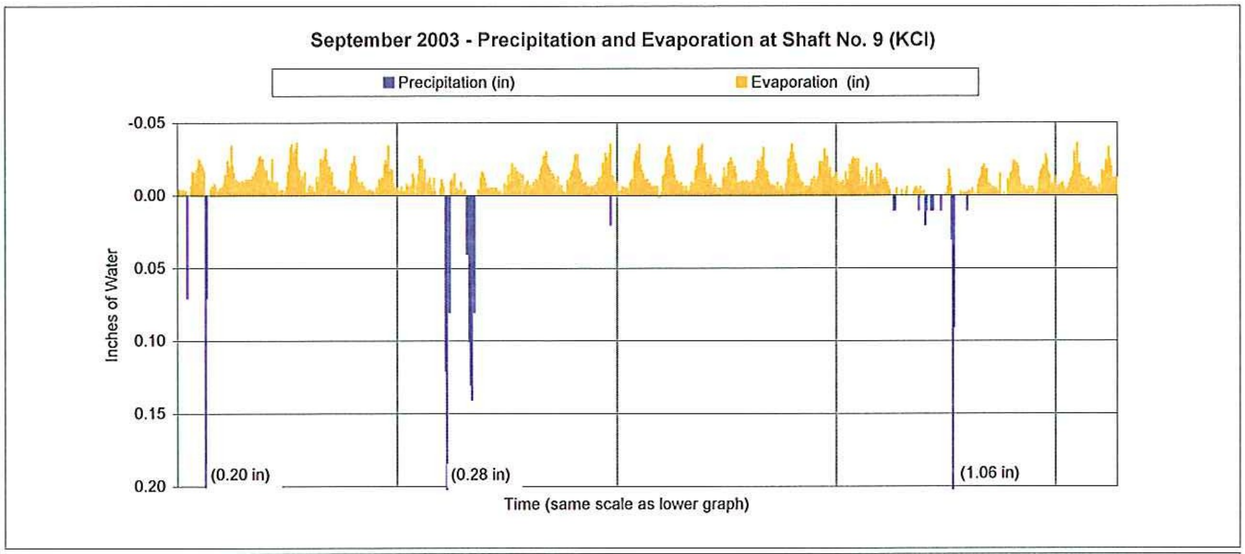
DC 7.1C

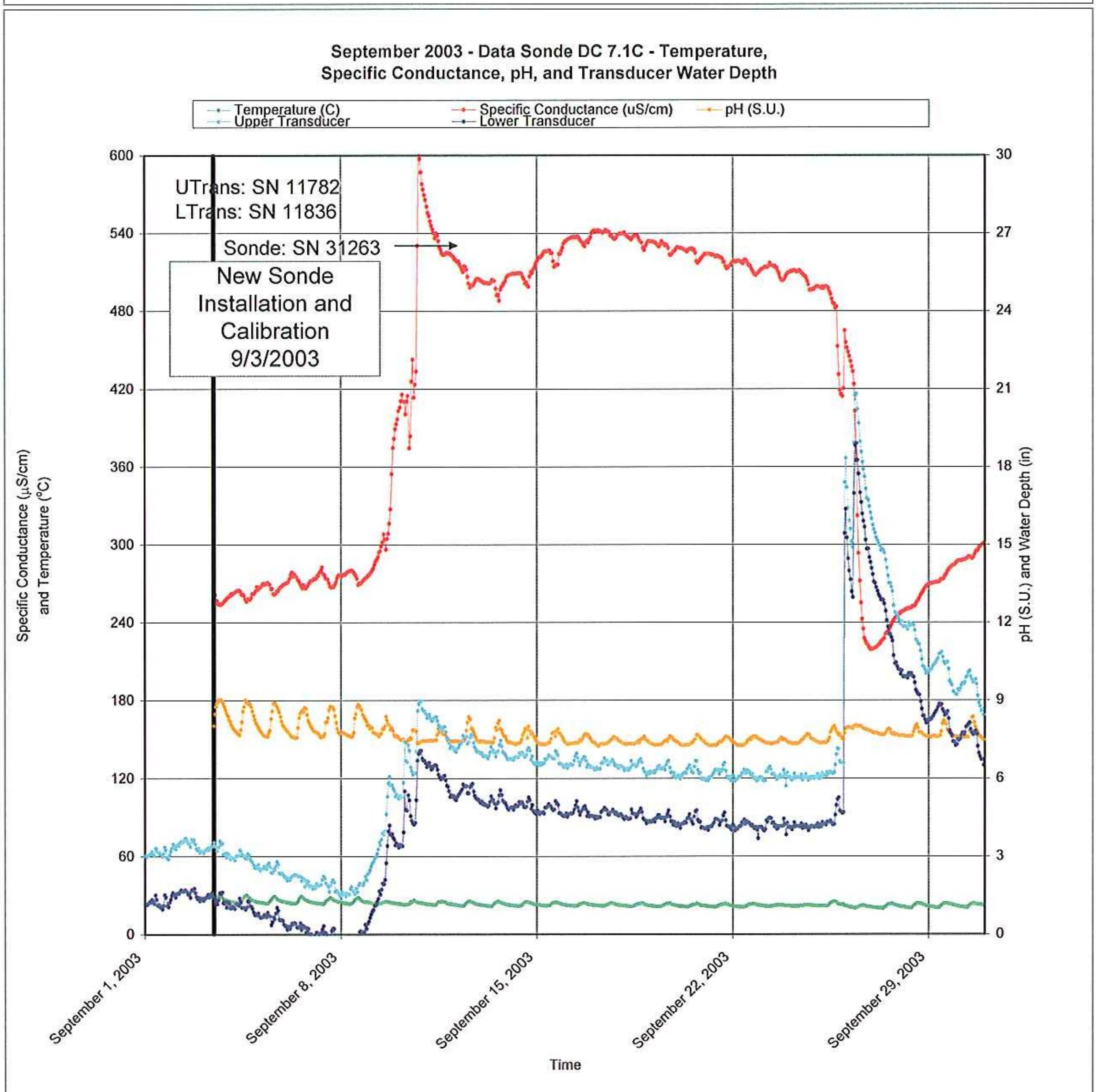

July 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

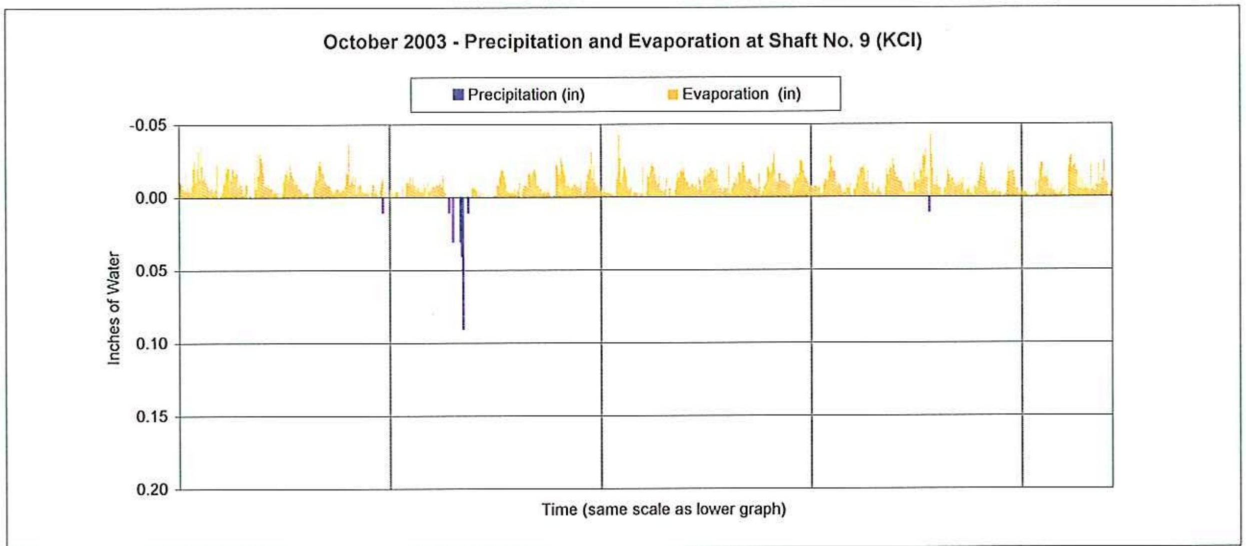

July 2003 - Data Sonde Transducer - Water Depth
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
New Transducer Installations and Calibrations 7/24/2003
Water Depth (in)
30
27
24
21
18
15
12
9
6
3
0
July 1, 2003
July 8, 2003
July 15, 2003
July 22, 2003
July 29, 2003
Time

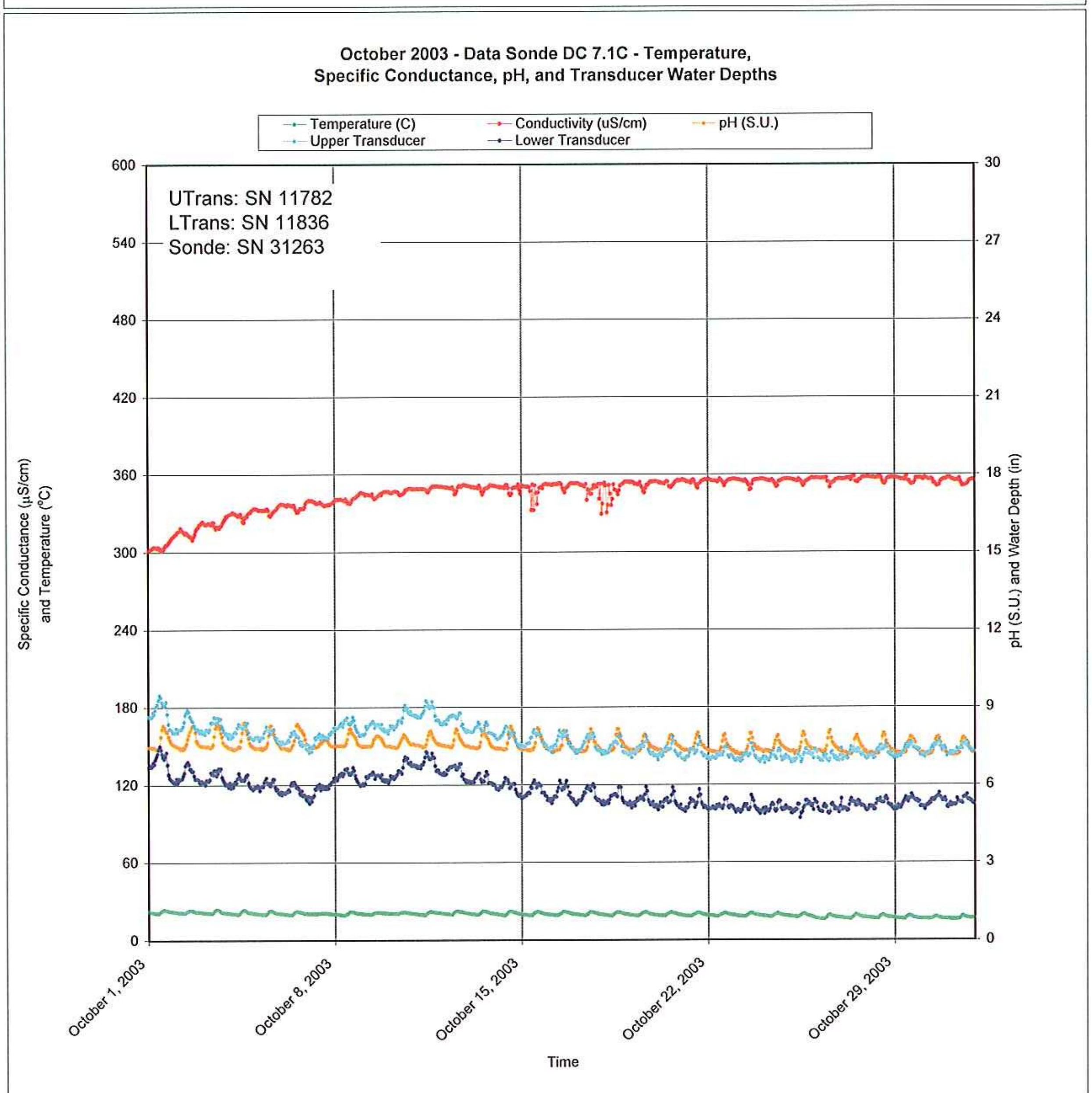

August 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.65 in)
(0.20 in)
Time (same scale as lower graph)

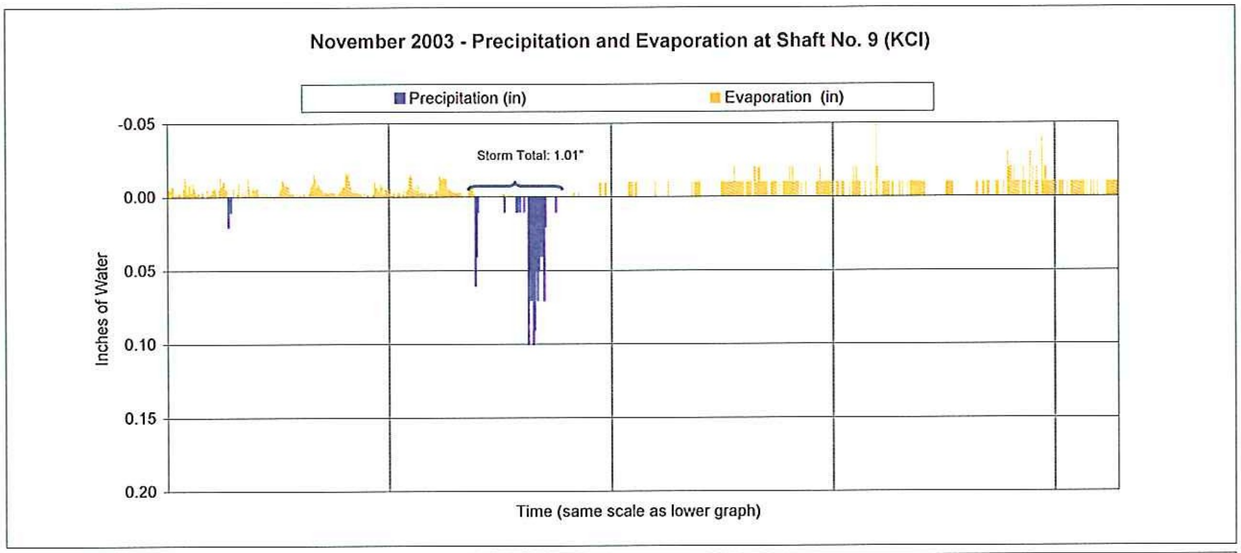

August 2003 - Data Sonde Transducer - Water Depth
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
30
27
24
21
18
15
12
9
6
3
0
Water Depth (in)
August 1, 2003
August 8, 2003
August 15, 2003
August 22, 2003
August 29, 2003
Time

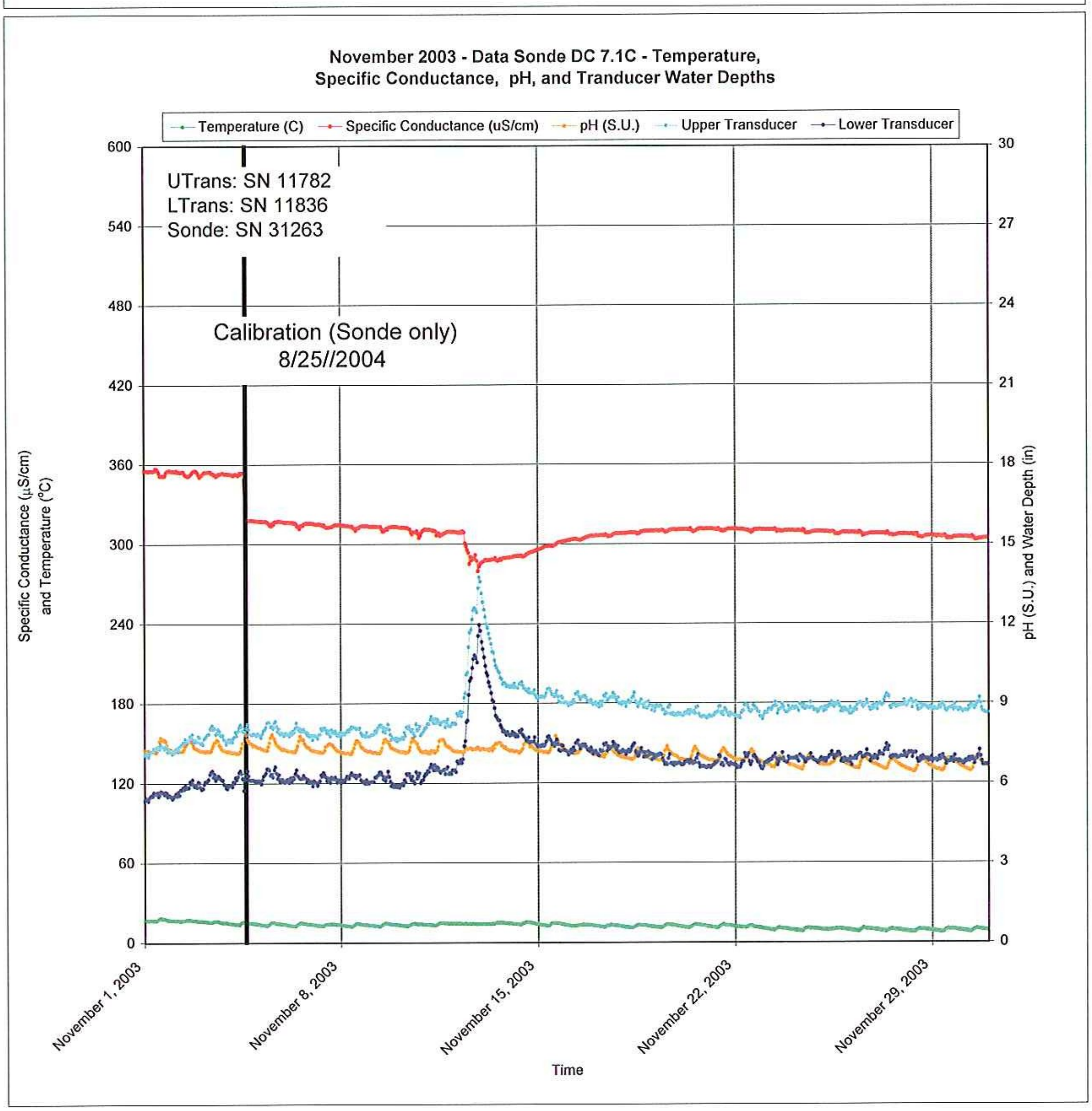

September 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.20 in)
(0.28 in)
(1.06 in)
Time (same scale as lower graph)

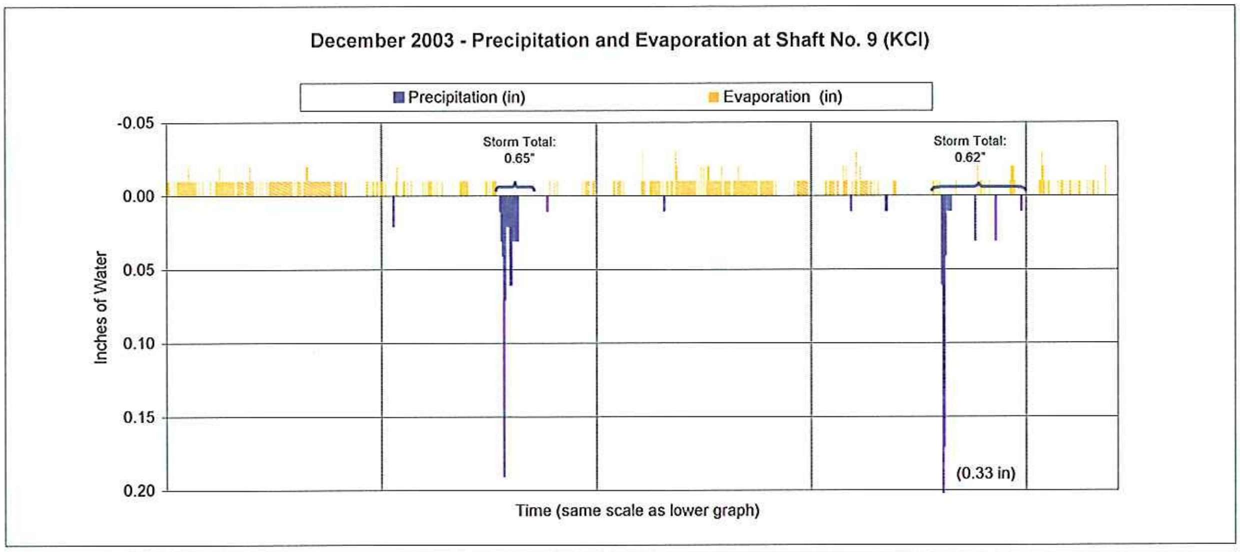

September 2003 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Transducer Water Depth
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
New Sonde Installation and Calibration 9/3/2003
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
September 1, 2003
September 8, 2003
September 15, 2003
September 22, 2003
September 29, 2003
Time

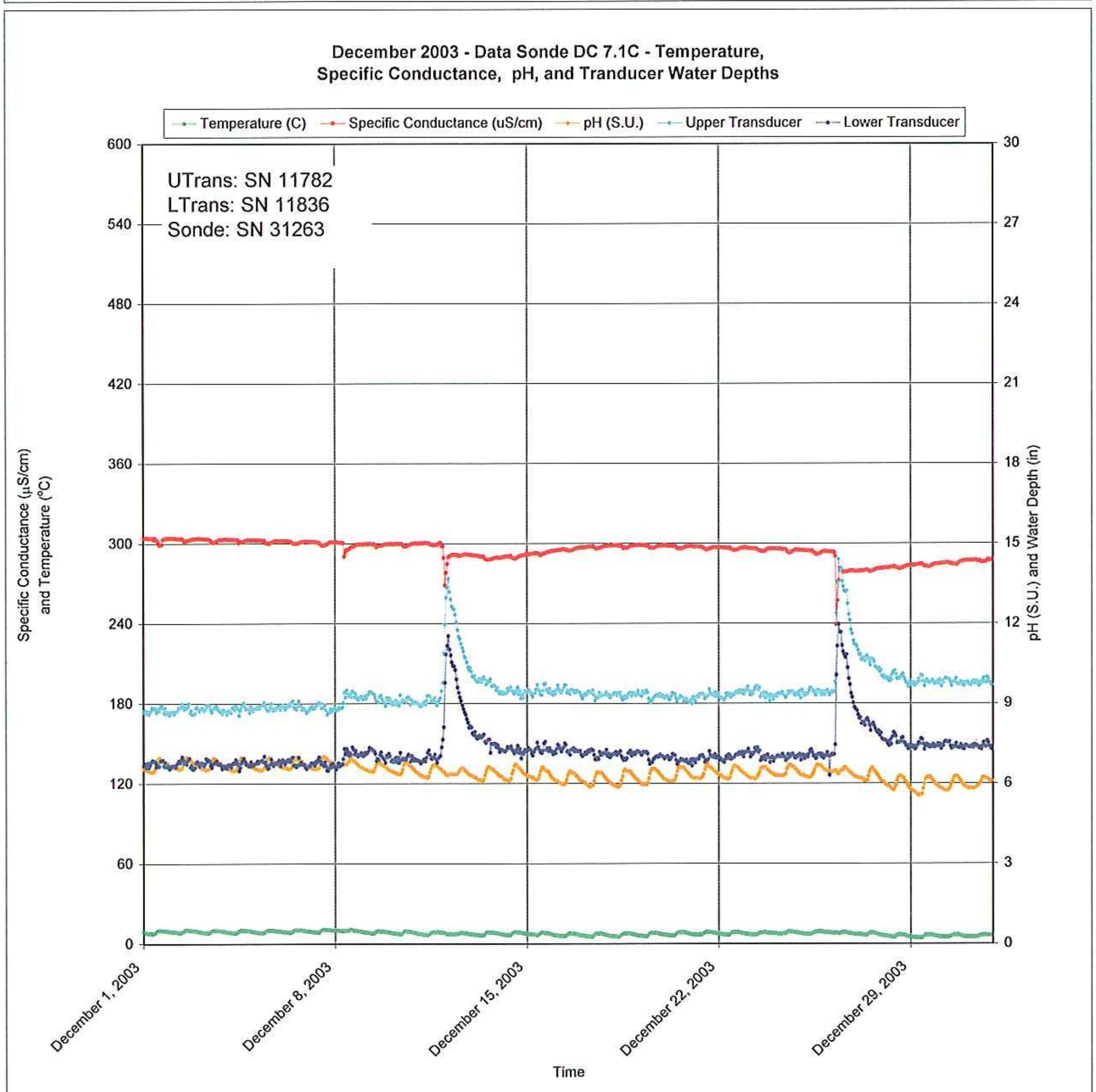

October 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

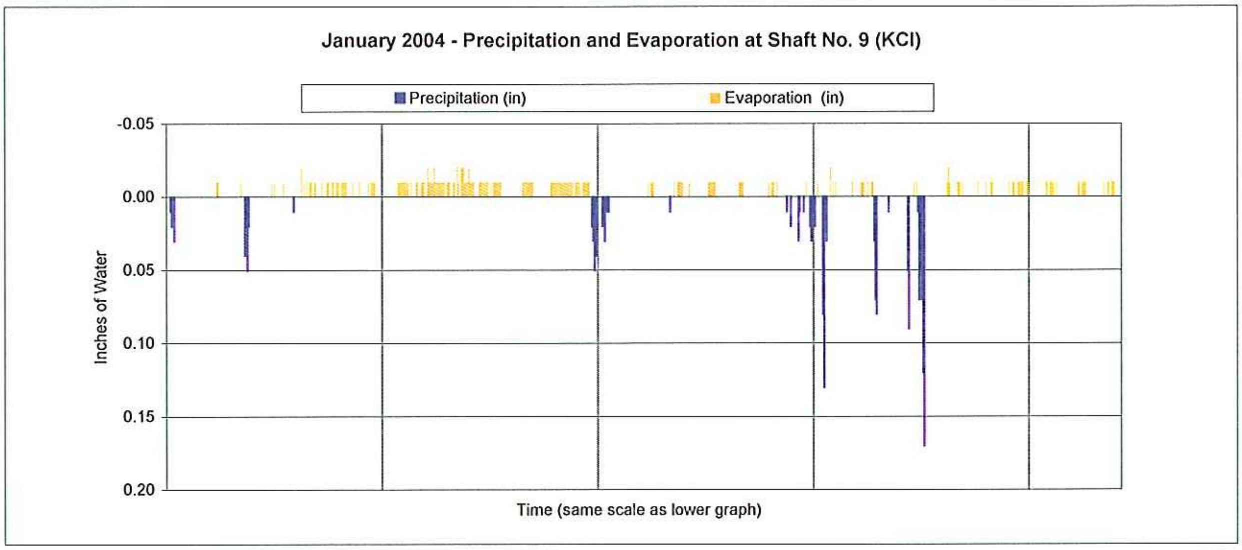

October 2003 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Transducer Water Depths
Temperature (C)
Conductivity (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
October 1, 2003
October 8, 2003
October 15, 2003
October 22, 2003
October 29, 2003
Time

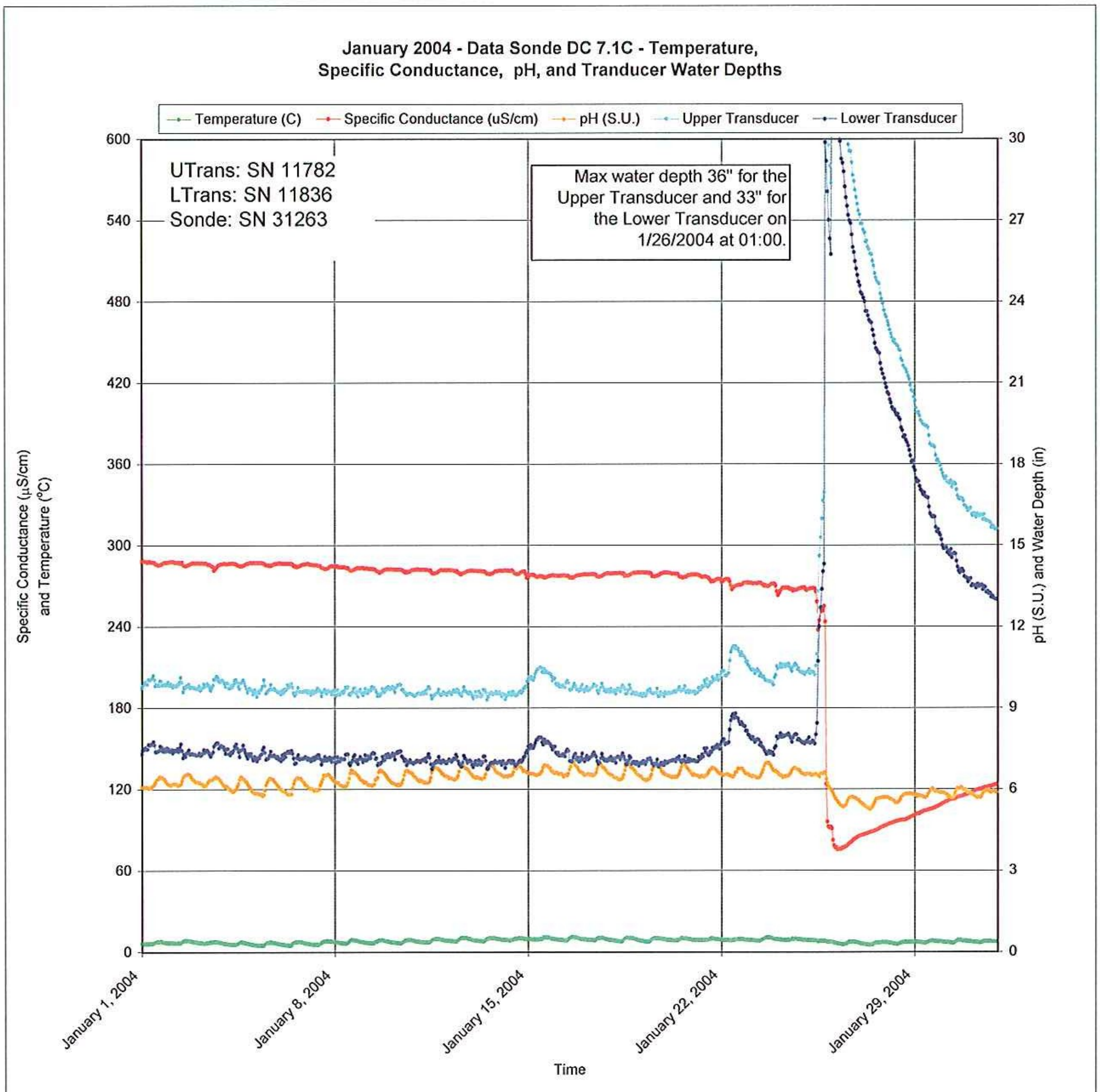

November 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.01"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

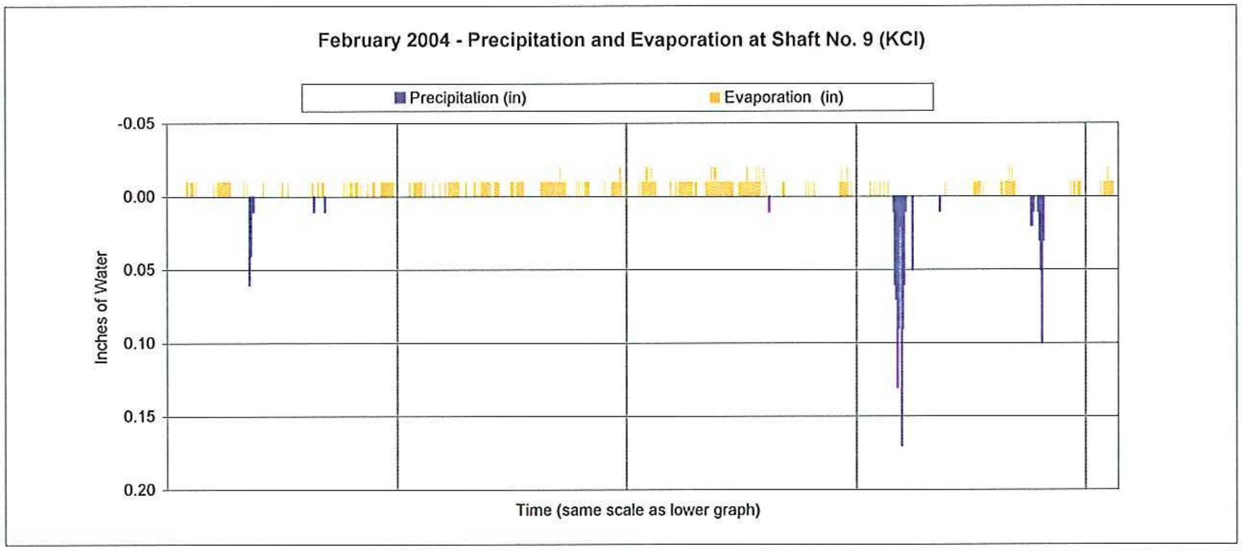

November 2003 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Calibration (Sonde only) 8/25//2004
Specific Conductance (μS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
November 1, 2003
November 8, 2003
November 15, 2003
November 22, 2003
November 29, 2003
Time

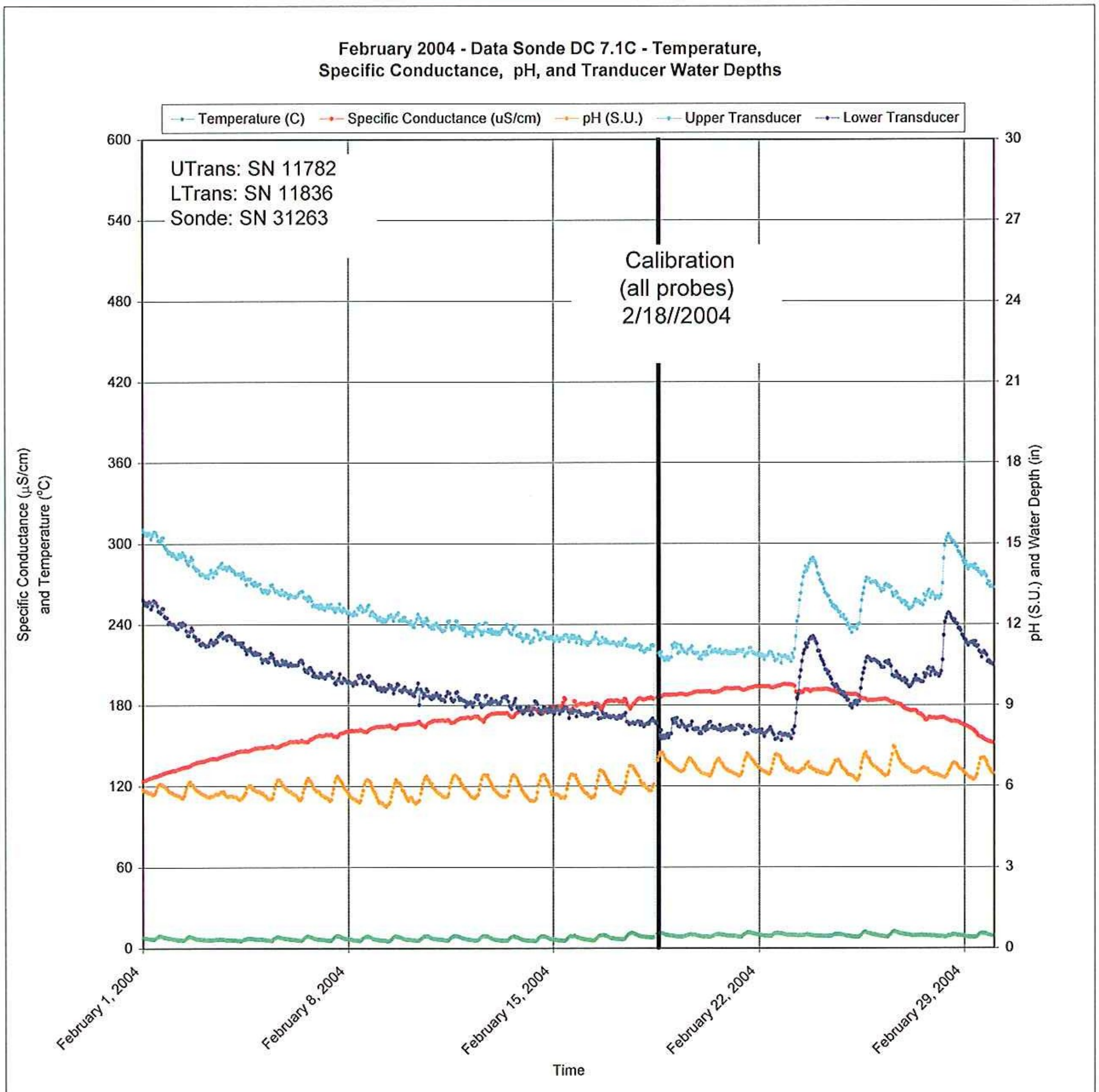

December 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.65"
Storm Total: 0.62"
(0.33 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

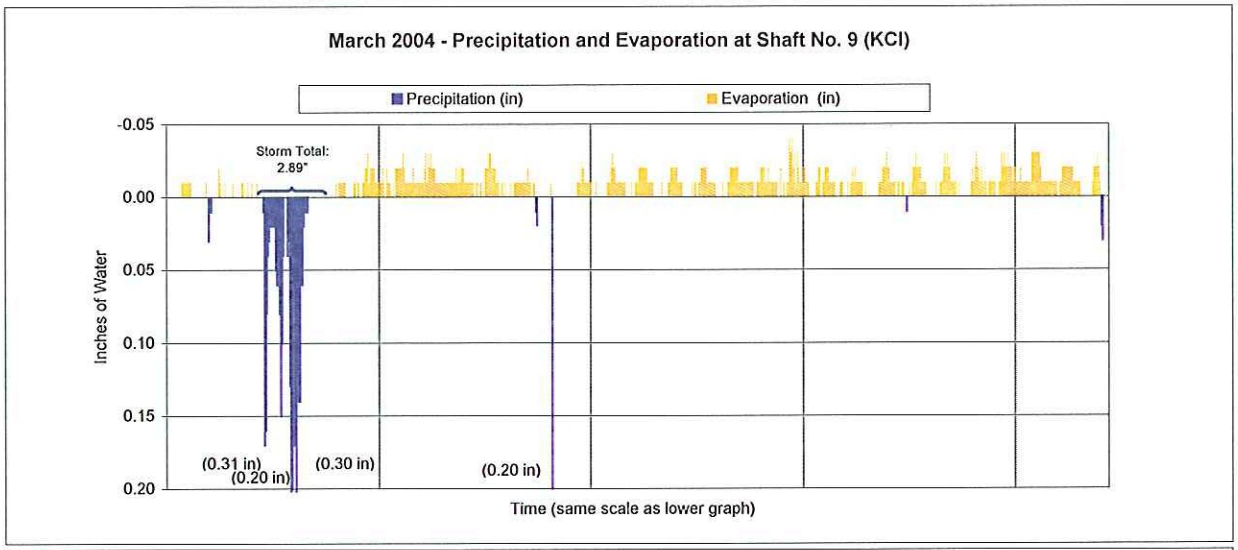

December 2003 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
December 1, 2003
December 8, 2003
December 15, 2003
December 22, 2003
December 29, 2003
Time

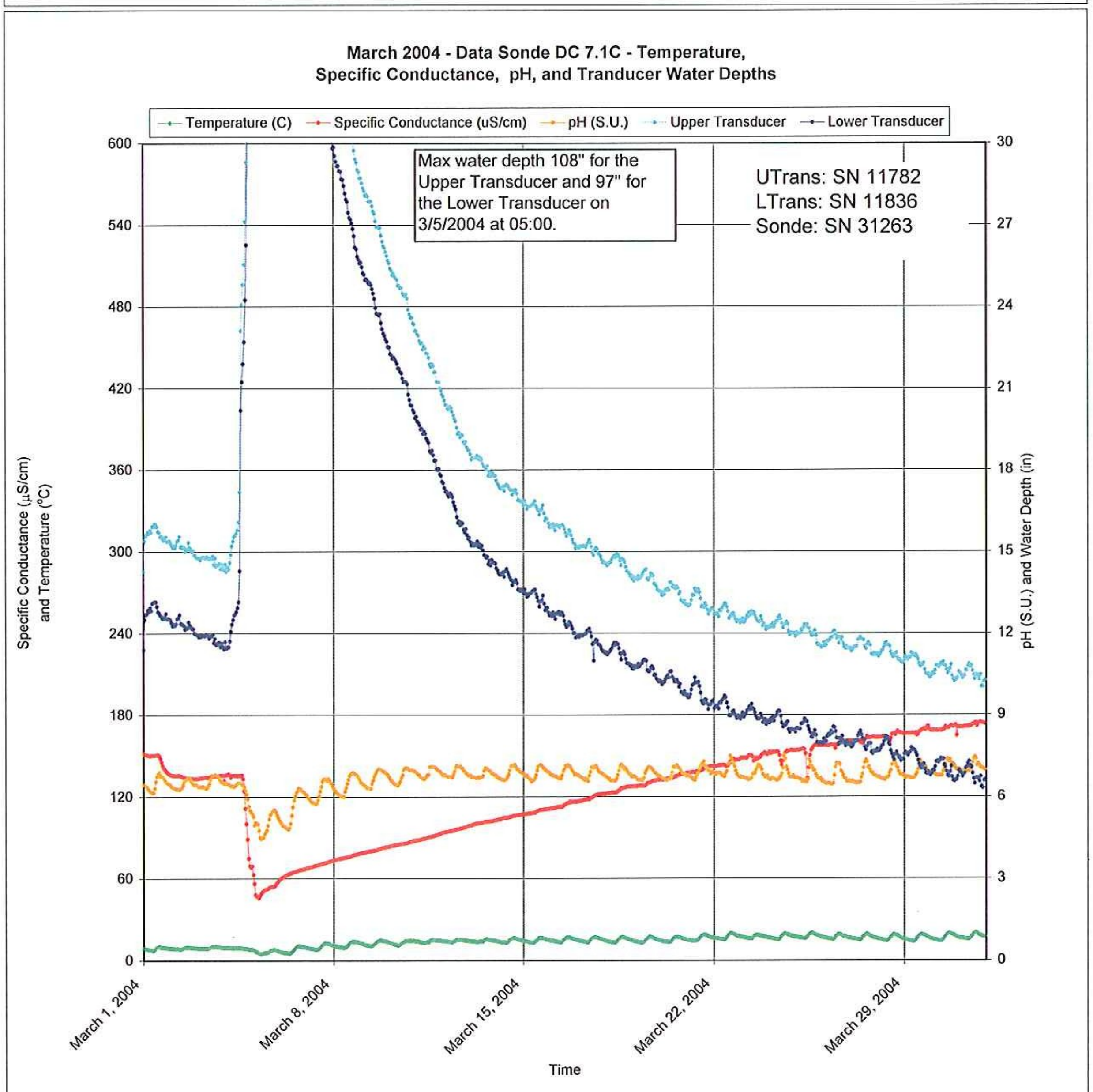

January 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

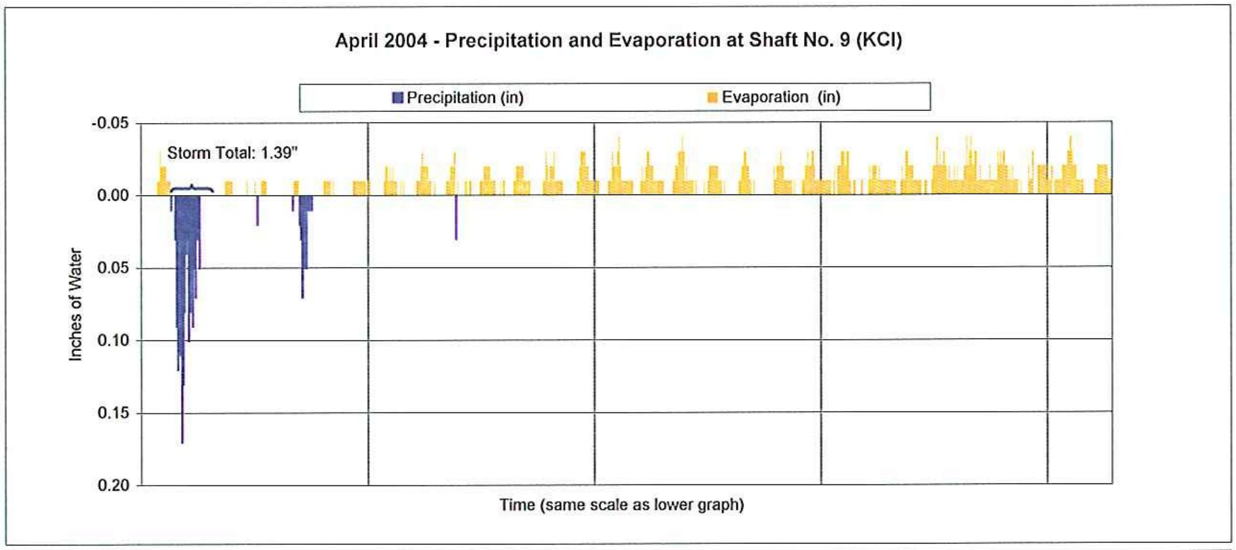

January 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Max water depth 36" for the Upper Transducer and 33" for the Lower Transducer on 1/26/2004 at 01:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
January 1, 2004
January 8, 2004
January 15, 2004
January 22, 2004
January 29, 2004
Time

