Arizona Department of Transportation
Office of Environmental Services
206 South 17th Avenue, MD 102A
Phoenix, Arizona 85007

Stormwater Management Plan
2010 Annual Report

MS4 Permit No. AZS000018-2008

TABLES

APPENDICES

ACRONYMNS and DEFINITIONS

A&Wedw – Aquatic and Wildlife (effluent-dependent water)

A&Wc – Aquatic and Wildlife (cold water)

A&Ww – Aquatic and Wildlife (warm water)

AASHTO - American Association of State Highway Transportation Officials

ADEQ – Arizona Department of Environmental Quality

ADOT – Arizona Department of Transportation

AgL – Agricultural Livestock Watering

AHLI – Adopt-a-Highway Litter Initiative

A.R.S. – Arizona Revised Statute

AZPDES – Arizona Pollutant Discharge Elimination System – The State program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of CWA.

BLM – Bureau of Land Management

BMP – Best Management Practice - Permit condition used in place of or in conjunction with effluent limitations to prevent or control the discharge of pollutants. BMPs may include, but are not limited to, treatment requirements, operating procedures, or practices to control plant/facility site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may also include schedule of activities, prohibition of practices, maintenance procedure, or other management practice.

BOD – Biological Oxygen Demand

COD – Chemical Oxygen Demand

CWA – Clean Water Act - The Clean Water Act is an act passed by the U.S. Congress to control water pollution. It was formerly referred to as the Federal Water Pollution Control Act of 1972 or Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), 33 U.S.C. 1251 et. seq., as amended by: Public Law 96-483; Public Law 97-117; Public Laws 95-217, 97-117, 97-440, and 100-04.

DEC – District Environmental Coordinator

DMR – Discharge Monitoring Report - The form used (including any subsequent additions, revisions, or modifications) to report self-monitoring results by AZPDES permittees. DMRs must be used by approved states as well as by EPA.

EPA – U.S. Environmental Protection Agency

ERP – Enforcement Response Plan

FBC – Full Body Contact

FC – Fish Consumption

FIS – Features Inventories System

IDDE – Illicit Discharge Detection and Elimination

MS4 – Municipal Separate Storm Sewer System - A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a state, city, town or other public body, that is designed or used for collecting or conveying stormwater, which is not a combined sewer, and which is not part of a publicly owned treatment works. Commonly referred to as an "MS4" [40 CFR 122.26(b)(8)].

NASPA – Northern Arizona Stormwater Pollution Alliance

NEPA –National Environmental Policy Act

NOV – Notice of Violation

NTU – Nephelometric Turbidity Units

OES – Office of Environmental Services

PAG – Pima Association of Governments

PBC – Partial Body Contact

Permittee – means the Arizona Department of Transportation.

QAM – Quality Assurance Manual

SCOE - Standing Committee on the Environment

SMP – Slope Management Program

SR – State Route

SSC – Suspended Sediment Characteristics

SSWMP – Statewide Stormwater Management Plan – A comprehensive plan for implementation of AZPDES permit requirements.

STORM – STormwater Outreach for Regional Municipalities

Stormwater – Stormwater runoff, snowmelt runoff, and surface runoff and drainage [40 CFR 122.26(b)(13)].

SWAT – Stormwater Action Team

TMDL – Total Maximum Daily Load

TSS – Total Suspended Solids

TDS – Total Dissolved Solids

TKN – Total Kjeldahl Nitrogen

SWPPP – Stormwater Pollution Prevention Plan

SWQS – Surface Water Quality Standard

Waters of the United States – All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide. Waters of the United States include but are not limited to all interstate waters and intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. [See 40 CFR 122.2 for the complete definition.]

EXECUTIVE SUMMARY

The Arizona Department of Transportation (ADOT) is submitting this 2010 Statewide Stormwater Management Program (SSWMP) Annual Report describing activities and programs implemented from July 1, 2009 through June 30, 2010. During this time period ADOT operated under the Arizona Pollutant Discharge Elimination System (AZPDES) Permit No. AZS000018-2008 (Permit). This is the second Annual Report under ADOT's stormwater permit which expires September 18, 2013. The Statewide Permit authorizes ADOT to discharge stormwater, and other discharges as specified, Statewide (except for Indian Country) to Waters of the United States in Arizona in accordance with its terms and conditions. Specifically, the Permit covers:

- Activities associated with the Municipal Separate Storm Sewer System (MS4) operated by ADOT
- Activities associated with construction from the commencement of construction until final stabilization initiated and controlled by ADOT
- Activities associated with industrial and maintenance facilities owned and operated by ADOT

The Annual Report is divided into the following twelve categories: (1) General Information, (2) Annual Report Certification, (3) Narrative Summary of the SSWMP activities, (4) Numeric Summary of SSWMP Activities, (5) Evaluation of the SSWMP, (6) SSWMP Modifications, (7) MS4 Monitoring Location Information, (8) Storm Event Records, (9) Summary of Monitoring Data, (10) Assessment of Monitoring Data, (11) Estimate of Pollutant Loading, and (12) Annual Expenditures. This Annual Report is used by ADOT to assess the performance of its stormwater management program and establish long-term assessment strategies.

1 GENERAL INFORMATION

Permittee Name: Arizona Department of Transportation

Permit Number: AZS000018-2008

Reporting Period: July 1, 2009 - June 30, 2010

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2 ANNUAL REPORT CERTIFICATION

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Todd G. Williams — *Todd G. Williams, M.Sc., Director, OES*

12/27/10 — *Date*

3 NARRATIVE SUMMARY OF SSWMP ACTIVITIES

Permit Section 9.1.2(c)*: Provide a summary of the status of the SSWMP each year, including a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices.*

ADOT updated its SSWMP in March, 2010 and submitted it to the Arizona Department of Environmental Quality (ADEQ). The SSWMP outlines how ADOT will manage its stormwater discharges throughout the State. The SSWMP includes the following components:

- Description of the best management practices (BMPs) selected, implemented, maintained, and updated to minimize the discharges of pollutants that may contribute to an exceedence of any surface water quality standard
- List of narrative and/or numeric measurable goals for each BMP
- Timeframe by which ADOT will achieve each measurable goal
- Title(s) of the person(s) responsible for implementing and coordinating each measure

As required by Section 9.1.2(c) of the Permit, ADOT has provided a narrative summary of SSWMP activities in this Annual Report. This summary is provided in Appendix A and includes a brief description of the implementation and progress of individual BMPs. The summary indentifies each BMP, its location within the updated SSWMP, and Permit reference if applicable.

3.1 ADOT Technical Documents

Permit Requirement (Appendix B, Part 3): Include a short statement for each of the following documents indicating if a review was completed. Describe any major updates to each document.

ADOT reviews and updates its technical stormwater documents as needed. A status summary of each technical document is provided:

- *Erosion and Pollution Control Manual* - This manual is currently being updated in accordance with Permit Section 3.2.2.1(c). Updates included revision of BMP detail drawings and the SWPPP index sheets. A final update to this manual is estimated for completion in February 2011.
- *Maintenance and Facilities Best Management Practices Manual* - This manual was updated in September 2010 by ADOT in accordance with Permit Section 3.2.3.1(c). Updates include a description of the selection criteria, design, installation and maintenance of effective BMPs to minimize pollutants in ADOT's non-stormwater discharges.
- *Stormwater Monitoring Guidance Manual for MS4 Activities* - This manual had no updates in the last reporting year.
- *Stormwater Monitoring Guidance Manual for Construction Activities* - This manual had minor updates within the past reporting year in accordance with Permit Section 8.4.2. Updates included minor changes to the methods and procedures to properly collect and analyze stormwater samples at construction sites.

- *Stormwater Monitoring Guidance Manual for Industrial Activities* - This manual had no updates in the last reporting year.
- *Post-Construction Stormwater Control BMP Manual* - This manual had no updates in the last reporting year.
- *Quality Assurance Manual (QAM)* - This manual had no updates in the last reporting year.
- *Enforcement Response Plan (ERP)* - The ERP was updated in June 2010. Updates included clarification of the procedures necessary to enforce the requirements of the Statewide Stormwater Permit.

3.2 Outfall Inspection and Tracking

Permit Section 3.2.3.2(e): ADOT shall document that a system to track and record the findings of outfall inspections, including the conditions of outfalls, potential sources of pollutants, and maintenance needs has been implemented and is being maintained.

ADOT has developed a system to track and record the condition of major outfall. The tracking system consists of an excel spreadsheet maintained by ADOT's Office of Environmental Services (OES) that includes major outfalls as identified in ADOT's *Phase I and Phase II Stormwater System Maps* completed September, 2005 (Appendix B). Categories tracked and recorded for the major outfall inspections include:

- Outfall name
- Date of inspection
- Inspector name
- Receiving water
- Outfall type (pipe, channel, tunnel, culvert)
- Condition of outfall
- Maintenance needs
- Dry weather flows
- Potential sources of pollutants
- Follow up actions required (if any)

ADOT has also initiated a pilot program within the Kingman District to track and record the condition of its stormwater drainage features in the Lake Havasu area. This pilot program is being performed in conjunction with ADOT's development of a Features Inventories System (FIS). The FIS is a geographic information system capable of tracking and maintaining an inventory of ADOT's highway features to include stormwater and other drainage features. The FIS allows for attribute data to be stored and tracked for each feature identified and will be a useful tool in assisting with outfall inspections. It is ADOT's intent to eventually use the FIS throughout the State to track and maintain stormwater features. However, current budget issues have postponed full implementation of the FIS.

3.3 Public Access to Stormwater Documents

Permit Section 3.2.2.3(a): ADOT shall summarize the status of public access to stormwater documents.

ADOT has maintained its online Stormwater Library for use by its employees and the general public during the reporting period. The Stormwater Library is a virtual library that can be accessed via the internet at the following location:

http://www.azdot.gov/Inside_ADOT/OES/Water_Quality/Stormwater/Index.asp.

This library houses documents required by the Permit. Anyone without internet access can also view available documents by contacting OES at (602) 712-8353. The OES Water Quality Group is currently unable to track the number of hits annually to the virtual library. ADOT is in the process of updating the webpage to include software that will track the number of visits per reporting year. However, current budget issues have postponed purchase and install of such tracking software. Documents maintained in the Stormwater Library include:

- Statewide Stormwater Management Plan
- ADOT Statewide Stormwater Permit Application
- Construction SWPPP Template
- Encroachment Documents
- Interactive Maps
- Outstanding, Impaired, and Not Attaining Waters Maps by County
- Phase I & Phase II Stormwater System Maps
- Erosion and Pollution Control Manual/BMP Detail Drawings
- Maintenance and Facilities Best Management Practices Manual
- Post-Construction Best Management Practices Manual
- Stormwater Monitoring Guidance Manual for Construction Activities
- Stormwater Monitoring Guidance Manual for MS4 Activities
- Stormwater Monitoring Guidance Manual for Industrial Activities
- MS4 Permit Annual Reports

3.4 Illicit Discharges

Permit Section 3.2.3.4(d): ADOT shall summarize the status of implementation procedures to track actions taken on illicit discharges and illegal dumping. Develop and implement a procedure to track the action taken on identified illicit discharges and illegal dumping.

ADOT has developed the following enforcement provisions for tracking illicit discharges:

1. *Written Warning* - If an inspection of the drainage system identifies an illegal connection/discharge to the ADOT system, ADOT will issue a "Notice of Illegal Discharge and Demand for Corrective Action" letter to the property owner where an illegal connection/discharge is discovered. The letter will request that the connection/discharge be ceased or removed within 30 days. A follow up inspection will be performed to ensure compliance. A *Notice of Illegal Discharge or Connection* letter is included in Appendix C.

2. *Removal of Connection/Discharge* - ADOT may remove the illegal connection/discharge if it has not been corrected within 30 days. If ADOT removes the illegal

connection/discharge, the responsible party is subject to an action for damages by the state brought by the attorney general or the county attorney of the county in which the act is committed on direction of the attorney general, pursuant to Arizona Revised Statute (A.R.S.) §28-7053 Misuse of Public Highway.

3. *Civil Action* - If the illegal connection/discharge is not corrected within 30 days, ADOT may forward this matter to the Arizona Office of the Attorney General so that a lawsuit may be filed.

4. *Other Enforcement Actions* – Because ADOT is not a typical MS4, such as a city or county, with its own enforcement branch such as police department or sheriff. Without its own enforcement branch, ADOT relies on other jurisdictions for enforcement assistance. ADOT may request the assistance of other government entities to assist with enforcement assistance to include other MS4s, ADEQ and/or the U.S. Environmental Protection Agency (EPA).

Enforcement actions are tracked initially by the inspector/District Environmental Coordinator (DEC) that identifies an illicit discharge. The discharge is documented and includes the source, date/time, photo points, contact person (if any), description of the nature of the non-compliance or illicit discharge, and actions taken. This information is then forwarded to the OES and the action tracked. The OES coordinates/tracks enforcement action or request the assistance of the Attorney General's office.

3.4.1 Illicit Discharges Eliminated

Permit Section 3.2.3.4(b)(ii): ADOT shall report the number of illicit discharges eliminated each year in the Annual Report

ADOT was able to eliminate the one illicit discharge to its drainage system during the past reporting year. The illicit discharge occurred within the Phoenix District and consisted of a facility releasing water into ADOT's drainageway. ADOT issued a Notice of Illegal Discharge and Demand for Corrective Action letter to the facility. The facility complied with ADOT's request and eliminated the discharge immediately.

3.4.2 Illicit Discharges Reported to Other Jurisdictions

Permit Section 3.2.3.4(c)(iii): ADOT shall present the number of illicit discharges reported to other jurisdictions for follow-up in the Annual Report

There have been no illicit discharges identified within the past reporting year that required reporting to other jurisdictions for follow-up.

3.5 Erosion Abatement Projects

Permit Section 3.2.6.2(d): ADOT shall describe the tracking system used to identify, track and prioritize erosion abatement projects. Summarize erosion abatement projects conducted during each year.

ADOT has identified the existing Slope Management Program (SMP) database as a tool to identify, track and prioritize erosion abatement projects. The SMP is a Microsoft ACCESS database that allows ADOT to track and prioritize the severity of rock slopes, soil cuts and embankments throughout the state. However, current State budget cutbacks have postponed the expansion of this database as a viable tool to track erosion issues. Once the program is funded again, ADOT will utilize it in the following manner:

- Field forms will be submitted by District personnel to the SMP database manager
- SMP database manager will review data for consistency prior to entry
- District personnel will be responsible for reviewing the database and ensuring erosion abatement projects are completed according to priority level
- Completed erosion projects will be updated by SMP database manager

3.6 Spills and Other Releases

Permit Section 4.1.5.2(d): ADOT shall document that a system to track and record spills and other releases by ADOT staff and at ADOT maintenance facilities has been established.

ADOT has developed and implemented a system to track and record spills by its staff and spills at maintenance facilities. The system requires ADOT personnel to report non-emergency spills to their respective DEC. Spills requiring an emergency response are reported to the ADOT Safety and Health Section and to the DEC. The DEC documents the following when spills occur:

- Number of spills
- Location
- Date/time
- Extent of the spill
- Media impacted (if any)
- Circumstances of the release
- Names of parties involved
- Corrective actions taken
- Follow up required (if any)

Spill information is forwarded to the OES and assistance provided to the DEC if required. Records are maintained at the facility where a spill or release occurred and at the OES.

3.7 Maintenance Facility SWPPPs

Permit Section 4.2.1.1: ADOT shall document individually that the SWPPP required for each maintenance facility has been updated.

Stormwater Pollution Prevention Plans (SWPPPs) for 18 maintenance facilities have been updated as needed at the following sites:

- Avondale Maintenance Yard
- Broadway Maintenance Yard
- Douglas Maintenance Yard
- Durango Maintenance Yard
- Phoenix Equipment Services
- Flagstaff Maintenance Yard
- Grand Avenue Landscape Maintenance Yard
- Little Antelope Yard
- Mesa Country Club Maintenance Yard
- Mesa Recker Road Maintenance Yard
- Nogales Maintenance Yard
- North Phoenix Maintenance Yard
- Prescott Valley Maintenance Yard
- Statewide Striping Facility

- Superior Maintenance Yard
- Superior Storage and Fuel Yard
- Tucson Grant Road Maintenance Yard
- Yuma Maintenance Yard

SWPPPs are currently being developed for the Cordes Junction Maintenance Yard and the Camp Verde Maintenance Yard. These two facilities have discharges into a local MS4 and SWPPPs are being developed to ensure proper BMPs are being implemented.

3.8 Construction Site Issues

Permit Section 5.3.4: A list and description of all violations ADOT has determined at construction sites and their resolution, including any enforcement actions taken against ADOT contractors.

3.8.1 Construction Site Tracking System

ADOT is currently developing a system to adequately identify, track, and resolve violations at construction sites. Current State budget issues are restricting ADOT from fully developing and implementing this program. Once funded, the tracking will include the following elements:

- Track construction sites to include inspections and enforcement
- Prioritize sites for inspection based on risk to waterway, resources, and operator history
- Resolve violations as needed

3.8.2 Construction Violations

Two Notices of Violation (NOV) received from ADEQ in 2009 for construction remain open. These two NOVs are associated with the State Route (SR) 179 Village of Oak Creek to Sedona construction project. A summary of each NOV is provided:

- On March 4, 2009 ADOT received a NOV for two alleged violations: (1) failure to conduct stormwater monitoring during a storm event that caused a run-off discharge into Oak Creek; and (2) failure to identify within the SWPPP a sewage spill that occurred at a manhole along SR179 and not identifying BMPs in the SWPPP to reduce or eliminate non-stormwater discharges. ADOT responded to the ADEQ concerning this NOV on March 13, 2009 and followed up on March 23, 2009.
- On March 24, 2009 ADOT received a NOV for two alleged violations: (1) Unauthorized construction site discharge; and (2) ADOT did not provide a SWPPP to the ADEQ for the project. ADOT responded in writing to the ADEQ on March 27, 2009. A meeting was held between ADOT and ADEQ on April 15, 2009 to discuss this NOV. ADOT formally responded to ADEQ on April 24, 2009.

ADOT is currently awaiting a response from the ADEQ and fully expects both NOVs to be closed with no further action required.

3.9 Industrial Facilities

Permit Section 6.6.2 & 6.7.2: Provide a brief statement documenting that the SWPPPs for Grand Canyon National Park Airport and Durango Sign Factor were updated and on-site within 90 days of the effective date of the permit.

ADOT industrial facilities include the Grand Canyon Airport, Durango Sign Factory and the former Print Shop. These facilities are discussed below.

3.9.1 SWPPP Update

The SWPPP for the Grand Canyon National Park Airport and the Durango Sign Factory have been updated within the past reporting year and are on-site at each facility. Additionally, personnel at each facility have been trained on SWPPP requirements and procedures.

3.9.2 No Exposure Certification

Permit Requirement Section 6.9.2: C*onfirm the Print Shop has "no exposure" to stormwater*

Printing activities at the ADOT Print Shop (1655 W. Jackson Street, Phoenix, AZ) have been discontinued and the facility is no longer in operation. ADOT requests this reporting requirement be removed from the Permit.

3.10 Material Sources

Permit Section 6.8.3: Provide a map of material sources and provide a status summary of each site.

ADOT's Materials Group maintains an inventory of regulated material sources and stockpile sites in accordance with Permit Section 6.8.3. These sites are classified into the following four categories:

- Group A – Active Sites
- Group B – Inactive Sites
- Group C – Reclaimed Sites
- Group I – Non-mining Sites

A Material Sources Site Map identifying the locations of these four groups is provided in Appendix D. The following section summarizes the status of each group and additional detail for ADOT material sources is provided in Appendix E.

3.10.1 Active Sites – Group A

Permit Section 6.8.3: Provide a status summary of each site.

Group A includes active sites where extraction, processing, removal or recovery of minerals is being conducted. This group may also include a site or portion of site where mining is inactive and the facility may or may not be covered by a mining permit issued by the landowner(s), applicable State, or Federal agency. ADOT currently has 18 sites in Group A which has been subdivided into the following two groups:

- *Group A1* - Sources expected to be used annually with inspections conducted quarterly
- *Group A2* - Sources used less than annually with inspections conducted annually

The reason for subdividing Group A is due to allocation of resources, reduction in State budget travel, and to ensure that sites used at least annually are evaluated for compliance. Facilities within Group A1 are typically used by ADOT Maintenance and are identified below in Table-1. Those facilities designated as Group A2 are typically used by ADOT Construction and identified in Table-2.

Table 1 - Group A1 Sites

Material Sources To Be Used Annually with Quarterly Inspections			
Site No.	**Source Name**	**District**	**County**
1563	Pole Knoll	Globe	Apache
5154	JMP Ranches Inc.	Globe	Apache
8109	BVD	Holbrook	Coconino
7810	Crabtree	Safford	Greenlee
6662	Val Vista	Tucson	Pinal
1662	Tanner	Yuma	Yuma
3547	Gila Bend North	Yuma	Maricopa

Table 2 - Group A2 Sites

Material Sources To Be Used Less than with Annually Inspections			
Site No.	**Source Name**	**District**	**County**
8135	Warm Springs	Globe	Apache
8706	Yucca	Kingman	Mohave
8569	Dugas	Prescott	Yavapai
2507	San Jose Wash	Safford	Graham
6022	Bowie	Safford	Cochise
8595	Fort Thomas	Safford	Graham
2979	Vicksburg	Yuma	La Paz
3543	Tiger Wash East	Yuma	Maricopa
5474	YPG	Yuma	Yuma
5643	Gila Bend South	Yuma	Maricopa
8268	Tiger Wash West	Yuma	Maricopa

Several of the sites in Group A2 are currently licensed to ADOT for mining and have been used only once in the past 10 years. Additionally, three of the sites in group A2 have never been developed. It is important to note when the sites in Group A2 are utilized for project needs, the contractor applies for AZPDES coverage under the Construction General Permit, maintains applicable documentation, implements and maintains BMPs, and provides interim stabilization at the site. Sites not covered under an active license have been moved to Group B, inactive sites.

3.10.2 Inactive Sites – Group B

Permit Section 6.8.4.1(f)(ii): In the first Annual Report, present a list of all abandoned material source sites (unreclaimed sites where final stabilization was never completed), accompanied by a four year schedule to reclaim or utilize all Group B sites statewide.

Group B includes sites or portions of sites where mining occurred in the past but is no longer active. Inactive sites will remain in this group until they can be reclaimed, at which time they will be moved to Group C. ADOT currently has 10 sites in Group B as identified in Table-3. As required by Permit Section 6.8.4.1(f)(ii)(1), a schedule is provided to reclaim or utilize Group B sites within the term of the Permit. ADOT is currently evaluating whether Group B sites with expired permits will be renewed or if reclamation will be initiated.

Table 3 - Reclamation or Utilization Schedule for Group B Sites

				Reclamation Schedule			
Site No.	**District**	**County**	**Closure**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
3043	Globe	Gila	No	--	Permit Renewal	--	--
3044	Globe	Gila	No	--	Permit Renewal	--	--
3512	Globe	Maricopa	No	--	Permit Renewal	--	--
7225	Globe	Gila	No	--	Permit Renewal	--	--
8763	Globe	Maricopa	No	--	Permit Renewal	--	--
6125	Holbrook	Apache	Yes	--	To Be Sold	--	--
8318	Holbrook	Navajo	Yes	--	Receive Closeout Letter	--	--
6451	Safford	Graham	Yes	--	Further Evaluation	--	--
1318	Tucson	Pima	Yes	--	Reclamation Plan	Initiate/Achieve Stabilization	Close
478	Yuma	Yuma	Yes	--	Further Evaluation	--	--

ADOT does not have legal access to seven of the ten sites and therefore annual inspections have not been conducted. Additionally, these seven sites are not exclusive to ADOT and may be authorized for use by third parties. Likewise, implementation or maintenance of BMPs can not be verified until ADOT has been authorized to access the property.

Five sites are being considered for renewal and ADOT is completing the applicable clearances under the National Environmental Policy Act (NEPA). The ADEQ was notified of ADOT's intent to renew these permits during the scoping process in 2009. The other five are being evaluated for disposal and/or reclamation. A site no longer being used will remain in this group until the site can be reclaimed.

Other sites on the inventory that may be reclaimed and released to the land manager are listed in Group I. These sites were not used for mining and as a result do not fit into the definition for Group B. However, similar to sites in Group B, reclamation or disposal is anticipated to commence during the permit term (see Section 3.10.4).

3.10.3 Reclaimed Sites – Group C

Group C includes sites where activities are being conducted to return the land to its pre-mining condition. ADOT has five sites in Group C as identified in Table 4.

Table 4 - Group C Reclamation Schedule

			Reclamation Schedule			
Site No.	**District**	**County**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
769	Flagstaff	Coconino	Undergoing Reclamation	Achieve Stabilization/Close	--	--
3577	Flagstaff	Coconino	Released	--	--	--
5585	Flagstaff	Coconino	Released	--	--	--
7101	Flagstaff	Coconino	Released	--	--	--
8223	Safford	Greenlee	Reclaimed	Obtain Closeout Letter	--	--

Site number 3577 was removed from Group B in 2009 due to the land owner releasing ADOT without requiring reclamation. Site number 8223 is awaiting closeout letter prior to identifying this site as reclaimed. Once a site is reclaimed, it will be removed from the Group C list.

3.10.4 Non-Mining Sites – Group I

Group I includes non-mining sites used for stockpiling of materials. ADOT currently has eight sites in Group I as identified in Table 5. These are sites that ADOT Materials Group administers and is a subset of stockpile sites throughout the state. Other stockpile sites are located in the State, however they are not covered under Permit Section 6.8. These other stockpiles may be covered under Permit Sections 4.0 or 5.0.

Table 5 - Non-mining Sites

				Reclamation Schedule			
Site No.	**District**	**County**	**Closure**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
1546	Globe	Navajo	No	--	Renewal	--	--
2330	Kingman	Mohave	Yes	--	--	--	--
3486	Phoenix	Maricopa	Yes	--	--	--	--
3562	Flagstaff	Coconino	Yes	--	Reclamation Plan	Initiate/Achieve Stabilization	Close
7525	Globe	Pinal	No	--	Permit Renewal	--	--
8400	Phoenix	Gila	No	--	Permit Renewal	--	--
8541	Globe	Gila	No	--	Permit Renewal	--	--
8629	Globe	Gila	Yes	--	Reclamation Plan	Initiate/Achieve Stabilization	Close

The above table includes only those sites administered by ADOT's Materials Group. Two sites on this table are located on lands managed by the Forest Service and will require authorization to conduct reclamation. Site number 3562 has recently been identified by ADOT for reclamation and will be evaluated with the land manager. Site number 8629 is currently being evaluated under NEPA in support of a Special Use Permit to conduct the reclamation activities. Site numbers 2330 and 3486 are ADOT-owned parcels of vacant land and will be transferred to ADOT Property Management for future administration. Site number 1546 will be evaluated for permit renewal during year 3 of the Permit.

3.10.5 Inspection of Material Sources

Permit Section 6.8.4.2: ADOT shall create a summary for each Annual Report of all inspections conducted. The summary shall include the inspection findings, deficiencies, and corrections made to each site.

Group A, B, C and I sites were inspected during the reporting period. Documentation for these inspections are available at 1221 North 21st Avenue, Phoenix, Arizona or at the applicable ADOT District office. Table 6 below summarizes the inspection findings, deficiencies, and corrective actions for the non-compliant sites. It is anticipated that corrective action will commence in Permit Year 3.

Table 6 - Summary of Inspection Findings, Deficiencies, and Corrective Actions

Site No. & Name	Findings	Deficiencies	Corrective Action
1662 – Tanner	Sediment discharge at southwest corner of boundary.	No sediment control measures around stockpiled material. Run-on from adjacent use area influences cross-site drainage.	Remains uncorrected due to third party use of adjacent land. Consider moving stockpiles to interior of pit; installing silt fence or other sediment control device along wash; work with Bureau of Land Management (BLM) and adjacent permittee, as needed, to control run-on.
3043 – Squaw Peak	Sediment discharge along eastern boundary.	Retention basin inadequately sized; no velocity control devices; blown out berm and ditch.	Increase storage capacity of retention basin. Install velocity reduction measures, such as slope roughening. Maintain drainage channels to convey flows to the retention basin. May not be corrected until ADOT receives permission from the Forest Service to enter the property.
3562 – Beaver Creek	Sediment discharge at haul road and southern boundary.	Berm along west side needs maintenance; implement check dams along haul road.	ADOT will be negotiating reclamation and closure of this site with the Forest Service.
3591 – Carol Spring	Sediment discharge at haul road.	Check dams too few and too small for flow velocity and slope aspect.	Corrected between January and April 2010. Reconstructed check dams and relocated highly mobile material.
5781 – Blue Grade	Sediment and aggregate discharge along southwestern boundary.	Ditch and berm that convey sheet flow to a retention basin have not been maintained.	ADOT is negotiating a permit modification to move all materials into the existing pit and perform reclamation of the southern half of the site.
7525 – Defiance	Sediment and aggregate discharge along western boundary.	Berm not maintained; no velocity control devices.	Compact and maintain berm; installed velocity control devices in ditches, or eliminate impervious areas. May not be corrected until ADOT receives permission from the Forest Service to enter the property.
8109 – BVD	Sediment discharge at southeastern boundary.	Retention basin and velocity reduction need to be improved.	Increase capacity of retention basin; maintain check dams, ditches, and berms; eliminate impervious areas; roughen slopes.
8268 – Tiger Wash West	Sediment discharge west side processing area.	Berm breached.	Reconstruct and maintain berm; convey sheet flows to pit; implement ditch and check dams.
8400 – Sunflower	Sediment discharge east side.	No sediment control devices.	Need to install silt fence or riprap-lined swale. May not be corrected until ADOT receives permission from the Forest Service to enter the property.
8541 – Red Bluff	Sediment discharge at haul road.	No sediment basin to capture flows.	Install sediment basin at south end; perform slope roughening; add check dams along haul road. May not be corrected until ADOT receives permission from the Forest Service to enter the property.
8763 – Fish Creek	Sediment discharge at haul road.	Retention basin inadequately sized; run-on could be diverted.	Calculate appropriate configuration of retention basin according to drainage area; divert run-on; perform routine maintenance on BMPs. May not be corrected until ADOT receives permission from the Forest Service to enter the property.

** To the extent practicable, any off-site discharges will be collected and placed within the permitted boundary*

4 NUMERIC SUMMARY OF SSWMP ACTIVITIES

Permit Appendix B, Part 4: Provide a numeric summary of BMPs and activities performed each year.

A numeric summary of BMPs and activities performed by ADOT during the reporting year is provided in Appendix F. The progress of BMPs without a numerical goal is described in Section 3, Narrative Summary of SSWMP Activities.

5 EVALUATION OF THE SSWMP

Permit Section 3.1.5: Provide an evaluation of the progress and success of the SSWMP each year, including an assessment of the effectiveness of stormwater management practices in reducing the discharge of pollutants to and from the municipal storm sewer system.

An evaluation of ADOT's SSWMP has been conducted utilizing EPA's January 2008 guidance entitled *Evaluating the Effectiveness of Municipal Stormwater Programs*. This guidance provides a set of methods to assess the success of a stormwater management program. The three EPA recommended approaches to evaluate program effectiveness were used:

- Assessing of program operations
- Evaluating social indicators
- Monitoring water quality

5.1 Assessment of Program Operations

The purpose of assessing ADOT's program operation and activities is to verify basic compliance with its Permit and document that tangible efforts have been made to reduce impacts to stormwater. The following progress has been made to its program within the past reporting year:

Update of the SSWMP

ADOT completed an update to its SSWMP in March, 2010. The update consisted of re-structuring the previous SSWMP and documenting current ADOT practices to comply with Permit requirements. Basic information, such as program administration and program management, was largely carried over from the 2005 SSWMP; however, one major section Chapter III: Goals, was removed in the 2010 update. Goals had been established for a wide range of areas and activities (such as design, construction, outfalls, training, etc) in an effort to define the stormwater program. These goals included specific measurable tasks, a timeline for completion, and identified the applicable Stormwater Action Team (SWAT) to oversee goal progress and execution. The 2010 update removed the "goal" concept and added the following new sections in accordance with the new MS4 Permit: Stormwater Documents (Stormwater Library), BMPs, Monitoring, and Reporting.

Section 4.0 of the updated SSWMP discusses BMPs and outlines practices in the following areas: training, public outreach and involvement, illicit discharge detection and elimination (IDDE) measures, measures to control discharges from construction and land disturbances, and measures to control discharges from roadways. Section 5.0 Monitoring, details protocols for discharges to impaired or outstanding waters, industrial facilities, and wet weather monitoring. Section 6.0 Reporting, describes the requirements for annual reporting, discharge of pollutants above water quality standards, and other planned reporting.

Guidance Manuals
ADOT updated the following number of guidance manuals during the reporting year:

- 3 guidance manuals have been updated
- 1 guidance manual is currently being updated

BMP Tracking
ADOT tracked the following BMPs:

- 17 trainings were offered to ADOT employees specifically on stormwater issues (increase from 7 in 2009)
- 129 contractors were trained and certified in erosion control
- 119 miles of drainage canals, and approximately 5,500 roadway (lane) miles and associated storm drains, catch basin, outfall structures, and basins were inspected within the Phoenix metropolitan area
- 1 illicit discharge was identified and removed
- 18 SWPPPs for ADOT facilities were updated periodically

5.2 Assessment of Social Indicators

The assessment of social indicators is an important element which tracks knowledge and awareness. It is also an important tool in tracking behavioral changes. The following social indicators were tracked:

- 1,609 participants assisted with the Adopt-a-Highway Litter Initiative (AHLI) (decrease from 1,835 in 2009)
- 2,026 miles of highway were cleaned by AHLI volunteers (decrease from 2,291 in 2009)
- 211 tons of trash were removed from ADOT highways by AHLI volunteers (decrease from 246 in 2009)
- 2,864 calls were received through the Litter Hotline (decrease from 3,389 in 2009)
- 65 public events were attended by ADOT and educational materials displayed (increase from 5 in 2009)
- 6,129 stormwater educational materials were distributed (increase from 2,600 in 2009)

ADOT is also actively involved in four separate stormwater groups as summarized below:

- STormwater Outreach for Regional Municipalities (STORM) - Is a regional organization promoting stormwater quality education within the greater Phoenix metropolitan area. STORM was founded in 2002, in response to federal regulations requiring certain municipalities to implement measures to educate the public on ways to protect the quality of stormwater runoff. STORM educates the public on ways to keep pollutants out of the storm drain system by advertising on radio, television, theater ads, website (www.azstorm.org), and public events.

- Northern Arizona Stormwater Pollution Alliance (NASPA) - Is a northern Arizona regional stormwater group consisting of nine regulated MS4s. NASPA was established in 2008 to open dialogue amongst the MS4s and address stormwater issues unique to the region.

- Pima Association of Governments (PAG) Stormwater Management Working Group - Is a southern Arizona regional group that conducts stormwater outreach activities on behalf of PAG members, which are represented on the Stormwater Management Working Group. Members of the Working Group also include representatives from the building and

construction industry, state government, the University of Arizona and Davis Monthan Air Force Base.

- American Association of State Highway Transportation Officials (AASHTO) – Is a national organization that advocates transportation-related policies and provides technical services to support states in their efforts to efficiently and safely move people and goods. ADOT is a member of AASHTOs Standing Committee on the Environment (SCOE). The SCOE committee monitors federal environmental laws, regulations, procedures and guidance related to air quality, cultural resources, environmental process, and natural systems and ecological communities. As a member of SCOE, ADOT participated in the 2010 National Stormwater Peer Exchange and Practitioners Meeting. The meeting brought together state transportation departments, regulators (including EPA), and research and technology experts from across the country in a collaborative environment. The purpose of the meeting was to increase stormwater understanding nationwide by learning from each other through collaboration, gaining insight from regulators and officials, increasing knowledge as to current research and new technologies and sharing information at all levels. ADOT viewed this meeting as a unique opportunity to understands and collaborate with others on a national level to address water quality issues. ADOT plans to attend future meeting of this SCOE subgroup.

5.3 Monitoring Water Quality

ADOT conducted a comprehensive stormwater quality monitoring program throughout the reporting year to include:

- 2 MS4 sites monitored (Phoenix and Tucson)
- 3 maintenance yards monitored near impaired waterways (Nogales and Superior)
- 3 construction sites monitored at outstanding/impaired waterway (Sedona, Tucson, and Heber)
- 1 industrial facility monitored (Phoenix)

Monitoring included physical, chemical and biological dimensions of water quality. As a result, ADOT identified two sampling events in both the Phoenix and Tucson MS4 with exceedances above the Arizona Surface Water Quality Standard (SWQS). The Phoenix MS4 had exceedances for total zinc and TDS and the Tucson MS4 had two separate exceedances for TDS. These exceedances may be attributed to the long period between storm events from the winter to the summer sampling season. Approximately seven months elapsed between these two sampling events at both MS4 sampling locations. This could allow for buildup of pollutants within each contributing drainage basin. Additionally, zinc is a component of disc brakes and the increase in stop-and-go traffic within each sampling area due to construction activities may have added brake dust to the roadway and increased total zinc in the sampling. The BMPs within the Phoenix and Tucson MS4 area will be reviewed and appropriate actions taken as the State budget allows.

6 SSWMP MODIFICATIONS

Permit Section 3.1.6: Provide a description of modifications to the SSWMP each year:

ADOT completed an update to its SSWMP in March 2010 in accordance with Permit Section 3.1.3.4. The update consisted of re-structuring the SSWMP and documenting current ADOT practices. Basic information, such as program administration and program management, was largely carried over from the 2005 SSWMP; however, one major section Chapter III: Goals, was

removed in the 2010 re-write. Goals had been established for a wide range of areas and activities (such as design, construction, outfalls, training, etc) in an effort to define the Stormwater Program. These goals included specific measurable tasks, a timeline for completion, and identified the applicable SWAT to oversee goal progress and execution. The 2010 revision discontinued with the "goals" concept and added the following new sections in accordance with the new MS4 Permit: Stormwater Documents (Stormwater Library), BMPs, Monitoring, and Reporting.

Section 4.0 BMPs, outlines practices in the following areas: training, public outreach and involvement, IDDE measures, measures to control discharges from construction and land disturbances, and measures to control discharges from roadways. Section 5.0 Monitoring, details protocols for discharges to impaired or outstanding waters, industrial facilities, and wet weather monitoring. Section 6.0 Reporting, describes the requirements for annual reporting, discharge of pollutants above water quality standards, and other planned reporting.

6.1 Addition of New BMPs

Permit Section 3.1.6: Summarize the development and implementation of any new stormwater management practices or pollution controls each year.

ADOT has not developed or implemented any new BMPs during the reporting period.

6.2 Temporary or Experimental BMPs

Permit Section 3.1.6: Describe the initiation and cessation of such BMPs and the perceived success of the temporary or experimental stormwater control.

ADOT has not instituted any temporary or experimental BMPs during the reporting period.

6.3 Increase of Existing BMPs

Permit Section 3.1.6: Summarize modifications to existing stormwater management practices that increase the number of activities, increase the frequency of activities, or other increases in the level of implementation.

ADOT reports that no current BMPs have been modified that would cause an increase in the number of activities, increase the frequency of activities, or otherwise cause an increases in the level of implementation during the reporting period.

6.4 Replacement of Existing BMPs

Permit Section 3.1.6: Describe modifications to replace an ineffective stormwater management practice with an alternate practice by demonstrating that the change will continue to achieve an equivalent reduction in pollutants and will not cause or contribute to a violation of any applicable water quality standard.

ADOT has not modified or replaced any of its current BMPs during the reporting period.

7 MONITORING LOCATION INFORMATION

Permit Appendix B, Part 4: Provide a brief description of each stormwater monitoring location (outfall), including the following information: 1. The outfall identification number or name; 2. Address or physical location of the site, including the latitude and longitude of the outfall; 3. Size of outfall's drainage area; 4. Land use(s) with an estimated percentage of each use; 5. Name and description of the receiving water; and 6. Type of monitoring equipment used.

7.1 Existing Monitoring Locations

ADOT has conducted stormwater monitoring during the reporting period in accordance with Permit Section 8.7.2.1 at its two existing MS4 monitoring locations. Site maps for the two current monitoring locations are provided in Appendix G and are identified in Table 7:

Table 7: ADOT's Existing MS4 Monitoring Locations

Outfall Name	Physical Location	Approximate Drainage Area	Land Use	Receiving Water / Designated Use	Monitoring Equipment
32nd Street & Loop202	Northeast quadrant of 32nd Street and Loop 202 within retention basin Latitude: Longitude:	3.7 Acres	Urban Highway & ADOT facility	Retention Basin / No designated Use	Nalgene® Stormwater Sampler
I-10 and Grant Rd Maintenance Yard	Tucson: I-10 & Grant Rd, within Grant Rd. Maintenance Yard Latitude: 32°15'17.19"N Longitude: 110°59'49.39"W	4.8 Acres	Urban Highway & ADOT facility	Santa Cruz / A&Wedw PBC	Nalgene® Stormwater Sampler

A&Wedw – Aquatic and Wildlife (effluent-dependent water)
PBC – Partial Body Contact

Stormwater sampling will be conducted at these two locations until ADOT has installed automated samplers at five new locations approved by the ADEQ.

7.2 Proposed Monitoring Locations

ADOT has identified five stormwater monitoring locations as required by Permit Section 8.7.2.1(a). This section requires the current Phoenix monitoring location be replaced with one that discharges directly to a water of the U.S. In addition, ADOT is required to monitor at the established Tucson monitoring location and select three additional monitoring locations (for a total of five). The following considerations were also required for selecting the additional sampling locations:

- Selected outfalls shall discharge to a water of the U.S.
- Selected outfall shall represent various drainage areas and land uses
- Outfalls that discharge directly to an impaired water shall be selected for monitoring
- Outfalls that discharge directly to a outstanding water shall be selected for monitoring

Using these parameters, ADOT identified the following five stormwater monitoring locations:

Table 8: ADOT Stormwater Monitoring Locations

Outfall Name	Physical Location	Approximate Drainage Area	Land Use	Receiving Water / Designated Use	Monitoring Equipment
B40-196.14	Flagstaff: South side of intersection at Business 40 and SR180 Latitude: 35°11'53.39"N Longitude: 111°39'05.48"W	29.30 Acres	Rural Highway (80%) & Commercial Streets (20%)	Rio de Flag / A&Wedw PBC	ISCO Avalanche Full-Size Portable Sampler
101-13.68	Peoria: Loop 101 Latitude: 33°37'19.84"N Longitude: 112°14'21.61"W	17.5 Acres	Urban Highway (90%) & Commercial Streets (10%)	Skunk Creek / None	ISCO 6712 Full-Size Portable Sampler
82.0.57	Nogales: Intersect of I19 and SR82 in NE quadrant Latitude: 31°21'02.10"N Longitude: 110°55'24.48"W	59.5 Acres	Urban Highway (80%) & Residential Streets (20%)	Nogales Wash (Impaired waterway) / A&Ww PBC	ISCO 6712 Full-Size Portable Sampler
179-313.3	Sedona: At SR179 bridge over Oak Creek Latitude: 34°51'43.93"N Longitude: 111°45'42.68"W	7.35 Acres	State Rout/Business Route (90%) & Commercial (10%)	Oak Creek (Outstanding waterway) / A&Wc FBC, FC, AgL	ISCO Avalanche Full-Size Portable Sampler
10-255.8	Tucson: I-10 & Grant Rd, within Grant Rd. Maintenance Yard Latitude: 32°15'17.19"N Longitude: 110°59'49.39"W	4.8 Acres	Urban Highway (90%) & ADOT Facility (10%)	Santa Cruz / A&Wedw PBC	ISCO 6712 Full-Size Portable Sampler

A&Wedw – Aquatic and Wildlife (effluent-dependent water)
A&Ww – Aquatic and Wildlife warmwater
A&Wc – Aquatic and Wildlife coldwater
AgL – Agricultural Livestock Watering
FBC – Full Body Contact
FC – Fish consumption
PBC – Partial Body Contact

Site maps of each proposed MS4 monitoring location is provided in Appendix H and information concerning the ISCO stormwater monitoring equipment is included in Appendix I. ADOT received partial approval from ADEQ of these five locations during the reporting year and recently received approval of a fifth location. ADOT is currently completing encroachment permitting for these five sites and expects installation of automated stormwater sampling equipment in early 2011.

8 STORM EVENT RECORDS

Permit Requirement: For each MS4 outfall monitoring location, provide a summary of all subsequent representative storm events necessary to collect at least one representative stormwater sample (greater than 0.1 inch rainfall) occurring within the reporting period, including the date of each event, the amount of precipitation (inches) for each event, and whether a sample was collected, or if not collected, information on the conditions that prevented sampling.

ADOT has maintained records for representative storm events that occurred within the area of existing MS4 sampling location within Phoenix and Tucson during the reporting year. As defined in Permit Section 8.7.2.2(a), a representative storm event is a rainfall in the amount of 0.10 inches or more for each sampling season. The sampling season includes the summer (June 1 – October 31) and winter (November 1 – May 31). Information on storm events and sample collection is provided in Table 9 and Table 10. If a sample was not collected for a given storm event an explanation is provided within each table.

Table 9 – Phoenix MS4 Storm Event Records

Phoenix MS4 Location						
Winter Rain Events				**Summer Rain Events**		
Date	Outcome	Rainfall (inches)		Date	Outcome	Rainfall (inches)
12/8/2009	NS	0.37		**7/21/2009**	**SC**	**0.55**
12/23/2009	NS	0.2		8/13/2009	NS	0.29
1/18/2010	NS	1.01		9/5/2009	NS	0.42
1/23/2010	NS	1.26		NE	NE	NE
2/20/2010	NS	0.35		NE	NE	NE
3/1/2010	**SC**	**0.23**		NE	NE	NE
3/8/2010	NS	0.36		NE	NE	NE
3/22/2010	NS	0.32		NE	NE	NE

SC - Sample Collected; NS - No Sample Collected; NE – No Event

Table 10 – Tucson MS4 Storm Event Records

Tucson MS4 Location						
Winter Rain Events				**Summer Rain Events**		
Date	Outcome	Rainfall (inches)		Date	Outcome	Rainfall (inches)
12/7/2009	NS	0.21		**6/30/2009**	**SC***	0.10
12/23/2009	NS	0.39		7/2/2009	NS	1.02
12/20/2009	NS	0.54		7/8/2009	NS	0.45
1/27/2010	NS	0.14		7/16/2009	NS	0.11
3/8/2010	NS	0.4		8/21/2009	NS	0.32
4/23/2010	**SC**	**0.13**		9/7/2009	NS	0.21

SC - Sample Collected; NS - No Sample Collected

9 SUMMARY OF MONITORING DATA

Permit Requirement (Appendix B, Part 9): Provide the outfall identification number, the receiving water, designated uses, and the lowest surface water quality standards applicable to the receiving water. Enter the analytical results for the stormwater samples collected for each season of the reporting period for each year. Include, as an attachment, the laboratory reports for stormwater samples.

A summary of stormwater monitoring data in tabular form for each MS4 location is provided in Appendix J. Monitoring data includes the locations, outfall identifier, receiving waters, designated water use, sampling season, monitoring parameters, water quality standards and sampling data for each location. Samples were collected during each season to include the summer and winter. Laboratory reports for each storm event sampled are located in Appendix K.

ADOT's Phoenix Area MS4

Stormwater samples were collected at ADOT's Phoenix MS4 location during the winter and summer season on the following dates

- July 21, 2009 (summer season)
- February 28, 2010 (winter season)

ADOT's Tucson Area MS4
Stormwater samples were collected at ADOT's Grant Yard in Tucson, AZ during the winter and summer season on the following dates:

- June 30, 2009 (summer season)
- April 23, 2010 (winter season)

No adverse conditions occurred that prevented the sampling of stormwater discharges from either MS4 sampling location. Sampling during the summer season for the Phoenix MS4 sampling location was completed on June 30, 2009. This data was reported in the previous annual report. However, because ADOT had completed MS4 sampling within the Phoenix area for the 2009 summer season, no other data was available for this reporting period. Therefore, data collected from the June 30, 2009 event is being presented in this reporting year.

10 ASSESSMENT OF MONITORING RESULTS

10.1 MS4 Results

ADOT conducted stormwater monitoring for its MS4 at two locations within the Phoenix and Tucson area during the reporting year. Data associated with stormwater monitoring from these two locations is presented in this section. As previously described in Section 7.2, ADOT had proposed five stormwater sampling locations in the previous reporting year and received approval of four locations by the ADEQ. ADOT has recently received approval of a fifth location and is currently completing encroachment permitting of those sites. ADOT expects installation of automated stormwater sampling equipment at these five locations in early 2011.

10.1.1 Stormwater Quality

Permit Requirement (Appendix B, Part 11.A): Provide an evaluation of the sampling results for each outfall monitoring location, including an assessment of any trends, improvements, or degradation of stormwater quality from each drainage area. Discuss possible explanations for stormwater quality trends, including the implementation of stormwater management practices to reduce the discharge of pollutants to and from the storm sewer system.

ADOT conducted stormwater quality sampling within the Phoenix and Tucson area. This is the second reporting year for the required set of parameters. A discussion of the Phoenix and Tucson MS4 sampling data is provided below.

ADOT's Phoenix Sampling Location – Stormwater results were obtained for the winter and summer season during the past reporting period. A summary of the sampling results is provided in Table 11.

Table 11 – ADOT's Phoenix Area MS4 Sampling Results

Parameter	Winter Season Sample Date: 2/28/10 (mg/L)	Summer Season Sample Date 7/21/09 (mg/L)	SWQS (mg/L)
BOD	<5.0	40	NNS
COD	70	350	NNS
TSS	76	NA	NNS
TDS	97	**720**	500
Total Nitrogen	1.12	4.77	NNS
TKN	1.5	12	NNS
Total Phosphorous	0.25	1.1	NNS
Antimony (T)	< 0.020	0.0037	0.006
Arsenic (T)	< 0.020	0.0064	0.050
Barium (T)	0.074	0.14	2.0
Copper (T)	< 0.020	0.073	1.3
Lead (T)	0.0064	0.006	0.015
Zinc (T)	**4.7**	0.14	2.10
Total Petroleum Hydrocarbons	0.32	2.7	NNS
Ethylbenzene	< 0.010	<0.00050	0.0050
Total Xylene	< 0.0030	<0.0015	10.0

NNS – No Numerical Standard
T – Total
NA – Not Analyzed
SWQS – Surface Water Quality Standard
BOD – Biological Oxygen Demand
COD – Chemical Oxygen Demand
TSS – Total Suspended Solids
TDS – Total Dissolved Solids
TKN – Total Kjeldahl Nitrogen

As indicated in the table, Total Dissolved Solids (TDS) and total zinc (bolded) exceeded their applicable SWQS during the sampling event conducted.

ADOT's Tucson Sampling Location - Stormwater results were obtained for both the winter and summer season at the Tucson MS4 sampling location. Table 12 results indicate a slight increase between the winter and summer season. This may be due to the Tucson area having more rainfall events within the drainage basin and pollutants not having enough time to buildup their concentration levels.

Table 12 –ADOT's Tucson Area MS4 Sampling Results

Parameter	Winter Season Sample Date: 4/23/10 (mg/L)	Summer Season 6/30/09 (mg/L)	SWQS (mg/L)
BOD	90	44	NNS
COD	490	640	NNS
TSS	130	160	NNS
TDS	**910**	**680**	500
Total Nitrogen	7.3	7.01*	NNS
TKN	7.8	14	NNS
Total Phosphorous	0.58	0.36	NNS
Antimony (T)	<0.20	0.0046	0.006
Arsenic (T)	<0.040	0.0030	0.050
Barium (T)	0.20	0.20	2.0
Copper (T)	0.13	0.033	1.3
Lead (T)	<0.040	<0.0050	0.015
Zinc (T)	0.41	0.18	2.10
Total Petroleum Hydrocarbons	24	<6.7	NNS
Ethylbenzene	<0.50	<0.00050	0.700
Total Xylene	<1.50	<0.0015	10.0

NNS – No Numerical Standard *SWQS – Surface Water Quality Standard*
T – Total

As indicated in the table, TDS (bolded) exceeded its applicable SWQS during both sampling events conducted at the Tucson MS4 sampling location.

10.1.2 Water Quality Standards

Permit Requirement (Appendix B, Part 11.B): Compare the sampling results for each outfall monitoring location with the applicable surface water quality standards for the receiving water. Provide an assessment of stormwater quality relative to water quality standards, including the progress towards reducing the discharge of pollutants to the maximum extent practicable and protecting receiving water quality.

MS4 stormwater sampling results were compared to applicable SWQS as identified in Table 11 and Table 12. The results indicate TDS exceed its applicable SWQS during both the summer sampling events in the Tucson MS4 area and the summer event in the Phoenix MS4 area. Additionally, results indicate that total zinc was exceeded in the winter sampling event at the Phoenix MS4 location. ADOT is reviewing its BMP within these two areas to determine an appropriate response to reduce TDS and zinc to the maximum extent practicable and to protect the receiving water quality. ADOT recognizes that street sweeping may be a primary factor in reducing both contaminants. However, due to current State budget issues an increase in street sweeping is currently not an option for ADOT. Once budget issues are resolved ADOT will review BMP activity where appropriate and adjust accordingly.

10.1.3 Exceedances of SWQS

Permit Requirement (Appendix B, Part 11.C): Describe any exceedance of a surface water quality standard during the reporting year.

Four exceedances of a SWQS occurred during the reporting year. These exceedances were for total zinc and TDS at the Phoenix MS4 sampling location and for TDS at the Tucson MS4 sampling location. Table 13 provides a summary of these exceedances:

Table 13 – Summary of SWQS Exceedances

Monitoring Location	Receiving Water	Sampling Date	SWQS Exceeded	SWQS Standard
Phoenix MS4: 32nd Street & Loop202	Salt River	February 28, 2010	Zinc = 4.7 mg/L	Zinc = 2.10 mg/L
		July 21, 2009	TDS = 720 mg/L	TDS = 500 mg/L
I-10 and Grant Rd Maintenance Yard	Santa Cruz	April 23, 2010	TDS = 910 mg/L	TDS = 500 mg/L
		June 30, 2009	TDS = 680 mg/L	TDS = 500 mg/L

SWQS – Surface Water Quality Standard *TDS – Total Dissolved Solids*

Exceedances for total zinc and TDS may be due to the long period between storm events from the winter to the summer sampling season. Approximately seven months elapsed between these two sample events at both MS4 sampling locations. Additionally, a road widening project located adjacent to the Phoenix MS4 sampling location was completed within the reporting year may have increased motorist braking. Zinc is a component of disc brakes and the increase in stop-and-go traffic within the area may have added brake dust on the roadway and increased total zinc in the sampling. ADOT will make every effort to reduce zinc as well as TDS within each area. However, current State budget issues must be resolved prior to ADOT being able to properly review and adjust BMPs accordingly.

10.1.4 Total Maximum Daily Loads

Permit Requirement (Appendix B, Part 11.D): Assess the effectiveness of BMPs meeting wasteload allocation associated with TMDL.

No Total Maximum Daily Loads (TMDL) has been established for receiving water within the Phoenix MS4 or Tucson MS4 sampling location.

10.2 Industrial Results

Permit Requirement (Sections 8.3.3, 8.3.4.1, & 8.5.2.2): Provide a summary of monitoring performed at industrial and construction sites as required in the permit. Describe any adverse conditions that prevented sampling stormwater discharges. Where facility outfalls are essentially identical, justify the sampling of only one outfall.

A summary of monitoring performed at ADOT industrial sites is provided below as required by Permit Section 8.5.2.2. Discharge Monitoring Reports (DMRs) for the industrial monitoring are provided in Appendix L. The laboratory reports for industrial monitoring are included in Appendix M.

10.2.1 Durango Sign Factory

Stormwater samples were collected at the Durango Sign Factory on the following dates:

- February 23, 2010 (winter season)
- September 1, 2009 (summer season)

Samples were collected via a Nalgene® Stormwater Sampler hanging from the interior of a drywell grate. No adverse conditions occurred that prevented the sampling of stormwater discharges from this facility. The stormwater analysis indicates no SWQS was exceeded at this facility.

10.3 Construction Results

ADOT conducted in-stream monitoring at three construction projects during the reporting year and discussed further in this section. DMRs for these in-stream monitoring activities are provided in Appendix N.

10.3.1 Sedona SR179 Construction Project

ADOT conducted in-stream monitoring within Oak Creek from July 1, 2009 through June 30, 2010. This monitoring coincided with construction improvements along SR179 in the Village of Oak Creek and City of Sedona adjacent to Oak Creek. Oak Creek has been designated by the ADEQ as an Outstanding and Scenic Waterway. The monitoring consisted of in-stream data collection as identified in the following table:

Table 14 – In-Stream Sampling Locations within Oak Creek

Monitoring Point		Description	Latitude / Longitude	Monitoring Frequency
ID	Source			
MP1	In Oak Creek - Upstream of Tlaquepaque bridge construction	Oak Creek north of bridge construction at approx. Sta. 1125+00 SR89, 55' Rt.	34° 51' 59.15" N 111° 45' 42.53" W	Prior to construction every 2 weeks (baseline). During construction on weekly basis and within 24 hrs of storm event >0.5", or >10 NTU increase in daily turbidity.
MP2	In Oak Creek - Downstream of Tlaquepaque bridge construction	Oak Creek south of bridge construction at approx. Sta. 797+00 SR179, 120' Lt.	34° 51' 42.00" N 111° 45' 43.83" W	Daily during bridge construction
MP3	Run-on at ephemeral wash	Located in ephemeral wash at r/w east of new box culvert at approximate Sta. 765+00, 110' Rt.	34° 51' 09.10" N 111° 45' 51.91" W	When flow occurs
MP4	Run-on ephemeral wash	Located in ephemeral wash at r/w west of existing box culvert at approximate Sta. 765+50, 68' lt.	34° 51' 10.19" N 111° 45' 53.52" W	When flow occurs
MP5	In Oak Creek - Downstream of major road construction	Oak Creek adjacent to north side of Oak Creek Cliffs Drive	34° 50' 40.46" N 111° 46' 39.84" W	Prior to construction every 2 weeks (baseline). During construction on weekly basis and within 24 hrs of storm event >0.5", or >10 NTU increase in daily turbidity.

NTU – Nephelometric Turbidity Units

A site map identifying these in-stream monitoring locations is provided in Appendix O. No in-stream data was collected from MP4 due to inadequate flow at this monitoring location. Parameters for in-stream monitoring included turbidity, stream flow, dissolved oxygen, pH, conductivity, suspended sediment concentration (SSC), total suspended solids, and total dissolved solids. No adverse conditions occurred that prevented in-stream monitoring of discharges associated with this project and no SWQS was exceeded.

10.3.2 Meadow Valley SR260 Construction Project

ADOT conducted in-stream monitoring within the Little Colorado River from May 5, 2010 to June 20, 2010. This monitoring was associated with pavement preservation activities associated with the SR 260 between Springerville and Greer, Arizona between mileposts 385.71 and 398.66. Parameters for in-stream monitoring included turbidity, pH, temperature, and SSC. No adverse conditions occurred that prevented in-stream monitoring of discharges associated with this project and no SWQS was exceeded.

10.3.3 Marsh Station I-10 Construction Project

ADOT conducted in-stream monitoring within Cienega Creek during the reporting year. This monitoring was associated with the Marsh Station realignment of the Union Pacific Railroad and the Marsh Station Road. Parameters for in-stream monitoring included turbidity, pH, temperature, and SSC. No adverse conditions occurred that prevented in-stream monitoring of discharges associated with this project and no SWQS was exceeded.

10.4 Maintenance Facilities

ADOT conducted monitoring at three maintenance yards during the reporting year and is discussed further in this section. DMRs for the maintenance facilities are provided in Appendix L. The laboratory reports for maintenance facilities are included in Appendix M.

10.4.1 Nogales Maintenance Yard

Stormwater samples were collected at the Nogales Maintenance Yard during the winter and summer seasons on the following dates:

- February 23, 2010 - winter storm event
- June 30, 2009 - summer storm event (data reported in previous reporting year)

Sampling was conducted by installing a Nalgene® Stormwater Sampler prior to the storm event. This is a type of passive sample bottle with a floating ball valve that seals off the sample collection port once the bottle is full. No adverse conditions occurred that prevented the sampling of stormwater discharges from this facility. However, an inadequate sample volume was collected during the June 30, 2009 storm event and analyses for chlorine, total coliform, and *E*. coli could not be completed. The stormwater analysis indicates no SWQS was exceeded.

10.4.2 Superior Maintenance Yard

Stormwater samples were collected at the Superior Maintenance Yard on the following dates.

- Feb 22, 2010 – winter storm event
- July 21, 2009 – summer storm event

Samples were collected manually from a retention basin located along the southwest portion of the yard. The retention basin discharges into Queen Creek Wash via an 18-inch corrugated metal pipe. Queen Creek is identified by the ADEQ as impaired for copper. The stormwater analysis indicates no SWQS was exceeded at this facility.

10.4.3 Superior Fuel Yard

Stormwater samples were collected at the Superior Maintenance Yard on the following dates.

- February 22, 2010 – winter storm event
- July 21, 2009 – summer storm event

Samples were collected manually from a bermed area along the southwest portion of the yard. This facility has the potential to discharge to Queen Creek which is identified by the ADEQ as impaired for copper. The stormwater analysis indicates no SWQS was exceeded at this facility.

11 ESTIMATE OF POLLUTANT LOADING

Permit Requirement (Section 8.7.7): Provide an estimate of the pollutant loadings each year from the storm sewer system to waters of the U.S. for each constituent detected by stormwater monitoring within the permit term.

ADOT has estimated pollutant loading as required by Permit Section 8.7.7. Constituents detected during MS4 stormwater monitoring required for pollutant loading estimation include:

- Biological Oxygen Demand (BOD)
- Chemical Oxygen Demand (COD)

- Total Suspended Solids (TSS)
- Total Dissolved Solids (TDS)
- Total Nitrogen
- Total Kjeldahl Nitrogen (TKN)
- Total Phosphorous
- Detected metals

The Simple Method was utilized for calculating the pollutant loading for each constituent identified above. This method was selected because it is best suited for small urban watersheds similar to where ADOT's current MS4 sampling locations are located. The Simple Method estimates stormwater pollutant loads as the product of mean pollutant concentrations and runoff depths over specified periods of time. The Simple Method estimates pollutant loads for chemical constituents as a product of annual runoff volume and pollutant concentration using the following equation:

L = 0.226 * R * C * A

Where: L = Annual loads (lbs); R = Runoff (inches); C = Pollutant concentration (mg/l); A = Area (acres); 0.226 = Unit conversion factor

11.1 ADOT's Phoenix Area MS4 Pollutant Loading Estimates

Pollutant loading estimates for the Phoenix area monitoring location have been calculated for the winter season, summer season, and annually. Data used to calculate pollutant loading is provided in Appendix P. A summary of pollutant loading estimates as required by Permit Section 8.7.7(a) is provided in Table 15:

Table 15 – ADOT's Phoenix Area MS4 Pollutant Loading Estimates

Pollutant	Estimated Pollutant Loading in Pounds		
	Winter Season	Summer Season	Annual
BOD	0.82	15.73	226.34
COD	11.51	137.63	4,224.93
TSS	12.50	IS	382.26
TDS	15.95	283.12	4,109.25
Total Nitrogen	0.18	1.88	29.52
TKN	0.25	4.72	67.90
Total Phosphorous	0.04	0.43	6.79
Barium	0.01	0.06	1.08
Copper	0.03	0.029	1.38
Lead	0.001	0.002	0.06
Zinc	0.77	0.06	24.34

IS – Insufficient Sample *TSS – Total Suspended Solids*
BOD – Biological Oxygen Demand *TDS – Total Dissolved Solids*
COD – Chemical Oxygen Demand *TKN – Total Kjeldahl Nitrogen*

11.2 ADOT's Tucson Area MS4 Pollutant Loading Estimates

Pollutant loading estimates for the Tucson area monitoring location have been calculated for the winter season, summer season, and annually. Data used to calculate pollutant loading is provided in Appendix Q. A summary of pollutant loading estimates as required by Permit Section 8.7.7(a) is provided in Table 16:

Table 16 – ADOT's Tucson Area MS4 Pollutant Loading Estimates

Pollutant	Estimated Pollutant Loading in Pounds		
	Winter Season	Summer Season*	Annual
BOD	10.85	16.32	662.44
COD	59.08	237.44	5,586.26
TSS	15.67	59.36	1,433.64
TDS	109.72	252.28	7,860.32
Total Nitrogen	2.41	0.12	100.40
TKN	0.94	5.19	107.77
Total Phosphorous	0.07	0.13	4.65
Barium	0.02	0.07	1.98
Copper	0.02	0.01	0.81
Lead	0.001	0.0019	0.05
Zinc	0.05	0.07	2.97

** - Data is from June 30, 2009 sampling event*
BOD – Biological Oxygen Demand
COD – Chemical Oxygen Demand
TSS – Total Suspended Solids
TDS – Total Dissolved Solids
TKN – Total Kjeldahl Nitrogen

11.3 Comparison to Previous Pollutant Loading Estimates

Permit Requirement (Section 8.7.7(c)): ADOT shall compare the pollutant loading estimate each year to previous estimates of pollutant loadings throughout this permit term.

A comparison of annual pollutant loading is provided below for annual pollutant loading estimates from the 2008/09 reporting year compared to this reporting years estimate:

Table 17 – Comparison of MS4 Pollutant Loading Estimates

	Phoenix			Tucson		
Pollutant	2008/09 Annual Loading	2009/10 Annual Loading	Percent Difference	2008/09 Annual Loading	2009/10 Annual Loading	Percent Difference
BOD	96.01	226.34	+135.75%	538.85	662.44	+22.94%
COD	812.40	4,224.93	+420.06%	5,932.32	5,586.26	-5.83%
TSS	627.76	382.26	-39.11%	1,334.77	1,433.64	+7.41%
TDS	2,141.78	4,109.25	+91.86%	6,723.29	7,860.32	+16.91%
Total Nitrogen	30.65	29.52	-3.69%	93.98	100.40	+6.83%
TKN	22.16	67.90	+206.41%	128.53	107.77	-16.15%
Total Phosphorous	NA	6.79	0.00%	3.86	4.65	+20.47%
Barium	0.72	1.08	+50.00%	1.98	1.98	0.00%
Copper	0.17	1.38	+711.76%	0.16	0.81	+406.25%
Lead	0.06	0.06	0.00%	0.07	0.05	-28.57%
Zinc	0.39	24.34	+6141.03%	0.89	2.97	233.71%

BOD – Biological Oxygen Demand
COD – Chemical Oxygen Demand
TSS – Total Suspended Solids
TDS – Total Dissolved Solids
TKN – Total Kjeldahl Nitrogen

The comparison shows an increasing trend in most constituents, however a few have decreased. No direct correlation can be made as to an increasing or declining trend due to the limited data

points. However, the Phoenix area percent difference is markedly difference be cause the 2008/09 data was based on only one sampling event. ADOT will monitor future trends and adjust BMPs as needed.

12 ANNUAL EXPENDITURES

Permit Requirement (Appendix B, Part 13): Provide a summary of the expenditures incurred each reporting period (July 1-June 30) to implement and maintain the stormwater management program, including associated monitoring and reporting activities. Provide the estimated budget for implementing and maintaining the stormwater program in the subsequent reporting period. Include a brief description of the funding sources used to support program expenditures.

ADOT does not maintain a specific fund dedicated solely for its stormwater programs. However, there are several sources available for funding of this program, which include: the Arizona Department of Transportation Five-Year Construction Program, the Highway Maintenance Program, and the Administrative Budget.

12.1 Five-Year Construction Program

ADOT's Five-Year Construction Program is a source of funding utilized when a stormwater issue or concern is related to a construction project that is in the existing program. The Program is reviewed on an annual basis, and at that time, new projects are added and modifications to existing projects are made. There are several sources identified to fund this program. These include federal, state, local, and private sources. The approval process required for incorporation of stormwater issues into the program is the identification of the project and funding requirements and submittal to the Priority Planning Committee, and then in turn, to the Transportation Board for final approval. The program is adopted July 1st of each year.

12.2 Highway Maintenance Program

Stormwater issues related to maintenance will be covered under the Highway Maintenance Program, which is funded by the State. Issues and costs are identified and submitted for approval to the legislature in August of each year. Funds for new issues are received on July 1st of the following year. Currently, there is approximately $107,000,000 allocated to this program.

12.3 Administrative Budget

The Administrative Budget is an additional source of funding for ADOT stormwater programs and is state-funded and appropriated by the Arizona Legislature. The process is similar to the Highway Maintenance Program. As part of the Administrative Budget, ADOT receives approximately $62,000,000 in state funds for administrative purposes.

12.4 Office of Environmental Services Budget

The OES was formed in 2006 and its budget has not been established. Currently, the OES operates under several budget accounts. Table 18 provides actual and estimated expenditures implemented under ADOT's Statewide Permit Number AZS000018-2008 requirements.

Table 18 - Estimated Stormwater Program Comprehensive Annual Budget

PROGRAM/ACTIVITY	FY 2009/2010 Actual	FY 2010/2011 Estimated
Street Sweeping – Phoenix and Tucson Area	$2,140,000.00	$2,200,000.00
Litter Pick-up and Removal – Phoenix and Tucson Area	$4,480,000.00	$4,500,000.00
Preparation and Implementation of Statewide Permit	$12,834,205.00	$15,035,519.00
Implement/ Update of SWPPPs for ADOT yards	$112,449.00	$95,033.00
Maintain and Update Stormwater Outfall Map to ADOT's GIS	$147,000.00	$147,000.00
Dry Weather Sampling – 20% of Outfalls (includes training)	$3,141.00	$2,872.00
Stormwater Monitoring	$250,050.00	$152,000.00
Preparation of Annual Report	$35,208.00	$29,945.00
ANNUAL TOTALS	**$20,002,053.00**	**$22,162,369.00**

APPENDIX A
Narrative Summary of SSWMP Activities

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
BEST MANAGEMENT PRACTICES	3.2.1.1, 3.2.1.2, and 3.2.1.3	4.0	Section 4.0 of the 2010 SSWMP details the Best Management Practices (BMPs) to improve operations and reduce pollution at or within ADOT facilities, Statewide and District Maintenance, MS4s, industrial facilities, and material sources. This includes: Measures to control discharges through education Illicit discharge/illegal dumping detection and elimination measures Measures to control discharges from new construction and land disturbances Measures to control discharges from new development and redevelopment Measures to control discharges from roadways
A. MEASURES TO CONTROL DISCHARGES THROUGH EDUCATION	3.2.2	4.1	ADOT's stormwater education program includes training, public education and outreach, public participation and involvement, and intra and intergovernmental coordination.
1. ADOT Employee Training	3.2.2.1(a)	4.1.1	ADOT has developed training curricula, as well as a system for administering, tracking, and providing training to all appropriate personnel. New employees receive training within the first year of hire or within the first year of the change in their responsibilities. Refresher training is required at least once every three years.
a. Stormwater Awareness Training	3.2.2.1(a) (i)	4.1.1.2	General Stormwater Training is required to educate personnel at all levels of responsibility who are involved in activities that may impact stormwater quality and those staff who may come into contact with or otherwise observe an illicit discharge or illicit connection to the storm sewer system. Five awareness classes have been conducted within the past reporting year and 60 personnel trained.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
b. Specific Stormwater Training	3.2.2.1(a) (ii)	4.1.1.3	Specific stormwater training is required to educate personnel who are directly involved in activities that may impact stormwater quality or that may generate or manage non-stormwater discharges. Eight specific stormwater training sessions to be offered are: illicit discharges and illegal dumping, non-stormwater discharges, new construction and land disturbances, new development and significant redevelopment, storm sewer system and highway maintenance, and good housekeeping. ADOT has conducted 12 stormwater specific training classes within the past reporting year and 52 personnel trained
c. Stormwater Library	3.2.2.1(a) (iii)	3.3	This library is a virtual library available at: http://www.azdot.gov/inside_adot/OES/Water_Quality/Stormwater/Manuals.asp. The library contains the following documents: Quality Assurance Manual, Erosion and Pollution Control Manual, Maintenance and Facilities BMP Manual, Stormwater Monitoring Guidance Manual for MS4 Activities, Post-Construction Stormwater Control BMP Manual, Stormwater Enforcement Response Plan, Stormwater Monitoring Guidance Manual for Construction Activities, and Stormwater Guidance Manual for Industrial Activities. The SSWMP is available at http://www.azdot.gov/inside_adot/OES/Water_Quality/Stormwater/. Documents within the library have been updated as-needed throughout the past reporting year. ADOT is not able to track specific hits to the stormwater library website.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
2. ADOT Construction Contractor Training and Certification	3.2.2.1(b)	4.1.2	ADOT requires all contractor's inspectors to participate in the Construction Contractor Training and Certification Course offered by the Arizona Association of General Contractors to become an Erosion Control Coordinator (ECC) on ADOT projects. The 16 hour ECC training course covers the erosion and sediment control BMP requirements in the AZPDES CGP and inspection and maintenance of these BMPs. . Training includes the erosion and sediment control BMP requirements and inspection and maintenance of BMPs.
3. Erosion and Pollution Control Manual	3.2.2.1(c)	4.1.3	The Erosion and Pollution Control Manual addresses the selection, design, installation and maintenance of effective erosion, sediment, and waste control BMPs that ADOT uses for stormwater and non-stormwater discharges. ADOT conducts annual updates to the Manual. A final update to this manual is estimated for completion in February 2011.
4. Public Education and Outreach	3.2.2.2	4.1.4	Public education and outreach are ongoing efforts by ADOT to inform members of the general public about actions individuals can take to reduce transportation-related pollutants and improve water quality.
a. Program Description	3.2.2.2(a)	4.1.4.1	The target audience is the construction industry and the public (highway users). Target pollutants include sedimentation from construction sites, litter, unsecured loads, and tire treads. There have been no changes to the program this reporting period.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
b. Distribution of Materials through Public Places	3.2.2.2(b) (i)	4.1.4.2	ADOT distributes material through participation with Regional Stormwater Coalitions, Arizona Clean and Beautiful, and Don't Trash AZ. ADOT distributes educational material through pamphlets, posters, highway variable message boards, bus stop posters, TV advertisements, radio announcements, and booths at local events. ADOT has worked close with STORM and PAG to distribute educational materials.
c. Distribution of Materials through ADOT's Stormwater Web Page	3.2.2.2(b) (ii)	4.1.4.3	ADOT maintains a webpage for its stormwater program. The webpage includes a variety of stormwater related documents such as program manuals, maps, document templates, and MS4 contacts. Also included on the webpage are a number of links to other organizations who play a role in stormwater management (ADEQ, EPA, FHWA, etc). ADOT has updated its webpage which now has the following address: http://www.azdot.gov/Inside_ADOT/OES/Water_Quality/Stormwater/Index.asp
5. Public Involvement and Participation	3.2.2.3	4.1.5	Public involvement and participation are ongoing efforts by ADOT to involve members of the general public about how individuals can take become involved in the stormwater program and improve water quality.
a. Public Availability of Stormwater Documents	3.2.2.3(a)	4.1.5.1	Distribution of materials is accomplished via the Stormwater Webpage, STORM, and PAG.
b. Public Comments	3.2.2.3(b)	4.1.5.2	ADOT gathers public comments on the SSWMP via phone or the "Contact Us" link from the ADOT stormwater webpage. http://www.azdot.gov/Inside_ADOT/OES/Water_Quality/Stormwater/Index.asp

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
c. Public Reporting System	3.2.2.3(c)	4.1.5.3	ADOT implemented a public reporting system so the public can report illicit discharges and illegal dumping. This system consists of the ADOT hotline and an e-mail address on the Water Quality webpage. There has been no change to this system within the past reporting year.
d. Adopt-A-Highway	3.2.2.3(d)	4.1.5.4	The Adopt-A-Highway program allows individuals to adopt a highway as a volunteer or through a maintenance provider as a sponsor. The program was updated to include a stormwater component.
e. Litter Hotline	3.2.2.3(e)	4.1.5.5	The litter hotline includes a toll free number and an online reporting form for Arizona citizens to report litterers. This is an ADOT program that is administered by Arizona Clean and Beautiful (ACB) through a procurement contract.
6. Intra and Inter-Governmental Coordination	3.2.2.4	4.1.6	Intra and Inter-Governmental Coordination is a program that includes coordination mechanisms and program enforcement procedures among divisions, groups, sections and districts within ADOT to ensure compliance with the terms of the Permit.
a. Internal Coordination	3.2.2.3(a)	4.1.6.1	Various departments throughout ADOT work together to achieve the goals of the Permit. The OES oversees the stormwater components from each department.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
b. Intergovernmental Coordination	3.2.2.3(b)	4.1.6.2	ADOT coordinates with outside agencies such as the Federal Highway Administration, Bureau of Land Management, and the Department of Agricultural Forest Service. ADOT also works with Metropolitan Planning Organizations, Councils of Governments, and Regional Stormwater Coalitions throughout the state. ADOT has maintained a working relationship[with other government entities via STORM, PAG, NASPA, and AASHTO.
B. ILLICIT DISCHARGE/ ILLEGAL DUMPING DETECTION AND ELIMINATION MEASURES	3.2.3 3.2.3.1(a)	--	The IDDE program serves to minimize, detect, investigate, and eliminate illicit discharges, including unauthorized non-stormwater discharges and spills, into ADOT MS4.
1. Minimizing Illicit Discharges and illegal Dumping	3.2.3.1	--	ADOT field personnel and DEC's routinely perform visual inspections for illicit discharges and performs monitoring for illegal dumping
a. Encroachment Permit Enforcement	3.2.3.1(b)	4.2.1.1	ADOT implements and enforces encroachment permits and external party requirements for activities within ADOTs jurisdiction. There has been no changes to the encroachment permit process within the past reporting year.
b. Maintenance and Facilities Best Management Practices (BMPs) Manual	3.2.3.1(c)	4.2.1.2	The Manual describes the selection criteria, design, installation and maintenance of effective BMPs to minimize pollutants in ADOT's non-stormwater discharges. This manual was updated in September 2010.
c. Authorized Non-Stormwater Discharges	3.2.3.1(d)	4.2.1.3	ADOT discharges certain authorized non-stormwater discharges and implements BMPs to minimize the discharge of pollutants that may result from these flows. BMPs for reducing erosion, sedimentation, and stormwater contamination are contained within the Erosion and Pollution Control Manual and the Maintenance and Facilities BMP Manual.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
d. Training	3.2.3.1(e)	See 4.1.1.2 and 4.1.1.3	Training is discussed in 4.1.1.2 and 4.1.1.3 above.
2. Detecting Potential Illicit Discharges and Illicit Connections	3.2.3.2	--	Implement BMPs to detect illicit discharges and illicit connections
a. Outfall Inventory	3.2.3.2 (a)	4.2.2.1	ADOT has been in the process of developing an outfall inventory including the 71 major outfalls. ADOT has also developed a proposal and schedule to identify all outfalls in the Phase II municipalities and all Priority Outfalls statewide. The inventory should be complete in 2012. Additionally, ADOT has implemented a Facilities Inventory System (FIS) to identify and track highway features using a GIS database. A pilot program has been initiated within the Kingman District using FIS to track and monitor drainage features.
b. Storm Sewer System Map	3.2.3.2 (b)	4.2.2.2	ADOT is in the process of developing a storm sewer map identifying the location of all ADOT's major outfalls identified to date and their receiving waters. The inventory should be complete in 2012. The FIS is being updated to include storm sewer mapping. Budget issues have hindered the full implementation of the FIS.
c. Stormwater Monitoring Guidance Manual for MS4 Activities	3.2.3.2(c)	3.3.7	This guidance manual provides the procedures used by ADOT personnel to conduct Permit-required monitoring associated with MS4 activities. This monitoring includes dry weather screening for illicit connections and illicit discharges and seasonal wet weather monitoring. This manual had no updates in the last reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
d. Dry Weather Screening	3.2.3.2(d), (e)	4.2.2.4	ADOT implements a dry weather outfall screening and discharge characterization program and inspects major and priority outfalls during the permit term. Dry weather screening has occurred throughout each District within the past reporting period. However, documentation of the screening has not been properly maintained. ADOT is attempting to maintain better records for this activity.
e. Training	3.2.3.2(f)	See 4.1.1.3	Training is discussed in 4.1.1.3 above and ahs been on-going during the past reporting period.
3. Investigating Potential Illicit Discharges	3.2.3.3	--	Implement practices and procedures to investigation potential illicit discharges
a. Establish illicit discharge investigation procedures	3.2.3.3 (a)	4.2.3.1	ADOT's 'Dry Weather Field Screening Sites' portion of the Stormwater Monitoring Guidance Manual for MS4 Activities describes procedures to investigate potential illicit discharges to identify possible sources. This manual had no updates in the last reporting year.
b. Investigate Illicit Discharges (Source Identification)	3.2.3.3 (b) 3.2.3.3 (c) and 3.2.3.4(d)	4.2.3.2 4.2.3.3 and 4.2.3.4	ADOT initiates investigations and responds to complaints within 15 days from the date of detection or report of an illicit discharge. ADOT also implements a system to receive and track reports of illicit discharges and illegal dumping as well as ADOT's response and follow-up actions. One illicit discharge was reported and subsequently removed within the past reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
c. Incidental Dry Weather Discharge Reporting	3.2.3.3(d)	4.2.3.4	ADOT reports dry weather discharges from any ADOT outfall. Within 15 days of detection ADOT initiates appropriate follow-up action to eliminate the discharge, including reporting the discharge to ADEQ as appropriate. There have been no dry weather discharges that required follow-up action within the past reporting year.
4. Eliminating Illicit Discharges and Illegal Dumping	3.2.3.4	--	Eliminate Illicit Discharges and Illegal Dumping
a. Eliminate Existing Dry Weather Flows	3.2.3.4 (a)	4.2.4.1	This temporary BMP required ADOT to investigate and eliminate (if possible) the sources of existing dry weather flows from the six major outfalls in the July 21, 2005 Summary Report – Dry Weather Screening within the first 90 days of the permit. ADOT completed this requirement in the first reporting year of the Statewide Permit.
b. Eliminate Sources of Illicit Discharges	3.2.3.4 (b)	4.2.4.2	ADOT takes action to eliminate source(s) of illicit discharges within 90 days of detection using ADOTs legal authority (Enforcement Response Plan) to terminate illicit discharges and illegal dumping. One illicit discharge was reported and subsequently removed within the past reporting year.
c. Coordinate with Local Jurisdictions for Complaint Response and Investigation	3.2.3.4 (c)	4.2.4.3	ADOT coordinate with other jurisdictions, including ADEQ, for assistance in enforcement where ADOT lacks legal authority to establish enforceable rules or if an illicit discharger fails to comply with procedures or policies established by ADOT. ADOT coordinates with other jurisdictions as described in the Enforcement Response Plan.
d. Record Actions	3.2.3.4(d)	See 4.2.3.4	Record keeping is discussed in 4.2.3.4 above.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
5. Responding to Spills	3.2.3.5	4.2.5	ADOT responds to spills as a result of highway accidents and emergencies and implements guidance from the Arizona Department of Emergency Management Plan, ESF-10 Oil and Hazardous Materials Annex. ADOT has maintained an emergency response team and responded to 156 incidents throughout the State.
C. MEASURES TO CONTROL DISCHARGES FROM NEW CONSTRUCTION AND LAND DISTURBANCES	3.2.4	--	Description of a program to reduce the discharge of pollutants from construction sites.
1. Applicability of Construction Requirements	5.1	4.3.1	This BMP contains the requirement for all construction sites and activities that are owned, operated, or contracted by ADOT to comply with provisions of the Permit. There have been no changes to construction requirements during the last reporting year.
2. Construction Site SWPPPs	5.2	4.3.2	ADOT requires all construction sites over 1-acre of disturbance to develop a Construction SWPPP. There have been no changes to construction requirements during the last reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
a. General Requirements	5.2.1	4.3.2	ADOT or its contractor(s) develop and implement construction site SWPPPs for certain construction sites. SWPPPs are maintained on the site as well as at the appropriate ADOT Office. There have been no changes to construction requirements during the last reporting year.
b. Site and Activity Description	5.2.2	4.3.2	ADOT outlines the required components of the SWPPP including a site description, map, receiving waters, monitoring program, potential pollutants sources, and off-site material storage areas. There have been no changes to construction requirements during the last reporting year.
c. BMPs to Reduce Pollutants	5.2.3	4.3.2	ADOT outlines the criteria for selection, installation, and maintenance of BMPs for inclusion in Construction SWPPPs. BMPs are contained in the Erosion and Pollution Control Manual, Maintenance and Facilities BMP Manual, Post-Construction Stormwater Control BMP Manual, Stormwater Monitoring Guidance Manual for Construction Activities, and Stormwater Monitoring Guidance Manual for MS4 Activities. There have been no changes to construction requirements during the last reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
d. Construction Inspections	5.2.5	4.3.2	ADOT requires routine inspections of construction sites to ensure BMPs are functional and effective and that the SWPPP is being properly implemented. Routine inspections are conducted jointly by the Resident Engineer (RE) and the Erosion Control Coordinator (ECC) and are conducted every 7-14 days or after a rain event. Following an inspection, a Construction Compliance Evaluation Report is filed documenting the findings of the inspection and basic inspection details. A more in-depth inspection is conducted by the Construction Site Inspector. Findings are documented and delivered to the RE who then has 14 days to address all deficiencies. Once the deficiencies are addressed, or within 14 days, the Resident Engineer sends a response to the Construction Site Inspector detailing the status of deficiencies. Responses are reviewed and scored for completeness by the Construction Site Inspector and a final report is sent to the District Engineer. Routine inspections have occurred as required throughout the last reporting year.
e. Construction BMP Maintenance	5.2.4	4.3.2	ADOT requires a maintenance plan for all erosion and sediment control BMPs. The ECC and/or RE are responsible for oversight of the requirements of this section, including maintaining all BMPs in effective operating condition, performing maintenance on ineffective BMPs within seven days of discovery and before the next anticipated storm event, and removing sediment from sediment traps when the design capacity has been reduced by 50%. There have been no changes to this construction requirement during the last reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
f. SWPPP Updates	5.2.6	4.3.2	ADOT requires updates to the construction site SWPPP to be conducted within 15 calendar days following an inspection. There are two copies of the SWPPP that are updated by the ECC throughout the course of the construction project. One copy of the SWPPP is located at the construction site while the second copy is maintained at the applicable District office. Construction Site Inspectors verify both SWPPPs are being updated before beginning each site inspection. Site construction SWPPPs have been updated as-needed.
3. Operators under Contract to ADOT for Performing Construction Activities	5.3	--	There have been no changes to this construction requirement during the last reporting year.
a. Compliance with Construction General Permit	5.3.1	4.3.3.1	ADOT requires it's contractors to comply with the AZPDES CGP for regulated construction projects. This requirement includes the requirement to file an NOI for each construction project or site. For work on Tribal Land, NOIs are filed by both the contractor and ADOT to the EPA. For work on non-Tribal Land, an NOI is only filed by the contractor. There have been no changes to this construction requirements during the last reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
b. NOT - Transfer of Responsibility to ADOT	5.3.2	4.3.3.2	ADOT requires contractors to file a NOT to terminate their responsibility for site activities once a site and interim stabilization is in place. ADOT assumes responsibility for the site until final stabilization is achieved for the entire project. ADOT also removes all temporary sediment control BMPs that may impede stormwater flow as soon as practicable after final stabilization. If work is conducted on Tribal Land, ADOT files an NOT to the EPA as required. There have been no changes to this construction requirement during the last reporting year.
c. Completed Construction Site Inventory	5.3.3	4.3.3.3	Twice per year (by July 10 and January 10) ADOT provides ADEQ with an electronic list of all construction projects, including the name of the project and its associated AZCON number(s) that have achieved final stabilization and that ADOT considers to be complete. This list is compiled based on memos from the RLA who conducts the stabilization inspection. The inventory has been provided to the ADEQ as required during the last reporting year.
d. Enforcement Tracking and Reporting	5.3.4	4.3.3.4	ADOT maintains a list and description of all violations and their resolution, including any enforcement actions taken against its contractors. ADOT achieves enforcement actions through implementation of its stormwater Enforcement Response Plan. The list is generated from the inspection letters from Construction Site Inspectors. The RE is responsible for maintaining a file for all findings and report them to the Water Quality Group. ADOT has maintained a list and description o violations during the last reporting year.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
D. MEASURES TO CONTROL DISCHARGES FROM NEW DEVELOPMENT AND REDEVELOPMENT	3.2.5	4.4	Develop and implement a comprehensive planning procedure and BMPs to prevent or minimize water quality impacts from new highway development and development.
1. Post-Construction Stormwater Control BMP Manual	3.2.5.1	4.4.1	This guidance manual details the post-construction BMPs ADOT uses to comply with the permit. The manual identifies factors for consideration during selection of BMPs and provides BMP design guidance This manual had no updates in the last reporting year.
2. Install post-construction stormwater control BMPs	3.2.5.2	4.4.2	ADOT requires post-construction stormwater control BMPs be installed for all newly developed or redeveloped roadways that discharge stormwater runoff to impaired or unique waters. This manual had no updates in the last reporting year.
3. Inventory, inspect, and maintain all post-construction stormwater pollution control BMPs	3.2.5.3 and 3.2.6.1(a)	4.4.2	The Maintenance and Facilities group inventories, inspects, and maintains all post-construction BMPs. ADOT has hired a consultant to inventory all stormwater assets for which ADOT is responsible throughout the state. This survey is not anticipated to be completed until 2012. The Maintenance/Facilities SWAT is in the process of developing a uniform system to implement for conducting regular maintenance in each district.
4. Training	3.2.5.4	See 4.1.1.3	Training is discussed in permit reference 4.1.1.3 (Page 2 of this table).
E. MEASURES TO CONTROL DISCHARGES FROM ROADWAYS	3.2.6	--	Previously discussed in reference 4.1.1.3 (Page 2 of this table).

