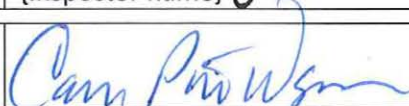


**Region 6 Compliance Assurance and Enforcement Division
INSPECTION REPORT**

Inspection Date(s):	04/12/2017		
Media:	Water		
Regulatory Program(s)	CWA 308[A][B]		
Company Name:	Dallas Fort Worth International Airport		
Facility Name:	Dallas Fort Worth International Airport		
Facility Physical Location:	3200 East Airfield Drive		
(city, state, zip code)	Dallas, Texas 75261		
Mailing address:	EAD Annex Building A, 3003 South Service Road		
(city, state, zip code)	Dallas, Texas 75261		
County/Parish:	Dallas/Tarrant		
Facility Contact:	Asciatu Whiteside	Environmental Program Manager	
	awhiteside@dfwairport.com		
FRS Number:	110020045306		
Identification/Permit Number:	TXU0025101		
Media Number:	NA		
NAICS:	488119		
SIC:	4581		
Personnel participating in inspection:			
David Long	USEPA/6EN-WM	Environmental Scientist	214.665.7323
Alan Vaughn	USEPA/6EN-WM	Environmental Engineer	214.665.7487
Mike Tillman	USEPA/6EN-WM	Environmental Engineer	214.665.7531
Asciatu Whiteside	DFW Airport	Environmental Program Manager	972.973.5582
Robert Horton	DFW Airport	Vice President, Environmental Affairs	972.973.5563
Eduardo Tovar	DFW Airport	Systems Performance Mgr.	972.973.6114
Scott Monaghan	DFW Airport	Utilities Manager	972.973.3637
Heather Frost	DFW Airport	Assistant Vice President, Environmental Affairs	972.973.5564
EPA Lead Inspector Signature/Date	 {Inspector name}		11/30/2017 Date
Supervisor Signature/Date	 {Supervisor name}		12/5/17 Date

Section I - INTRODUCTION

PURPOSE OF THE INSPECTION

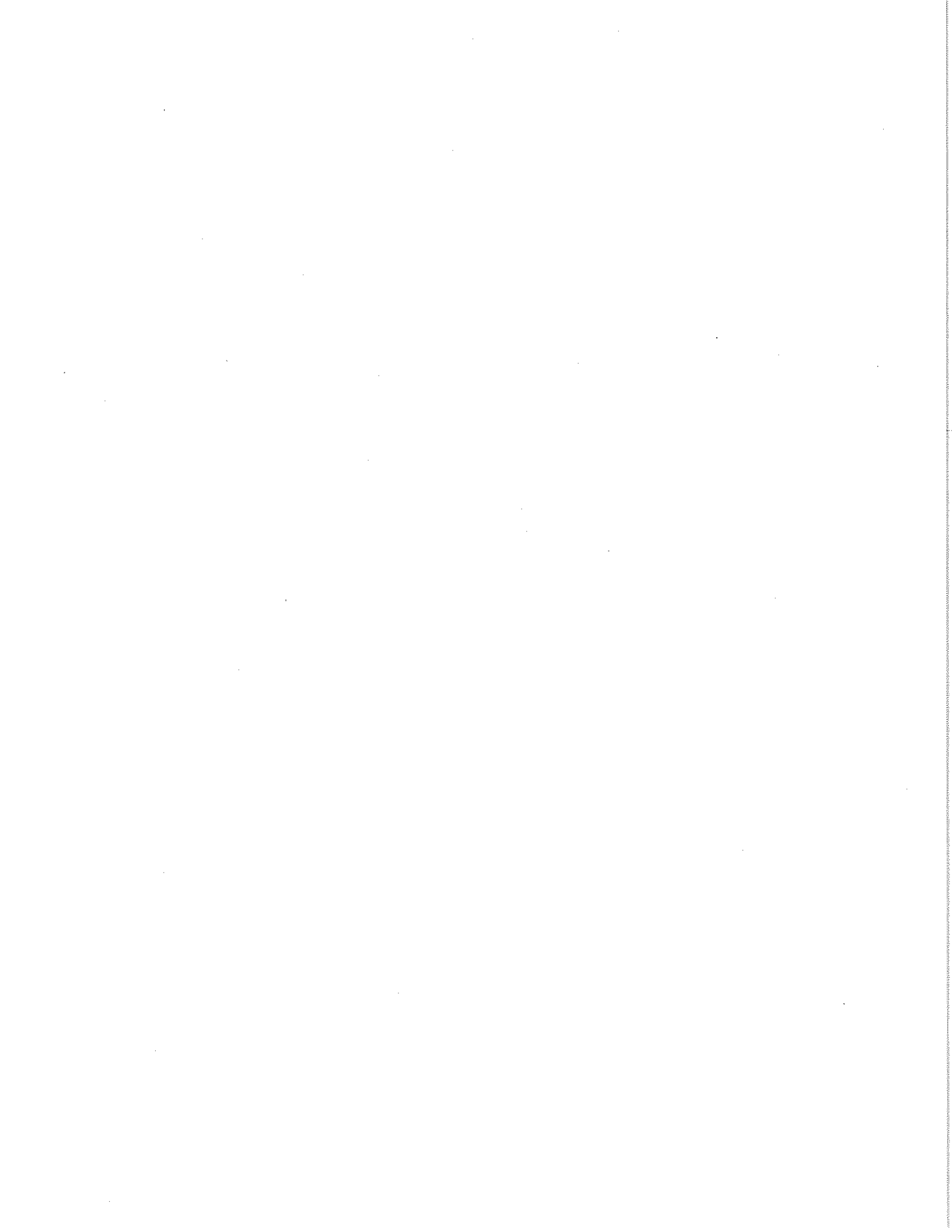
A U.S. Environmental Protection Agency (USEPA) program review inspection was conducted in the Dallas Fort Worth International Airport Environmental Affairs Department (EAD) offices located at 3003 South Service Road, Dallas, Texas 75261. The inspection was conducted under the guidelines established by the USEPA under the National Pollutant Discharge Elimination System (NPDES) for wastewater collection systems. The purpose of this inspection was to inspect and review DFW Airport's current Sanitary Sewer Overflow (SSO) response protocols and their application of a Capacity, Management, Operations and Maintenance (CMOM) program and how the program is used to insure proper operation and maintenance of their collection system. An entry briefing was conducted by EPA-Region 6 inspectors David Long, Alan Vaughn, and Mike Tillman (See Attendee Sheet in Appendix 1) at 9:00 a.m. on April 12, 2017 at the DFW Airport Wastewater EAD offices. The inspectors met with Asciatu Whiteside, Environmental Program Manager, Robert Horton, Vice President of Environmental Affairs, and Heather Frost, Assistant Vice President of Environmental Affairs. Additional DFW Airport personnel were also present and are listed in Appendix 1. During the entry briefing, the EPA inspectors provided credentials and explained the purpose of the inspection, as well as set the timeline for the day and verified the availability of documents that had been requested the week before.

At the conclusion of the inspection, an exit briefing was conducted that explained the suggestions and areas of concerns noted during the inspection that are detailed in this report. This report is based on information supplied by the City representatives, observations made by the U.S. EPA inspectors, records and reports maintained by the City, the State of Texas and the USEPA.

PROGRAM DESCRIPTION

The DFW Airport is approximately 29 square miles in size and includes an average daily population of 241,000 including DFW employees and passengers which are provided wastewater services through approximately 63 miles of sewer lines. The wastewater collection system includes six lift stations (one under construction) and sewer pipes ranging in size from six to 36 inches in diameter. In addition to the six primary lift stations, smaller terminal specific lift/pump stations also discharge to the airport's collection system. Finally, one facility lift station (North Remote Lift Station) discharges directly to a leech field. Approximately 42 percent of the collection system is comprised of PVC pipe. The remaining system includes approximately six percent vitrified clay and remaining 42% smaller percentages each of cast and ductile iron, polyethylene, fiberglass reinforced pipe, and reinforced concrete pipe. A Supervisor Control and Data Acquisition (SCADA) system continuously monitors the airport's six utility lift stations, otherwise, all lift stations are physically visited once a month and receive preventative maintenance inspections. While all lift stations are monitored, none of the stations have dedicated emergency generators in the event of an electric grid failure. However, the lift stations are all equipped with quick connect lines for electric power supplied by portable generators.

The DFW Airport collection system has four points of entry to the Trinity River Authority's Central Wastewater Treatment Plant and has experienced 37 SSOs in the past five years. Terminal area collection system lines, representing 25% of the collection system, are jetted and cleaned every six months. The



remainder of the system is jetted and cleaned every five years (15%/year). In addition, DFW Airport has developed and regularly updates a Utility Master Plan to ensure capacity and condition of the collection system is maintained and annually exceeds the cleaning and maintenance of their collection system. Finally, DFW Airport expends approximately five million dollars per year on their Capital Improvement Plan (CIP) to cover capital improvements, manhole rehabilitation projects, and emergency and planned collection system line maintenance and replacement. This amount is above the \$500,000/year budgeted for line maintenance. To assist in line maintenance, DFW Airport also maintains utilizes CCTV of their collection system. The video is analyzed as a part of their Pipeline Assessment Certification Program and uses National Association of Sewer Service Companies (NASSCO) certified reviews to document functional condition of the collection system in each video.

DFW Airport is not a subscriber to the TCEQ Sanitary Sewer Overflow Initiative and has elected not to develop a CMOM following the results of a utility/hydraulic study performed in 2008 which found the DFW collection system to be adequate to handle flows and growth through 2036. The DFW Airport Environment Department has developed a FOG (Fats, Oil, Grease) Ordinance to address grease waste from restaurants and business properties, and a Sewer Overflow/Spill Response Plan.

Section II – OBSERVATIONS

Following the review of their SSO Program, the EPA inspectors requested site tours of DFW Airport's SCADA (supervisory control and data acquisition) office, call center, and lift stations. A review of each of those sites revealed the following observations:

1. SCADA office: DFW Airport operators are present 24 hours per day and seven days a week at the SCADA office control desk. The operators are responsible for the monitoring of the operational status of each lift station. The crews' trainings and activities are outlined in various written SOPs, however, some of the SOPs have been fully developed to dispatch and document work performed in response to all malfunctions including response to alarms at the SCADA office.
2. Call Center/AOC (Airport Operations Center): AOC personnel are on duty 24 hours/day and seven days/week. All phone calls regarding the sanitary sewer collection system and overflows are routed to AOC operators who will dispatch a wastewater worker to respond to the call and will log the call into their computer database. However, while a formal SOP manual regarding their operations has been prepared, no one at the AOC, at the time of inspection, could provide a copy of the document.
3. Lift Stations: Lift stations are physically visited once each month and are monitored 24/7 via the DFW's SCADA system. While none of the airport's lift stations have their own backup power source, the airport demonstrated sufficient ability prevent overflows via quick connection points and portable electric generators. At the North Remote Parking Lift Station which discharges directly to a leech field, standing water was noted over the septic tank and the condition of the leech field could not be verified due to tall grass and some standing water. It was requested that the system be evaluated for proper operation and the report forwarded to our office.

Section III – AREAS OF CONCERN

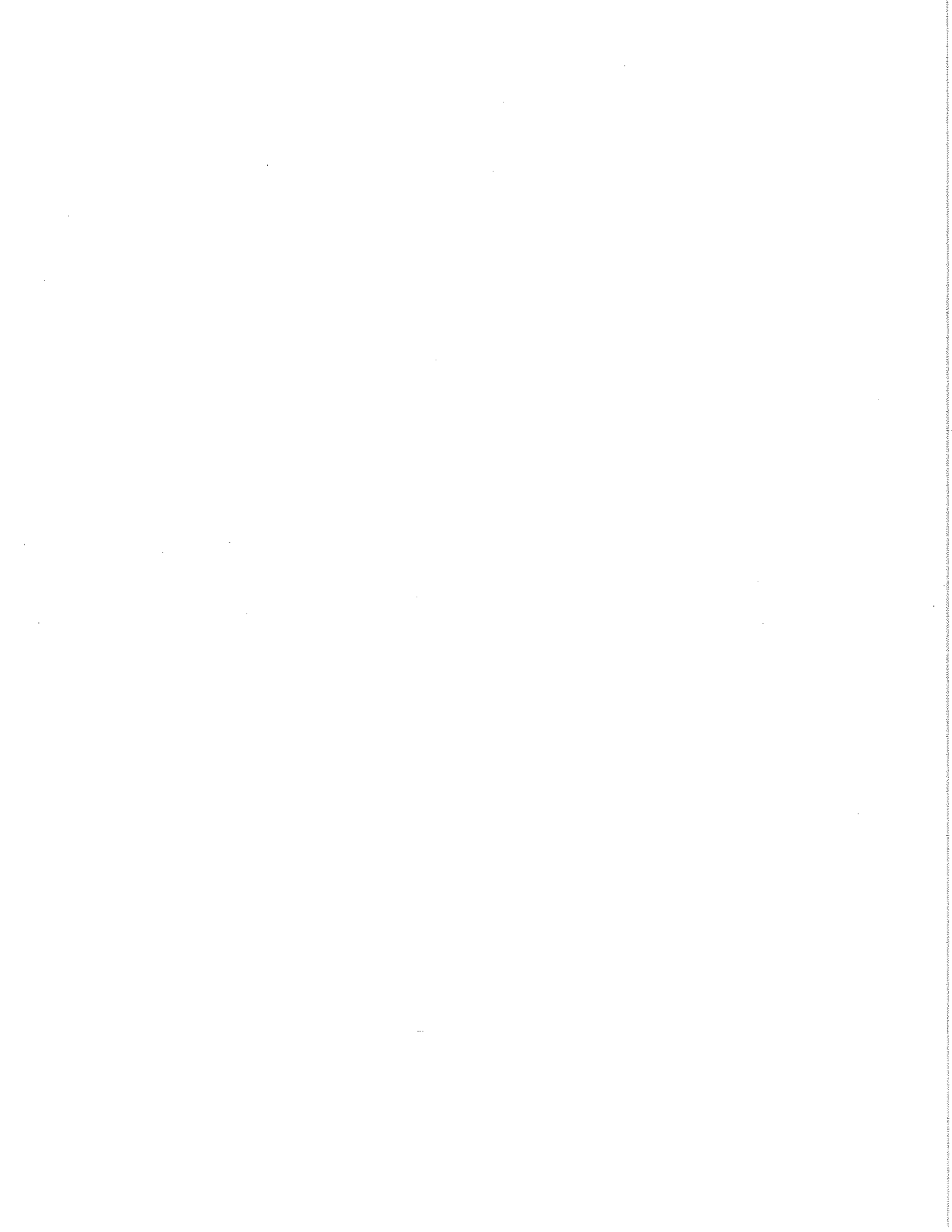
At the conclusion of the inspection, the EPA inspectors met with the representatives from the DFW Airport for an exit interview at 1:30 p.m. on April 12, 2017. At that time, the inspectors provided details of the inspection and reviewed issues noted in the inspection that might require additional follow-up or correction. These issues included:

1. While the DFW Airport does have a SCADA system to monitor their six primary utility lift stations, the remaining north remote and terminal based lift stations are not connected and are inspected only monthly. Further, issues noted at the North Remote Parking lift station and leech field had been ongoing and no records were available to indicate their operational condition. It is suggested DFW Airport develop new SOPs to address conditions at non-electronic monitored lift stations.
2. The DFW Airport has developed SOPs for the Call Center/AOC, however copies of their SOPs could not be provided to the EPA at the time of inspection. It was recommended by EPA staff that SOP data storage be revisited and a new protocol be implemented. This action will facilitate the training of new AOC operators in addition to providing training in emergency situations where the regular operators may not be able to get to the AOC (i.e., frozen roads).

The inspectors exited the site at 2:45 p.m.

Section IV – FOLLOW UP

Requested documents including follow-up at the North Remote Parking lift station, copies of SSO reports, and budgets for collection system expenses. A copy of the inspection report will be sent to the DFW Airport contact, Ascitu Whiteside, DFW Airport Environmental Program Director.



Section V – LIST OF APPENDICES

Appendix 1 – Photo Log

Appendix 2 – DFW Airport SSO Inspection Checklist

Appendix 3 - Meeting/Inspection Attendee List

Appendix 4 – DFW Airport Supplied Documents

- A. North Remote Parking Lift Station/Leech Field Status Report
- B. DFW Airport 2008 Sanitary Sewer Condition Assessment
- C. TCEQ SSO Reports 2014 - 2017

Appendix 1 – Photo Log

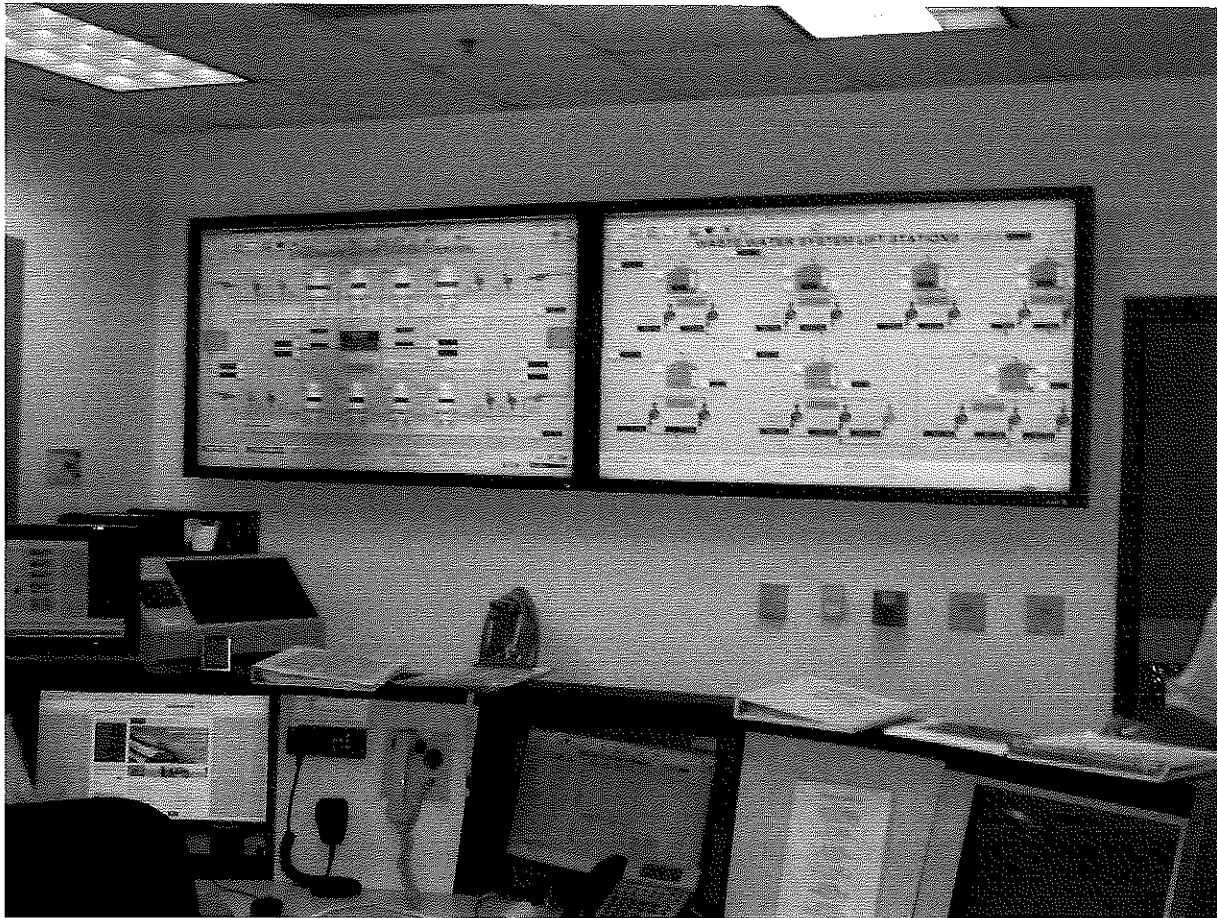


Photo File Name: P4120552.JPG

Date of Photo: 04/12/2017

Time of Photo: 11:45 a.m.

Photographer: David Long

Description: DFW Airport SCADA Control Room



Photo File Name: P4120550.JPG

Date of Photo: 04/12/2017

Time of Photo: 11:33 a.m.

Photographer: David Long

Description: DFW Airport Lift Station Manhole



Photo File Name: P4120547.JPG

Date of Photo: 04/12/2017

Time of Photo: 11:13 a.m.

Photographer: David Long

Description: DFW Airport North Remote Parking Lift Station/Septic Tank

Appendix 2 – DFW Airport SSO Inspection Checklist

EPA
SSO Inspection Checklist

Name of Municipality: Dallas/Ft. Worth International (DFW) Airport

Collection System Description

1. Describe the collection system.

DFW Airport's sanitary sewer collection system consist of approximately 332,000 linear feet of sewer piping (VCP, concrete, and clay) ranging in size from 6 inches to 36 inches in diameter. The collection system includes 6 major utility lift stations, and supports wastewater collection from various commercial and industrial facilities operating within approximately 18,000 acres of airport property.

2. What is the population of the service area:

- Number of residents: 241,000 based on passenger traffic and employee population
- Commercial connections: 311
- Any septic systems? Y If yes, how many? 2

3. How many miles of sanitary sewer mains are in the collection system? Approximately 63 miles

4. What is the age of collection system?

The original collection system supporting DFW's Central Terminal Area is approximately 46 years old. Additional development has occurred since the original construction of the regional airport in 1970. Large facilities including Terminal D and various commercial business parks have been constructed and also contribute to the collections system.

%VC $\approx$ 6.2%

%DI $\approx$ <1%

%PVC $\approx$ 42%

%Other $\approx$ 39% [CCP, CI, CP, CSP, HDPE, RCP, SCP]

% Unknown = 8%

5. Does the collection system experience problems during dry weather? NO

Describe or provide documentation: NO PROBLEMS DURING DRY WEATHER

6. Does the collection system experience problems during wet weather? No

Describe or provide documentation: NO PROBLEMS DURING WET WEATHER

7. What is your sanitary sewer overflow (SSO) notification procedure?

The Airport implements a Spill Reporting Policy and standard operating procedure requiring all employees, contractors, and tenants to report all spills (including SSOs) to DFW's Airport Operations Center (AOC). Once reported, the AOC is trained to contact the Environmental Affairs Department (EAD) staff, who is responsible for overseeing corrective actions and all associated reporting requirements. The TCEQ Regional Office is contacted by EAD by phone for all SSOs within 24 hours of discovery. A Water Quality Noncompliance Notification (TCEQ-0501form) is completed and mailed to the TCEQ's Water Quality Compliance Monitoring Team (MC224) and the regional office within 5 working days.

EPA SSO Inspection Checklist

What is reported?

The Water Quality Notification includes information such as the location, start and end time of the release, the cause and quantity of the release, impacts to the environment, and all corrective actions performed.

8. Are all SSOs reported, regardless of size? If no, why not?
Yes, all SSOs are reported to the TCEQ.

Lift/Pump Stations

1. How many lift stations are in the system? There are five utility lift stations and one under construction. In addition, the Airport has facility specific lift stations or pump stations (at Airport Terminals) which also discharge into the collection system, and one facility lift station which discharges into a leech field.
 - How many have backup power sources? None
 - Describe: All utility lift stations are powered from the local electric utility provider. In the event of a sustained power loss, a mobile generator can be connected to these lift stations to provide emergency power.
2. Describe how pump/lift stations are inspected and monitored? DFW utilizes a SCADA system for remote monitoring and control for the five utility lift stations. The SCADA system will also be used to monitor and control the sixth utility lift station under construction. These lift stations are outfitted with an annunciator or a flashing alarm. Airport personnel perform monthly preventive maintenance inspections on all airport utility lift stations.
3. Is a SCADA system used? Y If so, what parameters are monitored? Level, Pump Run Status, Access Entry, Power Fail, and Run Time
4. What provisions have been made for emergencies? Airport Personnel are available 24/7 to respond to respond to SCADA alerts associated with the Airport utility lift stations. Alerts are activated for high level alarms, low level alarms, and power failures. (alerts apply to high level, low level, power)
 - Emergency Power?
All utility lift stations are powered from the local utility electric provider. In the event of a sustained power loss, a mobile generator can be connected to the lift stations to provide emergency power.
 - Critical Processes?
DFW Airport will activate the Emergency Operations Center (EOC) during critical airport emergencies or disasters. In this scenario, the Airport organizes departments and various stakeholders into functional annexes structured in a manner to manage emergencies or disasters thru the following four phases: mitigation, preparedness, response, and recovery. The Airport has developed procedures and guidelines similar to the National Incident Management System set forth by the Department of Homeland Security.
 - SCADA?
24-hour remote monitoring is conducted by the Airport's Energy, Transportation, and Airport Maintenance (ETAM) Department thru utilization of SCADA. Automatic alerts are

EPA SSO Inspection Checklist

signaled in the event of irregular operation or power failures, upon which Airport staff will be deployed to conduct additional on-site investigation and corrective actions.

- Other?
 - The Airport has the ability to use a sanitary drop for disposal of sanitary waste in the event that sewage must be manually removed from lift stations or sewer lines. The sanitary drop is located on the southern portion of airport property and downstream of any Airport sanitary lift stations.
 - The Airport maintains Emergency Response contractor to provide additional clean-up, collection, and transportation of wastewater in the event of an emergency.
- 5. Describe any automated emergency notification/response process.

ETAM utilizes a SCADA system to monitor the status of all of the utility lift stations. The Airport Operations Center (AOC) is also notified once an emergency or a major service issue (having the potential to impact airport facilities, infrastructure, or normal air operation) is identified. The AOC has established operating procedures to address, coordinate, and resolve all airport maintenance and service issues.

Satellite Systems

1. Does the collection system receive flow from satellite systems? No
If yes, continue with questions 2-4
2. Is flow from satellite systems monitored? not applicable
If yes, how? _____
3. Describe any known problems with the satellite collection system (hydraulic flow, wastewater concentration, ordinances, etc.)? _____
4. Who is responsible for satellite systems, enforcement, and response? _____
 - Enforcement? _____
 - Response? _____

Performance Indicators

1. Summarize the Capacity, Management, Operations, and Maintenance (CMOM) components utilized by the facility and satellite systems, if applicable:

A flow modeling system was developed as part of 2008 Sanitary Sewer Assessment Study. The assessment study was conducted so that the Airport could evaluate the condition of major components of the sanitary sewer system including but not limited to sewer lines, manholes, lift stations, and triturator drops. The Airport has used the results of the assessment study to develop a Utility Master Plan and identify/schedule future rehabilitation projects thru the Airport's Capital Improvement Program (CIP). In addition, the Airport utilizes the flow modeling system during all Airport development projects to ensure existing system capacity can support future growth.

EPA
SSO Inspection Checklist

The Airport's maintenance section performs routine preventive maintenance on major components of the sanitary sewer system that impact system efficiency such as lift stations, sewer mains, grease traps, and grease pumps.

2. Does the utility participate in the TCEQ Sanitary Sewer Overflow Initiative (SSOi)? No
- If yes, please provide the latest SSOi Annual Report.
 - If no, why not?
Instead of immediately participating in the SSO initiative in 2006/2007, the Airport coordinated the completion of a third party assessment study to evaluate the condition of the Airport's sanitary sewer system, and be used to develop any future CMOM program and Utility Master Plan. Upon completion of the study, the Airport's maintenance section did not consider many of the weaknesses identified as critical, and since the Airport was not being impacted by frequent SSOs, a need to participate in the SSOi was not supported.
3. What Standard Operational Procedures (SOP) are developed and used?
Includes standardized SOPs and informal training procedures
- ☒ SCADA?(John Smith)
 - ☒ Routine Inspections/Maintenance?
 - ☐ Root Control?
 - ☒ Lift/Pump Stations?
 - ☒ Valve maintenance?
 - ☒ Fleet Management?
 - ☒ Clean-up Environmental Affairs coordinates all spill clean-up
 - ☐ Other?
4. Has an infiltration & inflow (I/I) analyses or sanitary system evaluation survey been performed? Yes
- If yes, describe (and provide a copy of any associated reports)
An I/I analysis was conducted as part of the 2008 Sanitary Sewer Assessment Study. Field investigations included activities such as mapping, flow monitoring, manhole inspections, cleaning and televising selected sewers, cleaning and inspection of selected wet wells, evaluation of selected triturator sites, and determination of aircraft wastewater contribution to triturator sites.
 - ☐ Smoke Testing? (check with _____)
 - ☐ Dye Testing? (incident specific) _____
 - ☒ CCTV? Video inspections has been performed for various sections of sewer system
 - ☒ Peaking Factors? Evaluated in the Utilities Master Plan study completed in 2009
 - If not, why not? _____

5. Describe the sewer cleaning and inspection goals. _____
DFW Airport's Wastewater Section completes annual inspections of SS Main along Int'l Parkway, and annual cleaning of the main sewer lines supporting the Central Terminal Area.

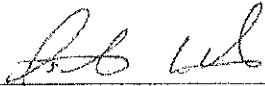
EPA
SSO Inspection Checklist

9. Describe any formal approach to target areas for Capital Improvement Projects.
The Airport utilizes the information obtained through past assessment to prepare for future CIPs. Once CIPs are identified, the Airport has a Capital Review Committee responsible for prioritizing projects based on the degree of environmental risk.
10. Please provide any other relevant information.
N/A

CERTIFICATION

I certify under penalty of law that I have examined and am familiar with the information provided and in any enclosed documents, including all attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are, to the best of my knowledge and belief, true, accurate, and complete.

09/19/16
Date


Signature

Asciatu Whiteside, Environmental Program Manager
Print name and Title

EPA
SSO Inspection Checklist

- x Hot Spots? CTA sewer lines, Grease interceptors supporting Airport Terminals
 - x Annual Goals? Annual Flushing of CTA
-

6. Describe any training for receiving, documenting, and responding to sewer calls.

- Discharge Estimates?
Airport staff is trained to report all relevant information to the Airport AOC. Airport personnel estimate spill volume on a case by case basis. In general, the wastewater section will use flow estimates and the duration time of the spill to determine volume.
- Safety/Confined Space?
-DFW's Wastewater section completes annual Confined Space Training thru a third party.
-DFW's Environmental Affairs staff complete annual Hazwoper training to support proper spill management and clean-up.
-Airport personnel are educated on proper spill response and reporting protocols thru the Airport's annual storm water awareness training.
- Lockout/Tagout?
Internal training is completed annually for all ETAM Utility Electrical personnel.
- Reporting?
Airport personnel are trained to report all spills through the AOC via annual storm water awareness training and Airport Board Spill Reporting Policy & Procedure.

