

1107-001-01

March 4, 2020

Texas Commission on Environmental Quality Applications Review and Processing Team Building F, Room 2101 12100 Park 35 Circle Austin, Texas 78753

Re: City of Laredo (CN600131908) South Laredo Wastewater Treatment Facility (RN103026126) Application for Renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010681003

To Whom It May Concern:

On behalf of the City of Laredo, Plummer submits one original and three copies of a renewal application for the above-referenced permit. The application fee of \$2,015.00 for the Domestic Wastewater Permit Application and has been submitted to the Texas Commission on Environmental Quality Cashier's Office (MC-214) under a separate cover.

Please feel free to contact me at <u>tkoenings@plummer.com</u>, (512) 687-2148, if you have any questions regarding this submittal.

Sincerely,

PLUMMER TBPE Firm Registration No. F-13

ms sering

Tres Koenings Senior Project Manager

Enclosures: Permit Renewal Application (1 original, 3 copies)

cc: Jose Chavarria, City of Laredo Carl Scruggs, City of Laredo

RECEIVED

MAR 0 4 2020 Water Quality Applications Team

6300 La Calma Drive, Suite 400 Austin, Texas 78752 Phone 512.452.5905 Fax 512.452.2325 plummer.com TBPE Firm No. 13

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if the mailing the payment.

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- Do not mail this form with the application form.
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental Quality Financial Administration Division Cashier's Office, MC-214 P.O. Box 13088 Austin, Texas 78711-3088

BY OVERNIGHT/EXPRESS MAIL

MAR 0 4 2020

TCEO/Revenue Section

Texas Commission on Environmental Quality Financial Administration Division Cashier's Office, MC-214 12100 Park 35 Circle Austin, Texas 78753

1.14

Fee Code: WQP Waste Permit No: WQ0010681003 RECEIVED

- 1. Check or Money Order Number: 109177
- 2. Check or Money Order Amount: <u>\$2,015.00</u>
- 3. Date of Check or Money Order: 2/5/2020
- 4. Name on Check or Money Order: City of Laredo
- 5. APPLICATION INFORMATION

Name of Project or Site: South Laredo Wastewater Treatment Facility

Physical Address of Project or Site: 309 River Front Street, Texas 78046

If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application.

PLUMMER 1320 South University Drive, Suite 300 Fort Worth, Texas 76107 817-806-1700	109177 CHASE JPMorgan Chase Bank, N.A. www.Chase.com 32-61/1110 CHECK DATE
	February 5, 2020
PAY	
Two Thousand Fifteen and 00/100 Dollars	AMOUNT
то	2.015.00
Texas Commission on Environmental Quality	
PO Box 13088 Austin, 78711-3088	B B Carl Auch
	Aprilonize sicilation



CITY OF LAREDO, TEXAS

TPDES PERMIT NO. WQ0010681003 SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

SUBMITTED TO:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

MARCH 2020



1107-001-01

CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

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А	Core Data Form	Admin Rpt 1.0 Section 3.C
В	U.S. Geological Survey Map	Admin Rpt 1.0 Section 13
С	List of Treatment Units	Tech Rpt. 1.0, Section 2.B
D	Process Flow Diagram	Tech Rpt. 1.0, Section 2.C
E	Site Drawing	Tech Rpt. 1.0, Section 4
F	Acceptance of Sludge from Other WWTPs	Tech Rpt. 1.0 Section 6.G.1
G	Pollutant Analysis of Treated Effluent	Tech Rpt. 1.0, Section 7; Wksht 4.0 Sections 1 and 2
Н	Biomonitoring Results	Wksht 5.0, Section 1 and 3
I	Parameters above MAL	Wksht 6.0, Section 2.C

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



DOMESTIC WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the application.

APPLICANT: <u>City of Laredo</u>

PERMIT NUMBER: WQ0010681003

Indicate if each of the following items is included in your application.

	Y	Ν		Y	Ν
Administrative Report 1.0	\boxtimes		Original USGS Map	\boxtimes	
Administrative Report 1.1		\boxtimes	Affected Landowners Map		\boxtimes
SPIF	\boxtimes		Landowner Disk or Labels		\boxtimes
Core Data Form	\boxtimes		Buffer Zone Map		\boxtimes
Technical Report 1.0	\boxtimes		Flow Diagram	\boxtimes	
Technical Report 1.1		\boxtimes	Site Drawing	\boxtimes	
Worksheet 2.0	\boxtimes		Original Photographs		\boxtimes
Worksheet 2.1		\boxtimes	Design Calculations		\boxtimes
Worksheet 3.0		\boxtimes	Solids Management Plan		\boxtimes
Worksheet 3.1		\boxtimes	Water Balance		\boxtimes
Worksheet 3.2		\boxtimes			
Worksheet 3.3		\boxtimes			
Worksheet 4.0	\boxtimes				
Worksheet 5.0	\boxtimes				
Worksheet 6.0	\boxtimes				
Worksheet 7.0		\boxtimes			

For TCEQ Use Only

Segment Numbe	rCounty
Expiration Date	Region
Permit Number	



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

APPLICATION FOR A DOMESTIC WASTEWATER PERMIT ADMINISTRATIVE REPORT 1.0

TCEQ If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

Section 1. Application Fees (Instructions Page 29)

Indicate the amount submitted for the application fee (check only one).

Flow	New/Major Ame	endr	nent Renewal		
<0.05 MGD	\$350.00		\$315.00 🗆		
≥0.05 but <0.10 MGI	⊃ \$550.00 □		\$515.00 🗆		
≥0.10 but <0.25 MGI	5 \$850.00 □		\$815.00 □		
≥0.25 but <0.50 MGI) \$1,250.00 □		\$1,215.00		
≥0.50 but <1.0 MGD	\$1,650.00		\$1,615.00		
≥1.0 MGD	\$2,050.00		\$2,015.00 ⊠		
Minor Amendment (for any flow) \$150.00 🗖					
Payment Information	n:				
Mailed C	Check/Money Order Number:	109	177		
C	Check/Money Order Amount:	<u>\$2,0</u>	015.00		
Ν	Jame Printed on Check: Plumr	mer			
FPAY V	/oucher Number: N/A				
Conv of Dovro	art Vencher analoged?	-			
Copy of Payme	ant voucher enclosed?		$\underline{\mathbf{N}}$		
Section 2. Type	of Application (Instruc	ctio	ons Page 29)		
□ New TPDES			New TLAP		
□ Major Amendme	nt <u>with</u> Renewal		Minor Amendment <u>with</u> Renewal		
□ Major Amendme	nt <u>without</u> Renewal		Minor Amendment <u>without</u> Renewal		
⊠ Renewal without	changes		Minor Modification of permit		
For amendments or n	nodifications, describe the pro	opo	sed changes: <u>N/A</u>		
For existing permits:	:				
Permit Number: WOO	010681003				
EDA LD (TDDEC only)	· TV0085216				
EFA I.D. (TPDES ONLY)	. 1A <u>0085510</u>				

Section 3. Facility Owner (Applicant) and Co-Applicant Information (Instructions Page 29)

A. The owner of the facility must apply for the permit.

What is the Legal Name of the entity (applicant) applying for this permit?

City of Laredo

(The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal documents forming the entity.)

If the applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at <u>http://www15.tceq.texas.gov/crpub/</u>

CN: <u>600131908</u>

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: <u>Robert A. Eads</u>

Credential (P.E, P.G., Ph.D., etc.): ICMA-CM

Title: Interim Co-City Manager

B. Co-applicant information. Complete this section only if another person or entity is required to apply as a co-permittee.

What is the Legal Name of the co-applicant applying for this permit?

<u>N/A</u>

(The legal name must be spelled exactly as filed with the TX SOS, with the County, or in the legal documents forming the entity.)

If the co-applicant is currently a customer with the TCEQ, what is the Customer Number (CN)? You may search for your CN on the TCEQ website at: <u>http://www15.tceq.texas.gov/crpub/</u>

CN: <u>N/A</u>

What is the name and title of the person signing the application? The person must be an executive official meeting signatory requirements in *30 TAC § 305.44*.

Prefix (Mr., Ms., Miss): <u>N/A</u> First and Last Name: <u>N/A</u> Credential (P.E, P.G., Ph.D., etc.): <u>N/A</u> Title: <u>N/A</u> Provide a brief description of the need for a co-permittee: <u>N/A</u>

C. Core Data Form

Complete the Core Data Form for each customer and include as an attachment. If the customer type selected on the Core Data Form is **Individual**, complete **Attachment 1** of Administrative Report 1.0.

Attachment: <u>A</u>

Section 4. Application Contact Information (Instructions Page 30)

This is the person(s) TCEQ will contact if additional information is needed about this application. Provide a contact for administrative questions and technical questions.

A.	Prefix (Mr., Ms., Miss): <u>Mr.</u>		
	First and Last Name: <u>Riazul I. Mia</u>		
	Credential (P.E, P.G., Ph.D., etc.): <u>P.E., CFM</u>		
	Title: <u>Utilities Director</u>		
	Organization Name: <u>City of Laredo</u>		
	Mailing Address: <u>5816 Daugherty Ave.</u>		
	City, State, Zip Code: <u>Laredo, TX 78041</u>		
	Phone No.: (956) 721-2000 Ext.: <u>N/A</u> Fax No.: (956) 721-2001		
	E-mail Address: <u>rmia@ci.laredo.tx.us</u>		
	Check one or both:	\boxtimes	Technical Contact
B.	Prefix (Mr., Ms., Miss): <u>Mr.</u>		
	First and Last Name: <u>Tres Koenings</u>		
	Credential (P.E, P.G., Ph.D., etc.):		
	Title: <u>Senior Project Manager</u>		
	Organization Name: <u>Plummer Associates, Inc.</u>		
	Mailing Address: <u>6300 La Calma Dr, Ste 400</u>		
	City, State, Zip Code: <u>Austin, TX 78752</u>		
	City, State, Zip Code: <u>Austin, TX 78752</u> Phone No.: <u>512-687-2148</u> Ext.: <u>N/A</u> Fax No.: <u>512-452-2325</u>		
	City, State, Zip Code: <u>Austin, TX 78752</u> Phone No.: <u>512-687-2148</u> Ext.: <u>N/A</u> Fax No.: <u>512-452-2325</u> E-mail Address: <u>tkoenings@plummer.com</u>		
	City, State, Zip Code: <u>Austin, TX 78752</u> Phone No.: <u>512-687-2148</u> Ext.: <u>N/A</u> Fax No.: <u>512-452-2325</u> E-mail Address: <u>tkoenings@plummer.com</u> Check one or both: \square Administrative Contact	\boxtimes	Technical Contact

Section 5. Permit Contact Information (Instructions Page 30)

Provide two names of individuals that can be contacted throughout the permit term.

A. Prefix (Mr., Ms., Miss): Mr.

First and Last Name: <u>Riazul I. Mia</u>

Credential (P.E, P.G., Ph.D., etc.): <u>P.E., CFM</u>

Title: <u>Utilities Director</u>

Organization Name: <u>City of Laredo</u>

Mailing Address: 5816 Daugherty Ave.

City, State, Zip Code: <u>Laredo, TX 78041</u>

Phone No.: <u>956-721-2000</u> Ext.: <u>N/A</u> Fax No.: <u>956-721-2001</u>

E-mail Address: <u>rmia@ci.laredo.tx.us</u>

B. Prefix (Mr., Ms., Miss): <u>Mr.</u>

First and Last Name: Michael Rodgers

Credential (P.E, P.G., Ph.D., etc.):

Title: Assistant Utilities Director

Organization Name: <u>City of Laredo</u>

Mailing Address: <u>5816 Daugherty Ave.</u>

City, State, Zip Code: Laredo, TX 78041

Phone No.: <u>956-721-2000</u> Ext.: <u>N/A</u> Fax No.: <u>956-721-2001</u>

E-mail Address: <u>mrodgers@ci.laredo.tx.us</u>

Section 6. Billing Information (Instructions Page 30)

The permittee is responsible for paying the annual fee. The annual fee will be assessed to permits *in effect on September 1 of each year*. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (using form TCEQ-20029).

Prefix (Mr., Ms., Miss): <u>Mr.</u> First and Last Name: <u>Riazul I. Mia</u> Credential (P.E, P.G., Ph.D., etc.): <u>P.E., CFM</u> Title: <u>Utilities Director</u> Organization Name: <u>City of Laredo</u> Mailing Address: <u>5816 Daugherty Ave.</u> City, State, Zip Code: <u>Laredo, TX 78041</u> Phone No.: <u>956-721-2000 Ext.</u>: <u>N/A Fax No.</u>: <u>956-721-2001</u> E-mail Address: <u>rmia@ci.laredo.tx.us</u>

Section 7. DMR/MER Contact Information (Instructions Page 31)

Provide the name and complete mailing address of the person delegated to receive and submit Discharge Monitoring Reports (EPA 3320-1) or maintain Monthly Effluent Reports.

Prefix (Mr., Ms., Miss): <u>Mr.</u> First and Last Name: <u>Riazul I. Mia</u> Credential (P.E, P.G., Ph.D., etc.): <u>P.E., CFM</u> Title: <u>Utilities Director</u> Organization Name: <u>City of Laredo</u> Mailing Address: <u>5816 Daugherty Ave.</u> City, State, Zip Code: <u>Laredo, TX 78041</u> Phone No.: <u>956-721-2000 Ext.: N/A Fax No.: 956-721-2001</u> E-mail Address: <u>rmia@ci.laredo.tx.us</u>

DMR data is required to be submitted electronically. Create an account at:

https://www.tceq.texas.gov/permitting/netdmr/netdmr.html.

Section 8. Public Notice Information (Instructions Page 31)

A. Individual Publishing the Notices

Prefix (Mr., Ms., Miss): <u>Mr.</u> First and Last Name: <u>Tres Koenings</u> Credential (P.E, P.G., Ph.D., etc.): Title: <u>Senior Project Manager</u> Organization Name: <u>Plummer Associates, Inc.</u> Mailing Address: <u>6300 La Calma Dr, Ste 400</u> City, State, Zip Code: <u>Austin, TX 78752</u> Phone No.: <u>512-687-2148</u> Ext.: <u>N/A</u> Fax No.: <u>512-452-2325</u> E-mail Address: <u>tkoenings@plummer.com</u>

B. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package

Indicate by a check mark the preferred method for receiving the first notice and instructions:

- ⊠ E-mail Address
- □ Fax
- □ Regular Mail

C. Contact person to be listed in the Notices

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: <u>Riazul I. Mia</u>

Credential (P.E, P.G., Ph.D., etc.): <u>P.E., CFM</u> Title: <u>Utilities Director</u> Organization Name: <u>City of Laredo</u> Phone No.: <u>956-721-2000</u> Ext.: <u>N/A</u> E-mail: <u>rmia@ci.laredo.tx.us</u>

D. Public Viewing Information

If the facility or outfall is located in more than one county, a public viewing place for each county must be provided.

Public building name: Joe A. Guerra Laredo Public Library

Location within the building: <u>First Floor Reference Desk</u>

Physical Address of Building: <u>1120 E. Calton Rd.</u>

City: Laredo

County: <u>Webb</u>

Contact Name: <u>Maria G. Soliz</u>

Phone No.: <u>956-795-2400</u> Ext.: <u>2222</u>

E. Bilingual Notice Requirements:

This information **is required** for **new, major amendment, and renewal applications**. It is not required for minor amendment or minor modification applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

🖾 Yes 🗆 No

If **no**, publication of an alternative language notice is not required; **skip to** Section 9 below.

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

🖾 Yes 🗆 No

3. Do the students at these schools attend a bilingual education program at another location?

□ Yes ⊠ No

4. Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC §89.1205(g)?

🗆 Yes 🖾 No

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? <u>Spanish</u>

Section 9. Regulated Entity and Permitted Site Information (Instructions Page 33)

A. If the site is currently regulated by TCEQ, provide the Regulated Entity Number (RN) issued to this site. **RN**<u>103026126</u>

Search the TCEQ's Central Registry at <u>http://www15.tceq.texas.gov/crpub/</u> to determine if the site is currently regulated by TCEQ.

B. Name of project or site (the name known by the community where located):

South Laredo Wastewater Treatment Facility

C. Owner of treatment facility: <u>City of Laredo</u>

Ownership of Facility:	\times	Public		Private		Both		Federal
------------------------	----------	--------	--	---------	--	------	--	---------

D. Owner of land where treatment facility is or will be:

Prefix (Mr., Ms., Miss):

First and Last Name: City of Laredo

Mailing Address: <u>5816 Daugherty Ave.</u>

City, State, Zip Code: Laredo, TX 78041

Phone No.: <u>956-721-2000</u>

0 E-mail Address: <u>rmia@ci.laredo.tx.us</u>

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: <u>N/A</u>

E. Owner of effluent disposal site:

Prefix (Mr., Ms., Miss): <u>N/A</u> First and Last Name: <u>N/A</u>

Mailing Address: <u>N/A</u>

City, State, Zip Code: <u>N/A</u>

Phone No.: <u>N/A</u>

E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: <u>N/A</u>

F. Owner of sewage sludge disposal site (if authorization is requested for sludge disposal on property owned or controlled by the applicant):

Prefix (Mr., Ms., Miss): <u>N/A</u> First and Last Name: <u>N/A</u> Mailing Address: <u>N/A</u> City, State, Zip Code: <u>N/A</u> Phone No.: <u>N/A</u>

E-mail Address: N/A

If the landowner is not the same person as the facility owner or co-applicant, attach a lease agreement or deed recorded easement. See instructions.

Attachment: <u>N/A</u>

Section 10. TPDES Discharge Information (Instructions Page 34)

A. Is the wastewater treatment facility location in the existing permit accurate?

🖾 Yes 🗆 No

If **no**, **or a new permit application**, please give an accurate description:

<u>N/A</u>		

- **B.** Are the point(s) of discharge and the discharge route(s) in the existing permit correct?
 - 🖾 Yes 🗆 No

If **no**, **or a new or amendment permit application**, provide an accurate description of the point of discharge and the discharge route to the nearest classified segment as defined in <u>30 TAC Chapter 307</u>:

<u>N/A</u>

City nearest the outfall(s): <u>Laredo</u>

County in which the outfalls(s) is/are located: Webb

Outfall Latitude: <u>27.4467</u>

Longitude: <u>-99.4886</u>

C. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

🗆 Yes 🖾 No

If **yes**, indicate by a check mark if:

	Authorization granted		Authorization pending
--	-----------------------	--	-----------------------

For **new and amendment** applications, provide copies of letters that show proof of contact and the approval letter upon receipt.

Attachment: <u>N/A</u>

D. For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge.

Webb, Zapata, and Starr Counties

Section 11. TLAP Disposal Information (Instructions Page 36)

A. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

□ Yes □ No <u>N/A – Not a TLAP</u>

If **no, or a new or amendment permit application**, provide an accurate description of the disposal site location:

<u>N/A</u>

- **B.** City nearest the disposal site: N/A
- C. County in which the disposal site is located: $\underline{N/A}$
- **D.** Disposal Site Latitude: <u>N/A</u> Longitude: <u>N/A</u>
- E. For TLAPs, describe the routing of effluent from the treatment facility to the disposal site:

<u>N/A</u>

F. For **TLAPs**, please identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained:

<u>N/A</u>

Section 12. Miscellaneous Information (Instructions Page 37)

A. Is the facility located on or does the treated effluent cross American Indian Land?

🗆 Yes 🖾 No

- **B.** If the existing permit contains an onsite sludge disposal authorization, is the location of the sewage sludge disposal site in the existing permit accurate?
 - 🗆 Yes 🗆 No
 - Not Applicable

If No, or if a new onsite sludge disposal authorization is being requested in this permit

application, provide an accurate location description of the sewage sludge disposal site.

<u>N/A</u>

- **C.** Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?
 - 🖾 Yes 🗆

If yes, list each person formerly employed by the TCEQ who represented your company and was paid for service regarding the application:

<u>Tres Koenings</u>

D. Do you owe any fees to the TCEQ?

🗆 Yes 🖾 No

If **yes**, provide the following information:

No

Account number: <u>N/A</u>

Amount past due: N/A

E. Do you owe any penalties to the TCEQ?

Yes	\bowtie	No

If **yes**, please provide the following information:

Enforcement order number: <u>N/A</u>

Amount past due: <u>N/A</u>

Section 13. Attachments (Instructions Page 38)

Indicate which attachments are included with the Administrative Report. Check all that apply:

- Lease agreement or deed recorded easement, if the land where the treatment facility is located or the effluent disposal site are not owned by the applicant or co-applicant.
- Original full-size USGS Topographic Map with the following information:
 - Applicant's property boundary
 - Treatment facility boundary
 - Labeled point of discharge for each discharge point (TPDES only)
 - Highlighted discharge route for each discharge point (TPDES only)
 - Onsite sewage sludge disposal site (if applicable)
 - Effluent disposal site boundaries (TLAP only)
 - New and future construction (if applicable)
 - 1 mile radius information
 - 3 miles downstream information (TPDES only)
 - All ponds.

See Attachment B

- Attachment 1 for Individuals as co-applicants
- Other Attachments. Please specify: <u>See Table of Attachments</u>

Section 14. Signature Page (Instructions Page 39)

If co-applicants are necessary, each entity must submit an original, separate signature page.

Permit Number: WO0010681003

Applicant: City of Laredo

Certification:

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

I further certify that I am authorized under 30 Texas Administrative Code § 305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Robert A. Eads, ICMA-CM Signatory title: Interim Co-City Manager

Signature:	falional	Date: 2/19/2020	
-	(Use blue ink)		

Subscribed and	Sworn to before	me by the	said Robert A.	Eads
on this	19	day of	February	, 20 20.
My commission	expires on the	21	day of February	, 20 <u>22</u> .

Dool)

Notary Public

County, Texas



[SEAL]

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:	
Application type:RenewalMajor A	nendmentNinor AmendmentNew
County:	Segment Number:
Admin Complete Date:	_
Agency Receiving SPIF:	
Texas Historical Commission	U.S. Fish and Wildlife
Texas Parks and Wildlife Department	U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee: <u>City of Laredo</u>

Permit No. WQ00 <u>10681003</u>

EPA ID No. TX <u>0085316</u>

Address of the project (or a location description that includes street/highway, city/vicinity, and county):

309 River Front Street, Webb County, Texas 78046

Provide the name, address, phone and fax number of an individual that can be contacted to answer specific questions about the property.

Prefix (Mr., Ms., Miss): Mr. First and Last Name: Riazul I. Mia Credential (P.E, P.G., Ph.D., etc.): P.E., CFM **Title: Utilities Director** Mailing Address: 5816 Daugherty Ave. City, State, Zip Code: Laredo, TX 78041 Phone No.: <u>956-721-2000</u> Ext.: <u>N/A</u> Fax No.: <u>956-721-2001</u> E-mail Address: rmia@ci.laredo.tx.us

- 2. List the county in which the facility is located: Webb
- 3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

N/A

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

Directly to Rio Grande Amistad Reservoir in Segment No. 2304 of the Rio Grande Basin

5. Please provide a separate 7.5-minute USGS guadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

See SPIF 1 and SPIF 2

Provide original photographs of any structures 50 years or older on the property.

Does your project involve any of the following? Check all that apply.

- Proposed access roads, utility lines, construction easements
- Visual effects that could damage or detract from a historic property's integrity
- Vibration effects during construction or as a result of project design
- Additional phases of development that are planned for the future
- Sealing caves, fractures, sinkholes, other karst features

- Disturbance of vegetation or wetlands
- 6. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

<u>N/A</u>

7. Describe existing disturbances, vegetation, and land use:
Existing land use is typical of a wastewater treatment facility of this size.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

8. <u>List construction dates of all buildings and structures on the property:</u>

<u>N/A</u>

9. Provide a brief history of the property, and name of the architect/builder, if known. <u>N/A</u>



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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY **DOMESTIC WASTEWATER PERMIT APPLICATION**

DOMESTIC TECHNICAL REPORT 1.0

The Following Is Required For All Applications Renewal, New, And Amendment

Section 1. Permitted or Proposed Flows (Instructions Page 51)

A. Existing/Interim I Phase

Design Flow (MGD): <u>18</u> 2-Hr Peak Flow (MGD): <u>72</u> Estimated construction start date: <u>N/A</u> Estimated waste disposal start date: <u>N/A</u>

B. Interim II Phase

Design Flow (MGD): <u>N/A</u> 2-Hr Peak Flow (MGD): <u>N/A</u> Estimated construction start date: <u>N/A</u> Estimated waste disposal start date: <u>N/A</u>

C. Final Phase

Design Flow (MGD): <u>N/A</u> 2-Hr Peak Flow (MGD): <u>N/A</u> Estimated construction start date: <u>N/A</u> Estimated waste disposal start date: <u>N/A</u>

D. Current operating phase: <u>Existing/Interim I</u> Provide the startup date of the facility: <u>1983</u>

Section 2. Treatment Process (Instructions Page 51)

A. Treatment process description

Provide a detailed description of the treatment process. Include the type of

treatment plant, mode of operation, and all treatment units. Start with the plant's head works and finish with the point of discharge. Include all sludge processing and drying units. **If more than one phase exists or is proposed in the permit, a description of** *each phase* **must be provided**. Process description:

The South Laredo Wastewater Treatment Facility is an activated sludge process plant operated in complete mix mode. Treatment units in the Existing/Interim I Phase include two mechanical bar screens, one manual bar screen, three aeration basins, four clarifiers, two chlorine contact basins, one aerated sludge holding tank, one gravity thickener, and a sludge dewatering building. Sludge generated from the treatment facility is currently hauled by a registered transporter and disposed of at authorized landfills.

Port or pipe diameter at the discharge point, in inches: <u>54 inches</u>

B. Treatment Units

In Table 1.0(1), provide the treatment unit type, the number of units, and dimensions (length, width, depth) **of each treatment unit, accounting for** *all* **phases of operation**.

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
<u>See Attachment C</u>		

Table 1.0(1) - Treatment Units

C. Process flow diagrams

Provide flow diagrams for the existing facilities and **each** proposed phase of construction.

Attachment: D

Section 3. Site Drawing (Instructions Page 52)

Provide a site drawing for the facility that shows the following:

- The boundaries of the treatment facility;
- The boundaries of the area served by the treatment facility;
- If land disposal of effluent, the boundaries of the disposal site and all storage/holding ponds; and
- If sludge disposal is authorized in the permit, the boundaries of the land application or disposal site.

Attachment: <u>E</u>

Provide the name and a description of the area served by the treatment facility.

City of Laredo - South Side		

Section 4. Unbuilt Phases (Instructions Page 52)

Is the application for a renewal of a permit that contains an unbuilt phase or

phases?

Yes 🗆 No 🖂

If yes, does the existing permit contain a phase that has not been constructed within five years of being authorized by the TCEQ?

Yes \Box No \Box <u>N/A</u>

If yes, provide a detailed discussion regarding the continued need for the unbuilt phase. Failure to provide sufficient justification may result in the Executive Director recommending denial of the unbuilt phase or phases.

<u>N/A</u>

Section 5. Closure Plans (Instructions Page 53)

Have any treatment units been taken out of service permanently, or will any units be taken out of service in the next five years? No 🖂

Yes □

If yes, was a closure plan submitted to the TCEQ?

Yes □ No 🗆 N/A

If yes, provide a brief description of the closure and the date of plan approval.

N/A

Section 6. Permit Specific Requirements (Instructions Page 53)

For applicants with an existing permit, check the Other Requirements or Special Provisions of the permit.

A. Summary transmittal

Have plans and specifications been approved for the existing facilities and each proposed phase?

Yes 🖂 No 🗆

If yes, provide the date(s) of approval for each phase: Existing/Interim I:

9/13/16

Provide information, including dates, on any actions taken to meet a requirement or provision pertaining to the submission of a summary transmittal letter. Provide a copy of an approval letter from the TCEQ, if applicable.

N/A

B. Buffer zones

Have the buffer zone requirements been met?

Yes 🖂 No 🗆

Provide information below, including dates, on any actions taken to meet the conditions of the buffer zone. If available, provide any new documentation

relevant to maintaining the buffer zones.

<u>N/A</u>

C. Other actions required by the current permit

Does the *Other Requirements* or *Special Provisions* section in the existing permit require submission of any other information or other required actions? Examples include Notification of Completion, progress reports, soil monitoring data, etc.

Yes 🖂 🛛 No 🗆

If yes, provide information below on the status of any actions taken to meet the conditions of an *Other Requirement* or *Special Provision*.

Other Requirements provision No. 7 requires the permittee to submit a summary transmittal letter prior to construction of the Final phase facilities. The permittee submitted this summary transmittal letter and it was subsequentially approved 9/13/16. Therefore, Other Requirements provision No. 7 has been fulfilled.

D. Grit and grease treatment

1. Acceptance of grit and grease waste

Does the facility have a grit and/or grease processing facility onsite that treats and decants or accepts transported loads of grit and grease waste that are discharged directly to the wastewater treatment plant prior to any treatment?

Yes 🗆 🛛 No 🖂

If No, stop here and continue with Subsection E. Stormwater Management.

2. Grit and grease processing

Describe below how the grit and grease waste is treated at the facility. In your description, include how and where the grit and grease is introduced to the treatment works and how it is separated or processed. Provide a flow diagram showing how grit and grease is processed at the facility. <u>N/A</u>

3. Grit disposal

Does the facility have a Municipal Solid Waste (MSW) registration or permit for grit disposal?

Yes 🗆 🛛 No 🖂

If No, contact the TCEQ Municipal Solid Waste team at 512-239-0000. Note: A registration or permit is required for grit disposal. Grit shall not be combined with treatment plant sludge. See the instruction booklet for additional information on grit disposal requirements and restrictions.

Describe the method of grit disposal.

<u>N/A</u>

4. Grease and decanted liquid disposal

Note: A registration or permit is required for grease disposal. Grease shall not be combined with treatment plant sludge. For more information, contact the TCEQ Municipal Solid Waste team at 512-239-0000.

Describe how the decant and grease are treated and disposed of after grit separation.

<u>N/A</u>

E. Stormwater management

1. Applicability

Does the facility have a design flow of 1.0 MGD or greater in any phase?

Yes 🖂 🛛 No 🗆

Does the facility have an approved pretreatment program, under 40 CFR Part 403?

Yes ⊠ No □

If no to both of the above, then skip to Subsection F, Other Wastes Received.

2. MSGP coverage

Is the stormwater runoff from the WWTP and dedicated lands for sewage disposal currently permitted under the TPDES Multi-Sector General Permit (MSGP), TXR050000?

Yes 🛛 No 🗆

If yes, please provide MSGP Authorization Number and skip to Subsection F, Other Wastes Received:

TXR05 <u>N904</u> or TXRNE

If no, do you intend to seek coverage under TXR050000?

Yes \Box No \Box <u>N/A</u>

3. Conditional exclusion

Alternatively, do you intend to apply for a conditional exclusion from permitting based TXR050000 (Multi Sector General Permit) Part II B.2 or TXR050000 (Multi Sector General Permit) Part V, Sector T 3(b)?

Yes \Box No \Box <u>N/A</u>

If yes, please explain below then proceed to Subsection F, Other Wastes

Received:

<u>N/A</u>

4. Existing coverage in individual permit

Is your stormwater discharge currently permitted through this individual TPDES or TLAP permit?

Yes 🗆 🛛 No 🖂

If yes, provide a description of stormwater runoff management practices at the site that are authorized in the wastewater permit then skip to Subsection F, Other Wastes Received.

<u>N/A</u>

5. Zero stormwater discharge

Do you intend to have no discharge of stormwater via use of evaporation or other means?

Yes 🗆 🛛 No 🖂

If yes, explain below then skip to Subsection F. Other Wastes Received. N/A

Note: If there is a potential to discharge any stormwater to surface water in the state as the result of any storm event, then permit coverage is required under the MSGP or an individual discharge permit. This requirement applies to all areas of facilities with treatment plants or systems that treat, store, recycle, or reclaim domestic sewage, wastewater or sewage sludge (including dedicated lands for sewage sludge disposal located within the onsite property boundaries) that meet the applicability criteria of above. You have the option of obtaining coverage under the MSGP for direct discharges, (recommended), or obtaining coverage under this individual permit.

6. Request for coverage in individual permit

Are you requesting coverage of stormwater discharges associated with your treatment plant under this individual permit?

Yes 🗆 🛛 No 🖂

If yes, provide a description of stormwater runoff management practices at the site for which you are requesting authorization in this individual wastewater permit and describe whether you intend to comingle this discharge with your treated effluent or discharge it via a separate dedicated stormwater outfall. Please also indicate if you intend to divert stormwater to the treatment plant headworks and indirectly discharge it to water in the state.

N/A

Note: Direct stormwater discharges to waters in the state authorized through this individual permit will require the development and implementation of a stormwater pollution prevention plan (SWPPP) and will be subject to additional monitoring and reporting requirements. Indirect discharges of stormwater via headworks recycling will require compliance with all individual permit requirements including 2-hour peak flow limitations. All stormwater discharge authorization requests will require additional information during the technical review of your application.

F. Discharges to the Lake Houston Watershed

Does the facility discharge in the Lake Houston watershed?

Yes 🗆 🛛 No 🖂

If yes, a Sewage Sludge Solids Management Plan is required. See Example 5 in the instructions.

G. Other wastes received including sludge from other WWTPs and septic waste

1. Acceptance of sludge from other WWTPs

Does the facility accept or will it accept sludge from other treatment plants at the facility site?

Yes 🖂 🛛 No 🗆

If yes, attach sewage sludge solids management plan. See Example 5 of the instructions. <u>See Attachment F.1</u>

In addition, provide the date that the plant started accepting sludge or is anticipated to start accepting sludge, an estimate of monthly sludge

acceptance (gallons or millions of gallons), an estimate of the BOD_5

concentration of the sludge, and the design BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

See Attachment F.2

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

2. Acceptance of septic waste

Is the facility accepting or will it accept septic waste?

Yes 🖂 🛛 No 🗆

If yes, does the facility have a Type V processing unit?

Yes □ No ⊠

If yes, does the unit have a Municipal Solid Waste permit?

Yes □ No ⊠

If yes to any of the above, provide a the date that the plant started accepting septic waste, or is anticipated to start accepting septic waste, an estimate of monthly septic waste acceptance (gallons or millions of gallons), an estimate of the BOD₅ concentration of the septic waste, and the design

BOD₅ concentration of the influent from the collection system. Also note if this information has or has not changed since the last permit action.

The South Laredo WWTF began accepting septic waste in 1983. The septic waste daily disposal ranges from 5,000 to 10,000 gallons per day. The estimated BOD5 concentration of the septic waste is 350 mg/L. This information has not changed since the last permit application.

Note: Permits that accept sludge from other wastewater treatment plants may be required to have influent flow and organic loading monitoring.