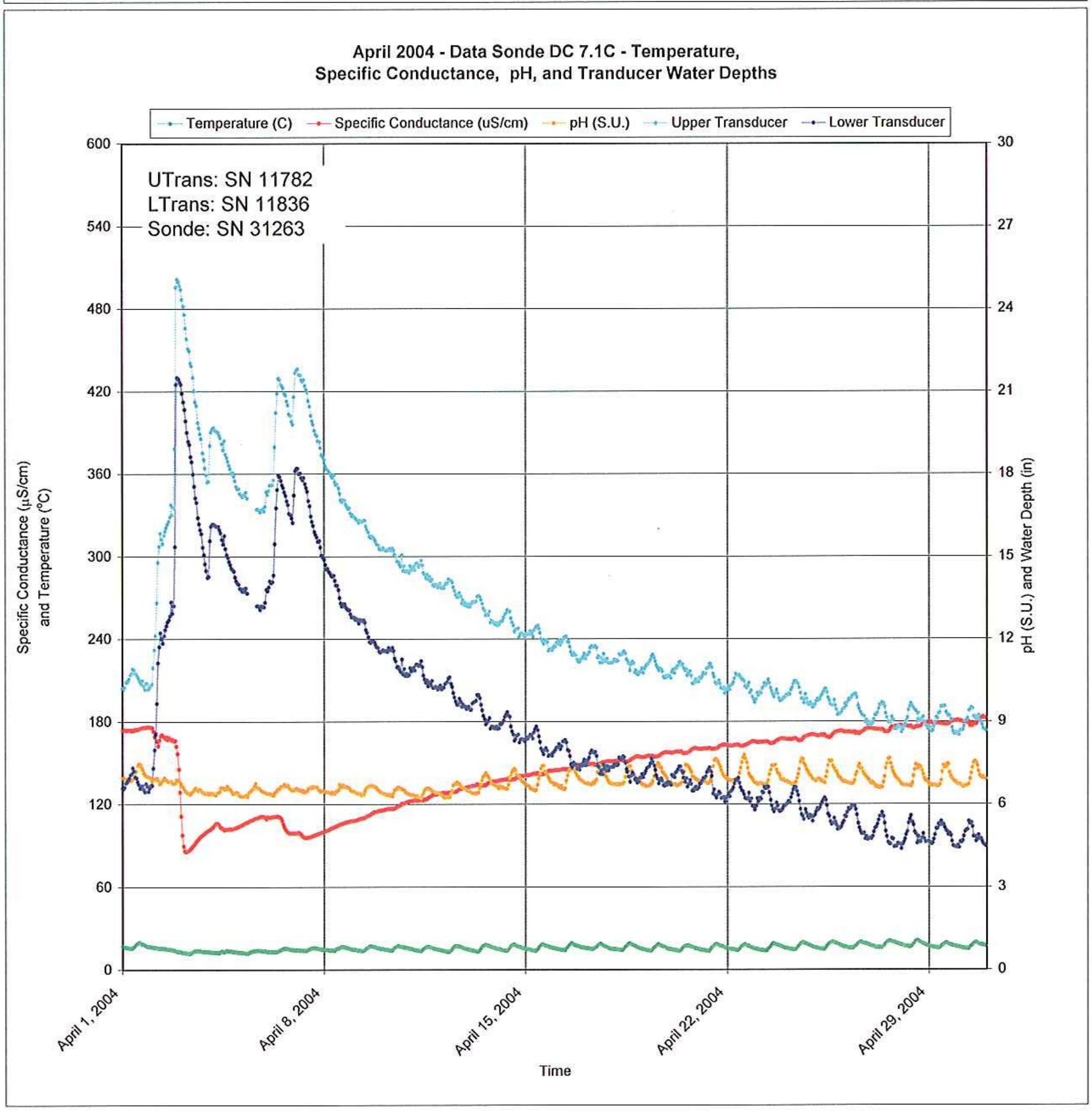

February 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

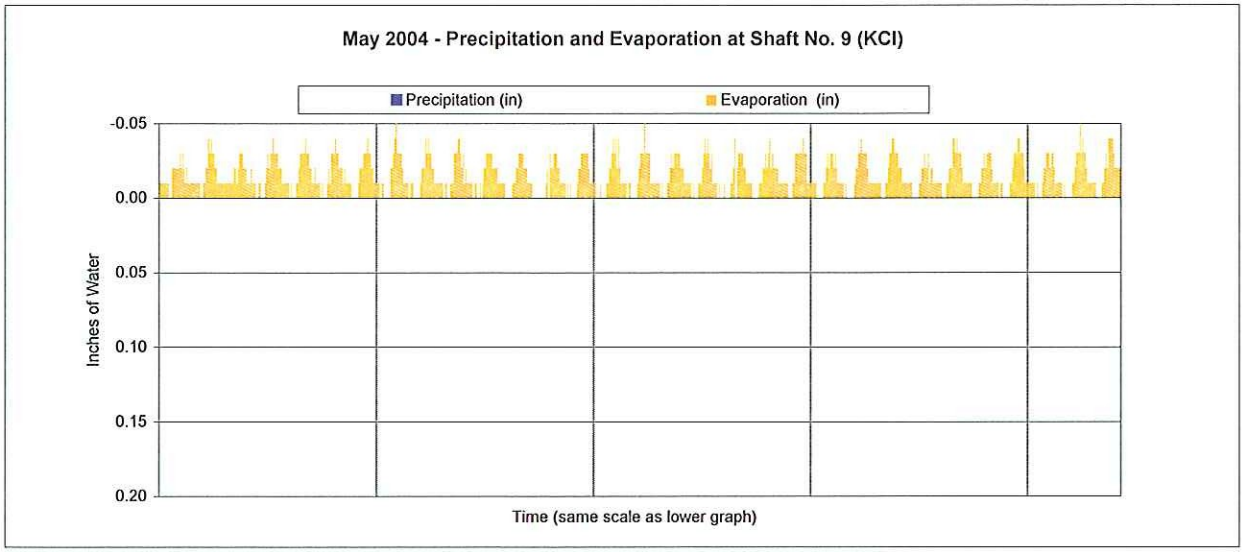

February 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Calibration
(all probes)
2/18//2004
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
February 1, 2004
February 8, 2004
February 15, 2004
February 22, 2004
February 29, 2004
Time

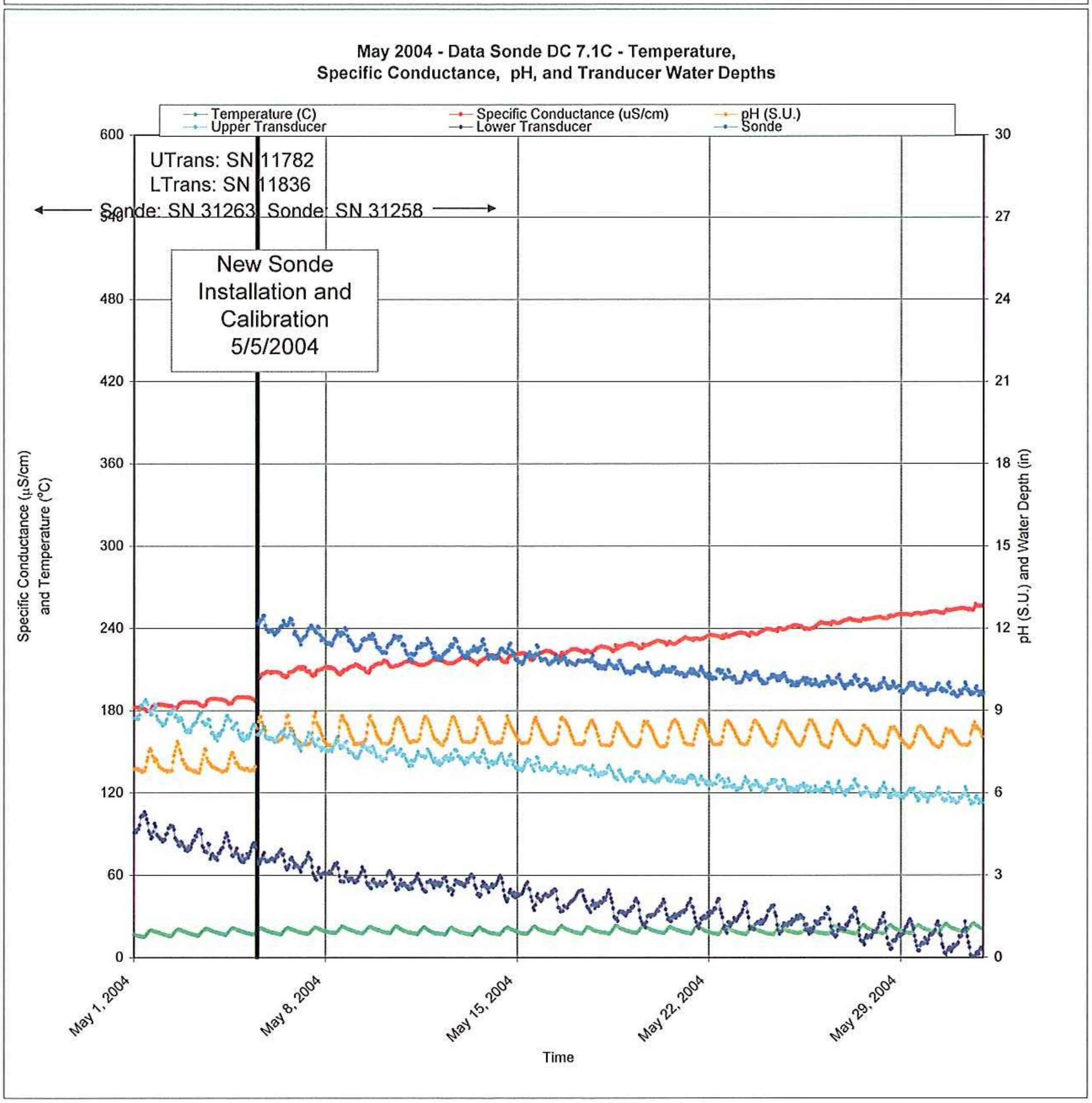

March 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
(0.31 in)
(0.20 in)
(0.30 in)
(0.20 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

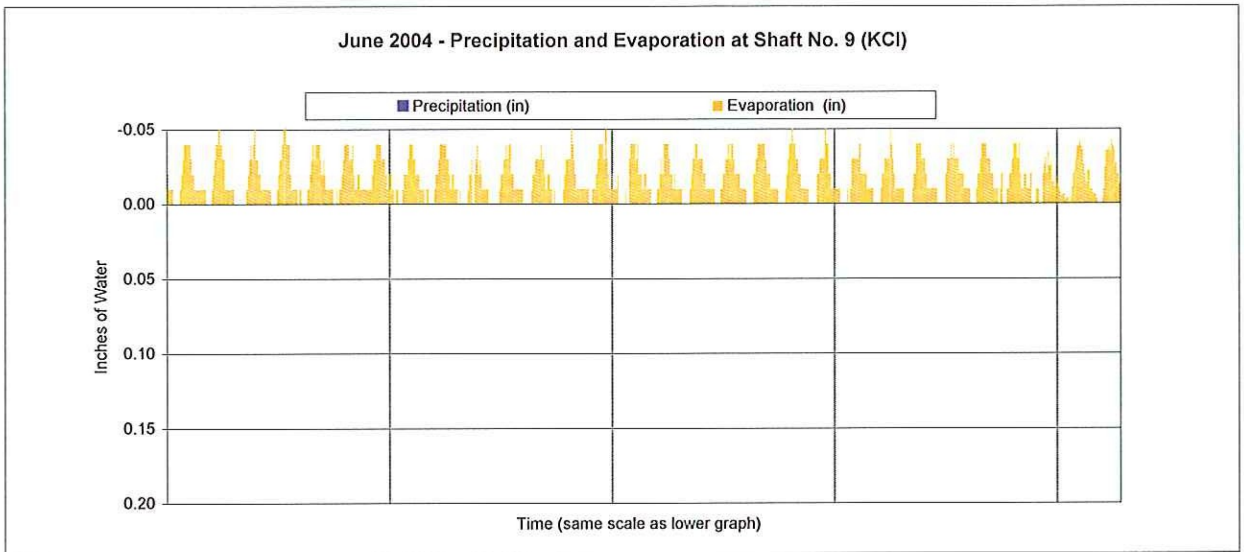

March 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Max water depth 108" for the Upper Transducer and 97" for the Lower Transducer on 3/5/2004 at 05:00.
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
March 1, 2004
March 8, 2004
March 15, 2004
March 22, 2004
March 29, 2004
Time

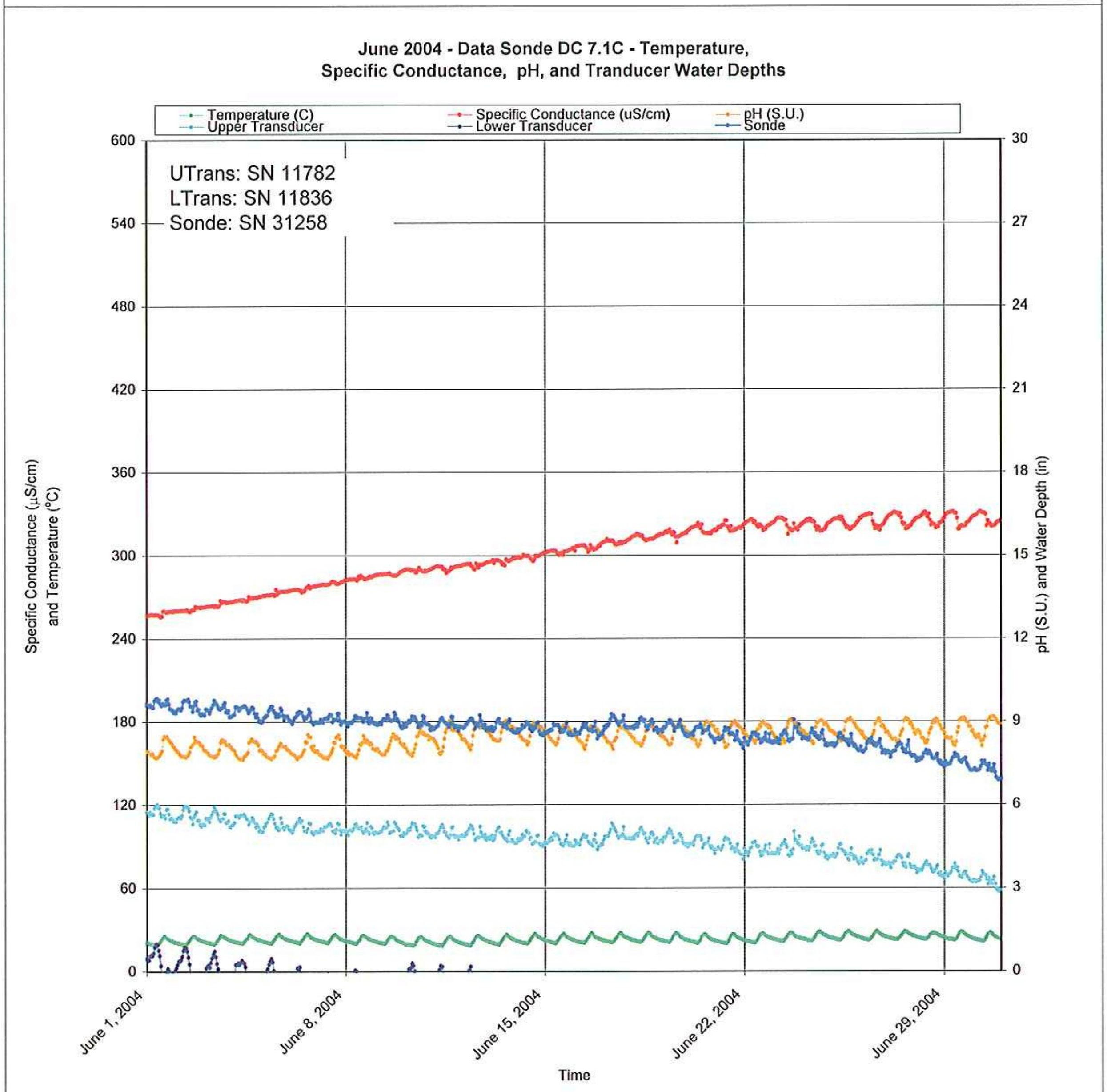

April 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.39"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

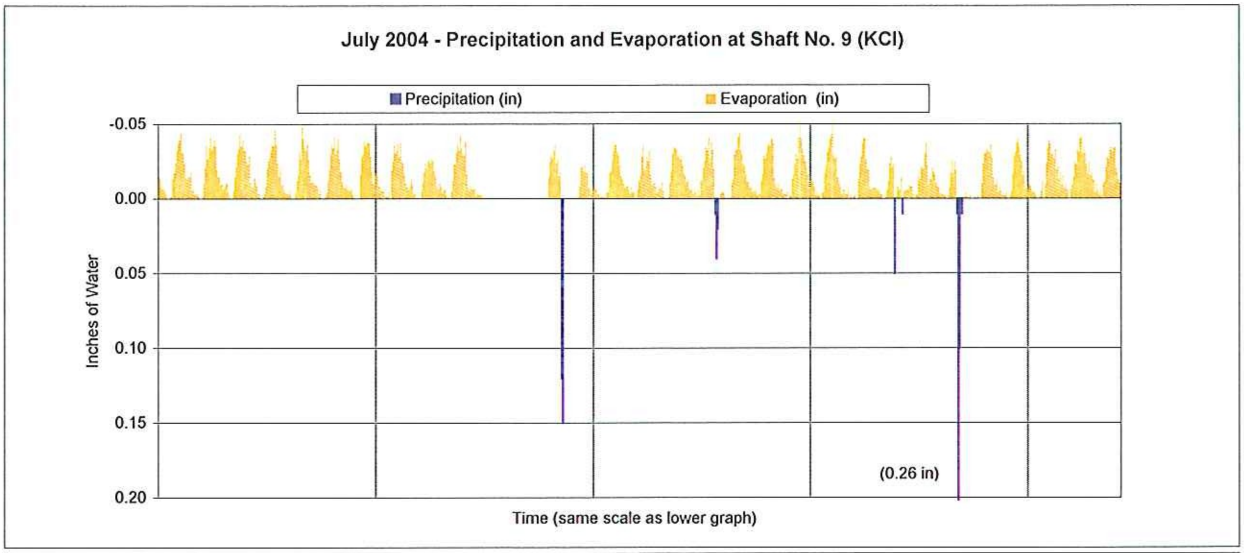

April 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
April 1, 2004
April 8, 2004
April 15, 2004
April 22, 2004
April 29, 2004
Time

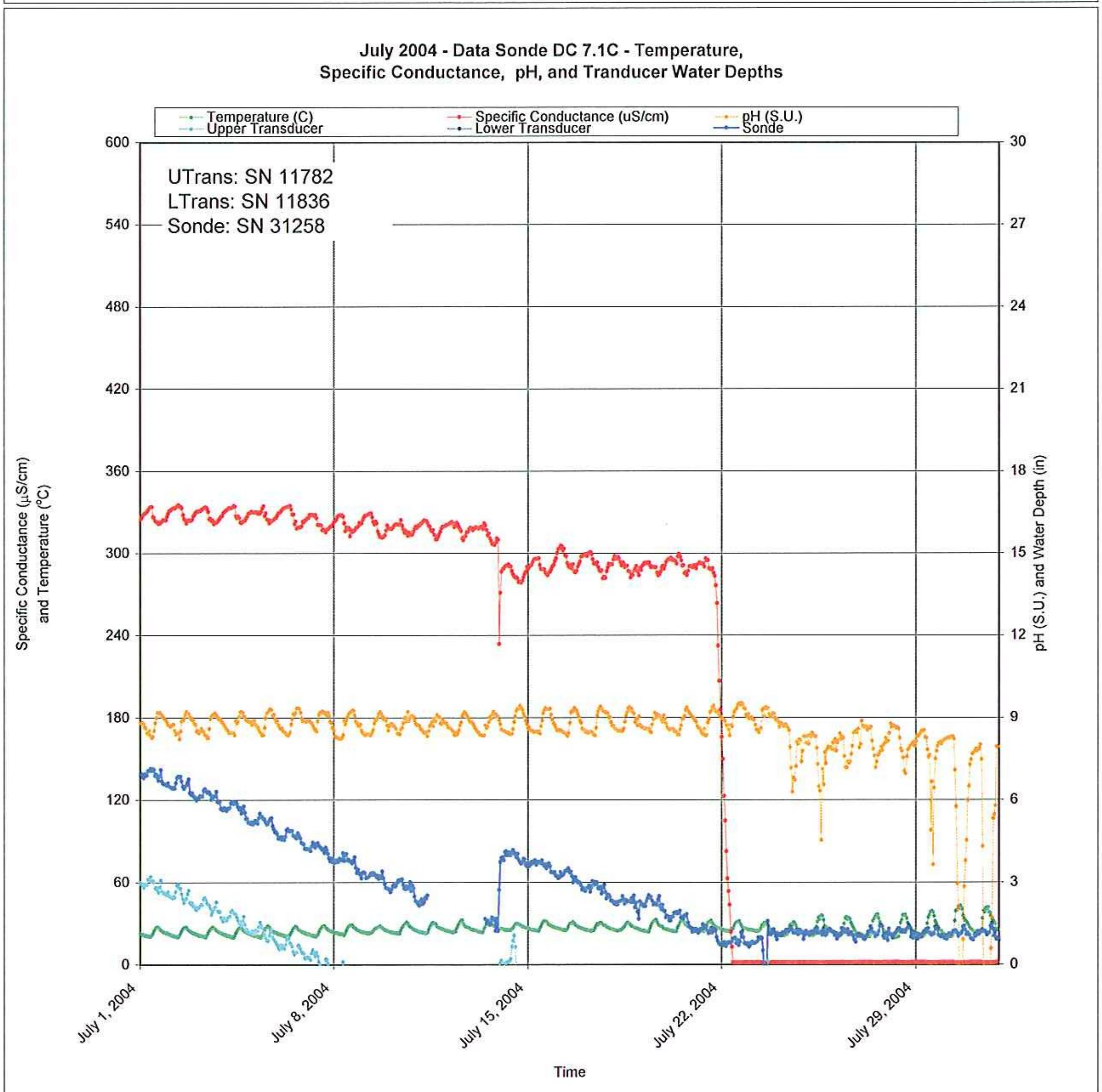

May 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

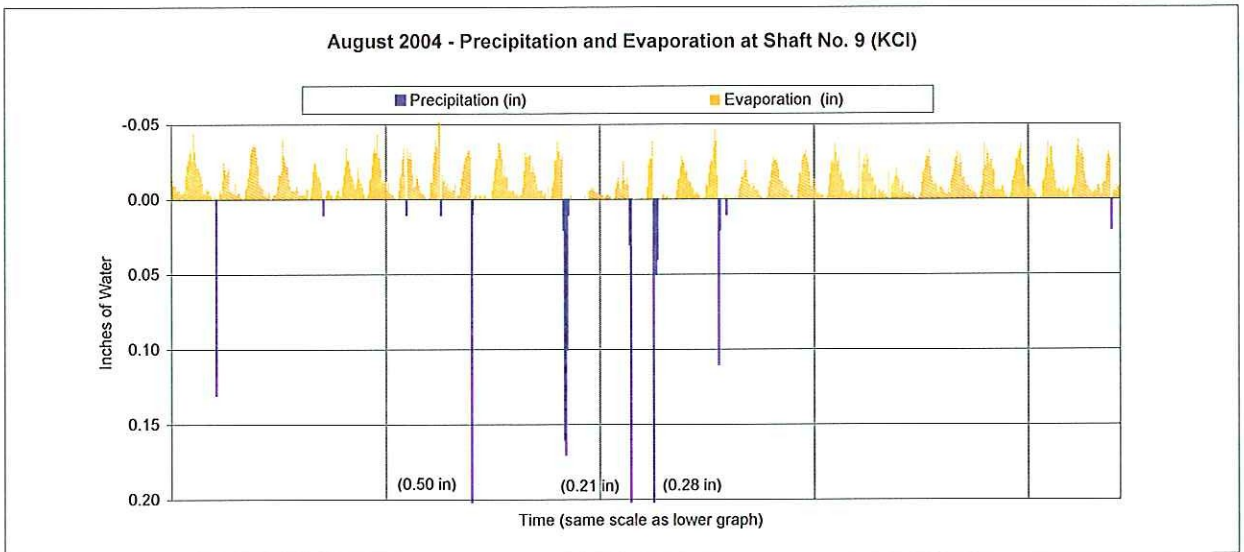

May 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31263 Sonde: SN 31258
New Sonde Installation and Calibration 5/5/2004
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
May 1, 2004
May 8, 2004
May 15, 2004
May 22, 2004
May 29, 2004
Time

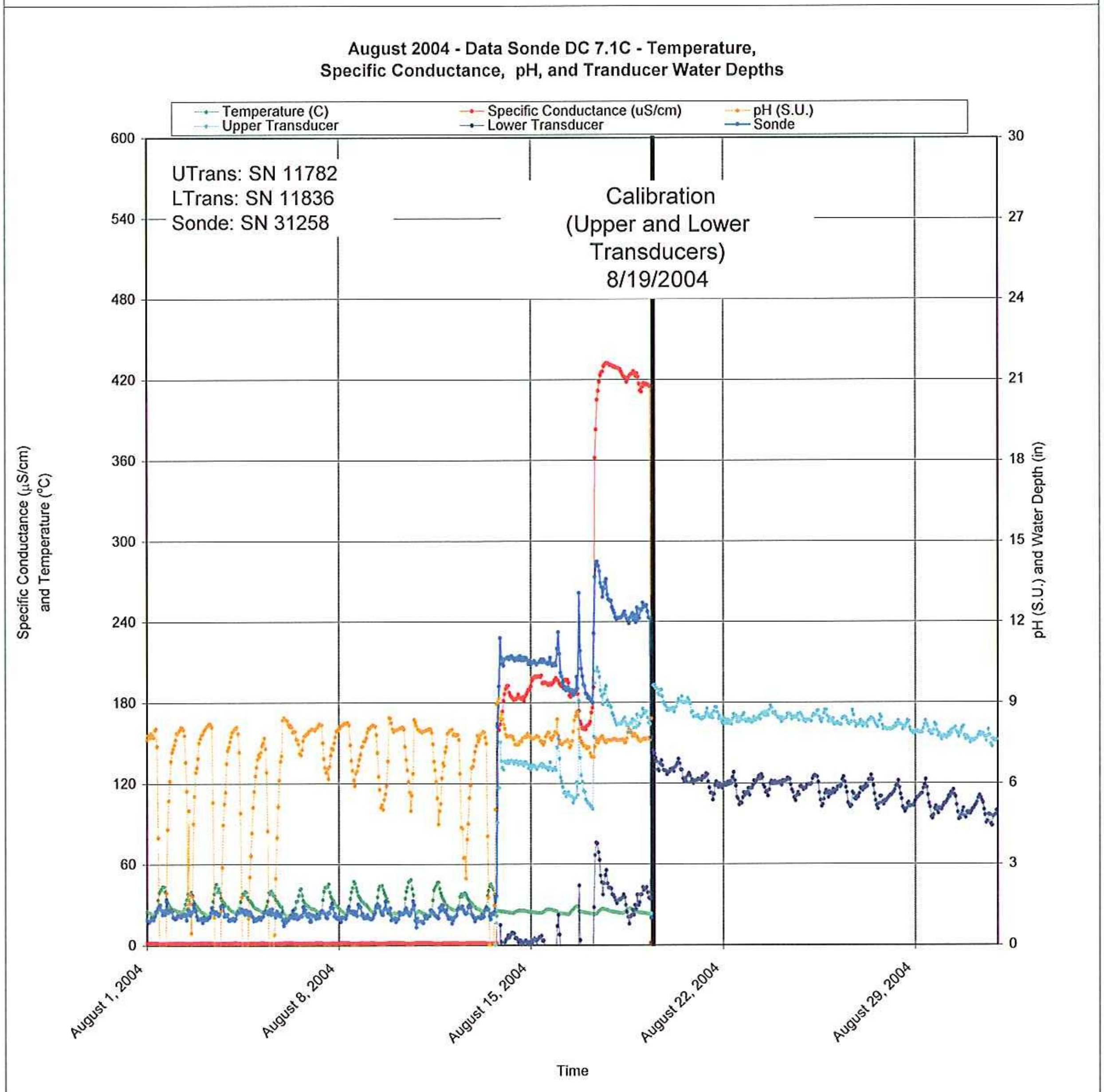

June 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

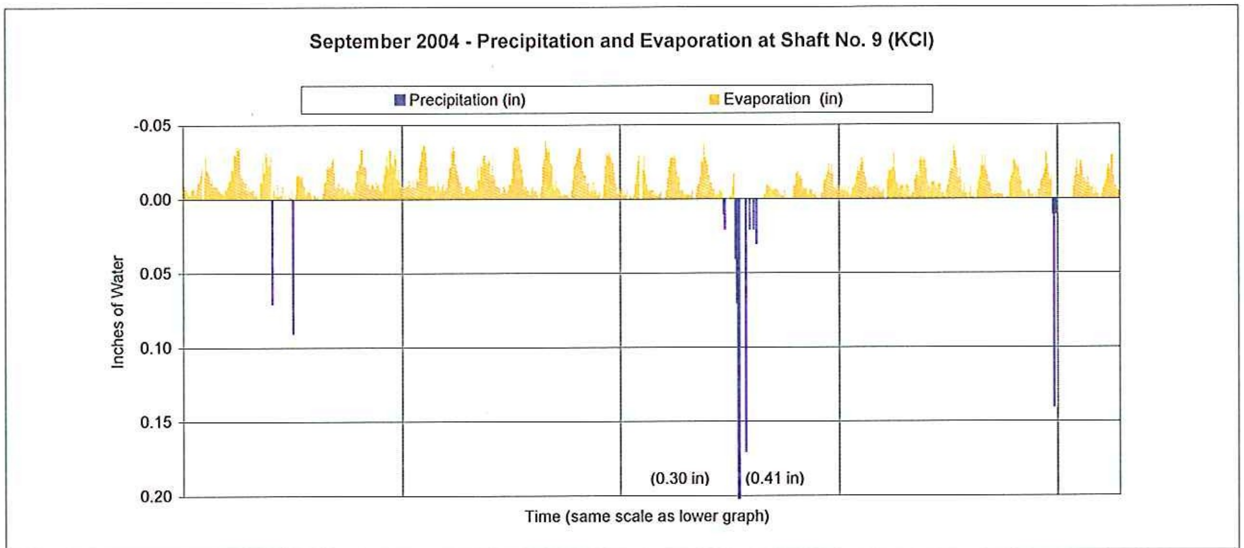

June 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
June 1, 2004
June 8, 2004
June 15, 2004
June 22, 2004
June 29, 2004
Time

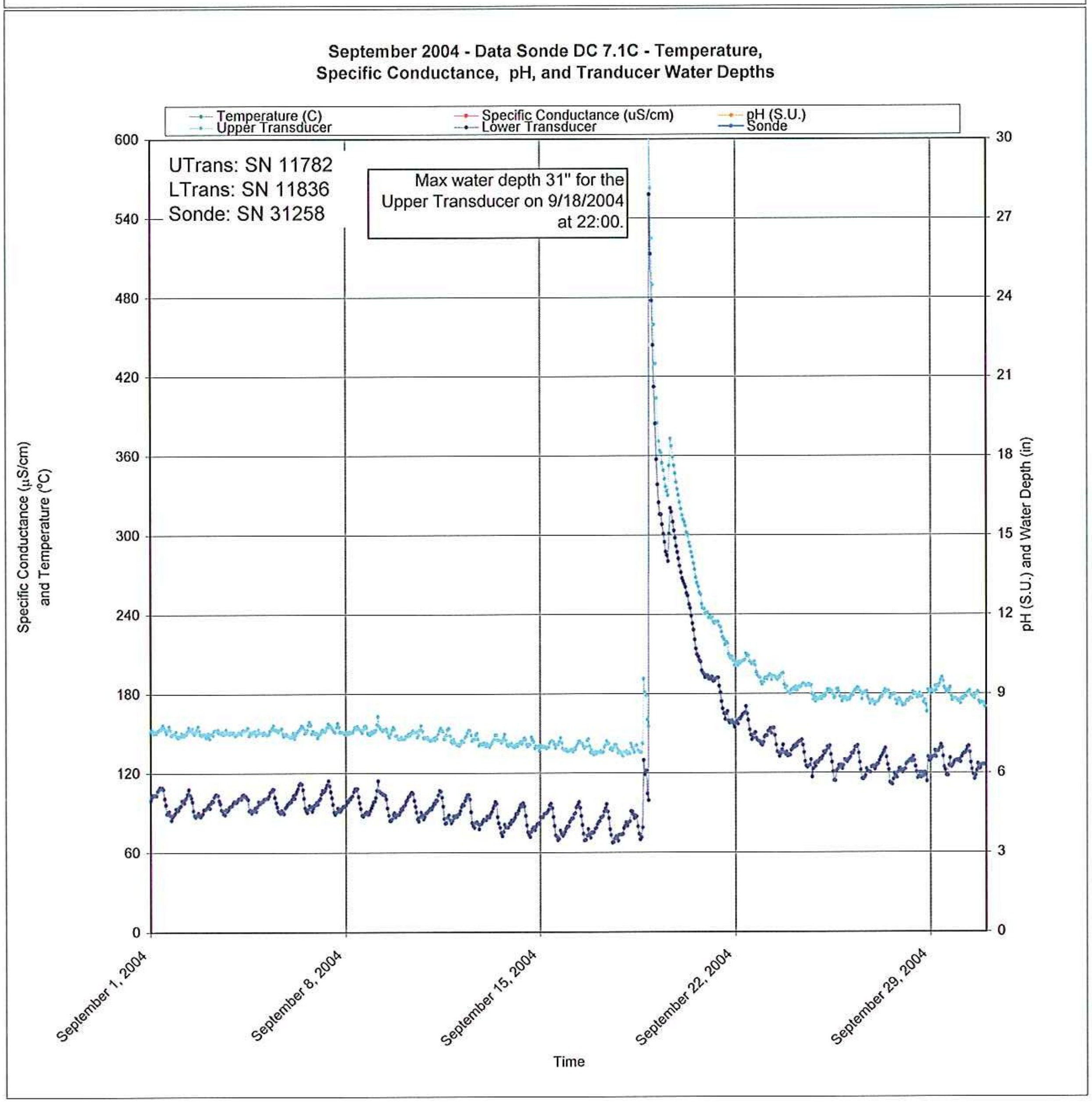

July 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.26 in)
Time (same scale as lower graph)

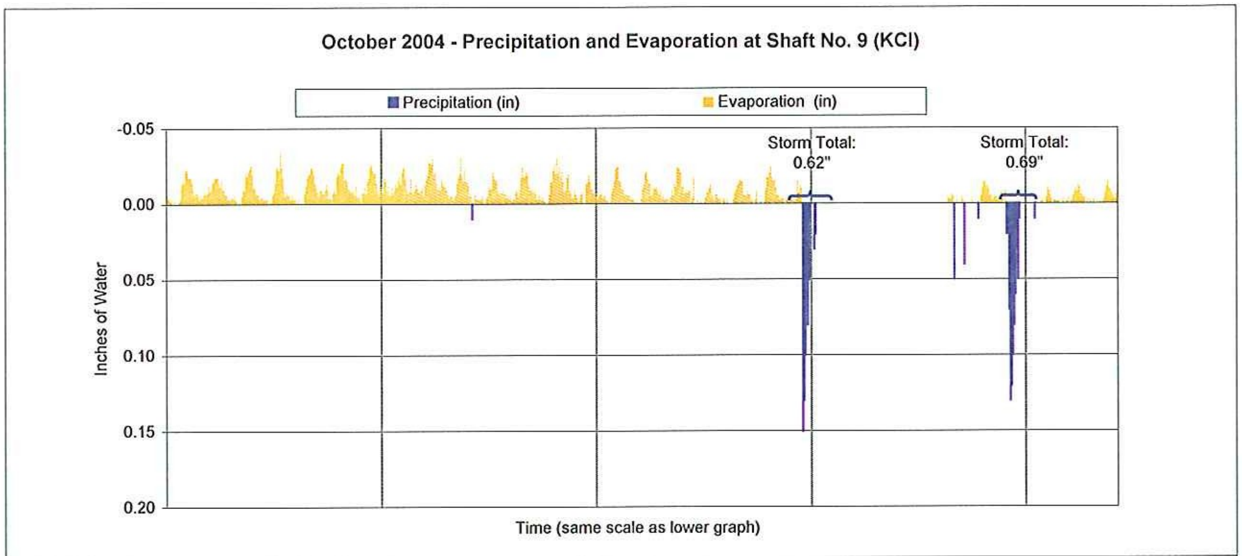

July 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
July 1, 2004
July 8, 2004
July 15, 2004
July 22, 2004
July 29, 2004
Time


August 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.50 in)
(0.21 in)
(0.28 in)
Time (same scale as lower graph)

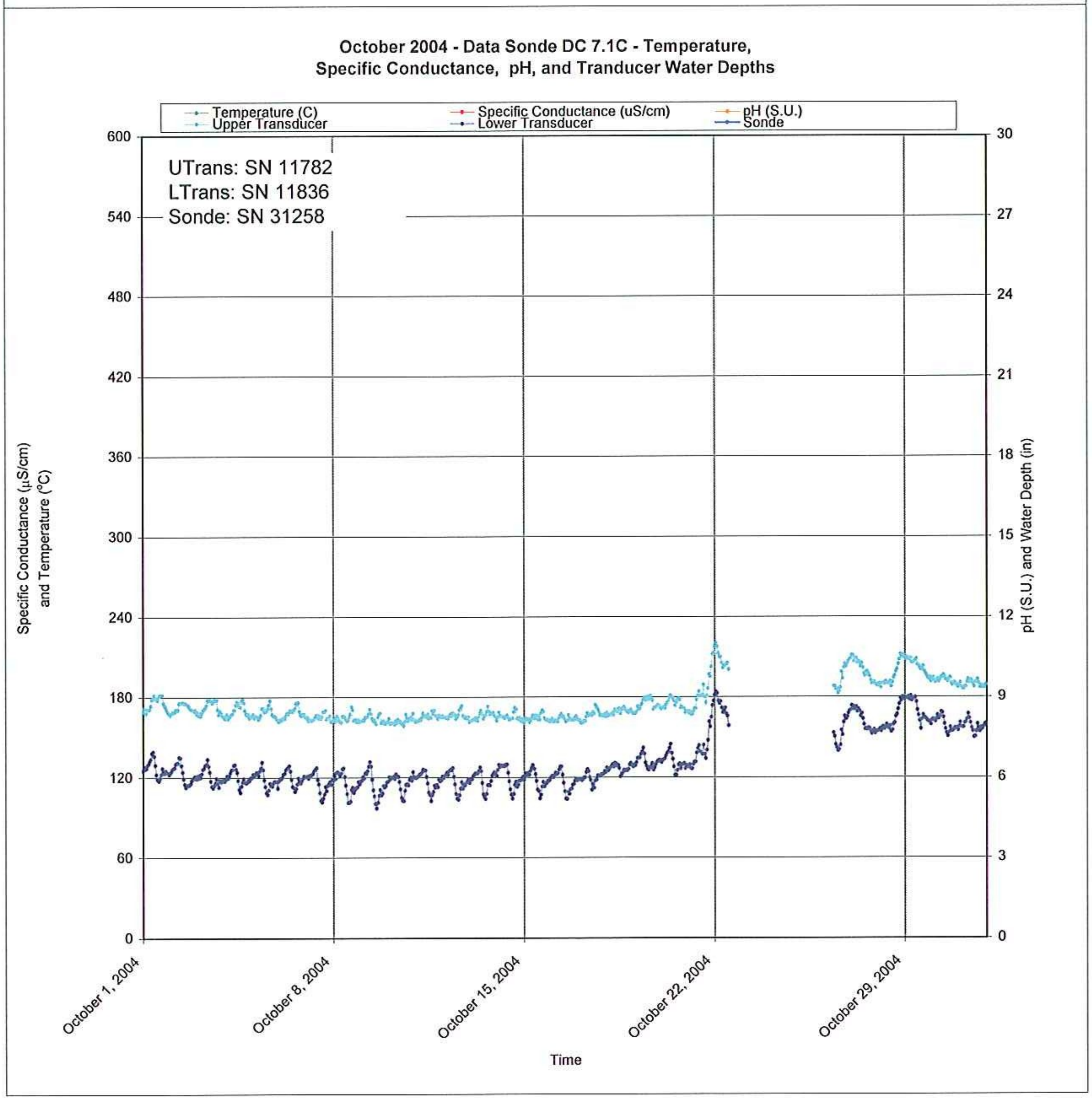

August 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Calibration (Upper and Lower Transducers) 8/19/2004
Specific Conductance (μS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
August 1, 2004
August 8, 2004
August 15, 2004
August 22, 2004
August 29, 2004
Time


September 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.30 in)
(0.41 in)
Time (same scale as lower graph)

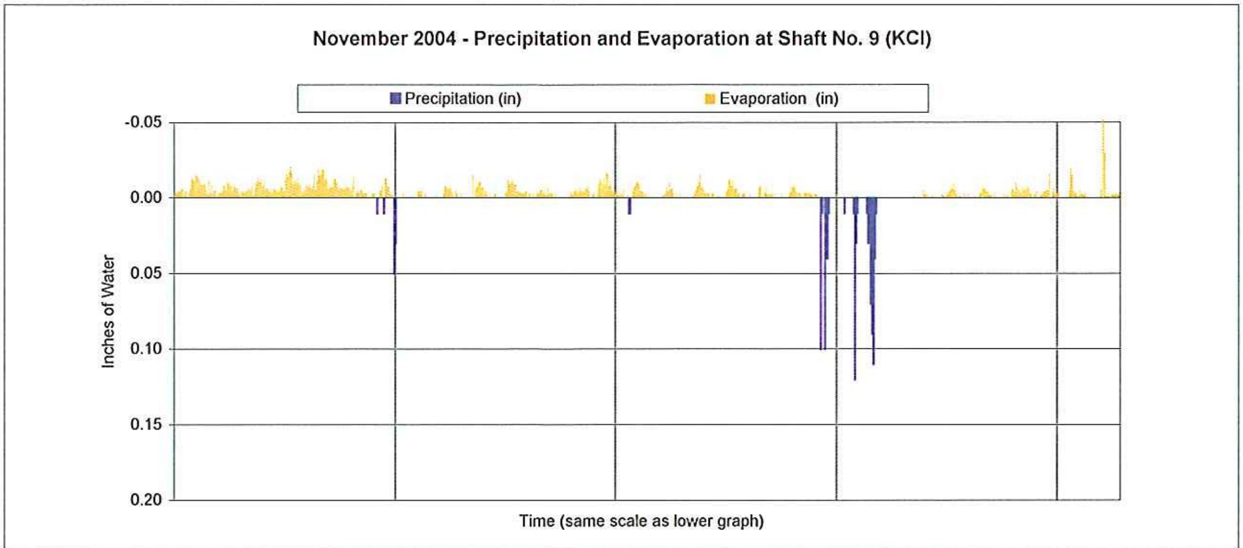

September 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Max water depth 31" for the Upper Transducer on 9/18/2004 at 22:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
September 1, 2004
September 8, 2004
September 15, 2004
September 22, 2004
September 29, 2004
Time

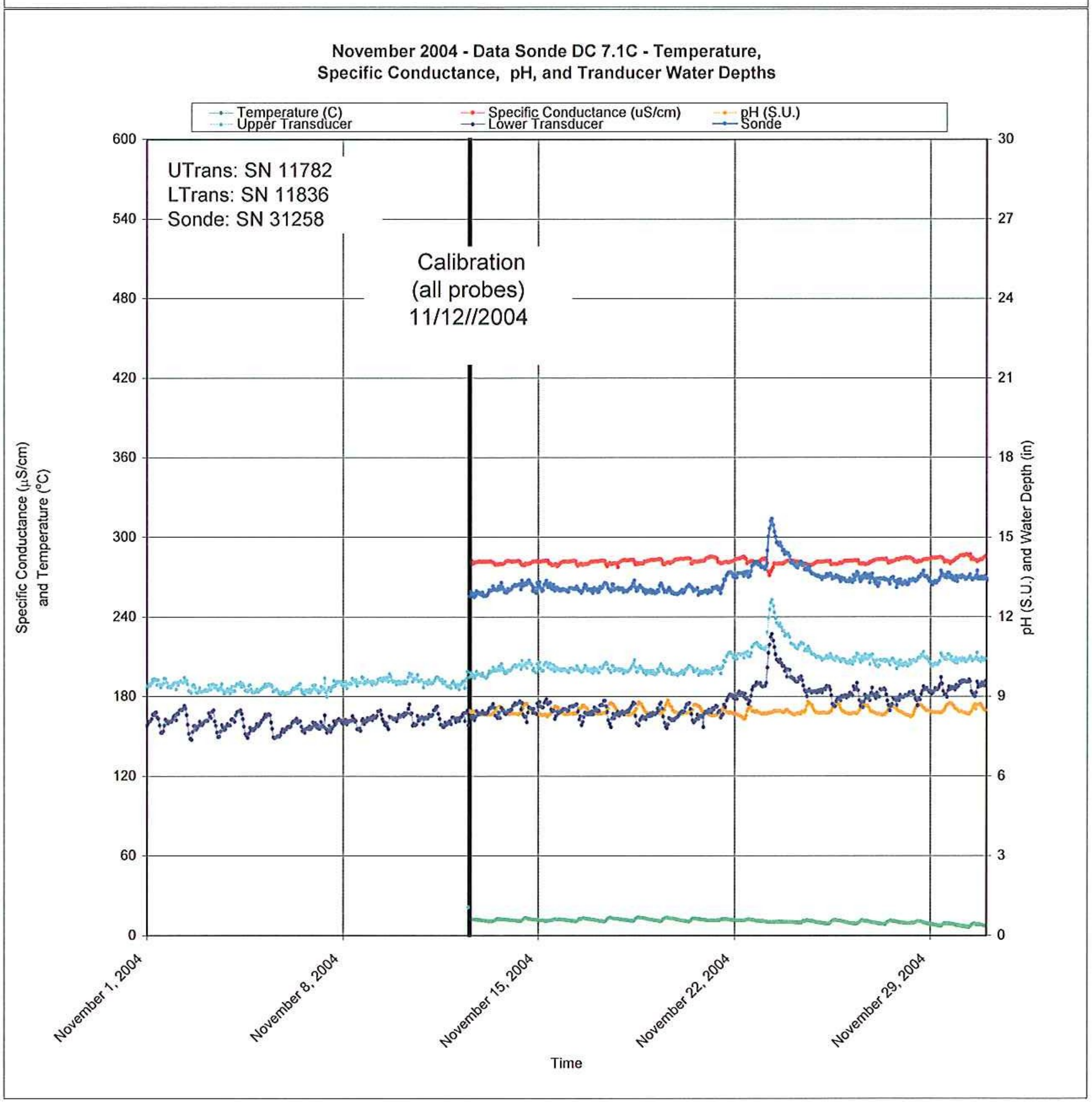


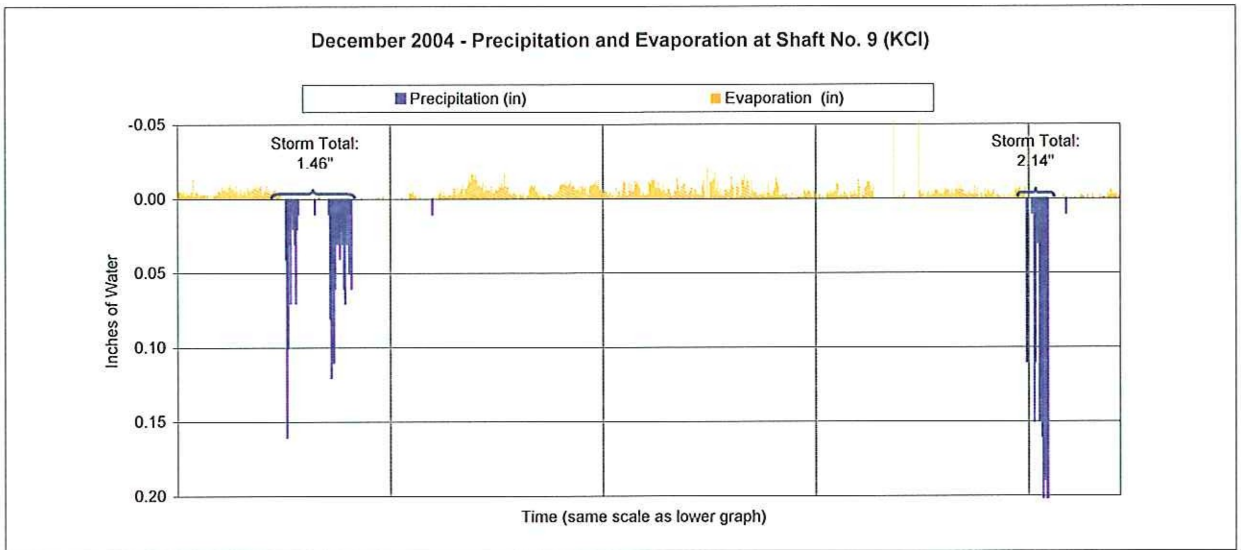
October 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.62"
Storm Total: 0.69"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