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
1. Maintenance and Facilities Best Management Practices Manual	3.2.6 (a) and (b)	see 4.2.1.2	The Maintenance and Facilities BMP Manual is discussed in 4.2.1.2 above.
2. Storm Sewer System and Highway Maintenance	3.2.6.1	--	ADOT shall implement BMPs for operating and maintain an inventory of its post-construction stormwater pollution BMPs.
a. Inventory Post-Construction Stormwater Pollution Control BMPs	3.2.6.1(a)	4.5.2.1	ADOT is in the process of developing a prioritized inventory of post-construction stormwater pollution control BMPs. See 4.4.2 above.
b. Inspect Storm Sewer System	3.2.6.1 (b)	4.5.2.2	ADOT has implemented a system to inspect and record the condition of the storm sewer system. The District Engineer maintains a record of inspections and conditions found and forwards the list to the Water Quality Group annually. ADOT is in the process of developing the FIS, a geographic information system capable of tracking and maintaining an inventory of ADOT's highway features to include stormwater and other drainage features. The FIS allows for attribute data to be stored and tracked for each feature identified and will be a useful tool in assisting with outfall inspections. It is ADOT's intent to eventually use the FIS throughout the State, however current budget issues has postponed full implementation of this program.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
c. Develop Maintenance Schedules and Priorities	3.2.6.1 (c)	4.5.2.3	Each year ADOT conducts routine maintenance of it's storm sewer system. Maintenance schedules and priorities are evaluated annually by district. The MSLT has developed a standard method for developing a routine maintenance schedule that includes prioritization, implementation and recordkeeping. Each year the maintenance schedule is reviewed and revised as necessary. A maintenance schedule will be include with ADOTs implantation of the FIS as previously described.
d. Stormwater System Repair, Maintenance, and Cleaning	3.2.6.1(d), (e), and (f)	4.5.2.4	ADOT conducts repairs, maintains, and cleans its roadways used for stormwater conveyance and its storm sewer system to minimize the discharge of pollutants from the storm sewer system. During maintenance activities, each storm drain inlet is assessed for evidence of illicit discharges or illegal dumping in accordance with the Maintenance and Facilities BMP Manual. If evidence is discovered, illicit discharges or illegal dumping are reported and followed up according to 4.2.4.2 above. While conducting maintenance and cleaning activities ADOT implements BMPs to reduce the discharge of pollutants from unpaved roads, shoulders, parking lots, unpaved roads, and unpaved parking lots. ADOT properly disposes of all waste removed from its storm sewer system and facilities. ADOT has conducted system repair, maintenance and cleaning of its stormwater conveyance system on an as-needed basis throughout the past reporting year.
3. Training	3.2.6.1 (g)	See 4.1.1.3	Training is discussed in 4.1.1.3 above.
3. Roadside Maintenance Program	3.2.6.2	--	Training is discussed in permit reference 4.1.1.3 (Page 2 of this table).
a. Pesticide and Fertilizer Application	3.2.6.2(c)	--	BMPs have been maintained to manage vegetation along ADOT roadway throughout the past reporting eyar.

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
i. Optimize Chemical Applications	3.2.6.1 (c)(i)	4.5.3.1	ADOT requires its employees and commercial applicators to implement practices and procedures in accordance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) at ADOT facilities and within right-of-ways. ADOT BMPs address the timing of applications in relation to precipitation events and require applicators to use only pesticides approved for aquatic use in areas within or adjacent to a water of the US. The Stormwater Monitoring Guidance Manual for Construction Activities and the Arizona Office of Pest Management licensing requirements contain the guidelines governing pesticide, herbicide, and fertilizer application. Stormwater Monitoring Guidance Manual for Construction Activities and the Arizona Office of Pest Management licensing requirements contain the guidelines for FIFRA applications; however, the existing text in this box stated: Maintenance and Facilities Best Management Practices Manual and the Vegetation Management Plan regarding insecticide, fungicide, and rodenticide applications are what ADOT follows.
ii. FIFRA Certification	3.2.6.1 (c)(ii)	4.5.3.2	ADOT personnel have maintained their FIFRA certification as required.
iii. Training	3.2.6.2 (c)(iii)	See 4.1.1.3	Training is discussed in permit reference 4.1.1.3 (Page 2 of this table).

Requirement: Provide a brief description of the implementation and progress of every individual best management practice (BMP). Also, provide an explanation of any significant developments or changes to the number or type of activities, the frequency or schedule of activities, or the priorities or procedures for implementation of specific management practices			
New Table of Contents	**Permit Reference**	**2010 SSWMP Reference or Other Source**	**Description and Implementation of BMPs**
b. Erosion Abatement Projects	3.2.6.2(d)	4.5.3.4	ADOT has a system to identify, track, and prioritize erosion abatement projects in areas where slopes are 3:1 or greater and actively eroding with sediment leaving ADOT's right of way. The Erosion and Pollution Control Manual contains BMPs guiding site stabilization and erosion control. ADOT has identified the existing Slope Management Program (SMP) database as a tool to identify, track and prioritize erosion abatement projects. The SMP is a Microsoft ACCESS database that allows ADOT to track and prioritize the severity of rock slopes, soil cuts and embankments throughout the state. However, current State budget cutbacks have postponed the expansion of this database as a viable tool to track erosion issues. Once the budget permits, the SMP will be updated as required.
4. Winter Storm Policies	3.2.6.3	4.5.4	ADOT implements BMPs to minimize stormwater impacts from application of salt, de-icing and anti-icing chemicals, abrasives for snow and ice removal, salt and sand storage, and snow disposal areas. These BMPs are described in the Winter Storm Management Arizona Highways Environmental Overview, Winter Storm Management of Arizona Highways Operations Manual, and Maintenance and Facilities BMP Manual. This manual has been updated as-needed throughout the past reporting period.

APPENDIX B
Outfall Inspection and Tracking

Appendix B - Major Outfalls
Inspection Database

Route No-Mile Post	Outfall Location	Outfall Description	Receiving Water	Potential Sources of Pollutants	Inspection Date	Inspector	Outfall Condition	Maintenance Need	Dry Weather Flow Present	Follow up actions (if any)
Phoenix Area										
101-6.05	Loop 101 Agua Fria Freeway 300' W of 107th Ave.	Trapezoidal Open Channel, Concrete TW=102' D=12'	New River		2008					
101-7.76	Loop 101 Agua Fria Freeway ¼ mile S. of Northern Ave. and 1000' W. of 99th Ave.	Trapezoidal Open Channel, Concrete TW=82' D=8'	New River							
101-10.84	Loop 101 Agua Fria Freeway ½ mile N. of Peoria Ave. along E. Bank of New River	Trapezoidal Open Channel, Concrete & Soil Cement TW=65' D=12'	New River							
101-11.85	Loop 101 Agua Fria Freeway ½ Mile S. of Thunderbird Rd. and 300' West	Trapezoidal Open Channel, Concrete TW=45' D=8'	New River							
101-13.44	Loop 101 Agua Fria Freeway 200' S. of S.B. Bridge over Skunk Creek and 80' East	Dual Circular Pipe, Concrete DIA=42"	Skunk Creek		2008					
101-13.68	Loop 101 Agua Fria Freeway 30 ' N of NB Bridge over Skunk Creek and 80' E	Trapezoidal Open Channel, Concrete TW=22' D=4'	Skunk Creek							
101-14.38	Loop 101 Agua Fria Freeway 1200' S. of Bell Road Traffic Interchange & 300' West	Open Channel, Concrete TW=28' D=10'	New River							
101-15.18	Loop 101 Agua Fria Freeway 4/10 Mile N of Bell Rd. & 500' West	Circular Pipe, Concrete DIA=48"	New River							
101-16.31	Loop 101 Agua Fria Freeway 4/10 of a mile S. of Beardsley Rd. and 300' W.	Circular Pipe, Concrete DIA=48"	New River							
101-16.62	Loop 101 Agua Fria Freeway 2/10 of a mile S. of Beardsley Rd. and 500' W	Circular Pipe, Concrete DIA=48"	New River							
101-16.74	Loop 101 Agua Fria Freeway 150' S of Beardsley Rd. & 2800' W. of 75 Ave	Trapezoidal Open Channel, Concrete TW=56' D=11'	New River							
101-20.19	Loop 101 Agua Fria Freeway ½ Mile S. of Beardsley Rd. at 51st Ave	Circular Pipe, Concrete DIA=36"	Skunk Creek							
101-21.23 B	Loop 101 Agua Fria Freeway 245' E of 43rd Ave & N. Side of Beardsley	Circular Pipe, Concrete DIA=42"	Skunk Creek							

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101-21.23 A	Loop 101 Agua Fria Freeway 260' E of 43rd Ave & N side of N Frontage Rd.	Trapezoidal Open Channel, Concrete TW=20' D=2'	Skunk Creek							
101-21.83	Loop 101 Agua Fria Freeway 2000' W. of 35th Ave. & S. side of S. Frontage Rd.	Circular Pipe, Concrete DIA=96"	Scatter Wash							
101-21.87A	Loop 101 Agua Fria Freeway 1500' W of 35th Ave & N side of N Frontage Rd.	Trapezoidal Open Channel, Concrete TW=32' D=8'	Scatter Wash							
101-21.87B	Loop 101 Agua Fria Freeway 1600' W. of 35th Ave & N side of N. Frontage Rd.	Circular Pipe, Concrete DIA=42"	Scatter Wash							
101 - 25.92	Loop 101 Pima Freeway S. of 101, 1/4 mile west of 7th St into east bank of Cave Creek	2 Barrel Box Culvert, Concrete 2 - 8' x 6'	Cave Creek		2008					
101 - 50.87	Loop 101 Pima Freeway N bank of Salt River in NE quadrant of 101 / 202 interchange	2 Barrel Box Culvert, Concrete 2 - 10' x 10'	Salt River		2008					
101-51.07	Loop 101 Pima Freeway S bank of Salt River, E of 101 under 202 interchange	3 Barrel Box Culvert, Concrete 3 - 12' x 12'	Salt River							
10-130.2	I-10 Papago Freeway W. bank of Agua Fria River under Van Buren St.	Circular Pipe, Concrete DIA=48"	Salt River							
10-130.3 Papago Channel	I-10 Papago Freeway ½ Mile W. of El Mirage Rd. & 100' N. of I-10	Trapezoidal Open Channel, Concrete TW=80' D=10'	Agua Fria River							
10-145.17 West Tunnel	I-10 Papago Freeway Central Ave. W side @ N. Bank of Salt River	Circular Tunnel, Concrete DIA=21"	Salt River							
10-149.18 East Tunnel	I-10 Papago Freeway 20th St. E. side@ N. Bank of Salt River	Circular Tunnel, Concrete DIA=21"	Salt River							
10-150.44	I-10 Maricopa Freeway N. Bank of Salt River @ W side of I-10	Circular Pipe, Concrete D=36"	Salt River		2008					
10-150.45	I-10 Maricopa Freeway N. Bank of Salt River @ E. side of I-10	Dual Circular Pipe, Concrete D=72"	Salt River		2008					
10-151.06	I-10 Maricopa Freeway NW Quadrant of I-10 & University Traffic Interchange	Circular Pipe, Concrete D=66"	Tempe Drain							

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Inspection Database

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10-162.44	I-10 Maricopa Freeway NW quadrant of I-10 / Maricopa Road Interchange	Dual Box Culverts, Concrete 2 - 10' x 8'	Gila Floodway		2008					
143-2.90	S.R. 143 Hohokam Expressway 600' N. of Van Buren & 350' E of S.R. 143 at west bank of Old Cross Cut Canal	Circular Pipe, Concrete D=66"	Old Cross Cut Canal							
153 - 1.64	S.R. 153 Sky Harbor Expressway S. bank of Salt River west of expressway	Circular Pipe, Concrete D=72"	Salt River							
17 - 198.48	I-17 Black Canyon Freeway 2200' S. of Buckeye Rd. & 1700' E. of 27th Ave.	Circular Pipe, Concrete D=102"	Salt River		2008					
17-208.2	I-17 Black Canyon Freeway ¼ mile north of Dunlap, west of I-17 into Az Canal	Circular Pipe, Concrete D=36"	Arizona Canal Diversion Channel		2008					
202-3.57	Loop 202 East Papago Freeway Directly under Loop 202/SR143 interchange at E. bank of Relocated Old Cross Cut Canal	Dual Box Culverts, Concrete 2 - 3' x 4'	Old Cross Cut Canal							
202-5.14	Loop 202 East Papago Freeway N of north side levee on Salt River ¼ mile west of 202 and E of 143	Open Channel, Earthen TW=60' D=5'	Salt River							
202-5.90	Loop 202 East Papago Freeway 1000' E. of Priest Dr. and 2200' N. of 1st St.	Circular Pipe, Concrete DIA=36"	Salt River							
202-7.44	Loop 202 East Papago Freeway 1100' W. of Rural Rd. @ N Bank of Salt River	Circular Pipe, Concrete DIA=48"	Salt River		2008					
202-7.98	Loop 202 East Papago Freeway 1100' E. of Rural Rd. @ N. Bank of Salt River	Dual Box Culvert, Concrete 2 - 8' x 8'	Salt River		2008					
202-8.28	Loop 202 East Papago Freeway 2300' E. of Rural Rd. @ N. Bank of Salt River	Circular Pipe, Concrete D=48"	Salt River		2008					
202-8.65	Loop 202 East Papago Freeway 4000' E. of Rural Rd. @ N. Bank of Salt River	Circular Pipe, Concrete D=36"	Salt River		2008					

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202 - 14.22	Loop 202 East Papago Freeway S bank of Salt River, 1000' W of Mesa Dr, 2200' N of 202	Trapezoidal Open Channel, Concrete TW=43' D=11'	Salt River		2008					
51-5.45	S.R. 51 Squaw Peak Parkway 300' N & W of Intersection @ 18th St. and Ocotillo	Circular Pipe, Concrete D=48"	Arizona Canal Diversion Channel		2008					
51-7.04	S.R. 51 Squaw Peak Parkway 400' S and E of Intersection @ Northern and Squaw Peak Freeway	Circular Pipe, Concrete D=48"	Dreamy Draw Wash							
51-8.22	S.R. 51 Squaw Peak Parkway 500' E of Northern, 400' S of 51 @ Dreamy Draw	Concrete Box Culvert, Concrete 10' x 6'	Dreamy Draw Wash		2008					
51 - 10.91	S.R. 51 Squaw Peak Parkway ¼ mile east of 51, 250' S of Sweetwater into Indian Bend Wash	Trap Channel, Concrete TW=86' D=8'	Indian Bend Wash		2008					
51 - 11.62	S.R. 51 Squaw Peak Parkway 400' N of Thunderbird into Indian Bend Wash	Circular Pipe and Box Culvert, Concrete 84" pipe, 10' x 6' CBC	Indian Bend Wash		2008					
87-178.55	S.R. 87 Mesa-Payson Hwy S. of S.R.87 east of McDowell Rd intersection	Open Channel, Concrete	Salt River							
60-187.43	S.R. 60 Superstition Freeway ½ mile E of Higley Rd. & S.R. 60 Traffic Interchange north side	Trapezoidal Open Channel, Concrete TW=44' D=8'	East Maricopa Floodway		2008					
60-189.65	S.R. 60 Superstition Freeway ¼ mile E of Sossman & S.R. 60 Traffic Interchange	Trapezoidal Open Channel, Concrete TW=48' D=9'	Sossoman Chanel		2008					
Tucson Area										
10-260.7	I-10 N. Side of Julian Wash at 10th Ave, S. of I-10	Circular Pipe, Concrete DIA = 72"	Julian Wash							
10-261.5	I-10 1400' W. of S. Park Ave., 1300' N. of Ajo Way- E. of SPRR	Circular Pipe, Concrete Dia = 78"	Julian Wash							
10-264.6	I-10 1200' S. of I-10 & Palo Verde Rd. Interchange, W. side of Palo Verde & N. Bank Julian Wash	Oval Pipe, CM 56" x 42"	Julian Wash							
19-59.0	I-19 Nogales Freeway 1200' S. of I-19 & Valencia Interchange S. of Valencia & E. bank Santa Cruz River	Circular Pipe, CM Dia = 36"	Santa Cruz River							
19-61.7	I-19 Nogales Freeway 900' S. of I-19 & Ajo Way Interchange E. side of I-19 & S. Bank of rodeo Wash	Trapezoidal Open Channel TW=10' D=2'	Rodeo Wash							

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Inspection Database

Route No-Mile Post	Outfall Location	Outfall Description	Receiving Water	Potential Sources of Pollutants	Inspection Date	Inspector	Outfall Condition	Maintenance Need	Dry Weather Flow Present	Follow up actions (if any)
86-171.1	S.R. 86 Ajo Highway 1600' S. of I-19 & Ajo Way Interchange @ W. bank of Santa Cruz River S. of Ajo Way	Circular Pipe, CM Dia = 36"	Santa Cruz River							
77-71.74	U.S. 77 Tucson Florence Highway S. Bank of Rillito River E. of Oracle Road	Circular Pipe, CM Dia = 72"	Rillito River		2008					
77-71.8	U.S. 77 Tucson Florence Highway N. Bank of Rillito River E. of Oracle Road	Open Channel, Concrete TW=40' D=7'	Rillito River		optional					
77-78.7	U.S. 77 Tucson Florence Highway S.E. Quadrant of U.S. 77 & Greenock Dr	Circular Pipe, Concrete 2 Dia = 36"	Tributary of Canada Del Oro		2008					
77-78.9	U.S. 77 Tucson Florence Highway N.E. Quadrant of U.S. 77 & Greenock Dr	Circular Pipe, Concrete Dia = 42"	Tributary of Canada Del Oro		2008					
77-79.9	U.S. 77 Tucson Florence Highway S.E. Quadrant of U.S. 77 & Hanley Road	Open Channel, Concrete TW=25' D=8'	Tributary of Canada Del Oro							
77-80.8	U.S. 77 Tucson Florence Highway N.W. Quadrant of U.S. 77 & Canada Del Oro	Open Channel, Concrete TW=30' D=10'	Canada Del Oro							
210-1.2	S.R. 210 Aviation Parkway S.E. of Intersection of 10th Street & 3rd Ave.	Circular Pipe, Concrete Dia = 96"	Arroyo Chico							
210-2.7	S.R. 210 Aviation Parkway N.W. Quadrant @ Intersection of Campbell Ave. & Aviation Parkway	Circular Pipe, Concrete Dia = 108"	Railroad Wash							
Lake Havasu Area										
1062876	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 2:08:44 PM		Good	Sediment	Dry	
1062877	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 2:10:52 PM		Good	None	Dry	
1062875	S 095	Circular Pipe, HDPE 12" - 35"	Colorado River		9/29/2010 2:05:47 PM		Good	None	Dry	
1062874	S 095	4-Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 1:57:16 PM		Good	Sediment	Dry	
1062873	S 095	5-Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 1:50:43 PM		Good	Sediment	Dry	
1062872	S 095	Dual Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 1:40:33 PM		Good	Sediment	Dry	
1062871	S 095	Dual Box Culvert, Concrete 36" - 59"	Colorado River		9/29/2010 1:33:23 PM		Good	Sediment	Dry	
1062870	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 12:59:26 PM		Good	Sediment	Dry	
1062869	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 12:56:24 PM		Good	Sediment	Dry	
1062868	S 095	Dual Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 12:50:47 PM		Good	Sediment	Dry	
1062867	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 12:45:46 PM		Good	Sediment	Dry	

Appendix B - Major Outfalls
Inspection Database

Route No-Mile Post	Outfall Location	Outfall Description	Receiving Water	Potential Sources of Pollutants	Inspection Date	Inspector	Outfall Condition	Maintenance Need	Dry Weather Flow Present	Follow up actions (if any)
1062866	S 095	3-Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 12:41:29 PM		Good	Sediment	Dry	
1062865	S 095	5-Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 12:36:04 PM		Good	Sediment	Dry	
1062864	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 12:29:41 PM		Good	None	Dry	
1062863	S 095	Dual Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 12:26:33 PM		Good	Sediment	Dry	
1062862	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 12:18:45 PM		Good	Sediment	Dry	
1062861	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 12:15:35 PM		Good	Sediment	Dry	
1062860	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 12:12:41 PM		Good	Sediment	Dry	
1062859	S 095	Dual Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 12:09:01 PM		Good	Sediment	Dry	
1062858	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 12:04:26 PM		Good	None	Dry	
1062857	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 12:02:46 PM		Good	None	Dry	
1062856	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 12:00:49 PM		Good	Sediment	Dry	
1062855	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 11:58:00 AM		Good	Sediment	Dry	
1062854	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 11:53:19 AM		Good	None	Dry	
1062853	S 095	Dual Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 11:49:07 AM		Good	Sediment	Dry	
1062852	S 095	3-Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 11:17:47 AM		Good	Sediment	Dry	
1062851	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 11:11:58 AM		Good	Sediment	Dry	
1062850	S 095	Dual Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 11:08:04 AM		Good	Sediment	Dry	
1062849	S 095	Dual Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 11:04:33 AM		Good	Sediment	Dry	
1062848	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 10:58:31 AM		Good	Sediment	Dry	
1062846	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 10:50:59 AM		Good	Sediment	Dry	
1062847	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 10:53:06 AM		Good	Sediment	Dry	
1062845	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 10:48:06 AM		Good	None	Dry	
1062844	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 10:44:20 AM		Good	Sediment	Dry	
1062843	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 10:39:47 AM		Good	Sediment	Dry	
1062842	S 095	Circular Pipe, CMP 60" and Greater	Colorado River		9/29/2010 10:36:49 AM		Good	None	Dry	

Appendix B - Major Outfalls
Inspection Database

Route No-Mile Post	Outfall Location	Outfall Description	Receiving Water	Potential Sources of Pollutants	Inspection Date	Inspector	Outfall Condition	Maintenance Need	Dry Weather Flow Present	Follow up actions (if any)
1062841	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 10:22:24 AM		Good	Sediment	Dry	
1062840	S 095	Circular Pipe, CMP Less than 6"	Colorado River		9/29/2010 9:42:45 AM		Good	None	Dry	
1062839	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 9:35:36 AM		Good	Sediment	Dry	
1062838	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 9:26:21 AM		Good	None	Dry	
1062837	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 9:18:43 AM		Good	Sediment	Dry	
1062836	S 095	Circular Pipe, HDPE 12" - 35"	Colorado River		9/29/2010 9:14:40 AM		Good	Sediment	Dry	
1062835	S 095	Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 9:11:34 AM		Good	Sediment	Dry	
1062834	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 9:05:22 AM		Good	Sediment	Dry	
1062833	S 095	Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 9:00:31 AM		Good	Sediment	Dry	
1062832	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/29/2010 8:54:16 AM		Good	None	Dry	
1062831	S 095	3-Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 8:29:55 AM		Good	Sediment	Dry	
1062830	S 095	5-Box Culvert, Concrete 60" and Greater	Colorado River		9/29/2010 8:22:35 AM		Good	Sediment	Dry	
1062829	S 095	6-Box Culvert, Concrete 36" - 59"	Colorado River		9/29/2010 8:14:43 AM		Good	Sediment	Dry	
1062828	S 095	Dual Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 8:01:41 AM		Good	Sediment	Dry	
1062827	S 095	Dual Circular Pipe, CMP 36" - 59"	Colorado River		9/29/2010 7:47:50 AM		Good	Sediment	Dry	
1062744	S 095	3-Box Culvert, Concrete 36" - 59"	Colorado River		9/28/2010 1:59:40 PM		Good	Sediment	Dry	
1062745	S 095	Circular Pipe, CMP 12" - 35"	Colorado River		9/28/2010 2:06:32 PM		Poor	Sediment	Dry	
1062746	S 095	Dual Box Culvert, Concrete 60" and Greater	Colorado River		9/28/2010 2:09:12 PM		Good	None	Dry	

APPENDIX C
Notice of Illegal Discharge Letter

Arizona Department of Transportation
Intermodal Transportation Division
206 South Seventeenth Avenue Phoenix, Arizona 85007-3213

Janice K. Brewer
Governor

John S. Halikowski
Director

Floyd Roehrich Jr.
State Engineer

DATE

NOTICE OF ILLEGAL DISCHARGE OR CONNECTION

Person or Business Name
Address
Phoenix, AZ

Dear Property Owner:

The Arizona Department of Transportation (ADOT) is responsible for maintaining not only roadways, but also the extensive storm drain network located within the State rights-of-way. The Arizona Pollutant Discharge Elimination System (AZPDES) Program, which is a component of the Clean Water Act of 1972, requires ADOT to control the amount of pollutants entering the drainage system. Part of this charge is the detection and elimination of illegal discharges or connections to the system that may contain pollutants or are otherwise not allowed. Left uncorrected, any pollutants entering the system will ultimately impact nearby streams, as storm drainage is not treated at any sort of treatment facility. In addition, neighboring property owners are not allowed to occupy, use or interfere with public right of way without permission. Any discharge/connection without permission is an illegal encroachment on ADOT right of way.

An inspection of the drainage system has occurred in the vicinity of your property and an illegal connection/discharge was discovered entering into the ADOT system. The discharge/connection was discovered on date at business name and address.

Indicators or Source include piping and staining.

Photographs of this discharge/connection are enclosed with this letter. In addition, I have enclosed an aerial photograph showing the location of this discharge/connection.

This discharge or connection must be ceased or removed within 30 days. A follow-up investigation will be conducted after that time to ensure compliance. If the situation is not corrected, ADOT will take corrective measures, including but not limited to sending this matter to the Arizona Office of the Attorney General so that a lawsuit may be filed. In the alternative, ADOT may remove the discharge/connection and bill you directly pursuant to A.R.S. § 28-7053.

If the illegal discharge/connection cannot be removed within 30 days, you do not understand this notice, or you disagree that an illegal discharge/connection exists at your property, please contact me with further details or explanation by calling 602.712.8353 or by email at wterlizzi@azdot.gov.

Sincerely,

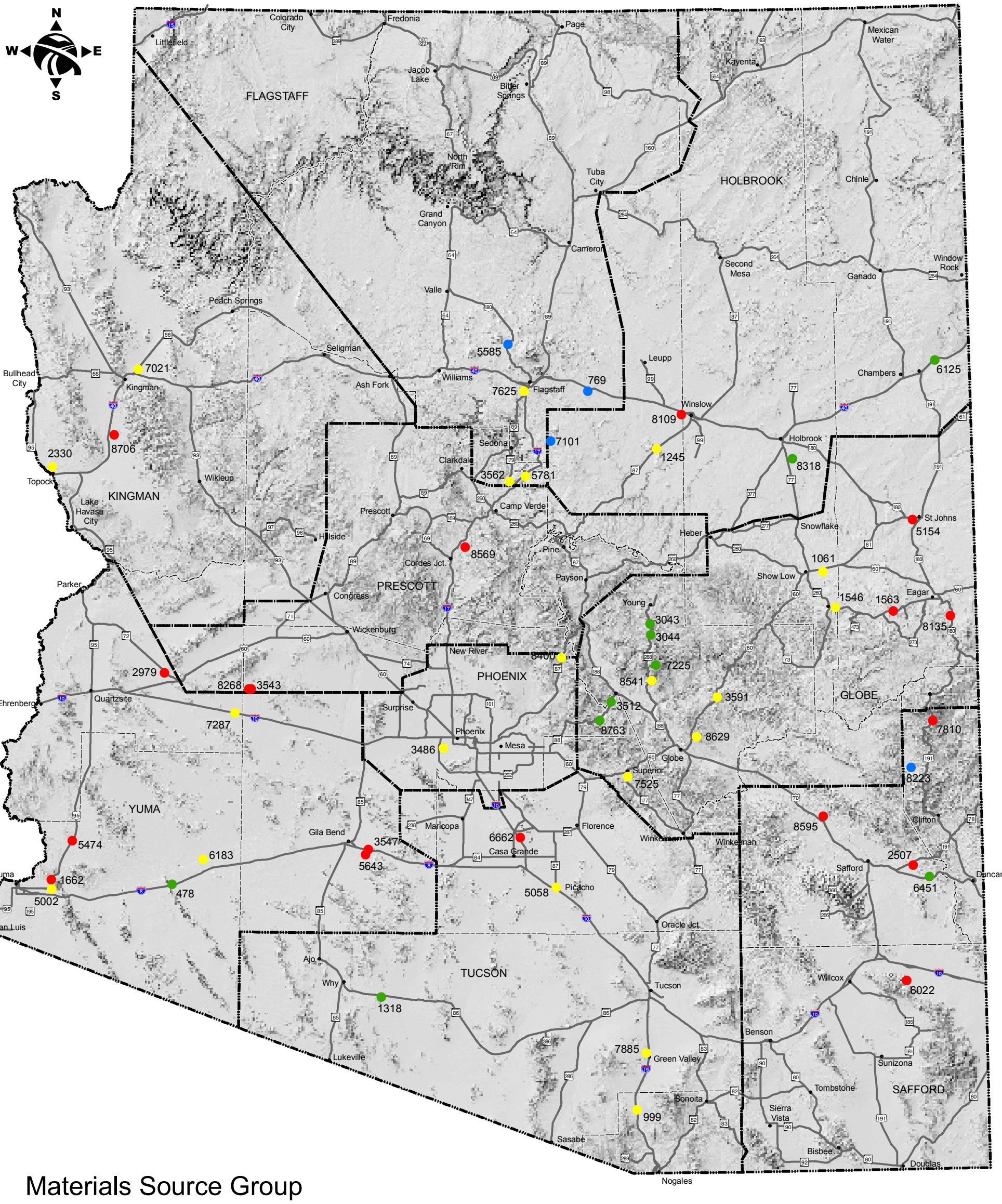
Wendy Terlizzi
ADOT Office of Environmental Services Water Quality Manager
1611 W Jackson Street, MD EM02
Phoenix, Arizona 85383

Enclosure (photographs)

cc: Todd G. Williams, M.Sc, ADOT Office of Environmental Services Director
District Engineer
District Environmental Coordinator

APPENDIX D
Licensed Materials Sources and Stockpile Sites

Arizona Department of Transportation
Licensed Materials Sources and Stockpile Sites



Materials Source Group
Permit Year 2

- GROUP A
- GROUP B
- GROUP C
- GROUP I

- State Highway System
- District Boundary
- County Boundary
- Cities

0 50 100
Miles

Prepared by:
Arizona Department of Transportation
Environmental Planning Group - GIS Team
602.920.3882

October 2010

APPENDIX E
Material Sources Table (Group A, B, C, and I)

Appendix E
ADOT- Licensed Material Sources Inventory
(Permit Year 2)

Material Source (MS) No.	Source Name	ADOT District	County	Owner Code	Town-ship	Range	Sec	Hwy	MP	Latitude ° - ' - " N	Longitude ° - ' - " W	Total Acres	SIC Code	Site Use	Non-Exclusive Use	Potential Non-SW Discharge	Stockpiled Material	Water of US	Distance to Waters (miles)	U / I Waters
GROUP A : A materials source in this group will include a place where work or other activities related to the extraction, processing, removal or recovery of minerals is being conducted. Group A may also include a site or portion of site where mining has occurred in the past, yet currently mining is not being actively undertaken and the facility may or may not be covered by an active mining permit issued by the landowner(s), applicable State or Federal government agency.																				
A1. These sources are expected to be used at least annually. Inspections are conducted at least quarterly.																				
1563	Pole Knoll	Globe	Apache	3	08 N	27 E	30	260	381	34-03-24.83	109-31-55.04	32	1429	20,22	No	HH,LL	Yes	Yes	0.25	No
5154	JMP Ranches Inc.	Globe	Apache	7	13 N	28 E	30	180	366	34-30-04.52	109-24-18.65	80	1499	22	No	HH	No	Yes	<0.25	No
8109	BVD	Holbrook	Coconino	1,5	19 N	15 E	21	I-40	250	35-01-54.56	110-45-32.79	80	1499	20,22,23	No	HH,MM,NN	Yes	No	>0.50	No
7810	Crabtree	Safford	Greenlee	3	02 N	29 E	14	191	216	33-31-04.55	109-18-59.02	10	1429	20,22	Yes	HH	Yes	Yes	0.25	No
6662	Val Vista	Tucson	Pinal	4	05 S	06 E	23	I-10	187	32-58-35.18	111-43-04.41	120	1499	22,23	Yes	HH,JJ	No	Yes	On-site	No
1662	Tanner	Yuma	Yuma	4	08 S	21 W	9	95	38	32-44-35.30	114-25-33.55	95	1442	20,22,24	Yes	HH,II,JJ	Yes	Yes	On-site	No
3547	Gila Bend North	Yuma	Maricopa	4	06 S	03 W	7	I-8	124	32-54-55.14	112-35-51.77	19	1499	20,22	Yes	HH	Yes	Yes	On-site	No
A2. These sources are used less than annually. Inspections are conducted at least annually.																				
8135	Warm Springs	Globe	Apache	3	07 N	30 E	5	191	411	34-01-33.25	109-11-53.27	95	1429	20,24	Yes	HH	Yes	Yes	On-site	No
8706	Yucca	Kingman	Mohave	1,2,4,7	18 N	17 W	30	I-40	29	34-55-04.24	114-07-02.16	133	1442	20,23	Yes	HH	Yes	Yes	On-site	No
8569	Dugas	Prescott	Yavapai	3	12 N	03 E	27	I-17	270	34-23-29.20	112-02-26.61	40	1429	20	Yes	HH	Yes	Yes	<0.25	No
2507	San Jose Wash	Safford	Graham	4	7 S	28 E	23	191	136	32-48-52.85	109-27-2.57	28	1442	2	Yes	N/A	No	Yes	On-site	No
6022	Bowie	Safford	Cochise	2,4	13 S	28 E	32	I-10	365	32-15-20.64	109-30-02.93	134	1442	20,23	Yes	HH	Yes	Yes	On-site	No
8595	Fort Thomas	Safford	Graham	4	04 S	23 E	26	70	305	33-03-44.97	109-57-50.34	14	1442	2	Yes	N/A	No	Yes	On-site	No
2979	Vicksburg	Yuma	La Paz	4	05 N	15 W	23	72	44	33-45-45.94	113-47-39.44	60	1499	20	Yes	HH	Yes	Yes	<0.25	No
3543	Tiger Wash East	Yuma	Maricopa	4	04 N	10 W	16	I-10	73	33-41-29.35	113-17-10.02	80	1442	2	Yes	N/A	No	Yes	On-site	No
5474	YPG	Yuma	Yuma	9	06 S	20 W	3	95	53	32-56-15.13	114-18-32.26	14	1442	20,22	No	HH	Yes	Yes	0.25	No
5643	Gila Bend South	Yuma	Maricopa	4	06 S	03 W	19	I-8	123	32-53-16.92	112-36-42.77	303	1442	20,23	Yes	HH	Yes	Yes	On-site	No
8268	Tiger Wash West	Yuma	Maricopa	4	04 N	10 W	16	I-10	73	33-41-29.35	113-18-02.48	74	1442	20,23	Yes	HH,JJ	Yes	Yes	On-site	No
TOTAL SITES IN GROUP A =	**18**																			
GROUP B : A material source in this group will include a site or portion of a site where mining occurred in the past but is not an active facility. A site that is no longer being used will remain in this group until it can be reclaimed, at which time it would be moved to Group C.																				
3043	Squaw Peak	Globe	Gila	3	08 N	14 E	30	288	299	34-00-44.09	110-57-23.93	7	1499	1,20	Yes	HH	Yes	Yes	0.25	No
3044	Board Tree Saddle	Globe	Gila	3	07 N	14 E	7	288	295	33-57-37.32	110-57-11.80	15	1499	1,20	Yes	HH	Yes	Yes	<0.25	No
3512	Burnt Corral	Globe	Maricopa	3	03 N	11 E	1	88	237	33-38-04.52	111-11-18.65	11	1499	1,20	Yes	HH,JJ	Yes	Yes	0.25	No
7225	Connor Canyon	Globe	Gila	3	06 N	13 E	36	288	280	33-48-43.43	110-55-30.94	16	1499	1,20	Yes	HH	Yes	Yes	< 0.25	No
8763	Fish Creek	Globe	Maricopa	3	02 N	11 E	5	88	227	33-32-39.06	111-15-15.76	4	1429	1	Yes	HH,JJ	Yes	Yes	0.25	No
6125	Puerco River	Holbrook	Apache	1	22 N	29 E	27	I-40	345	35-16-26.59	109-14-55.43	19	1499	25	No	N/A	No	Yes	On-site	No
8318	Aztec	Holbrook	Navajo	2,7	16 N	21 E	3	77	381	34-48-33.75	110-06-18.35	45	1499	1,26	No	N/A	No	Yes	<0.25	No
6451	Slick Rock Wash	Safford	Graham	4	08 S	29 E	10	70	361	32-45-32.29	109-21-28.43	25	1442	20,26	Yes	N/A	Yes	Yes	On-site	No
1318	Quijotoa	Tucson	Pima	5	14 S	02 W	19	86	68	32-11-36.32	112-31-03.30	10	1499	1,26	Yes	N/A	No	Yes	<0.25	No
478	Mohawk	Yuma	Yuma	4	08 S	14 W	17	I-8	55	32-43-57.44	113-43-41.55	40	1499	26	Yes	N/A	No	Yes	On-site	No
TOTAL SITES IN GROUP B =	**10**																			
GROUP C : Includes activities intended to return the land to its pre-mining state. (Once a site is reclaimed, it will be removed from this Group)																				
769	Twin Arrows	Flagstaff	Coconino	3	20 N	10 E	2	I-40	217	35-09-04.61	111-18-45.07	32	1429	18	Yes	N/A	No	Yes	<0.25	No
5585	Deer Tank	Flagstaff	Coconino	3	23 N	06 E	17	180	234	35-22-53.19	111-47-12.12	20	1429	21	Yes	N/A	No	No	>0.50	No
7101	Munds	Flagstaff	Coconino	3	18 N	08 E	27	I-17	320	34-54-34.06	111-32-06.73	35	1429	21	Yes	N/A	No	Yes	<0.25	No
8223	Upper Sheep Wash	Safford	Greenlee	3	02 S	28 E	2	191	190	33-17-39.07	109-26-54.60	7	Not 14XX	1,18	Yes	N/A	No	Yes	On-site	No
TOTAL SITES IN GROUP C =	**4**																			

Appendix E
ADOT- Licensed Material Sources Inventory
(Permit Year 2)

Material Source (MS) No.	Source Name	ADOT District	County	Owner Code	Town-ship	Range	Sec	Hwy	MP	Latitude ° - ' - " N	Longitude ° - ' - " W	Total Acres	SIC Code	Site Use	Non-Exclusive Use	Potential Non-SW Discharge	Stockpiled Material	Water of US	Distance to Waters (miles)	U / I Waters
GROUP I : Non-Mining Sites. These regulated stockpile sites will be inspected at least quarterly.																				
3562	Beaver Creek	Flagstaff	Yavapai	3	15 N	05 E	12	179	302	34-42-35.03	111-46-45.18	2	Not 14XX	1,19,20	Yes	HH,MM	Yes	Yes	<0.25	No
5781	Blue Grade	Flagstaff	Yavapai	3	16 N	06 E	35	I-17	304	34-44-16.12	111-40-58.62	17	Not 14XX	20,22	Yes	HH,LL,MM	Yes	Yes	0.25	No
7625	Fort Tuthill	Flagstaff	Coconino	1,3	21 N	07 E	31	89A	400	35-09-11.40	111-41-31.75	80	Not 14XX	20,22	No	HH,LL,MM	Yes	Yes	On-site	No
1061	Second Knoll	Globe	Navajo	3	10 N	23 E	18	60	347	34-15-25.88	109-56-19.91	16	Not 14XX	20,22	Yes	HH,LL	Yes	Yes	0.25	No
1546	Kinney Mountain	Globe	Navajo	5	08 N	23 E	24	260	360	34-04-53.85	109-52-15.06	22	Not 14XX	1,20	Yes	HH,LL,MM	Yes	Yes	<0.25	No
3591	Carol Spring Mountain	Globe	Gila	3	04 N	17 E	33	60	278	33-39-05.12	110-34-06.08	6	Not 14XX	20,22	No	HH,LL,MM	Yes	Yes	<0.25	No
7525	Defiance	Globe	Pinal	3	2 S	12 E	11	177	167	33-16-04.92	111-05-38.06	25	Not 14XX	1,20	Yes	HH,MM	Yes	Yes	< 0.25	No
8541	Red Bluff	Globe	Gila	3	05 N	14 E	31	288	272	33-44-08.71	110-57-01.00	3	Not 14XX	1,20	Yes	N/A	Yes	Yes	<0.25	No
8629	Seven Mile Wash	Globe	Gila	3	03 N	16 E	23	60	268	33-35-13.16	110-38-47.23	1	Not 14XX	1,20	Yes	HH,MM	Yes	Yes	On-site	No
1245	Sunset Pass	Holbrook	Coconino	2,7	17 N	13 E	13	87	327	34-51-59.87	110-54-29.34	10	Not 14XX	20,22	No	HH,LL,MM	Yes	Yes	On-site	No
2330	Topock NWR	Kingman	Mohave	1	16 N	21 W	23	95	215	34-45-20.78	114-28-43.53	37	Not 14XX	25	No	N/A	No	Yes	On-site	No
7021	Gordon Drive	Kingman	Mohave	1	22 N	16 W	33	66	59	35-14-26.71	113-59-04.02	15	Not 14XX	20	No	HH,MM	Yes	No	N/A	No
3486	51st Ave	Phoenix	Maricopa	1	01 N	02 E	21	85	189	33-24-34.86	112-09-48.45	15	Not 14XX	25	No	N/A	No	Yes	On-site	No
8400	Sunflower	Phoenix	Maricopa	3	06 N	09 E	19	87	217	33-51-03.28	111-28-30.29	2	Not 14XX	1,20	Yes	N/A	Yes	Yes	<0.25	No
999	Tubac	Tucson	Santa Cruz	1	20 S	13 E	31	I-19	24	31-38-42.19	111-03-19.16	14	Not 14XX	20,22	No	HH	Yes	Yes	On-site	No
5058	Picacho	Tucson	Pinal	1	08 S	08 E	15	87	195	32-43-49.69	111-30-43.93	52	Not 14XX	20	No	HH,MM	Yes	Yes	On-site	No
7885	Sahuarita	Tucson	Pima	1	17 S	13 E	27	I-19	44	31-55-09.96	111-00-01.88	37	Not 14XX	20,22	No	HH,MM	Yes	Yes	<0.25	No
5002	Fortuna/Blaisedell	Yuma	Yuma	1	08 S	21 W	33	95	33	32-41-49.57	114-25-19.78	40	Not 14XX	20	No	HH,MM	Yes	Yes	On-site	No
6183	Dateland	Yuma	Yuma	2	06 S	13 W	36	I-8	67	32-51-32.30	113-33-07.68	60	Not 14XX	20,22	Yes	HH,MM	Yes	Yes	On-site	No
7287	Centennial	Yuma	La Paz	1	03 N	11 W	27	I-10	68	33-34-34.62	113-22-48.65	40	Not 14XX	20	No	HH,MM	Yes	Yes	On-site	No
TOTAL SITES IN GROUP I =		**20**																		

APPENDIX F
Numeric Summary of BMPs

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
MEASURES TO CONTROL DISCHARGES THROUGH EDUCATION						
3.2.2.1(a)(ii)(1)	Train ADOT Employees - Illicit discharges and illegal dumping					
	Number of trainings offered	7	17			
	Number of employees trained	35	112			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.1(a)(ii)(2)	Train ADOT Employees - Non-stormwater discharges					
	Number of trainings offered	7	17			
	Number of employees trained	35	112			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.1(a)(ii)(3)	Train ADOT Employees - New Construction and land disturbances					
	Number of trainings offered	7	17			
	Number of employees trained	35	112			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.1(a)(ii)(4)	Train ADOT Employees - New development and significant redevelopment					
	Number of trainings offered	7	17			
	Number of employees trained	35	112			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.1(a)(ii)(5)	Train ADOT Employees - Storm sewer system and highway maintenance					
	Number of trainings offered	7	17			
	Number of employees trained	35	112			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.1(a)(ii)(6)	Train ADOT Employees - Good housekeeping and material BMPs					
	Spill Prevention and Response - Number of trainings offered	7	17			
	Spill Prevention and Response - Number of employees trained	35	112			
	Pesticides, Herbicides, and Fertilizer Application - Number of trainings offered	7	17			
	Pesticides, Herbicides, and Fertilizer Application - Number of employees trained	35	112			
	Industrial Sites - Number of trainings offered	7	17			
	Industrial Sites - Number of employees trained	35	112			
	(Other numeric measurable goals(s))	NA	NA			

NA - Not Available

Numeric Summary of BMPs

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
3.2.2.1(a)(iii)	Develop Stormwater Library					
	Number of times accessed or visited	NA	NA			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.1(b)	ADOT Construction Contractor Training and Certification					
	Number of trainings offered	7	6			
	Number of ADOT employees trained/certified	35	22			
	Number of ADOT employees recertified	5	28			
	Number of ADOT contractors trained	NA	129			
3.2.2.2(b)(i)	Distribution of Educational Materials Through Public Places					
	Number of materials (posters, brochures, signs, etc.) distributed	2600	4,577			
	Number of public events ADOT attended with displays	5	65			
	Est'd Audience from tv, movie, radio, billboard, bus shelter PSAs	NA	13,534,800			
	Educational items (coloring books, wrist bands, magnets, etc). distributed	NA	6,129			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.2(b)(ii)	Distribution of Educational Materials Through ADOT's Stormwater Webpage					
	Number of hits on webpage	NA	NA			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.3 (b)	Record and Consider Public Comments					
	Number of public comments received	0	0			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.3(c)	Implement a Public Reporting System					
	Number of reports received from public	0	0			
	Number of reports investigated	0	0			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.3(d)	Develop a Stormwater Component of the Adopt-a-Highway Litter Initiative					
	Number of volunteer groups participating	1,835	1,609			
	Number of miles cleaned	2,291	2,026			
	Amount of trash collected (tons)	246	211			
	(*Other numeric measurable goals(s)*)	NA	NA			
3.2.2.3(e)	Continue Implementation of Litter Hotline					
	Number of calls received	3,389	2864			
	(*Other numeric measurable goals(s)*)	NA	NA			

NA - Not Available

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Section Number	**Stormwater BMP or Activity**	**Annual Reporting Year (July1 - June 30)**				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
ILLICIT DISCHARGE/ILLEGAL DUMPING DETECTION AND ELIMINATION MEASURES						
3.2.3.1(a)	Maintain Illicit Discharge Authority					
	(*Numeric Measurable goal(s)*)	0	0			
3.2.3.1(b)	Enforce Standard Encroachment Permit					
	Number of enforcement actions	0	0			
	(Other numeric measurable goal(s))	0	0			
3.2.3.1(c)	Implement Non-Stormwater BMPs					
	(*Numeric Measurable goal(s)*)	NA	NA			
3.2.3.1(d)	Inspect Outfalls for Dry Weather Discharges					
	Number of major outfalls inspected	35	35			
	Number of 71 identified major outfalls inspected	35	35			
	Number of priority outfalls inspected	7	0			
	Number of storm drain cross connection detected	0	0			
	Number of illicit discharges detected	1	1			
	Number of other dry weather flows detected	0	0			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.3.3(b)	Investigate Illicit Discharges (Source Identification)					
	Number of storm drain cross connection investigated	0	0			
	Number of illicit discharges investigated	0	0			
	Number of other dry weather flows investigated	0	0			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.3.3(c)	Respond to Complaints					
	Number of complaints received	0	0			
	Number of complaints responded to	0	0			
	Average response time (in days)	0	0			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.3.3(d)	Report Incidental Dry Weather Discharges					
	Number of discharges reported to ADEQ	1	1			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.3.4(a)	Take Action to Eliminate Existing Dry Weather Flows					
	Number of existing dry weather discharges eliminated	0	0			
	(*Other numeric measurable goal(s)*)	NA	NA			

NA - Not Available

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
3.2.3.4(b)	Take Action to Eliminate Sources of Illicit Discharges					
	Number of storm drain cross connection eliminated	0	0			
	Number of illicit discharges eliminated	1	1			
	Number of dry weather discharges eliminated	1	1			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.3.4(c)	Coordinate with Local Jurisdictions for Complaint Response and Investigation					
	Number of illicit discharges reported to other jurisdictions for follow-up	1	0			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.3.5	Responding to Spills					
	Number of highway accident spills responded to	0	156			
	Number of highway accident spills prioritized (potential for discharge)	0	156			
	(*Other numeric measurable goal(s)*)	NA	NA			

NA - Not Available

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Section Number	**Stormwater BMP or Activity**	**Annual Reporting Year (July1 - June 30)**				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
MEASURES TO CONTROL DISCHARGES FROM NEW DEVELOPMENT AND REDEVELOPMENT						
3.2.5.2	Install Post-Construction Stormwater Control BMPs					
	Number of new post-construction stormwater control BMPs installed	NA	0			
	(*Other numeric measurable goal(s)*)	NA	NA			

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Section Number	**Stormwater BMP or Activity**	**Annual Reporting Year (July1 - June 30)**				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
MEASURES TO CONTROL DISCHARGES FROM ROADWAYS						
3.2.6.1(b)	Inspect Storm Sewer System					
	Number of inspections performed	0	54			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.6.1(c)	Develop Maintenance Schedules and Priorities					
	(*Numeric measurable goal(s)*)	NA	NA			
3.2.6.1(d)	Perform Repair, Maintenance, and Cleaning					
	Number of miles of roadways repaired/maintained	0*	0*			
	Number of inlets cleaned	0*	0*			
	Number of drain inlets containing significant materials	0*	0*			
	(*Other numeric measurable goal(s)*)	NA	NA			
3.2.6.2(c)(ii)	Require Certification/License					
	Number of licensed ADOT applicators	41	41			
3.2.6.2(d)	Stabilize Roadway Slopes (attach summary of tracking & prioritization)					
	Acres of roadway slopes stabilized	0	0			

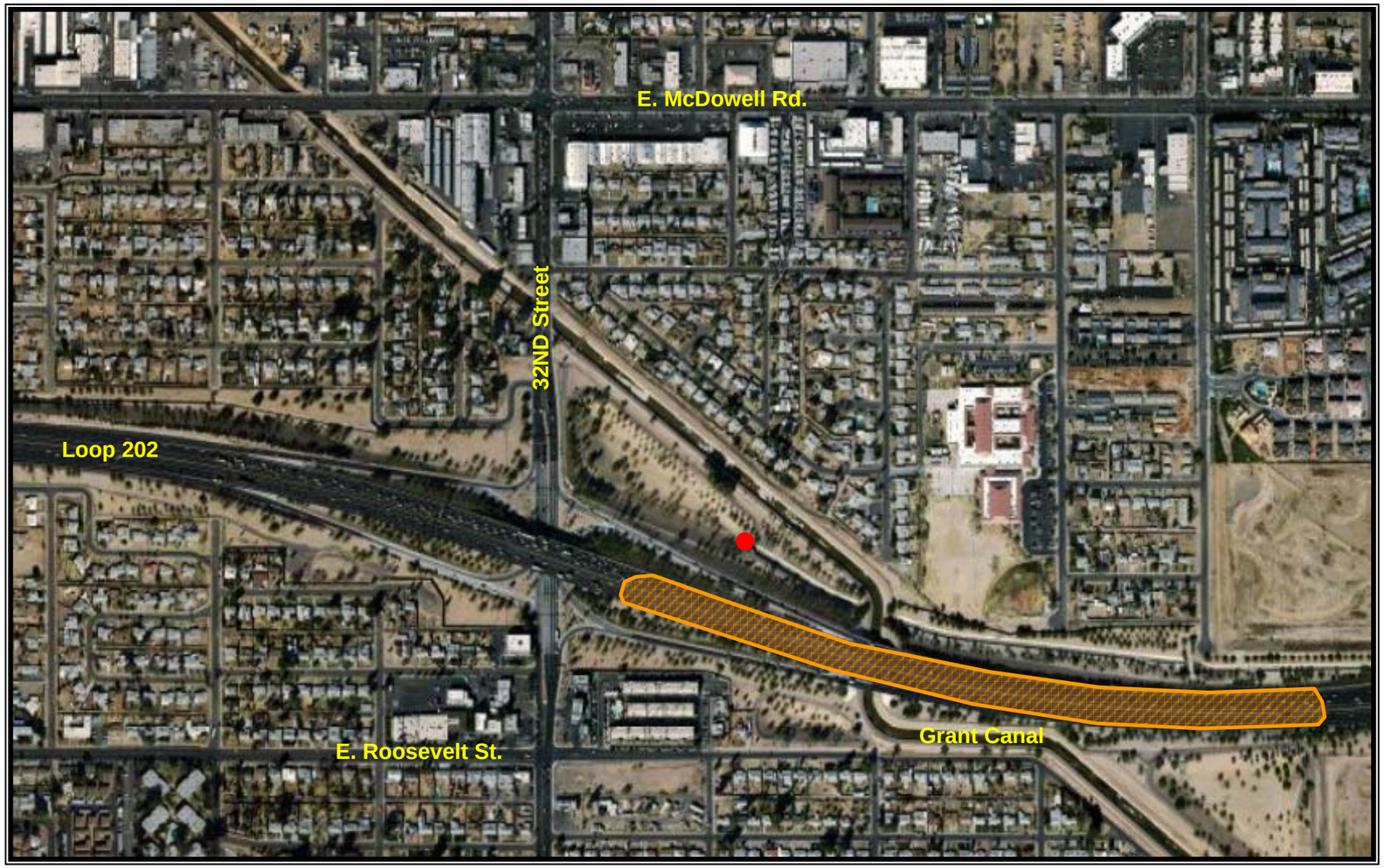
* In a ccordance with 3.2.6.1(b), ADOT has 24 months to implement a system to inspect and record conditions of its storm sewer system

NA - Not Available

Section Number	Stormwater BMP or Activity	Annual Reporting Year (July1 - June 30)				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
Section Number	**Stormwater BMP or Activity**	**Annual Reporting Year (July1 - June 30)**				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
MEASURES TO CONTROL DISCHARGES FROM ADOT MAINTENANCE FACILITIES						
4.1.5.3	Stencil Drain Inlets at ADOT Facilities					
	Number of new catch basins installed	0	0			
	Number of catch basins marked or stenciled	15	0			
	(*Other numeric measurable goal(s)*)	NA	NA			

NA - Not Available

APPENDIX G
Current MS4 Monitoring Locations



0 300 600 1200 Feet

N
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S

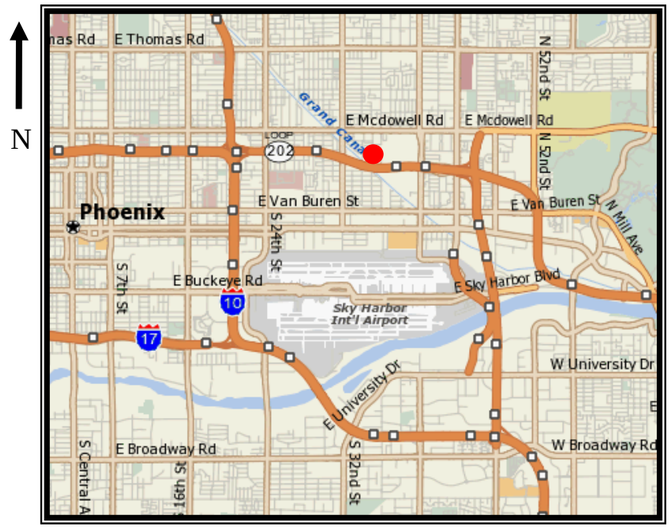
ADOT

Legend

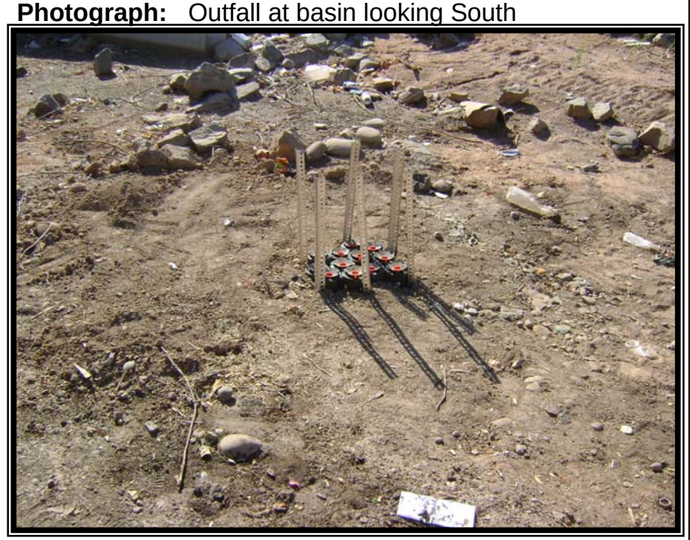
- Stormwater Sample Location
- Contributing Drainage Area for Monitoring Site

Vicinity Map

NTS



Photograph: Outfall at basin looking South



Existing MS4 Sampling Location
Phoenix, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

eec Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 6_Phoenix Existing MS4 Site Map

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 7_Tucson Existing MS4 Site Map

0 300 600 1200 Feet

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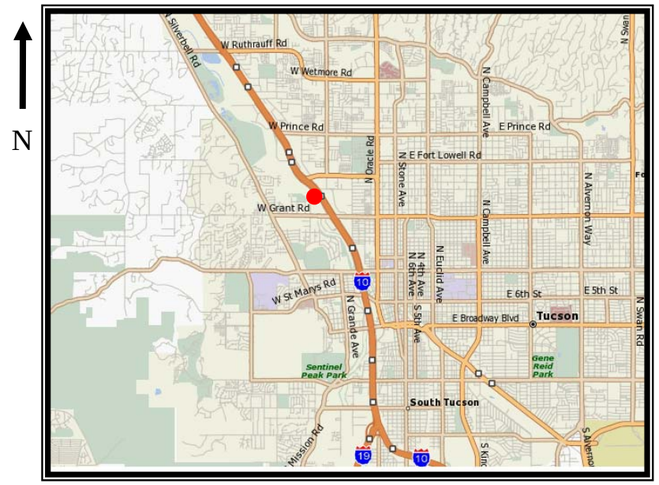
ADOT

Legend

- Stormwater Sample Location
- Contributing Drainage Area for Monitoring Site
- ADOT Grant Road Maintenance Yard

Vicinity Map

NTS



Photograph: Outfall from Roadway looking East

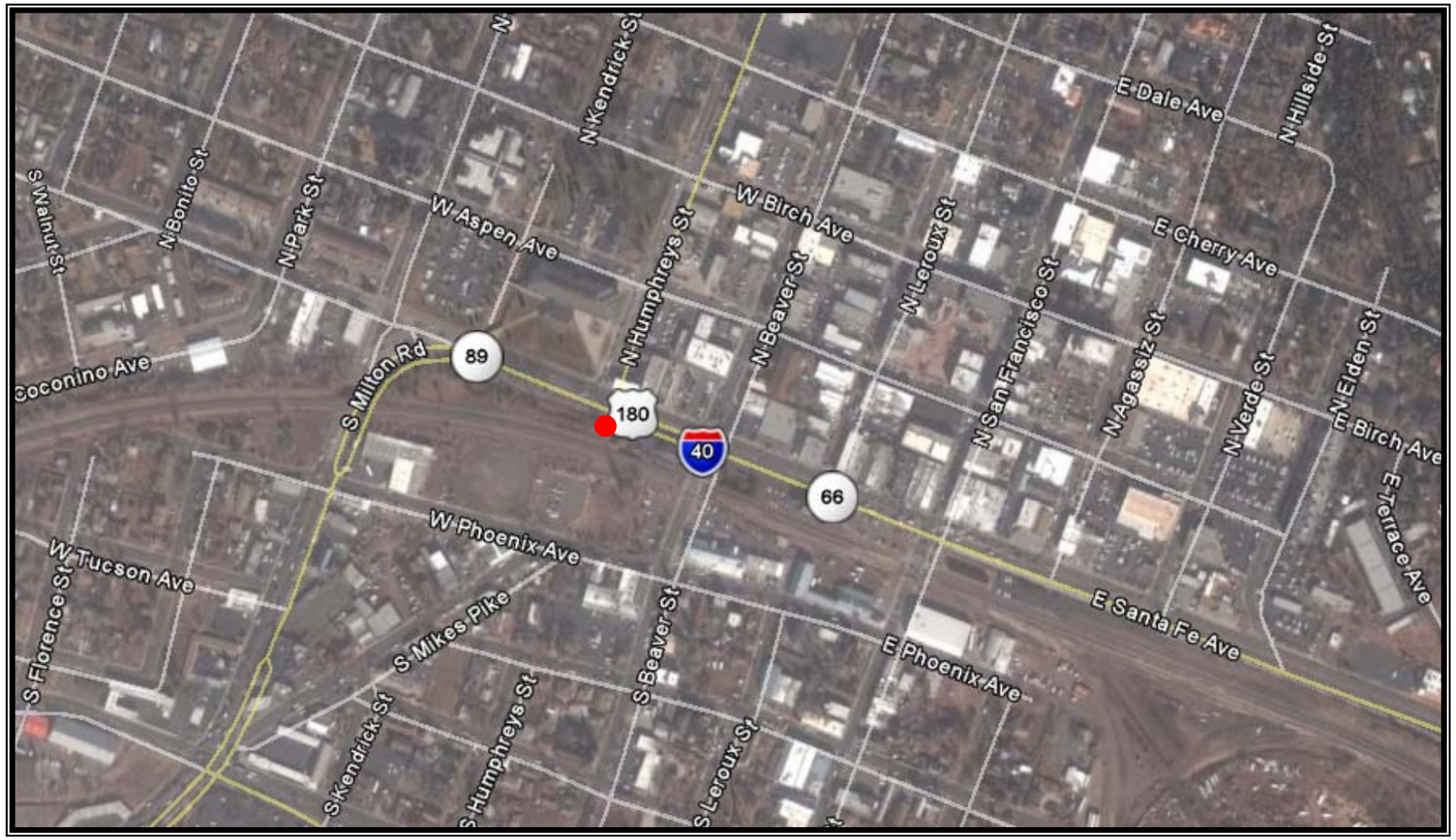
Existing MS4 Sampling Location
Tucson, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

eec Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

APPENDIX H
Proposed MS4 Monitoring Locations

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 1_Flagstaff Proposed MS4 Site Map



0 400 800 1600 Feet

Legend

● Stormwater Sample Location

Vicinity Map

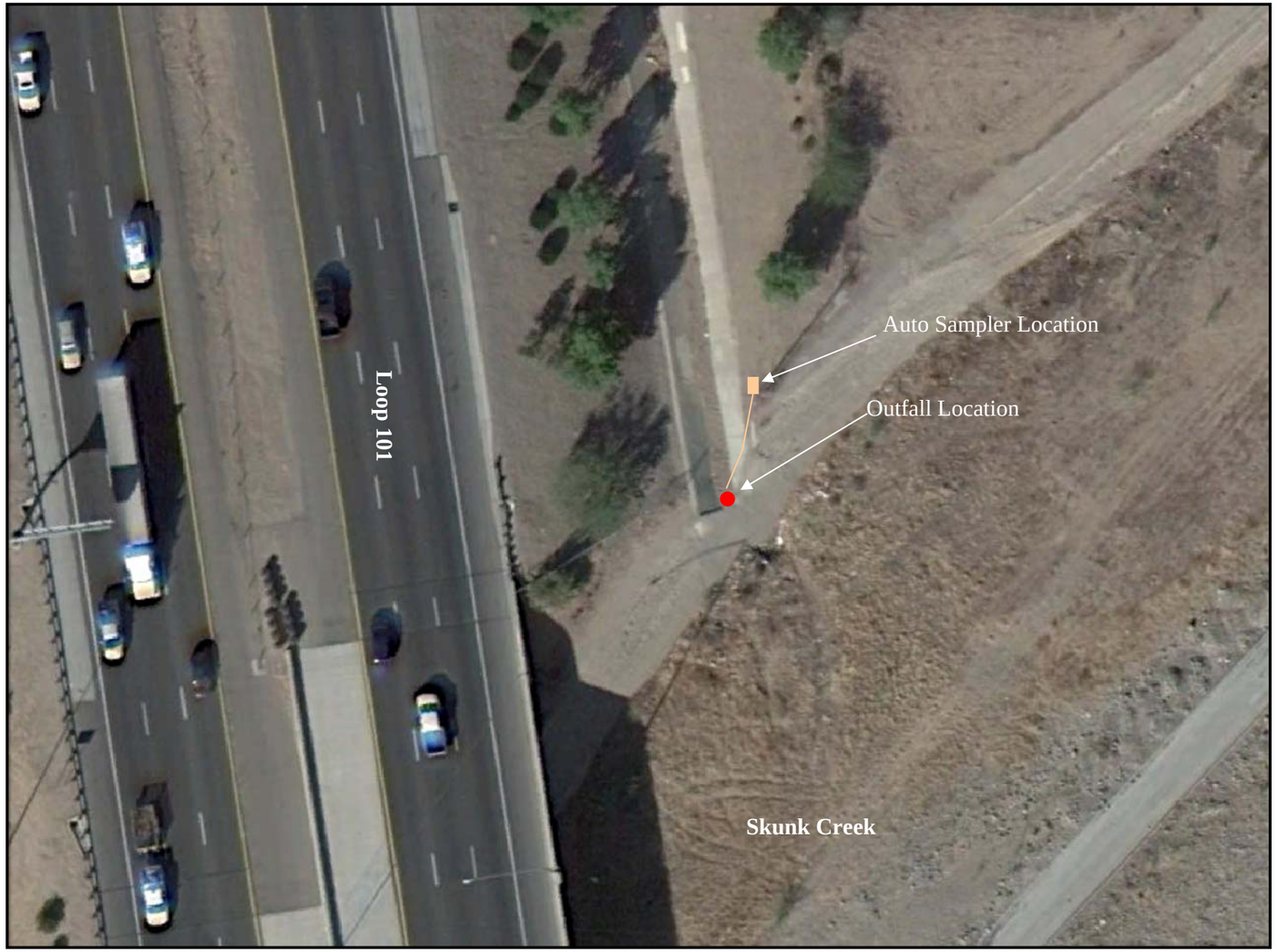
NTS

Photograph: Outlet from Roadway looking North

Proposed MS4 Sampling Location
Flagstaff, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020



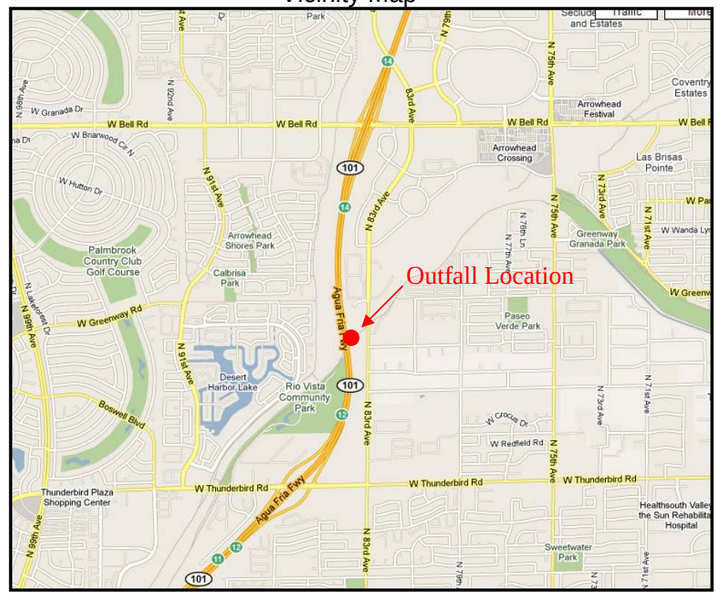
0 50

ADOT Outfall 101-13.68

Northeast Corner of Loop 101 and Skunk Creek Bridge, Peoria, Arizona

N

Vicinity Map



Proposed MS4 Sampling Location
Phoenix, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 2_Nogales Proposed MS4 Site Map

0 300 600 1200 Feet

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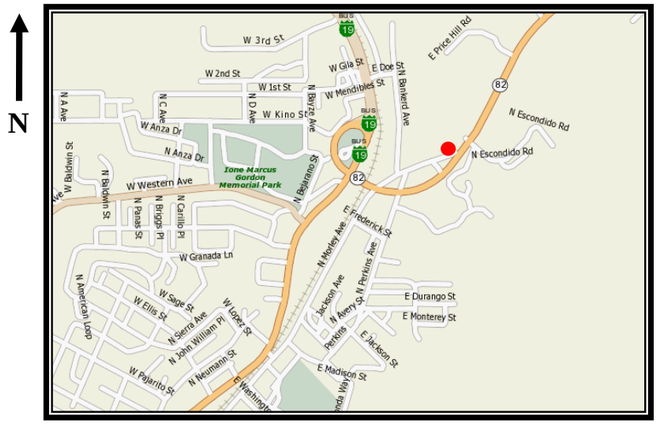
ADOT

Vicinity Map

NTS



Photograph: Approximate terminus area of ADOT outfall 82-0.57 and proposed sampling location

Legend

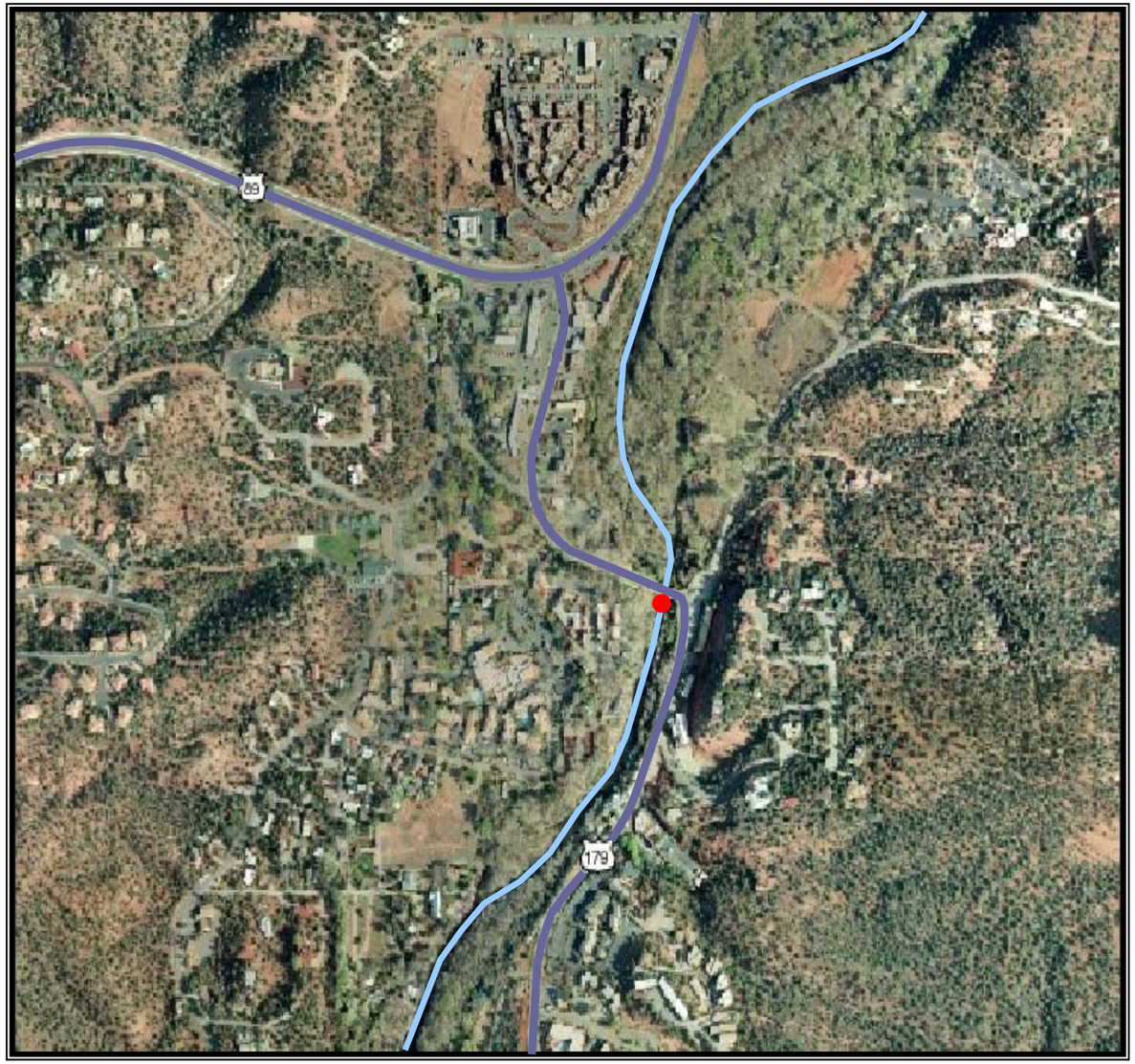
- Stormwater Sample Location (Approximate)

Proposed MS4 Sampling Location
Nogales, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORMWATER MONITORING SITE

eec Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 4_Sedona Proposed MS4 Site Map



0 600 1,200 Feet

N W E S

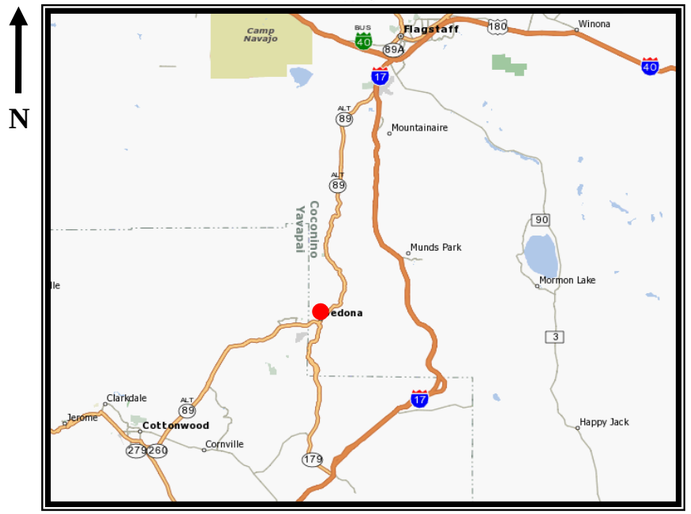
ADOT

Legend

- Stormwater Sample Location
- Oak Creek
- State Routes 89 & 179

Vicinity Map

NTS



Photograph: Outfall from 179 to Oak Creek looking South

Proposed MS4 Sampling Location
Sedona, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

eec Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 5_Tucson Proposed MS4 Site Map

0 300 600 1200 Feet

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W E
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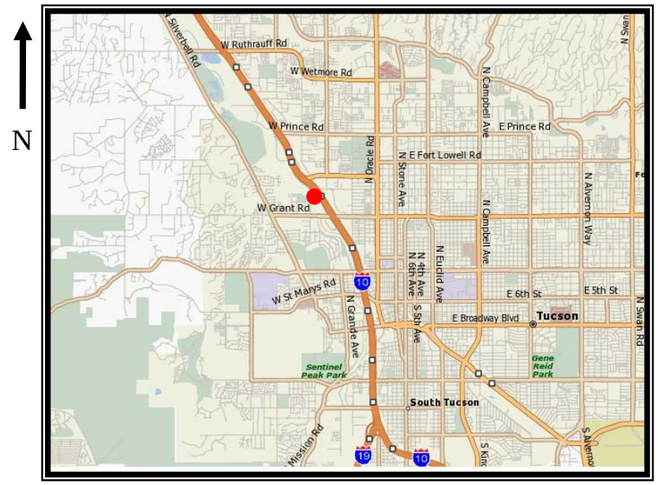
ADOT

Legend

- Stormwater Sample Location
- Contributing Drainage Area for Monitoring Site
- ADOT Grant Road Maintenance Yard

Vicinity Map

NTS



Photograph: Outfall from Roadway looking East

Proposed MS4 Sampling Location
Tucson, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

eec Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

APPENDIX I
ISCO Stormwater Sampling Equipment

Isco Product Data

Isco 6712 Full-size Portable Sampler

Isco's 6700 Series Portable Samplers have set the industry standard, providing the most comprehensive and durable performance available. With the introduction of our new 6712, Isco takes another step toward the ultimate by including SDI-12 interface capabilities.