3. Acceptance of other wastes (not including septic, grease, grit, or RCRA, CERCLA or as discharged by IUs listed in Worksheet 6)

Is the facility accepting or will it accept wastes that are not domestic in nature excluding the categories listed above?

Yes □ No ⊠

If yes, provide the date that the plant started accepting the waste, an estimate how much waste is accepted on a monthly basis (gallons or millions of gallons), a description of the entities generating the waste, and any distinguishing chemical or other physical characteristic of the waste. Also note if this information has or has not changed since the last permit action.

<u>N/A</u>

Section 7. Pollutant Analysis of Treated Effluent (Instructions Page 58)

Is the facility in operation?

Yes 🛛 No 🗆 <u>See Attachment G</u>

If no, this section is not applicable. Proceed to Section 8.

If yes, provide effluent analysis data for the listed pollutants. *Wastewater treatment facilities* complete Table 1.0(2). W*ater treatment facilities* discharging filter backwash water, complete Table 1.0(3).

Note: The sample date must be within 1 year of application submission.

Dollutant	Average	Max	No. of	Sample	Sample
ronutant	Conc.	Conc.	Samples	Туре	Date/Time
CBOD ₅ , mg/l	3.7	3.7	1	Composite	12/19/19 @
					10:00 am
Total Suspended Solids,	7.0	7.0	1	Composite	12/19/19 @
mg/l					10:00 am
Ammonia Nitrogen,	< 0.05	< 0.05	1	Composite	12/19/19 @
mg/l					10:00 am
Nitrate Nitrogen, mg/l	19.6	19.6	1	Composite	12/19/19 @
					10:00 am
Total Kjeldahl Nitrogen,	1.6	1.6	1	Composite	12/19/19 @
mg/l					10:00 am
Sulfate, mg/l	319	319	1	Composite	12/19/19 @
					10:00 am
Chloride, mg/l	241	241	1	Composite	12/19/19 @
					10:00 am
Total Phosphorus, mg/l	3.75	3.75	1	Composite	12/19/19 @

Table 1.0(2) - Pollutant Analysis for Wastewater Treatment Facilities

Dollutant	Average	Max	No. of	Sample	Sample
ronutant	Conc.	Conc.	Samples	Туре	Date/Time
					10:00 am
pH, standard units	7.0	7.0	1	Grab	1/31/2020
					@ 07:43 am
Dissolved Oxygen*, mg/l	5.9	5.9	1	Grab	1/31/2020
					@ 07:45 am
Chlorine Residual, mg/l	2.2	2.2	1	Grab	1/31/2020
					@ 07:45 am
<i>E.coli</i> (CFU/100ml)	<1.0	<1.0	1	Grab	1/31/2020
freshwater					@ 07:40
Entercocci (CFU/100ml)	N/A	N/A	N/A	N/A	N/A
saltwater					
Total Dissolved Solids,	1060	1060	1	Composite	12/19/19 @
mg/l					10:00 am
Electrical Conductivity,	N/A	N/A	N/A	N/A	N/A
µmohs/cm, †					
Oil & Grease, mg/l	1.5	1.5	1	Composite	12/19/19 @
					10:00 am
Alkalinity (CaCO ₃)*, mg/l	52	52	1	Composite	12/19/19 @
					10:00 am

*TPDES permits only

†TLAP permits only

Table 1.0(3) - Pollutant Analysis for Water Treatment Facilities

Pollutant	Average Conc.	Max Conc.	No. of Samples	Sample Type	Sample Date/Time
Total Suspended Solids, mg/l	N/A	N/A	N/A	N/A	N/A
Total Dissolved Solids, mg/l	N/A	N/A	N/A	N/A	N/A

Dollutant	Average	Max	No. of	Sample	Sample
Pollutalit	Conc.	Conc.	Samples	Туре	Date/Time
pH, standard units	N/A	N/A	N/A	N/A	N/A
Fluoride, mg/l	N/A	N/A	N/A	N/A	N/A
Aluminum, mg/l	N/A	N/A	N/A	N/A	N/A
Alkalinity (CaCO ₃), mg/l	N/A	N/A	N/A	N/A	N/A

Section 8. Facility Operator (Instructions Page 60)

Facility Operator Name: <u>Jose E. Chavarria</u>

Facility Operator's License Classification and Level: <u>Class A</u>

Facility Operator's License Number: <u>WW0003855</u>

Section 9. Sewage Sludge Management and Disposal (Instructions Page 60)

A. Sludge disposal method

Identify the current or anticipated sludge disposal method or methods from the following list. Check all that apply.

- ☑ Permitted landfill
- Permitted or Registered land application site for beneficial use
- Land application for beneficial use authorized in the wastewater permit
- Permitted sludge processing facility
- □ Marketing and distribution as authorized in the wastewater permit
- Composting as authorized in the wastewater permit
- Permitted surface disposal site (sludge monofill)
- Surface disposal site (sludge monofill) authorized in the wastewater permit
- □ Transported to another permitted wastewater treatment plant or

permitted sludge processing facility. If you selected this method, a written statement or contractual agreement from the wastewater treatment plant or permitted sludge processing facility accepting the sludge must be included with this application.

□ Other:

B. Sludge disposal site

Disposal site name: <u>City of Laredo Landfill; Republic Services Tessman Road</u> <u>Landfill; Ponderosa Regional Landfill</u> TCEQ permit or registration number: <u>City of Laredo MSWD# 1693B; Republic</u> <u>Services MSWD# 1410C; Ponderosa MSWD# 2286</u> County where disposal site is located: Webb and Bexar

C. Sludge transportation method

Method of transportation (truck, train, pipe, other): <u>Truck</u>

Name of the hauler: <u>City of Laredo</u>

Hauler registration number: <u>21804</u>

Sludge is transported as a:

Liquid 🗆 semi-liquid 🗆

semi-solid 🗆

solid \boxtimes

Section 10. Permit Authorization for Sewage Sludge Disposal (Instructions Page 60)

A. Beneficial use authorization

Does the existing permit include authorization for land application of sewage sludge for beneficial use?

Yes 🗆 🛛 No 🖾

If yes, are you requesting to continue this authorization to land apply sewage sludge for beneficial use?

Yes \Box No \Box <u>N/A</u>

If yes, is the completed **Application for Permit for Beneficial Land Use of Sewage Sludge (TCEQ Form No. 10451)** attached to this permit application (see the instructions for details)?

Yes \Box No \Box <u>N/A</u>
B. Sludge processing authorization

Does the existing permit include authorization for any of the following sludge processing, storage or disposal options?

Sludge Composting	Yes 🗆	No 🖂
Marketing and Distribution of sludge	Yes 🗆	No 🖂
Sludge Surface Disposal or Sludge Monofill	Yes 🗆	No 🖂
Temporary storage in sludge lagoons	Yes 🗆	No 🖂

If yes to any of the above sludge options and the applicant is requesting to continue this authorization, is the completed **Domestic Wastewater Permit Application: Sewage Sludge Technical Report (TCEQ Form No. 10056)** attached to this permit application?

Yes 🗆 🛛 No 🖾

Section 11. Sewage Sludge Lagoons (Instructions Page 61)

Does this facility include sewage sludge lagoons?

Yes □ No ⊠

If yes, complete the remainder of this section. If no, proceed to Section 12.

A. Location information

The following maps are required to be submitted as part of the application. For each map, provide the Attachment Number.

• Original General Highway (County) Map:

Attachment: <u>N/A</u>

• USDA Natural Resources Conservation Service Soil Map:

Attachment: <u>N/A</u>

• Federal Emergency Management Map:

Attachment: <u>N/A</u>

• Site map:

Attachment: <u>N/A</u>

Discuss in a description if any of the following exist within the lagoon area. Check all that apply.



□ Soils with flooding classification

- Overlap an unstable area
- □ Wetlands

□ Located less than 60 meters from a fault

 \Box None of the above

Attachment: <u>N/A</u>

If a portion of the lagoon(s) is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

N/A

B. Temporary storage information

Provide the results for the pollutant screening of sludge lagoons. These results are in addition to pollutant results in Section 7 of Technical Report 1.0.

Nitrate Nitrogen, mg/kg: <u>N/A</u>

Total Kjeldahl Nitrogen, mg/kg: <u>N/A</u>

Total Nitrogen (=nitrate nitrogen + TKN), mg/kg: <u>N/A</u>

Phosphorus, mg/kg: <u>N/A</u>

Potassium, mg/kg: <u>N/A</u>

pH, standard units: N/A

Ammonia Nitrogen mg/kg: <u>N/A</u>

Arsenic: <u>N/A</u>

Cadmium: <u>N/A</u>

Chromium: <u>N/A</u>

Copper: <u>N/A</u>

Lead: <u>N/A</u>

Mercury: <u>N/A</u>

Molybdenum: <u>N/A</u>

Nickel: <u>N/A</u>

Selenium: <u>N/A</u>

Zinc: <u>N/A</u>

Total PCBs: <u>N/A</u>

Provide the following information:

Volume and frequency of sludge to the lagoon(s): N/A

Total dry tons stored in the lagoons(s) per 365-day period: <u>N/A</u>

Total dry tons stored in the lagoons(s) over the life of the unit: N/A

C. Liner information

Does the active/proposed sludge lagoon(s) have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

Yes □ No □ <u>N/A</u>

If yes, describe the liner below. Please note that a liner is required. N/A

D. Site development plan

Provide a detailed description of the methods used to deposit sludge in the lagoon(s):

<u>N/A</u>

Attach the following documents to the application.

• Plan view and cross-section of the sludge lagoon(s)

Attachment: <u>N/A</u>

• Copy of the closure plan

Attachment: <u>N/A</u>

• Copy of deed recordation for the site

Attachment: <u>N/A</u>

• Size of the sludge lagoon(s) in surface acres and capacity in cubic feet and gallons

Attachment: <u>N/A</u>

• Description of the method of controlling infiltration of groundwater and surface water from entering the site

Attachment: <u>N/A</u>

• Procedures to prevent the occurrence of nuisance conditions

Attachment: <u>N/A</u>

E. Groundwater monitoring

Is groundwater monitoring currently conducted at this site, or are any wells available for groundwater monitoring, or are groundwater monitoring data otherwise available for the sludge lagoon(s)?

Yes □ No □ <u>N/A</u>

If groundwater monitoring data are available, provide a copy. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater as a separate attachment.

Attachment: <u>N/A</u>

Section 12. Authorizations/Compliance/Enforcement (Instructions Page 63)

A. Additional authorizations

Does the permittee have additional authorizations for this facility, such as reuse authorization, sludge permit, etc?

Yes 🛛 🛛 No 🗆

If yes, provide the TCEQ authorization number and description of the authorization:

Reuse Authorization # R10681003 and R10681003A

B. Permittee enforcement status

Is the permittee currently under enforcement for this facility?

Yes 🗆 No 🖂

Is the permittee required to meet an implementation schedule for compliance or enforcement?_____

Yes 🗆 No 🖂

If yes to either question, provide a brief summary of the enforcement, the implementation schedule, and the current status:

N/A

Section 13. RCRA/CERCLA Wastes (Instructions Page 63)

A. RCRA hazardous wastes

Has the facility received in the past three years, does it currently receive, or will it receive RCRA hazardous waste?

Yes 🗆 🛛 No 🖾

B. Remediation activity wastewater

Has the facility received in the past three years, does it currently receive, or will it receive CERCLA wastewater, RCRA remediation/corrective action wastewater or other remediation activity wastewater?

Yes 🗆 🛛 No 🖾

C. Details about wastes received

If yes to either Subsection A or B above, provide detailed information concerning these wastes with the application.

Attachment: <u>N/A</u>

Section 14. Laboratory Accreditation (Instructions Page 64)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
 - o periodically inspected by the TCEQ; or
 - located in another state and is accredited or inspected by that state; or
 - performing work for another company with a unit located in the same site; or
 - performing pro bono work for a governmental agency or charitable organization.
- The laboratory is accredited under federal law.
- The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review 30 TAC Chapter 25 for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.*

Printed Name: Robert A. Eads, ICMA-CM

Title: Interim Co-City Manager

Signature: <u>Nelunn 28</u> Date: <u>2/19/2020</u>

DOMESTIC TECHNICAL REPORT WORKSHEET 2.0

RECEIVING WATERS

The following is required for all TPDES permit applications

Section 1. Domestic Drinking Water Supply (Instructions Page 73)

Is there a surface water intake for domestic drinking water supply located within 5 miles downstream from the point or proposed point of discharge? Yes □ No ⊠

If yes, provide the following:

Owner of the drinking water supply: $\underline{N/A}$

Distance and direction to the intake: <u>N/A</u>

Attach a USGS map that identifies the location of the intake.

Attachment: <u>N/A</u>

Section 2. Discharge into Tidally Affected Waters (Instructions Page 73)

Does the facility discharge into tidally affected waters?

Yes 🗆 🛛 No 🖾

If yes, complete the remainder of this section. If no, proceed to Section 3.

A. Receiving water outfall

Width of the receiving water at the outfall, in feet: N/A

B. Oyster waters

Are there oyster waters in the vicinity of the discharge?

Yes 🗆 🛛 No 🖂

If yes, provide the distance and direction from outfall(s).

<u>N/A</u>

C. Sea grasses

Are there any sea grasses within the vicinity of the point of discharge?

Yes □ No ⊠

If yes, provide the distance and direction from the outfall(s).

N/A

Section 3. Classified Segments (Instructions Page 73)

Is the discharge directly into (or within 300 feet of) a classified segment?

Yes 🛛 No 🗆

If yes, this Worksheet is complete.

If no, complete Sections 4 and 5 of this Worksheet.

Section 4. Description of Immediate Receiving Waters (Instructions Page 75)

Name of the immediate receiving waters: <u>N/A</u>

A. Receiving water type

Identify the appropriate description of the receiving waters.

- □ Stream
- □ Freshwater Swamp or Marsh
- □ Lake or Pond

Surface area, in acres: $\underline{N/A}$

Average depth of the entire water body, in feet: N/A

Average depth of water body within a 500-foot radius of discharge point, in feet: $\underline{\rm N/A}$

□ Man-made Channel or Ditch



- □ Tidal Stream, Bayou, or Marsh
- \Box Other, specify: <u>N/A</u>

B. Flow characteristics

If a stream, man-made channel or ditch was checked above, provide the following. For existing discharges, check one of the following that best characterizes the area *upstream* of the discharge. For new discharges, characterize the area *downstream* of the discharge (check one).

- □ Intermittent dry for at least one week during most years
- Intermittent with Perennial Pools enduring pools with sufficient habitat to maintain significant aquatic life uses
- □ Perennial normally flowing

Check the method used to characterize the area upstream (or downstream for new dischargers).

- □ USGS flow records
- □ Historical observation by adjacent landowners
- □ Personal observation
- \Box Other, specify: <u>N/A</u>

C. Downstream perennial confluences

List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point.

<u>N/A</u>

D. Downstream characteristics

Do the receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.)?

Yes 🗆 🛛 No 🗆

If yes, discuss how.

N/A

E. Normal dry weather characteristics

Provide general observations of the water body during normal dry weather <u>conditions</u>.

<u>N/A</u>

Date and time of observation: <u>N/A</u>

Was the water body influenced by stormwater runoff during observations?

Yes 🗆 🛛 No 🗆

Section 5. General Characteristics of the Waterbody (Instructions Page 74)

A. Upstream influences

Is the immediate receiving water upstream of the discharge or proposed discharge site influenced by any of the following? Check all that apply.

- Oil field activities
 Urban runoff
- Upstream discharges
 Agricultural runoff
- \Box Septic tanks \Box Other(s), specify <u>N/A</u>

B. Waterbody uses

Observed or evidences of the following uses. Check all that apply.



Domestic water supply	Industrial water supply
Park activities	Other(s), specify <u>N/A</u>

C. Waterbody aesthetics

Check one of the following that best describes the aesthetics of the receiving water and the surrounding area.

- Wilderness: outstanding natural beauty; usually wooded or unpastured area; water clarity exceptional
- □ Natural Area: trees and/or native vegetation; some development evident (from fields, pastures, dwellings); water clarity discolored
- Common Setting: not offensive; developed but uncluttered; water may be colored or turbid
- Offensive: stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

DOMESTIC WORKSHEET 4.0

POLLUTANT ANALYSES REQUIREMENTS*

The following is required for facilities with a permitted or proposed flow of 1.0 MGD or greater, facilities with an approved pretreatment program, or facilities classified as a major facility. See instructions for further details.

This worksheet is not required for minor amendments without renewal

Section 1. Toxic Pollutants (Instructions Page 87)

For pollutants identified in Table 4.0(1), indicate the type of sample.

Grab \boxtimes Composite \boxtimes

Date and time sample(s) collected: See Attachment G

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile	<1.9	<1.9	1	50
Aldrin	< 0.0001	<0.00012	1	0.01
Aluminum	33.5	49	2	2.5
Anthracene	<0.70	<0.70	1	10
Antimony	<5	<5	2	5
Arsenic	1.2	1.6	2	0.5
Barium	66.5	73	2	3
Benzene	<0.33	<0.33	1	10
Benzidine	< 0.39	<0.39	1	50
Benzo(a)anthracene	< 0.65	< 0.65	1	5

Table 4.0(1) - Toxics Analysis

Page 53 of 80

	AVG	MAX	Number	
Dollutant	Effluent	Effluent	Number	MAL
Pollulalit	Conc.	Conc.	UI Samplas	(µg/l)
	(µg/l)	(µg/l)	Samples	
Benzo(a)pyrene	<0.74	<0.74	1	5
Bis(2-chloroethyl)ether	<1.6	<1.6	1	10
Bis(2-ethylhexyl)phthalate	<5.0	<5.0	1	10
Bromodichloromethane	27	27	1	10
Bromoform	< 0.50	< 0.50	1	10
Cadmium	<1	<1	2	1
Carbon Tetrachloride	<0.25	<0.25	1	2
Carbaryl	<2.69	<2.69	1	5
Chlordane*	< 0.0014	< 0.0014	1	0.2
Chlorobenzene	< 0.14	<0.14	1	10
Chlorodibromomethane	<0.22	<0.22	1	10
Chloroform	<0.17	<0.17	1	10
Chlorpyrifos	< 0.043	< 0.043	1	0.05
Chromium (Total)	<3.0	<3.0	2	3
Chromium (Tri) (*1)	<3.0	<3.0	1	N/A
Chromium (Hex)	<3.0	<3.0	1	3
Copper	3.1	3.7	2	2
Chrysene	< 0.49	< 0.49	1	5
p-Chloro-m-Cresol	< 0.59	< 0.59	1	10
4,6-Dinitro-o-Cresol	<0.96	<0.96	1	50
p-Cresol	<0.76	<0.76	1	10

	AVG	MAX	Marcale	
Dollutant	Effluent	Effluent	Number	MAL
ronutant	Conc.	Conc.	Samples	(µg/l)
	(µg/l)	(µg/l)	Samples	
Cyanide (*2)	<10	<10	1	10
4,4'- DDD	<0.00020	<0.00020	1	0.1
4,4'- DDE	< 0.00010	< 0.00010	1	0.1
4,4'- DDT	<0.00029	<0.00029	1	0.02
2,4-D	<0.7	<0.7	1	0.7
Demeton (O and S)	< 0.031	< 0.031	1	0.20
Diazinon	< 0.034	< 0.034	1	0.5/0.1
1,2-Dibromoethane	< 0.15	<0.15	1	10
m-Dichlorobenzene	<0.49	<0.49	1	10
o-Dichlorobenzene	<0.78	<0.78	1	10
p-Dichlorobenzene	<0.82	<0.82	1	10
3,3'-Dichlorobenzidine	<0.79	<0.79	1	5
1,2-Dichloroethane	<0.16	<0.16	1	10
1,1-Dichloroethylene	< 0.30	< 0.30	1	10
Dichloromethane	<2.0	<2.0	1	20
1,2-Dichloropropane	<0.17	<0.17	1	10
1,3-Dichloropropene	<0.20	<0.20	1	10
Dicofol	<5.25	<5.25	1	1
Dieldrin	< 0.00012	< 0.00012	1	0.02
2,4-Dimethylphenol	< 0.59	<0.59	1	10
Di-n-Butyl Phthalate	<10	<10	1	10

	AVG	MAX	Marahari	
Dollutant	Effluent	Effluent	Number	MAL
ronutant	Conc.	Conc.	Samples	(µg/l)
	(µg/l)	(µg/l)	Samples	
Diuron	< 0.0485	< 0.0485	1	0.09
Endosulfan I (alpha)	< 0.00014	< 0.00014	1	0.01
Endosulfan II (beta)	< 0.00011	< 0.00011	1	0.02
Endosulfan Sulfate	< 0.00028	<0.00028	1	0.1
Endrin	< 0.00022	< 0.00022	1	0.02
Ethylbenzene	<0.20	<0.20	1	10
Fluoride	664	664	1	500
Guthion	< 0.049	< 0.049	1	0.1
Heptachlor	< 0.00043	< 0.00043	1	0.01
Heptachlor Epoxide	< 0.00013	< 0.00013	1	0.01
Hexachlorobenzene	<0.60	<0.60	1	5
Hexachlorobutadiene	<0.72	<0.72	1	10
Hexachlorocyclohexane (alpha)	< 0.00012	< 0.00012	1	0.05
Hexachlorocyclohexane (beta)	< 0.00015	< 0.00015	1	0.05
gamma-Hexachlorocyclohexane	<0.00011	<0.00011	1	0.05
(Lindane)	<0.00011	<0.00011		
Hexachlorocyclopentadiene	< 0.84	< 0.84	1	10
Hexachloroethane	< 0.59	< 0.59	1	20
Hexachlorophene	< 0.0049	< 0.0049	1	10
Lead	< 0.5	< 0.5	2	0.5
Malathion	< 0.040	< 0.040	1	0.1

	AVG	MAX	NT 1	
Dollutont	Effluent	Effluent	Number	MAL
Ponutant	Conc.	Conc.	01 Samplas	(µg/l)
	(µg/l)	(µg/l)	Samples	
Mercury	< 0.005	< 0.005	2	0.005
Methoxychlor	< 0.00033	< 0.00033	1	2
Methyl Ethyl Ketone	<0.47	< 0.47	1	50
Mirex	<0.00020	<0.00020	1	0.02
Nickel	2.0	2.4	2	2
Nitrate-Nitrogen	19,600	19,600	1	100
Nitrobenzene	< 0.59	< 0.59	1	10
N-Nitrosodiethylamine	<0.89	<0.89	1	20
N-Nitroso-di-n-Butylamine	<1.5	<1.5	1	20
Nonylphenol	<11	<11	1	333
Parathion (ethyl)	< 0.037	< 0.037	1	0.1
Pentachlorobenzene	<0.86	<0.86	1	20
Pentachlorophenol	<1.3	<1.3	1	5
Phenanthrene	< 0.59	< 0.59	1	10
Polychlorinated Biphenyls (PCB's)	<0.2	<0.2	1	0.2
(*3)	<0.2	×0.2		
Pyridine	<0.66	<0.66	1	20
Selenium	<5	<5	2	5
Silver	<0.5	< 0.5	2	0.5
1,2,4,5-Tetrachlorobenzene	<0.66	<0.66	1	20
1,1,2,2-Tetrachloroethane	<0.19	<0.19	1	10

	AVG	MAX	Number	
Dollutont	Effluent	Effluent	Number	MAL
Pollutant	Conc.	Conc.	01 Commles	(µg/l)
	(µg/l)	(µg/l)	Samples	
Tetrachloroethylene	<0.19	<0.19	1	10
Thallium	<0.5	<0.5	2	0.5
Toluene	< 0.30	< 0.30	1	10
Toxaphene	< 0.011	< 0.011	1	0.3
2,4,5-TP (Silvex)	< 0.05	< 0.05	1	0.3
Tributyltin (see instructions for explanation)	N/A	N/A	N/A	0.01
1,1,1-Trichloroethane	< 0.30	< 0.30	1	10
1,1,2-Trichloroethane	< 0.17	< 0.17	1	10
Trichloroethylene	< 0.32	< 0.32	1	10
2,4,5-Trichlorophenol	< 0.86	< 0.86	1	50
TTHM (Total Trihalomethanes)	71	71	1	10
Vinyl Chloride	< 0.30	< 0.30	1	10
Zinc	44.5	58	2	5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248,

1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab \boxtimes Composite \boxtimes

Date and time sample(s) collected: See Attachment G

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Antimony	<5	<5	2	5
Arsenic	1.2	1.6	2	0.5
Beryllium	< 0.5	< 0.5	2	0.5
Cadmium	<1	<1	2	1
Chromium (Total)	<3	<3	2	3
Chromium (Hex)	<3	<3	1	3
Chromium (Tri) (*1)	<3	<3	1	N/A
Copper	3.1	3.7	2	2
Lead	< 0.5	< 0.5	2	0.5
Mercury	< 0.005	< 0.005	2	0.005
Nickel	2.0	2.4	2	2
Selenium	<5	<5	2	5
Silver	< 0.5	< 0.5	2	0.5
Thallium	< 0.5	< 0.5	2	0.5
Zinc	44.5	58	2	5
Cyanide (*2)	<10	<10	1	10
Phenols, Total	<10	<10	1	10

Table 4.0(2)A - Metals, Cyanide, Phenols

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

	AVG	MAX	Numbor	
Pollutant	Effluent	Effluent	of	MAL
Tonutant	Conc.	Conc.	Samples	(µg/l)
	(µg/l)	(µg/l)	Samples	
Acrolein	<1.0	<1.0	1	50
Acrylonitrile	<1.9	<1.9	1	50
Benzene	< 0.33	< 0.33	1	10
Bromoform	< 0.50	< 0.50	1	10
Carbon Tetrachloride	< 0.25	<0.25	1	2
Chlorobenzene	< 0.14	< 0.14	1	10
Chlorodibromomethane	<0.22	< 0.22	1	10
Chloroethane	< 0.40	< 0.40	1	50
2-Chloroethylvinyl Ether	< 0.19	< 0.19	1	10
Chloroform	< 0.17	< 0.17	1	10
Dichlorobromomethane	27	27	1	
[Bromodichloromethane]	21	21	L	10
1,1-Dichloroethane	< 0.17	< 0.17	1	10
1,2-Dichloroethane	< 0.16	< 0.16	1	10
1,1-Dichloroethylene	< 0.30	< 0.30	1	10
1,2-Dichloropropane	< 0.17	< 0.17	1	10
1,3-Dichloropropylene	<0.20	<0.20	1	
[1,3-Dichloropropene]	<0.20	<0.20	L	10
1,2-Trans-Dichloroethylene	<0.20	< 0.20	1	10
Ethylbenzene	< 0.20	< 0.20	1	10
Methyl Bromide	< 0.39	< 0.39	1	50
Methyl Chloride	< 0.39	< 0.39	1	50
Methylene Chloride	<2.0	<2.0	1	20
1,1,2,2-Tetrachloroethane	<0.19	< 0.19	1	10
Tetrachloroethylene	< 0.19	< 0.19	1	10

Table 4.0(2)B - Volatile Compounds

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene	< 0.30	<0.30	1	10
1,1,1-Trichloroethane	< 0.30	< 0.30	1	10
1,1,2-Trichloroethane	< 0.17	< 0.17	1	10
Trichloroethylene	< 0.32	< 0.32	1	10
Vinyl Chloride	< 0.30	<0.30	1	10

Table 4.0(2)C - Acid Compounds

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
2-Chlorophenol	<0.73	<0.73	1	10
2,4-Dichlorophenol	<0.70	< 0.70	1	10
2,4-Dimethylphenol	< 0.59	< 0.59	1	10
4,6-Dinitro-o-Cresol	< 0.96	< 0.96	1	50
2,4-Dinitrophenol	<2.7	<2.7	1	50
2-Nitrophenol	< 0.81	< 0.81	1	20
4-Nitrophenol	<1.7	<1.7	1	50
P-Chloro-m-Cresol	< 0.59	< 0.59	1	10
Pentalchlorophenol	<1.3	<1.3	1	5
Phenol	< 0.77	<0.77	1	10
2,4,6-Trichlorophenol	< 0.66	<0.66	1	10

	AVG	MAX	Numbor		
Dollutant	Effluent	Effluent	of	MAL	
ronutant	Conc.	Conc.	Samples	(µg/l)	
	(µg/l)	(µg/l)	Samples		
Acenaphthene	< 0.46	< 0.46	1	10	
Acenaphthylene	< 0.45	< 0.45	1	10	
Anthracene	< 0.70	< 0.70	1	10	
Benzidine	< 0.39	<0.39	1	50	
Benzo(a)Anthracene	< 0.65	< 0.65	1	5	
Benzo(a)Pyrene	< 0.74	< 0.74	1	5	
3,4-Benzofluoranthene	< 0.91	< 0.91	1	10	
Benzo(ghi)Perylene	<1.1	<1.1	1	20	
Benzo(k)Fluoranthene	<1.5	<1.5	1	5	
Bis(2-Chloroethoxy)Methane	<0.44	< 0.44	1	10	
Bis(2-Chloroethyl)Ether	<1.6	<1.6	1	10	
Bis(2-Chloroisopropyl)Ether	< 0.50	< 0.50	1	10	
Bis(2-Ethylhexyl)Phthalate	<5.0	<5.0	1	10	
4-Bromophenyl Phenyl Ether	< 0.81	< 0.81	1	10	
Butyl benzyl Phthalate	<0.82	< 0.82	1	10	
2-Chloronaphthalene	<0.60	< 0.60	1	10	
4-Chlorophenyl phenyl ether	< 0.53	< 0.53	1	10	
Chrysene	<0.49	< 0.49	1	5	
Dibenzo(a,h)Anthracene	< 0.87	< 0.87	1	5	
1,2-(o)Dichlorobenzene	<0.78	< 0.78	1	10	
1,3-(m)Dichlorobenzene	<0.49	< 0.49	1	10	
1,4-(p)Dichlorobenzene	<0.82	< 0.82	1	10	
3,3-Dichlorobenzidine	<0.79	<0.79	1	5	
Diethyl Phthalate	< 0.67	< 0.67	1	10	
Dimethyl Phthalate	< 0.59	< 0.59	1	10	

Table 4.0(2)D - Base/Neutral Compounds

	AVG	MAX	Numerow		
Dollastant	Effluent	Effluent	Number	MAL	
Pollutant	Conc.	Conc.	01	(µg/l)	
	(µg/l)	(µg/l)	Samples		
Di-n-Butyl Phthalate	<10	<10	1	10	
2,4-Dinitrotoluene	< 0.51	< 0.51	1	10	
2,6-Dinitrotoluene	< 0.76	<0.76	1	10	
Di-n-Octyl Phthalate	<1.1	<1.1	1	10	
1,2-Diphenylhydrazine (as Azo-	<0.79	<0.79	1		
benzene)	\0.79	<0.7 <i>9</i>	L	20	
Fluoranthene	< 0.50	< 0.50	1	10	
Fluorene	< 0.42	< 0.42	1	10	
Hexachlorobenzene	< 0.60	< 0.60	1	5	
Hexachlorobutadiene	<0.72	<0.72	1	10	
Hexachlorocyclo-pentadiene	< 0.84	< 0.84	1	10	
Hexachloroethane	< 0.59	< 0.59	1	20	
Indeno(1,2,3-cd)pyrene	< 0.92	< 0.92	1	5	
Isophorone	< 0.55	< 0.55	1	10	
Naphthalene	< 0.79	< 0.79	1	10	
Nitrobenzene	< 0.59	< 0.59	1	10	
N-Nitrosodimethylamine	<1.4	<1.4	1	50	
N-Nitrosodi-n-Propylamine	< 0.62	<0.62	1	20	
N-Nitrosodiphenylamine	<1.0	<1.0	1	20	
Phenanthrene	< 0.59	< 0.59	1	10	
Pyrene	< 0.44	< 0.44	1	10	
1,2,4-Trichlorobenzene	< 0.65	< 0.65	1	10	

	AVG	MAX	Numbor	
Pollutant	Effluent	Effluent	of	MAL
Tonutant	Conc.	Conc.	Samples	(µg/l)
	(µg/l)	(µg/l)	Sampies	
Aldrin	< 0.00012	< 0.00012	1	0.01
alpha-BHC	<0.00012	<0.00012	1	
(Hexachlorocyclohexane)	<0.00012	<0.00012	T	0.05
beta-BHC	<0.00015	<0.00015	1	
(Hexachlorocyclohexane)	<0.00015	<0.00015	T	0.05
gamma-BHC	<0.00011	<0.00011	1	
(Hexachlorocyclohexane)	<0.00011	<0.00011	1	0.05
delta-BHC	<0.00033	<0.00033	1	
(Hexachlorocyclohexane)	<0.00033	<0.00035	1	0.05
Chlordane	< 0.0014	< 0.0014	1	0.2
4,4-DDT	<0.00029	< 0.00029	1	0.02
4,4-DDE	< 0.00010	< 0.00010	1	0.1
4,4,-DDD	<0.00020	< 0.00020	1	0.1
Dieldrin	< 0.00012	< 0.00012	1	0.02
Endosulfan I (alpha)	< 0.00014	< 0.00014	1	0.01
Endosulfan II (beta)	< 0.00011	< 0.00011	1	0.02
Endosulfan Sulfate	<0.00028	< 0.00028	1	0.1
Endrin	<0.00022	< 0.00022	1	0.02
Endrin Aldehyde	<0.00023	< 0.00023	1	0.1
Heptachlor	< 0.00043	< 0.00043	1	0.01
Heptachlor Epoxide	< 0.00013	< 0.00013	1	0.01
PCB-1242	<0.0088	< 0.0088	1	0.2
PCB-1254	<0.0092	< 0.0092	1	0.2
PCB-1221	< 0.0055	< 0.0055	1	0.2
PCB-1232	< 0.0050	< 0.0050	1	0.2

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
PCB-1248	< 0.0029	< 0.0029	1	0.2
PCB-1260	< 0.0038	< 0.0038	1	0.2
PCB-1016	< 0.0046	< 0.0046	1	0.2
Toxaphene	< 0.011	< 0.011	1	0.3

* For PCBS, if all are non-detects, enter the highest non-detect preceded by a "<".

Section 3. Dioxin/Furan Compounds

A. Indicate which of the following compounds from may be present in the influent from a contributing industrial user or significant industrial user. Check all that apply.

2,4,5-trichlorophenoxy acetic acid Common Name 2,4,5-T, CASRN 93-76-5
2-(2,4,5-trichlorophenoxy) propanoic acid Common Name Silvex or 2,4,5-TP, CASRN 93-72-1
2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate Common Name Erbon, CASRN 136-25-4
0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate Common Name Ronnel, CASRN 299-84-3
2,4,5-trichlorophenol Common Name TCP, CASRN 95-95-4
hexachlorophene Common Name HCP, CASRN 70-30-4
For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

<u>N/A</u>

B. Do you know or have any reason to believe that 2,3,7,8 Tetrachlorodibenzo-P-Dioxin (TCDD) or any congeners of TCDD may be present in your effluent?