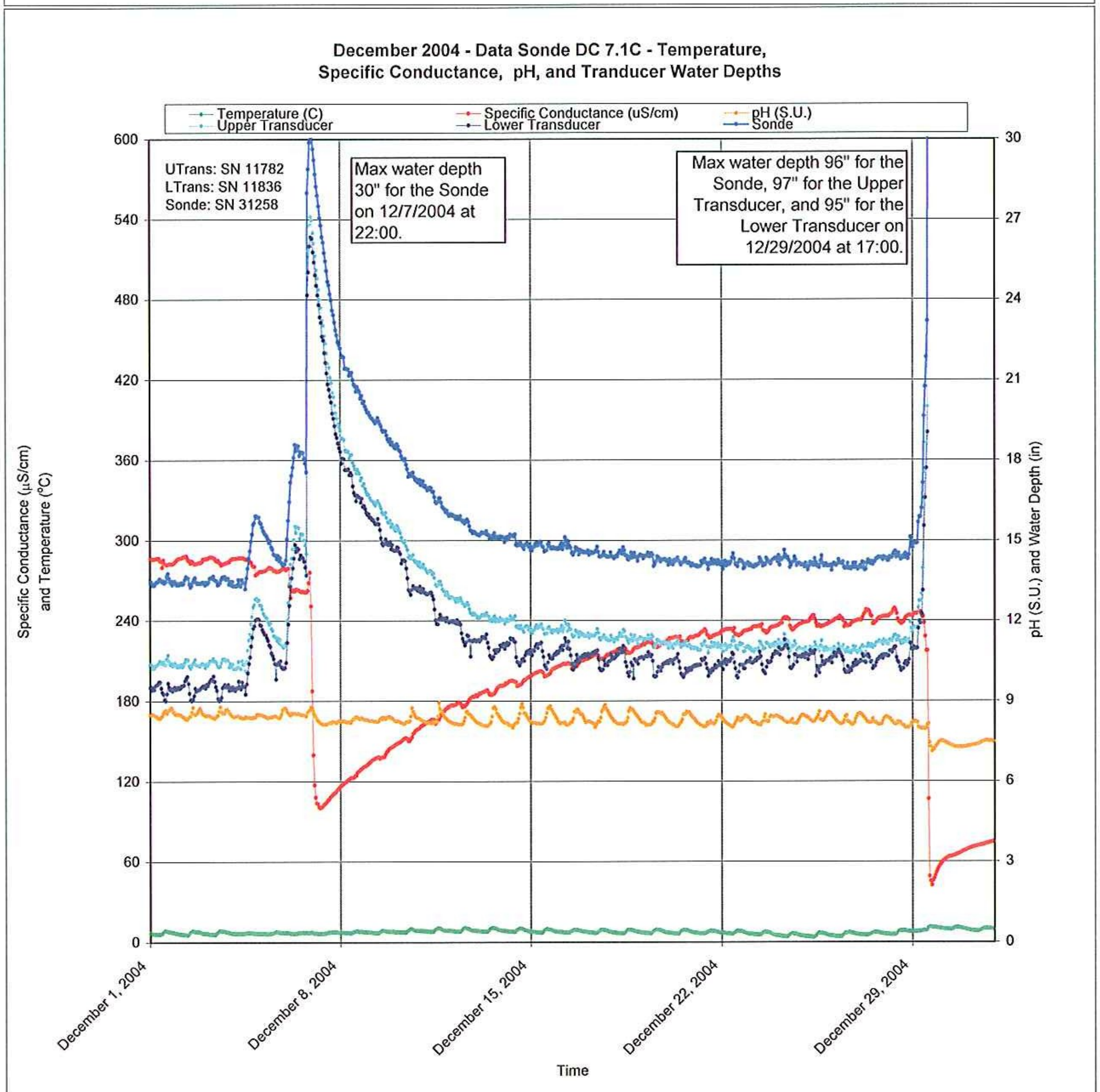


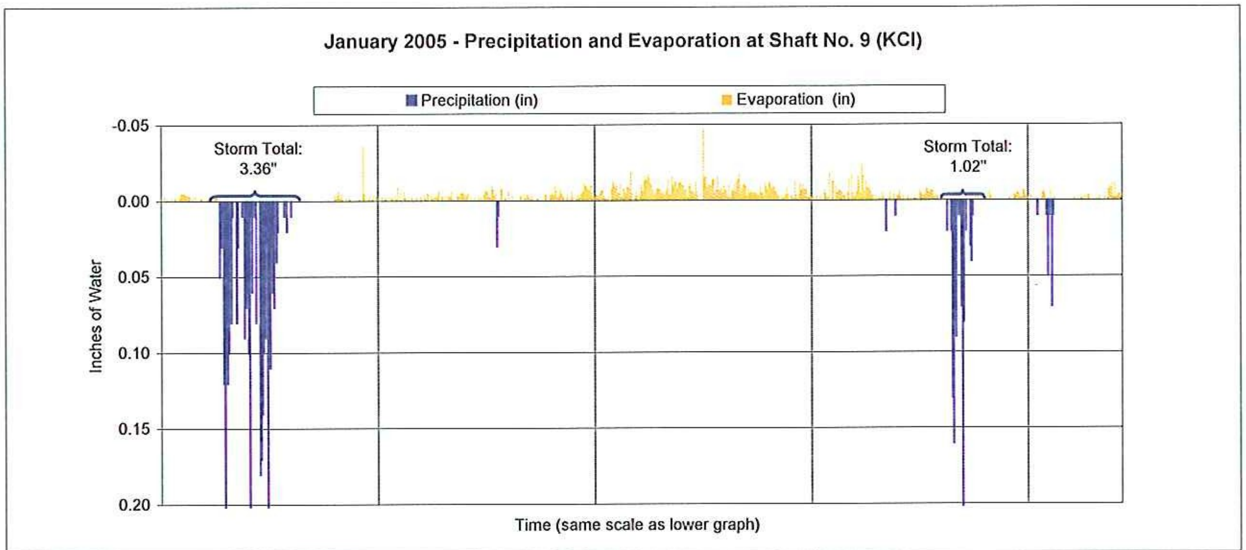
October 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
October 1, 2004
October 8, 2004
October 15, 2004
October 22, 2004
October 29, 2004
Time


November 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

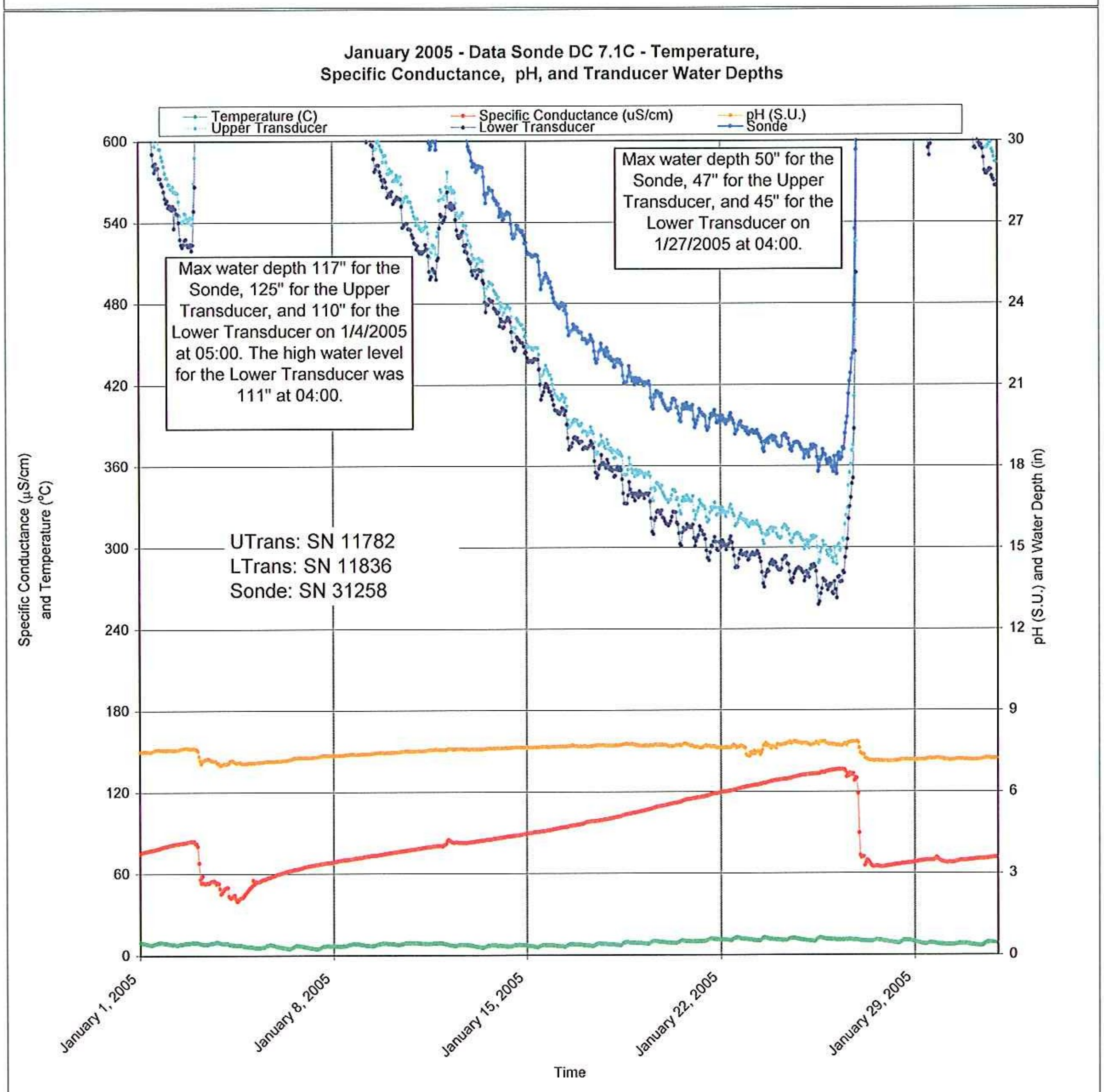

November 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Calibration
(all probes)
11/12//2004
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
November 1, 2004
November 8, 2004
November 15, 2004
November 22, 2004
November 29, 2004
Time


December 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.46"
Storm Total: 2.14"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

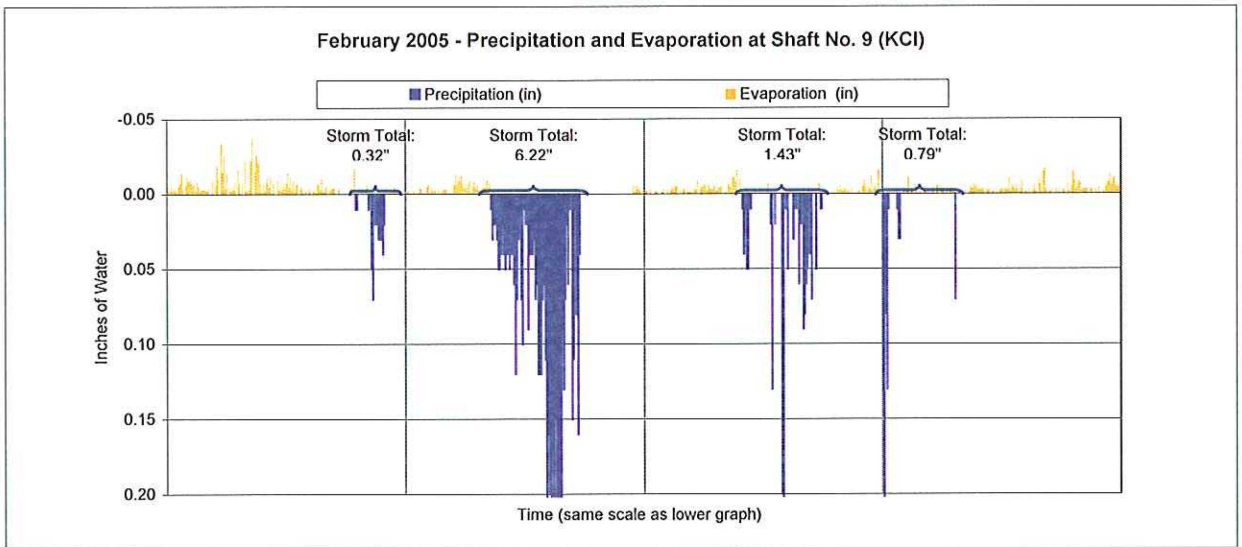

December 2004 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Max water depth 30" for the Sonde on 12/7/2004 at 22:00.
Max water depth 96" for the Sonde, 97" for the Upper Transducer, and 95" for the Lower Transducer on 12/29/2004 at 17:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
December 1, 2004
December 8, 2004
December 15, 2004
December 22, 2004
December 29, 2004
Time

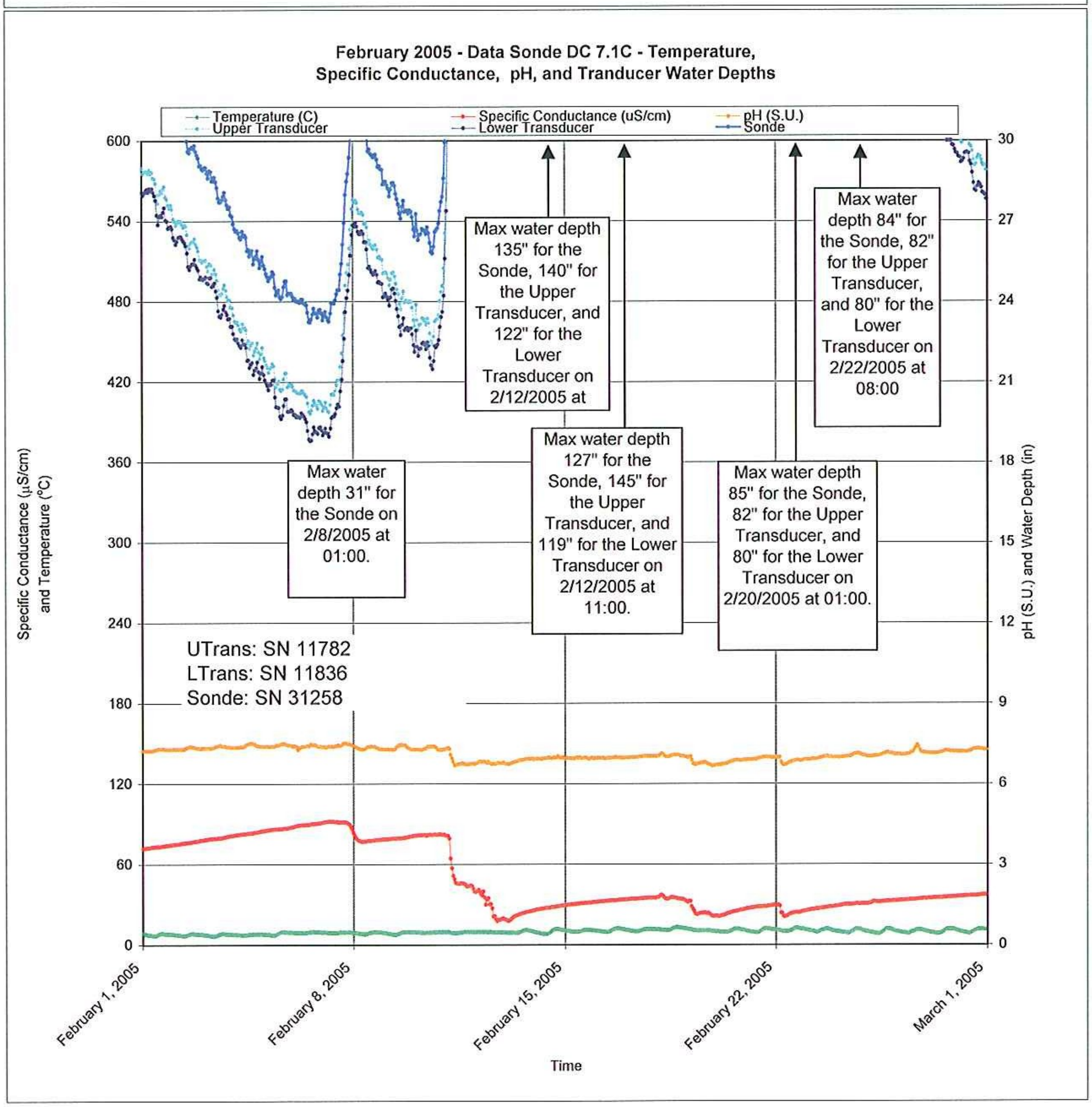


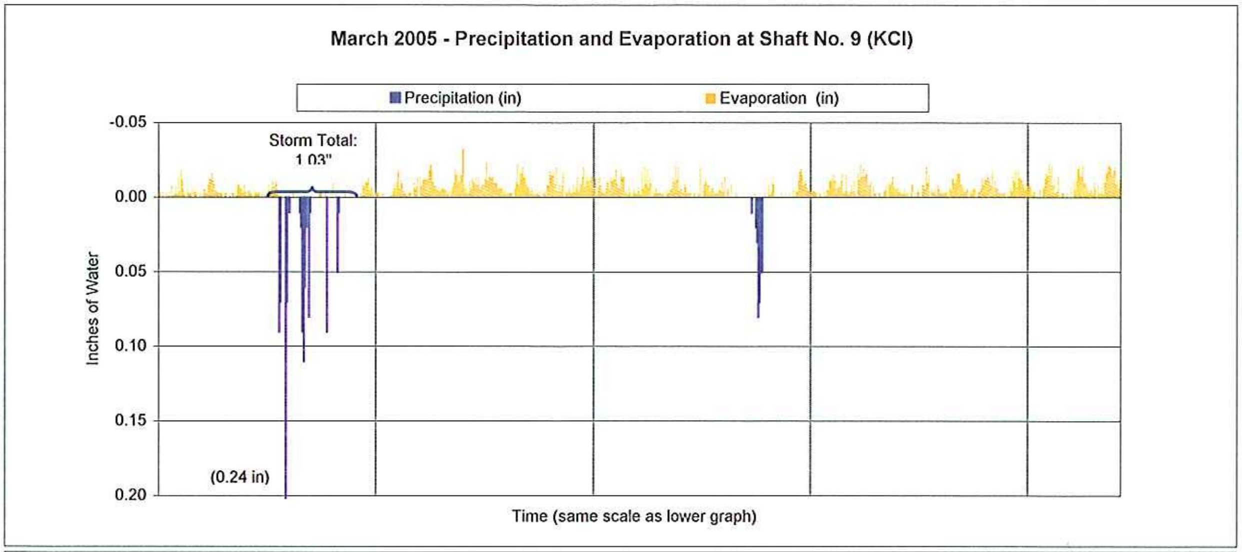
January 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 3.36"
Storm Total: 1.02"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

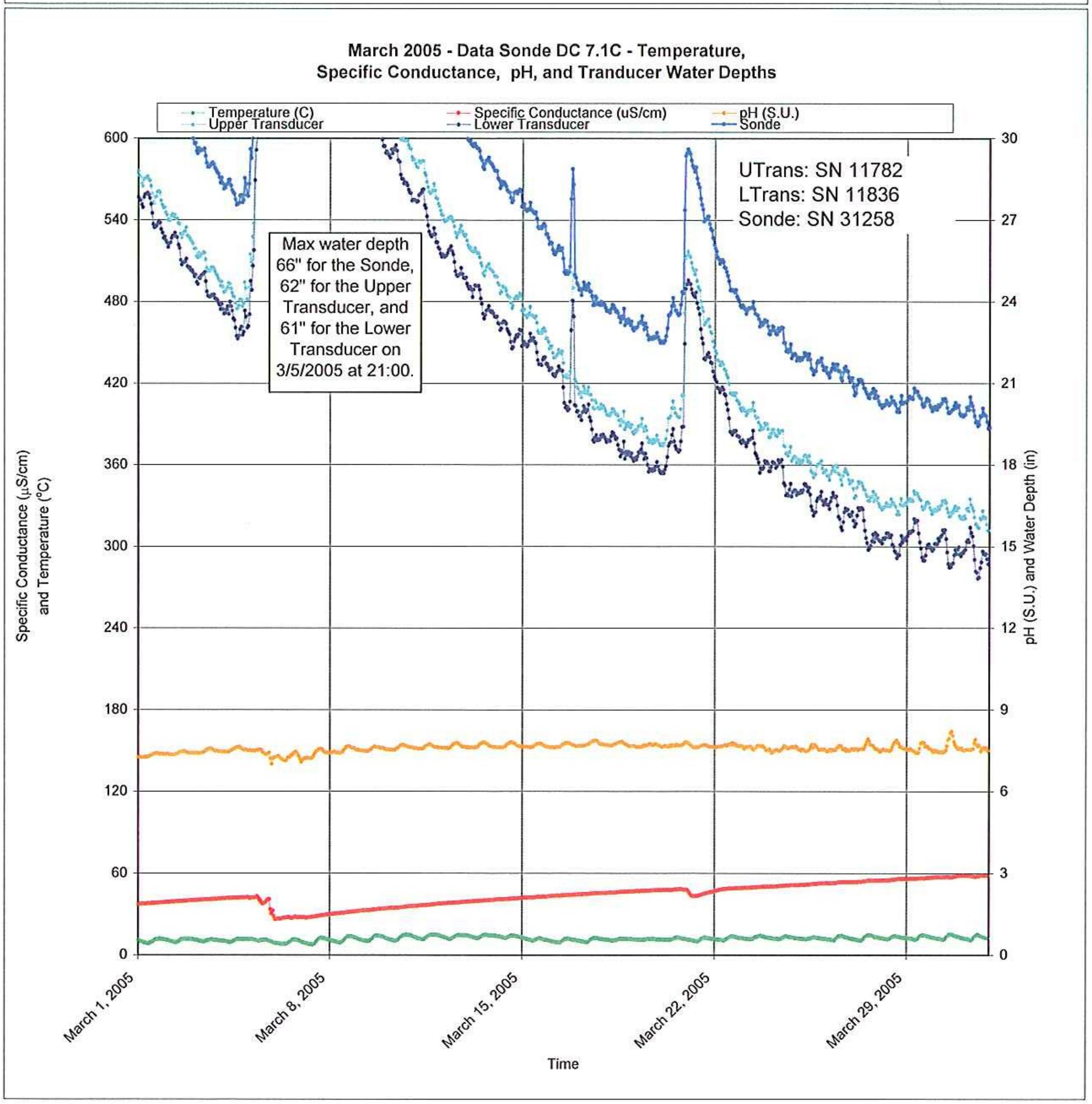


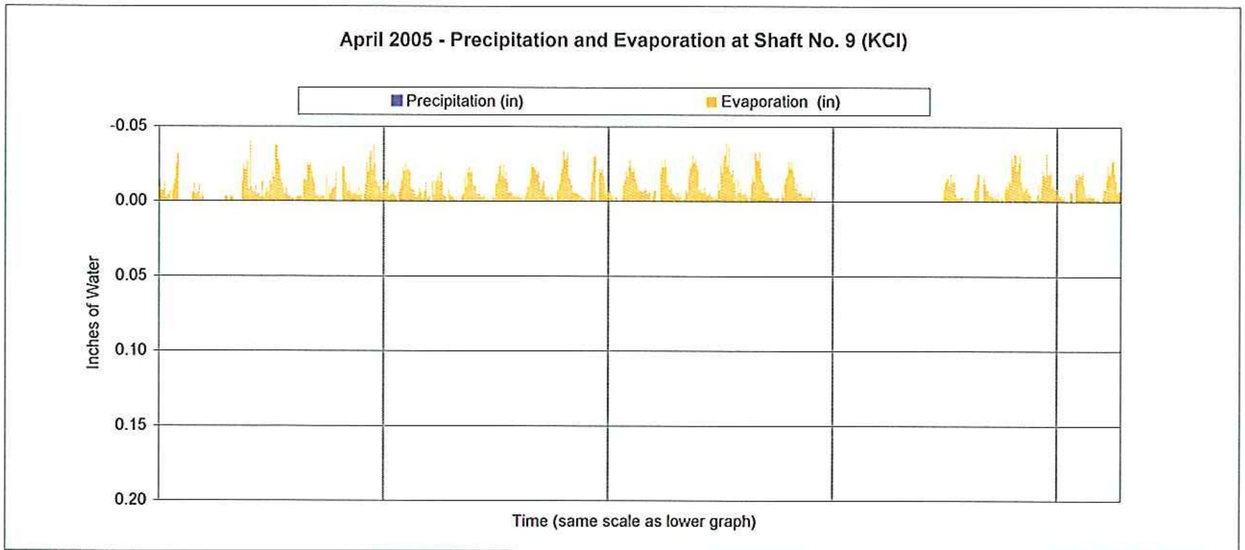
January 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
Max water depth 117" for the Sonde, 125" for the Upper Transducer, and 110" for the Lower Transducer on 1/4/2005 at 05:00. The high water level for the Lower Transducer was 111" at 04:00.
Max water depth 50" for the Sonde, 47" for the Upper Transducer, and 45" for the Lower Transducer on 1/27/2005 at 04:00.
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
0
60
120
180
240
300
360
420
480
540
600
3
6
9
12
15
18
21
24
27
30
January 1, 2005
January 8, 2005
January 15, 2005
January 22, 2005
January 29, 2005
Time

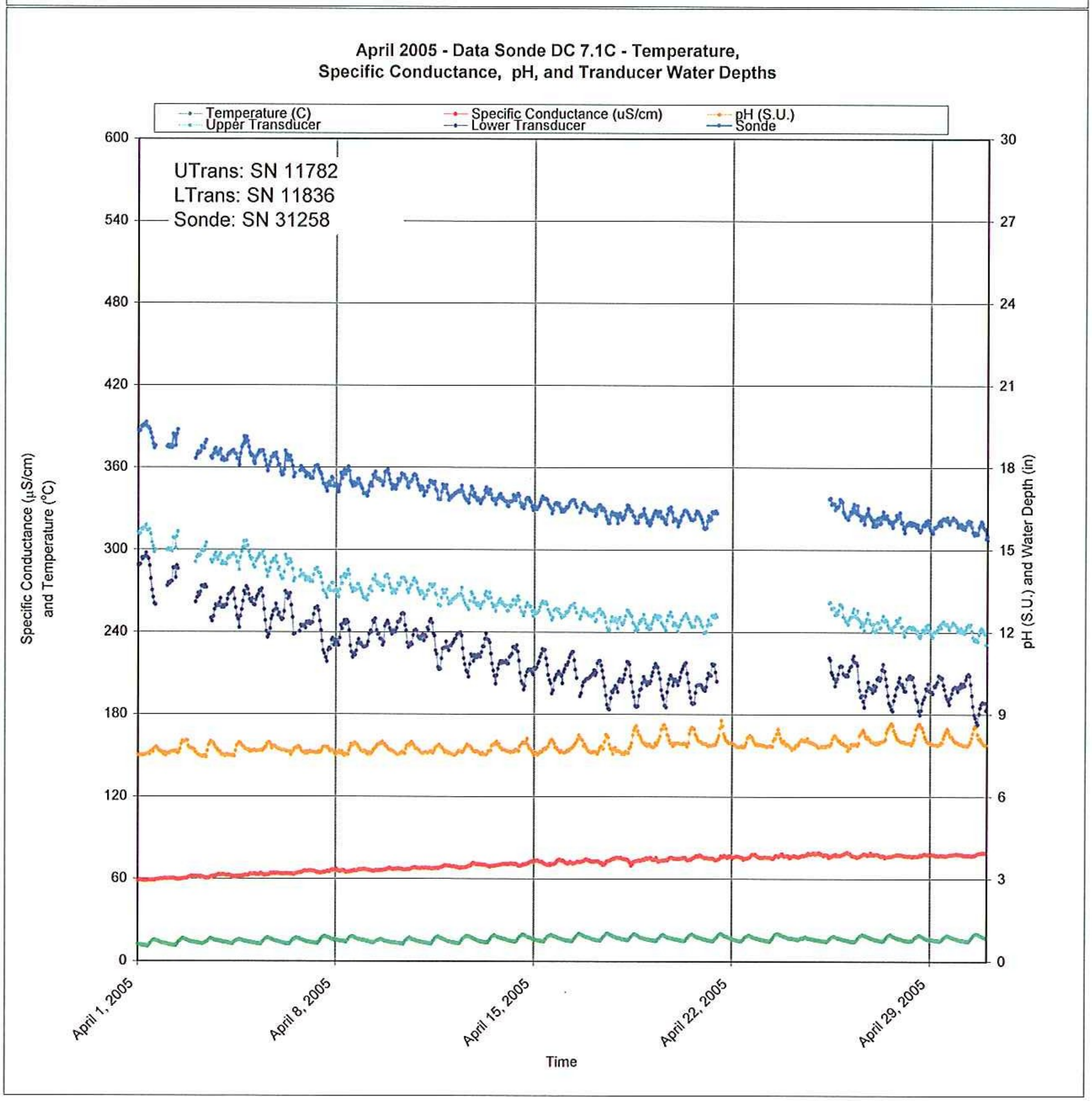

February 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.32"
Storm Total: 6.22"
Storm Total: 1.43"
Storm Total: 0.79"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

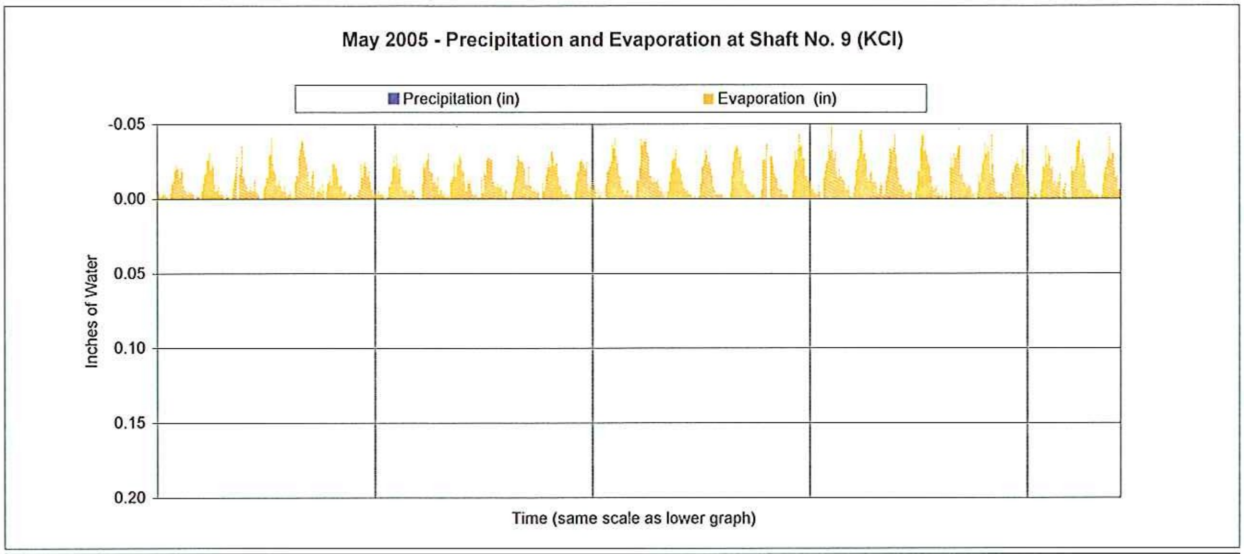

February 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
Max water depth 31" for the Sonde on 2/8/2005 at 01:00.
Max water depth 135" for the Sonde, 140" for the Upper Transducer, and 122" for the Lower Transducer on 2/12/2005 at
Max water depth 127" for the Sonde, 145" for the Upper Transducer, and 119" for the Lower Transducer on 2/12/2005 at 11:00.
Max water depth 85" for the Sonde, 82" for the Upper Transducer, and 80" for the Lower Transducer on 2/20/2005 at 01:00.
Max water depth 84" for the Sonde, 82" for the Upper Transducer, and 80" for the Lower Transducer on 2/22/2005 at 08:00
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
February 1, 2005
February 8, 2005
February 15, 2005
February 22, 2005
March 1, 2005
Time

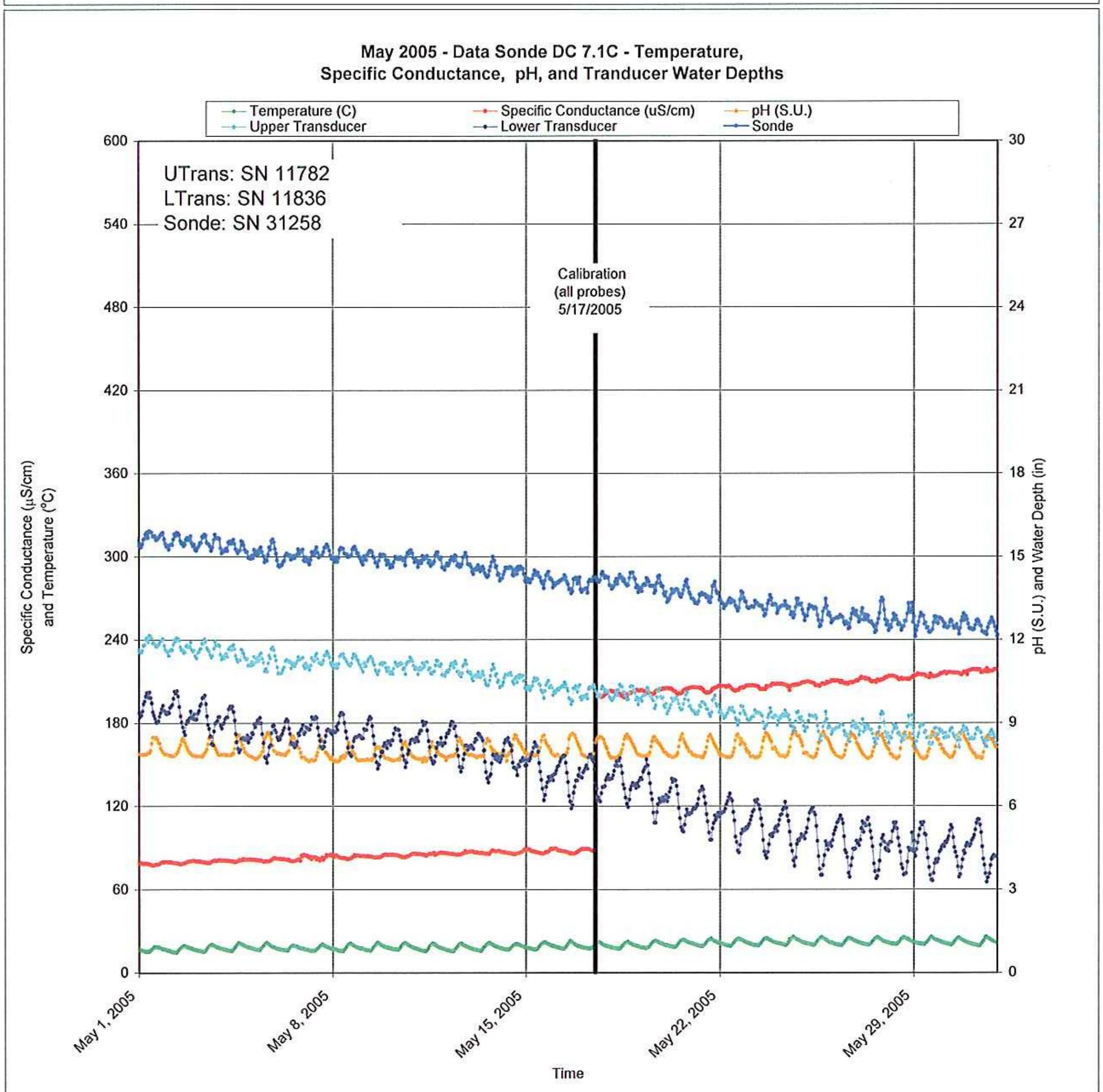

March 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.03"
(0.24 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

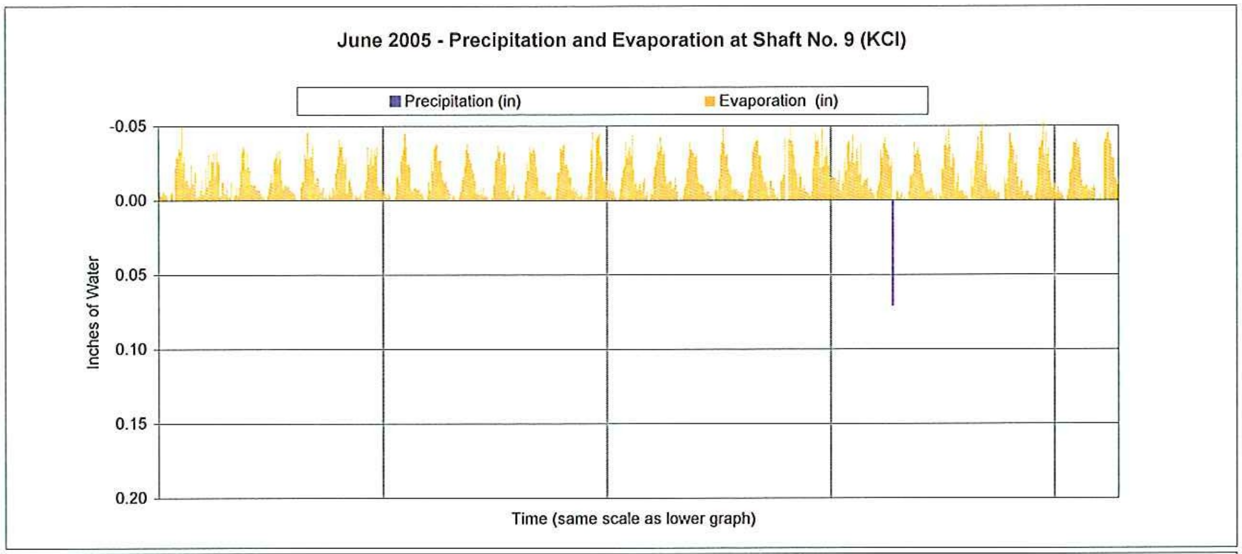

March 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Max water depth 66" for the Sonde, 62" for the Upper Transducer, and 61" for the Lower Transducer on 3/5/2005 at 21:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
March 1, 2005
March 8, 2005
March 15, 2005
March 22, 2005
March 29, 2005
Time

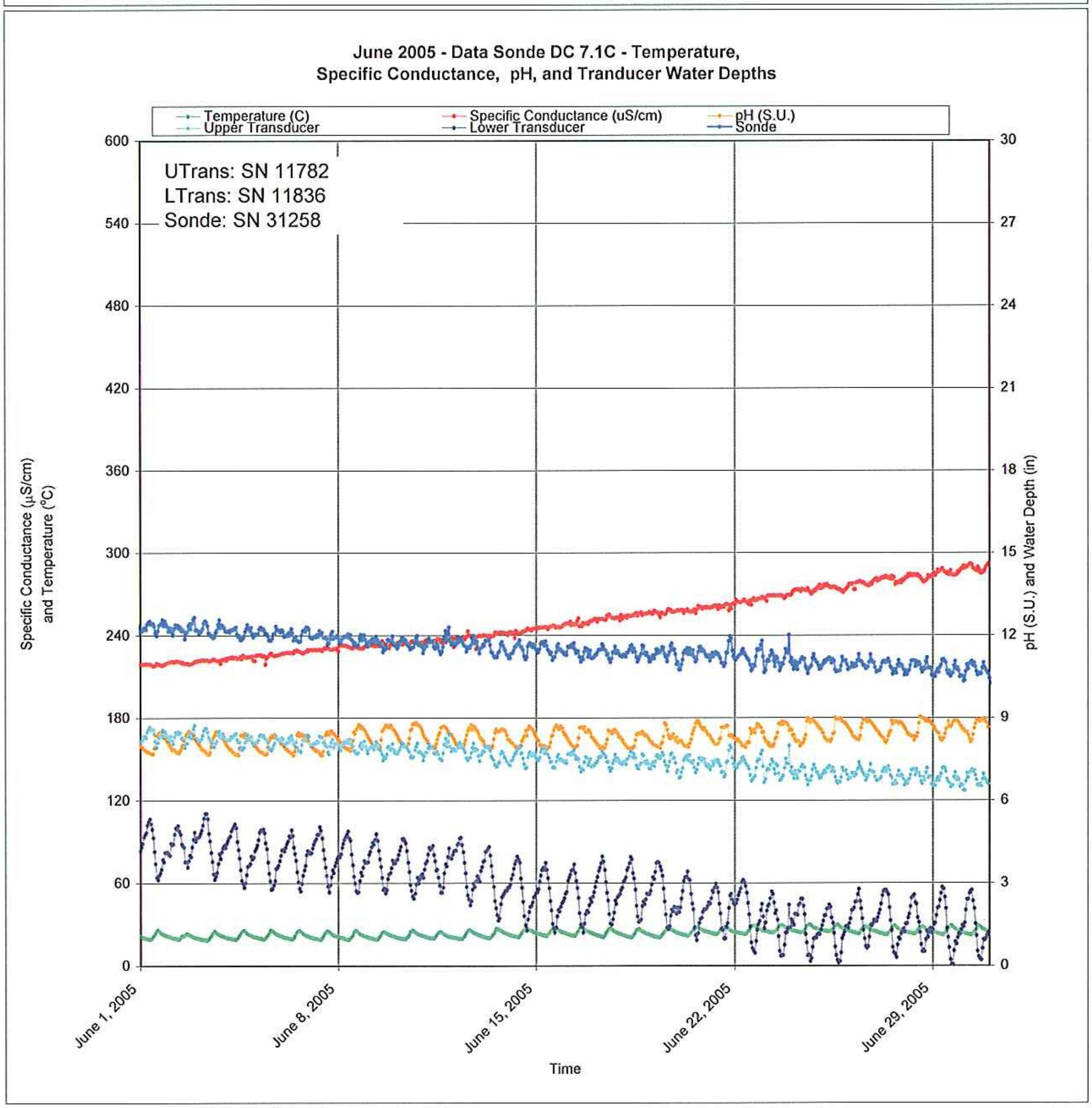

April 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

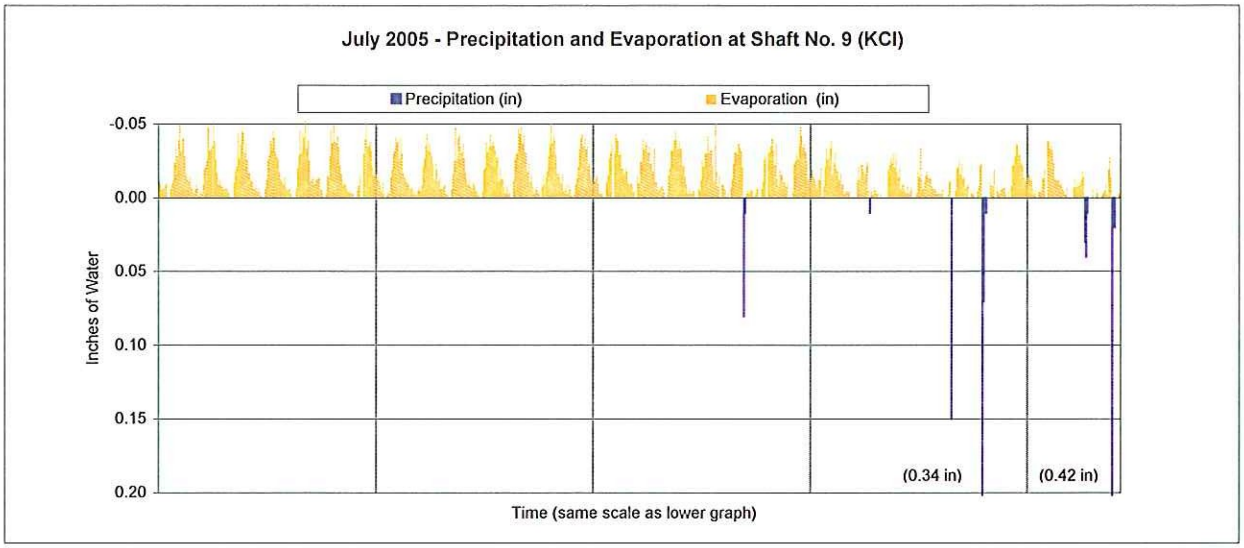

April 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
April 1, 2005
April 8, 2005
April 15, 2005
April 22, 2005
April 29, 2005
Time