The 6712 uses Isco's advanced 6700 Series Controller, a device that allows you to select from a variety of programming modes, assuring the most suitable routine for your application. Programming is fast and simple, with on-line help just a key stroke away.

The environmentally-sealed 6712 controller delivers maximum accuracy and easily handles all of your sampling applications, including:

- wastewater effluent
- stormwater monitoring
- CSO monitoring
- permit compliance
- pretreatment compliance

In the Standard Programming Mode, the controller walks you through the sampling sequence step-by-step, allowing you to choose all parameters specific to your application. Selecting the Extended Programming Mode lets you enter more detailed programs.

An optional telephone modem allows programming changes and data collection to be performed remotely, from a touch-tone phone. It also has dial-out alarm features.

Bottle options are available for practically any sequential or composite application.

Versatile and Convenient

With eleven bottle choices, Isco's 6712 Sampler lets you quickly adapt for simple or intricate sampling routines. Up to 30 pounds (13.5 kg) of ice fits in the insulated base, preserving samples for extended periods, even in extreme conditions. A convenient drain plug aids removal of water from melted ice.

Tough and Reliable

The 6712 Portable Sampler features a vacuum-formed ABS plastic shell to withstand exposure and abuse. Its tapered design and trim 20-inch (50.8 cm) diameter result in easy manhole installation and removal. Large, comfortable handles make transporting safe and convenient—even when wearing gloves.

Isco's 6712 Portable Sampler carries a NEMA 4X, 6 (IP67) enclosure rating. It's submersible, watertight, dust-tight, and resistant to sleet and corrosion.

Superior capability, rugged construction, and unmatched reliability make the 6712 the ideal choice for portable sampling in just about any application.

All 6712 Samplers share the following features:

Advanced Delivery System

The 6712's peristaltic pump delivers samples at the EPA-recommended velocity of 2 ft/sec., even at head heights of 26 feet. At a head height of 3 feet, line velocity is 3 ft/sec. No other automatic sampler achieves this level of performance!

Our patented* pump revolution counter tells you when tubing should be replaced. Changing tubing is a snap; there are no pump covers, collars or tools to slow you down. An exclusive safety interlock removes power from the pump when it's opened.

Step-by-Step Programming

This feature walks you through the sampling sequence and allows you to choose all parameters specific to your application:

- When to start
- What volume to collect
- How to distribute samples
- If samples are to be time- or flow-paced.

You can easily enter complex programs to suit your unique needs. Available routines include:

- Pause and resume for intermittent discharge flow monitoring
- Sampler pacing by time, non-uniform time, flow or external event
- Random interval sample collection

Convenient Data Retrieval

Every 6712 Sampler is also a powerful data logger. Sampling, flow, rainfall, and other water quality data can be stored in its 512 KB memory.

Data may be retrieved directly into a Flowlink® 4 equipped PC in three ways:

- Via cable connection
- Remotely, via Isco's 2102 Wireless Communication System
- By phone, using our optional built-in modem

SDI-12 Interfacing

The 6712 functions as a SDI-12 logger and connects to any sensor that fully implements the protocol standard.

Display window showing SDI-12 connection status.

In addition, Isco has defined extended commands to enable "plug and play" communications and ease of programming. These commands are implemented by the sensor manufacturer. Data are identified and logged by their specific type.

Expand your monitoring capabilities with these products and accessories.

Contact Isco or your Isco Representative to receive specific literature and prices on the following items.

Telephone Modem

A factory-installed option that lets you set up and make programming changes, or collect data from your 6712 sampler from the comfort of your office.

581 RTD (Rapid Transfer Device)

Slim enough to fit in your shirt pocket, yet rugged enough to withstand submersion, the 581 RTD lets you quickly retrieve and transfer data without taking your laptop computer into the field.

ProPak™ Disposable Sample Bags

Isco's patented ProPak bags eliminate the expense of washing and storing bottles, while taking away worries about contamination from previous samples. The bags are available with a 1000 ml capacity, or in a 2-gallon version for composite sampling.

Flowlink Software

Isco's advanced Flowlink® 4 for Windows Data Management Software harnesses the power of Microsoft Windows® to retrieve, import, compare, and analyze data, generate advanced charts and graphs, create comprehensive reports, and more.

700 Series Modules

Our interchangeable 700 Series Modules let you adapt your 6712 sampler for a variety of jobs. These compact modules are environmentally sealed and may be added to your 6712 system at any time.

701 – pH and Temperature Module
Combines accurate pH and temperature monitoring in one module. It will also activate your 6712 Sampler at a user-elected pH or temperature range.

710 – Ultrasonic Flow Module
Uses our field-proven ultrasonic level sensor that doesn't require submersion in the flow stream.

720 – Submerged Probe Flow Module
Provides accurate measurement at sites where wind, steam, foam, turbulence, or air temperature fluctuations exist. Suitable for small channels, it accurately senses pressure even when covered with silt and sand.

730 – Bubbler Flow Module
Get the dependability and accuracy of Isco bubbler flow meters in a miniaturized package. The 730 is unaffected by changing stream conditions, and level measurement remains accurate despite temperature fluctuations or exposure to harsh chemicals.

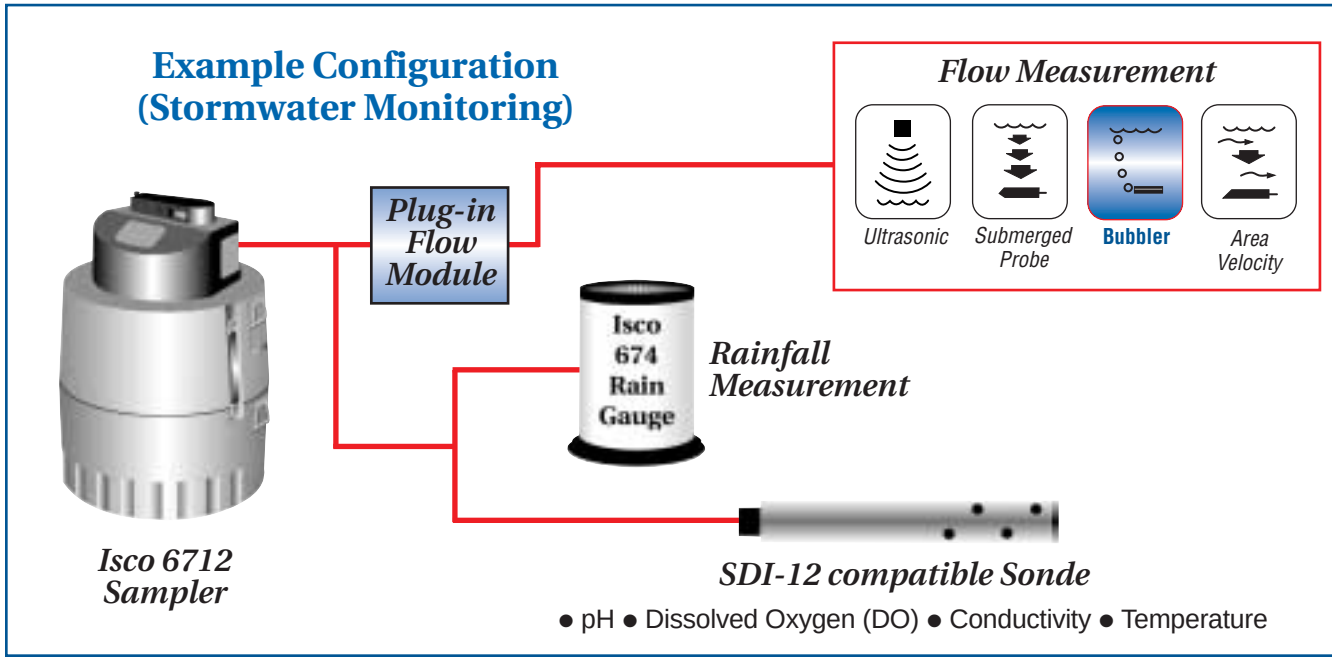
750 – Area Velocity Flow Module
Gives greater accuracy where weirs and flumes are not practical, and where submerged, full pipe, surcharged, and reverse flow conditions may occur. And, you don't have to estimate the slope and roughness of the channel.

780 – Smart 4-20 Module
Add intelligence to a simple analog signal. Flow rates are displayed in actual volume units, not merely a percent of full scale. Any linear 4-20 mA input can be characterized by using the 780. The information can be stored and retrieved for later analysis.

Integrated Water Monitoring

Isco 6712 Samplers feature "plug and play" connection with SDI-12 compatible measuring devices - including multi-parameter sondes from leading manufacturers. Combined with the 6712's standard 512 KB of memory, enough for more than 200,000 stored readings. SDI-12 networking gives you great flexibility for logging environmental data, and for "smart sampling" event notification, triggered on any combination of up to 16 inputs.

Example Configuration (Stormwater Monitoring)



Isco 6712 Full-size Portable Sampler Specifications

Sampler

Height	27.0 in.	68.6 cm
Diameter	20 in.	50.7 cm
Weight (Dry/Less Battery)	32 lbs.	15 kg
Material	High-strength ABS plastic outer shell Stainless steel hardware	
Power Requirements	12 VDC	

Pump

Intake Purge	Adjustable air purge before and after each sample.	
Tubing Life Indicator	Provides a warning to change pump tubing.	
Intake Suction Tubing		
Length	3 to 99 ft.	1 to 30 m
Material	Vinyl or Teflon® lined	
Inside Dimension	⅜ in.	1 cm
Pump Tubing Life	Typically 1,000,000 pump counts	
Maximum Suction Lift	28 ft.	8.5 m
Typical Repeatability	±5 ml or ±5% of the average volume in a set	
Typical Line Transport Velocity at head heights of:		
3 ft. (0.9 m)	3.0 ft./s	0.91 m/s
10 ft. (3.1 m)	2.9 ft./s	0.87 m/s
15 ft. (4.6 m)	2.7 ft./s	0.83 m/s
Liquid Presence Detector	Non-wetted, non-conductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights.	

Controller

Weight	13 lbs.	5.9 kg
Dimensions	10.3 x 12.5 x 10 in.	26 x 31.7 x 25.4 cm
Operational Temperature	32° to 120°F	0° to 49°C
Enclosure Rating	NEMA 4X, 6	IP67
Program Memory	Non-volatile flash memory	
Flow Meter Signal Requirements	5 to 15 volt DC pulse or 25 millisecond isolated contact closure.	
Number of Programmable Composite Samples	1 to 999 samples or continuous sampling	
Real Time Clock Accuracy	1 minute per month, typical	

Software

Sample Frequency Selection	1 minute to 99 hours 59 minutes, in 1 minute increments. Non-uniform times in minutes or clock times 1 to 9,999 flow pulses
Sampling Modes	Uniform time, non-uniform time, flow. *(Flow mode is controlled by external flow meter pulses.)*
Programmable Sample Volumes	10 to 9,990 ml in 1 ml increments
Sample Retries	If no sample is detected, up to 3 attempts; user selectable
Rinse Cycles	Automatic rinsing of suction line up to 3 rinses for each sample collection
Program Storage	5 sampling programs
Sampling Stop/Resume	Up to 24 real time/date sample stop/resume commands
Controller Diagnostics	Tests for RAM, ROM, pump display, and distributor

Ordering Information

Description	Part Number
6712 Portable Sampler, Full-size Includes controller with 512 KB RAM, top cover, center section, base, distributor arm, instruction manual, pocket guide.	**68-6710-070**
6712 Portable Sampler with Jumbo Base (as described above)	**68-6710-082**

Note: *Power source, bottle configuration, suction line, and strainer must be ordered separately. Other options and accessories are also available. Contact Isco or your Isco Representative for complete information.*

The 6712 Controller is an SDI-12 logger. Manual pump operations are now located on the front panel keys.

www.isco.com

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Isco Product Data

Isco Avalanche® Multi-bottle, Refrigerated Portable Sampler

Multi-function sampling and data logging with dual-power cooling

Avalanche® is based on Isco's industry-leading 6712 controller. You get all the advanced control, data logging, and communication features of the 6712, with cooling from either AC or battery power.

Bottle options include 5- and 2.5 gallon composites as well as 4 x 1-gallon and 14 x 950 ml sequentials.

A 12V deep-cycle battery delivers 48 hours - or more- of refrigeration. The power-saving cooling system remains on standby until the first sample is drawn, and only then switches on to preserve the collected samples for pickup.

Available routines include: pause-and-resume for intermittent-discharge flow monitoring; sampler pacing by time, non-uniform time, flow or external event; and random interval sample collection.

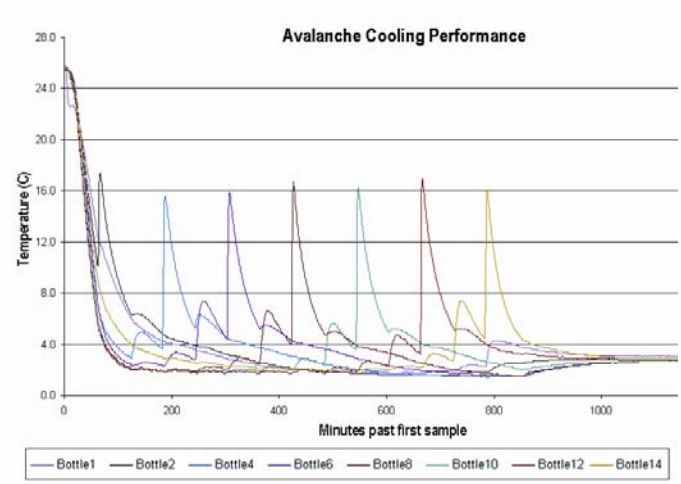
Standard Features

- Standard and extended programming keeps setup simple when you don't need advanced features.
- NEMA 4x, 6 (IP67) controller enclosure.
- SDI-12 interface provides "plug and play" connection with multi-parameter water-quality sondes and other compatible devices.
- 512kB memory gives you great flexibility for logging environmental data.
- Sample delivery at the EPA-recommended velocity of 2 ft/sec. at head heights up to 26 feet.
- Patented pump revolution counter ensures accurate sample volumes - and tells you when tubing should be replaced.

Optional mobility kit includes pneumatic tires for ease of transport over rough terrain, and a convenient battery platform.

Applications

- Stormwater runoff compliance
- TMDL and watershed monitoring
- Enforcement monitoring
- Advanced sampling combined with data logging and communications for flow, rainfall, and water quality parameters.



Isco temperature control technology accurately preserves samples at 3°C – even under difficult conditions shown above (40°C ambient, 20°C sample temperature).

Specifications

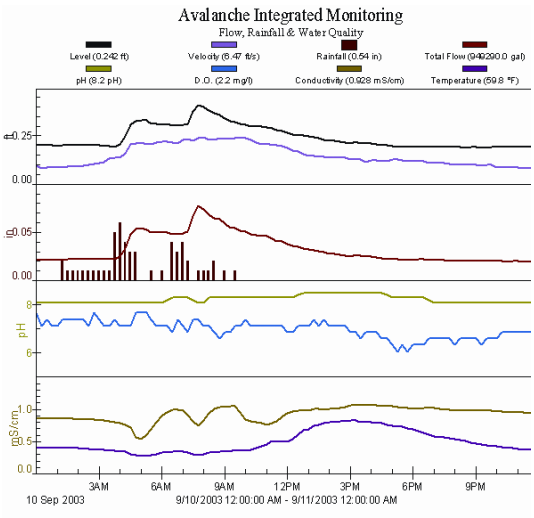
Isco Avalanche Sampler	
Size (H x W x D):	30.5 x 14 x 24 inches (78 x 36 x 60 cm)
Weight:	Dry, less battery - 76 lbs (35 kg)
Bottle configurations:	5-gallon poly bottle 2.5-gallon glass bottle configuration 2.5-gallon poly bottle configuration 1-gallon poly bottle configuration (4 bottles 950 ml poly bottle configuration (14 bottles)
Power Requirements:	12V DC (Supplied by battery or AC power converter.)
Pump	
Intake suction tubing: Length Material Inside dimension	 3 to 99 feet (1 to 30 m) Vinyl or Teflon 3/8 inch (1 cm)
Pump tubing life:	Typically 1,000,000 pump counts
Maximum lift:	28 feet (8.5 m)
Typical Repeatability	±5 ml or ±5% of the average volume in a set
Typical line velocity at Head height: of 3 ft. (0.9 m) 10 ft. (3.1 m) 15 ft. (4.6 m)	 3.0 ft./s (0.91 m/s) 2.9 ft./s (0.87 m/s) 2.7 ft./s (0.83 m/s)
Liquid presence detector:	Non-wetted, non-conductive sensor detects when liquid sample reaches the pump to automatically compensate for changes in head heights.

Controller	
Weight:	13 lbs. (5.9 kg)
Size (HxWxD)	10.3 x 12.5 x 10 inches (26 x 31.7 x 25.4 cm)
Operational temperature:	32° to 120°F (0° to 49°C)
Enclosure rating:	NEMA 4X, 6 (IP67)
Program memory:	Non-volatile ROM
Flow meter signal input:	5 to 15 volt DC pulse or 25 millisecond isolated contact closure.
No. of composite samples:	Programmable from 1 to 999 samples.
Clock Accuracy:	1 minute per month, typical, for real time clock
Software	
Sample frequency:	1 minute to 99 hours 59 minutes, in 1 minute increments. Non-uniform times in minutes or clock times 1 to 9,999 flow pulses
Sampling modes:	Uniform time, non-uniform time, flow, event. (Flow mode is controlled by external flow meter pulses.)
Programmable sample volumes:	10 to 9,990 ml in 1 ml increments
Sample retries:	If no sample is detected, up to 3 attempts; user selectable
Rinse cycles:	Automatic rinsing of suction line up to 3 rinses for each sample collection
Program storage:	5 sampling programs
Sampling Stop/Resume:	Up to 24 real time/date sample stop/resume commands
Controller diagnostics:	Tests for RAM, ROM, pump, display, and distributor

Ordering Information

Note: *Bottle configuration, suction line, and strainer must be ordered separately. 12 VDC operation requires external battery. Contact Isco or your Isco Representative for complete information.*

Description	Part Number
Isco Avalanche Sampler (115-230 VAC/12V DC) Includes controller, distributor arm, instruction manual, pocket guide. Standard power cord.*	68-2970-003
5-gallon poly bottle	68-2970-008
2.5-gallon glass bottle configuration	68-2970-006
2.5-gallon poly bottle configuration	68-2970-009
1-gallon poly bottle configuration (4 bottles	68-2970-002
950 ml poly bottle configuration (14 bottles)	68-2970-001
Mobility Kit	68-2960-004



The Avalanche controller is a powerful SDI-12 data logger, designed to work directly with Isco's advanced Flowlink® Software.

Data for flow, rainfall, and water quality can be transferred from the Avalanche controller into a Flowlink-equipped PC in three ways: via cable connection, via Isco's 2102 Wireless Communication System, or by phone, using Avalanche's optional built-in modem

Flowlink Software lets you quickly retrieve, import, compare, and analyze data, generate charts and graphs,and create comprehensive reports.

Teledyne Isco, Inc.

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APPENDIX J
Summary of MS4 Monitoring Data

Phoenix Area MS4 Monitoring Data

OUTFALL ID: 202-2.36 RECEIVING WATER: Retention Basin DESIGNATED USES: Water Retention		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		Winter 2008-09	Summer 2009	Winter 2009-10	Summer 2010	Winter 2010-11	Summer 2011	Winter 2011-12	Summer 2012
SAMPLING DATE		12/17/08	7/21/09	2/28/10					
MONITORING PARAMETERS	**WQS**								
Flow	NNS	1.7gpm	1.4gpm	-					
pH	5.0-9.0	7.75	7.21	8.52					
Temperature (F°)	NNS	54.4	96.9	56.5					
Hardness	NNS	180	-	60					
Specific conductance (mg/L)	NNS	550	900	1500					
Total Dissolved Solids (TDS) (mg/L)	500.00	290	720*	97					
Total Suspended Solids (TSS) (mg/L)	NNS	85	-	76					
Turbidity (NTU)	NNS	49	21	100					
Biochemical Oxygen Demand (BOD) (mg/L)	NNS	13	40	<5.0					
Chemical Oxygen Demand (COD) (mg/L)	NNS	110	350	70					
Inorganics									
Cyanide (mg/L)	0.20	<0.0050	<0.0050	<0.0050					
Sulfates (mg/L)	250.00	56	69	7.6					
Nutriants									
Nitrate (mg/L)	10.00	3.3	4	1.1					
Nitrite (mg/L)	1.00	0.19	0.77	<0.10					
Total Kjeldahl Nitrogen (TKN) (mg/L)	NNS	3	12	1.5					
Total Phosphorous (mg/L)	NNS	-	1.1	0.25					
Phosphate, Ortho (mg/L)	NNS	<0.12	0.46	0.48					
Total Nitrogen (mg/L)	NNS	-	-	1.2					
Total Amonia (mg/L)	NNS	0.66	2.6	0.48					
Sodium (mg/L)	NNS	49	85	1.3					
Calcium (mg/L)	NNS	46	64	150					
Chloride (mg/L)	NNS	69	130	6.9					

OUTFALL ID: 202-2.36 RECEIVING WATER: Retention Basin DESIGNATED USES: Water Retention		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		Winter 2008-09	Summer 2009	Winter 2009-10	Summer 2010	Winter 2010-11	Summer 2011	Winter 2011-12	Summer 2012
SAMPLING DATE		12/17/08	7/21/09	2/28/10					
Microbiological									
Coliform, fecal (col/100 ml)	NNS	>1,200	-	>200					
E.Coli (cfu/100 ml)	100.00	>24,200	-	-					
Total Metals									
Antimony (mg/L)	0.006	<0.020	0.0037	<0.020					
Arsenic (mg/L)	0.050	<0.021	0.0064	<0.020					
Barium (mg/L)	2.000	0.098	0.14	0.074					
Beryllium (mg/L)	0.004	<0.0020	<0.0020	<0.0020					
Cadmium (mg/L)	0.005	<0.0050	<0.0050	<0.0050					
Chromium (mg/L)	0.100	<0.010	<0.010	<0.010					
Copper (mg/L)	1.300	0.023	0.073	<0.020					
Lead (mg/L)	0.015	0.0084	0.006	0.0064					
Mercury (mg/L)	0.002	<0.00020	<0.00020	<0.0002					
Nickel (mg/L)	0.140	<0.020	<0.020	<0.020					
Selenium (mg/L)	0.020	<0.020	<0.020	<0.020					
Silver (mg/L)	NNS	<0.010	<0.010	<0.010					
Zinc (mg/L)	2.10	0.053	0.14	4.7					
Organic Toxic Pollutnats									
Total Petroleum Hydrocarbons (TPH) (mg/L)	NNS	0.73	2.7	0.32					
Oil & Greese (Hexane Extr) (mg/L)	NNS	<5.0	<5.9	<5.3					
Chlorine, residual (mg/L)	0.70000	0.2	<0.10	<0.10					
VOCs, Semi-VOCs and Pesticides									
Benzene (mg/L)	0.0050	<0.00050	<0.00050	<0.0010					
Ethylbenzene (mg/L)	0.0050	0.00068	<0.00050	<0.0010					
Toluene (mg/L)	1.00	<0.0050	<0.0050	<0.0050					

OUTFALL ID: 202-2.36 RECEIVING WATER: Retention Basin DESIGNATED USES: Water Retention		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		Winter 2008-09	Summer 2009	Winter 2009-10	Summer 2010	Winter 2010-11	Summer 2011	Winter 2011-12	Summer 2012
SAMPLING DATE		12/17/08	7/21/09	2/28/10					
Total Xylene (mg/L)	10.00	0.0039	<0.0015	<0.0030					
Chromium, Trivalent (mg/L)	NNS	<0.010	<0.010	-					
MBAS (mg/L)	NNS	0.3	1.1	<1.0					
Endrin ketone (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Hexachlorobenzene (mg/L)	0.001	<0.00050	<0.000050	<0.000050					
Methoxychlor (mg/L)	0.004	<0.00050	<0.000050	<0.000050					
Benzidine (mg/L)	0.000	<0.050	<0.050	<0.010					
Bis(2-chlorethoxy)methane (mg/L)	NNS	<0.010	<0.010	<0.010					
Bis(2-chloroethyl)ether (mg/L)	0.030	<0.010	<0.010	<0.010					
Bis(2-chloroisopropyl)ether (mg/L)	0.280	<0.010	<0.010	<0.010					
4-Bromophenyl-phenylether (mg/L)	NNS	<0.010	<0.010	<0.010					
2-Chloronaphthalene (mg/L)	NNS	<0.010	<0.010	<0.0010					
4-Chlorophenyl-phenylether (mg/L)	NNS	<0.010	<0.010	<0.010					
3,3-Dichlorobenzidine (mg/L)	0.0031	<0.010	<0.010	<0.010					
2,4-Dinitrotoluene (mg/L)	0.0140	<0.010	<0.010	<0.010					
2,6-Dinitrotoluene (mg/L)	0.0001	<0.010	<0.010	<0.010					
Hexachlorobenzene (mg/L)	0.0010	<0.010	<0.010	<0.010					
Hexachloro-1,3-butadiene (mg/L)	NNS	<0.010	<0.010	<0.010					
Hexachlorocyclopentadiene (mg/L)	0.0500	<0.010	<0.010	<0.010					
Hexachloroethane (mg/L)	0.0025	<0.010	<0.010	<0.010					
Indeno(1,2,3-cd)pyrene (mg/L)	0.0005	<0.0010	<0.010	<0.0010					
Isophorone (mg/L)	0.0370	<0.010	<0.010	<0.010					
Nitrobenzene (mg/L)	0.0035	<0.010	<0.010	<0.010					
n-Nitrosodimethylamine (mg/L)	0.0080	<0.050	<0.050	<0.010					
n-Nitrosodiphenylamine (mg/L)	0.0071	<0.010	<0.010	<0.010					
n-Nitrosodi-n-propylamine (mg/L)	0.0050	<0.010	<0.010	<0.010					

OUTFALL ID: 202-2.36 RECEIVING WATER: Retention Basin DESIGNATED USES: Water Retention		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		Winter 2008-09	Summer 2009	Winter 2009-10	Summer 2010	Winter 2010-11	Summer 2011	Winter 2011-12	Summer 2012
SAMPLING DATE		12/17/08	7/21/09	2/28/10					
Benzylbutyl phthalate (mg/L)	NNS	<0.010	<0.010	<0.0010					
Bis(2-ethylhexyl)phthalate (mg/L)	NNS	<0.010	<0.010	<0.0010					
1,2,4-Trichlorobenzene (mg/L)	0.070	<0.010	<0.010	<0.010					
4-Chloro-3-methylphenol (mg/L)	NNS	<0.010	<0.010	<0.010					
4,6-Dinitro-2-methylphenol (mg/L)	NNS	<0.010	<0.010	<0.010					
Acid Compounds									
2-Chlorophenol (mg/L)	0.035	<0.010	<0.010	<0.010					
2,4-Dichlorophenol (mg/L)	0.021	<0.010	<0.010	<0.010					
2,4-Dimethylphenol (mg/L)	0.140	<0.010	<0.010	<0.010					
2,4-Dinitrophenol (mg/L)	0.014	<0.010	<0.010	<0.010					
2-Nitrophenol (mg/L)	NNS	<0.010	<0.010	<0.010					
4-Nitrophenol (mg/L)	NNS	<0.010	<0.010	<0.010					
Pentachlorophenol (mg/L)	0.001	<0.010	<0.010	<0.010					
Phenol (mg/L)	4.20	<0.010	<0.010	<0.010					
2,4,6-Trichlorophenol (mg/L)	0.00320	<0.010	<0.010	<0.010					
Bases/Neutrals									
Acenaphthene (mg/L)	0.42	<0.0010	<0.010	<0.0010					
Acenaphthylene (mg/L)	NNS	<0.0010	<0.010	<0.0010					
Anthracene (mg/L)	2.10	<0.0010	<0.010	<0.0010					
Benzo(a)anthracene (mg/L)	0.00190	<0.0010	<0.010	<0.0010					
Benzo(a)pyrene (mg/L)	0.00020	<0.0010	<0.010	<0.0010					
Benzo(b)fluoranthene (mg/L)	NNS	<0.0010	<0.010	<0.0010					
Benzo(g,h,i)perylene (mg/L)	NNS	<0.0010	<0.010	<0.0010					
Benzo(k)fluoranthene (mg/L)	0.0480	<0.0010	<0.010	<0.0010					
Chrysene (mg/L)	0.00479	<0.0010	<0.010	<0.0010					
Dibenzo(a,h)anthracene (mg/L)	0.00190	<0.0010	<0.010	<0.0010					

OUTFALL ID: 202-2.36 RECEIVING WATER: Retention Basin DESIGNATED USES: Water Retention		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		Winter 2008-09	Summer 2009	Winter 2009-10	Summer 2010	Winter 2010-11	Summer 2011	Winter 2011-12	Summer 2012
SAMPLING DATE		12/17/08	7/21/09	2/28/10					
Diethyl phthalate (mg/L)	5.60	<0.010	<0.010	<0.0010					
Dimethyl phthalate (mg/L)	NNS	<0.010	<0.010	<0.0010					
Di-n-butyl phthalate (mg/L)	NNS	<0.010	<0.010	<0.0010					
Di-n-octyl phthalate (mg/L)	2.80	<0.010	<0.010	<0.0010					
Fluoranthene (mg/L)	0.28	<0.0010	<0.010	<0.0010					
Fluorene (mg/L)	0.28	<0.0010	<0.010	<0.0010					
Naphthalene (mg/L)	0.14	<0.0010	<0.010	<0.0010					
Phenanthrene (mg/L)	NNS	<0.0010	<0.010	<0.0010					
Pyrene (mg/L)	0.21	<0.0010	<0.010	<0.0010					
Pesticides									
Aldrin (mg/L)	0.0020	<0.00050	<0.00051	<0.000050					
Alpha BHC (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Beta BHC (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Delta BHC (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Gamma BHC (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Chlordane (mg/L)	0.0020	<0.0050	<0.00050	<0.00050					
4,4-DDD (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
4,4-DDE (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
4,4-DDT (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Dieldrin (mg/L)	0.0020	<0.00050	<0.000050	<0.000050					
Endosulfan I (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Endosulfan II (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Endosulfan sulfate (mg/L)	NNS	<0.00050	<0.000050	<0.000050					
Endrin (mg/L)	0.0020	<0.00050	<0.000050	<0.000050					
Endrin aldehyde (mg/L)	NNS	<0.00050	0.000088	<0.000050					
Heptachlor (mg/L)	0.00040	<0.00050	<0.000050	<0.000050					
Heptachlor epoxide (mg/L)	0.00020	<0.00050	<0.000050	<0.000050					
Toxaphene (mg/L)	NNS	<0.010	<0.00050	<0.00050					

Tucson Area MS4 Monitoring Data

OUTFALL ID: Tucson MS4 Grant Road RECEIVING WATER: Santa Cruz DESIGNATED USES: ADOT Facility		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		Winter 2008-09	Summer 2009	Winter 2009-10	Summer 2010	Winter 2010-11	Summer 2011	Winter 2011-12	Summer 2012
SAMPLING DATE		12/1/08	6/30/09	4/23/10					
MONITORING PARAMETERS	WQS								
Flow	NNS	-	-	-					
pH	6.5-8.5	-	-	7.3					
Temperature (F°)	NNS	62.3	88.1	64.4					
Hardness	NNS	250		470					
Total Dissolved Solids (TDS) (mg/L)	500	680*	680*	910					
Total Suspended Solids (TSS) (mg/L)	NNS	110	160	130					
Turbidity (NTU)	NNS	94	-	58					
Biochemical Oxygen Demand (BOD) (mg/L)	NNS	65	44	90					
Chemical Oxygen Demand (COD) (mg/L)	NNS	560	640	490					
Inorganics									
Cyanide, total (mg/L)	0.2	0.0059	<0.0050	<0.10					
Sulfates (mg/L)	250	110	68	-					
Nutriants									
Nitrate (mg/L)	1	<0.10	0.21	9.9					
Nitrite (mg/L)	10	<0.10	<0.10	1.9					
Total Ammonia (mg/L)	NNS	6.2	6.7	<0.50					
Total Kjeldahl Nitrogen (TKN) (mg/L)	NNS	12	14	7.8					
Total Phosphorous (mg/L)	NNS	0.42	0.36	0.58					
Phosphate, Ortho (mg/L)	NNS	0.62	<0.12	310					
Sodium (mg/L)	NNS	-	18	18					
Calcium (mg/L)	NNS	-	100	150					
Chloride (mg/L)	10	26	19	14					
Microbiological									
Coliform, fecal (col/100 ml)	NNS	-	-	2400*					
E.Coli (cfu/100 ml)	100.00	-	-	390					

OUTFALL ID: Tucson MS4 Grant Road RECEIVING WATER: Santa Cruz DESIGNATED USES: ADOT Facility		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		2008-09	2009	2009-10	2010	2010-11	2011	2011-12	2012
SAMPLING DATE		12/1/08	6/30/09	4/23/10					
Total Metals									
Antimony (mg/L)	0.00600	-	0.0046	<0.20					
Arsenic (mg/L)	0.05000	<0.020	0.003	<0.040					
Barium (mg/L)	2.0T	0.2	0.2	0.2					
Beryllium (mg/L)	0.00400	<0.0050	<0.0020	<0.0020					
Cadmium (mg/L)	0.00500	-	<0.0050	<0.0020					
Chromium (mg/L)	0.1T	<0.010	<0.010	<0.030					
Copper (mg/L)	1.3T	-	0.033	0.13					
Lead (mg/L)	0.015T	0.015	<0.0050	<0.040					
Mercury (mg/L)	0.00200	<0.00020	<0.00020	<0.0010					
Nickel (mg/L)	0.14000	-	<0.020	<0.050					
Selenium (mg/L)	0.02000	<0.020	0.02	<0.040					
Silver (mg/L)	NNS	<0.010	<0.010	<0.010					
Zinc (mg/L)	2.1T	-	0.18	0.41					
Organic Toxic Pollutnats									
Total Petroleum Hydrobarbons (TPH) (mg/L)	NNS	6.2	-	-					
Oil & Greese (Hexane Extr) (mg/L)	NNS	<5.6	<6.7	9.2					
Chlorine, residual (mg/L)	0.7	<0.10	-	<0.10					
VOCs, Semi-VOCs and Pesticides									
Benzene (mg/L)	0.005	<0.0010	<0.00050	<0.50					
Ethylbenzene (mg/L)	0.70000	<0.0010	<0.00050	<0.50					
Toluene (mg/L)	1.00000	<0.0050	<0.0050	<0.50					
Total Xylene (mg/L)	10.00000	<0.0030	<0.0015	<0.50					
Chromium, Hexavalent (mg/L)	NNS	-	<0.010	-					
Chromium, Trivalent (mg/L)	NNS	-	<0.010	-					
MBAS (mg/L)	NNS	-	11	-					
Specific conductance (mg/L)	NNS	720	690	1000					

OUTFALL ID: Tucson MS4 Grant Road RECEIVING WATER: Santa Cruz DESIGNATED USES: ADOT Facility		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		2008-09	2009	2009-10	2010	2010-11	2011	2011-12	2012
SAMPLING DATE		12/1/08	6/30/09	4/23/10					
Total Nitrogen (mg/L)	NNS	12	-	11.8					
Toluene - d8 (mg/L)	NNS	99	-	<0.50					
Dibromofluoromethane (mg/L)	TTHM	100	-	-					
Endrin ketone (mg/L)	NNS	-	<0.000050	<0.96					
Hexachlorobenzene (mg/L)	0.00100	-	<0.000050	<96					
Methoxychlor (mg/L)	0.00400	-	<0.000050	<96					
Benzidine (mg/L)	0.00020	-	<0.050	<96					
Bis(2-chlorethoxy)methane (mg/L)	NNS	-	<0.010	<96					
Bis(2-chloroethyl)ether (mg/L)	0.03000	-	<0.010	<96					
Bis(2-chloroisopropyl)ether (mg/L)	0.28000	-	<0.010	<96					
4-Bromophenyl-phenylether (mg/L)	NNS	-	<0.010	<96					
2-Chloronaphthalene (mg/L)	NNS	-	<0.010	<96					
4-Chlorophenyl-phenylether (mg/L)	NNS	-	<0.010	<96					
3,3-Dichlorobenzidine (mg/L)	0.00310	-	<0.010	<190					
2,4-Dinitrotoluene (mg/L)	0.01400	-	<0.010	<96					
2,6-Dinitrotoluene (mg/L)	0.00005	-	<0.010	<96					
Hexachlorobenzene (mg/L)	0.00100	-	<0.010	<96					
Hexachloro-1,3-butadiene (mg/L)	NNS	-	<0.010	<96					
Hexachlorocyclopentadiene (mg/L)	0.05000	-	<0.010	<96					
Hexachloroethane (mg/L)	0.00250	-	<0.010	<96					
Isophorone (mg/L)	0.03700	-	<0.010	<96					
Nitrobenzene (mg/L)	0.00350	-	<0.010	<96					
n-Nitrosodimethylamine (mg/L)	0.00800	-	<0.050	<96					
n-Nitrosodiphenylamine (mg/L)	0.00710	-	<0.010	<96					
n-Nitrosodi-n-propylamine (mg/L)	0.00500	-	<0.010	<96					
Benzylbutyl phthalate (mg/L)	NNS	-	<0.010	<96					
Bis(2-ethylhexyl)phthalate (mg/L)	NNS	-	<0.010	<96					

OUTFALL ID: Tucson MS4 Grant Road RECEIVING WATER: Santa Cruz DESIGNATED USES: ADOT Facility		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		2008-09	2009	2009-10	2010	2010-11	2011	2011-12	2012
SAMPLING DATE		12/1/08	6/30/09	4/23/10					
1,2,4-Trichlorobenzene (mg/L)	0.07000	-	<0.010	<96					
4-Chloro-3-methylphenol (mg/L)	NNS	-	<0.010	<96					
4,6-Dinitro-2-methylphenol (mg/L)	NNS	-	<0.010	<190					
Acid Compounds									
2-Chlorophenol (mg/L)	0.03500	-	<0.010	<96					
2,4-Dichlorophenol (mg/L)	0.02100	-	<0.010	<96					
2,4-Dimethylphenol (mg/L)	0.14000	-	<0.010	<96					
2,4-Dinitrophenol (mg/L)	0.01400	-	<0.010	<480					
2-Nitrophenol (mg/L)	NNS	-	<0.010	<96					
4-Nitrophenol (mg/L)	NNS	-	<0.010	<480					
Pentachlorophenol (mg/L)	0.00100	-	<0.010	<290					
Phenol (mg/L)	4.20000	-	<0.010	<96					
2,4,6-Trichlorophenol (mg/L)	0.00320	-	<0.010	<96					
Bases/Neutrals									
Acenaphthene (mg/L)	0.42000	-	<0.010	<48					
Acenaphthylene (mg/L)	NNS	-	<0.010	<48					
Anthracene (mg/L)	2.10000	-	<0.010	<48					
Benzo(a)anthracene (mg/L)	0.00190	-	<0.010	<48					
Benzo(a)pyrene (mg/L)	0.00020	-	<0.010	<48					
Benzo(b)fluoranthene (mg/L)	NNS	-	<0.010	<96					
Benzo(g,h,i)perylene (mg/L)	NNS	-	<0.010	<48					
Benzo(k)fluoranthene (mg/L)	0.04800	-	<0.010	<96					
Chrysene (mg/L)	0.00479	-	<0.010	<48					
Dibenz(a,h)anthracene (mg/L)	0.00190	-	<0.010	<48					
Diethyl phthalate (mg/L)	5.60000	-	<0.010	<96					
Dimethyl phthalate (mg/L)	NNS	-	<0.010	<96					
Di-n-butyl phthalate (mg/L)	NNS	-	<0.010	<96					

OUTFALL ID: Tucson MS4 Grant Road RECEIVING WATER: Santa Cruz DESIGNATED USES: ADOT Facility		MONITORING SEASONS Summer: June 1-October 31 Winter: November 1-May 31							
		2008-09	2009	2009-10	2010	2010-11	2011	2011-12	2012
SAMPLING DATE		12/1/08	6/30/09	4/23/10					
Di-n-octyl phthalate (mg/L)	2.80000	-	<0.010	<96					
Fluoranthene (mg/L)	0.28000	-	<0.010	<48					
Fluorene (mg/L)	0.28000	-	<0.010	<48					
Indeno(1,2,3-cd)pyrene (mg/L)	0.00048	-	<0.010	<48					
Naphthalene (mg/L)	0.14000	-	<0.010	<48					
Phenanthrene (mg/L)	NNS	-	<0.010	<48					
Pyrene (mg/L)	0.21000	-	<0.010	<48					
Pesticides									
Aldrin (mg/L)	0.00200	-	<0.000050	<96					
Alpha BHC (mg/L)	NNS	-	<0.000050	<96					
Beta BHC (mg/L)	NNS	-	<0.000050	<96					
Delta BHC (mg/L)	NNS	-	<0.000050	<96					
Gamma BHC (mg/L)	NNS	-	<0.000050	<96					
Chlordane (mg/L)	0.00200	-	<0.00050	<96					
4,4-DDD (mg/L)	NNS	-	<0.000050	<96					
4,4-DDE (mg/L)	NNS	-	<0.000050	<96					
4,4-DDT (mg/L)	NNS	-	<0.000050	<96					
Dieldrin (mg/L)	0.00200	-	<0.000050	<96					
Endosulfan I (mg/L)	NNS	-	<0.000050	<96					
Endosulfan II (mg/L)	NNS	-	<0.000050	<96					
Endosulfan sulfate (mg/L)	NNS	-	<0.000050	<96					
Endrin (mg/L)	0.00200	-	<0.000050	<96					
Endrin aldehyde (mg/L)	NNS	-	<0.000050	<96					
Heptachlor (mg/L)	0.00040	-	<0.000050	<96					
Heptachlor epoxide (mg/L)	0.00020	-	<0.000050	<96					
Toxaphene (mg/L)	NNS	-	<0.00050	<0.00096					

*Total Coliform

APPENDIX K
MS4 Laboratory Reports

Phoenix Area MS4 Laboratory Reports

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Tuesday July 28, 2009

Report Number: L413348
Samples Received: 07/22/09
Client Project:

Description: Phoenix MS4 Site

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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REPORT OF ANALYSIS

Gary Hoffmann
Engineering & Env. Consultants, INC
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

July 28, 2009

ESC Sample # : L413348-01

Date Received : July 22, 2009
Description : Phoenix MS4 Site

Site ID :

Sample ID : MS4

Project # :

Collected By : Phillip
Collection Date : 07/21/09 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH (On Site)	7.21		su			
Temperature (on-site)	96.9		Deg. F			
Miscellaneous	ATTACH TO COC				07/21/09	1
Chloride	130	1.0	mg/l	9056	07/22/09	1
Nitrate	4.0	0.10	mg/l	9056	07/22/09	1
Nitrite	0.77	0.10	mg/l	9056	07/22/09	1
Sulfate	69.	5.0	mg/l	9056	07/22/09	1
BOD	40.	5.0	mg/l	SM5210B	07/22/09	1
Chlorine,residual	BDL	0.10	mg/l	4500Cl-G	07/22/09	1
COD	350	10.	mg/l	410.4	07/23/09	1
Cyanide	BDL	0.0050	mg/l	9012B	07/27/09	1
Chromium,Hexavalent	BDL	0.010	mg/l	7196A	07/22/09	1
Chromium,Trivalent	BDL	0.010	mg/l	Calc	07/23/09	1
MBAS	1.1	0.10	mg/l	5540C	07/23/09	1
Ammonia Nitrogen	2.6	0.10	mg/l	350.1	07/27/09	1
Oil & Grease (Hexane Extr)	BDL	5.9	mg/l	1664A	07/28/09	1
Phosphate,Ortho	0.46	0.025	mg/l	4500P-E	07/23/09	1
Phosphorus,Total	1.1	0.10	mg/l	365.1	07/25/09	1
Specific Conductance	900		umhos/cm	9050A	07/23/09	1
Kjeldahl Nitrogen, TKN	12.	0.10	mg/l	351.2	07/27/09	1
Turbidity	21.	0.10	NTU	SM2130B	07/22/09	1
Dissolved Solids	720	10.	mg/l	2540C	07/25/09	1
Antimony	0.0037	0.0010	mg/l	6020	07/27/09	1
Arsenic	0.0064	0.0010	mg/l	6020	07/23/09	1
Thallium	BDL	0.0010	mg/l	6020	07/23/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L413348-01 (MISC-SUB) - subcontracted to Legend Techn Services

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REPORT OF ANALYSIS

Gary Hoffmann
Engineering & Env. Consultants, INC
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

July 28, 2009

ESC Sample # : L413348-01

Date Received : July 22, 2009
Description : Phoenix MS4 Site

Site ID :

Sample ID : MS4

Project # :

Collected By : Phillip
Collection Date : 07/21/09 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Mercury	BDL	0.00020	mg/l	7470A	07/23/09	1
Barium	0.14	0.0050	mg/l	6010B	07/23/09	1
Beryllium	BDL	0.0020	mg/l	6010B	07/23/09	1
Cadmium	BDL	0.0050	mg/l	6010B	07/23/09	1
Calcium	64.	0.50	mg/l	6010B	07/23/09	1
Chromium	BDL	0.010	mg/l	6010B	07/23/09	1
Copper	0.073	0.020	mg/l	6010B	07/23/09	1
Lead	0.0060	0.0050	mg/l	6010B	07/23/09	1
Nickel	BDL	0.020	mg/l	6010B	07/23/09	1
Selenium	BDL	0.020	mg/l	6010B	07/23/09	1
Silver	BDL	0.010	mg/l	6010B	07/23/09	1
Sodium	85.	0.50	mg/l	6010B	07/23/09	1
Zinc	0.14	0.030	mg/l	6010B	07/23/09	1
Benzene	BDL	0.00050	mg/l	8021B	07/23/09	1
Toluene	BDL	0.0050	mg/l	8021B	07/23/09	1
Ethylbenzene	BDL	0.00050	mg/l	8021B	07/23/09	1
Total Xylene	BDL	0.0015	mg/l	8021B	07/23/09	1
Surrogate Recovery(%)						
a,a,a-Trifluorotoluene(PID)	98.7		% Rec.	8021B	07/23/09	1
TPH (GC/FID) High Fraction	2.7	0.10	mg/l	3510/DRO	07/23/09	1
Surrogate recovery(%)						
o-Terphenyl	71.7		% Rec.	3510/DRO	07/23/09	1
Pesticides						
Aldrin	BDL	0.000050	mg/l	8081A	07/23/09	1
Alpha BHC	BDL	0.000050	mg/l	8081A	07/23/09	1
Beta BHC	BDL	0.000050	mg/l	8081A	07/23/09	1
Delta BHC	BDL	0.000050	mg/l	8081A	07/23/09	1
Gamma BHC	BDL	0.000050	mg/l	8081A	07/23/09	1
Chlordane	BDL	0.00050	mg/l	8081A	07/23/09	1
4,4-DDD	BDL	0.000050	mg/l	8081A	07/23/09	1
4,4-DDE	BDL	0.000050	mg/l	8081A	07/23/09	1
4,4-DDT	BDL	0.000050	mg/l	8081A	07/23/09	1
Dieldrin	BDL	0.000050	mg/l	8081A	07/23/09	1
Endosulfan I	BDL	0.000050	mg/l	8081A	07/23/09	1
Endosulfan II	BDL	0.000050	mg/l	8081A	07/23/09	1
Endosulfan sulfate	BDL	0.000050	mg/l	8081A	07/23/09	1
Endrin	BDL	0.000050	mg/l	8081A	07/23/09	1
Endrin aldehyde	0.000088	0.000050	mg/l	8081A	07/23/09	1
Endrin ketone	BDL	0.000050	mg/l	8081A	07/23/09	1
Hexachlorobenzene	BDL	0.000050	mg/l	8081A	07/23/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L413348-01 (MISC-SUB) - subcontracted to Legend Techn Services

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REPORT OF ANALYSIS

Gary Hoffmann
Engineering & Env. Consultants, INC
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

July 28, 2009

ESC Sample # : L413348-01

Date Received : July 22, 2009
Description : Phoenix MS4 Site

Site ID :

Sample ID : MS4

Project # :

Collected By : Phillip
Collection Date : 07/21/09 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Heptachlor	BDL	0.000050	mg/l	8081A	07/23/09	1
Heptachlor epoxide	BDL	0.000050	mg/l	8081A	07/23/09	1
Methoxychlor	BDL	0.000050	mg/l	8081A	07/23/09	1
Toxaphene	BDL	0.00050	mg/l	8081A	07/23/09	1
Pesticides Surrogates						
Decachlorobiphenyl	36.3		% Rec.	8081A	07/23/09	1
Tetrachloro-m-xylene	26.4		% Rec.	8081A	07/23/09	1
Base/Neutral Extractables						
Acenaphthene	BDL	0.010	mg/l	8270C	07/24/09	1
Acenaphthylene	BDL	0.010	mg/l	8270C	07/24/09	1
Anthracene	BDL	0.010	mg/l	8270C	07/24/09	1
Benzidine	BDL	0.050	mg/l	8270C	07/24/09	1
Benzo(a)anthracene	BDL	0.010	mg/l	8270C	07/24/09	1
Benzo(b)fluoranthene	BDL	0.010	mg/l	8270C	07/24/09	1
Benzo(k)fluoranthene	BDL	0.010	mg/l	8270C	07/24/09	1
Benzo(g,h,i)perylene	BDL	0.010	mg/l	8270C	07/24/09	1
Benzo(a)pyrene	BDL	0.010	mg/l	8270C	07/24/09	1
Bis(2-chlorethoxy)methane	BDL	0.010	mg/l	8270C	07/24/09	1
Bis(2-chloroethyl)ether	BDL	0.010	mg/l	8270C	07/24/09	1
Bis(2-chloroisopropyl)ether	BDL	0.010	mg/l	8270C	07/24/09	1
4-Bromophenyl-phenylether	BDL	0.010	mg/l	8270C	07/24/09	1
2-Chloronaphthalene	BDL	0.010	mg/l	8270C	07/24/09	1
4-Chlorophenyl-phenylether	BDL	0.010	mg/l	8270C	07/24/09	1
Chrysene	BDL	0.010	mg/l	8270C	07/24/09	1
Dibenz(a,h)anthracene	BDL	0.010	mg/l	8270C	07/24/09	1
3,3-Dichlorobenzidine	BDL	0.010	mg/l	8270C	07/24/09	1
2,4-Dinitrotoluene	BDL	0.010	mg/l	8270C	07/24/09	1
2,6-Dinitrotoluene	BDL	0.010	mg/l	8270C	07/24/09	1
Fluoranthene	BDL	0.010	mg/l	8270C	07/24/09	1
Fluorene	BDL	0.010	mg/l	8270C	07/24/09	1
Hexachlorobenzene	BDL	0.010	mg/l	8270C	07/24/09	1
Hexachloro-1,3-butadiene	BDL	0.010	mg/l	8270C	07/24/09	1
Hexachlorocyclopentadiene	BDL	0.010	mg/l	8270C	07/24/09	1
Hexachloroethane	BDL	0.010	mg/l	8270C	07/24/09	1
Indeno(1,2,3-cd)pyrene	BDL	0.010	mg/l	8270C	07/24/09	1
Isophorone	BDL	0.010	mg/l	8270C	07/24/09	1
Naphthalene	BDL	0.010	mg/l	8270C	07/24/09	1
Nitrobenzene	BDL	0.010	mg/l	8270C	07/24/09	1
n-Nitrosodimethylamine	BDL	0.050	mg/l	8270C	07/24/09	1
n-Nitrosodiphenylamine	BDL	0.010	mg/l	8270C	07/24/09	1
n-Nitrosodi-n-propylamine	BDL	0.010	mg/l	8270C	07/24/09	1
Phenanthrene	BDL	0.010	mg/l	8270C	07/24/09	1
Benzylbutyl phthalate	BDL	0.010	mg/l	8270C	07/24/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L413348-01 (MISC-SUB) - subcontracted to Legend Techn Services

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Est. 1970

REPORT OF ANALYSIS

Gary Hoffmann
Engineering & Env. Consultants, INC
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

July 28, 2009

ESC Sample # : L413348-01

Date Received : July 22, 2009
Description : Phoenix MS4 Site

Site ID :

Sample ID : MS4

Project # :

Collected By : Phillip
Collection Date : 07/21/09 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Bis(2-ethylhexyl)phthalate	BDL	0.010	mg/l	8270C	07/24/09	1
Di-n-butyl phthalate	BDL	0.010	mg/l	8270C	07/24/09	1
Diethyl phthalate	BDL	0.010	mg/l	8270C	07/24/09	1
Dimethyl phthalate	BDL	0.010	mg/l	8270C	07/24/09	1
Di-n-octyl phthalate	BDL	0.010	mg/l	8270C	07/24/09	1
Pyrene	BDL	0.010	mg/l	8270C	07/24/09	1
1,2,4-Trichlorobenzene	BDL	0.010	mg/l	8270C	07/24/09	1
Acid Extractables						
4-Chloro-3-methylphenol	BDL	0.010	mg/l	8270C	07/24/09	1
2-Chlorophenol	BDL	0.010	mg/l	8270C	07/24/09	1
2,4-Dichlorophenol	BDL	0.010	mg/l	8270C	07/24/09	1
2,4-Dimethylphenol	BDL	0.010	mg/l	8270C	07/24/09	1
4,6-Dinitro-2-methylphenol	BDL	0.010	mg/l	8270C	07/24/09	1
2,4-Dinitrophenol	BDL	0.010	mg/l	8270C	07/24/09	1
2-Nitrophenol	BDL	0.010	mg/l	8270C	07/24/09	1
4-Nitrophenol	BDL	0.010	mg/l	8270C	07/24/09	1
Pentachlorophenol	BDL	0.010	mg/l	8270C	07/24/09	1
Phenol	BDL	0.010	mg/l	8270C	07/24/09	1
2,4,6-Trichlorophenol	BDL	0.010	mg/l	8270C	07/24/09	1
Surrogate Recovery						
2-Fluorophenol	30.2		% Rec.	8270C	07/24/09	1
Phenol-d5	19.5		% Rec.	8270C	07/24/09	1
Nitrobenzene-d5	43.8		% Rec.	8270C	07/24/09	1
2-Fluorobiphenyl	45.2		% Rec.	8270C	07/24/09	1
2,4,6-Tribromophenol	79.8		% Rec.	8270C	07/24/09	1
p-Terphenyl-d14	45.5		% Rec.	8270C	07/24/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

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Reported: 07/28/09 14:56 Printed: 07/28/09 14:56
L413348-01 (MISC-SUB) - subcontracted to Legend Techn Services

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L413348-01	WG432625	SAMP	Chlorine,residual	R833089	T8
	WG432667	SAMP	Cyanide	R835326	W
	WG432647	SAMP	Phenol	R833087	J4
	WG432660	SAMP	Kjeldahl Nitrogen, TKN	R835166	T2

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J4	The associated batch QC was outside the established quality control range for accuracy.
T2	(ESC) - Additional method/sample information: The laboratory analysis was from an unpreserved or improperly preserved sample.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.
W	(ESC)-The laboratory analysis was from a sample collected in an improper container

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
07/28/09 at 14:56:55

TSR Signing Reports: 288
R5 - Desired TAT

Sample: L413348-01 Account: ENGENVPAZ Received: 07/22/09 07:45 Due Date: 07/29/09 00:00 RPT Date: 07/28/09 14:56
Misc-sub for FC subbed directly to Legend jlc 7/21/09 PO#S12098

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: GARY HOFFMAN

E-mail to: GHOFFMAN@EECPHX.COM

Project Description: **Phoenix MS4 Site**

City/State Collected:

PHONE:602-248-7702

FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by:

Site/Facility ID#

P.O.#

Collected by(signature):

Packed on Ice N___ Y ___

Rush? (Lab MUST be Notified)

_____Next Day.....100%

_____Two Day.....50%

_____ Three Day.....25%

Date Results Needed

Email?___No_X__Yes

FAX?___No___Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	V8021-BTEX 40ml Amb HCL	SV8270 1L Amb No Pres	SV8081 1L Amb No Pres	PPM plus Ba, Ca, Na 500ml HDPE HNO3	SPCON, TDS 500ml HDPE No Pres	TURB, CHLORR 500ml HDPE No Pres	BOD 1L HDPE No Pres	Sulfate, Ortho-P, Chloride 1L HDPE No Pres	Remarks/contaminant	Sample # (lab only)
MS4	Grab	SW		7/21/09	1:30P	12	X	X	X	X	X	X	X	X		L413348-01

Analysis/Container/Preservative

Chain of Custody
Page__1_of__3

Prepared by:

ENVIRONMENTAL
Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)

ENGENVPAZ

Template/Prelogin

Shipped Via:

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH 7.21 Temp 96.9

Remarks:

Flow_____ Other_____

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)
	7/21/09	3:11 PM	
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)

Samples returned via: FedEx__ UPS__Other__

Temp: 3.1°C

Bottles Received: 24+1TB

Date: 7/22/09

Time: 0745

Condition (lab use only)

COC'S

pH Checked: NCF:

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: Gary Hoffmann

E-mail to: ghoffmann@EECPhx.com

Project Description: **Phoenix MS4 Site**

City/State Collected:

PHONE:602-248-7702

FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by: P Phillips

Site/Facility ID#

P.O.#

Collected by(signature):

Packed on Ice N___ Y ___

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____ Three Day.....25%

Date Results Needed

Email?___No_X__Yes
FAX?___No___Yes

Analysis/Container/Preservative

Chain of Custody
Page__2_of__3__

Prepared by:

ENVIRONMENTAL Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859

A150

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	COD 250ml HDPE H2SO4	MBAS 1L HDPE No Pres	Nitrate 125ml HDPE No Pres	Nitrite 125ml HDPE No Pres	NH3 250ml HDPE H2SO4	TKN 250ml HDPE H2SO4	CN 250ml HDPE NaOH	PT 250ml HDPE H2SO4	Remarks/contaminant	Sample # (lab only)
MS4		SW	—	7/21/09	1:30	8	X	X	X	X	X	X	X	X		L413348-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH 7.21 Temp 96.9

Remarks:

Flow_____ Other_____

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other GW	Condition (lab use only)
Phillips	7/21/09	3:11pm			OK COOL
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.4°c	Bottles Received: 24+TB
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)	Date: 7/22/09	Time: 0745
					pH Checked: L2712 NCF:

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: Gary Hoffmann

E-mail to: ghoffmann@EECPhx.com

Project Description: Phoenix MS4 Site

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by: Phillips

Site/Facility ID#

P.O.#

Collected by(signature):

Packed on Ice N___ Y___

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____Three Day.....25%

Date Results Needed

Email?___No_X__Yes
FAX?___No___Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	DRO 1L Amb HCl	OGHEX 1L Clr HCL	Cr6 250ml HDPE No Pres	Chromium Trivalent (Calc)	Fecal Coliform- Subbed to TurnerLabs Legend	E. coli - Subbed to TurnerLabs Legend			Remarks/contaminant	Sample # (lab only)
MS4	Comp	SW		7/21/09	1:30p	6	X	X	X	X	X	X				L413348-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

Remarks:

pH_____ Temp_____

Flow_____ Other_____

Chain of Custody
Page__3_of__3_

Prepared by:

ENVIRONMENTAL Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin

Shipped Via:

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other_X_	Condition (lab use only)
Phillips	7/21/09	3:31p			
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.4°c	Bottles Received: 24+Tb
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)	Date: 7/22/09	Time: 0745
				pH Checked: L2712	NCF:

Laboratory Sample ID:

CHAIN OF CUSTODY RECORD

LEGEND Technical Services, Inc.
www.legend-group.com

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☐ 4585 S. Palo Verde Rd, Ste 423 • Tucson, AZ 85714 • (520) 327-1234 • Fax (520) 327-0518

Page 1 of 1

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CLIENT INFORMATION

Client Name	Address	City	State	Zip	Phone	Fax Number or Email Address
Environmental Service Corp.	12065 Lebanon Rd.	Mt. Juliet	TN	37122	800-767-5859	615-755-5859

Project Name	Project Number	Contact	P.O. No.
Phoenix MS4 Site	—	Janice Cozby	—

Fax Results ☐ QC Report ☐ EDD ☐
Email Results ☑ Special Detection Limits ☐

SAMPLE TYPE CODES

DW=Drinking Water; WW=Wastewater; SW=Surface Water; G=Groundwater; O=Other Stormwater
S=Soil/Solid; T=Travel Blank; F=Food; G=Sludge/Biosolids

TURN AROUND TIME

Laboratory Authorization Required for Rush

☒ Standard 10 - 15 Day
☐ Other _____

REQUESTED ANALYSES

Client's Sample Identification	Date	Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH ✓ (Lab Use Only)	e.Coli Fecal Coliform	LAB NO.
MS4 - Site	7/21/09	1 Bpm	Phoenix, AZ		X	G		2		XX	L44338-01

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions:

SAMPLE CONDITION UPON RECEIPT (Lab Use)

No. of Containers	2	
Temperature	8.3°C	
Custody Seals	Y	(N)
Seals Intact	Y	N
Preserved	(Y)	N

RELINQUISHED BY

	Signature	Printed Name	Date	Time
①	Cozby Loftin	Cozby Loftin	7/21/09	1600
②				
③				

SAMPLES RECEIVED BY

	Signature	Printed Name	Date	Time
	Shannon Waters	Shannon Waters	7/21/09	1600

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (05/06)

LEGEND
Technical Services, Inc.
www.legend-group.com

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P (520) 327-1234 • F (520) 327-0518

24 July 2009

Janice Cozby
Environmental Science Corp. (ESC)
12065 Lebanon Rd.
Mt. Juliet, TN 37122

RE: Analytical Services

Legend ID: 9071446

Legend Technical Services of Arizona, Inc. is pleased to provide the enclosed analytical results for the aforementioned project. These results relate only to the items tested. This cover letter and the accompanying pages represent the full report for these analyses and should only be reproduced in full. Samples for this project were received by the laboratory on 07/21/09 16:00.

The samples were processed in accordance with the Chain of Custody document and the results presented relate only to the samples tested. The Chain of Custody is considered part of this report.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made.

This entire report was reviewed and approved for release by the undersigned. If you have any questions concerning this report, please feel free to contact me.

Sincerely,
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Michelle Thompson
Client Services Representative

This laboratory report is confidential and is intended for the sole use of LEGEND and it's client.

Environmental Science Corp. (ESC)	Project: Analytical Services	
12065 Lebanon Rd.	Project Number: Phoenix MS4 Site (7.21.09)	**Reported:**
Mt. Juliet, TN 37122	Project Manager: Janice Cozby	07/24/09 15:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
MS4 Site (Phx, AZ)	9071446-01	Water	Grab	07/21/09 13:30	07/21/09 16:00

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.
QA/QC Criteria: All analyses met method requirements unless otherwise qualified.
Comments: There were no problems encountered during the processing of the samples, unless otherwise noted.

MS4 Site (Phx, AZ) (9071446-01) Water (Grab) Sampled: 07/21/09 13:30 Received: 07/21/09 16:00

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Legend Technical Services of Arizona, Inc.								
Microbiology									
E. coli, MPN (WW-Colilert)	**1600**	1	MPN/100 mL	1	B9G0620	**07/21/09 16:50**	**07/21/09 16:50**	SM 9223B	
Fecal Coliforms, MF	>200	1	CFU/100 mL	1	B9G0643	**07/21/09 17:20**	**07/21/09 17:20**	SM 9222D	A1

Microbiology - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9G0620 - micro_prep										
Blank (B9G0620-BLK1)				*Prepared & Analyzed: 07/21/09*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL							
Duplicate (B9G0620-DUP1)	**Source: 9071394-01**			*Prepared & Analyzed: 07/21/09*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL		<1				100	
Duplicate (B9G0620-DUP2)	**Source: 9071395-01**			*Prepared & Analyzed: 07/21/09*						
E. coli, MPN (WW-Colilert)	5	1	MPN/100 mL		8			38.1	100	
Batch B9G0643 - micro_prep										
Blank (B9G0643-BLK1)				*Prepared & Analyzed: 07/21/09*						
Fecal Coliforms, MF	<1	1	CFU/100 mL							

Notes and Definitions

A1	Too numerous to count.
BLK	Method Blank
LCS/Dup	Laboratory Control Sample/Laboratory Fortified Blank/Duplicate
MS/Dup	Matrix Spike/Duplicate
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Laboratory Sample ID: 9071446

CHAIN OF CUSTODY RECORD

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Page 1 of 1

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CLIENT INFORMATION

Client Name	Address	City	State	Zip	Phone	Fax Number or Email Address
Environmental Science Corp.	12065 Lebanon Rd.	Mt. Juliet	TN	37122	800-767-5859	615-758-5859

Project Name	Project Number	Contact	P.O. No.	
Phoenix MS4 Site	—	Janice Cozby	—	Fax Results ☐ Email Results ☐ QC Report ☐ EDD ☐ Special Detection Limits ☐

SAMPLE TYPE CODES

DW=Drinking Water; WW=Wastewater; SW=Surface Water; GW=Groundwater; O=Other Stormwater; S=Soil/Solid; T=Travel Blank; F=Food; SL=Sludge/Biosolids

TURN AROUND TIME

Laboratory Authorization Required for Rush

☒ Standard 10 - 15 Day ☐ Other

REQUESTED ANALYSES

Client's Sample Identification	Date	Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH (Lab Use Only)	E. Coli Fecal Coliform	Lab No.
MS4 - Site	7/21/09	1:30pm	Phoenix, AZ		X	D		2	XX		-01

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions:

SAMPLE CONDITION UPON RECEIPT (Lab Use)		
No. of Containers	2	
Temperature	18.3°C	
Custody Seals	Y	(N)
Seals Intact	Y	N
Preserved	(Y)	N

RELINQUISHED BY	Date	Time	SAMPLES RECEIVED BY	Date	Time
① Sampler Signature: Cory Lotlin	7/21/09	1600	Signature: Sharon Malone	7/21/09	1600
① Sampler Printed Name: Cory Lotlin			Printed Name: Sharon Malone		
② Sampler Signature	Date	Time	Signature	Date	Time
② Sampler Printed Name			Printed Name		
③ Sampler Signature	Date	Time	Signature	Date	Time
③ Sampler Printed Name			Printed Name		

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (05/05)

ESC LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd
Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447268

For: Engineering & Env. Consultants, INC. -AZ
ADOT-Superior

L447268

Lab SampleID.	Client ID
L447268-01	32/202

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Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447268

For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives except Pesticides. All specified holding times were met except for MBAS, Chlorine,residual, BOD, Phosphate,Ortho, and Turbidity.

Anions by Method 9056

Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465712. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG465712 sample duplicate analysis was performed on sample L446587-06. The relative percent differences were within the method limits.

For analytical batch WG465712 sample duplicate analysis was performed on sample L447121-02. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG465712 matrix spike/matrix spike duplicate analysis was performed on sample L447289-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

BOD by Method SM5210B

Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465702. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465702 sample duplicate analysis was performed on sample L447107-02. The relative percent differences were within the method limits.

For analytical batch WG465702 sample duplicate analysis was performed on sample L447189-02. The relative percent difference exceeded the method limits for BOD.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Suspended Solids by Method 2540D

Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465780. The laboratory control sample associated with this sample was within the laboratory control limits.

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(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447268
For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Sample Duplicate Analysis
For analytical batch WG465780 sample duplicate analysis was performed on sample L447272-04. The relative percent difference exceeded the method limits for Suspended Solids.

For analytical batch WG465780 sample duplicate analysis was performed on sample L447130-03. The relative percent difference exceeded the method limits for Suspended Solids.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG465780 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Dissolved Solids by Method 2540C
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465783. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465783 sample duplicate analysis was performed on sample L447225-08. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG465783 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Turbidity by Method SM2130B
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465790. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465790 sample duplicate analysis was performed on sample L447268-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG465790 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

ESC LAB SCIENCES
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Mt. Juliet, TN 37122
(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447268
For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Phosphate,Ortho by Method 4500P-E

Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465791. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465791 sample duplicate analysis was performed on sample L447268-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG465791, matrix spike/matrix spike duplicate analysis was performed on sample L447268-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Chlorine,residual by Method 4500Cl-G

Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465800. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465800 sample duplicate analysis was performed on sample L447268-01. The relative percent differences were within the method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

MBAS by Method 5540C

Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465938. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465938 sample duplicate analysis was performed on sample L447349-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG465938, matrix spike/matrix spike duplicate analysis was performed on sample L447341-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

ESC LABORATORY SCIENCES
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(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447268
For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Specific Conductance by Method 9050A

Laboratory Control Sample

Sample L447268-01 was analyzed in analytical batch WG465956. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG465956 sample duplicate analysis was performed on sample L446774-06. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG465956 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Oil & Grease (Hexane Extr) by Method 1664A

Laboratory Control Sample

Sample L447268-01 was analyzed in analytical batch WG466048. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG466048 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Cyanide by Method 9012B

Laboratory Control Sample

Sample L447268-01 was analyzed in analytical batch WG466201. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG466201 sample duplicate analysis was performed on sample L447257-02. The relative percent differences were within the method limits.

For analytical batch WG466201 sample duplicate analysis was performed on sample L447572-02. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG466201, matrix spike/matrix spike duplicate analysis was performed on sample L447240-02. The spike recoveries and relative percent differences were within laboratory control limits.

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Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447268
For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

COD by Method 410.4
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG466207. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG466207 sample duplicate analysis was performed on sample L447525-01. The relative percent difference exceeded the method limits for COD.

For analytical batch WG466207 sample duplicate analysis was performed on sample L447477-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG466207, matrix spike/matrix spike duplicate analysis was performed on sample L447480-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Hardness, Total (mg/L as CaCO3) by Method 130.1
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG466348. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG466348 sample duplicate analysis was performed on sample L447204-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG466348, matrix spike/matrix spike duplicate analysis was performed on sample L447569-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Phosphorus,Total by Method 365.1
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG466519. The laboratory control sample associated with this sample was within the laboratory control limits.

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Quality Control Summary
SDG: L447268
For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Sample Duplicate Analysis
For analytical batch WG466519 sample duplicate analysis was performed on sample L447285-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG466519, matrix spike/matrix spike duplicate analysis was performed on sample L447268-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Ammonia Nitrogen by Method 350.1
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG466679. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG466679 sample duplicate analysis was performed on sample L448158-02. The relative percent differences were within the method limits.

For analytical batch WG466679 sample duplicate analysis was performed on sample L447569-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG466679, matrix spike/matrix spike duplicate analysis was performed on sample L447722-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Kjeldahl Nitrogen, TKN by Method 351.2
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG466820. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG466820 sample duplicate analysis was performed on sample L447064-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG466820, matrix spike/matrix spike duplicate analysis was performed on sample L447066-01. The spike recoveries and relative percent differences were within laboratory control limits.

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Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Mercury by Method 7470A
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465907. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG465907 sample duplicate analysis was performed on sample L447225-09. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG465907, matrix spike/matrix spike duplicate analysis was performed on sample L447225-09. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6010B
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465776. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG465776 sample duplicate analysis was performed on sample L447272-03. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG465776 matrix spike/matrix spike duplicate analysis was performed on sample L447272-03. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Volatile Organic Compounds by Method 8260B
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG466042. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds. Bromomethane, Chloroethane, 1,1-Dichloroethene, and 1,1,2-Trichloro-1,2,2-trifluoroethane exceeded RPD control limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG466042 matrix spike/matrix spike duplicate analysis was performed on sample L447265-24. The matrix spike recoveries were within laboratory control limits for all target analytes. The relative percent difference exceeded laboratory limits for 1,1-Dichloroethene and 1,1,2-Trichloro-1,2,2-trifluoroethane.

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Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Chlorinated Pesticides by Method 8081A
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465744. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG465744 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Semi-volatile Organic Compounds by Method 8270C
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465743. The laboratory control sample associated with this sample had all target compounds within method limits except for 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzylbutyl phthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-butyl phthalate, and Isophorone.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG465743 was evaluated using the LCS / LCSD. The RPDs exceeded laboratory control limits for 2,6-Dinitrotoluene, Benzidine, Benzo(a)anthracene, Diethyl phthalate, and Di-n-butyl phthalate. The other target analytes were within limits

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015
Laboratory Control Sample
Sample L447268-01 was analyzed in analytical batch WG465740. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG465740 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Laboratory analysis for Chlorinated Pesticides by Method 8081A was from an unpreserved or improperly preserved sample.