Yes \Box No \Box <u>N/A</u>

If **yes**, provide a brief description of the conditions for its presence.

<u>N/A</u>

If any of the compounds in Subsection A **or** B are present, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate the type of sample.

Grab \Box Composite \Box <u>N/A</u>

Date and time sample(s) collected: N/A

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1	N/A	N/A	N/A	N/A	10
1,2,3,7,8	0.5	N/A	N/A	N/A	N/A	50
2,3,7,8 HxCDDs	0.1	N/A	N/A	N/A	N/A	50
1,2,3,4,6,7,8 HpCDD	0.01	N/A	N/A	N/A	N/A	50
2,3,7,8 TCDF	0.1	N/A	N/A	N/A	N/A	10
1,2,3,7,8 PeCDF	0.05	N/A	N/A	N/A	N/A	50
2,3,4,7,8 PeCDF	0.5	N/A	N/A	N/A	N/A	50
2,3,7,8 HxCDFs	0.1	N/A	N/A	N/A	N/A	50
2,3,4,7,8	0.01	N/A	N/A	N/A	N/A	50
OCDD	0.0003	N/A	N/A	N/A	N/A	100
OCDF	0.0003	N/A	N/A	N/A	N/A	100
PCB 77	0.0001	N/A	N/A	N/A	N/A	0.5
PCB 81	0.0003	N/A	N/A	N/A	N/A	0.5

TABLE 4.0(2)F - DIOXIN/FURAN COMPOUNDS

TCEQ-10054 (06/01/2017) Domestic Wastewater Permit Application, Technical Reports Page 66 of 80

Compound	Toxic Equivalency Factors	Wastewater Concentration (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
PCB 126	0.1	N/A	N/A	N/A	N/A	0.5
PCB 169	0.03	N/A	N/A	N/A	N/A	0.5
Total		N/A	N/A	N/A	N/A	

DOMESTIC WORKSHEET 5.0

TOXICITY TESTING REQUIREMENTS

The following is required for facilities with a currently-operating design flow greater than or equal to 1.0 MGD, with an EPA-approved pretreatment program (or those that are required to have one under 40 CFR Part 403), or are required by the TCEQ to perform Whole Effluent Toxicity testing. This worksheet is not required for minor amendments without renewal.

Section 1. Required Tests (Instructions Page 97)

Indicate the number of 7-day chronic or 48-hour acute Whole Effluent Toxicity (WET) tests performed in the four and one-half years prior to submission of the application.

7-day Chronic: Results of all Whole Effluent Toxicity Tests have been

submitted to the TCEQ in accordance with the existing TPDES Permit. See

Attachment H for a summary of test result data.

48-hour Acute: Results of all Whole Effluent Toxicity Tests have been

submitted to the TCEQ in accordance with the existing TPDES Permit. See

Attachment H for a summary of test result data

Section 2. Toxicity Reduction Evaluations (TREs)

Has this facility completed a TRE in the past four and a half years? Or is the facility currently performing a TRE?

Yes □ No ⊠

If yes, describe the progress to date, if applicable, in identifying and confirming the toxicant.

<u>N/A</u>

Section 3. Summary of WET Tests

If the required biomonitoring test information has not been previously submitted via both the Discharge Monitoring Reports (DMRs) and the Table 1 (as found in the permit), provide a summary of the testing results for all valid and invalid tests performed over the past four and one-half years. Make additional copies of this table as needed.

Test Date	Test Species	NOEC Sumitral	NOEC Sub-
Test Date	Test species	NOEC SUIVIVAI	lethal
<u>See Attachment H</u>			

Table 5.0(1) - Summary of WET Tests

DOMESTIC WORKSHEET 6.0

INDUSTRIAL WASTE CONTRIBUTION

The following is required for all publicly owned treatment works (POTWs)

Section 1. All POTWs (Instructions Page 99)

A. Industrial users

Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily flows from each user. See the Instructions for definitions of Categorical IUs, Significant IUs – non-categorical, and Other IUs.

If there are no users, enter 0 (zero).

Categorical IUs:

Number of IUs: 0

Average Daily Flows, in MGD: 0

Significant IUs - non-categorical:

Number of IUs: <u>0</u>

Average Daily Flows, in MGD: <u>0</u>

Other IUs:

Number of IUs: <u>0</u>

Average Daily Flows, in MGD: <u>0</u>

B. Treatment plant interference

In the past three years, has your POTW experienced treatment plant interference (see instructions)?

Yes 🗆 No 🖂

If yes, identify the dates, duration, description of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IUs that may have caused the interference.

N/A

C. Treatment plant pass through

In the past three years, has your POTW experienced pass through (see instructions)?

Yes □ No ⊠

If yes, identify the dates, duration, a description of the pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IUs that may have caused pass through.

<u>N/A</u>

D. Pretreatment program

Does your POTW have an approved pretreatment program?

Yes 🖂 🛛 No 🗆

If yes, complete Section 2 only of this Worksheet.

Is your POTW required to develop an approved pretreatment program? Yes \square No \square <u>N/A</u>

If yes, complete Section 2.c. and 2.d. only, and skip Section 3.

If no to either question above, skip Section 2 and complete Section 3 for each significant industrial user and categorical industrial user.

Section 2. POTWs with Approved Programs or Those Required to Develop a Program (Instructions Page 100)

A. Substantial modifications

Have there been any **substantial modifications** to the approved pretreatment program that have not been submitted to the TCEQ for approval according to *40 CFR §403.18*?

Yes □ No ⊠

If yes, identify the modifications that have not been submitted to TCEQ, including the purpose of the modification.

N/A

B. Non-substantial modifications

Have there been any **non-substantial modifications** to the approved pretreatment program that have not been submitted to TCEQ for review and acceptance?

Yes □ No ⊠

If yes, identify all non-substantial modifications that have not been submitted to TCEQ, including the purpose of the modification.

<u>N/A</u>

C. Effluent parameters above the MAL

In Table 6.0(1), list all parameters measured above the MAL in the POTW's effluent monitoring during the last three years. Submit an attachment if necessary.

Pollutant	Concentration	MAL	Units	Date
<u>See Attachment I</u>				

Table 6.0(1) – Parameters Above the MAL

D. Industrial user interruptions

Has any SIU, CIU, or other IU caused or contributed to any problems (excluding interferences or pass throughs) at your POTW in the past three years?

Yes 🗆 🛛 No 🖂

If yes, identify the industry, describe each episode, including dates, duration, description of the problems, and probable pollutants.

<u>N/A</u>

Section 3. Significant Industrial User (SIU) Information and Categorical Industrial User (CIU) (Instructions Page 100)

A. General information

Company Name: <u>N/A</u> SIC Code: <u>N/A</u> Telephone number: <u>N/A</u> Fax number: <u>N/A</u> Contact name: <u>N/A</u> Address: N/A

City, State, and Zip Code: <u>N/A</u>

B. Process information

Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater).

<u>N/A</u>

C. Product and service information

Provide a description of the principal product(s) or services performed.

<u>N/A</u>

D. Flow rate information

See the Instructions for definitions of "process" and "non-process wastewater." Process Wastewater:

Discharge, in gallons/day: <u>N/A</u>		
Discharge Type: 🛛 🛛 Continuous 🗖	Batch	Intermittent
Non-Process Wastewater:		
Discharge, in gallons/day: <u>N/A</u>		
Discharge Type: 🛛 🛛 Continuous 🗖	Batch	Intermittent

E. Pretreatment standards

Is the SIU or CIU subject to technically based local limits as defined in the instructions?

Yes \Box No \Box <u>N/A</u>

Is the SIU or CIU subject to categorical pretreatment standards found in *40 CFR Parts 405-471*?

Yes \Box No \Box <u>N/A</u>

If subject to categorical pretreatment standards, indicate the applicable category and subcategory for each categorical process.

Category: <u>N/A</u> Subcategories: <u>N/A</u>

F. Industrial user interruptions

Has the SIU or CIU caused or contributed to any problems (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

Yes \Box No \Box <u>N/A</u>

If yes, identify the SIU, describe each episode, including dates, duration, description of problems, and probable pollutants.

N/A

CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

TABLE OF ATTACHMENTS

<u>No.</u>	Description	<u>Reference</u>
A	Core Data Form	Admin Rpt 1.0 Section 3.C
В	U.S. Geological Survey Map	Admin Rpt 1.0 Section 13
С	List of Treatment Units	Tech Rpt. 1.0, Section 2.B
D	Process Flow Diagram	Tech Rpt. 1.0, Section 2.C
E	Site Drawing	Tech Rpt. 1.0, Section 4
F	Acceptance of Sludge from Other WWTPs	Tech Rpt. 1.0 Section 6.G.1
G	Pollutant Analysis of Treated Effluent	Tech Rpt. 1.0, Section 7; Wksht 4.0 Sections 1 and 2
Н	Biomonitoring Results	Wksht 5.0, Section 1 and 3
I	Parameters above MAL	Wksht 6.0, Section 2.C

ATTACHMENT A

Core Data Form Admin Rpt 1.0 Section 3.C


TCEQ Core Data Form

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

	<u>1. Gell</u>	<u>CI AI III0I II</u>	iauvii										
1. Reason for	r Submiss	sion (If other is	checked plea	ase des	scribe ir	n space	e provid	ded.)					
New Per	mit, Regis	tration or Authori	zation (<i>Core</i>)	Data Fo	orm she	ould be	e subm	itted n	vith the p	program applicatio	n.)		
Renewal	(Core D	ata Form should	be submitted	' with th	ne renel	wal for	m) [0	ther				
2. Customer	Referenc	e Number <i>(if iss</i>	ued)	Follo	ow this I	ink to s	earch	3. R	egulate	d Entity Referen	ce Number	(if issued)	
CN 6001	CN 600131908				<u>CN or RI</u> Central F	<u>N numb</u> Registry	<u>ers in</u> ′ <u>**</u>	R	RN 103026126				
SECTION	II: Cu	stomer Info	rmation										
4. General Cu	ustomer I	nformation	5. Effective	e Date f	for Cus	stome	r Inforr	natior	n Updat	es (mm/dd/yyyy)			
New Customer Update to Customer Information Change in Regulated Entity Ownership Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)							Entity Ownership						
The Custor	mer Nar retary o	ne submitted f State (SOS)	here may	be up Comp	dated	d auto r of P	omatic ublic	cally Acco	based	on what is cu רפא)	irrent and	active with the	
6. Customer	Legal Na	me (If an individua	l. print last nan	ne first:	ea: Doe	John)			f new Cu	stomer. enter prev	ious Custome	er below:	
Citra of La			<i>,, p</i>		<u>eg. 200</u>	,		<u> </u>					
	redo	Numbor	0 TV State) (11 -11-11	+->		0	Endor			Number (Kanalisatis)	
N/A	ATIM	NUMBEI	N/A		N/A				N/A				
11. Type of C	Customer:	Corporati	on			Individ	ual		Partnership: General Limited				
Government:	🖾 City 🗖	County 🗌 Federal [State 🗌 Othe	er		Sole P	ropriet	orship		Other:			
12 . Number of 0-20	of Employ] 21-100	vees	251-500)	13. Independently Owned and Operated? ⊠ 501 and higher □ Yes ⊠ No			ted?					
14. Custome	r Role (Pr	oposed or Actual) -	- as it relates to	o the Re	egulated	l Entity i	listed or	n this fa	orm. Plea	se check one of the	following:		
Owner	nal Licens	ee 🗌 Respo	or nsible Party		⊠ 0 □ V	wner &	& Opera ry Clea	ator nup A	pplicant	Other:			
	1110 H	Iouston Stree	et										
15. Mailing Address:													
	City	Laredo		S	State	ΤX		ZIP	7804	40	ZIP + 4	8019	
16. Country M	Mailing In	formation (if outs	de USA)				17. E	-Mail	Address	s (if applicable)			
N/A							read	ls@c	i.larec	lo.tx.us			
18. Telephon	e Numbe	r		19. E	xtensi	on or (Code			20. Fax Numbe	r (if applicab	nle)	
(956) 79	1-7302									(956) 791	-7498		

SECTION III: Regulated Entity Information

 21. General Regulated Entity Information (If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)

 New Regulated Entity
 Update to Regulated Entity Name

 Update to Regulated Entity
 Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC.)

22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)

South Laredo Wastewater Treatment Facility

23. Street Address of	309 Riv	ver Front St	reet								
(No PO Boxes)	City	Laredo	State	TX	ZIP	78046	ZIP + 4				
24. County	Webb				21		11.5				
	Er	nter Physical L	ocation Description	on if no str	eet address	is provided.					
25. Description to Physical Location:	N/A										
26. Nearest City						State	Ne	arest ZIP Cod			
Laredo						TX	78	3046			
27. Latitude (N) In Dec	imal:			28.	Longitude (W) In Decimal:					
Degrees	Minutes		Seconds	Deg	rees	Minutes	-1	Seconds			
27		26	48	141	99	1.111.11103	29	11			
29. Primary SIC Code (4	digits) 30.	Secondary SI	C Code (4 digits)	31. Prim (5 or 6 digi	ary NAICS C	Code 32. S	econdary NA	ICS Code			
4952				22132	1320						
33. What is the Primary	Business of	this entity?	Do not repeat the SIC c	or NAICS desc	ription.)						
This facility primar	ily treats o	lomestic wa	stewater.								
34 Mailing	5816 Daugherty Ave.										
Address:	-			_	_						
	City	Laredo	State	ТХ	ZIP	78041	ZIP + 4	3337			
35. E-Mail Address				rmia	@ci.laredo.t	x.us					
36. Teleph	one Number		37. Extensi	on or Code	9	38. Fax Num	ber (if applic	able)			
(956)	721-2000					(956) 721-2001	Management of the second			
TCEQ Programs and ID n. See the Core Data Form in	Numbers Ch	eck all Programs	and write in the pern	nits/registration	on numbers th	at will be affected by	the updates su	bmitted on this			
Dam Safety	Districts		Edwards Aquife	er	Emissions	Inventory Air	Industrial Hazardous Waste				
Municipal Solid Waste	New Sou	Irce Review Air	OSSF		Petroleum Storage Tank		PWS				
Sludge	Storm W	ater	Title V Air		Tires	1	Used Oil				
	TXR05N9	04									
Voluntary Cleanup	Waste W	ater	Wastewater Ag	riculture	U Water Righ	nts [Other:				
	W000106	81003									

SECTION IV: Preparer Information

40. Name: Jenni English				41. Title:	Engineer in Training
42. Telephone M	Number	43. Ext./Code	44. Fax Number	45. E-Mail	Address
(512)687-2	193		(512)452-2325	jenglish	@plummer.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

City of Laredo	Job Title:	Interim Co-City Ma	nager
Robert A. Eads, ICMA-CM		Phone:	(956) 791-7302
Adush 28		Date:	2/19/2020
	City of Laredo Robert A. Eads, ICMA-CM Achiman Company	City of Laredo Job Title: Robert A. Eads, ICMA-CM Adura	City of Laredo Job Title: Interim Co-City Mar Robert A. Eads, ICMA-CM Phone: Nounces Date:

ATTACHMENT B

U.S. Geological Survey Map Admin Rpt 1.0 Section 13



ATTACHMENT C

List of Treatment Units Tech Rpt. 1.0, Section 2.B

ATTACHMENT C CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

Treatment Unit Type	Number of Units	Dimensions (L x W x D)
		(2) Mechanical Bar Screens, (1) Bypass with
Bar Screen	3	Manual Bar Screen
Aeration Basin	3	300 ft x 20 ft (SWD) x 60 ft
		(3) 95 ft x 16 ft 2 in (SWD)
Clarifiers	4	(1) 90 ft X 12 ft (SWD)
		86 ft 10 in x 7 ft 6 in (5 ft SWD) X 72 ft 6 in
Chlorine Contact Basins	2	(divided in the center)
Aerated Sludge Holding Tank	1	558 ft X 11.2 ft X 140 ft
Gravity Thickener	1	80 ft x 12 ft

ATTACHMENT D

Process Flow Diagram Tech Rpt. 1.0, Section 2.C







ATTACHMENT E

Site Drawing Tech Rpt. 1.0, Section 4



REGISTERED ENGINEERING FIRM F-13 2020 1:16 PM M:\Projects\1107\001-01\2-0 Wrk Prod\2-1 ACAD\FIGURES\South Laredo\FIGURES\FIG-SITE.dwg Briand TEXAS 1/30/2

ATTACHMENT F

Acceptance of Sludge from Other WWTPs Tech Rpt. 1.0 Section 6.G.1

ATTACHMENT F.1 CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

SOLIDS MANAGEMENT PLAN

Dimensions/Capacities of Sludge Handing Units/Processes:

Aerated Sludge Holding Tank:	(1) – 558 ft x 11.2 ft x 140 ft
Gravity Thickener:	(1) – 80 ft x 12 ft

CBOD₅ Removal:

254 mg/L
20 mg/L
234 mg/L
18 MGD

Solids Generated:

Percentage of Design Flow	<u>100%</u>	<u>75%</u>	<u>50%</u>	<u>25%</u>
Pounds BOD ₅ /day Removed	35,128	26,346	17,546	8,782
Pounds of Dry Sludge Produced per Day*	29,859	22,394	14,929	7,465
Pounds of Wet Sludge Produced per Day**	2,985,880	2,239,410	1,492,940	746,470
Volume of Wet Sludge Produced per Day (gal)	358,306	268,730	179,153	89,577

*Assuming 0.85 lb of dry sludge produced per pound of BOD₅ removed

**Assuming 1.0% solids

MLSS Operating Range 2,500- 4,000 mg/L

Sludge Disposal

Dewatered sludge will be pumped into a dump truck and transported to a TCEQ-permitted landfill for sludge disposal.

ATTACHMENT F.2 CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

ACCEPTANCE OF SLUDGE FROM OTHER WASTEWATER TREATMENT FACILITIES

The City of Laredo (City) owns and operates the South Laredo Wastewater Treatment Facility (WWTF). The design BOD₅ concentration of the influent at the South Laredo WWTF is 200-350 mg/l. The following table provides a description of the sludge that is accepted from other WWTF owned by the City at the South Laredo WWTF. This has changed since the last permit action.

WWTF	Acceptance Date	Estimated Monthly Sludge Acceptance (gal/month)	Estimate BOD₅ of Sludge (mg/l)
Zacate Creek	1987	11,000,000	170
Unitec	1993	60,000	80-500
Laredo-Columbia	1991	2,000	75-115
Penitas	2012	3,500	

ATTACHMENT G

Pollutant Analysis of Treated Effluent Tech Rpt. 1.0, Section 7; Wksht 4.0 Sections 1 and 2

🛟 eurofins

Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Corpus Christi 1733 N. Padre Island Drive Corpus Christi, TX 78408 Tel: (361)289-2673

Laboratory Job ID: 560-84052-1

Client Project/Site: South Laredo WWTP TPDES Application12/19

For:

City of Laredo 5816 Daugherty Avenue Laredo, Texas 78041

Attn: Saad Hassoun

Authorized for release by: 1/27/2020 1:11:48 PM Tiffany Fleming, Project Management Assistant I (361)289-2673 tiffany.fleming@testamericainc.com

Designee for

LINKS

Review your project results through

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Have a Question?

Ask-

The

www.testamericainc.com

Visit us at:

Expert

Lindy Maingot, Project Manager I (210)344-9751 lindy.maingot@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

2

Qualifiers

GC Semi VC	Α	
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
U	Indicates the analyte was analyzed for but not detected.	5
<mark>Metals</mark> Qualifier	Qualifier Description	
U	Indicates the analyte was analyzed for but not detected.	
General Che	emistry	
Qualifier	Qualifier Description	
В	Compound was found in the blank and sample.	 8
Н	Sample was prepped or analyzed beyond the specified holding time	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	Q
U	Indicates the analyte was analyzed for but not detected.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	

Appreviation	i nese commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Eurofins TestAmerica, Corpus Christi

1/27/2020

Job ID: 560-84052-1

Laboratory: Eurofins TestAmerica, Corpus Christi

Narrative

Job Narrative 560-84052-1

Comments

No additional comments.

Receipt

The sample was received on 12/20/2019 8:15 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.4° C.

GC Semi VOA

Method 8081B: The continuing calibration verification (CCV) associated with batch 280-482024 recovered outside of the control limits (20%) low on the Back Column for the surrogates, DCB Decachlorobiphenyl at -24.8% and Tetrachloro-m-xylene at -29%. The samples associated with this CCV were reported from the Front Column, which was within control limits; therefore, the data have been reported. The following sample is impacted: (CCV 280-482024/46).

Method 8081B: The batch did not contain an LCS with AP9 spike. LCS not reporting anything other than surrogate. (LCS 280-481601/2-A) and (LCSD 280-481601/3-A)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method SM5210B CBOD: The correction factor for the Seeded Control Blank (SCB) for batch 560-170104 was outside the method range of 0.6 to 1.0 mg/L. Thus, there is added uncertainty for the associated sample results.

Methods 300.0, 9056: The following samples were diluted due to the nature of the sample matrix: South WWTP (560-84052-1), (560-83999-A-1 AS) and (560-83999-A-1 MSD). Elevated reporting limits (RLs) are provided.

Method 300.0: The following sample was analyzed outside of analytical holding time due to system outages. South WWTP (560-84052-1)

Method 300.0: The instrument blank for analytical batch 560-170350 contained NO3 greater than the method detection limit (MDL), and were not reanalyzed because recovery was less than the RL. The data have been qualified and reported.

Method 351.2: The following sample was analyzed outside of analytical holding time due to analysts oversight: South WWTP (560-84052-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Methods 3510C, 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 280-481601. LCSDs were prepared instead as per QA requirements. South WWTP (560-84052-1)

Method 615: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: South WWTP (560-84052-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Client Sample ID: South WWTP

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type			
Oil & Grease (HEM)	1.5	J	4.8	1.3	mg/L	1	1664A	Total/NA			
Chloride	241		25.0	4.80	mg/L	25	300.0	Total/NA			
Nitrate as N	19.6	НВ	12.5	2.58	mg/L	25	300.0	Total/NA			
Sulfate	319		25.0	9.43	mg/L	25	300.0	Total/NA			
Nitrogen, Kjeldahl	1.57	Н	1.00	0.432	mg/L	1	351.2	Total/NA			
Total Alkalinity as CaCO3	52.0		5.00	5.00	mg/L	1	SM 2320B	Total/NA			
Total Dissolved Solids	1060		20.0	20.0	mg/L	1	SM 2540C	Total/NA			
Total Suspended Solids	7.00		2.00	2.00	mg/L	1	SM 2540D	Total/NA			
Fluoride	0.664		0.100	0.0200	mg/L	1	SM 4500 F C	Total/NA			
Total Phosphorus	3.75		0.500	0.210	mg/L	10	SM4500 P E-1999	Total/NA			
Carbonaceous Biochemical Oxygen	3.67		2.00	2.00	mg/L	1	SM5210B CBOD	Total/NA			

Demand

Job ID: 560-84052-1

Lab Sample ID: 560-84052-1

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Client Sample ID: South WWTP Date Collected: 12/19/19 10:00 Date Received: 12/20/19 08:15

Cr (III)

Fluoride

Ammonia as N

Total Phosphorus

Oxygen Demand

Carbonaceous Biochemical

Method: 615 - Chlorinated I	Herbicides in I	ndustrial 8	& Municipal	Wastewa	ater				
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	0.0638	U	0.532	0.0638	ug/L		12/26/19 12:39	12/31/19 14:24	1
Silvex (2,4,5-TP)	0.0532	U	0.532	0.0532	ug/L		12/26/19 12:39	12/31/19 14:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	113		10 - 125				12/26/19 12:39	12/31/19 14:24	1
Method: 8081B - Organoch	Iorine Pesticid	les (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicofol	5.25	U	10.5	5.25	ug/L		12/26/19 10:52	01/01/20 02:57	1
Mirex	0.0127	U	0.0525	0.0127	ug/L		12/26/19 10:52	01/01/20 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	45		34 - 122				12/26/19 10:52	01/01/20 02:57	1
Tetrachloro-m-xylene	64		28 - 115				12/26/19 10:52	01/01/20 02:57	1
Method: 200.8 - Metals (ICF	P/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.40	U	5.00	1.40	ug/L		12/20/19 10:20	12/20/19 17:44	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease (HEM)	1.5	J	4.8	1.3	mg/L			12/20/19 09:05	1
Chloride	241		25.0	4.80	mg/L			12/31/19 20:36	25
Nitrate as N	19.6	НВ	12.5	2.58	mg/L			12/31/19 20:36	25
Sulfate	319		25.0	9.43	mg/L			12/31/19 20:36	25
Nitrogen, Kjeldahl	1.57	н	1.00	0.432	mg/L			01/21/20 14:39	1
Total Alkalinity as CaCO3	52.0		5.00	5.00	mg/L			12/27/19 13:45	1
Total Dissolved Solids	1060		20.0	20.0	mg/L			12/24/19 14:50	1
Total Suspended Solids	7.00		2.00	2.00	mg/L			12/20/19 11:15	1
Chromium VI	3.00	U	5.00	3.00	ug/L			12/20/19 09:00	1

5.00

0.100

0.200

0.500

2.00

5.00 ug/L

0.0200 mg/L

0.0450 mg/L

0.210 mg/L

2.00 mg/L

5.00 U

0.664

0.0450 U

3.75

3.67

Matrix: Water

Lab Sample ID: 560-84052-1

1

1

1

10

1

12/26/19 13:27

12/23/19 09:30

12/23/19 16:15

12/21/19 09:30

12/31/19 01:56 12/31/19 06:08

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Method: 615 - Chlorinated Herbicides in Industrial & Municipal Wastewater

Lab Sample ID: MB 600-28 Matrix: Water Analysis Batch: 284438	4083/1-A									C	Clie	ent Samp	ole ID: M Prep Tyj Prep Ba	ethod be: To itch: 2	Blank tal/NA 84083
		MB	MB												
Analyte	Re	sult	Qualifier	F	RL	I	MDL	Unit		D	Р	repared	Analyz	ed	Dil Fac
2,4-D	0.0	600	U	0.50	00	0.0	0600	ug/L		_ 1	2/2	6/19 12:39	12/31/19	13:11	1
Silvex (2,4,5-TP)	0.0	500	U	0.50	00	0.0	0500	ug/L		1	2/2	6/19 12:39	12/31/19	13:11	1
		MВ	МВ												
Surrogate	%Recov	/ery	Qualifier	Limits							PI	repared	Analyz	ed	Dil Fac
2,4-Dichlorophenylacetic acid		106		10 - 12	5					1	12/2	6/19 12:39	12/31/19	13:11	1
Lab Sample ID: LCS 600-2 Matrix: Water Analysis Batch: 284438	84083/2-A			Spike		LCS	LCS		Clie	ent \$	Sar	nple ID:	Lab Cor Prep Ty Prep Ba %Rec	itrol S be: To itch: 2	ample tal/NA 84083
Analyto				Addod		Posult	0	lifior	Unit		п	%Pac	l imite		
24-D				0 400		0 4343					_	109	25 151		
Silver (245-TP)				0.400		0.3647	ı ı		ug/L			Q1	47 136		
Silvex (2,4,3-11)				0.400		0.3047	5		ug/L			51	47 - 150		
	LCS	LCS	;												
Surrogate	%Recovery	Qua	lifier	Limits											
2,4-Dichlorophenylacetic acid	110			10 - 125											
Lab Sample ID: LCSD 600 Matrix: Water Analysis Batch: 284438	-284083/3-A							C	lient S	amp	ole	ID: Lab	Control S Prep Tyj Prep Ba	Sampl be: To itch: 2	e Dup tal/NA 84083
-				Spike		LCSD	LCS	D					%Rec.		RPD
Analyte				Added		Result	Qua	lifier	Unit		D	%Rec	Limits	RPD	Limit
2,4-D				0.400		0.5101			ug/L		_	128	25 - 151	16	20
Silvex (2,4,5-TP)				0.400		0.4028	J		ug/L			101	47 - 136	10	20
	LCSD	LCS	D												
Surrogate	%Recovery	Qua	lifier	Limits											
2,4-Dichlorophenylacetic acid	121			10 - 125											

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 280-481 Matrix: Water Analysis Batch: 482024	601/1-A						Client Samp	le ID: Methoo Prep Type: To Prep Batch:	l Blank otal/NA 481 <mark>60</mark> 1
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dicofol	5.00	U	10.0	5.00	ug/L		12/26/19 10:52	01/01/20 04:08	1
Mirex	0.0121	U	0.0500	0.0121	ug/L		12/26/19 10:52	01/01/20 04:08	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	86		34 - 122				12/26/19 10:52	01/01/20 04:08	1
Tetrachloro-m-xylene	76		28 - 115				12/26/19 10:52	01/01/20 04:08	1

5 6

Job ID: 560-84052-1

Job ID: 560-84052-1

Project/Site: South Laredo W	WTP TPDE	S Ap	oplication	12/19								000 ID. 000-	04002-1
lethod: 8081B - Orga	nochlorine	e Pe	esticide	es (GC) (C	ontin	ued)					
Lab Sample ID: LCS 280-4 Matrix: Water	481601/2-A								CI	ient	Sample ID	: Lab Control Pren Type: 1	Sample
Analysis Batch: 482024												Prep Batch:	481601
	LCS	LCS	5										
Surrogate	%Recovery	Qua	alifier	Limits	_								
DCB Decachlorobiphenyl	86			34 - 122									
i etrachioro-m-xylene	66			28 - 115									
Lab Sample ID: LCSD 280 Matrix: Water)-481601/3-A	L						C	Client \$	Sam	ple ID: Lat	o Control Sam Prep Type: 1	ple Dup otal/NA
Analysis Batch: 482024												Prep Batch:	481601
	LCSD	LCS	SD										
Surrogate	%Recovery	Qua	alifier	Limits	_								
DCB Decachlorobiphenyl	89			34 - 122									
Tetrachloro-m-xylene	71			28 - 115									
lethod: 200.8 - Metals	(ICP/MS)												
Lab Sample ID: MB 560-1	70073/1-A										Client San	nple ID: Metho	d Blank
Matrix: Water												Prep Type: 1	otal/NA
Analysis Batch: 170101												Prep Batch:	170073
		MB	MB										
Analyte		sult	Qualifier		RL		MDL	Unit		D	Prepared	Analyzed	Dil Fac
Chromium		1.40	U		5.00		1.40	ug/L			12/20/19 10:2	20 12/20/19 17:39	1
l ab Sample ID: MB 560-1	70073/1-4										Client San	nle ID: Metho	d Blank
Matrix: Water											onent oan	Prep Type: 1	otal/NA
Analysis Batch: 170119												Prep Batch:	170073
		MB	MB									•	
Analyte	Re	sult	Qualifier		RL		MDL	Unit		D	Prepared	Analyzed	Dil Fac
Chromium		1.40	U		5.00		1.40	ug/L			12/20/19 10:2	20 12/20/19 23:15	1
l ah Sample ID: I CS 560.	170073/2-4								CI	ient	Sample ID	: Lab Control	Sample
Matrix: Water											•••••••	Prep Type: 1	otal/NA
Analysis Batch: 170101												Prep Batch:	170073
-				Spike		LCS	LCS	6				%Rec.	
Analyte				Added		Result	Qua	alifier	Unit		D %Rec	Limits	
Chromium				250		246.9			ug/L		99	85 ₋ 115	
Lab Sample ID: LCS 560-	170073/2-A								CI	ient	Sample ID	: Lab Control	Sample
Matrix: Water												Prep Type: 1	otal/NA
Analysis Batch: 170119												Prep Batch:	170073
-				Spike		LCS	LCS	6				%Rec.	
Analyte				Added		Result	Qua	alifier	Unit		D %Rec	Limits	
Chromium				250		252.5			ug/L		101	85 - 115	
Lab Sample ID: 560-84052	2-1 MS										Client Sar	nple ID: South	WWTP
Matrix: Water												Prep Type: 1	otal/NA
Analysis Batch: 170101		_		_								Prep Batch:	170073
	Sample	San	nple	Spike		MS	MS					%Rec.	
Analyte	Result	Qua	alifier	Added		Result	Qua	alifier	Unit		D %Rec	Limits	
Chromium	1.40	U		250		249.8			ug/L		100	70 - 130	

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 560-84052-1 MS

Matrix: Water

Job ID: 560-84052-1

Prep Type: Total/NA

Client Sample ID: South WWTP

6

Analysis Batch: 170119									Prep Ba	itch: 1	70073
	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chromium	1.40	U	250	256.8		ug/L		103	70 - 130		
Lab Sample ID: 560-84052-1 I	NSD						Cli	ent Sar	nple ID: S	outh V	WWTP
Matrix: Water									Prep Ty	pe: To	tal/NA
Analysis Batch: 170101									Prep Ba	tch: 1	70073
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium	1.40	U	250	249.7		ug/L		100	70 - 130	0	20
Lab Sample ID: 560-84052-1 I	NSD						Cli	ent Sar	nple ID: S	outh V	NWTP
Matrix: Water									Prep Ty	pe: To	tal/NA
Analysis Batch: 170119									Prep Ba	tch: 1	70073
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chromium	1.40	U	250	259.4		ug/L		104	70 - 130	1	20
Method: 1664A - HEM and	d SGT-l	HEM									
Lab Sample ID: MB 560-1700	94/1						Clie	ent San	nple ID: M	ethod	Blank
Matrix: Water									Prep Tv	oe: To	tal/NA
Analysis Batch: 170094											
		МВ МВ									
Analyte	Re	sult Qualifie	er F	RL	MDL Unit	I	D P	repared	Analyz	ed	Dil Fac
Oil & Grease (HEM)		1.4 U	5	5.0	1.4 mg/L				12/20/19	09:05	1
 Lab Sample ID: LCS 560-1700	194/2					Clie	nt Sa	mnio ID	l ah Cor	trol S	amnlo
Matrix: Water	JJ-1/2					Olle			Dron Tvi		
Analysis Batch: 170094									i iep i y	Je. 10	
Analysis Batch. 170034			Spike	LCS	LCS				%Rec.		
Analvte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Oil & Grease (HEM)			39.9	32.90		mg/L		82	78 - 114		
Method: 300.0 - Anions J	on Chr	matoar	anhy								
		Sinatogra	арпу								
Lab Sample ID: MB 560-1703	50/3						Clie	ent San	nple ID: M	ethod	Blank
Matrix: Water									Prep Ty	pe: To	tal/NA
Analysis Batch: 170350											
		MB MB									
Analyte	Re	sult Qualifie	er F		MDL Unit		D P	repared	Analyz	:ed	Dil Fac
Chloride	0	.192 U	1.	00 0).192 mg/L				12/31/19	12:26	1
Nitrate as N	0.2	2040 J	0.5	00 0).103 mg/L				12/31/19	12:26	1
Sulfate	0	.377 U	1.	00 0).377 mg/L				12/31/19	12:26	1
Lab Sample ID: LCS 560-170	350/4					Clie	nt Sa	mple ID	: Lab Cor	itrol S	ample
Matrix: Water									Prep Ty	pe: To	tal/NA
Analysis Batch: 170350											
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride			10.0	10.02		mg/L		100	90 - 110		
Nitrate as N			5.00	5.031		mg/L		101	90 - 110		