May 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

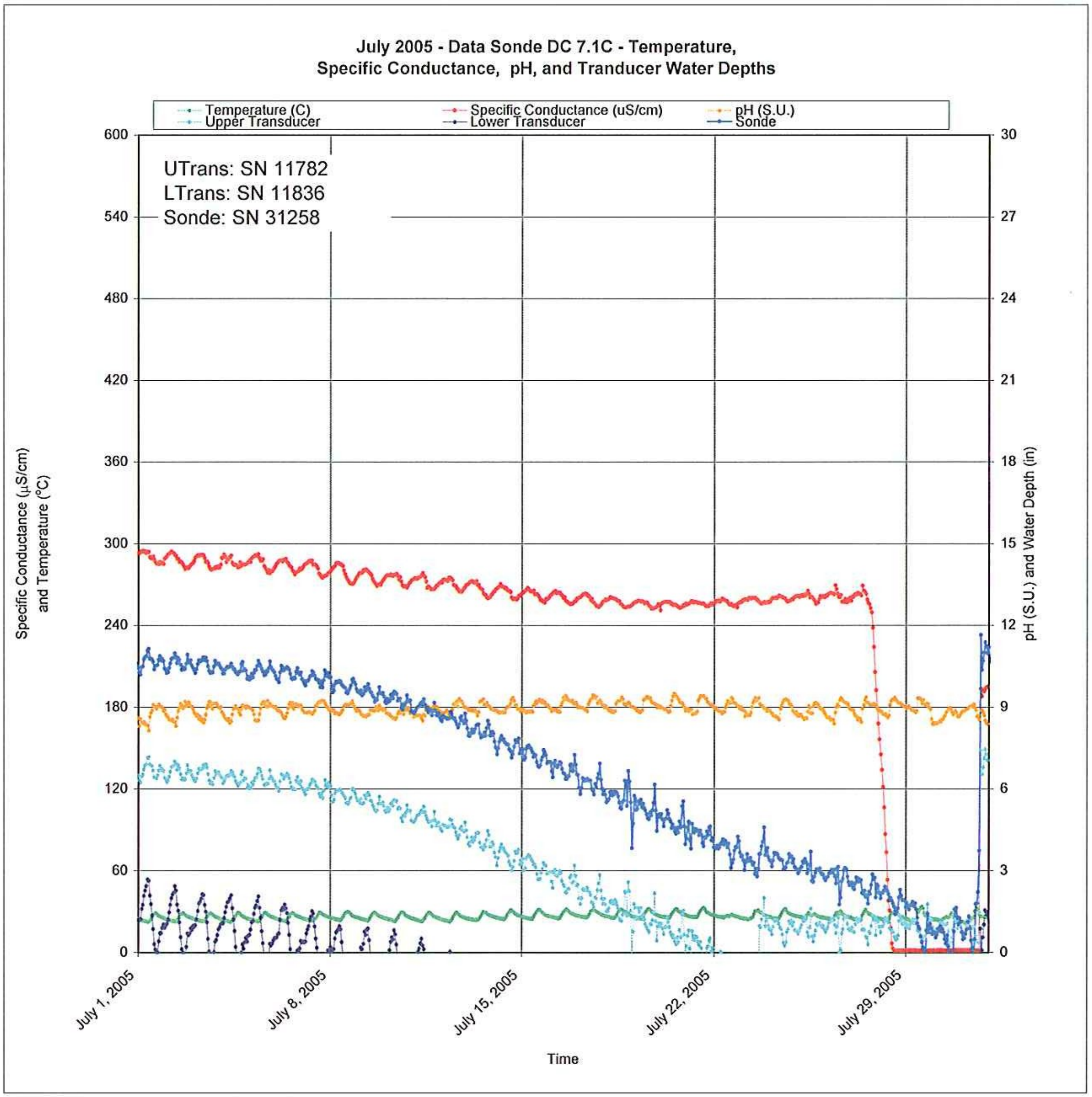

May 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Calibration (all probes) 5/17/2005
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
May 1, 2005
May 8, 2005
May 15, 2005
May 22, 2005
May 29, 2005
Time


June 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

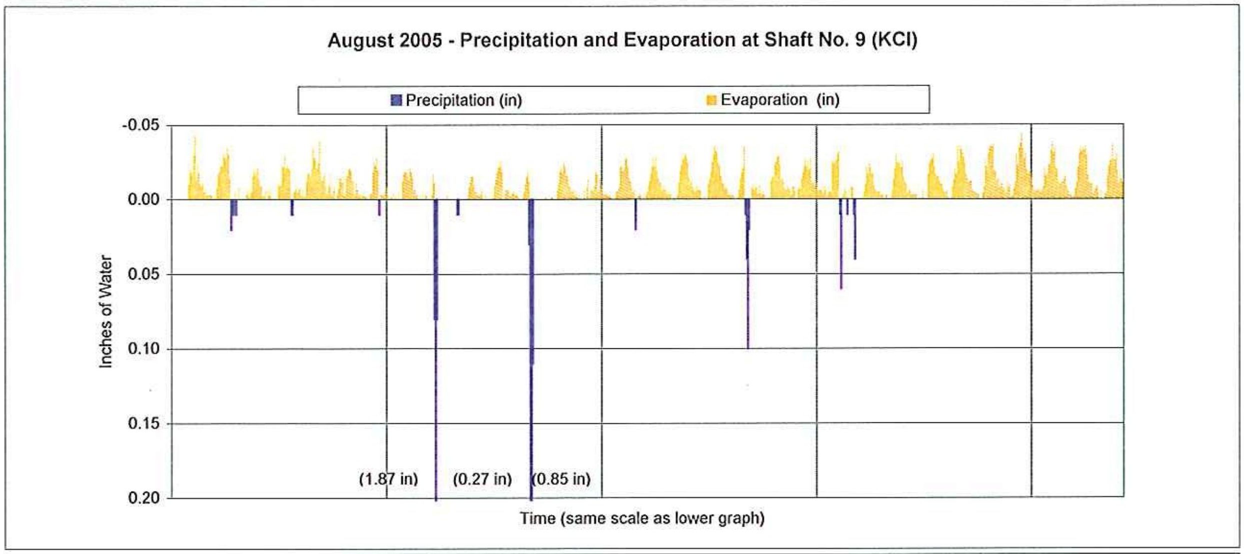

June 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
June 1, 2005
June 8, 2005
June 15, 2005
June 22, 2005
June 29, 2005
Time

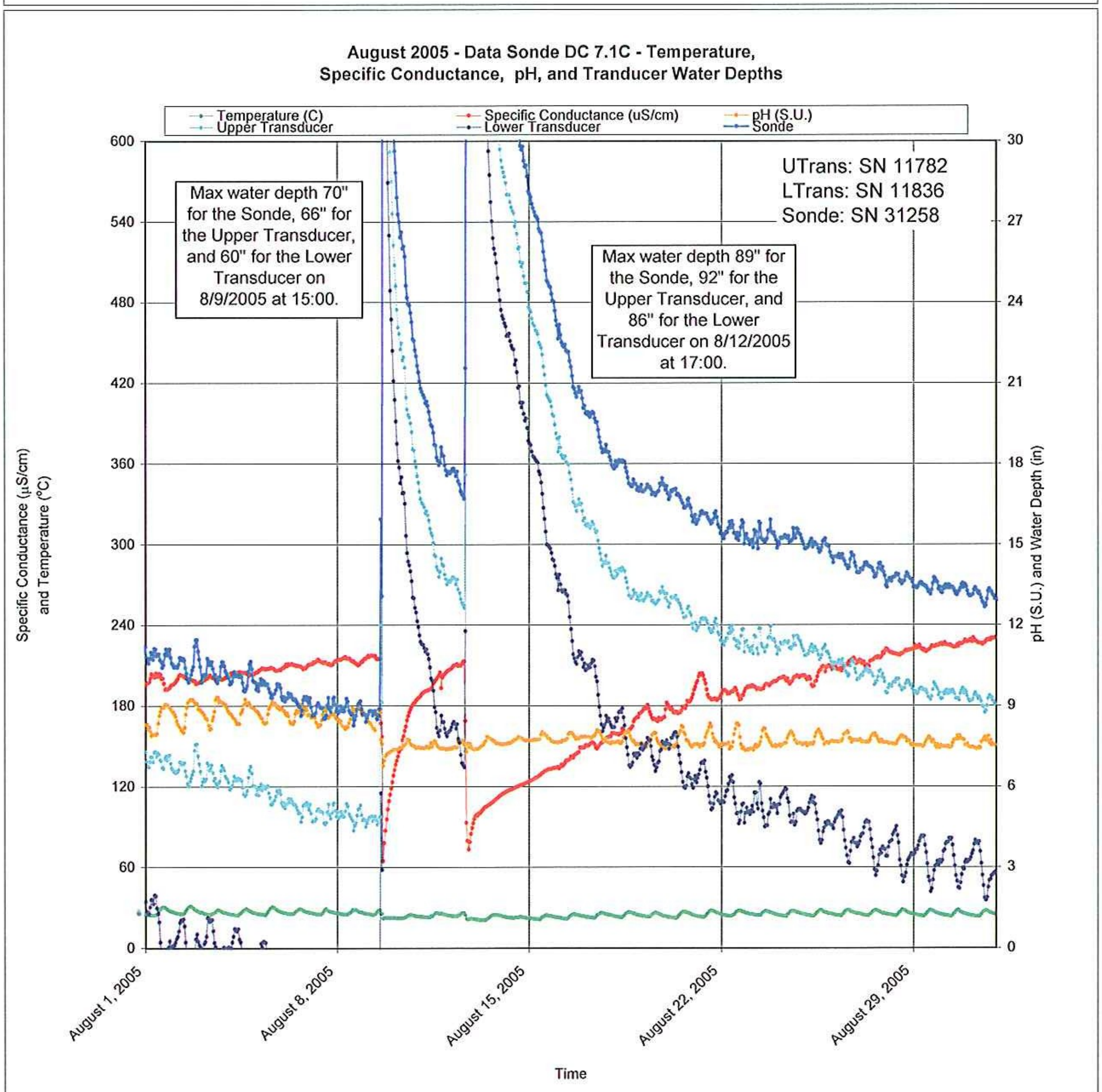


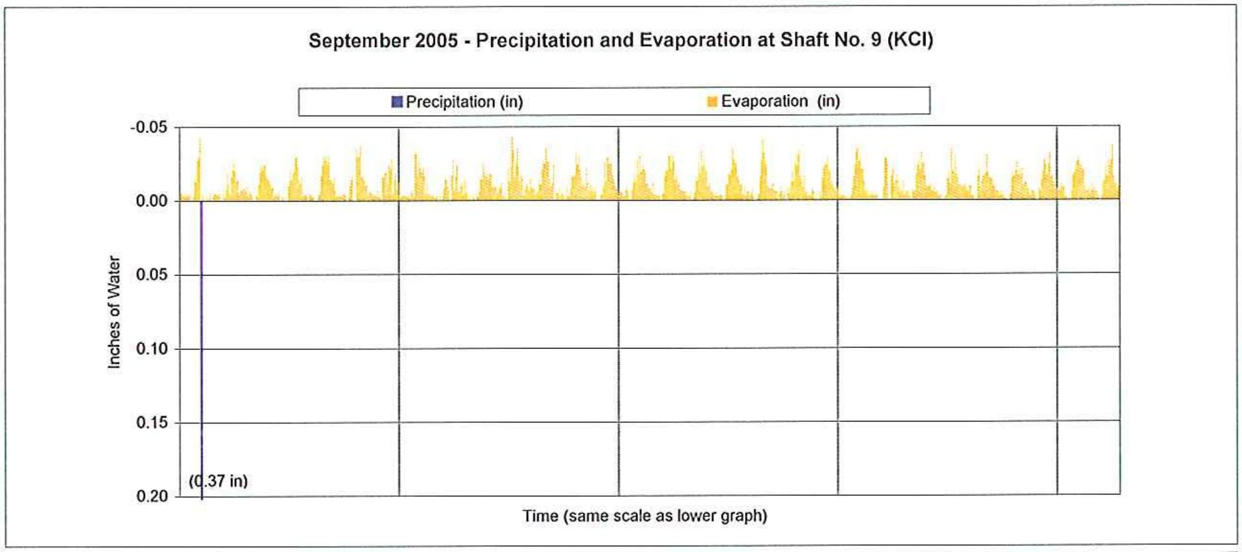
July 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.34 in)
(0.42 in)
Time (same scale as lower graph)

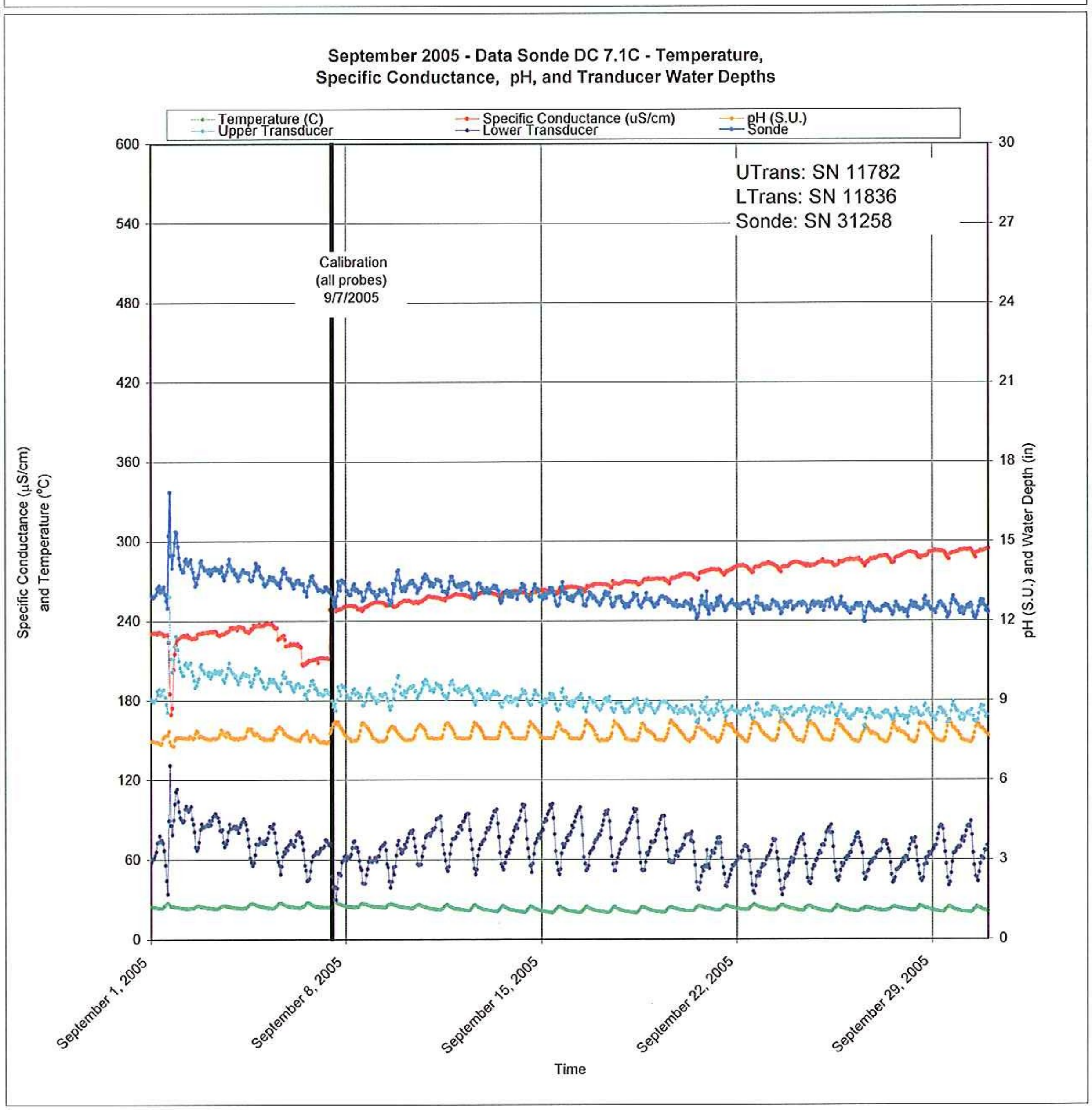


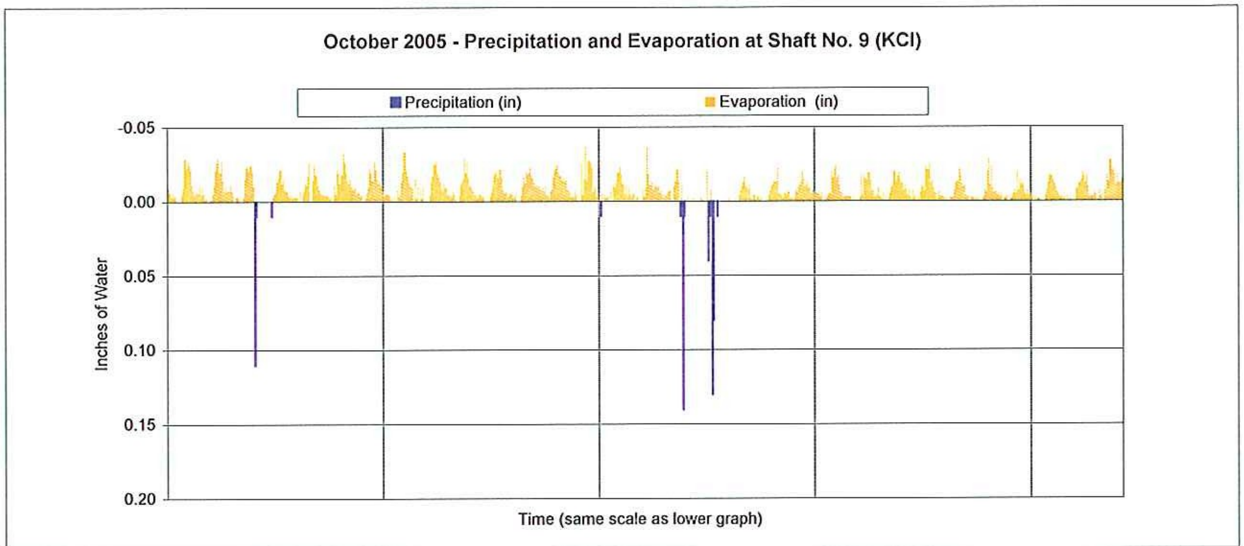
July 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
July 1, 2005
July 8, 2005
July 15, 2005
July 22, 2005
July 29, 2005
Time

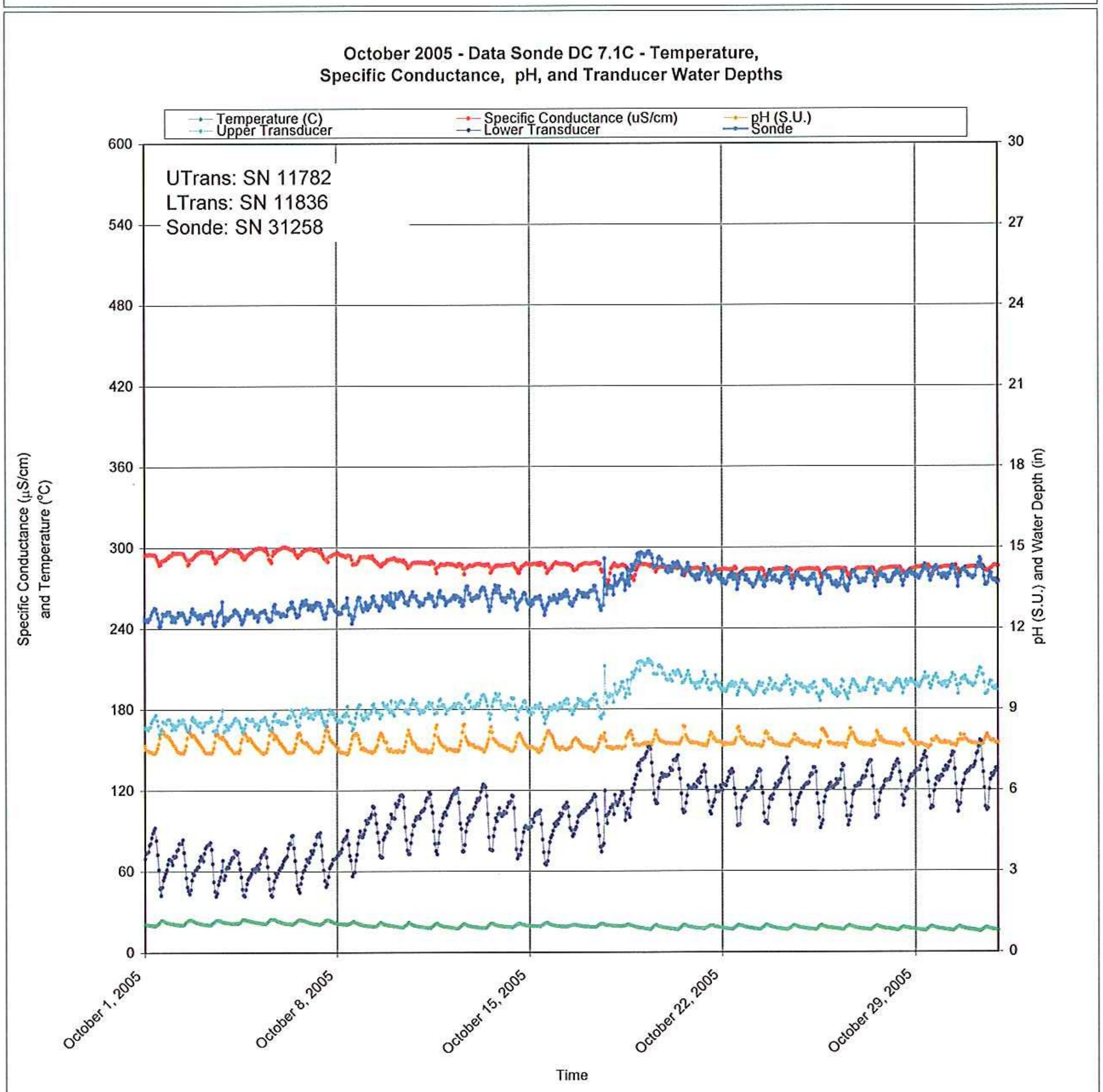

August 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(1.87 in)
(0.27 in)
(0.85 in)
Time (same scale as lower graph)

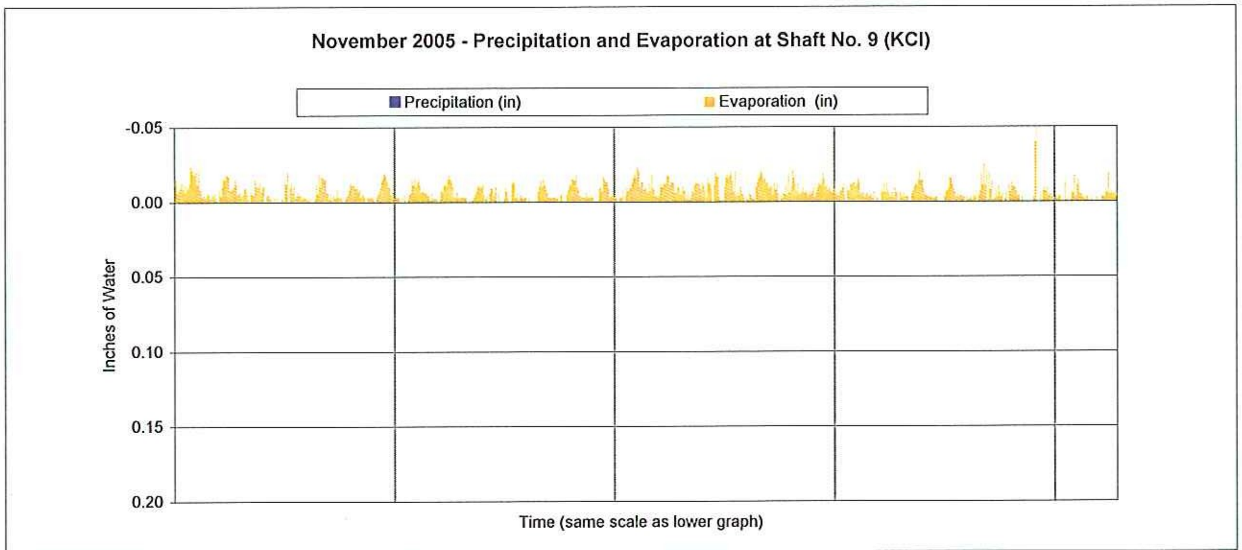

August 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Max water depth 70" for the Sonde, 66" for the Upper Transducer, and 60" for the Lower Transducer on 8/9/2005 at 15:00.
Max water depth 89" for the Sonde, 92" for the Upper Transducer, and 86" for the Lower Transducer on 8/12/2005 at 17:00.
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
August 1, 2005
August 8, 2005
August 15, 2005
August 22, 2005
August 29, 2005
Time

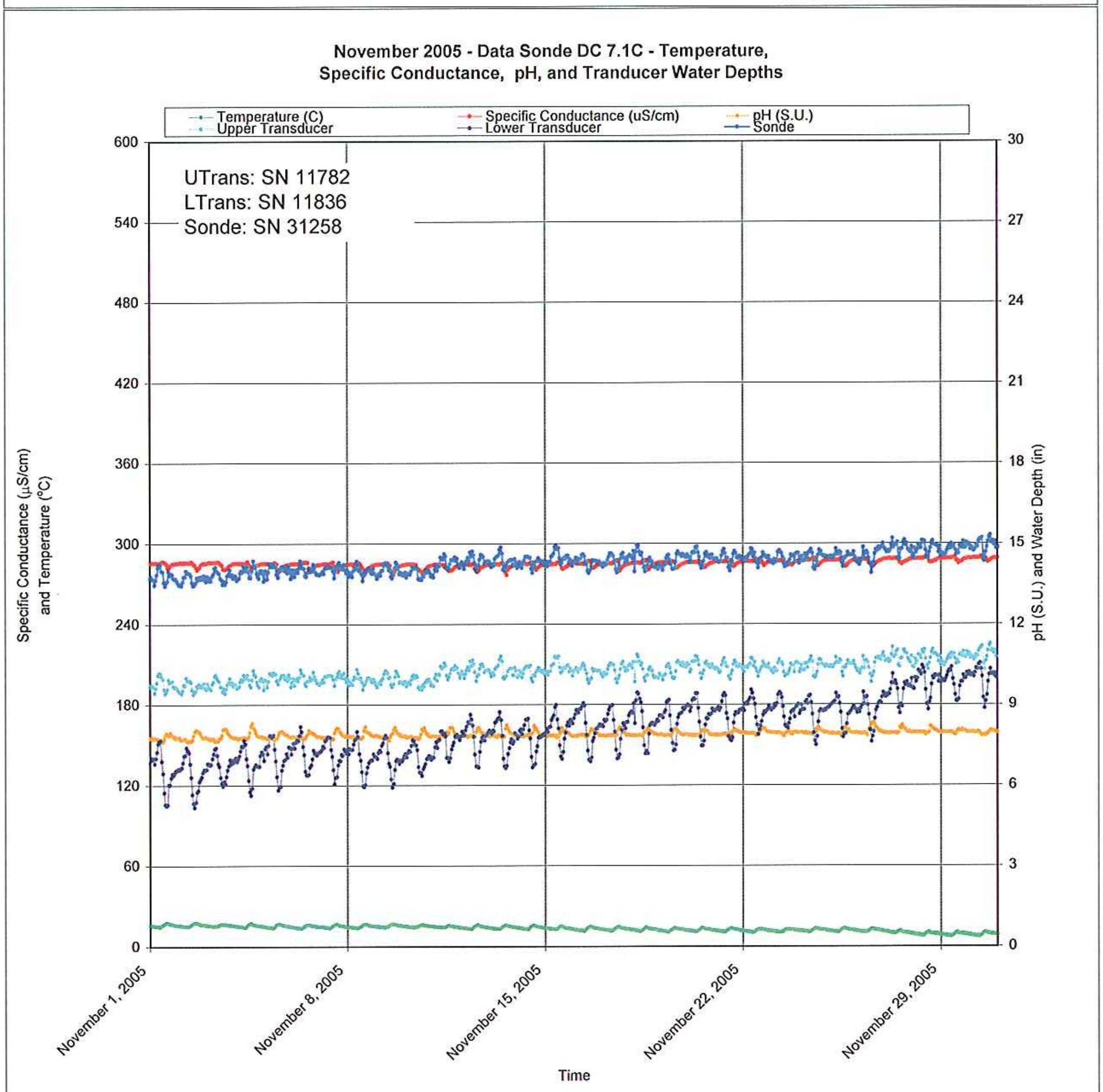

September 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
(0.37 in)
Time (same scale as lower graph)

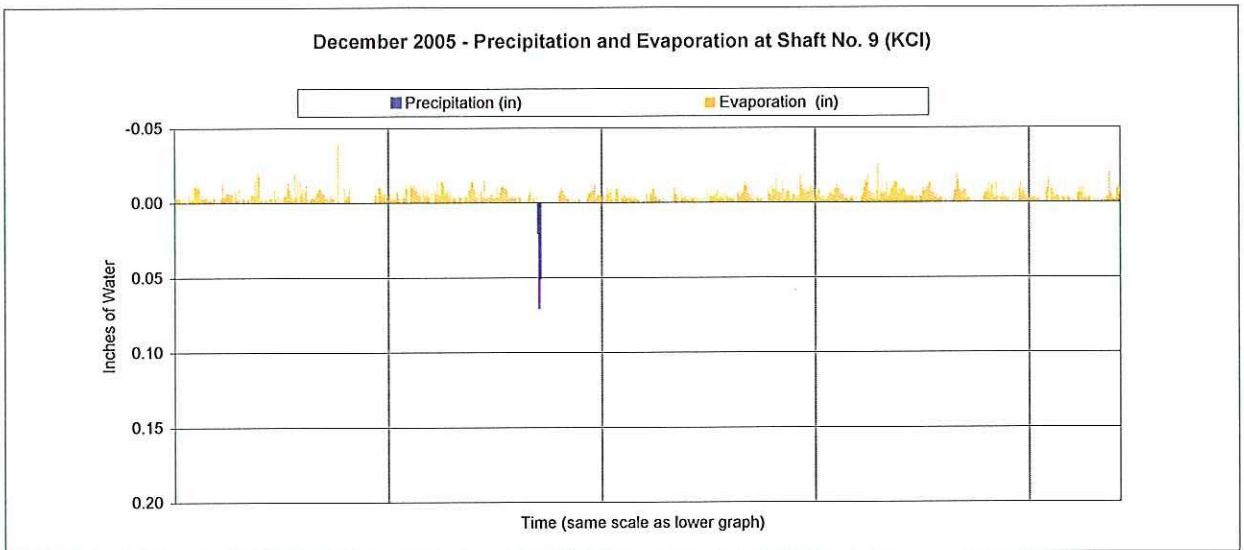

September 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Calibration
(all probes)
9/7/2005
Specific Conductance (μS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
September 1, 2005
September 8, 2005
September 15, 2005
September 22, 2005
September 29, 2005
Time

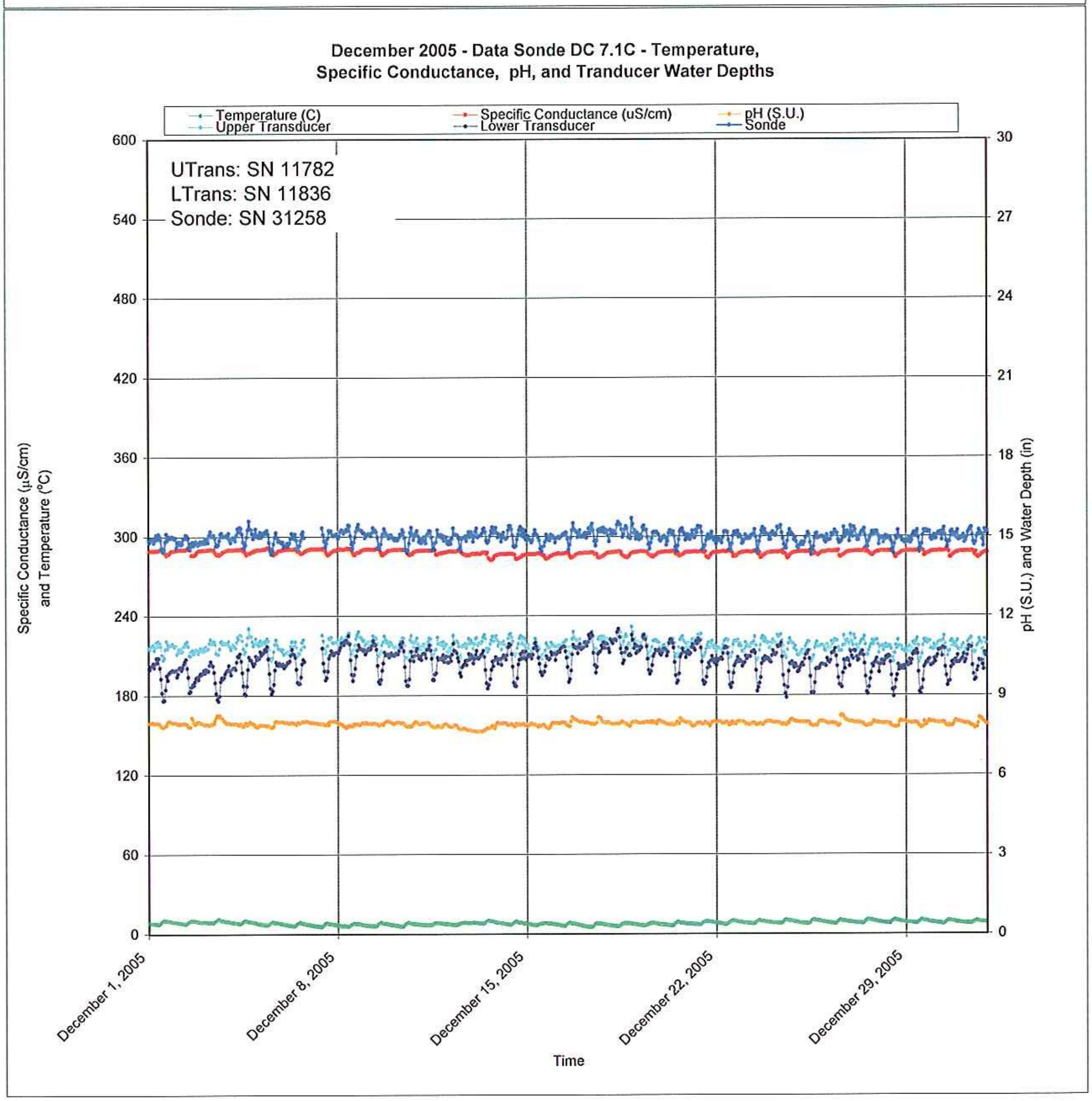

October 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

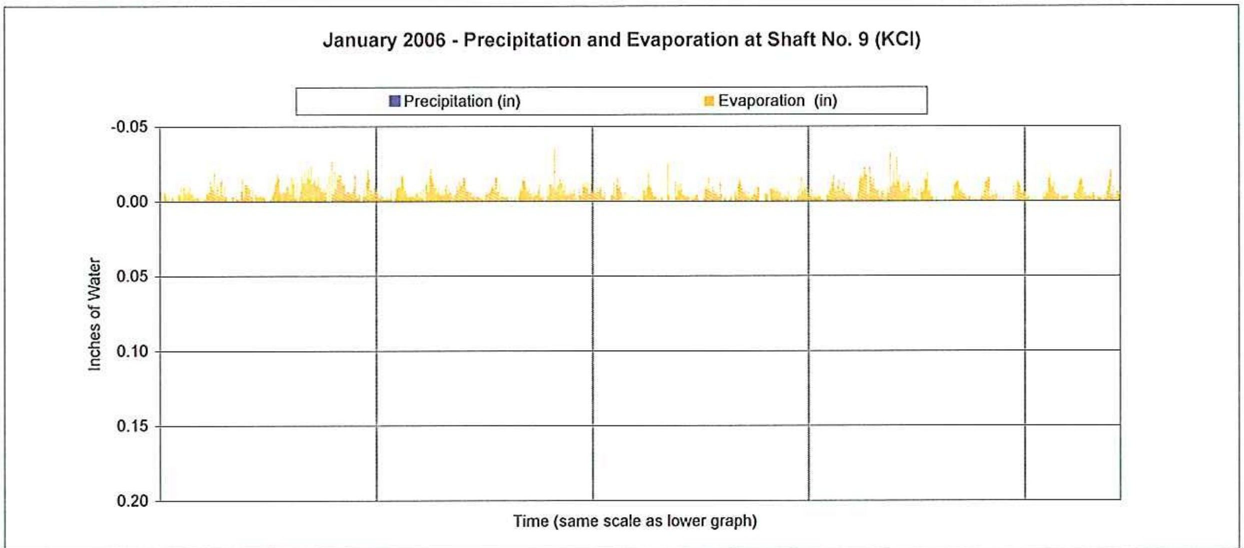

October 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
October 1, 2005
October 8, 2005
October 15, 2005
October 22, 2005
October 29, 2005
Time

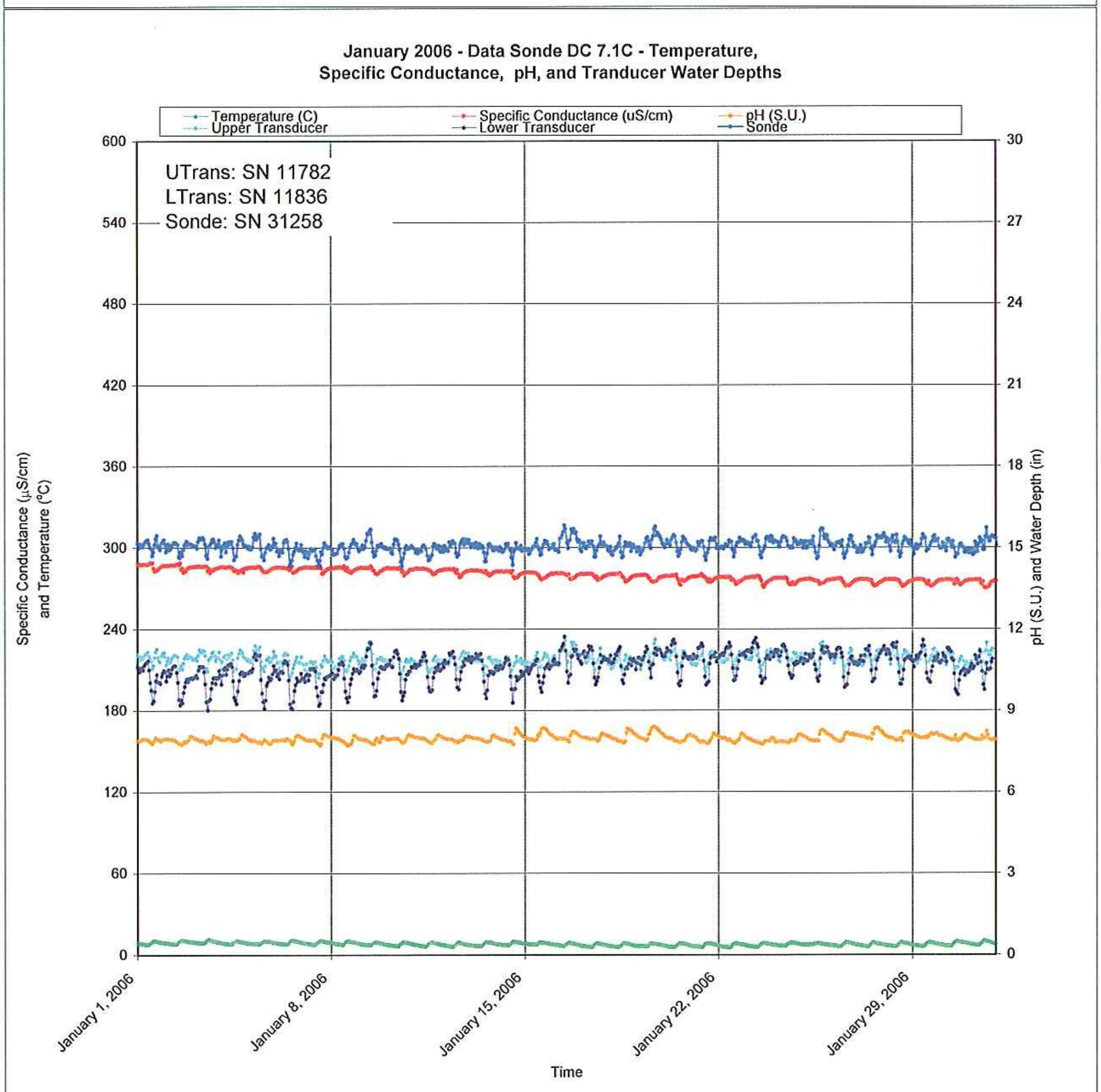

November 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

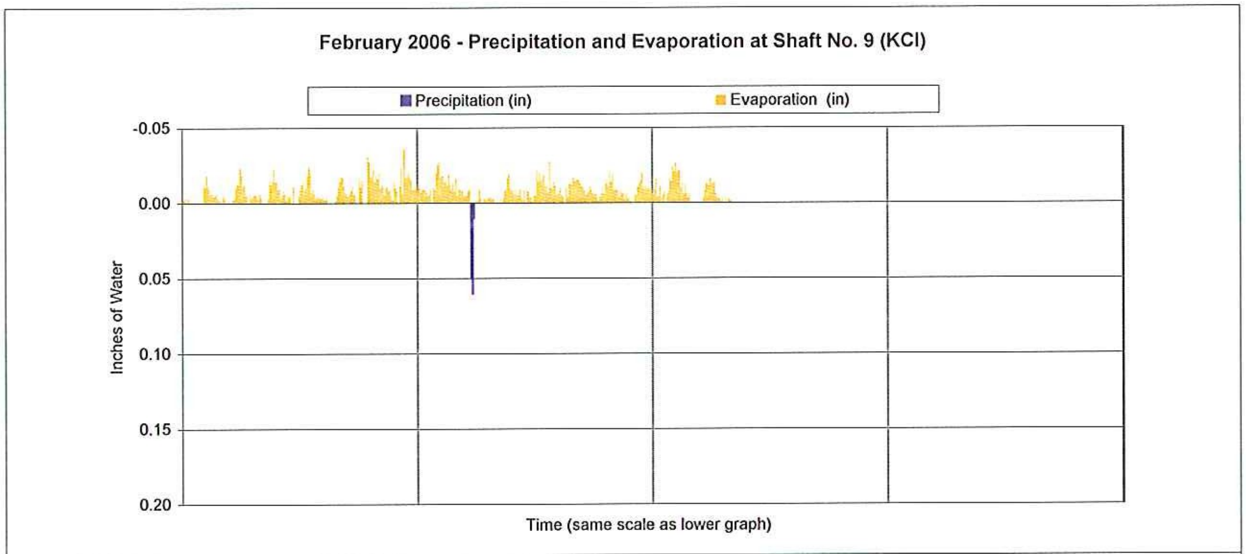

November 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (μS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
November 1, 2005
November 8, 2005
November 15, 2005
November 22, 2005
November 29, 2005
Time

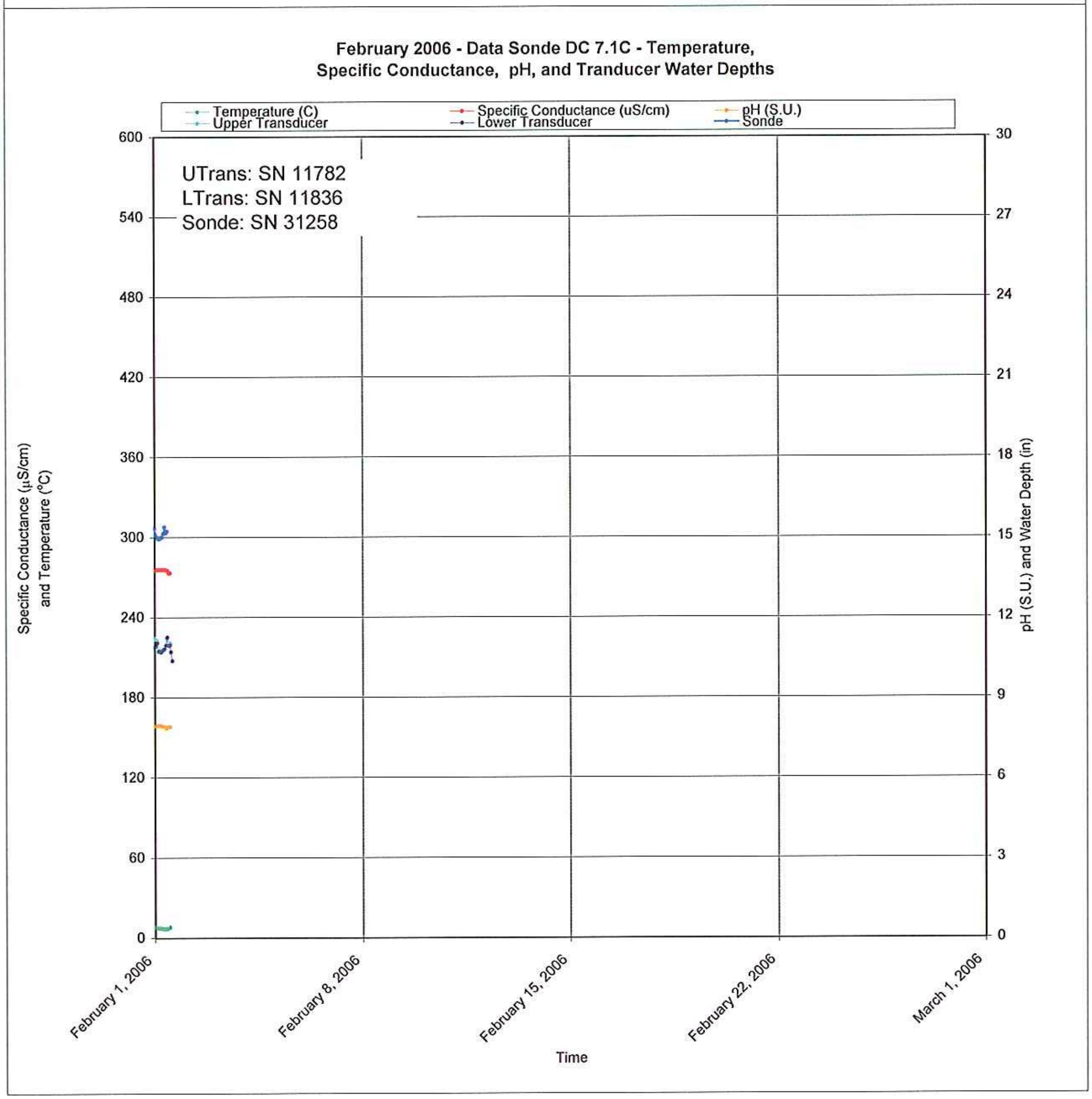

December 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


December 2005 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
December 1, 2005
December 8, 2005
December 15, 2005
December 22, 2005
December 29, 2005
Time