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Quality Control Summary
SDG: L447268

For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT-Superior
March 11, 2010

Nancy F. Winters
ESC Representative
ESC Lab Sciences

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Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

Report Summary

Thursday March 11, 2010

Report Number: L447268
Samples Received: 03/02/10
Client Project: 308032.05

Description: ADOT-Superior

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Quality Control Summary
SDG: L447268

For: Engineering & Env. Consultants, INC. -AZ
ADOT-Superior

L447268

Lab SampleID.	Client ID
L447268-01	32/202

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SAMPLE NUMBER
32/202

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

Analytic Batch: WG466775 | Analysis Date: 3/1/2010 | Analysis Time: 1:40 PM
Instrument: NONE | Analyst: 485 | Preparation Date:
Method: | Dilution: 1

CAS NO	Analyte	RL	RESULTS	FLAG
	Miscellaneous		**ATTACH TO COC**	

SM9222D

Analytic Batch: WG466775 | Analysis Date: 3/1/2010 | Analysis Time: 12:50
Instrument: NONE | Analyst: 485 | Preparation Date:
Method: SM9222D | Dilution: 1

CAS NO	Analyte	RL col/100ml	RESULTS col/100ml	FLAG
	Coliform,fecal		**>200**	

9056

Analytic Batch: WG465712 | Analysis Date: 3/2/2010 | Analysis Time: 4:50 PM
Instrument: IC4 | Analyst: 245 | Preparation Date: 3/2/2010 11:18
Method: 9056 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
16887-00-6	Chloride	1.0	**6.9**	
14797-55-8	Nitrate	0.10	**1.1**	
14797-65-0	Nitrite	0.10	< 0.10	
14808-79-8	Sulfate	5.0	**7.6**	

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Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

SM5210B

Analytic Batch: WG465702 | Analysis Date: 3/2/2010 | Analysis Time: 2:15 PM
Instrument: NONE | Analyst: 285 | Preparation Date:
Method: SM5210B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	BOD	5.0	< 5.0	H3

4500Cl-G

Analytic Batch: WG465800 | Analysis Date: 3/2/2010 | Analysis Time: 4:06 PM
Instrument: HANNAH HI9 | Analyst: 477 | Preparation Date:
Method: 4500Cl-G | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7782-50-2	Chlorine,residual	0.10	< 0.10	H3

410.4

Analytic Batch: WG466207 | Analysis Date: 3/5/2010 | Analysis Time: 4:51 PM
Instrument: HACH 4000 | Analyst: 397 | Preparation Date: 3/4/2010 4:45 PM
Method: 410.4 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
E-10117	COD	10	**70**	

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Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

9012B

Analytic Batch: WG466201 | Analysis Date: 3/5/2010 | Analysis Time: 5:26 PM
Instrument: LACHAT4 | Analyst: 234 | Preparation Date: 3/5/2010 6:01 PM
Method: 9012B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
57-12-5	Cyanide	0.0050	< 0.0050	

130.1

Analytic Batch: WG466348 | Analysis Date: 3/5/2010 | Analysis Time: 5:57 PM
Instrument: LACHAT3 | Analyst: 236 | Preparation Date: 3/5/2010 6:19 PM
Method: 130.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
471-34-1	Hardness, Total (mg/L as CaCO3)	30	**60**	

5540C

Analytic Batch: WG465938 | Analysis Date: 3/3/2010 | Analysis Time: 3:47 PM
Instrument: HACH 4000 | Analyst: 477 | Preparation Date: 3/3/2010 1:30 PM
Method: 5540C | Dilution: 10

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	MBAS	1.0	< 1.0	H3D1

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Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

350.1

Analytic Batch: WG466679 | Analysis Date: 3/11/2010 | Analysis Time: 12:20
Instrument: LACHAT3 | Analyst: | Preparation Date: 3/9/2010 12:51
Method: 350.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7664-41-7	Ammonia Nitrogen	0.10	**0.48**	

1664A

Analytic Batch: WG466048 | Analysis Date: 3/4/2010 | Analysis Time: 11:32
Instrument: BAL | Analyst: 078 | Preparation Date: 3/4/2010 4:18 AM
Method: 1664A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Oil & Grease (Hexane Extr)	5.3	< 5.3	

4500P-E

Analytic Batch: WG465791 | Analysis Date: 3/3/2010 | Analysis Time: 10:46
Instrument: HACH 4000 | Analyst: 477 | Preparation Date: 3/2/2010 3:59 PM
Method: 4500P-E | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Phosphate,Ortho	0.025	**0.48**	H3

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Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

365.1

Analytic Batch: WG466519 | Analysis Date: 3/8/2010 | Analysis Time: 12:42
Instrument: LACHAT2 | Analyst: 234 | Preparation Date: 3/7/2010 1:56 PM
Method: 365.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7723-14-0	Phosphorus,Total	0.10	**0.25**	

9050A

Analytic Batch: WG465956 | Analysis Date: 3/4/2010 | Analysis Time: 4:30 PM
Instrument: ORION170 | Analyst: 500 | Preparation Date:
Method: 9050A | Dilution: 1

CAS NO	Analyte	RL umhos/cm	RESULTS umhos/cm	FLAG
	Specific Conductance		**150**	

351.2

Analytic Batch: WG466820 | Analysis Date: 3/9/2010 | Analysis Time: 1:00 PM
Instrument: LACHAT4 | Analyst: 236 | Preparation Date: 3/8/2010 4:16 PM
Method: 351.2 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7727-37-9	Kjeldahl Nitrogen, TKN	0.10	**1.5**	

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Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

SM2130B

Analytic Batch: WG465790 | Analysis Date: 3/3/2010 | Analysis Time: 8:45
Instrument: NONE | Analyst: 477 | Preparation Date:
Method: SM2130B | Dilution: 1

CAS NO	Analyte	RL NTU	RESULTS NTU	FLAG
	Turbidity	0.10	**100**	H3

2540C

Analytic Batch: WG465783 | Analysis Date: 3/4/2010 | Analysis Time: 1:24 PM
Instrument: BAL | Analyst: 036 | Preparation Date: 3/2/2010 3:56 PM
Method: 2540C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
DSOLIDS	Dissolved Solids	10	**97**	

2540D

Analytic Batch: WG465780 | Analysis Date: 3/3/2010 | Analysis Time: 9:41
Instrument: BAL | Analyst: 036 | Preparation Date: 3/2/2010 3:56 PM
Method: 2540D | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
SSOLIDS	Suspended Solids	1.0	**76**	

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Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

7470A

Analytic Batch: WG465907 | Analysis Date: 3/4/2010 | Analysis Time: 12:44
Instrument: CVAA3 | Analyst: 448 | Preparation Date: 3/3/2010 11:09
Method: 7470A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7439-97-6	Mercury	0.00020	< 0.00020	

6010B

Analytic Batch: WG465776 | Analysis Date: 3/6/2010 | Analysis Time: 9:18
Instrument: ICP6 | Analyst: 338 | Preparation Date: 3/2/2010 3:27 PM
Method: 6010B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-36-0	Antimony	0.020	< 0.020	
7440-38-2	Arsenic	0.020	< 0.020	
7440-39-3	Barium	0.0050	**0.074**	
7440-43-9	Cadmium	0.0050	< 0.0050	
7440-70-2	Calcium	0.50	**150**	
7440-47-3	Chromium	0.010	< 0.010	
7440-50-8	Copper	0.020	< 0.020	
7440-02-0	Nickel	0.020	< 0.020	
7782-49-2	Selenium	0.020	< 0.020	
7440-22-4	Silver	0.010	< 0.010	
7440-23-5	Sodium	0.50	**1.3**	
7440-66-6	Zinc	0.030	**4.7**	

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Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

6010B

Analytic Batch: WG465776 | Analysis Date: 3/9/2010 | Analysis Time: 11:02
Instrument: ICP6 | Analyst: 338 | Preparation Date: 3/2/2010 3:27 PM
Method: 6010B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-41-7	Beryllium	0.0020	< 0.0020	
7439-92-1	Lead	0.0050	**0.0064**	

8260B

Analytic Batch: WG466042 | Analysis Date: 3/5/2010 | Analysis Time: 6:05 PM
Instrument: VOCMS4 | Analyst: 498 | Preparation Date: 3/5/2010 6:05 PM
Method: 8260B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
67-64-1	Acetone	0.050	< 0.050	
107-02-8	Acrolein	0.050	< 0.050	
107-13-1	Acrylonitrile	0.010	< 0.010	
71-43-2	Benzene	0.0010	< 0.0010	
108-86-1	Bromobenzene	0.0010	< 0.0010	
75-27-4	Bromodichloromethane	0.0010	< 0.0010	
75-25-2	Bromoform	0.0010	< 0.0010	
74-83-9	Bromomethane	0.0050	< 0.0050	R7
104-51-8	n-Butylbenzene	0.0010	< 0.0010	
135-98-8	sec-Butylbenzene	0.0010	< 0.0010	
98-06-6	tert-Butylbenzene	0.0010	< 0.0010	
56-23-5	Carbon tetrachloride	0.0010	< 0.0010	
108-90-7	Chlorobenzene	0.0010	< 0.0010	
124-48-1	Chlorodibromomethane	0.0010	< 0.0010	
75-00-3	Chloroethane	0.0050	< 0.0050	R7
67-66-3	Chloroform	0.0050	< 0.0050	
74-87-3	Chloromethane	0.0025	< 0.0025	
95-49-8	2-Chlorotoluene	0.0010	< 0.0010	
106-43-4	4-Chlorotoluene	0.0010	< 0.0010	
96-12-8	1,2-Dibromo-3-Chloropropane	0.0050	< 0.0050	
106-93-4	1,2-Dibromoethane	0.0010	< 0.0010	
74-95-3	Dibromomethane	0.0010	< 0.0010	
95-50-1	1,2-Dichlorobenzene	0.0010	< 0.0010	

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Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

8260B

Analytic Batch: WG466042 | Analysis Date: 3/5/2010 | Analysis Time: 6:05 PM
Instrument: VOCMS4 | Analyst: 498 | Preparation Date: 3/5/2010 6:05 PM
Method: 8260B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
541-73-1	1,3-Dichlorobenzene	0.0010	< 0.0010	
106-46-7	1,4-Dichlorobenzene	0.0010	< 0.0010	
75-71-8	Dichlorodifluoromethane	0.0050	< 0.0050	
75-34-3	1,1-Dichloroethane	0.0010	< 0.0010	
107-06-2	1,2-Dichloroethane	0.0010	< 0.0010	
75-35-4	1,1-Dichloroethene	0.0010	< 0.0010	R7
156-59-2	cis-1,2-Dichloroethene	0.0010	< 0.0010	
156-60-5	trans-1,2-Dichloroethene	0.0010	< 0.0010	
78-87-5	1,2-Dichloropropane	0.0010	< 0.0010	
563-58-6	1,1-Dichloropropene	0.0010	< 0.0010	
142-28-9	1,3-Dichloropropane	0.0010	< 0.0010	
10061-01-5	cis-1,3-Dichloropropene	0.0010	< 0.0010	
10061-02-6	trans-1,3-Dichloropropene	0.0010	< 0.0010	
594-20-7	2,2-Dichloropropane	0.0010	< 0.0010	
108-20-3	Di-isopropyl ether	0.0010	< 0.0010	
100-41-4	Ethylbenzene	0.0010	< 0.0010	
87-68-3	Hexachloro-1,3-Butadiene	0.0010	< 0.0010	
98-82-8	Isopropylbenzene	0.0010	< 0.0010	
99-87-6	p-Isopropyltoluene	0.0010	< 0.0010	
78-93-3	2-Butanone (MEK)	0.010	< 0.010	
75-09-2	Methylene Chloride	0.0050	< 0.0050	
108-10-1	4-Methyl-2-pentanone (MIBK)	0.010	< 0.010	
1634-04-4	Methyl tert-butyl ether	0.0010	< 0.0010	
91-20-3	Naphthalene	0.0050	< 0.0050	
103-65-1	n-Propylbenzene	0.0010	< 0.0010	
100-42-5	Styrene	0.0010	< 0.0010	
630-20-6	1,1,1,2-Tetrachloroethane	0.0010	< 0.0010	
79-34-5	1,1,2,2-Tetrachloroethane	0.0010	< 0.0010	
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	< 0.0010	R7
127-18-4	Tetrachloroethene	0.0010	< 0.0010	
108-88-3	Toluene	0.0050	< 0.0050	
87-61-6	1,2,3-Trichlorobenzene	0.0010	< 0.0010	
120-82-1	1,2,4-Trichlorobenzene	0.0010	< 0.0010	

Comments: 1) Sample results are reported as rounded values.
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Est. 1970

SAMPLE NUMBER
32/202

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

8260B

Analytic Batch: WG466042 | Analysis Date: 3/5/2010 | Analysis Time: 6:05 PM
Instrument: VOCMS4 | Analyst: 498 | Preparation Date: 3/5/2010 6:05 PM
Method: 8260B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
71-55-6	1,1,1-Trichloroethane	0.0010	< 0.0010	
79-00-5	1,1,2-Trichloroethane	0.0010	< 0.0010	
79-01-6	Trichloroethene	0.0010	< 0.0010	
75-69-4	Trichlorofluoromethane	0.0050	< 0.0050	
96-18-4	1,2,3-Trichloropropane	0.0010	< 0.0010	
95-63-6	1,2,4-Trimethylbenzene	0.0010	< 0.0010	
526-73-8	1,2,3-Trimethylbenzene	0.0010	< 0.0010	
108-67-8	1,3,5-Trimethylbenzene	0.0010	< 0.0010	
75-01-4	Vinyl chloride	0.0010	< 0.0010	
1330-20-7	Xylenes, Total	0.0030	< 0.0030	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
Toluene-d8	**99.5**		
Dibromofluoromethane	**101**		
4-Bromofluorobenzene	**104**		

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SAMPLE NUMBER
32/202

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

3510/DRO

Analytic Batch: WG465740 | Analysis Date: 3/4/2010 | Analysis Time: 2:21
Instrument: SVGC7 | Analyst: 280 | Preparation Date: 3/2/2010 1:27 PM
Method: 3510/DRO | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
68334-30-5	TPH (GC/FID) High Fraction	0.10	**0.32**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**91.9**		

8081A

Analytic Batch: WG465744 | Analysis Date: 3/4/2010 | Analysis Time: 2:23 PM
Instrument: SVGC20 | Analyst: 377 | Preparation Date: 3/2/2010 1:33 PM
Method: 8081A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
309-00-2	Aldrin	0.000050	< 0.000050	
319-84-6	Alpha BHC	0.000050	< 0.000050	
319-85-7	Beta BHC	0.000050	< 0.000050	
319-86-8	Delta BHC	0.000050	< 0.000050	
58-89-9	Gamma BHC	0.000050	< 0.000050	
57-74-9	Chlordane	0.00050	< 0.00050	
72-54-8	4,4-DDD	0.000050	< 0.000050	
72-55-9	4,4-DDE	0.000050	< 0.000050	
50-29-3	4,4-DDT	0.000050	< 0.000050	
60-57-1	Dieldrin	0.000050	< 0.000050	
959-98-8	Endosulfan I	0.000050	< 0.000050	
33213-65-9	Endosulfan II	0.000050	< 0.000050	
1031-07-8	Endosulfan sulfate	0.000050	< 0.000050	
72-20-8	Endrin	0.000050	< 0.000050	
7421-93-4	Endrin aldehyde	0.000050	< 0.000050	
53494-70-5	Endrin ketone	0.000050	< 0.000050	
118-74-1	Hexachlorobenzene	0.000050	< 0.000050	
76-44-8	Heptachlor	0.000050	< 0.000050	
1024-57-3	Heptachlor epoxide	0.000050	< 0.000050	

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SAMPLE NUMBER
32/202

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

8081A

Analytic Batch: WG465744 | Analysis Date: 3/4/2010 | Analysis Time: 2:23 PM
Instrument: SVGC20 | Analyst: 377 | Preparation Date: 3/2/2010 1:33 PM
Method: 8081A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
72-43-5	Methoxychlor	0.000050	< 0.000050	
8001-35-2	Toxaphene	0.00050	< 0.00050	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
Decachlorobiphenyl	**72.1**		
Tetrachloro-m-xylene	**50.8**		

8270C

Analytic Batch: WG465743 | Analysis Date: 3/4/2010 | Analysis Time: 11:17
Instrument: BNAMS2 | Analyst: 145 | Preparation Date: 3/2/2010 4:32 PM
Method: 8270C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
83-32-9	Acenaphthene	0.0010	< 0.0010	
208-96-8	Acenaphthylene	0.0010	< 0.0010	
120-12-7	Anthracene	0.0010	< 0.0010	
92-87-5	Benzidine	0.010	< 0.010	R7
56-55-3	Benzo(a)anthracene	0.0010	< 0.0010	R7
205-99-2	Benzo(b)fluoranthene	0.0010	< 0.0010	L2
207-08-9	Benzo(k)fluoranthene	0.0010	< 0.0010	L2
191-24-2	Benzo(g,h,i)perylene	0.0010	< 0.0010	
50-32-8	Benzo(a)pyrene	0.0010	< 0.0010	L2
111-91-1	Bis(2-chlorethoxy)methane	0.010	< 0.010	
111-44-4	Bis(2-chloroethyl)ether	0.010	< 0.010	
108-60-1	Bis(2-chloroisopropyl)ether	0.010	< 0.010	
101-55-3	4-Bromophenyl-phenylether	0.010	< 0.010	
91-58-7	2-Chloronaphthalene	0.0010	< 0.0010	
7005-72-3	4-Chlorophenyl-phenylether	0.010	< 0.010	
218-01-9	Chrysene	0.0010	< 0.0010	
53-70-3	Dibenz(a,h)anthracene	0.0010	< 0.0010	

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SAMPLE NUMBER
32/202

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

8270C

Analytic Batch: WG465743 | Analysis Date: 3/4/2010 | Analysis Time: 11:17
Instrument: BNAMS2 | Analyst: 145 | Preparation Date: 3/2/2010 4:32 PM
Method: 8270C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
91-94-1	3,3-Dichlorobenzidine	0.010	< 0.010	
121-14-2	2,4-Dinitrotoluene	0.010	< 0.010	L2
606-20-2	2,6-Dinitrotoluene	0.010	< 0.010	L2R2
206-44-0	Fluoranthene	0.0010	< 0.0010	
86-73-7	Fluorene	0.0010	< 0.0010	
118-74-1	Hexachlorobenzene	0.0010	< 0.0010	
87-68-3	Hexachloro-1,3-butadiene	0.010	< 0.010	
77-47-4	Hexachlorocyclopentadiene	0.010	< 0.010	
67-72-1	Hexachloroethane	0.010	< 0.010	
193-39-5	Indeno(1,2,3-cd)pyrene	0.0010	< 0.0010	
78-59-1	Isophorone	0.010	< 0.010	L2
91-20-3	Naphthalene	0.0010	< 0.0010	
98-95-3	Nitrobenzene	0.010	< 0.010	
62-75-9	n-Nitrosodimethylamine	0.010	< 0.010	
86-30-6	n-Nitrosodiphenylamine	0.010	< 0.010	
621-64-7	n-Nitrosodi-n-propylamine	0.010	< 0.010	
85-01-8	Phenanthrene	0.0010	< 0.0010	
85-68-7	Benzylbutyl phthalate	0.0010	< 0.0010	L2
117-81-7	Bis(2-ethylhexyl)phthalate	0.0010	< 0.0010	
84-74-2	Di-n-butyl phthalate	0.0010	< 0.0010	L2R2
84-66-2	Diethyl phthalate	0.0010	< 0.0010	L2R2
131-11-3	Dimethyl phthalate	0.0010	< 0.0010	L2
117-84-0	Di-n-octyl phthalate	0.0010	< 0.0010	
129-00-0	Pyrene	0.0010	< 0.0010	
120-82-1	1,2,4-Trichlorobenzene	0.010	< 0.010	
59-50-7	4-Chloro-3-methylphenol	0.010	< 0.010	
95-57-8	2-Chlorophenol	0.010	< 0.010	
120-83-2	2,4-Dichlorophenol	0.010	< 0.010	
105-67-9	2,4-Dimethylphenol	0.010	< 0.010	
534-52-1	4,6-Dinitro-2-methylphenol	0.010	< 0.010	
51-28-5	2,4-Dinitrophenol	0.010	< 0.010	
88-75-5	2-Nitrophenol	0.010	< 0.010	
100-02-7	4-Nitrophenol	0.010	< 0.010	

Comments: 1) Sample results are reported as rounded values.
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SAMPLE NUMBER
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Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :		Date Sampled :	2/28/2010 9:00 AM
Location :	ADOT-Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447268-01**	Date Received :	3/2/2010

8270C

Analytic Batch: WG465743 | Analysis Date: 3/4/2010 | Analysis Time: 11:17
Instrument: BNAMS2 | Analyst: 145 | Preparation Date: 3/2/2010 4:32 PM
Method: 8270C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
87-86-5	Pentachlorophenol	0.010	< 0.010	
108-95-2	Phenol	0.010	< 0.010	
88-06-2	2,4,6-Trichlorophenol	0.010	< 0.010	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
2-Fluorophenol	**56.6**		
Phenol-d5	**39.0**		
Nitrobenzene-d5	**68.3**		
2-Fluorobiphenyl	**97.0**		
2,4,6-Tribromophenol	**113**		
p-Terphenyl-d14	**129**		

LEGEND

RL - Reporting Limit
diluted due to emulsion
subcontracted to Legend Techn Services Inc

QUALIFIERS

R7 - LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R2 - RPD/RSD exceeded the laboratory acceptance limit.
L2 - The associated blank spike recovery was below laboratory acceptance limits.
H3 - Sample was received and analyzed past holding time.
D1 - Sample required dilution due to matrix.

Comments: 1) Sample results are reported as rounded values.
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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Anions by Method 9056		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465712**
Analysis Date:	3/2/2010	Analyst:	245
Instrument ID:	IC4		
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Chloride		<1.00	
Nitrate		<0.100	
Nitrite		<0.100	
Sulfate		<5.00	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chloride	40.0	39.5	98.8	90 - 110	
Nitrate	8.00	8.08	101	90 - 110	
Nitrite	8.00	7.80	97.5	90 - 110	
Sulfate	40.0	39.1	97.8	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chloride	40.0	39.8	99.5	90 - 110	
Nitrate	8.00	8.12	101	90 - 110	
Nitrite	8.00	7.83	97.9	90 - 110	
Sulfate	40.0	39.4	98.5	90 - 110	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Anions by Method 9056
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/2/2010
Instrument ID: IC4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG465712
Analyst: 245

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Chloride	40.0	39.5	98.8	39.8	99.5	90-110		0.8	20	
Nitrate	8.00	8.08	101	8.12	101	90-110		0.5	20	
Nitrite	8.00	7.80	97.5	7.83	97.9	90-110		0.4	20	
Sulfate	40.0	39.1	97.8	39.4	98.5	90-110		0.8	20	

Sample Duplicate
L446587-06

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Sulfate	0.000	0.000			

Sample Duplicate
L447121-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Nitrate	0.540	0.549	1.7	20	
Nitrite	0.043	0.000			
Sulfate	18.0	18.4	2.2	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Anions by Method 9056		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465712**
Analysis Date:	3/2/2010	Analyst:	245
Instrument ID:	IC4		
Sample Numbers:	L447268-01		

Matrix Spike/Matrix Spike Duplicate

L447289-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Nitrate	5.00	1.30	6.18	97.6	6.22	98.4	80-120		0.6	20	
Nitrite	5.00	0.000	4.98	99.6	5.02	100	80-120		0.8	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Ammonia Nitrogen by Method 350.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466679**
Analysis Date:	3/11/2010 12:20:00 AM	Analyst:	
Instrument ID:	LACHAT3	Extraction Date:	3/8/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Ammonia Nitrogen		<0.100	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ammonia Nitrogen	7.50	6.94	92.5	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ammonia Nitrogen	7.50	6.77	90.3	90 - 110	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Ammonia Nitrogen by Method 350.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466679**
Analysis Date:	3/11/2010 12:20:00 AM	Analyst:	
Instrument ID:	LACHAT3	Extraction Date:	3/8/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Ammonia Nitrogen	7.50	6.94	92.5	6.77	90.3	90-110		2.5	20	

Sample Duplicate
L448158-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Ammonia Nitrogen	0.0960	0.102			

Sample Duplicate
L447569-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Ammonia Nitrogen	0.170	0.179	5.2	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Ammonia Nitrogen by Method 350.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466679**
Analysis Date:	3/11/2010 12:20:00 AM	Analyst:	
Instrument ID:	LACHAT3	Extraction Date:	3/8/2010
Sample Numbers:	L447268-01		

Matrix Spike/Matrix Spike Duplicate

L447722-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Ammonia Nitrogen	5.00	2.60	7.78	104	8.05	109	90-110		3.4	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	BOD by Method SM5210B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465702**
Analysis Date:	3/2/2010 2:15:00 PM	Analyst:	285
Instrument ID:	NONE	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
BOD		0.0000	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
BOD	198	186	93.9	84.6 - 115.4	
BOD	198	200	101	84.6 - 115.4	
BOD	198	190	96.0	84.6 - 115.4	
BOD	198	179	90.4	84.6 - 115.4	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	BOD by Method SM5210B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465702**
Analysis Date:	3/2/2010 2:15:00 PM	Analyst:	285
Instrument ID:	NONE	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Sample Duplicate
L447107-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
BOD	0.0000	0.0000			

Sample Duplicate
L447189-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
BOD	950	760	22	5	R8

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	COD by Method 410.4		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466207**
Analysis Date:	3/5/2010 4:51:00 PM	Analyst:	397
Instrument ID:	HACH 4000	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
COD		<10.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
COD	375	387	103	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
COD	375	382	102	90 - 110	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	COD by Method 410.4		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466207**
Analysis Date:	3/5/2010 4:51:00 PM	Analyst:	397
Instrument ID:	HACH 4000	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
COD	375	387	103	382	102	90-110		1.3	5	

Sample Duplicate
L447525-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
COD	77.0	83.0	7.5	5	R8

Sample Duplicate
L447477-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
COD	420	437	4.0	5	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	COD by Method 410.4		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466207**
Analysis Date:	3/5/2010 4:51:00 PM	Analyst:	397
Instrument ID:	HACH 4000	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Matrix Spike/Matrix Spike Duplicate

L447480-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
COD	400	450	851	100	880	108	90-110		3.4	5.0	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Chlorine,residual by Method 4500Cl-G		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465800**
Analysis Date:	3/2/2010 4:06:00 PM	Analyst:	477
Instrument ID:	HANNAH HI9	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Chlorine,residual		<0.100	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Chlorine,residual by Method 4500Cl-G		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465800**
Analysis Date:	3/2/2010 4:06:00 PM	Analyst:	477
Instrument ID:	HANNAH HI9	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Sample Duplicate
L447268-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Chlorine,residual	0.0000	0.0000			

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Cyanide by Method 9012B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466201**
Analysis Date:	3/5/2010 5:26:00 PM	Analyst:	234
Instrument ID:	LACHAT4	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Cyanide		<0.0050	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Cyanide	0.100	0.0935	93.5	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Cyanide	0.100	0.0952	95.2	90 - 110	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Cyanide by Method 9012B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466201**
Analysis Date:	3/5/2010 5:26:00 PM	Analyst:	234
Instrument ID:	LACHAT4	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Cyanide	0.100	0.0935	93.5	0.0952	95.2	90-110		1.8	20	

Sample Duplicate
L447257-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Cyanide	0.0000	0.0000			

Sample Duplicate
L447572-02

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Cyanide	0.0000	0.0000			

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Cyanide by Method 9012B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466201**
Analysis Date:	3/5/2010 5:26:00 PM	Analyst:	234
Instrument ID:	LACHAT4	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Matrix Spike/Matrix Spike Duplicate

L447240-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Cyanide	0.200	0.0000	0.182	91.0	0.181	90.5	90-110		0.6	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Dissolved Solids by Method 2540C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465783**
Analysis Date:	3/4/2010 1:24:00 PM	Analyst:	036
Instrument ID:	BAL	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Dissolved Solids		<10.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8720	99.0	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8670	98.5	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Dissolved Solids by Method 2540C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465783**
Analysis Date:	3/4/2010 1:24:00 PM	Analyst:	036
Instrument ID:	BAL	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dissolved Solids	8800	8720	99.0	8670	98.5	85-115		0.6	20	

Sample Duplicate
L447225-08

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Dissolved Solids	0.0000	0.0000			

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness, Total (mg/L as CaCO3) by Method 130.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466348**
Analysis Date:	3/5/2010 5:57:00 PM	Analyst:	236
Instrument ID:	LACHAT3	Extraction Date:	3/5/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Hardness		<30.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	210	105	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	211	106	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness, Total (mg/L as CaCO3) by Method 130.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466348**
Analysis Date:	3/5/2010 5:57:00 PM	Analyst:	236
Instrument ID:	LACHAT3	Extraction Date:	3/5/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Hardness	200	210	105	211	106	85-115		0.5	20	

Sample Duplicate
L447204-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Hardness	720	739	2.6	20	

Matrix Spike/Matrix Spike Duplicate
L447569-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Hardness	150	140	274	89.3	274	89.3	80-120		0.0	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Kjeldahl Nitrogen, TKN by Method 351.2		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466820**
Analysis Date:	3/9/2010 1:00:00 PM	Analyst:	236
Instrument ID:	LACHAT4	Extraction Date:	3/9/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Kjeldahl Nitrogen, TKN		<0.100	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Kjeldahl Nitrogen, TKN	15.4	16.8	109	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Kjeldahl Nitrogen, TKN	15.4	16.6	107	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Kjeldahl Nitrogen, TKN by Method 351.2		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466820**
Analysis Date:	3/9/2010 1:00:00 PM	Analyst:	236
Instrument ID:	LACHAT4	Extraction Date:	3/9/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Kjeldahl Nitrogen, TKN	15.4	16.8	109	16.6	107	85-115		1.2	20	

Sample Duplicate
L447064-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Kjeldahl Nitrogen, TKN	58.0	57.3	1.2	20	

Matrix Spike/Matrix Spike Duplicate
L447066-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Kjeldahl Nitrogen, TKN	5.00	72.0	96.6	492	95.8	476	80-120	M3	0.8	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	MBAS by Method 5540C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465938**
Analysis Date:	3/3/2010 3:47:00 PM	Analyst:	477
Instrument ID:	HACH 4000	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
MBAS		<0.100	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
MBAS	1.00	0.984	98.4	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
MBAS	1.00	0.960	96.0	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	MBAS by Method 5540C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465938**
Analysis Date:	3/3/2010 3:47:00 PM	Analyst:	477
Instrument ID:	HACH 4000	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
MBAS	1.00	0.984	98.4	0.960	96.0	85-115		2.5	20	

Sample Duplicate
L447349-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
MBAS	35.0	33.4	4.7	20	

Matrix Spike/Matrix Spike Duplicate
L447341-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
MBAS	1.00	0.140	1.07	93.0	1.08	94.0	80-120		0.9	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	MBAS by Method 5540C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465938**
Analysis Date:	3/3/2010 3:47:00 PM	Analyst:	477
Instrument ID:	HACH 4000	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Method Blank Summary

Client Sample ID	Laboratory Sample ID	Lab Filename	Date Analyzed	Time Analyzed
Blank WG465938	Blank WG465938	HACH 4000	3/3/2010	3:41 PM
LCS WG465938	LCS WG465938	HACH 4000	3/3/2010	3:44 PM
LCSD WG465938	LCSD WG465938	HACH 4000	3/3/2010	3:46 PM
32/202	L447268-01	HACH 4000	3/3/2010	3:47 PM
MS WG465938	MS WG465938	HACH 4000	3/3/2010	3:51 PM
MSD WG465938	MSD WG465938	HACH 4000	3/3/2010	3:52 PM
DUP WG465938	DUP WG465938	HACH 4000	3/3/2010	3:54 PM

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Oil & Grease (Hexane Extr) by Method 1664A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466048**
Analysis Date:	3/4/2010 11:32:00 AM	Analyst:	078
Instrument ID:	BAL	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Oil & Grease (Hexane Extr)		<5.00	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Oil & Grease (Hexane Extr)	40.0	37.0	92.5	78 - 114	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Oil & Grease (Hexane Extr)	40.0	38.0	95.0	78 - 114	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Oil & Grease (Hexane Extr) by Method 1664A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466048**
Analysis Date:	3/4/2010 11:32:00 AM	Analyst:	078
Instrument ID:	BAL	Extraction Date:	3/4/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Oil & Grease (Hexane Extr)	40.0	37.0	92.5	38.0	95.0	78-114		2.7	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Phosphate,Ortho by Method 4500P-E		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465791**
Analysis Date:	3/3/2010 10:46:00 AM	Analyst:	477
Instrument ID:	HACH 4000	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Phosphate,Ortho		<0.0250	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphate,Ortho	0.750	0.842	112	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphate,Ortho	0.750	0.825	110	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Phosphate,Ortho by Method 4500P-E		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465791**
Analysis Date:	3/3/2010 10:46:00 AM	Analyst:	477
Instrument ID:	HACH 4000	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Phosphate,Ortho	0.750	0.842	112	0.825	110	85-115		2.0	20	

Sample Duplicate
L447268-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Phosphate,Ortho	0.480	0.488	1.7	20	

Matrix Spike/Matrix Spike Duplicate
L447268-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Phosphate,Ortho	0.500	0.480	1.03	110	1.02	108	80-120		1.0	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Phosphorus,Total by Method 365.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466519**
Analysis Date:	3/8/2010 12:42:00 PM	Analyst:	234
Instrument ID:	LACHAT2	Extraction Date:	3/7/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Phosphorus,Total		<0.100	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphorus,Total	1.00	0.922	92.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphorus,Total	1.00	0.920	92.0	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Phosphorus,Total by Method 365.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466519**
Analysis Date:	3/8/2010 12:42:00 PM	Analyst:	234
Instrument ID:	LACHAT2	Extraction Date:	3/7/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Phosphorus,Total	1.00	0.922	92.2	0.920	92.0	85-115		0.2	20	

Sample Duplicate
L447285-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Phosphorus,Total	18.0	18.2	1.1	20	

Matrix Spike/Matrix Spike Duplicate
L447268-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Phosphorus,Total	2.50	0.250	2.62	94.8	2.57	92.8	80-120		1.9	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Specific Conductance by Method 9050A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465956**
Analysis Date:	3/4/2010 4:30:00 PM	Analyst:	500
Instrument ID:	ORION170	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Specific Conductance		6.20	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Specific Conductance	406	410	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Specific Conductance	406	400	98.5	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Specific Conductance by Method 9050A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465956**
Analysis Date:	3/4/2010 4:30:00 PM	Analyst:	500
Instrument ID:	ORION170	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Specific Conductance	406	410	101	400	98.5	85-115		2.5	20	

Sample Duplicate
L446774-06

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Specific Conductance	470	470	0.0	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465780**
Analysis Date:	3/3/2010 9:41:00 AM	Analyst:	036
Instrument ID:	BAL	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Suspended Solids		<1.00	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	716	92.6	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	724	93.7	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465780**
Analysis Date:	3/3/2010 9:41:00 AM	Analyst:	036
Instrument ID:	BAL	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Suspended Solids	773	716	92.6	724	93.7	85-115		1.1	20	

Sample Duplicate
L447272-04

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	120	138	14	5	R8

Sample Duplicate
L447130-03

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	3100	2920	6.0	5	R8

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Turbidity by Method SM2130B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465790**
Analysis Date:	3/3/2010 8:45:00 AM	Analyst:	477
Instrument ID:	NONE	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Turbidity		<0.100	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Turbidity	40.0	41.0	102	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Turbidity	40.0	41.0	102	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Turbidity by Method SM2130B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465790**
Analysis Date:	3/3/2010 8:45:00 AM	Analyst:	477
Instrument ID:	NONE	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Turbidity	40.0	41.0	102	41.0	102	85-115		0.0	20	

Sample Duplicate
L447268-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Turbidity	100	106	5.8	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Mercury by Method 7470A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465907**
Analysis Date:	3/4/2010 12:44:00 AM	Analyst:	448
Instrument ID:	CVAA3	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Mercury		<0.0002	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Mercury	0.0030	0.0026	87.3	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Mercury by Method 7470A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465907**
Analysis Date:	3/4/2010 12:44:00 AM	Analyst:	448
Instrument ID:	CVAA3	Extraction Date:	3/3/2010
Sample Numbers:	L447268-01		

Sample Duplicate
L447225-09

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Mercury	0.0000	0.0000			

Matrix Spike/Matrix Spike Duplicate
L447225-09

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Mercury	0.0030	0.0000	0.0028	92.7	0.0026	87.7	70-130		5.5	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465776**
Analysis Date:	3/5/2010	Analyst:	338
Instrument ID:	ICP6	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Antimony	7440-36-0	<0.0200	
Arsenic	7440-38-2	<0.0200	
Barium	7440-39-3	<0.00500	
Beryllium	7440-41-7	<0.00200	
Cadmium	7440-43-9	<0.00500	
Calcium	7440-70-2	<0.500	
Chromium	7440-47-3	<0.0100	
Copper	7440-50-8	<0.0200	
Lead	7439-92-1	<0.00500	
Nickel	7440-02-0	<0.0200	
Selenium	7782-49-2	<0.0200	
Silver	7440-22-4	<0.0100	
Sodium	7440-23-5	<0.500	
Zinc	7440-66-6	<0.0300	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465776**
Analysis Date:	3/5/2010	Analyst:	338
Instrument ID:	ICP6	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Antimony	1.13	1.10	97.3	85 - 115	
Arsenic	1.13	1.10	97.3	85 - 115	
Barium	1.13	1.08	95.6	85 - 115	
Beryllium	1.13	1.10	97.3	85 - 115	
Cadmium	1.13	1.12	99.1	85 - 115	
Calcium	11.3	11.2	99.1	85 - 115	
Chromium	1.13	1.12	99.1	85 - 115	
Copper	1.13	1.13	100	85 - 115	
Lead	1.13	1.15	102	85 - 115	
Nickel	1.13	1.16	103	85 - 115	
Selenium	1.13	1.05	92.9	85 - 115	
Silver	1.13	1.12	99.1	85 - 115	
Sodium	11.3	11.4	101	85 - 115	
Zinc	1.13	1.12	99.1	85 - 115	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465776**
Analysis Date:	3/5/2010	Analyst:	338
Instrument ID:	ICP6	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Sample Duplicate
L447272-03

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Antimony	0.00000	0.0000			
Arsenic	0.00000	0.0000			
Barium	0.0310	0.0360	15	20	
Beryllium	0.00000	0.0002			
Cadmium	0.00000	0.0000			
Calcium	7.66	7.64	0.3	20	
Chromium	0.00000	0.0000			
Copper	0.00000	0.0094			
Lead	0.00000	0.0000			
Nickel	0.00000	0.0000			
Selenium	0.00000	0.0000			
Silver	0.00000	0.0000			
Sodium	1.31	1.31	0.0	20	
Zinc	0.00000	0.0312			

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465776**
Analysis Date:	3/5/2010	Analyst:	338
Instrument ID:	ICP6	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Matrix Spike/Matrix Spike Duplicate

L447272-03

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Antimony	1.13	0.00000	1.06	93.8	1.07	94.7	75-125		0.9	20	
Arsenic	1.13	0.00000	1.09	96.5	1.10	97.3	75-125		0.9	20	
Barium	1.13	0.0360	1.12	95.9	1.11	95.0	75-125		0.9	20	
Beryllium	1.13	0.00000	1.09	96.5	1.09	96.5	75-125		0.0	20	
Cadmium	1.13	0.00000	1.12	99.1	1.11	98.2	75-125		0.9	20	
Calcium	11.3	7.64	18.8	98.8	18.8	98.8	75-125		0.0	20	
Chromium	1.13	0.00000	1.13	100	1.13	100	75-125		0.0	20	
Copper	1.13	0.00940	1.15	101	1.15	101	75-125		0.0	20	
Lead	1.13	0.00000	1.15	102	1.16	103	75-125		0.9	20	
Nickel	1.13	0.00000	1.16	103	1.17	104	75-125		0.9	20	
Selenium	1.13	0.00000	1.04	92.0	1.05	92.9	75-125		1.0	20	
Silver	1.13	0.00000	1.07	94.7	1.07	94.7	75-125		0.0	20	
Sodium	11.3	1.31	12.3	97.3	12.4	98.1	75-125		0.8	20	
Zinc	1.13	0.0312	1.14	98.1	1.13	97.2	75-125		0.9	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466042**
Analysis Date:	3/5/2010	Analyst:	498
Instrument ID:	VOCMS4		
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Dichlorodifluoromethane	75-71-8	<0.0050	
Chloromethane	74-87-3	<0.0025	
Vinyl chloride	75-01-4	<0.0010	
Bromomethane	74-83-9	<0.0050	
Chloroethane	75-00-3	<0.0050	
Trichlorofluoromethane	75-69-4	<0.0050	
Acrolein	107-02-8	<0.0500	
1,1-Dichloroethene	75-35-4	<0.0010	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	<0.0010	
Acetone	67-64-1	<0.0500	
Methylene Chloride	75-09-2	<0.0050	
Acrylonitrile	107-13-1	<0.0100	
trans-1,2-Dichloroethene	156-60-5	<0.0010	
Methyl tert-butyl ether	1634-04-4	<0.0010	
1,1-Dichloroethane	75-34-3	<0.0010	
Di-isopropyl ether	108-20-3	<0.0010	
2,2-Dichloropropane	594-20-7	<0.0010	
cis-1,2-Dichloroethene	156-59-2	<0.0010	
2-Butanone (MEK)	78-93-3	<0.0100	
Chloroform	67-66-3	<0.0050	
1,1,1-Trichloroethane	71-55-6	<0.0010	
Carbon tetrachloride	56-23-5	<0.0010	
1,1-Dichloropropene	563-58-6	<0.0010	
Benzene	71-43-2	<0.0010	
1,2-Dichloroethane	107-06-2	<0.0010	
Trichloroethene	79-01-6	<0.0010	
1,2-Dichloropropane	78-87-5	<0.0010	
Dibromomethane	74-95-3	<0.0010	
Bromodichloromethane	75-27-4	<0.0010	
cis-1,3-Dichloropropene	10061-01-5	<0.0010	
4-Methyl-2-pentanone (MIBK)	108-10-1	<0.0100	
Toluene	108-88-3	<0.0050	
trans-1,3-Dichloropropene	10061-02-6	<0.0010	
1,1,2-Trichloroethane	79-00-5	<0.0010	
Tetrachloroethene	127-18-4	<0.0010	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466042**
Analysis Date:	3/5/2010	Analyst:	498
Instrument ID:	VOCMS4		
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
1,3-Dichloropropane	142-28-9	<0.0010	
Chlorodibromomethane	124-48-1	<0.0010	
1,2-Dibromoethane	106-93-4	<0.0010	
Chlorobenzene	108-90-7	<0.0010	
1,1,1,2-Tetrachloroethane	630-20-6	<0.0010	
Ethylbenzene	100-41-4	<0.0010	
m&p-Xylene	1330-20-7	<0.0030	
o-Xylene	1330-20-7	<0.0030	
Styrene	100-42-5	<0.0010	
Bromoform	75-25-2	<0.0010	
Isopropylbenzene	98-82-8	<0.0010	
Bromobenzene	108-86-1	<0.0010	
1,1,2,2-Tetrachloroethane	79-34-5	<0.0010	
1,2,3-Trichloropropane	96-18-4	<0.0010	
n-Propylbenzene	103-65-1	<0.0010	
2-Chlorotoluene	95-49-8	<0.0010	
4-Chlorotoluene	106-43-4	<0.0010	
1,3,5-Trimethylbenzene	108-67-8	<0.0010	
tert-Butylbenzene	98-06-6	<0.0010	
1,2,4-Trimethylbenzene	95-63-6	<0.0010	
sec-Butylbenzene	135-98-8	<0.0010	
1,3-Dichlorobenzene	541-73-1	<0.0010	
p-Isopropyltoluene	99-87-6	<0.0010	
1,4-Dichlorobenzene	106-46-7	<0.0010	
1,2,3-Trimethylbenzene	526-73-8	<0.0010	
1,2-Dichlorobenzene	95-50-1	<0.0010	
n-Butylbenzene	104-51-8	<0.0010	
1,2-Dibromo-3-Chloropropane	96-12-8	<0.0050	
1,2,4-Trichlorobenzene	120-82-1	<0.0010	
Hexachloro-1,3-Butadiene	87-68-3	<0.0010	
Naphthalene	91-20-3	<0.0050	
1,2,3-Trichlorobenzene	87-61-6	<0.0010	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05 | Matrix: Water - mg/L
Project: ADOT-Superior | EPA ID: TN00003
Collection Date: 2/28/2010 | **Analytic Batch: WG466042**
Analysis Date: 3/5/2010 | Analyst: 498
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dichlorodifluoromethane	0.0250	0.0262	105	39 - 189	
Chloromethane	0.0250	0.0249	99.5	45 - 152	
Vinyl chloride	0.0250	0.0252	101	55 - 153	
Bromomethane	0.0250	0.0333	133	45 - 175	
Chloroethane	0.0250	0.0268	107	49 - 155	
Trichlorofluoromethane	0.0250	0.0316	126	54 - 156	
Acrolein	0.125	0.149	119	6 - 182	
1,1-Dichloroethene	0.0250	0.0199	79.5	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0250	0.0255	102	51 - 149	
Acetone	0.125	0.133	107	48 - 134	
Methylene Chloride	0.0250	0.0253	101	64 - 125	
Acrylonitrile	0.125	0.125	99.9	60 - 140	
trans-1,2-Dichloroethene	0.0250	0.0282	113	67 - 129	
Methyl tert-butyl ether	0.0250	0.0247	98.6	51 - 142	
1,1-Dichloroethane	0.0250	0.0265	106	67 - 133	
Di-isopropyl ether	0.0250	0.0246	98.5	63 - 139	
2,2-Dichloropropane	0.0250	0.0236	94.4	46 - 151	
cis-1,2-Dichloroethene	0.0250	0.0266	106	72 - 128	
2-Butanone (MEK)	0.125	0.131	105	53 - 132	
Chloroform	0.0250	0.0256	102	66 - 126	
1,1,1-Trichloroethane	0.0250	0.0264	105	67 - 137	
Carbon tetrachloride	0.0250	0.0267	107	64 - 141	
1,1-Dichloropropene	0.0250	0.0271	109	68 - 132	
Benzene	0.0250	0.0253	101	67 - 126	
1,2-Dichloroethane	0.0250	0.0254	101	63 - 137	
Trichloroethene	0.0250	0.0263	105	74 - 126	
1,2-Dichloropropane	0.0250	0.0243	97.0	74 - 122	
Dibromomethane	0.0250	0.0260	104	73 - 125	
Bromodichloromethane	0.0250	0.0244	97.8	68 - 133	
cis-1,3-Dichloropropene	0.0250	0.0245	98.1	73 - 131	
4-Methyl-2-pentanone (MIBK)	0.125	0.123	98.1	60 - 142	
Toluene	0.0250	0.0238	95.3	72 - 122	
trans-1,3-Dichloropropene	0.0250	0.0238	95.3	66 - 137	
1,1,2-Trichloroethane	0.0250	0.0252	101	79 - 123	
Tetrachloroethene	0.0250	0.0259	104	67 - 135	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/5/2010
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG466042
Analyst: 498

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,3-Dichloropropane	0.0250	0.0245	97.9	77 - 119	
Chlorodibromomethane	0.0250	0.0247	98.6	73 - 138	
1,2-Dibromoethane	0.0250	0.0258	103	75 - 126	
Chlorobenzene	0.0250	0.0253	101	77 - 125	
1,1,1,2-Tetrachloroethane	0.0250	0.0250	100	75 - 134	
Ethylbenzene	0.0250	0.0259	104	76 - 129	
m&p-Xylene	0.0500	0.0507	101	74 - 128	
o-Xylene	0.0250	0.0253	101	78 - 128	
Styrene	0.0250	0.0262	105	78 - 130	
Bromoform	0.0250	0.0255	102	60 - 139	
Isopropylbenzene	0.0250	0.0260	104	73 - 132	
Bromobenzene	0.0250	0.0256	103	76 - 123	
1,1,2,2-Tetrachloroethane	0.0250	0.0260	104	72 - 128	
1,2,3-Trichloropropane	0.0250	0.0267	107	68 - 130	
n-Propylbenzene	0.0250	0.0264	106	71 - 132	
2-Chlorotoluene	0.0250	0.0244	97.7	74 - 128	
4-Chlorotoluene	0.0250	0.0254	102	74 - 130	
1,3,5-Trimethylbenzene	0.0250	0.0254	101	73 - 134	
tert-Butylbenzene	0.0250	0.0260	104	72 - 134	
1,2,4-Trimethylbenzene	0.0250	0.0259	103	72 - 135	
sec-Butylbenzene	0.0250	0.0266	106	70 - 135	
1,3-Dichlorobenzene	0.0250	0.0254	102	73 - 131	
p-Isopropyltoluene	0.0250	0.0266	106	68 - 138	
1,4-Dichlorobenzene	0.0250	0.0244	97.8	70 - 121	
1,2,3-Trimethylbenzene	0.0250	0.0238	95.2	70 - 127	
1,2-Dichlorobenzene	0.0250	0.0252	101	75 - 122	
n-Butylbenzene	0.0250	0.0262	105	63 - 142	
1,2-Dibromo-3-Chloropropane	0.0250	0.0214	85.7	55 - 134	
1,2,4-Trichlorobenzene	0.0250	0.0260	104	65 - 137	
Hexachloro-1,3-Butadiene	0.0250	0.0261	104	67 - 135	
Naphthalene	0.0250	0.0241	96.2	56 - 145	
1,2,3-Trichlorobenzene	0.0250	0.0249	99.4	63 - 138	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05 | Matrix: Water - mg/L
Project: ADOT-Superior | EPA ID: TN00003
Collection Date: 2/28/2010 | **Analytic Batch: WG466042**
Analysis Date: 3/5/2010 | Analyst: 498
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dichlorodifluoromethane	0.0250	0.0232	93.0	39 - 189	
Chloromethane	0.0250	0.0243	97.2	45 - 152	
Vinyl chloride	0.0250	0.0217	86.6	55 - 153	
Bromomethane	0.0250	0.0271	108	45 - 175	
Chloroethane	0.0250	0.0200	79.9	49 - 155	
Trichlorofluoromethane	0.0250	0.0269	108	54 - 156	
Acrolein	0.125	0.106	85.0	6 - 182	
1,1-Dichloroethene	0.0250	0.0293	117	60 - 130	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0250	0.0343	137	51 - 149	
Acetone	0.125	0.115	91.7	48 - 134	
Methylene Chloride	0.0250	0.0245	97.9	64 - 125	
Acrylonitrile	0.125	0.113	90.6	60 - 140	
trans-1,2-Dichloroethene	0.0250	0.0274	110	67 - 129	
Methyl tert-butyl ether	0.0250	0.0251	100	51 - 142	
1,1-Dichloroethane	0.0250	0.0267	107	67 - 133	
Di-isopropyl ether	0.0250	0.0251	100	63 - 139	
2,2-Dichloropropane	0.0250	0.0246	98.3	46 - 151	
cis-1,2-Dichloroethene	0.0250	0.0264	106	72 - 128	
2-Butanone (MEK)	0.125	0.127	102	53 - 132	
Chloroform	0.0250	0.0259	104	66 - 126	
1,1,1-Trichloroethane	0.0250	0.0262	105	67 - 137	
Carbon tetrachloride	0.0250	0.0265	106	64 - 141	
1,1-Dichloropropene	0.0250	0.0274	109	68 - 132	
Benzene	0.0250	0.0260	104	67 - 126	
1,2-Dichloroethane	0.0250	0.0255	102	63 - 137	
Trichloroethene	0.0250	0.0260	104	74 - 126	
1,2-Dichloropropane	0.0250	0.0249	99.7	74 - 122	
Dibromomethane	0.0250	0.0253	101	73 - 125	
Bromodichloromethane	0.0250	0.0249	99.7	68 - 133	
cis-1,3-Dichloropropene	0.0250	0.0255	102	73 - 131	
4-Methyl-2-pentanone (MIBK)	0.125	0.120	96.0	60 - 142	
Toluene	0.0250	0.0245	98.1	72 - 122	
trans-1,3-Dichloropropene	0.0250	0.0251	100	66 - 137	
1,1,2-Trichloroethane	0.0250	0.0253	101	79 - 123	
Tetrachloroethene	0.0250	0.0265	106	67 - 135	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/5/2010
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG466042
Analyst: 498

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,3-Dichloropropane	0.0250	0.0249	99.7	77 - 119	
Chlorodibromomethane	0.0250	0.0249	99.6	73 - 138	
1,2-Dibromoethane	0.0250	0.0260	104	75 - 126	
Chlorobenzene	0.0250	0.0256	102	77 - 125	
1,1,1,2-Tetrachloroethane	0.0250	0.0248	99.0	75 - 134	
Ethylbenzene	0.0250	0.0254	101	76 - 129	
m&p-Xylene	0.0500	0.0502	100	74 - 128	
o-Xylene	0.0250	0.0252	101	78 - 128	
Styrene	0.0250	0.0257	103	78 - 130	
Bromoform	0.0250	0.0245	98.2	60 - 139	
Isopropylbenzene	0.0250	0.0256	103	73 - 132	
Bromobenzene	0.0250	0.0251	100	76 - 123	
1,1,2,2-Tetrachloroethane	0.0250	0.0250	99.9	72 - 128	
1,2,3-Trichloropropane	0.0250	0.0258	103	68 - 130	
n-Propylbenzene	0.0250	0.0256	102	71 - 132	
2-Chlorotoluene	0.0250	0.0246	98.5	74 - 128	
4-Chlorotoluene	0.0250	0.0248	99.4	74 - 130	
1,3,5-Trimethylbenzene	0.0250	0.0247	98.7	73 - 134	
tert-Butylbenzene	0.0250	0.0258	103	72 - 134	
1,2,4-Trimethylbenzene	0.0250	0.0250	100.0	72 - 135	
sec-Butylbenzene	0.0250	0.0256	103	70 - 135	
1,3-Dichlorobenzene	0.0250	0.0247	98.9	73 - 131	
p-Isopropyltoluene	0.0250	0.0256	102	68 - 138	
1,4-Dichlorobenzene	0.0250	0.0251	100	70 - 121	
1,2,3-Trimethylbenzene	0.0250	0.0241	96.5	70 - 127	
1,2-Dichlorobenzene	0.0250	0.0254	102	75 - 122	
n-Butylbenzene	0.0250	0.0263	105	63 - 142	
1,2-Dibromo-3-Chloropropane	0.0250	0.0205	81.9	55 - 134	
1,2,4-Trichlorobenzene	0.0250	0.0264	106	65 - 137	
Hexachloro-1,3-Butadiene	0.0250	0.0259	104	67 - 135	
Naphthalene	0.0250	0.0241	96.3	56 - 145	
1,2,3-Trichlorobenzene	0.0250	0.0255	102	63 - 138	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466042**
Analysis Date:	3/5/2010	Analyst:	498
Instrument ID:	VOCMS4		
Sample Numbers:	L447268-01		

Surrogate Summary

Laboratory	Dibromofluoromethane		Toluene-d8		4-Bromofluorobenzene		**Alternate Surrogate** a,a,a-Trifluorotoluene	
Sample ID	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec
LCS WG466042	41.9	105	39.9	99.9	43.1	108	40.2	100
LCSD WG466042	41.2	103	41.3	103	41.3	103	40.9	102
MS WG466042	40.9	102	40.7	102	40.1	100	40.5	101
MSD WG466042	40.2	101	41.3	103	41.4	103	40.7	102
Blank WG466042	41.4	103	39.6	99.0	41.5	104	40.5	101
L447268-01	40.4	101	39.8	99.5	41.7	104	41.0	102

Dibromofluoromethane	40 ppb	79 - 125
Toluene - d8	40 ppb	87 - 114
4-Bromofluorobenzene	40 ppb	75 - 128
Alternate Surrogate		
a,a,a-Trifluorotoluene	40 ppb	84 - 114

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/5/2010
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG466042
Analyst: 498

Matrix Spike/Matrix Spike Duplicate

L447265-24

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Dichlorodifluoromethane	0.0250	0.0000	0.0185	74.0	0.0178	71.0	0-200		4.1	26	
Chloromethane	0.0250	0.0000	0.0182	72.8	0.0178	71.0	10-174		2.4	28	
Vinyl chloride	0.0250	0.0000	0.0171	68.5	0.0171	68.4	0-179		0.1	26	
Bromomethane	0.0250	0.0000	0.0245	98.0	0.0219	87.6	0-191		11	35	
Chloroethane	0.0250	0.0000	0.0200	79.9	0.0191	76.5	4-176		4.3	27	
Trichlorofluoromethane	0.0250	0.0000	0.0238	95.2	0.0231	92.3	10-177		3.1	24	
Acrolein	0.125	0.0000	0.121	96.6	0.110	87.8	0-179		9.5	39	
1,1-Dichloroethene	0.0250	0.0000	0.0155	62.1	0.0222	88.9	10-162		35	23	R5
1,1,2-Trichloro-1,2,2-	0.0250	0.0000	0.0185	74.0	0.0272	109	14-168		38	24	R5
Acetone	0.125	0.0000	0.119	95.2	0.121	96.9	25-157		1.7	26	
Methylene Chloride	0.0250	0.0000	0.0224	89.4	0.0211	84.2	23-151		5.9	21	
Acrylonitrile	0.125	0.0000	0.113	90.2	0.111	88.9	37-162		1.5	24	
trans-1,2-Dichloroethene	0.0250	0.0000	0.0229	91.7	0.0220	88.0	11-160		4.0	23	
Methyl tert-butyl ether	0.0250	0.0000	0.0241	96.5	0.0235	93.9	24-167		2.7	22	
1,1-Dichloroethane	0.0250	0.0000	0.0239	95.5	0.0229	91.7	30-159		4.1	21	
Di-isopropyl ether	0.0250	0.0000	0.0235	94.0	0.0224	89.6	39-160		4.7	21	
2,2-Dichloropropane	0.0250	0.0000	0.0214	85.8	0.0217	86.7	14-158		1.0	23	
cis-1,2-Dichloroethene	0.0250	0.0007	0.0244	94.9	0.0233	90.2	29-156		4.9	22	
2-Butanone (MEK)	0.125	0.0000	0.117	93.4	0.118	94.1	32-151		0.7	26	
Chloroform	0.0250	0.0006	0.0241	94.0	0.0230	89.9	37-147		4.4	21	
1,1,1-Trichloroethane	0.0250	0.0000	0.0230	91.9	0.0229	91.7	31-161		0.2	23	
Carbon tetrachloride	0.0250	0.0000	0.0221	88.5	0.0224	89.5	22-168		1.1	24	
1,1-Dichloropropene	0.0250	0.0000	0.0221	88.4	0.0218	87.1	14-162		1.4	23	
Benzene	0.0250	0.0000	0.0226	90.5	0.0215	86.2	16-158		4.9	21	
1,2-Dichloroethane	0.0250	0.0000	0.0234	93.5	0.0222	88.6	29-167		5.4	21	
Trichloroethene	0.0250	0.0029	0.0253	89.8	0.0248	87.6	18-163		2.1	21	
1,2-Dichloropropane	0.0250	0.0000	0.0227	90.8	0.0225	90.0	39-148		0.9	20	
Dibromomethane	0.0250	0.0000	0.0237	95.0	0.0229	91.5	36-152		3.8	20	
Bromodichloromethane	0.0250	0.0000	0.0234	93.4	0.0228	91.2	45-147		2.5	20	
cis-1,3-Dichloropropene	0.0250	0.0000	0.0236	94.2	0.0227	91.0	35-148		3.6	21	
4-Methyl-2-pentanone	0.125	0.0000	0.115	92.1	0.112	89.4	40-160		3.0	28	
Toluene	0.0250	0.0000	0.0221	88.5	0.0216	86.2	22-152		2.6	22	
trans-1,3-Dichloropropene	0.0250	0.0000	0.0228	91.3	0.0226	90.3	33-153		1.1	22	
1,1,2-Trichloroethane	0.0250	0.0000	0.0246	98.5	0.0246	98.5	46-145		0.0	20	
Tetrachloroethene	0.0250	0.0081	0.0284	81.0	0.0289	82.9	13-157		1.7	24	
1,3-Dichloropropane	0.0250	0.0000	0.0235	93.9	0.0234	93.7	44-142		0.2	20	
Chlorodibromomethane	0.0250	0.0000	0.0237	95.0	0.0240	95.8	48-151		0.9	21	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/5/2010
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG466042
Analyst: 498

Matrix Spike/Matrix Spike Duplicate

L447265-24

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
1,2-Dibromoethane	0.0250	0.0000	0.0238	95.2	0.0239	95.4	41-149		0.2	21	
Chlorobenzene	0.0250	0.0000	0.0238	95.1	0.0237	94.6	33-148		0.5	22	
1,1,1,2-Tetrachloroethane	0.0250	0.0000	0.0238	95.1	0.0235	94.2	45-152		0.9	21	
Ethylbenzene	0.0250	0.0027	0.0248	88.3	0.0254	90.7	29-150		2.4	24	
m&p-Xylene	0.0500	0.0119	0.0543	84.7	0.0551	86.4	24-151		1.5	23	
o-Xylene	0.0250	0.0033	0.0261	91.3	0.0261	91.3	32-151		0.0	23	
Styrene	0.0250	0.0000	0.0235	94.0	0.0235	94.2	38-149		0.2	23	
Bromoform	0.0250	0.0000	0.0232	92.6	0.0232	92.8	38-152		0.1	20	
Isopropylbenzene	0.0250	0.0006	0.0239	93.5	0.0242	94.6	35-147		1.1	25	
Bromobenzene	0.0250	0.0000	0.0234	93.5	0.0232	92.8	37-147		0.7	23	
1,1,2,2-Tetrachloroethane	0.0250	0.0000	0.0243	97.3	0.0246	98.6	49-149		1.3	22	
1,2,3-Trichloropropane	0.0250	0.0000	0.0242	97.0	0.0241	96.5	48-148		0.5	23	
n-Propylbenzene	0.0250	0.0000	0.0228	91.3	0.0232	92.6	26-150		1.5	25	
2-Chlorotoluene	0.0250	0.0000	0.0228	91.3	0.0225	90.2	35-147		1.3	24	
4-Chlorotoluene	0.0250	0.0000	0.0224	89.5	0.0225	90.0	33-147		0.5	25	
1,3,5-Trimethylbenzene	0.0250	0.0003	0.0230	90.7	0.0232	91.5	33-149		0.9	26	
tert-Butylbenzene	0.0250	0.0000	0.0243	97.1	0.0244	97.4	36-149		0.3	26	
1,2,4-Trimethylbenzene	0.0250	0.0010	0.0242	92.6	0.0240	92.1	29-153		0.6	27	
sec-Butylbenzene	0.0250	0.0000	0.0232	93.0	0.0241	96.6	32-149		3.8	26	
1,3-Dichlorobenzene	0.0250	0.0000	0.0236	94.4	0.0226	90.5	32-148		4.1	24	
p-Isopropyltoluene	0.0250	0.0000	0.0235	93.9	0.0237	95.0	28-151		1.1	27	
1,4-Dichlorobenzene	0.0250	0.0000	0.0234	93.5	0.0225	90.2	32-136		3.7	23	
1,2,3-Trimethylbenzene	0.0250	0.0008	0.0239	92.2	0.0232	89.4	36-141		3.0	25	
1,2-Dichlorobenzene	0.0250	0.0000	0.0244	97.5	0.0238	95.1	40-139		2.5	23	
n-Butylbenzene	0.0250	0.0000	0.0235	94.0	0.0231	92.5	22-151		1.5	29	
1,2-Dibromo-3-	0.0250	0.0000	0.0211	84.5	0.0215	86.1	37-148		1.9	27	
1,2,4-Trichlorobenzene	0.0250	0.0000	0.0246	98.3	0.0244	97.6	27-142		0.7	30	
Hexachloro-1,3-Butadiene	0.0250	0.0000	0.0245	97.8	0.0246	98.3	28-144		0.5	33	
Naphthalene	0.0250	0.0000	0.0234	93.6	0.0241	96.3	24-160		2.8	37	
1,2,3-Trichlorobenzene	0.0250	0.0000	0.0241	96.2	0.0248	99.4	32-143		3.2	33	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/5/2010
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG466042
Analyst: 498

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dichlorodifluoromethane	0.0250	0.0262	105	0.0232	93.0	39-189		12	24	
Chloromethane	0.0250	0.0249	99.5	0.0243	97.2	45-152		2.4	20	
Vinyl chloride	0.0250	0.0252	101	0.0217	86.6	55-153		15	20	
Bromomethane	0.0250	0.0333	133	0.0271	108	45-175		21	20	R7
Chloroethane	0.0250	0.0268	107	0.0200	79.9	49-155		29	20	R7
Trichlorofluoromethane	0.0250	0.0316	126	0.0269	108	54-156		16	20	
Acrolein	0.125	0.149	119	0.106	85.0	6-182		33	39	
1,1-Dichloroethene	0.0250	0.0199	79.5	0.0293	117	60-130		38	20	R7
1,1,2-Trichloro-1,2,2-	0.0250	0.0255	102	0.0343	137	51-149		29	20	R7
Acetone	0.125	0.133	107	0.115	91.7	48-134		15	20	
Methylene Chloride	0.0250	0.0253	101	0.0245	97.9	64-125		3.5	20	
Acrylonitrile	0.125	0.125	99.9	0.113	90.6	60-140		9.8	20	
trans-1,2-Dichloroethene	0.0250	0.0282	113	0.0274	110	67-129		2.9	20	
Methyl tert-butyl ether	0.0250	0.0247	98.6	0.0251	100	51-142		1.7	20	
1,1-Dichloroethane	0.0250	0.0265	106	0.0267	107	67-133		0.5	20	
Di-isopropyl ether	0.0250	0.0246	98.5	0.0251	100	63-139		1.9	20	
2,2-Dichloropropane	0.0250	0.0236	94.4	0.0246	98.3	46-151		4.0	20	
cis-1,2-Dichloroethene	0.0250	0.0266	106	0.0264	106	72-128		0.6	20	
2-Butanone (MEK)	0.125	0.131	105	0.127	102	53-132		3.3	20	
Chloroform	0.0250	0.0256	102	0.0259	104	66-126		1.2	20	
1,1,1-Trichloroethane	0.0250	0.0264	105	0.0262	105	67-137		0.8	20	
Carbon tetrachloride	0.0250	0.0267	107	0.0265	106	64-141		0.6	20	
1,1-Dichloropropene	0.0250	0.0271	109	0.0274	109	68-132		0.8	20	
Benzene	0.0250	0.0253	101	0.0260	104	67-126		2.8	20	
1,2-Dichloroethane	0.0250	0.0254	101	0.0255	102	63-137		0.4	20	
Trichloroethene	0.0250	0.0263	105	0.0260	104	74-126		1.1	20	
1,2-Dichloropropane	0.0250	0.0243	97.0	0.0249	99.7	74-122		2.7	20	
Dibromomethane	0.0250	0.0260	104	0.0253	101	73-125		2.6	20	
Bromodichloromethane	0.0250	0.0244	97.8	0.0249	99.7	68-133		2.0	20	
cis-1,3-Dichloropropene	0.0250	0.0245	98.1	0.0255	102	73-131		3.9	20	
4-Methyl-2-pentanone	0.125	0.123	98.1	0.120	96.0	60-142		2.1	20	
Toluene	0.0250	0.0238	95.3	0.0245	98.1	72-122		2.9	20	
trans-1,3-Dichloropropene	0.0250	0.0238	95.3	0.0251	100	66-137		5.0	20	
1,1,2-Trichloroethane	0.0250	0.0252	101	0.0253	101	79-123		0.1	20	
Tetrachloroethene	0.0250	0.0259	104	0.0265	106	67-135		2.1	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Volatile Organic Compounds by Method 8260B
Project No: 308032.05
Project: ADOT-Superior
Collection Date: 2/28/2010
Analysis Date: 3/5/2010
Instrument ID: VOCMS4
Sample Numbers: L447268-01

Matrix: Water - mg/L
EPA ID: TN00003
Analytic Batch: WG466042
Analyst: 498

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
1,3-Dichloropropane	0.0250	0.0245	97.9	0.0249	99.7	77-119		1.8	20	
Chlorodibromomethane	0.0250	0.0247	98.6	0.0249	99.6	73-138		0.9	20	
1,2-Dibromoethane	0.0250	0.0258	103	0.0260	104	75-126		1.0	20	
Chlorobenzene	0.0250	0.0253	101	0.0256	102	77-125		1.0	20	
1,1,1,2-Tetrachloroethane	0.0250	0.0250	100	0.0248	99.0	75-134		1.2	20	
Ethylbenzene	0.0250	0.0259	104	0.0254	101	76-129		2.1	20	
m&p-Xylene	0.0500	0.0507	101	0.0502	100	74-128		0.8	20	
o-Xylene	0.0250	0.0253	101	0.0252	101	78-128		0.4	20	
Styrene	0.0250	0.0262	105	0.0257	103	78-130		1.6	20	
Bromoform	0.0250	0.0255	102	0.0245	98.2	60-139		3.7	20	
Isopropylbenzene	0.0250	0.0260	104	0.0256	103	73-132		1.4	20	
Bromobenzene	0.0250	0.0256	103	0.0251	100	76-123		2.1	20	
1,1,2,2-Tetrachloroethane	0.0250	0.0260	104	0.0250	99.9	72-128		4.1	20	
1,2,3-Trichloropropane	0.0250	0.0267	107	0.0258	103	68-130		3.5	20	
n-Propylbenzene	0.0250	0.0264	106	0.0256	102	71-132		3.1	20	
2-Chlorotoluene	0.0250	0.0244	97.7	0.0246	98.5	74-128		0.8	20	
4-Chlorotoluene	0.0250	0.0254	102	0.0248	99.4	74-130		2.2	20	
1,3,5-Trimethylbenzene	0.0250	0.0254	101	0.0247	98.7	73-134		2.8	20	
tert-Butylbenzene	0.0250	0.0260	104	0.0258	103	72-134		0.8	20	
1,2,4-Trimethylbenzene	0.0250	0.0259	103	0.0250	100.0	72-135		3.4	20	
sec-Butylbenzene	0.0250	0.0266	106	0.0256	103	70-135		3.7	20	
1,3-Dichlorobenzene	0.0250	0.0254	102	0.0247	98.9	73-131		2.6	20	
p-Isopropyltoluene	0.0250	0.0266	106	0.0256	102	68-138		3.7	20	
1,4-Dichlorobenzene	0.0250	0.0244	97.8	0.0251	100	70-121		2.7	20	
1,2,3-Trimethylbenzene	0.0250	0.0238	95.2	0.0241	96.5	70-127		1.3	20	
1,2-Dichlorobenzene	0.0250	0.0252	101	0.0254	102	75-122		0.8	20	
n-Butylbenzene	0.0250	0.0262	105	0.0263	105	63-142		0.3	20	
1,2-Dibromo-3-	0.0250	0.0214	85.7	0.0205	81.9	55-134		4.6	20	
1,2,4-Trichlorobenzene	0.0250	0.0260	104	0.0264	106	65-137		1.8	20	
Hexachloro-1,3-Butadiene	0.0250	0.0261	104	0.0259	104	67-135		0.8	20	
Naphthalene	0.0250	0.0241	96.2	0.0241	96.3	56-145		0.1	20	
1,2,3-Trichlorobenzene	0.0250	0.0249	99.4	0.0255	102	63-138		2.5	20	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Volatile Organic Compounds by Method 8260B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG466042**
Analysis Date:	3/5/2010	Analyst:	498
Instrument ID:	VOCMS4		
Sample Numbers:	L447268-01		

Internal Standard Response and Retention Time Summary

FileID:0305_02.D Date:3/5/2010 Time:11:51 AM

	IS1		IS2		IS3		IS4	
	Response	RT	Response	RT	Response	RT	Response	RT
12 Hour Std	407081	5.67	683438	6.15	101673	7.82	304838	11
Upper Limit	814162	6.17	1366876	6.65	203346	8.32	609676	11.5
Lower Limit	203540.5	5.17	341719	5.65	50836.5	7.32	152419	10.5
Sample ID	Response	RT	Response	RT	Response	RT	Response	RT
Blank WG466042	448860	5.67	731786	6.15	107121	7.82	341114	11
L447268-01	449425	5.67	722630	6.15	103031	7.81	333542	10.99
LCS WG466042	405829	5.67	674511	6.15	97839	7.82	308071	11
LCSD WG466042	412977	5.67	705455	6.15	104138	7.81	312204	11
MS WG466042	429778	5.67	713714	6.15	103870	7.81	311852	10.99
MSD WG466042	447743	5.67	736892	6.15	105638	7.81	322316	10.99

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465740**
Analysis Date:	3/3/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Diesel Range Organics		<0.10	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.01	67.6	50 - 150	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.03	68.8	50 - 150	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465740**
Analysis Date:	3/3/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG465740	0.0161	80.6
LCS WG465740	0.0155	77.4
LCSD WG465740	0.0159	79.4
L447268-01	0.0184	91.9

o-terphenyl Limits - 50 - 150

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465740**
Analysis Date:	3/3/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Diesel Range Organics	1.50	1.01	67.6	1.03	68.8	50-150		1.7	25	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-Volatiles by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
n-Nitrosodimethylamine	62-75-9	<0.0100	
Bis(2-chloroethyl)ether	111-44-4	<0.0100	
Phenol	108-95-2	<0.0100	
2-Chlorophenol	95-57-8	<0.0100	
Bis(2-chloroisopropyl)ether	108-60-1	<0.0100	
Hexachloroethane	67-72-1	<0.0100	
n-Nitrosodi-n-propylamine	621-64-7	<0.0100	
Nitrobenzene	98-95-3	<0.0100	
Isophorone	78-59-1	<0.0100	
2-Nitrophenol	88-75-5	<0.0100	
2,4-Dimethylphenol	105-67-9	<0.0100	
Bis(2-chlorethoxy)methane	111-91-1	<0.0100	
2,4-Dichlorophenol	120-83-2	<0.0100	
1,2,4-Trichlorobenzene	120-82-1	<0.0100	
Naphthalene	91-20-3	<0.0010	
Hexachloro-1,3-butadiene	87-68-3	<0.0100	
4-Chloro-3-methylphenol	59-50-7	<0.0100	
Hexachlorocyclopentadiene	77-47-4	<0.0100	
2,4,6-Trichlorophenol	88-06-2	<0.0100	
2-Chloronaphthalene	91-58-7	<0.0010	
Acenaphthylene	208-96-8	<0.0010	
Dimethyl phthalate	131-11-3	<0.0010	
2,6-Dinitrotoluene	606-20-2	<0.0100	
Acenaphthene	83-32-9	<0.0010	
2,4-Dinitrophenol	51-28-5	<0.0100	
2,4-Dinitrotoluene	121-14-2	<0.0100	
4-Nitrophenol	100-02-7	<0.0100	
Fluorene	86-73-7	<0.0010	
4-Chlorophenyl-phenylether	7005-72-3	<0.0100	
Diethyl phthalate	84-66-2	<0.0010	
4,6-Dinitro-2-methylphenol	534-52-1	<0.0100	
n-Nitrosodiphenylamine	86-30-6	<0.0100	
4-Bromophenyl-phenylether	101-55-3	<0.0100	
Hexachlorobenzene	118-74-1	<0.0010	
Pentachlorophenol	87-86-5	<0.0100	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-Volatiles by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Phenanthrene	85-01-8	<0.0010	
Anthracene	120-12-7	<0.0010	
Di-n-butyl phthalate	84-74-2	<0.0010	
Fluoranthene	206-44-0	<0.0010	
Benzidine	92-87-5	<0.0100	
Pyrene	129-00-0	<0.0010	
Benzylbutyl phthalate	85-68-7	<0.0010	
3,3-Dichlorobenzidine	91-94-1	<0.0100	
Benzo(a)anthracene	56-55-3	<0.0010	
Chrysene	218-01-9	<0.0010	
Bis(2-ethylhexyl)phthalate	117-81-7	<0.0010	
Di-n-octyl phthalate	117-84-0	<0.0010	
Benzo(b)fluoranthene	205-99-2	<0.0010	
Benzo(k)fluoranthene	207-08-9	<0.0010	
Benzo(a)pyrene	50-32-8	<0.0010	
Indeno(1,2,3-cd)pyrene	193-39-5	<0.0010	
Dibenz(a,h)anthracene	53-70-3	<0.0010	
Benzo(g,h,i)perylene	191-24-2	<0.0010	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010 11:17:00 PM	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,2,4-Trichlorobenzene	0.0100	0.00474	47.4	26 - 103	
2,4,6-Trichlorophenol	0.0100	0.00565	56.5	49 - 118	
2,4-Dichlorophenol	0.0100	0.00574	57.4	46 - 115	
2,4-Dimethylphenol	0.0100	0.00721	72.1	40 - 124	
2,4-Dinitrophenol	0.0100	0.00456	45.6	10 - 125	
2,4-Dinitrotoluene	0.0100	0.00641	64.1	56 - 128	
2,6-Dinitrotoluene	0.0100	0.00676	67.6	56 - 121	
2-Chloronaphthalene	0.0100	0.00598	59.8	44 - 110	
2-Chlorophenol	0.0100	0.00529	52.9	38 - 114	
2-Nitrophenol	0.0100	0.00567	56.7	35 - 118	
3,3-Dichlorobenzidine	0.0100	0.00594	59.4	46 - 145	
4,6-Dinitro-2-methylphenol	0.0100	0.00452	45.2	24 - 119	
4-Bromophenyl-phenylether	0.0100	0.00758	75.8	45 - 105	
4-Chloro-3-methylphenol	0.0100	0.00532	53.2	47 - 116	
4-Chlorophenyl-phenylether	0.0100	0.00697	69.7	49 - 116	
4-Nitrophenol	0.0100	0.00164	16.4	10 - 66	
Acenaphthene	0.0100	0.00670	67.0	48 - 110	
Acenaphthylene	0.0100	0.00695	69.5	48 - 113	
Anthracene	0.0100	0.00750	75.0	55 - 127	
Benzidine	0.0100	0.000106	1.1	0 - 46	
Benzo(a)anthracene	0.0100	0.00720	72.0	57 - 115	
Benzo(a)pyrene	0.0100	0.00701	70.1	63 - 125	
Benzo(b)fluoranthene	0.0100	0.00380	38.0	50 - 123	L2
Benzo(g,h,i)perylene	0.0100	0.00611	61.1	39 - 143	
Benzo(k)fluoranthene	0.0100	0.00425	42.5	45 - 126	L2
Benzylbutyl phthalate	0.0100	0.000462	4.6	22 - 154	L2
Bis(2-chlorethoxy)methane	0.0100	0.00592	59.2	42 - 116	
Bis(2-chloroethyl)ether	0.0100	0.00591	59.1	26 - 115	
Bis(2-chloroisopropyl)ether	0.0100	0.00544	54.4	32 - 115	
Bis(2-ethylhexyl)phthalate	0.0100	0.00763	76.3	47 - 143	
Chrysene	0.0100	0.00734	73.4	58 - 113	
Dibenz(a,h)anthracene	0.0100	0.00604	60.4	39 - 144	
Diethyl phthalate	0.0100	0.000552	5.5	36 - 128	L2
Dimethyl phthalate	0.0100	0.000040	0.4	10 - 135	L2
Di-n-butyl phthalate	0.0100	0.00250	25.0	51 - 131	L2

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010 11:17:00 PM	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Di-n-octyl phthalate	0.0100	0.00786	78.6	51 - 138	
Fluoranthene	0.0100	0.00747	74.7	53 - 119	
Fluorene	0.0100	0.00694	69.4	49 - 116	
Hexachloro-1,3-butadiene	0.0100	0.00491	49.1	21 - 116	
Hexachlorobenzene	0.0100	0.00737	73.7	51 - 121	
Hexachlorocyclopentadiene	0.0100	0.00316	31.6	4 - 126	
Hexachloroethane	0.0100	0.00348	34.8	15 - 109	
Indeno(1,2,3-cd)pyrene	0.0100	0.00606	60.6	40 - 143	
Isophorone	0.0100	0.00532	53.2	48 - 126	
Naphthalene	0.0100	0.00565	56.5	29 - 103	
Nitrobenzene	0.0100	0.00425	42.5	31 - 105	
n-Nitrosodimethylamine	0.0100	0.00219	21.9	11 - 69	
n-Nitrosodi-n-propylamine	0.0100	0.00568	56.8	47 - 122	
n-Nitrosodiphenylamine	0.0100	0.00725	72.5	59 - 143	
Pentachlorophenol	0.0100	0.00398	39.8	20 - 122	
Phenanthrene	0.0100	0.00715	71.5	54 - 112	
Phenol	0.0100	0.00263	26.3	17 - 52	
Pyrene	0.0100	0.00665	66.5	46 - 130	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010 11:17:00 PM	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,2,4-Trichlorobenzene	0.0100	0.00432	43.2	26 - 103	
2,4,6-Trichlorophenol	0.0100	0.00609	60.9	49 - 118	
2,4-Dichlorophenol	0.0100	0.00638	63.8	46 - 115	
2,4-Dimethylphenol	0.0100	0.00822	82.2	40 - 124	
2,4-Dinitrophenol	0.0100	0.00470	47.0	10 - 125	
2,4-Dinitrotoluene	0.0100	0.00531	53.1	56 - 128	L2
2,6-Dinitrotoluene	0.0100	0.00529	52.9	56 - 121	L2
2-Chloronaphthalene	0.0100	0.00499	49.9	44 - 110	
2-Chlorophenol	0.0100	0.00556	55.6	38 - 114	
2-Nitrophenol	0.0100	0.00634	63.4	35 - 118	
3,3-Dichlorobenzidine	0.0100	0.00470	47.0	46 - 145	
4,6-Dinitro-2-methylphenol	0.0100	0.00477	47.7	24 - 119	
4-Bromophenyl-phenylether	0.0100	0.00652	65.2	45 - 105	
4-Chloro-3-methylphenol	0.0100	0.00590	59.0	47 - 116	
4-Chlorophenyl-phenylether	0.0100	0.00582	58.2	49 - 116	
4-Nitrophenol	0.0100	0.00193	19.3	10 - 66	
Acenaphthene	0.0100	0.00583	58.3	48 - 110	
Acenaphthylene	0.0100	0.00592	59.2	48 - 113	
Anthracene	0.0100	0.00620	62.0	55 - 127	
Benzidine	0.0100	0.000058	0.6	0 - 46	
Benzo(a)anthracene	0.0100	0.00579	57.9	57 - 115	
Benzo(a)pyrene	0.0100	0.00586	58.6	63 - 125	L2
Benzo(b)fluoranthene	0.0100	0.00317	31.7	50 - 123	L2
Benzo(g,h,i)perylene	0.0100	0.00521	52.1	39 - 143	
Benzo(k)fluoranthene	0.0100	0.00369	36.9	45 - 126	L2
Benzylbutyl phthalate	0.0100	0.000385	3.9	22 - 154	L2
Bis(2-chlorethoxy)methane	0.0100	0.00537	53.7	42 - 116	
Bis(2-chloroethyl)ether	0.0100	0.00507	50.7	26 - 115	
Bis(2-chloroisopropyl)ether	0.0100	0.00478	47.8	32 - 115	
Bis(2-ethylhexyl)phthalate	0.0100	0.00646	64.6	47 - 143	
Chrysene	0.0100	0.00611	61.1	58 - 113	
Dibenz(a,h)anthracene	0.0100	0.00519	51.9	39 - 144	
Diethyl phthalate	0.0100	0.000400	4.0	36 - 128	L2
Dimethyl phthalate	0.0100	0.000044	0.4	10 - 135	L2
Di-n-butyl phthalate	0.0100	0.00173	17.3	51 - 131	L2

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010 11:17:00 PM	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Di-n-octyl phthalate	0.0100	0.00636	63.6	51 - 138	
Fluoranthene	0.0100	0.00596	59.6	53 - 119	
Fluorene	0.0100	0.00582	58.2	49 - 116	
Hexachloro-1,3-butadiene	0.0100	0.00440	44.0	21 - 116	
Hexachlorobenzene	0.0100	0.00606	60.6	51 - 121	
Hexachlorocyclopentadiene	0.0100	0.00271	27.1	4 - 126	
Hexachloroethane	0.0100	0.00329	32.9	15 - 109	
Indeno(1,2,3-cd)pyrene	0.0100	0.00508	50.8	40 - 143	
Isophorone	0.0100	0.00458	45.8	48 - 126	L2
Naphthalene	0.0100	0.00476	47.6	29 - 103	
Nitrobenzene	0.0100	0.00374	37.4	31 - 105	
n-Nitrosodimethylamine	0.0100	0.00226	22.6	11 - 69	
n-Nitrosodi-n-propylamine	0.0100	0.00474	47.4	47 - 122	
n-Nitrosodiphenylamine	0.0100	0.00621	62.1	59 - 143	
Pentachlorophenol	0.0100	0.00424	42.4	20 - 122	
Phenanthrene	0.0100	0.00584	58.4	54 - 112	
Phenol	0.0100	0.00213	21.3	17 - 52	
Pyrene	0.0100	0.00539	53.9	46 - 130	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-Volatiles by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Surrogate Summary

Laboratory	NBZ		FBP		TPH		2FP		PHL		TBP	
Sample ID	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec
LCS WG465743	4600	46.0	6370	63.7	7450	74.5	6910	34.6	4310	21.6	14400	71.8
LCSD WG465743	4100	41.0	5360	53.6	6210	62.1	7020	35.1	4470	22.3	15600	78.0
Blank WG465743	3720	37.2	5340	53.4	7070	70.8	3790	18.9	2450	12.2	7570	37.8
L447268-01	6830	68.3	9700	97.0	12900	129	11300	56.6	7790	39.0	22700	113