Eurofins TestAmerica, Corpus Christi

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Lab Sample ID: LCS 560-170350/4

Matrix: Water

Analysis Batch: 170350

Method: 300.0 - Anions, Ion Chromatography (Continued)

Job ID: 560-84052-1

Client Sample ID: Lab Control Sample Prep Type: Total/NA 6 Dil Fac 1

Spike LCS LCS %Rec. Added **Result Qualifier** Analyte Unit D %Rec Limits Sulfate 20.0 20.37 102 ma/L 90 - 110Method: 351.2 - Nitrogen, Total Kjeldahl Lab Sample ID: MB 600-285760/10 **Client Sample ID: Method Blank** Matrix: Water Prep Type: Total/NA Analysis Batch: 285760 MB MB Analyte **Result Qualifier** RL MDL Unit D Prepared Analyzed Nitrogen, Kjeldahl 1.00 01/21/20 14:34 0.432 U 0.432 ma/L Lab Sample ID: LCS 600-285760/31 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 285760 LCS LCS Spike %Rec. Analyte Added **Result Qualifier** Unit %Rec Limits D 9.861 Nitrogen, Kjeldahl 10.0 mg/L 99 90 - 110 Method: SM 2320B - Alkalinity Lab Sample ID: MB 560-170269/1 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA Analysis Batch: 170269 MB MB Dil Fac Analyte **Result Qualifier** RL MDL Unit D Prepared Analyzed 5.00 Total Alkalinity as CaCO3 5.00 U 5.00 ma/L 12/27/19 13:45 Lab Sample ID: LCS 560-170269/2 **Client Sample ID: Lab Control Sample** Matrix: Water Prep Type: Total/NA Analysis Batch: 170269 LCS LCS Spike %Rec. Analyte Added **Result Qualifier** Unit D %Rec Limits Total Alkalinity as CaCO3 100 90.00 mg/L 90 85 - 115 Method: SM 2540C - Solids, Total Dissolved (TDS) Lab Sample ID: MB 560-170228/1 **Client Sample ID: Method Blank** Matrix: Water Prep Type: Total/NA Analysis Batch: 170228 MB MB Analyte **Result Qualifier** RL MDL Unit D Prepared Dil Fac Analyzed Total Dissolved Solids 10.0 10.0 Ī 10.0 mg/L 12/24/19 14:50 1 Lab Sample ID: LCS 560-170228/2 **Client Sample ID: Lab Control Sample** Matrix: Water Prep Type: Total/NA Analysis Batch: 170228

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids	 2250	2120		mg/L		94	90 - 110	

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19 Job ID: 560-84052-1

-											
Lab Sample ID: 560-84052-1 Matrix: Water	I DU						CI	ient Sar	nple ID: So Prep Typ	outh V be: Tot	NWT tal/N
Analysis Batch: 170228											
	Sample	Sample		DU	DU						RP
Analyte	Result	Qualifier		Result	Qualifier	Unit	D			RPD	Lim
Total Dissolved Solids	1060			1112		mg/L				5	2
lethod: SM 2540D - Sol	ids, Tota	I Suspend	ded (TS	SS)							
Lab Sample ID: MB 560-170 Matrix: Water	084/1						Cli	ent San	nple ID: Me Prep Typ	ethod be: Tot	Blan tal/N.
Analysis Batch: 170084											
-		MB MB									
Analyte	Res	sult Qualifier		RL	MDL Unit		DF	Prepared	Analyz	ed	Dil Fa
Total Suspended Solids	2	2.00 U		2.00	2.00 mg/L				12/20/19	11:15	
Lab Sample ID: LCS 560-17	0084/2					CI	ient Sa	mple ID	: Lab Con	trol Sa	ampl
Matrix: Water									Prep Typ	be: To	tal/N
Analysis Batch: 170084											
			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Total Suspended Solids			200	195.5		mg/L		98	80 - 120		
Method: SM 3500 CR B	- Chromi	um, Hexa	valent								
Lab Sample ID: MB 560-170	106/10						Cli	ent San	nple ID: Me	ethod	Blan
Lab Sample ID: MB 560-170 Matrix: Water	106/10						Cli	ent Sam	ple ID: Me Prep Typ	ethod be: To	Blan tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106	106/10	MR MR					Cli	ent San	nple ID: Me Prep Typ	ethod be: To	Blan tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106	106/10 Res	MB MB		PI	MDI Unit		Cli	ent San	ple ID: Me Prep Typ	ethod be: Tot	Blan tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte	106/10	MB MB sult Qualifier		RL	MDL Unit		Cli D F	ent Sarr Prepared	Prep Typ Analyz	ethod be: Tot ed	Blan tal/N Dil Fa
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	106/10 	MB MB sult Qualifier 3.00 U		RL 5.00	MDL Unit 3.00 ug/L		Cli <u>D</u>	ent Sam Prepared	nple ID: Me Prep Typ 	ethod be: Tot ed 09:00	Blan tal/N Dil Fa
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17	106/10 	MB MB sult Qualifier 3.00 U		RL 5.00	MDL Unit 3.00 ug/L	CI	Cli F 	ent Sam	nple ID: Me Prep Typ 	ethod be: Tot ed D9:00	Blan tal/N Dil Fa
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water	106/10 	MB MB sult Qualifier 3.00 U		RL 5.00	MDL Unit 3.00 ug/L	CI	Cli <u>D</u> F ient Sa	ent Sam Prepared	Analyz 	ethod be: Tot ed D9:00 trol Sa	Blan tal/N Dil Fa ampl tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106	106/10 	MB MB sult Qualifier 3.00 U		RL 5.00	MDL Unit 3.00 ug/L	CI	Cli _ D _ F ient Sa	ent Sam Prepared	Analyz 	ethod pe: Tot ed D9:00 - trol Sa pe: Tot	Blan tal/N Dil Fa ampl tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106	106/10 	MB MB sult Qualifier 3.00 U	Spike	RL 5.00	MDL Unit 3.00 ug/L	CI	Cli ient Sa	ent Sam Prepared	Analyz Analyz 12/20/19 (C Lab Con Prep Typ %Rec.	ethod be: Tot ed D9:00 trol Sa be: Tot	Blan tal/N Dil Fa ampl tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte	106/10 	MB MB sult Qualifier 3.00 U	Spike Added	RL 5.00 LCS Result	MDL Unit 3.00 ug/L LCS Qualifier	CI	Cli <u>D</u> F ient Sa D	ent Sam Prepared Imple ID %Rec	Analyz 	ethod be: Tot 29:00 trol Sa be: Tot	Blan tal/N Dil Fa ampl tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	106/10 Re: 0106/11	MB MB sult Qualifier 3.00 U	Spike Added 200	RL 5.00 LCS Result 196.5	MDL Unit 3.00 ug/L LCS Qualifier	CI Unit ug/L	Cli <u>D</u> ient Sa <u>D</u>	ent Sam Prepared Imple ID	Analyz Analyz 12/20/19 (Characteristic constraints) %Rec. Limits 85 - 115	ethod be: Tot ced D9:00 - trol Sa be: Tot	Blan tal/N/ Dil Fa ampl tal/N/
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200	RL 5.00 LCS Result 196.5	MDL Unit 3.00 ug/L LCS Qualifier	CI Unit ug/L	Cli <u>D</u> F ient Sa <u>D</u> CI	ent Sam Prepared Imple ID <u>%Rec</u> 98	Analyz Analyz 12/20/19 (C Lab Con Prep Typ %Rec. Limits 85 - 115 Prole ID: Science	ethod be: Tot 29:00 - trol Sa be: Tot	Blan tal/N Dil Fa ampl tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water	106/10 0106/11 	MB MB sult Qualifier 3.00 U	Spike Added 200	RL 5.00 LCS Result 196.5	MDL Unit 3.00 ug/L LCS Qualifier	CI Unit ug/L	Cli <u>D</u> ient Sa <u>D</u> Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sar	Analyz Analyz 12/20/19 (C Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prop Typ	ethod be: Tot 29:00 - trol Sa be: Tot	Blan tal/N, Dil Fa ampl tal/N,
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106	106/10 0106/11 	MB MB sult Qualifier 3.00 U	Spike Added 200	RL 5.00 LCS Result 196.5	MDL Unit 3.00 ug/L LCS Qualifier	CI Unit ug/L	Cli <u>D</u> ient Sa <u>D</u> Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98	Analyz 	ethod be: Tot content of content	Blan tal/N, Dil Fa ampl tal/N, tal/N,
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106	106/10Re:3 0106/11	MB MB sult Qualifier 3.00 U	Spike Added 200	RL 5.00 LCS Result 196.5	MDL Unit 3.00 ug/L LCS Qualifier	CI Unit ug/L	Cli ient Sa D_ Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam	Analyz Analyz 12/20/19 (Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec.	ethod be: Tot D9:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N, Dil Fa ampl tal/N,
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte	106/10Re:3 0106/11	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike	RL 5.00 LCS Result 196.5 MS Result	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L	Cli ient Sa D_ Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam	Analyz Analyz 12/20/19 (Lab Con Prep Typ %Rec. Limits 85-115 mple ID: So Prep Typ %Rec. Limits	ethod be: Tot 09:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N Dil Fa ampl tal/N
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	1106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike Added 200	RL 5.00 LCS Result 196.5 MS Result 191.8	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L Unit ug/L	Cli ient Sa D_ Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam <u>%Rec</u> 96	Analyz Analyz 12/20/19 (C Lab Con Prep Typ %Rec. Limits 85 - 115 Nple ID: So Prep Typ %Rec. Limits 85 - 115	ethod be: Tot 29:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N, Dil Fa ampl tal/N, VWT tal/N,
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike Added 200	RL 5.00 LCS Result 196.5 MS Result 191.8	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L Unit ug/L	Cli <u>D</u> F ient Sa <u>D</u> Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam <u>%Rec</u> 96	Analyz Prep Typ Analyz 12/20/19 (0 C Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Limits 85 - 115 mple ID: So	ethod be: Tot D9:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N/ Dil Fa ampl tal/N/ tal/N/
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike Added 200	RL 5.00 LCS Result 196.5 MS Result 191.8	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L	Cli <u>D</u> F ient Sa <u>D</u> Cl Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam <u>%Rec</u> 96	Analyz Prep Typ Analyz 12/20/19 (Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Limits 85 - 115 mple ID: So	ethod be: Tot 29:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N/ Dil Fa ampl tal/N/ tal/N/
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106	106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike Added 200	RL 5.00 LCS Result 196.5 MS Result 191.8	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L Unit ug/L	Cli <u>D</u> F ient Sa <u>D</u> Cl Cl	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam <u>%Rec</u> 96	Analyz Prep Typ Analyz 12/20/19 (C Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ	ethod be: Tot D9:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N, Dil Fa ampl tal/N, WWTI tal/N,
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106	106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike Added 200	RL 5.00 LCS Result 196.5 MS Result 191.8	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L	Cli <u>D</u> F ient Sa <u>D</u> Cl <u>Cl</u>	ent Sam Prepared Imple ID <u>%Rec</u> 98 ient Sam <u>%Rec</u> 96	Analyz Analyz 12/20/19 (C Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Note: 100 Solution Sol	ethod be: Tot D9:00 - trol Sa be: Tot outh V be: Tot	Blan tal/N, Dil Fa ampl tal/N, WWTI tal/N,
Lab Sample ID: MB 560-170 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: LCS 560-17 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI Lab Sample ID: 560-84052-1 Matrix: Water Analysis Batch: 170106 Analyte Chromium VI	106/10 	MB MB sult Qualifier 3.00 U	Spike Added 200 Spike Added 200	RL 5.00 LCS Result 196.5 MS Result 191.8	MDL Unit 3.00 ug/L LCS Qualifier MS Qualifier	CI Unit ug/L Unit ug/L	Cli <u>D</u> F ient Sa <u>D</u> Cl <u>Cl</u>	ent Sam Prepared Imple ID <u>%Rec</u> <u>98</u> ient Sar <u>%Rec</u> <u>96</u> ient Sar	Analyz Prep Typ Analyz 12/20/19 (C Lab Con Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Limits 85 - 115 mple ID: So Prep Typ %Rec. Limits	ethod be: Tot 29:00 - trol Sa be: Tot outh V be: Tot outh V be: Tot	Blan tal/N, Dil Fa amplital/N, WWTI tal/N, RPI
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Eurofins TestAmerica, Corpus Christi

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Job ID: 560-84052-1

Project/Site: South Laredo WWTP TPDES Application12/19
Method: SM 4500 F.C. - Eluoride

Lab Sample ID: MB 560-170130/3							Client Sam	ple ID: Metho	d Blank
Malinx, Waler Analysis Batch: 170130								Prep Type. 1	Olal/NA
Analysis Batch. 170130	МВ	МВ							
Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.0200	U	0.100	0.0200 m	ng/L			12/23/19 09:30	1
Lab Sample ID: 1 CS 560-170130/4						Cliont	Sample ID:	Lab Control	Samplo
Matrix: Water						Shem	. Sample ID.	Prep Type: T	otal/NA
Analysis Batch: 170130									
• • •			Spike	LCS LCS				%Rec.	
Analyte Fluoride			Added				_ <u>D</u> %Rec 	Limits	
			0.000	0.0210	ing/		100	00-110	
Method: SM 4500 NH3 G - Am	monia	a							
Lab Sample ID: MB 560-170181/3							Client Sam	ole ID: Metho	d Blank
Matrix: Water								Prep Type: T	otal/NA
Analysis Batch: 170181									
	MB	MB							
Analyte	Result	Qualifier	RL		Jnit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	0.0450	U	0.200	0.0450 m	ng/L			12/23/19 14:42	1
Lab Sample ID: LCS 560-170181/4					•	Client	Sample ID:	Lab Control	Sample
Analysis Batch: 170181								Fiep Type. I	Oldi/INA
Analysis Baten. Trotor			Spike	LCS LCS				%Rec.	
Analyte			Added	Result Qualif	ier Unit	t	D %Rec	Limits	
Ammonia as N			2.50	2.556	mg/	L	102	90 - 110	
Method: SM4500 P E-1999 - Pl	hosph	norus							
							Client Sam	nle ID: Metho	d Blank
Matrix: Water							onent oann	Prep Type: T	otal/NA
Analysis Batch: 284395								Prep Batch:	284391
	MB	MB							
Analyte	Result	Qualifier	RL	MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Total Phosphorus	0.0210	U	0.0500) 0.0210 m	ng/L		12/31/19 01:56	5 12/31/19 06:08	1
Lab Sample ID: LCS 600-284391/4-	A					Client	Sample ID:	Lab Control	Sample
Matrix: Water								Prep Type: T	otal/NA
Analysis Batch: 284395								Prep Batch:	284391
			Spike	LCS LCS				%Rec.	
Analyte Total Phosphorus			Added			[_ <u>D</u> <u>%Rec</u> _		
			0.000	0.0074	ing/		101	30-110	
Method: SM5210B CBOD - Ca	rbona	ceous	BOD, 5 D	ау					
Lab Sample ID: USB 560-170104/1 Matrix: Water							Client Sam	ple ID: Metho Prep Type: T	d Blank
Analysis Batch: 170104								i iep i ype. I	
	USB	USB							
Analyte	Result	Qualifier	RL	. MDL U	Jnit	D	Prepared	Analyzed	Dil Fac
Carbonaceous Biochemical Oxygen	2.00	U	2.00) 2.00 m	ng/L			12/21/19 09:30	1
Demand									
						Eu	rofins TestA	merica, Corpu	s Christi

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Job ID: 560-84052-1

5 6 7

Method: SM5210B CBOD - Carbonaceous BOD, 5 Day (Continued)

Lab Sample ID: USB 560-170104/2 Matrix: Water Analysis Batch: 170104									Cli	ent Sai	nple ID: Metho Prep Type: 1	d Blank ⁻ otal/NA
	USB	USB										
Analyte	Result	Qualifier		RL		MDL	Unit		DF	Prepared	Analyzed	Dil Fac
Carbonaceous Biochemical Oxygen Demand	2.00	U		2.00		2.00	mg/L				12/21/19 09:30	1
Lab Sample ID: LCS 560-170104/3 Matrix: Water Analysis Batch: 170104								Clie	ent Sa	mple II	D: Lab Control Prep Type: 1	Sample otal/NA
			Spike		LCS	LCS	;				%Rec.	
Analyte			Added		Result	Qua	lifier	Unit	D	%Rec	Limits	
Carbonaceous Biochemical			198		168.0			mg/L		85	84.6 - 115.	

Oxygen Demand

Eurofins TestAmerica, Corpus Christi

Accreditation/Certification Summary

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Laboratory: Eurofins TestAmerica, Corpus Christi

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Pr	rogram	Identification Number	Expiration Date
Texas	NE	ELAP	T104704210-19-23	03-31-20
The following analyte	s are included in this repo	ort, but the laboratory is r	not certified by the governing authority.	This list may include analytes for which
the agency does not	offer certification.			
the agency does not of Analysis Method	offer certification. Prep Method	Matrix	Analyte	
the agency does not on Analysis Method SM 2540C	offer certification. Prep Method	Matrix Water	Analyte Total Dissolved Solids	
the agency does not o Analysis Method SM 2540C SM 3500 CR D	offer certification. Prep Method	Matrix Water Water	Analyte Total Dissolved Solids Cr (III)	

Demand

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	01-08-20 *
Arizona	State	AZ0713	12-20-20
Arkansas DEQ	State	19-047-0	06-01-20
California	State	2513	01-08-20 *
Connecticut	State	PH-0686	09-30-20
Florida	NELAP	E87667-57	06-30-20
Georgia	State	4025-011	01-08-20
Illinois	NELAP	2000172019-1	04-30-20
Iowa	State	IA#370	12-01-20
Kansas	NELAP	E-10166	04-30-20
Louisiana	NELAP	30785	06-30-20
Maine	State	2019011 (231)	03-03-21
Minnesota	NELAP	1788752	12-31-20
Nevada	State	CO000262020-1	07-31-20
New Hampshire	NELAP	205319	04-28-20
New Jersey	NELAP	190002	06-30-20
North Carolina (WW/SW)	State	358	12-31-20
North Dakota	State	R-034	01-08-20 *
Oklahoma	State	2018-006	08-31-20
Pennsylvania	NELAP	013	08-01-20
South Carolina	State	72002001	01-08-20 *
Texas	NELAP	T104704183-19-17	09-30-20
US Fish & Wildlife	Federal		07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal		03-26-21
USDA	US Federal Programs	P330-18-00099	03-26-21
Utah	NELAP	CO000262019-11	07-31-20
Virginia	NELAP	10490	06-14-20
Washington	State	C583-19	08-05-20
West Virginia DEP	State	354	11-30-20
Wisconsin	State	999615430	08-31-20
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

1/27/2020

Job ID: 560-84052-1

1/27/2020

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Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Laboratory: Eurofins TestAmerica, Houston The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704223-19-25	10-31-20

Accreditation/Certification Summary

-1	
	5
	7
	8
	9

Job ID: 560-84052-

Method Summary

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Organochlorine Pesticides (GC)

Anions, Ion Chromatography

Chlorinated Herbicides in Industrial & Municipal Wastewater

Method Description

Metals (ICP/MS)

HEM and SGT-HEM

Job	ID:	560-	840	52-1
		000	0.0	~

Laboratory TAL HOU

TAL DEN TAL CC

TAL CC

TAL CC

Protocol

EPA-01

SW846

EPA

1664A

MCAWW

5
8
9

351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL HOU
SM 2320B	Alkalinity	SM	TAL CC
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CC
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CC
SM 3500 CR B	Chromium, Hexavalent	SM	TAL CC
SM 3500 CR D	Chromium, Trivalent	SM	TAL CC
SM 4500 F C	Fluoride	SM	TAL CC
SM 4500 NH3 G	Ammonia	SM	TAL CC
SM4500 P E-1999	Phosphorus	SM	TAL HOU
SM5210B CBOD	Carbonaceous BOD, 5 Day	SM	TAL CC
200.8	Preparation, Total Metals	EPA	TAL CC
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL DEN
615	Liquid-Liquid Extraction	EPA-01	TAL HOU
SM 4500 P B	Sample Preparation for Total and Ortho Phosphorus	SM	TAL HOU

Protocol References:

Method

615

8081B

200.8

1664A

300.0

1664A = EPA-821-98-002

EPA = US Environmental Protection Agency

EPA-01 = "Methods For The Determination Of Nonconventional Pesticides In Municipal And Industrial Wastewater", EPA/821/R/92/002, April 1992. MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

1/27/2020

Sample Summary

Client: City of Laredo Project/Site: South Laredo WWTP TPDES Application12/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
560-84052-1	South WWTP	Water	12/19/19 10:00	12/20/19 08:15	

Job ID: 560-84052-1

Eurofins TestAmerica, Corpus Christi					
1733 N. Padre Island Drive	Chain of Cu	stody Record			Environment Testing
Corpus Christi, TX 78408 Phone (361) 289-2673 Fax (361) 289-2471		•			
Client Information	Sampler:	Lab PM: Maingot, Lindv		Carrier Tracking No(s):	COC No: 560-30732-5057.1
Client Contact:	Phone:	E-Mail:			Page:
Saad Hassoun		lindy.maingot@te	stamericainc.com		Page 1 of 1
company: City of Laredo			Analysis Rec	^{quest} 84052	""" Stos2
Address: 5816 Daugherty Avenue	Due Date Requested:				Preservation Codes:
City: Laredo	TAT Requested (days):				B - NaOH N - None C - Zn Acetate 0 - AsNaO2
State. Zip: TX, 78041					D - Nitric Acid P - Na204S E - NaHSO4 Q - Na2SO3
Phone: 956-795-2720(Tel)	PO#: Pre-Payment by CC Required	(0			F - MeOH K - Na25203 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahvdrate
Email: shassoun@ci.laredo.tx.us	** OM	s or No	p		J - DI Water V - MCAA
Project Name: South Laredo WWTP TPDES Application	Project #: 56007964	es or l	hod Method	ist 	L - EDA Z - other (specify)
Site:	SSOW#:	lqmsð Y) gg	- Local AnA yqo isal Meti B	00-50 00-50 810m Li	Other:
	Sample Type Sample (C=com	Matrix (www.ter, Sapolid, Fill(ered 5 home and 16 form MS/M form MS/M	"S [−] Nb [,] 4200 "S [−] Nb [,] 4200 0C [−] C9lcq 0B 0B t200NH3 [−] C	0D 25108 CBOI 0 CCK B + 32 0 E C - (WOD) Cna	
Sample Identification	Sample Date Time G=grab	BT=TIssue, A=Air) II D 80	v 321 2 324 2 524 2 524 2 535 2 5355 2 5355 2 5355 2 5355 2 5355 2 5355 2 5355 2 5355 2	3224 3224 3200 3200 3200 3200 3200 3200	Special Instructions/Note:
Sraith 1 NUNTO	Maria in: an Pholos	Water X	× × ×		*** short hold time
10-00 10000		Water			
	Cont Cont	water			ALL Test must
			_		MARCH The MAL
					Standard
					methods
			-		
			560-840		
			-	oc criain of Custody	
Possible Hazard Identification		Sample	Disposal (A fee may be a	issessed if samples are retai	ined longer than 1 month)
Non-Hazard Flammable Skin Irritant Pois	son B Unknown Radiologic		turn To Client	isposal By Lab	hive For Months
Deliverable Requested: I, II, III, IV, Other (specify)		Special	nstructions/QC Requireme	nts:	
Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: SARD HASSOUN	Date/Time: 121919 - 12pm	Company Recei	ved by;	Date/Time:	SIJS EDWDany
Relinquished by:	Date/Time:	Company Recei	ved by:	Date/Time:	Сотрапу
Relinquished by:	Date/Time:	Company Recei	ved by:	Date/Time:	Company
Custody Seals Intact: Custody Seal No.:		Coole	r Temperature(s) °C and Other R	emarks: 1 6 7813	1.4 CB
					Ver: 01/16/2019

Iterr Information (Sub Contract Lab) Sampler Init of Contract Phone State Init of Contract Init of Contract Init of Contr	733 N. Padre Island Drive corpus Christi, TX 78408 thone: 361-289-2673 Fax: 361-289-2471	U	thain o	of Cus	to	dy F	dy Rec	dy Record
line Contract. Inc. Inc. Inc. Inc. Inc. Inc. Inc. Inc	bilent Information (Sub Contract Lab)	Sampler.				Mal	Lab PM: Maingot, L	Lab PM: Maingot, Lindy
mpany: certains main	lient Contact. hipping/Receiving	Phone:				E-Ma	E-Mail. lindy.main	E-Mail. lindy.maingot@
Break Due Date Requested: 310 Rothway Street, 116/2020 out 116/2020 out Street, 116/2020 out Street, 116/2020 x, T/D40 Po # None: Po # 13-560-4444(Tel) 713-690-5646(Fax) None: None: 13-560-4444(Tel) 713-690-5646(Fax) None: None: 0stor Name None: 0stor Name None: 0stor Name None: None: None: 13-560-4444(Tel) 713-690-5646(Fax) None: None: None: None: None: None: None: Solor7964 Interction to the area outh Laredo WMTP TPDES Application 12/19 Solor9 Interction and the area outh Clean D) Solor9 Interction and the area outh Clean D) 12/19/19 Internet Central	ompany: estAmerica Laboratories, Inc.						Accre	Accreditation NELAP - 1
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oloct Name outh Laredo WWTP TPDES Application12/19 56007964 te SSOW# Ample Identification - Client ID (Lab ID) Sample Date Sample Cacomo, Conversion ample Identification - Client ID (Lab ID) Sample Date Time G=grab) Isrefision. Conversion outh WMTP (560-84052-1) 12/19/19 Central 10.00 Wate	mail:	#OM					OL NC	or Nc
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Outh WMTP (560-84052-1) T2/19/19 T0:00 Preservation Codi Vate 12/19/19 Central Wate	iample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matris (Werwater S#solid, Orwastelo	- Air	Field Filtered	551.2 NP
outh WMTP (560-84052-1) 12/19/19 10.00 Wate		X	X	Preserva	ation Cod	e	e Ø	e XX
	iouth WWTP (560-84052-1)	12/19/19	10:00 Central		Water	-		×
							+	-



Client Contact. Shipping/Receiving company TestAmerica Laboratories, Inc. Address	Phone			E-Mail								
Shipping/Receiving Company TestAmerica Laboratories, Inc.								State of Origi		Page		
company TestAmerica Laboratories, Inc. Adress	_			lindy.	maingot@	testame	sricainc.com	Texas		Pag	e 1 of 1	
Address					Accreditation	ts Require Texas	ed (See note):			Job # 560-	t. -84052-1	
6310 Rothway Street.	Due Date Requeste 1/6/2020	;pe					Analys	is Ranuastad		Pres	servation Co	des:
City Houston	TAT Requested (da	ays):			-					8-N	HCL. VaOH	M - Hexane N - None
State. Zip. TX, 77040	Т									000	Zn Acetate Vitric Acid VaHSO4	0 - AsNaO2 P - Na204S 0 - Na2SO3
Phone 713-690-4444(Tel) 713-690-5646(Fax)	# Od				(1 0 1	AeOH Amchlor	R - Na2S203 S - H2SO4 T TCD Portorbuilded
Email	# OM				ol No		Jei			1-1-1-1	section Acta e 01 Water	 Lor bouecanyorate U - Acetone V - MCAA
Project Name South Laredo WWTP TPDES Application 12/19	Project # 56007964				e or N	1	1 WOISE			erenia: x m m m	EDA	W - pH 4-5 Z - other (specify)
Site:	SSOW#.				eD (Ye	a_9_00	10 (00	-	-	othe Othe		
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wewater, 5=solid, O=wasteroli, 317-T15sue, A=Air)	Field Filtered S Perform MS/M: 351.2_NP	054MS/3_9.0024	w) deta "crowcro			Total Number o	Snecial l	nstructions Moto.
	X	X	Preserva	ion Code	XX					X		
South WWTP (560-84052-1)	12/19/19	10:00		Water	×	×	×		ą۸ ا	80		
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					+	-			uieų:			
					-				025 C			
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Note: Since laboratory accreditations are subject to change. Eurolins TestAmer maintiain accreditation in the State of Origin listed above for analysis/tests/matri. TestAmerica attention immediately. If all requested accreditations are current.	arica places the ownershi rix being analyzed, the s. to date, return the signer	ip of method, a amples must bi d Chain of Cusi	malyte & accret e shipped back tody attesting to	Ittation complian to the Eurofins said complican	ce upon out TestAmerica ce to Eurofin	subcontra laboratory s TestAm	ct laboratories.	This sample shipment is lions will be provided. A	forwarded under on the changes to acc	L I chain-of-custo reditation stat	dy. If the labo tus should be t	statory does not currently brought to Eurofins
Possible Hazard Identification					Sampl	e Dispo	sal (A fee m	av be assessed if	samples are I	retained lo	nder than	1 month)
Unconfirmed						Return 7	o Client	Disposal By	Lab deJ	Archive F	For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliver	able Rank:	2		Specia	I Instruc	tions/QC Rec	juirements:				
Empty Kit Relinquished by:		Date:			Time:			Method	of Shipment.			
Relinquished by KANA	Date/Time: 20	166-	JUC	Company A	Rec	W A	SQ		Date/Time.	2/19	1010	Company A 14
Relinquished by	Date Time:			Company	Red	Avea by			Date Time.	-	101	Company
Relinquished by.	Date/Time:			Company	-	reived by			Date/Time			Company
Custody Seals Intact Custody Seal No.: A Yes A No					Coo	der Tempi	erature(s) "C and	Other Remarks				
					1		11	9 10	7 8	6	4	600/91/16 20/A

🔅 eurofins Loc: 560 Environment Testing Tésante 23 12:15 84052 **Eurofins TestAmerica Houston** Sample Receipt Checklist Date/Time Received: -TA - Corpus CLIENT: JOB NUMBER: UNPACKED BY: CARRIER/DRIVER: DNO Number of Coolers Received: Custody Seal Present: ZYES **Observed Temp** Therm Therm Corrected Temp Temp ID CF Trip Blank (\mathcal{C}) Cooler ID Blank N N Y 1 XI N N Y Y N N N Y N Y Y N N N N V CF = correction factor Samples received on ice? DNO DNO LABORATORY PRESERVATION OF SAMPLES REQUIRED: **UYES VES** Acid preserved are<pH 2: **NO** Base samples are>pH 12: □YES □NO TX1005 samples frozen upon receipt: YES DATE & TIME PUT IN FREEZER: pH paper Lot # <u>HC991818</u> VOA headspace acceptable (5-6mm): YES NO DNA DYES D NO Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? COMMENTS:

HS-SA-WI-013

Rev. 4A; 08/26/2019

1/27/2020

2

3

4 5

- 1

10

Client: City of Laredo

Login Number: 84052 List Number: 1 Creator: Vela, Kathryn

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

 Job Number: 560-84052-1
 3

 List Source: Eurofins TestAmerica, Corpus Christi
 5

 Comment
 6

 7
 8

 9
 10

11

Client: City of Laredo

Login Number: 84052 List Number: 2 Creator: Bunzli, Eric K

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 560-84052-1

List Creation: 12/21/19 01:57 PM

List Source: Eurofins TestAmerica, Denver
Client: City of Laredo

Login Number: 84052 List Number: 3 Creator: Rubio, Yuri

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

🔅 eurofins

Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Corpus Christi 1733 N. Padre Island Drive Corpus Christi, TX 78408 Tel: (361)289-2673

Laboratory Job ID: 560-81851-1

Client Project/Site: SLWWTP Table III South Lardeo 8/21/19 Sampling Event: SLWWTP - Effluent & Influent

For:

City of Laredo 5816 Daugherty Avenue Laredo, Texas 78041

Attn: Erica Solis

Authorized for release by: 9/3/2019 3:18:44 PM Tiffany Fleming, Project Management Assistant I (361)289-2673 tiffany.fleming@testamericainc.com

Designee for

Lindy Maingot, Project Manager I (210)344-9751 lindy.maingot@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Definitions/Glossary

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Detection Limit (DoD/DOE)

Estimated Detection Limit (Dioxin)

Limit of Detection (DoD/DOE)

Method Detection Limit Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Not Calculated

Quality Control

Limit of Quantitation (DoD/DOE)

Decision Level Concentration (Radiochemistry)

Minimum Detectable Activity (Radiochemistry)

Minimum Detectable Concentration (Radiochemistry)

Reporting Limit or Requested Limit (Radiochemistry)

Not Detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

2

Qualifiers

DL

DLC

EDL

LOD

LOQ

MDA

MDC

MDL

ML NC

ND PQL

QC

RER

RPD

TEF

TEQ

RL

DL, RA, RE, IN

Metals		
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
General Che	mistry	5
Qualifier	Qualifier Description	
В	Compound was found in the blank and sample.	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		
Abbreviation	These commonly used abbreviations may or may not be present in this report.	8
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	0
%R	Percent Recovery	0
CFL	Contains Free Liquid	3
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	

Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

5

Job ID: 560-81851-1

Laboratory: Eurofins TestAmerica, Corpus Christi

Narrative

Job Narrative 560-81851-1

Case Narrative

Comments

No additional comments.

Receipt

The samples were received on 8/22/2019 8:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -2.3° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method(s) 420.4: The method blank for preparation batch 600-273358 and analytical batch 600-273442 contained Phenols, Total above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

RL

1.0

2.0

1.0

2.0

5.0

30

10

10

5.0

0.00050

MDL Unit

0.17 ug/L

0.99 ug/L

0.46 ug/L

0.35 ug/L

2.2 ug/L

12 ug/L

1.2 ug/L

3.1 ug/L

2.8 ug/L

0.00014 ug/L

Result Qualifier

0.00064

1.6

3.7

1.6

0.68 J

31

49

60

4.4 J

3.1 JB

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Analyte

Mercury

Arsenic

Copper

Nickel

Zinc

Antimony

Aluminum

Cyanide, Total

Phenols, Total

Barium

Prep Type

Total/NA

Total Recoverable

Total/NA

Total/NA

Lab Sample ID: 560-81851-1

Dil Fac D Method

1

1

1

1

1

1

1

1

1

1

1631E

200.8

200.8

200.8

200.8

200.8

200.8

200.8

335.4

420.4

44

Client Sample	ID: SLWWTP	- Influent
---------------	------------	------------

Lab Sample ID: 560-81851-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.018		0.0025	0.00070	ug/L	5	_	1631E	Total/NA
Arsenic	2.6		1.0	0.17	ug/L	1		200.8	Total
									Recoverable
Chromium	1.3	J	2.0	0.58	ug/L	1		200.8	Total
									Recoverable
Copper	36		2.0	0.99	ug/L	1		200.8	Total
									Recoverable
Nickel	3.3		1.0	0.46	ug/L	1		200.8	Total
									Recoverable
Lead	1.2		1.0	0.16	ug/L	1		200.8	Total
									Recoverable
Antimony	0.81	J	2.0	0.35	ug/L	1		200.8	Total
									Recoverable
Selenium	1.0	J	5.0	0.81	ug/L	1		200.8	Total
									Recoverable
Ihallium	0.32	J	1.0	0.12	ug/L	1		200.8	Total
			· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · ·				Recoverable
Zinc	120		5.0	2.2	ug/L	1		200.8	Total
									Recoverable
Aluminum	520		30	12	ug/L	1		200.8	Total
									Recoverable
Barium	92		10	1.2	ug/L	1		200.8	Total
	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		· · · · <u>.</u> · · · · · · ·				Recoverable
Phenols, I otal	55	В	5.0	2.8	ug/L	1		420.4	Total/NA
Client Sample ID: SI WWT	- Effluent FR					i :	ah	Sample II	D. 560-81851-3

No Detections.