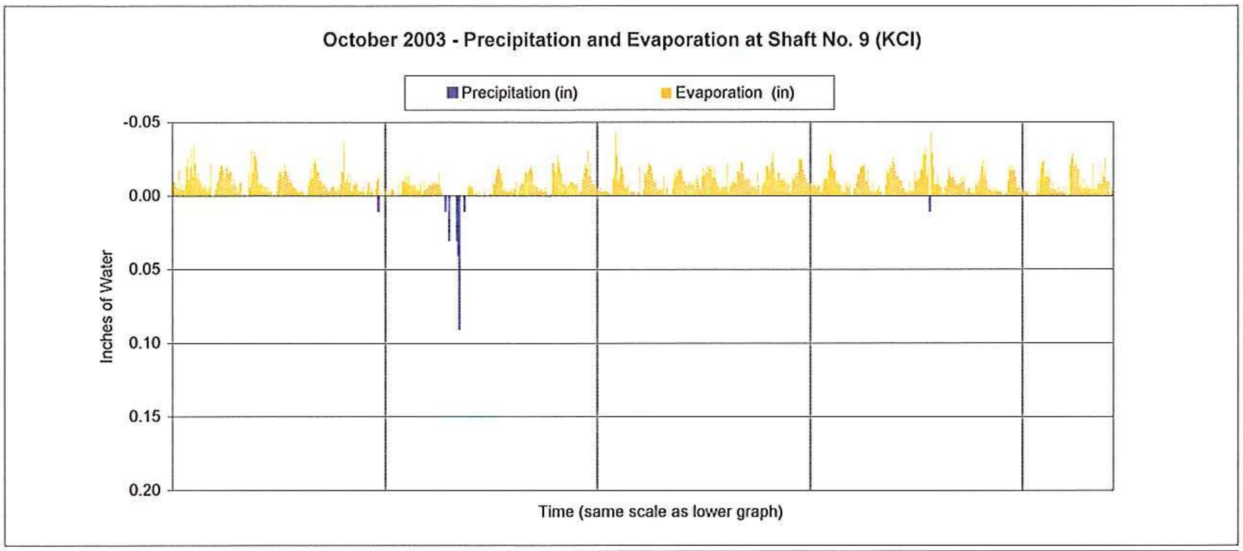

January 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

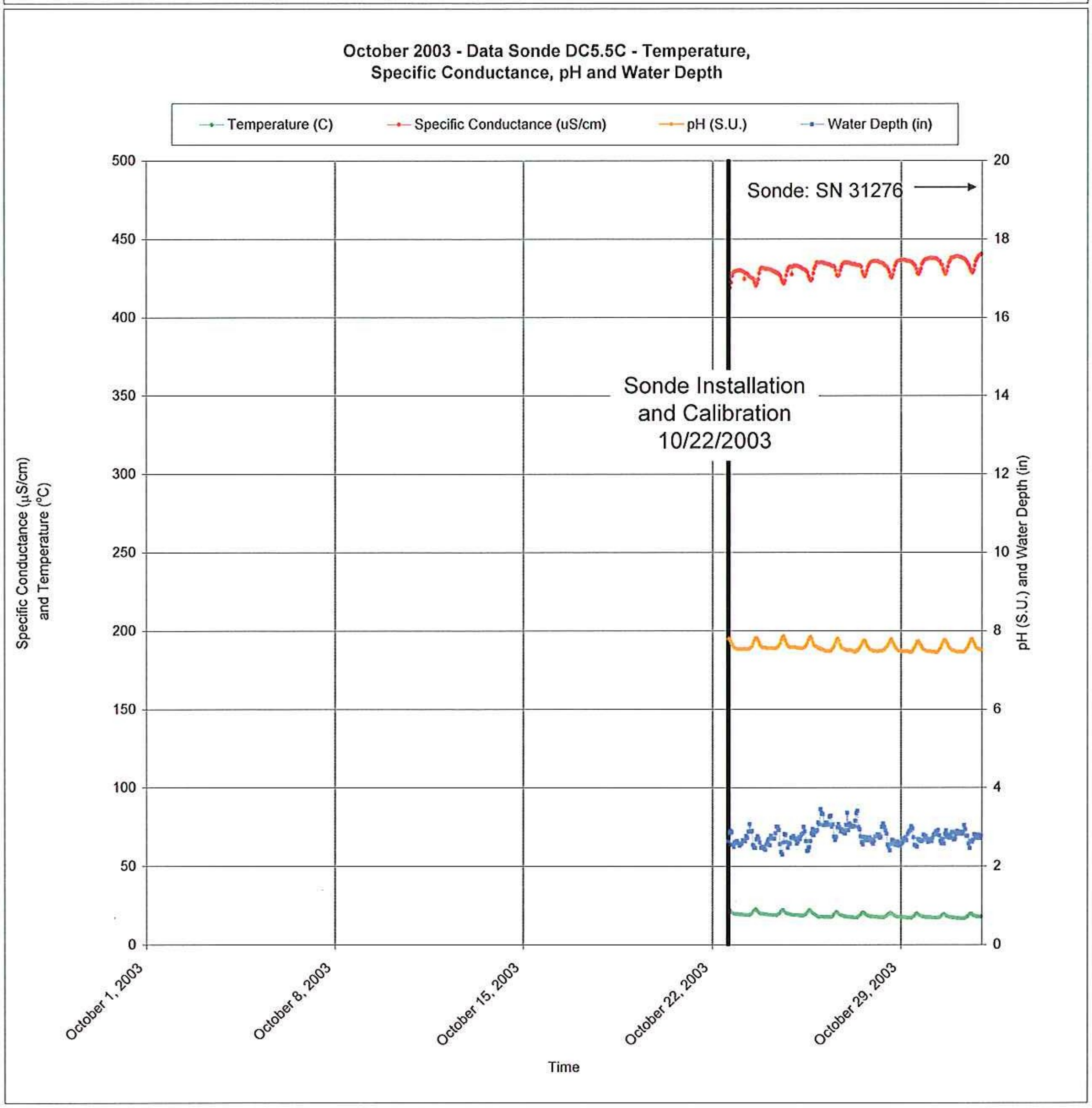

January 2006 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Upper Transducer
Lower Transducer
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
600
540
480
420
360
300
240
180
120
60
0
30
27
24
21
18
15
12
9
6
3
0
January 1, 2006
January 8, 2006
January 15, 2006
January 22, 2006
January 29, 2006
Time

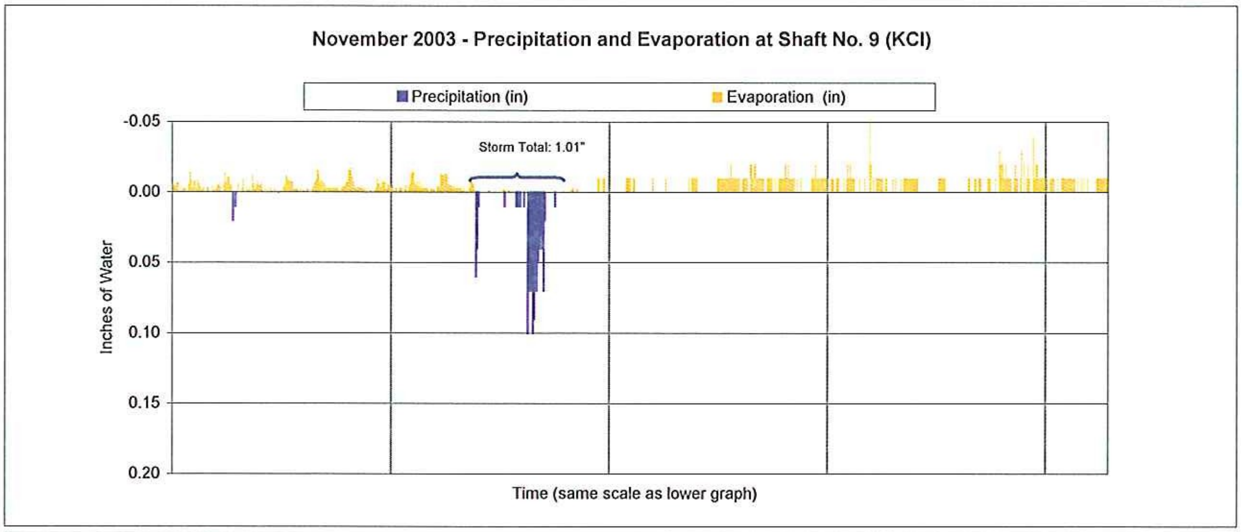

February 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

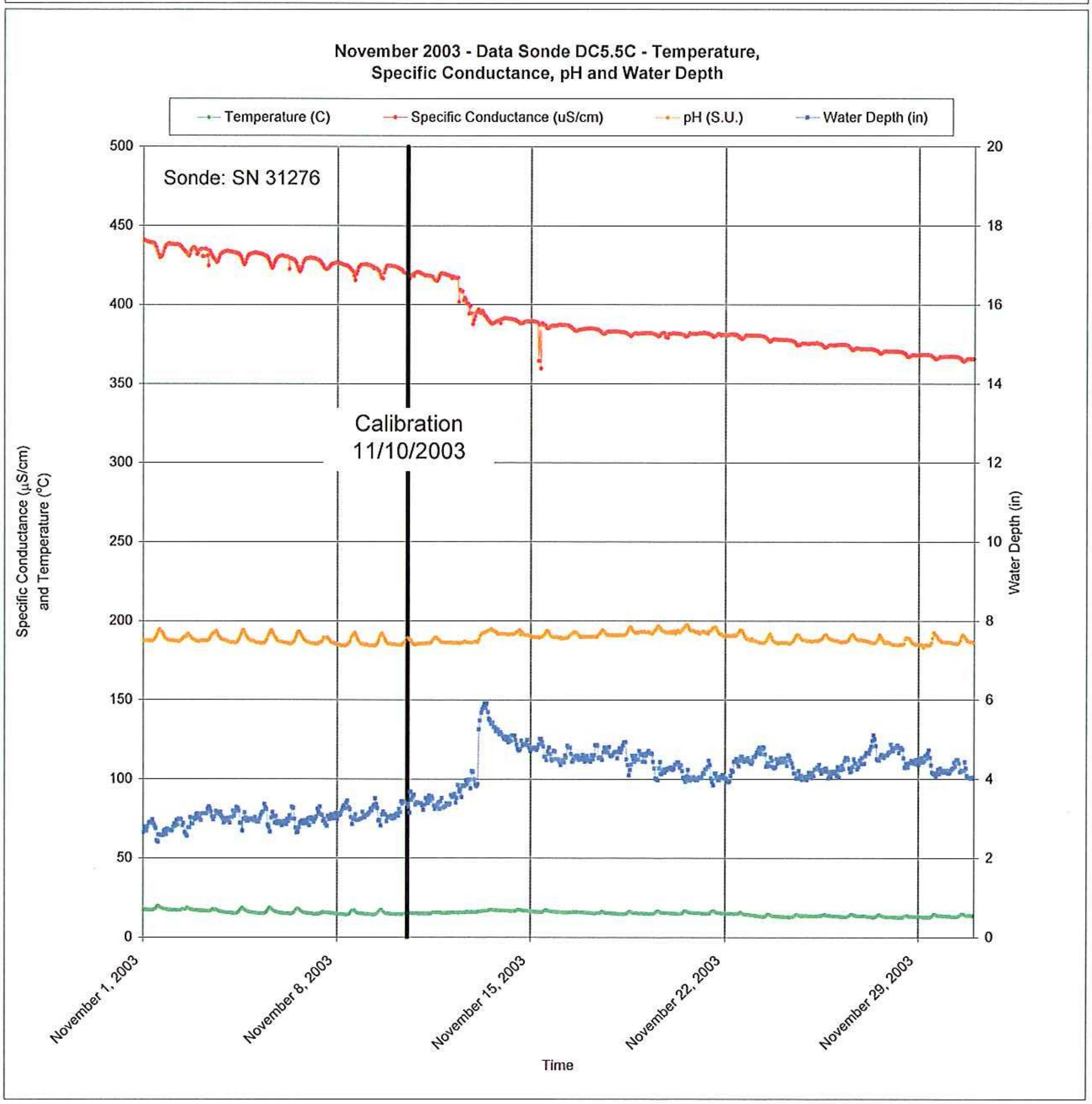

February 2006 - Data Sonde DC 7.1C - Temperature, Specific Conductance, pH, and Tranducer Water Depths
Temperature (C)
Upper Transducer
Specific Conductance (uS/cm)
Lower Transducer
pH (S.U.)
Sonde
UTrans: SN 11782
LTrans: SN 11836
Sonde: SN 31258
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
February 1, 2006
February 8, 2006
February 15, 2006
February 22, 2006
March 1, 2006
Time

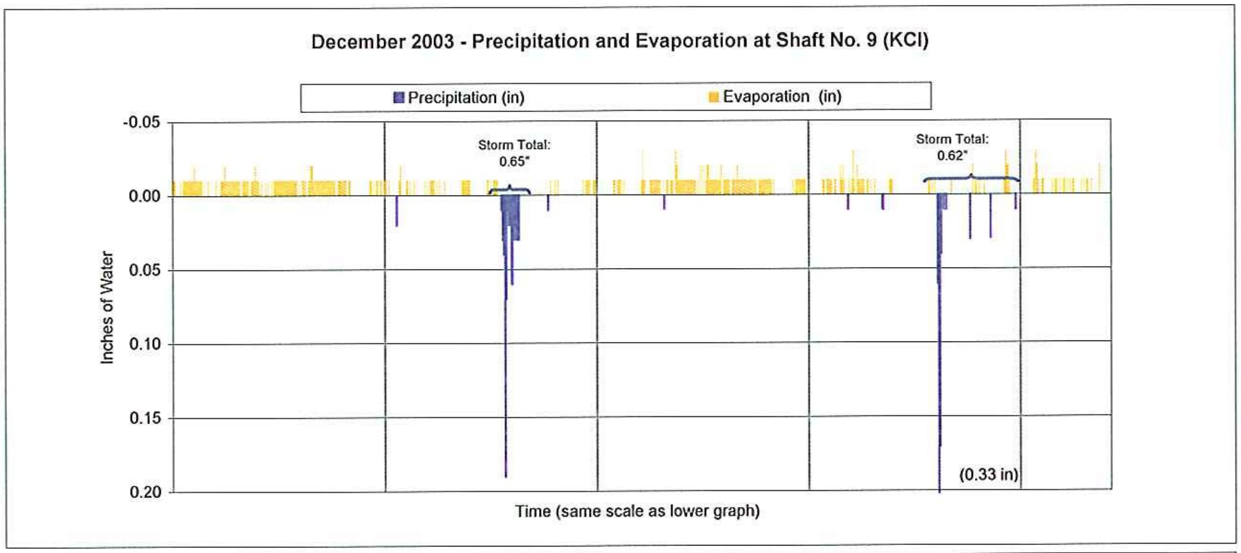
DC 5.5C

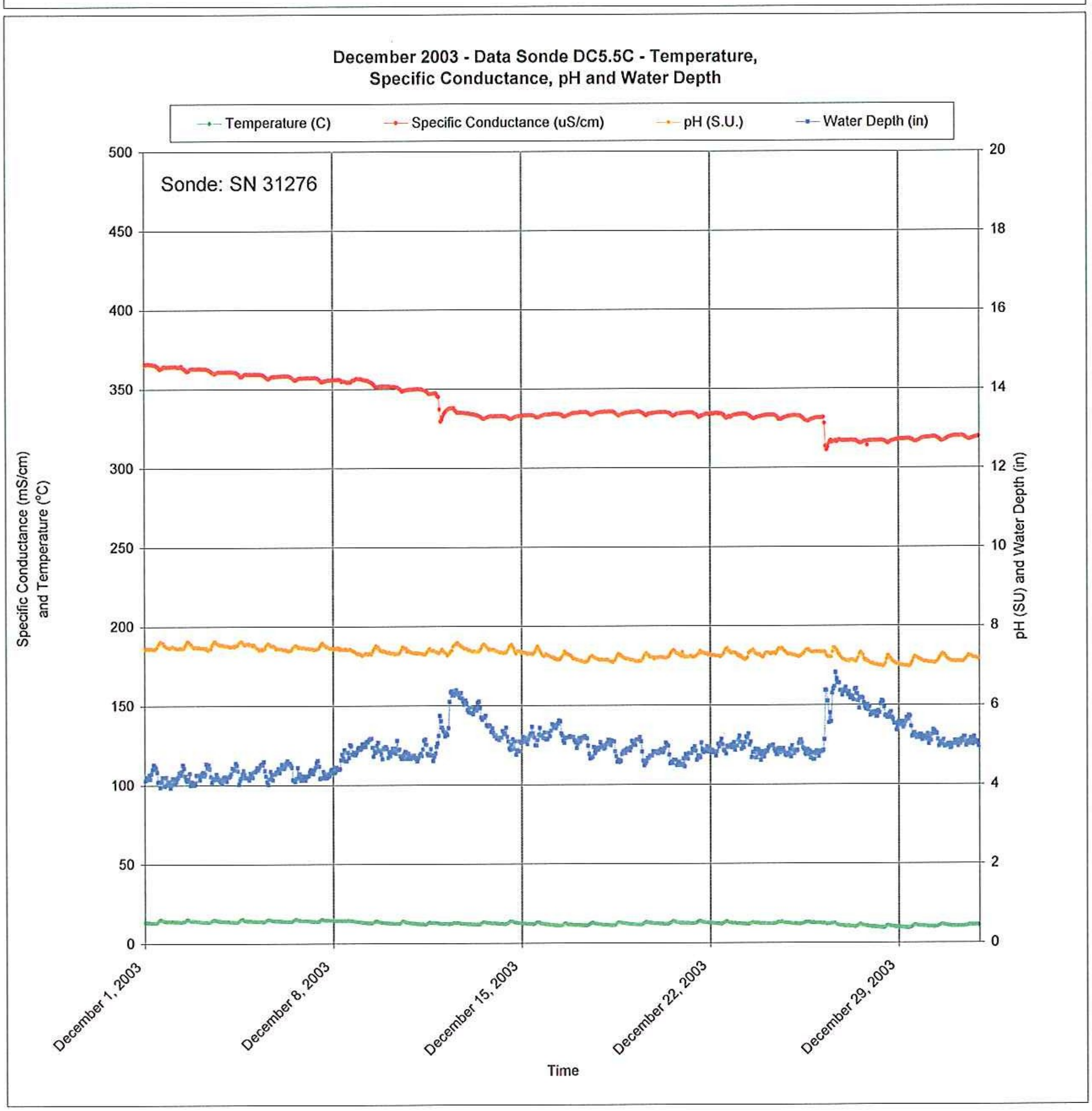

October 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

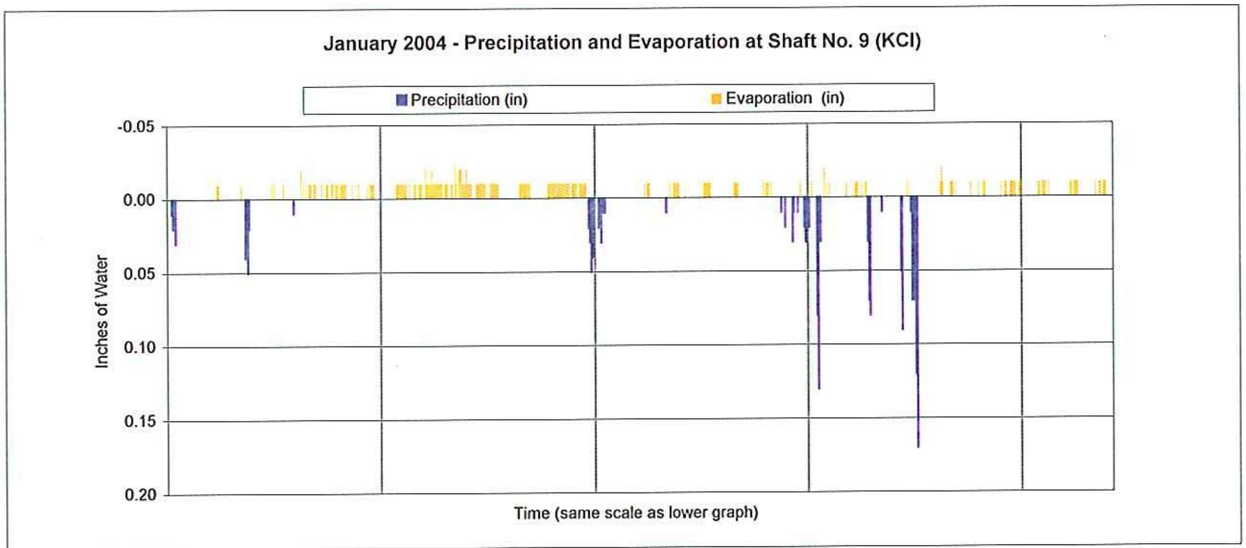

October 2003 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Sonde Installation and Calibration 10/22/2003
Specific Conductance (µS/cm) and Temperature (°C)
pH (S.U.) and Water Depth (in)
October 1, 2003
October 8, 2003
October 15, 2003
October 22, 2003
October 29, 2003
Time

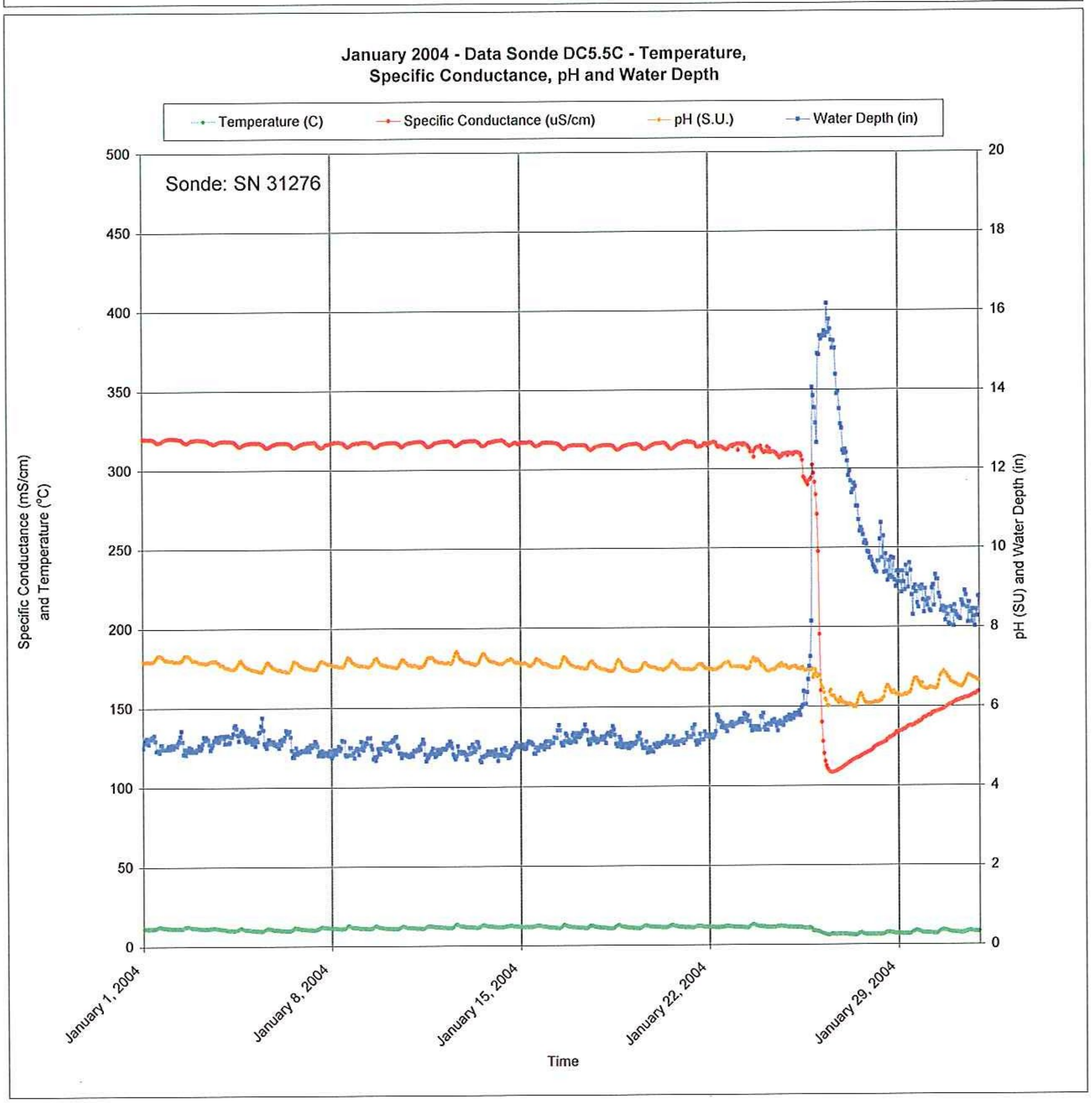

November 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.01"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

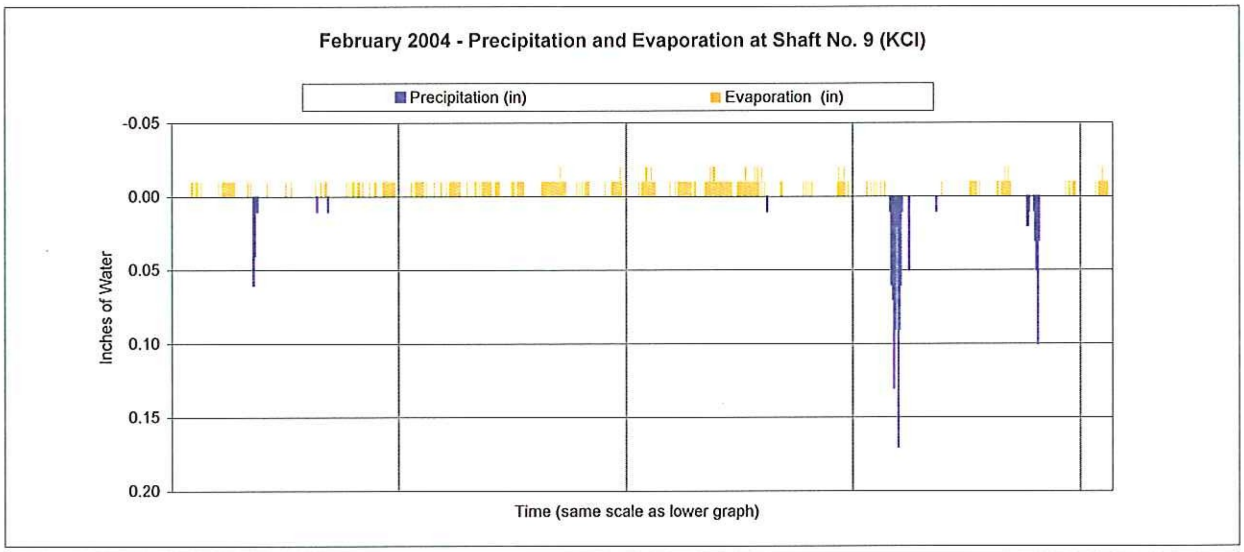

November 2003 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Calibration 11/10/2003
Specific Conductance (µS/cm) and Temperature (°C)
Water Depth (in)
0
50
100
150
200
250
300
350
400
450
500
0
2
4
6
8
10
12
14
16
18
20
November 1, 2003
November 8, 2003
November 15, 2003
November 22, 2003
November 29, 2003
Time

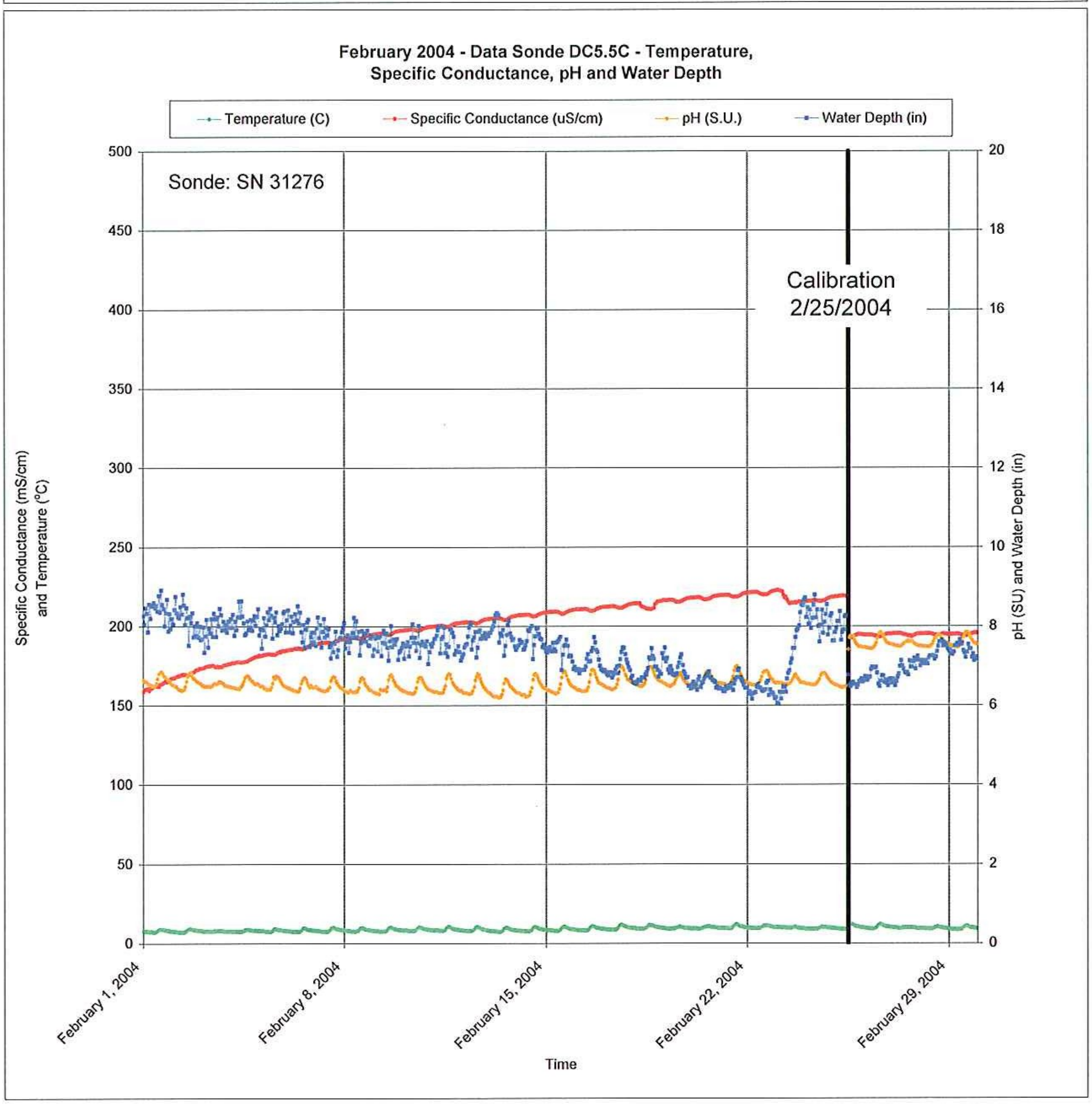

December 2003 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.65"
Storm Total: 0.62"
(0.33 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

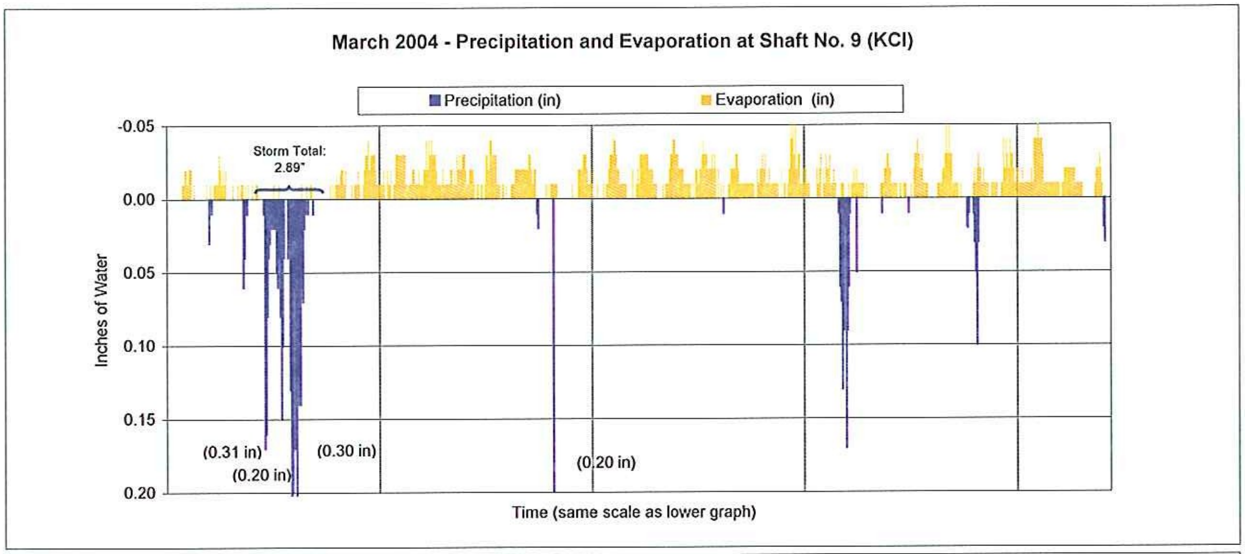

December 2003 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
December 1, 2003
December 8, 2003
December 15, 2003
December 22, 2003
December 29, 2003
Time

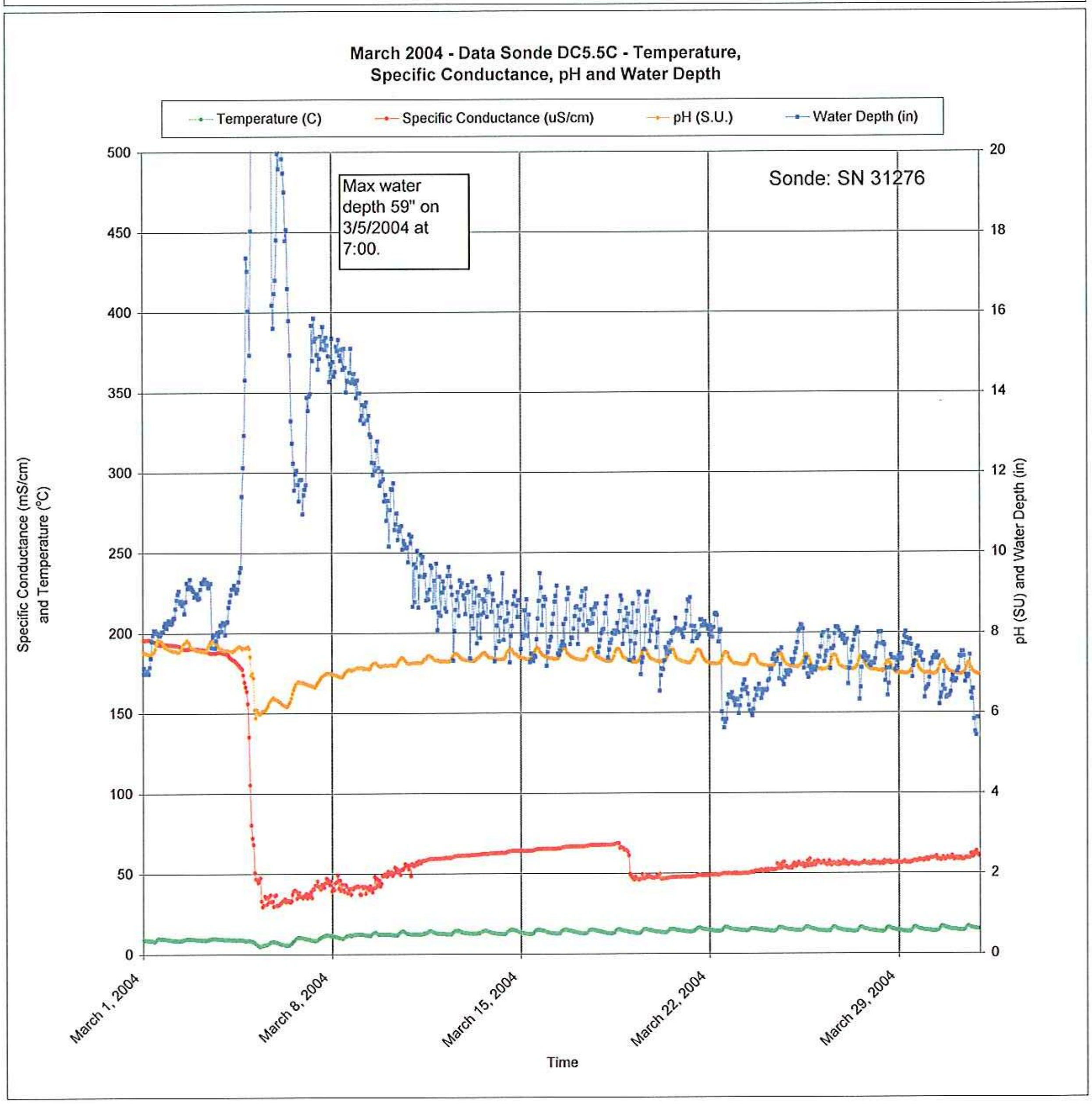

January 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

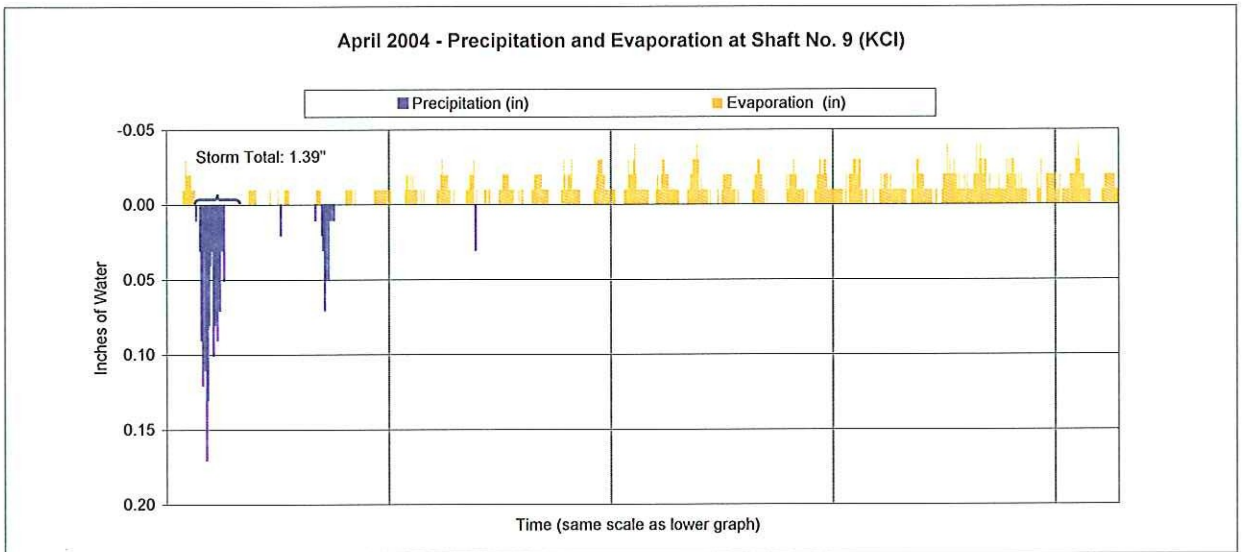

January 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
January 1, 2004
January 8, 2004
January 15, 2004
January 22, 2004
January 29, 2004
Time

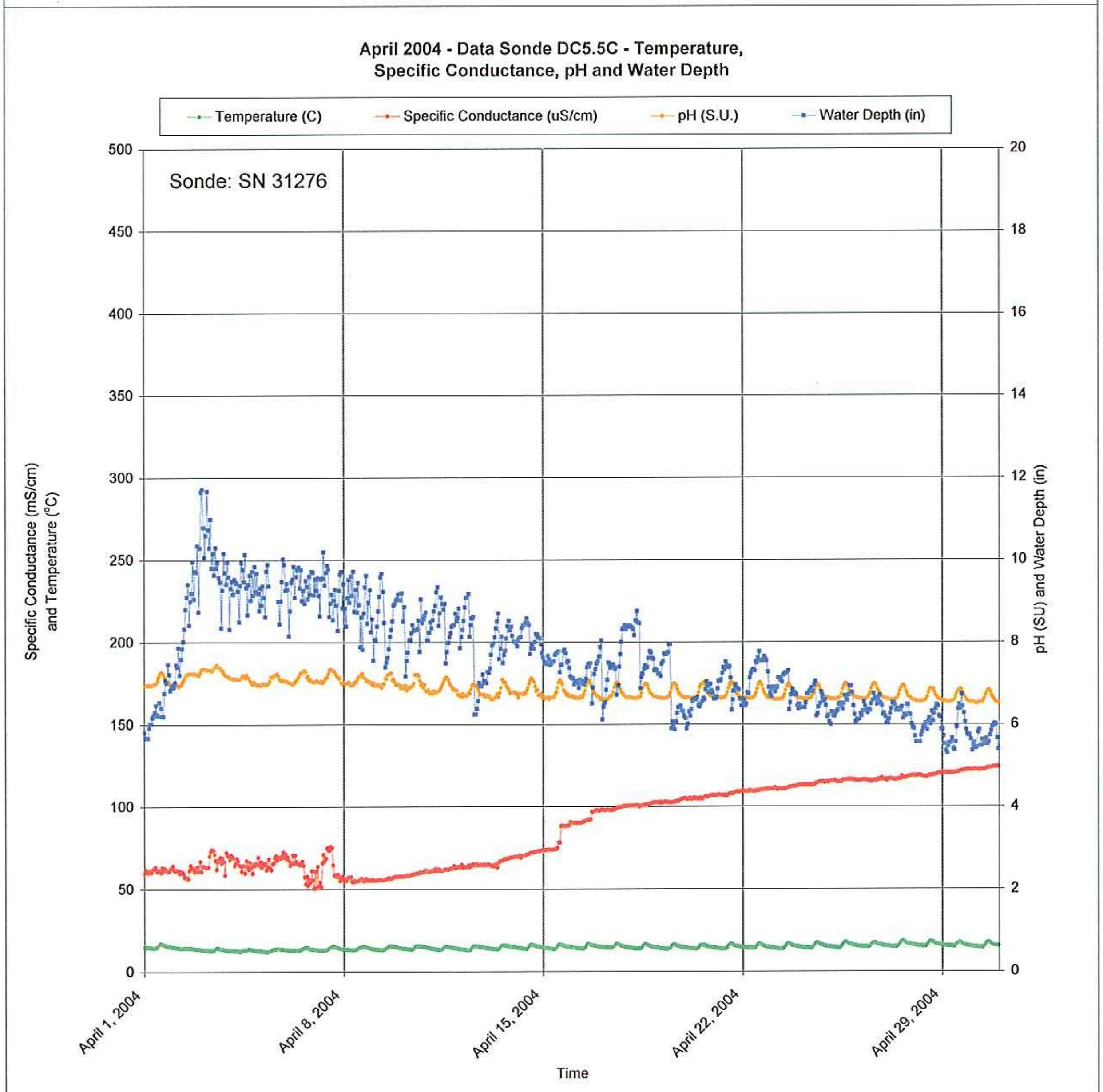

February 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

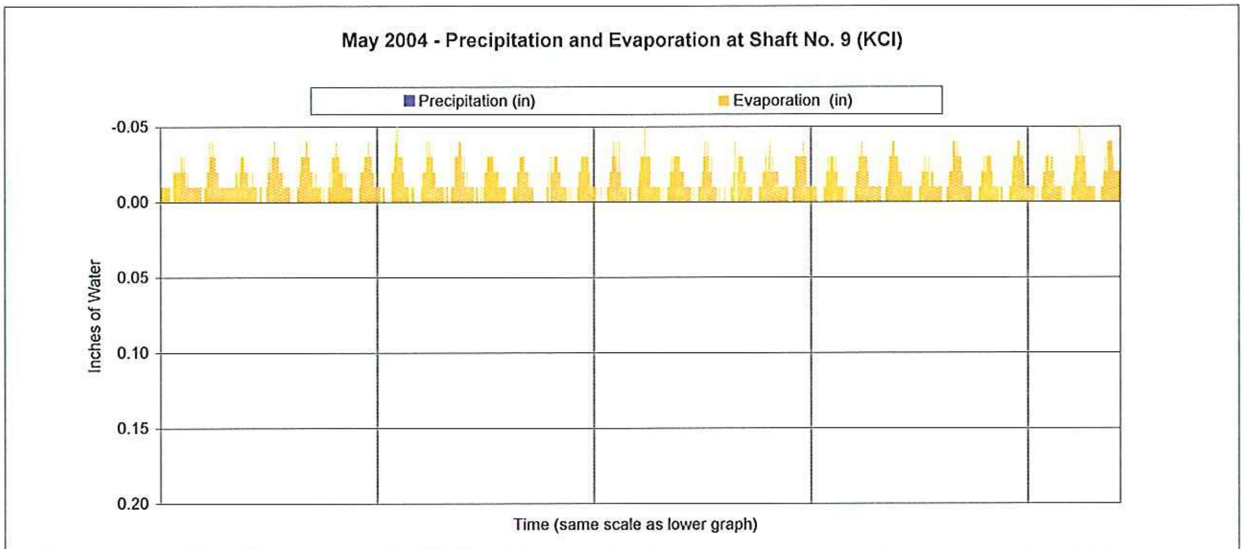

February 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Calibration 2/25/2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2004
February 8, 2004
February 15, 2004
February 22, 2004
February 29, 2004
Time