EAD personnel are trained through internal departmental SOPs and instruction on how to document and report spills to applicable regulatory agency.

- Treatment/Clean-up?
EAD personnel receive annual Hazwoper training to support proper spill management and clean-up. The Airport also has contract with a 3rd Party Emergency Response contractor, Progressive Environmental (dba SWS), in the event of a major emergency in which additional resources and equipment are required.
- Other?

7. Describe any Asset Management process in place for the collection system.

- The Airport has access to an Infor Enterprise Asset Management Process and a Computerized Maintenance Management System, CMMS.
- The Airport has implemented a ten year Utility Master Plan to also address significant asset rehabilitation. Capital funding is utilized for major asset replacement.

8. Describe the funding status. _____

- Emergency Repairs:
The Airport currently has access to contingency funds in the event of an emergency. The Airport will also have ability to obtain funding to address environmental emergencies with new insurance policies to be in effect October 2016.
- Operation & Maintenance:
O&M Budget is calculated based on monthly sewer charges to Airport tenants
- Rehabilitation:
Planned through Capital Funding
- Rates:
Support routine O&M
- Other?

Appendix 3 - Meeting/Inspection Attendee List



Meeting Sign-In Sheet

Project: EPA CMOM Audit

Meeting Date: April 12, 2017

Facilitator: Asratu Wubayit

Place/Room: EAD Multi Purpose Room

Name	Company	Phone	E-Mail
Asratu Whiteside	DFW Airport	972.973.5582	awhiteside@dfwairport.com
Mike Tillman	U.S. EPA	214.665.7531	tillman.michael@epa.gov
ALAN VAUGHN	U.S. EPA	214.665-7407	VAUGHN.ALAN@EPA.GOV
David Long	USEPA	214.665.7323	Long.david@epa.gov
ROBERT HORTON	DFW AIRPORT	972.973-5563	rhorton@dfwairport.com
Heather Frost	DFW Airport	972-973-5564	hfrost@dfwairport.com
Brian L. Yancy	DFW AIRPORT	972.973.3699	byancy@dfwairport.com
Scott Mountman	DFW ETAM	972.973.3637	SMOUNTMAN@DFW.ANT.COM
Eddie Tovar	DFW/ETAM	972.973.6114	etovar@dfwairport.com

Appendix 4 – DFW Airport Supplied Documents

A. North Remote Parking Lift Station/Leech Field Status Report

Long, David

From: Whiteside, Asciatu <AWhiteside@dfwairport.com>
Sent: Friday, June 09, 2017 2:17 PM
To: McElroy, Damon; Long, David; Vaughn, Alan; Peters, Carol; Tillman, Michael; Matthews, Rachel
Cc: Frost, Heather L; Horton, Robert A; Saunders, Jerry; Yancy, Brian; Monaghan, Scott; Hughes, Christopher P
Subject: RE: EPA SSO Audit- April 12, 2017 Request for Information - (Part I)
Attachments: Harrington Inspection.pdf; Cameron Inspection.pdf; West Leachfield 2.jpg; East Leachfield.jpg; NR Lift Station.jpg

Good Afternoon Mr. McElroy,

DFW Environmental Affairs would like to provide you with a summary of the work performed on the north remote leach field, since our last correspondence on April 25th. The Airport had some difficulty in identifying qualified professionals to evaluate traditional leach fields as opposed to aerobic septic systems. Consequently, our water team requested the services from two third party professionals to evaluate the field.

The first inspection was conducted by Harrington Septic & Environmental Services during a time in which our water team was performing substantial cleaning and maintenance activities on the leach field; components of the system had been intentionally disabled to evaluate other parts and verify system design. The entire east field was valved off during the test and the lift station was allowed to discharge to the field for an extended period of time. The type of testing performed by Mr. Jackson was more appropriate for the more commonly used aerobic systems and not the traditional slow releasing leach field. Mr. Jackson concluded that the system was no longer able to accept water, but also communicated that Airport would need to obtain a more qualified professional to conduct further evaluation and to obtain directives on needed repairs. However, it is the Airport's position that Mr. Jackson's lack of experience with traditional systems, and the incomplete operation of the system at the time of the test, did not allow for a representative evaluation.

The second inspection was conducted by an inspector, Mr. William Cameron, recommended by our City of Fort Worth water counterparts. The Airport was not performing any significant maintenance or testing activities during this inspection and Mr. Cameron did not identify any operational concerns (i.e. signs of leaking or pooling). Mr. Cameron did recommend that one Cottonwood Tree be removed from the southeast corner of the field, but also concluded that the field appeared to be healthy and operating as designed. Since the inspection, the Airport has removed the identified Cottonwood tree. I have attached a copy of both inspection reports and photographs taken last week of the leach field and lift station. I hope this update will provide the EPA with sufficient information to bring closure to this matter. DFW Airport has established a regular maintenance program for this field, and will continue to monitor the operation of the system components. Please feel free to contact me if you have any additional questions or concerns.

Regards

Asciatu Whiteside
Environmental Program Manager

Environmental Affairs Department

3003 South Service Rd., EAD Annex Bldg. A
P.O. Box 619428
DFW Airport, TX 75261

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F (972) 973 5561
www.dfwairport.com

From: McElroy, Damon [mailto:mcelroy.damon@epa.gov]
Sent: Thursday, April 27, 2017 8:37 AM
To: Whiteside, Asciatu; Long, David; Vaughn, Alan; Peters, Carol; Tillman, Michael; Matthews, Rachel
Cc: Frost, Heather L; Horton, Robert A; Saunders, Jerry; Yancy, Brian; Monaghan, Scott; Hughes, Christopher P
Subject: RE: EPA SSO Audit- April 12, 2017 Request for Information - (Part I)

Mrs. Whiteside – thank you. When convenient and appropriate, could you please share photographs showing the work that DFW has done regarding the leach field evaluation and mitigation as you described?

Sincerely-

Damon McElroy, P.E.
EPA Region 6 Compliance Assurance and Enforcement Division
NPDES Industrial & Municipal Section (GEN-WM)
1445 Ross Avenue
Dallas, Texas 75202
Direct: 214-665-7159
Email: mcelroy.damon@epa.gov

From: Whiteside, Asciatu [mailto:AWhiteside@dfwairport.com]
Sent: Tuesday, April 25, 2017 3:45 PM
To: McElroy, Damon <mcelroy.damon@epa.gov>; Long, David <Long.David@epa.gov>; Vaughn, Alan <Vaughn.Alan@epa.gov>; Peters, Carol <Peters.Carol@epa.gov>; Tillman, Michael <Tillman.Michael@epa.gov>; Matthews, Rachel <Matthews.Rachel@epa.gov>
Cc: Frost, Heather L <hfrost@dfwairport.com>; Horton, Robert A <rhorton@dfwairport.com>; Saunders, Jerry <Saunders.Jerry@epa.gov>; Yancy, Brian <BYancy@dfwairport.com>; Monaghan, Scott <smonaghan@dfwairport.com>; Hughes, Christopher P <CHughes@dfwairport.com>
Subject: RE: EPA SSO Audit- April 12, 2017 Request for Information - (Part I)

Good Afternoon Mr. McElroy,

DFW Airport Environmental Affairs would like to provide you a brief update of some of the measures we have taken since the SSO Audit to improve the condition of the North Remote Lift Station and associated leach field. DFW Airport staff has moved the high grass surrounding the leach field so that more representative inspections could be conducted on the site of concern. Both EAD and ETAM personnel have conducted site walks on the leach field during the past two weeks in attempt to identify potential areas exhibiting evidence of oversaturation. On the occasions that DFW personnel have examined the leach field, the majority of unpaved areas appear dry and in fair condition. Similar observations have also been made at the North Remote lift station. EAD staff did not detect any unusual sewer odor during the site visit and no ditches or storm culverts associated with nearby receiving waters was observed. EAD staff feel that standing/pooling water that was observed during the April 12th audit was due to the recent storm occurring on April 10th. Regardless of this assumption, DFW Airport will be obtaining a third party expert, as you suggested, to evaluate the full condition of the leach field.

Other corrective actions that have been made to improve conditions include:

- Backfilling areas surrounding the lift station with gravel and topsoil to redirect storm water runoff away from the dry well;
- Working with construction manager for the TX Rail Project to appropriately grade and redirect runoff for the road currently under construction away from the lift station; and
- Reinstalling the metal grate over the one observation well with the missing grate.

As we continue to resolve this matter I will keep you informed of any discoveries or modifications. Thank you for your assistance.

Asciatu Whiteside

Environmental Program Manager
Environmental Affairs Department

3003 South Service Rd., EAD Annex Bldg. A

P.O. Box 619428

DFW Airport, TX 75261

T (972) 973 5582

F (972) 973 5561

www.dfwairport.com

From: McElroy, Damon [<mailto:mcelroy.damon@epa.gov>]

Sent: Monday, April 17, 2017 10:01 AM

To: Whiteside, Asciatu; Long, David; Vaughn, Alan; Peters, Carol; Tillman, Michael; Matthews, Rachel

Cc: Frost, Heather L; Horton, Robert A; Saunders, Jerry

Subject: RE: EPA SSO Audit- April 12, 2017 Request for Information - (Part I)

Mrs. Whiteside -thank you. EPA received the follow-up documents we talked about pertinent to our Sanitary Sewer Overflow Compliance Evaluation Inspection that DFW and EPA completed on April 12, 2017.

Regarding your request for EPA information or guidance regarding DFW's 'leach field' assessment (located near the North Remote Parking lot) I suggest the following:

- A) Determine if the leach field is a current or future environmental threat via a "leach field expert" evaluation that may include clearing the site of brush and debris followed by: surface water evaluation and sampling, ground water evaluation and sampling, infrastructure evaluation, design life determination, topographic surface drainage evaluation and analysis, etc.
- B) Verify that the leach field has exceeded its "useful design life".
- C) Create any necessary plan to remediate or replace the leach field. This engineered plan may include design proposals such as existing force main re-routing, installing a new leach field, gravity main re-routing, etc.
- D) Verify if it is not feasible per standard engineering practices to perform existing leach field maintenance and monitoring that will abate public health and water quality concerns including SSOs.

Please share any remediation, replacement, or equivalent plan with me as soon as possible. Asciatu, I appreciate your collaboration as usual. Please feel free to contact me with any clarifications.

Sincerely-

Damon McElroy, P.E.
EPA Region 6 Compliance Assurance and Enforcement Division
NPDES Industrial & Municipal Section (6EN-WIM)
1445 Ross Avenue
Dallas, Texas 75202
Direct: 214-665-7159
Email: mcelroy.damon@epa.gov

From: Whiteside, Asciatu [<mailto:AWWhiteside@dfwairport.com>]
Sent: Friday, April 14, 2017 8:21 AM
To: McElroy, Damon <mcelroy.damon@epa.gov>; Long, David <Long.David@epa.gov>
Cc: Frost, Heather L <hlfrost@dfwairport.com>; Horton, Robert A <rhorton@dfwairport.com>
Subject: EPA SSO Audit- April 12, 2017 Request for Information - (Part I)

Good Morning Mr. McElroy and Mr. Long

In response to the EPA SSO Audit of DFW Airport conducted on April 12, 2017, I am including with this email the following documents requested by Mr. Long:

- EPA SSO Overview Powerpoint Presentation;
- Table of the DFW Capital Improvement Projects Scheduled through 2025;
- A Spreadsheet Summarizing SSOs Occurring at DFW Airport for Past 5 Years;

- Copies of all SSO Reports Submitted by DFW Airport to the TCEQ for the past 3 years; and
- Three Recent Grease Interceptor Cleaning Waste Trip Tickets.

In addition to the above listed items, to address the concerns conveyed by Mr. McElroy during the conference call on April 13, 2017 regarding the North Remote Parking lot, I have collaborated with our construction group, and it has been determined that there are currently two construction projects in close proximity to the North Remote Parking lot:

- Tex Rail Project to construct an approximate 27 mile commuter rail line to allow for public rail services between downtown Fort Worth and DFW Airport; and
- Atmos Energy Corporation TexRail Segment 4 Relocation Project to relocate utility services currently in the path of the TexRail project.

I have included with this email, copies of the submitted Storm Water Construction Pollution Prevention Plans applicable to these projects (note: Because of the size of these files I will send the SWPPP associated with the Tex Rail in Part II & III and the file associated with Atmos in Part IV) . Please let me know if these documents are sufficient or if you prefer for the Environmental Affairs department (EAD) to obtain a copy of the working updates SWPPP maintained by the contractor at the construction site.

I have also included a link to the DFW Airport website, where you may access DFW's Small MS4 Storm Water Management Plan:

https://www.dfwairport.com/cs/groups/webasset/documents/webasset/p1_005906.pdf

Note, another method to access the SWMP and other supporting documents is to select the "Our Airport" tab at the following link, and scroll to the bottom of the page.

<https://www.dfwairport.com/sustainability/index.php>

Lastly, EAD will be collaborating with our maintenance department to further assess the condition of the leach field supporting the North Remote Parking lot. Any information or guidance you could provide us on appropriate maintenance and monitoring practices would be greatly appreciated.

Thank you for your assistance

Asciatu Whiteside

Environmental Program Manager
Environmental Affairs Department

3003 South Service Rd., EAD Annex Bldg. A
P.O. Box 619428
DFW Airport, TX 75261

T (972) 973 5582
F (972) 973 5561

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HARRINGTON SEPTIC & ENVIRONMENTAL SERVICES

1632 Royalwood Circle
Joshua, Texas 76058
817 558-8181 Fax: 817 558-8983

SEPTIC SYSTEM INSPECTION

Name: _____ Date: April 27, 2017
Address: 2200 N Airfield Dr Phone: _____
City, ST, Zip: Dallas 75261 Dwelling Type: Bar Depo

Type of System

CONVENTIONAL _____

Number of Tanks _____ Number of Risers _____

Number of Snake Line Clean outs _____

Lateral Field Information _____

Hydraulic Load Results _____

Visual Assessment of lateral field _____

AEROBIC _____

Brand _____

Item Inspected

Operational

Inoperative

Aerator

Filters

Irrigation Pumps

Disinfecting Device

Chlorine Supply

Electrical Circuits

Distribution System

LPD System ✓

Number of Tanks 4 Capacity 6000 Number of Risers 4

Hydraulic Load Results Fail Condition of Pumps Good

Visual assessment of lateral field Ground is wet and water is surfacing in a few Areas.

Consistency of sludge in tanks Minimal

Comments: The absorption field is no longer able to accept the volume of water it is receiving. The pumps both work but the rails for the pumps are rusted at the top.

This Is Not a Warranty or Guarantee of the System

Inspector's signature

Von Jackson

Bennett #102308

WILLIAM A. CAMERON
P.O. Box 161665
FORT WORTH, TX 76161

NUISANCE INSPECTION OF ON-SITE SEPTIC SYSTEMS

Date : June 1, 2017

Inspection Address : North Remote Parking Septic Leach Beds

TO:

RE: Evapotranspiration Beds for a septic system for the north remote parking facility

SIGNS OF LEAKING OR SURFACING AT TANKS OR CONTROL STRUCTURES :	none
DISPERSAL AREA DETERMINED :	yes
SIGNS OF SURFACING OR POOLING OVER DISPERSAL AREA :	no
ARE OBSERVATION PORTS AND WET WELL AT OPERATING LEVELS :	YES

Observations : A destructive examination was not performed. None of the working components of the system were dug up. And none would appear to need to be removed or repaired. Pumping history was not determined. The observations reported herein are based solely upon the on site inspection. The septic system would appear to have experienced normal, regular and routine use to date. Water levels in the beds would appear to be at operating level. The leach field is not surfacing or pooling on the day of the inspection. The weather has been unseasonably wet, but visual inspection indicates the leach field has not experienced failure as evidenced by pooling or surfacing in the near past. In fact, the surface of the field is stressed by lack of surface irrigation caused by the crowding out by tall weeds and vegetation shading the native grasses and vegetation. The existing vegetation is now recovering from mowing and should wick up the underlying water in the normal course of natural cycles. The on site observations demonstrate all the appearances of a healthy leach field and to be operating as designed.

The system at this location is described as a septic tank primary treatment and dispersal of effluent in evapotranspiration leach beds. Although installed before current published best management procedures, the entire system from gathering, collection, retention, treatment, delivery to field, and the required two beds with isolation valves; would appear to be in substantial compliance with present rules.

Future serviceability cannot be accurately forecast for on-site systems due to uncertainties of the future operation and events beyond the control of man.

However, on May 31, 2017 this dispersal system was operating as designed.

And this system demonstrates through observation that it has performed as designed for many, many years.

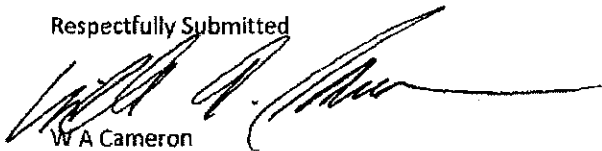
It is recommended that septic tanks be pumped of solids on a schedule based on volume and usage. In most cases solids removal is required every 4-6 years. The appropriate timing is determined by a service inspection from a licensed waste transporter. The tank needs pumping if the solids are more than 50% of the volume of the tank, or the scum layer is greater than 6" depth.

I am recommending that a cottonwood tree on the south east corner of the leach field be cut down at grade level . Removal of the stump is not recommended. The stump at grade is to facilitate mowing. This tree is too close to the leach bed and required piping. This species is known to be problematic in saturated basins.

The remaining trees located between the east and west drain beds do not need to be removed in my opinion. The species is not known to be problematic in saturated soils. They are reusing a lot of the effluent and don't pose a threat in their location. It was suggested that a drain field may have been proposed in the area between the fields and where the trees are located, but I find no indication that this was done. I did not find any dispersal area between the east and west existing beds.

The Sanitarian named below is responsible only to make a visual on-site inspection for evidence of failure as evidenced by pooling or surfacing by the system on a particular day. No statements made herein should be used or construed to imply that the sanitarian named below is guaranteeing or warranting this system as being of appropriate design, sizing, usefulness, or serviceability for the intended use.

Respectfully Submitted

A handwritten signature in black ink, appearing to read 'W A Cameron', with a long horizontal flourish extending to the right.

W A Cameron
Professional Sanitarian # 3630

Invoice

WILLIAM A. CAMERON
P.O. Box 161665
Fort Worth, TX 76161

Date : June 8, 2017

TO : DFW Energy, Transportation & Asset Management

RE: Inspection of North Parking Septic Disposal Field

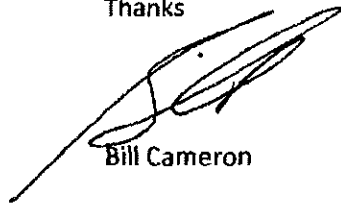
On-Site inspection and report

\$100

Total

\$100

Thanks

A handwritten signature in black ink, appearing to read 'Bill Cameron', is written over the printed name.

Bill Cameron

Appendix 4 – DFW Airport Supplied Documents

B. DFW Airport 2008 Sanitary Sewer Condition Assessment



Excellence through Ownership

www.rjn.com

July 31, 2008

Mr. Eduardo N. Tovar, P.E.
Facilities Engineer
Dallas/Fort Worth International Airport
P.O. Box 619428
DFW Airport, Texas 75261-9428

Subject: Contract No. 8002182 – Sanitary Sewer Assessment Study
Interim Report

Dear Mr. Tovar:

RJN Group Inc. is pleased to present this Interim Report for the Sanitary Sewer Condition Assessment Study at DFW International Airport. We would like to express our appreciation for the excellent cooperation of the Airport staff throughout this project.

Should you have any questions, please do not hesitate to call.

Very truly yours,

RJN GROUP, INC.

A handwritten signature in black ink that reads "Hugh M. Kelso".

Hugh M. Kelso
Vice President

A handwritten signature in black ink that reads "Donna E. Renner".

Donna E. Renner, P.E.
Associate

HMK/DER/kb/18-2227-00

**DFW AIRPORT
CONTRACT NO. 8002182
SANITARY SEWER SYSTEM ASSESSMENT STUDY
INTERIM REPORT**

**DALLAS/FORT WORTH INTERNATIONAL AIRPORT
TEXAS**

July 31, 2008



I hereby certify that this report was prepared under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Texas

Date: _____ Registration No.: _____

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APPENDIX

A	Hydraulic Modeling Technical Memorandum
B	Manhole Inspection Report
C	I/I Status Report
D	TV Inspection Review Summary
E	Triturator Evaluation Report
F	Lavatory Truck/Cart Discharge Count Summary
G	East Airfield Drive Lift Station Conceptual Replacement Analysis
H	Recommended Manhole Repairs

EXHIBITS

Exhibit 1	Flow Monitoring Locations
Exhibit 2	Sewer Segments Televised
Exhibit 3	Recommended Point Repair and Segment Rehabilitation Locations

APPENDIX VOLUME I – FLOW DATA

APPENDIX VOLUME II – TELEVISION INSPECTION LOGS

INTRODUCTION

RJN Group, Inc., in association with Freese & Nichols, Inc., Ace Pipe Cleaning, Inc., and DFW Infrastructure, Inc., was retained by Dallas/Fort Worth (DFW) International Airport to conduct an assessment of the condition of the sanitary sewer system at the airport. The assessment included flow modeling, hydraulic modeling, and physical inspection of portions of the collection system. The assessment is in support of the Airport's development of a Capacity, Management, Operation and Maintenance (CMOM) program and DFW's commitment to the TCEQ's Sanitary Sewer Overflow Initiative (SSOI).

BACKGROUND

The existing collection system contains approximately 293,000 linear feet of sewer ranging in size from 6 inches to 33 inches in diameter. The collection system also includes four major lift stations. The system was constructed in the early to mid 1970's and includes VCP, concrete, and clay pipe. Wastewater treatment is provided by the Trinity River Authority (TRA) at the Central Regional Wastewater Treatment Plant.

DEFINITIONS AND ABBREVIATIONS

This section contains definitions and abbreviations commonly used throughout this report.

- (1) Infiltration (as defined by USEPA) - the water entering a sewer system and service connections from the ground through such means as, but not limited to, defective pipes, pipe joints, service connections, service laterals, or manhole walls.
- (2) Inflow (as defined by USEPA) - the water discharged into a sewer system, including service connections, from such sources as roof leaders; cellar, yard, and area drains; foundation drains; cooling water discharges; drains from springs and swampy areas; manhole covers; cross connections from storm sewers, combined sewers, or catch basins; storm waters; surface runoff; or drainage.
- (3) Excessive Infiltration and Inflow (I/I) - the extraneous clean water that enters the sanitary sewer system which can be eliminated on a cost-effective basis.
- (4) Base Flow - wastewater flow exclusive of infiltration or inflow. Generally determined from water records during months when most of the water consumption is returned to the wastewater collection system.
- (5) Average Daily Dry-Weather Flow - dry-weather/low-groundwater flow exclusive of dry-weather/high-groundwater (peak infiltration) and wet-weather (inflow) flow. Includes base flow and permanent infiltration only.

- (6) Average Daily Dry-Weather Flow Peaking Factor - the ratio between the peak hourly flow rate and the average daily flow.
- (7) 1-Year/60-Minute Storm - a storm event that produces 1.55 inches of rain per hour in the DFW area and is expected to occur once in any given year.
- (8) gpd - gallons per day.
- (9) mgd - million gallons per day.
- (10) Surcharge Condition – When the sewer flow depth equals or exceeds the diameter of the discharging sewer lines. (WEF Manual of Practice FD-6)
- (11) Infiltration and Inflow (I/I) – A combination of infiltration and inflow wastewater in the sanitary sewer system.

SANITARY SEWER CONDITION ASSESSMENT

The condition assessment of the DFW International Airport sanitary sewer system included hydraulic capacity analysis and field investigations. The hydraulic capacity analysis included development of a computer model to evaluate the existing system as well as the impact of future development at the Airport. In addition, the computer model was to be utilized to assist in identifying portions of the collection system that required investigation or cleaning. The field investigations included determining system flows and evaluation of selected sewer pipes, manholes, lift station wet wells, triturator sites, and triturator laterals.

The results of the condition assessment is presented in the following sections.

HYDRAULIC CAPACITY ANALYSIS

Freese & Nichols, as a subconsultant to RJN Group, Inc., developed the hydraulic computer model and performed analysis of various conditions on the sewer collection system. A separate Technical Memorandum (TM) was prepared and submitted to the DFW International Airport staff for a portion of the modeling effort. A copy of this TM is included in Appendix A.

FIELD INVESTIGATIONS

RJN Group, Inc. conducted sanitary sewer investigation activities in selected areas of the collection system. The objective was to determine system flows, identify and quantify sources of infiltration and inflow (I/I), determine sewer system conditions, and recommend a cost-effective plan to reduce I/I and improve the overall efficiency of the collection system. Field investigation activities included the following:

1. Mapping
2. Flow Monitoring
3. Manhole Inspection (Selected Manholes)
4. Cleaning and Television Inspection of Selected Sewers
5. Cleaning and Inspection of Selected Wet Wells
6. Evaluation of Selected Triturator Sites
7. Determination of Aircraft Wastewater Contribution to Triturator Sites.

The results of the investigations are presented in the following sections.

MAPPING

DFW International Airport staff provided maps of the wastewater collection system in the study area at the initiation of the study that included existing access structures. Any manholes or other access structures found during the field investigations that were not shown on existing maps were added to the map.

FLOW MONITORING

Flow monitoring was initially conducted from July 19, 2007 through September 11, 2007 for a period of 54 days. A total of 9 American Sigma flow meters installed by RJN were utilized to monitor the wastewater flow in each of the sub-areas. The location of each flow monitoring site is listed in Table 2-A and shown graphically on Exhibit 1 at the end of this report in more detail.

The flow meters were re-installed for a period of 14 days between September 14, 2007 and September 28, 2007 after cleaning of major sewer segments was completed. The purpose of the additional monitoring was to evaluate the impact of the major Thanksgiving holiday travel period on the collection system and determine system performance after cleaning.

Flow meters were used to record depth and velocity of flow at five-minute intervals. Engineering review and input of additional calibration data was used to finalize the metered flow data. Manual depth and velocity readings (velocity profiles) were taken on a weekly basis to verify the metered data. Average flow rates for one-hour intervals were determined for each monitoring location. The average hourly flow rates were used to determine daily dry-weather and wet weather flow rates. Flow data collected during rainfall events was evaluated to determine peak instantaneous inflow rates. A summary of the measured flows is given in Table 2-B. Hourly flow data and hydrographs are included in Appendix Volume I.

Table 2-A

FLOW MONITORING LOCATIONS

Meter Number	Pipe Diameter (in)	Flow Meter Location
1	33	Manhole 57
2	33	Manhole 81
3	18	Manhole 206
4	24	Manhole 124
5	20	Manhole 30
6	24	Manhole 161
7	24	Manhole 91
8	20	Manhole 9
9	8	Manhole 219 ^{1/}
9	8	Manhole 2016 ^{2/}

^{1/} First monitoring period.

^{2/} Second monitoring period.

Table 2-B

SUMMARY OF MEASURED WASTEWATER FLOWS

Meter Number	Average Daily ^{1/} Dry-Weather Flow (mgd)	Peak Hourly ^{1/} Dry-Weather Flow (mgd)	Peak Hourly ^{2/} Wet-Weather Flow (mgd)
1	1.626	2.813	4.508
2	0.928	1.616	2.817
3	0.087	0.178	0.205
4	0.028	0.084	0.299
5	0.683	1.061	1.290
6	0.585	1.044	1.743
7	0.165	0.281	1.076
8	0.345	0.724	0.762
9	0.031	0.059	0.184

^{1/} Based on measured flows from 11/17/2007 to 11/24/2007.

^{2/} Based on measured flows during the 9/10/2007 rain event.

RAINFALL MONITORING

Five (5) temporary rain gauges maintained by RJN Group, Inc. were utilized to monitor rainfall during the study period. Rainfall was recorded with continuously recording rain gauges with an accuracy of 0.01 inches. Each storm event during the monitoring period was analyzed to determine the peak 60-minute rainfall intensity.

Rain gauge locations as well as rainfall summaries for the temporary rain gauges are listed in Table 2-C on page 2-4.

MANHOLE INSPECTIONS

Manhole inspections were attempted on all manholes located on line segments that were cleaned and televised. These inspections verified manhole location, condition, pipe size, pipe condition and line segment continuity.

The manhole inspection procedure included recording the following observations:

1. Location and identification number
2. Potential for ponding on manhole cover
3. Cover type, fit, description, segment length, distance above or below grade, evidence of inflow
4. Frame adjustment, seal, evidence of inflow
5. Corbel construction, condition, evidence of inflow
6. Wall construction, condition, evidence of infiltration
7. Bench/trough construction, condition, deposition, evidence of infiltration
8. Pipe seal condition, evidence of infiltration
9. Step conditions
10. Manhole inside diameter
11. Surcharging or evidence of surcharging
12. Indication of groundwater level

Table 2-C

RAINFALL SUMMARY

Date (2007)	Rain Gauge 1			Rain Gauge 2			Rain Gauge 3			Rain Gauge 4			Rain Gauge 5		
	Total Daily Rainfall (in)	Peak 60-Minute Rainfall Intensity (in/hr)		Total Daily Rainfall (in)	Peak 60-Minute Rainfall Intensity (in/hr)		Total Daily Rainfall (in)	Peak 60-Minute Rainfall Intensity (in/hr)		Total Daily Rainfall (in)	Peak 60-Minute Rainfall Intensity (in/hr)		Total Daily Rainfall (in)	Peak 60-Minute Rainfall Intensity (in/hr)	
Jul. 26	0.04	0.04		0.01	0.01		0.00	0.00		0.01	0.01		0.01	0.01	
29	0.05	0.05		1.05	0.93		0.520	0.49		0.57	0.49		0.03	0.03	
30	0.07	0.07		0.09	0.09		0.49	0.49		0.10	0.09		0.09	0.09	
Aug. 01	0.05	0.05		0.05	0.04		0.05	0.04		0.05	0.04		0.04	0.03	
02	0.00	0.00		0.04	0.04		0.00	0.00		0.24	0.24		0.53	0.47	
16	0.45	0.40		0.67	0.38		0.36	0.34		0.66	0.33		0.50	0.36	
17	0.02	0.02		0.00	0.00		0.00	0.00		0.01	0.01		0.00	0.00	
18	0.00	0.00		0.04	0.02		0.00	0.00		0.14	0.08		0.06	0.04	
29	0.03	0.03		0.00	0.00		0.01	0.01		0.01	0.01		0.00	0.00	
30	0.19	0.13		0.09	0.09		0.00	0.00		0.04	0.02		0.40	0.38	
31	0.10	0.10		0.10	0.10		0.10	0.10		0.10	0.10		0.10	0.10	
Sep. 04	0.09	0.06		0.12	0.08		0.10	0.06		0.14	0.09		0.12	0.07	
05	1.02	0.26		0.88	0.23		0.73	0.20		0.86	0.24		1.04	0.27	
09	0.03	0.02		0.17	0.17		0.06	0.03		0.28	0.17		0.11	0.06	
10	4.77	1.50		3.48	0.87		4.13	1.35		3.62	0.90		4.01	0.86	
Total	6.91			6.79			6.55			6.83			7.04		

A sectional elevation of a typical manhole is shown on the right.