Client Sample ID: SLWWTP - Influent FB

No Detections.

This Detection Summary does not include radiochemical test results.

Lab Sample ID: 560-81851-4

Client Sample Results

RL

RL

1.0

1.0

1.0

2.0

2.0

1.0

1.0

2.0

5.0

1.0

5.0

30

10

1.0

RL

10

5.0

0.00050

MDL Unit

MDL Unit

0.17 ug/L

0.087 ug/L

0.99 ug/L

0.46 ug/L

0.81 ug/L

0.12 ug/L

2.2 ug/L

12 ug/L

1.2 ug/L

0.21 ug/L

MDL Unit

3.1 ug/L

2.8 ug/L

ug/L

0.22 ug/L

0.58 ug/L

0.16

0.35 ug/L

ug/L

0.00014

D

D

D

Prepared

08/27/19 14:45

Prepared

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37 08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

08/26/19 09:37

Prepared

08/28/19 15:50

08/29/19 15:18

Result Qualifier

Result Qualifier

0.00064

<0.22

<0.087

<0.58

3.7

1.6

< 0.16

0.68

<0.81

<0.12

31

49

60

Result Qualifier

4.4 J

3.1 J B

<0.21

1.6

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Client Sample ID: SLWWTP - Effluent

Method: 1631E - Mercury, Low Level (CVAFS)

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Date Collected: 08/21/19 10:00

Date Received: 08/22/19 08:15

Analyte

Mercury

Analyte

Arsenic

Beryllium

Chromium

Antimony Selenium

Thallium

Aluminum

Barium

Analyte

Cyanide, Total

Phenols, Total

Cadmium

General Chemistry

Zinc

Copper

Nickel

Lead

Silver

Job ID: 560-81851-1

Lab Sample ID: 560-81851-1

Analyzed

08/29/19 10:05

Analyzed

08/30/19 14:55

08/30/19 14:55

Analyzed

08/28/19 19:23

08/30/19 10:56

Lab Sample ID: 560-81851-2

Matrix: Water

J
8

Dil Fac Dil Fac

1

1

1

1

Dil Fac

Matrix: Water

08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1
08/30/19 14:55	1

Cheft Sample ID: SLWWIP - Innuent	Client Sam	ple ID:	SLWWTP	- Influent
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Date Collected: 08/21/19 10:00

Date Received: 08/22/19 08:15

Method: 1631E - Mercury, Low L	evel (CVAFS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018		0.0025	0.00070	ug/L		08/27/19 14:45	08/29/19 10:09	5
- Method: 200.8 - Metals (ICP/MS)	- Total Recove	rable							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.22		1.0	0.22	ug/L		08/26/19 09:37	08/30/19 15:28	1
Arsenic	2.6		1.0	0.17	ug/L		08/26/19 09:37	08/30/19 15:28	1
Beryllium	<0.087		1.0	0.087	ug/L		08/26/19 09:37	08/30/19 15:28	1
Chromium	1.3	J	2.0	0.58	ug/L		08/26/19 09:37	08/30/19 15:28	1
Copper	36		2.0	0.99	ug/L		08/26/19 09:37	08/30/19 15:28	1
Nickel	3.3		1.0	0.46	ug/L		08/26/19 09:37	08/30/19 15:28	1
Lead	1.2		1.0	0.16	ug/L		08/26/19 09:37	08/30/19 15:28	1
Antimony	0.81	J	2.0	0.35	ug/L		08/26/19 09:37	08/30/19 15:28	1
Selenium	1.0	J	5.0	0.81	ug/L		08/26/19 09:37	08/30/19 15:28	1
Thallium	0.32	J	1.0	0.12	ug/L		08/26/19 09:37	08/30/19 15:28	1
Zinc	120		5.0	2.2	ug/L		08/26/19 09:37	08/30/19 15:28	1
Aluminum	520		30	12	ug/L		08/26/19 09:37	08/30/19 15:28	1
Barium	92		10	1.2	ug/L		08/26/19 09:37	08/30/19 15:28	1
Cadmium	<0.21		1.0	0.21	ug/L		08/26/19 09:37	08/30/19 15:28	1

Client Sample Results

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Job ID: 560-81851-1

Client Sample ID: SLWWTP	- Influent						Lab Sam	ple ID: 560-8	1851-2
Date Collected: 08/21/19 10:00								Matrix	x: Water
Date Received: 08/22/19 08:15									
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<3.1		10	3.1	ug/L		08/28/19 15:50	08/28/19 19:24	1
Phenols, Total	55	в	5.0	2.8	ug/L		08/29/19 15:18	08/30/19 10:57	1
Client Sample ID: SLWWTP	- Effluent FB	}					Lab Sam	ple ID: 560-8	1851-3
Dete Oelle stelle 00/04/40 40:00								Matriz	x: Water
Date Collected: 08/21/19 10:00									
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15									
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15									
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L	_evel (CVAFS)								
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte	Level (CVAFS) Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte Mercury	Level (CVAFS) 	Qualifier	RL	MDL 0.00014	Unit ug/L	<u>D</u>	Prepared 08/27/19 14:46	Analyzed 08/29/19 10:13	Dil Fac
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte Mercury Client Sample ID: SLWWTP	_evel (CVAFS) 	Qualifier	RL 0.00050	MDL 0.00014	Unit ug/L	D	Prepared 08/27/19 14:46 Lab Sam	Analyzed 08/29/19 10:13 ple ID: 560-8	Dil Fac 1 1851-4
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte Mercury Client Sample ID: SLWWTP Date Collected: 08/21/19 10:00	evel (CVAFS) Result cvel (CVAFS) Result cvel (CVAFS) 	Qualifier	RL 0.00050	MDL 0.00014	Unit ug/L	<u>D</u>	Prepared 08/27/19 14:46 Lab Sam	Analyzed 08/29/19 10:13 ple ID: 560-8 Matrix	Dil Fac 1 1851-4 x: Water
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte Mercury Client Sample ID: SLWWTP Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15	evel (CVAFS) <u>Result</u> - CO.00014 - Influent FB	Qualifier	RL 0.00050	MDL 0.00014	Unit ug/L	D	Prepared 08/27/19 14:46 Lab Sam	Analyzed 08/29/19 10:13 ple ID: 560-8 Matriz	Dil Fac 1 1851-4 x: Water
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte Mercury Client Sample ID: SLWWTP Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L		Qualifier	RL 0.00050	MDL 0.00014	Unit ug/L	D	Prepared 08/27/19 14:46 Lab Sam	Analyzed 08/29/19 10:13 ple ID: 560-8 Matriz	Dil Fac 1 1851-4 x: Water
Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte Mercury Client Sample ID: SLWWTP Date Collected: 08/21/19 10:00 Date Received: 08/22/19 08:15 Method: 1631E - Mercury, Low L Analyte	Level (CVAFS) Result <0.00014 Influent FB Level (CVAFS) Result	Qualifier	RL 0.00050	MDL 0.00014 MDL	Unit ug/L Unit	D	Prepared 08/27/19 14:46 Lab Sam	Analyzed 08/29/19 10:13 ple ID: 560-8 Matri: Analyzed	Dil Fac

QC Sample Results

RL

0.00050

Spike

Added

0.00500

MDL Unit

0.00014 ug/L

LCS LCS

0.00494

Result Qualifier

D

D

Unit

ug/L

Prepared

08/27/19 14:45

%Rec

99

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Method: 1631E - Mercury, Low Level (CVAFS)

Job ID: 560-81851-1

Prep Type: Total/NA

Prep Batch: 397917

Prep Type: Total/NA

Prep Batch: 397917

Prep Batch: 289275

Dil Fac

1

Client Sample ID: Method Blank

Analyzed

08/28/19 13:19

Client Sample ID: Lab Control Sample

%Rec.

Limits

77 - 123

Client Sample ID: Method Blank

Prep Type: Total Recoverable

6

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: LCS 240-397917/2-A

Lab Sample ID: MB 240-397917/1-A

Matrix: Water

Matrix: Water

Analyte

Mercury

Analyte

Mercury

Analysis Batch: 398036

Analysis Batch: 398036

Lab Sample ID: MB 180-289275/1-A Matrix: Water Analysis Batch: 289954 MR MR

MB MB Result Qualifier

< 0.00014

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.22		1.0	0.22	ug/L		08/26/19 09:37	08/30/19 14:03	1
Arsenic	<0.17		1.0	0.17	ug/L		08/26/19 09:37	08/30/19 14:03	1
Beryllium	<0.087		1.0	0.087	ug/L		08/26/19 09:37	08/30/19 14:03	1
Chromium	<0.58		2.0	0.58	ug/L		08/26/19 09:37	08/30/19 14:03	1
Copper	<0.99		2.0	0.99	ug/L		08/26/19 09:37	08/30/19 14:03	1
Nickel	<0.46		1.0	0.46	ug/L		08/26/19 09:37	08/30/19 14:03	1
Lead	<0.16		1.0	0.16	ug/L		08/26/19 09:37	08/30/19 14:03	1
Antimony	<0.35		2.0	0.35	ug/L		08/26/19 09:37	08/30/19 14:03	1
Selenium	<0.81		5.0	0.81	ug/L		08/26/19 09:37	08/30/19 14:03	1
Thallium	<0.12		1.0	0.12	ug/L		08/26/19 09:37	08/30/19 14:03	1
Zinc	<2.2		5.0	2.2	ug/L		08/26/19 09:37	08/30/19 14:03	1
Aluminum	<12		30	12	ug/L		08/26/19 09:37	08/30/19 14:03	1
Barium	<1.2		10	1.2	ug/L		08/26/19 09:37	08/30/19 14:03	1
Cadmium	<0.21		1.0	0.21	ug/L		08/26/19 09:37	08/30/19 14:03	1

Lab Sample ID: LCS 180-289275/2-A Matrix: Water

Analysis Batch: 289954

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silver	250	241		ug/L		96	85 - 115	
Arsenic	1000	976		ug/L		98	85 ₋ 115	
Beryllium	500	475		ug/L		95	85 ₋ 115	
Chromium	500	453		ug/L		91	85 ₋ 115	
Copper	500	487		ug/L		97	85 ₋ 115	
Nickel	500	467		ug/L		93	85 - 115	
Lead	500	494		ug/L		99	85 ₋ 115	
Antimony	250	228		ug/L		91	85 ₋ 115	
Selenium	1000	924		ug/L		92	85 - 115	
Thallium	1000	1020		ug/L		102	85 ₋ 115	
Zinc	250	245		ug/L		98	85 - 115	
Aluminum	5000	4710		ug/L		94	85 ₋ 115	
Barium	1000	914		ug/L		91	85 - 115	

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Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 289275

QC Sample Results Client: City of Laredo

Job ID: 560-81851-1

Project/Site: SLWWTP Table III South Lardeo 8/21/19 Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 180-289275/2 Matrix: Water Analysis Batch: 289954	2-A						Client	Sample Prep	ID: Lab Control Sample Type: Total Recoverable Prep Batch: 289275
· · · · · , · · · · · · · · · · · · · · · · · · ·			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Cadmium	<u>.</u>	·	500	483		ug/L		97	85 - 115
_ Lab Sample ID: 560-81851-1 MS							Clien	t Sampl	e ID: SLWWTP - Effluent
Matrix: Water								Prep	Type: Total Recoverable
Analysis Batch: 289954									Prep Batch: 289275
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Silver	<0.22		250	250		ug/L		100	70 - 130
Arsenic	1.6		1000	1000		ug/L		100	70 - 130
Beryllium	<0.087		500	494		ug/L		99	70 - 130
Chromium	<0.58		500	456		ug/L		91	70 - 130
Copper	3.7		500	489		ug/L		97	70 - 130
Nickel	1.6		500	471		ug/L		94	70 - 130
Lead	<0.16		500	522		ug/L		104	70 ₋ 130
Antimony	0.68	J	250	244		ug/L		97	70 - 130
Selenium	<0.81		1000	948		ug/L		95	70 - 130
Thallium	<0.12		1000	1040		ug/L		104	70 - 130
Zinc	31		250	279		ug/L		99	70 - 130
Aluminum	49		5000	5070		ug/L		100	70 - 130
Barium	60		1000	997		ug/L		94	70 - 130
Cadmium	<0.21		500	513		ug/L		103	70 - 130

Lab Sample ID: 560-81851-1 MSD Matrix: Water

Analysis Batch: 289954

Client Sample ID: SLWWTP - Effluent

Prep Type: Total Recoverable Prep Batch: 289275

Sam	le Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte Res	It Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver <0.	22	250	239		ug/L		96	70 - 130	4	20
Arsenic	.6	1000	990		ug/L		99	70 - 130	1	20
Beryllium <0.0	37	500	498		ug/L		100	70 - 130	1	20
Chromium <0.	58	500	459		ug/L		92	70 - 130	1	20
Copper	.7	500	489		ug/L		97	70 - 130	0	20
Nickel	.6	500	467		ug/L		93	70 - 130	1	20
Lead <0.	6	500	522		ug/L		104	70 - 130	0	20
Antimony 0.	68 J	250	231		ug/L		92	70 - 130	6	20
Selenium <0.	31	1000	946		ug/L		95	70 - 130	0	20
Thallium <0.	2	1000	1020		ug/L		102	70 - 130	2	20
Zinc	31	250	271		ug/L		96	70 - 130	3	20
Aluminum	9	5000	5070		ug/L		100	70 - 130	0	20
Barium	60	1000	977		ug/L		92	70 - 130	2	20
Cadmium <0.	21	500	494		ug/L		99	70 - 130	4	20

Method: 335.4 - Cyanide, Total (Semi-Automated Colorimetry)

Lab Sample ID: MB 600-273242/1-A							Client Sa	mple ID: Metho	d Blank
Matrix: Water								Prep Type: T	otal/NA
Analysis Batch: 273252								Prep Batch:	273242
-	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<3.1		10	3.1	ug/L		08/28/19 15:50	08/28/19 19:18	1

Eurofins TestAmerica, Corpus Christi

Job ID: 560-81851-1

Method: 335.4 - Cyanide, Total (Semi-Automated Colorimetry)

Lab Sample ID: HLCS 600-273242/2-A					Client	Sample	ID: Lab Control Sample
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 273252							Prep Batch: 273242
	Spike	HLCS	HLCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	300	293		ug/L		98	90 - 110
Lab Sample ID: LLCS 600-273242/3-A					Client	Sample	ID: Lab Control Sample
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 273252							Prep Batch: 273242
	Spike	LLCS	LLCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Cyanide, Total	40.0	41.8		ug/L		105	90 - 110
Method: 420.4 - Phenolics, Total Recovera	ble						
Lab Sample ID: MB 600-273358/1-A						Client S	ample ID: Method Blank
Matrix: Water							Prep Type: Total/NA
Analysis Batch: 273442							Prep Batch: 273358
MB MI	2						

	MB	MB											
Analyte	Result	Qualifier		RL		MDL	Unit		D	Pi	repared	Analyzed	Dil Fac
Phenols, Total	3.22	J		5.0		2.8	ug/L		_	08/29	9/19 15:18	08/30/19 10:4	8 1
Lab Sample ID: LCS 600-273358/2-A									С	lient	Sample	ID: Lab Cont	rol Sample
Matrix: Water												Prep Typ	e: Total/NA
Analysis Batch: 273442												Prep Bat	ch: 273358
			Spike		LCS	LCS						%Rec.	
Analyte			Added		Result	Qual	lifier	Unit		D	%Rec	Limits	
Phenols, Total			100		96.3			ug/L			96	90 - 110	

Job ID: 560-81851-1

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Laboratory: Eurofins TestAmerica, Corpus Christi

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704210-19-23	03-31-20

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-20
California	State Program	2927	02-23-20
Connecticut	State	PH-0590	12-31-19
Connecticut	State Program	PH-0590	12-31-19
Florida	NELAP	E87225	06-30-20
Florida	NELAP	E87225	06-30-20
Georgia	State	4062	02-23-20
Georgia	State Program	N/A	02-23-20
Illinois	NELAP	200004	07-31-20
Illinois	NELAP	004498	07-31-20
lowa	State Program	421	06-01-21
Kansas	NELAP	E-10336	04-30-20
Kansas	NELAP	E-10336	04-30-20
Kentucky (UST)	State Program	58	02-23-20
Kentucky (WW)	State	KY98016	12-31-19
Kentucky (WW)	State Program	98016	12-31-19
Minnesota	NELAP	039-999-348	12-31-19 *
Minnesota	NELAP	OH00048	12-31-19
Minnesota (Petrofund)	State Program	3506	07-31-21
New Jersey	NELAP	OH001	06-30-20
New Jersey	NELAP	OH001	06-30-20
New York	NELAP	10975	03-31-20
New York	NELAP	10975	03-31-20
Ohio VAP	State	CL0024	06-05-21
Ohio VAP	State Program	CL0024	06-05-21
Oregon	NELAP	4062	02-23-20
Oregon	NELAP	4062	02-23-20
Pennsylvania	NELAP	68-00340	08-31-19 *
Pennsylvania	NELAP	68-00340	08-31-19
Texas	NELAP	T104704517-19-11	08-31-20
Texas	NELAP	T104704517-18-10	08-31-19
USDA	Federal	P330-16-00404	12-28-19
Virginia	NELAP	460175	09-14-19 *
Virginia	NELAP	010101	09-14-19
Washington	State	C971	01-12-20
Washington	State Program	C971	01-12-20 *
West Virginia DEP	State	210	12-31-19
West Virginia DEP	State Program	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Laboratory: Eurofins TestAmerica, Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State Program	19-040-0	08-04-20
Louisiana	NELAP	01967	06-30-20
Texas	NELAP	T104704223-18-23	10-31-19
USDA	Federal	P330-18-00130	04-30-21
Utah	NELAP	TX000832019-5	07-31-20

Eurofins TestAmerica, Corpus Christi

Accreditation/Certification Summary

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Job ID: 560-81851-1

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Laboratory: Eurofins TestAmerica, Pittsburgh
All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-20
Arkansas DEQ	State Program	88-0690	06-27-20
California	State	2891	04-30-20
California	State Program	2891	04-30-20
Connecticut	State	PH-0688	09-30-20
Connecticut	State Program	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-20
Florida	NELAP	E871008	06-30-20
llinois	NELAP	200005	06-30-20
llinois	NELAP	004375	06-30-20
Kansas	NELAP	E-10350	01-31-20
Kansas	NELAP	E-10350	03-31-20
Kentucky (UST)	State Program	162013	04-30-20
Kentucky (WW)	State	KY98043	12-31-19
Kentucky (WW)	State Program	KY98043	12-31-19
_ouisiana	NELAP	04041	06-30-20
Vinnesota	NELAP	042-999-482	12-31-19
Vinnesota	NELAP	042-999-482	12-31-19
Nevada	State	PA00164	07-31-20
Nevada	State Program	PA00164	07-31-20
New Hampshire	NELAP	2030	04-04-20
	NELAD	P4005	06-30-20
New Jersey		PA005	06-30-20
New York		11192	02 21 20
		11102	04-01-20
New FOR	NELAF State Brogram	11102	12 21 10
North Daketa	State Flogram	404 B 227	04 20 20
North Dakota	State Drogrom	N-227	04-30-20
		R-227	04-30-20
Diegon	NELAP	PA-2131	02-06-20
Dregon	NELAP	PA-2151	02-06-20
	NELAP	02-00416	04-30-20
Pennsylvania	NELAP	02-00416	04-30-20
	State	LAO00362	12-30-19
	State Program	LAO00362	12-30-19
South Carolina	State Program	89014	04-30-20
l exas _	NELAP	1104704528-15-2	03-31-20
Texas	NELAP	T104704528	03-31-20
JS Fish & Wildlife	US Federal Programs	058448	07-31-20
JSDA	Federal	P-Soil-01	06-26-22
JSDA	US Federal Programs	P330-16-00211	06-26-22
Jtah	NELAP	PA001462015-4	05-31-20
Jtah	NELAP	PA001462019-8	05-31-20
Virginia	NELAP	460189	09-14-19
Virginia	NELAP	10043	09-14-19
West Virginia DEP	State	142	01-31-20
West Virginia DEP	State Program	142	01-31-20
Wisconsin	State	998027800	08-31-19
Wisconsin	State Program	998027800	08-31-19

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Job ID: 560-81851-1

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Method	Method Description	Protocol	Laboratory
1631E	Mercury, Low Level (CVAFS)	EPA	TAL CAN
200.8	Metals (ICP/MS)	EPA	TAL PIT
335.4	Cyanide, Total (Semi-Automated Colorimetry)	MCAWW	TAL HOU
420.4	Phenolics, Total Recoverable	MCAWW	TAL HOU
1631E	Preparation, Mercury, Low Level	EPA	TAL CAN
200.8	Preparation, Total Recoverable Metals	EPA	TAL PIT
Distill/CN	Distillation, Cyanide	None	TAL HOU
Distill/Phenol	Distillation, Phenolics	None	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions. None = None

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396 TAL HOU = Eurofins TestAmerica, Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444 TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Sample Summary

Client: City of Laredo Project/Site: SLWWTP Table III South Lardeo 8/21/19

Job ID: 560-81851-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asse
560-81851-1	SLWWTP - Effluent	Water	08/21/19 10:00	08/22/19 08:15	
560-81851-2	SLWWTP - Influent	Water	08/21/19 10:00	08/22/19 08:15	
560-81851-3	SLWWTP - Effluent FB	Water	08/21/19 10:00	08/22/19 08:15	
560-81851-4	SLWWTP - Influent FB	Water	08/21/19 10:00	08/22/19 08:15	

TestAmerica Corpus Christi													Toct	norion.
1733 N. Padre Island Drive Corpus Christi, TX 78408	0	chain o	of Cus	tody Re	cord	77								
Phone (361) 289-2673 Fax (361) 289-2471	с <u>с</u>												THE LEADER IN	ENVIRONMENIAL LESTING
Client Information	sampler: // a	at open	evertor	Boyker	I, Nicole	W				Carrier T	acking No	(s):	COC No: 560-25430-35	90.1
Client Contact: Ms. Adriana Yela () Cu < , Cu . R. (2) S	Phone: (9	4)72	1. 2004	D E-Mail: nicole.t	ooyken(Dtestar	mericair	nc.com					Page: Page 1 of 1	
Company: City of Laredo								Inalys	is Req	ueste			Job # Loc	: 560
Address: 5816 Daugherty Avenue	Due Date Request	ed:					-		_				Pres 8	851
City: Laredo	TAT Requested (d	ays):											0-7-7 C-7	- 0
State, Zp: TX, 78041	1				(нэя									n m m (
Phone: 956-721-2000(Tel) 956-721-2001(Fax)	PO #: 289759			(0	18511		(NC						F - Mc G - Amchlor H - Ascorbic Acio	203 S - H2SO4 I T - TSP Dodecahydrate
Email: avola@cilaredo.txus) rios @ Ci. : lowedo. H (1)	:# OM			N JO S	(o N (9) (1si	(NOL	OUSTC OUSTC						u - Ice J - DI Water	U - Acetone V - MCAA
Project Name: Table III South Laredo	Project #: 56000544			іθ Д) θ	10 29 J III 90	SUOH	iqe (H						k-EDIA L-EDA	W - pH 4-5 Z - other (specify)
Site:	SSOW#:			Igme2	N) OS) slona	vel Mer						of con	
		Sample	Sample Type (C=comp.	Matrix (wwwater, s=solid, Convertical	M/SM mrot I) eleteM - 8.	На ІвзоТ - 4.	btoT - GV_4.						al Number	
Sample Identification	Sample Date	Time	G=grab) Preserva	BT=TIARUN, A=AIr)		v 450	2 ¹⁰³		100 March 100				전 Special	Instructions/Note:
SLWWTP Effluent	Qiaile 4	1.040	C	Water		~	XX		AUR DOWN		100000		A EUL	
	11.0	10001	1	Mata			1	1	+	+	+	+	< HILLEN	7 12 17
	5/12/2	0001	5	water		~	2	1	+	+	+	+	2 punt	Composide
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													Franc	1200 NN
					-							l	c) OF	00000
						560-8	1851 0	Chain of	Custo	AV AV			the F.	olive in Las
					_	-	-			-		-		
Possible Hazard Identification	ison B	muc	Radiological		Samp	le Disp Return	To Clie	A fee m	ay be a	ssesse	d if sam Bv Lab	ples are re	stained longer thai Archive For	1 1 month) Months
Deliverable Requested: I, II, III, IV, Other (specify)					Specia	I Instru	ictions/(QC Req	uiremer	its:				
Empty Kit Relinquished by:		Date:		<u>F</u>	me:					Me	hod of Sh	pment:		
Relinquished by: UEAG-Rins - Mon Chin	Date/Time: \$/2-1/19 50	e air bi	1	Company Citlered	0 Re	ceived by	14	1	N		0	122/	14 8:15	Company
Relinquished by:	Date/Time:			Company	Re	ceived b	×				٥	ite/Time:		Company
Relinquished by:	Date/Time:			Company	Re	ceived by	5					ite/Time:		Company
Custody Seals Intact: Custody Seal No.:					S	oler Tem	perature	(s) °C and	Other Re	amarks:	0	41.2	3 ZAD	-
					1									Ver: 08/04/2016



560-81851 Waybill



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Eurofins TestAmerica, Corpus Christi 1733 N. Padre Island Drive Corpus Christi, TX 78408	met 1	رار hain o	of Cus	tody R	ecord				1	ofins Environment Testi TestAmerica	18
riung, 301-203-2013 Fax. 301-203-2471	Sampler:			Lab PM	A: A: I indu					1 000	
Client Information (Sub Contract Lab)	Phone:			E-Mail:	Jot, Lindy		560-81851 Chair	n of Custod		1.700	Т
Shipping/Receiving	_			lindy.	maingot@t	estameri			1 2 2	of 1	Т
Company: TestAmerica Laboratories, Inc.					Accreditations NELAP - T	Required (See exas	note):		Job #: 560-81	351-1	
Address: 301 Alpha Drive, RIDC Park,	Due Date Requeste 8/29/2019	:p				A	nalysis Request	ed	Preserv	ation Codes:	<u> </u>
City: Pittsburgh	TAT Requested (da	iys):			SJ	_			B - NaO	Hexane None Cetate O - AsNaO2	
State. Zp: PA, 15238					LTI9) Ja				D - Nitric E - NaH	Acid P - Na204S SO4 Q - Na2SO3	
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	:# Od				6 ריפ (0				F - MeO G - Amc H - Asco	H R - Na2S203 Nor S - H2SO4 rbic Acid T - TSP Dodecahvdrat	
Email:	:# OM				P Tabl				s J - DI W	U - Acetone ater V - MCAA	
Project Name: SLWWTP Table III South Lardeo 8/21/19	Project #: 56000544				es or es or es or				K - EDT L - EDA	A W - pH 4-5 Z - other (specify)	
Site: City of Laredo	:#MOSS				Sampl				of con		-
		Samole	Sample Type (C=comp.	Matrix (W=water, S=solid,	form MS/M form MS/M 9_8.2005/8				al Number		
Sample Identification - Client ID (Lab ID)	Sample Date	Time	G=grab)	BT=Tissue, A=Air)	200. Per			_	Tota	pecial Instructions/Note:	7
	X	X	Preserva	tion Code:	X				X		
SLWWTP - Effluent (560-81851-1)	8/21/19	10:00 Central		Water	×				1		
SLWWTP - Influent (560-81851-2)	8/21/19	10:00		Water	×				1		Γ
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						_					
Note: Since laboratory accreditations are subject to change, TestAmerica L currently maintain accreditation in the State of Origin listed above for analys Laboratories, Inc. attention immediately. If all requested accreditations are	aboratories, Inc. places the is/tests/matrix being anal current to date, return the	e ownership o yzed, the sam signed Chain	f method, ana bles must be s of Custody at	lyte & accreditat hipped back to t testing to said co	ion complianc the TestAmer omplicance to	e upon out subc ca laboratory or TestAmerica Lal	ontract laboratories. This other instructions will be p boratories, Inc.	sample shipm provided. Any o	ent is forwarded under cha changes to accreditation st	in-of-custody. If the laboratory doe: atus should be brought to TestAme	i not
Possible Hazard Identification					Sample	e Disposal (A fee may be asses	sed if samp	les are retained long	er than 1 month)	Г
Unconfirmed Deliverable Borneted: 1-11-111 N/ Other (consist.)	Drimon Dolino	- Jack Dark-			Canol	Return To Clie	nt Dispos	al By Lab	Archive For	Months	Т
Deliverable Requested: 1, 11, 11, 11, Other (specify)			V		obecia	Instructions/	ac requirements.				
Empty Kit Relinquished by:		Date:			Time:			Method of Ship	ment:		
Relinquished by:	Date/Time:	6	3:0	Company	SS2.	eived by:		Dat	" S(2)/4 8	to Company	
Relinquished by:	Date/Time:			Company	Rec	eived by:		Dat	e/Time:	Company	
Relinquished by:	Date/Time:			Company	Rec	eived by:		Dat	e/Time:	Company	Г
Custody Seals Intact: Custody Seal No.:					Coc	ler Temperature	(s) °C and Other Remarks				Г
										Ver: 01/16/2019	1

Eurofins TestAmerica, Corpus Christi 1733 N. Padre Island Drive Corpus,Christi, TX 78408 Phone: 361-289-2673 Fax: 361-289-2471	4, a, h, c, h	Jain o	f Cus	tody F	ecord				* eurofins	Environment Testing TestAmerica
Client Information (Sub Contract Lab)	Sampler:			Mai	M: Igot, Lindy		Carrier Tracking	NO(5):	COC No: 560-19861.1	
Client Contact: Shipping/Receiving	Phone:			E-Ma	It. r.maingot@te	stamericainc.com	State of Origin: Texas		Page: Page 1 of 1	
Company. TestAmerica Laboratories, Inc.					Accreditations NELAP - Te	Required (See note): xas			Job #. 560-81851-1	
Address. 4101 Shuffel Street NW	Due Date Requested 8/30/2019					Analysis R	equested		Preservation Cod	des:
City: North Canton	TAT Requested (day	s):			(N				B - NaOH C - Zn Acetate	N - None 0 - AsNaO2
State, Zp; OH, 44720					OTNA				D - Nitric Acid E - NaHSO4 E - MaOH	P - Na204S Q - Na2SO3 P - Na2SO3
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	#O#				:חגא (כ (ס				G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate
Email	:# OM				s or N No)			rs	I - Ice J - DI Water	U - Acetone V - MCAA
Project Name. SLWWTP Table III South Lardeo 8/21/19	Project #; 56000544				W Leve es or I			อกเธาท	K-EDIA L-EDA	W - pH 4-5 Z - ather (specify)
Site: City of Laredo	SSOW#.				dwes X) OSI			01 001	Other:	
		Sample	Sample Type (C=comp,	Matrix (W-water, 5-soli O-wastefoli,	berform MSM MSM m1019 MSM m1000 MSM m1000 MSM m1000 MSM m1000 MSM m1000 MSM m1000 MSM			otal Number	Consist	, stor M and Stores
Sample Identification - Client ID (Lab ID)	Sample Date		Preserva	ation Code:		California and and and	17 18 18 18 18 18 18 18 18 18 18 18 18 18			Istractions/More.
SLWWTP - Effluent (560-81851-1)	8/21/19	10:00 Central		Water	×			2		
SLWWTP - Influent (560-81851-2)	8/21/19	10:00		Water	×			2		
		10 10 10								
								1		
							-			
Note: Since laboratory accreditations are subject to change. TestAmerica L currently maintain accreditation in the State of Origin listed above for analy	aboratories, Inc. places the sis/tests/matrix being analyz	ownership o ced, the samp	f method, and bles must be s	liyte & accredit shipped back t	ation compliance the TestAmeric	a upon out subcontract labora	tories. This sample s ons will be provided.	hipment is forwarded i Any changes to accre	Inder chain-of-custo ditation status shoul	dy. If the laboratory does not d be brought to TestAmerica
Laboratories, int. attention intrineurally, il all requested accientations are Possible Hazard Identification	corrent to uses, remitt the s	inoiro nailfir		nipe ni Runcar	Sample	Disposal (A fee may I	be assessed if s	amples are retain	ed longer than	1 month)
Unconfirmed						eturn To Client	Disposal By La	b Arch	ive For	Months
Deliverable Requested: 1, II, III, IV, Other (specify)	Primary Delivera	ble Rank:	2		Special	Instructions/QC Require	ments:			
Empty Kit Relinquished by:]	Date:			Time:	0	Method of	Shipment		
Relinquished by	12Umboleg	5	00.	Company	Rece	ived by MIL	t	Date(Time)-/c	325 6	Copreany
Relinquished by	Date/Time			Company	Rece	ived by.		Date/Time:		Company
Reinquished by	Date/Time:			Company	Rece	ived by,		Date/Time:		Company
Custody Seals Intact: Custody Seal No.:					Cool	er Temperature(s) "C and Oth	er Remarks:			
01 10 0 10 0										Ver 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative	Login # :
Canton Facility	Cooler unpacked by:
Client <u>P14</u> <u>Clipus</u> <u>Allst</u> Site Name	MACOULT IMPACKED BY.
EadEv: 1 st Grd Even UDS EAS Clinner Client Dron Off Test America Courier	Other
Peakint After hours: Drop off Date/Time	Onler
Test America Cooler # Form Box Client Cooler Box Other	
Packing material used: Bubble Wrap Foam Plastic Bag None Other	
1. Cooler temperature upon receipt IR GUN# IR-8 (CF +0.1 °C) Observed Cooler Temp. IR GUN #36 (CF +0.6°C) Observed Cooler Temp. C Corrected Cooler Temp. C Corrected Cooler Temp.	^{rm} ^c emp. <u>/-3</u> °C mp°C
 Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity Were the seals on the outside of the cooler(s) signed & dated? Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Were tamper/custody seals intact and uncompromised? 	S NO S NO NA S NO S NO NA
 Shippers' packing slip attached to the cooler(s)? 	s No
4. Did custody papers accompany the sample(s)?	9 No Tests that are not
5. Were the custody papers relinquished & signed in the appropriate place?	S No checked for pH by
6. Was/were the person(s) who collected the samples clearly identified on the COC? Ye	s No Receiving:
7. Did all bottles arrive in good condition (Unbroken)?	s No
8. Could all bottle labels be reconciled with the COC?	S NO Oil and Grease
9. Were correct bottle(s) used for the test(s) indicated?	S NO TOC
10. Sufficient quantity received to perform indicated analyses?	s No
11. Are these work share samples?	5 No
If yes, Questions 12-16 have been checked at the originating laboratory.	
12. Were all preserved sample(s) at the correct pH upon receipt?	s No NA pH Strip Lot# <u>HC987808</u>
13. Were VOAs on the COC? Ye	S NO
14. Were air bubbles >6 mm in any VOA viais?	S NO NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # ie	s No
	3 10
Contacted PM Date by via Verbal V	Voice Mail Other
Concerning	
17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES	Samples processed by:
18. SAMPLE CONDITION	the standard and standard
Sample(s) were received after the recommended hold	d in a broken container
Sample(s) were receive	a ma oroken comainer.
Sample(s) were received with bubble >6 mm	in diameter. (Notify PM)
19. SAMPLE PRESERVATION	
Sample(s) were fu	orther preserved in the laboratory.
Time preserved: Preservative(s) added/Lot number(s):	
VOA Sample Preservation - Date/Time VOAs Frozen:	