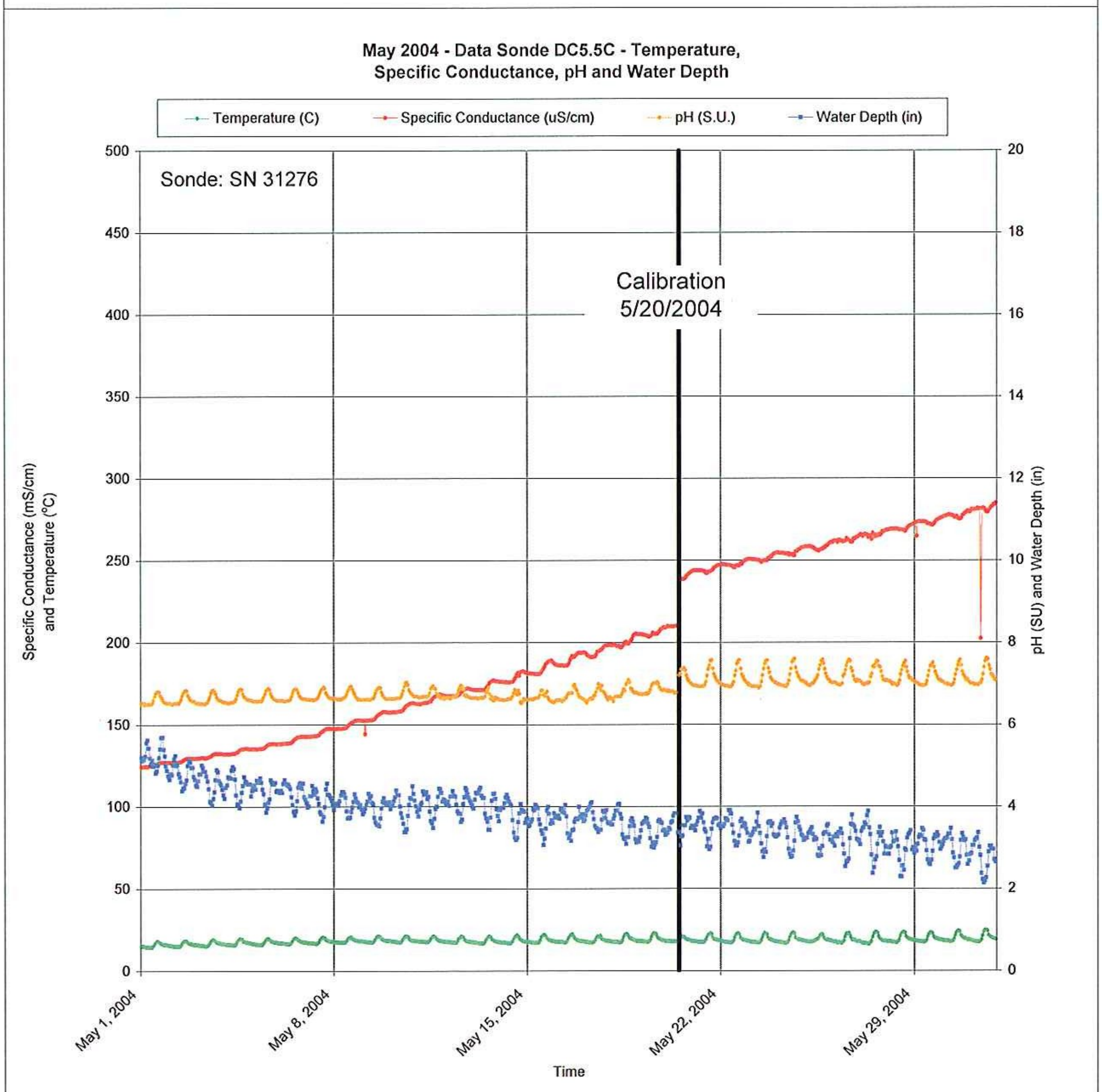

March 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 2.89"
(0.31 in)
(0.20 in)
(0.30 in)
(0.20 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

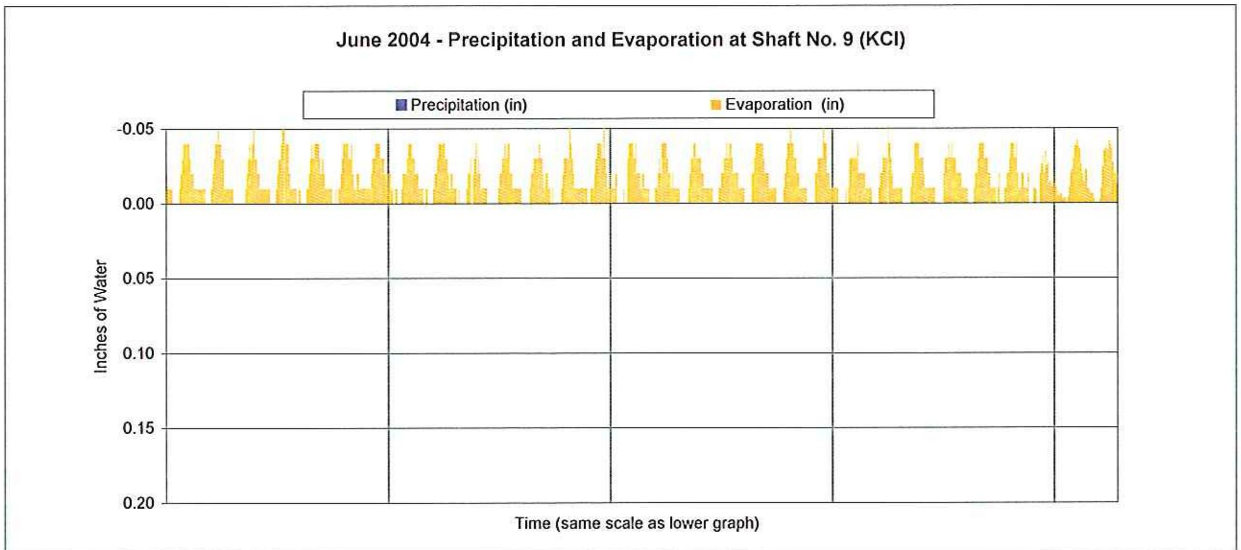

March 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Max water depth 59" on 3/5/2004 at 7:00.
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
0
50
100
150
200
250
300
350
400
450
500
0
2
4
6
8
10
12
14
16
18
20
March 1, 2004
March 8, 2004
March 15, 2004
March 22, 2004
March 29, 2004
Time

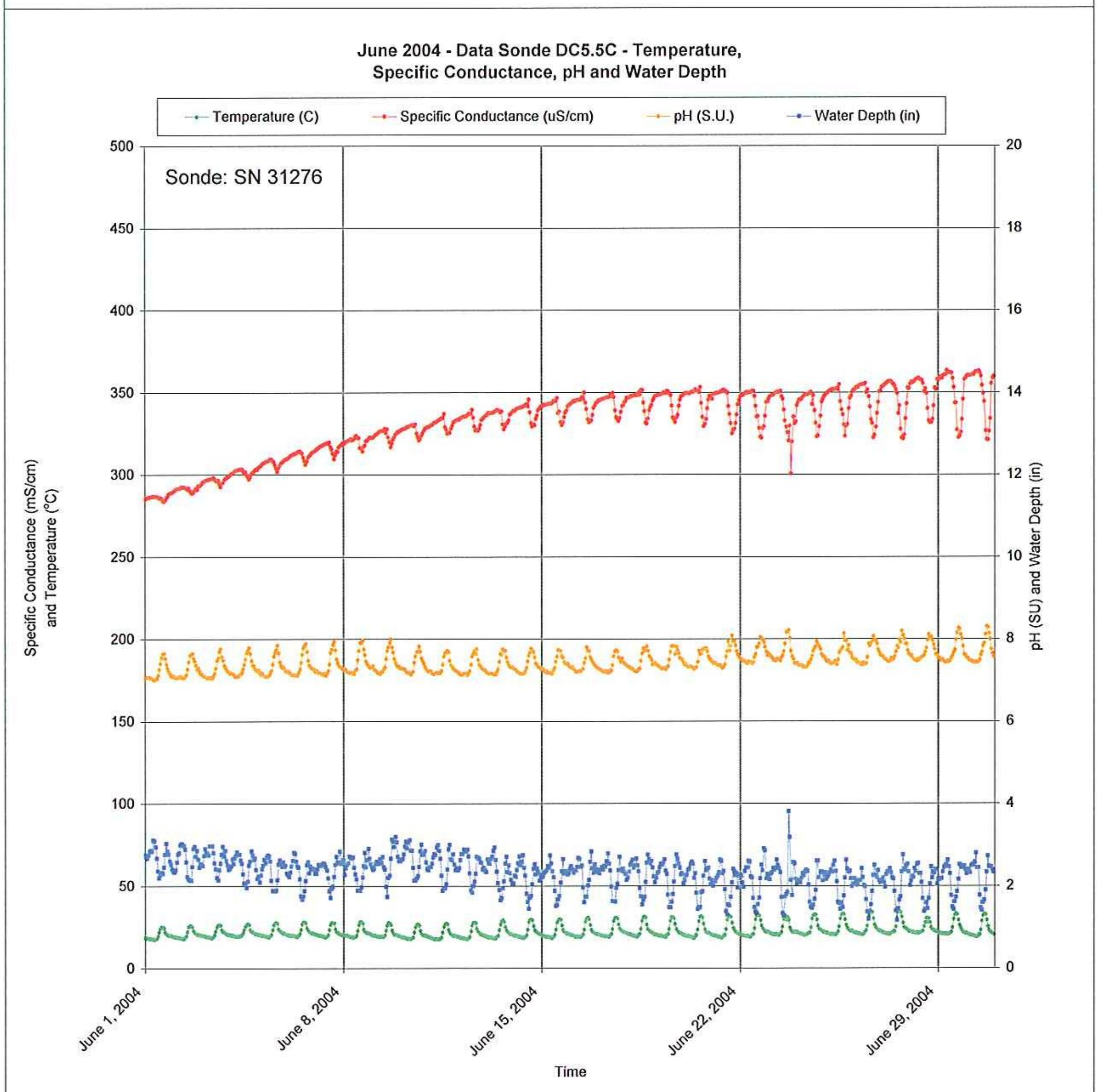

April 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.39"
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

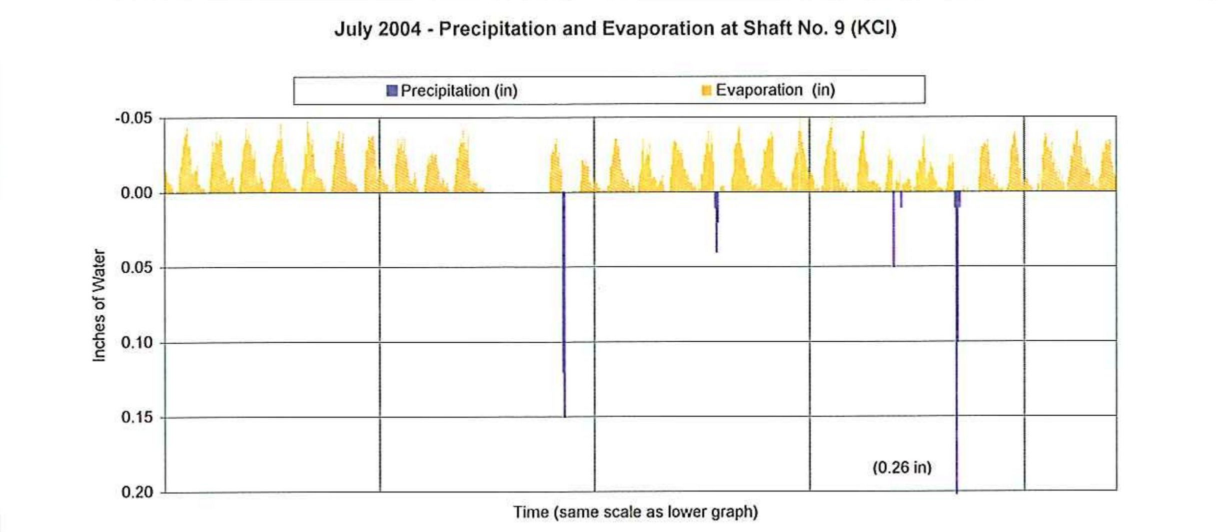

April 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
April 1, 2004
April 8, 2004
April 15, 2004
April 22, 2004
April 29, 2004
Time

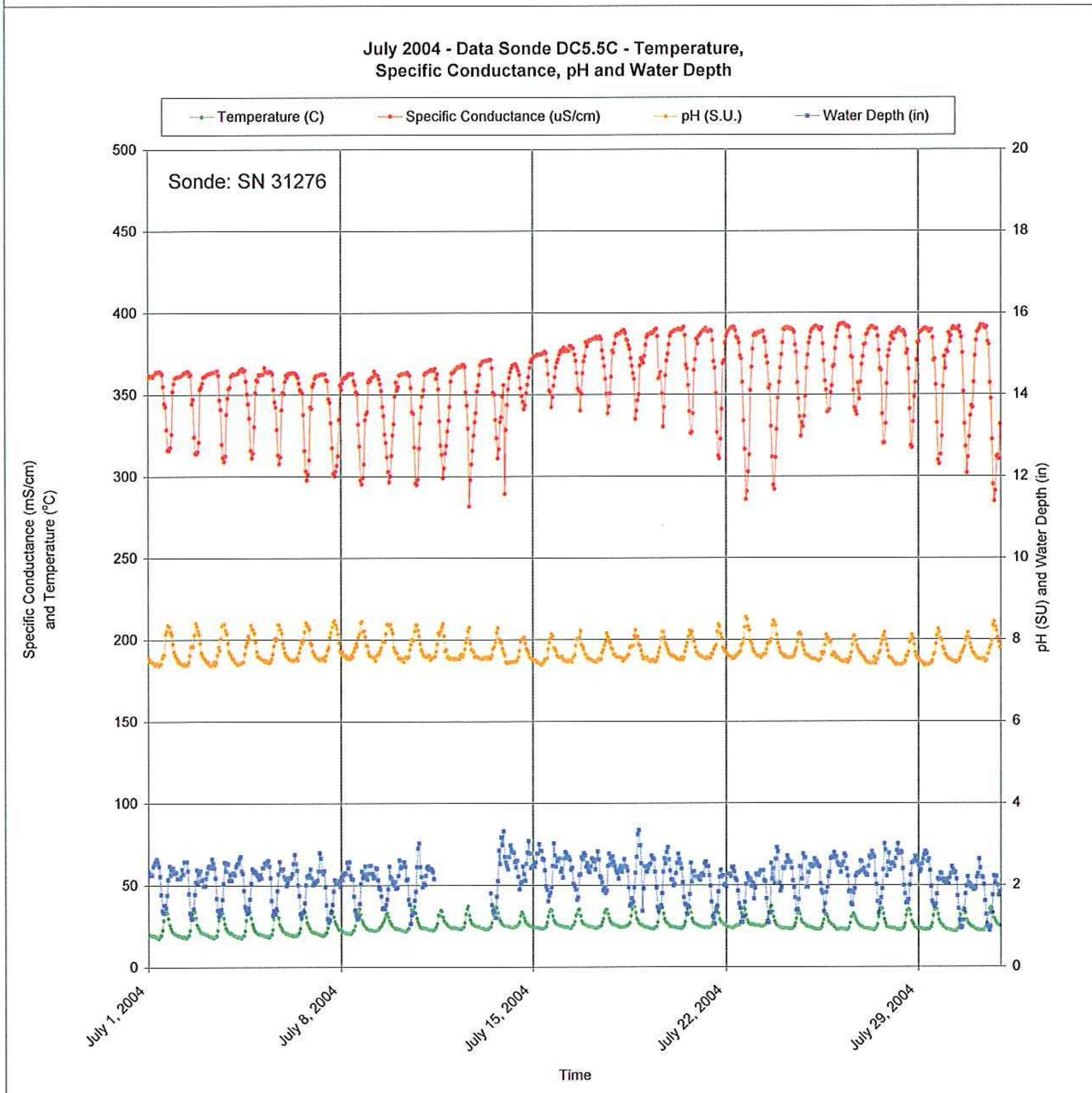

May 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

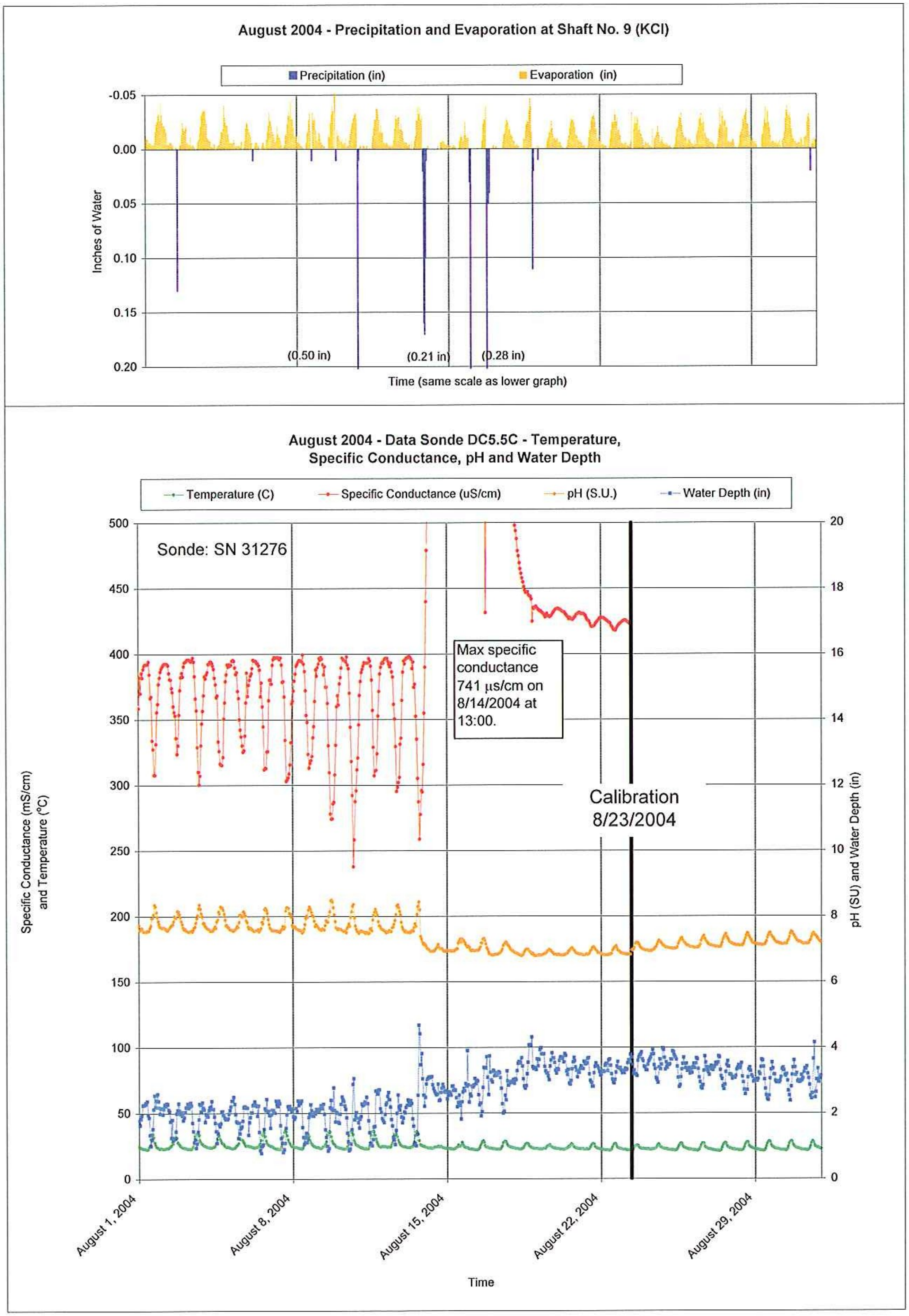

May 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Calibration 5/20/2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
0
50
100
150
200
250
300
350
400
450
500
0
2
4
6
8
10
12
14
16
18
20
May 1, 2004
May 8, 2004
May 15, 2004
May 22, 2004
May 29, 2004
Time

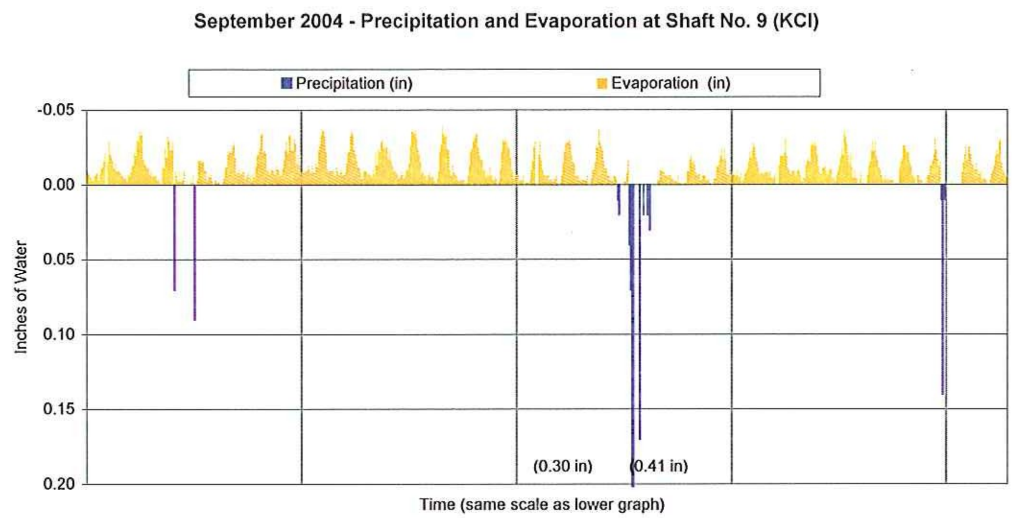

June 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

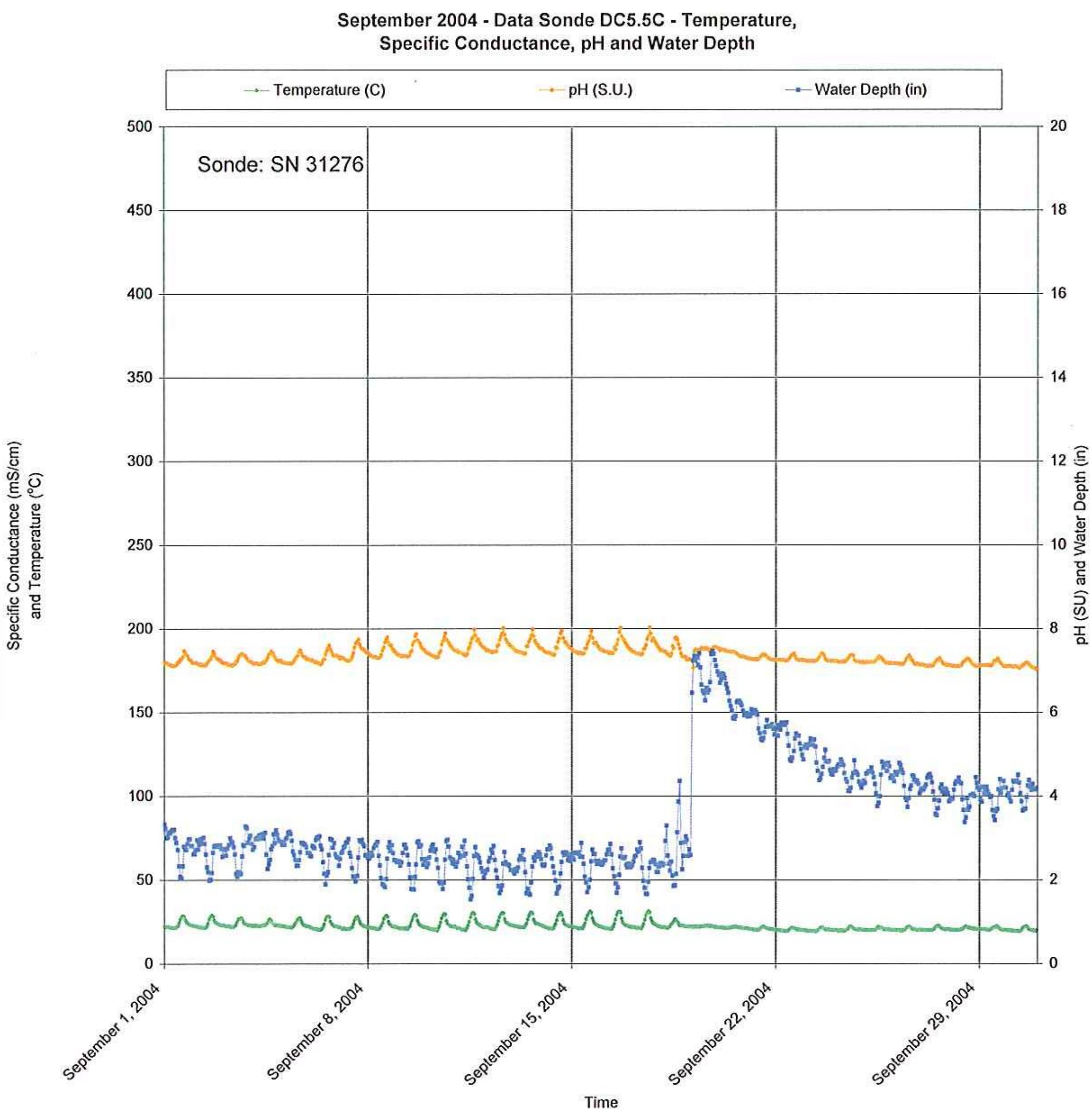

June 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
0
50
100
150
200
250
300
350
400
450
500
0
2
4
6
8
10
12
14
16
18
20
June 1, 2004
June 8, 2004
June 15, 2004
June 22, 2004
June 29, 2004
Time

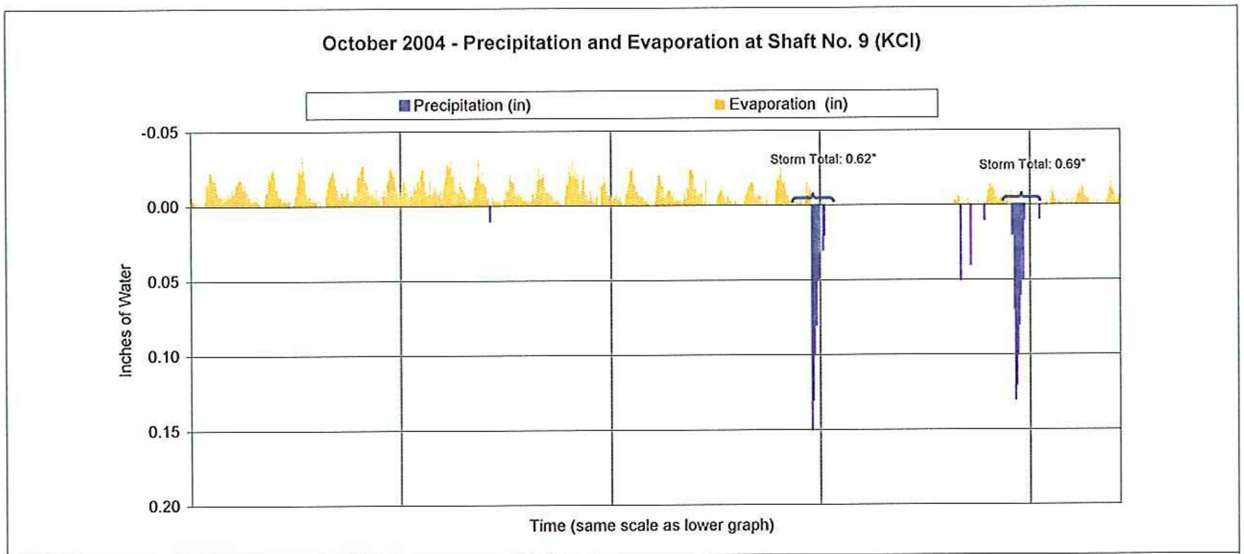

July 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.26 in)
Time (same scale as lower graph)

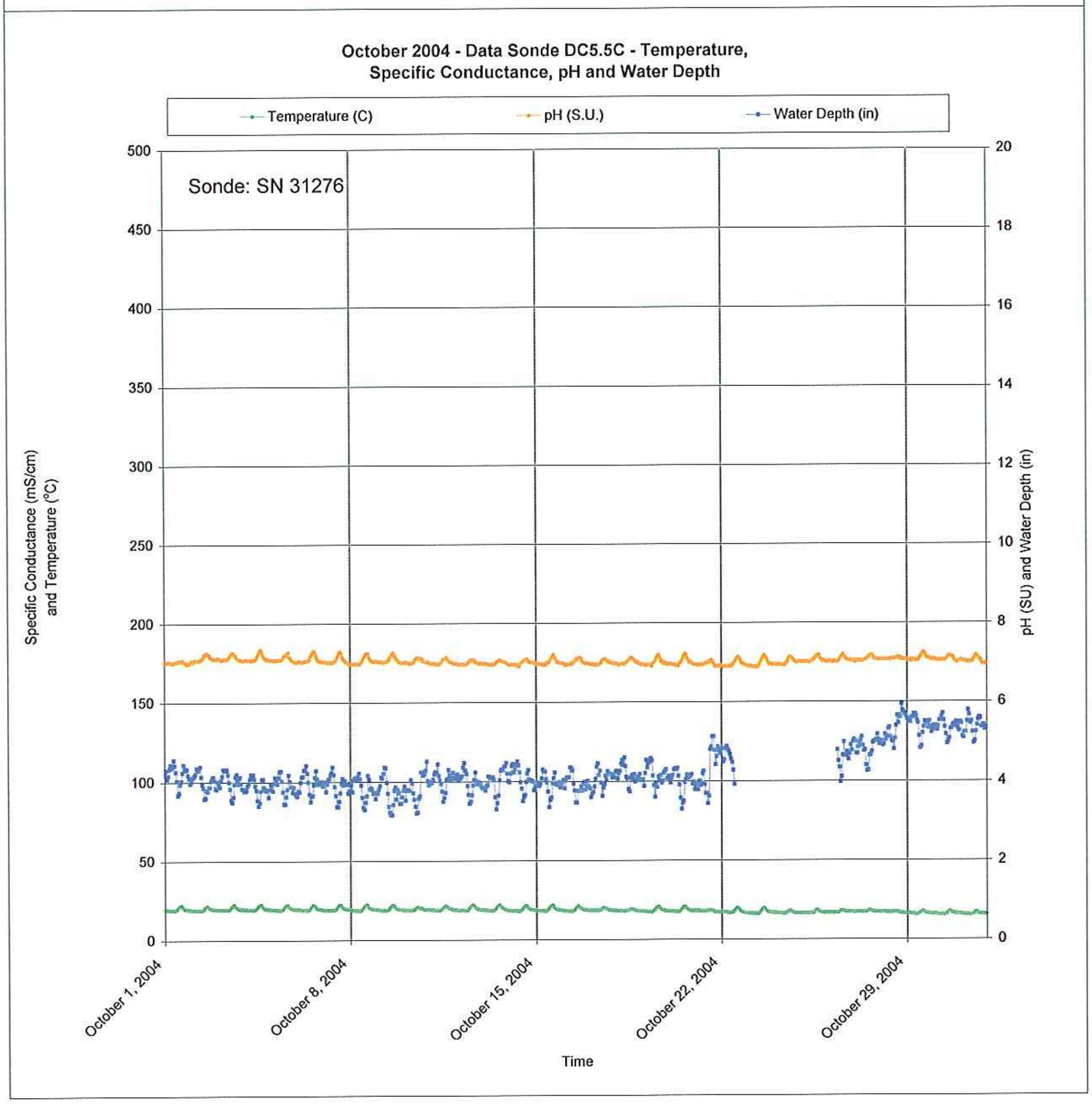

July 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
July 1, 2004
July 8, 2004
July 15, 2004
July 22, 2004
July 29, 2004
Time

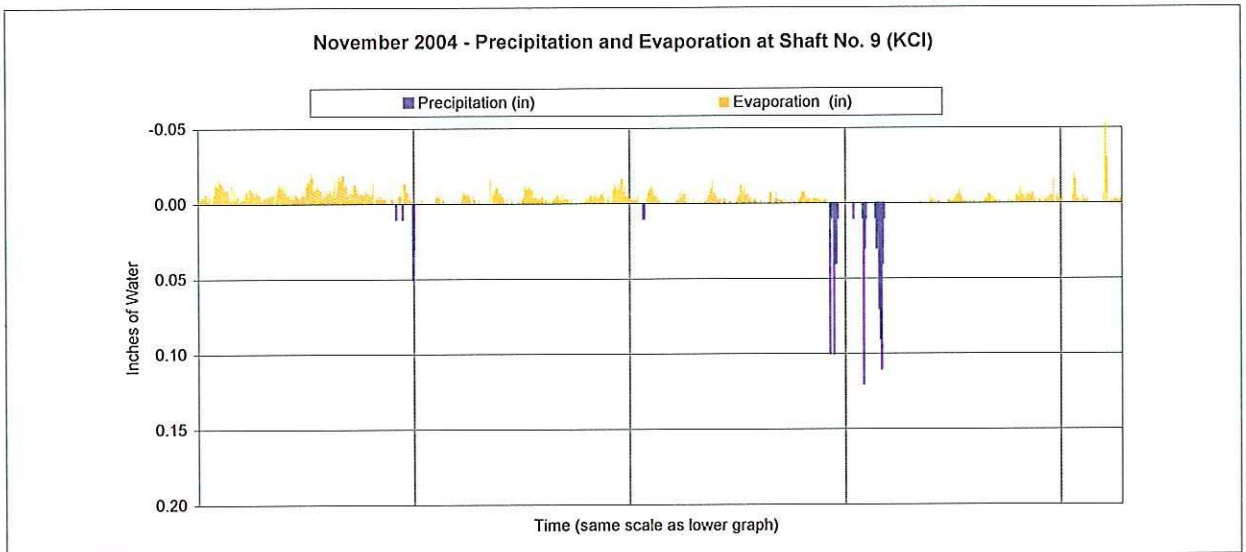

August 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.50 in)
(0.21 in)
(0.28 in)
Time (same scale as lower graph)
August 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Max specific conductance 741 µs/cm on 8/14/2004 at 13:00.
Calibration 8/23/2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
August 1, 2004
August 8, 2004
August 15, 2004
August 22, 2004
August 29, 2004
Time

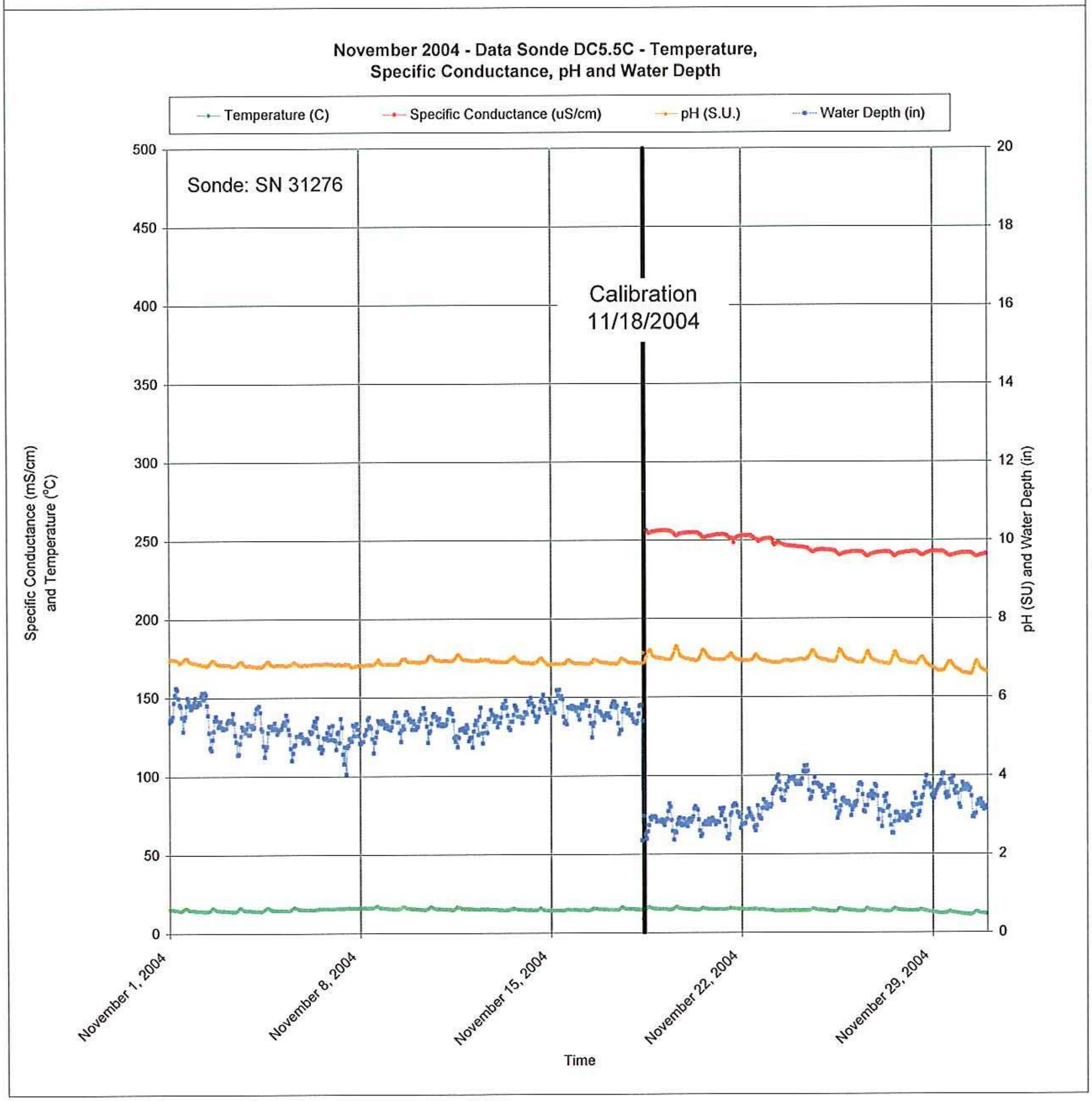

September 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.30 in)
(0.41 in)
Time (same scale as lower graph)

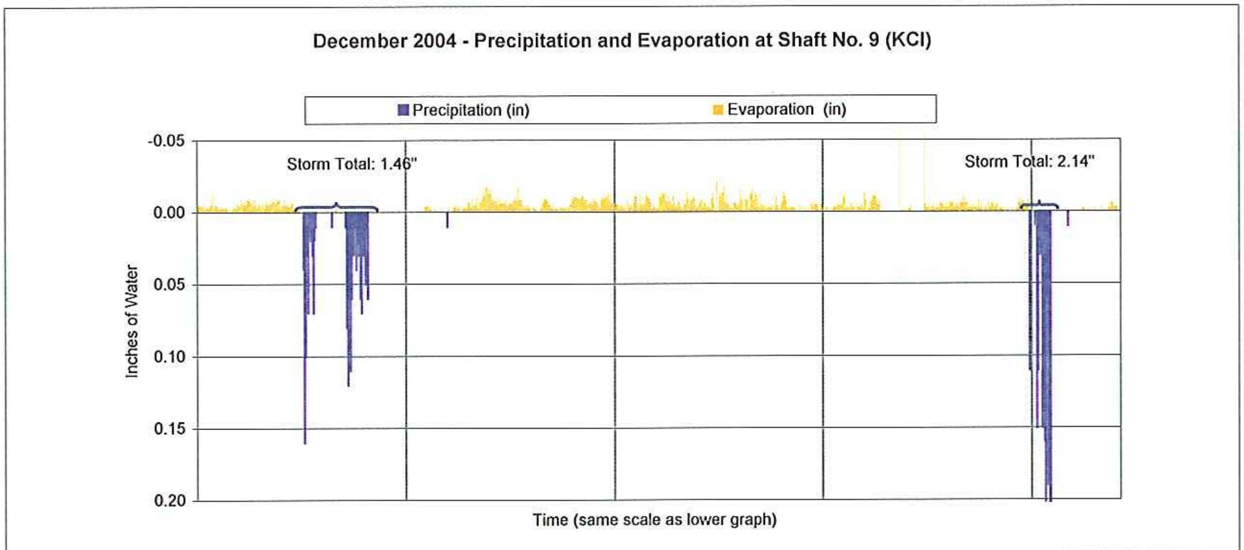

September 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
September 1, 2004
September 8, 2004
September 15, 2004
September 22, 2004
September 29, 2004
Time

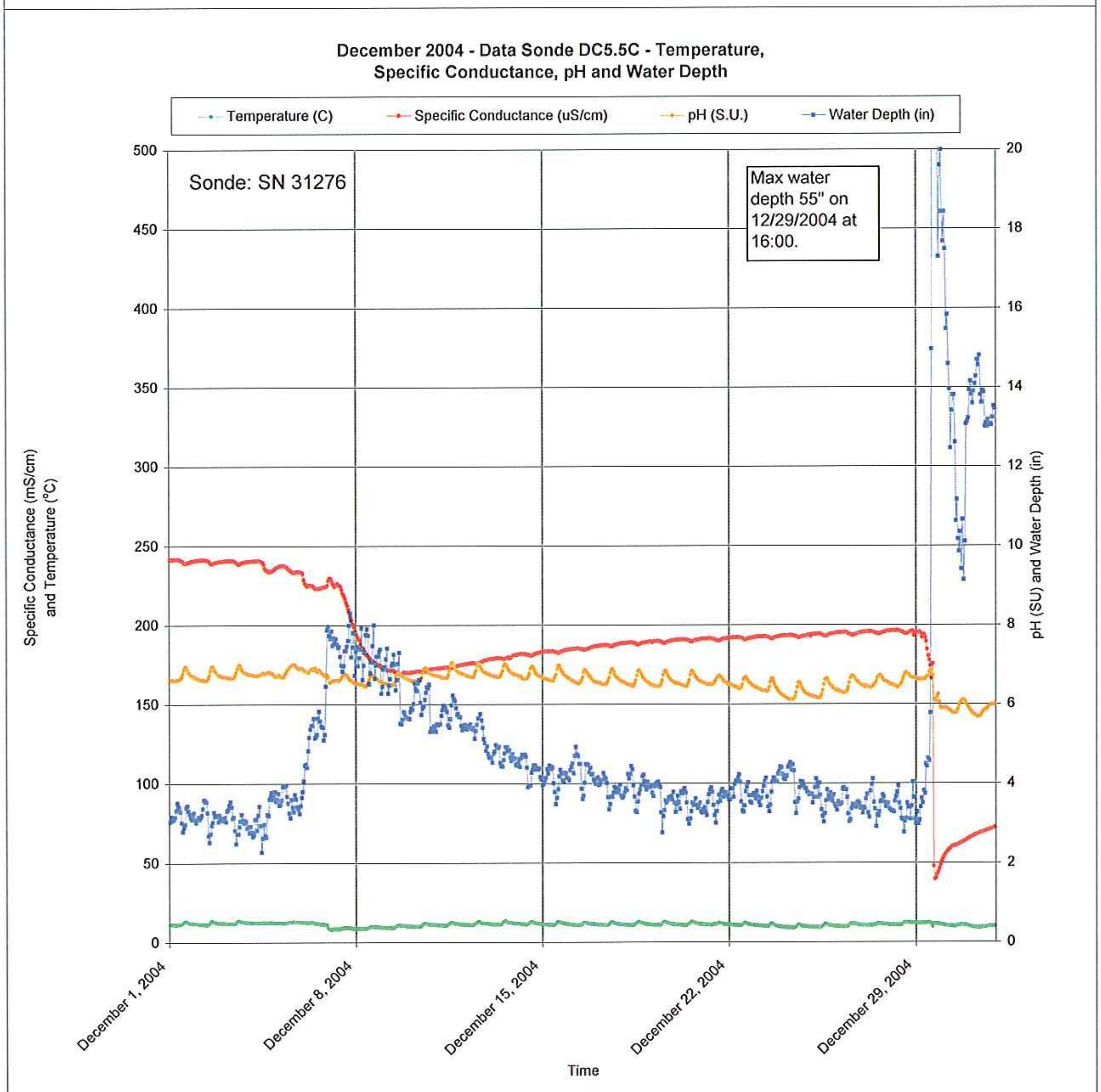

October 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.62"
Storm Total: 0.69"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

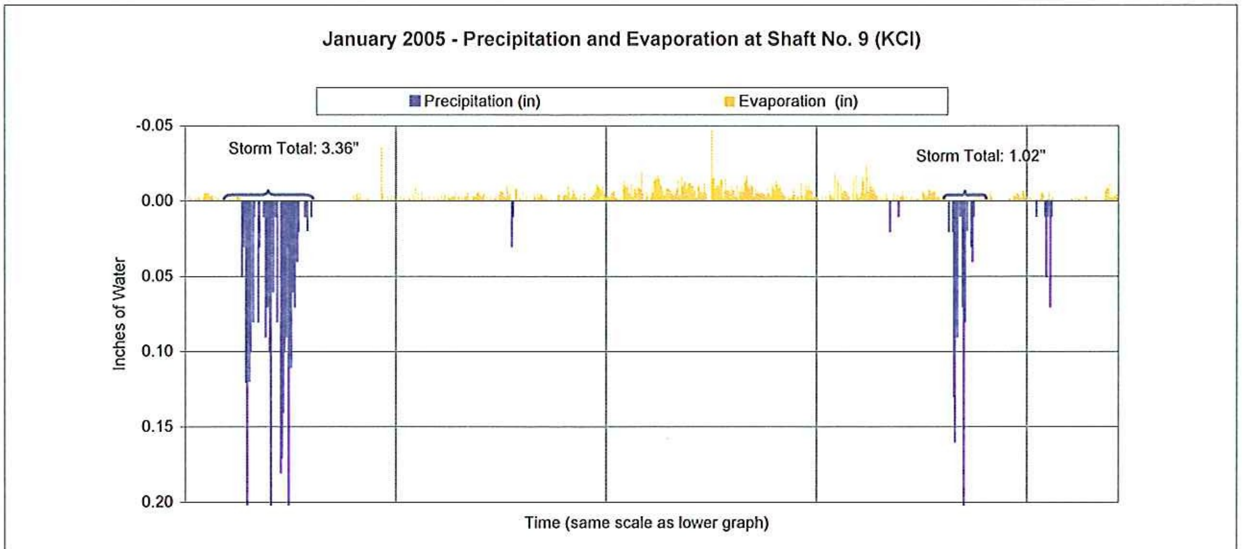

October 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
October 1, 2004
October 8, 2004
October 15, 2004
October 22, 2004
October 29, 2004
Time