FINDINGS:

Inspections were performed on 121 of the 146 manholes (82.9 percent) attempted. Structures not inspected included buried, not found, and inaccessible structures. Partial inspections were performed on any surcharged manholes. A manhole inspection summary is given in Table 2-D, while a summary of manhole defects is given in Table 2-E. A computer printout that summarizes the manhole inspections is included in Appendix B. A computer output report that lists defects by structure is provided in Appendix C.

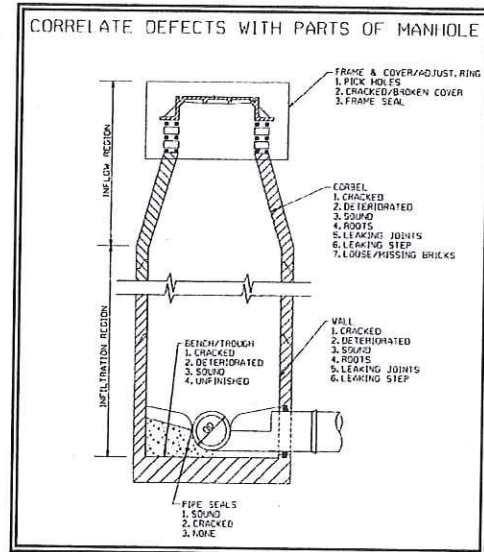


Table 2-D

MANHOLE INSPECTION SUMMARY

Total Structures	Inspected Structures	Not Inspected		
		Not Found Structures	Buried Structures	Inaccessible Structures
146	121	16	1	8

Table 2-E

SUMMARY OF MANHOLE DEFECTS

Type of Defect	Number of Defects
<u>Inflow</u>	
Covers with Pick Holes	93
Defective Frame Seal	45
Broken Frame	1
Defective Corbel	18
<u>Infiltration</u>	
Defective Pipe Seals	20
Defective Bench/Trough	1
Defective Manhole Walls	22
Total	200

Manhole construction includes brick, precast, and some cast-in-place. The manholes range in diameter from 48-inches to 54-inches with the majority of manholes 48-inches in diameter. Manhole inspection resulted in the identification of approximately 94,201 gpd of 1-year inflow and 12,384 gpd of infiltration. Generally, the manholes were found to be in good condition.

A total of 20 manholes inspected indicated evidence of surcharging.

CLEANING AND TELEVISION INSPECTION

A total of 148 line segments, containing approximately 57,300 linear feet, selected by DFW Airport staff were cleaned and televised by Ace Pipe Cleaning, Inc. and DFW Infrastructure, Inc. A summary of sewer segments televised is given in Table 2-F and a log of the findings during each inspection is included in Appendix Volume II and shown graphically on Exhibit 2.

RJN supervised the inspections and reviewed the collected data. A summary of the inspection data review is provided in Appendix D.

WET WELL CLEANING AND INSPECTION

Cleaning and inspection of four wet wells were completed as part of this project and included the South Airfield, South Foreign Trade Zone, North Foreign Trade Zone, and 1LWS lift stations. In addition, the South Airfield Lift Station wet well and force main were completely dewatered to facilitate the replacement of check valves at the lift station. The gravity sewer pipes were plugged and wastewater was bypassed pumped into tank trucks and transported to the WWTP for discharge back into the collection system.

Some infiltration was noted at the South Foreign Trade Zone station but otherwise the wet wells were in sound structural condition.

TRITURATOR SITE EVALUATION

Freese & Nichols, Inc. performed an evaluation of selected Triturator sites to determine their overall condition and compliance with applicable regulations. The results of the evaluation are presented in the separately bound report included in Appendix E.

DETERMINATION OF AIRCRAFT WASTEWATER CONTRIBUTIONS TO TRITURATORS

The DFW Airport staff selected four triturator sites to be monitored during this study. These included the Pad Mary, E North, B North, and B South tritulators. The purpose of the monitoring was to determine the amount of wastewater that is being discharged to the DFW Airport Collection System by arriving aircraft.

Table 2-F

LINE SEGMENTS CLEANED AND TELEVISED

Upstream Structure Number	Downstream Structure Number	Diameter (in)	Televised Length (lf)
54	53	36	757
100	2138	24	340
101	100	24	604
103	102	24	752
104	103	24	752
106	105	24	703
1050	5	18	344
2162	2162B	8	211
2162A	2162	8	355
2162B	2162C	8	191
3	1075	24	142
4	3	24	184
15	14	18	387
24	23	30	395
25	24	30	185
57	56	33	496
58	57	33	657
59	58	33	641
60	59	33	605
61	60	33	690
62	61	33	460
63	62	33	464
64	63	33	750
65	64	33	689
66	65	33	536
67	66	33	409
68	67	33	521
69	68	33	904
71	69	36	541
91	75	24	740
91	75	24	50
92	91	24	800
94	93	24	648
95	94	24	735
96	95	24	700
99	98	24	587
102	101	24	803
108	107	24	975
109	108	24	606

Table 2-F (Cont.)

LINE SEGMENTS CLEANED AND TELEVISED

Upstream Structure Number	Downstream Structure Number	Diameter (in)	Televised Length (lf)
157	156	8	370
158	157	8	401
159	158	8	294
1057	1056	18	143
1068	109	24	61
1069	1068	20	649
2136	2137	12	448
2137	2138	12	472
2138	99	24	256
un-named "T"	1069	20	423
107	106	24	414
124	123	21	223
125	124	24	500
126	125	24	378
127	126	24	469
210	208	18	615
212	212A	18	432
214	214A	15	350
215	1074	18	259
1022	1023	10	64
1023	1024	10	173
1024	1025	10	63
1025	1026	10	151
1027	1028	10	294
1028	1028A	10	146
1029	1030	10	63
1030	1031	10	170
1031	1032	10	64
1074	214	18	483
1028A	1029	10	106
125A	125	24	109
212A	210	18	342
214A	212	15	395
18	17	18	716
19	17	18	137
161	160	8	403
206	207	18	735
208	206	18	861
1012	1013	10	313
1012	1013	10	313
1013	1014	10	298

Table 2-F (Cont.)

LINE SEGMENTS CLEANED AND TELEVISED

Upstream Structure Number	Downstream Structure Number	Diameter (in)	Televised Length (lf)
1014	1015	10	296
1015	25	10	115
1016	1017	10	302
1017	1018	10	306
1018	1019	10	296
1019	27	10	314
1021	1022	10	255
1061	1060	10	306
1062	1061	8	298
1063	1062	8	362
1034	1035	10	302
1035	1036	10	7
1035	1036	12	361
1036	1037	12	303
1037	1037A	12	157
1039	1040	10	303
1040	1041	10	303
1064	1065	8	304
1065	1066	10	301
1066	1067	10	308
1037A	1038	12	138
122	29	24	1168
149	122	24	602
1002	1001	15	580
1003	1002	15	713
1004	1003	12	527
1005	1004	12	47
1006	1005	12	153
1007	1006	12	91
1008	1007	8	109
1009	1008	8	542
1010	1009	8	500
1011	1010	8	498
1042	1035	6	60
1046	1047	8	495
1047	1048	8	301
1048	1049	8	294
1051	1050	6	292
1052	1077	6	209
1076	1046A	8	100
1077	1051	6	211

Table 2-F (Cont.)

LINE SEGMENTS CLEANED AND TELEVISED

Upstream Structure Number	Downstream Structure Number	Diameter (in)	Televised Length (lf)
1046A	1046	8	299
9	8	21	395
9	1056	21	142
23	1001	30	135
30	29	18	262
75	74	24	614
76	75	24	720
97	96	24	480
98	97	24	590
150	150A	24	595
1001	22	30	812
1038A	1038	10	150
c/o	1101	8	125
150	24	18	336
205	204	18	832
206	205	18	788
207	206	18	665
1020	1078	10	245
1032	1033	10	148
1033	1034	10	315
1078	1021	10	59
204A	unknown	15	603
Total			57,311

The monitoring of the E North, B North, and Pad Mary triturator sites consisted of RJN staff being assigned to count the number of lavatory trucks or carts discharging to each site for a four-day period each. Generally, this period was from a Thursday morning at 6 a.m. through Sunday night at midnight. The staff recorded the time of discharge and vehicle number and associated airline, if available.

The intent of this count was to be able to contact the associated airlines and contractors to determine the volume of each truck or cart and then convert the counts to an approximate volume of flow. However, to date, the majority of airlines have not provided the associated truck and cart volumes. Therefore, this wastewater flow estimate could not be completed.

A summary of the discharge counts for the B North, E North, Pad Mary tritulators is provided in Appendix F.

Monitoring of the B South Triturator site was completed by installing an electronic monitor on the pump controls to determine the number of times that the pumps cycle and the length of each cycle. Calibration of the pumps was completed to determine pumping rates and then this was applied to the recorded cycle times. The pumps at the B South only cycled two times during the monitoring period. It was determined that this triturator was being used very little due to the lack of running water for flushing and cleanup. This site is currently serviced by a tank since the water main that serves this site was broken and taken out of service.

EAST AIRFIELD DRIVE LIFT STATION REPLACEMENT

As part of this study, the DFW Airport staff requested RJN Group, Inc. to prepare a cost estimate for replacing the existing East Airfield Drive Lift Station with a submersible station with the same capacity. This analysis was submitted as a separate Technical Memorandum which is included in Appendix G of this report.

RECOMMENDATIONS

The recommendations contained in this chapter are only for manholes and sewer segments inspected during this assessment study. Recommendations for improvements to the Triturator sites are included in the previously submitted report included in Appendix E. Recommendations for any capacity improvements will be included in the final Hydraulic Modeling Report to be submitted at a later date.

MANHOLE REHABILITATION

It is recommended that I/I and structural defects identified during the manhole investigations be repaired. A summary of the recommended repairs is given in Table 3-A.

Table 3-A

SUMMARY OF RECOMMENDED MANHOLE REPAIRS

Item	Repair Method	Quantity	Estimated Cost (\$)
Pick Holes	Replace Manhole Cover	89	22,250
Defective Frame Seal	Repair Frame Seal	36	26,100
Defective Corbel	Coat Manhole Corbel	18	7,200
Defective Walls	Coat Manhole Walls	22	8,800
Defective Pipe Seals	Grout Pipe Seals	20	6,000
Defective Bench	Grout Bench/Trough	1	240
Subtotal		186	70,590
10% Contingency			7,059
Total			77,649

The DFW Airport may consider installing Rain Stopper Inserts instead of replacing manhole covers for those manholes located in the AOA. No dig repairs for defective frame seals located in the AOA should also be considered. These may include the use of chimney seals or epoxy type interior repairs of the frame seals.

A complete printout of the recommended repairs is provided in Appendix H.

SEWER LINE REPAIRS

Based on the review of television inspection results, 38 point repairs are recommended for 32 line segments. The repairs include open cut and CIPP point repairs. A summary of the recommended point repairs is given in Table 3-B.

Table 3-B

SUMMARY OF RECOMMENDED POINT REPAIRS

Segment	Diameter (in)	Repair Method	Repair Location	From Manhole	Estimated Cost (\$)
4 - 3	24	CIPP	0+40 - 0+60	DS	18,250
9 - 1056	21	CIPP	0+75 - 0+85	DS	8,200
18 - 17	18	CIPP	0+55 - 0+65	US	7,750
23 - 1001	30	CIPP	0+81 - 0+91	US	9,750
30 - 29	18	CIPP	1+33 - 1+43	US	7,750
71 - 69	36	Open Cut	1+60 - 1+70	US	8,000
92 - 91	24	CIPP	6+77 - 6+87	DS	8,200
106 - 105	24	CIPP	0+00 - 0+60	DS	51,750
158 - 157	8	CIPP	1+60 - 1+70	US	3,500
159 - 158	8	CIPP	1+00 - 1+10	DS	3,500
161 - 160	8	CIPP	0+00 - 0+10	US	3,500
			2+90 - 3+00	US	3,500
205 - 204	18	CIPP	0+30 - 0+50	US	17,500
			4+44 - 4+54	US	7,750
206 - 205	18	CIPP	2+55 - 2+65	US	7,750
206 - 205			7+40 - 7+65	US	20,750
206 - 207	18	CIPP	2+00 - 2+10	US	7,750
			6+90 - 7+10	US	17,500
210 - 208	18	CIPP	1+85 - 1+95	US	7,750
			3+65 - 3+75	US	7,750
212 - 212A	18	Open Cut	0+40 - 0+55	US	8,500
212A - 210	18	CIPP	1+00 - 1+10	US	7,750
214 - 214A	15	CIPP	2+14 - 2+24	US	7,750
1011 - 1010	8	CIPP	0+95 - 1+05	US	6,050
1012 - 1013	10	Open Cut	0+00 - 0+15	US	6,500
1013 - 1014	10	CIPP	0+00 - 0+10	DS	3,500
1014 - 1015	10	CIPP	0+00 - 0+10	US	3,500
			1+55 - 1+65	US	3,500
1016 - 1017	10	CIPP	0+00 - 0+15	US	6,050
1020 - 1078	10	Open Cut	1+53	US	6,000
1022 - 1023	10	CIPP	0+00 - 0+10	DS	3,500
1023 - 1024	10	CIPP	0+55 - 0+65	US	3,500
1027 - 1028	10	Open Cut	1+47	US	6,000
1036 - 1037	12	CIPP	0+40 - 0+50	US	4,250
1061 - 1060	10	CIPP	0+00 - 0+10	DS	3,500
1063 - 1062	8	CIPP	2+84 - 2+94	DS	3,500
2162 - 2162B	8	Open Cut	0+00 - 0+10	US	4,500
2162B - 2162C	8	Open Cut	1+85 - 1+95	US	4,500
Subtotal					320,500
10% Contingency					<u>32,050</u>
Total					352,550

Complete sewer segment rehabilitation is recommended for 19 line segments containing approximately 11,821 linear feet of pipe. A summary of the recommended segment rehabilitation is given in Table 3-C. The recommended point repair and segment rehabilitation locations are shown graphically on Exhibit 3.

Table 3-C

SUMMARY OF RECOMMENDED COMPLETE SEWER LINE REHABILITATION

Segment	Diameter (in)	Length (lf)	Rehabilitation Method	Estimated Construction Cost (\$)
15 - 14	18	387	CIPP Lining	55,728
54 - 53	36	757	CIPP Lining	218,016
57 - 56	33	496	CIPP Lining	130,944
58 - 57	33	657	CIPP Lining	173,448
59 - 58	33	641	CIPP Lining	169,224
60 - 59	33	605	CIPP Lining	159,720
61 - 60	33	690	CIPP Lining	182,160
62 - 61	33	460	CIPP Lining	121,440
63 - 62	33	464	CIPP Lining	122,496
64 - 63	33	750	CIPP Lining	198,000
65 - 64	33	689	CIPP Lining	181,896
66 - 65	33	536	CIPP Lining	141,504
103 - 102	24	752	CIPP Lining	144,384
104 - 103	24	752	CIPP Lining	144,384
122 - 29	24	1,168	CIPP Lining	224,256
149 - 122	24	602	CIPP Lining	115,584
207 - 206	18	665	CIPP Lining	95,760
214 - 212	15	395	CIPP Lining	44,438
2162A - 2162	8	355	Open Cut or Pipe Burst	19,880
Subtotal		11,821		2,643,262
10% Contingency				264,326
Total				2,907,588

EAST AIRFIELD DRIVE LIFT STATION REPLACEMENT

As described in the Technical Memorandum included in Appendix G, RJN Group, Inc. prepared a preliminary cost estimate to replace the existing East Airfield Drive Lift Station with a new submersible type station. The estimated base cost for the replacement station is \$895,960.

SUMMARY OF RECOMMENDATIONS

It is recommended that 186 manhole defects that were identified during the study be repaired. A total of 38 point repairs and complete rehabilitation of 19 sewer segments is also recommended. The recommended rehabilitation also includes replacing the existing East Airfield Drive Lift Station. A summary of the recommended rehabilitation is given in Table 3-D.

Table 3-D

SUMMARY OF RECOMMENDED REHABILITATION

Item	Quantity	Number of Segments	Estimated Cost (\$)
Manhole Repairs	186 EA	NA	77,649
Point Repairs	39 EA	31	352,550
Complete Segment Rehabilitation	11,821 LF	18	2,907,588
East Airfield Drive Lift Station	1 EA	NA	895,960
Total			4,233,747

It is recommended that the final hydraulic model analysis be reviewed prior to completing any of the recommended sewer line repairs to determine if any capacity improvements are required.

ADDITIONAL RECOMMENDATIONS

It is recommended that the DFW International Airport complete the cleaning and televising of the sewer lines located along International Parkway that were not completed during this project. It is also recommended that temporary flow monitoring be conducted after the cleaning is complete. The flow data should then be utilized to recalibrate the hydraulic computer model. The recalibrated model can then be used to accurately assess the capacity of the sanitary sewer system to transport existing and future flows as the DFW International Airport continues to develop.

Manhole Information Report

Project No. 18-2227-00 DFW International Airport Contract No. 8002182

Manhole Number	Address	Street	Structure Type	Location	Manhole Diam. in.	Depth in.	Subj. Pond.	Wall Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert ft.	Inflow Infiltr. gpd.
(DFW)0001		S. SERVICE	R	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		720
(DFW)0002	2900	SERVICE		N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		1,152
(DFW)0003	2900	SERVICE		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		144
(DFW)0008		AOA		N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0014		AOA		N/A	Not Found			N/A	N/A	N/A			
(DFW)0015		AOA		N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		
(DFW)0016		B-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		1,152
(DFW)0017		B-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		1,152
(DFW)0018		B-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		1,152
(DFW)0022		AOA		N/A	Paved Esmt	48	No	Precast	Leaking Joints	Safe	No	288	1,152
(DFW)0023		AOA		N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		1,152
(DFW)0028		AOA		N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0029		AOA-C39		N/A	Paved Esmt	48	No	Precast	Leaking Joints	Safe	No	288	576
(DFW)0030		AOA		N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0031		C-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0034		C-LOWERLEV		N/A	Grass Esmt	49	No	Poured	Sound	Safe	No		144
(DFW)0035		AOA		N/A	Not Found			N/A	N/A	N/A			
(DFW)0036		AOA		N/A	Not Found			N/A	N/A	N/A			
(DFW)0037		AOA		N/A	Not Found			N/A	N/A	N/A			
(DFW)0038		A-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		158
(DFW)0039		A-LOWERLEV		N/A	Unaccessible		No	N/A	N/A	N/A	No		
(DFW)0040		A-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		144
(DFW)0044		C-LOWERLEV		N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0056		20TH AVE.		N/A	Unaccessible		No	N/A	N/A	N/A	No		

Project No. 18-2227-00 DFW International Airport Contract No. 8002182

Manhole Number	Address Street	Structure Type	Location	Manhole Diam. Depth in. in.	Subj. Pond. Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert ft.	Inflow Infiltr. gpd.
(DFW)0057	20TH AVE.	N/A	Unaccessible		No	N/A	N/A	No		
(DFW)0058	S. 20TH ST.	N/A	Grass Esmt	54	No	Precast	Safe	No		158
(DFW)0059	20TH AVE.	N/A	Not Found			N/A	N/A			
(DFW)0060	S. 20TH ST.	N/A	Grass Esmt	48	No	Precast	Safe	No		144
(DFW)0061	S. 20TH AVE.	N/A	Grass Esmt	48	No	Precast	Safe	No		1,008
(DFW)0062	AIRFIELD DR.	N/A	Grass Esmt	52	No	Precast	Safe	No		144
(DFW)0063	AIRFIELD DR.	N/A	Grass Esmt	49	No	Precast	Safe	No	288	720
(DFW)0064	2101 S. AIRFIELD R	N/A	Not Found			N/A	N/A			
(DFW)0065	2101 S. AIRFIELD R	N/A	Unaccessible		No	N/A	N/A	No		
(DFW)0066	2101 S. AIRFIELD R	N/A	Not Found			N/A	N/A			
(DFW)0067	2101 S. AIRFIELD R	N/A	Not Found			N/A	N/A			
(DFW)0069	S. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		144
(DFW)0070	3300 N. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		720
(DFW)0071	2200 33RD ST.	N/A	Grass Esmt	48	No	Precast	Safe	No		144
(DFW)0074	S. SERVICE R	N/A	Grass Esmt	49	No	Precast	Safe	No		173
(DFW)0075	S. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		720
(DFW)0076	3003 SOUTH SERVI	N/A	Grass Esmt	48	No	Precast	Safe	No		144
(DFW)0077	3003 S. SERVICE R	N/A	Not Found			N/A	N/A			
(DFW)0078	3003 S. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		158
(DFW)0079	3003 S. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		144
(DFW)0080	3003 S. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		576
(DFW)0081	3300 N. SERVICE R	N/A	Not Found			N/A	N/A			
(DFW)0082	N. SERVICE R	N/A	Grass Esmt	48	No	None	Safe	No		720
(DFW)0083	CROSSUNDER	N/A	Gutter	48	No	Precast	Safe	No		1,152
(DFW)0084	N. SERVICE R	N/A	Grass Esmt	48	No	Precast	Safe	No		1,152
(DFW)0085	3150 N. SERVICE R	N/A	Paved Esmt	48	No	Precast	Safe	No		

Thursday, July 31, 2008

Project No. 18-2227-00 DFW International Airport Contract No. 8002182

Manhole Number	Address	Street	Structure Type	Location	Manhole Diam. in.	Depth in.	Subj. Pond.	Wall Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert ft.	Inflow Infiltr. gpd.
(DFW)0086	3100	N. SERVICE	R	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0087	3100	N. SERVICE	R	N/A	Not Found			N/A	N/A	N/A			
(DFW)0092		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0093		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		720
(DFW)0094		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		720
(DFW)0095		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0096		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		1,152
(DFW)0097		AOA	N/A	N/A	Not Found			N/A	N/A	N/A			
(DFW)0098		AOA	N/A	N/A	N/A	48	No	Precast	Sound	Safe	No		144
(DFW)0099		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		720
(DFW)0100		AOA	N/A	N/A	Unaccessible			N/A	N/A	N/A	No		
(DFW)0101		AOA	N/A	N/A	Grass Esmt	48	Yes	Precast	Sound	Safe	No		3,600
(DFW)0102		AOA	N/A	N/A	Grass Esmt	48	Yes	Precast	Sound	Safe	No		3,600
(DFW)0103		AOA	N/A	N/A	Grass Esmt	48	Yes	Precast	Sound	Safe	No		2,304
(DFW)0104		AOA	N/A	N/A	Paved Esmt		No	N/A	N/A	N/A	No		
(DFW)0105		AOA	N/A	N/A	Grass Esmt	48	No	Precast	Leaking Joints	Safe	No	288	144
(DFW)0106	2526	W. AIRFIELD	D	N/A	Grass Esmt	48	Yes	Precast	Sound	Safe	No		2,304
(DFW)0107		W. AIRFIELD	D	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		
(DFW)0108	2460	W. AIRFIELD	D	N/A	Grass Esmt	48	Yes	Precast	Sound	Safe	No		12,016
(DFW)0109	2450	W. AIRFIELD	D	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		4,905
(DFW)0122		AOA	N/A	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		
(DFW)0123	2430	AIRFIELD DR.	N/A	N/A	Buried		No	N/A	N/A	N/A	No		
(DFW)0124	2430	E. AIRFIELD	D	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No	288	576
(DFW)0125	2430	E-AIRFIELD DR	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		
(DFW)0125A	2430	E AIRFIELD DR	N/A	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		
(DFW)0126	2600	E AIRFIELD DR	N/A	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		

Project No. 18-2227-00 **DFW International Airport Contract No.** 8002182

Manhole Number	Address	Street	Structure Type	Location	Manhole Diam. in.	Subj. Pond.	Wall Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert ft.	Infiltr. Inflow gpd.
(DFW)0127	2600	AIRFIELD DR.	N/A	Center Street	48	No	Precast	Sound	Safe	No		
(DFW)0149		AOA-C27	N/A	Paved Esmt	48	No	Poured	Sound	Safe	No		1,152
(DFW)0150		AOA	N/A	Grass Esmt		10	Precast	Sound	Safe	Yes	10.0	576
(DFW)0150A		AOA	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		1,728
(DFW)0156	3300	22ND AVENUE	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)0157	3301	33RD ST.	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		720
(DFW)0158	3301	33RD ST.	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		144
(DFW)0159	2120	33RD ST.	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		720
(DFW)0160	3300	22ND AVE.	N/A	Not Found			N/A	N/A	N/A			
(DFW)0161	3200	22ND AVE.	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		
(DFW)1001		AOA	N/A	Grass Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)1002		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1003		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		1,152
(DFW)1005		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1006		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1007		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1008		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1009		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		1,152
(DFW)1010		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1011		AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1020		C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Sound	Safe	Yes	6.0	288
(DFW)1021		C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	No		1,152
(DFW)1022		C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	7.0	576
(DFW)1023		C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	No		1,440
(DFW)1024		C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	No		576
(DFW)1025		TERM C - LOW	STANDR	Paved Esmt	48	19	Block	Cracked	Safe	No		317
												576
												288
												1,440

Project No. 18-2227-00 DFW International Airport Contract No. 8002182

Manhole Number	Address Street	Structure Type	Location	Manhole Diam. in.	Subj. Pond. in.	Wall Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert ft.	Inflow Infiltration gpd.
(DFW)1026	C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	7.0	317
(DFW)1027	C-LOWERLEV	N/A	Paved Esmt	49	No	Brick	Cracked	Safe	Yes	4.0	576
(DFW)1028	C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	4.0	576
(DFW)1029	C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	4.0	576
(DFW)1030	C-LOWERLEV	N/A	Paved Esmt	49	No	Brick	Cracked	Safe	Yes	7.0	576
(DFW)1031	C-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	3.0	576
(DFW)1032	C-LOWERLEV	N/A	Paved Esmt	49	No	Brick	Cracked	Safe	Yes	4.0	576
(DFW)1033	C-LOWERLEV	N/A	Paved Esmt	49	No	Brick	Cracked	Safe	Yes	4.0	576
(DFW)1034	TERM A LOWE	STANDR	Paved Esmt	48	13	Brick	Cracked	Safe	Yes	8.0	288
(DFW)1035	A-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Sound	Safe	Yes	4.0	576
(DFW)1036	A-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Deteriorated	Safe	Yes	15.0	576
(DFW)1037	A-LOWERLEV	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		576
(DFW)1038	A-LOWERLEV	N/A	Paved Esmt	48	No	Precast	Sound	Safe	Yes	2.0	576
(DFW)1039	TERMINAL A -	STANDR	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	9.0	288
(DFW)1040	A LOWER LEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	Yes	6.0	576
(DFW)1041	A-LOWERLEV	N/A	Paved Esmt	48	No	Brick	Cracked	Safe	No		576
(DFW)1042	A-LOWERLEV	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		
(DFW)1044	AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1045	AOA	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		
(DFW)1046	AOA	STANDR	Paved Esmt	48	Yes	Precast	Sound	Safe	No		
(DFW)1047	AOA - A35	Lamphole	Paved Esmt	54	No	Poured	Sound	Safe	No		1,152
(DFW)1048	AOA - A38	N/A	Paved Esmt	54	No	Poured	Sound	Safe	No		1,152
(DFW)1049	AOA	N/A	Not Found			N/A	N/A	N/A			
(DFW)1060	B-LOWERLEV	N/A	Paved Esmt		No	Precast	Sound	Safe	Yes	6.0	288
(DFW)1061	B-LOWERLEV	N/A	Paved Esmt	48	No	Precast	Sound	Unsafe	Yes	3.0	288
(DFW)1062	B-LOWERLEV	N/A	Paved Esmt	48	No	Precast	Sound	Safe	No		288

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Manhole Number	Address Street	Structure Type	Location	Manhole Diam. in.	Subj. Pond.	Wall Const.	Wall Condition	Steps Cond.	Eydn. Surch.	Above Invert	Inflow Infiltr. gpd.
(DFW)1063		B-LOWERLEV	N/A	Unaccessible	No	N/A	N/A	No	No		
(DFW)1064		B-LOWERLEV	N/A	Unaccessible	No	N/A	N/A	No	No		288
(DFW)1065		B-LOWERLEV	N/A	Paved Esmt	48	Precast	Sound	No	No		288
(DFW)1066		B-LOWERLEV	N/A	Paved Esmt	48	Precast	Sound	No	No		
(DFW)1067		B-LOWERLEV	N/A	Paved Esmt	48	Precast	Sound	Yes	4.0		288
(DFW)1068	2450	W. AIRFIELD D	N/A	Grass Esmt	48	Precast	Sound	No	No		4,905
(DFW)1069	2370	W. AIRFIELD D	N/A	Not Found		N/A	N/A	N/A	N/A		
(DFW)1070	1400	GLADE RD.	N/A	Not Found		N/A	N/A	N/A	N/A		
(DFW)1071	1400	GLADE RD.	N/A	Grass Esmt	48	Precast	Sound	No	No		576
(DFW)1075	2900	SERVICE	N/A	Grass Esmt	48	Poured	Sound	No	No		
(DFW)1076		AOA	N/A	Paved Esmt	48	Precast	Sound	No	No		
(DFW)1078		C-LOWERLEV	N/A	Paved Esmt	48	Precast	Sound	No	No		
(DFW)2137		AOA	N/A	Grass Esmt	48	Precast	Sound	No	No		
(DFW)2138		AOA	N/A	Grass Esmt	48	Precast	Sound	No	No		
(DFW)2162	1535	20TH ST.	N/A	Grass Esmt	48	Block	Sound	No	No		288
(DFW)2162A	1600	20TH ST.	N/A	Paved Esmt	48	Brick	Cracked	No	No	576	576
(DFW)2162B	1535	20TH ST.	N/A	Grass Esmt	48	Precast	Sound	No	No		72
(DFW)2162C	1400	20TH ST.	N/A	Grass Esmt	48	Precast	Sound	No	No		576