NBZ - Nitrobenzene-d5	12-120
FBP - 2-Fluorobiphenyl	26-122
TPH - Terphneyl-d14	34-149
2FP - 2-Fluorophenol	10-87
PHL - Phenol-d5	10-67
TBP - 2,4,6-Tribromophenol	10-148

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010 11:17:00 PM	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
1,2,4-Trichlorobenzene	0.0100	0.00474	47.4	0.00432	43.2	26-103		9.3	38	
2,4,6-Trichlorophenol	0.0100	0.00565	56.5	0.00609	60.9	49-118		7.5	28	
2,4-Dichlorophenol	0.0100	0.00574	57.4	0.00638	63.8	46-115		11	28	
2,4-Dimethylphenol	0.0100	0.00721	72.1	0.00822	82.2	40-124		13	36	
2,4-Dinitrophenol	0.0100	0.00456	45.6	0.00470	47.0	10-125		3.1	50	
2,4-Dinitrotoluene	0.0100	0.00641	64.1	0.00531	53.1	56-128	L2	19	24	
2,6-Dinitrotoluene	0.0100	0.00676	67.6	0.00529	52.9	56-121	L2	24	23	R7
2-Chloronaphthalene	0.0100	0.00598	59.8	0.00499	49.9	44-110		18	30	
2-Chlorophenol	0.0100	0.00529	52.9	0.00556	55.6	38-114		5.0	36	
2-Nitrophenol	0.0100	0.00567	56.7	0.00634	63.4	35-118		11	35	
3,3-Dichlorobenzidine	0.0100	0.00594	59.4	0.00470	47.0	46-145		23	31	
4,6-Dinitro-2-methylphenol	0.0100	0.00452	45.2	0.00477	47.7	24-119		5.5	50	
4-Bromophenyl-phenylether	0.0100	0.00758	75.8	0.00652	65.2	45-105		15	26	
4-Chloro-3-methylphenol	0.0100	0.00532	53.2	0.00590	59.0	47-116		10	22	
4-Chlorophenyl-phenylether	0.0100	0.00697	69.7	0.00582	58.2	49-116		18	26	
4-Nitrophenol	0.0100	0.00164	16.4	0.00193	19.3	10-66		16	37	
Acenaphthene	0.0100	0.00670	67.0	0.00583	58.3	48-110		14	26	
Acenaphthylene	0.0100	0.00695	69.5	0.00592	59.2	48-113		16	28	
Anthracene	0.0100	0.00750	75.0	0.00620	62.0	55-127		19	24	
Benzidine	0.0100	0.00010	1.1	0.00005	0.6	0-46		58	50	R6
Benzo(a)anthracene	0.0100	0.00720	72.0	0.00579	57.9	57-115		22	20	R6
Benzo(a)pyrene	0.0100	0.00701	70.1	0.00586	58.6	63-125	L2	18	22	
Benzo(b)fluoranthene	0.0100	0.00380	38.0	0.00317	31.7	50-123	L2	18	32	
Benzo(g,h,i)perylene	0.0100	0.00611	61.1	0.00521	52.1	39-143		16	31	
Benzo(k)fluoranthene	0.0100	0.00425	42.5	0.00369	36.9	45-126	L2	14	37	
Benzylbutyl phthalate	0.0100	0.00046	4.6	0.00038	3.9	22-154	L2	18	29	
Bis(2-chlorethoxy)methane	0.0100	0.00592	59.2	0.00537	53.7	42-116		9.7	38	
Bis(2-chloroethyl)ether	0.0100	0.00591	59.1	0.00507	50.7	26-115		15	50	
Bis(2-chloroisopropyl)ether	0.0100	0.00544	54.4	0.00478	47.8	32-115		13	47	
Bis(2-ethylhexyl)phthalate	0.0100	0.00763	76.3	0.00646	64.6	47-143		17	24	
Chrysene	0.0100	0.00734	73.4	0.00611	61.1	58-113		18	21	
Dibenz(a,h)anthracene	0.0100	0.00604	60.4	0.00519	51.9	39-144		15	30	
Diethyl phthalate	0.0100	0.00055	5.5	0.00040	4.0	36-128	L2	32	27	R7
Dimethyl phthalate	0.0100	0.00004	0.4	0.00004	0.4	10-135	L2	9.7	33	
Di-n-butyl phthalate	0.0100	0.00250	25.0	0.00173	17.3	51-131	L2	36	22	R7

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-volatile Organic Compounds by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010 11:17:00 PM	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Di-n-octyl phthalate	0.0100	0.00786	78.6	0.00636	63.6	51-138		21	22	
Fluoranthene	0.0100	0.00747	74.7	0.00596	59.6	53-119		23	28	
Fluorene	0.0100	0.00694	69.4	0.00582	58.2	49-116		18	25	
Hexachloro-1,3-butadiene	0.0100	0.00491	49.1	0.00440	44.0	21-116		11	50	
Hexachlorobenzene	0.0100	0.00737	73.7	0.00606	60.6	51-121		20	23	
Hexachlorocyclopentadiene	0.0100	0.00316	31.6	0.00271	27.1	4-126		15	50	
Hexachloroethane	0.0100	0.00348	34.8	0.00329	32.9	15-109		5.8	50	
Indeno(1,2,3-cd)pyrene	0.0100	0.00606	60.6	0.00508	50.8	40-143		18	30	
Isophorone	0.0100	0.00532	53.2	0.00458	45.8	48-126	L2	15	31	
Naphthalene	0.0100	0.00565	56.5	0.00476	47.6	29-103		17	45	
Nitrobenzene	0.0100	0.00425	42.5	0.00374	37.4	31-105		13	43	
n-Nitrosodimethylamine	0.0100	0.00219	21.9	0.00226	22.6	11-69		3.3	50	
n-Nitrosodi-n-propylamine	0.0100	0.00568	56.8	0.00474	47.4	47-122		18	33	
n-Nitrosodiphenylamine	0.0100	0.00725	72.5	0.00621	62.1	59-143		16	23	
Pentachlorophenol	0.0100	0.00398	39.8	0.00424	42.4	20-122		6.5	50	
Phenanthrene	0.0100	0.00715	71.5	0.00584	58.4	54-112		20	22	
Phenol	0.0100	0.00263	26.3	0.00213	21.3	17-52		21	33	
Pyrene	0.0100	0.00665	66.5	0.00539	53.9	46-130		21	28	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-Volatiles by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Internal Standard Response and Retention Time Summary

FileID:0304_05.D Date:3/4/2010 Time:12:39 PM

	IS1		IS2		IS3	
	Response	RT	Response	RT	Response	RT
12 Hour Std	32396	4.89	125292	5.65	66947	6.68
Upper Limit	64792	5.39	250584	6.15	133894	7.18
Lower Limit	16198	4.39	62646	5.15	33473.5	6.18
Sample ID	Response	RT	Response	RT	Response	RT
Blank WG465743	36624	4.89	143175	5.65	78147	6.68
L447268-01	25264	4.90	101716	5.65	55425	6.68
LCS WG465743	38144	4.89	150469	5.65	78551	6.68
LCSD WG465743	40164	4.89	152885	5.65	81809	6.68

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Semi-Volatiles by Method 8270C		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465743**
Analysis Date:	3/4/2010	Analyst:	145
Instrument ID:	BNAMS2	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Internal Standard Response and Retention Time Summary

FileID:0304_05.D Date:3/4/2010 Time:12:39 PM

	IS4		IS5		IS6		
	Response	RT	Response	RT	Response	RT	
12 Hour Std	104601	7.56	97067	9.11	95791	10.28	
Upper Limit	209202	8.06	194134	9.61	191582	10.78	
Lower Limit	52300.5	7.06	48533.5	8.61	47895.5	9.78	
Sample ID	Response	RT	Response	RT	Response	RT	
Blank WG465743	116834	7.56	114230	9.11	108695	10.28	
L447268-01	86229	7.56	82183	9.12	42080	10.29	*
LCS WG465743	121499	7.56	119639	9.11	118063	10.28	
LCSD WG465743	125473	7.56	121286	9.11	114365	10.28	

ESC LAB SCIENCES
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Est. 1970

Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Chlorinated Pesticides by Method 8081A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465744**
Analysis Date:	3/4/2010	Analyst:	377
Instrument ID:	SVGC20	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
4,4-DDD	72-54-8	<0.000050	
4,4-DDE	72-55-9	<0.000050	
4,4-DDT	50-29-3	<0.000050	
Aldrin	309-00-2	<0.000050	
Alpha BHC	319-84-6	<0.000050	
Beta BHC	319-85-7	<0.000050	
Chlordane	57-74-9	<0.000500	
Delta BHC	319-86-8	<0.000050	
Dieldrin	60-57-1	<0.000050	
Endosulfan I	959-98-8	<0.000050	
Endosulfan II	33213-65-9	<0.000050	
Endosulfan sulfate	1031-07-8	<0.000050	
Endrin	72-20-8	<0.000050	
Endrin aldehyde	7421-93-4	<0.000050	
Endrin ketone	53494-70-5	<0.000050	
Gamma BHC	58-89-9	<0.000050	
Heptachlor	76-44-8	<0.000050	
Heptachlor epoxide	1024-57-3	<0.000050	
Hexachlorobenzene	118-74-1	<0.000050	
Methoxychlor	72-43-5	<0.000050	
Toxaphene	8001-35-2	<0.000500	

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Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Chlorinated Pesticides by Method 8081A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465744**
Analysis Date:	3/4/2010	Analyst:	377
Instrument ID:	SVGC20	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
4,4-DDD	0.000200	0.000184	92.1	37 - 142	
4,4-DDE	0.000200	0.000173	86.4	33 - 124	
4,4-DDT	0.000200	0.000208	104	32 - 143	
Aldrin	0.000200	0.000167	83.6	25 - 115	
Alpha BHC	0.000200	0.000154	76.8	38 - 119	
Beta BHC	0.000200	0.000177	88.5	42 - 126	
Delta BHC	0.000200	0.000168	83.8	24 - 141	
Dieldrin	0.000200	0.000186	92.8	37 - 130	
Endosulfan I	0.000200	0.000177	88.7	37 - 125	
Endosulfan II	0.000200	0.000183	91.3	38 - 131	
Endosulfan sulfate	0.000200	0.000201	100	38 - 131	
Endrin	0.000200	0.000175	87.7	37 - 126	
Endrin aldehyde	0.000200	0.000151	75.4	24 - 154	
Endrin ketone	0.000200	0.000172	86.2	37 - 139	
Gamma BHC	0.000200	0.000163	81.7	35 - 114	
Heptachlor	0.000200	0.000162	81.0	21 - 123	
Heptachlor epoxide	0.000200	0.000172	86.2	38 - 121	
Hexachlorobenzene	0.000200	0.000153	76.6	28 - 115	
Methoxychlor	0.000200	0.000197	98.4	55 - 150	

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Est. 1970

Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Chlorinated Pesticides by Method 8081A		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465744**
Analysis Date:	3/4/2010	Analyst:	377
Instrument ID:	SVGC20	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
4,4-DDD	0.000200	0.000153	76.5	37 - 142	
4,4-DDE	0.000200	0.000143	71.5	33 - 124	
4,4-DDT	0.000200	0.000163	81.5	32 - 143	
Aldrin	0.000200	0.000134	67.2	25 - 115	
Alpha BHC	0.000200	0.000127	63.6	38 - 119	
Beta BHC	0.000200	0.000147	73.6	42 - 126	
Delta BHC	0.000200	0.000131	65.3	24 - 141	
Dieldrin	0.000200	0.000155	77.7	37 - 130	
Endosulfan I	0.000200	0.000148	73.9	37 - 125	
Endosulfan II	0.000200	0.000152	76.1	38 - 131	
Endosulfan sulfate	0.000200	0.000158	78.8	38 - 131	
Endrin	0.000200	0.000144	71.8	37 - 126	
Endrin aldehyde	0.000200	0.000122	61.1	24 - 154	
Endrin ketone	0.000200	0.000141	70.4	37 - 139	
Gamma BHC	0.000200	0.000133	66.6	35 - 114	
Heptachlor	0.000200	0.000132	65.8	21 - 123	
Heptachlor epoxide	0.000200	0.000144	71.8	38 - 121	
Hexachlorobenzene	0.000200	0.000122	61.0	28 - 115	
Methoxychlor	0.000200	0.000154	77.0	55 - 150	

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Est. 1970

Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test:	Pesticides by Method 8081		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465744**
Analysis Date:	3/4/2010	Analyst:	377
Instrument ID:	SVGC20	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Surrogate Summary

Laboratory	TCX Col 1		TCX Col 2		DCB Col 1		DCB Col 2	
Sample ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
Blank WG465744	0.00012	60.1	0.0001	62.7	0.0001	79.5	0.0001	84.5
LCS WG465744	0.00015	75.5	0.0001	77.3	0.0001	94.9	0.0002	102
LCSD WG465744	0.00012	62.7	0.0001	64.5	0.0001	78.1	0.0001	86.6
L447268-01	0.00010	50.8	0.0001	58.1	0.0001	72.1	0.0001	74.4

Column 1
TCMX Limits -15 - 114
DCB Limits -10 - 123

Column 2
TCMX Limits -15 - 114
DCB Limits -10 - 123

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Est. 1970

Quality Control Summary
SDG: L447268
Engineering & Env. Consultants, INC. -AZ

Test: Chlorinated Pesticides by Method 8081A

Project No:	308032.05	Matrix:	Water - mg/L
Project:	ADOT-Superior	EPA ID:	TN00003
Collection Date:	2/28/2010	**Analytic Batch:**	**WG465744**
Analysis Date:	3/4/2010	Analyst:	377
Instrument ID:	SVGC20	Extraction Date:	3/2/2010
Sample Numbers:	L447268-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
4,4-DDD	0.00020	0.00018	92.1	0.00015	76.5	37-142		18	39	
4,4-DDE	0.00020	0.00017	86.4	0.00014	71.5	33-124		19	37	
4,4-DDT	0.00020	0.00020	104	0.00016	81.5	32-143		24	42	
Aldrin	0.00020	0.00016	83.6	0.00013	67.2	25-115		22	45	
Alpha BHC	0.00020	0.00015	76.8	0.00012	63.6	38-119		19	30	
Beta BHC	0.00020	0.00017	88.5	0.00014	73.6	42-126		18	31	
Delta BHC	0.00020	0.00016	83.8	0.00013	65.3	24-141		25	41	
Dieldrin	0.00020	0.00018	92.8	0.00015	77.7	37-130		18	36	
Endosulfan I	0.00020	0.00017	88.7	0.00014	73.9	37-125		18	35	
Endosulfan II	0.00020	0.00018	91.3	0.00015	76.1	38-131		18	36	
Endosulfan sulfate	0.00020	0.00020	100	0.00015	78.8	38-131		24	37	
Endrin	0.00020	0.00017	87.7	0.00014	71.8	37-126		20	37	
Endrin aldehyde	0.00020	0.00015	75.4	0.00012	61.1	24-154		21	36	
Endrin ketone	0.00020	0.00017	86.2	0.00014	70.4	37-139		20	36	
Gamma BHC	0.00020	0.00016	81.7	0.00013	66.6	35-114		20	30	
Heptachlor	0.00020	0.00016	81.0	0.00013	65.8	21-123		21	38	
Heptachlor epoxide	0.00020	0.00017	86.2	0.00014	71.8	38-121		18	33	
Hexachlorobenzene	0.00020	0.00015	76.6	0.00012	61.0	28-115		23	29	
Methoxychlor	0.00020	0.00019	98.4	0.00015	77.0	55-150		24	40	

E066

Chain of Custody
Page 1 of 1

Company Name/Address	Alternate Billing
EEC **7878 N. 16th St., Suite 140** **Phoenix, AZ 85020**	Report to: Gary Hoffmann E-mail to: ghoffmann@eecphx.com

Prepared by:

ENVIRONMENTAL Science corp
12065 Lebanon Road
Mt. Juliet TN 37122

Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

Project Description: ADOT Stormwater		City/State Collected: Phx AZ	
PHONE:602-248-7702 FAX: 602-248-7851	Client Project No. 308032.05	Lab Project #	
Collected by: Gary Hoffmann	Site/Facility ID#	P.O.#	
Collected by(signature): [signature] Packed on Ice N___ Y X	**Rush?** (Lab MUST be Notified) ___Next Day..........100% ___Two Day..........50% ___Three Day.........25%	Date Results Needed Email?___No_X_Yes FAX?___No___Yes	No of Cntrs

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin
Shipped Via: Phoenix Service Center

Analysis/Container/Preservative:
1. E.Coli, Fecal Coli, DRO, BTEX, COD <2 (subbed to LEGOTECLPAZ)
2. TKN, Total Phosphorous, Ammonia as N <2
3. Hardness, Cyanide, Nitrate + Nitrite <2 >12
4. SPCOND, TDS, Turbidity, Sulfate, TSS
5. BOD, Orthophosphate, Chloride
6. residual Chlorine, OG, ~~BTEX~~, Metals <2

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	1	2	3	4	5	6			Remarks/contaminant	Sample # (lab only)
32/202	Grab	OT	Ø	2/28/10	9:00	16	X	X	X	X	X	X				L447268-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other stormwater

pH 8.52 Temp 56.5

Remarks:

Flow_____ Other_____

Relinquisher by:(Signature) [signature]	Date: 3/1/10	Time: 11:AM	Received by:(Signature) [signature]	Samples returned via: FedEx__ UPS__Other__	Condition (lab use only)
Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Temp: 3.1 / Bottles Received: 16	
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 3/2/10 / Time: 0500	pH Checked: <2 >12 / NCF: ✓

C447268

CHAIN OF CUSTODY RECORD

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Page 1 of 1

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CLIENT INFORMATION

Client Name	Address	City	State	Zip	Phone	Fax Number or Email Address
ESC Lab Sciences	12065 Lebanon Rd.	Mt. Juliet	TN	37122	615-758-5858	jcozby@esclabsciences.com

Project Name	Project Number	Contact	P.O. No.	Fax Results ☐	QC Report ☐ EDD ☐
ADOT Stormwater	308032.05	Janice Cozby		Email Results ☒	Special Detection Limits ☐

SAMPLE TYPE CODES

DW=Drinking Water; WW=Wastewater; SW=Surface Water; G=Groundwater; O=Other Stormwater
S=Soil/Solid; T=Travel Blank; F=Food; G=Sludge/Biosolids

TURN AROUND TIME

Laboratory Authorization Required for Rush

☒ Standard 10 - 15 Day
☐ Other _____

REQUESTED ANALYSES

Client's Sample Identification	Date	Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	pH ☐ (Lab Use Only)	E. Coli	Fecal Coliform	LAB NO.
32/202	2/28/10	0900	Phoenix AZ		X	O		2		X	X	

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions:

SAMPLE CONDITION UPON RECEIPT (Lab Use)

No. of Containers	2	
Temperature	5.4°C	
Custody Seals	Y	(N)
Seals Intact	Y	N
Preserved	(Y)	N

	RELINQUISHED BY		SAMPLES RECEIVED BY	
①	Sampler Signature: [signature]	Date: 3/1/10	Signature: Smalone	Date: 3/1/10
	Sampler Printed Name: Casey Lollin	Time: 1140	Printed Name: Sharon Malone	Time: 1140
②	Sampler Signature:	Date:	Signature:	Date:
	Sampler Printed Name:	Time:	Printed Name:	Time:
③	Sampler Signature:	Date:	Signature:	Date:
	Sampler Printed Name:	Time:	Printed Name:	Time:

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (05/06)

ENVIRONMENTAL SCIENCE CORP.

SAMPLE NON-CONFORMANCE FORM

Login No.: L447268

Date: 3/2/10

Evaluated by: K. Wallace

Client: ENGENVPAZ

Non-Conformance (check applicable items)

____	Chain of Custody is missing	____	Login Clarification Needed
____	Improper container type	____	Improper preservation
____	Chain of custody is incomplete	____	Container lid not intact
✓	Parameter(s) past holding time	____	Improper temperature
____	Broken container(s) see below	____	Broken container: sufficient sample volume remains for analysis requested

____ Insufficient packing material around container

____ Insufficient packing material inside cooler

____ Improper handling by carrier (FedEx / UPS / Courier)

____ Sample was frozen

Comments: Received samples OOH

Login Instructions: TSR Initials: DK

Client informed by (JB) cal / email / fax / voice mail date: 3/2 time: 14:30

Client contact (1) Run all sample OOH, qualify + proceed

(2) Run Nitrite, Nitrate separately

(3) Metals = Na, Ca, Sb, Ar, Ba, Be, Cd, Cr, Cu, Pb, Hg, Ni, Se, Ag, Zn

(4) Run V8260 in place of BTEX

(5) Add MBAS (6) Add SV8081, 8270 - use DRO + OGHEX extra containers per client, run from HCl bottles

LEGEND
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P (520) 327-1234 • F (520) 327-0518

08 March 2010

Janice Cozby
Environmental Science Corp. (ESC)
12065 Lebanon Rd.
Mt. Juliet, TN 37122

RE: Water Analysis

Laboratory Work Order No.: 0030040

Legend Technical Services of Arizona, Inc. is pleased to provide the enclosed analytical results for the aforementioned project. These results relate only to the items tested. This cover letter and the accompanying pages represent the full report for these analyses and should only be reproduced in full. Samples for this project were received by the laboratory on 03/01/10 11:40.

The samples were processed in accordance with the Chain of Custody document and the results presented relate only to the samples tested. The Chain of Custody is considered part of this report.

All samples will be retained by LEGEND for 30 days from the date of this report and then discarded unless other arrangements are made.

This entire report was reviewed and approved for release by the undersigned. If you have any questions concerning this report, please feel free to contact me.

Sincerely,
LEGEND TECHNICAL SERVICES OF ARIZONA, INC.

Michelle Thompson
Client Services Representative
(602) 324-6100

This laboratory report is confidential and is intended for the sole use of LEGEND and it's client.

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Type	Date Sampled	Date Received
32/202 (Phoenix, AZ)	0030040-01	Storm Water	Grab	02/28/10 09:00	03/01/10 11:40

Sample Condition Upon Receipt:

Temperature: 5.40 C

All samples were received in acceptable condition unless noted otherwise in the case narrative.

Case Narrative:

Holding Times: All holding times were met unless otherwise qualified.

QA/QC Criteria: All analyses met method requirements unless otherwise qualified.

Comments: There were no problems encountered during the processing of the samples, unless otherwise noted. All samples were analyzed on a "wet" basis unless designated as "dry weight".

32/202 (Phoenix, AZ) (0030040-01) Storm Water (Grab) Sampled: 02/28/10 09:00 Received: 03/01/10 11:40

Analyte	Result	PQL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Legend Technical Services of Arizona, Inc.								
Microbiology									
E. coli, MPN (WW-Colilert)	**2000**	1	MPN/100 mL	1	B0C0039	**03/01/10 13:40**	**03/01/10 13:40**	SM 9223B	
Fecal Coliforms, MF	>200	1	CFU/100 mL	1	B0C0041	**03/01/10 12:50**	**03/01/10 12:50**	SM 9222D	A1, H3

Microbiology - Quality Control

Legend Technical Services of Arizona, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B0C0039 - micro_prep										
Blank (B0C0039-BLK1)				*Prepared & Analyzed: 03/01/10*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL							
Duplicate (B0C0039-DUP1)	**Source: 0030014-01**			*Prepared & Analyzed: 03/01/10*						
E. coli, MPN (WW-Colilert)	<1	1	MPN/100 mL		<1				100	
Duplicate (B0C0039-DUP2)	**Source: 0030027-01**			*Prepared & Analyzed: 03/01/10*						
E. coli, MPN (WW-Colilert)	25	1	MPN/100 mL		26			5.09	100	
Batch B0C0041 - micro_prep										
Blank (B0C0041-BLK1)				*Prepared & Analyzed: 03/01/10*						
Fecal Coliforms, MF	<1	1	CFU/100 mL							

Notes and Definitions

H3	Sample was received and analyzed past holding time.
A1	Too numerous to count.
BLK	Method Blank
LCS/Dup	Laboratory Control Sample/Laboratory Fortified Blank/Duplicate
MS/Dup	Matrix Spike/Duplicate
Dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
Font	*Use of the "Modern No. 20" font in this report indicates that the laboratory is accredited for the field of testing (FOT) by Minnesota Department of Health. If the FOT is not in the "Modern No. 20" font, then the laboratory is not accredited for that FOT by Minnesota Department of Health.*

0030040

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CLIENT INFORMATION

Client Name	Address	City	State	Zip	Phone	Fax Number or Email Address
ESC Lab Sciences	12065 Lebanon Rd.	Mt. Juliet	TN	37122	615-758-5858	jcozby@esclabsciences

Project Name	Project Number	Contact	P.O. No.	
ADOT Stormwater	308032.05	Janice Cozby		Fax Results ☐ Email Results ☑ QC Report ☐ EDD ☐ Special Detection Limits ☐

SAMPLE TYPE CODES

DW=Drinking Water, WW=Wastewater, SW=Surface Water, G=Groundwater, O=Other Stormwater, S=Soil/Solid, T=Travel Blank, F=Food, G=Sludge/Biosolids

TURN AROUND TIME

Laboratory Authorization Required for Rush

☒ Standard 10 - 15 Day
☐ Other

REQUESTED ANALYSES: E. Coli; Fecal Coliform

Client's Sample Identification	Date	Time	Sample Location	Composite	Grab	Sample Type	Compliance	No. of Containers	E. Coli	Fecal Coliform	LAB NO.
32/202	2/28/10	0900	Phoenix, AZ		X	O		2	X	X	-01

TO ENSURE COMPLETION OF ANALYSIS, SAMPLES MUST BE RECEIVED AT LEAST 3 HOURS PRIOR TO THE HOLD TIME EXPIRATION

Comments / Special Instructions: Samples out of HT. Analyze anyway per Casey 11:41 (initials) 3/1/10

SAMPLE CONDITION UPON RECEIPT (Lab Use)

No. of Containers	2	
Temperature	5.4°C	
Custody Seals	Y	(N)
Seals Intact	Y	N
Preserved	(Y)	N

	RELINQUISHED BY	Date/Time	SAMPLES RECEIVED BY	Date/Time
①	Sampler Signature: (signature) / Sampler Printed Name: Casey Loftin	Date 3/1/10 / Time 1140	Signature: SMalone / Printed Name: Sharon Malone	Date 3/1/10 / Time 1140
②	Sampler Signature: / Sampler Printed Name:	Date / Time	Signature: / Printed Name:	Date / Time
③	Sampler Signature: / Sampler Printed Name:	Date / Time	Signature: / Printed Name:	Date / Time

WHITE-LAB YELLOW-CLIENT

FORM GEN-170 (05/06)

Tucson Area MS4 Laboratory Reports

Environmental Science Corporation
Mount Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ
Tucson/Grant Rd. MS4 Site

L410136

Lab SampleID.	Client ID
L410136-01	GR ADOT 2

(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

EST. 1970

Environmental Science Corporation
Mt. Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ **SDG: L410136**
Project: Tucson/Grant Rd. MS4 Site
L410136

July 10, 2009

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met except for Chromium,Hexavalent.

Anions by Method 9056

Laboratory Control Sample

Sample L410136-01 was analyzed in analytical batch WG429351. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis

For analytical batch WG429351 sample duplicate analysis was performed on sample L409585-04. The relative percent differences were within the method limits.

For analytical batch WG429351 sample duplicate analysis was performed on sample L409772-01. The relative percent differences were within the method limits.

For analytical batch WG429351 sample duplicate analysis was performed on sample L409939-02. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG429351 matrix spike/matrix spike duplicate analysis was performed on sample L410085-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Cyanide by Method 9012B

Laboratory Control Sample

Sample L410136-01 was analyzed in analytical batch WG429238. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG429238 sample duplicate analysis was performed on sample L410231-02. The relative percent difference was within the method limits.

For analytical batch WG429238 sample duplicate analysis was performed on sample L410035-09. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG429238, matrix spike/matrix spike duplicate analysis was performed on sample L410149-04. The spike recoveries were above the laboratory control limits. The relative percent difference was within control limits.

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Project: Tucson/Grant Rd. MS4 Site
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Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

BOD by Method SM5210B
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429358. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429358 sample duplicate analysis was performed on sample L410123-01. The relative percent difference was within the method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Chromium,Hexavalent by Method 7196A
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429396. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429396 sample duplicate analysis was performed on sample L410168-01. The relative percent difference was within the method limits.

For analytical batch WG429396 sample duplicate analysis was performed on sample L410116-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429396, matrix spike/matrix spike duplicate analysis was performed on sample L410116-03. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

MBAS by Method 5540C
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429431. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429431 sample duplicate analysis was performed on sample L410328-02. The relative percent difference was within the method limits.

For analytical batch WG429431 sample duplicate analysis was performed on sample L410431-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429431, matrix spike/matrix spike duplicate analysis was performed on sample L410149-03. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Phosphate,Ortho by Method 4500P-E
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429432. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429432 sample duplicate analysis was performed on sample L410153-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429432, matrix spike/matrix spike duplicate analysis was performed on sample L410136-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Kjeldahl Nitrogen, TKN by Method 351.2
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429456. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429456 sample duplicate analysis was performed on sample L410595-01. The relative percent difference exceeded the method limits.

For analytical batch WG429456 sample duplicate analysis was performed on sample L409101-19. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429456, matrix spike/matrix spike duplicate analysis was performed on sample L410085-01. The spike recoveries and relative percent differences were within laboratory control limits.

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Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Phosphorus,Total by Method 365.1
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429461. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429461 sample duplicate analysis was performed on sample L410077-01. The relative percent difference was within the method limits.

For analytical batch WG429461 sample duplicate analysis was performed on sample L410260-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429461, matrix spike/matrix spike duplicate analysis was performed on sample L410078-01. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Ammonia Nitrogen by Method 350.1
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429462. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429462 sample duplicate analysis was performed on sample L410119-01. The relative percent difference exceeded the method limits.

For analytical batch WG429462 sample duplicate analysis was performed on sample L410148-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429462, matrix spike/matrix spike duplicate analysis was performed on sample L410119-02. The spike recoveries were above the laboratory control limits. The relative percent difference was within control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

For: Engineering & Env. Consultants, INC. -AZ **SDG: L410136**
Project: Tucson/Grant Rd. MS4 Site
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COD by Method 410.4

Laboratory Control Sample

Sample L410136-01 was analyzed in analytical batch WG429473. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG429473 sample duplicate analysis was performed on sample L410224-03. The relative percent difference was within the method limits.

For analytical batch WG429473 sample duplicate analysis was performed on sample L410113-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG429473, matrix spike/matrix spike duplicate analysis was performed on sample L410224-02. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Specific Conductance by Method 9050A

Laboratory Control Sample

Sample L410136-01 was analyzed in analytical batch WG429485. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG429485 sample duplicate analysis was performed on sample L410098-01. The relative percent difference was within the method limits.

For analytical batch WG429485 sample duplicate analysis was performed on sample L410166-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG429485 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Dissolved Solids by Method 2540C

Laboratory Control Sample

Sample L410136-01 was analyzed in analytical batch WG429498. The laboratory control sample associated with this sample was within the laboratory control limits.

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Sample Duplicate Analysis
For analytical batch WG429498 sample duplicate analysis was performed on sample L410008-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG429498 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Suspended Solids by Method 2540D
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429504. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis
For analytical batch WG429504 sample duplicate analysis was performed on sample L410252-01. The relative percent difference was within the method limits.

For analytical batch WG429504 sample duplicate analysis was performed on sample L410099-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG429504 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Oil & Grease (Hexane Extr) by Method 1664A
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429997. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG429997 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Mercury by Method 7470A
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429402. The laboratory control sample associated with this sample was within the laboratory control limits.

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Project: Tucson/Grant Rd. MS4 Site
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Sample Duplicate Analysis
For analytical batch WG429402 sample duplicate analysis was performed on sample L410116-11. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429402, matrix spike/matrix spike duplicate analysis was performed on sample L410116-11. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6010B
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429949. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG429949 sample duplicate analysis was performed on sample L410139-08. The relative percent difference exceeded the method limits for Selenium and Zinc.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429949 matrix spike/matrix spike duplicate analysis was performed on sample L410139-08. The matrix spike recoveries were below laboratory control limits for Silver. The spike recoveries for the remaining target compounds were within limits. The relative percent difference was within laboratory limits for all compounds. Post digestion spike recoveries were within the method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6020
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429915. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG429915 sample duplicate analysis was performed on sample L410139-05. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429915 matrix spike/matrix spike duplicate analysis was performed on sample L410139-05. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

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Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Method 8021B
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429527. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429527 matrix spike/matrix spike duplicate analysis was performed on sample L410210-09. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Chlorinated Pesticides by Method 8081A
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429567. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG429567 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Semi-volatile Organic Compounds by Method 8270C
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429990. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds. Benzylbutyl phthalate and Dimethyl phthalate failed RPDs.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG429990 matrix spike/matrix spike duplicate analysis was performed on sample L410769-01. The matrix spike recoveries were within laboratory control limits for all target analytes. The relative percent difference exceeded laboratory limits for Benzylbutyl phthalate and Dimethyl phthalate.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015
Laboratory Control Sample
Sample L410136-01 was analyzed in analytical batch WG429554. The laboratory control sample associated with this sample was within the laboratory control limits.

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L410136

July 10, 2009

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG429554 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nancy F. Winters
ESC Representative
Environmental Science Corporation

ENVIRONMENTAL
SCIENCE CORP.

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Est. 1970

John Burton
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Monday July 13, 2009

Report Number: L410136
Samples Received: 07/01/09
Client Project: 30803201

Description: Tucson MS4

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

Environmental Science Corporation
Mount Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ
Tucson/Grant Rd. MS4 Site

L410136

Lab SampleID.	Client ID
L410136-01	GR ADOT 2

(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Environmental Science Corporation

SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

9056

Analytic Batch: WG429351 | Analysis Date: 7/1/2009 | Analysis Time: 7:49 PM
Instrument: IC4 | Analyst: 245 | Preparation Date: 7/1/2009 8:08 AM
Method: 9056 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
16887-00-6	Chloride	1.0	**19**	
14797-55-8	Nitrate	0.10	**0.21**	
14797-65-0	Nitrite	0.10	< 0.10	
14808-79-8	Sulfate	5.0	**68**	

SM5210B

Analytic Batch: WG429358 | Analysis Date: 7/1/2009 | Analysis Time: 11:29
Instrument: NONE | Analyst: 421 | Preparation Date:
Method: SM5210B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	BOD	5.0	**44**	

410.4

Analytic Batch: WG429473 | Analysis Date: 7/3/2009 | Analysis Time: 2:34 PM
Instrument: HACH 4000 | Analyst: 397 | Preparation Date: 7/1/2009 3:45 PM
Method: 410.4 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
E-10117	COD	10	**640**	

9012B

Analytic Batch: WG429238 | Analysis Date: 7/3/2009 | Analysis Time: 10:29
Instrument: LACHAT4 | Analyst: 165 | Preparation Date: 7/1/2009 11:02
Method: 9012B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
57-12-5	Cyanide	0.0050	< 0.0050	Q10

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

7196A

Analytic Batch: WG429396 | Analysis Date: 7/1/2009 | Analysis Time: 12:21
Instrument: HACH 4000 | Analyst: 476 | Preparation Date: 7/1/2009 11:02
Method: 7196A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
18540-29-9	Chromium,Hexavalent	0.010	< 0.010	H1

Calc

Analytic Batch: WG429949 | Analysis Date: 7/5/2009 | Analysis Time: 12:00
Instrument: ICP6 | Analyst: 438 | Preparation Date: 7/4/2009 1:22 PM
Method: Calc | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
16065-83-1	Chromium,Trivalent	0.010	< 0.010	

5540C

Analytic Batch: WG429431 | Analysis Date: 7/2/2009 | Analysis Time: 5:08 PM
Instrument: HACH 4000 | Analyst: 476 | Preparation Date: 7/1/2009 1:26 PM
Method: 5540C | Dilution: 25

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	MBAS	2.5	**11**	

350.1

Analytic Batch: WG429462 | Analysis Date: 7/7/2009 | Analysis Time: 10:22
Instrument: LACHAT3 | Analyst: 236 | Preparation Date: 7/2/2009 11:16
Method: 350.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7664-41-7	Ammonia Nitrogen	0.10	**6.7**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

1664A

Analytic Batch: WG429997 | Analysis Date: 7/6/2009 | Analysis Time: 8:28
Instrument: BAL | Analyst: 078 | Preparation Date: 7/6/2009 3:36 AM
Method: 1664A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Oil & Grease (Hexane Extr)	6.7	< 6.7	

4500P-E

Analytic Batch: WG429432 | Analysis Date: 7/1/2009 | Analysis Time: 5:32 PM
Instrument: HACH 4000 | Analyst: 476 | Preparation Date: 7/1/2009 1:26 PM
Method: 4500P-E | Dilution: 5

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Phosphate,Ortho	0.12	< 0.12	

365.1

Analytic Batch: WG429461 | Analysis Date: 7/6/2009 | Analysis Time: 10:11
Instrument: LACHAT2 | Analyst: 236 | Preparation Date: 7/1/2009 3:34 PM
Method: 365.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7723-14-0	Phosphorus,Total	0.10	**0.36**	

9050A

Analytic Batch: WG429485 | Analysis Date: 7/2/2009 | Analysis Time: 3:22 PM
Instrument: ORION170 | Analyst: 397 | Preparation Date:
Method: 9050A | Dilution: 1

CAS NO	Analyte	RL umhos/cm	RESULTS umhos/cm	FLAG
	Specific Conductance		**690**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

351.2

Analytic Batch: WG429456 | Analysis Date: 7/6/2009 | Analysis Time: 9:37 PM
Instrument: LACHAT4 | Analyst: 143 | Preparation Date: 7/3/2009 10:28
Method: 351.2 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7727-37-9	Kjeldahl Nitrogen, TKN	0.10	**14**	

2540C

Analytic Batch: WG429498 | Analysis Date: 7/6/2009 | Analysis Time: 2:25 PM
Instrument: BAL | Analyst: 479 | Preparation Date: 7/1/2009 3:59 PM
Method: 2540C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Dissolved Solids	10	**680**	

2540D

Analytic Batch: WG429504 | Analysis Date: 7/2/2009 | Analysis Time: 1:01 PM
Instrument: BAL | Analyst: 479 | Preparation Date: 7/1/2009 4:04 PM
Method: 2540D | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Suspended Solids	1.0	**160**	

6020

Analytic Batch: WG429915 | Analysis Date: 7/9/2009 | Analysis Time: 5:33
Instrument: ICPMS4 | Analyst: 338 | Preparation Date: 7/3/2009 5:51 PM
Method: 6020 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-36-0	Antimony	0.0010	**0.0046**	
7440-38-2	Arsenic	0.0010	**0.0030**	
7440-28-0	Thallium	0.0010	< 0.0010	

Comments: 1) Sample results are reported as rounded values.
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SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

7470A

Analytic Batch: WG429402 | Analysis Date: 7/1/2009 | Analysis Time: 10:32
Instrument: CVAA3 | Analyst: 261 | Preparation Date: 7/1/2009 11:14
Method: 7470A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7439-97-6	Mercury	0.00020	< 0.00020	

6010B

Analytic Batch: WG429949 | Analysis Date: 7/5/2009 | Analysis Time: 2:33 PM
Instrument: ICP6 | Analyst: 438 | Preparation Date: 7/4/2009 1:22 PM
Method: 6010B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-39-3	Barium	0.0050	**0.20**	
7440-41-7	Beryllium	0.0020	< 0.0020	
7440-43-9	Cadmium	0.0050	< 0.0050	
7440-70-2	Calcium	0.50	**100**	
7440-47-3	Chromium	0.010	< 0.010	
7440-50-8	Copper	0.020	**0.033**	
7439-92-1	Lead	0.0050	< 0.0050	
7440-02-0	Nickel	0.020	< 0.020	
7782-49-2	Selenium	0.020	**0.020**	
7440-22-4	Silver	0.010	< 0.010	
7440-23-5	Sodium	0.50	**18**	
7440-66-6	Zinc	0.030	**0.18**	

8021B

Analytic Batch: WG429527 | Analysis Date: 7/2/2009 | Analysis Time: 6:01
Instrument: VOCGC14 | Analyst: 241 | Preparation Date: 7/2/2009 6:01 AM
Method: 8021B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
71-43-2	Benzene	0.00050	< 0.00050	
108-88-3	Toluene	0.0050	< 0.0050	
100-41-4	Ethylbenzene	0.00050	< 0.00050	
1330-20-7	Total Xylene	0.0015	< 0.0015	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
a,a,a-Trifluorotoluene(PID)	**112**		

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

3510/DRO

Analytic Batch: WG429554 | Analysis Date: 7/3/2009 | Analysis Time: 9:20
Instrument: SVGC7 | Analyst: 267 | Preparation Date: 7/1/2009 11:15
Method: 3510/DRO | Dilution: 20

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
68334-30-5	TPH (GC/FID) High Fraction	2.0	**24**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**0.00**	S8	

8081A

Analytic Batch: WG429567 | Analysis Date: 7/3/2009 | Analysis Time: 9:39
Instrument: SVGC23 | Analyst: 239 | Preparation Date: 7/2/2009 7:15 AM
Method: 8081A | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
309-00-2	Aldrin	0.000050	< 0.000050	
319-84-6	Alpha BHC	0.000050	< 0.000050	
319-85-7	Beta BHC	0.000050	< 0.000050	
319-86-8	Delta BHC	0.000050	< 0.000050	
58-89-9	Gamma BHC	0.000050	< 0.000050	
57-74-9	Chlordane	0.00050	< 0.00050	
72-54-8	4,4-DDD	0.000050	< 0.000050	
72-55-9	4,4-DDE	0.000050	< 0.000050	
50-29-3	4,4-DDT	0.000050	< 0.000050	
60-57-1	Dieldrin	0.000050	< 0.000050	
959-98-8	Endosulfan I	0.000050	< 0.000050	
33213-65-9	Endosulfan II	0.000050	< 0.000050	
1031-07-8	Endosulfan sulfate	0.000050	< 0.000050	
72-20-8	Endrin	0.000050	< 0.000050	
7421-93-4	Endrin aldehyde	0.000050	< 0.000050	
53494-70-5	Endrin ketone	0.000050	< 0.000050	
118-74-1	Hexachlorobenzene	0.000050	< 0.000050	
76-44-8	Heptachlor	0.000050	< 0.000050	
1024-57-3	Heptachlor epoxide	0.000050	< 0.000050	
72-43-5	Methoxychlor	0.000050	< 0.000050	
8001-35-2	Toxaphene	0.00050	< 0.00050	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
Decachlorobiphenyl	**25.0**		
Tetrachloro-m-xylene	**47.1**		

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

8270C

Analytic Batch: WG429990 | Analysis Date: 7/6/2009 | Analysis Time: 6:17 PM
Instrument: BNAMS10 | Analyst: 145 | Preparation Date: 7/5/2009 10:57
Method: 8270C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
83-32-9	Acenaphthene	0.010	< 0.010	
208-96-8	Acenaphthylene	0.010	< 0.010	
120-12-7	Anthracene	0.010	< 0.010	
92-87-5	Benzidine	0.050	< 0.050	
56-55-3	Benzo(a)anthracene	0.010	< 0.010	
205-99-2	Benzo(b)fluoranthene	0.010	< 0.010	
207-08-9	Benzo(k)fluoranthene	0.010	< 0.010	
191-24-2	Benzo(g,h,i)perylene	0.010	< 0.010	
50-32-8	Benzo(a)pyrene	0.010	< 0.010	
111-91-1	Bis(2-chlorethoxy)methane	0.010	< 0.010	
111-44-4	Bis(2-chloroethyl)ether	0.010	< 0.010	
108-60-1	Bis(2-chloroisopropyl)ether	0.010	< 0.010	
101-55-3	4-Bromophenyl-phenylether	0.010	< 0.010	
91-58-7	2-Chloronaphthalene	0.010	< 0.010	
7005-72-3	4-Chlorophenyl-phenylether	0.010	< 0.010	
218-01-9	Chrysene	0.010	< 0.010	
53-70-3	Dibenz(a,h)anthracene	0.010	< 0.010	
91-94-1	3,3-Dichlorobenzidine	0.010	< 0.010	
121-14-2	2,4-Dinitrotoluene	0.010	< 0.010	
606-20-2	2,6-Dinitrotoluene	0.010	< 0.010	
206-44-0	Fluoranthene	0.010	< 0.010	
86-73-7	Fluorene	0.010	< 0.010	
118-74-1	Hexachlorobenzene	0.010	< 0.010	
87-68-3	Hexachloro-1,3-butadiene	0.010	< 0.010	
77-47-4	Hexachlorocyclopentadiene	0.010	< 0.010	
67-72-1	Hexachloroethane	0.010	< 0.010	
193-39-5	Indeno(1,2,3-cd)pyrene	0.010	< 0.010	
78-59-1	Isophorone	0.010	< 0.010	
91-20-3	Naphthalene	0.010	< 0.010	
98-95-3	Nitrobenzene	0.010	< 0.010	
62-75-9	n-Nitrosodimethylamine	0.050	< 0.050	
86-30-6	n-Nitrosodiphenylamine	0.010	< 0.010	
621-64-7	n-Nitrosodi-n-propylamine	0.010	< 0.010	
85-01-8	Phenanthrene	0.010	< 0.010	
85-68-7	Benzylbutyl phthalate	0.010	< 0.010	R6
117-81-7	Bis(2-ethylhexyl)phthalate	0.010	< 0.010	
84-74-2	Di-n-butyl phthalate	0.010	< 0.010	
84-66-2	Diethyl phthalate	0.010	< 0.010	
131-11-3	Dimethyl phthalate	0.010	< 0.010	R6
117-84-0	Di-n-octyl phthalate	0.010	< 0.010	
129-00-0	Pyrene	0.010	< 0.010	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
GR ADOT 2

Customer :	Engineering & Env. Consultants, INC. -	Project :	30803201
Source :		Date Sampled :	6/30/2009 8:30 AM
Location :	Tucson/Grant Rd. MS4 Site	Sampled By :	Chad S. Howard
Lab Sample ID :	**L410136-01**	Date Received :	7/1/2009

8270C

Analytic Batch: WG429990 | Analysis Date: 7/6/2009 | Analysis Time: 6:17 PM
Instrument: BNAMS10 | Analyst: 145 | Preparation Date: 7/5/2009 10:57
Method: 8270C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
120-82-1	1,2,4-Trichlorobenzene	0.010	< 0.010	
59-50-7	4-Chloro-3-methylphenol	0.010	< 0.010	
95-57-8	2-Chlorophenol	0.010	< 0.010	
120-83-2	2,4-Dichlorophenol	0.010	< 0.010	
105-67-9	2,4-Dimethylphenol	0.010	< 0.010	
534-52-1	4,6-Dinitro-2-methylphenol	0.010	< 0.010	
51-28-5	2,4-Dinitrophenol	0.010	< 0.010	
88-75-5	2-Nitrophenol	0.010	< 0.010	
100-02-7	4-Nitrophenol	0.010	< 0.010	
87-86-5	Pentachlorophenol	0.010	< 0.010	
108-95-2	Phenol	0.010	< 0.010	
88-06-2	2,4,6-Trichlorophenol	0.010	< 0.010	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
2-Fluorophenol	**54.3**		
Phenol-d5	**46.4**		
Nitrobenzene-d5	**64.4**		
2-Fluorobiphenyl	**52.1**		
2,4,6-Tribromophenol	**91.4**		
p-Terphenyl-d14	**60.0**		

LEGEND

RL - Reporting Limit

QUALIFIERS

R6 - LFB/LFBD RPD exceeded the method acceptance limit. Recovery met acceptance criteria.
S8 - The analysis of the sample required a dilution such that the surrogate recovery calculation does not provide useful information. The associated blank spike recovery was acceptable.
Q10 - Sample recieved in inappropriate sample container.
H1 - Sample analysis performed past holding time.

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Anions by Method 9056** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: IC4
Analyst: 245
Analytic Batch: WG429351 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Chloride		<1.00
Nitrate		<0.100
Nitrite		<0.100
Sulfate		<5.00

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chloride	40.0	39.6	99.0	90 - 110	
Nitrate	8.00	8.09	101	90 - 110	
Nitrite	8.00	7.99	99.9	90 - 110	
Sulfate	40.0	38.8	97.0	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chloride	40.0	39.5	98.8	90 - 110	
Nitrate	8.00	8.07	101	90 - 110	
Nitrite	8.00	8.00	100	90 - 110	
Sulfate	40.0	38.6	96.5	90 - 110	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Anions by Method 9056** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: IC4
Analyst: 245
Analytic Batch: WG429351 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Chloride	40.0	39.6	99.0	39.5	98.8	90-110		0.3	20	
Nitrate	8.00	8.09	101	8.07	101	90-110		0.2	20	
Nitrite	8.00	7.99	99.9	8.00	100	90-110		0.1	20	
Sulfate	40.0	38.8	97.0	38.6	96.5	90-110		0.5	20	

Sample Duplicate

L409585-04

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Chloride	303	302	0.3	20	
Sulfate	6.30	6.20	1.6	20	

Sample Duplicate

L409772-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Sulfate	770	765	0.7	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Anions by Method 9056** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: IC4
Analyst: 245
Analytic Batch: WG429351 EPA ID: TN00003

Sample Duplicate

L409939-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Chloride	120	121	0.8	20	

Matrix Spike/Matrix Spike Duplicate

L410085-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Nitrate	5.00	0.450	5.24	95.8	5.26	96.2	80-120		0.4	20	
Nitrite	5.00	0.000	5.03	101	5.05	101	80-120		0.4	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Ammonia Nitrogen by Method 350.1** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/7/2009 10:22:00 AM
Instrument ID: LACHAT3
Analyst: 236
Analytic Batch: WG429462 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Ammonia Nitrogen		<0.100

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ammonia Nitrogen	7.50	8.13	108	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Ammonia Nitrogen	7.50	8.00	107	90 - 110	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Ammonia Nitrogen by Method 350.1** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/7/2009 10:22:00 AM
Instrument ID: LACHAT3
Analyst: 236
Analytic Batch: WG429462 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Ammonia Nitrogen	7.50	8.13	108	8.00	107	90-110		1.6	20	

Sample Duplicate

L410119-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Ammonia Nitrogen	0.360	0.241	40	20	R8

Sample Duplicate

L410148-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Ammonia Nitrogen	11.0	11.9	7.9	20	

Matrix Spike/Matrix Spike Duplicate

L410119-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Ammonia Nitrogen	5.00	0.580	6.24	113	6.31	115	90-110	M1	1.1	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **BOD by Method SM5210B** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 11:29:00 AM
Instrument ID: NONE
Analyst: 421
Analytic Batch: WG429358 EPA ID: TN00003

Method Blank

Analyte	CAS	Results
BOD		**0.0000**
BOD		**0.0000**

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
BOD	198	190	96.0	84.6 - 115.4	
BOD	198	188	94.9	84.6 - 115.4	
BOD	198	172	86.9	84.6 - 115.4	
BOD	198	201	102	84.6 - 115.4	
BOD	198	176	88.9	84.6 - 115.4	
BOD	198	191	96.5	84.6 - 115.4	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **BOD by Method SM5210B** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/1/2009 11:29:00 AM

Instrument ID: NONE

Analyst: 421

Analytic Batch: WG429358 EPA ID: TN00003

Sample Duplicate

L410123-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
BOD	140	130	7.4	10	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **COD by Method 410.4** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/3/2009 2:34:00 PM

Instrument ID: HACH 4000

Analyst: 397

Analytic Batch: WG429473 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
COD		<10.0

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
COD	212	216	102	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
COD	212	220	104	90 - 110	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **COD by Method 410.4** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/3/2009 2:34:00 PM

Instrument ID: HACH 4000

Analyst: 397

Analytic Batch: WG429473 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
COD	212	216	102	220	104	90-110		1.8	5	

Sample Duplicate

L410224-03

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
COD	0.0000	0.0000			

Sample Duplicate

L410113-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
COD	6700	6570	2.0	5	

Matrix Spike/Matrix Spike Duplicate

L410224-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
COD	400	0.0000	412	103	417	104	90-110		1.2	5.0	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Chromium,Hexavalent by Method 7196A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 12:21:00 PM
Instrument ID: HACH 4000
Analyst: 476
Analytic Batch: WG429396 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Chromium,Hexavalent		<0.0100

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chromium,Hexavalent	0.600	0.570	95.0	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Chromium,Hexavalent	0.600	0.576	96.0	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Chromium,Hexavalent by Method 7196A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 12:21:00 PM
Instrument ID: HACH 4000
Analyst: 476
Analytic Batch: WG429396 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Chromium,Hexavalent	0.600	0.570	95.0	0.576	96.0	85-115		1.0	20	

Sample Duplicate

L410168-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Chromium,Hexavalent	0.0000	0.0000			

Sample Duplicate

L410116-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Chromium,Hexavalent	0.0088	0.0095			

Matrix Spike/Matrix Spike Duplicate

L410116-03

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Chromium,Hexavalent	0.500	0.0051	0.462	91.4	0.497	98.4	85-115		7.3	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Cyanide by Method 9012B** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 6/30/2009

Analysis Date: 7/3/2009 10:29:00 AM

Instrument ID: LACHAT4

Analyst: 165

Analytic Batch: WG429238 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Cyanide		<0.0050

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Cyanide	0.100	0.109	109	90 - 110	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Cyanide	0.100	0.0931	93.1	90 - 110	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Cyanide by Method 9012B** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 6/30/2009

Analysis Date: 7/3/2009 10:29:00 AM

Instrument ID: LACHAT4

Analyst: 165

Analytic Batch: WG429238 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Cyanide	0.100	0.109	109	0.0931	93.1	90-110		16	20	

Sample Duplicate

L410231-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Cyanide	0.0000	0.0000			

Sample Duplicate

L410035-09

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Cyanide	0.120	0.122	1.7	20	

Matrix Spike/Matrix Spike Duplicate

L410149-04

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Cyanide	0.200	0.0000	0.223	112	0.209	104	90-110	M1	6.5	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Dissolved Solids by Method 2540C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/6/2009 2:25:00 PM
Instrument ID: BAL
Analyst: 479
Analytic Batch: WG429498 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Dissolved Solids		<10.0

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8610	97.9	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8640	98.2	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Dissolved Solids by Method 2540C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/6/2009 2:25:00 PM
Instrument ID: BAL
Analyst: 479
Analytic Batch: WG429498 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dissolved Solids	8800	8610	97.9	8640	98.2	85-115		0.3	20	

Sample Duplicate

L410008-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Dissolved Solids	36000	37400	3.8	5	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Kjeldahl Nitrogen, TKN by Method 351.2** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/6/2009 9:37:00 PM
Instrument ID: LACHAT4
Analyst: 143
Analytic Batch: WG429456 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Kjeldahl Nitrogen, TKN		<0.100

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Kjeldahl Nitrogen, TKN	3.74	3.56	95.2	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Kjeldahl Nitrogen, TKN	3.74	3.54	94.7	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Kjeldahl Nitrogen, TKN by Method 351.2** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/6/2009 9:37:00 PM
Instrument ID: LACHAT4
Analyst: 143
Analytic Batch: WG429456 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Kjeldahl Nitrogen, TKN	3.74	3.56	95.2	3.54	94.7	85-115		0.6	20	

Sample Duplicate

L410595-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Kjeldahl Nitrogen, TKN	1.00	0.802	22	20	R8

Sample Duplicate

L409101-19

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Kjeldahl Nitrogen, TKN	0.260	0.242	7.2	20	

Matrix Spike/Matrix Spike Duplicate

L410085-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Kjeldahl Nitrogen, TKN	5.00	0.610	5.99	108	6.15	111	80-120		2.6	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **MBAS by Method 5540C** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/2/2009 5:08:00 PM

Instrument ID: HACH 4000

Analyst: 476

Analytic Batch: WG429431 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
MBAS		<0.100

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
MBAS	1.00	1.04	104	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
MBAS	1.00	1.05	105	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **MBAS by Method 5540C** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/2/2009 5:08:00 PM

Instrument ID: HACH 4000

Analyst: 476

Analytic Batch: WG429431 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
MBAS	1.00	1.04	104	1.05	105	85-115		1.0	20	

Sample Duplicate

L410328-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
MBAS	0.0000	0.0000			

Sample Duplicate

L410431-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
MBAS	0.580	0.591	1.9	20	

Matrix Spike/Matrix Spike Duplicate

L410149-03

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
MBAS	1.00	0.150	1.08	93.0	1.08	93.0	80-120		0.0	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **MBAS by Method 5540C** L410136

Matrix: Water - mg/L units

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/2/2009 5:08:00 PM

Instrument ID: HACH 4000

Analytic Batch: WG429431

Method Blank Summary

Client Sample ID	Laboratory Sample ID	Lab Filename	Instrument	Date Analyzed	Time Analyzed
Blank WG429431	Blank WG429431		HACH 4000	7/2/2009	5:05 PM
LCS WG429431	LCS WG429431		HACH 4000	7/2/2009	5:06 PM
LCSD WG429431	LCSD WG429431		HACH 4000	7/2/2009	5:06 PM
GR ADOT 2	L410136-01		HACH 4000	7/2/2009	5:08 PM
MS WG429431	MS WG429431		HACH 4000	7/2/2009	5:09 PM
MSD WG429431	MSD WG429431		HACH 4000	7/2/2009	5:09 PM
DUP WG429431	DUP WG429431		HACH 4000	7/2/2009	5:11 PM
DUP WG429431	DUP WG429431		HACH 4000	7/2/2009	5:13 PM

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **MBAS by Method 5540C** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/1/2009

Analysis Date: 7/2/2009 5:08:00 PM

Instrument ID: HACH 4000

Analyst: 476

Analytic Batch: WG429431 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
MBAS	1.00	1.04	104	1.05	105	85-115		1.0	20	

Sample Duplicate

L410328-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
MBAS	0.0000	0.0000			

Sample Duplicate

L410431-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
MBAS	0.580	0.591	1.9	20	

Matrix Spike/Matrix Spike Duplicate

L410149-03

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
MBAS	1.00	0.150	1.08	93.0	1.08	93.0	80-120		0.0	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Oil & Grease (Hexane Extr) by Method 1664A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/6/2009
Analysis Date: 7/6/2009 8:28:00 AM
Instrument ID: BAL
Analyst: 078
Analytic Batch: WG429997 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Oil & Grease (Hexane Extr)		<5.00

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Oil & Grease (Hexane Extr)	40.0	33.0	82.5	78 - 114	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Oil & Grease (Hexane Extr)	40.0	32.0	80.0	78 - 114	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Oil & Grease (Hexane Extr) by Method 1664A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/6/2009
Analysis Date: 7/6/2009 8:28:00 AM
Instrument ID: BAL
Analyst: 078
Analytic Batch: WG429997 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Oil & Grease (Hexane	40.0	33.0	82.5	32.0	80.0	78-114		3.1	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Phosphate,Ortho by Method 4500P-E** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 5:32:00 PM
Instrument ID: HACH 4000
Analyst: 476
Analytic Batch: WG429432 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Phosphate,Ortho		<0.0250

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphate,Ortho	0.750	0.735	98.0	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphate,Ortho	0.750	0.722	96.3	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Phosphate,Ortho by Method 4500P-E** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 5:32:00 PM
Instrument ID: HACH 4000
Analyst: 476
Analytic Batch: WG429432 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Qualifier	RPD	Control Limits	Qualifier
Phosphate,Ortho	0.750	0.735	98.0	0.722	96.3	85-115		1.8	20	

Sample Duplicate

L410153-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Phosphate,Ortho	6.20	5.50	12	20	

Matrix Spike/Matrix Spike Duplicate

L410136-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Qualifier	RPD	Control Limits	Qualifier
Phosphate,Ortho	2.50	0.0000	2.62	105	2.71	108	80-120		3.4	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Phosphorus,Total by Method 365.1** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/6/2009 10:11:00 AM
Instrument ID: LACHAT2
Analyst: 236
Analytic Batch: WG429461 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Phosphorus,Total		<0.100

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphorus,Total	1.00	1.05	105	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Phosphorus,Total	1.00	1.02	102	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Phosphorus,Total by Method 365.1** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/6/2009 10:11:00 AM
Instrument ID: LACHAT2
Analyst: 236
Analytic Batch: WG429461 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Phosphorus,Total	1.00	1.05	105	1.02	102	85-115		2.9	20	

Sample Duplicate

L410077-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Phosphorus,Total	0.470	0.469	0.2	20	

Sample Duplicate

L410260-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Phosphorus,Total	1.20	1.14	5.1	20	

Matrix Spike/Matrix Spike Duplicate

L410078-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Phosphorus,Total	2.50	0.320	2.68	94.4	2.78	98.4	80-120		3.7	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Specific Conductance by Method 9050A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009 3:22:00 PM
Instrument ID: ORION170
Analyst: 397
Analytic Batch: WG429485 EPA ID: TN00003

Method Blank

Analyte	CAS	Results
Specific Conductance		**2.70**

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Specific Conductance	589	510	86.6	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Specific Conductance	589	510	86.6	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Specific Conductance by Method 9050A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009 3:22:00 PM
Instrument ID: ORION170
Analyst: 397
Analytic Batch: WG429485 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Specific Conductance	589	510	86.6	510	86.6	85-115		0.0	20	

Sample Duplicate

L410098-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Specific Conductance	1400	1380	1.6	20	

Sample Duplicate

L410166-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Specific Conductance	920	933	1.4	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Suspended Solids by Method 2540D** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009 1:01:00 PM
Instrument ID: BAL
Analyst: 479
Analytic Batch: WG429504 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Suspended Solids		<1.00

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	780	772	99.0	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	780	776	99.5	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Suspended Solids by Method 2540D** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009 1:01:00 PM
Instrument ID: BAL
Analyst: 479
Analytic Batch: WG429504 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Suspended Solids	780	772	99.0	776	99.5	85-115		0.5	20	

Sample Duplicate

L410252-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Suspended Solids	330	329	0.3	5	

Sample Duplicate

L410099-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Suspended Solids	130	132	1.5	5	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Mercury by Method 7470A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 10:32:00 PM
Instrument ID: CVAA3
Analyst: 261
Analytic Batch: WG429402 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Mercury		<0.0002

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Mercury	0.0030	0.0029	95.7	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Mercury by Method 7470A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/1/2009 10:32:00 PM
Instrument ID: CVAA3
Analyst: 261
Analytic Batch: WG429402 EPA ID: TN00003

Sample Duplicate

L410116-11

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Mercury	0.0000	0.0000			

Matrix Spike/Matrix Spike Duplicate

L410116-11

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Mercury	0.0030	0.0000	0.0029	98.0	0.0030	99.0	70-130		1.0	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 6010B** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/4/2009
Analysis Date: 7/6/2009
Instrument ID: ICP6
Analyst: 438
Analytic Batch: WG429949 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Barium	7440-39-3	<0.00500
Beryllium	7440-41-7	<0.00200
Cadmium	7440-43-9	<0.00500
Calcium	7440-70-2	<0.500
Chromium	7440-47-3	<0.0100
Copper	7440-50-8	<0.0200
Lead	7439-92-1	<0.00500
Nickel	7440-02-0	<0.0200
Selenium	7782-49-2	<0.0200
Silver	7440-22-4	<0.0100
Sodium	7440-23-5	<0.500
Zinc	7440-66-6	<0.0300

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 6010B** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/4/2009
Analysis Date: 7/6/2009
Instrument ID: ICP6
Analyst: 438
Analytic Batch: WG429949 EPA ID: TN00003

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Barium	1.13	1.13	100	85 - 115	
Beryllium	1.13	1.12	99.1	85 - 115	
Cadmium	1.13	1.14	101	85 - 115	
Calcium	11.3	11.3	100	85 - 115	
Chromium	1.13	1.10	97.3	85 - 115	
Copper	1.13	1.09	96.5	85 - 115	
Lead	1.13	1.14	101	85 - 115	
Nickel	1.13	1.13	100	85 - 115	
Selenium	1.13	1.11	98.2	85 - 115	
Silver	1.13	1.07	94.7	85 - 115	
Sodium	11.3	11.2	99.1	85 - 115	
Zinc	1.13	1.09	96.5	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 6010B** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/4/2009
Analysis Date: 7/6/2009
Instrument ID: ICP6
Analyst: 438
Analytic Batch: WG429949 EPA ID: TN00003

Sample Duplicate

L410139-08

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Barium	0.200	0.203	1.5	20	
Beryllium	0.00000	0.00064			
Cadmium	0.00000	0.00117			
Calcium	10.9	11.0	0.9	20	
Chromium	0.00000	0.00000			
Copper	0.00000	0.0481			
Lead	0.00000	0.00000			
Nickel	0.00000	0.00000			
Selenium	0.0285	0.00980	98	20	R8
Silver	0.00000	0.00320			
Sodium	17.6	18.0	2.2	20	
Zinc	0.0369	0.0533	36	20	R8

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 6010B** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/4/2009
Analysis Date: 7/6/2009
Instrument ID: ICP6
Analyst: 438
Analytic Batch: WG429949 EPA ID: TN00003

Matrix Spike/Matrix Spike Duplicate

L410139-08

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Barium	1.13	0.203	1.34	101	1.36	102	75-125		1.5	20	
Beryllium	1.13	0.00000	1.12	99.1	1.13	100	75-125		0.9	20	
Cadmium	1.13	0.00000	1.16	103	1.18	104	75-125		1.7	20	
Calcium	11.3	11.0	22.4	101	22.5	102	75-125		0.4	20	
Chromium	1.13	0.00000	1.10	97.3	1.09	96.5	75-125		0.9	20	
Copper	1.13	0.0481	1.14	96.6	1.16	98.4	75-125		1.7	20	
Lead	1.13	0.00000	1.14	101	1.13	100	75-125		0.9	20	
Nickel	1.13	0.00000	1.13	100	1.13	100	75-125		0.0	20	
Selenium	1.13	0.00980	1.11	97.4	1.11	97.4	75-125		0.0	20	
Silver	1.13	0.00000	0.179	15.8	0.183	16.2	75-125	M2	2.2	20	
Sodium	11.3	18.0	29.4	101	28.1	89.4	75-125		4.5	20	
Zinc	1.13	0.0533	1.17	98.8	1.18	99.7	75-125		0.9	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 6020** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/3/2009
Analysis Date: 7/9/2009
Instrument ID: ICPMS4
Analyst: 338
Analytic Batch: WG429915 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Antimony	7440-36-0	<0.00100
Arsenic	7440-38-2	<0.00100
Thallium	7440-28-0	<0.00100

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Antimony	0.0567	0.0525	92.6	85 - 115	
Arsenic	0.0567	0.0545	96.1	85 - 115	
Thallium	0.0567	0.0546	96.3	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 6020** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Number: L410136-01

Sample Date: 6/30/2009

Extraction Date: 7/3/2009

Analysis Date: 7/9/2009

Instrument ID: ICPMS4

Analyst: 338

Analytic Batch: WG429915 EPA ID: TN00003

Sample Duplicate

L410139-05

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Antimony	0.0000000	0.000950			
Arsenic	0.000650	0.000590	9.7	20	
Thallium	0.0000000	0.000440			

Matrix Spike/Matrix Spike Duplicate

L410139-05

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Antimony	0.0567	0.00095	0.0529	91.6	0.0558	96.7	75-125		5.3	20	
Arsenic	0.0567	0.00059	0.0551	96.1	0.0568	99.1	75-125		3.0	20	
Thallium	0.0567	0.00044	0.0551	96.4	0.0580	102	75-125		5.1	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Method 8021B** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: VOCGC14
Analyst: 241
Analytic Batch: WG429527 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Benzene	71-43-2	<0.0005
Toluene	108-88-3	<0.0050
Ethylbenzene	100-41-4	<0.0005
m&p-Xylene	1330-20-7	<0.0015
o-Xylene	1330-20-7	<0.0015

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Benzene	0.0500	0.0415	83.0	79 - 114	
Toluene	0.0500	0.0427	85.5	79 - 112	
Ethylbenzene	0.0500	0.0410	81.9	80 - 116	
m&p-Xylene	0.100	0.0891	89.1	85 - 120	
o-Xylene	0.0500	0.0433	86.7	82 - 116	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Benzene	0.0500	0.0465	93.0	79 - 114	
Toluene	0.0500	0.0476	95.2	79 - 112	
Ethylbenzene	0.0500	0.0460	92.0	80 - 116	
m&p-Xylene	0.100	0.0997	99.7	85 - 120	
o-Xylene	0.0500	0.0486	97.2	82 - 116	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Method 8021B** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: VOCGC14
Analyst: 241
Analytic Batch: WG429527 EPA ID: TN00003

Surrogate Summary

Laboratory Sample ID	a,a,a-Trifluorotoluene - FID ppb	% Rec		a,a,a-Trifluorotoluene - PID ppb		% Rec
LCS WG429527	95.1	95.1		100		100
LCSD WG429527	96.4	96.4		101		101
LCS WG429527	120	120		138	*	138
LCSD WG429527	119	119		137	*	137
Blank WG429527	96.8	96.8		104		104
MS WG429527	95.1	95.1		100		100
MSD WG429527	95.7	95.7		101		101
MS WG429527	115	115		131	*	131
MSD WG429527	116	116		134	*	134
L410136-01	98.0	98.0		112		112

a,a,a-Trifluorotoluene (FID) 200 ppb Limits - 62 - 128
a,a,a-Trifluorotoluene (PID) 200 ppb Limits - 55 - 122

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Method 8021B** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: VOCGC14
Analyst: 241
Analytic Batch: WG429527 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Qualifier RPD	Control Limits	Qualifier
Benzene	0.0500	0.0415	83.0	0.0465	93.0	79-114	11	20	
Toluene	0.0500	0.0427	85.5	0.0476	95.2	79-112	11	20	
Ethylbenzene	0.0500	0.0410	81.9	0.0460	92.0	80-116	12	20	
m&p-Xylene	0.100	0.0891	89.1	0.0997	99.7	85-120	11	20	
o-Xylene	0.0500	0.0433	86.7	0.0486	97.2	82-116	11	20	

Matrix Spike/Matrix Spike Duplicate

L410210-09

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Qualifier RPD	Control Limits	Qualifier
Benzene	0.0500	0.0000	0.0432	86.3	0.0445	88.9	35-147	3.0	20	
Toluene	0.0500	0.0000	0.0448	89.6	0.0456	91.1	35-148	1.7	20	
Ethylbenzene	0.0500	0.0000	0.0433	86.6	0.0437	87.4	39-141	1.0	20	
m&p-Xylene	0.100	0.0000	0.0936	93.6	0.0944	94.4	26-157	0.9	20	
o-Xylene	0.0500	0.0000	0.0455	91.1	0.0459	91.7	40-145	0.8	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Method 8021B** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: VOCGC14
Analyst: 241
Analytic Batch: WG429527 EPA ID: TN00003

Internal Standard Response and Retention Time Summary

FileID:0701_03.D Date:7/1/2009 Time:5:21 PM

	IS - FID		IS - PID	
	Response	RT	Response	RT
12 Hour Std	290820525	4.09	556907516	4.09
Upper Limit	581641050	4.59	1113815032	4.59
Lower Limit	145410262.	3.59	278453758	3.59

Sample ID	Response	RT	Response	RT
Blank WG429527	260808875	4.09	484900342	4.09
LCS WG429527	283670132	4.09	556491936	4.09
LCS WG429527	285431800	4.09	558634447	4.09
LCSD WG429527	256874424	4.09	499431961	4.09
LCSD WG429527	295940900	4.09	564174138	4.09
MS WG429527	272817097	4.09	527461991	4.09
MS WG429527	311488256	4.09	590806318	4.09
MSD WG429527	263680499	4.09	510001412	4.09
MSD WG429527	303708542	4.09	571588535	4.09

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Method 8021B** L410136
Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Analysis Date: 7/1/2009
Instrument ID: VOCGC14
Analyst: 241
Analytic Batch: WG429527 EPA ID: TN00003

Internal Standard Response and Retention Time Summary

FileID:0701_26.D Date:7/2/2009 Time:4:11 AM

	IS - FID		IS - PID	
	Response	RT	Response	RT
12 Hour Std	298975929	4.09	565851243	4.09
Upper Limit	597951858	4.59	1131702486	4.59
Lower Limit	149487964.	3.59	282925621.	3.59

Sample ID	Response	RT	Response	RT
L410136-01	289232862	4.09	538859118	4.09

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Diesel Range Organics by Method 8015** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009
Instrument ID: SVGC7
Analyst: 267
Analytic Batch: WG429554 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Diesel Range Organics		<0.10

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.33	88.7	50 - 150	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.36	90.5	50 - 150	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Diesel Range Organics by Method 8015** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009
Instrument ID: SVGC7
Analyst: 267
Analytic Batch: WG429554 EPA ID: TN00003

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG429554	0.0186	93.1
LCS WG429554	0.0204	102
LCSD WG429554	0.0192	95.8
L410136-01	S8	S8

o-terphenyl Limits - 50 - 150

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Diesel Range Organics by Method 8015** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/1/2009
Analysis Date: 7/2/2009
Instrument ID: SVGC7
Analyst: 267
Analytic Batch: WG429554 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Diesel Range Organics	1.50	1.33	88.7	1.36	90.5	50-150		1.9	25	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009
Instrument ID: BNAMS11
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
n-Nitrosodimethylamine	62-75-9	<0.0500
Bis(2-chloroethyl)ether	111-44-4	<0.0100
Phenol	108-95-2	<0.0100
2-Chlorophenol	95-57-8	<0.0100
Bis(2-chloroisopropyl)ether	108-60-1	<0.0100
Hexachloroethane	67-72-1	<0.0100
n-Nitrosodi-n-propylamine	621-64-7	<0.0100
Nitrobenzene	98-95-3	<0.0100
Isophorone	78-59-1	<0.0100
2-Nitrophenol	88-75-5	<0.0100
2,4-Dimethylphenol	105-67-9	<0.0100
Bis(2-chlorethoxy)methane	111-91-1	<0.0100
2,4-Dichlorophenol	120-83-2	<0.0100
1,2,4-Trichlorobenzene	120-82-1	<0.0100
Naphthalene	91-20-3	<0.0100
Hexachloro-1,3-butadiene	87-68-3	<0.0100
4-Chloro-3-methylphenol	59-50-7	<0.0100
Hexachlorocyclopentadiene	77-47-4	<0.0100
2,4,6-Trichlorophenol	88-06-2	<0.0100
2-Chloronaphthalene	91-58-7	<0.0100
Acenaphthylene	208-96-8	<0.0100
Dimethyl phthalate	131-11-3	<0.0100
2,6-Dinitrotoluene	606-20-2	<0.0100
Acenaphthene	83-32-9	<0.0100
2,4-Dinitrophenol	51-28-5	<0.0100
2,4-Dinitrotoluene	121-14-2	<0.0100
4-Nitrophenol	100-02-7	<0.0100
Fluorene	86-73-7	<0.0100
4-Chlorophenyl-phenylether	7005-72-3	<0.0100
Diethyl phthalate	84-66-2	<0.0100
4,6-Dinitro-2-methylphenol	534-52-1	<0.0100
n-Nitrosodiphenylamine	86-30-6	<0.0100
4-Bromophenyl-phenylether	101-55-3	<0.0100
Hexachlorobenzene	118-74-1	<0.0100
Pentachlorophenol	87-86-5	<0.0100

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009
Instrument ID: BNAMS11
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Phenanthrene	85-01-8	<0.0100
Anthracene	120-12-7	<0.0100
Di-n-butyl phthalate	84-74-2	<0.0100
Fluoranthene	206-44-0	<0.0100
Benzidine	92-87-5	<0.0500
Pyrene	129-00-0	<0.0100
Benzylbutyl phthalate	85-68-7	<0.0100
3,3-Dichlorobenzidine	91-94-1	<0.0100
Benzo(a)anthracene	56-55-3	<0.0100
Chrysene	218-01-9	<0.0100
Bis(2-ethylhexyl)phthalate	117-81-7	<0.0100
Di-n-octyl phthalate	117-84-0	<0.0100
Benzo(b)fluoranthene	205-99-2	<0.0100
Benzo(k)fluoranthene	207-08-9	<0.0100
Benzo(a)pyrene	50-32-8	<0.0100
Indeno(1,2,3-cd)pyrene	193-39-5	<0.0100
Dibenz(a,h)anthracene	53-70-3	<0.0100
Benzo(g,h,i)perylene	191-24-2	<0.0100

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,2,4-Trichlorobenzene	0.0100	0.00593	59.3	26 - 103	
2,4,6-Trichlorophenol	0.0100	0.00645	64.5	49 - 118	
2,4-Dichlorophenol	0.0100	0.00691	69.1	46 - 115	
2,4-Dimethylphenol	0.0100	0.0117	117	40 - 124	
2,4-Dinitrophenol	0.0100	0.00626	62.6	10 - 125	
2,4-Dinitrotoluene	0.0100	0.00711	71.1	56 - 128	
2,6-Dinitrotoluene	0.0100	0.00643	64.3	56 - 121	
2-Chloronaphthalene	0.0100	0.00610	61.0	44 - 110	
2-Chlorophenol	0.0100	0.00593	59.3	38 - 114	
2-Nitrophenol	0.0100	0.00669	66.9	35 - 118	
3,3-Dichlorobenzidine	0.0100	0.00961	96.1	46 - 145	
4,6-Dinitro-2-methylphenol	0.0100	0.00594	59.4	24 - 119	
4-Bromophenyl-phenylether	0.0100	0.00751	75.1	45 - 105	
4-Chloro-3-methylphenol	0.0100	0.00740	74.0	47 - 116	
4-Chlorophenyl-phenylether	0.0100	0.00720	72.0	49 - 116	
4-Nitrophenol	0.0100	0.00280	28.0	10 - 66	
Acenaphthene	0.0100	0.00662	66.2	48 - 110	
Acenaphthylene	0.0100	0.00673	67.3	48 - 113	
Anthracene	0.0100	0.00838	83.8	55 - 127	
Benzidine	0.0100	0.00113	11.3	0 - 46	
Benzo(a)anthracene	0.0100	0.00838	83.8	57 - 115	
Benzo(a)pyrene	0.0100	0.00799	79.9	63 - 125	
Benzo(b)fluoranthene	0.0100	0.00749	74.9	50 - 123	
Benzo(g,h,i)perylene	0.0100	0.0112	112	39 - 143	
Benzo(k)fluoranthene	0.0100	0.00750	75.0	45 - 126	
Benzylbutyl phthalate	0.0100	0.00421	42.1	22 - 154	
Bis(2-chlorethoxy)methane	0.0100	0.00795	79.5	42 - 116	
Bis(2-chloroethyl)ether	0.0100	0.00690	69.0	26 - 115	
Bis(2-chloroisopropyl)ether	0.0100	0.00671	67.1	32 - 115	
Bis(2-ethylhexyl)phthalate	0.0100	0.0107	107	47 - 143	
Chrysene	0.0100	0.00762	76.2	58 - 113	
Dibenz(a,h)anthracene	0.0100	0.0100	100	39 - 144	
Diethyl phthalate	0.0100	0.00412	41.2	36 - 128	
Dimethyl phthalate	0.0100	0.00187	18.7	10 - 135	
Di-n-butyl phthalate	0.0100	0.00815	81.5	51 - 131	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Di-n-octyl phthalate	0.0100	0.0110	110	51 - 138	
Fluoranthene	0.0100	0.00870	87.0	53 - 119	
Fluorene	0.0100	0.00669	66.9	49 - 116	
Hexachloro-1,3-butadiene	0.0100	0.00606	60.6	21 - 116	
Hexachlorobenzene	0.0100	0.00869	86.9	51 - 121	
Hexachlorocyclopentadiene	0.0100	0.00387	38.7	4 - 126	
Hexachloroethane	0.0100	0.00569	56.9	15 - 109	
Indeno(1,2,3-cd)pyrene	0.0100	0.0104	104	40 - 143	
Isophorone	0.0100	0.00732	73.2	48 - 126	
Naphthalene	0.0100	0.00634	63.4	29 - 103	
Nitrobenzene	0.0100	0.00627	62.7	31 - 105	
n-Nitrosodimethylamine	0.0100	0.00561	56.1	11 - 69	
n-Nitrosodi-n-propylamine	0.0100	0.00832	83.2	47 - 122	
n-Nitrosodiphenylamine	0.0100	0.00849	84.9	59 - 143	
Pentachlorophenol	0.0100	0.00676	67.6	20 - 122	
Phenanthrene	0.0100	0.00732	73.2	54 - 112	
Phenol	0.0100	0.00244	24.4	17 - 52	
Pyrene	0.0100	0.00713	71.3	46 - 130	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
1,2,4-Trichlorobenzene	0.0100	0.00558	55.8	26 - 103	
2,4,6-Trichlorophenol	0.0100	0.00590	59.0	49 - 118	
2,4-Dichlorophenol	0.0100	0.00688	68.8	46 - 115	
2,4-Dimethylphenol	0.0100	0.0116	116	40 - 124	
2,4-Dinitrophenol	0.0100	0.00739	73.9	10 - 125	
2,4-Dinitrotoluene	0.0100	0.00660	66.0	56 - 128	
2,6-Dinitrotoluene	0.0100	0.00627	62.7	56 - 121	
2-Chloronaphthalene	0.0100	0.00511	51.1	44 - 110	
2-Chlorophenol	0.0100	0.00520	52.0	38 - 114	
2-Nitrophenol	0.0100	0.00670	67.0	35 - 118	
3,3-Dichlorobenzidine	0.0100	0.00950	95.0	46 - 145	
4,6-Dinitro-2-methylphenol	0.0100	0.00647	64.7	24 - 119	
4-Bromophenyl-phenylether	0.0100	0.00660	66.0	45 - 105	
4-Chloro-3-methylphenol	0.0100	0.00751	75.1	47 - 116	
4-Chlorophenyl-phenylether	0.0100	0.00623	62.3	49 - 116	
4-Nitrophenol	0.0100	0.00299	29.9	10 - 66	
Acenaphthene	0.0100	0.00557	55.7	48 - 110	
Acenaphthylene	0.0100	0.00596	59.6	48 - 113	
Anthracene	0.0100	0.00780	78.0	55 - 127	
Benzidine	0.0100	0.000942	9.4	0 - 46	
Benzo(a)anthracene	0.0100	0.00791	79.1	57 - 115	
Benzo(a)pyrene	0.0100	0.00824	82.4	63 - 125	
Benzo(b)fluoranthene	0.0100	0.00760	76.0	50 - 123	
Benzo(g,h,i)perylene	0.0100	0.0103	103	39 - 143	
Benzo(k)fluoranthene	0.0100	0.00728	72.8	45 - 126	
Benzylbutyl phthalate	0.0100	0.00600	60.0	22 - 154	
Bis(2-chlorethoxy)methane	0.0100	0.00789	78.9	42 - 116	
Bis(2-chloroethyl)ether	0.0100	0.00617	61.7	26 - 115	
Bis(2-chloroisopropyl)ether	0.0100	0.00633	63.3	32 - 115	
Bis(2-ethylhexyl)phthalate	0.0100	0.0109	109	47 - 143	
Chrysene	0.0100	0.00796	79.6	58 - 113	
Dibenz(a,h)anthracene	0.0100	0.00994	99.4	39 - 144	
Diethyl phthalate	0.0100	0.00458	45.8	36 - 128	
Dimethyl phthalate	0.0100	0.00280	28.0	10 - 135	
Di-n-butyl phthalate	0.0100	0.00786	78.6	51 - 131	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Di-n-octyl phthalate	0.0100	0.0109	109	51 - 138	
Fluoranthene	0.0100	0.00773	77.3	53 - 119	
Fluorene	0.0100	0.00607	60.7	49 - 116	
Hexachloro-1,3-butadiene	0.0100	0.00587	58.7	21 - 116	
Hexachlorobenzene	0.0100	0.00793	79.3	51 - 121	
Hexachlorocyclopentadiene	0.0100	0.00315	31.5	4 - 126	
Hexachloroethane	0.0100	0.00509	50.9	15 - 109	
Indeno(1,2,3-cd)pyrene	0.0100	0.00999	99.9	40 - 143	
Isophorone	0.0100	0.00734	73.4	48 - 126	
Naphthalene	0.0100	0.00622	62.2	29 - 103	
Nitrobenzene	0.0100	0.00580	58.0	31 - 105	
n-Nitrosodimethylamine	0.0100	0.00488	48.8	11 - 69	
n-Nitrosodi-n-propylamine	0.0100	0.00775	77.5	47 - 122	
n-Nitrosodiphenylamine	0.0100	0.00757	75.7	59 - 143	
Pentachlorophenol	0.0100	0.00662	66.2	20 - 122	
Phenanthrene	0.0100	0.00639	63.9	54 - 112	
Phenol	0.0100	0.00227	22.7	17 - 52	
Pyrene	0.0100	0.00769	76.9	46 - 130	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009
Instrument ID: BNAMS11
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Surrogate Summary