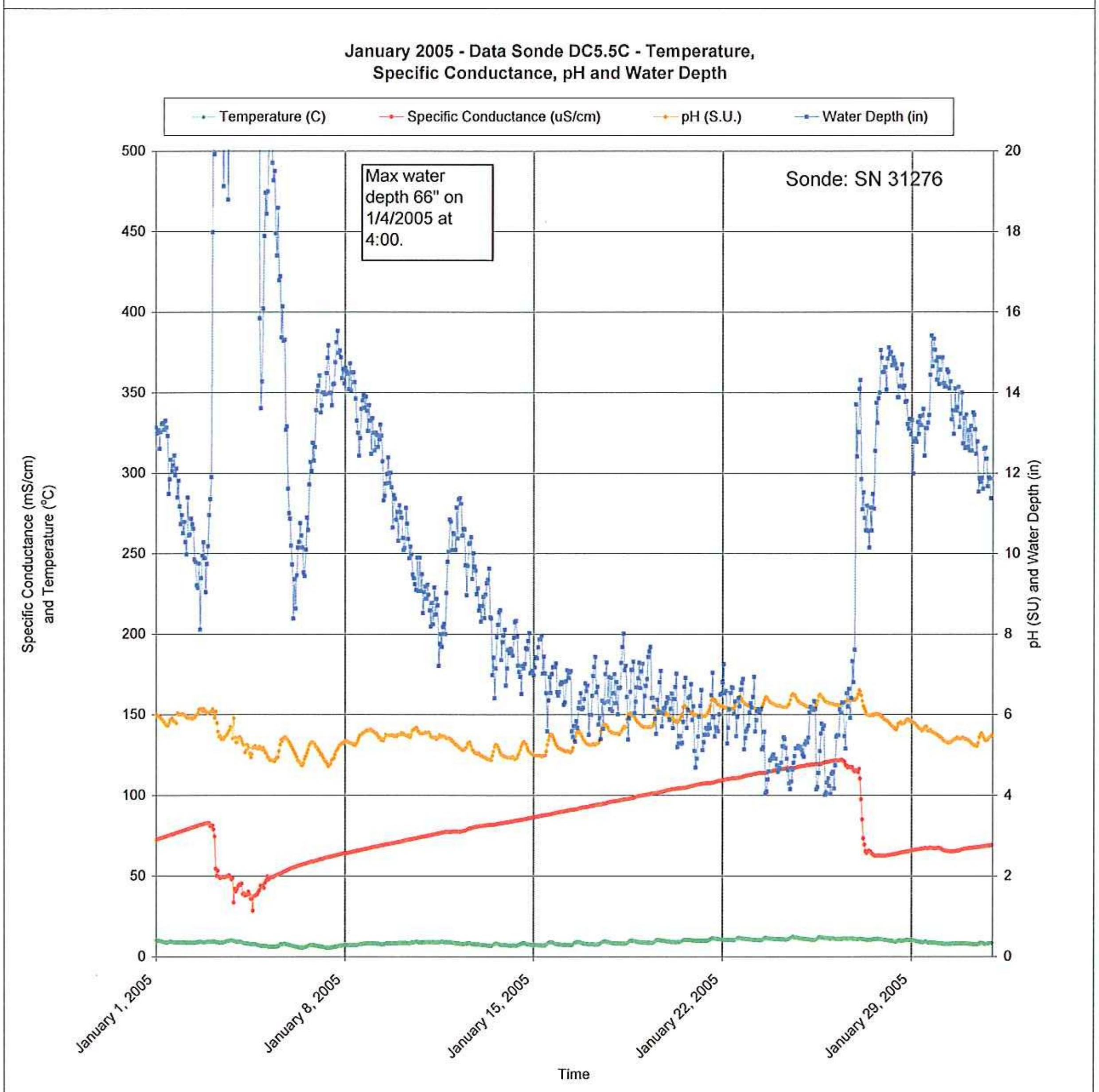

November 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

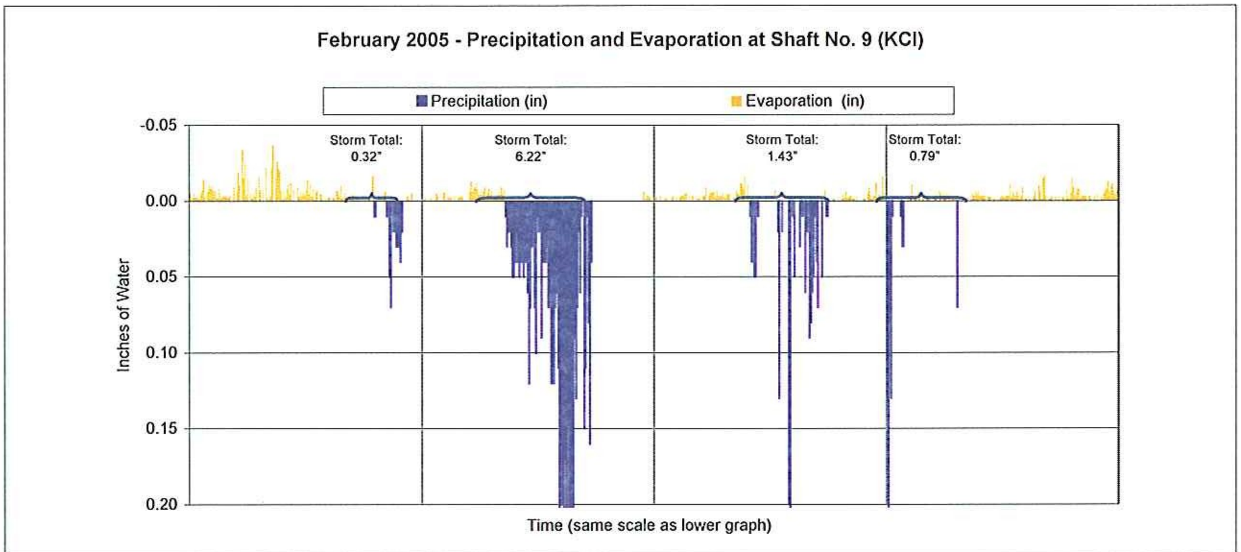

November 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Calibration 11/18/2004
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
November 1, 2004
November 8, 2004
November 15, 2004
November 22, 2004
November 29, 2004
Time

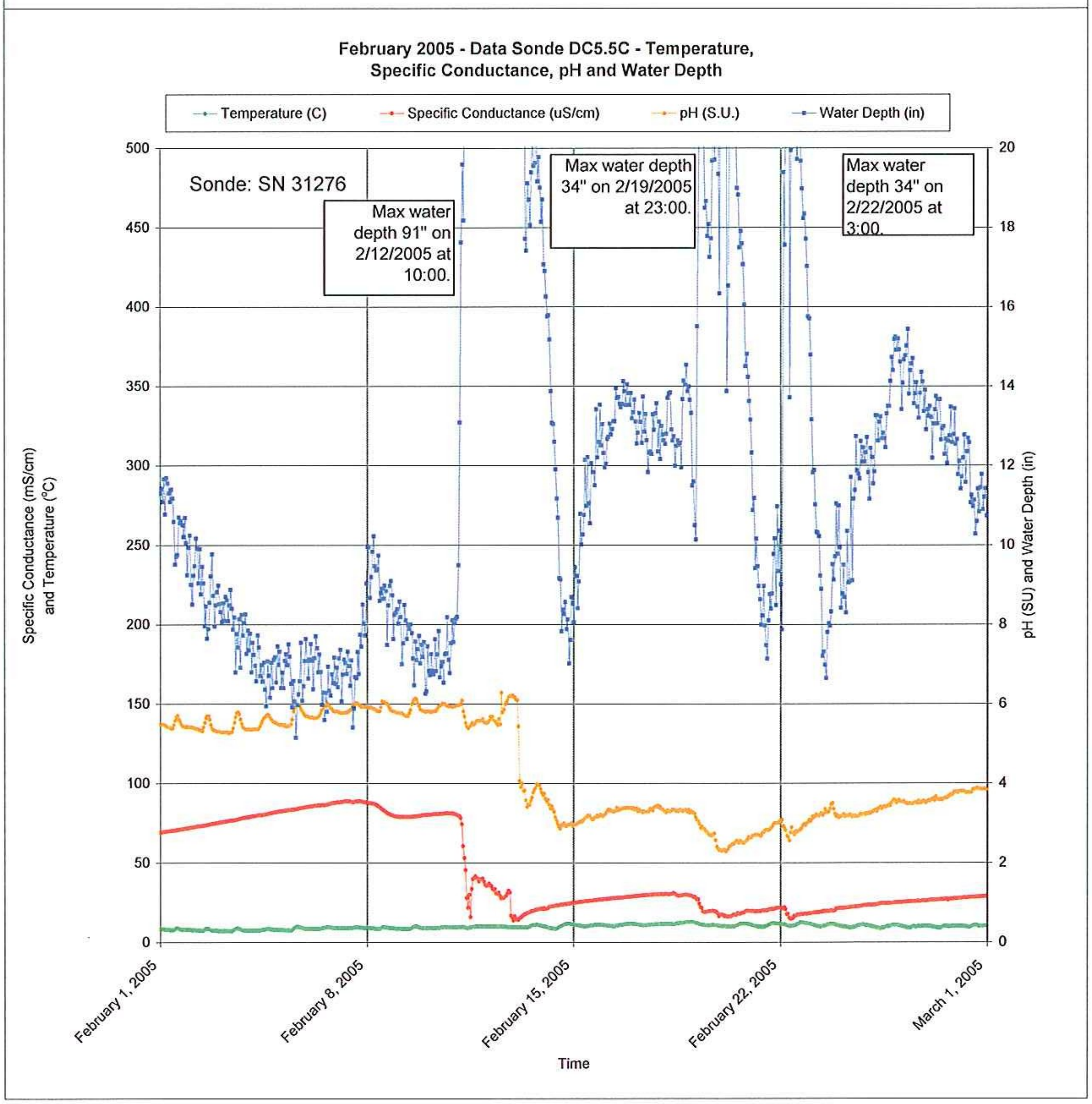

December 2004 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.46"
Storm Total: 2.14"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

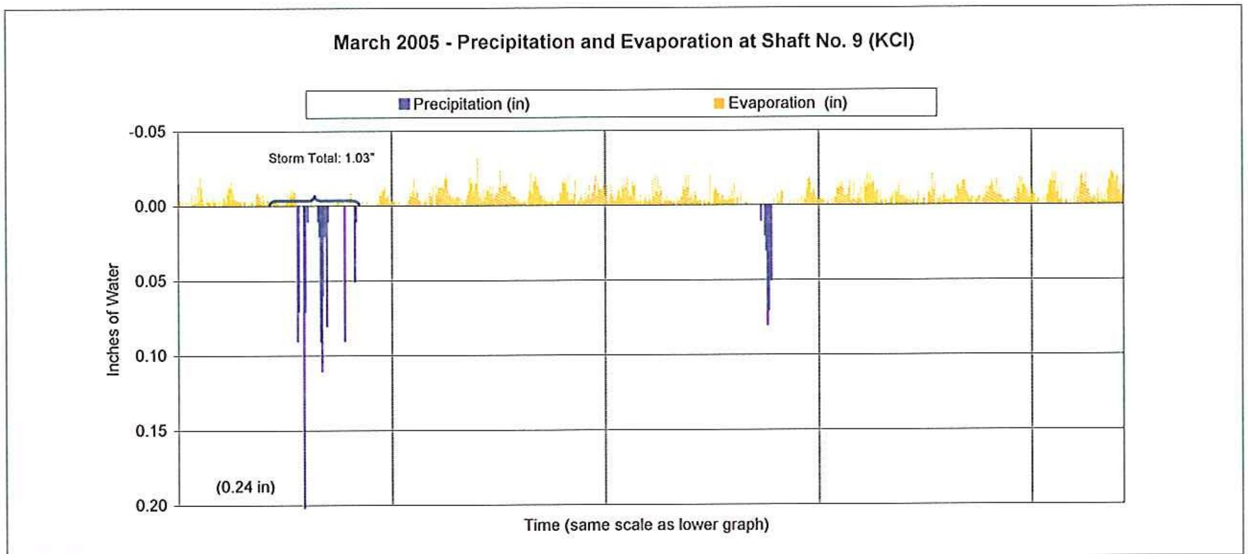

December 2004 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Max water depth 55" on 12/29/2004 at 16:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2004
December 8, 2004
December 15, 2004
December 22, 2004
December 29, 2004
Time

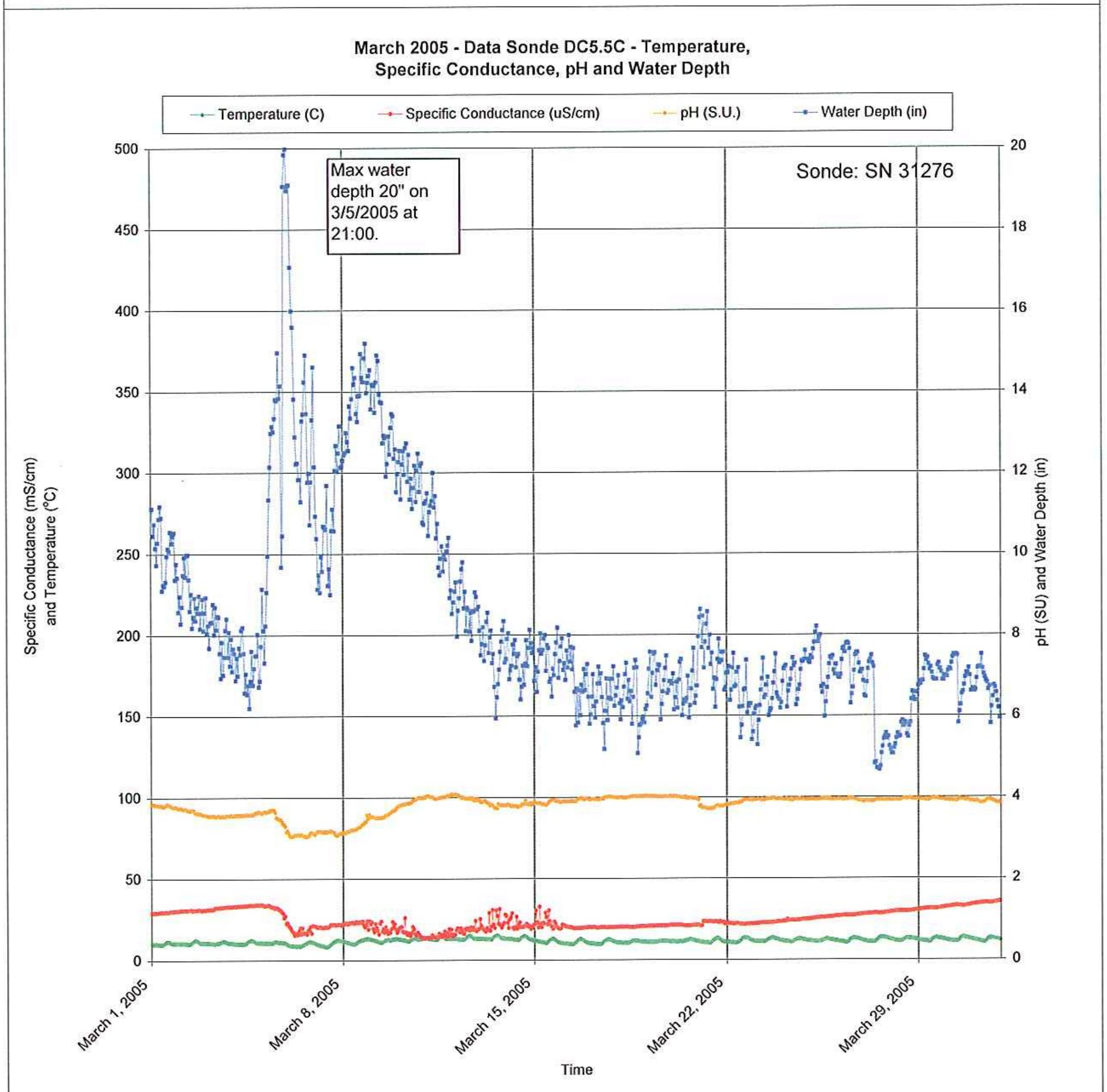

January 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 3.36"
Storm Total: 1.02"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

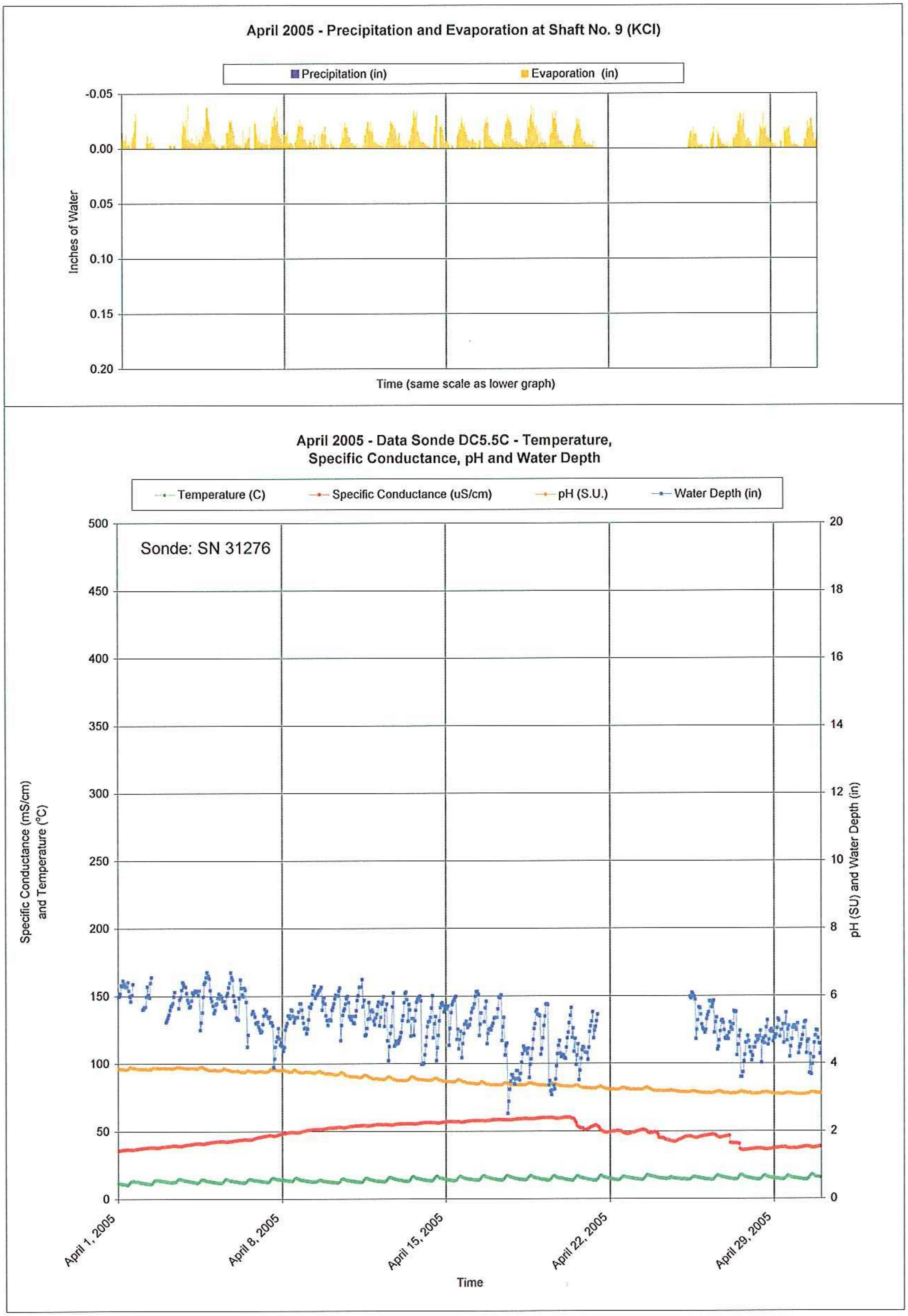

January 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Max water depth 66" on 1/4/2005 at 4:00.
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
January 1, 2005
January 8, 2005
January 15, 2005
January 22, 2005
January 29, 2005
Time

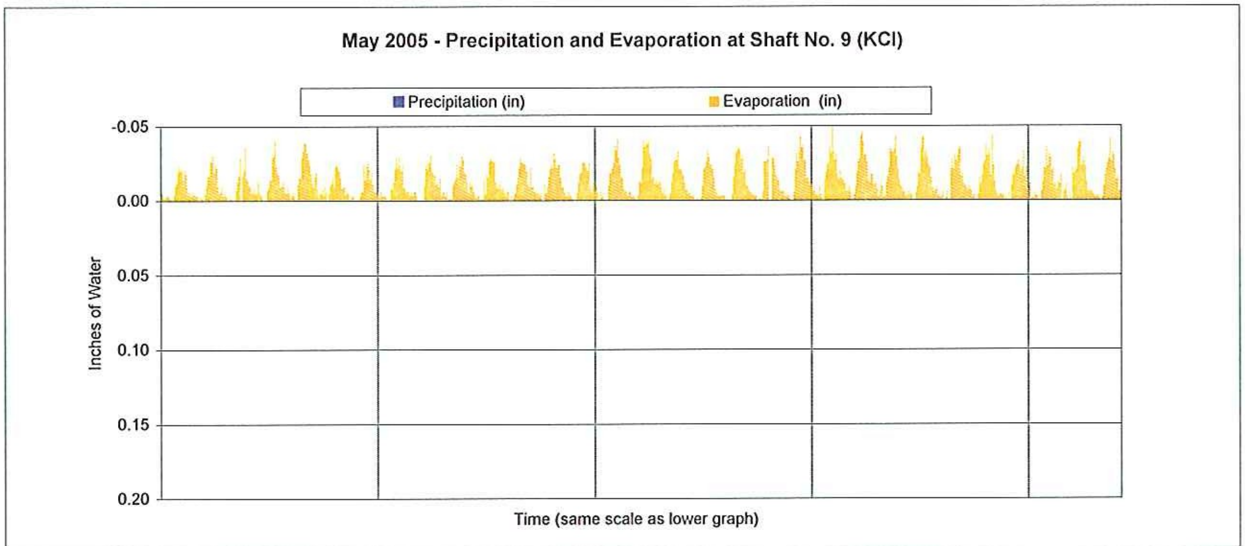

February 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 0.32"
Storm Total: 6.22"
Storm Total: 1.43"
Storm Total: 0.79"
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

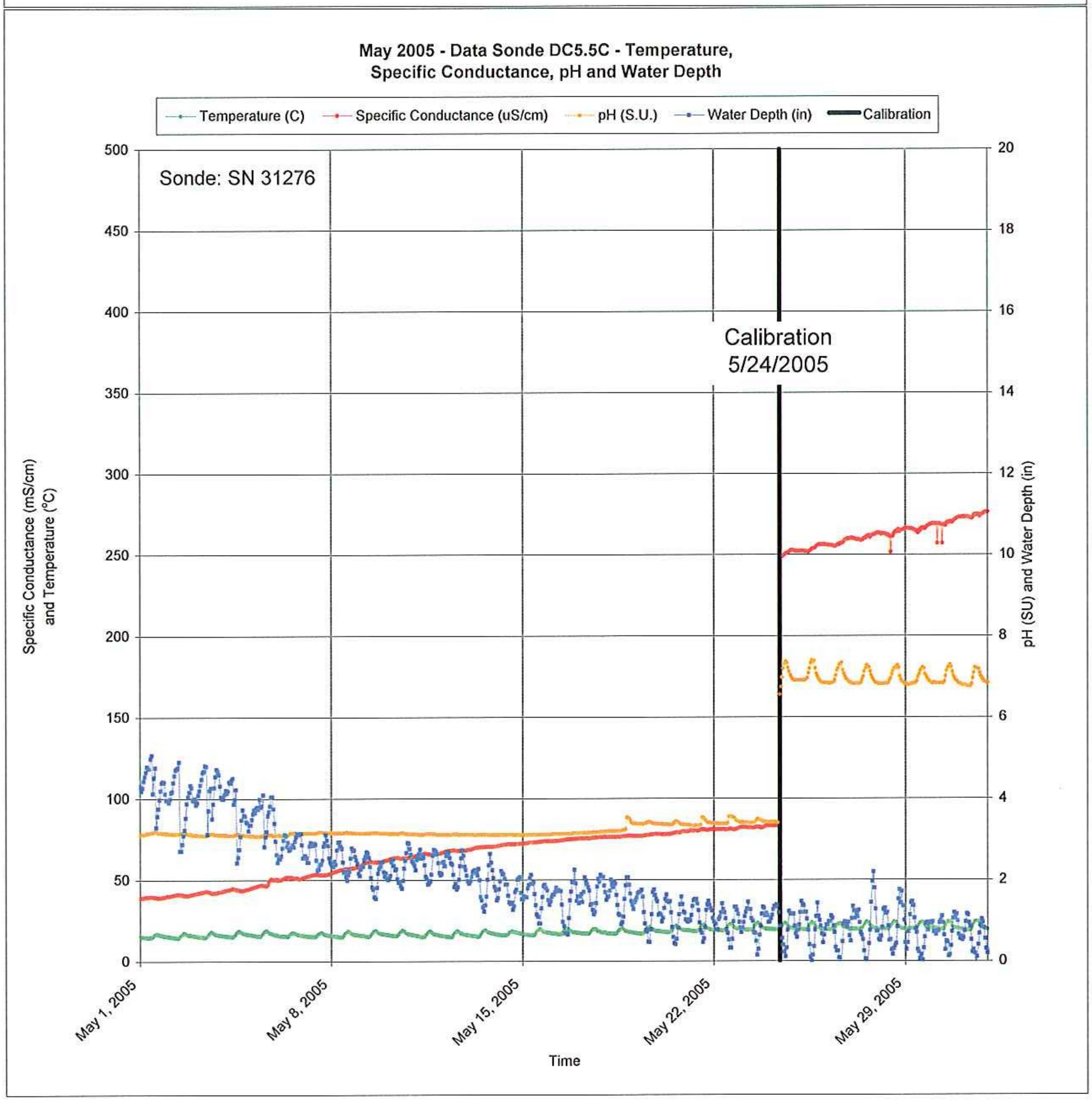

February 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Max water depth 91" on 2/12/2005 at 10:00.
Max water depth 34" on 2/19/2005 at 23:00.
Max water depth 34" on 2/22/2005 at 3:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2005
February 8, 2005
February 15, 2005
February 22, 2005
March 1, 2005
Time

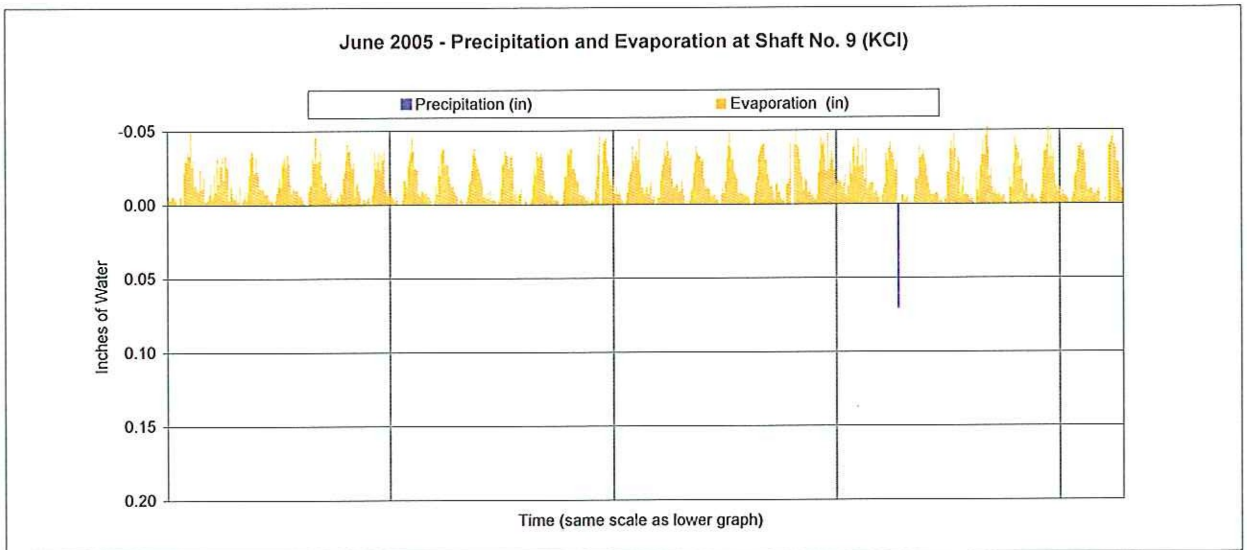

March 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Storm Total: 1.03"
(0.24 in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

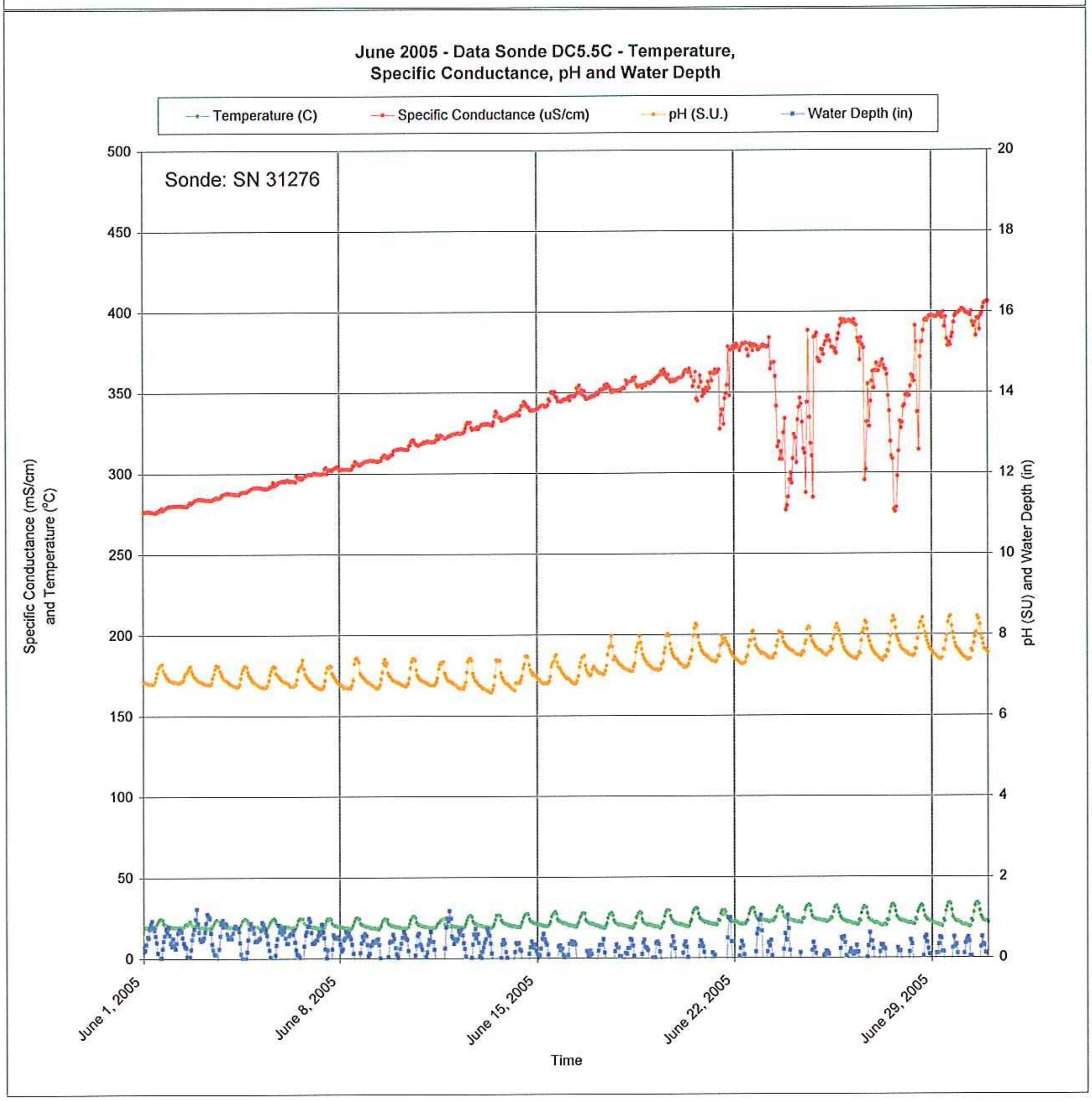

March 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Max water depth 20" on 3/5/2005 at 21:00.
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
March 1, 2005
March 8, 2005
March 15, 2005
March 22, 2005
March 29, 2005
Time

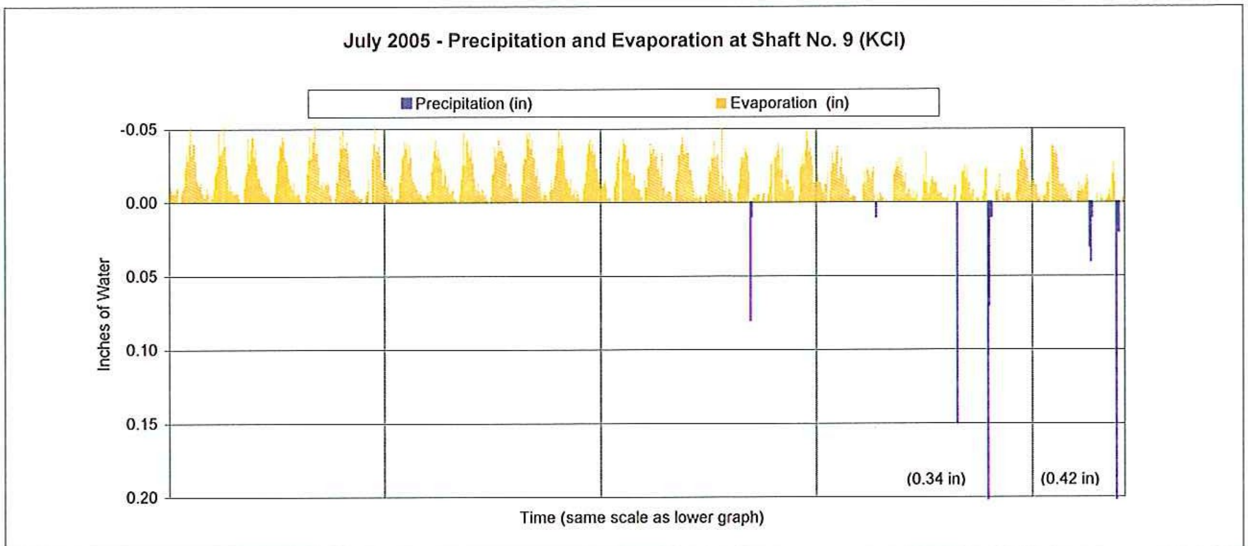

April 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)
April 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
April 1, 2005
April 8, 2005
April 15, 2005
April 22, 2005
April 29, 2005
Time

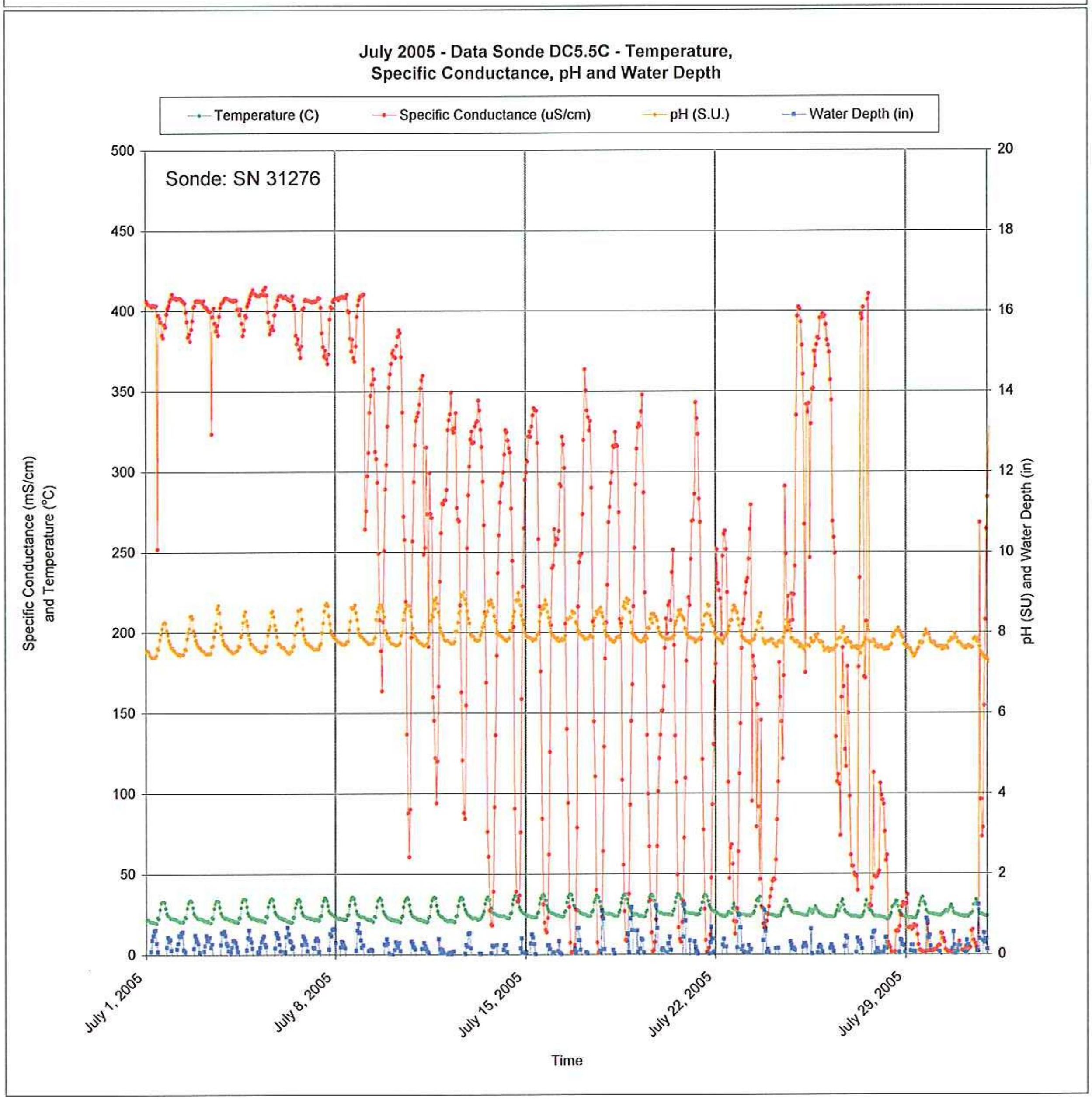

May 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

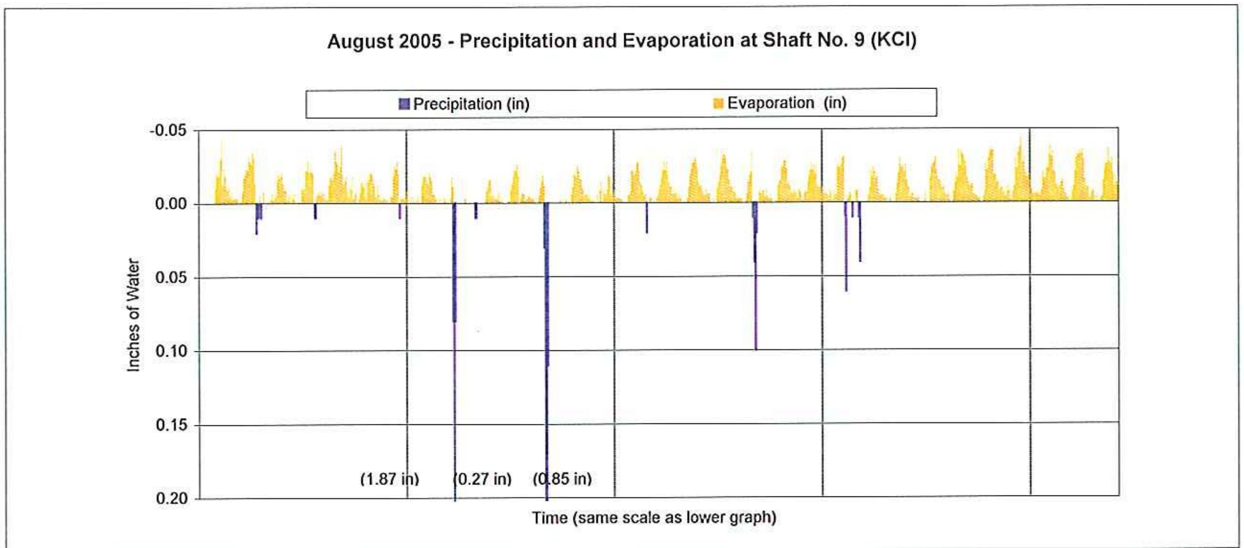

May 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Calibration
Sonde: SN 31276
Calibration 5/24/2005
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
May 1, 2005
May 8, 2005
May 15, 2005
May 22, 2005
May 29, 2005
Time

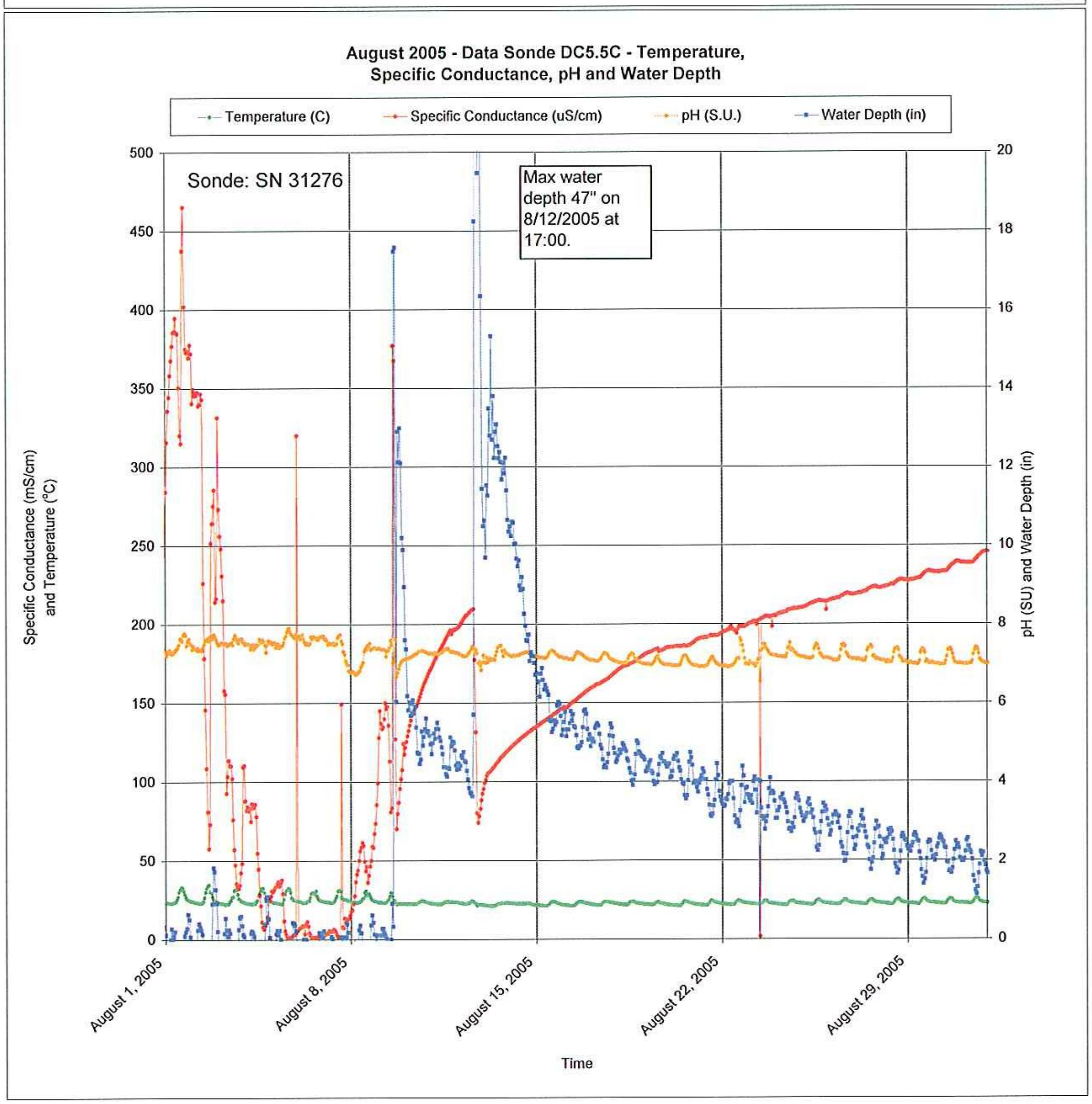

June 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

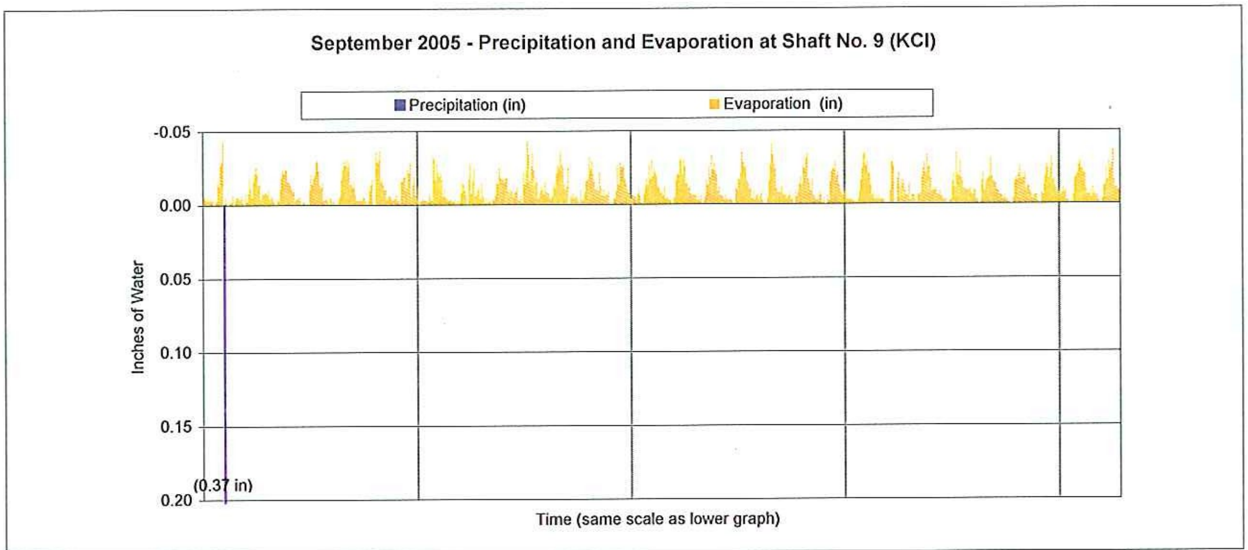

June 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
500
450
400
350
300
250
200
150
100
50
0
Specific Conductance (mS/cm) and Temperature (°C)
20
18
16
14
12
10
8
6
4
2
0
pH (SU) and Water Depth (in)
June 1, 2005
June 8, 2005
June 15, 2005
June 22, 2005
June 29, 2005
Time