Project No. 18-2227-00 DFW International Airport Contract No. 8002182

Manhole Number	Address Street	Structure Type	Location	Manhole Diam. in.	Subj. Pond. in.	Wall Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert ft.	Inflow Infiltr. gpd.
Totals for Basin DF											
Total Manholes		146									12,384
Manholes Inspected		121									94,201
Manholes Not Inspected		24									
Manholes Buried		1									
Manholes Not Found		16									
Manholes Inaccessible		7									
Location Not Specified		1									
Evidence of Surcharge											
Subject to Ponding		20									
Subject to Sheeting		7									
		49									
Percent:											
Inspected				82.88%							
Not Inspected				16.44%							
Buried				0.68%							
Not Found				10.96%							
Inaccessible				4.79%							
Surcharge											
Ponding				13.70%							
Sheeting				4.79%							
				33.56%							

Project No. 18-2227-00 DFW International Airport Contract No. 8002182

Manhole Number	Address Street	Structure Type	Location	Manhole Diam. Depth in. in.	Subj. Pond. Const.	Wall Condition	Steps Cond.	Evdnc. Surch.	Above Invert	Inflow Infiltr. gpd.
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Totals for All Basins

Total Infiltration =	12,384
Total Inflow =	94,201

Total Manholes	146	Percent:	Inspected	82.88%
Manholes Inspected	121	Not Inspected	Buried	16.44%
Manholes Not Inspected	24	Not Found	Inaccessible	0.68%
Manholes Buried	1			10.96%
Manholes Not Found	16			4.79%
Manholes Inaccessible	7			
Location Not Specified	1			
Evidence of SurchARGE	20	SurchARGE		13.70%
Subject to Ponding	7	Ponding		4.79%
Subject to Sheetting	49	Sheetting		33.56%

I/I Status Report

Project Number

18-2227-00

DFW International Airport Contract No. 8002182

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0001	S. SERVICE RD. S. SERVICE RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
		Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0002	2900 SERVICE	Inflow	Pick Holes	Replace Frame and Cover	1,152	\$250	0.217
				1 Active Sources Contribute a Total of	1,152	\$250	
DFW 0003	2900 SERVICE	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0008	AOA	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0016	B-LOWERLEVEL RD. B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	1,152	\$975	
DFW 0017	B-LOWERLEVEL RD. B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
DFW 0018	B-LOWERLEVEL RD. B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
DFW 0022	AOA AOA AOA	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
DFW 0023	AOA	Inflow	Wall Leakage	Wall - Coat Manhole Walls	288	\$400	1.389
				3 Active Sources Contribute a Total of	1,440	\$1,375	
		Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0023	AOA	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	1,152	\$975	
DFW 0028	AOA	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0029	AOA-C39 AOA-C39	Inflow Infiltr	Pick Holes Wall Leakage	Replace Frame and Cover Wall - Coat Manhole Walls	576	\$250	0.434
				2 Active Sources Contribute a Total of	864	\$650	1.389
DFW 0030	AOA	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0031	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0034	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0038	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0040	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0044	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0058	S. 20TH ST.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0060	S. 20TH ST.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0061	S. 20TH AVE. S. 20TH AVE. S. 20TH AVE.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
		Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
				3 Active Sources Contribute a Total of	1,008	\$1,375	
DFW 0062	AIRFIELD DR.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0063	2100 AIRFIELD DR. 2100 AIRFIELD DR. 2100 AIRFIELD DR.	Inflow	Pick Holes	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
		Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				3 Active Sources Contribute a Total of	1,008	\$1,275	
DFW 0069	S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0070	3300 N. SERVICE RD. 3300 N. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0071	2200 33RD ST.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0074	S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0075	3100 S. SERVICE RD. 3100 S. SERVICE RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
		Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0076	3003 SOUTH SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0078	3003 S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0079	3003 S. SERVICE RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	144	\$250	1.736
DFW 0080	3003 S. SERVICE RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	144	\$250	1.736
DFW 0082	N. SERVICE RD. N. SERVICE RD.	Inflow Inflow	Pick Holes Frame Seal	1 Active Sources Contribute a Total of Replace Manhole Cover Adjust Frame and Seal	576	\$250	0.434
DFW 0083	2200 CROSSUNDER #7	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Frame and Cover	720	\$975	1.361
DFW 0084	3150 N. SERVICE RD. 3150 N. SERVICE RD.	Inflow Inflow	Pick Holes Frame Seal	1 Active Sources Contribute a Total of Replace Manhole Cover Adjust Frame and Seal	1,152	\$250	0.217
DFW 0086	3100 N. SERVICE RD.	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Manhole Cover	1,152	\$975	1.361
DFW 0092	AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	576	\$250	0.434
DFW 0093	AOA AOA	Inflow Inflow	Pick Holes Frame Seal	1 Active Sources Contribute a Total of Replace Manhole Cover Adjust Frame and Seal	576	\$250	0.434
DFW 0094	AOA AOA	Inflow Inflow	Pick Holes Frame Seal	2 Active Sources Contribute a Total of Replace Manhole Cover Adjust Frame and Seal	720	\$975	1.361
DFW 0095	AOA	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Manhole Cover	720	\$975	1.361

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0096	AOA AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of	576	\$250	
		Inflow	Frame Seal	Replace Manhole Cover	576	\$250	0.434
				Adjust Frame and Seal	576	\$725	1.259
DFW 0098	AOA	Inflow	Pick Holes	2 Active Sources Contribute a Total of	1,152	\$975	
				Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0099	AOA AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of	144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0101	AOA AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of	1,440	\$250	0.174
		Inflow	Frame Seal/Ponding	Adjust Frame and Seal	2,160	\$725	0.336
				2 Active Sources Contribute a Total of	3,600	\$975	
DFW 0102	AOA AOA	Inflow	Frame Seal/Ponding	1 Active Sources Contribute a Total of	2,160	\$725	0.336
		Inflow	Pick Holes	Adjust Frame and Seal	1,440	\$250	0.174
				2 Active Sources Contribute a Total of	3,600	\$975	
DFW 0103	AOA AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of	144	\$250	1.736
		Inflow	Frame Seal/Ponding	Adjust Frame and Seal	2,160	\$725	0.336
				2 Active Sources Contribute a Total of	2,304	\$975	
DFW 0105	AOA AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of	144	\$250	1.736
		Inflow	Wall Leakage	Wall - Coat Manhole Walls	288	\$400	1.389
				2 Active Sources Contribute a Total of	432	\$650	
DFW 0106	2526 W. AIRFIELD DR. 2526 W. AIRFIELD DR.	Inflow	Pick Holes	1 Active Sources Contribute a Total of	144	\$250	1.736
		Inflow	Frame Seal/Ponding	Adjust Frame and Seal	2,160	\$725	0.336
				2 Active Sources Contribute a Total of	2,304	\$975	
DFW 0108	2460 W. AIRFIELD DR.	Inflow	Pick Holes	Replace Frame and Cover	12,016	\$250	0.021

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0109	2450 W. AIRFIELD DR.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Frame and Cover	12,016	\$250	0.051
DFW 0124	2430 E. AIRFIELD DR. 2430 E. AIRFIELD DR.	Infiltr Inflow	Bench/Trough Leak Pick Holes	1 Active Sources Contribute a Total of Bench/Trough - Grout Bench/Trough Replace Frame and Cover	4,905 288 576	\$250 \$240 \$250	0.833 0.434
DFW 0149	AOA-C27	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Frame and Cover	864 1,152	\$490 \$250	0.217
DFW 0150	AOA	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	1,152 576	\$250 \$250	0.434
DFW 0150A	AOA AOA	Inflow Inflow	Frame Seal Pick Holes	1 Active Sources Contribute a Total of Adjust Frame and Seal Replace Frame and Cover	576 1,152	\$725 \$250	1.259 0.217
DFW 0156	3300 22ND AVENUE	Inflow	Frame Seal	2 Active Sources Contribute a Total of Adjust Frame and Seal	1,728 576	\$975 \$725	1.259
DFW 0157	3301 33RD ST. 3301 33RD ST.	Inflow Inflow	Frame Seal Pick Holes	1 Active Sources Contribute a Total of Adjust Frame and Seal Replace Manhole Cover	576 576 144	\$725 \$725 \$250	1.259 1.736
DFW 0158	3301 33RD ST.	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Manhole Cover	720 144	\$975 \$250	1.736
DFW 0159	2120 33RD ST. 2120 33RD ST.	Inflow Inflow	Pick Holes Frame Seal	1 Active Sources Contribute a Total of Replace Manhole Cover Adjust Frame and Seal	144 576	\$250 \$725	1.736 1.259
DFW 1001	AOA	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Manhole Cover	720 576	\$975 \$250	0.434

Basin/Structure	Street Address	Type Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1003	AOA	Inflow Pick Holes	1 Active Sources Contribute a Total of	576	\$250	
			Replace Frame and Cover	1,152	\$250	0.217
			1 Active Sources Contribute a Total of	1,152	\$250	
DFW 1009	AOA	Inflow Pick Holes	1 Active Sources Contribute a Total of	1,152	\$250	0.217
			Replace Frame and Cover	1,152	\$250	0.217
			1 Active Sources Contribute a Total of	1,152	\$250	
DFW 1011	AOA AOA	Infiltr Inflow Pick Holes	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
			Replace Manhole Cover	288	\$250	0.868
			2 Active Sources Contribute a Total of	576	\$550	
DFW 1020	C-LOWERLEVEL-RD C-LOWERLEVEL-RD C-LOWERLEVEL-RD	Inflow Inflow Infiltr	Adjust Frame and Seal	576	\$725	1.259
			Replace Frame and Cover	576	\$250	0.434
			Pipe Seals - Grout Pipe Seals	288	\$300	1.042
			3 Active Sources Contribute a Total of	1,440	\$1,275	
DFW 1021	C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Inflow Inflow Inflow Infiltr Infiltr	Replace Frame and Cover	576	\$250	0.434
			Adjust Frame and Seal	576	\$725	1.259
			Corbel - Coat Manhole Walls	288	\$400	1.389
			Wall - Coat Manhole Walls	288	\$400	1.389
			Pipe Seals - Grout Pipe Seals	288	\$300	1.042
			5 Active Sources Contribute a Total of	2,016	\$2,075	
DFW 1022	C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Inflow Inflow Inflow Infiltr Infiltr	Replace Frame and Cover	576	\$250	0.434
			Adjust Frame and Seal	576	\$725	1.259
			Corbel - Coat Manhole Walls	288	\$400	1.389
			Wall - Coat Manhole Walls	288	\$400	1.389
			Pipe Seals - Grout Pipe Seals	288	\$300	1.042
			5 Active Sources Contribute a Total of	2,016	\$2,075	
DFW 1023	C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Infiltr Infiltr Inflow	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
			Wall - Coat Manhole Walls	288	\$400	1.389
			Corbel - Coat Manhole Walls	288	\$400	1.389
			Corbel - Coat Manhole Walls	288	\$400	1.389

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
3 Active Sources Contribute a Total of					864	\$1,100	
DFW 1024	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
3 Active Sources Contribute a Total of					864	\$1,100	
DFW 1025	TERM C - LOWER LEVEL RD	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	TERM C - LOWER LEVEL RD	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	TERM C - LOWER LEVEL RD	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	TERM C - LOWER LEVEL RD	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
4 Active Sources Contribute a Total of					1,728	\$1,775	
DFW 1026	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
3 Active Sources Contribute a Total of					864	\$1,100	
DFW 1027	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
5 Active Sources Contribute a Total of					2,016	\$2,075	
DFW 1028	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
4 Active Sources Contribute a Total of					1,440	\$1,825	
DFW 1029	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042

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18-2227-00

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Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1029	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				5 Active Sources Contribute a Total of	2,016	\$2,075	
DFW 1030	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
				2 Active Sources Contribute a Total of	576	\$700	
DFW 1031	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
				3 Active Sources Contribute a Total of	1,152	\$950	
DFW 1032	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
DFW 1033	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
				5 Active Sources Contribute a Total of	2,016	\$2,075	
DFW 1033	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
DFW 1034	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
				5 Active Sources Contribute a Total of	2,016	\$2,075	
DFW 1034	TERM A LOWER LEVEL	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	TERM A LOWER LEVEL	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	TERM A LOWER LEVEL	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
DFW 1035	TERM A LOWER LEVEL	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				4 Active Sources Contribute a Total of	1,728	\$1,775	
	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1036	A-LOWERLEVEL RD.	Inflow	Corbel Deterioration	1 Active Sources Contribute a Total of	576	\$250	
		Inflow	Wall Leakage	Corbel - Coat Manhole Walls	288	\$400	1.389
		Inflow	Pick Holes	Wall - Coat Manhole Walls	288	\$400	1.389
		Inflow	Pipe Seals	Replace Frame and Cover	288	\$250	0.868
		Inflow	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
DFW 1037	A-LOWERLEVEL RD.	Inflow	Pick Holes	4 Active Sources Contribute a Total of	1,152	\$1,350	
				Replace Manhole Cover	576	\$250	0.434
DFW 1038	A-LOWERLEVEL RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of	576	\$250	
				Replace Frame and Cover	576	\$250	0.434
DFW 1039	TERMINAL A - LOWER LEVEL	Inflow	Cracked Wall	1 Active Sources Contribute a Total of	576	\$250	
		Inflow	Pick Holes	Wall - Coat Manhole Walls	288	\$400	1.389
		Inflow	Cracked Corbel	Replace Frame and Cover	576	\$250	0.434
		Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
		Inflow	Cracked Corbel	3 Active Sources Contribute a Total of	1,152	\$1,050	
DFW 1040	A LOWER LEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	288	\$250	0.868
		Inflow	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
		Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
		Inflow	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
		Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
DFW 1041	A-LOWERLEVEL RD.	Inflow	Pipe Seals	5 Active Sources Contribute a Total of	1,728	\$2,075	
				Pipe Seals - Grout Pipe Seals	288	\$300	1.042
				Wall - Coat Manhole Walls	288	\$400	1.389
				Replace Manhole Cover	144	\$250	1.736
				Corbel - Coat Manhole Walls	288	\$400	1.389
DFW 1047	AOA - A35	Inflow	Pick Holes	4 Active Sources Contribute a Total of	1,008	\$1,350	
				Replace Frame and Cover	1,152	\$250	0.217

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DFW International Airport Contract No. 8002182

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1048	AOA - A38	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Frame and Cover	1,152	\$250	0.217
DFW 1060	B-LOWERLEVEL RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	1,152	\$250	0.868
DFW 1061	B-LOWERLEVEL RD. B-LOWERLEVEL RD.	Inflow Infiltr	Pick Holes Pipe Seals	1 Active Sources Contribute a Total of Replace Manhole Cover Pipe Seals - Grout Pipe Seals	288	\$250	0.868
DFW 1062	B-LOWERLEVEL RD.	Inflow	Pick Holes	2 Active Sources Contribute a Total of Replace Manhole Cover	576	\$550	0.868
DFW 1064	B-LOWERLEVEL RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	288	\$250	0.868
DFW 1065	B-LOWERLEVEL RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Frame and Cover	288	\$250	0.868
DFW 1067	B-LOWERLEVEL RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	288	\$250	0.868
DFW 1068	2450 W. AIRFIELD DR.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Frame and Cover	4,905	\$250	0.051
DFW 1071	1400 GLADE RD.	Inflow	Frame Seal	1 Active Sources Contribute a Total of Adjust Frame and Seal	576	\$725	1.259
DFW 2162	1535 20TH ST.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	144	\$250	1.736
DFW 2162A	1600 20TH ST.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	144	\$250	0.868

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 2162A	1600 20TH ST.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	1600 20TH ST.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	1600 20TH ST.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
				4 Active Sources Contribute a Total of	1,152	\$1,350	
DFW 2162C	1400 20TH ST.	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	

Basin DFW Totals:

Total Flow (gpd): 106,066

Total Cost: \$70,590.00

Total Sources: 186

Report Totals:

Total Flow (gpd): 106,066

Total Cost: \$70,590.00

Total Sources: 186

**SUMMARY OF TV INSPECTION DATA REVIEW
D/FW AIRPORT CONTRACT NO. 8002182
SANITARY SEWER SYSTEM ASSESSMENT STUDY**

HD/Tape	Rev'd By	Rev'd Date	Filename	US Struct	DS Struct	Diam (In)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:1	MSS	09/12/07	DFWAirport_4_1a	54	53	36	757	08/06/07	CIPP Lining			5 joints have exposed gaskets. Corrosion of concrete apparent throughout, line has run at 60% capacity.
DVD:1	MSS	10/19/07	RJN_3_1a	100	2138	24	340	09/17/07	-			No repairs. Minor cracking 1 location. Some minor debris left in pipe after jetting.
DVD:1	MSS	10/18/07	RJN_2_1a	101	100	24	604	09/17/07	-			No repairs.
DVD:1	MSS	10/18/07	RJN_1_1a	103	102	24	752	09/17/07	CIPP Lining			active infiltration and seepage (.01-.06GPM) at joints at least 12 locations.
DVD:1	MSS	10/19/07	RJN_4_1a	104	103	24	752	09/20/07	CIPP Lining			5 potential point repairs due to active infiltration (.02GPM), recommend lining due to good structural condition of line and light infiltration. Light mineral deposits 1 location.
DVD:1	MSS	10/19/07	RJN_5_1a	106	105	24	703	09/20/07	Point Repair by CIPP	DS	0+00 - 0+60	Medium cracking and joint offset at 28'. Minor cracks 10 locations, 1 light pipe offset. Repeated at RJN_7_1a.
DVD:1	MSS	10/19/07	RJN_6_1a	1050	5	18	344	09/20/07	None			Minor cracking and joint offset.
DVD:1	MSS	09/12/07	DFWAirport_2_1a	2162	2162B	8	211	08/06/07	Point Repair	US	0+00-0+10	One point repair. Due to exposed gasket and one location having active infiltration.
DVD:1	MS / KW	08/31/07	DFWAirport_1_1a	2162A	2162	8	355	08/06/07	Complete Rehab			Due to the amount of exposed gaskets, cracks, etc this line should be considered for lining or complete replacement. It appears that the pipe reduces from an 8 to a 6 inch.
DVD:1	MSS	09/12/07	DFWAirport_3_1a	2162B	2162C	8	191	08/06/07	Point Repair	US	1+85 - 1+95	Some joints have exposed gaskets. Perform a point repair at the major offset joint where the pipe material changes - then cont. TV. Cannot perform reverse because the DSMH's invert is too small for camera.
DVD:2	MSS	10/22/07	RJN_20_1a	3	1075	24	142	09/27/07	None			No repairs. Light debris in line 1 location, light-medium deposits at joint possible evidence of infiltration.
DVD:2	MSS	10/22/07	RJN_21_1a	4	3	24	184	09/27/07	Point Repair by CIPP	DS	0+40-0+60	One repair. Light mineral deposits 4 locations, possible evidence of infiltration. Light active infiltration (.03GPM) 1 location.
DVD:2	MSS	10/22/07	RJN_22_1a	15	14	18	387	09/27/07	CIPP Lining			Large rock/concrete block needs to be removed, blocking ~60% of x-sectional area. Sags in line 3 locations, exposed and hanging gaskets multiple locations.

SUMMARY OF TV INSPECTION DATA REVIEW
D/FW AIRPORT CONTRACT NO. 8002182
SANITARY SEWER SYSTEM ASSESSMENT STUDY

HD/Type	Revd By	Revd Date	Filename	US Struct	DS Struct	Diam (In)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:2	MSS	10/22/07	RJN_23_1a	24	23	30	395	09/29/07	Point Repair by CIPP			Point Repair in 1 location due to active infiltration.
DVD:2	MSS	10/22/07	RJN_24_1a	25	24	30	185	09/29/07	None			Evidence of infiltration through mineral deposits 6 locations.
DVD:2	MSS	09/19/07	DFWAirport_19_1a	57	56	33	496	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout.
DVD:2	MSS	09/19/07	DFWAirport_20_1a	58	57	33	657	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout.
DVD:2	MSS	09/19/07	DFWAirport_21_1a	59	58	33	641	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout. Exposed gaskets in lower half of joint nearly every segment; there is high potential for infiltration.
DVD:2	MSS	09/19/07	DFWAirport_18_1a	60	59	33	605	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout.
DVD:2	MSS	09/19/07	DFWAirport_17_1a	61	60	33	690	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout.
DVD:2	MSS	09/19/07	DFWAirport_16_1a	62	61	33	460	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout.
DVD:2	MSS	09/19/07	DFWAirport_15_1a	63	62	33	464	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout. Line has run 40% full.
DVD:2	MSS	09/19/07	DFWAirport_13_1a	64	63	33	750	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout.
DVD:2	MSS	09/19/07	DFWAirport_14_1a	65	64	33	689	08/09/07	CIPP Lining			Heavy corrosion of concrete apparent throughout. Line has run 40% full.
DVD:2	MSS	09/18/07	DFWAirport_12_1a	66	65	33	536	08/08/07	CIPP Lining			Consider lining due to light longitudinal and circular cracking 25 locations. Line has run 40% full.
DVD:2	MSS	09/18/07	DFWAirport_11_1a	67	66	33	409	08/08/07	None			No repairs. Light longitudinal cracking 5 locations. Line has run 60% full.
DVD:2	MSS	09/18/07	DFWAirport_10_1a	68	67	33	521	08/08/07	None			No repairs. TV footage is poorly lit, 2 lightly offset joints, line has run 40% full throughout.
DVD:2	MSS	09/13/07	DFWAirport_9_1a	69	68	33	904	08/08/07	None			No repairs, minor cracking 3 locations. Line has run 50% full.
DVD:2	MSS	09/13/07	DFWAirport_8_1a	71	69	36	541	08/08/07	Point Repair	US	1+60-1+70	Point repair, light cracking 2 locations. Pipe has run 70% full.
DVD:2	MSS	10/22/07	RJN_12_1a	91	75	24	740	09/24/07	None			No repairs. Light active infiltration (.03GPM) 1 location. Light debris in line. Light to medium joint offset 3 locations. Inspection abandoned at offset joint. Reverse attempt see RJN 13_1a

**SUMMARY OF TV INSPECTION DATA REVIEW
D/FW AIRPORT CONTRACT NO. 8002182
SANITARY SEWER SYSTEM ASSESSMENT STUDY**

HD/Tape	Rev'd By	Rev'd Date	Filename	US Struct	DS Struct	Diam (in)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:2	MSS	10/22/07	RJN_13_1a	91	75	24	50	09/26/07	None			No repairs. Offset joint 2 locations. Inspection continued reverse setup from RJN 12_1a.
DVD:2	MSS	10/22/07	RJN_11_1a	92	91	24	800	09/24/07	Point Repair by CIPP	DS	6+77-6+87	1 potential point repair due to possible hole ~4" in wall - difficult to see. TV does not pan.
DVD:2	MSS	10/22/07	RJN_16_1a	94	93	24	648	09/25/07	None			No repairs. Minor deposits multiple locations. light
DVD:2	MSS	10/22/07	RJN_19_1a	95	94	24	735	09/26/07	None			No repairs. Mild sag in line 1 location.
DVD:2	MSS	10/22/07	RJN_17_1a	96	95	24	700	09/25/07	None			No repairs. Light sag in line 2 locations.
DVD:2	MSS	10/19/07	RJN_10_1a	99	98	24	587	09/23/07	None			No repairs. Active infiltration (0.1 GPM) 2 locations. Evidence of infiltration (inactive) 4 additional locations. Some joint deposits.
DVD:2	MSS	10/19/07	RJN_8_1a	102	101	24	803	09/21/07	None			No repairs. Minor debris in line 766.
DVD:2	MSS	09/19/07	DFWAirport_26_1a	108	107	24	975	08/16/07	None			No repairs. Minor cracking 2 locations.
DVD:2	MSS	09/19/07	DFWAirport_25_1a	109	108	24	606	08/10/07	None			No repairs. Minor to medium cracking 7 locations. No infiltration observed. Incorrectly marked on TV.
DVD:2	MSS	09/12/07	DFWAirport_7_1a	157	156	8	370	08/07/07	Complete Replacement			Replace due to broken pipe and heavy roots. Light to medium grease deposits in several locations, 4 sags in line, and line has run 70-80% full.
DVD:2	MSS	09/12/07	DFWAirport_6_1a	158	157	8	401	08/07/07	Point Repair by CIPP	US	1+60 - 1+70	One severe sag in line, pipe has run at 70% capacity. Active infiltration.
DVD:2	MSS	09/12/07	DFWAirport_5_1a	159	158	8	294	08/07/07	Point Repair by CIPP	DS	1+00-1+10	One point repair. Infiltration present and line has run at 40% capacity.
DVD:2	MSS	10/22/07	RJN_18_1a	1057	1056	18	143	09/25/07	None			No repairs. Mineral deposits at 8 joints may be evidence of infiltration. Surcharge evidence and heavy sag 1 location.
DVD:2	MSS	09/19/07	DFWAirport_24_1a	1068	109	24	61	08/10/07	None			No repairs. Minor longitudinal cracking 1 location. Parts of TV quite dark, incorrectly marked on TV.
DVD:2	MSS	09/19/07	DFWAirport_22_1a	1069	1068	20	649	08/10/07	None			No repairs. Line incorrectly marked on TV as "1060 to 109"
DVD:2	MSS	10/22/07	RJN_15_1a	2136	2137	12	448	09/24/07	None			No repairs. 2 long sags may be an issue, cam submerged for long periods of time. Light debris in line 3 locations.
DVD:2	MSS	10/22/07	RJN_14_1a	2137	2138	12	472	09/24/07	None			No repairs. Light sag in line 4 locations.
DVD:2	MSS	10/19/07	RJN_9_1a	2138	99	24	256	09/22/07	None			No repairs. Good condition.

SUMMARY OF TV INSPECTION DATA REVIEW
D/FW AIRPORT CONTRACT NO. 8002182
SANITARY SEWER SYSTEM ASSESSMENT STUDY

HD/Type	Revd By	Revd Date	Filename	US Struct un-named "T"	DS Struct	Diam (In)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:2	MSS	09/19/07	DFWAirport_23_1a		1069	20	423	08/10/07	None			No repairs. Minor longitudinal and circular cracking 3 locations. Inspection abandoned due to camera slipping.
DVD:3	MSS	09/20/07	DFWAirport_27_1a	107	106	24	414	08/17/07	None			No repairs. Minor cracking 2 locations.
DVD:3	MSS	09/21/07	DFWAirport_39_1a	124	123	21	223	08/25/07	None			No repairs.
DVD:3	MSS	09/20/07	DFWAirport_30_1a	125	124	24	500	08/21/07	None			No repairs. Cleaning removed significant rock and gravel debris.
DVD:3	MSS	09/20/07	DFWAirport_28_1a	126A	125A	24	378	08/20/07	None			No repairs.
DVD:3	MSS	09/20/07	DFWAirport_31_1a	127	126	24	469	08/22/07	None			No repairs. Pipe has run 25% full.
DVD:3	MSS	09/21/07	DFWAirport_38_1a	210	208	18	615	08/24/07	Point Repair by CIPP	US	1+85-1+95 3+65-3+75	Point repairs. Minor cracking throughout, infiltration observed.
DVD:3	MSS	09/21/07	DFWAirport_36_1a	212	212A	18	432	08/24/07	Point Repair	US	0+40-0+55	Point repair due to separated cracks, broken pipe, and external pipe in line. Medium cracking 32 locations, hanging gasket at DSMH.
DVD:3	MSS	09/20/07	DFWAirport_32_1a	214	214A	15	350	08/22/07	Point Repair	US	2+14-2+24	1 point repair due to active infiltration (.5GPM) at joint. Debris noted in laterals coming from north and south. Minor cracking 2 locations. Incorrectly marked on TV.
DVD:3	MSS	09/20/07	DFWAirport_33_1a	215	1074	18	259	08/23/07	None			No repairs. Line has run 35% full. Minor cracking 1 location.
DVD:3	MSS	10/23/07	RJN_34_1a	1022	1023	10	64	10/11/07	Point Repair by CIPP	DS	0+00-0+10	1 point repair due to broken pipe with soil visible beyond. Light offset 1 location. Line has run 50% full.
DVD:3	MSS	10/23/07	RJN_35_1a	1023	1024	10	173	10/12/07	Point Repair	US	0+55-0+65	1 point repair or point lining due to active infiltration (.10GPM) and cracking at 1 joint. Light-medium joint offsets 5 locations, sag in line 3 locations.
DVD:3	MSS	10/23/07	RJN_36_1a	1024	1025	10	63	10/12/07	None			No repairs. 50 foot sag in line, light joint offset 1 location. Line has run 90% full.
DVD:3	MSS	10/23/07	RJN_37_1a	1025	1026	10	151	10/12/07	None			No repairs. Sag in line 2 locations. Line has run 60% full.
DVD:3	MSS	10/23/07	RJN_27_1a	1027	1028	10	294	10/04/07	Point Repair then CIPP	US	1+47	Point repairs or lining due to broken pipe, active infiltration (.01GPM), hole in pipe, and separated cracks. Multiple offset joints, cracks in line, light deposits, and medium-heavy sags 4 locations.
DVD:3	MSS	10/23/07	RJN_29_1a	1028	1028A	10	146	10/05/07	None			No repairs. Cam submerged several times due to sags, light cracking 1 location, active infiltration (.01GPM) 1 location. Line has run 55% full.
DVD:3	MSS	10/23/07	RJN_31_1a	1029	1030	10	63	10/09/07	None			No repair. Some cracking, light-medium encrustations 2 locations, this line has run 100% full.