Laboratory	NBZ		FBP		TPH		2FP		PHL		TBP	
Sample ID	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec	ppb	% Rec
LCS WG429990	7480	74.8	7370	73.7	10200	102	9100	45.5	5430	27.1	21100	105
LCSD WG429990	6280	62.8	6210	62.1	10100	101	8030	40.1	5300	26.5	19300	96.4
Blank WG429990	6420	64.2	7730	77.3	10300	103	8540	42.7	5080	25.4	21100	105
MS WG429990	7390	73.9	7100	71.0	9980	99.8	8320	41.6	4820	24.1	19300	96.6
MSD WG429990	5890	58.9	7100	71.0	8640	86.4	7710	38.5	4500	22.5	20000	99.8
L410136-01	6440	64.4	5210	52.1	6000	60.0	10900	54.3	9280	46.4	18300	91.4

NBZ - Nitrobenzene-d5	12-120
FBP - 2-Fluorobiphenyl	26-122
TPH - Terphneyl-d14	34-149
2FP - 2-Fluorophenol	10-87
PHL - Phenol-d5	10-67
TBP - 2,4,6-Tribromophenol	10-148

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Matrix Spike/Matrix Spike Duplicate

L410769-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
1,2,4-Trichlorobenzene	0.0100	0.00000	0.00572	57.2	0.00556	55.6	18-105		2.9	50	
2,4,6-Trichlorophenol	0.0100	0.00000	0.00606	60.6	0.00633	63.3	10-137		4.4	42	
2,4-Dichlorophenol	0.0100	0.00000	0.00611	61.1	0.00635	63.5	10-133		3.9	50	
2,4-Dimethylphenol	0.0100	0.00000	0.00965	96.5	0.00867	86.7	10-142		11	36	
2,4-Dinitrophenol	0.0100	0.00000	0.00644	64.4	0.00596	59.6	10-150		7.7	50	
2,4-Dinitrotoluene	0.0100	0.00000	0.00621	62.1	0.00719	71.9	32-137		15	36	
2,6-Dinitrotoluene	0.0100	0.00000	0.00616	61.6	0.00683	68.3	35-123		10	37	
2-Chloronaphthalene	0.0100	0.00000	0.00629	62.9	0.00615	61.5	33-109		2.2	39	
2-Chlorophenol	0.0100	0.00000	0.00542	54.2	0.00500	50.0	10-155		8.1	50	
2-Nitrophenol	0.0100	0.00000	0.00581	58.1	0.00623	62.3	12-121		7.1	48	
3,3-Dichlorobenzidine	0.0100	0.00000	0.00801	80.1	0.00887	88.7	10-135		10	40	
4,6-Dinitro-2-methylphenol	0.0100	0.00000	0.00480	48.0	0.00511	51.1	0-138		6.3	50	
4-Bromophenyl-phenylether	0.0100	0.00000	0.00730	73.0	0.00715	71.5	35-102		2.1	23	
4-Chloro-3-methylphenol	0.0100	0.00000	0.00656	65.6	0.00671	67.1	10-136		2.3	29	
4-Chlorophenyl-phenylether	0.0100	0.00000	0.00646	64.6	0.00759	75.9	39-116		16	32	
4-Nitrophenol	0.0100	0.00000	0.00298	29.8	0.00279	27.9	13-59		6.3	50	
Acenaphthene	0.0100	0.00000	0.00619	61.9	0.00648	64.8	39-112		4.5	37	
Acenaphthylene	0.0100	0.00000	0.00664	66.4	0.00707	70.7	37-114		6.3	35	
Anthracene	0.0100	0.00000	0.00766	76.6	0.00809	80.9	44-136		5.5	24	
Benzidine	0.0100	0.00000	0.00010	1.0	0.00011	1.2	0-25		13	50	
Benzo(a)anthracene	0.0100	0.00000	0.00788	78.8	0.00862	86.2	43-117		8.9	25	
Benzo(a)pyrene	0.0100	0.00000	0.00705	70.5	0.00780	78.0	33-137		10.0	34	
Benzo(b)fluoranthene	0.0100	0.00000	0.00715	71.5	0.00784	78.4	35-128		9.2	50	
Benzo(g,h,i)perylene	0.0100	0.00000	0.00838	83.8	0.00884	88.4	10-139		5.4	50	
Benzo(k)fluoranthene	0.0100	0.00000	0.00573	57.3	0.00660	66.0	36-119		14	40	
Benzylbutyl phthalate	0.0100	0.00000	0.00700	70.0	0.00950	95.0	47-121		30	28	R5
Bis(2-chlorethoxy)methane	0.0100	0.00000	0.00737	73.7	0.00774	77.4	21-135		4.9	39	
Bis(2-chloroethyl)ether	0.0100	0.00000	0.00663	66.3	0.00652	65.2	10-134		1.7	50	
Bis(2-chloroisopropyl)ether	0.0100	0.00000	0.00661	66.1	0.00704	70.4	14-124		6.2	40	
Bis(2-ethylhexyl)phthalate	0.0100	0.00000	0.00759	75.9	0.00804	80.4	10-115		5.8	33	
Chrysene	0.0100	0.00000	0.00739	73.9	0.00779	77.9	41-117		5.2	24	
Dibenz(a,h)anthracene	0.0100	0.00000	0.00811	81.1	0.00842	84.2	10-145		3.7	50	
Diethyl phthalate	0.0100	0.00000	0.00625	62.5	0.00774	77.4	23-132		21	35	
Dimethyl phthalate	0.0100	0.00000	0.00524	52.4	0.00707	70.7	42-107		30	27	R5
Di-n-butyl phthalate	0.0100	0.00000	0.00909	90.9	0.0101	101	46-121		11	27	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Matrix Spike/Matrix Spike Duplicate

L410769-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Di-n-octyl phthalate	0.0100	0.00000	0.00792	79.2	0.00812	81.2	22-109		2.5	31	
Fluoranthene	0.0100	0.00000	0.00803	80.3	0.00833	83.3	36-130		3.6	27	
Fluorene	0.0100	0.00000	0.00618	61.8	0.00711	71.1	37-120		14	30	
Hexachloro-1,3-butadiene	0.0100	0.00000	0.00566	56.6	0.00588	58.8	16-118		3.9	50	
Hexachlorobenzene	0.0100	0.00000	0.00798	79.8	0.00858	85.8	41-114		7.3	28	
Hexachlorocyclopentadiene	0.0100	0.00000	0.00181	18.1	0.00181	18.1	0-132		0.3	50	
Hexachloroethane	0.0100	0.00000	0.00583	58.3	0.00553	55.3	10-125		5.2	50	
Indeno(1,2,3-cd)pyrene	0.0100	0.00000	0.00827	82.7	0.00878	87.8	10-138		6.0	50	
Isophorone	0.0100	0.00000	0.00673	67.3	0.00639	63.9	32-131		5.3	38	
Naphthalene	0.0100	0.00000	0.00619	61.9	0.00626	62.6	14-114		1.2	50	
Nitrobenzene	0.0100	0.00000	0.00580	58.0	0.00593	59.3	14-122		2.3	46	
n-Nitrosodimethylamine	0.0100	0.00000	0.00508	50.8	0.00500	50.0	0-75		1.4	50	
n-Nitrosodi-n-propylamine	0.0100	0.00000	0.00784	78.4	0.00764	76.4	20-145		2.6	43	
n-Nitrosodiphenylamine	0.0100	0.00000	0.00828	82.8	0.00847	84.7	10-171		2.3	34	
Pentachlorophenol	0.0100	0.00000	0.00650	65.0	0.00589	58.9	0-137		9.8	50	
Phenanthrene	0.0100	0.00000	0.00741	74.1	0.00742	74.2	38-121		0.2	26	
Phenol	0.0100	0.00000	0.00249	24.9	0.00226	22.6	10-68		9.7	32	
Pyrene	0.0100	0.00000	0.00685	68.5	0.00734	73.4	27-136		6.8	33	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
1,2,4-Trichlorobenzene	0.0100	0.00593	59.3	0.00558	55.8	26-103		6.1	38	
2,4,6-Trichlorophenol	0.0100	0.00645	64.5	0.00590	59.0	49-118		9.0	28	
2,4-Dichlorophenol	0.0100	0.00691	69.1	0.00688	68.8	46-115		0.4	28	
2,4-Dimethylphenol	0.0100	0.0117	117	0.0116	116	40-124		0.4	36	
2,4-Dinitrophenol	0.0100	0.00626	62.6	0.00739	73.9	10-125		16	50	
2,4-Dinitrotoluene	0.0100	0.00711	71.1	0.00660	66.0	56-128		7.6	24	
2,6-Dinitrotoluene	0.0100	0.00643	64.3	0.00627	62.7	56-121		2.6	23	
2-Chloronaphthalene	0.0100	0.00610	61.0	0.00511	51.1	44-110		18	30	
2-Chlorophenol	0.0100	0.00593	59.3	0.00520	52.0	38-114		13	36	
2-Nitrophenol	0.0100	0.00669	66.9	0.00670	67.0	35-118		0.2	35	
3,3-Dichlorobenzidine	0.0100	0.00961	96.1	0.00950	95.0	46-145		1.2	31	
4,6-Dinitro-2-methylphenol	0.0100	0.00594	59.4	0.00647	64.7	24-119		8.6	50	
4-Bromophenyl-phenylether	0.0100	0.00751	75.1	0.00660	66.0	45-105		13	26	
4-Chloro-3-methylphenol	0.0100	0.00740	74.0	0.00751	75.1	47-116		1.5	22	
4-Chlorophenyl-phenylether	0.0100	0.00720	72.0	0.00623	62.3	49-116		14	26	
4-Nitrophenol	0.0100	0.00280	28.0	0.00299	29.9	10-66		6.4	37	
Acenaphthene	0.0100	0.00662	66.2	0.00557	55.7	48-110		17	26	
Acenaphthylene	0.0100	0.00673	67.3	0.00596	59.6	48-113		12	28	
Anthracene	0.0100	0.00838	83.8	0.00780	78.0	55-127		7.2	24	
Benzidine	0.0100	0.00113	11.3	0.00094	9.4	0-46		18	50	
Benzo(a)anthracene	0.0100	0.00838	83.8	0.00791	79.1	57-115		5.8	20	
Benzo(a)pyrene	0.0100	0.00799	79.9	0.00824	82.4	63-125		3.1	22	
Benzo(b)fluoranthene	0.0100	0.00749	74.9	0.00760	76.0	50-123		1.4	32	
Benzo(g,h,i)perylene	0.0100	0.0112	112	0.0103	103	39-143		8.8	31	
Benzo(k)fluoranthene	0.0100	0.00750	75.0	0.00728	72.8	45-126		3.1	37	
Benzylbutyl phthalate	0.0100	0.00421	42.1	0.00600	60.0	22-154		35	29	R6
Bis(2-chlorethoxy)methane	0.0100	0.00795	79.5	0.00789	78.9	42-116		0.8	38	
Bis(2-chloroethyl)ether	0.0100	0.00690	69.0	0.00617	61.7	26-115		11	50	
Bis(2-chloroisopropyl)ether	0.0100	0.00671	67.1	0.00633	63.3	32-115		5.8	47	
Bis(2-ethylhexyl)phthalate	0.0100	0.0107	107	0.0109	109	47-143		1.6	24	
Chrysene	0.0100	0.00762	76.2	0.00796	79.6	58-113		4.3	21	
Dibenz(a,h)anthracene	0.0100	0.0100	100	0.00994	99.4	39-144		1.1	30	
Diethyl phthalate	0.0100	0.00412	41.2	0.00458	45.8	36-128		11	27	
Dimethyl phthalate	0.0100	0.00187	18.7	0.00280	28.0	10-135		40	33	R6
Di-n-butyl phthalate	0.0100	0.00815	81.5	0.00786	78.6	51-131		3.6	22	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-volatile Organic Compounds by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009 6:17:00 PM
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Di-n-octyl phthalate	0.0100	0.0110	110	0.0109	109	51-138		0.6	22	
Fluoranthene	0.0100	0.00870	87.0	0.00773	77.3	53-119		12	28	
Fluorene	0.0100	0.00669	66.9	0.00607	60.7	49-116		9.7	25	
Hexachloro-1,3-butadiene	0.0100	0.00606	60.6	0.00587	58.7	21-116		3.3	50	
Hexachlorobenzene	0.0100	0.00869	86.9	0.00793	79.3	51-121		9.2	23	
Hexachlorocyclopentadiene	0.0100	0.00387	38.7	0.00315	31.5	4-126		21	50	
Hexachloroethane	0.0100	0.00569	56.9	0.00509	50.9	15-109		11	50	
Indeno(1,2,3-cd)pyrene	0.0100	0.0104	104	0.00999	99.9	40-143		3.9	30	
Isophorone	0.0100	0.00732	73.2	0.00734	73.4	48-126		0.3	31	
Naphthalene	0.0100	0.00634	63.4	0.00622	62.2	29-103		2.0	45	
Nitrobenzene	0.0100	0.00627	62.7	0.00580	58.0	31-105		7.9	43	
n-Nitrosodimethylamine	0.0100	0.00561	56.1	0.00488	48.8	11-69		14	50	
n-Nitrosodi-n-propylamine	0.0100	0.00832	83.2	0.00775	77.5	47-122		7.0	33	
n-Nitrosodiphenylamine	0.0100	0.00849	84.9	0.00757	75.7	59-143		11	23	
Pentachlorophenol	0.0100	0.00676	67.6	0.00662	66.2	20-122		2.1	50	
Phenanthrene	0.0100	0.00732	73.2	0.00639	63.9	54-112		14	22	
Phenol	0.0100	0.00244	24.4	0.00227	22.7	17-52		7.4	33	
Pyrene	0.0100	0.00713	71.3	0.00769	76.9	46-130		7.6	28	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Internal Standard Response and Retention Time Summary

FileID:0706_03.D Date:7/6/2009 Time:12:09 PM

	IS1		IS2		IS3	
	Response	RT	Response	RT	Response	RT
12 Hour Std	117140	4.77	481407	5.55	277724	6.58
Upper Limit	234280	5.27	962814	6.05	555448	7.08
Lower Limit	58570	4.27	240703.5	5.05	138862	6.08
Sample ID	Response	RT	Response	RT	Response	RT
Blank WG429990	137785	4.78	518583	5.55	294478	6.58
LCS WG429990	151630	4.78	555594	5.54	367067	6.57
LCSD WG429990	140343	4.78	491331	5.55	376529	6.58
MS WG429990	159127	4.78	622172	5.55	384087	6.58
MSD WG429990	161073	4.78	599717	5.55	364274	6.58

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009
Instrument ID: BNAMS10
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Internal Standard Response and Retention Time Summary

FileID:0706_03.D Date:7/6/2009 Time:12:09 PM

	IS4		IS5		IS6	
	Response	RT	Response	RT	Response	RT
12 Hour Std	450557	7.46	465188	9.01	424430	10.18
Upper Limit	901114	7.96	930376	9.51	848860	10.68
Lower Limit	225278.5	6.96	232594	8.51	212215	9.68
Sample ID	Response	RT	Response	RT	Response	RT
Blank WG429990	463780	7.45	441015	9.01	455095	10.18
LCS WG429990	511633	7.45	501393	9.01	483969	10.18
LCSD WG429990	525735	7.46	461091	9.01	458360	10.19
MS WG429990	544299	7.46	542996	9.01	526144	10.19
MSD WG429990	552560	7.46	533250	9.01	514665	10.18

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Date: 6/30/2009
Extraction Date: 7/5/2009
Analysis Date: 7/6/2009
Instrument ID: BNAMS11
Analyst: 145
Analytic Batch: WG429990 EPA ID: TN00003

Internal Standard Response and Retention Time Summary

FileID:0706_02.D Date:7/6/2009 Time:5:08 PM

	IS1		IS2		IS3	
	Response	RT	Response	RT	Response	RT
12 Hour Std	23228	4.73	86810	5.47	40119	6.5
Upper Limit	46456	5.23	173620	5.97	80238	7
Lower Limit	11614	4.23	43405	4.97	20059.5	6
Sample ID	Response	RT	Response	RT	Response	RT
L410136-01	31288	4.73	127132	5.47	79047	6.50

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Semi-Volatiles by Method 8270C** L410136

Matrix: Water - mg/L

Project: Tucson/Grant Rd. MS4 Site

Project No: 30803201

Login No: L410136

Sample Date: 6/30/2009

Extraction Date: 7/5/2009

Analysis Date: 7/6/2009

Instrument ID: BNAMS11

Analyst: 145

Analytic Batch: WG429990 EPA ID: TN00003

Internal Standard Response and Retention Time Summary

FileID:0706_02.D Date:7/6/2009 Time:5:08 PM

	IS4		IS5		IS6	
	Response	RT	Response	RT	Response	RT
12 Hour Std	69611	7.36	72552	8.9	66427	9.85
Upper Limit	139222	7.86	145104	9.4	132854	10.35
Lower Limit	34805.5	6.86	36276	8.4	33213.5	9.35
Sample ID	Response	RT	Response	RT	Response	RT
L410136-01	113368	7.37	95626	8.91	65980	9.87

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Chlorinated Pesticides by Method 8081A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/2/2009
Analysis Date: 7/3/2009
Instrument ID: SVGC23
Analyst: 239
Analytic Batch: WG429567 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
4,4-DDD	72-54-8	<0.000050
4,4-DDE	72-55-9	<0.000050
4,4-DDT	50-29-3	<0.000050
Aldrin	309-00-2	<0.000050
Alpha BHC	319-84-6	<0.000050
Beta BHC	319-85-7	<0.000050
Chlordane	57-74-9	<0.000500
Delta BHC	319-86-8	<0.000050
Dieldrin	60-57-1	<0.000050
Endosulfan I	959-98-8	<0.000050
Endosulfan II	33213-65-9	<0.000050
Endosulfan sulfate	1031-07-8	<0.000050
Endrin	72-20-8	<0.000050
Endrin aldehyde	7421-93-4	<0.000050
Endrin ketone	53494-70-5	<0.000050
Gamma BHC	58-89-9	<0.000050
Heptachlor	76-44-8	<0.000050
Heptachlor epoxide	1024-57-3	<0.000050
Hexachlorobenzene	118-74-1	<0.000050
Methoxychlor	72-43-5	<0.000050
Toxaphene	8001-35-2	<0.000500

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Chlorinated Pesticides by Method 8081A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/2/2009
Analysis Date: 7/3/2009
Instrument ID: SVGC23
Analyst: 239
Analytic Batch: WG429567 EPA ID: TN00003

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
4,4-DDD	0.000200	0.000173	86.7	37 - 142	
4,4-DDE	0.000200	0.000166	83.1	33 - 124	
4,4-DDT	0.000200	0.000180	90.1	32 - 143	
Aldrin	0.000200	0.000167	83.5	25 - 115	
Alpha BHC	0.000200	0.000170	85.1	38 - 119	
Beta BHC	0.000200	0.000156	78.2	42 - 126	
Delta BHC	0.000200	0.000160	80.1	24 - 141	
Dieldrin	0.000200	0.000171	85.7	37 - 130	
Endosulfan I	0.000200	0.000174	86.8	37 - 125	
Endosulfan II	0.000200	0.000202	101	38 - 131	
Endosulfan sulfate	0.000200	0.000167	83.7	38 - 131	
Endrin	0.000200	0.000171	85.3	37 - 126	
Endrin aldehyde	0.000200	0.000149	74.6	24 - 154	
Endrin ketone	0.000200	0.000165	82.4	37 - 139	
Gamma BHC	0.000200	0.000166	83.0	35 - 114	
Heptachlor	0.000200	0.000169	84.5	21 - 123	
Heptachlor epoxide	0.000200	0.000167	83.7	38 - 121	
Hexachlorobenzene	0.000200	0.000155	77.6	28 - 115	
Methoxychlor	0.000200	0.000134	67.0	55 - 150	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Chlorinated Pesticides by Method 8081A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/2/2009
Analysis Date: 7/3/2009
Instrument ID: SVGC23
Analyst: 239
Analytic Batch: WG429567 EPA ID: TN00003

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
4,4-DDD	0.000200	0.000159	79.5	37 - 142	
4,4-DDE	0.000200	0.000156	78.0	33 - 124	
4,4-DDT	0.000200	0.000158	79.1	32 - 143	
Aldrin	0.000200	0.000161	80.7	25 - 115	
Alpha BHC	0.000200	0.000167	83.4	38 - 119	
Beta BHC	0.000200	0.000153	76.4	42 - 126	
Delta BHC	0.000200	0.000153	76.4	24 - 141	
Dieldrin	0.000200	0.000162	80.9	37 - 130	
Endosulfan I	0.000200	0.000166	83.0	37 - 125	
Endosulfan II	0.000200	0.000181	90.4	38 - 131	
Endosulfan sulfate	0.000200	0.000147	73.6	38 - 131	
Endrin	0.000200	0.000145	72.4	37 - 126	
Endrin aldehyde	0.000200	0.000137	68.4	24 - 154	
Endrin ketone	0.000200	0.000148	74.1	37 - 139	
Gamma BHC	0.000200	0.000161	80.3	35 - 114	
Heptachlor	0.000200	0.000161	80.3	21 - 123	
Heptachlor epoxide	0.000200	0.000161	80.3	38 - 121	
Hexachlorobenzene	0.000200	0.000154	77.0	28 - 115	
Methoxychlor	0.000200	0.000111	55.3	55 - 150	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Pesticides by Method 8081** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/2/2009
Analysis Date: 7/3/2009
Instrument ID: SVGC23
Analyst: 239
Analytic Batch: WG429567

Surrogate Summary

Laboratory	TCX Col 1		TCX Col 2		DCB Col 1		DCB Col 2	
Sample ID	ppm	% Rec	ppm	% Rec	ppm	% Rec	ppm	% Rec
Blank WG429567	0.00017	88.7	0.0001	92.2	0.0001	88.0	0.0002	103
LCS WG429567	0.00016	83.2	0.0001	84.4	0.0001	77.6	0.0001	84.0
LCSD WG429567	0.00016	82.2	0.0001	80.4	0.0001	63.4	0.0001	86.3
L410136-01	0.00009	47.1	0.0000	31.8	0.0000	25.0	0.0001	67.6

Column 1
TCMX Limits -15 - 114
DCB Limits -10 - 123

Column 2
TCMX Limits -15 - 114
DCB Limits -10 - 123

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Chlorinated Pesticides by Method 8081A** L410136

Matrix: Water - mg/L
Project: Tucson/Grant Rd. MS4 Site
Project No: 30803201
Login No: L410136
Sample Number: L410136-01
Sample Date: 6/30/2009
Extraction Date: 7/2/2009
Analysis Date: 7/3/2009
Instrument ID: SVGC23
Analyst: 239
Analytic Batch: WG429567 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
4,4-DDD	0.00020	0.00017	86.7	0.00015	79.5	37-142		8.6	39	
4,4-DDE	0.00020	0.00016	83.1	0.00015	78.0	33-124		6.3	37	
4,4-DDT	0.00020	0.00018	90.1	0.00015	79.1	32-143		13	42	
Aldrin	0.00020	0.00016	83.5	0.00016	80.7	25-115		3.4	45	
Alpha BHC	0.00020	0.00017	85.1	0.00016	83.4	38-119		2.1	30	
Beta BHC	0.00020	0.00015	78.2	0.00015	76.4	42-126		2.3	31	
Delta BHC	0.00020	0.00016	80.1	0.00015	76.4	24-141		4.7	41	
Dieldrin	0.00020	0.00017	85.7	0.00016	80.9	37-130		5.8	36	
Endosulfan I	0.00020	0.00017	86.8	0.00016	83.0	37-125		4.6	35	
Endosulfan II	0.00020	0.00020	101	0.00018	90.4	38-131		11	36	
Endosulfan sulfate	0.00020	0.00016	83.7	0.00014	73.6	38-131		13	37	
Endrin	0.00020	0.00017	85.3	0.00014	72.4	37-126		16	37	
Endrin aldehyde	0.00020	0.00014	74.6	0.00013	68.4	24-154		8.7	36	
Endrin ketone	0.00020	0.00016	82.4	0.00014	74.1	37-139		11	36	
Gamma BHC	0.00020	0.00016	83.0	0.00016	80.3	35-114		3.3	30	
Heptachlor	0.00020	0.00016	84.5	0.00016	80.3	21-123		5.1	38	
Heptachlor epoxide	0.00020	0.00016	83.7	0.00016	80.3	38-121		4.2	33	
Hexachlorobenzene	0.00020	0.00015	77.6	0.00015	77.0	28-115		0.8	29	
Methoxychlor	0.00020	0.00013	67.0	0.00011	55.3	55-150		19	40	

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: John Burton

E-mail to: JBurton@eecphx.com

Project Description: **Tucson/Grant Rd. MS4 Site**

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by: Chad S. Howard

Site/Facility ID#

P.O.#

Collected by(signature): Chad S. Howard

Packed on Ice N___ Y ___

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____Three Day.....25%

Date Results Needed

Email?___No_X__Yes
FAX?___No___Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	V8021-BTEX 40ml Amb HCL	SV8270 1L Amb No Pres	SV8081 1L Amb No Pres	PPM plus Ba, Ca, Na 500ml HDPE HNO3	SPCON, TDS 500ml HDPE No Pres	[illegible]	BOD 1L HDPE No Pres	Sulfate, Ortho-P, Chloride 1L HDPE No Pres	Remarks/contaminant	Sample # (lab only)
GR ADOT 2	C	water	0'	6/30/09	0830	11	X	X	X	X	X	[illegible]	X	X		L4/0136-01

Analysis/Container/Preservative

Chain of Custody
C095
Page 1 of 3

Prepared by:

ENVIRONMENTAL
Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin

Shipped Via:

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH_____ Temp_____

Remarks: Shipped in two coolers - Fed Ex Tracking 9669 7453 7289/7267

Flow_____ Other_____

Relinquisher by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other__	Condition (lab use only)
Chad S. Howard	6/30/09	1200	Shipped Fed Ex		COC Sl
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.4 / Bottles Received: 23117B	
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)	Date: 07-01-09 / Time: 0900	pH Checked: 22 / NCF:

9669 7453 7289

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: John Burton

E-mail to: J Burton @ eecphx.com

Project Description: **Tucson/Grant Rd. MS4 Site**

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by: Chad S. Haycock

Site/Facility ID#

P.O.#

Collected by(signature): Chad S. Haycock

Packed on Ice N__ Y X

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____Three Day.....25%

Date Results Needed

Email?__No_X__Yes
FAX?___No___Yes

Analysis/Container/Preservative

Chain of Custody
Page__2_of__3_

Prepared by:

ENVIRONMENTAL Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	COD 250ml HDPE H2SO4	MBAS 1L HDPE No Pres	Nitrate 125ml HDPE No Pres	Nitrite 125ml HDPE No Pres	NH3 250ml HDPE H2SO4	TKN 250ml HDPE H2SO4	CN 250ml HDPE NaOH	PT 250ml HDPE H2SO4	Remarks/contaminant	Sample # (lab only)
GR ADOT 2	C	Water	0'	6/30/09	0830	8	X	X	X	X	X	X	X	X		24/0136-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH_____ Temp_____

Remarks: Shipped in 2 coolers - Fed Ex Tracking 9669 7453 7289/7267

Flow_____ Other_____

Relinquisher by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other__	Condition (lab use only)
Chad S. Haycock	6/30/09	1200	Shipped Fed Ex		COC 1
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.4 / Bottles Received: 23+1TB	
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)	Date: 07-01-09 / Time: 0900	pH Checked: <2 / NCF:

Chain of Custody Page 3 of 3

Company Name/Address	Alternate Billing	Prepared by:
EEC **7878 N. 16th St., Suite 140** **Phoenix, AZ 85020**	Report to: John Burton E-mail to: JBurton@eecphx.com	ENVIRONMENTAL Science corp 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859

Project Description: **Tucson/Grant Rd. MS4 Site**

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.:

Lab Project #:

Collected by: Chad Hanwood

Site/Facility ID#:

P.O.#:

Collected by(signature): Chad S. Hanwood

Packed on Ice N___ Y X

Rush? (Lab MUST be Notified)
______Next Day..........100%
______Two Day...........50%
______Three Day.........25%

Date Results Needed:
Email?___No_X__Yes
FAX?___No___Yes

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin
Shipped Via: Phoenix Service Center

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	DRO 1L Amb HCl	OGHEX 1L Clr HCL	Cr6 250ml HDPE No Pres	Chromium Trivalent (Calc)	~~[struck out]~~	~~[struck out]~~		Remarks/contaminant	Sample # (lab only)
GR ADOT 2	C	water	0'	6/30/09	0830	4	X	X	X	X					L410136-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_______

pH__________ Temp__________

Remarks: Shipped in 2 coolers - Fed Ex Tracking 9669 7453 7289 / 7267

Flow__________ Other__________

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other__		Condition (lab use only)
Chad S. Hanwood	6/30/09	1200	Shipped Fed Ex			COCS 1
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.4	Bottles Received: 23+1TB	
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature) J. Fuller	Date: 07-01-09	Time: 0900	pH Checked: <2 NCF:

ENVIRONMENTAL SCIENCE CORP.

SAMPLE NON-CONFORMANCE FORM

Login No. : _____ D. Richards

Date: 07-01-09

Evaluated by: J. Fuller

Client: ENGENVPAZ

Non-Conformance (check applicable items)

_____	Chain of Custody is missing	✓	Login Clarification Needed
_____	Improper container type	_____	Improper preservation
_____	Chain of custody is incomplete	_____	Container lid not intact
X	Parameter(s) past holding time	_____	Improper temperature
_____	Broken container(s) **see below**	_____	Broken container: sufficient sample volume remains for analysis requested

_____ Insufficient packing material around container

_____ Insufficient packing material inside cooler

_____ Improper handling by carrier (FedEx / UPS / Courier)

_____ Sample was frozen

Comments: ① Received extra 1 Liter plastic bottle labeled TSS, not listed on C. of C

② CR6 out of hold

Login Instructions: **TSR Initials:** DK

Client informed by call / (email) / fax / voice mail date: 7/1 time: 10:00

Client contact:

① Add & run TSS per client

② proceed per Daphne R.

May 19, 2010

Tom Ross
Engineering and Environmental Consultants, Inc.
4625 E. Ft. Lowell Road,
Tucson, AZ 85712

TEL (520) 321-4625
FAX (520) 547-5650

Work Order No.: 10D0680
Order Name: A DOT Storm Water

RE: A DOT Storm Water

Dear Tom Ross,

Turner Laboratories, Inc. received 1 sample(s) on 04/23/2010 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Terri Garcia
Technical Director

Client: Engineering and Environmental Consultants, Inc
Project: A DOT Storm Water
Work Order: 10D0680
Date Received: 04/23/2010

Order: A DOT Storm Water

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
10D0680-01	ADOT-10-113	Storm Water	04/23/2010 1135

Client: Engineering and Environmental Consultants, Inc.
Project: A DOT Storm Water
Work Order: 10D0680
Date Received: 04/23/2010

Case Narrative

The surfactant analysis was performed by SPL, Inc. in Houston, TX.

D5	Minimum Reporting Limit (MRL) is elevated due to sample dilution.
E	Value is above quantitation range.
H2	Initial analysis was performed within holding time. Reanalysis for the required dilution was past holding time.
H5	Initial analysis was performed within holding time with failing QC. Reanalysis was performed past holding time with acceptable QC and similar results were obtained.
K3	The sample dilutions set-up for the BOD/CBOD analysis did not produce more than one reportable result for a calculated average. Reported result is an estimated value.
M4	The analysis of the spiked sample required a dilution such that the calculation does not provide useful information. The associated LCS/LCSD recovery was acceptable.
M5	Insufficient sample was available for method-required MS, MSD.
M7	The matrix spike recovery was below acceptance limits. Re-extraction and/or re-analysis confirms the low recovery.
S4	Surrogate recovery was above laboratory and method acceptance limits.No target analytes were detected in the sample.
S8	The analysis of the sample required a dilution such that the surrogate recovery does not provide useful information. The associated LCS/LCSD recovery was acceptable.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Engineering and Environmental Consultants **Client Sample ID:** ADOT-10-113
Project: A DOT Storm Water **Collection Date/Time:** 04/23/2010 1135
Work Order: 10D0680 **Matrix:** Storm Water
Lab Sample ID: 10D0680-01 **Order Name:** A DOT Storm Water

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
C10-C32 Hydrocarbons-8015AZR1(Mod)								
C10-C22 (Diesel Range Organics)	7.9	3.0		mg/L	1	04/27/2010 1029	04/28/2010 2229	DCB
C10-C32 (Total)	24	13		mg/L	1	04/27/2010 1029	05/08/2010 0004	DCB
C22-C32 (Oil Range Organics)	16	10		mg/L	1	04/27/2010 1029	05/08/2010 0004	DCB
C6-C10 (Gasoline Range Organics)	ND	2.0		mg/L	1	04/27/2010 1029	04/28/2010 2229	DCB
Surr: o-Terphenyl	*81*	*70-130*		*%REC*	*1*	*04/27/2010 1029*	*04/28/2010 2229*	*DCB*
Surr: Trifluorotoluene	*92*	*70-130*		*%REC*	*1*	*04/27/2010 1029*	*04/28/2010 2229*	*DCB*
Calculation								
Hardness, Ca & Mg	470			mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Calculation								
Nitrogen, Total	20			mg/L	5	04/28/2010 0800	04/30/2010 1100	JM
pH-E150.1								
pH (pH Units)	7.3	0.0		-	1	04/23/2010 1420	04/23/2010 1422	BKW
Temperature (°C)	18			-	1	04/23/2010 1420	04/23/2010 1422	BKW
N-Hexane Extractable Material (HEM)-E1664A								
Oil & Grease	9.20	5.00		mg/L	1	04/30/2010 0800	04/30/2010 1419	EW
Turbidity-E180.1								
Turbidity	58	0.10	H2	NTU	1	05/03/2010 1520	04/23/2010 1426	BKW
ICP Total Metals-E200.7								
Antimony	ND	0.20		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Arsenic	ND	0.040		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Barium	0.20	0.050		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Beryllium	ND	0.0020		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Cadmium	ND	0.0020		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Calcium	150	4.0		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Chromium	ND	0.030		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Copper	0.13	0.020		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Lead	ND	0.040		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Magnesium	20	3.0		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Nickel	ND	0.050		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Selenium	ND	0.040		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Silver	ND	0.010		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
Sodium	18	5.0		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD

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Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	ND	0.050		mg/L	1	04/26/2010 0950	04/29/2010 1623	RAD
Zinc	0.41	0.040		mg/L	1	04/26/2010 0950	04/29/2010 1622	RAD
CVAA Total Mercury-E245.1								
Mercury	ND	0.0010		mg/L	1	04/26/2010 1315	04/27/2010 1005	RAD
Anions by Ion Chromatography-E300								
Chloride	14	1.0		mg/L	1	04/23/2010 1700	04/23/2010 1935	JM
Nitrogen, Nitrate (As N)	9.9	2.0	H2	mg/L	2	04/27/2010 1100	04/27/2010 1259	JM
Nitrogen, Nitrite	1.9	0.10		mg/L	1	04/23/2010 1700	04/23/2010 1935	JM
Phosphorus, Dissolved Orthophosphate (As P)	ND	0.50	H5	mg/L	1	04/27/2010 1300	04/27/2010 1241	JM
Sulfate	310	100		mg/L	20	04/27/2010 1100	04/27/2010 1318	JM
Total Kjeldahl Nitrogen-E351.1								
Nitrogen, Kjeldahl, Total	7.8	2.5		mg/L	5	04/28/2010 0800	04/30/2010 1100	JM
Total Residual Chlorine-H8167								
Total Residual Chlorine	ND	0.10	M7	mg/L	1	04/23/2010 1355	04/23/2010 1440	GW
Total Phosphorous as P-H8190								
Total Phosphorus (as P)	0.58	0.20		mg/L	2	05/03/2010 1000	05/03/2010 1130	JM
Chemical Oxygen Demand-Hach 8000								
Chemical Oxygen Demand	490	20		mg/L	1	04/30/2010 1045	04/30/2010 1625	EW
Specific Conductance-SM2510 B								
Conductivity	1000	0.10		µmhos/cm	1	04/27/2010 1318	04/27/2010 1325	EW
Total Dissolved Solids (Residue, Filterable)-SM2540 C								
Total Dissolved Solids (Residue, Filterable)	910	20		mg/L	1	04/27/2010 0815	04/28/2010 1110	GW
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D								
Total Suspended Solids	130	10		mg/L	1	04/26/2010 1100	04/26/2010 1515	JM
Ammonia as N-SM4500 B,C								
Nitrogen, Ammonia (As N)	ND	0.50		mg/L	1	04/29/2010 0930	04/29/2010 1400	JM

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Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Cyanide-SM4500-CN BE								
Cyanide	ND	0.10		mg/L	1	04/28/2010 1300	04/29/2010 0730	JM
BOD, 5 day-SM5210 B								
Biochemical Oxygen Demand	90	2.0	K3	mg/L	1	04/23/2010 1600	04/28/2010 1600	JM
Total Coliform & E. Coli, MPN-SM9223B								
E.Coli	390	1		org/100 mL	1	04/23/2010 1200	04/24/2010 1200	EW
Total Coliform	2400	1	E	org/100 mL	1	04/23/2010 1200	04/24/2010 1200	EW
Organochlorine Pesticides-SW8081A								
4,4´-DDD	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
4,4´-DDE	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
4,4´-DDT	ND	0.96	M4, M5	ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Aldrin	ND	0.96	M4, M5	ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
alpha-BHC	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
alpha-Chlordane	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1817	DCB
beta-BHC	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
delta-BHC	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Dieldrin	ND	0.96	M4, M5	ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Endosulfan I	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Endosulfan II	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Endosulfan sulfate	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Endrin	ND	0.96	M4, M5	ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Endrin aldehyde	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Endrin ketone	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
gamma-BHC	ND	0.96	M5	ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
gamma-Chlordane	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1817	DCB
Heptachlor	ND	0.96	M4, M5	ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Heptachlor epoxide	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Methoxychlor	ND	0.96		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Toxaphene	ND	0.00096		ug/L	10	04/23/2010 1407	05/07/2010 1327	DCB
Surr: Decachlorobiphenyl		*45.4-142.8*	*S8*	*%REC*	*10*	*04/23/2010 1407*	*05/07/2010 1327*	*DCB*
Surr: Tetrachloro-m-xylene		*33.9-124.4*	*S8*	*%REC*	*10*	*04/23/2010 1407*	*05/07/2010 1327*	*DCB*
Volatile Organic Compounds by GC/MS-SW8260B								
1,1,1,2-Tetrachloroethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP

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Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
1,1,1-Trichloroethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,1,2,2-Tetrachloroethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,1,2-Trichloroethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,1,2-Trichlorotrifluoroethane	ND	5.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,1-Dichloroethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,1-Dichloroethene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,1-Dichloropropene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2,3-Trichlorobenzene	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2,3-Trichloropropane	ND	1.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2,4-Trichlorobenzene	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2,4-Trimethylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2-Dibromo-3-chloropropane	ND	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2-Dibromoethane	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2-Dichlorobenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2-Dichloroethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,2-Dichloropropane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,3,5-Trimethylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,3-Dichlorobenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,3-Dichloropropane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
1,4-Dichlorobenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
2,2-Dichloropropane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
2-Butanone	12	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
2-Chlorotoluene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
2-Hexanone	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
4-Chlorotoluene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
4-Isopropyltoluene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
4-Methyl-2-pentanone	3.6	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Acetone	52	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Acrylonitrile	ND	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Benzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Bromobenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Bromochloromethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Bromodichloromethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Bromoform	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Bromomethane	ND	1.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Carbon disulfide	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Carbon tetrachloride	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Chlorobenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Chloroethane	ND	1.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Chloroform	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Chloromethane	ND	1.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
cis-1,2-Dichloroethene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP

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cis-1,3-Dichloropropene	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Dibromochloromethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Dibromomethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Dichlorodifluoromethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Ethylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Hexachlorobutadiene	ND	5.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Iodomethane	ND	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Isopropylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
m,p-Xylene	ND	1.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Methylene chloride	1.2	1.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Naphthalene	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
n-Butylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
n-Propylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
o-Xylene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
sec-Butylbenzene	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Styrene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
tert-Butylbenzene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Tetrachloroethene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Toluene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
trans-1,2-Dichloroethene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
trans-1,3-Dichloropropene	ND	2.0		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
trans-1,4-Dichloro-2-butene	ND	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Trichloroethene	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Trichlorofluoromethane	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Vinyl acetate	ND	10		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Vinyl chloride	ND	0.50		ug/L	1	04/26/2010 1117	04/26/2010 1503	KP
Surr: 4-Bromofluorobenzene	*92*	*70-130*		*%REC*	*1*	*04/26/2010 1117*	*04/26/2010 1503*	*KP*
Surr: Dibromofluoromethane	*111*	*70-130*		*%REC*	*1*	*04/26/2010 1117*	*04/26/2010 1503*	*KP*
Surr: Toluene-d8	*86*	*70-130*		*%REC*	*1*	*04/26/2010 1117*	*04/26/2010 1503*	*KP*
Semivolatile Organic Compounds-SW8270C								
1,2,4-Trichlorobenzene	ND	96	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
1,2-Dichlorobenzene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
1,3-Dichlorobenzene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
1,4-Dichlorobenzene	ND	96	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2,4,5-Trichlorophenol	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2,4,6-Trichlorophenol	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2,4-Dichlorophenol	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB

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Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
2,4-Dimethylphenol	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2,4-Dinitrophenol	ND	480	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2,4-Dinitrotoluene	ND	96	D5, M4, M5, V1	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2,6-Dinitrotoluene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2-Chloronaphthalene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2-Chlorophenol	ND	96	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2-Methylnaphthalene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2-Methylphenol	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2-Nitroaniline	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
2-Nitrophenol	ND	96	D5, V1	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
3,3´-Dichlorobenzidine	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
3-Nitroaniline	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4,6-Dinitro-2-methylphenol	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Bromophenyl phenyl ether	ND	96	D5, V1	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Chloro-3-methylphenol	ND	96	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Chloroaniline	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Chlorophenyl phenyl ether	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Methylphenol	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Nitroaniline	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
4-Nitrophenol	ND	480	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Acenaphthene	ND	48	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Acenaphthylene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Aniline	ND	190	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Anthracene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Benzo[a]anthracene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Benzo[a]pyrene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Benzo[b,k]fluoranthene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Benzo[g,h,i]perylene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Benzoic acid	ND	480	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Benzyl alcohol	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Bis(2-chloroethoxy)methane	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB

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Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Bis(2-chloroethyl)ether	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Bis(2-chloroisopropyl)ether	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Bis(2-ethylhexyl)phthalate	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Butyl benzyl phthalate	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Chrysene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Dibenz[a,h]anthracene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Dibenzofuran	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Diethyl phthalate	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Dimethyl phthalate	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Di-n-butyl phthalate	ND	96	D5, V1	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Di-n-octyl phthalate	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Fluoranthene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Fluorene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Hexachlorobenzene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Hexachlorobutadiene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Hexachlorocyclopentadiene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Hexachloroethane	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Indeno[1,2,3-cd]pyrene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Isophorone	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Naphthalene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Nitrobenzene	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
N-Nitrosodimethylamine	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
N-Nitrosodiphenylamine	ND	96	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
N-Nitrosodipropylamine	ND	96	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Pentachlorophenol	ND	290	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Phenanthrene	ND	48	D5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Phenol	ND	96	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Pyrene	ND	48	D5, M4, M5	ug/L	10	04/24/2010 1016	05/04/2010 1328	DCB
Surr: 2,4,6-Tribromophenol		*44.71-109.8*	*S4, S8*	*%REC*	*10*	*04/24/2010 1016*	*05/04/2010 1328*	*DCB*
Surr: 2-Fluorobiphenyl		*19.47-109.2*	*S8*	*%REC*	*10*	*04/24/2010 1016*	*05/04/2010 1328*	*DCB*
Surr: 2-Fluorophenol		*6.66-77.89*	*S8*	*%REC*	*10*	*04/24/2010 1016*	*05/04/2010 1328*	*DCB*
Surr: 4-Terphenyl-d14		*38.66-104.8*	*S8*	*%REC*	*10*	*04/24/2010 1016*	*05/04/2010 1328*	*DCB*
Surr: Nitrobenzene-d5		*3.34-105.8*	*S8*	*%REC*	*10*	*04/24/2010 1016*	*05/04/2010 1328*	*DCB*

Client:	Engineering and Environmental Consultants	**Client Sample ID:**	ADOT-10-113
Project:	A DOT Storm Water	**Collection Date/Time:**	04/23/2010 1135
Work Order:	10D0680	**Matrix:**	Storm Water
Lab Sample ID:	10D0680-01	**Order Name:**	A DOT Storm Water

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Surr: Phenol-d6	*118*	*11.94-90.98*	*S4*	*%REC*	*10*	*04/24/2010 1016*	*05/04/2010 1328*	*DCB*

2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 1000680 DATE ______ PAGE ______ OF ______

PROJECT NAME ADOT Storm Water
CONTACT NAME Tom Ross
COMPANY NAME EEC
ADDRESS 4625 E. Fort Lowell Rd
TUCSON, AZ PHONE 488-6201 FAX ______
SAMPLER'S SIGNATURE [signature]

CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	Base Neutrals / Acids 625/8270	Volatile Organics 624/524.2/8260 BTEX	TTHMS / HAA5	Pesticides 8081 / PCBs 8082	NO2 / NO3 / TKN	Oil and Grease Grav. 1664A	TCLP Analysis VOA / Semi-VOA / Pest.	Metals Ba, Na, Cr TCLP / Dissolved / Total / RCRA8	Cyanide Total / Amen. / WAD	SDWA-INORGANICS PRIMARY / SECONDARY	Coliform MPN / Colilert	pH / Cr6 / Cl2	COD / TSS / BOD	8015	Surfactants	NO2, NO3, Cl, PO4, SO4	Cond, TDS, Turb	NH3, Total P
ADOT-10-163	4/23/10	1135		Storm Water		X	X		X		X					X	X	X	X	X	X	X	

1. RELINQUISHED BY:	2. RECEIVED BY:
Signature [signature]	Signature
Printed Name Thomas J Ross	Printed Name
Firm EEC	Firm
Date/Time 4/23/10 1135	Date/Time

3. RELINQUISHED BY:	4. RECEIVED BY:
Signature	Signature [signature]
Printed Name	Printed Name Dawn Weyer
Firm	Firm TURNER LABORATORIES, INC.
Date/Time	Date/Time 4/23/10 1155

TURNAROUND REQUIREMENTS:
- ___ Standard (approx. 10 days)*
- ___ Next Day ___ 2 Day ___ 5 Day*
- ___ Email Preliminary Results To: ______

* Working Days

REPORT REQUIREMENTS:
- X I. Routine Report
- ___ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
- ___ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
Account X Y ___ N
P.O. # ______
Bill to: ______

SAMPLE RECEIPT:
Total Containers 17
Temperature 19
☐ Wet Ice ☐ Blue Ice

* LEGEND
- DW = DRINKING WATER
- GW = GROUNDWATER
- SD = SOLID
- SG = SLUDGE
- SL = SOIL
- ST = STORMWATER
- WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:
- Compliance Analysis: ☐ Yes ☐ No
- ADEQ Forms: ☐ Yes ☐ No
- Mail ADEQ Forms: ☐ Yes ☐ No
- Custody Seals ☐
- Container Intact X
- COC / Labels Agree X
- Preservation Confirmation ☐ (see note)
- Appropriate Head Space ☐ (see note)
- Received Within Hold Time X

Ca, Mg Hardness

Samples passed over by lab

Sampling Kit from ESC

Please use the following containers per sample:

For Stormwater:

GRO- (2) 40ml amber glass vials- these already contain preservative!! Fill completely

8260-BTEX- (2) 40ml amber glass vials- these already contain preservative!! Fill completely

OGHEX(Oil and Grease)- (1) 1L clear glass bottle w/ blue dot- add HCL preservative and fill completely

PPMetals+Ba,Na, Ca- (1) 500ml plastic w/ red dot- add nitric preservative and fill completely

Hardness- (1) 250ml plastic bottle w/ red dot- add nitric preservative and fill completely

Cyanide- (1) 250ml brown plastic bottle- this already contains preservative!! Fill completely

TKN, PT(total Phosphorous)- (1) 500ml plastic bottle w/ yellow dot- add sulfuric preservative and fill completely

COD, Ammonia as N- (1) 500ml plastic bottle w/ yellow dot- add sulfuric preservative and fill completely

TSS- (1) 1L plastic bottle- fill completely

BOD- (1) 1L plastic bottle- fill completely

SPCON, pH, TDS, Turbidity, Sulfates- (1) 1L plastic bottle- fill completely

Chloride, Chlorine, Ortho-P- (1) 500ml plastic bottle- fill completely

Nitrate and Nitrite- (1) 250ml plastic bottle- fill completely

**Fecal coliform- (1) 250ml plastic bottle w/ green dot- already contains preservative!!- fill between line and bottom of cap

**E.Coli- (1) 250ml plastic bottle w/ green dot- already contains preservative!!- fill between line and bottom of cap

**NOTE- these analysis have a 6 hour hold time and need to be subbed to the local lab in Tucson- Turner Labs.

A trip blank, temperature blank, labels and COCs have been included with the kit.

Please let me know if you have any questions.

TO SCHEDULE A PICKUP IN TUCSON- Call J2 Express Courier- 520-888-5662. Please try and call the day before or morning of a pickup. Indicate that you are working with Environmental Science and will need cooler(s) picked up for priority overnight delivery to Nashville, TN. Please have coolers packed and on ice according to instructions contained within.

Thanks,

Casey Loflin
Phoenix Branch Manager
ESC
602-708-8233

Sampling Kit from ESC

Please use the following containers per sample:

For Stormwater:

DRO- (2) 1L ambers w/ blue dot- Add HCL preservative and fill completely

Surfactants- (2) 1L ambers- fill completely

8081-Pesticides- (2) 1L ambers- fill completely

8270-SVOC- (2) 1L ambers- fill completely

Labels and COCs have been included with the kit.

Please let me know if you have any questions.

TO SCHEDULE A PICKUP IN TUCSON- Call J2 Express Courier- 520-888-5662. Please try and call the day before or morning of a pickup. Indicate that you are working with Environmental Science and will need cooler(s) picked up for priority overnight delivery to Nashville, TN. Please have coolers packed and on ice according to instructions contained within.

Thanks,

Casey Loflin
Phoenix Branch Manager
ESC
602-708-8233

SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Certificate of Analysis

April 26, 2010

Workorder: H10040513

Terri Garcia
Turner Laboratories, Inc.
2445 N. Coyote Dr., Suite 104
Tucson, AZ 85745

Project: 10D0680

Project Number:

Site: Tucson

PO Number:

NELAC Cert. No.: T104704205-09-1

This Report Contains A Total Of 10 Pages

Excluding Any Attachments

SPL Inc.
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Houston, TX 77054
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Certificate of Analysis

April 26, 2010

Workorder: H10040513

Terri Garcia
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Tucson, AZ 85745

Project: 10D0680

Project Number:

Site: Tucson

PO Number:

NELAC Cert. No.: T104704205-09-1

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

Anionic Surfactants as MBAS by SM5540 C:

Sample ID "10D0680-01" (SPL ID: H10040513-001) required a dilution due to the high analyte concentration in the sample. The sample is assigned the Arizona data qualifier D2.

III. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg\kg-dry " or " ug\kg-dry ").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD´s on the QC report for the MS/MSD may be different than the calculated recoveries and RPD´s using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Certificate of Analysis

April 26, 2010

Workorder: H10040513

Terri Garcia
Turner Laboratories, Inc.
2445 N. Coyote Dr., Suite 104
Tucson, AZ 85745

Project: 10D0680

Project Number:

Site: Tucson

PO Number:

NELAC Cert. No.: T104704205-09-1

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

Nancy Barrera, Project Manager

Enclosures

SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

SAMPLE SUMMARY

Workorder: H10040513 : 10D0680 Project Number:

Lab ID	Sample ID	Matrix	COC ID	Date/Time Collected	Date/Time Received
H10040513001	10D0680-01	Water		4/23/2010 11:35	4/24/2010 09:00

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ANALYTICAL RESULTS

Workorder: H10040513 : 10D0680 Project Number:

Lab ID: **H10040513001** Date/Time Received: 4/24/2010 09:00 Matrix: Water

Sample ID: **10D0680-01** Date/Time Collected: 4/23/2010 11:35

WET CHEMISTRY

Analysis Desc: SM 5540 C Analytical Batches:

Batch: 2416 SM 5540 C on 04/24/2010 11:30 by ESK

Parameters	Results **mg/l**	Qual	Report Limit	MDL	DF	RegLmt	Batch Information Prep	Analysis
MBAS	2.00		0.500	0.1335	5			2416

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QUALITY CONTROL DATA

Workorder: H10040513 : 10D0680 Project Number:

QC Batch: WCSH/2416 Analysis Method: SM 5540 C

QC Batch Method: SM 5540 C

Associated Lab Samples: H10040513001

METHOD BLANK: 41179

Analysis Date/Time Analyst: 04/24/2010 11:30 ESK

Parameter	Units	Blank Result	Qualifiers	Reporting Limit
MBAS	mg/l	ND		0.100

LABORATORY CONTROL SAMPLE: 41180

Analysis Date/Time Analyst: 04/24/2010 11:30 ESK

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits
MBAS	mg/l	0.6	0.6111	102	81-125

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 41181 41182 Original: H10040513001

MS Analysis Date/Time Analyst: 04/24/2010 11:30 ESK

MSD Analysis Date/Time Analyst: 04/24/2010 11:30 ESK

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD
MBAS	mg/l	2	3	5.368	5.368	112	112	76-133	0.0	15

QC results presented in the QC Control Data have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules. Also, MS/MSD % recoveries are calculated by the SPL LIMS using any detected value greater than the MDL.

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Legend

(S) - Indicates analyte is a surrogate

Qualifier	Qualifier Description
MI	Matrix Interference
I	Estimated value, between MDL and PQL (Florida)
JN	The analysis indicates the presence of an analyte
C	MTBE results were not confirmed by GCMS
NC	Not Calculated - Sample concentration > 4 times the spike
*	Recovery/RPD value outside QC limits
E	Results exceed calibration range
H	Exceeds holding time
J	Estimated value
Q	Received past holding time
B	Analyte detected in the Method Blank
N	Recovery outside of control limits
D	Recovery out of range due to dilution
NC	Not Calculable (Sample Duplicate)
P	Pesticide dual column results, greater then 25%

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: H10040513 : 10D0680 Project Number:

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
H10040513001	**10D0680-01**	SM 5540 C	WCSH/2416		

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Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

Sample Receipt Checklist

WorkOrder:	H10040513	Received By	LOG
Date and Time	04/24/2010 09:00	Carrier Name:	FEDEXP
Temperature:	1.0°C	Chilled By:	Water Ice

1.	Shipping container/cooler in good condition?	YES
2.	Custody seals intact on shipping container/cooler?	Not Present
3.	Custody seals intact on sample bottles?	Not Present
4.	Chain of custody present?	YES
5.	Chain of custody signed when relinquished and received?	YES
6.	Chain of custody agrees with sample labels?	YES
7.	Samples in proper container/bottle?	YES
8.	Samples containers intact?	YES
9.	Sufficient sample volume for indicated test?	YES
10.	All samples received within holding time?	YES
11.	Container/Temp Blank temperature in compliance?	YES
12.	Water - VOA vials have zero headspace?	VOA Vials Not Present
13.	Water - Preservation checked upon receipt(except VOA*)?	Not Applicable

*VOA Preservation Checked After Sample Analysis

SPL Representative: Contact Date & Time:

Client Name Contacted:

Client Instructions:

SPL Inc.
8880 Interchange Drive
Houston, TX 77054
Phone: (713) 660-0901
Fax: (713) 660-8975

H10040513

SUBCONTRACT ORDER

Turner Laboratories, Inc.

10D0680

SENDING LABORATORY:

Turner Laboratories, Inc.
2445 N. Coyote Drive, Ste #104
Tucson, AZ 85745
Phone: 520.882.5880
Fax: 520.882.9788
Project Manager: Terri Garcia

RECEIVING LABORATORY:

SPL, Inc.
8880 Interchange Drive
Houston, TX 77054
Phone :800-969-6775
Fax: (713) 660-8975

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 10D0680-01	**Ground **	**Sampled:04/23/2010 11:35**		
Surfactants	05/07/2010 00:00	06/10/2010 11:35		
Containers Supplied:				

RUSH

Released By Date 4.23.10 1500 Received By Date

Released By Date Received By Amanda Vickerman Date 4/24/10 9:00

Page 1 of 1

APPENDIX L
Industrial and Maintenance Facility
Discharge Monitoring Reports

Superior Maintenance Yard

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: ADOT – Superior Maintenance Yard	**Monitoring Point (Outfall):** Along the southeast corner of the maintenance yard
Facility Address: 951 W Main St., Superior, AZ 85273	**Year:** 2009/2010 Reporting Year – Winter Storm Event
Monitoring Personnel Name(s): Gary Hoffmann or Phillip McNamara, EEC	**Date/Time Collected:** 2/23/10 at 2:10pm

Time Rainfall Began: Approximately 5:00 am	**Duration of Rainfall Event:** Approximately 5.0 hours	**Rainfall Amount (inches):** 1.32 inches (or 0.11 ft)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event:** Approximately 5 days	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **16,500 ft^2 X 0.11 ft^2 of rain = 1,815.0 ft^3 X 75% runoff = 1,361.25 ft^3 (7.2827) = 9,913.58 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Oil & Grease (Hexane Extr)		**No Sample**	**Lbs**	**No Sample**		**mg/L**		**Once per season**	**Grab**
Total Dissolved Solids		**499.85**	**Lbs**	**450**		**mg/L**		**Once per season**	**Grab**
Total Suspended Solids		**33.32**	**Lbs**	**30**		**mg/L**		**Once per season**	**Grab**
Copper		**0.06**	**Lbs**	**0.053**		**mg/L**		**Once per season**	**Grab**
Copper, Dissolved		**-**	**Lbs**	**<0.020**		**mg/L**		**Once per season**	**Grab**
TPH (GC/FID) High		**0.43**	**Lbs**	**0.46**		**mg/L**		**Once per season**	**Grab**

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: ADOT – Superior Maintenance Yard	**Monitoring Point (Outfall):** Along the southeast corner of the maintenance yard
Facility Address: 951 W Main St., Superior, AZ 85273	**Year:** 2009/2010 Reporting Year – Summer Storm Event
Monitoring Personnel Name(s): Gary Hoffmann or Phillip McNamara, EEC	**Date/Time Collected:** 7/21/09 at 10:35am

Time Rainfall Began: Approximately 5:00 am	**Duration of Rainfall Event:** Approximately 2.5 hours	**Rainfall Amount (inches):** 0.26 inches (or 0.022 ft)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event:** Approximately 5 days	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **16,500 ft^2 X 0.022 ft^2 of rain = 363.0 ft^3 X 75% runoff = 272.25 ft^3 (7.2827) = 1,982.72 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Oil & Grease (Hexane Extr)		--	Lbs	<5.9		mg/L		Once per season	Grab
Total Dissolved Solids		76.58	Lbs	350		mg/L		Once per season	Grab
Total Suspended Solids		18.59	Lbs	100		mg/L		Once per season	Grab
Copper		0.02	Lbs	0.12		mg/L		Once per season	Grab
Copper, Dissolved		0.13	Lbs	0.69		mg/L		Once per season	Grab
Hardness		19.69	Lbs	90		mg/L		Once per season	Grab

Superior Fuel Yard

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: ADOT – Superior Fuel Yard L-413522-01	**Monitoring Point (Outfall):** Along the west corner of the exterior of the fuel yard
Facility Address:	**Year:** 2009/10 Reporting Year – Winter Storm Event
Monitoring Personnel Name(s): Gary Hoffmann, EEC	**Date/Time Collected:** 2/22/10 at 11:20am

Time Rainfall Began: Approximately 6:00 am	**Duration of Rainfall Event:** Approximately 5.0 hours	**Rainfall Amount (inches):** 1.32 inches (or 0.11 ft)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event: Approximately 5 days**	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **9,150 ft^2 X 0.11 ft^2 of rain = 1,006.5 ft^3 X 75% runoff = 754.88 ft^3 (7.2827) = 5,497.53 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Hardness		**-**	**Lbs**	**<30.0**		**mg/L**		**Once Per Season**	**Grab**
Total Dissolved Solids		**20.76**	**Lbs**	**22**		**mg/L**		**Once Per Season**	**Grab**
Total Suspended Solids		**188.83**	**Lbs**	**170**		**mg/L**		**Once Per Season**	**Grab**
Copper		**0.0510**	**Lbs**	**0.054**		**mg/L**		**Once Per Season**	**Grab**
Copper, Dissolved		**-**	**Lbs**	**<0.20**		**mg/L**		**Once Per Season**	**Grab**
TPH (GC/FID) High Fraction		**0.29**	**Lbs**	**0.31**		**mg/L**		**Once Per Season**	**Grab**

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: ADOT – Superior Fuel Yard L-413522-01		**Monitoring Point (Outfall):** Along the west corner of the exterior of the fuel yard
Facility Address:		**Year:** 2009/10 Reporting Year – Summer Storm Event
Monitoring Personnel Name(s): Gary Hoffmann, EEC		**Date/Time Collected:** 7/21/09 at 10:35am
Time Rainfall Began: Approximately 6:00 am	**Duration of Rainfall Event:** Approximately 2.5 hours	**Rainfall Amount (inches):** 0.26 inches (or 0.022 ft)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event:** **Approximately 5 days**	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **9,150 ft^2 X 0.022 ft^2 of rain = 198.25 ft^3 X 75% runoff = 148.69 ft^3 (7.2827) = 1,082.84 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Hardness		**24.07**	**Lbs**	**110**		**mg/L**		**Once Per Season**	**Grab**
Total Dissolved Solids		**72.20**	**Lbs**	**330**		**mg/L**		**Once Per Season**	**Grab**
Total Suspended Solids		**21.88**	**Lbs**	**100**		**mg/L**		**Once Per Season**	**Grab**
Copper		**0.09**	**Lbs**	**0.43**		**mg/L**		**Once Per Season**	**Grab**
Copper, Dissolved		**0.01**	**Lbs**	**0.049**		**mg/L**		**Once Per Season**	**Grab**
TPH (GC/FID) High Fraction		**0.63**	**Lbs**	**3.4**		**mg/L**		**Once Per Season**	**Grab**
Oil & Grease (Hexane Extr)		**-**	**Lbs**	**<5.3**		**mg/L**		**Once Per Season**	**Grab**

Nogales Maintenance Yard

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: Nogales Maintenance Yard		**Monitoring Point (Outfall):** Outfall from yard (drains approximately 2.75 acres or 119,790 ft^2)
Facility Address: 1340 North Hohokam Drive, Nogales, Arizona		**Year:** 2009/10 Reporting Year – Winter Storm Event
Monitoring Personnel Name(s): Thomas Ross, EEC		**Date/Time Collected:** 2/23/2010 @ 9:18am
Time Rainfall Began: Approx 2:30am	**Duration of Rainfall Event:** 3.75 Hrs	**Rainfall Amount (inches):** 0.13 inches (or 0.011 feet)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event:** **Approximately 43 days**	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **119,790 ft^2 X 0.011 ft^2 of rain = 1,317.69 ft^3 X 75% runoff = 988.27 ft^3 (7.2827) = 7,197.26 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Ammonia Nitrogen		**0.06**	**Lbs**	**0.5**		**mg/L**		**Once each season**	**Grab**
Total Dissolved Solids		**229.09**	**Lbs**	**1900**		**mg/L**		**Once each season**	**Grab**
Total Suspended Solids		**31.35**	**Lbs**	**260**		**mg/L**		**Once each season**	**Grab**
Copper, total		**0.01**	**Lbs**	**0.044**		**mg/L**		**Once each season**	**Grab**
TPH - DRO		**-**	**Lbs**	**<3.0**		**mg/L**		**Once each season**	**Grab**
Residual Chlorine		**-**	**Lbs**	**<0.10**		**mg/L**		**Once each season**	**Grab**
Total Coliform		**289.39**	**Lbs**	**2400**		**MPN**		**Once each season**	**Grab**
E. Coli		**0.24**	**Lbs**	**2**		**MPN**		**Once each season**	**Grab**
Total Hardness		**103.69**	**Lbs**	**860**		**mg/L**		**Once each season**	**Grab**

Durango Sign Factory

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: Durango Sign Factory		**Monitoring Point (Outfall):** Storm drain located approximately south-central in the parking lot
Facility Address: 2104 South 22nd Avenue, Phoenix, Arizona 85009		**Year:** 2009/10 Reporting Year – Summer Storm Event
Monitoring Personnel Name(s): Phillip McNamara, EEC		**Date/Time Collected:** February 23, 2010 @ 9:15 am
Time Rainfall Began: Approximately 4:00am	**Duration of Rainfall Event:** Approximately 3.0 Hours	**Rainfall Amount (inches):** 0.18inches (or 0.015 ft)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event:** Approximately 20 days	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **32,700 ft^2 X 0.015 ft^2 of rain = 490.5 ft^3 X 75% runoff =367.88 ft^3 (7.2827) = 2,679.12 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Nitrate + Nitrite		0.02	Lbs	0.96		mg/L		Once each season	Grab
TSS		4.63	Lbs	180		mg/L		Once each season	Grab
Total Nitrogen		0.13	Lbs	5.0		mg/L		Once each season	Grab
TKN		0.11	Lbs	4.1		mg/L		Once each season	Grab

AZS000018
DISCHARGE MONITORING REPORT (DMR)

(Complete a separate form for each monitoring point)

Facility Name: Durango Sign Factory	**Monitoring Point (Outfall):** Storm drain located approximately south-central in the parking lot
Facility Address: 2104 South 22nd Avenue, Phoenix, Arizona 85009	**Year:** 2009/10 Reporting Year – Winter Storm Event
Monitoring Personnel Name(s): Gary Hoffmann, EEC	**Date/Time Collected:** September 1, 2009 @ 11:45 am

Time Rainfall Began: Approximately 4:00am	**Duration of Rainfall Event:** Approximately 1.5 Hours	**Rainfall Amount (inches):** 0.1inches (or 0.0083 ft)
Runoff Source: ☒ Rainfall ☐ Snowmelt	**Time Elapsed Since Last 0.1 inch Rainfall Event:** Approximately 15 days	**Qualifying Rainfall Event:** ☒ YES ☐ NO
Estimated Total Volume of Discharge (Include units; gal, ft^3, etc.): **32,700 ft^2 X 0.0083 ft^2 of rain = 272.5 ft^3 X 75% runoff =2 04.38 ft^3 (7.2827) = 1,488.4 gallons**		**NO DISCHARGE** ☐

Parameter	Quantity or Loading			Quality or Concentration			No Ex	Frequency of Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Units			
Nitrate + Nitrite		0.34	Lbs	6.8		mg/L		Once each season	Grab
TSS		4.5	Lbs	90		mg/L		Once each season	Grab
TKN		NA	Lbs	NA		mg/L		Once each season	Grab
Iron		0.25	Lbs	5.0		mg/L		Once each season	Grab
Zinc		0.07	Lbs	1.3		mg/L		Once each season	Grab
Hardness		8.01	Lbs	160		mg/L		Once each season	Grab

APPENDIX M
Industrial and Maintenance Facility Monitoring Laboratory Reports

Superior Maintenance Yard

Environmental Science Corporation
Mount Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ
Superior Maintenance Yard

L413520

Lab SampleID.	Client ID
L413520-01	SMY

(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

EST. 1970

Environmental Science Corporation
Mt. Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ **SDG: L413520**
Project: Superior Maintenance Yard
L413520

July 28, 2009

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Hardness by Method 130.1

Laboratory Control Sample

Sample L413520-01 was analyzed in analytical batch WG432693. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG432693 sample duplicate analysis was performed on sample L413234-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG432693, matrix spike/matrix spike duplicate analysis was performed on sample L413320-01. The spike recoveries were below the laboratory control limits. The relative percent difference was within control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Suspended Solids by Method 2540D

Laboratory Control Sample

Sample L413520-01 was analyzed in analytical batch WG432703. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG432703 sample duplicate analysis was performed on sample L413446-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG432703 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Dissolved Solids by Method 2540C

Laboratory Control Sample

Sample L413520-01 was analyzed in analytical batch WG432871. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG432871 sample duplicate analysis was performed on sample L413340-01. The relative percent difference was within the method limits.

For: Engineering & Env. Consultants, INC. -AZ **SDG: L413520**
Project: Superior Maintenance Yard
L413520

July 28, 2009

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG432871 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Oil & Grease (Hexane Extr) by Method 1664A
Laboratory Control Sample
Sample L413520-01 was analyzed in analytical batch WG433438. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG433438 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 200.7
Laboratory Control Sample
Sample L413520-01 was analyzed in analytical batch WG432710. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample L413520-01 was analyzed in analytical batch WG433235. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG432710 sample duplicate analysis was performed on sample L413555-02. The relative percent differences were within the method limits.

For analytical batch WG433235 sample duplicate analysis was performed on sample L413952-02. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG432710 matrix spike/matrix spike duplicate analysis was performed on sample L413555-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

For analytical batch WG433235 matrix spike/matrix spike duplicate analysis was performed on sample L413952-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Environmental Science Corporation
Mt. Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ **SDG: L413520**
Project: Superior Maintenance Yard
L413520

July 28, 2009

Nancy F. Winters
ESC Representative
Environmental Science Corporation

ENVIRONMENTAL
SCIENCE CORP.

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Tuesday July 28, 2009

Report Number: L413520
Samples Received: 07/22/09
Client Project:

Description: Superior Maintenance Yard

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

Environmental Science Corporation
Mount Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ
Superior Maintenance Yard

L413520

Lab SampleID.	Client ID
L413520-01	SMY

(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Environmental Science Corporation

SAMPLE NUMBER
SMY

Customer : Engineering & Env. Consultants, INC. - Project :
Source : Date Sampled : 7/21/2009 10:05 AM
Location : Superior Maintenance Yard Sampled By :
Lab Sample ID : **L413520-01** Date Received : 7/22/2009

130.1

Analytic Batch: WG432693 Analysis Date: 7/23/2009 Analysis Time: 3:16 PM
Instrument: LACHAT3 Analyst: 236 Preparation Date: 7/23/2009 3:30
Method: 130.1 Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
471-34-1	Hardness	30	**90**	

1664A

Analytic Batch: WG433438 Analysis Date: 7/28/2009 Analysis Time: 12:20
Instrument: BAL Analyst: 078 Preparation Date: 7/28/2009 3:31
Method: 1664A Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Oil & Grease (Hexane Extr)	5.9	< 5.9	

2540C

Analytic Batch: WG432871 Analysis Date: 7/25/2009 Analysis Time: 12:01
Instrument: BAL Analyst: 193 Preparation Date: 7/23/2009 3:34
Method: 2540C Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Dissolved Solids	10	**350**	

2540D

Analytic Batch: WG432703 Analysis Date: 7/23/2009 Analysis Time: 8:41
Instrument: BAL Analyst: 193 Preparation Date: 7/22/2009 4:03
Method: 2540D Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Suspended Solids	1.0	**100**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
SMY

Customer : Engineering & Env. Consultants, INC. - Project :
Source : Date Sampled : 7/21/2009 10:05 AM
Location : Superior Maintenance Yard Sampled By :
Lab Sample ID : **L413520-01** Date Received : 7/22/2009

200.7
Analytic Batch: WG432710 Analysis Date: 7/23/2009 Analysis Time: 10:43
Instrument: ICP6 Analyst: 447 Preparation Date: 7/22/2009 4:11
Method: 200.7 Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper	0.020	**0.12**	

200.7
Analytic Batch: WG433235 Analysis Date: 7/27/2009 Analysis Time: 3:34 PM
Instrument: ICP7 Analyst: 454 Preparation Date: 7/26/2009 11:33
Method: 200.7 Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper,Dissolved	0.020	**0.069**	

LEGEND
RL - Reporting Limit

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Dissolved Solids by Method 2540C** L413520

Matrix: Water - mg/L

Project: Superior Maintenance Yard

Login No: L413520

Sample Number: L413520-01

Sample Date: 7/21/2009

Extraction Date: 7/23/2009

Analysis Date: 7/25/2009 12:01:00 PM

Instrument ID: BAL

Analyst: 193

Analytic Batch: WG432871 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Dissolved Solids		<10.0

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8660	98.4	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8630	98.0	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Dissolved Solids by Method 2540C** L413520

Matrix: Water - mg/L

Project: Superior Maintenance Yard

Login No: L413520

Sample Number: L413520-01

Sample Date: 7/21/2009

Extraction Date: 7/23/2009

Analysis Date: 7/25/2009 12:01:00 PM

Instrument ID: BAL

Analyst: 193

Analytic Batch: WG432871 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dissolved Solids	8800	8660	98.4	8630	98.0	85-115		0.4	20	

Sample Duplicate

L413340-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Dissolved Solids	81.0	79.0	2.5	5	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Hardness by Method 130.1** L413520

Matrix: Water - mg/L

Project: Superior Maintenance Yard

Login No: L413520

Sample Number: L413520-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009 3:16:00 PM

Instrument ID: LACHAT3

Analyst: 236

Analytic Batch: WG432693 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Hardness		<30.0

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	220	110	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	218	109	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Hardness by Method 130.1** L413520

Matrix: Water - mg/L
Project: Superior Maintenance Yard
Login No: L413520
Sample Number: L413520-01
Sample Date: 7/21/2009
Extraction Date: 7/22/2009
Analysis Date: 7/23/2009 3:16:00 PM
Instrument ID: LACHAT3
Analyst: 236
Analytic Batch: WG432693 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Qualifier	RPD	Control Limits	Qualifier
Hardness	200	220	110	218	109	85-115		0.9	20	

Sample Duplicate

L413234-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Hardness	260	247	5.1	20	

Matrix Spike/Matrix Spike Duplicate

L413320-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Hardness	150	260	357	64.7	357	64.7	80-120	M2	0.0	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Oil & Grease (Hexane Extr) by Method 1664A** L413520

Matrix: Water - mg/L
Project: Superior Maintenance Yard
Login No: L413520
Sample Number: L413520-01
Sample Date: 7/21/2009
Extraction Date: 7/28/2009
Analysis Date: 7/28/2009 12:20:00 PM
Instrument ID: BAL
Analyst: 078
Analytic Batch: WG433438 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Oil & Grease (Hexane Extr)		<5.00

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Oil & Grease (Hexane Extr)	40.0	40.0	100	78 - 114	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Oil & Grease (Hexane Extr)	40.0	35.0	87.5	78 - 114	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Oil & Grease (Hexane Extr) by Method 1664A** L413520

Matrix: Water - mg/L
Project: Superior Maintenance Yard
Login No: L413520
Sample Number: L413520-01
Sample Date: 7/21/2009
Extraction Date: 7/28/2009
Analysis Date: 7/28/2009 12:20:00 PM
Instrument ID: BAL
Analyst: 078
Analytic Batch: WG433438 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Oil & Grease (Hexane	40.0	40.0	100	35.0	87.5	78-114		13	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Suspended Solids by Method 2540D** L413520

Matrix: Water - mg/L
Project: Superior Maintenance Yard
Login No: L413520
Sample Number: L413520-01
Sample Date: 7/21/2009
Extraction Date: 7/22/2009
Analysis Date: 7/23/2009 8:41:00 AM
Instrument ID: BAL
Analyst: 193
Analytic Batch: WG432703 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Suspended Solids		<1.00

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	780	776	99.5	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	780	808	104	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Suspended Solids by Method 2540D** L413520

Matrix: Water - mg/L

Project: Superior Maintenance Yard

Login No: L413520

Sample Number: L413520-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009 8:41:00 AM

Instrument ID: BAL

Analyst: 193

Analytic Batch: WG432703 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	% Qualifier	RPD	Control Limits	Qualifier
Suspended Solids	780	776	99.5	808	104	85-115		4.0	20	

Sample Duplicate

L413446-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Suspended Solids	5.10	4.89	4.2	5	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413520

Matrix: Water - mg/L
Project: Superior Maintenance Yard
Login No: L413520
Sample Number: L413520-01
Sample Date: 7/21/2009
Extraction Date: 7/22/2009
Analysis Date: 7/23/2009
Instrument ID: ICP6
Analyst: 447
Analytic Batch: WG432710 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Copper	7440-50-8	<0.0200

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper	1.00	0.960	96.0	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413520

Matrix: Water - mg/L
Project: Superior Maintenance Yard
Login No: L413520
Sample Number: L413520-01
Sample Date: 7/21/2009
Extraction Date: 7/26/2009
Analysis Date: 7/27/2009
Instrument ID: ICP7
Analyst: 454
Analytic Batch: WG433235 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Copper,Dissolved	7440-50-8	<0.0200

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper,Dissolved	1.00	1.01	101	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413520

Matrix: Water - mg/L

Project: Superior Maintenance Yard

Login No: L413520

Sample Number: L413520-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009

Instrument ID: ICP6

Analyst: 447

Analytic Batch: WG432710 EPA ID: TN00003

Sample Duplicate

L413555-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Copper	0.00000	0.00160			

Matrix Spike/Matrix Spike Duplicate

L413555-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Copper	1.00	0.00000	0.985	98.5	0.977	97.7	75-125		0.8	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413520

Matrix: Water - mg/L

Project: Superior Maintenance Yard

Login No: L413520

Sample Number: L413520-01

Sample Date: 7/21/2009

Extraction Date: 7/26/2009

Analysis Date: 7/27/2009

Instrument ID: ICP7

Analyst: 454

Analytic Batch: WG433235 EPA ID: TN00003

Sample Duplicate

L413952-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Copper,Dissolved	0.00000	0.00050			

Matrix Spike/Matrix Spike Duplicate

L413952-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Copper,Dissolved	1.00	0.00000	1.01	101	1.01	101	75-125		0.0	20	

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: Gary Hoffmann

E-mail to: ghoffmann@eecphx.com

Project Description: **Superior Maintenance Yard**

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by:

Site/Facility ID#

P.O.#

Collected by(signature):

Packed on Ice N___ Y X

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____ Three Day.....25%

Date Results Needed

Email?___No_X__Yes
FAX?____No___Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	TDS 250ml HDPE No Pres	TSS 1L HDPE No Pres	OGHEX 1L Clr HCL	Cu 500ml HDPE HNO3	Cu (Dissolved) 500ml HDPE No Pres	Hardness 500ml HDPE NHO3			Remarks/contaminant	Sample # (lab only)
SMY	✓	SW		7/21/09	10:05	6	X	X	X	X	X	X				L413520-01

Analysis/Container/Preservative

Chain of Custody
Page__1_of__1_

C141

Prepared by:

ENVIRONMENTAL Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin

Shipped Via:

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH 6.71 Temp 75.2

Remarks:

Flow_____ Other_____

Relinquisher by:(Signature)	Date: 7/21/	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other	Condition (lab use only)	
Relinquisher by:(Signature)	Date:	Time:	Received by:(Signature)	Temp: 3.6°c	Bottles Received: 6	OK COC'd
Relinquisher by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 7.22.09	Time: 0745	pH Checked: 22 NCF

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(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L446185

For: Engineering & Env. Consultants, INC. -AZ
ADOT Yard Samples / Superior

L446185

Lab SampleID.	Client ID
L446185-01	STORAGE YARD

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Quality Control Summary
SDG: L446185

For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT Yard Samples / Superior
February 26, 2010

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Dissolved Solids by Method 2540C

Laboratory Control Sample

Sample L446185-01 was analyzed in analytical batch WG464708. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG464708 sample duplicate analysis was performed on sample L446178-01. The relative percent difference exceeded the method limits for Dissolved Solids.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG464708 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Suspended Solids by Method 2540D

Laboratory Control Sample

Sample L446185-01 was analyzed in analytical batch WG464786. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG464786 sample duplicate analysis was performed on sample L446062-01. The relative percent differences were within the method limits.