WI-NC-099

rpus Christi, 1X 78408 one: 361-289-2673 Fax: 361-289-2471										DOLLAR MARKEN
ient Information (Sub Contract Lab)	Sampler;			Lab P Main	M: got, Lindy		Cam	ier Tracking No	(s): COC h	Vo: 19865.1
nt Contact (pping/Receiving	Phone:			E-Mai lindy	maingot	Diestameric	ainc.com Tex	e of Origin: as	Page.	:1 of 1
npany: stAmerica Laboratories, Inc.					Accreditatic NELAP -	Texas	See note):		Job #	31851-1
ress: 10 Rothway Street,	Due Date Request 8/30/2019	ted:					Analysis Reques	sted	Prese	ervation Codes: M - Hevene
uston e Zin	TAT Requested (d	lays):			(K	1			0 - N	aOH N-None Acetate O-AsNaO2 thic Acid P-Na2O4S
77040					1015	1010		_	E-Na F-Me	eOH R - Na2S03
ne: 8-690-4444(Tei) 713-690-5646(Fax)	PO#:				(0)	(NC			G-Ar H-As	mchlor S - H2SO4 scorbic Acid T - TSP Dodecah
38:	#OM				No)	DISU			1-lce 2-DI	U - Acetone Water V - MCAA
ect Name: WWTP Table III South Lardeo 8/21/19	Project # 56000544				10 (Yes 10 29)	DH) əbi			eenietn X – – H – – – – – – – – – – – – – – – – –	DTA W - pH 4-5 DA Z - other (specify)
/ of Laredo	SSOW#:				dme2	4 Cyan			of co	7*
	Comple	Sample	Sample Type (C=comp,	Matrix W=water, S=solid O=wasteroll,	M/SM miohe	35.4/Distill_CN			otal Number	Constant Instant Mode
וואנ מפונוורמוסוו - מופור וס רמס וה)		X	Preservat	ion Code:	X	8	and the first way		X	
WWTP - Effluent (560-81851-1)	8/21/19	10:00 Central		Water		×			2	
WWTP - Influent (560-81851-2)	8/21/19	10:00		Water		×			2	
and the set of the set	_									
560-81851 Chain of Custody										
 Since laboratory accreditations are subject to change. TestAmerica ently maintain accreditation in the State of Origin listed above for anal orabories. Inc. attention immediately. If all requested accreditations are 	a Laboratories, Inc. places to ilysis/tests/matrix being and re current to date, return the	he ownership of lyzed, the sample signed Chain o	method, analy les must be st of Custody atte	Ae & accredita hipped back to esting to said c	tion complia the TestAm omplicance	Ince upon out erica laborator to TestAmeric	subcontract laboratories. The subcontract laboratories will be a Laboratories. Inc.	his sample ship a provided. An)	ment is forwarded under c y changes to accreditation	chain-of-custody. If the laboratory is the should be brought to Test
ssible Hazard Identification					Sam	ole Dispose	al (A fee may be asse	ssed if sam	ples are retained lo	nger than 1 month)
confirmed						Return To	Client Dispt	osal By Lab	Archive Fo	or Months
sliverable Requested: I. II, III, IV, Other (specify)	Primary Delive	rable Rank: 2			Spec	ial Instructio	ons/QC Requirements:			
npty Kit Relinquished by:		Date:			Time:			Method of Sh	hipment:	
industriad by:	Date Time: 71	201	0:14	Company	œ	eceived by.	-de Jan	a sr	81/22/19	Company H
industred by:	Date/Time:			Company	œ	eceived by:		ā	aate/Time:	Company
linquished by:	Date/Time:			Company	2	eceived by:		Ő	late/Time:	Company

J.

	on		Loc: 560 81851	1	estr	ALIE	IICU
S	ample Rec	eipt Cheo	cklist	TH	E LEADER IN	ENVIRONME	NTAL TESTING
DB NUMBER:	8185 ST	<u> </u>	Date/Time Received: CLIENT: CARRIER/DRIVER:	TA	Corr Fæde	, ρυς (γχ	19 AUG 23 Thristi-
istody Seal Present:	A YES		Number of Coolers R	eceived:			
Cooler ID Rec	Temp Blank Y / Y / Y / Y /	Trip Blank Y / M Y / N	Observed Temp (で) の・ら	Therm ID 678	Them CF +0·1	Correcte (1 0 · 1	ed Temp 2)
	Y/N	YIN				\geq	
\mathcal{L}	Y / N Y / N	Y/N Y/N				8	3/23/19
	Y/N	Y/N					SF
CF = correction factor mples received on ic			2				
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH *		NO	EQUIRED:	D [H2: []YES]YES	NO	
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH paper Lot #C A headspace accept	e? YES [ERVATION OF S 12: YES [987808 able (5-6mm):		EQUIRED: NO	D [H2: []YES]YES		
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH · paper Lot #C A headspace accept Did samples meet the I	e? TYES [ERVATION OF S 12: TYES [987808 able (5-6mm):	NO SAMPLES RE NO YES I ard conditions of	EQUIRED: ONC Acid preserved are <pt NO NA</pt 	D [H 2: []YES]YES	NO	NO
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH paper Lot #C A headspace accept Did samples meet the I COMMENTS:	e? YES ERVATION OF S 12: YES 987808 able (5-6mm):	NO SAMPLES RI NO YES I	EQUIRED: ONC Acid preserved are <pt NO ONA</pt 	D [H 2: [] YES] YES	NO	NO
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH paper Lot #C A headspace accept Did samples meet the I COMMENTS:	e? YES ERVATION OF S 12: YES 987808 able (5-6mm):	NO SAMPLES RI NO YES	EQUIRED: ONC Acid preserved are <pt NO ONA</pt 	D [H 2: [] YES] YES	NO	NO
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH · paper Lot #C A headspace accept Did samples meet the I COMMENTS:	e? TYES	NO SAMPLES RE NO YES I	EQUIRED: ONC Acid preserved are <pt NO ONA</pt 	D [H 2: [YES YES	NO YES	NO
CF = correction factor mples received on ic BORATORY PRESE se samples are>pH · paper Lot #C A headspace accept Did samples meet the I COMMENTS:	e? YES	NO SAMPLES RI NO YES II	EQUIRED: ONC Acid preserved are <pt NO ONA of sample acceptability up</pt 	D [H 2: [YES YES	NO YES	NO

HS-SA-WI-013

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Rev. 3; 07/01/2014

Login Sample Receipt Checklist

Client: City of Laredo

Login Number: 81851 List Number: 1

Creator: Olson, Troy

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Job Number: 560-81851-1

List Source: Eurofins TestAmerica, Corpus Christi

Client: City of Laredo

Login Number: 81851 List Number: 3

Creator: Torres, Sandra

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td>Lab does not accept radioactive samples.</td>	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

List Creation: 08/23/19 02:03 PM

List Source: Eurofins TestAmerica, Houston

Client: City of Laredo

Login Number: 81851 List Number: 2 Creator: Say, Thomas C

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Residual Chlorine Checked.

Job Number: 560-81851-1

List Creation: 08/23/19 12:00 PM

List Source: Eurofins TestAmerica, Pittsburgh

N/A

🛟 eurofins

Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Corpus Christi 1733 N. Padre Island Drive Corpus Christi, TX 78408 Tel: (361)289-2673

Laboratory Job ID: 560-79907-1

Client Project/Site: Table II & III -South Laredo 5/16/19

For:

City of Laredo 5816 Daugherty Avenue Laredo, Texas 78041

Attn: Erica Solis

Authorized for release by: 6/14/2019 10:16:48 AM Tiffany Fleming, Project Management Assistant I (361)289-2673 tiffany.fleming@testamericainc.com

Designee for

LINKS

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www.testamericainc.com

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Expert

Lindy Maingot, Project Manager I (210)344-9751 lindy.maingot@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Qualifiers

Client: City of I	_aredo Job ID: 560-79907-1	
Project/Site: T	able II & III -South Laredo 5/16/19	2
Qualifiers		
GC/MS VOA		
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
GC/MS Semi \		5
Qualifier	Qualifier Description	
*	LCS or LCSD is outside acceptance limits.	
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
х	Surrogate is outside control limits	
GC Semi VOA		8
Qualifier	Qualifier Description	
р	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.	9
Metals		
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	
Glossary		

Glossaly	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 560-79907-1

Laboratory: Eurofins TestAmerica, Corpus Christi

Narrative

Job Narrative 560-79907-1

Comments

No additional comments.

Receipt

The samples were received on 5/17/2019 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 0.5° C, 3.2° C, 4.0° C, 4.9° C and 5.5° C.

Receipt Exceptions

The following sample(s) was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): A trip blank was received but was not listed on the COC. The client responded on 5/20/19 and instructed the lab to analyze the trip blank.

The client was contacted on 05-20-2019 to let them know that the following samples were recieved outside of temperature due to an error by the lab in shipping: South Laredo Influent and South Laredo Effluent. The following tests were associated with the samples being outside of temperature: Phenols, Cyanide, Tri Chromium, Herbicides and Pesticides by method 908. The lab is waiting to hear back from the client on this. The client would like to cancel the Tri Chrom because it will be outside of hold time and cancel the tests that were recieved outside of temperature.

GC/MS VOA

Method(s) 624: The continuing calibration verification (CCV) associated with batch 560-162733 recovered above the upper control limit for Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 560-162733/2).

Method(s) 624: The following sample was diluted due to the nature of the sample matrix (floaters): South Laredo Influent (560-79907-1). Elevated reporting limits (RLs) are provided.

Method(s) 624: The continuing calibration verification (CCV) associated with batch 560-162793 recovered above the upper control limit for Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 560-162793/2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) D7065-11: The surrogate recovery for the blank associated with preparation batch 280-459093 and analytical batch 280-460869 was outside the upper control limits. d7065 (MB 280-459093/1-A) MB 280-459093 4-nonylphenol (Surr) 118% limit 58-115

Method(s) D7065-11: The surrogate recovery for the LCSD are out of control high. In the LCSD 4-tert-Octylphenol was out of control high. The associated sample are ND.

Method(s) D7065-11: The following sample required a dilution due to the nature of the sample matrix: South Laredo Influent (560-79907-1) and South Laredo Effluent (560-79907-2). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information. d7065 preparation batch 280-459093 and analytical batch 280-460869

Method(s) D7065-11: The following sample were diluted due to the abundance of non-target analytes: South Laredo Influent (560-79907-1). Elevated reporting limits (RLs) are provided. d7065 preparation batch 280-459093 and analytical batch 280-460869

Method(s) D7065-11: The following sample was diluted due to dark color extract to protect the sensitivity of the instrument.>>: South Laredo Effluent (560-79907-2). Elevated reporting limits (RL) are provided. d7065

Method(s) D7065-11: The initial calibration verification (ICV) result for batch 280-460725 was above the upper control limit. Sample results were non-detects, and have been reported as qualified data. 4-tert-Octylphenol 127% limit 25 South Laredo Influent (560-79907-1),

Eurofins TestAmerica, Corpus Christi 6/14/2019

Job ID: 560-79907-1 (Continued)

Laboratory: Eurofins TestAmerica, Corpus Christi (Continued

South Laredo Effluent (560-79907-2) and (ICV 280-460725/9)

Method(s) D7065-11: The initial calibration verification (ICV) result for batch 280-460869 was above the upper control limit. 4-tert-Octylphenol 127% limit 125 The LCSD recovery for 4-tert-Octylphenol 128% limit 55-125. Sample 560-79894-1, 560-79895-1, 560-799907-1 and 560-799907-2 have a detection. The data will be biased high. South Laredo Influent (560-79907-1) and South Laredo Effluent (560-79907-2)

Method(s) 625: The following sample was diluted due to color and odor:South Laredo Influent (560-79907-1). Elevated reporting limits (RL) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8141B: The continuing calibration verification (CCV) associated with batch 279371 recovered above the upper control limit for Demeton. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 608: Surrogate recovery for the following samples were outside control limits: South Laredo Influent (560-79907-1) and South Laredo Effluent (560-79907-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 608: The Tetrachloro-m-xylene surrogate recovery for the following samples was outside acceptance limits (high biased) on the confirmation column due to matrix interference: South Laredo Influent (560-79907-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

LCMS

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method(s) 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-279328.

Method(s) 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 180-279332.

Method(s) D7065-11: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 280-459093.

Method(s) 608: The following sample required a Florisil clean-up, via EPA Method 3620B, to reduce matrix interferences: South Laredo Influent (560-79907-1).

Method(s) 8151A: The following sample formed emulsions during the extraction procedure: South Laredo Influent (560-79907-1). The emulsions were broken up using centrifuge.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Client Sample ID: South Laredo Influent

Lab Sample ID: 560-79907-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Chloroform	2.2		2.0	0.35	ug/L	2	624	Total/NA
Trihalomethanes, Total	2.2	J	6.0	2.1	ug/L	2	624	Total/NA
Butyl benzyl phthalate	5.0	J	20	1.6	ug/L	2	625	Total/NA
Bis(2-ethylhexyl) phthalate	10	J	40	10	ug/L	2	625	Total/NA
Diethyl phthalate	3.7	J	20	1.3	ug/L	2	625	Total/NA
Phenol	22		20	1.5	ug/L	2	625	Total/NA
m & p - Cresol	39	J	40	1.5	ug/L	2	625	Total/NA
o-Cresol	4.7	J	20	1.2	ug/L	2	625	Total/NA
Total Cresols, TCEQ Definition	39		20	1.5	ug/L	2	625	Total/NA
4-tert-Octylphenol	6.0	J *	10	2.8	ug/L	10	D7065-11	Total/NA
Mercury	0.038		0.0050	0.0014	ug/L	10	1631E	Total/NA
Silver	0.43	J	1.0	0.22	ug/L	1	EPA 200.8 Rev	Total
							5	Recoverable
Arsenic	0.75	J	1.0	0.17	ug/L	1	EPA 200.8 Rev	Total
							5	Recoverable
Chromium	1.3	J	2.0	0.58	ug/L	1	EPA 200.8 Rev	Total
Copper	30		2.0	0.00	uo/l	1	5	Recoverable
Copper	59		2.0	0.99	uy/L	I	EPA 200.8 Rev	l otal Recoverable
Nickel	2.6		1.0	0.46	ug/L	1	5 FPA 200 8 Rev	Total
							5	Recoverable
Lead	0.89	J	1.0	0.16	ug/L	1	EPA 200.8 Rev	Total
							5	Recoverable
Antimony	0.80	J	2.0	0.35	ug/L	1	EPA 200.8 Rev	Total
		· · <u>·</u> · · · · · · · · · · · ·					5	Recoverable
Selenium	0.81	J	5.0	0.81	ug/L	1	EPA 200.8 Rev	Total
Zinc	03		5.0	2.2	ug/l	1	5	Recoverable
	55		5.0	2.2	uy/L	I	EPA 200.8 Rev	l otal Recoverable
Aluminum	290		30	12	ua/L	1	5 FPA 200 8 Rev	Total
	200						5	Recoverable
Barium	100		10	1.2	ug/L	1	EPA 200.8 Rev	Total
							5	Recoverable

Client Sample ID: South Laredo Effluent

Lab Sample ID: 560-79907-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dichlorobromomethane	27		1.0	0.18	ug/L	1	_	624	Total/NA
Bromoform	5.0		5.0	0.50	ug/L	1		624	Total/NA
Chloroform	16		1.0	0.17	ug/L	1		624	Total/NA
Chlorodibromomethane	22		2.0	0.22	ug/L	1		624	Total/NA
Trihalomethanes, Total	71		3.0	1.1	ug/L	1		624	Total/NA
Di-n-butyl phthalate	1.8	J	10	0.71	ug/L	1		625	Total/NA
4-tert-Octylphenol	2.9	J *	9.9	2.8	ug/L	10		D7065-11	Total/NA
Mercury	0.0014		0.00050	0.00014	ug/L	1		1631E	Total/NA
Arsenic	0.70	J	1.0	0.17	ug/L	1		EPA 200.8 Rev	Total
								5	Recoverable
Copper	2.5		2.0	0.99	ug/L	1		EPA 200.8 Rev	Total
								5	Recoverable
Nickel	2.4		1.0	0.46	ug/L	1		EPA 200.8 Rev	Total
								5	Recoverable
Lead	0.30	J	1.0	0.16	ug/L	1		EPA 200.8 Rev	Total
								5	Recoverable
Antimony	0.92	J	2.0	0.35	ug/L	1		EPA 200.8 Rev	Total
								5	Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Corpus Christi

Detection Summary

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

		Detec	tion Sum	mary					
Client: City of Laredo Project/Site: Table II & III -Sout	h Laredo 5/16/19						Job ID): 560-79907-1	2
Client Sample ID: South	Laredo Effluent	(Continued)			Lal	o Sample ID:	560-79907-2	
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type	
Zinc	58		5.0	2.2	ug/L	1	EPA 200.8 Rev	Total	4
Aluminum	18	J	30	12	ug/L	1	5 EPA 200.8 Rev 5	Total Recoverable	5
Barium	73		10	1.2	ug/L	1	EPA 200.8 Rev 5	Total Recoverable	
Client Sample ID: Trip Bl	ank					Lal	o Sample ID:	560-79907-3	
No Detections.									8
									9

This Detection Summary does not include radiochemical test results.

Client Sample ID: South Laredo Influent Date Collected: 05/16/19 10:00 Date Received: 05/17/19 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<2.1		100	2.1	ug/L			05/17/19 18:21	2
Acrylonitrile	<3.9		20	3.9	ug/L			05/17/19 18:21	2
Benzene	<0.66		2.0	0.66	ug/L			05/17/19 18:21	2
Dichlorobromomethane	<0.35		2.0	0.35	ug/L			05/17/19 18:21	2
Bromoform	<1.0		10	1.0	ug/L			05/17/19 18:21	2
Methyl bromide	<0.78		10	0.78	ug/L			05/17/19 18:21	2
Carbon tetrachloride	<0.50		2.0	0.50	ug/L			05/17/19 18:21	2
Chlorobenzene	<0.27		2.0	0.27	ug/L			05/17/19 18:21	2
Chloroethane	<0.80		10	0.80	ug/L			05/17/19 18:21	2
2-Chloroethyl vinyl ether	<0.38		4.0	0.38	ug/L			05/17/19 18:21	2
Chloroform	2.2		2.0	0.35	ug/L			05/17/19 18:21	2
Methyl chloride	<0.78		10	0.78	ug/L			05/17/19 18:21	2
Chlorodibromomethane	<0.45		4.0	0.45	ug/L			05/17/19 18:21	2
1,2-Dibromoethane	<0.30		2.0	0.30	ug/L			05/17/19 18:21	2
1,1-Dichloroethylene	<0.60		2.0	0.60	ug/L			05/17/19 18:21	2
1,2-Dichloroethane	<0.32		2.0	0.32	ug/L			05/17/19 18:21	2
1,1-Dichloroethane	<0.34		2.0	0.34	ug/L			05/17/19 18:21	2
1,2-trans-Dichloroethylene	<0.40		2.0	0.40	ug/L			05/17/19 18:21	2
1,2-Dichloropropane	<0.35		2.0	0.35	ug/L			05/17/19 18:21	2
Ethylbenzene	<0.40		2.0	0.40	ug/L			05/17/19 18:21	2
Methylene Chloride	<4.0		20	4.0	ug/L			05/17/19 18:21	2
1,1,2,2-Tetrachloroethane	<0.38		2.0	0.38	ug/L			05/17/19 18:21	2
Tetrachloroethylene	<0.38		2.0	0.38	ug/L			05/17/19 18:21	2
Toluene	<0.60		2.0	0.60	ug/L			05/17/19 18:21	2
1,1,1-Trichloroethane	<0.60		2.0	0.60	ug/L			05/17/19 18:21	2
1,1,2-Trichloroethane	<0.35		2.0	0.35	ug/L			05/17/19 18:21	2
Trichloroethylene	<0.63		2.0	0.63	ug/L			05/17/19 18:21	2
Vinyl chloride	<0.60		2.0	0.60	ug/L			05/17/19 18:21	2
Methyl Ethyl Ketone	<0.95		20	0.95	ug/L			05/17/19 18:21	2
Trihalomethanes, Total	2.2	J	6.0	2.1	ug/L			05/17/19 18:21	2
1,3-Dichloropropylene	<0.40		10	0.40	ug/L			05/17/19 18:21	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		70 - 130			-		05/17/19 18:21	2
4-Bromofluorobenzene (Surr)	95		70 - 130					05/17/19 18:21	2

Method: 625 - Semivolatile Organic Compounds (GC/MS)

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Dibromofluoromethane (Surr)

Analyte Result	Qualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene <0.92	20	0.92	ug/L		05/20/19 10:00	05/21/19 16:57	2
Acenaphthylene <0.90	20	0.90	ug/L		05/20/19 10:00	05/21/19 16:57	2
Anthracene <1.4	20	1.4	ug/L		05/20/19 10:00	05/21/19 16:57	2
Benzidine <0.78	100	0.78	ug/L		05/20/19 10:00	05/21/19 16:57	2
Benzo[a]anthracene <1.3	20	1.3	ug/L		05/20/19 10:00	05/21/19 16:57	2
3,4-Benzofluoranthene <1.8	20	1.8	ug/L		05/20/19 10:00	05/21/19 16:57	2
Benzo[k]fluoranthene <3.0	20	3.0	ug/L		05/20/19 10:00	05/21/19 16:57	2
Benzo[g,h,i]perylene <2.2	20	2.2	ug/L		05/20/19 10:00	05/21/19 16:57	2
Benzo[a]pyrene <1.5	20	1.5	ug/L		05/20/19 10:00	05/21/19 16:57	2
Butyl benzyl phthalate 5.0	J 20	1.6	ug/L		05/20/19 10:00	05/21/19 16:57	2
Bis(2-chloroethoxy)methane <0.87	20	0.87	ug/L		05/20/19 10:00	05/21/19 16:57	2

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Eurofins TestAmerica, Corpus Christi

05/17/19 18:21

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Job ID: 560-79907-1

Lab Sample ID: 560-79907-1

Matrix: Water

Client Sample ID: South Laredo Influent Date Collected: 05/16/19 10:00 Date Received: 05/17/19 08:00

Method: 625 - Semivolatile Or Analyte	g <mark>anic Compound</mark> Result	s (GC/MS) (Co Qualifier	ontinued) _{RL}	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	<3.1		20	3.1	ug/L		05/20/19 10:00	05/21/19 16:57	2
Bis(2-ethylhexyl) phthalate	10	J	40	10	ug/L		05/20/19 10:00	05/21/19 16:57	2
4-Bromophenyl phenyl ether	<1.6		20	1.6	ug/L		05/20/19 10:00	05/21/19 16:57	2
2-Chloronaphthalene	<1.2		20	1.2	ug/L		05/20/19 10:00	05/21/19 16:57	2
4-Chlorophenyl phenyl ether	<1.1		20	1.1	ug/L		05/20/19 10:00	05/21/19 16:57	2
Chrysene	<0.99		20	0.99	ug/L		05/20/19 10:00	05/21/19 16:57	2
Dibenz(a,h)anthracene	<1.7		20	1.7	ug/L		05/20/19 10:00	05/21/19 16:57	2
1,2-Dichlorobenzene	<1.6		20	1.6	ug/L		05/20/19 10:00	05/21/19 16:57	2
1,3-Dichlorobenzene	<0.98		20	0.98	ug/L		05/20/19 10:00	05/21/19 16:57	2
1,4-Dichlorobenzene	<1.6		20	1.6	ug/L		05/20/19 10:00	05/21/19 16:57	2
3,3'-Dichlorobenzidine	<1.6		20	1.6	ug/L		05/20/19 10:00	05/21/19 16:57	2
Diethyl phthalate	3.7	J	20	1.3	ug/L		05/20/19 10:00	05/21/19 16:57	2
Dimethyl phthalate	<1.2		20	1.2	ug/L		05/20/19 10:00	05/21/19 16:57	2
Di-n-butyl phthalate	<1.4		20	1.4	ug/L		05/20/19 10:00	05/21/19 16:57	2
Di-n-octyl phthalate	<2.2		20	2.2	ug/L		05/20/19 10:00	05/21/19 16:57	2
2,4-Dinitrotoluene	<1.0		20	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	2
2,6-Dinitrotoluene	<1.5		20	1.5	ug/L		05/20/19 10:00	05/21/19 16:57	2
Fluoranthene	<0.99		20	0.99	ua/L		05/20/19 10:00	05/21/19 16:57	2
Fluorene	<0.84		20	0.84	ug/L		05/20/19 10:00	05/21/19 16:57	2
Hexachlorobenzene	<1.2		20	1.2	ua/L		05/20/19 10:00	05/21/19 16:57	2
Hexachlorobutadiene	<1.4		20	1.4	ua/L		05/20/19 10:00	05/21/19 16:57	2
Hexachlorocyclopentadiene	<1.7		20	1.7	ua/L		05/20/19 10:00	05/21/19 16:57	2
Hexachloroethane	<1.2		20	1.2	ua/L		05/20/19 10:00	05/21/19 16:57	2
Indeno[1,2,3-cd]pvrene	<1.8		20	1.8	ua/L		05/20/19 10:00	05/21/19 16:57	2
Isophorone	<1.1		20	1.1	ua/L		05/20/19 10:00	05/21/19 16:57	2
Naphthalene	<1.6		20	16	ua/l		05/20/19 10:00	05/21/19 16:57	2
Nitrobenzene	<1.2		20	12	ua/l		05/20/19 10:00	05/21/19 16:57	2
N-Nitrosodimethylamine	<2.8		20	2.8	ua/l		05/20/19 10:00	05/21/19 16:57	2
N-Nitrosodi-n-propylamine	<1.2		20	 12	ua/l		05/20/19 10:00	05/21/19 16:57	2
N-Nitrosodiphenylamine	<2.1		20	21	ua/l		05/20/19 10:00	05/21/19 16:57	2
Phenanthrene	<1.2		20	12	ug/L		05/20/19 10:00	05/21/19 16:57	- 2
Pyrene	<0.88		20	0.88	ua/l		05/20/19 10:00	05/21/19 16:57	2
1 2 4-Trichlorobenzene	<1.3		20	1.3	ug/L		05/20/19 10:00	05/21/19 16:57	- 2
p-Chloro-m-cresol	<1.2		20	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	2
2-Chlorophenol	<1.5		20	1.5	ua/l		05/20/19 10:00	05/21/19 16:57	2
2 4-Dichlorophenol	<1.4		20	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	- 2
2 4-Dimethylphenol	<1.2		20	12	ug/L		05/20/19 10:00	05/21/19 16:57	2
2 4-Dinitrophenol	<5.4		40	5.4	ug/L		05/20/19 10:00	05/21/19 16:57	2
4 6-Dinitro-o-cresol	<1.9		20	19	ug/L		05/20/19 10:00	05/21/19 16:57	2
2-Nitrophenol	<1.6		20	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	2
4-Nitrophenol	<3.5		20	3.5	ug/L		05/20/19 10:00	05/21/19 16:57	2
Pentachlorophenol	<2.6		80	2.6	ug/L		05/20/19 10:00	05/21/19 16:57	2
Phenol	-2.0		20	1.5	ug/L		05/20/19 10:00	05/21/19 16:57	2
2 4 6-Trichlorophenol	<13		20	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	2
	30		40	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	2
	39	о 1	20	1.5	ug/L		05/20/10 10:00	05/21/10 16:57	2
	4.7 ~1 G	J	20	1.2	ug/L		05/20/10 10:00	05/21/10 16.57	2
Azobenzene)	~1.0		20	1.0	ug/L		05/20/10 10:00	05/21/10 16-57	2
	×۱.۵ م.م		20	1.0	ug/∟		05/20/19 10:00	05/21/19 10.0/	2
in-initiosoul-ii-butyiamme	<2.9		20	2.9	uy/L		03/20/19 10.00	03/21/19 10.3/	2

Eurofins TestAmerica, Corpus Christi

Job ID: 560-79907-1

Lab Sample ID: 560-79907-1 Matrix: Water

Client Sample ID: South Laredo Influent Date Collected: 05/16/19 10:00 Date Received: 05/17/19 08:00

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 560-79907-1 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	5
Pentachlorobenzene	<1.7		20	1.7	ug/L		05/20/19 10:00	05/21/19 16:57	2	
Pyridine	<1.3		20	1.3	ug/L		05/20/19 10:00	05/21/19 16:57	2	
1,2,4,5-Tetrachlorobenzene	<1.3		20	1.3	ug/L		05/20/19 10:00	05/21/19 16:57	2	
2,4,5-Trichlorophenol	<1.7		20	1.7	ug/L		05/20/19 10:00	05/21/19 16:57	2	
2,3,4,6-Tetrachlorophenol	<3.0		20	3.0	ug/L		05/20/19 10:00	05/21/19 16:57	2	
bis (2-chloroisopropyl) ether	<1.0		20	1.0	ug/L		05/20/19 10:00	05/21/19 16:57	2	9
Total Cresols, TCEQ Definition	39		20	1.5	ug/L		05/20/19 10:00	05/21/19 16:57	2	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	9
2-Fluorophenol (Surr)			10 - 120				05/20/19 10:00	05/21/19 16:57	2	
Phenol-d5 (Surr)	40		10 - 120				05/20/19 10:00	05/21/19 16:57	2	
Nitrobenzene-d5 (Surr)	39		26 - 120				05/20/19 10:00	05/21/19 16:57	2	
2-Fluorobiphenyl	24		22 - 120				05/20/19 10:00	05/21/19 16:57	2	
2,4,6-Tribromophenol (Surr)	61		24 - 131				05/20/19 10:00	05/21/19 16:57	2	
Terphenyl-d14 (Surr)	23		10 - 134				05/20/19 10:00	05/21/19 16:57	2	

Method: D7065-11 - Determination of Nonylphenols

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	<11		50	11	ug/L		05/22/19 15:04	06/07/19 18:33	10
Nonylphenol diethoxylate	<46		200	46	ug/L		05/22/19 15:04	06/07/19 18:33	10
Nonylphenol monoethoxylate	<21		100	21	ug/L		05/22/19 15:04	06/07/19 18:33	10
Bisphenol-A	<10		21	10	ug/L		05/22/19 15:04	06/07/19 18:33	10
4-tert-Octylphenol	6.0	J *	10	2.8	ug/L		05/22/19 15:04	06/07/19 18:33	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-nonylphenol (Surr)	70	D	58 - 115				05/22/19 15:04	06/07/19 18:33	10
4-nonylphenol monoethoxylate (Surr)	90	D	54 - 139				05/22/19 15:04	06/07/19 18:33	10

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00020		0.0013	0.00020	ug/L		05/21/19 11:45	05/24/19 17:10	1
4,4'-DDE	<0.00010		0.0013	0.00010	ug/L		05/21/19 11:45	05/24/19 17:10	1
4,4'-DDT	<0.00029		0.0013	0.00029	ug/L		05/21/19 11:45	05/24/19 17:10	1
Aldrin	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 17:10	1
alpha-BHC	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 17:10	1
cis-Chlordane	<0.00014		0.0013	0.00014	ug/L		05/21/19 11:45	05/24/19 17:10	1
beta-BHC	<0.00015		0.0013	0.00015	ug/L		05/21/19 11:45	05/24/19 17:10	1
Chlordane (technical)	<0.0015		0.013	0.0015	ug/L		05/21/19 11:45	05/24/19 17:10	1
delta-BHC	<0.00033		0.0013	0.00033	ug/L		05/21/19 11:45	05/24/19 17:10	1
Dieldrin	<0.00013		0.0013	0.00013	ug/L		05/21/19 11:45	05/24/19 17:10	1
Endosulfan, alpha	<0.00015		0.0013	0.00015	ug/L		05/21/19 11:45	05/24/19 17:10	1
Endosulfan, beta	<0.00011		0.0013	0.00011	ug/L		05/21/19 11:45	05/24/19 17:10	1
Endosulfan sulfate	<0.00028		0.0013	0.00028	ug/L		05/21/19 11:45	05/24/19 17:10	1
Endrin	<0.00022		0.0013	0.00022	ug/L		05/21/19 11:45	05/24/19 17:10	1
Endrin aldehyde	<0.00023		0.0013	0.00023	ug/L		05/21/19 11:45	05/24/19 17:10	1
Endrin ketone	<0.00016		0.0013	0.00016	ug/L		05/21/19 11:45	05/24/19 17:10	1
gamma-BHC (Lindane)	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 17:10	1
trans-Chlordane	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 17:10	1
Heptachlor	<0.00044		0.0013	0.00044	ug/L		05/21/19 11:45	05/24/19 17:10	1
Heptachlor epoxide	<0.00013		0.0013	0.00013	ug/L		05/21/19 11:45	05/24/19 17:10	1

Client Sample ID: South Laredo Influent

Job ID: 560-79907-1

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Lab Sample ID: 560-79907-1 Matrix: Water