SUMMARY OF TV INSPECTION DATA REVIEW
D/FW AIRPORT CONTRACT NO. 8002182
SANITARY SEWER SYSTEM ASSESSMENT STUDY

HD/Tape	Rev'd By	Rev'd Date	Filename	US Struct	DS Struct	Diam (In)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:3	MSS	10/23/07	RJN_33_1a	1030	1031	10	170	10/11/07	None			No repairs. Light joint offsets 2 locations, sag in line 2 locations. This line has run 70-80% full.
DVD:3	MSS	10/23/07	RJN_32_1a	1031	1032	10	64	10/10/07	None			No repairs. Light cracking & deposits 2 locations, light joint offset 3 locations. Line has run 50% full. Incorrectly labeled on TV.
DVD:3	MSS	09/21/07	DFWAirport_34_1a	1074	214	18	483	08/23/07	None			No repairs. Minor cracking 1 location.
DVD:3	MSS	10/23/07	RJN_30_1a	1028A	1029	10	106	10/05/07	None			Light debris remains in line after cleaning, heavy sag in line 1 location. Line has run 60-75% full.
DVD:3	MSS	10/25/07	DFWAirport_29_1a	125A	125	24	109	08/20/07	None			No repairs.
DVD:3	MSS	09/21/07	DFWAirport_37_1a	212A	210	18	342	08/24/07	Point Repair by CIPP	US	1+00-1+10	1 point repair due to active infiltration (0.6GPM).
DVD:3	MSS	09/21/07	DFWAirport_35_1a	214A	212	15	395	08/23/07	CIPP Lining			Cracking at over 29 locations, 3 areas cracks are separated, no infiltration observed. Broken pipe 1 location. USMH is new MH located in Fed-Ex parking.
DVD:4	MSS	09/24/07	DFWAirport_43_1a	18	17	18	716	08/29/02	None			No repairs. High flow 75-90% at many points in line, minor cracking at 12 locations. No separation or infiltration observed.
DVD:4	MSS	09/24/07	DFWAirport_42_1a	19	17	18	137	08/28/07	Point Repair by CIPP	US	0+55-0+65	Point repair. Multiple cracks throughout. Survey abandoned prior to DSMH.
DVD:4	MSS	09/24/07	DFWAirport_44_1a	161	160	8	403	08/30/07	Point Repair by CIPP	US	0+00-0+10 2+90-3+00	2 point repairs needed, should be completely rehabilitated due to hole in pipe, broken pipe, and separated offset joints. Cracking throughout and alignment and grade changes.
DVD:4	MSS	09/21/07	DFWAirport_41_1a	206	207	18	735	08/28/07	Point Repair by CIPP	US	2+00-2+10 6+90-7+10	2 point repairs due to broken pipe. Multiple minor cracks at 25 locations.
DVD:4	MSS	09/21/07	DFWAirport_40_1a	208	206	18	861	08/27/07	None			No repairs. 19 minor cracks and 3 joint offset throughout line.
DVD:4	MSS	10/29/07	RJN_45_1a	1012	1013	10	313	10/24/07	Point Repair	US	0+00-0+15	1 point repair due to broken pipe and hole in pipe. Offset joints 3 locations, minor cracking 4 locations. Cam submerged near DSMH.
DVD:4	MSS	10/29/07	RJN_46_1a	1013	1014	10	298	10/24/07	Point Repair by CIPP	DS	0+00-0+10	1 point repair due to broken pipe and hole in pipe. Offset joints 3 locations, sag 1 location. Line has run 95% full.
DVD:4	MSS	10/29/07	RJN_47_1a	1014	1015	10	296	10/24/07	Point Repair by CIPP	US	0+00-0+10 1+55-1+65	2 point repairs due to broken pipe. Offset at joint 2 locations, minor cracking 3 locations, sag in line 2 locations. Drop connection at DSMH. Line has run 65% full.
DVD:4	MSS	10/29/07	RJN_48_1a	1015	25	10	115	10/25/07	None			No repairs. Cam submerged for most of footage. Inspection abandoned due to blockage in pipe.

**SUMMARY OF TV INSPECTION DATA REVIEW
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HD/Type	Rev'd By	Rev'd Date	Filename	US Struct	DS Struct	Diam (In)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:4	MSS	10/29/07	RJN_39_1a	1016	1017	10	302	10/22/07	Point Repair by CIPP	US	0+00-0+15	2 point repairs due to collapsed and broken pipe locations. Offset joints 2 locations, minor cracking 2 locations. Line has run 50% full.
DVD:4	MSS	10/29/07	RJN_40_1a	1017	1018	10	306	10/23/07	None			No repairs. Offset joint 3 locations, light cracking 1 location. Line has run 65% full.
DVD:4	MSS	10/29/07	RJN_41_1a	1018	1019	10	7	10/23/07	None			No repairs. Light circular cracking and joint offset. Inspection abandoned at US drop MH.
DVD:4	MSS	10/29/07	RJN_42_1a	1018	1019	10	296	10/23/07	None			No repairs. Offset joint 4 locations, exposed gasket 2 locations, minor cracking 1 location. DSMH is a drop MH.
DVD:4	MSS	10/29/07	RJN_43_1a	1019	27	10	314	10/23/07	None			Broken pipe at joint. Offset joint 4 locations, 1 sag, minor circular cracking 1 location.
DVD:4	MSS	10/29/07	RJN_38_1a	1021	1022	10	255	10/20/07	None			No repairs. Light - medium offsets 3 locations. TV lens obscured at end of segment. Line has run 95% full.
DVD:4	MSS	09/24/07	DFWAirport_47_1a	1061	1060	10	306	08/31/07	Point Repair by CIPP	DS	0+00-0+10	1 point repair due to broken pipe at joint. Some cracking and grade changes in line.
DVD:4	MSS	09/24/07	DFWAirport_46_1a	1062	1061	8	298	08/30/07	None			No repairs. Some cracking, grade changes, and offset joints.
DVD:4	MSS	09/24/07	DFWAirport_45_1a	1063	1062	8	362	08/30/07	Point Repair	DS	2+84-2+94	1 point repair due to hole in pipe. 4 light-medium offset joints this line. Line has run 50% full.
DVD:5	MSS	09/28/07	DFWAirport_54_1a	1034	1035	10	302	09/06/07	None			No repairs. Light grease deposits throughout line. Line has run 60% full.
DVD:5	MSS	09/28/07	DFWAirport_55_1a	1035	1036	10	7	09/06/07	None			No repairs. TV inspection abandoned due to cam flipped at bend in pipe. Line has run 45% full. SEE DFWAirport_60_1a for second attempt.
DVD:5	MSS	09/28/07	DFWAirport_57_1a	1036	1037	12	303	09/07/07	Point Repair by CIPP	US	0+40-0+50	1 point repair. Minor cracking and medium encrustations at some points.
DVD:5	MSS	09/28/07	DFWAirport_58_1a	1037	1037A	12	157	09/07/07	None			No repairs. Light encrustations not completely removed by jetting. High flow several points. Line has run 70% full.
DVD:5	MSS	09/28/07	DFWAirport_52_1a	1039	1040	10	303	09/06/07	None			No repairs. Wide variation of flow level, evidence of surcharging.
DVD:5	MSS	09/28/07	DFWAirport_53_1a	1040	1041	10	303	09/06/07	None			No repairs. Cleaning removed significant debris.
DVD:5	MSS	09/28/07	DFWAirport_49_1a	1064	1065	8	304	09/04/07	Point Repair	DS	0+02-0+12 1+04-1+14	2 point repairs due to broken pipe and active infiltration. Cracking and one alignment change throughout line.
DVD:5	MSS	09/28/07	DFWAirport_50_1a	1065	1066	10	301	09/05/07	None			No repairs. Some changes in flow level throughout pipe, line has run 60% full.

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SANITARY SEWER SYSTEM ASSESSMENT STUDY

HD/Tape	Rev'd By	Rev'd Date	Filename	US Struct	DS Struct	Diam (In)	Televised Length (ft)	Televised Date	Recommendation	PR from US or DS?	PR Stationing	Television Review Comments
DVD:5	MSS	09/28/07	DFWAirport_51_1a	1066	1067	10	308	09/05/07	None			No repairs. Sag in line apparent 2 locations. Line has run 70-100% full.
DVD:5	MSS	09/28/07	DFWAirport_59_1a	1037A	1038	12	138	09/07/07	None			No repairs. Cleaning removed medium debris and deposits. Inspection abandoned at 138'.
DVD:5	MSS	09/28/07	DFWAirport_48_1a	214A	lateral	8	-	09/04/07	None			No repairs. TV ends pre-inspection.
DVD:6	MSS	10/02/07	DFWAirport_78_1a	122	29	24	1168	09/13/07	CIPP Lining			Complete rehab. 15 potential point repairs due to active infiltration (.01-.20GPM) at joints. Light encrustations and deposits at several locations, minor cracking.
DVD:6	MSS	10/02/07	DFWAirport_81_1a	149	122	24	602	09/14/07	CIPP Lining	US		3 potential point repairs due to active infiltration (.05GPM) sites. Minor cracking at 12 locations.
DVD:6	MSS	10/01/07	DFWAirport_72_1a	1002	1001	15	580	09/12/07	None			No repairs. Minor sag in line 1 location, line has run 80% full.
DVD:6	MSS	10/01/07	DFWAirport_71_1a	1003	1002	15	713	09/12/07	None			No repairs. Sag in 2 locations, max flow level 50% 1 location.
DVD:6	MSS	10/01/07	DFWAirport_70_1a	1004	1003	12	527	09/11/07	None			No repair, joint partially separated.
DVD:6	MSS	10/01/07	DFWAirport_69_1a	1005	1004	12	47	09/11/07	None			No repairs.
DVD:6	MSS	10/01/07	DFWAirport_68_1a	1006	1005	12	153	09/11/07	None			No repairs. Medium grade change 1 location. Line has run 85% full.
DVD:6	MSS	10/01/07	DFWAirport_67_1a	1007	1006	12	91	09/11/07	None			Minor debris in line 2 locations.
DVD:6	MSS	10/01/07	DFWAirport_64_1a	1008	1007	8	109	09/11/07	None			No repairs.
DVD:6	MSS	10/01/07	DFWAirport_63_1a	1009	1008	8	542	09/11/07	None			No repairs.
DVD:6	MSS	09/28/07	DFWAirport_62_1a	1010	1009	8	500	09/10/07	None			No repairs. USMH trough appears disconnected or broken.
DVD:6	MSS	09/28/07	DFWAirport_61_1a	1011	1010	8	498	09/10/07	Point Repair by CIPP	US	0+95-1+05	1 point repair due to hole in pipe and 2 offset joints.
DVD:6	MSS	10/02/07	DFWAirport_80_1a	1042	1035	6	60	09/14/07	None			No repairs. Inspection abandoned as cam will not fit around bend in pipe.
DVD:6	MSS	10/01/07	DFWAirport_75_1a	1046	1047	8	495	09/12/07	See Triturator rpt.			Evidence of surcharging for extended periods, line has run 100% full several locations, several sags in pipe.
DVD:6	MSS	10/02/07	DFWAirport_76_1a	1047	1048	8	301	09/13/07	None			No repairs. Light deposits and encrustations as evidence of prolonged surcharging, line has run at 100% capacity several points in line.
DVD:6	MSS	10/02/07	DFWAirport_77_1a	1048	1049	8	294	09/13/07	None			No repairs. Evidence of prolonged surcharging, max flow mark 100% several locations.
DVD:6	MSS	10/02/07	DFWAirport_79_1a	1051	1050	6	292	09/14/07	None			No repair. Slight sag 1 location.
DVD:6	MSS	10/01/07	DFWAirport_65_1a	1052	1077	6	209	09/11/07	None			No repairs. Line has run 100% full and there is evidence of surcharging.
DVD:6	MSS	10/01/07	DFWAirport_73_1a	1076	1046A	8	100	09/12/07	None			No repairs. Identified new MH 1046A.
DVD:6	MSS	10/01/07	DFWAirport_66_1a	1077	1051	6	211	09/11/07	None			No repairs.
DVD:6	MSS	10/01/07	DFWAirport_74_1a	1046A	1046	8	299	09/12/07	None			No repairs. Line has run 55% full.

SUMMARY OF TV INSPECTION DATA REVIEW
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DVD:7	MSS	10/18/07	DFWAirport_88_1a	9	8	21	395	09/28/07	None			No repairs. Minor cracking and encrustations several locations.
DVD:7	MSS	10/18/07	DFWAirport_89_1a	9	1056	21	142	09/28/07	Point Repair by CIPP	DS	0+75-0+85	1 point repair due to broken pipe and separated crack in pipe. Severe sag in line 1 location, light mineral deposits at several joints, some minor cracking.
DVD:7	MSS	10/18/07	DFWAirport_92_1a	23	1001	30	135	09/30/07	Point Repair by CIPP	US	0+81-0+91	1 point repair due to broken pipe and heavy separated cracking. Minor cracking throughout, line has run 40% full.
DVD:7	MSS	10/18/07	DFWAirport_91_1a	30	29	18	262	09/30/07	Point Repair by CIPP	US	1+33-1+43	1 point repair due to active infiltration (.05GPM). Light mineral deposits several joints.
DVD:7	MSS	10/18/07	DFWAirport_86_1a	75	74	24	614	09/27/07	None			No repairs. Several flow changes.
DVD:7	MSS	10/18/07	DFWAirport_87_1a	76	75	24	720	09/27/07	None			Medium-size rock and medium debris, impeding flow. Medium pipe offset.
DVD:7	MSS	10/18/07	DFWAirport_82_1a	97	96	24	480	09/24/07	None			No repairs. Minor cracking 1 location.
DVD:7	MSS	10/18/07	DFWAirport_83_1a	98	97	24	590	09/24/07	None			No repairs.
DVD:7	MSS	10/18/07	DFWAirport_84_1a	150	150A	24	595	09/25/07	None			No repairs.
DVD:7	MSS	10/18/07	DFWAirport_90_1a	1001	22	30	812	09/29/07	None			No repair. Minor sag in line.
DVD:7	MSS	10/18/07	DFWAirport_93_1a	1038A	1038	10	150	10/02/07	None			No repairs. Minor cracking and light deposits. One sag, line has run 70% full.
DVD:7	MSS	10/18/07	DFWAirport_85_1a	c/o	1101	8	125	09/26/07	None			No repairs.
DVD:8	MSS	10/25/07	DFWAirport_101_1a	150	24	18	336	10/10/07	None			No repairs. Light active infiltration 1 location, light roots 1 location, light mineral deposits.
DVD:8	MSS	10/24/07	DFWAirport_100_1a	205	204	18	832	10/10/07	Point Repair by CIPP	US	0+30-0+50 4+44-4+54	2 point repairs due to broken pipe and separated cracks. Minor to medium cracking 11 locations and light joint offsets 2 locations.
DVD:8	MSS	10/24/07	DFWAirport_99_1a	206	205	18	788	10/08/07	Point Repair	US	2+55-2+65 7+40-7+65	2 point repairs due to broken pipe, separated cracks. Cracking and deposits throughout, multiple offset joints.
DVD:8	MSS	10/24/07	DFWAirport_98_1a	207	206	18	665	10/08/07	CIPP Lining			3 point repairs due to separated offset and separated cracks in pipe wall with possible active infiltration. Cleaning removed debris from line. Multiple cracks, encrustations, and offsets.
DVD:8	MSS	10/24/07	DFWAirport_94_1a	1020	1078	10	245	10/02/07	Point Repair	US	1+53	1 point repair due to separated cracks and broken pipe at break-in connection. Multiple joint offsets and cracking several locations. 4 sags apparent, this line has run 65-70% full.
DVD:8	MSS	10/24/07	DFWAirport_96_1a	1032	1033	10	148	10/30/07	None			Multiple offsets throughout, 1 sag in line. Line has run 70% full.

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DVD:8	MSS	10/24/07	DFWAirport_97_1a	1033	1034	10	315	10/04/07	None			No repairs, possibly heavy cleaning needed to remove medium debris from 2 locations. Several offset joints, hanging gasket 2 locations, and mineral deposits 1 location. Line has run 50-70% full.
DVD:8	MSS	10/24/07	DFWAirport_95_1a	1078	1021	10	59	10/02/07	None			No repairs. This line has run 50-100% full. Minor cracking, several offset joints, and medium sag in line.
DVD:8	MSS	10/25/07	DFWAirport_102_1a	204A	204B	15	603	10/12/07	None			No repairs. Light joint offsets 22 locations, light deposits and mineral deposits several locations at flow line.

**DFW AIRPORT SEWER CONDITION ASSESSMENT
TRITURATOR DISCHARGE
Contract No. 8002182**

DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
9/13/2007	9:15am	TRACTOR	13	N/A	MIDWEST SERVICE	N/A	YES	STREET SWEEPER - WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	9:28am	TRUCK	18052	N/A	A & A	100	NO	AMERICAN AIRLINES - TRUCK WASH BAY 15 GAL - 60 GAL BURST
9/13/2007	10:30am	TRUCK	18052	N/A	A & A	144	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	10:37am	TRUCK	22705	N/A	A & A	275	NO	AMERICAN AIRLINES - TRUCK WASH BAY 20 GAL - 60 GAL BURST
9/13/2007	11:35am	TRUCK	18052	N/A	A & A	100	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	11:45am	TRUCK	22703	N/A	A & A	100	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	12:00pm	TRUCK	18049	N/A	A & A	300	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	12:09pm	TRUCK	17570	N/A	A & A	100	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	12:15pm	TRUCK	17471	N/A	A & A	150	NO	AMERICAN AIRLINES - TRUCK WASH BAY 20 GAL - 60 GAL BURST
9/13/2007	12:22pm	TRUCK	17473	N/A	A & A	200	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	12:29pm	TRUCK	17474	N/A	A & A	100	NO	AMERICAN AIRLINES - TRUCK WASH BAY 15 GAL - 60 GAL BURST
9/13/2007	12:38pm	TRUCK	17472	N/A	A & A	300	YES	AMERICAN AIRLINES - TRUCK WASH BAY 25 GAL - 60 GAL BURST
9/13/2007	12:53pm	TRUCK	22703	N/A	A & A	150	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	1:00pm	TRUCK	22702	N/A	A & A	350	YES	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	1:15pm	TRUCK	17573	N/A	A & A	200	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	1:25pm	TRUCK	17474	N/A	A & A	200	NO	AMERICAN AIRLINES - TRUCK WASH BAY 15 GAL - 60 GAL BURST
9/13/2007	1:34pm	TRUCK	17473	N/A	A & A	175	NO	AMERICAN AIRLINES - TRUCK WASH BAY 15 GAL - 60 GAL BURST
9/13/2007	1:41pm	TRUCK	22704	N/A	A & A	200	NO	AMERICAN AIRLINES - TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/13/2007	2:10pm	TRUCK	117472	N/A	A & A	100	NO	AMERICAN AIRLINES - TRUCK WASH BAY 20 GAL - 60 GAL BURST

EACH TRUCK USES 20/40 GALLONS TO WASH BAY & TRUCK

9/13/2007	4:01pm	TRACTOR	13	N/A	MIDWEST SERVICE	100	NO	1/2 FULL STREET SWEEPER - 60 GAL BURST - 10 WASH DOWN
9/13/2007	4:48pm	TRUCK	18051	N/A	A & A	300	YES	ONE SEATER TRUCK 60 GAL BURST - 15 WASH DOWN
9/13/2007	5:29pm	TRUCK	17573	N/A	A & A	200	NO	60 GAL BURST 20 GAL WASH DOWN
9/13/2007	5:35pm	TRUCK	22705	N/A	A & A	300	NO	15 GAL WASH DOWN
9/13/2007	5:43pm	TRACTOR	13	N/A	MIDWEST SERVICE	100	NO	STREET SWEEPER 1/2 FULL The guy driving asked someone if's a 200 gal tank
9/13/2007	5:59pm	TRUCK	17569	N/A	A & A	300	YES	10 GAL WASH DOWN
9/13/2007	7:10pm	TRUCK	18052	N/A	A & A	300	YES	ONE SEATER TRUCK - 15 GAL WASH DOWN
9/13/2007	8:05pm	TRUCK	17470	N/A	A & A	300	YES	20 GAL WASH DOWN
9/13/2007	8:30pm	TRUCK	17472	N/A	A & A	250	NO	20 GAL WASH DOWN - 60 GAL BURST
9/13/2007	8:35pm	TRUCK	22705	N/A	A & A	100	NO	10 GAL WASH DOWN
9/13/2007	8:45pm	TRUCK	17589	N/A	A & A	300	YES	20 GAL WASH DOWN
9/13/2007	8:54pm	TRUCK	17573	N/A	A & A	300	YES	20 GAL WASH DOWN
9/13/2007	9:08pm	TRUCK	18051	N/A	A & A	200	NO	ONE SEATER 10 GAL WASH DOWN
9/13/2007	9:23pm	TRACTOR	13	N/A	MIDWEST SERVICE	100	NO	20 GAL WASH DOWN
9/13/2007	9:24pm	TRUCK	18529	N/A	A & A	150	NO	ONE SEATER 15 GAL WASH DOWN - 60 GAL BURST
9/13/2007	9:39pm	TRUCK	18049	N/A	A & A	300	YES	ONE SEATER 15 GAL WASH DOWN
9/13/2007	9:41pm	TRUCK	17471	N/A	A & A	200	NO	10 GAL WASH DOWN - 60 GAL BURST
9/13/2007	10:05pm	TRUCK	18052	N/A	A & A	100	NO	ONE SEATER 10 GAL WASH DOWN - 60 GAL BURST
9/13/2007	10:19pm	TRUCK	17573	N/A	A & A	60	NO	ONLY SERVICED ONE PLANE - 10 GAL WASH DOWN
9/13/2007	10:24pm	TRUCK	17388	N/A	A & A	100	NO	60 GAL BURST - 15 GAL WASH DOWN
9/13/2007	10:31pm	TRUCK	17572	N/A	A & A	300	YES	20 GAL WASH DOWN

EACH TRUCK USES 20/40 GALLONS TO WASH BAY & TRUCK
EACH HOLE HAS A 3/4 INCH INJECTION PIPE WITH A 3 MIN BURST OF WATER

9/14/2007	6:46am	TRUCK	17473	N/A	A & A	200	NO	AMERICAN AIRLINES TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/14/2007	12:43pm	TRUCK	17474	N/A	A & A	100	NO	AMERICAN AIRLINES TRUCK WASH BAY 15 GAL - 60 GAL BURST
9/14/2007	12:57pm	TRUCK	17570	N/A	A & A	300	YES	AMERICAN AIRLINES TRUCK WASH BAY 15 GAL - 60 GAL BURST

**DFW AIRPORT SEWER CONDITION ASSESSMENT
TRITURATOR DISCHARGE
Contract No. 8002182**

DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
9/14/2007	1:05pm	TRUCK	22702	N/A	A & A	250	NO	AMERICAN AIRLINES TRUCK WASH BAY 20 GAL - 60 GAL BURST
9/14/2007	1:11pm	TRUCK	13	N/A	MIDWEST SERVICE	200	YES	STREET SWEEPER
9/14/2007	1:42pm	TRUCK	17473	N/A	A & A	200	NO	AMERICAN AIRLINES TRUCK WASH BAY 10 GAL - 60 GAL BURST
9/14/2007	1:53pm	TRUCK	14725	N/A	A & A	300	YES	AMERICAN AIRLINES TRUCK WASH BAY 20 GAL - 60 GAL BURST

ABOUT 9:00AM TRITURATOR GATES CLOSED 9/14/07 - GATES OPEN BACK UP AT 12:30PM 9/14/07

9/14/2007	2:20	TRUCK	17573	N/A	A & A	100	NO	
9/14/2007	3:01	TRACTOR	13	N/A	MID WEST SERVICE	100	NO	STREET SWEEPER
9/14/2007	3:08	TRUCK	10173	N/A	A & A	150	NO	
9/14/2007	5:13	TRUCK	18048	N/A	A & A	300	YES	ONE SEATER
9/14/2007	5:15	TRUCK	17570	N/A	A & A	300	YES	
9/14/2007	5:57	TRACTOR	13	N/A	MID WEST SERVICE	100	NO	STREET SWEEPER
9/14/2007	6:01	TRUCK	18052	N/A	A & A	300	YES	ONE SEATER
9/14/2007	6:51	TRUCK	15588	N/A	A & A	300	YES	
9/14/2007	7:00	TRUCK	18051	N/A	A & A	300	YES	ONE SEATER
9/14/2007	7:05	TRUCK	17471	N/A	A & A	300	YES	
9/14/2007	7:26	TRUCK	17472	N/A	A & A	300	YES	
9/14/2007	7:32	TRUCK	18048	N/A	A & A	225	NO	ONE SEATER
9/14/2007	7:42	TRUCK	17570	N/A	A & A	150	NO	
9/14/2007	8:35	TRUCK	10173	N/A	A & A	300	YES	
9/14/2007	9:06	TRUCK	18051	N/A	A & A	100	NO	ONE SEATER
9/14/2007	9:12	TRUCK	18049	N/A	A & A	300	YES	ONE SEATER
9/14/2007	9:21	TRUCK	18048	N/A	A & A	300	YES	ONE SEATER
9/14/2007	9:53	TRUCK	17471	N/A	A & A	150	NO	
9/14/2007	9:57	TRUCK	17474	N/A	A & A	300	YES	
9/14/2007	10:07	TRUCK	10173	N/A	A & A	100	NO	
9/14/2007	10:21	TRUCK	17570	N/A	A & A	150	NO	

9/14/2007	10:26	TRUCK	22704	N/A	A & A	300	YES	NEW TRUCK TANK LOOKS BIGGER THAN OLD TRUCKS
9/14/2007	10:45	TRUCK	18527	N/A	A & A	200	NO	15 GAL TO WASH DOWN - 60 GAL BURST
9/15/2007	8:23	TRACTOR	13	N/A	MIDWEST SERVICE	200	YES	STREET SWEEPER 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	8:42	TRUCK	17470	N/A	A & A	300	YES	AMERICAN AIRLINES TRUCK 15 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	8:50	TRUCK	18527	N/A	A & A	250	NO	ONE SEATER TRUCK 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	9:26	TRUCK	22703	N/A	A & A	100	NO	AMERICAN AIRLINES TRUCK 20 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	9:34	TRACTOR	13	N/A	MIDWEST SERVICE	100	NO	STREET SWEEPER 20 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	10:16	TRUCK	17470	N/A	A & A	300	NO	AMERICAN AIRLINES TRUCK 20 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	11:35	TRUCK	18527	N/A	A & A	300	YES	ONE SEATER TRUCK 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	11:51	TRUCK	17470	N/A	A & A	300	NO	AMERICAN AIRLINES TRUCK 15 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	11:58	TRUCK	22703	N/A	A & A	250	NO	AMERICAN AIRLINES TRUCK 15 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	12:04	TRACTOR	13	N/A	MIDWEST SERVICE	200	YES	STREET SWEEPER 15 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	12:39	TRUCK	17471	N/A	A & A	200	NO	AMERICAN AIRLINES TRUCK 25 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	12:48	TRUCK	22705	N/A	A & A	300	NO	AMERICAN AIRLINES TRUCK 15 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	12:54	TRACTOR	13	N/A	MIDWEST SERVICE	200	YES	STREET SWEEPER 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	1:00	TRUCK	17470	N/A	A & A	250	NO	AMERICAN AIRLINES TRUCK 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	1:07	TRUCK	17569	N/A	A & A	250	NO	AMERICAN AIRLINES TRUCK 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	1:17	TRUCK	13388	N/A	A & A	200	NO	AMERICAN AIRLINES TRUCK 10 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	1:34	TRUCK	22703	N/A	A & A	200	NO	AMERICAN AIRLINES TRUCK 15 GAL TO WASH BAY - 60 GAL BURST
9/15/2007	1:41	TRUCK	17480	N/A	A & A	200	NO	AMERICAN AIRLINES TRUCK 20 GAL TO WASH BAY - 60 GAL BURST

**DFW AIRPORT SEWER CONDITION ASSESSMENT
TRITURATOR DISCHARGE
Contract No. 8002182**

DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
9/15/2007	4:51	TRUCK	17473	N/A	A & A	100	NO	10 GAL WASH DOWN
9/15/2007	5:46	TRUCK	18048	N/A	A & A	300	YES	ONE SEATER 30 GAL WASH DOWN
9/15/2007	5:57	TRUCK	22705	N/A	A & A	300	YES	15 GAL WASH DOWN - 60 GAL BURST
9/15/2007	6:22	TRUCK	10173	N/A	A & A	150	NO	10 GAL WASH DOWN - 60 GAL BURST
9/15/2007	6:34	TRUCK	17471	N/A	A & A	150	NO	10 GAL WASH DOWN
9/15/2007	6:46	TRUCK	22702	N/A	A & A	100	NO	15 GAL WASH DOWN - 60 GAL BURST
9/15/2007	7:45	TRUCK	18051	N/A	A & A	300	YES	ONE SEATER 20 GAL WASH DOWN
9/15/2007	8:41	TRUCK	17471	N/A	A & A	300	YES	30 GAL WASH DOWN - 60 GAL BURST
9/15/2007	8:47	TRUCK	10173	N/A	A & A	100	NO	10 GAL WASH DOWN - 60 GAL BURST
9/15/2007	8:59	TRUCK	17572	N/A	A & A	200	NO	20 GAL WASH DOWN
9/15/2007	9:05	TRUCK	18048	N/A	A & A	300	YES	ONE SEATER 20 GAL WASH DOWN - 60 GAL BURST
9/15/2007	9:15	TRUCK	17470	N/A	A & A	150	NO	10 GAL WASH DOWN - 60 GAL BURST
9/15/2007	9:23	TRUCK	17473	N/A	A & A	100	NO	10 GAL WASH DOWN
9/15/2007	9:25	TRUCK	17570	N/A	A & A	300	YES	30 GAL WASH DOWN - 60 GAL BURST
9/15/2007	9:30	TRUCK	13631	N/A	A & A	300	YES	20 GAL WASH DOWN
9/15/2007	9:45	TRUCK	18049	N/A	A & A	300	YES	ONE SEATER 20 GAL WASH DOWN
9/15/2007	10:00	TRUCK	22705	N/A	A & A	150	NO	10 GAL WASH DOWN - 60 GAL BURST
9/15/2007	10:17	TRUCK	17471	N/A	A & A	100	NO	10 GAL BURST
9/16/2007	6:40	TRUCK	17470	N/A	A & A	200	NO	20 GAL WASH DOWN
9/16/2007	6:45	TRUCK	18049	N/A	A & A	300	YES	ONE SEATER 30 GAL WASH DOWN
9/16/2007	6:51	TRUCK	17474	N/A	A & A	200	NO	15 GAL WASH DOWN
9/16/2007	6:58	TRUCK	10173	N/A	A & A	250	NO	WASH BAY 10 GAL - 60 GAL BURST
9/16/2007	8:22	TRUCK	17471	N/A	A & A	300	YES	WASH BAY 10 GAL - 60 GAL BURST
9/16/2007	8:34	TRUCK	17470	N/A	A & A	300	YES	WASH BAY 20 GAL - 60 GAL BURST
9/16/2007	9:38	TRACTOR	50504	N/A	A & A	100	YES	WASH BAY 12 GAL - 60 GAL BURST
9/16/2007	9:44	TRUCK	18049	N/A	A & A	250	NO	ONE SEATER WASH BAY 15 GAL - 60 GAL BURST
9/16/2007	10:05	TRACTOR	14	N/A	MIDWEST SERVICE	100	YES	STREET SWEEPER
9/16/2007	10:20	TRUCK	17470	N/A	A & A	200	NO	WASH BAY 10 GAL - 60 GAL BURST
9/16/2007	11:40	TRUCK	18049	N/A	A & A	250	NO	ONE SEATER WASH BAY 15 GAL - 60 GAL BURST
9/16/2007	11:46	TRUCK	17470	N/A	A & A	300	YES	WASH BAY 30 GAL - 60 GAL BURST
9/16/2007	11:55	TRUCK	17474	N/A	A & A	200	NO	WASH BAY 10 GAL - 60 GAL BURST
9/16/2007	12:03	TRUCK	10175	N/A	A & A	300	YES	WASH BAY 15 GAL - 60 GAL BURST
9/16/2007	12:28	TRUCK	22705	N/A	A & A	200	NO	WASH BAY 10 GAL - 60 GAL BURST
9/16/2007	12:42	TRUCK	17572	N/A	A & A	300	YES	WASH BAY 10 GAL - 60 GAL BURST
9/16/2007	12:49	TRUCK	18529	N/A	A & A	300	YES	ONE SEATER WASH BAY 25 GAL - 60 GAL BURST
9/16/2007	12:54	TRUCK	17470	N/A	A & A	200	NO	WASH BAY 20 GAL - 60 GAL BURST
9/16/2007	1:31	TRUCK	22703	N/A	A & A	300	YES	WASH BAY 25 GAL - 60 GAL BURST
9/16/2007	2:10	TRUCK	17472	N/A	A & A	100	NO	WASH BAY 15 GAL - 60 GAL BURST
9/16/2007	4:11	TRUCK	14591	N/A	A & A	50	NO	ONE PLANE 60 GAL BURST 20
9/16/2007	4:31	TRUCK	18048	N/A	A & A	300	YES	ONE SEATER 10 GAL WASH DOWN
9/16/2007	5:11	TRUCK	17570	N/A	A & A	300	YES	10 GAL WASH DOWN
9/16/2007	5:15	TRUCK	17471	N/A	A & A	300	YES	20 GAL WASH DOWN 60 GAL BURST
9/16/2007	5:44	TRUCK	22704	N/A	A & A	300	YES	40 GAL WASH DOWN
9/16/2007	6:13	TRUCK	10173	N/A	A & A	150	NO	1/2 - 15 GAL WASH DOWN - 60 GAL BURST
9/16/2007	7:05	TRUCK	18048	N/A	A & A	200	NO	10 GAL WASH DOWN