For analytical batch WG464786 sample duplicate analysis was performed on sample L446240-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG464786 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6010B

Laboratory Control Sample

Sample L446185-01 was analyzed in analytical batch WG464622. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

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Quality Control Summary
SDG: L446185

For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT Yard Samples / Superior
February 26, 2010

Sample Duplicate Analysis
For analytical batch WG464622 sample duplicate analysis was performed on sample L446209-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG464622 matrix spike/matrix spike duplicate analysis was performed on sample L446209-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015
Laboratory Control Sample
Sample L446185-01 was analyzed in analytical batch WG464621. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG464621 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nancy F. Winters
ESC Representative
ESC Lab Sciences

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Tax I.D. 62-0814289

Est. 1970

Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Friday February 26, 2010

Report Number: L446185
Samples Received: 02/23/10
Client Project: 308032.07

Description: ADOT-Superior

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Est. 1970

Quality Control Summary
SDG: L446185

For: Engineering & Env. Consultants, INC. -AZ
ADOT Yard Samples / Superior

L446185

Lab SampleID.	Client ID
L446185-01	STORAGE YARD

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SAMPLE NUMBER
STORAGE YARD

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.07
Source :		Date Sampled :	2/22/2010 10:30 AM
Location :	ADOT Yard Samples / Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L446185-01**	Date Received :	2/23/2010

2540C

Analytic Batch: WG464708 | Analysis Date: 2/25/2010 | Analysis Time: 2:02 PM
Instrument: BAL | Analyst: 183 | Preparation Date: 2/24/2010 9:53
Method: 2540C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
DSOLIDS	Dissolved Solids	10	**450**	

2540D

Analytic Batch: WG464786 | Analysis Date: 2/25/2010 | Analysis Time: 10:09
Instrument: BAL | Analyst: 183 | Preparation Date: 2/24/2010 3:29
Method: 2540D | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
SSOLIDS	Suspended Solids	1.0	**30**	

6010B

Analytic Batch: WG464622 | Analysis Date: 2/24/2010 | Analysis Time: 9:24
Instrument: ICP5 | Analyst: 438 | Preparation Date: 2/23/2010 3:00
Method: 6010B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper	0.020	**0.053**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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Est. 1970

SAMPLE NUMBER
STORAGE YARD

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.07
Source :		Date Sampled :	2/22/2010 10:30 AM
Location :	ADOT Yard Samples / Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L446185-01**	Date Received :	2/23/2010

8015

Analytic Batch: WG464621 | Analysis Date: 2/24/2010 | Analysis Time: 4:24 PM
Instrument: SVGC2 | Analyst: 280 | Preparation Date: 2/23/2010 3:00
Method: 8015 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	C10-C28 Diesel Range	0.10	**0.87**	
	C28-C40 Oil Range	0.10	**0.53**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**103**		

LEGEND

RL - Reporting Limit

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Dissolved Solids by Method 2540C		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464708**
Analysis Date:	2/25/2010 2:02:00 PM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446185-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Dissolved Solids		<10.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8920	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8860	101	85 - 115	

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Dissolved Solids by Method 2540C		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464708**
Analysis Date:	2/25/2010 2:02:00 PM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446185-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dissolved Solids	8800	8920	101	8860	101	85-115		0.6	20	

Sample Duplicate
L446178-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Dissolved Solids	170	156	8.6	5	R8

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464786**
Analysis Date:	2/25/2010 10:09:00 AM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446185-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Suspended Solids		<1.00	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	788	102	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	780	101	85 - 115	

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464786**
Analysis Date:	2/25/2010 10:09:00 AM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446185-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Suspended Solids	773	788	102	780	101	85-115		1.0	20	

Sample Duplicate
L446062-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	87.0	88.0	1.1	5	

Sample Duplicate
L446240-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	180	184	2.2	5	

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464622**
Analysis Date:	2/24/2010	Analyst:	438
Instrument ID:	ICP5	Extraction Date:	2/23/2010
Sample Numbers:	L446185-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Copper	7440-50-8	<0.0200	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper	1.13	1.14	101	85 - 115	

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464622**
Analysis Date:	2/24/2010	Analyst:	438
Instrument ID:	ICP5	Extraction Date:	2/23/2010
Sample Numbers:	L446185-01		

Sample Duplicate
L446209-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Copper	0.00000	0.0212			

Matrix Spike/Matrix Spike Duplicate
L446209-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Copper	1.13	0.0212	1.17	102	1.18	103	75-125		0.9	20	

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464621**
Analysis Date:	2/24/2010	Analyst:	280
Instrument ID:	SVGC2	Extraction Date:	2/23/2010
Sample Numbers:	L446185-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Diesel Range Organics		<0.10	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.39	92.7	50 - 150	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.48	98.7	50 - 150	

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464621**
Analysis Date:	2/24/2010	Analyst:	280
Instrument ID:	SVGC2	Extraction Date:	2/23/2010
Sample Numbers:	L446185-01		

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG464621	0.0229	114
LCS WG464621	0.0222	111
LCSD WG464621	0.0234	117
L446185-01	0.0207	103

o-terphenyl Limits - 50 - 150

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Quality Control Summary
SDG: L446185
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464621**
Analysis Date:	2/24/2010	Analyst:	280
Instrument ID:	SVGC2	Extraction Date:	2/23/2010
Sample Numbers:	L446185-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Diesel Range Organics	1.50	1.39	92.7	1.48	98.7	50-150		6.3	25	

Company Name/Address:
EEC Phx
7878 N 16th St
Suite 140
Phoenix, Az 85020

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page ___ of ___

G020

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

Report to: Gary Hoffmann
Email to: ghoffmann@eecphx.com

Project Description: ADOT Yard samples / Superior
City/State Collected: Superior, Az

Phone: 602-248-7702
FAX:

Client Project #: 308032.07

ESC Key:

Collected by: Gary Hoffmann

Site/Facility ID#:

P.O.#:

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day. 200%
___ Next Day. 100%
___ Two Day. 50%
___ Three Day. 25%

Date Results Needed:

Email? __No__Yes
FAX? __No__Yes

CoCode (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TDS/TSS	Cl2	TPH - DRO/ORO	Remarks/Contaminant	Sample # (lab only)
Storage Yard	Grab	OT	0'	2/22/10	10:30	4	x	x	x		L446185-01

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other SW

pH _____ Temp _____

Remarks:
4/341 9800 7716

Flow _____ Other _____

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	2/22/10	1410	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	2/22/10	1422	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)
			C. Gonda

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 3.4 | Bottles Received: 4

Date: 2.23.10 | Time: 0900

Condition: OK (lab use only)

CoC Seals Intact ___ Y ___ N ___ NA

pH Checked: 12 | NCF:

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Quality Control Summary
SDG: L447785

For: Engineering & Env. Consultants, INC. -AZ
ADOT Yard Samples / Superior

L447785

Lab SampleID.	Client ID
L447785-01	STORAGE YARD

ESC
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Quality Control Summary
SDG: L447785

For: Engineering & Env. Consultants, INC. -AZ
Project: ADOT Yard Samples / Superior
March 11, 2010

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Trace Metals by Method 6010B

Laboratory Control Sample

Sample L447785-01 was analyzed in analytical batch WG466962. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis

For analytical batch WG466962 sample duplicate analysis was performed on sample L447785-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG466962 matrix spike/matrix spike duplicate analysis was performed on sample L447785-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015

Laboratory Control Sample

Sample L447785-01 was analyzed in analytical batch WG466133. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG466133 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nancy F. Winters
ESC Representative
ESC Lab Sciences

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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

Report Summary

Thursday March 11, 2010

Report Number: L447785
Samples Received: 02/23/10
Client Project: 308032.07

Description: ADOT-Superior

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards

Daphne Richards , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002,NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

ESC LAB SCIENCES
YOUR LAB OF CHOICE

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(615) 758-5858
(800) 767-5859
Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L447785

For: Engineering & Env. Consultants, INC. -AZ
ADOT Yard Samples / Superior

L447785

Lab SampleID.	Client ID
L447785-01	STORAGE YARD

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SAMPLE NUMBER
STORAGE YARD

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.07
Source :		Date Sampled :	2/22/2010 10:30 AM
Location :	ADOT Yard Samples / Superior	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447785-01**	Date Received :	2/23/2010

6010B

Analytic Batch: WG466962 | Analysis Date: 3/10/2010 | Analysis Time: 8:54 PM
Instrument: ICP5 | Analyst: 454 | Preparation Date: 3/10/2010 8:49
Method: 6010B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper,Dissolved	0.020	< 0.020	

3510/DRO

Analytic Batch: WG466133 | Analysis Date: 3/5/2010 | Analysis Time: 7:58 PM
Instrument: SVGC7 | Analyst: 280 | Preparation Date: 3/4/2010 2:27 PM
Method: 3510/DRO | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
68334-30-5	TPH (GC/FID) High Fraction	0.10	**0.46**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**84.6**		

LEGEND

RL - Reporting Limit

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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Quality Control Summary
SDG: L447785
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466962**
Analysis Date:	3/10/2010	Analyst:	454
Instrument ID:	ICP5	Extraction Date:	3/10/2010
Sample Numbers:	L447785-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Copper,Dissolved	7440-50-8	<0.0200	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper,Dissolved	1.13	1.16	103	85 - 115	

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Quality Control Summary
SDG: L447785
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466962**
Analysis Date:	3/10/2010	Analyst:	454
Instrument ID:	ICP5	Extraction Date:	3/10/2010
Sample Numbers:	L447785-01		

Sample Duplicate
L447785-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Copper,Dissolved	0.00000	0.0000			

Matrix Spike/Matrix Spike Duplicate
L447785-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Copper,Dissolved	1.13	0.00000	1.18	104	1.16	103	75-125		1.7	20	

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Quality Control Summary
SDG: L447785
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466133**
Analysis Date:	3/5/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	3/4/2010
Sample Numbers:	L447785-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Diesel Range Organics		<0.10	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.28	85.3	50 - 150	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.22	81.3	50 - 150	

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Quality Control Summary
SDG: L447785
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466133**
Analysis Date:	3/5/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	3/4/2010
Sample Numbers:	L447785-01		

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG466133	0.0172	86.0
LCS WG466133	0.0167	83.4
LCSD WG466133	0.0160	80.2
L447785-01	0.0169	84.6

o-terphenyl Limits - 50 - 150

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Est. 1970

Quality Control Summary
SDG: L447785
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	ADOT Yard Samples / Superior	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466133**
Analysis Date:	3/5/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	3/4/2010
Sample Numbers:	L447785-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Diesel Range Organics	1.50	1.28	85.3	1.22	81.3	50-150		4.8	25	

Company Name/Address: EEC Phx, 7878 N 16th St, Suite 140, Phoenix, Az 85020	Alternate billing information:	Analysis/Container/Preservative	Chain of Custody Page ___ of ___ G020

ENVIRONMENTAL SCIENCE CORP.
12065 Lebanon Road
Mt. Juliet, TN 37122
Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

Report to: Gary Hoffmann
Email to: ghoffmann@eecphx.com
Project Description: ADOT Yard samples / Superior
City/State Collected: Superior, Az
Phone: 602-248-7702
FAX:
Client Project #: 308032.07
ESC Key:
Collected by: Gary Hoffmann
Site/Facility ID#:
P.O.#:
Collected by (signature): [signature]
Immediately Packed on Ice N___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day.......200%
___ Next Day........100%
___ Two Day........50%
___ Three Day.......25%

Date Results Needed:
Email? __No__Yes
FAX? __No__Yes

CoCode (lab use only)
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TDS/TSS	Cu	TPH-DRO/ORO				Remarks/Contaminant	Sample # (lab only)
Storage Yard	Grab	OT	0'	2/22/10	10:30	4	X	X	X				L447785-01	~~L446185-01~~

*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other SW

pH ________ Temp ________
Flow ________ Other ________

Remarks: 4341 9800 7716

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ___	Condition: OK (lab use only)
[signature]	2/22/10	1410	[signature]		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.4 / Bottles Received: 4	CoC Seals Intact ___ Y ___ N ✓ NA
[signature]	2/22/10	1422	[signature]		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 2.23.10 / Time: 0900	pH Checked: <2 / NCF:

Superior Fuel Yard

Environmental Science Corporation
Mount Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ
Superior Storage and Fueling Yard

L413522

Lab SampleID.	Client ID
L413522-01	SFY

(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

EST. 1970

For: Engineering & Env. Consultants, INC. -AZ **SDG: L413522**
Project: Superior Storage and Fueling Yard
L413522

July 28, 2009

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Hardness by Method 130.1

Laboratory Control Sample

Sample L413522-01 was analyzed in analytical batch WG432693. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG432693 sample duplicate analysis was performed on sample L413234-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG432693, matrix spike/matrix spike duplicate analysis was performed on sample L413320-01. The spike recoveries were below the laboratory control limits. The relative percent difference was within control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Suspended Solids by Method 2540D

Laboratory Control Sample

Sample L413522-01 was analyzed in analytical batch WG432703. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG432703 sample duplicate analysis was performed on sample L413446-01. The relative percent difference was within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG432703 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Dissolved Solids by Method 2540C

Laboratory Control Sample

Sample L413522-01 was analyzed in analytical batch WG432871. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG432871 sample duplicate analysis was performed on sample L413340-01. The relative percent difference was within the method limits.

For: Engineering & Env. Consultants, INC. -AZ **SDG: L413522**
Project: Superior Storage and Fueling Yard
L413522

July 28, 2009

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG432871 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 200.7
Laboratory Control Sample
Sample L413522-01 was analyzed in analytical batch WG432710. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample L413522-01 was analyzed in analytical batch WG433235. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG432710 sample duplicate analysis was performed on sample L413555-02. The relative percent differences were within the method limits.

For analytical batch WG433235 sample duplicate analysis was performed on sample L413952-02. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG432710 matrix spike/matrix spike duplicate analysis was performed on sample L413555-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

For analytical batch WG433235 matrix spike/matrix spike duplicate analysis was performed on sample L413952-02. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015
Laboratory Control Sample
Sample L413522-01 was analyzed in analytical batch WG432732. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG432732 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Environmental Science Corporation
Mt. Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ **SDG: L413522**
Project: Superior Storage and Fueling Yard
L413522

July 28, 2009

Nancy F. Winters
ESC Representative
Environmental Science Corporation

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Est. 1970

Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Tuesday July 28, 2009

Report Number: L413522
Samples Received: 07/22/09
Client Project:

Description: Superior Storage and Fueling Yard

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

Environmental Science Corporation
Mount Juliet, TN

For: Engineering & Env. Consultants, INC. -AZ
Superior Storage and Fueling Yard

L413522

Lab SampleID.	Client ID
L413522-01	SFY

(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Environmental Science Corporation

SAMPLE NUMBER
SFY

Customer : Engineering & Env. Consultants, INC. - Project :
Source : Date Sampled : 7/21/2009 10:35 AM
Location : Superior Storage and Fueling Yard Sampled By :
Lab Sample ID : **L413522-01** Date Received : 7/22/2009

130.1

Analytic Batch: WG432693 Analysis Date: 7/23/2009 Analysis Time: 3:17 PM
Instrument: LACHAT3 Analyst: 236 Preparation Date: 7/23/2009 3:30
Method: 130.1 Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
471-34-1	Hardness	30	**110**	

2540C

Analytic Batch: WG432871 Analysis Date: 7/25/2009 Analysis Time: 12:01
Instrument: BAL Analyst: 193 Preparation Date: 7/23/2009 3:34
Method: 2540C Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Dissolved Solids	10	**330**	

2540D

Analytic Batch: WG432703 Analysis Date: 7/23/2009 Analysis Time: 8:41
Instrument: BAL Analyst: 193 Preparation Date: 7/22/2009 4:03
Method: 2540D Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Suspended Solids	1.0	**100**	

200.7

Analytic Batch: WG432710 Analysis Date: 7/23/2009 Analysis Time: 10:46
Instrument: ICP6 Analyst: 447 Preparation Date: 7/22/2009 4:11
Method: 200.7 Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper	0.020	**0.43**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

SAMPLE NUMBER
SFY

Customer : Engineering & Env. Consultants, INC. - Project :
Source : Date Sampled : 7/21/2009 10:35 AM
Location : Superior Storage and Fueling Yard Sampled By :
Lab Sample ID : **L413522-01** Date Received : 7/22/2009

200.7

Analytic Batch: WG433235 Analysis Date: 7/27/2009 Analysis Time: 3:37 PM
Instrument: ICP7 Analyst: 454 Preparation Date: 7/26/2009 11:33
Method: 200.7 Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper,Dissolved	0.020	**0.049**	

3510/DRO

Analytic Batch: WG432732 Analysis Date: 7/23/2009 Analysis Time: 2:51 PM
Instrument: SVGC7 Analyst: 260 Preparation Date: 7/22/2009 5:00
Method: 3510/DRO Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
68334-30-5	TPH (GC/FID) High Fraction	0.10	**3.4**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**53.9**		

LEGEND

RL - Reporting Limit

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Dissolved Solids by Method 2540C** L413522
Matrix: Water - mg/L
Project: Superior Storage and Fueling Yard
Login No: L413522
Sample Number: L413522-01
Sample Date: 7/21/2009
Extraction Date: 7/23/2009
Analysis Date: 7/25/2009 12:01:00 PM
Instrument ID: BAL
Analyst: 193
Analytic Batch: WG432871 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Dissolved Solids		<10.0

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8660	98.4	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8630	98.0	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Dissolved Solids by Method 2540C** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/23/2009

Analysis Date: 7/25/2009 12:01:00 PM

Instrument ID: BAL

Analyst: 193

Analytic Batch: WG432871 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dissolved Solids	8800	8660	98.4	8630	98.0	85-115		0.4	20	

Sample Duplicate

L413340-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Dissolved Solids	81.0	79.0	2.5	5	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Hardness by Method 130.1** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009 3:17:00 PM

Instrument ID: LACHAT3

Analyst: 236

Analytic Batch: WG432693 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Hardness		<30.0

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	220	110	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	218	109	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Hardness by Method 130.1** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009 3:17:00 PM

Instrument ID: LACHAT3

Analyst: 236

Analytic Batch: WG432693 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Hardness	200	220	110	218	109	85-115		0.9	20	

Sample Duplicate

L413234-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Hardness	260	247	5.1	20	

Matrix Spike/Matrix Spike Duplicate

L413320-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Hardness	150	260	357	64.7	357	64.7	80-120	M2	0.0	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Suspended Solids by Method 2540D** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009 8:41:00 AM

Instrument ID: BAL

Analyst: 193

Analytic Batch: WG432703 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Suspended Solids		<1.00

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	780	776	99.5	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	780	808	104	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Suspended Solids by Method 2540D** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009 8:41:00 AM

Instrument ID: BAL

Analyst: 193

Analytic Batch: WG432703 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Suspended Solids	780	776	99.5	808	104	85-115		4.0	20	

Sample Duplicate

L413446-01

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Suspended Solids	5.10	4.89	4.2	5	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009

Instrument ID: ICP6

Analyst: 447

Analytic Batch: WG432710 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Copper	7440-50-8	<0.0200

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper	1.00	0.960	96.0	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/26/2009

Analysis Date: 7/27/2009

Instrument ID: ICP7

Analyst: 454

Analytic Batch: WG433235 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Copper,Dissolved	7440-50-8	<0.0200

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper,Dissolved	1.00	1.01	101	85 - 115	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009

Instrument ID: ICP6

Analyst: 447

Analytic Batch: WG432710 EPA ID: TN00003

Sample Duplicate

L413555-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Copper	0.00000	0.00160			

Matrix Spike/Matrix Spike Duplicate

L413555-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Copper	1.00	0.00000	0.985	98.5	0.977	97.7	75-125		0.8	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Trace Metals by Method 200.7** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/26/2009

Analysis Date: 7/27/2009

Instrument ID: ICP7

Analyst: 454

Analytic Batch: WG433235 EPA ID: TN00003

Sample Duplicate

L413952-02

Name	Sample Results	Results Duplicate	%RPD	Limit	Qualifiers
Copper,Dissolved	0.00000	0.00050			

Matrix Spike/Matrix Spike Duplicate

L413952-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Copper,Dissolved	1.00	0.00000	1.01	101	1.01	101	75-125		0.0	20	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Diesel Range Organics by Method 8015** L413522

Matrix: Water - mg/L
Project: Superior Storage and Fueling Yard
Login No: L413522
Sample Number: L413522-01
Sample Date: 7/21/2009
Extraction Date: 7/22/2009
Analysis Date: 7/23/2009
Instrument ID: SVGC7
Analyst: 260
Analytic Batch: WG432732 EPA ID: TN00003

Method Blank

Analyte	CAS	PQL
Diesel Range Organics		<0.10

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.22	81.2	50 - 150	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.16	77.1	50 - 150	

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Diesel Range Organics by Method 8015** L413522

Matrix: Water - mg/L
Project: Superior Storage and Fueling Yard
Login No: L413522
Sample Number: L413522-01
Sample Date: 7/21/2009
Extraction Date: 7/22/2009
Analysis Date: 7/23/2009
Instrument ID: SVGC7
Analyst: 260
Analytic Batch: WG432732 EPA ID: TN00003

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG432732	0.0189	94.7
LCS WG432732	0.0196	97.8
LCSD WG432732	0.0190	95.1
L413522-01	0.0108	53.9

o-terphenyl Limits - 50 - 150

Environmental Science Corporation

Quality Control Summary

Engineering & Env. Consultants, INC. -AZ

Test: **Diesel Range Organics by Method 8015** L413522

Matrix: Water - mg/L

Project: Superior Storage and Fueling Yard

Login No: L413522

Sample Number: L413522-01

Sample Date: 7/21/2009

Extraction Date: 7/22/2009

Analysis Date: 7/23/2009

Instrument ID: SVGC7

Analyst: 260

Analytic Batch: WG432732 EPA ID: TN00003

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Diesel Range Organics	1.50	1.22	81.2	1.16	77.1	50-150		5.2	25	

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: Gary Hoffmann

E-mail to: ghoffmann@eecphx.com

Project Description: **Superior Storage and Fueling Yard**

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by:

Site/Facility ID#

P.O.#

Collected by(signature):

Packed on Ice N___ Y ___

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____ Three Day.....25%

Date Results Needed

Email?___No_X__Yes
FAX?___No___Yes

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	TDS 250ml HDPE No Pres	TSS 1L HDPE No Pres	DRO(TPH) 1L Amb HCL	Cu 500ml HDPE HNO3	Cu (Dissolved) 500ml HDPE No Pres	Hardness 500ml HDPE NHO3			Remarks/contaminant	Sample # (lab only)
SFY	✓	SW		7/21/09	10:36	7	X	X	X	X	X	X				L413522-01

Chain of Custody
Page__1_of__1_

Prepared by: F199

ENVIRONMENTAL Science corp
12065 Lebanon Road
Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin

Shipped Via:

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other_____

pH 8.17 Temp 74.8

Remarks:

Flow____ Other____

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other GSA	Condition (lab use only)
	7/21/09	6:06			OK Cool
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.4° C	Bottles Received: 7	
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)	Date: 07-22-09	Time: 0900	pH Checked: C2	NCF

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Quality Control Summary
SDG: L446178

For: Engineering & Env. Consultants, INC. -AZ
Superior Fueling Yard

L446178

Lab SampleID.	Client ID
L446178-01	SUPERIOR FUEL YARD

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Quality Control Summary
SDG: L446178

For: Engineering & Env. Consultants, INC. -AZ
Project: Superior Fueling Yard
February 26, 2010

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Hardness, Total (mg/L as CaCO3) by Method 130.1

Laboratory Control Sample

Sample L446178-01 was analyzed in analytical batch WG464635. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG464635 sample duplicate analysis was performed on sample L445970-06. The relative percent differences were within the method limits.

For analytical batch WG464635 sample duplicate analysis was performed on sample L446044-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG464635, matrix spike/matrix spike duplicate analysis was performed on sample L445970-11. The spike recoveries were below the laboratory control limits. The relative percent difference was within control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Dissolved Solids by Method 2540C

Laboratory Control Sample

Sample L446178-01 was analyzed in analytical batch WG464708. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG464708 sample duplicate analysis was performed on sample L446178-01. The relative percent difference exceeded the method limits for Dissolved Solids.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG464708 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Suspended Solids by Method 2540D

Laboratory Control Sample

Sample L446178-01 was analyzed in analytical batch WG464787. The laboratory control sample associated with this sample was within the laboratory control limits.

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Quality Control Summary
SDG: L446178
For: Engineering & Env. Consultants, INC. -AZ
Project: Superior Fueling Yard
February 26, 2010

Sample Duplicate Analysis
For analytical batch WG464787 sample duplicate analysis was performed on sample L446192-01. The relative percent differences were within the method limits.

For analytical batch WG464787 sample duplicate analysis was performed on sample L446049-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG464787 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6010B
Laboratory Control Sample
Sample L446178-01 was analyzed in analytical batch WG464622. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample L446178-01 was analyzed in analytical batch WG464808. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG464622 sample duplicate analysis was performed on sample L446209-01. The relative percent differences were within the method limits.

For analytical batch WG464808 sample duplicate analysis was performed on sample L446355-06. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG464622 matrix spike/matrix spike duplicate analysis was performed on sample L446209-01. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

For analytical batch WG464808 matrix spike/matrix spike duplicate analysis was performed on sample L446355-06. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Diesel Range Organics by Method 8015
Laboratory Control Sample
Sample L446178-01 was analyzed in analytical batch WG464616. The laboratory control sample associated with this sample was within the laboratory control limits.

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Quality Control Summary
SDG: L446178

For: Engineering & Env. Consultants, INC. -AZ
Project: Superior Fueling Yard
February 26, 2010

Matrix Spike/Matrix Spike Duplicate
Precision for batch WG464616 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nancy F. Winters
ESC Representative
ESC Lab Sciences

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Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Friday February 26, 2010

Report Number: L446178
Samples Received: 02/23/10
Client Project: 308032.07

Description: Superior Fueling Yard

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Quality Control Summary
SDG: L446178

For: Engineering & Env. Consultants, INC. -AZ
Superior Fueling Yard

L446178

Lab SampleID.	Client ID
L446178-01	SUPERIOR FUEL YARD

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SAMPLE NUMBER
SUPERIOR FUEL YARD

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.07
Source :		Date Sampled :	2/22/2010 11:20 AM
Location :	Superior Fueling Yard	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L446178-01**	Date Received :	2/23/2010

130.1

Analytic Batch: WG464635 | Analysis Date: 2/24/2010 | Analysis Time: 3:24 PM
Instrument: LACHAT3 | Analyst: 234 | Preparation Date: 2/23/2010 4:31
Method: 130.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
471-34-1	Hardness, Total (mg/L as CaCO3)	30	< 30	

2540C

Analytic Batch: WG464708 | Analysis Date: 2/25/2010 | Analysis Time: 2:16 PM
Instrument: BAL | Analyst: 183 | Preparation Date: 2/24/2010 9:53
Method: 2540C | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
DSOLIDS	Dissolved Solids	10	**170**	R8

2540D

Analytic Batch: WG464787 | Analysis Date: 2/25/2010 | Analysis Time: 2:12 PM
Instrument: BAL | Analyst: 183 | Preparation Date: 2/24/2010 3:30
Method: 2540D | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
SSOLIDS	Suspended Solids	1.0	**22**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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SAMPLE NUMBER
SUPERIOR FUEL YARD

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.07
Source :		Date Sampled :	2/22/2010 11:20 AM
Location :	Superior Fueling Yard	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L446178-01**	Date Received :	2/23/2010

6010B
Analytic Batch: WG464622 Analysis Date: 2/24/2010 Analysis Time: 9:09
Instrument: ICP5 Analyst: 438 Preparation Date: 2/23/2010 3:00
Method: 6010B Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper	0.020	**0.054**	

6010B
Analytic Batch: WG464808 Analysis Date: 2/25/2010 Analysis Time: 4:06 PM
Instrument: ICP6 Analyst: 428 Preparation Date: 2/24/2010 4:34
Method: 6010B Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7440-50-8	Copper,Dissolved	0.020	< 0.020	

3510/DRO
Analytic Batch: WG464616 Analysis Date: 2/26/2010 Analysis Time: 8:04
Instrument: SVGC7 Analyst: 280 Preparation Date: 2/23/2010 2:55
Method: 3510/DRO Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
68334-30-5	TPH (GC/FID) High Fraction	0.10	**0.31**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**91.8**		

LEGEND

RL -	Reporting Limit

QUALIFIERS

R8 -	Sample RPD exceeded the method acceptance limit.

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Dissolved Solids by Method 2540C		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464708**
Analysis Date:	2/25/2010 2:16:00 PM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446178-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Dissolved Solids		<10.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8920	101	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Dissolved Solids	8800	8860	101	85 - 115	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Dissolved Solids by Method 2540C		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464708**
Analysis Date:	2/25/2010 2:16:00 PM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446178-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Dissolved Solids	8800	8920	101	8860	101	85-115		0.6	20	

Sample Duplicate
L446178-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Dissolved Solids	170	156	8.6	5	R8

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness, Total (mg/L as CaCO3) by Method 130.1		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464635**
Analysis Date:	2/24/2010 3:24:00 PM	Analyst:	234
Instrument ID:	LACHAT3	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Hardness		<30.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	210	105	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	207	103	85 - 115	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness, Total (mg/L as CaCO3) by Method 130.1		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464635**
Analysis Date:	2/24/2010 3:24:00 PM	Analyst:	234
Instrument ID:	LACHAT3	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Hardness	200	210	105	207	103	85-115		1.4	20	

Sample Duplicate
L445970-06

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Hardness	240	241	0.4	20	

Sample Duplicate
L446044-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Hardness	210	205	2.4	20	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness, Total (mg/L as CaCO3) by Method 130.1		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464635**
Analysis Date:	2/24/2010 3:24:00 PM	Analyst:	234
Instrument ID:	LACHAT3	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Matrix Spike/Matrix Spike Duplicate

L445970-11

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Hardness	300	360	462	34.0	454	31.3	80-120	M2	1.7	20	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464787**
Analysis Date:	2/25/2010 2:12:00 PM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446178-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Suspended Solids		<1.00	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	772	99.9	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	780	101	85 - 115	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464787**
Analysis Date:	2/25/2010 2:12:00 PM	Analyst:	183
Instrument ID:	BAL	Extraction Date:	2/24/2010
Sample Numbers:	L446178-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Suspended Solids	773	772	99.9	780	101	85-115		1.0	20	

Sample Duplicate
L446192-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	3400	3370	0.9	5	

Sample Duplicate
L446049-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	120	126	4.9	5	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464622**
Analysis Date:	2/24/2010	Analyst:	438
Instrument ID:	ICP5	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Copper	7440-50-8	<0.0200	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper	1.13	1.14	101	85 - 115	

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Fax (615) 758-5859
Tax I.D 62-0814289
Est. 1970

Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464808**
Analysis Date:	2/25/2010	Analyst:	428
Instrument ID:	ICP6	Extraction Date:	2/24/2010
Sample Numbers:	L446178-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Copper,Dissolved	7440-50-8	<0.0200	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Copper,Dissolved	1.13	1.07	94.7	85 - 115	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464622**
Analysis Date:	2/24/2010	Analyst:	438
Instrument ID:	ICP5	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Sample Duplicate
L446209-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Copper	0.00000	0.0212			

Matrix Spike/Matrix Spike Duplicate
L446209-01

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Copper	1.13	0.0212	1.17	102	1.18	103	75-125		0.9	20	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464808**
Analysis Date:	2/25/2010	Analyst:	428
Instrument ID:	ICP6	Extraction Date:	2/24/2010
Sample Numbers:	L446178-01		

Sample Duplicate
L446355-06

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Copper,Dissolved	0.00000	0.0046			

Matrix Spike/Matrix Spike Duplicate
L446355-06

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Copper,Dissolved	1.13	0.00460	1.12	98.7	1.15	101	75-125		2.6	20	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464616**
Analysis Date:	2/24/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Diesel Range Organics		<0.10	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.33	88.6	50 - 150	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Diesel Range Organics	1.50	1.36	90.6	50 - 150	

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464616**
Analysis Date:	2/24/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG464616	0.0146	73.0
LCS WG464616	0.0160	79.9
LCSD WG464616	0.0158	78.8
L446178-01	0.0184	91.8

o-terphenyl Limits - 50 - 150

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Quality Control Summary
SDG: L446178
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG464616**
Analysis Date:	2/24/2010	Analyst:	280
Instrument ID:	SVGC7	Extraction Date:	2/23/2010
Sample Numbers:	L446178-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Diesel Range Organics	1.50	1.33	88.6	1.36	90.6	50-150		2.2	25	

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: Gary Hoffmann

E-mail to: ghoffmann@eecaphx.com

Project Description: **Superior ~~Storage and~~ Fueling Yard**

City/State Collected:

PHONE:602-248-7702

FAX: 602-248-7851

Client Project No. 308032.07

Lab Project #

Collected by: Gary Hoffmann

Collected by(signature):

Site/Facility ID#

P.O.#

Packed on Ice N___ Y X

Rush? (Lab MUST be Notified)

_____Next Day.....100%

_____Two Day.....50%

_____ Three Day.....25%

Date Results Needed

Email?___No_X__Yes

FAX?___No___Yes

No of Cntrs

Analysis/Container/Preservative

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Cntrs	TDS 250ml HDPE No Pres	TSS 1L HDPE No Pres	DRO(TPH) 1L Amb HCL	Cu 500ml HDPE HNO3	Cu (Dissolved) 500ml HDPE No Pres *	Hardness 500ml HDPE NHO3			Remarks/contaminant	Sample # (lab only)
Superior ~~Fuel~~ Fueling Yard	Grab	OT	0	2/22/10	11:20	7	X	X	X	X	X	X				L446178-01

G018

Chain of Custody Page__1_of__1_

Prepared by:

ENVIRONMENTAL Science corp

12065 Lebanon Road

Mt. Juliet TN 37122

Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)

ENGENVPAZ

Template/Prelogin

Shipped Via:

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other SW

Remarks: * Filter at Lab!! 4341 9800 7216

pH_____ Temp_____

Flow_____ Other_____

Relinquisher by:(Signature)	Date:	Time:	Received by: (Signature)
	2/22/10	1410	
Relinquisher by:(Signature)	Date:	Time:	Received by: (Signature)
	2/22/10	1422	
Relinquisher by:(Signature)	Date:	Time:	Received for lab by: (Signature)

Samples returned via: FedEx UPS__Other__

Temp: 3.1

Bottles Received: 7

Date: 2.23.10

Time: 0900

Condition (lab use only): ok

pH Checked: 2

NCF:

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Est. 1970

Quality Control Summary
SDG: L447787

For: Engineering & Env. Consultants, INC. -AZ
Superior Fueling Yard

L447787

Lab SampleID.	Client ID
L447787-01	SUPERIOR FUEL YARD

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Quality Control Summary
SDG: L447787

For: Engineering & Env. Consultants, INC. -AZ
Project: Superior Fueling Yard
March 09, 2010

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Diesel Range Organics by Method 8015

Laboratory Control Sample

Sample L447787-01 was analyzed in analytical batch WG466633. The laboratory control sample associated with this sample was within the laboratory control limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG466633 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nancy F. Winters
ESC Representative
ESC Lab Sciences

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Est. 1970

Gary Hoffmann
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Tuesday March 09, 2010

Report Number: L447787
Samples Received: 02/23/10
Client Project: 308032.07

Description: Superior Fueling Yard

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:

Jarred Willis, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures: 060302, 060303, and 060304.

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Quality Control Summary
SDG: L447787

For: Engineering & Env. Consultants, INC. -AZ
Superior Fueling Yard

L447787

Lab SampleID.	Client ID
L447787-01	SUPERIOR FUEL YARD

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SAMPLE NUMBER
SUPERIOR FUEL YARD

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.07
Source :		Date Sampled :	2/22/2010 11:20 AM
Location :	Superior Fueling Yard	Sampled By :	Gary Hoffmann
Lab Sample ID :	**L447787-01**	Date Received :	2/23/2010

8015

Analytic Batch: WG466633 | Analysis Date: 3/7/2010 | Analysis Time: 9:55 PM
Instrument: SVGC2 | Analyst: 287 | Preparation Date: 3/8/2010 12:13
Method: 8015 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	C10-C28 Diesel Range	0.10	**0.65**	
	C28-C40 Oil Range	0.10	**0.23**	

Surrogates

Analyte	PERCENT RECOVERY	QUALIFIERS	FLAG
o-Terphenyl	**93.9**		

LEGEND

RL - Reporting Limit

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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Est. 1970

Quality Control Summary
SDG: L447787
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466633**
Analysis Date:	3/7/2010	Analyst:	287
Instrument ID:	SVGC2	Extraction Date:	3/8/2010
Sample Numbers:	L447787-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Extractable Petroleum Hydrocarbons		<0.10	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Extractable Petroleum Hydrocarbons	1.50	1.22	81.4	50 - 100	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Extractable Petroleum Hydrocarbons	1.50	1.05	69.8	50 - 100	

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Est. 1970

Quality Control Summary
SDG: L447787
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466633**
Analysis Date:	3/7/2010	Analyst:	287
Instrument ID:	SVGC2	Extraction Date:	3/8/2010
Sample Numbers:	L447787-01		

Surrogate Summary

Laboratory Sample ID	o-terphenylD ppm	% Rec
Blank WG466633	0.0192	96.1
LCS WG466633	0.0205	102
LCSD WG466633	0.0174	87.1
L447787-01	0.0188	93.9

o-terphenyl Limits - 50 - 150

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Est. 1970

Quality Control Summary
SDG: L447787
Engineering & Env. Consultants, INC. -AZ

Test:	Diesel Range Organics by Method 8015		
Project No:	308032.07	Matrix:	Water - mg/L
Project:	Superior Fueling Yard	EPA ID:	TN00003
Collection Date:	2/22/2010	**Analytic Batch:**	**WG466633**
Analysis Date:	3/7/2010	Analyst:	287
Instrument ID:	SVGC2	Extraction Date:	3/8/2010
Sample Numbers:	L447787-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Extractable Petroleum	1.50	1.22	81.4	1.05	69.8	50 - 100		15	20	

Company Name/Address

EEC

7878 N. 16th St., Suite 140
Phoenix, AZ 85020

Alternate Billing

Report to: Gary Hoffmann

E-mail to: ghoffmann@eecaz.com

Project Description: Superior ~~Storage and~~ Fueling Yard

City/State Collected:

PHONE:602-248-7702
FAX: 602-248-7851

Client Project No.: 308032.07

Lab Project #

Collected by: Gary Hoffmann

Site/Facility ID#

P.O.#

Collected by(signature):

Packed on Ice N__ Y X

Rush? (Lab MUST be Notified)
_____Next Day.....100%
_____Two Day.....50%
_____Three Day.....25%

Date Results Needed

Email?__No_X__Yes
FAX?___No___Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	TDS 250ml HDPE No Pres	TSS 1L HDPE No Pres	DRO(TPH) 1L Amb HCL	Cu 500ml HDPE HNO3	Cu (Dissolved) 500ml HDPE No Pres	Hardness 500ml HDPE NHO3			Remarks/contaminant	Sample # (lab only)
Superior ~~Yard~~ Fuel Yard	Grab	OT	0	2/22/10	11:20	7	X	X	X	X	X	X			L447787-01	~~L446178-01~~

Analysis/Container/Preservative

Chain of Custody
Page__1_of__1_

G018

Prepared by:

ENVIRONMENTAL Science corp
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Mt. Juliet TN 37122
Phone (615)758-5858
Phone (800) 767-5859
FAX (615)758-5859

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin

Shipped Via:

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other SW

Remarks: ~~Filter at Lab!!~~ 4341 9800 7216

pH_____ Temp_____
Flow_____ Other_____

Relinquisher by:(Signature)	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__UPS__Other__	Condition (lab use only)
Relinquisher by:(Signature)	Date: 2/22/10	Time: 1410	Received by: (Signature)	Temp: 3.4 / Bottles Received: 7	OK
Relinquisher by:(Signature)	Date: 2/22/10	Time: 1422	Received by: (Signature)		
Relinquisher by:(Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2.23.10 / Time: 0900	pH Checked: 2 / NCF:

Nogales Maintenance Yard

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Est. 1970

John Burton
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Wednesday July 08, 2009

Report Number: L410057
Samples Received: 06/30/09
Client Project:

Description: Nogales Yard

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

John Burton
Engineering & Env. Consultants, INC
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

July 08, 2009

ESC Sample # : L410057-01

Date Received : June 30, 2009
Description : Nogales Yard

Site ID :

Sample ID : NOG 2

Project # :

Collected By :
Collection Date : 06/29/09 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Hardness	250	30.	mg/l	130.1	07/07/09	1
Ammonia Nitrogen	0.74	0.10	mg/l	350.1	07/07/09	1
Dissolved Solids	630	10.	mg/l	2540C	07/06/09	1
Suspended Solids	20.	1.0	mg/l	2540D	07/01/09	1
Copper	BDL	0.020	mg/l	200.7	07/04/09	1
TPH (GC/FID) High Fraction	9.2	0.10	mg/l	3510/DRO	07/03/09	1
Surrogate recovery(%)						
o-Terphenyl	131.		% Rec.	3510/DRO	07/03/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 07/08/09 13:14 Printed: 07/08/09 14:23

Summary of Remarks For Samples Printed
07/08/09 at 14:23:53

TSR Signing Reports: 288
R5 - Desired TAT

Sample: L410057-01 Account: ENGENVPAZ Received: 06/30/09 09:00 Due Date: 07/07/09 00:00 RPT Date: 07/08/09 13:14

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Engineering & Env. Consultants, INC. -AZ
John Burton
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Quality Assurance Report
Level II

L410057

July 08, 2009

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
TPH (GC/FID) High Fraction	< .1	ppm			WG429554	07/02/09 22:10
o-Terphenyl		% Rec.	93.09	50-150	WG429554	07/02/09 22:10
Copper	< .02	mg/l			WG429797	07/04/09 15:31
Dissolved Solids	< 10	mg/l			WG429498	07/06/09 14:19
Suspended Solids	< 1	mg/l			WG429272	07/01/09 15:42
Ammonia Nitrogen	< .1	mg/l			WG429462	07/07/09 10:07
Hardness	< 30	mg/l			WG430120	07/07/09 18:45

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Copper	mg/l	0.165	0.160	3.08	20	L410413-01	WG429797
Dissolved Solids	mg/l	37400	36000	3.85	5	L410008-01	WG429498
Suspended Solids	mg/l	16.2	15.0	7.91*	5	L409935-02	WG429272
Ammonia Nitrogen	mg/l	11.9	11.0	7.86	20	L410148-01	WG429462
Ammonia Nitrogen	mg/l	0.241	0.360	39.6*	20	L410119-01	WG429462
Hardness	mg/l	0.00	0.00	0.00	20	L410329-03	WG430120
Hardness	mg/l	70.3	88.0	22.4*	20	L408944-01	WG430120

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
TPH (GC/FID) High Fraction	ppm	1.5	1.32	87.8	50-150	WG429554
o-Terphenyl				102.0	50-150	WG429554
Copper	mg/l	1	0.994	99.4	85-115	WG429797
Dissolved Solids	mg/l	8800	8610	97.9	85-115	WG429498
Suspended Solids	mg/l	780	780.	100.	85-115	WG429272
Ammonia Nitrogen	mg/l	7.5	8.13	108.	90-110	WG429462
Hardness	mg/l	200	194.	97.0	85-115	WG430120

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Est. 1970

Engineering & Env. Consultants, INC. -AZ
John Burton
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Quality Assurance Report
Level II

L410057

July 08, 2009

		Laboratory Control Sample Duplicate						
Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
TPH (GC/FID) High Fraction	ppm	1.34	1.32	90.0	50-150	1.96	25	WG429554
o-Terphenyl				95.82	50-150			WG429554
Dissolved Solids	mg/l	8640	8610	98.0	85-115	0.325	20	WG429498
Suspended Solids	mg/l	788.	780.	101.	85-115	1.02	20	WG429272
Ammonia Nitrogen	mg/l	8.00	8.13	107.	90-110	1.61	20	WG429462
Hardness	mg/l	198.	194.	99.0	85-115	2.04	20	WG430120

		Matrix Spike						
Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Copper	mg/l	1.25	0.160	1	109.	75-125	L410413-01	WG429797
Ammonia Nitrogen	mg/l	6.24	0.580	5	113.*	90-110	L410119-02	WG429462
Hardness	mg/l	279.	160.	150	79.3*	80-120	L410119-01	WG430120

		Matrix Spike Duplicate							
Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Copper	mg/l	1.24	1.25	108.	75-125	0.803	20	L410413-01	WG429797
Ammonia Nitrogen	mg/l	6.31	6.24	114.6*	90-110	1.12	20	L410119-02	WG429462
Hardness	mg/l	277.	279.	78*	80-120	0.719	20	L410119-01	WG430120

Batch number /Run number / Sample number cross reference

WG429554: R802506: L410057-01
WG429797: R803969: L410057-01
WG429498: R804446: L410057-01
WG429272: R804867: L410057-01
WG429462: R806006: L410057-01
WG430120: R807086: L410057-01

* * Calculations are performed prior to rounding of reported values .
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Phoenix, AZ 85020

Quality Assurance Report
Level II

L410057

July 08, 2009

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Company Name/Address	Alternate Billing	Analysis/Container/Preservative	Chain of Custody Page_1_of_1_
EEC **7878 N. 16th St., Suite 140** **Phoenix, AZ 85020**	Report to: John Burton E-mail to: JBurton@EECPHX.com		Prepared by: B093 ENVIRONMENTAL Science corp 12065 Lebanon Road Mt. Juliet TN 37122 Phone (615)758-5858 Phone (800) 767-5859 FAX (615)758-5859

Project Description: **Nogales Yard**

City/State Collected:

PHONE:602-248-7702

FAX: 602-248-7851

Client Project No.

Lab Project #

Collected by: [signature]

Site/Facility ID#

P.O.#

Collected by(signature): [signature]

Rush? (Lab MUST be Notified)
______Next Day..........100%
______Two Day...........50%
______Three Day.........25%

Date Results Needed

Email?__No_X__Yes
FAX?___No___Yes

Packed on Ice N___ Y ___

CoCode (lab use only)
ENGENVPAZ
Template/Prelogin
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	TDS 250ml HDPE No Pres	TSS 1L HDPE No Pres	DRO(TPH) 1L Amb HCL	Cu 500ml HDPE HNO3	Hardness 250ml HDPE HNO3	Ammonia as N 250ml HDPE H2SO4	~~Chlorine 250ml HDPE No Pres~~	~~E. Coli ... Tunnel Labs~~	Remarks/contaminant	Sample # (lab only)
NOG 2	Comp	WW		6/25/09	1200	7	X	X	X	X	X	X	~~X~~	~~X~~		L410057-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other______

pH__________ Temp_________

Remarks: metals not filtered in field

Flow_________ Other_________

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other__		Condition (lab use only)
[signature]	6/29/09	1400	Fed Ex			OK
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.7°C	Bottles Received: 7	
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature) J. Feller	Date: 06-30-09	Time: 0900	pH Checked: <2 NCF:

9669 7453 7278

MAR 1 1 2010

March 09, 2010

Tom Ross
Engineering and Environmental Consultants, Inc.
4625 E. Ft. Lowell Road,
Tucson, AZ 85712

TEL (520) 321-4625
FAX (520) 547-5650

Work Order No.: 10B0622

RE: ADOT SW (Nogales)

Dear Tom Ross,

Turner Laboratories, Inc. received 1 sample(s) on 02/23/2010 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Terri L. Garcia

Terri Garcia
Technical Director

Client: Engineering and Environmental Consultants, Inc
Project: ADOT SW (Nogales)
Work Order: 10B0622
Date Received: 02/23/2010

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
10B0622-01	Nogales ADOT SW 022310	Storm Water	02/23/2010 0725

Client: Engineering and Environmental Consultants, Inc.
Project: ADOT SW (Nogales)
Work Order: 10B0622
Date Received: 02/23/2010

Case Narrative

Job Address Nogales Maintenance Yard 1340 North Hohokam Drive Nogales AZ

E	Value is above quantitation range.
L1	The associated LCS/LCSD recovery was above laboratory acceptance limits.
M2	Matrix spike recovery was low; the associated LCS/LCSD was acceptable.
R7	MS/MSD RPD exceeded the method acceptance limit.
ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Turner Laboratories, Inc.

Date: 03/09/2010

Client: Engineering and Environmental Consultants
Project: ADOT SW (Nogales)
Work Order: 10B0622
Lab Sample ID: 10B0622-01

Client Sample ID: Nogales ADOT SW 022310
Collection Date/Time: 02/23/2010 0725
Matrix: Storm Water

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
C10-C32 Hydrocarbons-8015AZR1(Mod)								
C10-C22 (Diesel Range Organics)	ND	3.0	R7	mg/L	1	02/23/2010 0943	02/24/2010 1137	DCB
C10-C32 (Total)	ND	13	R7	mg/L	1	02/23/2010 0943	02/24/2010 1137	DCB
C22-C32 (Oil Range Organics)	ND	10	L1	mg/L	1	02/23/2010 0943	02/24/2010 1137	DCB
C6-C10 (Gasoline Range Organics)	ND	2.0		mg/L	1	02/23/2010 0943	02/24/2010 1137	DCB
Surr: o-Terphenyl	*76*	*70-130*		*%REC*	*1*	*02/23/2010 0943*	*02/24/2010 1137*	*DCB*
Surr: Trifluorotoluene	*85*	*70-130*		*%REC*	*1*	*02/23/2010 0943*	*02/24/2010 1137*	*DCB*
Calculation								
Hardness, Ca & Mg	860			mg/L	1	02/24/2010 0930	02/25/2010 1331	RAD
ICP Dissolved Metals-E 200.7								
Copper	0.022	0.020		mg/L	1	02/24/2010 0850	02/25/2010 1450	RAD
ICP Total Metals-E200.7								
Calcium	240	4.0		mg/L	1	02/24/2010 0930	02/25/2010 1331	RAD
Copper	0.044	0.020		mg/L	1	02/24/2010 0930	02/25/2010 1331	RAD
Magnesium	65	3.0		mg/L	1	02/24/2010 0930	02/25/2010 1331	RAD
Total Residual Chlorine-H8167								
Total Residual Chlorine	ND	0.10	M2	mg/L	1	02/23/2010 1035	02/23/2010 1135	JM
Total Dissolved Solids (Residue, Filterable)-SM2540 C								
Total Dissolved Solids (Residue, Filterable)	1900	20		mg/L	1	02/25/2010 0810	03/01/2010 1145	JM
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D								
Total Suspended Solids	260	10		mg/L	1	02/25/2010 0900	02/25/2010 1500	JM
Ammonia as N-SM4500 B,C								
Nitrogen, Ammonia (As N)	ND	0.50		mg/L	1	03/02/2010 0820	03/02/2010 1535	EW
Total Coliform & E. Coli, MPN-SM9223B								
E.Coli	2	1		org/100 mL	1	02/23/2010 1010	02/24/2010 1050	EW
Total Coliform	2400	1	E	org/100 mL	1	02/23/2010 1010	02/24/2010 1050	EW

Chrissie Hancock

From: "John Burton" <jburton@eecphx.com>
Date: Monday, February 22, 2010 3:11 PM
To: "Tom Ross" <TRoss@eectuc.com>; "Chad Hancock" <chancock@eectuc.com>
Attach: Site Plan.pdf
Subject: Nogales Yard Sampling
308032.07/INDST/ES4

The Nogales Maintenance Yard is located at 1340 North Hohokam Drive in Nogales, Arizona.

Parameters for Analyses

- Total Dissolved Solids (TDS)
- Total Suspended Solids (TSS)
- Total Petroleum Hydrocarbons (TPH) DRO to be specific
- Total and Dissolved Copper
- Hardness (required as part of dissolved copper comparison level)
- Ammonia
- Escherichia-coli (E-coli) - MPN
- Chlorine

Let me know if you need anything else...thanks for the help !

John Burton
Project Manager | Environmental Services
Engineering and Environmental Consultants, Inc. (EEC)
7878 N. 16th Street, Suite 140, Phoenix, AZ 85020
Tel 602-248-7702 | Ext 319 | Fax 602-248-7851
jburton@eecphx.com
Visit us @ eec-info.com

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Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 10B0622 DATE _____ PAGE _____ OF _____

PROJECT NAME ADOT SW (Nogales) # 308032.07
CONTACT NAME Tom Ross
COMPANY NAME EEC
ADDRESS 4625 E. Fort Lowell
Tucson AZ 85712 PHONE 520-321-4625 FAX 520-321-0333
SAMPLER'S SIGNATURE [signature]

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	Base Neutrals 625/8270	Acids	Volatile Organics 624/524.2/8260	TTHMS	HAA5	Pesticides 8081	PCB's 8082	NO_2	NO_3	TKN	Oil and Grease Grav. 1664A	TCLP Analysis VOA	Semi-VOA	Pest.	TCLP	Metals Dissolved	Total	RCRA8	CT	Cyanide Total	Amen.	WAD	SDWA-INORGANICS PRIMARY	SECONDARY	MPN	Coliform	Colilert	pH	Cr_6	Cl_2	COD	TSS	BOD	TDS	8015 (TPH-DRO)	NH_3
Nogales ADOT SW 022310	2/23/10	0725		SW	8																	✓							✓		✓		✓		✓		✓	✓	✓	✓

1. RELINQUISHED BY:
Signature [signature]
Printed Name Chad S. Hancock
Firm EEC
Date/Time 2/23/10 0918

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS:
____ Standard (approx. 10 days)*
____ Next Day ____ 2 Day ____ 5 Day*
____ Email Preliminary Results To:
* Working Days

REPORT REQUIREMENTS:
____ I. Routine Report
____ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
____ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
Account ____Y ____N
P.O. # _____
Bill to: _____

SAMPLE RECEIPT:
Total Containers 8
Temperature 5
☑ Wet Ice ☐ Blue Ice

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature [signature]
Printed Name STEPHEN LONDON
Firm TURNER LABORATORIES, INC.
Date/Time 2-23-10 918

* LEGEND
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

SPECIAL INSTRUCTIONS/COMMENTS:

Compliance Analysis: ☐ Yes ☐ No		Custody Seals ☐	Preservation Confirmation ☐
ADEQ Forms: ☐ Yes ☐ No		Container Intact ☑	Appropriate Head Space ☐
Mail ADEQ Forms: ☐ Yes ☐ No		COC / Labels Agree ☑	Received Within Hold Time ☑

Durango Sign Factory

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Quality Control Summary
SDG: L420220

For: Engineering & Env. Consultants, INC. -AZ
Durango Sign Factory

L420220

Lab SampleID.	Client ID
L420220-01	MS4-D

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Quality Control Summary
SDG: L420220

For: Engineering & Env. Consultants, INC. -AZ
Project: Durango Sign Factory
September 09, 2009

Sample Receiving and Handling

All sample aliquots were received at the correct temperature, in the proper containers, and with the appropriate preservatives. All method specified holding times were met.

Suspended Solids by Method 2540D

Laboratory Control Sample

Sample L420220-01 was analyzed in analytical batch WG439280. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG439280 sample duplicate analysis was performed on sample L420268-01. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate

Precision for batch WG439280 was evaluated using the LCS / LCSD. The RPDs were within method limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Hardness by Method 130.1

Laboratory Control Sample

Sample L420220-01 was analyzed in analytical batch WG439493. The laboratory control sample associated with this sample was within the laboratory control limits.

Sample Duplicate Analysis

For analytical batch WG439493 sample duplicate analysis was performed on sample L420111-08. The relative percent differences were within the method limits.

For analytical batch WG439493 sample duplicate analysis was performed on sample L420588-01. The relative percent difference exceeded the method limits for Hardness.

Matrix Spike/Matrix Spike Duplicate

For analytical batch WG439493, matrix spike/matrix spike duplicate analysis was performed on sample L419669-11. The spike recoveries were below the laboratory control limits. The relative percent difference was within control limits.

Blank Analysis

The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nitrate-Nitrite by Method 353.2

Laboratory Control Sample

Sample L420220-01 was analyzed in analytical batch WG439702. The laboratory control sample associated with this sample was within the laboratory control limits.

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Quality Control Summary
SDG: L420220

For: Engineering & Env. Consultants, INC. -AZ
Project: Durango Sign Factory
September 09, 2009

Sample Duplicate Analysis
For analytical batch WG439702 sample duplicate analysis was performed on sample L420201-09. The relative percent differences were within the method limits.

For analytical batch WG439702 sample duplicate analysis was performed on sample L420167-04. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG439702, matrix spike/matrix spike duplicate analysis was performed on sample L420702-02. The spike recoveries and relative percent differences were within laboratory control limits.

Blank Analysis
The method blank, the initial, and all continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Trace Metals by Method 6010B
Laboratory Control Sample
Sample L420220-01 was analyzed in analytical batch WG439327. The laboratory control sample associated with this sample was within the laboratory control limits for all compounds.

Sample Duplicate Analysis
For analytical batch WG439327 sample duplicate analysis was performed on sample L420201-09. The relative percent differences were within the method limits.

Matrix Spike/Matrix Spike Duplicate
For analytical batch WG439327 matrix spike/matrix spike duplicate analysis was performed on sample L420201-09. The matrix spike recoveries and relative percent differences were within laboratory control limits for all target analytes.

Blank Analysis
For batch WG439327, the concentration of Iron was above the method reporting limit.

The the initial and continuing calibration blanks contained no analytes at concentrations above the method reporting limit.

Nancy F. Winters
ESC Representative
ESC Lab Sciences

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John Burton
Engineering & Env. Consultants, INC. -AZ
7878 N. 16th Street, Suite 140

Phoenix, AZ 85020

Report Summary

Wednesday September 09, 2009

Report Number: L420220
Samples Received: 09/02/09
Client Project: 308032.05

Description: Durango Sign Factory

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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Quality Control Summary
SDG: L420220

For: Engineering & Env. Consultants, INC. -AZ
Durango Sign Factory

L420220

Lab SampleID.	Client ID
L420220-01	MS4-D

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SAMPLE NUMBER
MS4-D

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :	MS4-DURANGO	Date Sampled :	9/1/2009 11:45 AM
Location :	Durango Sign Factory	Sampled By :	Phillip McNamara
Lab Sample ID :	**L420220-01**	Date Received :	9/2/2009

130.1

Analytic Batch: WG439493 | Analysis Date: 9/4/2009 | Analysis Time: 2:07 PM
Instrument: LACHAT3 | Analyst: 236 | Preparation Date: 9/4/2009 2:32 PM
Method: 130.1 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
471-34-1	Hardness	30	**160**	

353.2

Analytic Batch: WG439702 | Analysis Date: 9/8/2009 | Analysis Time: 5:09
Instrument: LACHAT2 | Analyst: 236 | Preparation Date: 9/4/2009 5:29 PM
Method: 353.2 | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7727-37-9	Nitrate-Nitrite	0.10	**6.8**	

2540D

Analytic Batch: WG439280 | Analysis Date: 9/3/2009 | Analysis Time: 12:48
Instrument: BAL | Analyst: 193 | Preparation Date: 9/2/2009 3:49 PM
Method: 2540D | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
	Suspended Solids	1.0	**90**	

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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SAMPLE NUMBER
MS4-D

Customer :	Engineering & Env. Consultants, INC. -	Project :	308032.05
Source :	MS4-DURANGO	Date Sampled :	9/1/2009 11:45 AM
Location :	Durango Sign Factory	Sampled By :	Phillip McNamara
Lab Sample ID :	**L420220-01**	Date Received :	9/2/2009

6010B

Analytic Batch: WG439327 | Analysis Date: 9/4/2009 | Analysis Time: 10:42
Instrument: ICP5 | Analyst: 438 | Preparation Date: 9/3/2009 8:16 AM
Method: 6010B | Dilution: 1

CAS NO	Analyte	RL mg/l	RESULTS mg/l	FLAG
7429-90-5	Aluminum	0.10	**4.3**	
7439-89-6	Iron	0.10	**5.0**	B1
7440-66-6	Zinc	0.030	**1.3**	

LEGEND

RL - Reporting Limit

QUALIFIERS

B1 - Target analyte detected in method blank at or above the method reporting limit.

Comments: 1) Sample results are reported as rounded values.
2) These results are applicable only to the items tested.

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness by Method 130.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439493**
Analysis Date:	9/4/2009 2:07:00 PM	Analyst:	236
Instrument ID:	LACHAT3	Extraction Date:	9/3/2009
Sample Numbers:	L420220-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Hardness		<30.0	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	191	95.5	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Hardness	200	191	95.5	85 - 115	

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Est. 1970

Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness by Method 130.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439493**
Analysis Date:	9/4/2009 2:07:00 PM	Analyst:	236
Instrument ID:	LACHAT3	Extraction Date:	9/3/2009
Sample Numbers:	L420220-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Hardness	200	191	95.5	191	95.5	85-115		0.0	20	

Sample Duplicate
L420111-08

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Hardness	200	201	0.5	20	

Sample Duplicate
L420588-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Hardness	130	106	20	20	R8

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Hardness by Method 130.1		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439493**
Analysis Date:	9/4/2009 2:07:00 PM	Analyst:	236
Instrument ID:	LACHAT3	Extraction Date:	9/3/2009
Sample Numbers:	L420220-01		

Matrix Spike/Matrix Spike Duplicate

L419669-11

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Hardness	300	380	578	66.0	582	67.3	80-120	M2	0.7	20	

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439702**
Analysis Date:	9/8/2009 5:09:00 AM	Analyst:	236
Instrument ID:	LACHAT2	Extraction Date:	9/4/2009
Sample Numbers:	L420220-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Nitrate-Nitrite		<0.100	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Nitrate-Nitrite	5.00	4.57	91.4	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Nitrate-Nitrite	5.00	4.57	91.4	85 - 115	

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439702**
Analysis Date:	9/8/2009 5:09:00 AM	Analyst:	236
Instrument ID:	LACHAT2	Extraction Date:	9/4/2009
Sample Numbers:	L420220-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Nitrate-Nitrite	5.00	4.57	91.4	4.55	91.0	85-115		0.4	20	

Sample Duplicate
L420201-09

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Nitrate-Nitrite	0.780	0.773	0.9	20	

Sample Duplicate
L420167-04

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Nitrate-Nitrite	0.0000	0.0000			

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Nitrate-Nitrite by Method 353.2		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439702**
Analysis Date:	9/8/2009 5:09:00 AM	Analyst:	236
Instrument ID:	LACHAT2	Extraction Date:	9/4/2009
Sample Numbers:	L420220-01		

Matrix Spike/Matrix Spike Duplicate

L420702-02

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Nitrate-Nitrite	5.00	0.0000	5.56	111	5.62	112	80-120		1.1	20	

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439280**
Analysis Date:	9/3/2009 12:48:00 PM	Analyst:	193
Instrument ID:	BAL	Extraction Date:	9/2/2009
Sample Numbers:	L420220-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Suspended Solids		<1.00	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	800	103	85 - 115	

Laboratory Control Sample Duplicate (LCSD)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Suspended Solids	773	800	103	85 - 115	

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Suspended Solids by Method 2540D		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439280**
Analysis Date:	9/3/2009 12:48:00 PM	Analyst:	193
Instrument ID:	BAL	Extraction Date:	9/2/2009
Sample Numbers:	L420220-01		

Laboratory Control Sample/ Laboratory Control Sample Duplicate

Analyte	Spike	LCS	% Rec	LCSD	% Rec	Control Limits	Qualifier	% RPD	Control Limits	Qualifier
Suspended Solids	773	800	103	752	97.3	85-115		6.2	20	

Sample Duplicate
L420268-01

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Suspended Solids	2.90	2.89	0.4	5	

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Quality Control Summary
SDG: L420220
Engineering & Env. Consultants, INC. -AZ

Test:	Trace Metals by Method 6010B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439327**
Analysis Date:	9/3/2009	Analyst:	438
Instrument ID:	ICP5	Extraction Date:	9/3/2009
Sample Numbers:	L420220-01		

Method Blank

Analyte	CAS	PQL	Qualifiers
Aluminum	7429-90-5	<0.100	
Aluminum	7429-90-5	<0.100	
Iron	7439-89-6	0.152	B1
Zinc	7440-66-6	<0.0300	

Laboratory Control Sample (LCS)

Analyte	True Value	Found	Recovery %	Control Limits	Qualifiers
Aluminum	1.13	1.15	102	85 - 115	
Iron	1.13	1.22	108	85 - 115	
Zinc	1.13	1.08	95.6	85 - 115	

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Quality Control Summary
SDG: L420220
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Test:	Trace Metals by Method 6010B		
Project No:	308032.05	Matrix:	Water - mg/L
Project:	Durango Sign Factory	EPA ID:	TN00003
Collection Date:	9/1/2009	**Analytic Batch:**	**WG439327**
Analysis Date:	9/3/2009	Analyst:	438
Instrument ID:	ICP5	Extraction Date:	9/3/2009
Sample Numbers:	L420220-01		

Sample Duplicate
L420201-09

Name	Sample Results	Duplic Results	%RPD	Limit	Qualifiers
Aluminum	0.00000	0.0960			
Iron	0.00000	0.0336			
Zinc	0.00000	0.0080			

Matrix Spike/Matrix Spike Duplicate
L420201-09

Analyte	Spike Value	Sample	MS	% Rec	MSD	% Rec	Control Limits	% Rec Qualifier	% RPD	Control Limits	RPD Qual
Aluminum	1.13	0.0960	1.17	95.0	1.14	92.4	75-125		2.6	20	
Iron	1.13	0.0336	1.12	96.1	1.10	94.4	75-125		1.8	20	
Zinc	1.13	0.00000	1.09	96.5	1.06	93.8	75-125		2.8	20	

Company Name/Address	Alternate Billing	Analysis/Container/Preservative	Chain of Custody
EEC **7878 N. 16th St., Suite 140** **Phoenix, AZ 85020**	Report to: John Burton E-mail to: JBurton@EECPHX.com		Page__1_of__1_

Prepared by:

ENVIRONMENTAL Science corp
12065 Lebanon Road
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B028

Project Description: **Durango Sign Factory**		City/State Collected: PHOENIX, AZ	
PHONE:602-248-7702 FAX: 602-248-7851	Client Project No.: 308032.05	Lab Project #	CoCode: ENGENVPAZ (lab use only) Template/Prelogin
Collected by: Phillip McNamara	Site/Facility ID#: MS4-Durango	P.O.#	
Collected by(signature): Packed on Ice N__ Y ✓	Rush? (Lab MUST be Notified) _____Next Day.....100% _____Two Day.....50% _____Three Day.....25%	Date Results Needed Email?__No_X__Yes FAX?___No___Yes	No of Cntrs Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Cntrs	Nitrate+Nitrite 250ml HDPE H2SO4	TSS 1L HDPE No Pres	Total Al, Fe, Zn 500ml HDPE HNO3	Hardness 250ml HDPE HNO3				Remarks/contaminant	Sample # (lab only)
MS4-D	GRAB	OT	SURFACE	9/1/09	11:45 AM	4	X	X	X	X					L420770-01

*Matrix: SS-Soil/Solid GW-Groundwater WW-Wastewater DW-Drinking Water OT- Other SW

pH 6.7 Temp 9.7

Remarks:

Flow_____ Other_____

Relinquisher by:(Signature	Date:	Time:	Received by:(Signature)	Samples returned via: FedEx__ UPS__Other__	Condition (lab use only)
Phillip [illegible]	9/1/09	12:46	[illegible]		OK
Relinquisher by:(Signature	Date:	Time:	Received by: (Signature)	Temp: 3.0°C / Bottles Received: 4	Custody seal intact
Relinquisher by:(Signature	Date:	Time:	Received for lab by: (Signature)	Date: 9-2-09 / Time: 0900	pH Checked: LZ / NCF:

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Report Summary

Tuesday March 02, 2010

Report Number: L446240
Samples Received: 02/23/10
Client Project: 308032.07

Description: Durango Sign Factory - ADOT

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Daphne R Richards
Daphne Richards, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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REPORT OF ANALYSIS

John Burton
Engineering & Env. Consultants, INC
7878 N. 16th Street, Suite 140
Phoenix, AZ 85020

March 02, 2010

ESC Sample # : L446240-01

Site ID : DURANGO SIGN

Project # : 308032.07

Date Received : February 23, 2010
Description : Durango Sign Factory - ADOT

Sample ID : DURANGO SIGN FACTORY

Collected By : Phillip McNamara
Collection Date : 02/22/10 09:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Total Nitrogen	5.0	0.10	mg/l	Calc.	03/02/10	1
Nitrate-Nitrite	0.96	0.10	mg/l	353.2	02/26/10	1
Kjeldahl Nitrogen, TKN	4.1	0.10	mg/l	351.2	03/02/10	1
Suspended Solids	180	1.0	mg/l	2540D	02/25/10	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.