Date Collected: 05/16/19 10:00 Date Received: 05/17/19 08:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Methoxychlor	<0.00033		0.0013	0.00033	ug/L		05/21/19 11:45	05/24/19 17:10	
Mirex	<0.00020		0.0013	0.00020	ug/L		05/21/19 11:45	05/24/19 17:10	
Toxaphene	<0.011		0.097	0.011	ug/L		05/21/19 11:45	05/24/19 17:10	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	107	p	38 - 146				05/21/19 11:45	05/24/19 17:10	
DCB Decachlorobiphenyl (Surr)	74		42 - 150				05/21/19 11:45	05/24/19 17:10	
Method: EPA 608 - Polychlorinated	Biphenyls (PCBs) (GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
PCB-1221	<0.0056		0.0097	0.0056	ug/L		05/21/19 11:45	05/22/19 20:53	
PCB-1232	<0.0051		0.0097	0.0051	ug/L		05/21/19 11:45	05/22/19 20:53	
PCB-1016	<0.0046		0.0097	0.0046	ug/L		05/21/19 11:45	05/22/19 20:53	
PCB-1242	<0.0089		0.0097	0.0089	ug/L		05/21/19 11:45	05/22/19 20:53	• • • • • • •
PCB-1248	<0.0029		0.0097	0.0029	ug/L		05/21/19 11:45	05/22/19 20:53	
PCB-1254	<0.0092		0.0097	0.0092	ug/L		05/21/19 11:45	05/22/19 20:53	
PCB-1260	<0.0038		0.0097	0.0038	ug/L		05/21/19 11:45	05/22/19 20:53	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Tetrachloro-m-xylene	43		38 - 146				05/21/19 11:45	05/22/19 20:53	-
Analyte Guthion	Result <0.049	Qualifier	RL 0.19	MDL 0.049	Unit ug/L	D	Prepared 05/21/19 10:45	Analyzed 05/22/19 10:11	Dil Fa
Guthion	<0.049		0.19	0.049	ug/L		05/21/19 10:45	05/22/19 10:11	
Chlorpyritos	<0.043		0.19	0.043	ug/L		05/21/19 10:45	05/22/19 10:11	
Demeton	<0.031		0.38	0.031	ug/L		05/21/19 10:45	05/22/19 10:11	
Diazinon	<0.034		0.19	0.034	ug/L		05/21/19 10:45	05/22/19 10:11	
Parathion	<0.037		0.19	0.037	ug/L		05/21/19 10:45	05/22/19 10:11	
Malathion	<0.040		0.19	0.040	ug/L		05/21/19 10:45	05/22/19 10:11	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Triphenylphosphate	92		69 - 130				05/21/19 10:45	05/22/19 10:11	
Method: 8321A - Hexachlorphene (L	.C/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Hexachlorophene	<0.0049		0.30	0.0049	ug/L			05/22/19 12:32	
Hexachlorophene Method: 1631E - Mercury, Low Leve	<0.0049		0.30	0.0049	ug/L			05/22/19 12:32	
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte	<0.0049 I (CVAFS) Result	Qualifier	0.30	0.0049 MDL	ug/L Unit	D	Prepared	05/22/19 12:32 Analyzed	Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury	<0.0049 I (CVAFS) Result 0.038	Qualifier	0.30 RL 0.0050	0.0049 MDL 0.0014	ug/L Unit ug/L	D	Prepared 05/20/19 14:30	05/22/19 12:32 Analyzed 05/21/19 17:08	Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I	<0.0049 I (CVAFS) Result 0.038 CP/MS) - To	Qualifier	0.30 RL 0.0050	0.0049 MDL 0.0014	ug/L Unit ug/L	D	Prepared 05/20/19 14:30	05/22/19 12:32 Analyzed 05/21/19 17:08	Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte	<0.0049 I (CVAFS) Result 0.038 CP/MS) - To Result	Qualifier 	0.30	0.0049 MDL 0.0014 MDL	Unit Unit Unit	D	Prepared 05/20/19 14:30 Prepared	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed	Dil Fac
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver	<0.0049 H (CVAFS) Result 0.038 CP/MS) - To Result 0.43	Qualifier Dtal Recovera Qualifier J	0.30	0.0049 MDL 0.0014 MDL 0.22	Unit ug/L Unit ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50	Dil Fac
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver Arsenic	<0.0049 H (CVAFS) Result 0.038 CP/MS) - To Result 0.43 0.75	Qualifier Dtal Recovera Qualifier J	0.30	0.0049 MDL 0.0014 MDL 0.22 0.17	Unit ug/L Unit ug/L ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50 05/22/19 20:50	Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver Arsenic Beryllium	<0.0049 II (CVAFS) Result 0.038 CP/MS) - To Result 0.43 0.75 <0.087	Qualifier Dtal Recovera Qualifier J J	0.30 RL 0.0050 ble RL 1.0 1.0 1.0 1.0	0.0049 MDL 0.0014 MDL 0.22 0.17 0.087	Unit ug/L Unit ug/L ug/L ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50	Dil Fa 11 Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver Arsenic Beryllium Chromium	<0.0049 H (CVAFS) Result 0.038 CP/MS) - To Result 0.43 0.75 <0.087 1.3	Qualifier Dtal Recovera Qualifier J J	0.30 RL 0.0050 ble RL 1.0 1.0 1.0 2.0	0.0049 MDL 0.0014 MDL 0.22 0.17 0.087 0.58	Unit ug/L Unit ug/L ug/L ug/L ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50	Dil Fa 11 Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver Arsenic Beryllium Chromium Copper	<0.0049 H (CVAFS) Result 0.038 CP/MS) - To Result 0.43 0.75 <0.087 1.3 39	Qualifier Dtal Recovera Qualifier J J	0.30 RL 0.0050 ble RL 1.0 1.0 1.0 2.0 2.0 2.0 	0.0049 MDL 0.0014 MDL 0.22 0.17 0.087 0.58 0.99	Unit ug/L Unit ug/L ug/L ug/L ug/L ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50	Dil Fa 11 Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver Arsenic Beryllium Chromium Copper Nickel	<0.0049 I (CVAFS) Result 0.038 CP/MS) - To Result 0.43 0.75 <0.087 1.3 39 2.6	Qualifier Dtal Recovera Qualifier J J	0.30 RL 0.0050 ble RL 1.0 1.0 2.0 2.0 1.	0.0049 MDL 0.0014 MDL 0.22 0.17 0.087 0.58 0.99 0.46	Unit ug/L Unit ug/L ug/L ug/L ug/L ug/L ug/L ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50	Dil Fa 10 Dil Fa
Hexachlorophene Method: 1631E - Mercury, Low Leve Analyte Mercury Method: EPA 200.8 Rev 5 - Metals (I Analyte Silver Arsenic Beryllium Chromium Copper Nickel Lead	<0.0049 I (CVAFS) Result 0.038 CP/MS) - To Result 0.43 0.75 <0.087 1.3 39 2.6 0.89	Qualifier Dtal Recovera Qualifier J J J	0.30 RL 0.0050 ble RL 1.0 1.0 1.0 2.0 1.	0.0049 MDL 0.0014 MDL 0.22 0.17 0.087 0.58 0.99 0.46 0.16	Unit Unit Unit Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L Ug/L	D	Prepared 05/20/19 14:30 Prepared 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47 05/21/19 14:47	05/22/19 12:32 Analyzed 05/21/19 17:08 Analyzed 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50 05/22/19 20:50	Dil Fa 10 Dil Fa

Eurofins TestAmerica, Corpus Christi
RL

5.0

1.0

5.0

30

10

1.0

MDL Unit

0.81 ug/L

0.12 ug/L

2.2 ug/L

12 ug/L

1.2 ug/L

0.21 ug/L

D

05/21/19 14:47

05/21/19 14:47

05/21/19 14:47

05/21/19 14:47

05/21/19 14:47

05/21/19 14:47

Client Sample ID: South Laredo Influent

Client Sample ID: South Laredo Effluent

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) - Total Recoverable (Continued)

Result Qualifier

J

0.81

<0.12

93

290

100

<0.21

Date Collected: 05/16/19 10:00

Date Received: 05/17/19 08:00

Date Collected: 05/16/19 10:00

Analyte

Selenium

Aluminum

Barium

Cadmium

Thallium

Zinc

Job ID: 560-79907-1

Lab Sample ID: 560-79907-1 Matrix: Water Analyzed Dil Fac 05/22/19 20:50

Prepared	Analyzed	Dil Fac	5
/21/19 14:47	05/22/19 20:50	1	
/21/19 14:47	05/22/19 20:50	1	
/21/19 14:47	05/22/19 20:50	1	
/21/19 14:47	05/22/19 20:50	1	
/21/19 14:47	05/22/19 20:50	1	
/21/19 14:47	05/22/19 20:50	1	8
Lab Sam	ple ID: 560-7 Matri	9907-2 x: Water	9

Date Received: 05/17/19 08:00	1								
– Method: 624 - Volatile Organ	ic Compounds (GC	(MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<1.0		50	1.0	ug/L			05/17/19 18:46	1
Acrylonitrile	<1.9		10	1.9	ug/L			05/17/19 18:46	1
Benzene	<0.33		1.0	0.33	ug/L			05/17/19 18:46	1
Dichlorobromomethane	27		1.0	0.18	ug/L			05/17/19 18:46	1
Bromoform	5.0		5.0	0.50	ug/L			05/17/19 18:46	1
Methyl bromide	<0.39		5.0	0.39	ug/L			05/17/19 18:46	1
Carbon tetrachloride	<0.25		1.0	0.25	ug/L			05/17/19 18:46	1
Chlorobenzene	<0.14		1.0	0.14	ug/L			05/17/19 18:46	1
Chloroethane	<0.40		5.0	0.40	ug/L			05/17/19 18:46	1
2-Chloroethyl vinyl ether	<0.19		2.0	0.19	ug/L			05/17/19 18:46	1
Chloroform	16		1.0	0.17	ug/L			05/17/19 18:46	1
Methyl chloride	<0.39		5.0	0.39	ug/L			05/17/19 18:46	1
Chlorodibromomethane	22		2.0	0.22	ug/L			05/17/19 18:46	1
1,2-Dibromoethane	<0.15		1.0	0.15	ug/L			05/17/19 18:46	1
1,1-Dichloroethylene	<0.30		1.0	0.30	ug/L			05/17/19 18:46	1
1,2-Dichloroethane	<0.16		1.0	0.16	ug/L			05/17/19 18:46	1
1,1-Dichloroethane	<0.17		1.0	0.17	ug/L			05/17/19 18:46	1
1,2-trans-Dichloroethylene	<0.20		1.0	0.20	ug/L			05/17/19 18:46	1
1,2-Dichloropropane	<0.17		1.0	0.17	ug/L			05/17/19 18:46	1
Ethylbenzene	<0.20		1.0	0.20	ug/L			05/17/19 18:46	1
Methylene Chloride	<2.0		10	2.0	ug/L			05/17/19 18:46	1
1,1,2,2-Tetrachloroethane	<0.19		1.0	0.19	ug/L			05/17/19 18:46	1
Tetrachloroethylene	<0.19		1.0	0.19	ug/L			05/17/19 18:46	1
Toluene	<0.30		1.0	0.30	ug/L			05/17/19 18:46	1
1,1,1-Trichloroethane	<0.30		1.0	0.30	ug/L			05/17/19 18:46	1
1,1,2-Trichloroethane	<0.17		1.0	0.17	ug/L			05/17/19 18:46	1
Trichloroethylene	<0.32		1.0	0.32	ug/L			05/17/19 18:46	1
Vinyl chloride	<0.30		1.0	0.30	ug/L			05/17/19 18:46	1
Methyl Ethyl Ketone	<0.47		10	0.47	ug/L			05/17/19 18:46	1
Trihalomethanes, Total	71		3.0	1.1	ug/L			05/17/19 18:46	1
1,3-Dichloropropylene	<0.20		5.0	0.20	ug/L			05/17/19 18:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
T / /0 /0)						-		05/17/10 10 10	

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		05/17/19 18:46	1
4-Bromofluorobenzene (Surr)	97		70 - 130		05/17/19 18:46	1
Dibromofluoromethane (Surr)	117		70 - 130		05/17/19 18:46	1

Method: 625 - Semivolatile Analyte	Organic Compound Result	s (GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.46		10	0.46	ug/L		05/20/19 10:00	05/21/19 15:34	1
Acenaphthylene	<0.45		10	0.45	ug/L		05/20/19 10:00	05/21/19 15:34	1
Anthracene	<0.70		10	0.70	ug/L		05/20/19 10:00	05/21/19 15:34	1
Benzidine	<0.39		50	0.39	ug/L		05/20/19 10:00	05/21/19 15:34	1
Benzo[a]anthracene	<0.65		10	0.65	ug/L		05/20/19 10:00	05/21/19 15:34	1
3,4-Benzofluoranthene	<0.91		10	0.91	ug/L		05/20/19 10:00	05/21/19 15:34	1
Benzo[k]fluoranthene	<1.5		10	1.5	ug/L		05/20/19 10:00	05/21/19 15:34	1
Benzo[g,h,i]perylene	<1.1		10	1.1	ug/L		05/20/19 10:00	05/21/19 15:34	1
Benzo[a]pyrene	<0.74		10	0.74	ug/L		05/20/19 10:00	05/21/19 15:34	1
Butyl benzyl phthalate	<0.82		10	0.82	ug/L		05/20/19 10:00	05/21/19 15:34	1
Bis(2-chloroethoxy)methane	<0.44		10	0.44	ug/L		05/20/19 10:00	05/21/19 15:34	1
Bis(2-chloroethyl)ether	<1.6		10	1.6	ug/L		05/20/19 10:00	05/21/19 15:34	1
Bis(2-ethylhexyl) phthalate	<5.0		20	5.0	ug/L		05/20/19 10:00	05/21/19 15:34	1
4-Bromophenyl phenyl ether	<0.81		10	0.81	ug/L		05/20/19 10:00	05/21/19 15:34	1
2-Chloronaphthalene	<0.60		10	0.60	ug/L		05/20/19 10:00	05/21/19 15:34	1
4-Chlorophenyl phenyl ether	<0.53		10	0.53	ug/L		05/20/19 10:00	05/21/19 15:34	1
Chrysene	<0.49		10	0.49	ug/L		05/20/19 10:00	05/21/19 15:34	1
Dibenz(a,h)anthracene	<0.87		10	0.87	ug/L		05/20/19 10:00	05/21/19 15:34	1
1,2-Dichlorobenzene	<0.78		10	0.78	ug/L		05/20/19 10:00	05/21/19 15:34	1
1,3-Dichlorobenzene	<0.49		10	0.49	ug/L		05/20/19 10:00	05/21/19 15:34	1
1,4-Dichlorobenzene	<0.82		10	0.82	ug/L		05/20/19 10:00	05/21/19 15:34	1
3,3'-Dichlorobenzidine	<0.79		10	0.79	ug/L		05/20/19 10:00	05/21/19 15:34	1
Diethyl phthalate	<0.67		10	0.67	ug/L		05/20/19 10:00	05/21/19 15:34	1
Dimethyl phthalate	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 15:34	1
Di-n-butyl phthalate	1.8	J	10	0.71	ug/L		05/20/19 10:00	05/21/19 15:34	1
Di-n-octyl phthalate	<1.1		10	1.1	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,4-Dinitrotoluene	<0.51		10	0.51	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,6-Dinitrotoluene	<0.76		10	0.76	ug/L		05/20/19 10:00	05/21/19 15:34	1
Fluoranthene	<0.50		10	0.50	ug/L		05/20/19 10:00	05/21/19 15:34	1
Fluorene	<0.42		10	0.42	ug/L		05/20/19 10:00	05/21/19 15:34	1
Hexachlorobenzene	<0.60		10	0.60	ug/L		05/20/19 10:00	05/21/19 15:34	1
Hexachlorobutadiene	<0.72		10	0.72	ug/L		05/20/19 10:00	05/21/19 15:34	1
Hexachlorocyclopentadiene	<0.84		10	0.84	ug/L		05/20/19 10:00	05/21/19 15:34	1
Hexachloroethane	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 15:34	1
Indeno[1,2,3-cd]pyrene	<0.92		10	0.92	ug/L		05/20/19 10:00	05/21/19 15:34	1
Isophorone	<0.55		10	0.55	ug/L		05/20/19 10:00	05/21/19 15:34	1
Naphthalene	<0.79		10	0.79	ug/L		05/20/19 10:00	05/21/19 15:34	1
Nitrobenzene	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 15:34	1
N-Nitrosodimethylamine	<1.4		10	1.4	ug/L		05/20/19 10:00	05/21/19 15:34	1
N-Nitrosodi-n-propylamine	<0.62		10	0.62	ug/L		05/20/19 10:00	05/21/19 15:34	1
N-Nitrosodiphenylamine	<1.0		10	1.0	ug/L		05/20/19 10:00	05/21/19 15:34	1
Phenanthrene	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 15:34	1
Pyrene	<0.44		10	0.44	ug/L		05/20/19 10:00	05/21/19 15:34	1
1,2,4-Trichlorobenzene	<0.65		10	0.65	ug/L		05/20/19 10:00	05/21/19 15:34	1
p-Chloro-m-cresol	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 15:34	1
2-Chlorophenol	<0.73		10	0.73	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,4-Dichlorophenol	<0.70		10	0.70	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,4-Dimethylphenol	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,4-Dinitrophenol	<2.7		20	2.7	ug/L		05/20/19 10:00	05/21/19 15:34	1

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Lab Sample ID: 560-79907-2 Matrix: Water

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6/14/2019

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 560-79907-2 Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-o-cresol	<0.96		10	0.96	ug/L		05/20/19 10:00	05/21/19 15:34	1
2-Nitrophenol	<0.81		10	0.81	ug/L		05/20/19 10:00	05/21/19 15:34	1
4-Nitrophenol	<1.7		10	1.7	ug/L		05/20/19 10:00	05/21/19 15:34	1
Pentachlorophenol	<1.3		40	1.3	ug/L		05/20/19 10:00	05/21/19 15:34	1
Phenol	<0.77		10	0.77	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,4,6-Trichlorophenol	<0.66		10	0.66	ug/L		05/20/19 10:00	05/21/19 15:34	1
m & p - Cresol	<0.76		20	0.76	ug/L		05/20/19 10:00	05/21/19 15:34	1
o-Cresol	<0.61		10	0.61	ug/L		05/20/19 10:00	05/21/19 15:34	1
1,2-Diphenylhydrazine (as Azobenzene)	<0.79		10	0.79	ug/L		05/20/19 10:00	05/21/19 15:34	1
N-Nitrosodiethylamine	<0.89		10	0.89	ug/L		05/20/19 10:00	05/21/19 15:34	1
N-Nitrosodi-n-butylamine	<1.5		10	1.5	ug/L		05/20/19 10:00	05/21/19 15:34	1
Pentachlorobenzene	<0.86		10	0.86	ug/L		05/20/19 10:00	05/21/19 15:34	1
Pyridine	<0.66		10	0.66	ug/L		05/20/19 10:00	05/21/19 15:34	1
1,2,4,5-Tetrachlorobenzene	<0.66		10	0.66	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,4,5-Trichlorophenol	<0.86		10	0.86	ug/L		05/20/19 10:00	05/21/19 15:34	1
2,3,4,6-Tetrachlorophenol	<1.5		10	1.5	ug/L		05/20/19 10:00	05/21/19 15:34	1
bis (2-chloroisopropyl) ether	<0.50		10	0.50	ug/L		05/20/19 10:00	05/21/19 15:34	1
Total Cresols, TCEQ Definition	<0.76		10	0.76	ug/L		05/20/19 10:00	05/21/19 15:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	49		10 - 120				05/20/19 10:00	05/21/19 15:34	1
Phenol-d5 (Surr)	54		10 - 120				05/20/19 10:00	05/21/19 15:34	1
Nitrobenzene-d5 (Surr)	65		26 - 120				05/20/19 10:00	05/21/19 15:34	1
2-Fluorobiphenyl	72		22 - 120				05/20/19 10:00	05/21/19 15:34	1
2,4,6-Tribromophenol (Surr)	64		24 - 131				05/20/19 10:00	05/21/19 15:34	1
Terphenyl-d14 (Surr)	37		10 - 134				05/20/19 10:00	05/21/19 15:34	1
- Method: D7065-11 - Determina	ation of Nonylphe	nols							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	<11		50	11	ug/L		05/22/19 15:04	06/07/19 18:54	10
Nonylphenol diethoxylate	<45		200	45	ug/L		05/22/19 15:04	06/07/19 18:54	10
Nonylphenol monoethoxylate	<20		99	20	ug/L		05/22/19 15:04	06/07/19 18:54	10
Bisphenol-A	<10		21	10	ug/L		05/22/19 15:04	06/07/19 18:54	10
4-tert-Octylphenol	2.9	J *	9.9	2.8	ug/L		05/22/19 15:04	06/07/19 18:54	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-nonylphenol (Surr)	70	D	58 - 115	05/22/19 15:04	06/07/19 18:54	10
4-nonylphenol monoethoxylate (Surr)	57	D	54 - 139	05/22/19 15:04	06/07/19 18:54	10

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water

4-tert-Octylphenol

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00020		0.0013	0.00020	ug/L		05/21/19 11:45	05/24/19 19:37	1
4,4'-DDE	<0.00010		0.0013	0.00010	ug/L		05/21/19 11:45	05/24/19 19:37	1
4,4'-DDT	<0.00029		0.0013	0.00029	ug/L		05/21/19 11:45	05/24/19 19:37	1
Aldrin	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 19:37	1
alpha-BHC	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 19:37	1
cis-Chlordane	<0.00014		0.0013	0.00014	ug/L		05/21/19 11:45	05/24/19 19:37	1
beta-BHC	<0.00015		0.0013	0.00015	ug/L		05/21/19 11:45	05/24/19 19:37	1
Chlordane (technical)	<0.0014		0.013	0.0014	ug/L		05/21/19 11:45	05/24/19 19:37	1
delta-BHC	<0.00033		0.0013	0.00033	ug/L		05/21/19 11:45	05/24/19 19:37	1

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dieldrin	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 19:37	1
Endosulfan, alpha	<0.00014		0.0013	0.00014	ug/L		05/21/19 11:45	05/24/19 19:37	1
Endosulfan, beta	<0.00011		0.0013	0.00011	ug/L		05/21/19 11:45	05/24/19 19:37	1
Endosulfan sulfate	<0.00028		0.0013	0.00028	ug/L		05/21/19 11:45	05/24/19 19:37	1
Endrin	<0.00022		0.0013	0.00022	ug/L		05/21/19 11:45	05/24/19 19:37	1
Endrin aldehyde	<0.00023		0.0013	0.00023	ug/L		05/21/19 11:45	05/24/19 19:37	1
Endrin ketone	<0.00016		0.0013	0.00016	ug/L		05/21/19 11:45	05/24/19 19:37	1
gamma-BHC (Lindane)	<0.00011		0.0013	0.00011	ug/L		05/21/19 11:45	05/24/19 19:37	1
trans-Chlordane	<0.00012		0.0013	0.00012	ug/L		05/21/19 11:45	05/24/19 19:37	1
Heptachlor	<0.00043		0.0013	0.00043	ug/L		05/21/19 11:45	05/24/19 19:37	1
Heptachlor epoxide	<0.00013		0.0013	0.00013	ug/L		05/21/19 11:45	05/24/19 19:37	1
Methoxychlor	<0.00033		0.0013	0.00033	ug/L		05/21/19 11:45	05/24/19 19:37	1
Mirex	<0.00020		0.0013	0.00020	ug/L		05/21/19 11:45	05/24/19 19:37	1
Toxaphene	<0.011		0.096	0.011	ug/L		05/21/19 11:45	05/24/19 19:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	52		38 - 146				05/21/19 11:45	05/24/19 19:37	1
DCB Decachlorobinhenvl (Surr)	84		42 150				05/21/19 11:45	05/24/19 19:37	1

Method:	EPA 608	- Polychlor	inated Biph	enyls	(PCBs) ((GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	<0.0055		0.0096	0.0055	ug/L		05/21/19 11:45	05/22/19 21:14	1
PCB-1232	<0.0050		0.0096	0.0050	ug/L		05/21/19 11:45	05/22/19 21:14	1
PCB-1016	<0.0046		0.0096	0.0046	ug/L		05/21/19 11:45	05/22/19 21:14	1
PCB-1242	<0.0088		0.0096	0.0088	ug/L		05/21/19 11:45	05/22/19 21:14	1
PCB-1248	<0.0029		0.0096	0.0029	ug/L		05/21/19 11:45	05/22/19 21:14	1
PCB-1254	<0.0092		0.0096	0.0092	ug/L		05/21/19 11:45	05/22/19 21:14	1
PCB-1260	<0.0038		0.0096	0.0038	ug/L		05/21/19 11:45	05/22/19 21:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	103	p	38 - 146				05/21/19 11:45	05/22/19 21:14	1

Method: EPA 8141B - Organophosphorous Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Guthion	<0.049		0.19	0.049	ug/L		05/21/19 10:45	05/22/19 10:42	1
Chlorpyrifos	<0.043		0.19	0.043	ug/L		05/21/19 10:45	05/22/19 10:42	1
Demeton	<0.031		0.38	0.031	ug/L		05/21/19 10:45	05/22/19 10:42	1
Diazinon	<0.034		0.19	0.034	ug/L		05/21/19 10:45	05/22/19 10:42	1
Parathion	<0.037		0.19	0.037	ug/L		05/21/19 10:45	05/22/19 10:42	1
Malathion	<0.040		0.19	0.040	ug/L		05/21/19 10:45	05/22/19 10:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Triphenylphosphate	94		69 - 130				05/21/19 10:45	05/22/19 10:42	1
– Method: 8321A - Hexachlo	orphene (LC/MS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorophene	<0.0049		0.30	0.0049	ug/L			05/22/19 12:38	1
- Method: 1631E - Mercury,	Low Level (CVAFS)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0014		0.00050	0.00014	ug/L		05/20/19 14:30	05/21/19 17:12	1

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Job ID: 560-79907-1

Lab Sample ID: 560-79907-2 Matrix: Water

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.22		1.0	0.22	ug/L		05/21/19 14:47	05/22/19 20:53	1
Arsenic	0.70	J	1.0	0.17	ug/L		05/21/19 14:47	05/22/19 20:53	1
Beryllium	<0.087		1.0	0.087	ug/L		05/21/19 14:47	05/22/19 20:53	1
Chromium	<0.58		2.0	0.58	ug/L		05/21/19 14:47	05/22/19 20:53	1
Copper	2.5		2.0	0.99	ug/L		05/21/19 14:47	05/22/19 20:53	1
Nickel	2.4		1.0	0.46	ug/L		05/21/19 14:47	05/22/19 20:53	1
Lead	0.30	J	1.0	0.16	ug/L		05/21/19 14:47	05/22/19 20:53	1
Antimony	0.92	J	2.0	0.35	ug/L		05/21/19 14:47	05/22/19 20:53	1
Selenium	<0.81		5.0	0.81	ug/L		05/21/19 14:47	05/22/19 20:53	1
Thallium	<0.12		1.0	0.12	ug/L		05/21/19 14:47	05/22/19 20:53	1
Zinc	58		5.0	2.2	ug/L		05/21/19 14:47	05/22/19 20:53	1
Aluminum	18	J	30	12	ug/L		05/21/19 14:47	05/22/19 20:53	1
Barium	73		10	1.2	ug/L		05/21/19 14:47	05/22/19 20:53	1
Cadmium	<0.21		1.0	0.21	ug/L		05/21/19 14:47	05/22/19 20:53	1

Client Sample ID: Trip Blank

Date Collected: 05/16/19 00:00

Date Received: 05/17/19 08:00

Method: 624 - Volatile Organic	Compounds (GC	C/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<1.0		50	1.0	ug/L			05/20/19 17:26	1
Acrylonitrile	<1.9		10	1.9	ug/L			05/20/19 17:26	1
Benzene	<0.33		1.0	0.33	ug/L			05/20/19 17:26	1
Dichlorobromomethane	<0.18		1.0	0.18	ug/L			05/20/19 17:26	1
Bromoform	<0.50		5.0	0.50	ug/L			05/20/19 17:26	1
Methyl bromide	<0.39		5.0	0.39	ug/L			05/20/19 17:26	1
Carbon tetrachloride	<0.25		1.0	0.25	ug/L			05/20/19 17:26	1
Chlorobenzene	<0.14		1.0	0.14	ug/L			05/20/19 17:26	1
Chloroethane	<0.40		5.0	0.40	ug/L			05/20/19 17:26	1
2-Chloroethyl vinyl ether	<0.19		2.0	0.19	ug/L			05/20/19 17:26	1
Chloroform	<0.17		1.0	0.17	ug/L			05/20/19 17:26	1
Methyl chloride	<0.39		5.0	0.39	ug/L			05/20/19 17:26	1
Chlorodibromomethane	<0.22		2.0	0.22	ug/L			05/20/19 17:26	1
1,2-Dibromoethane	<0.15		1.0	0.15	ug/L			05/20/19 17:26	1
1,1-Dichloroethylene	<0.30		1.0	0.30	ug/L			05/20/19 17:26	1
1,2-Dichloroethane	<0.16		1.0	0.16	ug/L			05/20/19 17:26	1
1,1-Dichloroethane	<0.17		1.0	0.17	ug/L			05/20/19 17:26	1
1,2-trans-Dichloroethylene	<0.20		1.0	0.20	ug/L			05/20/19 17:26	1
1,2-Dichloropropane	<0.17		1.0	0.17	ug/L			05/20/19 17:26	1
Ethylbenzene	<0.20		1.0	0.20	ug/L			05/20/19 17:26	1
Methylene Chloride	<2.0		10	2.0	ug/L			05/20/19 17:26	1
1,1,2,2-Tetrachloroethane	<0.19		1.0	0.19	ug/L			05/20/19 17:26	1
Tetrachloroethylene	<0.19		1.0	0.19	ug/L			05/20/19 17:26	1
Toluene	<0.30		1.0	0.30	ug/L			05/20/19 17:26	1
1,1,1-Trichloroethane	<0.30		1.0	0.30	ug/L			05/20/19 17:26	1
1,1,2-Trichloroethane	<0.17		1.0	0.17	ug/L			05/20/19 17:26	1
Trichloroethylene	<0.32		1.0	0.32	ug/L			05/20/19 17:26	1
Vinyl chloride	<0.30		1.0	0.30	ug/L			05/20/19 17:26	1
Methyl Ethyl Ketone	<0.47		10	0.47	ug/L			05/20/19 17:26	1

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Job ID: 560-79907-1

Lab Sample ID: 560-79907-2 Matrix: Water

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Matrix: Water

Lab Sample ID: 560-79907-3 Matrix: Water

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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trihalomethanes, Total	<1.1		3.0	1.1	ug/L			05/20/19 17:26	1
1,3-Dichloropropylene	<0.20		5.0	0.20	ug/L			05/20/19 17:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	95		70 - 130			-		05/20/19 17:26	1
4-Bromofluorobenzene (Surr)	96		70 - 130					05/20/19 17:26	1
Dibromofluoromethane (Surr)	115		70 - 130					05/20/19 17:26	1

5

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 560-162733/7

Matrix: Water Analysis Batch: 162733

Μ	B MB							
nalyte Resu	lt Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
crolein <1	0	50	1.0	ug/L			05/17/19 12:10	1
crylonitrile <1	9	10	1.9	ug/L			05/17/19 12:10	1
enzene <0.3	3	1.0	0.33	ug/L			05/17/19 12:10	1
ichlorobromomethane <0.1	8	1.0	0.18	ug/L			05/17/19 12:10	1
romoform <0.5	0	5.0	0.50	ug/L			05/17/19 12:10	1
lethyl bromide <0.3	9	5.0	0.39	ug/L			05/17/19 12:10	1
arbon tetrachloride <0.2	5	1.0	0.25	ug/L			05/17/19 12:10	1
hlorobenzene <0.1	4	1.0	0.14	ug/L			05/17/19 12:10	1
hloroethane <0.4	0	5.0	0.40	ug/L			05/17/19 12:10	1
-Chloroethyl vinyl ether <0.1	9	2.0	0.19	ug/L			05/17/19 12:10	1
hloroform <0.1	7	1.0	0.17	ug/L			05/17/19 12:10	1
lethyl chloride <0.3	9	5.0	0.39	ug/L			05/17/19 12:10	1
hlorodibromomethane <0.2	2	2.0	0.22	ug/L			05/17/19 12:10	1
2-Dibromoethane <0.1	5	1.0	0.15	ug/L			05/17/19 12:10	1
1-Dichloroethylene <0.3	0	1.0	0.30	ug/L			05/17/19 12:10	1
2-Dichloroethane <0.1	6	1.0	0.16	ug/L			05/17/19 12:10	1
1-Dichloroethane <0.1	7	1.0	0.17	ug/L			05/17/19 12:10	1
2-trans-Dichloroethylene <0.2	0	1.0	0.20	ug/L			05/17/19 12:10	1
2-Dichloropropane <0.1	7	1.0	0.17	ug/L			05/17/19 12:10	1
thylbenzene <0.2	0	1.0	0.20	ug/L			05/17/19 12:10	1
ethylene Chloride <2	0	10	2.0	ug/L			05/17/19 12:10	1
1,2,2-Tetrachloroethane <0.1	9	1.0	0.19	ug/L			05/17/19 12:10	1
etrachloroethylene <0.1	9	1.0	0.19	ug/L			05/17/19 12:10	1
oluene <0.3	0	1.0	0.30	ug/L			05/17/19 12:10	1
1,1-Trichloroethane <0.3	0	1.0	0.30	ug/L			05/17/19 12:10	1
1,2-Trichloroethane <0.1	7	1.0	0.17	ug/L			05/17/19 12:10	1
richloroethylene <0.3	2	1.0	0.32	ug/L			05/17/19 12:10	1
inyl chloride <0.3	0	1.0	0.30	ug/L			05/17/19 12:10	1
ethyl Ethyl Ketone <0.4	7	10	0.47	ug/L			05/17/19 12:10	1
rihalomethanes, Total <1	1	3.0	1.1	ug/L			05/17/19 12:10	1
3-Dichloropropylene <0.2	0	5.0	0.20	ug/L			05/17/19 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		70 - 130		05/17/19 12:10	1
4-Bromofluorobenzene (Surr)	97		70 - 130		05/17/19 12:10	1
Dibromofluoromethane (Surr)	110		70 - 130		05/17/19 12:10	1

MR MR

Lab Sample ID: LCS 560-162733/3 Matrix: Water

Analysis Batch: 162733

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acrolein	247	237		ug/L		96	10 _ 306	
Acrylonitrile	250	227		ug/L		91	71 _ 128	
Benzene	25.0	23.8		ug/L		95	37 - 151	
Dichlorobromomethane	25.0	27.7		ug/L		111	35 _ 155	
Bromoform	25.0	28.9		ug/L		116	45 _ 169	
Methyl bromide	25.0	24.0		ug/L		96	1 _ 242	

Eurofins TestAmerica, Corpus Christi

Job ID: 560-79907-1

Prep Type: Total/NA

Client Sample ID: Method Blank

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Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Type: Total/NA