**DFW AIRPORT SEWER CONDITION ASSESSMENT
TRITURATOR DISCHARGE
Contract No. 8002182**

DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
9/16/2007	7:33	TRUCK	22705	N/A	A & A	150	NO	20 GAL WASH DOWN - 60 GAL BURST
9/16/2007	7:35	TRUCK	18051	N/A	A & A	250	NO	ONE SEATER 30 GAL WASH DOWN
9/16/2007	8:00	TRUCK	18052	N/A	A & A	50	NO	ONE SEATER 10 GAL WASH DOWN
9/16/2007	8:15	TRUCK	17471	N/A	A & A	300	YES	20 GAL WASH DOWN - 60 GAL BURST
9/16/2007	8:33	TRUCK	22702	N/A	A & A	100	NO	10 GAL WASH DOWN
9/16/2007	8:34	TRUCK	14591	N/A	A & A	300	YES	30 GAL WASH DOWN - 60 GAL BURST
9/16/2007	9:04	TRUCK	17570	N/A	A & A	300	YES	20 GAL WASH DOWN
9/16/2007	9:06	TRUCK	17472	N/A	A & A	50	NO	ONE PLANE 10 GAL WASH DOWN - 60 GAL BURST
9/16/2007	9:12	TRUCK	17573	N/A	A & A	300	YES	20 GAL WASH DOWN - 60 GAL BURST
9/16/2007	9:13	TRUCK	13631	N/A	A & A	300	YES	30 GAL WASH DOWN
9/16/2007	9:44	TRUCK	18049	N/A	A & A	300	YES	ONE SEATER 50 GAL WASH DOWN
9/16/2007	9:56	TRUCK	18051	N/A	A & A	170	NO	ONE SEATER 20 GAL WASH DOWN
9/16/2007	10:06	TRUCK	17471	N/A	A & A	150	NO	1/2 10 GAL WASH DOWN - 60 GAL BURST

9/20/2007	8:44	TRUCK	14725	N/A	A & A	200	NO	20 GAL WASH BAY - 60 GAL BURST
9/20/2007	10:58	TRUCK	18048	N/A	A & A	300	YES	10 GAL WASH BAY - 60 GAL BURST
9/20/2007	11:34	TRUCK	17472	N/A	A & A	300	YES	10 GAL WASH BAY - 60 GAL BURST
9/20/2007	11:48	TRUCK	17669	N/A	A & A	300	YES	15 GAL WASH BAY - 60 GAL BURST
9/20/2007	12:04	TRUCK	17572	N/A	A & A	200	NO	15 GAL WASH BAY - 60 GAL BURST
9/20/2007	12:21	TRUCK	22705	N/A	A & A	300	YES	20 GAL WASH BAY - 60 GAL BURST
9/20/2007	1:26	TRUCK	22704	N/A	A & A	300	YES	15 GAL WASH BAY - 60 GAL BURST
9/20/2007	1:34	TRUCK	18052	N/A	A & A	200	NO	ONE SEATER 30 GAL WASH BAY - 60 GAL BURST
9/20/2007	1:36	TRUCK	18048	N/A	A & A	250	NO	ONE SEATER 80 GAL WASH BAY - 60 GAL BURST
9/20/2007	2:47	TRUCK	25192	N/A	PENINSULA SERVICE	150	NO	30 GAL WASH DOWN
9/20/2007	3:39	TRUCK	17474	N/A	A & A	100	NO	DIDN'T WASH DOWN
9/20/2007	4:07	TRUCK	22702	N/A	A & A	150	NO	10 GAL WASH DOWN
9/20/2007	4:56	TRUCK	18527	N/A	PENINSULA SERVICE	300	YES	ONE SEATER
9/20/2007	5:05	TRUCK	LV-1	N/A	CONTINENTAL	150	YN	NO WASH DOWN OR BURST
9/20/2007	5:07	TRUCK	17569	N/A	A & A	150	NO	20 GAL WASH DOWN
9/20/2007	5:33	TRUCK	25182	N/A	CONTINENTAL	200	NO	10 GAL WASH DOWN
9/20/2007	5:55	TRUCK	22704	N/A	A & A	150	NO	15 GAL WASH DOWN
9/20/2007	6:23	TRUCK	17659	N/A	A & A	100	NO	25 GAL WASH DOWN
9/20/2007	6:48	TRUCK	13853	N/A	A & A	150	NO	20 GAL WASH DOWN
9/20/2007	7:14	TRUCK	22702	N/A	A & A	200	NO	30 GAL WASH DOWN - 60 GAL BURST
9/20/2007	8:13	TRUCK	17570	N/A	A & A	250	NO	20 GAL WASH DOWN

SOUTHERN HOLE HAS A CONSTANT LEAK AROUND 1.5 GAL PER MIN., ITS COMING FROM METAL COVER, LOOKS LIKE A VALVE BOX LID COULD NOT LIFT

9/20/2007	9:20	TRUCK	17569	N/A	A & A	200	NO	20 GAL WASH DOWN
9/20/2007	9:40	TRUCK	22702	N/A	A & A	150	NO	20 GAL WASH DOWN
9/20/2007	9:49	TRUCK	10173	N/A	A & A	200	NO	10 GAL WASH DOWN - 60 GAL BURST
9/20/2007	9:52	TRUCK	17572	N/A	A & A	300	YES	30 GAL WASH DOWN
9/20/2007	9:56	TRUCK	13852	N/A	A & A	200	NO	20 GAL WASH DOWN
9/20/2007	10:20	TRUCK	18527	N/A	A & A	300	YES	40 GAL WASH DOWN - 60 GAL BURST
9/21/2007	7:30	TRUCK	LVF-041	N/A	WORLDWIDE FLIGHT SERVICE	300	YES	ONE SEATER 15 GAL WASH BAY
9/21/2007	8:14	TRUCK	17472	N/A	A & A	200	NO	20 GAL WASH DOWN - 60 GAL BURST
9/21/2007	9:35	TRUCK	13631	N/A	A & A	150	NO	15 GAL WASH BAY - 60 GAL BURST
9/21/2007	9:40	TRUCK	17569	N/A	A & A	300	YES	10 GAL WASH BAY
9/21/2007	10:41	TRUCK	P59266	N/A	AMERICAN EAGLE	150	YES	50 GAL WASH BAY

**DFW AIRPORT SEWER CONDITION ASSESSMENT
TRITURATOR DISCHARGE
Contract No. 8002182**

DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
9/21/2007	11:37	TRUCK	22705	N/A	A & A	300	YES	40 GAL WASH BAY - 60 GAL BURST
9/21/2007	12:15	TRUCK	13388	N/A	A & A	300	YES	15 GAL WASH BAY - 60 GAL BURST
9/21/2007	12:15	TRUCK	17572	N/A	A & A	150	NO	40 GAL WASH BAY
9/21/2007	12:42	TRUCK	22702	N/A	A & A	300	YES	10 GAL WASH BAY - 60 GAL BURST
9/21/2007	12:51	TRUCK	18990	N/A	A & A	200	NO	ONE SEATER 20 GAL WASH BAY
9/21/2007	12:56	TRUCK	17472	N/A	A & A	300	YES	50 GAL WASH BAY
9/21/2007	1:10	TRUCK	22704	N/A	A & A	300	YES	20 GAL WASH BAY - 60 GAL BURST
9/21/2007	1:28	TRUCK	13388	N/A	A & A	300	YES	40 GAL WASH BAY
9/21/2007	1:41	TRUCK	18052	N/A	A & A	200	NO	15 GAL WASH BAY - 60 GAL BURST
9/21/2007	1:48	TRUCK	18048	N/A	A & A	300	YES	20 GAL WASH BAY - 60 GAL BURST
9/21/2007	3:04	TRUCK	17472	N/A	A & A	100	NO	30 GAL WASH DOWN
9/21/2007	3:14	TRUCK	N/A (F350)	N/A	AMERICA WEST AIRLINES	300	YES	NO WASH DOWN DUMPING DRINKING WATER ONLY
9/21/2007	4:22	TRUCK	13388	N/A	A & A	300	YES	20 GAL WASH DOWN
9/21/2007	4:55	TRUCK	107862	N/A	CONTINENTAL	300	YES	60 GAL WASH DOWN
9/21/2007	6:14	TRUCK	17473	N/A	A & A	150	NO	20 GAL WASH DOWN
9/21/2007	6:35	TRUCK	13853	N/A	A & A	300	YES	10 GAL WASH DOWN
9/21/2007	6:53	TRUCK	PS9266	N/A	AMERICAN EAGLE	200	YES	40 GAL WASH DOWN
9/21/2007	7:35	TRUCK	N/A (F350)	N/A	AMERICA WEST AIRLINES	300	YES	50 GAL WASH DOWN
9/21/2007	8:16	TRUCK	22704	N/A	A & A	300	YES	30 GAL WASH DOWN
9/21/2007	8:25	TRUCK	18052	N/A	A & A	150	NO	60 GAL WASH DOWN - 60 GAL BURST ONE SEATER
9/21/2007	8:25	TRUCK	17572	N/A	A & A	300	YES	40 GAL WASH DOWN
9/21/2007	9:41	TRUCK	17473	N/A	A & A	200	NO	70 GAL WASH DOWN
9/21/2007	9:43	TRUCK	N/A (F350)	N/A	AMERICA WEST AIRLINES	100	NO	20 GAL WASH DOWN
9/21/2007	10:25	TRUCK	17569	N/A	A & A	60	NO	40 GAL WASH DOWN
9/22/2007	7:32	TRUCK	11	N/A	MID WEST SERVICE	100	YES	STREET SWEEPER
9/22/2007	8:40	TRUCK	17570	N/A	A & A	300	YES	40 GAL WASH DOWN
9/22/2007	8:47	TRUCK	17473	N/A	A & A	200	NO	30 GAL WASH DOWN - 60 GAL BURST
9/22/2007	9:22	TRUCK	18048	N/A	A & A	300	YES	ONE SEATER
9/22/2007	9:31	TRAILER	21860	N/A	A & A	250	NO	
9/22/2007	10:32	TRUCK	22703	N/A	A & A	200	NO	50 GAL WASH DOWN - 60 GAL BURST
9/22/2007	10:37	TRUCK	431	N/A	MID WEST SERVICE	100	NO	30 GAL WASH DOWN
9/22/2007	11:56	TRAILER	LVC-002	N/A	WORLDWIDE FLIGHT SERVICE	150	NO	
9/22/2007	12:02	TRUCK	17471	N/A	A & A	300	YES	20 GAL WASH BAY - 60 GAL BURST
9/22/2007	12:15	TRUCK	17570	N/A	A & A	300	YES	50 GAL WASH DOWN - 60 GAL BURST
9/22/2007	12:26	TRUCK	17472	N/A	A & A	300	YES	30 GAL WASH BAY - 60 GAL BURST
9/22/2007	12:41	TRUCK	17473	N/A	A & A	200	NO	20 GAL WASH BAY
9/13/2007	10:40	TRUCK	18048	N/A	N/A	200	NO	ONE SEATER 15 GAL WASH DOWN - 60 GAL BURST
9/22/2007	12:55	TRUCK	17573	N/A	A & A	100	NO	10 GAL WASH BAY
9/22/2007	1:23	TRUCK	13017	N/A	EVERGREEN	300	YES	40 GAL WASH BAY
9/22/2007	1:25	TRUCK	PS9266	N/A	AMERICAN EAGLE	200	YES	20 GAL WASH BAY
9/22/2007	1:30	TRUCK	17471	N/A	A & A	200	NO	30 GAL WASH BAY - 60 GAL BURST
9/22/2007	2:56	TRUCK	17472	N/A	A & A	0	NO	WASH DOWN ONLY - 40 GAL
9/22/2007	3:43	TRUCK	18990	N/A	A & A	300	YES	ONE SEATER 30 GAL WASH DOWN
9/22/2007	4:47	TRUCK	22704	N/A	A & A	150	NO	40 GAL WASH DOWN
9/22/2007	5:52	TRUCK	13853	N/A	A & A	200	NO	40 GAL WASH DOWN
9/22/2007	6:40	TRUCK	22703	N/A	A & A	200	NO	20 GAL WASH DOWN

**DFW AIRPORT SEWER CONDITION ASSESSMENT
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DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
9/22/2007	6:46	TRUCK	17572	N/A	A & A	150	NO	30 GAL WASH DOWN
9/22/2007	7:17	TRUCK	P59266	N/A	AMERICAN EAGLE	100	NO	40 GAL WASH DOWN
9/22/2007	7:57	TRUCK	17573	N/A	A & A	200	NO	30 GAL WASH DOWN
9/22/2007	8:37	TRUCK	17470	N/A	A & A	150	NO	40 GAL WASH DOWN
9/22/2007	8:46	TRUCK	17570	N/A	A & A	300	NO	70 GAL WASH DOWN
9/22/2007	8:53	TRUCK	22703	N/A	A & A	300	YES	50 GAL WASH DOWN
9/22/2007	9:12	TRUCK	17472	N/A	A & A	150	YES	50 GAL WASH DOWN
9/22/2007	9:33	TRUCK	18048	N/A	A & A	300	NO	30 GAL WASH DOWN
9/22/2007	9:41	TRUCK	107862	N/A	CONTINENTAL	200	YES	20 GAL WASH DOWN
9/22/2007	10:14	TRUCK	18990	N/A	A & A	300	NO	40 GAL WASH DOWN
9/23/2007	7:06	TRUCK	11	N/A	MID WEST SERVICE	100	YES	STREET SWEEPER
9/23/2007	8:27	TRUCK	17570	N/A	A & A	300	YES	20 GAL WASH BAY
9/23/2007	8:47	TRUCK	17573	N/A	A & A	200	YES	30 GAL WASH BAY
9/23/2007	9:58	TRUCK	17570	N/A	A & A	200	NO	20 GAL WASH BAY
9/23/2007	10:27	TRUCK	17474	N/A	A & A	300	NO	10 GAL WASH BAY
9/23/2007	10:46	TRUCK	13388	N/A	A & A	300	NO	30 GAL WASH BAY
9/23/2007	11:27	TRUCK	22702	N/A	A & A	300	YES	40 GAL WASH BAY - 60 GAL BURST

NORTH B

10/25/2007	9:16	TRUCK	P59268	N/A	AMERICAN EAGLE	50	NO	LITTLE TRUCK
10/25/2007	12:37	TRUCK	P59268	N/A	AMERICAN EAGLE	30	NO	LITTLE TRUCK
10/25/2007	12:38	TRUCK	N59270	N/A	AMERICAN EAGLE	45	NO	LITTLE TRUCK
10/25/2007	12:39	TRUCK	P59267	N/A	AMERICAN EAGLE	50	NO	LITTLE TRUCK
10/25/2007	1:26	TRUCK	P59266	N/A	AMERICAN EAGLE	100	YES	LITTLE TRUCK
10/25/2007	1:47	TRUCK	L7009A	N/A	PENAVILLE SERIAIR	200	YES	
10/25/2007	5:59	TRUCK	P59267	N/A	AMERICAN EAGLE	30	NO	SMALL ONE SEATER 20 GAL
10/25/2007	6:54	TRUCK	P59270	N/A	AMERICAN EAGLE	100	YES	SMALL ONE SEATER 20 GAL
10/25/2007	8:57	TRUCK	P59260	N/A	AMERICAN EAGLE	50	NO	1/2 ONE SEATER SMALL
10/25/2007	9:13	TRUCK	P59270	N/A	AMERICAN EAGLE	50	NO	
10/26/2007	6:02am	TRUCK	25191	N/A	PENAVILLE SERIAIR	200	YES	
10/26/2007	7:43	TRUCK	P59268	N/A	AMERICAN EAGLE	30	NO	ONE SEATER SMALL
10/26/2007	8:30	TRUCK	P59267	N/A	AMERICAN EAGLE	30	NO	ONE SEATER 20 GAL WASH DOWN
10/26/2007	9:19	TRUCK	P59270	N/A	AMERICAN EAGLE	50	YES	ONE SEATER 20 GAL WASH DOWN
10/26/2007	9:47	TRUCK	P59268	N/A	AMERICAN EAGLE	50	YES	
10/26/2007	11:14	TRUCK	P59286	N/A	AMERICAN EAGLE	20	NO	ONE SEATER 15 GAL WASH DOWN
10/26/2007	12:15	TRUCK	LVT-041	N/A	WORLDWIDE FLIGHT SERVICE	100	NO	ONE SEATER 20 GAL WASH DOWN
10/26/2007	1:02	TRUCK	P59288	N/A	AMERICAN EAGLE	25	NO	ONE SEATER 20 GAL WASH DOWN
10/26/2007	1:35	TRUCK	P59267	N/A	AMERICAN EAGLE	20	NO	ONE SEATER
10/26/2007	2:06	TRUCK	P59270	N/A	AMERICAN EAGLE	30	NO	SMALL ONE SEATER 15 GAL
10/26/2007	4:29	TRUCK	P59268	N/A	AMERICAN EAGLE	50	YES	SMALL ONE SEATER 10 GAL

10/26/2007	8:40	TRUCK	P59266	N/A	AMERICAN EAGLE	100	YES	SMALL ONE SEATER 20 GAL WASH DOWN
10/26/2007	9:00	TRUCK	P59268	N/A	AMERICAN EAGLE	100	YES	SMALL ONE SEATER 15 GAL WASH DOWN
10/26/2007	9:06	TRUCK	P59266	N/A	AMERICAN EAGLE	20	NO	SMALL ONE SEATER 10 GAL WASH DOWN
10/27/2007	8:15am	TRUCK	P59268	N/A	AMERICAN EAGLE	25	NO	SMALL ONE SEATER 15 GAL WASH DOWN
10/27/2007	9:11	TRUCK	P59267	N/A	AMERICAN EAGLE	30	NO	SMALL ONE SEATER 10 GAL WASH DOWN
10/27/2007	9:28	TRUCK	P59270	N/A	AMERICAN EAGLE	35	NO	SMALL ONE SEATER 10 GAL WASH DOWN

**DFW AIRPORT SEWER CONDITION ASSESSMENT
TRITURATOR DISCHARGE
Contract No. 8002182**

DATE	TIME	TRUCK/TRAILER	VEHICLE NUMBER	TAG #	AIRLINE/CONTRACTOR	CAPACITY	FULL (YES/NO)	COMMENTS
10/27/2007	12:05	TRUCK	25191	N/A	AMERICAN EAGLE	150	YES	20 GAL WASH DOWN
10/27/2007	12:08	TRUCK	P59268	N/A	AMERICAN EAGLE	30	NO	SMALL ONE SEATER 15 GAL WASH DOWN
10/27/2007	1:31	TRUCK	P59270	N/A	AMERICAN EAGLE	28	NO	SMALL ONE SEATER WASH DOWN
10/27/2007	2:20	TRUCK	P59268	N/A	AMERICAN EAGLE	100	YES	SMALL ONE SEATER 15 GAL WASH DOWN
10/27/2007	5:31	TRUCK	P59267	N/A	AMERICAN EAGLE	50	NO	SMALL ONE SEATER 30 GAL WASH DOWN
10/27/2007	5:32	TRAILER	16643/LT0504	N/A	PENAVILLE SERAIR	50	NO	20 GAL WASH DOWN
10/27/2007	6:05	TRUCK	P59270	N/A	AMERICAN EAGLE	50	NO	SMALL ONE SEATER 15 GAL WASH DOWN
10/27/2007	8:14	TRUCK	P59270	N/A	AMERICAN EAGLE	50	NO	SMALL ONE SEATER 20 GAL WASH DOWN
10/27/2007	8:48	TRUCK	P59267	N/A	AMERICAN EAGLE	30	NO	SMALL ONE SEATER 20 GAL WASH DOWN
10/27/2007	9:05	TRUCK	P59268	N/A	AMERICAN EAGLE	30	NO	SMALL ONE SEATER
10/28/2007	8:27	TRUCK	D59267	N/A	AMERICAN EAGLE	30	NO	20 GAL WASH DOWN
10/28/2007	10:06	TRAILER	LT504	N/A	PENAVILLE SERAIR	40	NO	15 GAL WASH DOWN
10/28/2007	10:30	TRUCK	LVT-041	N/A	WORLDWIDE FLIGHT SERVICE	150	NO	30 GAL WASH DOWN
10/28/2007	12:26	TRUCK	P59268	N/A	AMERICAN EAGLE	30	NO	10 GAL WASH DOWN
10/28/2007	12:30	TRUCK	P59270	N/A	AMERICAN EAGLE	30	NO	20 GAL WASH DOWN
10/28/2007	12:42	TRUCK	P59267	N/A	AMERICAN EAGLE	25	NO	10 GAL WASH DOWN
10/28/2007	4:23	TRUCK	P59267	N/A	AMERICAN EAGLE	20	NO	20 GAL WASH DOWN
10/28/2007	4:33	TRUCK	P59268	N/A	AMERICAN EAGLE	40	NO	30 GAL WASH DOWN
10/28/2007	4:55	TRUCK	P59270	N/A	AMERICAN EAGLE	40	NO	20 GAL WASH DOWN
10/28/2007	5:26	TRUCK	P59267	N/A	AMERICAN EAGLE	20	NO	40 GAL WASH DOWN
10/28/2007	8:29	TRUCK	P59268	N/A	AMERICAN EAGLE	40	NO	30 GAL WASH DOWN
10/28/2007	8:37	TRUCK	P59267	N/A	AMERICAN EAGLE	20	NO	15 GAL WASH DOWN
10/28/2007	8:54	TRUCK	P59270	N/A	AMERICAN EAGLE	30	NO	30 GAL WASH DOWN

TECHNICAL MEMORANDUM EAST AIRFIELD LIFT STATION CONCEPTUAL DESIGN

Introduction

The East Airfield Drive Lift Station currently serves the area on the east side of the DFW Airport. The existing station constructed in 1972, is a wet well/ dry wet station with three 2,500 gpm pumps. The station receives flow from the 24-inch diameter sewer south along East Airfield Drive and also from the South Foreign Trade Zone Lift Station located a short distance away. Wastewater is then pumped under the runways and taxi- ways to the gravity sewer along International Drive. The DFW Airport maintenance staff would like to replace the existing station with a submersible station. This conceptual report evaluates the options to replace the station and provides a planning level cost estimate.

Under existing flow conditions, there are approximately 2,222 acres of DFW Airport property that can be served by the South Foreign Trade Zone Lift Station. This area includes the North Foreign Trade Zone, International Commerce Park, and the East Cargo Ramp. An additional 1,945 acres can be served by the gravity sewers to the East Airfield Drive Lift Station. Major buildings currently served include the Airport Administration Building, Asset Management, Flight Safety Training, AA Maintenance Hanger, and Procurement/Warehouse Facilities.

Based on direction from the Airport staff, this conceptual analysis is based on replacing the station with an identically capacity station and does not include an analysis for future development outside of the existing buildings currently served.

Analysis of Alternates

This analysis looked at two alternatives to replacing the existing station. The first alternative was to construct a new submersible station in the same general vicinity as the existing station. After completion of construction, wastewater flow would be redirected to the new station and the existing station would be taken out of service. The existing dry pit is to be abandoned in place; with the pumps, valves, controls and other components removed as salvage. The wet pit would remain in place for use as an emergency pump station. When needed for an emergency station or when the new station is out-of-service, temporary pumps could be installed and the flow routed to the IWS lift station before being pumped to the S5 Main on the Northbound Service Road.

The second alternative evaluated the possibility of abandoning the South Foreign Trade Zone Lift Station and constructing a gravity sewer from that station to the new East Airfield Drive Lift Station. Currently flow from the area served by the South Foreign Trade pump station is pumped into the sewer system tributary to the existing East Airfield Drive Pump Station. Since the East Airfield sewers were constructed first and the elevation of the South Foreign Trade Zone

Pump Station is lower than the invert of the East Airfield Pump Station, flow from the sewers serving the South Foreign Trade Zone Pump Station can not be directed to the existing East Airfield Drive Station.

The Alternatives are discussed in the following paragraphs.

Alternative A

As shown on Figure 1, it is proposed that a replacement pump station be constructed adjacent to and at approximately the same depth as the existing station. A new structure, which includes sluice gates for directing the flow, will be constructed over the existing incoming sewer. This structure will divert the flow to the new pump station or can be used to divert flow to the existing wet well under an emergency situation described above. A more economical method of diverting flow that the Airport staff may want to consider is the use of logs instead of a sluice gate.

The existing force main would be used to transport the flow from the station. In order to minimize the amount of time that the system would not be available to handle flows, it is proposed that this connection be made using a tapping saddle and valve, and that a line block be used to plug the existing force main upstream of the tapping valve and saddle.

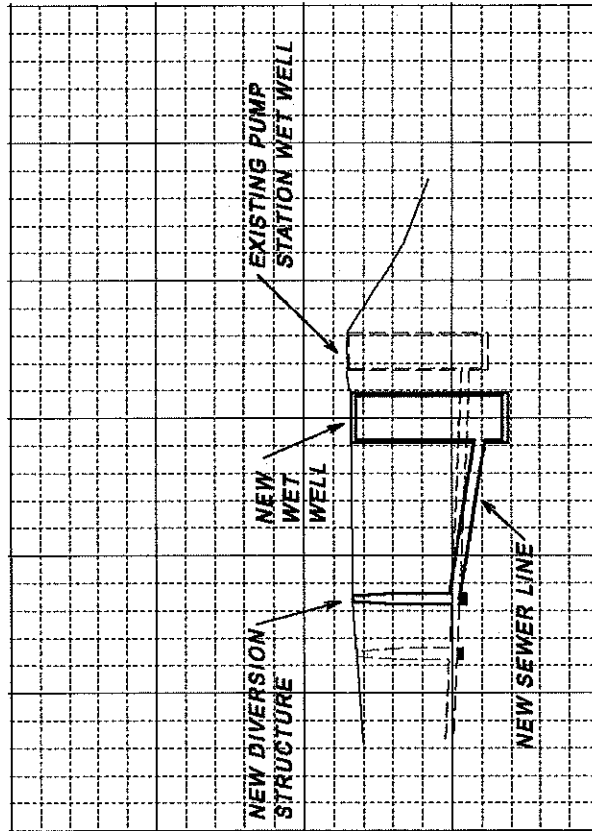
Under this option all work would be concentrated in the area adjacent to the existing station. The estimated construction cost associated with this option is presented in Table 1. Current raw material costs are included in Attachment A.

Alternative B

Alternative B would entail the construction of a new wet well at the same location as that proposed in Alternative A. However, this wet well would be deeper and flow from the South Foreign Trade Zone Pump Station would be routed to this station through a new gravity sewer roadway. This sewer would be jacked into place in order to minimize the amount of disruption that open cut construction would entail.

As shown in Figure 2, the flows tributary to the South Foreign Trade Zone Pump Station would be intercepted upstream of the existing station and a new sanitary sewer would be constructed to transport the flow to the new pump station. This sewer would be jacked into place under the drainage channel in order to minimize the amount of disruption that open cut construction would entail. Because of the depth of the existing sewer, an aerial crossing does not appear feasible based on information available. The existing South Foreign Trade Zone Pump Station would be abandoned and filled.

While both stations would have the same basic foot print, the station associated with Alternative B would be appreciably deeper than just replacing the pump station. The estimated cost to construct Alternative B is given in Table 2.



தமிழகப் பட்டினம்

DESIGN	DRAWN	DATE	SCALE	CACG	PROJECT NO.	SHEET
MPL	MES	JULY 2008	N.T.S.		18-2227-00	1 OF 2

Table 1

**ALTERNATIVE A
ESTIMATED CONSTRUCTION COST^{1/}**

Item Description	Quantity	Units	Unit Cost (\$)	Total Cost (\$)
Site Development				
Structural Excavation	1,050	CY	18.00	18,900.00
Trench Safety	1	LS	18,000.00	18,000.00
24-inch Sanitary Sewer	75	LF	240.00	18,000.00
18-inch Force Main	50	LF	180.00	9,000.00
12-inch DI Force Main	60	LF	100.00	6,000.00
Fittings Ductile Iron	4,400	LBS	6.00	26,400.00
12" Plug Valve	3	EA	8,740.00	26,220.00
12" Swing Check Valve	3	EA	10,120.00	30,360.00
18" Tapping Valve and Sleeve	1	EA	25,000.00	25,000.00
Special Junction Manhole	1	EA	25,000.00	25,000.00
Protection and Restoration of Site	1	LS	5,000.00	5,000.00
Granular Backfill	20	CY	20.00	400.00
SWPPP	1	LS	5,000.00	5,000.00
Subtotal				213,280.00
Structural				
Wet Well Structural Concrete	170	CY	750.00	127,500.00
Valve Vault Structural Concrete	40	CY	750.00	30,000.00
Control Cabinet Footings and Slab	20	CY	750.00	15,000.00
Control Cabinet 24 x 12 x 10	1	EA	10,000.00	10,000.00
Pump Hatches	3	EA	2,760.00	8,280.00
Valve Hatches	3	EA	2,300.00	6,900.00
Subtotal				197,680.00
Mechanical & Electrical				
Pumps rated at 2500 @160' TDH	3	EA	55,000.00	165,000.00
MCC and Controls	1	LS	320,000.00	320,000.00
Subtotal				485,000.00
Total				895,960.00

^{1/} Construction cost estimate includes material, labor, equipment, overhead, and profit.