.
Reported: 03/02/10 11:37 Printed: 03/02/10 14:58

Summary of Remarks For Samples Printed
03/02/10 at 14:58:26

TSR Signing Reports: 288
R5 - Desired TAT

Sample: L446240-01 Account: ENGENVPAZ Received: 02/23/10 09:00 Due Date: 03/02/10 00:00 RPT Date: 03/02/10 11:37

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Phoenix, AZ 85020

Quality Assurance Report
Level II

L446240

March 02, 2010

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Suspended Solids	< 1	mg/l			WG464786	02/25/10 10:09
Nitrate-Nitrite	< .1	mg/l			WG465215	02/26/10 01:52
Kjeldahl Nitrogen, TKN	< .1	mg/l			WG464795	03/02/10 09:04

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Suspended Solids	mg/l	88.0	87.0	1.14	5	L446062-01	WG464786
Suspended Solids	mg/l	180.	180.	2.20	5	L446240-01	WG464786
Nitrate-Nitrite	mg/l	0.970	0.960	0.830	20	L446240-01	WG465215
Nitrate-Nitrite	mg/l	22.0	22.0	1.80	20	L446269-01	WG465215
Kjeldahl Nitrogen, TKN	mg/l	26.0	26.0	0.384	20	L446265-08	WG464795
Kjeldahl Nitrogen, TKN	mg/l	4.00	4.10	1.23	20	L446240-01	WG464795

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Suspended Solids	mg/l	773	788.	102.	85-115	WG464786
Nitrate-Nitrite	mg/l	5	4.94	98.8	85-115	WG465215
Kjeldahl Nitrogen, TKN	mg/l	30.9	30.5	98.7	85-115	WG464795

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Suspended Solids	mg/l	780.	788.	101.	85-115	1.02	20	WG464786
Nitrate-Nitrite	mg/l	4.76	4.94	95.0	85-115	3.71	20	WG465215
Kjeldahl Nitrogen, TKN	mg/l	30.0	30.5	97.0	85-115	1.65	20	WG464795

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Nitrate-Nitrite	mg/l	4.82	0	5	96.4	80-120	L446267-01	WG465215
Kjeldahl Nitrogen, TKN	mg/l	5.81	0.520	5	106.	80-120	L446137-05	WG464795

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Nitrate-Nitrite	mg/l	4.84	4.82	96.8	80-120	0.414	20	L446267-01	WG465215
Kjeldahl Nitrogen, TKN	mg/l	5.08	5.81	91.2	80-120	13.4	20	L446137-05	WG464795

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Phoenix, AZ 85020

Quality Assurance Report
Level II

L446240

March 02, 2010

Batch number /Run number / Sample number cross reference

WG464786: R1129068: L446240-01
WG465215: R1129588: L446240-01
WG464795: R1132493: L446240-01

* * Calculations are performed prior to rounding of reported values .
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Quality Assurance Report
Level II

L446240

March 02, 2010

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

APPENDIX N
Construction Discharge Monitoring Reports

Sedona

I. AZPDES # AZS000018-2008		Project/Site Name: Sedona SR 179-Project # II												
Monitoring Period: 7/01/09 to 6/30/10		Monitoring Point 1												
II. Contact Information		V. Pollutants Monitored												
Name: ADOT - Flagstaff District		A. Visual Monitoring:					B. Analytical Monitoring							
Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
III. Discharge Date	IV. Sample Date													
7/2/2009	7/2/2009	No Data	No Data	No Data	No Data	No Data	2.3	0.7	7.3	8.8	315.0	6	6	129
7/9/2009	7/9/2009	No Data	No Data	No Data	No Data	No Data	2.3	0.7	7.2	8.7	316	6	6	152
7/15/2009	7/15/2009	No Data	No Data	No Data	No Data	No Data	2.4	0.5	7.7	8.8	314	1	1	123
7/23/2009	7/23/2009	No Data	No Data	No Data	No Data	No Data	2.3	0.7	7.81	8.67	310	8	8	125
7/31/2009	7/31/2009	No Data	No Data	No Data	No Data	No Data	3.9	<1	5.76	8.92	320.0	4	4	109
8/6/2009	8/6/2009	No Data	No Data	No Data	No Data	No Data	3.4	0.2	6.6	8.8	312	5	5	148
8/13/2009	8/13/2009	No Data	No Data	No Data	No Data	No Data	3.4	0.3	6.3	8.8	303	10	10	142
8/20/2009	8/20/2009	No Data	No Data	No Data	No Data	No Data	3.4	0.3	6.5	8.7	313	3	2	111
8/27/2009	8/27/2009	No Data	No Data	No Data	No Data	No Data	1.8	<1	8.3	8.1	298	2	2	132
9/3/2009	9/3/2009	No Data	No Data	No Data	No Data	No Data	4.9	<1	7.1	7.8	295.0	5	5	133
9/10/2009	9/10/2009	No Data	No Data	No Data	No Data	No Data	5.8	<1	7.8	8.2	295	4	4	132
9/11/2009	9/11/2009	No Data	No Data	No Data	No Data	No Data	21	.94	8.81	8.54	267	20	20	134
9/13/2009	9/13/2009	No Data	No Data	No Data	No Data	No Data	20.0	1.0	9.3	8.5	297	3	13	142
9/18/2009	9/18/2009	No Data	No Data	No Data	No Data	No Data	5.3	0.35	7.81	8.12	299	6	6	121
9/24/2009	9/24/2009	No Data	No Data	No Data	No Data	No Data	9.6	0.1	8.6	7.9	316	122	121	182
10/1/2009	10/1/2009	No Data	No Data	No Data	No Data	No Data	3.8	.5	9.92	8.27	303	1	1	112
10/4/2009	10/4/2009	No Data	No Data	No Data	No Data	No Data	3.8	.74	9.42	8.49	296	4	4	126
10/8/2009	10/8/2009	No Data	No Data	No Data	No Data	No Data	1.1	<0.1	10.5	8.4	296	1	1	164
10/15/2009	10/15/2009	No Data	No Data	No Data	No Data	No Data	1.3	<0.1	5.0	7.2	300	3	3	120
10/22/2009	10/22/2009	No Data	No Data	No Data	No Data	No Data	1.7	0.3	8.1	7.5	312	3	3	141
10/28/2009	10/28/2009	No Data	No Data	No Data	No Data	No Data	3.4	0.6	9.6	8.4	307	2	2	96
11/5/2009	11/5/2009	No Data	No Data	No Data	No Data	No Data	2.4	0.4	11.3	8.4	308	3	3	129
11/12/2009	11/12/2009	No Data	No Data	No Data	No Data	No Data	2.2	0.5	6.0	8.4	307	7	7	138
11/13/2009	11/13/2009	No Data	No Data	No Data	No Data	No Data	2.8	0.5	5.6	8.1	311	3	3	138
11/18/2009	11/18/2009	No Data	No Data	No Data	No Data	No Data	2.0	.44	8.98	8.14	311	5	5	113
11/19/2009	11/19/2009	No Data	No Data	No Data	No Data	No Data	4.1	0.3	8.9	8.3	320	20	20	96
11/26/2009	11/26/2009	No Data	No Data	No Data	No Data	No Data	3.0	0.4	8.2	7.8	310.0	2.0	2.0	147.0
11/29/2009	11/29/2009	No Data	No Data	No Data	No Data	No Data	6.5	0.5	5.5	8.5	310.0	7.0	7.0	120.0
12/3/2009	12/3/2009	No Data	No Data	No Data	No Data	No Data	5.8	<0.1	1.38	7.94	316	7	7	142
12/8/2009	12/8/2009	No Data	No Data	No Data	No Data	No Data	2.6	no data	9.49	7.92	311	1	1	145
12/10/2009	12/10/2009	No Data	No Data	No Data	No Data	No Data	3.7	.45	no data	8.17	324	2	2	182
12/17/2009	12/17/2009	No Data	No Data	No Data	No Data	No Data	3.4	<0.1	9.38	7.45	319	6	6	130
12/24/2009	12/24/2009	No Data	No Data	No Data	No Data	No Data	1.5	.97	10.09	7.70	321	6	6	107

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
12/31/2009	12/31/2009	No Data	No Data	No Data	No Data	No Data	.3	.24	9.24	7.45	322	3	3	166
1/7/2010	1/7/2010	No Data	No Data	No Data	No Data	No Data	1.3	0.6	8.7	7.39	321	7	7	135
1/14/2010	1/14/2010	No Data	No Data	No Data	No Data	No Data	2.4	0.8	10.2	8.14	296	10	10	163
1/20/2010	1/20/2010	No Data	No Data	No Data	No Data	No Data	5.0	1.5	11.0	7.61	149	5	5	179
1/21/2010	1/21/2010	No Data	No Data	No Data	No Data	No Data	122.8	High	No Data	7.55	248	116	116	140
1/22/2010	1/22/2010	No Data	No Data	No Data	No Data	No Data	31.6	No Data	No Data	7.09	135	37	37	90
1/23/2010	1/23/2010	No Data	No Data	No Data	No Data	No Data	15.6	No Data	No Data	7.65	189	6	6	119
1/24/2010	1/24/2010	No Data	No Data	No Data	No Data	No Data	8.4	No Data	No Data	8.17	217	11	11	139
1/28/2010	1/28/2010	No Data	No Data	No Data	No Data	No Data	8.5	<0.1	6.4	6.17	203	2	2	110
2/4/2010	2/4/2010	No Data	No Data	No Data	No Data	No Data	5.1	<0.1	8.6	6.3	202	3	3	91
2/11/2010	2/11/2010	No Data	No Data	No Data	No Data	No Data	13.6	<0.1	10.3	6.5	240	2	2	154
2/18/2010	2/18/2010	No Data	No Data	No Data	No Data	No Data	3.5	4.5	8.8	7.2	206	2	2	116
2/22/2010	2/22/2010	No Data	No Data	No Data	No Data	No Data	14.9	<0.1	7.7	5.9	205	16	16	110
2/25/2010	2/25/2010	No Data	No Data	No Data	No Data	No Data	2.1	<0.1	5.13	6.42	232	1	1	137
3/4/2010	3/4/2010	No Data	No Data	No Data	No Data	No Data	4.6	<0.1	6.79	5.07	161	4	4	84
3/7/2010	3/7/2010	No Data	No Data	No Data	No Data	No Data	17.5	.82	7.18	6.79	104.7	34	34	54
3/11/2010	3/11/2010	No Data	No Data	No Data	No Data	No Data	2.8	.1	6.35	6.78	226	1	1	11
3/19/2010	3/19/2010	No Data	No Data	No Data	No Data	No Data	12.4	1.25	6.40	5.76	106	6	6	68
3/25/2010	3/25/2010	No Data	No Data	No Data	No Data	No Data	6.3	.90	3.26	7.77	113	4	4	99
4/1/2010	4/1/2010	No Data	No Data	No Data	No Data	No Data	9.7	0.5	10.09	6.58	97	8	8	29
4/8/2010	4/8/2010	No Data	No Data	No Data	No Data	No Data	3.2	0.3	6.2	7.0	140	7	7	39
4/15/2010	4/15/2010	No Data	No Data	No Data	No Data	No Data	3.0	0.5	8.6	6.3	156	11	11	67
4/19/2010	4/19/2010	No Data	No Data	No Data	No Data	No Data	4.1	0.4	7.9	7.8	198	16	16	98
4/29/2010	4/29/2010	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	4.6	6.9	291	4	4	167
5/6/2010	5/6/2010	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	4.8	7.7	269.0	4	4	157
5/13/2010	5/13/2010	No Data	No Data	No Data	No Data	No Data	1.0	0.6	6.0	8.5	305	3	3	127
5/20/2010	5/20/2010	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	3.8	7.6	314	9	9	165
5/27/2010	5/27/2010	No Data	No Data	No Data	No Data	No Data	1.6	0.3	5.9	8.2	310	6	6	132
6/3/2010	6/3/2010	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	4.6	7.6	317	8	8	169
6/10/2010	6/10/2010	No Data	No Data	No Data	No Data	No Data	2.1	<0.1	4.4	7.5	306	8	8	186
6/17/2010	6/17/2010	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	4.5	7.5	315	2	2	125
6/24/2010	6/24/2010	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	4.2	7.7	310	7	7	156

I. AZPDES # AZS000018-2008 Monitoring Period: 7/01/09 to 6/30/10		Project/Site Name: Sedona SR 179-Project # II Monitoring Point 2												
II. Contact Information Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		V. Pollutants Monitored												
		A. Visual Monitoring:					B. Analytical Monitoring							
III. Discharge Date	IV. Sample Date	Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
7/1/2009	7/1/2009	No Data	No Data	No Data	No Data	No Data	3.2	<1	6.55	8.61	321	4	4	131
7/2/2009	7/2/2009	No Data	No Data	No Data	No Data	No Data	1.8	<1	6.67	8.62	322	6	6	182
7/3/2009	7/3/2009	No Data	No Data	No Data	No Data	No Data	4.4	<1	6.47	8.82	318	3	3	128
7/4/2009	7/4/2009	No Data	No Data	No Data	No Data	No Data	4.8	<1	6.03	8.46	327	7	7	140
7/5/2009	7/5/2009	No Data	No Data	No Data	No Data	No Data	4.8	<1	6.45	8.51	319	6	6	146
7/6/2009	7/6/2009	No Data	No Data	No Data	No Data	No Data	3.3	<1	6.79	8.72	325	7	7	138
7/7/2009	7/7/2009	No Data	No Data	No Data	No Data	No Data	3.5	<1	8.61	6.42	326	5	5	152
7/8/2009	7/8/2009	No Data	No Data	No Data	No Data	No Data	2.8	<1	6.28	8.74	322	4	4	151
7/9/2009	7/9/2009	No Data	No Data	No Data	No Data	No Data	2.2	<1	6.50	8.57	326	2	2	157
7/10/2009	7/10/2009	No Data	No Data	No Data	No Data	No Data	2.4	<1	6.01	8.53	321	2	2	163
7/11/2009	7/11/2009	No Data	No Data	No Data	No Data	No Data	1.9	<1	6.60	8.74	315	3	3	122
7/12/2009	7/12/2009	No Data	No Data	No Data	No Data	No Data	3.7	<1	6.67	8.59	322	3	3	144
7/13/2009	7/13/2009	No Data	No Data	No Data	No Data	No Data	3.8	<1	6.44	8.73	317	3	3	129
7/14/2009	7/14/2009	No Data	No Data	No Data	No Data	No Data	3.3	<1	6.19	8.86	328	3	3	121
7/15/2009	7/15/2009	No Data	No Data	No Data	No Data	No Data	2.0	<1	5.55	8.73	318	2	2	131
7/16/2009	7/16/2009	No Data	No Data	No Data	No Data	No Data	6.5	<1	6.45	8.86	315	4	4	130
7/17/2009	7/17/2009	No Data	No Data	No Data	No Data	No Data	6.4	<1	5.94	8.76	316	2	2	128
7/18/2009	7/18/2009	No Data	No Data	No Data	No Data	No Data	2.4	<1	6.55	8.61	320	3	3	122
7/19/2009	7/19/2009	No Data	No Data	No Data	No Data	No Data	1.6	<1	6.35	8.75	324	2	2	136
7/20/2009	7/20/2009	No Data	No Data	No Data	No Data	No Data	6.5	<1	6.18	8.81	323	4	4	136
7/21/2009	7/21/2009	No Data	No Data	No Data	No Data	No Data	7.4	<1	6.21	8.74	320	2	2	119
7/22/2009	7/22/2009	No Data	No Data	No Data	No Data	No Data	3.3	<1	6.36	8.70	313	9	9	133
7/23/2009	7/23/2009	No Data	No Data	No Data	No Data	No Data	4.1	<1	6.80	8.59	321	5	5	126
7/24/2009	7/24/2009	No Data	No Data	No Data	No Data	No Data	3.6	<1	6.20	8.72	815	12	12	114
7/25/2009	7/25/2009	No Data	No Data	No Data	No Data	No Data	4.8	<1	5.91	8.72	315	9	9	112
7/26/2009	7/26/2009	No Data	No Data	No Data	No Data	No Data	3.8	<1	5.96	8.65	317	7	7	138
7/27/2009	7/27/2009	No Data	No Data	No Data	No Data	No Data	2.1	<1	8.64	6.21	318	12	12	125
7/28/2009	7/28/2009	No Data	No Data	No Data	No Data	No Data	3.7	<1	8.37	8.07	357	5	5	120
7/29/2009	7/29/2009	No Data	No Data	No Data	No Data	No Data	4.9	<1	5.44	8.01	402	5	5	111
7/30/2009	7/30/2009	No Data	No Data	No Data	No Data	No Data	4.2	<1	5.46	8.12	337	7	7	113
7/31/2009	7/31/2009	No Data	No Data	No Data	No Data	No Data	6.2	<1	5.40	8.53	350	3	3	114

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
8/1/2009	8/1/2009	No Data	No Data	No Data	No Data	No Data	3.4	<1	6.21	8.68	314	3	3	122
8/2/2009	8/2/2009	No Data	No Data	No Data	No Data	No Data	3.9	<1	6.45	8.74	317	6	6	120
8/3/2009	8/3/2009	No Data	No Data	No Data	No Data	No Data	4.3	<1	5.29	7.64	333	6	6	125
8/4/2009	8/4/2009	No Data	No Data	No Data	No Data	No Data	5.6	<1	5.41	9.02	310	3	3	150
8/5/2009	8/5/2009	No Data	No Data	No Data	No Data	No Data	3.2	<1	5.18	7.66	331	4	4	137
8/6/2009	8/6/2009	No Data	No Data	No Data	No Data	No Data	5.2	<1	6.16	8.91	311	5	5	142
8/7/2009	8/7/2009	No Data	No Data	No Data	No Data	No Data	2.7	<1	6.08	8.62	312	6	6	150
8/8/2009	8/8/2009	No Data	No Data	No Data	No Data	No Data	1.9	<1	6.45	8.57	323	6	6	146
8/9/2009	8/9/2009	No Data	No Data	No Data	No Data	No Data	1.7	<1	6.60	8.68	334	6	6	143
8/10/2009	8/10/2009	No Data	No Data	No Data	No Data	No Data	2.0	<1	6.39	8.67	316	5	5	149
8/11/2009	8/11/2009	No Data	No Data	No Data	No Data	No Data	4.7	<1	6.19	8.67	320	10	10	153
8/12/2009	8/12/2009	No Data	No Data	No Data	No Data	No Data	3.0	<1	5.91	8.93	312	11	11	144
8/13/2009	8/13/2009	No Data	No Data	No Data	No Data	No Data	2.3	<1	6.02	8.43	308	6	6	152
8/14/2009	8/14/2009	No Data	No Data	No Data	No Data	No Data	2.4	<1	5.58	8.88	313	10	10	156
8/15/2009	8/15/2009	No Data	No Data	No Data	No Data	No Data	3.4	<1	5.26	8.53	316	6	6	146
8/16/2009	8/16/2009	No Data	No Data	No Data	No Data	No Data	3.2	<1	6.04	8.67	317	5	5	153
8/17/2009	8/17/2009	No Data	No Data	No Data	No Data	No Data	2.8	<1	5.92	8.53	312	6	6	149
8/18/2009	8/18/2009	No Data	No Data	No Data	No Data	No Data	2.3	<1	6.16	8.70	321	2	2	168
8/19/2009	8/19/2009	No Data	No Data	No Data	No Data	No Data	2.2	<1	6.00	8.72	335	2	2	117
8/20/2009	8/20/2009	No Data	No Data	No Data	No Data	No Data	2.6	<1	5.67	8.51	317	2	2	108
8/21/2009	8/21/2009	No Data	No Data	No Data	No Data	No Data	5.6	<1	5.48	8.64	724	3	3	121
8/22/2009	8/22/2009	No Data	No Data	No Data	No Data	No Data	1.9	<1	5.43	8.74	326	2	2	123
8/23/2009	8/23/2009	No Data	No Data	No Data	No Data	No Data	2.3	<1	5.38	8.73	323	2	2	132
8/24/2009	8/24/2009	No Data	No Data	No Data	No Data	No Data	4.2	<1	5.25	8.64	353	3	3	127
8/25/2009	8/25/2009	No Data	No Data	No Data	No Data	No Data	4.9	<1	5.10	8.48	333	2	2	139
8/26/2009	8/26/2009	No Data	No Data	No Data	No Data	No Data	4.7	<1	5.06	8.59	337	2	2	129
8/27/2009	8/27/2009	No Data	No Data	No Data	No Data	No Data	2.9	<1	7.96	6.72	304	4	4	134
8/28/2009	8/28/2009	No Data	No Data	No Data	No Data	No Data	4.2	<1	7.58	8.41	299	3	3	140
8/29/2009	8/29/2009	No Data	No Data	No Data	No Data	No Data	4.4	<1	7.90	8.56	294	4	4	145
8/30/2009	8/30/2009	No Data	No Data	No Data	No Data	No Data	4.1	<1	8.11	8.17	292	5	5	140
8/31/2009	8/31/2009	No Data	No Data	No Data	No Data	No Data	3.8	<1	6.58	8.50	297	4	4	143
9/1/2009	9/1/2009	No Data	No Data	No Data	No Data	No Data	2.9	<1.0	6.95	8.53	297	4	4	140
9/2/2009	9/2/2009	No Data	No Data	No Data	No Data	No Data	2.4	<1.0	7.40	8.56	287	3	3	136
9/3/2009	9/3/2009	No Data	No Data	No Data	No Data	No Data	2.9	<1.0	6.46	7.11	219	4	4	142
9/4/2009	9/4/2009	No Data	No Data	No Data	No Data	No Data	2.0	<1.0	7.29	8.60	287	4	4	142
9/5/2009	9/5/2009	No Data	No Data	No Data	No Data	No Data	3.6	<1.0	8.05	8.43	288	4	4	151

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
9/6/2009	9/6/2009	No Data	No Data	No Data	No Data	No Data	9.1	<1.0	8.46	7.46	294	17	17	148
9/7/2009	9/7/2009	No Data	No Data	No Data	No Data	No Data	7.4	<1.0	8.25	7.17	295	12	12	153
9/8/2009	9/8/2009	No Data	No Data	No Data	No Data	No Data	9.1	<1.0	7.76	7.66	303	24	24	148
9/9/2009	9/9/2009	No Data	No Data	No Data	No Data	No Data	5.6	<1.0	7.42	7.38	299	6	6	168
9/10/2009	9/10/2009	No Data	No Data	No Data	No Data	No Data	5.1	<1.0	7.51	7.65	301	10	10	158
9/11/2009	9/11/2009	No Data	No Data	No Data	No Data	No Data	23.0	<1.0	8.48	8.48	292	29	29	148
9/12/2009	9/12/2009	No Data	No Data	No Data	No Data	No Data	13.8	<1.0	8.24	8.46	301	6	16	167
9/13/2009	9/13/2009	No Data	No Data	No Data	No Data	No Data	22.0	<1.0	7.04	8.37	299	8	11	157
9/14/2009	9/14/2009	No Data	No Data	No Data	No Data	No Data	3.5	<1.0	7.74	8.35	300	4	15	156
9/15/2009	9/15/2009	No Data	No Data	No Data	No Data	No Data	5.9	<1.0	8.71	8.51	302	6	6	130
9/16/2009	9/16/2009	No Data	No Data	No Data	No Data	No Data	7.5	<1.0	9.09	8.02	304	13	13	109
9/17/2009	9/17/2009	No Data	No Data	No Data	No Data	No Data	5.3	<1.0	8.51	8.17	301	6	6	111
9/18/2009	9/18/2009	No Data	No Data	No Data	No Data	No Data	2.1	<1.0	7.57	7.63	307	6	6	116
9/19/2009	9/19/2009	No Data	No Data	No Data	No Data	No Data	5.7	<1.0	10.47	7.73	308	15	15	128
9/20/2009	9/20/2009	No Data	No Data	No Data	No Data	No Data	3.7	<1.0	11.67	7.97	300	8	8	123
9/21/2009	9/21/2009	No Data	No Data	No Data	No Data	No Data	6.0	<1.0	8.39	7.40	301	10	10	122
9/22/2009	9/22/2009	No Data	No Data	No Data	No Data	No Data	3.3	<1.0	9.70	7.81	305	7	7	162
9/23/2009	9/23/2009	No Data	No Data	No Data	No Data	No Data	3.6	<1.0	8.74	7.95	301	7	7	130
9/24/2009	9/24/2009	No Data	No Data	No Data	No Data	No Data	4.2	<1.0	9.03	7.97	307	8	8	149
9/25/2009	9/25/2009	No Data	No Data	No Data	No Data	No Data	4.1	<1.0	9.23	7.76	309	8	8	145
9/26/2009	9/26/2009	No Data	No Data	No Data	No Data	No Data	3.6	<1.0	9.12	7.75	308	5	5	154
9/27/2009	9/27/2009	No Data	No Data	No Data	No Data	No Data	3.8	<1.0	8.25	8.07	320	9	9	154
9/28/2009	9/28/2009	No Data	No Data	No Data	No Data	No Data	4.1	<1.0	8.44	8.28	304	2	2	111
9/29/2009	9/29/2009	No Data	No Data	No Data	No Data	No Data	4.9	<1.0	8.60	8.24	300	4	4	96
9/30/2009	9/30/2009	No Data	No Data	No Data	No Data	No Data	4.5	<1.0	8.22	8.26	297	2	2	103
10/1/2009	10/1/2009	No Data	No Data	No Data	No Data	No Data	2.7	<0.1	8.62	8.14	310	2	2	114
10/2/2009	10/2/2009	No Data	No Data	No Data	No Data	No Data	2.4	<0.1	9.51	8.39	304	2	2	130
10/3/2009	10/3/2009	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	9.10	6.99	308	4	4	125
10/4/2009	10/4/2009	No Data	No Data	No Data	No Data	No Data	5.4	<0.1	8.67	7.97	302	3	3	154
10/5/2009	10/5/2009	No Data	No Data	No Data	No Data	No Data	4.3	<0.1	9.21	8.44	302	3	3	128
10/6/2009	10/6/2009	No Data	No Data	No Data	No Data	No Data	1.3	<0.1	8.91	7.78	326	3	3	178
10/7/2009	10/7/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	8.38	7.62	317	3	3	156
10/8/2009	10/8/2009	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	9.87	8.26	300	2	2	146
10/9/2009	10/9/2009	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	9.64	8.31	305	1	1	132
10/10/2009	10/10/2009	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	9.29	8.26	305	2	2	150

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
10/11/2009	10/11/2009	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	7.95	8.10	305	5	5	152
10/12/2009	10/12/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	9.95	8.37	304	4	4	149
10/13/2009	10/13/2009	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	9.24	8.22	288	1	1	105
10/14/2009	10/14/2009	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	6.60	7.25	302	3	3	126
10/15/2009	10/15/2009	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	4.97	7.33	300	2	2	125
10/16/2009	10/16/2009	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	7.98	8.08	304	2	2	122
10/17/2009	10/17/2009	No Data	No Data	No Data	No Data	No Data	2.7	<0.1	7.91	8.21	304	3	3	128
10/18/2009	10/18/2009	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	7.97	8.05	305	4	4	124
10/19/2009	10/19/2009	No Data	No Data	No Data	No Data	No Data	1.2	<0.1	7.70	7.09	305	1	1	137
10/20/2009	10/20/2009	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	8.50	7.56	308	2	2	130
10/21/2009	10/21/2009	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	8.72	7.35	307	1	1	151
10/22/2009	10/22/2009	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	6.19	7.82	308	2	2	134
10/23/2009	10/23/2009	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	5.97	8.14	309	3	3	150
10/24/2009	10/24/2009	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	7.21	8.15	304	2	2	176
10/25/2009	10/25/2009	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	8.73	8.25	306	10	10	172
10/26/2009	10/26/2009	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	8.91	8.34	297	1	1	189
10/27/2009	10/27/2009	No Data	No Data	No Data	No Data	No Data	3.7	<0.1	8.44	7.05	310	9	9	158
10/28/2009	10/28/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	10.60	8.20	311	2	2	93
10/29/2009	10/29/2009	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	7.98	8.09	316	2	2	74
10/30/2009	10/30/2009	No Data	No Data	No Data	No Data	No Data	2.9	<0.1	9.81	8.71	315	3	3	88
10/31/2009	10/31/2009	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	10.30	8.05	310	2	2	94
11/1/2009	11/1/2009	No Data	No Data	No Data	No Data	No Data	3.8	<0.1	9..89	7.81	309	18	18	74
11/2/2009	11/2/2009	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	9.38	8.04	309	2	2	96
11/3/2009	11/3/2009	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	11.12	8.39	312	2	2	114
11/4/2009	11/4/2009	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	10.97	8.14	310	2	2	135
11/5/2009	11/5/2009	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	11.01	7.73	310	3	3	122
11/6/2009	11/6/2009	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	9.49	8.41	309	2	2	159
11/7/2009	11/7/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	9.80	7.94	312	5	5	139
11/8/2009	11/8/2009	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	9.72	8.14	312	4	4	141
11/9/2009	11/9/2009	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	4.62	7.35	315	4	4	148
11/10/2009	11/10/2009	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	7.71	8.23	315	5	5	142
11/11/2009	11/11/2009	No Data	No Data	No Data	No Data	No Data	3.7	<0.1	8.08	8.18	315	9	9	144
11/12/2009	11/12/2009	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	8.56	7.96	309	3	3	150
11/13/2009	11/13/2009	No Data	No Data	No Data	No Data	No Data	2.1	<0.1	6.31	8.37	312	4	4	150
11/14/2009	11/14/2009	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	5.09	7.71	314	7	7	99
11/15/2009	11/15/2009	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	7.91	7.98	313	1	1	136

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
11/16/2009	11/16/2009	No Data	No Data	No Data	No Data	No Data	1.3	<0.1	9.44	8.07	318	1	1	165
11/17/2009	11/17/2009	No Data	No Data	No Data	No Data	No Data	3.2	<0.1	8.60	7.87	314	1	1	167
11/18/2009	11/18/2009	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	7.94	7.87	304	4	4	101
11/19/2009	11/19/2009	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	8.16	8.05	306	96	96	92
11/20/2009	11/20/2009	No Data	No Data	No Data	No Data	No Data	1.0	<0.1	5.75	7.85	317	6	6	118
11/21/2009	11/21/2009	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	4.92	7.95	308	4	4	79
11/22/2009	11/22/2009	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	8.70	7.94	315	8	8	107
11/23/2009	11/23/2009	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	6.15	7.76	315	3	3	160
11/24/2009	11/24/2009	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	3.57	8.05	321	2	2	162
11/25/2009	11/25/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	3.01	7.74	316	6	6	153
11/26/2009	11/26/2009	No Data	No Data	No Data	No Data	No Data	3.4	<0.1	7.76	7.80	313	1	1	128
11/27/2009	11/27/2009	No Data	No Data	No Data	No Data	No Data	3.2	<0.1	4.92	7.33	314	1	1	162
11/28/2009	11/28/2009	No Data	No Data	No Data	No Data	No Data	3.3	<0.1	3.25	7.20	315	12	12	137
11/29/2009	11/29/2009	No Data	No Data	No Data	No Data	No Data	6.7	<0.1	4.55	7.98	313	7	7	144
11/30/2009	11/30/2009	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	3.51	8.29	314	7	7	161
12/1/2009	12/1/2009	No Data	No Data	No Data	No Data	No Data	4.7	<0.1	3.67	7.99	313	2.0	2	170
12/2/2009	12/2/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	3.01	8.12	318	2.0	2	126
12/3/2009	12/3/2009	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	0.37	6.69	314	2.0	2	124
12/4/2009	12/4/2009	No Data	No Data	No Data	No Data	No Data	2.7	<0.1	0.53	6.90	317	2.0	2	138
12/5/2009	12/5/2009	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	0.58	7.93	316	2.0	2	141
12/6/2009	12/6/2009	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	0.82	7.93	318	2.0	2	156
12/7/2009	12/7/2009	No Data	No Data	No Data	No Data	No Data	4.9	<0.1	0.58	6.40	179	13.0	13	176
12/8/2009	12/8/2009	No Data	No Data	No Data	No Data	No Data	3.9	<0.1	9.20	8.31	315	12.0	12	193
12/9/2009	12/9/2009	No Data	No Data	No Data	No Data	No Data	5.6	<0.1	0.72	7.64	321	1.0	1	187
12/10/2009	12/10/2009	No Data	No Data	No Data	No Data	No Data	3.9	<0.1	no data	7.50	325	6.0	6	169
12/11/2009	12/11/2009	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	10.78	7.16	327	6.0	6	158
12/12/2009	12/12/2009	No Data	No Data	No Data	No Data	No Data	4.8	<0.1	9.45	8.23	317	3.0	3	167
12/13/2009	12/13/2009	No Data	No Data	No Data	No Data	No Data	4.3	<0.1	9.11	8.26	318	3.0	3	206
12/14/2009	12/14/2009	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	no data	8.19	318	10.0	10	193
12/15/2009	12/15/2009	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	10.38	8.20	315	7.0	7	134
12/16/2009	12/16/2009	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	10.09	8.17	319	3.0	3	154
12/17/2009	12/17/2009	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	9.46	7.17	320	6.0	6	130
12/18/2009	12/18/2009	No Data	No Data	No Data	No Data	No Data	1.2	<0.1	9.52	6.90	322	7.0	7	129
12/19/2009	12/19/2009	No Data	No Data	No Data	No Data	No Data	2.1	<0.1	9.20	8.00	319	8.0	8	140
12/20/2009	12/20/2009	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	9.05	7.76	322	9.0	9	139
12/21/2009	12/21/2009	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	9.18	7.52	322	8.0	8	153

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
12/22/2009	12/22/2009	No Data	No Data	No Data	No Data	No Data	1.2	<0.1	8.91	6.79	323	2.0	2	146
12/23/2009	12/23/2009	No Data	No Data	No Data	No Data	No Data	3.1	<0.1	8.99	6.62	316	3.0	3	158
12/24/2009	12/24/2009	No Data	No Data	No Data	No Data	No Data	1.1	<0.1	9.67	7.79	321	8.0	8	128
12/25/2009	12/25/2009	No Data	No Data	No Data	No Data	No Data	0.8	<0.1	9.50	7.26	322	7.0	7	167
12/26/2009	12/26/2009	No Data	No Data	No Data	No Data	No Data	1.0	<0.1	8.38	8.06	307	5.0	5	144
12/27/2009	12/27/2009	No Data	No Data	No Data	No Data	No Data	0.7	<0.1	no data	7.59	320	5.0	5	151
12/28/2009	12/28/2009	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	9.76	7.27	331	3.0	3	159
12/29/2009	12/29/2009	No Data	No Data	No Data	No Data	No Data	1.2	<0.1	8.53	7.35	324	8.0	8	154
12/30/2009	12/30/2009	No Data	No Data	No Data	No Data	No Data	1.3	<0.1	8.91	6.74	321	5.0	5	110
12/31/2009	12/31/2009	No Data	No Data	No Data	No Data	No Data	0.8	<0.1	9.43	7.80	319	5.0	5	167
1/1/2010	1/1/2010	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	8.39	7.91	320	7	7	163
1/2/2010	1/2/2010	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	8.44	8.07	319	5	5	124
1/3/2010	1/3/2010	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	9.01	7.93	317	4	4	132
1/4/2010	1/4/2010	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	9.19	7.24	321	6	6	108
1/5/2010	1/5/2010	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	9.11	7.53	318	6	6	132
1/6/2010	1/6/2010	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	9.32	8.15	318	6	6	131
1/7/2010	1/7/2010	No Data	No Data	No Data	No Data	No Data	0.8	<0.1	8.84	7.55	330	7	7	138
1/8/2010	1/8/2010	No Data	No Data	No Data	No Data	No Data	2.1	<0.1	8.80	7.69	326	7	7	94
1/9/2010	1/9/2010	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	10.07	7.93	316	5	5	126
1/10/2010	1/10/2010	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	10.43	7.68	318	8	8	127
1/11/2010	1/11/2010	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	10.69	8.30	315	10	10	128
1/12/2010	1/12/2010	No Data	No Data	No Data	No Data	No Data	8.0	<0.1	10.22	8.17	320	10	10	130
1/13/2010	1/13/2010	No Data	No Data	No Data	No Data	No Data	3.1	<0.1	10.54	8.24	298	6	6	151
1/14/2010	1/14/2010	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	9.94	7.92	313	11	11	172
1/15/2010	1/15/2010	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	9.67	8.30	316	11	11	163
1/16/2010	1/16/2010	No Data	No Data	No Data	No Data	No Data	3.5	<0.1	8.47	7.80	316	9	9	140
1/17/2010	1/17/2010	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	8.83	8.13	307	9	9	150
1/18/2010	1/18/2010	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	7.47	6.81	319	8	8	164
1/19/2010	1/19/2010	No Data	No Data	No Data	No Data	No Data	5.1	<0.1	10.34	6.68	309	11	11	154
1/20/2010	1/20/2010	No Data	No Data	No Data	No Data	No Data	6.0	<0.1	16.12	8.08	292	4	4	158
1/21/2010	1/21/2010	No Data	No Data	No Data	No Data	No Data	116.0	<0.1	no data	7.82	203	197	197	118
1/22/2010	1/22/2010	No Data	No Data	No Data	No Data	No Data	29.2	<0.1	no data	7.33	222	37	37	90
1/23/2010	1/23/2010	No Data	No Data	No Data	No Data	No Data	13.7	<0.1	no data	7.84	194	6	6	130
1/24/2010	1/24/2010	No Data	No Data	No Data	No Data	No Data	9.5	<0.1	no data	8.15	221	2	2	138
1/25/2010	1/25/2010	No Data	No Data	No Data	No Data	No Data	6.7	<0.1	10.95	8.00	241	3	3	154
1/26/2010	1/26/2010	No Data	No Data	No Data	No Data	No Data	6.5	<0.1	13.25	8.18	243	5	5	162

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
1/27/2010	1/27/2010	No Data	No Data	No Data	No Data	No Data	7.4	<0.1	6.87	6.32	241	2	2	144
1/28/2010	1/28/2010	No Data	No Data	No Data	No Data	No Data	8.6	<0.1	6.62	6.39	201	4	4	133
1/29/2010	1/29/2010	No Data	No Data	No Data	No Data	No Data	7.2	<0.1	6.55	6.26	213	6	6	168
1/30/2010	1/30/2010	No Data	No Data	No Data	No Data	No Data	9.5	0.1	6.97	7.97	208	6	6	152
1/31/2010	1/31/2010	No Data	No Data	No Data	No Data	No Data	5.0	0.1	6.95	7.78	224	14	14	164
2/1/2010	2/1/2010	No Data	No Data	No Data	No Data	No Data	4.0	0.3	8.01	7.69	221	4	4	177
2/2/2010	2/2/2010	No Data	No Data	No Data	No Data	No Data	4.8	0.3	5.88	6.75	216	6	6	171
2/3/2010	2/3/2010	No Data	No Data	No Data	No Data	No Data	3.1	0.2	7.72	7.28	222	1	1	95
2/4/2010	2/4/2010	No Data	No Data	No Data	No Data	No Data	4.6	<0.1	7.51	6.24	206	5	5	158
2/5/2010	2/5/2010	No Data	No Data	No Data	No Data	No Data	3.8	0.8	11.81	7.33	191	9	9	135
2/6/2010	2/6/2010	No Data	No Data	No Data	No Data	No Data	3.5	0.5	7.68	7.30	188	2	2	239
2/7/2010	2/7/2010	No Data	No Data	No Data	No Data	No Data	5.5	0.59	7.8	7.76	186	2	2	122
2/8/2010	2/8/2010	No Data	No Data	No Data	No Data	No Data	3.2	0.8	7.6	7.8	218	3	3	132
2/9/2010	2/9/2010	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	5.32	6.24	234	4	3	143
2/10/2010	2/10/2010	No Data	No Data	No Data	No Data	No Data	3.4	<0.1	5.97	6.74	236	2	2	140
2/11/2010	2/11/2010	No Data	No Data	No Data	No Data	No Data	3.8	<0.1	9.35	6.53	249	2	2	176
2/12/2010	2/12/2010	No Data	No Data	No Data	No Data	No Data	2.4	<0.1	8.05	6.54	257	4	4	127
2/13/2010	2/13/2010	No Data	No Data	No Data	No Data	No Data	3.1	0.1	8.13	7.98	223	2	2	107
2/14/2010	2/14/2010	No Data	No Data	No Data	No Data	No Data	2.7	0.1	6.49	7.20	207	1	1	123
2/15/2010	2/15/2010	No Data	No Data	No Data	No Data	No Data	1.3	<0.1	6.68	6.45	200	1	1	134
2/16/2010	2/16/2010	No Data	No Data	No Data	No Data	No Data	3.0	0.1	7.14	7.42	202	1	1	142
2/17/2010	2/17/2010	No Data	No Data	No Data	No Data	No Data	2.7	0.3	7.63	7.38	198	2	2	74
2/18/2010	2/18/2010	No Data	No Data	No Data	No Data	No Data	3.1	2.5	8.40	7.03	203	4	4	107
2/19/2010	2/19/2010	No Data	No Data	No Data	No Data	No Data	3.8	0.5	6.92	7.33	188	6	6	127
2/20/2010	2/20/2010	No Data	No Data	No Data	No Data	No Data	3.2	0.5	6.97	7.32	182	5	5	89
2/21/2010	2/21/2010	No Data	No Data	No Data	No Data	No Data	3.8	0.3	10.72	7.19	206	6	6	93
2/22/2010	2/22/2010	No Data	No Data	No Data	No Data	No Data	15.1	<0.1	7.17	5.93	198	17	17	99
2/23/2010	2/23/2010	No Data	No Data	No Data	No Data	No Data	4.1	<0.1	5.01	6.08	232	9	9	130
2/24/2010	2/24/2010	No Data	No Data	No Data	No Data	No Data	6.7	<0.1	4.89	6.89	227	3	3	118
2/25/2010	2/25/2010	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	6.18	6.11	238	3	3	154
2/26/2010	2/26/2010	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	3.45	6.52	199	8	8	128
2/27/2010	2/27/2010	No Data	No Data	No Data	No Data	No Data	2.7	0.4	5.61	7.80	209	6	6	141
2/28/2010	2/28/2010	No Data	No Data	No Data	No Data	No Data	3.2	0.5	12.20	7.78	210	5	5	152
3/1/2010	3/1/2010	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	3.10	6.36	208	2	2	131
3/2/2010	3/2/2010	No Data	No Data	No Data	No Data	No Data	3.4	<0.1	13.66	6.58	289	5	5	80
3/3/2010	3/3/2010	No Data	No Data	No Data	No Data	No Data	4.9	<0.1	7.03	6.17	177	7	7	75

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
3/4/2010	3/4/2010	No Data	No Data	No Data	No Data	No Data	5.8	<0.1	6.70	5.46	162	9	9	61
3/5/2010	3/5/2010	No Data	No Data	No Data	No Data	No Data	4.2	<0.1	5.69	5.70	121	5	5	84
3/6/2010	3/6/2010	No Data	No Data	No Data	No Data	No Data	6.9	0.7	7.49	7.46	165	2	2	102
3/7/2010	3/7/2010	No Data	No Data	No Data	No Data	No Data	23.8	1.7	6.65	6.49	101	48	48	68
3/8/2010	3/8/2010	No Data	No Data	No Data	No Data	No Data	6.3	0.8	6.74	5.88	150	9	9	101
3/9/2010	3/9/2010	No Data	No Data	No Data	No Data	No Data	9.4	0.8	6.48	5.95	183	6	6	119
3/10/2010	3/10/2010	No Data	No Data	No Data	No Data	No Data	3.8	<0.1	6.51	5.97	204	5	5	72
3/11/2010	3/11/2010	No Data	No Data	No Data	No Data	No Data	3.3	0.3	6.55	6.90	236	2	2	59
3/12/2010	3/12/2010	No Data	No Data	No Data	No Data	No Data	1.6	0.5	6.93	7.64	219	4	4	70
3/13/2010	3/13/2010	No Data	No Data	No Data	No Data	No Data	3.4	0.5	7.09	7.83	202	1	1	30
3/14/2010	3/14/2010	No Data	No Data	No Data	No Data	No Data	4.6	0.5	7.52	7.60	208	4	4	56
3/15/2010	3/15/2010	No Data	No Data	No Data	No Data	No Data	3.3	0.6	7.03	7.76	185	1	1	80
3/16/2010	3/16/2010	No Data	No Data	No Data	No Data	No Data	4.0	0.6	7.17	7.81	158	7	7	69
3/17/2010	3/17/2010	No Data	No Data	No Data	No Data	No Data	7.4	0.5	6.39	6.53	140	8	8	85
3/18/2010	3/18/2010	No Data	No Data	No Data	No Data	No Data	9.3	1.6	7.33	6.87	117	10	10	80
3/19/2010	3/19/2010	No Data	No Data	No Data	No Data	No Data	12.8	1.4	7.30	7.64	106	9	9	85
3/20/2010	3/20/2010	No Data	No Data	No Data	No Data	No Data	10.1	1.3	7.86	7.09	102	7	7	118
3/21/2010	3/21/2010	No Data	No Data	No Data	No Data	No Data	8.5	1.0	6.80	6.95	120	5	5	115
3/22/2010	3/22/2010	No Data	No Data	No Data	No Data	No Data	7.3	1.3	7.38	7.29	110	2	2	103
3/23/2010	3/23/2010	No Data	No Data	No Data	No Data	No Data	8.7	1.2	7.84	7.48	103	8	8	105
3/24/2010	3/24/2010	No Data	No Data	No Data	No Data	No Data	5.0	1.2	6.01	7.70	115	3	3	138
3/25/2010	3/25/2010	No Data	No Data	No Data	No Data	No Data	7.0	0.9	2.97	7.26	108	4	4	81
3/26/2010	3/26/2010	No Data	No Data	No Data	No Data	No Data	7.4	1.2	2.35	7.08	108	6	6	116
3/27/2010	3/27/2010	No Data	No Data	No Data	No Data	No Data	5.4	0.8	6.21	7.04	108	4	4	92
3/28/2010	3/28/2010	No Data	No Data	No Data	No Data	No Data	4.5	0.9	no data	7.23	114	2	2	103
3/29/2010	3/29/2010	No Data	No Data	No Data	No Data	No Data	4.9	1.2	no data	7.32	108	5	5	47
3/30/2010	3/30/2010	No Data	No Data	No Data	No Data	No Data	6.3	1.2	10.89	7.49	101	5	5	49
3/31/2010	3/31/2010	No Data	No Data	No Data	No Data	No Data	11.8	0.4	6.81	6.09	113	13	13	28
4/1/2010	4/1/2010	No Data	No Data	No Data	No Data	No Data	7.0	0.6	10.27	6.72	95	11	11	34
4/2/2010	4/2/2010	No Data	No Data	No Data	No Data	No Data	5.1	<0.1	9.61	5.93	110	5	5	34
4/3/2010	4/3/2010	No Data	No Data	No Data	No Data	No Data	3.7	1.7	8.80	6.92	120	2	2	41
4/4/2010	4/4/2010	No Data	No Data	No Data	No Data	No Data	4.2	0.6	8.89	7.68	112	2	2	32
4/5/2010	4/5/2010	No Data	No Data	No Data	No Data	No Data	7.8	0.5	8.24	6.12	109	4	4	44
4/6/2010	4/6/2010	No Data	No Data	No Data	No Data	No Data	8.8	0.3	7.41	5.70	87	3	3	22
4/7/2010	4/7/2010	No Data	No Data	No Data	No Data	No Data	5.8	0.5	7.71	7.27	110	6	6	57
4/8/2010	4/8/2010	No Data	No Data	No Data	No Data	No Data	3.7	0.5	5.38	6.87	161	2	2	27

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
4/9/2010	4/9/2010	No Data	No Data	No Data	No Data	No Data	3.5	0.7	6.22	6.35	135	11	11	48
4/10/2010	4/10/2010	No Data	No Data	No Data	No Data	No Data	5.3	0.8	9.71	7.06	115	6	6	31
4/11/2010	4/11/2010	No Data	No Data	No Data	No Data	No Data	4.6	0.74	7.62	7.18	120	5	5	64
4/12/2010	4/12/2010	No Data	No Data	No Data	No Data	No Data	4.0	0.7	11.74	6.36	127	4	4	44
4/13/2010	4/13/2010	No Data	No Data	No Data	No Data	No Data	4.3	0.9	10.48	7.97	129	3	3	30
4/14/2010	4/14/2010	No Data	No Data	No Data	No Data	No Data	3.5	0.4	3.40	6.06	150	1	1	41
4/15/2010	4/15/2010	No Data	No Data	No Data	No Data	No Data	2.7	0.3	5.74	6.24	163	7	7	67
4/16/2010	4/16/2010	No Data	No Data	No Data	No Data	No Data	4.5	0.3	6.51	7.96	160	11	11	72
4/17/2010	4/17/2010	No Data	No Data	No Data	No Data	No Data	3.5	0.2	6.07	7.49	186	10	10	84
4/18/2010	4/18/2010	No Data	No Data	No Data	No Data	No Data	3.7	0.2	6.25	7.65	197	4	4	82
4/19/2010	4/19/2010	No Data	No Data	No Data	No Data	No Data	3.8	0.2	6.81	8.11	201	8	8	146
4/20/2010	4/20/2010	No Data	No Data	No Data	No Data	No Data	3.1	0.4	8.02	8.08	208	10	10	104
4/21/2010	4/21/2010	No Data	No Data	No Data	No Data	No Data	2.9	0.3	8.02	8.15	212	2	2	114
4/22/2010	4/22/2010	No Data	No Data	No Data	No Data	No Data	4.9	0.3	78.20	8.15	198	1	1	108
4/23/2010	4/23/2010	No Data	No Data	No Data	No Data	No Data	4.3	<0.1	11.21	6.78	219	1	1	134
4/24/2010	4/24/2010	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	6.01	6.87	280	2	2	133
4/25/2010	4/25/2010	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	5.33	6.03	250	1	1	146
4/26/2010	4/26/2010	No Data	No Data	No Data	No Data	No Data	1.0	<0.1	5.81	8.11	265	2	2	147
4/27/2010	4/27/2010	No Data	No Data	No Data	No Data	No Data	1.4	<0.1	5.08	6.71	267	2	2	154
4/28/2010	4/28/2010	No Data	No Data	No Data	No Data	No Data	1.2	<0.1	4.71	7.25	319	4	4	108
4/29/2010	4/29/2010	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	4.68	7.09	281	1	1	152
4/30/2010	4/30/2010	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	6.28	8.24	284	2	2	140
5/1/2010	5/1/2010	No Data	No Data	No Data	No Data	No Data	1.0	0.2	7.78	8.09	285	2	2	140
5/2/2010	5/2/2010	No Data	No Data	No Data	No Data	No Data	1.6	0.2	6.76	7.86	289	2	2	113
5/3/2010	5/3/2010	No Data	No Data	No Data	No Data	No Data	0.5	<.1	3.46	6.61	293	1	1	144
5/4/2010	5/4/2010	No Data	No Data	No Data	No Data	No Data	1.2	<.1	5.29	7.93	309	5	5	140
5/5/2010	5/5/2010	No Data	No Data	No Data	No Data	No Data	2.1	<.1	2.98	7.36	320	2	2	119
5/6/2010	5/6/2010	No Data	No Data	No Data	No Data	No Data	1.8	<.1	5.24	7.25	301	3	3	10
5/7/2010	5/7/2010	No Data	No Data	No Data	No Data	No Data	2.3	<.1	3.55	7.16	302	4	4	184
5/8/2010	5/8/2010	No Data	No Data	No Data	No Data	No Data	2.9	0.2	4.31	8.06	302	2	2	162
5/9/2010	5/9/2010	No Data	No Data	No Data	No Data	No Data	2.8	0.2	3.08	7.86	305	4	4	130
5/10/2010	5/10/2010	No Data	No Data	No Data	No Data	No Data	2.6	<.1	1.29	7.62	309	5	5	140
5/11/2010	5/11/2010	No Data	No Data	No Data	No Data	No Data	3.1	<.1	no data	7.46	345	4	4	136
5/12/2010	5/12/2010	No Data	No Data	No Data	No Data	No Data	2.7	<.1	5.33	6.68	306	3	3	123
5/13/2010	5/13/2010	No Data	No Data	No Data	No Data	No Data	1.0	<.1	5.56	8.39	305	5	5	139
5/14/2010	5/14/2010	No Data	No Data	No Data	No Data	No Data	2.3	<.1	4.16	7.89	301	6	6	134

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
5/15/2010	5/15/2010	No Data	No Data	No Data	No Data	No Data	0.9	<.1	5.52	8.20	305	9	9	132
5/16/2010	5/16/2010	No Data	No Data	No Data	No Data	No Data	1.1	<.1	5.21	8.26	307	3	3	126
5/17/2010	5/17/2010	No Data	No Data	No Data	No Data	No Data	2.1	<.1	4.56	7.93	304	2	2	154
5/18/2010	5/18/2010	No Data	No Data	No Data	No Data	No Data	1.8	<.1	4.66	7.82	333	5	5	151
5/19/2010	5/19/2010	No Data	No Data	No Data	No Data	No Data	2.3	<.1	4.26	7.61	300	4	4	152
5/20/2010	5/20/2010	No Data	No Data	No Data	No Data	No Data	2.4	<.1	3.70	7.20	308	4	4	196
5/21/2010	5/21/2010	No Data	No Data	No Data	No Data	No Data	2.1	2.0	3.39	7.46	302	7	7	143
5/22/2010	5/22/2010	No Data	No Data	No Data	No Data	No Data	1.8	0.1	5.64	8.04	310	7	7	119
5/23/2010	5/23/2010	No Data	No Data	No Data	No Data	No Data	2.5	<.1	7.35	7.99	314	5	5	128
5/24/2010	5/24/2010	No Data	No Data	No Data	No Data	No Data	2.4	0.2	10.04	8.08	314	9	9	157
5/25/2010	5/25/2010	No Data	No Data	No Data	No Data	No Data	2.1	0.1	6.12	8.23	312	6	6	145
5/26/2010	5/26/2010	No Data	No Data	No Data	No Data	No Data	2.3	<.1	6.67	8.29	315	4	4	136
5/27/2010	5/27/2010	No Data	No Data	No Data	No Data	No Data	2.0	<.1	7.02	8.22	313	4	4	89
5/28/2010	5/28/2010	No Data	No Data	No Data	No Data	No Data	2.0	<.1	1.31	7.79	314	8	8	127
5/29/2010	5/29/2010	No Data	No Data	No Data	No Data	No Data	2.3	<.1	6.78	8.37	313	145	145	120
5/30/2010	5/30/2010	No Data	No Data	No Data	No Data	No Data	2.8	<.1	7.32	8.42	315	3	3	183
5/31/2010	5/31/2010	No Data	No Data	No Data	No Data	No Data	2.1	<.1	5.95	7.97	306	8.0	8	161
6/1/2010	6/1/2010	No Data	No Data	No Data	No Data	No Data	4.8	<0.1	4.82	7.27	306	4.0	4	159
6/2/2010	6/2/2010	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	4.66	7.10	305	6.0	6	159
6/3/2010	6/3/2010	No Data	No Data	No Data	No Data	No Data	2.4	<0.1	4.54	7.61	371	4.0	4	177
6/4/2010	6/4/2010	No Data	No Data	No Data	No Data	No Data	2.6	<0.1	4.32	7.52	306	1.0	1	160
6/5/2010	6/5/2010	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	4.17	7.75	301	2.0	2	156
6/6/2010	6/6/2010	No Data	No Data	No Data	No Data	No Data	2.4	<0.1	4.41	7.77	302	3.0	3	155
6/7/2010	6/7/2010	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	4.69	8.12	299	5.0	5	141
6/8/2010	6/8/2010	No Data	No Data	No Data	No Data	No Data	3.1	<0.1	4.27	8.01	301	7.0	7	119
6/9/2010	6/9/2010	No Data	No Data	No Data	No Data	No Data	2.7	<0.1	4.15	7.57	302	9.0	9	166
6/10/2010	6/10/2010	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	4.29	7.33	189	12.0	12	151
6/11/2010	6/11/2010	No Data	No Data	No Data	No Data	No Data	2.4	<0.1	4.11	7.58	306	4.0	4	133
6/12/2010	6/12/2010	No Data	No Data	No Data	No Data	No Data	2.5	<0.1	4.62	8.11	300	5.0	5	167
6/13/2010	6/13/2010	No Data	No Data	No Data	No Data	No Data	2.4	<0.1	4.27	8.09	301	4.0	4	176
6/14/2010	6/14/2010	No Data	No Data	No Data	No Data	No Data	2.7	<0.1	3.88	7.49	332	3.0	3	146
6/15/2010	6/15/2010	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	5.76	7.42	305	4.0	4	153
6/16/2010	6/16/2010	No Data	No Data	No Data	No Data	No Data	1.9	<0.1	4.32	7.03	309	4.0	4	181
6/17/2010	6/17/2010	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	4.39	7.51	300	8.0	8	137
6/18/2010	6/18/2010	No Data	No Data	No Data	No Data	No Data	1.5	<0.1	4.19	7.37	308	6.0	6	109
6/19/2010	6/19/2010	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	4.69	8.12	302	5.0	5	110

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
6/20/2010	6/20/2010	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	4.81	8.08	298	5.0	5	122
6/21/2010	6/21/2010	No Data	No Data	No Data	No Data	No Data	2.1	<0.1	4.44	7.17	336	6.0	6	128
6/22/2010	6/22/2010	No Data	No Data	No Data	No Data	No Data	3.0	<0.1	4.42	7.53	303	13.0	13	186
6/23/2010	6/23/2010	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	4.32	7.52	355	9.0	9	159
6/24/2010	6/24/2010	No Data	No Data	No Data	No Data	No Data	2.0	<0.1	3.96	7.29	404	4.0	4	140
6/25/2010	6/25/2010	No Data	No Data	No Data	No Data	No Data	2.2	<0.1	4.61	8.19	299	12.0	12	172
6/26/2010	6/26/2010	No Data	No Data	No Data	No Data	No Data	1.8	<0.1	4.45	8.01	297	14.0	14	146
6/27/2010	6/27/2010	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	4.85	8.15	298	4.0	4	169
6/28/2010	6/28/2010	No Data	No Data	No Data	No Data	No Data	1.6	<0.1	5.53	8.06	302	6.0	6	163
6/29/2010	6/29/2010	No Data	No Data	No Data	No Data	No Data	2.8	<0.1	4.09	7.54	352	1.0	1	168
6/30/2010	6/30/2010	No Data	No Data	No Data	No Data	No Data	1.7	<0.1	4.47	7.98	299	1.0	1	166

I. AZPDES # AZS000018-2008
Monitoring Period: 7/01/09 to 6/30/10

Project/Site Name: Sedona SR 179-Project # II
Monitoring Point 3

II. Contact Information

Name: ADOT - Flagstaff District

Address: 1801 South Milton Road
Flagstaff, AZ Flagstaff, Arizona 86001

Phone Number 928-779-7591
Chuck Howe

V. Pollutants Monitored

		A. Visual Monitoring:					**B. Analytical Monitoring**							
III. Discharge Date	**IV. Sample Date**	Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
9/10/2009	9/10/2009	No Data	No Data	No Data	No Data	No Data	611	.3	7.58	7.83	102	1989	1989	89
1/21/2010	1/21/2010	No Data	No Data	No Data	No Data	No Data	302	high	No Data	7.80	173.5	1041	1041	145
1/22/2010	1/22/2010	No Data	No Data	No Data	No Data	No Data	19.7	No Data	No Data	7.29	222	13	13	144
1/23/2010	1/23/2010	No Data	No Data	No Data	No Data	No Data	4.5	No Data	No Data	8.16	313	8	8	205
3/7/2010	3/7/2010	No Data	No Data	No Data	No Data	No Data	97.5	.08	6.39	7.15	168.5	81	81	83

I. AZPDES # AZS000018-2008
Monitoring Period: 7/01/09 to 6/30/10

Project/Site Name: Sedona SR 179-Project # II
Monitoring Point 4

II. Contact Information

Name: ADOT - Flagstaff District
Address: 1801 South Milton Road
Flagstaff, AZ Flagstaff, Arizona 86001
Phone Number 928-779-7591 Chuck Howe

V. Pollutants Monitored

III. Discharge Date	IV. Sample Date	A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
No Data this reporting period.														

I. AZPDES # AZS000018-2008
Monitoring Period: 7/01/09 to 6/30/10

Project/Site Name: Sedona SR 179-Project # II
Monitoring Point 5

II. Contact Information

Name: ADOT - Flagstaff District
Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001
Phone Number 928-779-7591
Chuck Howe

V. Pollutants Monitored

		A. Visual Monitoring:					**B. Analytical Monitoring**							
III. Discharge Date	**IV. Sample Date**	Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
7/2/2009	7/2/2009	no data	no data	no data	no data	no data	5.7	.1	6.22	8.53	320	7	7	126
7/9/2009	7/9/2009	no data	no data	no data	no data	no data	5.6	.1	6.01	8.54	328	6	6	144
7/15/2009	7/15/2009	no data	no data	no data	no data	no data	4.5	.1	5.48	8.59	312	4	4	132
7/23/2009	7/23/2009	no data	no data	no data	no data	no data	5.9	0.6	6.3	8.59	318	6	6	121
7/31/2009	7/31/2009	no data	no data	no data	no data	no data	8.3	<1	5.62	8.86	314	5	5	119
8/6/2009	8/6/2009	no data	no data	no data	no data	no data	7.2	<1	6.30	8.83	316	7	7	146
8/13/2009	8/13/2009	no data	no data	no data	no data	no data	4.7	.10	5.56	8.71	311	8	8	150
8/20/2009	8/20/2009	no data	no data	no data	no data	no data	4.8	.9	6.10	8.68	317	4	4	121
8/27/2009	8/27/2009	no data	no data	no data	no data	no data	5.8	<1	6.75	8.01	300	3	3	141
9/3/2009	9/3/2009	no data	no data	no data	no data	no data	3.6	<1	6.71	7.22	299	4	4	140
9/10/2009	9/10/2009	no data	no data	no data	no data	no data	20.4	<1	7.08	7.32	307	32	32	151
9/11/2009	9/11/2009	no data	no data	no data	no data	no data	32.0	0.5	5.44	8.17	278	38	48	147
9/13/2009	9/13/2009	no data	no data	no data	no data	no data	96	.69	8.06	8.26	305	248	259	168
9/18/2009	9/18/2009	no data	no data	no data	no data	no data	10.8	0.4	6.76	8.33	306	5	5	116
9/24/2009	9/24/2009	no data	no data	no data	no data	no data	7.7	<1.0	8.24	8.16	312	72	72	150
10/1/2009	10/1/2009	no data	no data	no data	no data	no data	4.6	1.1	9.27	8.04	307.0	4.0	4.0	126.0
10/4/2009	10/4/2009	no data	no data	no data	no data	no data	8.6	.62	9.14	8.30	299	10	10	127
10/8/2009	10/8/2009	no data	no data	no data	no data	no data	7.7	<0.1	9.71	8.12	302	10	10	162
10/15/2009	10/15/2009	no data	no data	no data	no data	no data	2.8	<0.1	6.55	7.92	301	1	1	127
10/22/2009	10/22/2009	no data	no data	no data	no data	no data	4.1	.6	5.84	7.64	311	7	7	153
10/28/2009	10/28/2009	no data	no data	no data	no data	no data	5.9	0.1	8.65	8.35	315	2	2	96
11/5/2009	11/5/2009	no data	no data	no data	no data	no data	3.1	.12	9.86	7.96	312	15	15	143
11/12/2009	11/12/2009	no data	no data	no data	no data	no data	3.2	.12	6.22	7.92	314	3	3	150
11/13/2009	11/13/2009	no data	no data	no data	no data	no data	6.9	<0.1	6.01	8.20	314	6	6	124
11/18/2009	11/18/2009	no data	no data	no data	no data	no data	4.3	0.1	8.04	8.03	304	3	3	102
11/19/2009	11/19/2009	no data	no data	no data	no data	no data	4.7	.2	No Data	8.21	316	24	24	148
11/26/2009	11/26/2009	no data	no data	no data	no data	no data	5.9	.10	7.77	8.01	317	2	2	149
11/29/2009	11/29/2009	no data	no data	no data	no data	no data	6.2	.25	3.60	8.25	315	7	7	145
12/3/2009	12/3/2009	no data	no data	no data	no data	no data	2.5	<0.1	1.47	7.17	318	2	2	154
12/8/2009	12/8/2009	no data	no data	no data	no data	no data	3.4	-	9.12	8.18	319	6	6	164
12/10/2009	12/10/2009	no data	no data	no data	no data	no data	8.2	0.11	-	7.43	322	10	10	192
12/17/2009	12/17/2009	no data	no data	no data	no data	no data	2.9	<0.1	9.76	6.69	329	5	5	158

Name: ADOT - Flagstaff District Address: 1801 South Milton Road Flagstaff, AZ Flagstaff, Arizona 86001 Phone Number 928-779-7591 Chuck Howe		A. Visual Monitoring:					B. Analytical Monitoring							
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	TSS	TDS
12/24/2009	12/24/2009	no data	no data	no data	no data	no data	3.9	0.94	10.22	7.8	326	11	11	124
12/31/2009	12/31/2009	no data	no data	no data	no data	no data	2.8	0.81	8.91	7.28	287	5	5	168
1/7/2010	1/7/2010	no data	no data	no data	no data	no data	2.5	0.9	8.56	7.73	322	8	8	137
1/14/2010	1/14/2010	no data	no data	no data	no data	no data	4.9	1.2	10.27	8.34	317	7	7	182
1/20/2010	1/20/2010	no data	no data	no data	no data	no data	20.2	0.8	11.12	8.24	263	28	28	149
1/21/2010	1/21/2010	no data	no data	no data	no data	no data	202	high	no data	7.88	198.9	415	416	116
1/22/2010	1/22/2010	no data	no data	no data	no data	no data	31.4	no data	no data	7.56	156.3	79	79	124
1/23/2010	1/23/2010	no data	no data	no data	no data	no data	14.1	no data	no data	8.22	204	5	5	136
1/24/2010	1/24/2010	no data	no data	no data	no data	no data	9.7	no data	no data	8.14	224	4	4	145
1/28/2010	1/28/2010	no data	no data	no data	no data	no data	9.7	<0.1	6.59	6.06	206	4	4	134
2/4/2010	2/4/2010	no data	no data	no data	no data	no data	5.4	<0.1	5.57	6.2	202	6	6	135
2/11/2010	2/11/2010	no data	no data	no data	no data	no data	4.4	<0.1	9.31	7.66	252	5	5	154
2/18/2010	2/18/2010	no data	no data	no data	no data	no data	4.7	0.15	9.81	6.81	208	9	9	110
2/22/2010	2/22/2010	no data	no data	no data	no data	no data	33	<0.1	8.03	5.92	208	28	28	140
2/25/2010	2/25/2010	no data	no data	no data	no data	no data	3.5	<0.1	5.36	6.47	235	10	10	149
3/4/2010	3/4/2010	no data	no data	no data	no data	no data	5.4	<0.1	6.66	5.06	164	7	7	76
3/7/2010	3/7/2010	no data	no data	no data	no data	no data	32.8	0.41	7.17	6.37	104.1	80	80	119
3/11/2010	3/11/2010	no data	no data	no data	no data	no data	3.1	0.6	6.37	6.68	225	5	5	22
3/19/2010	3/19/2010	no data	no data	no data	no data	no data	12.8	0.35	6.69	6.6	110.3	10	10	97
3/25/2010	3/25/2010	no data	no data	no data	no data	no data	6.4	0.25	2.65	5.4	114.1	2	2	77
4/1/2010	4/1/2010	no data	no data	no data	no data	no data	6.8	0.75	10.27	7.09	95.3	9	9	28
4/8/2010	4/8/2010	no data	no data	no data	no data	no data	4	0.8	5.11	6.67	142.6	6	6	78
4/15/2010	4/15/2010	no data	no data	no data	no data	no data	3	0.45	8.63	6.28	156	3	3	83
4/19/2010	4/19/2010	no data	no data	no data	no data	no data	5.6	0.3	4.95	8.08	203	9	9	157
4/29/2010	4/29/2010	no data	no data	no data	no data	no data	1.8	<0.1	4.85	7.07	286	2	2	143
5/6/2010	5/6/2010	no data	no data	no data	no data	no data	2.3	<0.1	3.97	6.92	301	3	3	161
5/13/2010	5/13/2010	no data	no data	no data	no data	no data	1.5	0.5	5.43	8.3	313	6	6	150
5/20/2010	5/20/2010	no data	no data	no data	no data	no data	2.4	<0.1	3.42	7.29	349	8	8	138
5/27/2010	5/27/2010	no data	no data	no data	no data	no data	1.1	0.21	6.19	8.13	313	4	4	127
6/3/2010	6/3/2010	no data	no data	no data	no data	no data	3.3	<0.1	4.51	7.12	314	5	5	174
6/10/2010	6/10/2010	no data	no data	no data	no data	no data	3.9	<0.1	4.13	7.74	309	2	2	150
6/17/2010	6/17/2010	no data	no data	no data	no data	no data	15.3	<0.1	4.3	7.5	304	13	13	197
6/24/2010	6/24/2010	no data	no data	no data	no data	no data	4.3	<0.1	4.19	7.31	307	13	13	160

Meadow Valley

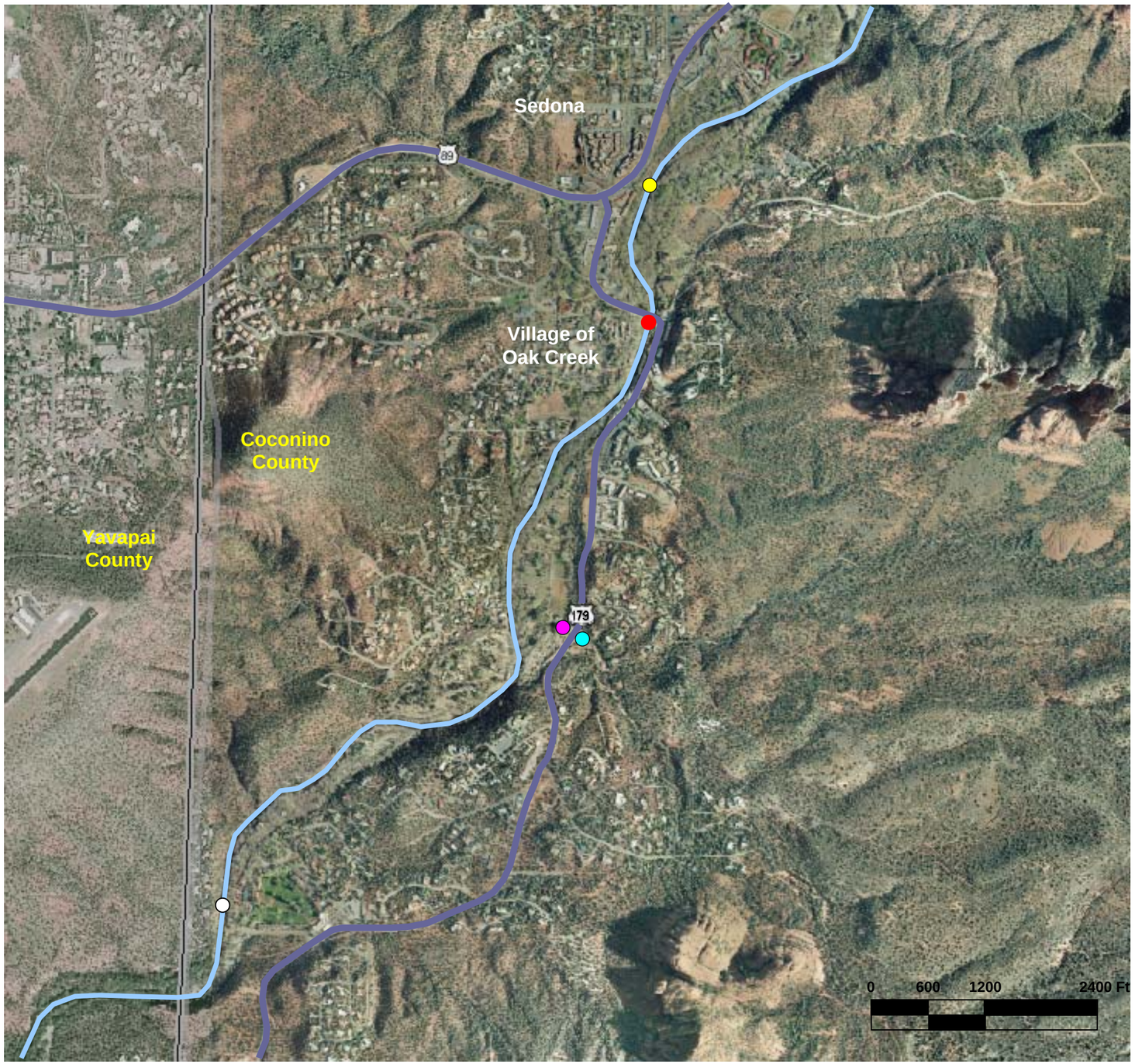
I. AZPDES # AZS000018-2008 Monitoring Period: 7/01/09 to 6/30/10		Project/Site Name: SR-260 Meadow Valley Monitoring Point 1													
II. Contact Information		V. Pollutants Monitored													
Name: ADOT - Globe District Address: PO Box 2717 Globe, Arizona 85002-2717 Phone Number 928-402-5600 Richard Haddow		A. Visual Monitoring:					B. Analytical Monitoring								
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	Temp.	TSS	TDS
III. Discharge Date	IV. Sample Date														
5/12/2010	5/12/2010	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	8.20	No Data	27	13.2	No Data	No Data
5/18/2010	5/18/2010	No Data	No Data	No Data	No Data	No Data	9.72	No Data	No Data	7.65	No Data	9	9.5	No Data	No Data
5/25/2010	5/25/2010	No Data	No Data	No Data	No Data	No Data	4.96	No Data	No Data	7.89	No Data	8	11.6	No Data	No Data
6/1/2010	6/1/2010	No Data	No Data	No Data	No Data	No Data	9.5	No Data	No Data	8.04	No Data	13	12.4	No Data	No Data
6/1/2010	6/1/2010	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	13	No Data	No Data	No Data
6/8/2010	6/8/2010	No Data	No Data	No Data	No Data	No Data	7.21	No Data	No Data	7.80	No Data	8	13.7	No Data	No Data
6/15/2010	6/15/2010	No Data	No Data	No Data	No Data	No Data	4.4	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/22/2010	6/22/2010	No Data	No Data	No Data	No Data	No Data	8.81	No Data	No Data	7.91	No Data	13	20.3	No Data	No Data
6/29/2010	6/29/2010	No Data	No Data	No Data	No Data	No Data	5.45	No Data	No Data	9.2	No Data	15	19.2	No Data	No Data

I. AZPDES # AZS000018-2008 Monitoring Period: 7/01/09 to 6/30/10		Project/Site Name: SR-260 Meadow Valley Monitoring Point 2													
II. Contact Information		V. Pollutants Monitored													
Name: ADOT - Globe District Address: PO Box 2717 Globe, Arizona 85002-2717 Phone Number 928-402-5600 Richard Haddow		A. Visual Monitoring:					B. Analytical Monitoring								
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	Temp.	TSS	TDS
III. Discharge Date	IV. Sample Date														
5/12/2010	5/12/2010	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	7.88	No Data	15	9.55	No Data	No Data
5/18/2010	5/18/2010	No Data	No Data	No Data	No Data	No Data	7.55	No Data	No Data	8.20	No Data	8	10.7	No Data	No Data
5/25/2010	5/25/2010	No Data	No Data	No Data	No Data	No Data	5.70	No Data	No Data	8.21	No Data	10	12.1	No Data	No Data
6/1/2010	6/1/2010	No Data	No Data	No Data	No Data	No Data	11.6	No Data	No Data	8.38	No Data	26	14.3	No Data	No Data
6/1/2010	6/1/2010	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data	26	No Data	No Data	No Data
6/8/2010	6/8/2010	No Data	No Data	No Data	No Data	No Data	8.46	No Data	No Data	8.11	No Data	12	15.4	No Data	No Data
6/15/2010	6/15/2010	No Data	No Data	No Data	No Data	No Data	10.3	No Data	No Data	No Data	No Data	No Data	No Data	No Data	No Data
6/22/2010	6/22/2010	No Data	No Data	No Data	No Data	No Data	12.3	No Data	No Data	8.17	No Data	24	18.8	No Data	No Data
6/29/2010	6/29/2010	No Data	No Data	No Data	No Data	No Data	7.97	No Data	No Data	8.38	No Data	23	18.1	No Data	No Data

I. AZPDES # AZS000018-2008 Monitoring Period: 7/01/09 to 6/30/10		Project/Site Name: SR-260 Meadow Valley Monitoring Point 3													
II. Contact Information		V. Pollutants Monitored													
Name: ADOT - Globe District Address: PO Box 2717 Globe, Arizona 85002-2717 Phone Number 928-402-5600 Richard Haddow		A. Visual Monitoring:					B. Analytical Monitoring								
		Sheen	Color	Foam	Solids	Odor	Turbidity	Stream Flow	DO	pH	Conductivity	SSC	Temp.	TSS	TDS
III. Discharge Date	IV. Sample Date														
6/22/2010	6/22/2010	No Data	No Data	No Data	No Data	No Data	7.14	No Data	No Data	7.33	No Data	32	14.7	No Data	No Data
6/29/2010	6/29/2010	No Data	No Data	No Data	No Data	No Data	0.64	No Data	No Data	7.48	No Data	10	13.6	No Data	No Data

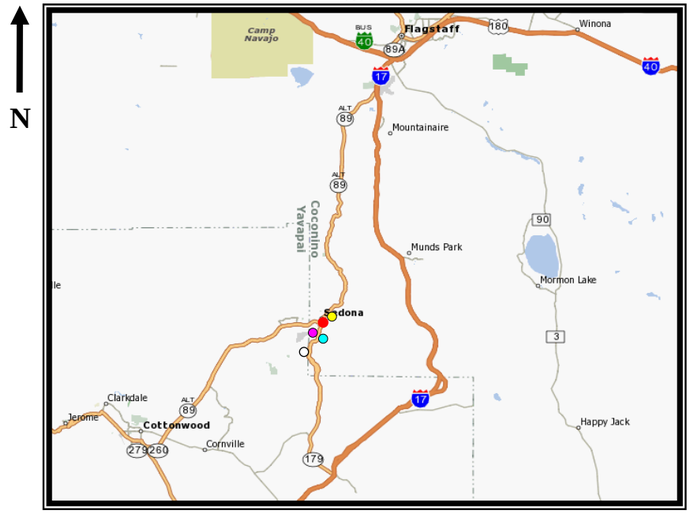
APPENDIX O
SR179 In-Stream Monitoring Locations

V:\308032.05 Annual Report_Sampling 2009\700 Deliverables\710 - 2009 Annual Report\Potential MS4 Sampling Location Maps\Figure 8_Sedona In Stream Monitoring



Vicinity Map

NTS



Legend

- Monitoring Point 1
- Monitoring Point 2
- Monitoring Point 3
- Monitoring Point 4
- Monitoring Point 5
- Oak Creek
- State Routes 89 & 179

N
W E
S

ADOT

In-stream Monitoring Locations
Sedona, Arizona

ARIZONA DEPARTMENT OF TRANSPORTATION
AZPDES STORM WATER MONITORING SITE

Engineering and Environmental Consultants, Inc.
7878 North 16th Street, Suite 140, Phoenix, AZ 85020

APPENDIX P
Phoenix MS4 Pollutant Loading Estimates

Pollutant Loading Estimate
ADOT Phoenix MS4
2009/2010 Reporting Period

Annual Pollutant Loading: Phoenix MS4-Summer (7/21/10)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Summer Event Load (lbs)**
BOD	0.47025	40	3.7	15.73
COD	0.47025	350	3.7	137.63
TSS	0.47025	NA	3.7	NA
TDS	0.47025	720	3.7	283.12
Total Nitrogen	0.47025	4.77	3.7	1.88
TKN	0.47025	12	3.7	4.72
Total Phosphorous	0.47025	1.1	3.7	0.43
Barium	0.47025	0.14	3.7	0.06
Copper	0.47025	0.073	3.7	0.029
Lead	0.47025	0.006	3.7	0.002
Zinc	0.47025	0.14	3.7	0.06
Nitrate (mg/L)	0.47025	4	3.7	1.57
Nitrite (mg/L)	0.47025	0.77	3.7	0.30
Antimony (mg/L)	0.47025	0.0037	3.7	0.0015
Arsenic (mg/L)	0.47025	0.0064	3.7	0.0025
Total Petroleum Hydrocarbons (TPH) (mg/L)	0.47025	2.7	3.7	1.06

Summer Event Runoff	0.47025
Summer Event Rainfall	0.55
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

NA: Not Analyzed

**** Pollutant concentration below detection limit**

Pollutant Loading Estimate
ADOT Phoenix MS4
2009/2010 Reporting Period

Annual Pollutant Loading: Phoenix MS4-Winter (3/1/10)					
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Winter Event Load (lbs)**	
BOD	0.19665	5	3.7	0.82	**
COD	0.19665	70	3.7	11.51	
TSS	0.19665	76	3.7	12.50	
TDS	0.19665	97	3.7	15.95	
Total Nitrogen	0.19665	1.1	3.7	0.18	
TKN	0.19665	1.5	3.7	0.25	
Total Phosphorous	0.19665	0.25	3.7	0.04	
Barium	0.19665	0.074	3.7	0.01	
Lead	0.19665	0.0064	3.7	0.0011	
Zinc	0.19665	4.7	3.7	0.77	
Nitrate (mg/L)	0.19665	1.1	3.7	0.18	
Winter Event Rainfall	0.23				
Percent of Rainfall Runoff	0.9				
Percent of Site Impervious	100%				
Runoff Factor	0.95				

NA: Not Analyzed

**** Pollutant concentration below detection limit**

Pollutant Loading Estimate
ADOT Phoenix MS4
2009/2010 Reporting Period

Annual Pollutant Loading: Phoenix MS4- Mean				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Annual Load (lbs)**
BOD	12.02985	22.5	3.7	226.34
COD	12.02985	420	3.7	4,224.93
TSS	12.02985	38	3.7	382.26
TDS	12.02985	408.5	3.7	4,109.25
Total Nitrogen	12.02985	2.935	3.7	29.52
TKN	12.02985	6.75	3.7	67.90
Total Phosphorous	12.02985	0.675	3.7	6.79
Barium	12.02985	0.107	3.7	1.08
Copper	12.02985	0.137	3.7	1.38
Lead	12.02985	0.0062	3.7	0.0624
Zinc	12.02985	2.42	3.7	24.34
Nitrate (mg/L)	12.02985	2.55	3.7	25.65
Nitrite (mg/L)	12.02985	0.385	3.7	3.87
Antimony (mg/L)	12.02985	0.0016	3.7	0.02
Arsenic (mg/L)	12.02985	0.0032	3.7	0.03
Total Petroleum Hydrocarbons (TPH) (mg/L)	12.02985	1.35	3.7	13.58

Annual Runoff	12.02985
Annual Rainfall	14.07
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

NA: Not Analyzed

Miscellaneous Pollutant Loading Estimate
ADOT Phoenix MS4
2009/2010 Reporting Period

Annual Miscellaneous Pollutant Loading: Phoenix MS4-Summer (7/21/10)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Summer Event Load (lbs)**
Sulfates	0.47025	69	3.7	27.13
Phosphate, Ortho	0.47025	46	3.7	18.09
Total Amonia	0.47025	2.6	3.7	NA
Sodium (mg/L)	0.47025	85	3.7	33.42
Calcium (mg/L)	0.47025	64	3.7	25.17
Chloride (mg/L)	0.47025	130	3.7	51.12
MBAS	0.47025	1.1	3.7	0.43

Summer Event Runoff	0.47025
Summer Event Rainfall	0.55
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

Miscellaneous Pollutant Loading Estimate
ADOT Phoenix MS4
2009/2010 Reporting Period

Annual Miscellaneous Pollutant Loading: Phoenix MS4-Winter (3/1/10)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Winter Event Load (lbs)**
Sulfates	0.23	7.6	3.7	1.46
Phosphate, Ortho	0.23	0.48	3.7	0.09
Total Amonia	0.23	0.48	3.7	NA
Sodium (mg/L)	0.23	1.3	3.7	0.25
Calcium (mg/L)	0.23	150	3.7	28.85
Chloride (mg/L)	0.23	6.9	3.7	1.33
Winter Event Rainfall	0			
Percent of Rainfall Runoff	0.9			
Percent of Site Impervious	100%			
Runoff Factor	0.95			

Miscellaneous Pollutant Loading Estimate
ADOT Phoenix MS4
2009/2010 Reporting Period

Annual Miscellaneous Pollutant Loading: Phoenix MS4- Mean				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Annual Load (lbs)**
Sulfates	12.02985	38.3	3.7	385.27
Phosphate, Ortho	12.02985	23.24	3.7	233.78
Total Amonia	12.02985	1.54	3.7	15.49
Sodium (mg/L)	12.02985	43.15	3.7	434.06
Calcium (mg/L)	12.02985	107	3.7	1,076.35
Chloride (mg/L)	12.02985	68045	3.7	684,489.19
MBAS	12.02985	0.55	3.7	5.53

Annual Runoff	12.02985
Annual Rainfall	14.07
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

APPENDIX Q
Tucson MS4 Pollutant Loading Estimates

Pollutant Loading Estimate
ADOT Tucson MS4
2009/2010 Reporting Period

Annual Pollutant Loading: Tucson MS4- Summer (6/30/09)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Summer Event Load (lbs)**
BOD	0.342	44	4.8	16.32
COD	0.342	640	4.8	237.44
TSS	0.342	160	4.8	59.36
TDS	0.342	680	4.8	252.28
Total Nitrogen	0.342	0.31	4.8	0.12
TKN	0.342	14	4.8	5.19
Total Phosphorous	0.342	0.36	4.8	0.13
Barium	0.342	0.2	4.8	0.07
Copper	0.342	0.033	4.8	0.01
Zinc	0.342	0.18	4.8	0.07
Nitrate (mg/L)	0.342	0.21	4.8	0.08
Antimony (mg/L)	0.342	0.2	4.8	0.07
Arsenic (mg/L)	0.342	0.003	4.8	0.00
Total Petroleum Hydrocarbons (TPH) (mg/L)	0.342	24	4.8	8.90

Summer Event Runoff	0.342
Summer Event Rainfall	0.4
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

NA: Not Analyzed

Pollutant Loading Estimate
ADOT Tucson MS4
2009/2010 Reporting Period

Annual Pollutant Loading: Tucson MS4- Winter (4/23/10)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Winter Event Load (lbs)**
BOD	0.11115	90	4.8	10.85
COD	0.11115	490	4.8	59.08
TSS	0.11115	130	4.8	15.67
TDS	0.11115	910	4.8	109.72
Total Nitrogen	0.11115	20	4.8	2.41
TKN	0.11115	7.8	4.8	0.94
Total Phosphorous	0.11115	0.58	4.8	0.07
Barium	0.11115	0.2	4.8	0.02
Copper	0.11115	0.13	4.8	0.02
Zinc	0.11115	0.41	4.8	0.05
Nitrate (mg/L)	0.11115	9.9	4.8	1.2
Nitrite (mg/L)	0.11115	1.9	4.8	0.2
Total Petroleum Hydrocarbons (TPH) (mg/L)	0.11115	24	4.8	2.89

Winter Event Runoff	0.11115
Winter Event Rainfall	0.13
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

NA: Not Analyzed

Pollutant Loading Estimate
ADOT Tucson MS4
2009/2010 Reporting Period

Annual Pollutant Loading: Tucson MS4- Mean				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Annual Load (lbs)**
BOD	9.1143	67	4.8	662.44
COD	9.1143	565	4.8	5,586.26
TSS	9.1143	145	4.8	1,433.64
TDS	9.1143	795	4.8	7,860.32
Total Nitrogen	9.1143	10.155	4.8	100.40
TKN	9.1143	10.9	4.8	107.77
Total Phosphorous	9.1143	0.47	4.8	4.65
Barium	9.1143	0.2	4.8	1.98
Copper	9.1143	0.082	4.8	0.81075
Zinc	9.1143	0.3	4.8	2.97
Nitrate (mg/L)	9.1143	5.06	4.8	50.03
Nitrite (mg/L)	9.1143	0.95	4.8	9.39
Antimony (mg/L)	9.1143	0.1	4.8	0.98872
Arsenic (mg/L)	9.1143	0.0015	4.8	0.01483
Total Petroleum Hydrocarbons (TPH) (mg/L)	9.1143	24	4.8	237.29

Annual Runoff	9.1143
Annual Rainfall	10.66
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

NA: Not Analyzed

Miscellaneous Pollutant Loading Estimate
ADOT Tucson MS4
2009/2010 Reporting Period

Annual Miscellaneous Pollutant Loading: Tucson MS4- Summer (6/30/09)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Summer Event Load (lbs)**
Sulfates	0.342	68	4.8	25.23
Total Amonia	0.342	6.7	4.8	2.49
Sodium (mg/L)	0.342	18	4.8	6.68
Calcium (mg/L)	0.342	100	4.8	37.10
Chloride (mg/L)	0.342	19	4.8	7.05
Selenium (mg/L)	0.342	0.02	4.8	0.01
MBAS	0.342	11	4.8	4.08

Summer Event Runoff	0.342
Summer Event Rainfall	0.4
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

Miscellaneous Pollutant Loading Estimate
ADOT Tucson MS4
2009/2010 Reporting Period

Annual Miscellaneous Pollutant Loading: Tucson MS4- Winter (4/23/10)				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Winter Event Load (lbs)**
Phosphate, Ortho	0.11115	310	4.8	37.38
Sodium (mg/L)	0.11115	18	4.8	2.17
Calcium (mg/L)	0.11115	150	4.8	18.09
Chloride (mg/L)	0.11115	14	4.8	1.69
Oil & Grease Hexane	0.11115	9.2	4.8	1.11

Summer Event Runoff	0.11115
Summer Event Rainfall	0.13
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95

Miscellaneous Pollutant Loading Estimate
ADOT Tucson MS4
2009/2010 Reporting Period

Annual Miscellaneous Pollutant Loading: Tucson MS4- Mean				
Pollutant	**Annual Runoff**	**Pollutant Concentration**	**Area**	**Annual Load (lbs)**
Sulfates	9.1143	189	4.8	1,868.68
Total Amonia	9.1143	3.35	4.8	33.12
Sodium (mg/L)	9.1143	18	4.8	177.97
Calcium (mg/L)	9.1143	125	4.8	1,235.90
Chloride (mg/L)	9.1143	16.5	4.8	163.14
Selenium (mg/L)	9.1143	0.01	4.8	0.10
MBAS	9.1143	5.5	4.8	54.38
Phosphate, Ortho	9.1143	155	4.8	1,532.51
Oil & Grease Hexane	9.1143	4.6	4.8	45.48109

Annual Runoff	9.1143
Annual Rainfall	10.66
Percent of Rainfall Runoff	0.9
Percent of Site Impervious	100%
Runoff Factor	0.95