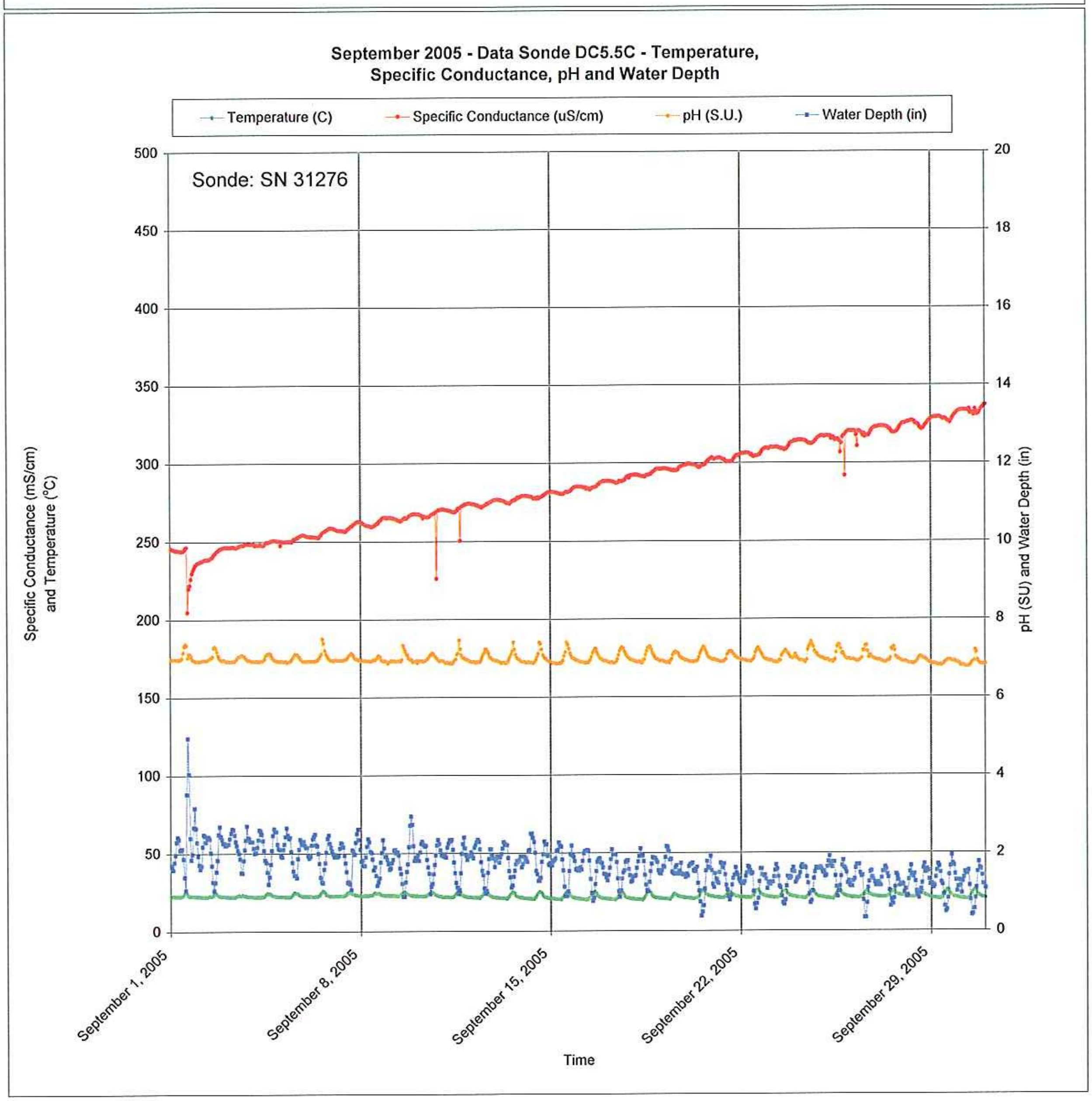

July 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.34 in)
(0.42 in)
Time (same scale as lower graph)

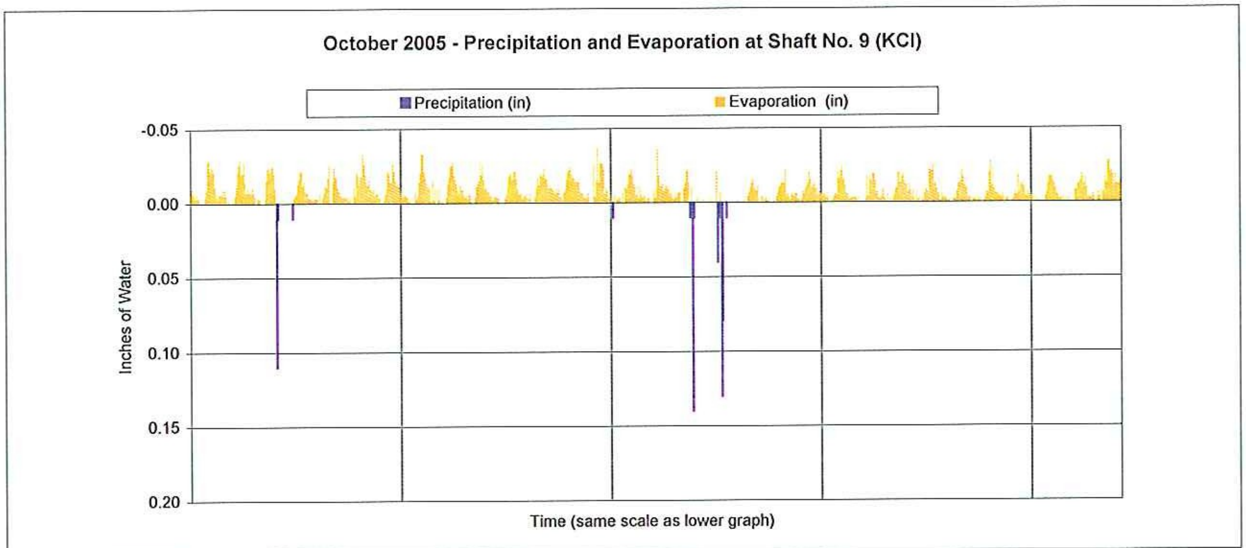

July 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
July 1, 2005
July 8, 2005
July 15, 2005
July 22, 2005
July 29, 2005
Time

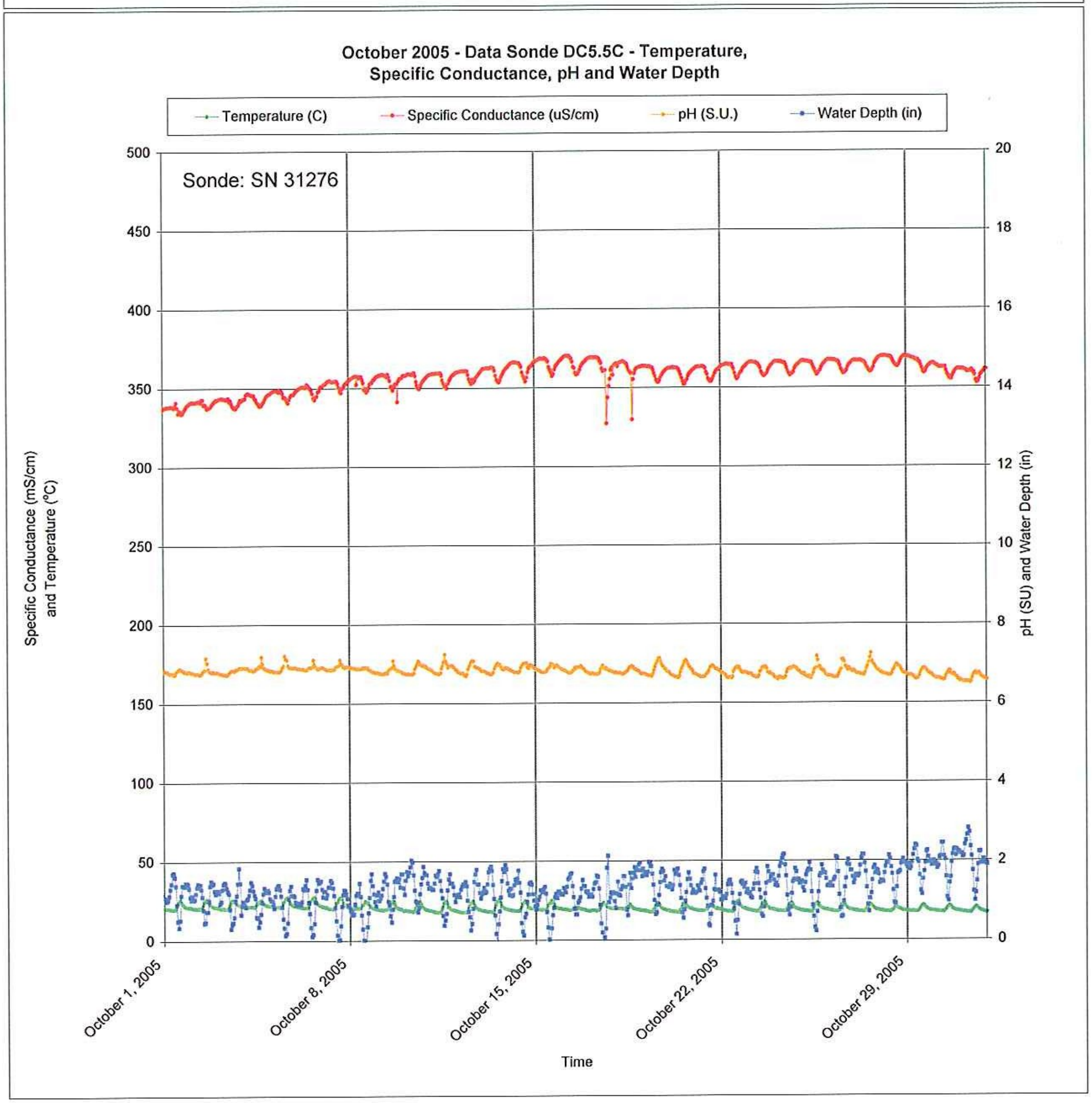

August 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(1.87 in)
(0.27 in)
(0.85 in)
Time (same scale as lower graph)

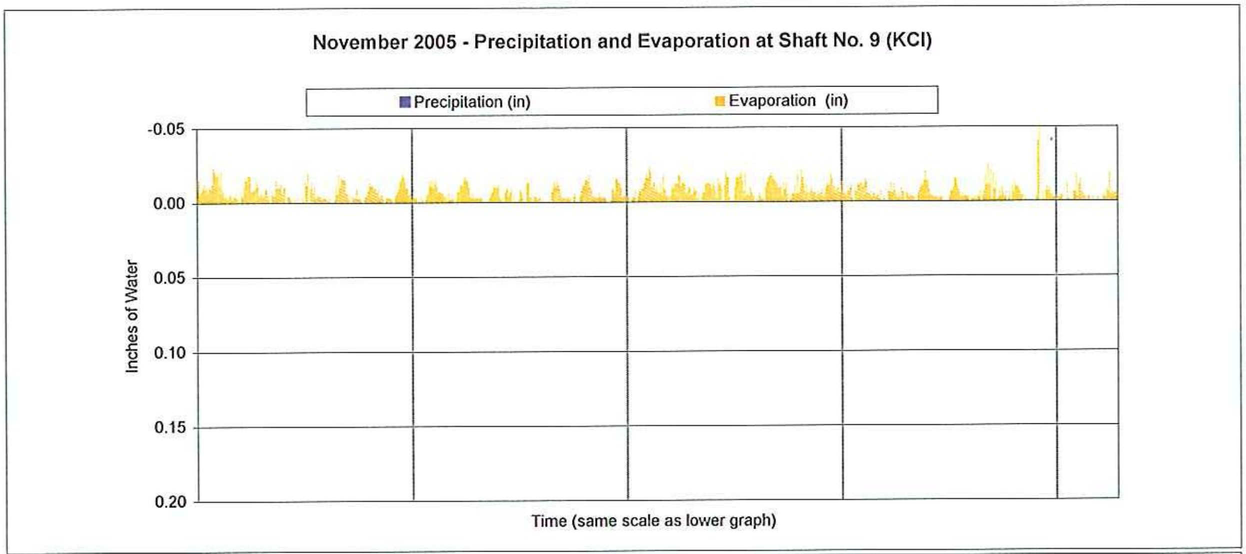

August 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Max water depth 47" on 8/12/2005 at 17:00.
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
August 1, 2005
August 8, 2005
August 15, 2005
August 22, 2005
August 29, 2005
Time

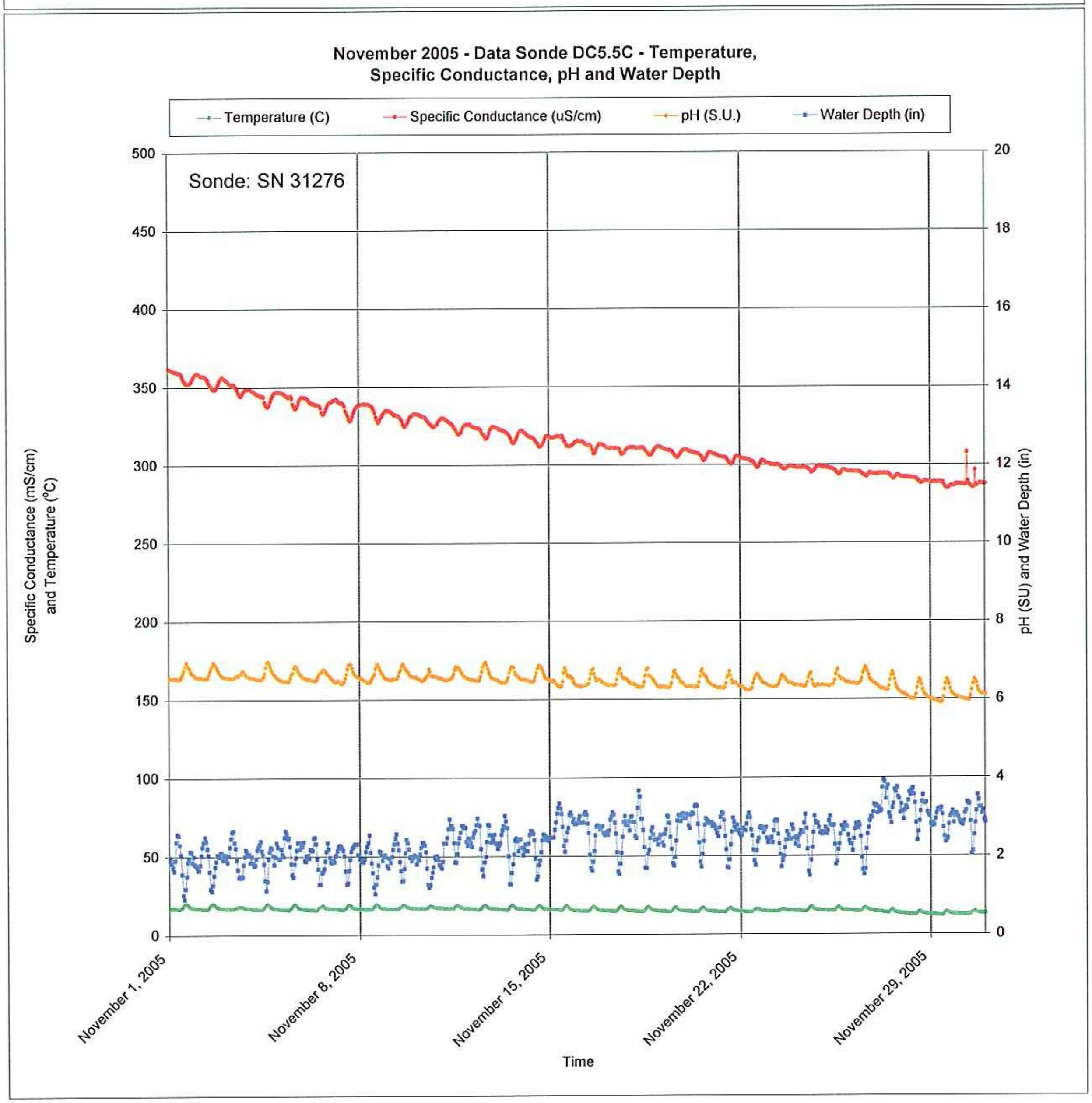

September 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
(0.37 in)
Time (same scale as lower graph)

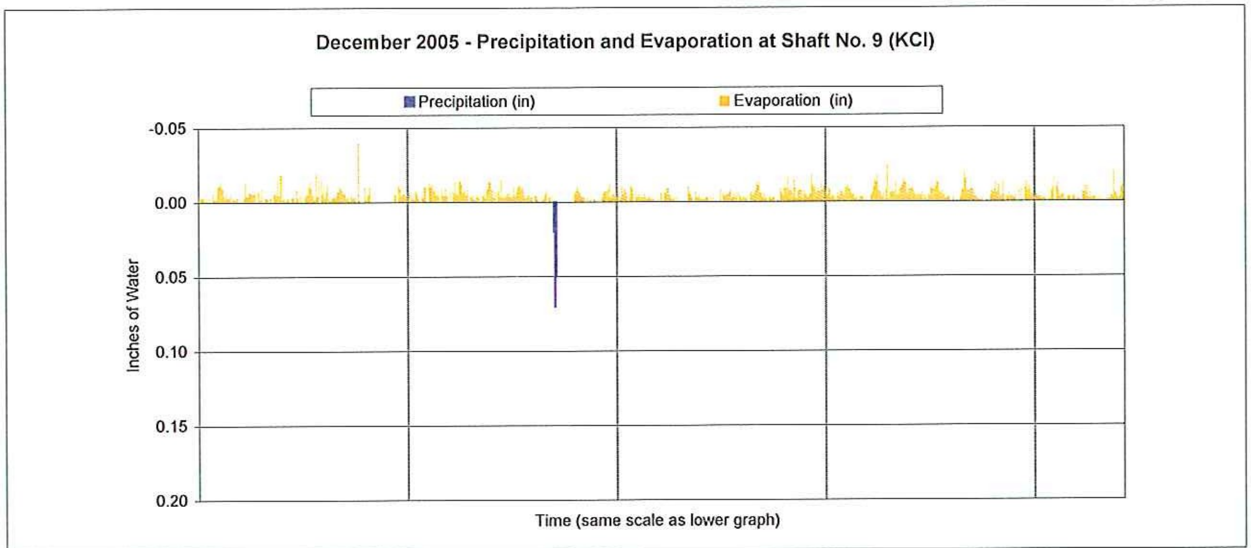

September 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
0
50
100
150
200
250
300
350
400
450
500
0
2
4
6
8
10
12
14
16
18
20
September 1, 2005
September 8, 2005
September 15, 2005
September 22, 2005
September 29, 2005
Time

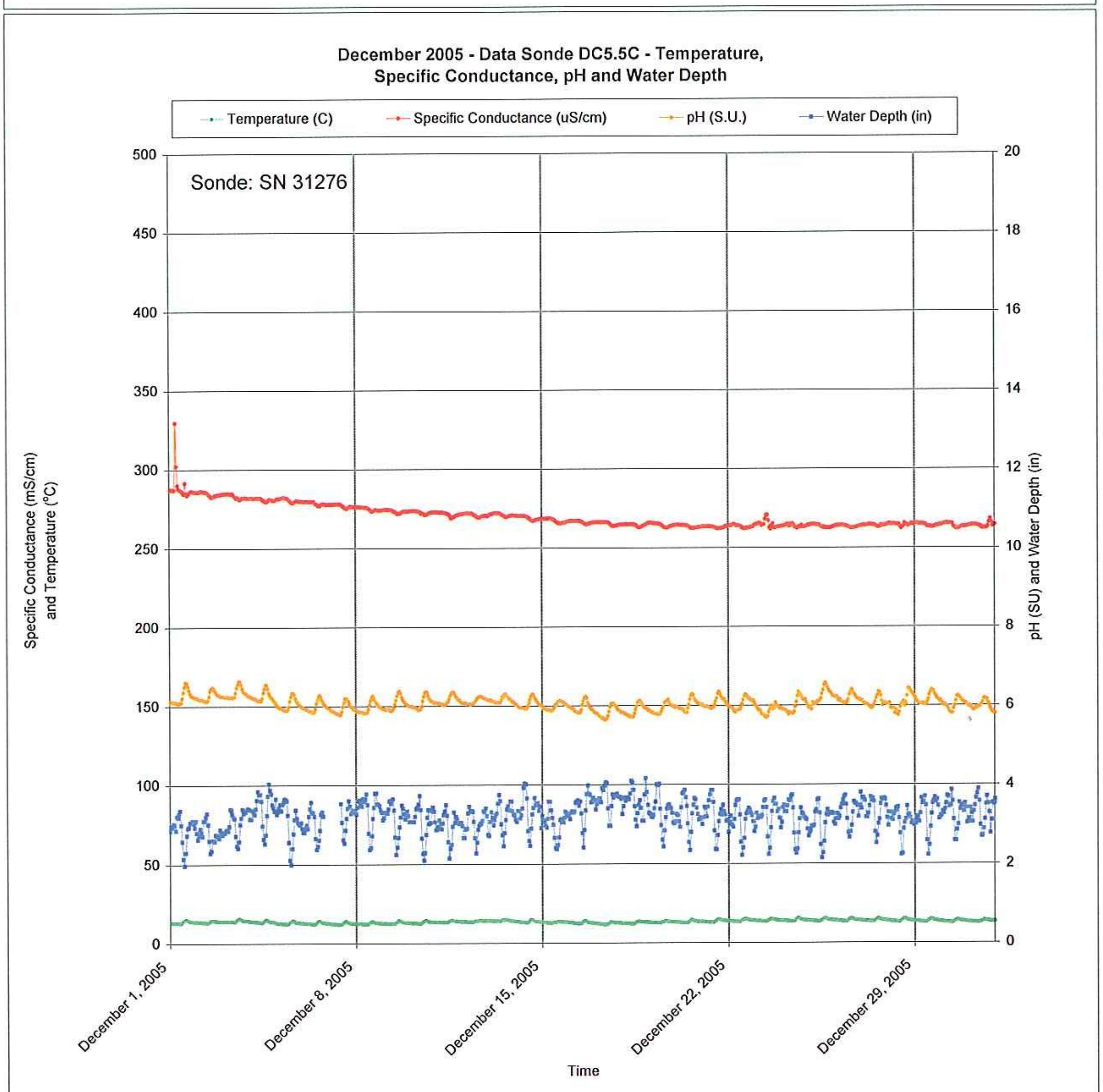

October 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)

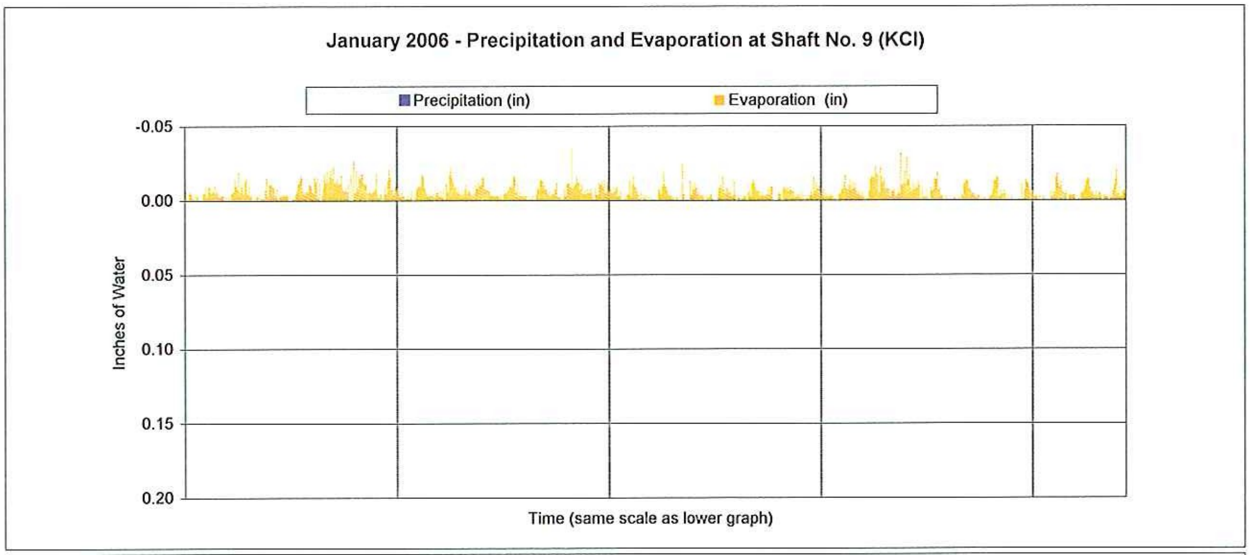

October 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
October 1, 2005
October 8, 2005
October 15, 2005
October 22, 2005
October 29, 2005
Time

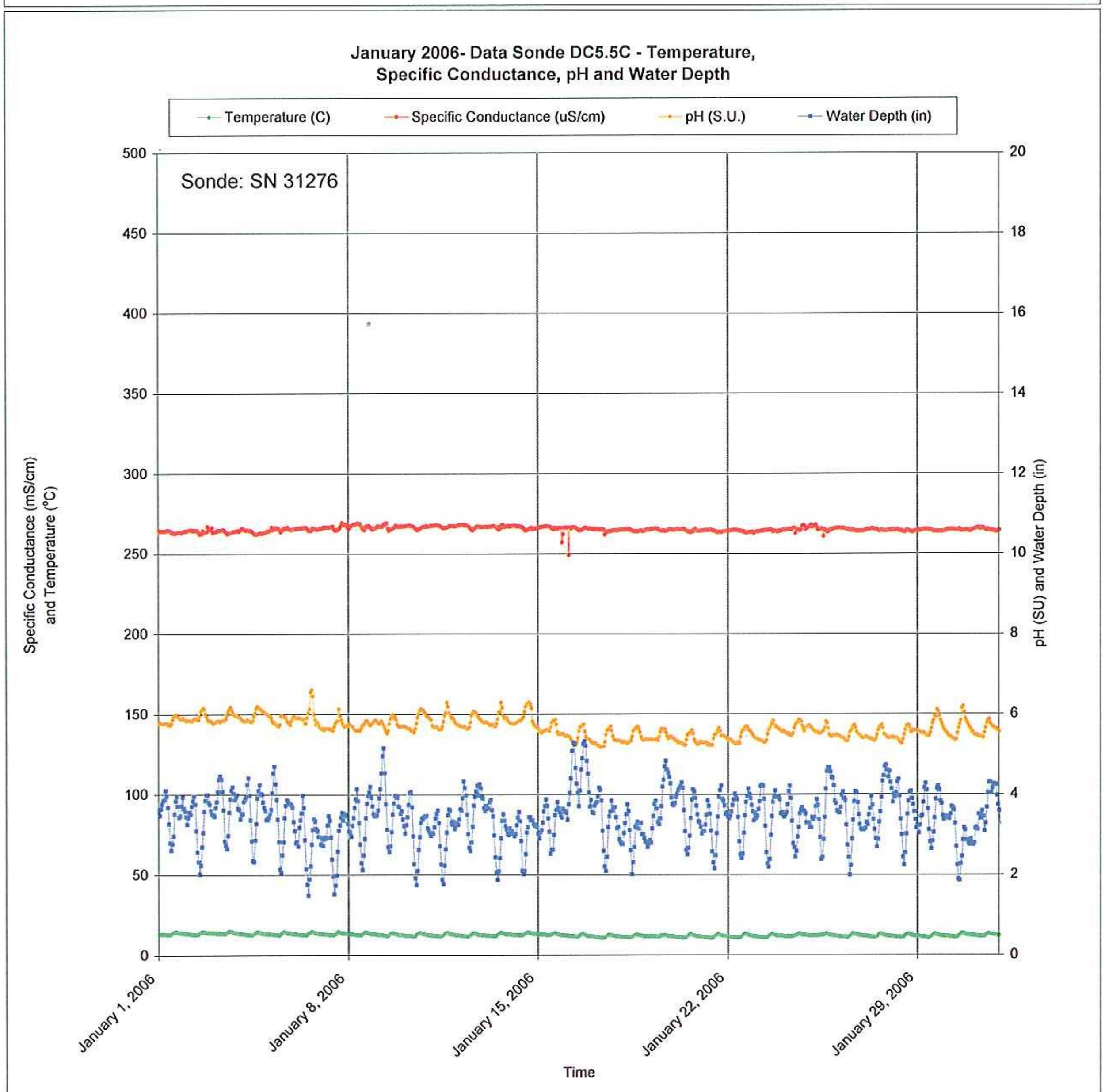

November 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

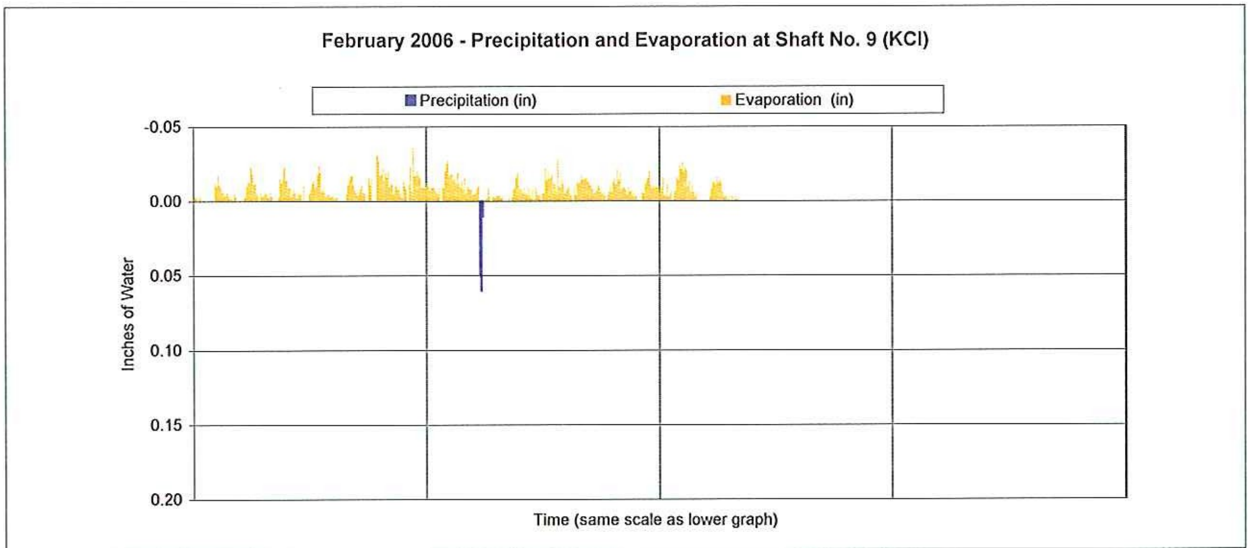

November 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
November 1, 2005
November 8, 2005
November 15, 2005
November 22, 2005
November 29, 2005
Time


December 2005 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)


December 2005 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
December 1, 2005
December 8, 2005
December 15, 2005
December 22, 2005
December 29, 2005
Time


January 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
-0.05
0.00
0.05
0.10
0.15
0.20
Inches of Water
Time (same scale as lower graph)


January 2006- Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
January 1, 2006
January 8, 2006
January 15, 2006
January 22, 2006
January 29, 2006
Time


February 2006 - Precipitation and Evaporation at Shaft No. 9 (KCl)
Precipitation (in)
Evaporation (in)
Inches of Water
-0.05
0.00
0.05
0.10
0.15
0.20
Time (same scale as lower graph)

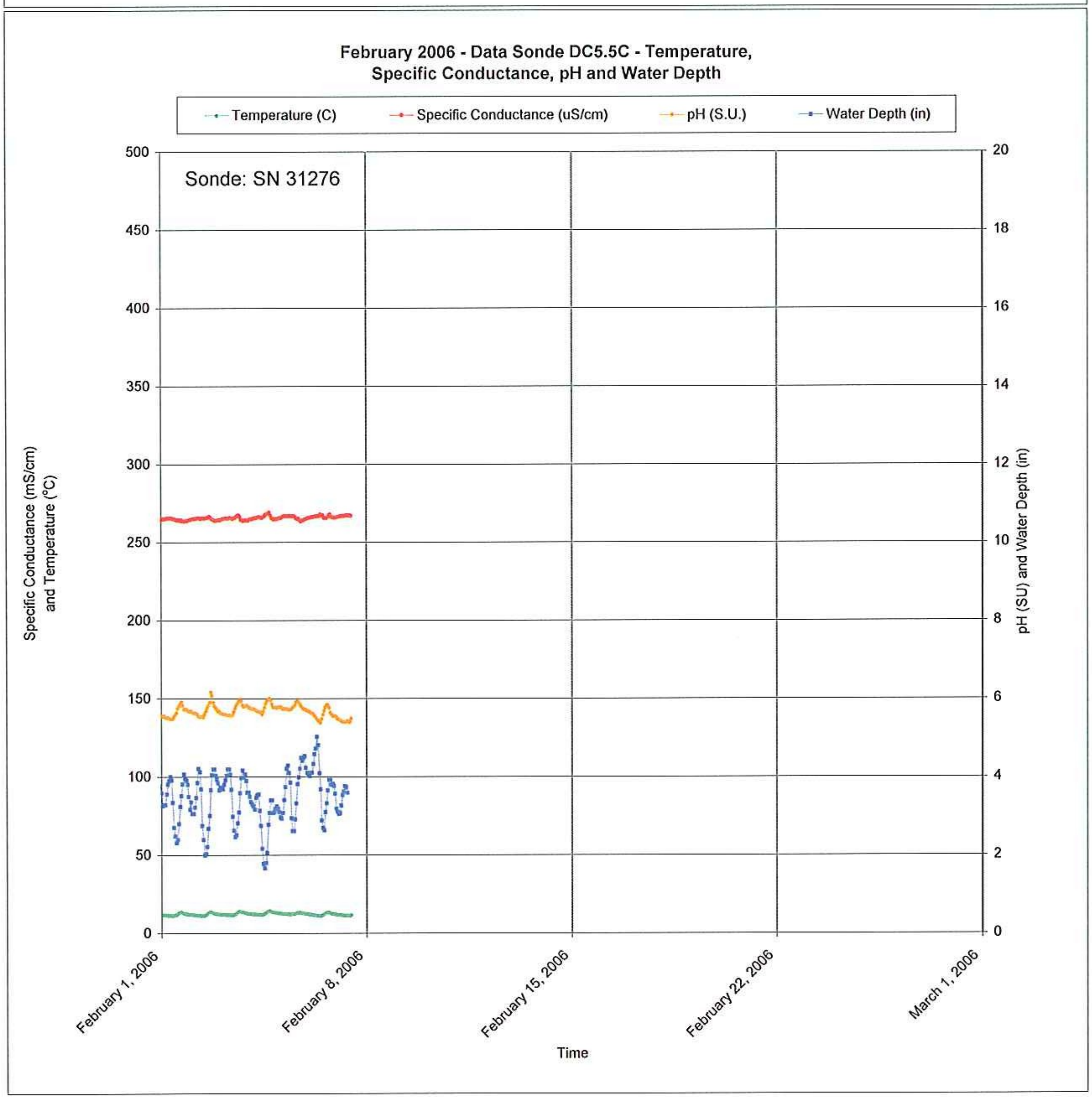

February 2006 - Data Sonde DC5.5C - Temperature, Specific Conductance, pH and Water Depth
Temperature (C)
Specific Conductance (uS/cm)
pH (S.U.)
Water Depth (in)
Sonde: SN 31276
Specific Conductance (mS/cm) and Temperature (°C)
pH (SU) and Water Depth (in)
500
450
400
350
300
250
200
150
100
50
0
20
18
16
14
12
10
8
6
4
2
0
February 1, 2006
February 8, 2006
February 15, 2006
February 22, 2006
March 1, 2006
Time

TABLE F-1
DATA SONDE SUMMARY

Location	Probe Serial Number	Start of Monitoring Period	End of Monitoring Period	Time of Background Reading	Background PSI	KC1 PSI at Time of Background	Correction Factor Applied to KC1 Readings	Water Level	Temperature	Specific Conductance	pH	Turbidity	Comments
DC5.5C	SN 31276	10/22/2003	11/10/2003	10/22/2003 12:00	13.245	12.750	0.495	X	X	X	X	---	---
	SN 31276	11/10/2003	2/25/2004	10/22/2003 12:00	13.245	12.750	0.495	X	X	X	X	---	---
	SN 31276	2/25/2004	5/20/2004	10/22/2003 12:00	13.245	12.750	0.495	X	X	X	X	---	---
	SN 31276	5/20/2004	8/23/2004	10/22/2003 12:00	13.245	12.750	0.495	X	X	X	X	---	---
	SN 31276	8/23/2004	11/18/2004	10/22/2003 12:00	13.245	12.750	0.495	X	X	---	X	---	Conductivity probe does not collect data.
	SN 31276	11/18/2004	5/24/2005	11/18/2004 9:00	13.332	12.755	0.577	X	X	X	X	---	---
	SN 31276	5/24/2005	2/7/2006	11/18/2004 9:00	13.332	12.755	0.577	X	X	X	X	---	---
DC7.1C	SN 31263	9/3/2003	11/4/2003	9/3/2003 10:00	12.371	12.706	-0.335	---	X	X	X	---	---
	SN 31263	11/4/2003	2/18/2004	9/3/2003 10:00	12.371	12.706	-0.335	---	X	X	X	---	---
	SN 31263	2/18/2004	5/5/2004	9/3/2003 10:00	12.371	12.706	-0.335	---	X	X	X	---	---
	SN 31258	5/5/2004	8/19/2004	8/19/2004 9:00	13.029	12.726	0.303	X	X	X	X	---	---
	SN 31258	8/19/2004	11/12/2004	8/19/2004 9:00	13.029	12.726	0.303	---	---	---	---	---	---
	SN 31258	11/12/2004	5/17/2005	11/12/2004 11:00	12.922	12.647	0.275	X	X	X	X	---	---
	SN 31258	5/17/2005	9/7/2005	11/12/2004 11:00	12.922	12.647	0.275	X	X	X	X	---	---
	SN 31258	9/7/2005	2/1/2006	11/12/2004 11:00	12.922	12.647	0.275	X	X	X	X	---	---
Lower Transducer	SN 11836	7/24/2003	2/18/2004	7/24/2003 11:00	13.040	12.711	0.329	X	---	---	---	---	---
	SN 11836	2/18/2004	8/19/2004	7/24/2003 11:00	13.040	12.711	0.329	X	---	---	---	---	---
	SN 11836	8/19/2004	11/12/2004	8/19/2004 9:00	12.842	12.726	0.116	X	---	---	---	---	---
	SN 11836	11/12/2004	5/17/2005	8/19/2004 9:00	12.842	12.726	0.116	X	---	---	---	---	---
	SN 11836	5/17/2005	9/7/2005	8/19/2004 9:00	12.842	12.726	0.116	X	---	---	---	---	---
	SN 11836	9/7/2005	2/1/2006	8/19/2004 9:00	12.842	12.726	0.116	X	---	---	---	---	---
Upper Transducer	SN 11782	7/24/2003	2/18/2004	7/24/2003 11:00	13.052	12.711	0.341	X	---	---	---	---	---
	SN 11782	2/18/2004	8/19/2004	7/24/2003 11:00	13.052	12.711	0.341	X	---	---	---	---	---
	SN 11782	8/19/2004	11/12/2004	8/19/2004 9:00	13.003	12.726	0.277	X	---	---	---	---	---
	SN 11782	11/12/2004	5/17/2005	11/12/2004 11:00	12.911	12.647	0.264	X	---	---	---	---	---
	SN 11782	5/17/2005	9/7/2005	11/12/2004 11:00	12.911	12.647	0.264	X	---	---	---	---	---
	SN 11782	9/7/2005	2/1/2006	11/12/2004 11:00	12.911	12.647	0.264	X	---	---	---	---	---
DC8.2W	SN 30888	7/17/2003	8/21/2003	7/16/2003 10:00	12.971	12.701	0.270	X	X	X	X	---	---
	SN 30888	8/21/2003	11/12/2003	7/16/2003 10:00	12.971	12.701	0.270	X	X	X	X	---	---
	SN 31403	11/12/2003	2/24/2004	11/12/2003 12:00	12.979	12.701	0.278	P	P	P	P	---	Data sonde malfunctions mid January.
	SN 31403	2/24/2004	5/21/2004	5/21/2004 10:00	12.963	12.701	0.262	X	X	X	X	---	Transducer level manually adjusted. Correction factor applied to all WLs.
	SN 31403	5/21/2004	6/24/2004	5/21/2004 10:00	12.963	12.701	0.262	X	X	X	X	---	---
	SN 31263	6/24/2004	9/14/2004	---	---	---	---	P	P	P	P	---	Installed a vented transducer. No correction factor necessary. Data sonde malfunctions in late August.
	SN 31263	9/14/2004	11/16/2004	---	---	---	---	X	X	X	X	---	Flume starts leaking.
	SN 31263	11/16/2004	2/25/2005	---	---	---	---	X	X	X	X	---	Flume leaking.
DC8.8C	SN 30903	7/24/2003	8/21/2003	---	---	---	0.230*	X	X	X	X	X	---
	SN 30903	8/21/2003	11/12/2003	---	---	---	0.230*	P	P	P	P	P	Data sonde malfunctions mid September.
	SN 31404	11/12/2003	2/17/2004	11/12/2003 10:00	12.567	12.716	-0.149	X	X	X	X	---	---
	SN 31404	2/17/2004	2/24/2004	11/12/2003 10:00	12.567	12.716	-0.149	X	X	X	X	---	---
	SN 31268	2/24/2004	5/21/2004	5/21/2004 10:00	12.927	12.677	0.250	X	X	X	X	---	---
	SN 31404	5/21/2004	8/25/2004	8/16/2004 8:00	12.97	12.736	0.234	P	P	P	P	P	Turbidity probe malfunctions beginning of June. Data sonde malfunctions mid July.
	SN 31404	8/25/2004	9/8/2004	8/16/2004 8:00	12.97	12.736	0.234	X	X	X	X	---	---
	SN 31268	9/8/2004	11/16/2004	11/16/2004 10:00	13.00	12.755	0.245	X	X	X	X	---	---
	SN 31268	11/16/2004	5/11/2005	11/16/2004 10:00	13.00	12.755	0.245	P	P	P	P	---	Data sonde malfunctions end of April.
	SN 31404	5/11/2005	8/16/2005	11/16/2004 10:00	13.00	12.755	0.245	X	X	X	X	X	---
	SN 31404	8/16/2005	2/1/2006	11/16/2004 10:00	13.00	12.755	0.245	X	X	X	X	P	Turbidity probe malfunctions beginning of October.
DC10.9C	SN 31271	9/18/2003	11/5/2003	11/5/2003 11:00	12.858	12.696	0.162	X	X	X	---	---	---
	SN 31271	11/5/2003	2/11/2004	11/5/2003 11:00	12.858	12.696	0.162	X	X	X	---	---	---
	SN 31271	2/11/2004	5/27/2004	11/5/2003 11:00	12.858	12.696	0.162	X	X	X	---	---	---
	SN 31271	5/27/2004	8/11/2004	5/27/2004 9:00	12.856	12.696	0.160	X	X	X	---	---	---
	SN 31271	8/11/2004	11/5/2004	8/11/2004 8:00	12.906	12.711	0.195	X	X	X	---	---	---
	SN 31271	11/5/2004	5/9/2005	8/11/2004 8:00	12.906	12.711	0.195	X	X	X	---	---	---
	SN 31271	5/9/2005	9/30/2005	5/11/2005 10:00	12.82	12.637	0.183	P	P	P	---	---	Data sonde malfunctions early August.
	SN 31271	9/30/2005	1/26/2006	5/11/2005 10:00	12.82	12.637	0.183	X	X	X	---	---	---
DC13.5C	SN 30906	5/8/2003	8/27/2003	8/27/2003 12:00	12.822	12.716	0.106	X	X	X	---	---	---
	SN 30906	8/27/2003	9/18/2003	8/27/2003 12:00	12.822	12.716	0.106	X	X	X	---	---	---
	SN 30906	9/18/2003	11/5/2003	8/27/2003 12:00	12.822	12.716	0.106	---	X	X	---	---	---
	SN 31258	11/5/2003	2/11/2004	11/5/2003 15:00	12.749	12.672	0.077	---	X	X	---	---	---
	SN 31258	2/11/2004	3/24/2004	11/5/2003 15:00	12.749	12.672	0.077	---	X	X	---	---	---
	SN 31391	3/24/2004	5/26/2004	5/18/2006 8:00	12.785	12.701	0.084	X	X	X	---	---	---
	SN 31391	5/26/2004	8/12/2004	5/18/2006 8:00	12.785	12.701	0.084	X	X	X	---	---	---
	SN 31391	8/12/2004	11/5/2004	5/18/2006 8:00	12.785	12.701	0.084	X	X	X	---	---	---
	SN 31391	11/5/2004	5/9/2005	5/18/2006 8:00	12.785	12.701	0.084	X	X	X	---	---	---
	SN 31391	5/9/2005	8/10/2005	5/18/2006 8:00	12.785	12.701	0.084	P	P	P	---	---	Data sonde malfunctions early August.
	SN 31391	8/10/2005	1/26/2006	5/18/2006 8:00	12.785	12.701	0.084	X	X	X	---	---	---

Note:
* Source of background reading unknown.