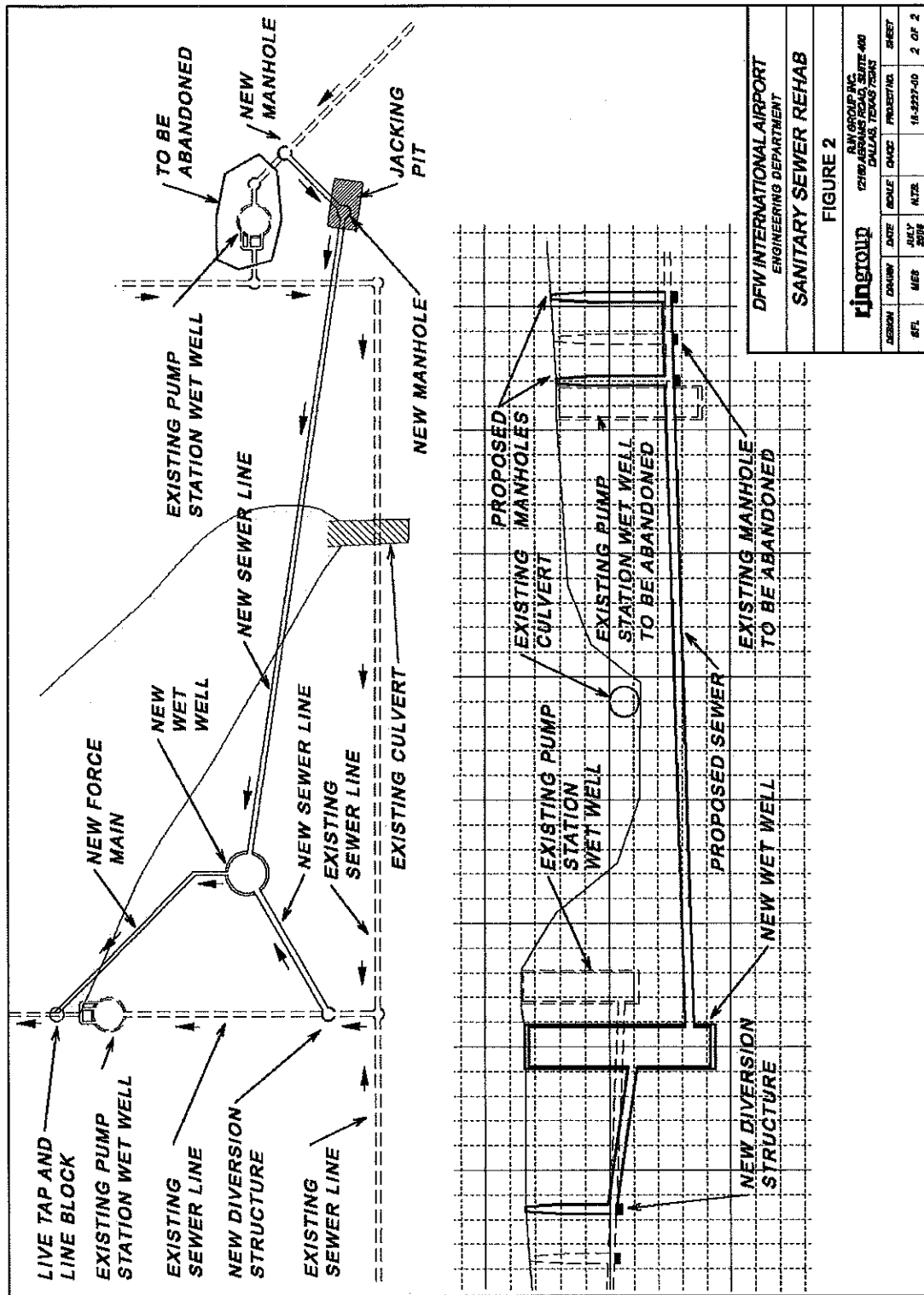


Table 2

ALTERNATIVE B
ESTIMATED CONSTRUCTION COST^{1/}

Item Description	Quantity	Units	Unit Cost	Total Cost (\$)
Site Development				
Structural Excavation	1,200	CY	18.00	21,600.00
Trench Safety	1	LS	22,000.00	22,000.00
24 inch Sanitary Sewer	75	LF	240.00	18,000.00
18 inch Sanitary Sewer Bored and Jacked in Place	900	LF	1,050.00	945,000.00
18 inch Force Main	50	LF	180.00	9,000.00
12 inch DI Force Main	60	LF	100.00	6,000.00
Fittings Ductile Iron	4400	LBS	6.00	26,400.00
12" Plug Valve	3	EA	8,740.00	26,220.00
12" Swing Check Valve	3	EA	10,120.00	30,360.00
14" Tapping Valve and Sleeve	1	EA	25,000.00	25,000.00
Special Junction Manhole	2	EA	25,000.00	50,000.00
5' Diameter Manholes	6	EA	19,800.00	118,800.00
Protection and Restoration of Site	1	LS	7,500.00	7,500.00
Granular Backfill	100	CY	20.00	2,000.00
SWPPP	1	LS	5,000.00	5,000.00
Subtotal				1,312,880.00
Structural				
Wet Well Structural Concrete	250	CY	750.00	187,500.00
Valve Vault Structural Concrete	40	CY	750.00	30,000.00
Footings and Slab for Controls	20	CY	750.00	15,000.00
Control Enclosure	1	LS	10,000.00	10,000.00
Pump Hatches	3	EA	2,760.00	8,280.00
Valve Hatches	3	EA	2,300.00	6,900.00
Subtotal				257,680.00
Mechanical & Electrical				
Pumps rated at 2500 @170' TDH	3	EA	60,000.00	180,000.00
MCC and Controls	1	LS	320,000.00	320,000.00
Subtotal				500,000.00
Total				2,070,560.00

^{1/} Construction cost estimate includes material, labor, equipment, overhead, and profit.

Value Added Options

There are two value options that should be considered as additional cost items to stations outlined above. The first of these options is the inclusion of variable frequency drives, VFD's, on the pumps. Due to the solid state controllers associated with these devices, the control enclosure must be equipped with sufficient HVAC to maintain a constant temperature. This does raise the cost of the installation but the advantages offered by VFD's offset this. By allowing the motors driving the pumps to run at reduced speed these drives reduce the power required to operate the station. In addition to the energy savings, these controls offer the opportunity to reduce the retention time of sewage in the wet well during periods of low flow. By minimizing the time the sewage is allowed to remain in the wet well, the possibility of the sewage becoming anaerobic is reduced and the possibility of corrosion resulting from hydrogen sulfide, is reduced. This will in turn reduce the operational and maintenance expense of the station. The cost of adding this to either option is summarized in Table 3.

Table 3				
ADDITIONAL COST FOR VFD'S ^{1/}				
Item Description	Quantity	Units	Unit Cost	Total Cost (\$)
VFD's for pump	2	EA	20,000.00	40,000.00
Enlarged Control Enclosure	1	EA	5,000.00	5,000.00
HVAC for Control Enclosure	1	EA	15,000.00	15,000.00
Total				60,000.00

^{1/} Construction cost estimate includes material, labor, equipment, overhead, and profit.

Either of the pump stations will operate with out the VFD's, but the operation of the station, without VFD's, is limited to an on/off mode with the only option being the number of pumps energized.

The second value added option that could be considered is the inclusion of a hoist system to pull the pumps from the wet well when maintenance needs to be done on the pumps. The proposed system would include an under-running monorail hoist. The costs for this hoisting system are summarized in Table 4.

Table 4

ADDITIONAL COSTS FOR HOISTING SYSTEM^{1/}

Item Description	Quantity	Units	Unit Cost	Total Cost (\$)
Structural Modifications to wet well	1	LS	2,500.00	2,500.00
Monorail supports and Beam	1	LS	10,000.00	10,000.00
5 ton Hoist	1	LS	15,000.00	15,000.00
Total				27,500.00

^{1/} Construction cost estimate includes material, labor, equipment, overhead, and profit.

The additional cost for this option can be added to either alternative, this will give the operators a built in capacity for removing the pumps from the station. While this option adds convenience the need to remove the pumps is a relatively infrequent event. Many operators of submersible pump stations use a small crane or hoist truck to pull the pumps.

ALTERNATIVE COST COMPARISON^{1/}

	ALTERNATIVE A	ALTERNATIVE B
Base Cost	895,960.00	2,070,560.00
Base + VFD'S	955,960.00	2,130,560.00
Base + Hoist	923,460.00	2,098,060.00
Base + VFD'S + Hoist	983,460.00	2,158,060.00

^{1/} Construction cost estimate includes material, labor, equipment, overhead, and profit.

The estimated base cost to construct Alternative A is approximately \$895,960 while the cost to construct Alternative B is approximately \$2,070,560. Although the cost to construct Alternative B is significantly higher than Alternative A, it would eliminate the long-term cost of O&M for the South Foreign Trade Zone Pump Station. This analysis did not include a present worth analysis of alternatives. It is recommended that the DFW Airport consider this before proceeding with the selected alternative.

NOTES:

With Alternative A, the incoming sewer is about 35 feet below the existing grade, to provide storage and to keep the pumps submerged means that the wet well be approaching 45-50 feet of depth.

With Alternative B, the need to construct the 24 inch sanitary below the flow line of the channel requires that the incoming sewer be about 40 feet below grade and the wet well be 50-55 feet below grade. This is due to the existing South Foreign Trade Zone Lift Station being deeper than the East Airfield Drive Lift Station. Given the depth of these sewers and the location, it is recommended that these lines use trenchless type construction.

I/I Status Report

Project Number 18-2227-00 DFW International Airport Contract No. 8002182

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0001	S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
	S. SERVICE RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0002	2900 SERVICE	Inflow	Pick Holes	Replace Frame and Cover	1,152	\$250	0.217
				1 Active Sources Contribute a Total of	1,152	\$250	
DFW 0003	2900 SERVICE	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0008	AOA	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0016	B-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
				2 Active Sources Contribute a Total of	1,152	\$975	
DFW 0017	B-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
				2 Active Sources Contribute a Total of	1,152	\$975	
DFW 0018	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	B-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	1,152	\$975	
DFW 0022	AOA	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	AOA	Inflow	Wall Leakage	Wall - Coat Manhole Walls	288	\$400	1.389
	AOA	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				3 Active Sources Contribute a Total of	1,440	\$1,375	
DFW 0023	AOA	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259

Project Number

18-2227-00

DFW International Airport Contract No. 8002182

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0023	AOA	Inflow	Pick Holes	Replace Frame and Cover 2 Active Sources Contribute a Total of	576 1,152	\$250 \$975	0.434
DFW 0028	AOA	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0029	AOA-C39 AOA-C39	Inflow Infiltr	Pick Holes Wall Leakage	Replace Frame and Cover Wall - Coat Manhole Walls 2 Active Sources Contribute a Total of	576 288 864	\$250 \$400 \$650	0.434 1.389
DFW 0030	AOA	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0031	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0034	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	144 144	\$250 \$250	1.736
DFW 0038	A-LOWERLEVEL RD. A-LOWERLEVEL RD.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover 2 Active Sources Contribute a Total of	14 144 158	\$725 \$250 \$975	50.347 1.736
DFW 0040	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	144 144	\$250 \$250	1.736
DFW 0044	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0058	S. 20TH ST. S. 20TH ST.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover 2 Active Sources Contribute a Total of	14 144 158	\$725 \$250 \$975	50.347 1.736
DFW 0060	S. 20TH ST.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736

Thursday, July 31, 2008

Page 2 of 12

Basin/Structure	Street Address	Type	Source	Rehabilitation Work			Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0061	S. 20TH AVE. S. 20TH AVE. S. 20TH AVE.	Inflow	Frame Seal	1 Active Sources Contribute a Total of			144	\$250	
		Inflow	Pick Holes	Adjust Frame and Seal			576	\$725	1.259
		Inflow	Cracked Corbel	Replace Manhole Cover			144	\$250	1.736
				Corbel - Coat Manhole Walls			288	\$400	1.389
				3 Active Sources Contribute a Total of			1,008	\$1,375	
DFW 0062	AIRFIELD DR.	Inflow	Pick Holes	Replace Manhole Cover			144	\$250	1.736
				1 Active Sources Contribute a Total of			144	\$250	
DFW 0063	2100 AIRFIELD DR. 2100 AIRFIELD DR. 2100 AIRFIELD DR.	Inflow	Pick Holes	Replace Manhole Cover			144	\$250	1.736
		Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals			288	\$300	1.042
		Inflow	Frame Seal	Adjust Frame and Seal			576	\$725	1.259
				3 Active Sources Contribute a Total of			1,008	\$1,275	
				Replace Manhole Cover			144	\$250	1.736
DFW 0069	S. SERVICE RD.	Inflow	Pick Holes	1 Active Sources Contribute a Total of			144	\$250	
				Replace Manhole Cover			144	\$250	1.736
DFW 0070	3300 N. SERVICE RD. 3300 N. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover			144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal			576	\$725	1.259
				2 Active Sources Contribute a Total of			720	\$975	
DFW 0071	2200 33RD ST.	Inflow	Pick Holes	Replace Manhole Cover			144	\$250	1.736
				1 Active Sources Contribute a Total of			144	\$250	
DFW 0074	S. SERVICE RD. S. SERVICE RD. S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover			144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal			14	\$725	50.347
		Inflow	Broken Frame	Replace Frame and Cover			14	\$250	17.361
				3 Active Sources Contribute a Total of			173	\$1,225	
DFW 0075	3100 S. SERVICE RD. 3100 S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover			144	\$250	1.736
		Inflow	Frame Seal	Adjust Frame and Seal			576	\$725	1.259
				2 Active Sources Contribute a Total of			720	\$975	

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0076	3003 SOUTH SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	144 144	\$250 \$250	1.736
DFW 0078	3003 S. SERVICE RD. 3003 S. SERVICE RD.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover 2 Active Sources Contribute a Total of	14 144 158	\$725 \$250 \$975	50.347 1.736
DFW 0079	3003 S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	144 144	\$250 \$250	1.736
DFW 0080	3003 S. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0082	N. SERVICE RD. N. SERVICE RD.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover 2 Active Sources Contribute a Total of	576 144 720	\$725 \$250 \$975	1.259 1.736
DFW 0083	2200 CROSSUNDER #7	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	1,152 1,152	\$250 \$250	0.217
DFW 0084	3150 N. SERVICE RD. 3150 N. SERVICE RD.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover 2 Active Sources Contribute a Total of	576 576 1,152	\$725 \$250 \$975	1.259 0.434
DFW 0086	3100 N. SERVICE RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0092	AOA	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0093	AOA AOA	Inflow Inflow	Pick Holes Frame Seal	Replace Manhole Cover Adjust Frame and Seal 2 Active Sources Contribute a Total of	144 576 720	\$250 \$725 \$975	1.736 1.259

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0094	AOA	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
	AOA	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0095	AOA	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 0096	AOA	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
	AOA	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	1,152	\$975	
DFW 0098	AOA	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				1 Active Sources Contribute a Total of	144	\$250	
DFW 0099	AOA	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
	AOA	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
				2 Active Sources Contribute a Total of	720	\$975	
DFW 0101	AOA	Inflow	Pick Holes	Replace Frame and Cover	1,440	\$250	0.174
	AOA	Inflow	Frame Seal/Ponding	Adjust Frame and Seal	2,160	\$725	0.336
				2 Active Sources Contribute a Total of	3,600	\$975	
DFW 0102	AOA	Inflow	Frame Seal/Ponding	Adjust Frame and Seal	2,160	\$725	0.336
	AOA	Inflow	Pick Holes	Replace Frame and Cover	1,440	\$250	0.174
				2 Active Sources Contribute a Total of	3,600	\$975	
DFW 0103	AOA	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
	AOA	Inflow	Frame Seal/Ponding	Adjust Frame and Seal	2,160	\$725	0.336
				2 Active Sources Contribute a Total of	2,304	\$975	
DFW 0105	AOA	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
	AOA	Inflow	Wall Leakage	Wall - Coat Manhole Walls	288	\$400	1.389
				2 Active Sources Contribute a Total of	432	\$650	

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0106	2526 W. AIRFIELD DR. 2526 W. AIRFIELD DR.	Inflow Inflow	Pick Holes Frame Seal/Ponding	Replace Manhole Cover Adjust Frame and Seal 2 Active Sources Contribute a Total of	144 2,160 2,304	\$250 \$725 \$975	1.736 0.336
DFW 0108	2460 W. AIRFIELD DR.	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	12,016 12,016	\$250 \$250	0.021
DFW 0109	2450 W. AIRFIELD DR.	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	4,905 4,905	\$250 \$250	0.051
DFW 0124	2430 E. AIRFIELD DR. 2430 E. AIRFIELD DR.	Inflow Infiltr	Pick Holes Bench/Trough Leak	Replace Frame and Cover Bench/Trough - Grout Bench/Trough 2 Active Sources Contribute a Total of	576 288 864	\$250 \$240 \$490	0.434 0.833
DFW 0149	AOA-C27	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	1,152 1,152	\$250 \$250	0.217
DFW 0150	AOA	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 0150A	AOA AOA	Inflow Inflow	Pick Holes Frame Seal	Replace Frame and Cover Adjust Frame and Seal 2 Active Sources Contribute a Total of	1,152 576 1,728	\$250 \$725 \$975	0.217 1.259
DFW 0156	3300 22ND AVENUE	Inflow	Frame Seal	Adjust Frame and Seal 1 Active Sources Contribute a Total of	576 576	\$725 \$725	1.259
DFW 0157	3301 33RD ST. 3301 33RD ST.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover 2 Active Sources Contribute a Total of	576 144 720	\$725 \$250 \$975	1.259 1.736
DFW 0158	3301 33RD ST.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	144 144	\$250 \$250	1.736

Project Number 18-2227-00

DFW International Airport Contract No. 8002182

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 0159	2120 33RD ST. 2120 33RD ST.	Inflow Inflow	Frame Seal Pick Holes	Adjust Frame and Seal Replace Manhole Cover	576 144	\$725 \$250	1.259 1.736
				2 Active Sources Contribute a Total of	720	\$975	
DFW 1001	AOA	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	
DFW 1003	AOA	Inflow	Pick Holes	Replace Frame and Cover	1,152	\$250	0.217
				1 Active Sources Contribute a Total of	1,152	\$250	
DFW 1009	AOA	Inflow	Pick Holes	Replace Frame and Cover	1,152	\$250	0.217
				1 Active Sources Contribute a Total of	1,152	\$250	
DFW 1011	AOA AOA	Inflow Infiltr	Pick Holes Pipe Seals	Replace Manhole Cover Pipe Seals - Grout Pipe Seals	288 288	\$250 \$300	0.868 1.042
				2 Active Sources Contribute a Total of	576	\$550	
DFW 1020	C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Inflow Infiltr Inflow	Pick Holes Pipe Seals Frame Seal	Replace Frame and Cover Pipe Seals - Grout Pipe Seals Adjust Frame and Seal	576 288 576	\$250 \$300 \$725	0.434 1.042 1.259
				3 Active Sources Contribute a Total of	1,440	\$1,275	
DFW 1021	C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Infiltr Inflow Inflow Inflow Infiltr	Cracked Wall Pick Holes Frame Seal Cracked Corbel Pipe Seals	Wall - Coat Manhole Walls Replace Frame and Cover Adjust Frame and Seal Corbel - Coat Manhole Walls Pipe Seals - Grout Pipe Seals	288 576 576 288 288	\$400 \$250 \$725 \$400 \$300	1.389 0.434 1.259 1.389 1.042
				5 Active Sources Contribute a Total of	2,016	\$2,075	
DFW 1022	C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Infiltr Inflow Inflow Infiltr Inflow	Pipe Seals Frame Seal Cracked Corbel Cracked Wall Pick Holes	Pipe Seals - Grout Pipe Seals Adjust Frame and Seal Corbel - Coat Manhole Walls Wall - Coat Manhole Walls Replace Frame and Cover	288 576 288 288 576	\$300 \$725 \$400 \$400 \$250	1.042 1.259 1.389 1.389 0.434

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
5 Active Sources Contribute a Total of					2,016	\$2,075	
DFW 1023	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	14	\$725	50.347
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	14	\$250	17.361
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
5 Active Sources Contribute a Total of					893	\$2,075	
DFW 1024	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	14	\$725	50.347
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	14	\$250	17.361
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
5 Active Sources Contribute a Total of					893	\$2,075	
DFW 1025	TERM C - LOWER LEVEL RD	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	TERM C - LOWER LEVEL RD	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	TERM C - LOWER LEVEL RD	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	TERM C - LOWER LEVEL RD	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	TERM C - LOWER LEVEL RD	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
4 Active Sources Contribute a Total of					1,728	\$1,775	
DFW 1026	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	14	\$250	17.361
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	14	\$725	50.347
5 Active Sources Contribute a Total of					893	\$2,075	
DFW 1027	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
5 Active Sources Contribute a Total of					2,016	\$2,075	
DFW 1028	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
4 Active Sources Contribute a Total of					1,440	\$1,825	
DFW 1029	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
5 Active Sources Contribute a Total of					2,016	\$2,075	
DFW 1030	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
2 Active Sources Contribute a Total of					576	\$700	
DFW 1031	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
3 Active Sources Contribute a Total of					1,152	\$950	
DFW 1032	C-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	C-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
5 Active Sources Contribute a Total of					2,016	\$2,075	
DFW 1033	C-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	576	\$250	0.434
	C-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	C-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	576	\$725	1.259
	C-LOWERLEVEL RD.	Inflow	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1033	C-LOWERLEVEL RD. C-LOWERLEVEL RD.	Infiltr Infiltr	Cracked Wall Pipe Seals	Wall - Coat Manhole Walls Pipe Seals - Grout Pipe Seals 5 Active Sources Contribute a Total of	288 288 2,016	\$400 \$300 \$2,075	1.389 1.042
DFW 1034	TERM A LOWER LEVEL TERM A LOWER LEVEL TERM A LOWER LEVEL TERM A LOWER LEVEL	Inflow Inflow Inflow Infiltr	Pick Holes Frame Seal Cracked Corbel Cracked Wall	Replace Frame and Cover Adjust Frame and Seal Corbel - Coat Manhole Walls Wall - Coat Manhole Walls 4 Active Sources Contribute a Total of	576 576 288 288 1,728	\$250 \$725 \$400 \$400 \$1,775	0.434 1.259 1.389 1.389
DFW 1035	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 1036	A-LOWERLEVEL RD. A-LOWERLEVEL RD. A-LOWERLEVEL RD. A-LOWERLEVEL RD.	Infiltr Infiltr Inflow Inflow	Wall Leakage Pipe Seals Pick Holes Corbel Deterioration	Wall - Coat Manhole Walls Pipe Seals - Grout Pipe Seals Replace Frame and Cover Corbel - Coat Manhole Walls 4 Active Sources Contribute a Total of	288 288 288 288 1,152	\$400 \$300 \$250 \$400 \$1,350	1.389 1.042 0.868 1.389
DFW 1037	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 1038	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover 1 Active Sources Contribute a Total of	576 576	\$250 \$250	0.434
DFW 1039	TERMINAL A - LOWER LEVEL TERMINAL A - LOWER LEVEL TERMINAL A - LOWER LEVEL	Inflow Inflow Infiltr	Pick Holes Cracked Corbel Cracked Wall	Replace Frame and Cover Corbel - Coat Manhole Walls Wall - Coat Manhole Walls 3 Active Sources Contribute a Total of	576 288 288 1,152	\$250 \$400 \$400 \$1,050	0.434 1.389 1.389
DFW 1040	A LOWER LEVEL RD. A LOWER LEVEL RD. A LOWER LEVEL RD. A LOWER LEVEL RD.	Inflow Inflow Infiltr Inflow	Pick Holes Frame Seal Cracked Wall Cracked Corbel	Replace Frame and Cover Adjust Frame and Seal Wall - Coat Manhole Walls Corbel - Coat Manhole Walls	288 576 288 288	\$250 \$725 \$400 \$400	0.868 1.259 1.389 1.389

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1040	A LOWER LEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
				5 Active Sources Contribute a Total of	1,728	\$2,075	
DFW 1041	A-LOWERLEVEL RD.	Infiltr	Cracked Wall	Wall - Coat Manhole Walls	288	\$400	1.389
	A-LOWERLEVEL RD.	Inflow	Cracked Corbel	Corbel - Coat Manhole Walls	288	\$400	1.389
	A-LOWERLEVEL RD.	Inflow	Frame Seal	Adjust Frame and Seal	144	\$725	5.035
	A-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	A-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	144	\$250	1.736
				5 Active Sources Contribute a Total of	1,152	\$2,075	
DFW 1047	AOA - A35	Inflow	Pick Holes	Replace Frame and Cover	1,152	\$250	0.217
				1 Active Sources Contribute a Total of	1,152	\$250	
DFW 1048	AOA - A38	Inflow	Pick Holes	Replace Frame and Cover	1,152	\$250	0.217
				1 Active Sources Contribute a Total of	1,152	\$250	
DFW 1060	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	288	\$250	0.868
				1 Active Sources Contribute a Total of	288	\$250	
DFW 1061	B-LOWERLEVEL RD.	Infiltr	Pipe Seals	Pipe Seals - Grout Pipe Seals	288	\$300	1.042
	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	288	\$250	0.868
				2 Active Sources Contribute a Total of	576	\$550	
DFW 1062	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	288	\$250	0.868
				1 Active Sources Contribute a Total of	288	\$250	
DFW 1064	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	288	\$250	0.868
				1 Active Sources Contribute a Total of	288	\$250	
DFW 1065	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Frame and Cover	288	\$250	0.868
				1 Active Sources Contribute a Total of	288	\$250	
DFW 1067	B-LOWERLEVEL RD.	Inflow	Pick Holes	Replace Manhole Cover	288	\$250	0.868

Basin/Structure	Street Address	Type	Source	Rehabilitation Work	Flow (GPD)	Repair Cost (\$)	Ratio (\$/GPD)
DFW 1068	2450 W. AIRFIELD DR.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Frame and Cover	288 4,905	\$250 \$250	0.051
DFW 1071	1400 GLADE RD.	Inflow	Frame Seal	1 Active Sources Contribute a Total of Adjust Frame and Seal	4,905 576	\$250 \$725	1.259
DFW 2162	1535 20TH ST. 1535 20TH ST.	Inflow Inflow	Frame Seal Pick Holes	1 Active Sources Contribute a Total of Adjust Frame and Seal Replace Manhole Cover	576 144 144	\$725 \$725 \$250	5.035 1.736
DFW 2162A	1600 20TH ST. 1600 20TH ST. 1600 20TH ST. 1600 20TH ST.	Infillt Inflow Inflow Infillt	Cracked Wall Cracked Corbel Pick Holes Pipe Seals	2 Active Sources Contribute a Total of Wall - Coat Manhole Walls Corbel - Coat Manhole Walls Replace Manhole Cover Pipe Seals - Grout Pipe Seals	288 288 288 288	\$975 \$400 \$400 \$250 \$300	1.389 1.389 0.868 1.042
DFW 2162B	1535 20TH ST.	Inflow	Pick Holes	4 Active Sources Contribute a Total of Replace Manhole Cover	1,152 72	\$1,350 \$250	3.472
DFW 2162C	1400 20TH ST.	Inflow	Pick Holes	1 Active Sources Contribute a Total of Replace Manhole Cover	72 576	\$250 \$250	0.434
				1 Active Sources Contribute a Total of	576	\$250	

Basin DFW Totals: Total Flow (gpd): 106,585
Total Cost: \$78,365.00
Total Sources: 200

Report Totals: Total Flow (gpd): 106,585
Total Cost: \$78,365.00
Total Sources: 200

Appendix 4 – DFW Airport Supplied Documents

C. TCEQ SSO Reports 2014 - 2017



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 619428
DFW AIRPORT, TEXAS 75261-9428
www.dfwairport.com
T 972 973 8888 F 972 973 5751

April 18, 2014, 2014

Certified Mail: 7011 3500 0002 0810 3801

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: April 16, 2014

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to, TCEQ Region 4 Carol Moulton's voice mail on Wednesday, April 16, 2014 at 3:00pm by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered at an undeveloped location south of Rental Car drive near Passport drive on Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads "Chris Hughes".

Chris Hughes
Environmental Operations Analyst

cc: S. Lancaster
E. Simon
A. Whiteside
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A separated sanitary sewer line on the south side of Rental Car Drive near Passport Drive discharged approximately 500 gallons onto the ground.

Cause of Noncompliance:

Separated sanitary sewer line.

Duration:

Start Date and Time: 4/16/14 1:15 pm

End Date and Time: 4/16/14 8:20 pm

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Dirt berm was put in place to keep spill from migrating from excavation.

Actions Taken to Correct the Problem and Prevent Recurrence:

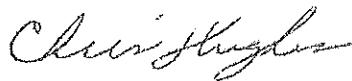
The sewer line was repaired and returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 1/16/2014

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 619428
DFW AIRPORT, TEXAS 75261-9428
www.dfwairport.com
T 972 973 8888 F 972 973 5751

May 23, 2014

Certified Mail: 7011 3500 0002 0812 9580
TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: May 22, 2014

To Whom It May Concern:

Attached is the written follow-up report to the voicemail notice provided to Ms. Carol Moulton, TCEQ Region 4, at 12:45 pm on Thursday, May 22, 2014 by DFW Airport Senior Environmental Operations Analyst, Asciatu Whiteside regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5582.

Sincerely,

A handwritten signature in black ink, appearing to read "Asciatu Whiteside", written over a horizontal line.

Asciatu Whiteside
Senior Environmental Operations Analyst

cc: S. Lancaster
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ (X) Unauthorized Discharge

☐ () Reportable Effluent Violation

☐ () Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5582

☐ () Permittee ☒ (X) Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

Clogged sanitary sewer lateral line at Terminal E, Gate 8 (air-side) discharged approximately 250 gallons of wastewater onto ramp. Sewer line supports a Starbucks Concessionaire at Terminal E. No wastewater discharged into DFW Airport's storm water collection system.

Cause of Noncompliance:

Blocked sanitary sewer line

Duration:

Start Date and Time: 05/22/2014 6:05am

End Date and Time: 05/22/2014 1:40pm

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ () Yes ☒ (X) No Field Measurements

☐ () Yes ☒ (X) No Laboratory Samples

☐ () Yes ☒ (X) No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Absorbent material and booms were deployed to contain the release. All wastewater and absorbent material was removed (vacuumed and swept) from ramp.

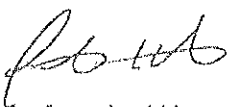
Actions Taken to Correct the Problem and Prevent Recurrence:

The blockage was removed by Environmental Plumbing Solutions (EPS) and the line was returned to service.

Verification Information

Information Reported By (Name/Title): Asciatu Whiteside/ Sr. Environmental Operations Analyst

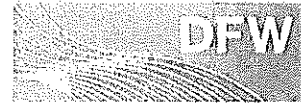
Date Reported: 05/22/2014

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 619428
DFW AIRPORT, TEXAS 75261-9426
www.dfwairport.com
T 972 973 8888 F 972 973 5751

July 24, 2014

Certified Mail: 7011 3500 0002 0810 3856

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: July 22, 2014

To Whom It May Concern:

Attached is the written follow-up report to the voicemail notice provided to Ms. Carol Moulton, TCEQ Region 4, at 8:10 am on Wednesday July 23, 2014 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script, reading "Chris Hughes", is positioned above the typed name and title.

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

Clogged sanitary sewer lateral line at Terminal C, Gate 29 land side discharged approximately 10 gallons of wastewater onto the pavement. Discharge was from a grease trap located on the lateral line. A minimal amount of wastewater discharged into DFW Airport's storm water collection system.

Cause of Noncompliance:
Blocked sanitary sewer line

Duration: Start Date and Time: 07/22/2014 1:26pm
End Date and Time: 07/22/2014 3:30pm
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements
☐ Yes ☒ No Laboratory Samples
☐ Yes ☒ No Fish Kill If yes, estimated number killed:

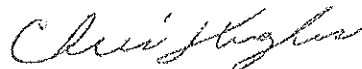
Actions Taken to Mitigate Adverse Effects: Absorbent material was deployed to contain the release. All wastewater and absorbent material was removed (vacuumed and swept) from pavement.

Actions Taken to Correct the Problem and Prevent Recurrence:
The blockage was removed by South Waste Corp. and the line was returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 07/23/2014

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 619428
DFW AIRPORT, TEXAS 75261-9428
www.dfairport.com
T 972 973 8886 F 972 973 5751

January 13, 2015

Certified Mail: 7011 3500 0002 0813 2498

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: January 9, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4, at 10:50 am on Friday, January 9, 2015 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads "Chris Hughes".

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ (X) Unauthorized Discharge

☐ () Reportable Effluent Violation

☐ () Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ () Permittee ☒ (X) Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A separated sewer main at the northeast lift station construction project located on East Airfield Drive caused sewage to back up into the construction pit. Approximately 15,000 gallons of sewage was contained in the construction pit and approximately 50 gallons of sewage was spilled onto the street from a hose used during bypass activities. Approximately one gallon entered the storm drain.

Cause of Noncompliance:
Separated sewer main

Duration: Start Date and Time: 01/09/15 12:00am
End Date and Time: 01/09/15 9:30am
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ () Yes ☒ (X) No Field Measurements

☐ () Yes ☒ (X) No Laboratory Samples

☐ () Yes ☒ (X) No Fish Kill If yes, estimated number killed:

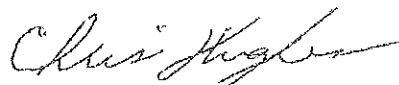
Actions Taken to Mitigate Adverse Effects: Absorbent material was deployed to contain the release. All wastewater and absorbent material was removed (vacuumed and swept) from the pavement and storm drain.

Actions Taken to Correct the Problem and Prevent Recurrence:
The break was repaired and the line was returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 01/09/2015

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 619428
DFW AIRPORT, TEXAS 75261-9428
www.dfwairport.com
T 972 973 8888 F 972 973 5751

January 30, 2015

Certified Mail: 7011 3500 0002 0813 2559

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: January 27, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4, at 8:23 am on Wednesday, January 28, 2015 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads "Chris Hughes".

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A broken pipe on the grease interceptor lift pump at Terminal E gate 21 discharged approximately 10 gallons onto the ramp area.

Cause of Noncompliance:

Broken grease interceptor lift pump pipe

Duration:

Start Date and Time: 01/27/15 5:24pm

End Date and Time: 01/27/15 7:14pm

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: All waste water was vacuumed and swept from the ramp area.

Actions Taken to Correct the Problem and Prevent Recurrence:

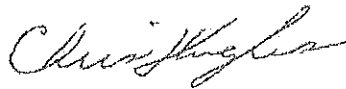
The break was repaired and the lift pump was returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 01/28/2015

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 619428
DFW AIRPORT, TEXAS 75261-9428
www.dfwairport.com
T 972 973 8888 F 972 973 5751

March 17, 2015

Certified Mail: 7011 3500 0002 0813 2863

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: March 12, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4, at 8:15 am on Friday, March 13, 2015 by DFW Airport Environmental Operations Senior Analyst, Ms. Asciatu Whiteside, regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5582.

Sincerely,

A handwritten signature in black ink, appearing to read "Asciatu Whiteside", written in a cursive style.

Asciatu Whiteside
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5582

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

The sump pump to the triturator lift station, located near the southwest exit to the Pad Mary triturator drop, malfunctioned and caused approximately 200 gallons of lavatory waste to overflow out of the vault. The lavatory waste spilled onto the Pad Mary ramp, and into the Echo-Kilo (EK) glycol collection system.

Cause of Noncompliance:

The sump pump did not automatically activate.

Duration:

Start Date and Time: 03/12/2015 at approximately 1:00 pm

End Date and Time: 03/12/2015 at approximately 2:00 pm

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

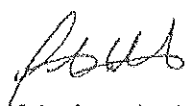
Actions Taken to Mitigate Adverse Effects: Lift station pump switch was turned on manually which enabled the vault to empty into the sanitary sewer system. Impacted area was washed down, vacuumed up and cleaned of debris.

Actions Taken to Correct the Problem and Prevent Recurrence: Environmental Affairs is investigating the cause of the lift station pump malfunction, and will ensure that necessary repairs and routine maintenance are conducted on the equipment in order to prevent recurrence.

Verification Information

Information Reported By (Name/Title): Asciatu Whiteside/ Sr. Environmental Operations Analyst

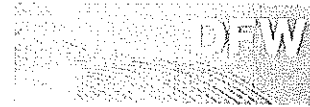
Date Reported: 03/13/2015

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT
3200 EAST AIRFIELD DRIVE, P.O. BOX 819428
DFW AIRPORT, TEXAS 75261-9428
www.dfwairport.com
T 972 973 8888 F 972 973 5751

March 20, 2015

Certified Mail: 7011 3500 0002 0813 2917

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: March 16, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided via voice mail to Ms. Carol Moulton, TCEQ Region 4, at 3:54 pm, March 16, 2015 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script, reading "Chris Hughes", is positioned below the word "Sincerely,".

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

Sanitary line containing condensate and sink waste at Gate A34 ramp side discharged approximately 5 gallons onto ramp area.

Cause of Noncompliance:

An overhead cleanout plug on a sanitary line was removed by American Airlines to avoid overflow of sanitary sewage into Gate A34 Gate House (ramp break room area) due to a blocked line and malfunctioning lift pump.

Duration:

Start Date and Time: 03/16/15 8:51am

End Date and Time: 03/16/15 9:20am

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: All waste water was vacuumed and swept from the ramp area.

Actions Taken to Correct the Problem and Prevent Recurrence:

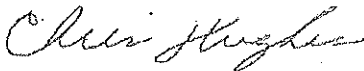
The blockage was cleared, the lift pump was repaired, and the cleanout plug was replaced. The line was then returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 03/16/2015

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



October 15, 2015

Certified Mail: 7011 3500 0002 0813 3754

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: October 13, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4, at 2:00 pm, October 13, 2015 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads 'Chris Hughes'.

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5582

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A clogged sanitary sewer lateral line at Terminal D gate 22 land side discharged approximately 500 gallons from a cleanout.

Cause of Noncompliance:

Clogged lateral line.

Duration:

Start Date and Time: 10/13/2015 approximately 8:00 am

End Date and Time: 10/13/2015 approximately 11:30 am

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: The area was washed down, vacuumed up and cleaned of debris.

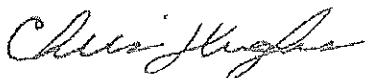
Actions Taken to Correct the Problem and Prevent Recurrence: The clog was removed and the line was returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 10/13/2015

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



November 25, 2015

Certified Mail: 7011 3500 0002 0813 4614

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: November 23, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton's voice mail, TCEQ Region 4, at 3:45 pm, November 23, 2015 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads 'Chris Hughes'.

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 615428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A sanitary sewer bypass line located at the Terminal D loading dock area (location designation G2) discharged approximately 20 gallons of sanitary sewage from a defective coupling.

Cause of Noncompliance:

A leaking coupling was discovered on a temporary bypass line used to transfer sanitary sewage from a lift station under repair.

Duration: Start Date and Time: 11/23/2015 approximately 8:00 am
End Date and Time: 11/23/2015 approximately 11:30 am
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements
☐ Yes ☒ No Laboratory Samples
☐ Yes ☒ No Fish Kill If yes, estimated number killed:

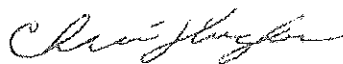
Actions Taken to Mitigate Adverse Effects: Impacted area and stormwater trench drains were flushed with water. All generated wash water was collected and discharged to the sanitary sewer.

Actions Taken to Correct the Problem and Prevent Recurrence: The repair operation was halted until bypass line leak could be corrected.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 11/23/2015

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



December 4, 2015

Certified Mail: 7011 3500 0002 0813 4638

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: December 3, 2015

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton's voice mail, TCEQ Region 4, at 2:09 pm, December 3, 2015 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chris Hughes".

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A sanitary sewer lateral line manhole located at American Airlines hanger 5, across from DPS Station 1 discharged approximately 5 gallons of sanitary sewage. The majority of the spill was onto the parking surface with a small amount entering the storm drain.

Cause of Noncompliance:

Blockage in lateral sewer line.

Duration:

Start Date and Time: 12/3/2015 approximately 11:15 am

End Date and Time: 12/3/2015 approximately 1:30 pm

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Drain blockers were put into place to prevent further entry of spill into storm drains and the pavement was cleaned of sewage.

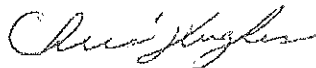
Actions Taken to Correct the Problem and Prevent Recurrence: The blockage was cleared and the line was returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 12/3/2015

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



January 22, 2016

Certified Mail: 7011 3500 0002 0813 4195

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: January 21, 2016

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4, at 2:50 pm, January 21, 2016 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads 'Chris Hughes'.

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619426
DFW Airport, TX 75261-9426

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A sanitary sewer lateral line from 3010 North Airfield discharged approximately 50 gallons of sanitary sewage onto the ground in a vacant field.

Cause of Noncompliance:

Blockage in lateral sewer line.

Duration:

Start Date and Time: 1/21/2016 approximately 8:48 am

End Date and Time: 1/21/2016 approximately 10:45 am

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Area was cleaned of excess fluid and debris.

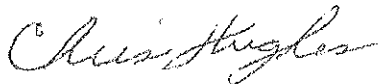
Actions Taken to Correct the Problem and Prevent Recurrence: The blockage was cleared and the line was returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 1/21/2016

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.

DFW
DFW

January 29, 2016

Certified Mail: 7011 3500 0002 0813 4201

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: January 27, 2016

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, by message left at the TCEQ Region 4 office, at 11:19am, January 27, 2016 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,



Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ (X) Unauthorized Discharge

☐ () Reportable Effluent Violation

☐ () Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ () Permittee ☒ (X) Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A grease interceptor lift station under Terminal E Gate 31 air side discharged approximately 5 gallons of sanitary sewage onto the ramp area.

Cause of Noncompliance:

Automated control failure in grease interceptor lift station.

Duration:

Start Date and Time: 1/27/2016 approximately 8:00 am

End Date and Time: 1/27/2016 approximately 10:00 am

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ () Yes ☒ (X) No Field Measurements

☐ () Yes ☒ (X) No Laboratory Samples

☐ () Yes ☒ (X) No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Area was cleaned of fluid and debris.

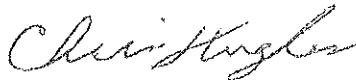
Actions Taken to Correct the Problem and Prevent Recurrence: The lift station is being operated manually until the automated controls can be repaired.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 1/27/2016

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



February 2, 2016

Certified Mail: 7011 3500 0002 0813 4294

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: January 29, 2016

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4 office, at 1:30 pm, January 29, 2016 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script, reading 'Chris Hughes', is positioned below the word 'Sincerely,'.

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A grease interceptor lift station under Terminal E Gate 31 air side discharged approximately 20 gallons of sanitary sewage onto the ramp area.

Cause of Noncompliance:

The power failed in conjunction with an automated control failure in a grease interceptor lift station.

Duration:

Start Date and Time: 1/29/2016 approximately 10:20 am

End Date and Time: 1/29/2016 approximately 11:20 am

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

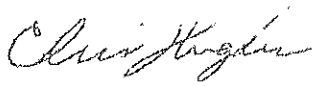
Actions Taken to Mitigate Adverse Effects: Area was cleaned of fluid and debris.

Actions Taken to Correct the Problem and Prevent Recurrence: The power has been restored and the lift station is being operated manually until the automated controls can be repaired or the line rerouted.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

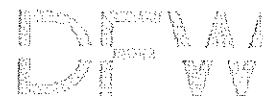
Date Reported: 1/29/2016

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



February 12, 2016

Certified Mail: 7011 3500 0002 0813 4300

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: February 10, 2016

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton, TCEQ Region 4 office, at 3:49 pm, February 10, 2016 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script that reads "Chris Hughes".

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A plugged lateral at 3122 30th Street discharged approximately 200 gallons onto the parking lot and street from a sanitary sewer manhole.

Cause of Noncompliance:

Plugged lateral line.

Duration:

Start Date and Time: 2/9/2016 approximately 5:00 pm

End Date and Time: 2/10/2016 approximately 11:20 am

Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Street and parking lot was cleaned of fluid using a street sweeper.

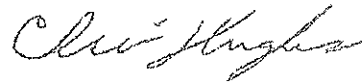
Actions Taken to Correct the Problem and Prevent Recurrence: The blockage was removed and the line returned to service.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 2/10/2016

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



February 18, 2016

Certified Mail: 7011 3500 0002 0813 720

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notice
Release date: February 15, 2016

To Whom It May Concern:

Attached is the written follow-up report to the notice provided to Ms. Carol Moulton's voice mail, TCEQ Region 4 office, at 2:30 pm, February 15, 2016 by DFW Airport Environmental Operations Analyst, Chris Hughes regarding an unauthorized discharge that was discovered on the Dallas/Fort Worth International Airport property.

If you require additional information please contact me at (972) 973-5571.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Chris Hughes', is positioned below the word 'Sincerely,'.

Chris Hughes
Environmental Operations Analyst

cc: R. Horton
S. Lancaster
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619428
DFW Airport, TX 75261-9428

Water Quality Noncompliance Notification

☒ (X) Unauthorized Discharge

☐ () Reportable Effluent Violation

☐ () Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ () Permittee ☒ (X) Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):
A plugged lateral line at 3122 30th Street discharged approximately 100 gallons onto the parking lot and street from a sanitary sewer manhole.

Cause of Noncompliance: Unknown debris in lateral line caused a blockage.

Duration: Start Date and Time: 2/15/2016 approximately 11:30 am
End Date and Time: 2/15/2016 approximately 16:39 pm
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ () Yes ☒ (X) No Field Measurements

☐ () Yes ☒ (X) No Laboratory Samples

☐ () Yes ☒ (X) No Fish Kill If yes, estimated number killed:

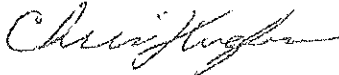
Actions Taken to Mitigate Adverse Effects: A spill blocker was deployed to prevent sewage from entering the storm drain. Street and parking lot was cleaned of fluid using a street sweeper.

Actions Taken to Correct the Problem and Prevent Recurrence: The Airport used a high pressure jetting device to remove blockage and clear the line. The previous blockage which occurred at this location on 2/10/16 was removed using a plumber's auger device which may not have been sufficient in length to completely clean the line and only provided temporary relief.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 2/15/2016

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.

October 10, 2016

Certified Mail: 7014 2120 0003 4634 5017

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

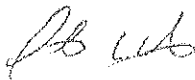
Re: Written Water Quality Noncompliance Notice
Release date: October 6th and 7th, 2016

To Whom It May Concern:

Attached is the completed Water Quality Notification Notice pertaining to the unauthorized discharge of sanitary sewer from a grease interceptor lift station located at Terminal B. The release was reported to Ms. Carol Moulton, TCEQ Region 4 office on October 6th and October 7th, 2016.

The cause of the first release was determined to be a bad circuit breaker, which was replaced. The second release was a result of employee error during troubleshooting and repair. No impact to human health or the environment resulted from these releases. The grease interceptor lift station was repaired on October 7, 2016 and is operating normally. If you require additional information please contact Ms. Asciatu Whiteside at (972) 973-5582.

Sincerely,



Asciatu Whiteside
Environmental Program Manager

cc: R. Horton
C. Hughes
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

TX Department of State
Public Information Division
P.O. Box 12048
Austin, Texas 78711-2048
512.463.2500

Water Quality Noncompliance Notification

☒ (X) Unauthorized Discharge

☐ () Reportable Effluent Violation

☐ () Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5582

☐ () Permittee ☒ (X) Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A grease interceptor lift station under Terminal B Gate 8 air side discharged approximately 100 gallons of sanitary sewage onto the ramp area on 10/6/2016, and approximately 200 gallons of sanitary sewage on 10/7/2016.

Cause of Noncompliance:

Automated control failure in grease interceptor lift station occurred on 10/6/2016. The grease interceptor was placed in manual mode while technicians attempted to identify the reason for the failure. A bad circuit breaker was determined as the cause of the malfunction, and was replaced on 10/6/2016. After the circuit breaker was replaced, it was believed that the lift station was set back to automatic mode; however, the lift station was still left in manual mode which resulted in a second release that occurred on 10/7/2016.

Duration: Start Date and Time: 10/06/2016 approximately 8:00 am
End Date and Time: 10/07/2016 approximately 12:00 pm
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ () Yes ☒ (X) No Field Measurements

☐ () Yes ☒ (X) No Laboratory Samples

☐ () Yes ☒ (X) No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Area was cleaned of fluid and debris.

Actions Taken to Correct the Problem and Prevent Recurrence: The lift station has been repaired and is operating normally.

Verification Information

Information Reported By (Name/Title): Ascitu Whiteside/ Environmental Program Manager

Date Reported: 10/10/2016

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.

DEFW
DEFW

December 19, 2016

Certified Mail: 7011 3500 0002 0813 0524

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

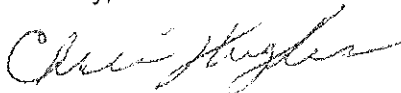
Re: Written Water Quality Noncompliance Notice
Release date: December 14th and 15th, 2016

To Whom It May Concern:

Attached is the completed Water Quality Notification Notice pertaining to the unauthorized discharge of sanitary sewer from a grease interceptor lift station located at Terminal A, gate 16. The release was reported to Ms. Tanya Apple, TCEQ Region 4 office on December 15th at 8:20am.

The cause of the releases were determined to be malfunctioning float switches which activated a system error and power shutdown, resulting in the overflow of the sanitary sewer. No impact to human health or the environment resulted from these releases. The grease interceptor lift station was repaired on December 16, 2016 and is operating normally. If you require additional information please contact Mr. Chris Hughes at (972) 973-5571.

Sincerely,



Chris Hughes
Environmental Analyst

cc: R. Horton
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas-Fort Worth
Enforcement Region
P.O. Box 13087
Austin, Texas 78711-3087

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A grease interceptor lift station under Terminal A Gate 16 air side discharged approximately 300 gallons of sanitary sewage onto the ramp area on 12/14/2016, and approximately 200 gallons of sanitary sewage on 12/15/16.

Cause of Noncompliance:

Automated control failure in a grease interceptor lift station occurred on 12/14/2016 resulting in the discharge of 300 gallons from the sanitary sewer. The grease interceptor was placed in manual mode and reset by the technician in order to reestablish power. On 12/15/16, a second automated control failure occurred, resulting in the discharge of an additional 200 gallons of sanitary sewage. Further investigation by technicians determined the cause of the releases were the result of the float switches becoming entangled inside the lift station preventing pump activation. The float switches were relocated within the lift station on 12/16/2016 to prevent future malfunctions.

Duration: Start Date and Time: 12/14/2016 approximately 12:00 pm
End Date and Time: 12/15/2016 approximately 12:00 pm
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

Actions Taken to Mitigate Adverse Effects: Area was cleaned of fluid and debris.

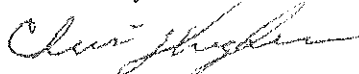
Actions Taken to Correct the Problem and Prevent Recurrence: The lift station has been repaired and is operating normally.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Analyst

Date Reported: 12/15/2016

Signature:



Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.

DFW
DFW

February 10, 2017

Certified Mail: 7011 3500 0002 0813 647

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

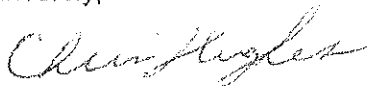
Re: Written Water Quality Noncompliance Notification
Release date: February 6, 2017

To Whom It May Concern:

Attached is the completed Water Quality Noncompliance Notification pertaining to the unauthorized discharge of sanitary sewer from a lateral line at 3122 30th Street. The release was reported to the voicemail of Ms. Carol Moulton, TCEQ Region 4 office, on February 6, 2017 at 2:49 pm.

The cause of the release was determined to be a blocked lateral line which was later unplugged by DFW Airport. If you require additional information please contact Mr. Chris Hughes at (972) 973-5571.

Sincerely,



Chris Hughes
Environmental Operations Analyst

cc: R. Horton
H. Frost
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
2309 Gravel Dr
Fort Worth, TX 76118-6951
(972) 973-5571

Water Quality Noncompliance Notification

☒ (X) Unauthorized Discharge

☐ () Reportable Effluent Violation

☐ () Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5573

☐ () Permittee ☒ (X) Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

A plugged sanitary sewer lateral line at 3122 30th Street resulted in the discharge of approximately 200 gallons of wastewater from a nearby sanitary manhole. The wastewater flowed onto the associated parking lot and approximately 300 feet downgradient to the adjacent roadway.

Cause of Noncompliance: Unknown debris in lateral line caused a blockage.

Duration: Start Date and Time: 2/06/2017 approximately 12:30 pm
End Date and Time: 2/06/2017 approximately 14:15 pm
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ () Yes ☒ (X) No Field Measurements

☐ () Yes ☒ (X) No Laboratory Samples

☐ () Yes ☒ (X) No Fish Kill If yes, estimated number killed:

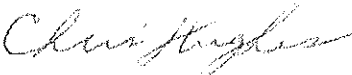
Actions Taken to Mitigate Adverse Effects: A spill blocker was deployed to prevent sewage from entering the storm drain. Street and parking lot was cleaned of fluid using a vacuum truck.

Actions Taken to Correct the Problem and Prevent Recurrence: The Airport contractor ERM used a plumber's auger device to remove blockage and clear the line. Environmental Affairs is working with airport personnel to determine if inappropriate materials, which may have contributed to the blockage, are being disposed into the sanitary sewer system.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 2/06/2017

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.

DFW
DFW

February 17, 2017

Certified Mail: 7011 3500 0002 0813 0678

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

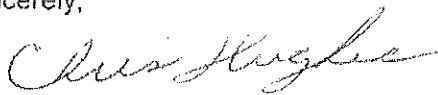
Re: Written Water Quality Noncompliance Notification
Release date: February 13th and 14th, 2017

To Whom It May Concern:

Attached is the completed Water Quality Noncompliance Notification pertaining to the unauthorized discharge of sanitary sewage from a lateral line at 3122 30th Street. The releases were reported to the voicemail of Ms. Carol Moulton, TCEQ Region 4 office, on February 14, 2017 at 8:37am and February 15, 2017 at 9:15 am.

The cause of these releases was determined to be a blocked lateral line which was cleared by DFW Airport. No impact to human health or the environment resulted from these releases. If you require additional information please contact Mr. Chris Hughes at (972) 973-5571.

Sincerely,



Chris Hughes
Environmental Operations Analyst

cc: R. Horton
H. Frost
A. Whiteside
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 116478
DFW Airport, TX 75261-0478

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

On February 13, 2017, a blocked sanitary sewer lateral line at 3122 30th Street resulted in the overflow of approximately 30 gallons of sewage from a sanitary manhole into the parking area. A similar release (also discharging approximately 30 gallons of sewage) occurred on February 14, 2017, and is believed to be the result of the lateral line not being completely cleared during the initial corrective action.

Cause of Noncompliance: Solid materials and/or debris inside the lateral line was identified as one of the contributing factors causing the initial release. However, insufficient clearing of the lateral line during the initial response on February 13th resulted in the reoccurrence on February 14th.

Duration: Start Date and Time: 2/13/2017 approximately 1:00 pm
End Date and Time: 2/14/2017 approximately 10:00 am
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

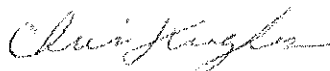
Actions Taken to Mitigate Adverse Effects: Absorbent materials were used to contain the discharges and ensure nearby storm drain inlets were not impacted. Street and parking lot was cleaned of fluid and absorbent using a vacuum truck.

Actions Taken to Correct the Problem and Prevent Recurrence: The airport used a plumber's auger to initially clear the line and a high pressure jetting device during the follow-up response to ensure the line was sufficiently cleared of all debris. Environmental Affairs is working with airport personnel to conduct an investigation on the condition of the line as well as other factors to determine the underlying cause of the blockage.

Verification Information

Information Reported By (Name/Title): Chris Hughes/ Environmental Operations Analyst

Date Reported: 2/14/2017

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.



March 30, 2017

Certified Mail: 7011 3500 0002 0813 0739

TCEQ, Water Quality Compliance Monitoring Team (MC224)
Enforcement Division
P.O. Box 13087
Austin, TX 78711-3087

Re: Written Water Quality Noncompliance Notification
Release date: March 27, 2017

To Whom It May Concern:

Attached is the completed Water Quality Noncompliance Notification pertaining to the unauthorized discharge of sanitary sewage from a lateral line at 2900 East 28th Street. The release was reported to the voicemail of Ms. Carol Moulton, TCEQ Region 4 office, on March 28, 2017 at 10:46 am.

The initial cause of the release was determined to be a blocked lateral line which was cleared by DFW Airport personnel. A video inspection of the line indicated that corrosion of the cast iron pipe has reduced line capacity which is contributing to pipe obstruction. The Airport will be exploring long term solutions for this issue in an effort to prevent reoccurrence. No impact to human health or the environment resulted from these releases. If you require additional information please contact Mr. Chris Hughes at (972) 973-5571.

Sincerely,

A handwritten signature in black ink, appearing to read "Asciatu Whiteside", is positioned above the typed name.

Asciatu Whiteside
Environmental Program Manager

cc: R. Horton
H. Frost
C. Hughes
E. Simon
Carol Moulton (TCEQ, Region 4-Dallas/Fort Worth
2309 Gravel Dr. Fort Worth, TX 76118-6951)
File

Dallas Fort Worth
International Airport
P.O. Box 619425
DFW Airport, TX 75201-4225

Water Quality Noncompliance Notification

☒ Unauthorized Discharge

☐ Reportable Effluent Violation

☐ Other

General Information

Entity Name: Dallas/Fort Worth International Airport

Telephone No: (972) 973-5571

☐ Permittee ☒ Subscriber

TCEQ Region: 4

County: Tarrant

Permit Number*: 10303-001

Noncompliance Summary

Description of Noncompliance (include location, discharge route, and estimated volume if an unauthorized discharge):

On March 27, 2017, a blocked sanitary sewer lateral line at 2900 E. 28th Street resulted in the overflow of approximately 20 gallons of sewage from a sanitary cleanout into the grass adjacent to the parking area.

Cause of Noncompliance: Solid materials and/or debris inside the lateral line were identified as one of the contributing factors causing the initial release.

Duration: Start Date and Time: 3/27/2017 approximately 2:00 pm
End Date and Time: 3/27/2017 approximately 2:30 pm
Or Date Expected to be corrected:

Potential Danger to Human Health and Safety or the Environment: None

Actions Taken

Monitoring Data: Data should be attached or submitted to TCEQ when available.

☐ Yes ☒ No Field Measurements

☐ Yes ☒ No Laboratory Samples

☐ Yes ☒ No Fish Kill If yes, estimated number killed:

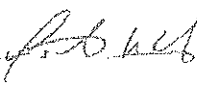
Actions Taken to Mitigate Adverse Effects: The area was vacuumed of debris and liquids.

Actions Taken to Correct the Problem and Prevent Recurrence: The Airport used a high pressure jetting device to clear and clean the line and contracted to have the line video inspected. While the video inspection revealed no breaks or blockages in the line, significant corrosion of the cast iron pipe has reduced line capacity which is contributing to pipe obstruction. The Airport is currently exploring long term solutions for this issue in an effort to prevent reoccurrence.

Verification Information

Information Reported By (Name/Title): Asciatu Whiteside/ Environmental Program Manager

Date Reported: 3/28/2017

Signature: 

Note: If this form is being used for a 5-day written report, a copy of the form should be sent to the TCEQ Region Office, and the original to: TCEQ, Water Quality Compliance Monitoring Team (MC224), Enforcement Division, P.O. Box 13087, Austin, TX 78711-3087.

TCEQ-0501 (7/13/2001)

* If the noncompliance is an unauthorized discharge from a wastewater collection system, use the permit number of the treatment plant to which the collection system is tied.