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 560-162733/3

Matrix: Water Analysis Batch: 162733

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Carbon tetrachloride		29.7		ug/L		119	70 _ 140	·
Chlorobenzene	25.0	24.5		ug/L		98	37 - 160	
Chloroethane	25.0	22.7		ug/L		91	14 _ 230	
2-Chloroethyl vinyl ether	25.0	21.0		ug/L		84	1 _ 305	
Chloroform	25.0	27.3		ug/L		109	51 ₋ 138	
Methyl chloride	25.0	20.7		ug/L		83	1 _ 273	
Chlorodibromomethane	25.0	27.9		ug/L		111	53 - 149	
1,2-Dibromoethane	25.0	26.3		ug/L		105	70 _ 130	
1,1-Dichloroethylene	25.0	26.6		ug/L		106	1 _ 234	
1,2-Dichloroethane	25.0	28.5		ug/L		114	49 _ 155	
1,1-Dichloroethane	25.0	25.3		ug/L		101	59 _ 155	
1,2-trans-Dichloroethylene	25.0	26.5		ug/L		106	54 - 156	
1,2-Dichloropropane	25.0	25.0		ug/L		100	1 _ 210	
Ethylbenzene	25.0	23.7		ug/L		95	37 - 162	
Methylene Chloride	25.0	24.1		ug/L		96	1 _ 221	
1,1,2,2-Tetrachloroethane	25.0	22.9		ug/L		92	46 _ 157	
Tetrachloroethylene	25.0	27.1		ug/L		108	64 - 148	
Toluene	25.0	24.4		ug/L		98	47 _ 150	
1,1,1-Trichloroethane	25.0	29.2		ug/L		117	52 - 162	
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	52 - 150	
Trichloroethylene	25.0	24.6		ug/L		98	71 - 157	
Vinyl chloride	25.0	21.9		ug/L		88	1 - 251	
Methyl Ethyl Ketone	125	112		ug/L		89	30 - 150	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Toluene-d8 (Surr)	102		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	112		70 - 130

Lab Sample ID: LCSD 560-162733/4 Matrix: Water

Analysis Batch: 162733

•	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acrolein	247	257		ug/L		104	10 - 306	8	20
Acrylonitrile	250	254		ug/L		101	71 - 128	11	20
Benzene	25.0	25.1		ug/L		101	37 _ 151	6	20
Dichlorobromomethane	25.0	28.8		ug/L		115	35 _ 155	4	20
Bromoform	25.0	29.3		ug/L		117	45 - 169	1	20
Methyl bromide	25.0	24.7		ug/L		99	1 _ 242	3	20
Carbon tetrachloride	25.0	31.9		ug/L		128	70 - 140	7	20
Chlorobenzene	25.0	25.3		ug/L		101	37 _ 160	3	20
Chloroethane	25.0	24.0		ug/L		96	14 _ 230	5	20
2-Chloroethyl vinyl ether	25.0	23.1		ug/L		92	1 _ 305	10	20
Chloroform	25.0	27.8		ug/L		111	51 _ 138	2	20
Methyl chloride	25.0	22.5		ug/L		90	1 - 273	9	20
Chlorodibromomethane	25.0	29.7		ug/L		119	53 _ 149	6	20
1,2-Dibromoethane	25.0	26.3		ug/L		105	70 - 130	0	20

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Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

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6

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 560-162733/4

Matrix: Water Analysis Batch: 162733

Analysis Datch. 102755									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1-Dichloroethylene		27.8		ug/L		111	1 _ 234	4	20
1,2-Dichloroethane	25.0	29.1		ug/L		116	49 - 155	2	20
1,1-Dichloroethane	25.0	25.6		ug/L		103	59 - 155	1	20
1,2-trans-Dichloroethylene	25.0	27.7		ug/L		111	54 - 156	4	20
1,2-Dichloropropane	25.0	24.9		ug/L		100	1 _ 210	0	20
Ethylbenzene	25.0	24.2		ug/L		97	37 - 162	2	20
Methylene Chloride	25.0	25.3		ug/L		101	1 - 221	5	20
1,1,2,2-Tetrachloroethane	25.0	23.2		ug/L		93	46 - 157	1	20
Tetrachloroethylene	25.0	27.8		ug/L		111	64 - 148	3	20
Toluene	25.0	24.2		ug/L		97	47 - 150	1	20
1,1,1-Trichloroethane	25.0	30.7		ug/L		123	52 - 162	5	20
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	52 - 150	0	20
Trichloroethylene	25.0	25.5		ug/L		102	71 - 157	4	20
Vinyl chloride	25.0	23.6		ug/L		94	1 _ 251	7	20
Methyl Ethyl Ketone	125	129		ug/L		103	30 - 150	15	20

	LCSD	LCSD				
Surrogate	%Recovery	Qualifier	Limits			
Toluene-d8 (Surr)	99		70 - 130			
4-Bromofluorobenzene (Surr)	95		70 - 130			
Dibromofluoromethane (Surr)	107		70 - 130			

Lab Sample ID: MB 560-162793/8 Matrix: Water

Analysis Batch: 162793

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	<1.0		50	1.0	ug/L			05/20/19 14:05	1
Acrylonitrile	<1.9		10	1.9	ug/L			05/20/19 14:05	1
Benzene	<0.33		1.0	0.33	ug/L			05/20/19 14:05	1
Dichlorobromomethane	<0.18		1.0	0.18	ug/L			05/20/19 14:05	1
Bromoform	<0.50		5.0	0.50	ug/L			05/20/19 14:05	1
Methyl bromide	<0.39		5.0	0.39	ug/L			05/20/19 14:05	1
Carbon tetrachloride	<0.25		1.0	0.25	ug/L			05/20/19 14:05	1
Chlorobenzene	<0.14		1.0	0.14	ug/L			05/20/19 14:05	1
Chloroethane	<0.40		5.0	0.40	ug/L			05/20/19 14:05	1
2-Chloroethyl vinyl ether	<0.19		2.0	0.19	ug/L			05/20/19 14:05	1
Chloroform	<0.17		1.0	0.17	ug/L			05/20/19 14:05	1
Methyl chloride	<0.39		5.0	0.39	ug/L			05/20/19 14:05	1
Chlorodibromomethane	<0.22		2.0	0.22	ug/L			05/20/19 14:05	1
1,2-Dibromoethane	<0.15		1.0	0.15	ug/L			05/20/19 14:05	1
1,1-Dichloroethylene	<0.30		1.0	0.30	ug/L			05/20/19 14:05	1
1,2-Dichloroethane	<0.16		1.0	0.16	ug/L			05/20/19 14:05	1
1,1-Dichloroethane	<0.17		1.0	0.17	ug/L			05/20/19 14:05	1
1,2-trans-Dichloroethylene	<0.20		1.0	0.20	ug/L			05/20/19 14:05	1
1,2-Dichloropropane	<0.17		1.0	0.17	ug/L			05/20/19 14:05	1
Ethylbenzene	<0.20		1.0	0.20	ug/L			05/20/19 14:05	1
Methylene Chloride	<2.0		10	2.0	ug/L			05/20/19 14:05	1
1,1,2,2-Tetrachloroethane	<0.19		1.0	0.19	ug/L			05/20/19 14:05	1

Eurofins TestAmerica, Corpus Christi

Client Sam	ple ID:	Method	Blank
	Dress 7	T	4-1/NIA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 560-162793/8

Matrix: Water Analysis Batch: 162793

мв	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<0.19		1.0	0.19	ug/L			05/20/19 14:05	1
<0.30		1.0	0.30	ug/L			05/20/19 14:05	1
<0.30		1.0	0.30	ug/L			05/20/19 14:05	1
<0.17		1.0	0.17	ug/L			05/20/19 14:05	1
<0.32		1.0	0.32	ug/L			05/20/19 14:05	1
<0.30		1.0	0.30	ug/L			05/20/19 14:05	1
<0.47		10	0.47	ug/L			05/20/19 14:05	1
<1.1		3.0	1.1	ug/L			05/20/19 14:05	1
<0.20		5.0	0.20	ug/L			05/20/19 14:05	1
	MB Result <0.19	MB MB Result Qualifier <0.19	Result Qualifier RL <0.19	Result Qualifier RL MDL <0.19	Result Qualifier RL MDL Unit <0.19	Result Qualifier RL MDL Unit D <0.19	Result Qualifier RL MDL Unit D Prepared <0.19	Result Qualifier RL MDL Unit D Prepared Analyzed <0.19

	MB	МВ				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		70 - 130		05/20/19 14:05	1
4-Bromofluorobenzene (Surr)	99		70 - 130		05/20/19 14:05	1
Dibromofluoromethane (Surr)	112		70 - 130		05/20/19 14:05	1

Lab Sample ID: LCS 560-162793/3

Matrix: Water Analysis Batch: 162793

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acrolein	247	233		ug/L		94	10 - 306	
Acrylonitrile	250	253		ug/L		101	71 ₋ 128	
Benzene	25.0	23.9		ug/L		96	37 ₋ 151	
Dichlorobromomethane	25.0	29.0		ug/L		116	35 - 155	
Bromoform	25.0	30.7		ug/L		123	45 ₋ 169	
Methyl bromide	25.0	25.1		ug/L		100	1 _ 242	
Carbon tetrachloride	25.0	33.0		ug/L		132	70 ₋ 140	
Chlorobenzene	25.0	25.1		ug/L		101	37 _ 160	
Chloroethane	25.0	25.4		ug/L		101	14 - 230	
2-Chloroethyl vinyl ether	25.0	22.7		ug/L		91	1 ₋ 305	
Chloroform	25.0	28.2		ug/L		113	51 ₋ 138	
Methyl chloride	25.0	21.9		ug/L		88	1 ₋ 273	
Chlorodibromomethane	25.0	30.8		ug/L		123	53 ₋ 149	
1,2-Dibromoethane	25.0	27.4		ug/L		109	70 - 130	
1,1-Dichloroethylene	25.0	29.6		ug/L		118	1 _ 234	
1,2-Dichloroethane	25.0	30.2		ug/L		121	49 - 155	
1,1-Dichloroethane	25.0	25.5		ug/L		102	59 ₋ 155	
1,2-trans-Dichloroethylene	25.0	27.0		ug/L		108	54 ₋ 156	
1,2-Dichloropropane	25.0	24.7		ug/L		99	1 - 210	
Ethylbenzene	25.0	24.0		ug/L		96	37 - 162	
Methylene Chloride	25.0	25.4		ug/L		101	1 _ 221	
1,1,2,2-Tetrachloroethane	25.0	23.1		ug/L		92	46 ₋ 157	
Tetrachloroethylene	25.0	27.5		ug/L		110	64 ₋ 148	
Toluene	25.0	24.0		ug/L		96	47 - 150	
1,1,1-Trichloroethane	25.0	31.4		ug/L		126	52 ₋ 162	
1,1,2-Trichloroethane	25.0	25.7		ug/L		103	52 - 150	
Trichloroethylene	25.0	25.3		ug/L		101	71 ₋ 157	
Vinyl chloride	25.0	24.1		ug/L		96	1 _ 251	

Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Matrix: Water							Client	Sample	D: Lab Contr Prep Type	ol Sample : Total/NA
Analysis Batch: 162793			Califo	1.00	1.00				% Dee	
Analyte			Spike	Posult	Qualifier	Unit	п	%Pec	%Rec.	
Methyl Ethyl Ketone			125	126		ug/L		101	30 - 150	
	LCS	LCS								
Surrogate %R	ecovery	Qualifier	Limits							
Toluene-d8 (Surr)	101		70 - 130							
4-Bromofluorobenzene (Surr)	94		70 - 130							
Dibromofluoromethane (Surr)	113		70 - 130							

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Client Sample ID: Method Blank Prep Type: Total/NA

	e el game	
_		
I ab Sample ID	: MB 560-162785/1-A	

Analysis Batch: 162808								Prep Batch:	: 1 <mark>62</mark> 785
	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.46		10	0.46	ug/L		05/20/19 10:00	05/21/19 12:22	1
Acenaphthylene	<0.45		10	0.45	ug/L		05/20/19 10:00	05/21/19 12:22	1
Anthracene	<0.70		10	0.70	ug/L		05/20/19 10:00	05/21/19 12:22	1
Benzidine	<0.39		50	0.39	ug/L		05/20/19 10:00	05/21/19 12:22	1
Benzo[a]anthracene	<0.65		10	0.65	ug/L		05/20/19 10:00	05/21/19 12:22	1
3,4-Benzofluoranthene	<0.91		10	0.91	ug/L		05/20/19 10:00	05/21/19 12:22	1
Benzo[k]fluoranthene	<1.5		10	1.5	ug/L		05/20/19 10:00	05/21/19 12:22	1
Benzo[g,h,i]perylene	<1.1		10	1.1	ug/L		05/20/19 10:00	05/21/19 12:22	1
Benzo[a]pyrene	<0.74		10	0.74	ug/L		05/20/19 10:00	05/21/19 12:22	1
Butyl benzyl phthalate	<0.82		10	0.82	ug/L		05/20/19 10:00	05/21/19 12:22	1
Bis(2-chloroethoxy)methane	<0.44		10	0.44	ug/L		05/20/19 10:00	05/21/19 12:22	1
Bis(2-chloroethyl)ether	<1.6		10	1.6	ug/L		05/20/19 10:00	05/21/19 12:22	1
Bis(2-ethylhexyl) phthalate	<5.0		20	5.0	ug/L		05/20/19 10:00	05/21/19 12:22	1
4-Bromophenyl phenyl ether	<0.81		10	0.81	ug/L		05/20/19 10:00	05/21/19 12:22	1
2-Chloronaphthalene	<0.60		10	0.60	ug/L		05/20/19 10:00	05/21/19 12:22	1
4-Chlorophenyl phenyl ether	<0.53		10	0.53	ug/L		05/20/19 10:00	05/21/19 12:22	1
Chrysene	<0.49		10	0.49	ug/L		05/20/19 10:00	05/21/19 12:22	1
Dibenz(a,h)anthracene	<0.87		10	0.87	ug/L		05/20/19 10:00	05/21/19 12:22	1
1,2-Dichlorobenzene	<0.78		10	0.78	ug/L		05/20/19 10:00	05/21/19 12:22	1
1,3-Dichlorobenzene	<0.49		10	0.49	ug/L		05/20/19 10:00	05/21/19 12:22	1
1,4-Dichlorobenzene	<0.82		10	0.82	ug/L		05/20/19 10:00	05/21/19 12:22	1
3,3'-Dichlorobenzidine	<0.79		10	0.79	ug/L		05/20/19 10:00	05/21/19 12:22	1
Diethyl phthalate	<0.67		10	0.67	ug/L		05/20/19 10:00	05/21/19 12:22	1
Dimethyl phthalate	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 12:22	1
Di-n-butyl phthalate	<0.71		10	0.71	ug/L		05/20/19 10:00	05/21/19 12:22	1
Di-n-octyl phthalate	<1.1		10	1.1	ug/L		05/20/19 10:00	05/21/19 12:22	1
2,4-Dinitrotoluene	<0.51		10	0.51	ug/L		05/20/19 10:00	05/21/19 12:22	1
2,6-Dinitrotoluene	<0.76		10	0.76	ug/L		05/20/19 10:00	05/21/19 12:22	1
Fluoranthene	<0.50		10	0.50	ug/L		05/20/19 10:00	05/21/19 12:22	1
Fluorene	<0.42		10	0.42	ug/L		05/20/19 10:00	05/21/19 12:22	1
Hexachlorobenzene	<0.60		10	0.60	ug/L		05/20/19 10:00	05/21/19 12:22	1
Hexachlorobutadiene	<0.72		10	0.72	ug/L		05/20/19 10:00	05/21/19 12:22	1
Hexachlorocyclopentadiene	<0.84		10	0.84	ug/L		05/20/19 10:00	05/21/19 12:22	1
Hexachloroethane	<0.59		10	0.59	ug/L		05/20/19 10:00	05/21/19 12:22	1
Indeno[1,2,3-cd]pyrene	<0.92		10	0.92	ug/L		05/20/19 10:00	05/21/19 12:22	1

Matrix: Water

Analysis Batch: 162808

Prep Type: Total/NA

Prep Batch: 162785

Client Sample ID: Method Blank

6 7 8 9

10

Lab Sample ID: MB 560-162785/1-A

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte Result Qualifier RL MDL Unit P Prepared Analyzed P Isophorone <0.55 10 0.55 ug/L 05/20/19 10:00 05/21/19 12:22	
Isophorone <0.55	l Fac
Naphthalene <0.79 10 0.79 ug/L 05/20/19 10:00 05/21/19 12:22 Nitrosodimethylamine <1.4	1
Nitrobenzene <0.59 10 0.59 ug/L 05/20/19 10:00 05/21/19 12:22 N-Nitrosodimethylamine <1.4	1
N-Nitrosodimethylamine <1.4 10 1.4 ug/L 05/20/19 10:00 05/21/19 12:22 N-Nitrosodin-propylamine <0.62	1
N-Nitrosodi-n-propylamine <0.62 10 0.62 ug/L 05/20/19 10:00 05/21/19 12:22 N-Nitrosodiphenylamine <1.0	1
N-Nitrosodiphenylamine <1.0 10 1.0 ug/L 05/20/19 10:00 05/21/19 12:22 Phenanthrene <0.59	1
Phenanthrene <0.59 10 0.59 ug/L 05/20/19 10:00 05/21/19 12:22 Pyrene <0.44	1
Pyrene < 0.44 10 0.44 ug/L 05/20/19 10:00 05/21/19 12:22 1,2,4-Trichlorobenzene < 0.65	1
1,2,4-Trichlorobenzene <0.65	1
p-Chloro-m-cresol<0.59100.59ug/L05/20/19 10:0005/21/19 12:222-Chlorophenol<0.73	1
2-Chlorophenol <0.73	1
2.4-Dichlorophenol <0.70	1
2.4-Dimethylphenol <0.59	1
2.4-Dinitrophenol <2.7	1
4,6-Dinitro-o-cresol<0.96100.96ug/L05/20/19 10:0005/21/19 12:222-Nitrophenol<0.81	1
2-Nitrophenol <0.81	1
4-Nitrophenol <1.7	1
Pentachlorophenol <1.3 40 1.3 ug/L 05/20/19 10:00 05/21/19 12:22 Phenol <0.77	1
Phenol <0.77 10 0.77 ug/L 05/20/19 10:00 05/21/19 12:22 2,4,6-Trichlorophenol <0.66	1
2,4,6-Trichlorophenol <0.66	1
m & p - Cresol <0.76 20 0.76 ug/L 05/20/19 10:00 05/21/19 12:22 o-Cresol <0.61	1
o-Cresol <0.61 10 0.61 ug/L 05/20/19 10:00 05/21/19 12:22 1,2-Diphenylhydrazine (as <0.79	1
1,2-Diphenylhydrazine (as <0.79 10 0.79 ug/L 05/20/19 10:00 05/21/19 12:22 Azobenzene) N-Nitrosodiethylamine <0.89	1
N-Nitrosodiethylamine <0.89 10 0.89 ug/L 05/20/19 10:00 05/21/19 12:22 N-Nitrosodi-n-butylamine <1.5	1
N-Nitrosodi-n-butylamine <1.5 10 1.5 ug/L 05/20/19 10:00 05/21/19 12:22 Pentachlorobenzene <0.86	1
Pentachlorobenzene <0.86 10 0.86 ug/L 05/20/19 10:00 05/21/19 12:22	1
5	1
Pyridine <0.66 10 0.66 ug/L 05/20/19 10:00 05/21/19 12:22	1
1,2,4,5-Tetrachlorobenzene <0.66 10 0.66 ug/L 05/20/19 10:00 05/21/19 12:22	1
2,4,5-Trichlorophenol <0.86 10 0.86 ug/L 05/20/19 10:00 05/21/19 12:22	1
2,3,4,6-Tetrachlorophenol <1.5 10 1.5 ug/L 05/20/19 10:00 05/21/19 12:22	1
bis (2-chloroisopropyl) ether <0.50 10 0.50 ug/L 05/20/19 10:00 05/21/19 12:22	1
Total Cresols, TCEQ Definition <0.76 10 0.76 ug/L 05/20/19 10:00 05/21/19 12:22	1
MB MB	

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dii Fac
2-Fluorophenol (Surr)	70	10 - 12	0 05/20/19 10:00	05/21/19 12:22	1
Phenol-d5 (Surr)	71	10 - 12	0 05/20/19 10:00	05/21/19 12:22	1
Nitrobenzene-d5 (Surr)	74	26 - 12	0 05/20/19 10:00	05/21/19 12:22	1
2-Fluorobiphenyl	81	22 - 12	0 05/20/19 10:00	05/21/19 12:22	1
2,4,6-Tribromophenol (Surr)	75	24 - 13	1 05/20/19 10:00	05/21/19 12:22	1
Terphenyl-d14 (Surr)	97	10 - 13	4 05/20/19 10:00	05/21/19 12:22	1

Lab Sample ID: LCS 560-162785/2-A

Matrix: Water

Analysis Batch: 162808							Prep Batch: 162785
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	200	185		ug/L		92	47 - 145
Acenaphthylene	200	187		ug/L		94	33 - 145

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Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID:	LCS	560-162785/2-A
Matrix: Water		

Matrix: Water							Prep Type: Total/NA
Analysis Batch: 162808							Prep Batch: 162785
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Anthracene	200	176		ug/L		88	27 - 133
Benzidine	200	173		ug/L		87	10 - 120
Benzo[a]anthracene	200	206		ug/L		103	33 - 143
3,4-Benzofluoranthene	200	194		ug/L		97	24 - 159
Benzo[k]fluoranthene	200	210		ug/L		105	11 _ 162
Benzo[g,h,i]perylene	200	200		ug/L		100	1 _ 219
Benzo[a]pyrene	200	175		ug/L		87	17 - 163
Butyl benzyl phthalate	200	187		ug/L		94	1 ₋ 152
Bis(2-chloroethoxy)methane	200	163		ug/L		82	33 - 184
Bis(2-chloroethyl)ether	200	175		ug/L		88	12 - 158
Bis(2-ethylhexyl) phthalate	200	189		ug/L		94	8 - 158
4-Bromophenyl phenyl ether	200	171		ug/L		86	53 - 127
2-Chloronaphthalene	200	184		ug/L		92	60 - 118
4-Chlorophenyl phenyl ether	200	196		ug/L		98	25 - 158
Chrysene	200	196		ug/L		98	17 _ 168
Dibenz(a,h)anthracene	200	188		ug/L		94	1 - 227
1,2-Dichlorobenzene	200	149		ug/L		74	32 - 129
1.3-Dichlorobenzene	200	146		ua/L		73	1 - 172
1.4-Dichlorobenzene	200	149		ua/L		74	20 - 124
3.3'-Dichlorobenzidine	200	208		ua/L		104	1 - 262
Diethyl phthalate	200	202		ua/L		101	1 - 114
Dimethyl phthalate	200	191		ug/l		96	1 - 112
Di-n-butyl ohthalate	200	183		ug/l		92	1 - 118
Di-n-octyl phthalate	200	194		ug/l		97	4 - 146
2 4-Dinitrotoluene	200	203		ug/l		102	39 139
2 6-Dinitrotoluene	200	201		ug/L		101	50 158
Fluoranthene	200	184		ug/l		92	26 - 137
Fluorene	200	202		ug/L		101	59 121
Hexachlorobenzene	200	173		ug/L		87	1 152
Hexachlorobutadiene	200	162		ug/L		81	24 116
Hexachlorocyclopentadiene	200	131		ug/L		65	10 120
Hexachloroethane	200	152		ug/L		76	40 113
	200	192		ug/L		04	40 - 113
	200	170		ug/L		94 85	21 106
	200	160		ug/L		00	21 - 190
Nitrobonzono	200	167		ug/L		00	21 - 100
	200	107		uy/L		04	55 - 160 05 - 140
	200	102		ug/L		81	25 - 110
N-Nitrosodi-n-propylamine	200	183		ug/L		92	1 - 230
N-Nitrosodiphenylamine	200	190		ug/L		95	50 - 110
Phenanthrene	200	195		ug/L		98	54 - 120
Pyrene	200	204		ug/L		102	52 - 115
1,2,4-Irichlorobenzene	200	161		ug/L		80	44 - 142
p-Unioro-m-cresol	200	166		ug/L		83	22 - 147
2-Chlorophenol	200	155		ug/L		77	23 - 134
2,4-Dichlorophenol	200	158		ug/L		79	39 - 135
2,4-Dimethylphenol	200	166		ug/L		83	32 - 119
2,4-Dinitrophenol	400	309		ug/L		77	1 _ 191
4,6-Dinitro-o-cresol	400	312		ug/L		78	1 _ 181
2-Nitrophenol	200	173		ug/L		86	29 - 182

Client Sample ID: Lab Control Sample

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample	ID:	LCS	560- 1	627	'85/2-A
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Matrix: Water							Prep Type: Total/NA
Analysis Batch: 162808							Prep Batch: 162785
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
4-Nitrophenol	400	342		ug/L		86	1 - 132
Pentachlorophenol	400	289		ug/L		72	14 - 176
Phenol	200	143		ug/L		72	5 - 112
2,4,6-Trichlorophenol	200	173		ug/L		86	37 _ 144
m & p - Cresol	200	170		ug/L		85	30 - 110
o-Cresol	200	159		ug/L		79	40 - 110
1,2-Diphenylhydrazine (as	200	171		ug/L		85	53 - 122
Azobenzene)							
N-Nitrosodiethylamine	200	143		ug/L		72	48 - 120
N-Nitrosodi-n-butylamine	200	156		ug/L		78	60 - 120
Pentachlorobenzene	200	135		ug/L		68	55 - 120
Pyridine	400	272		ug/L		68	10 - 120
1,2,4,5-Tetrachlorobenzene	200	179		ug/L		90	50 - 120
2,4,5-Trichlorophenol	200	160		ug/L		80	50 - 120
2,3,4,6-Tetrachlorophenol	200	189		ug/L		94	59 ₋ 120
bis (2-chloroisopropyl) ether	200	155		ug/L		77	36 - 166
Total Cresols, TCEQ Definition	400	329		ug/L		82	30 - 110

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorophenol (Surr)	65		10 - 120
Phenol-d5 (Surr)	70		10 - 120
Nitrobenzene-d5 (Surr)	90		26 - 120
2-Fluorobiphenyl	79		22 - 120
2,4,6-Tribromophenol (Surr)	79		24 - 131
Terphenyl-d14 (Surr)	85		10 - 134

Lab Sample ID: LCSD 560-162785/3-A Matrix: Water

Analysis Batch: 162808						Prep Batch:		62785
	Spike	LCSD	LCSD			%Rec.		RPD
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	200	183	ug/L		91	47 _ 145	1	27.6
Acenaphthylene	200	188	ug/L		94	33 - 145	0	40.2
Anthracene	200	177	ug/L		88	27 _ 133	0	32.0
Benzidine	200	171	ug/L		86	10 _ 120	1	30.0
Benzo[a]anthracene	200	206	ug/L		103	33 - 143	0	27.6
3,4-Benzofluoranthene	200	192	ug/L		96	24 _ 159	1	38.8
Benzo[k]fluoranthene	200	209	ug/L		105	11 - 162	0	32.3
Benzo[g,h,i]perylene	200	200	ug/L		100	1 _ 219	0	58.9
Benzo[a]pyrene	200	173	ug/L		86	17 _ 163	1	39.0
Butyl benzyl phthalate	200	184	ug/L		92	1 - 152	2	23.4
Bis(2-chloroethoxy)methane	200	164	ug/L		82	33 - 184	0	34.5
Bis(2-chloroethyl)ether	200	170	ug/L		85	12 _ 158	3	55.0
Bis(2-ethylhexyl) phthalate	200	189	ug/L		95	8 _ 158	0	41.1
4-Bromophenyl phenyl ether	200	171	ug/L		86	53 - 127	0	23.0
2-Chloronaphthalene	200	183	ug/L		91	60 - 118	1	20.0
4-Chlorophenyl phenyl ether	200	194	ug/L		97	25 _ 158	1	33.4
Chrysene	200	196	ug/L		98	17 - 168	0	48.3
Dibenz(a,h)anthracene	200	187	ug/L		94	1 _ 227	0	70.0

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Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Type: Total/NA

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Client Sample ID: Lab Control Sample Dup

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 560-162785/3-A Matrix: Water

mau	I	alei	
Ana	lvsis	Batch	: 162808

Analysis Batch: 162808						Prep Batch: 16278		
	Spike	LCSD	LCSD			%Rec.		RPD
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	RPD	Limit
1,2-Dichlorobenzene	200	146	ug/L		73	32 _ 129	2	30.9
1,3-Dichlorobenzene	200	144	ug/L		72	1 - 172	1	41.7
1,4-Dichlorobenzene	200	145	ug/L		73	20 - 124	3	32.1
3,3'-Dichlorobenzidine	200	207	ug/L		104	1 - 262	0	71.4
Diethyl phthalate	200	194	ug/L		97	1 _ 114	4	26.5
Dimethyl phthalate	200	186	ug/L		93	1 _ 112	3	23.2
Di-n-butyl phthalate	200	180	ug/L		90	1 - 118	1	20.7
Di-n-octyl phthalate	200	194	ug/L		97	4 - 146	0	31.4
2,4-Dinitrotoluene	200	206	ug/L		103	39 _ 139	1	21.8
2,6-Dinitrotoluene	200	198	ug/L		99	50 _ 158	2	29.6
Fluoranthene	200	184	ug/L		92	26 - 137	0	32.8
Fluorene	200	199	ug/L		99	59 - 121	2	20.7
Hexachlorobenzene	200	175	ug/L		88	1 _ 152	1	24.9
Hexachlorobutadiene	200	152	ug/L		76	24 - 116	6	26.3
Hexachlorocyclopentadiene	200	124	ug/L		62	10 _ 120	5	30.0
Hexachloroethane	200	148	ug/L		74	40 _ 113	3	24.5
Indeno[1,2,3-cd]pyrene	200	187	ug/L		93	1 - 171	1	44.6
Isophorone	200	169	ug/L		84	21 - 196	0	63.3
Naphthalene	200	160	ug/L		80	21 - 133	0	30.1
Nitrobenzene	200	165	ug/L		82	35 - 180	2	39.3
N-Nitrosodimethylamine	200	158	ug/L		79	25 _ 110	2	30.0
N-Nitrosodi-n-propylamine	200	183	ug/L		92	1 - 230	0	55.4
N-Nitrosodiphenylamine	200	189	ug/L		95	50 ₋ 110	0	30.0
Phenanthrene	200	195	ug/L		98	54 _ 120	0	20.6
Pyrene	200	200	ug/L		100	52 ₋ 115	2	25.2
1.2.4-Trichlorobenzene	200	156	ug/L		78	44 - 142	3	28.1
p-Chloro-m-cresol	200	160	ug/L		80	22 - 147	3	37.2
2-Chlorophenol	200	149	ug/L		74	23 - 134	4	28.7
2.4-Dichlorophenol	200	150	ua/L		75	39 - 135	5	26.4
2,4-Dimethylphenol	200	166	ug/L		83	32 - 119	0	26.1
2,4-Dinitrophenol	400	291	ug/L		73	1 _ 191	6	49.8
4.6-Dinitro-o-cresol	400	300	ua/L		75	1 - 181	4	40.0
2-Nitrophenol	200	163	ua/L		82	29 - 182	6	35.2
4-Nitrophenol	400	315	ua/L		79	1 - 132	8	47.2
Pentachlorophenol	400	281	ug/L		70	14 _ 176	3	48.9
Phenol	200	132	ua/L		66	5 - 112	8	22.6
2.4.6-Trichlorophenol	200	168	ua/L		84	37 - 144	3	31.7
m & p - Cresol	200	163	ua/L		81	30 - 110	4	30.0
o-Cresol	200	153	ua/L		77	40 - 110	4	30.0
1 2-Dinhenvlhydrazine (as	200	172	ug/L		86	53 - 122		30.0
Azobenzene) N-Nitrosodiethylamine	200	147	ug/l		74	48 120	3	30.0
N-Nitrosodi-n-butvlamine	200	154	ug/L		77	60 _ 120	1	30.0
Pentachlorobenzene	200	137	ug/L		68	55 - 120	· · · · · · · · · · · · · · · · · · ·	30.0
Pvridine	400	272	ug/L		68	10 _ 120		30.0
1 2 4 5-Tetrachlorobenzene	200	175	ug/L		87	50 - 120	3	30
24 5-Trichlorophenol	200	155	ug/L		78	50 120		40.0
2.3.4.6-Tetrachlorophenol	200	172	ug/L		86	59 120	a	40.0
his (2-chloroisopropyl) ether	200	153	ug/L		77	36 - 166	1	40.0
	200	100	ug/L			00 - 100		10.0

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 560-16					Client Sample ID: Lab Control Sample										
Matrix: Water									Prep I	ype: Io	tal/NA				
Analysis Batch: 162808									Prep I	Batch: 1	62785				
			Spike	LCSD	LCSD				%Rec.		RPD				
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit				
Total Cresols, TCEQ Definition			400	316		ug/L		79	30 - 110	4					
	LCSD	LCSD													
Surrogate	%Recovery	Qualifier	Limits												
2-Fluorophenol (Surr)	61		10 - 120												
Phenol-d5 (Surr)	64		10 - 120												
Nitrobenzene-d5 (Surr)	90		26 - 120												
2-Fluorobiphenyl	85		22 _ 120												
2,4,6-Tribromophenol (Surr)	77		24 - 131												
Terphenyl-d14 (Surr)	85		10 _ 134												

Method: D7065-11 - Determination of Nonylphenols

Lab Sample ID: MB 280-459093/1- Matrix: Water Analysis Batch: 460869	A						Client Sa	mple ID: Metho Prep Type: T Prep Batch:	d Blank [·] otal/NA 459093
	MB	МВ							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nonylphenol	<1.1		5.0	1.1	ug/L		05/22/19 15:04	06/07/19 17:31	1
Nonylphenol diethoxylate	<4.6		20	4.6	ug/L		05/22/19 15:04	06/07/19 17:31	1
Nonylphenol monoethoxylate	<2.1		10	2.1	ug/L		05/22/19 15:04	06/07/19 17:31	1
Bisphenol-A	<1.0		2.1	1.0	ug/L		05/22/19 15:04	06/07/19 17:31	1
4-tert-Octylphenol	<0.28		1.0	0.28	ug/L		05/22/19 15:04	06/07/19 17:31	1
	МВ	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-nonylphenol (Surr)	118	X	58 - 115				05/22/19 15:04	06/07/19 17:31	1
4-nonylphenol monoethoxylate (Surr)	103		54 _ 139				05/22/19 15:04	06/07/19 17:31	1
Lab Sample ID: LCS 280-459093/2	2-A					c	lient Sample I	D: Lab Control	Sample
Matrix: Water								Prep Type: T	otal/NA

Analysis Batch: 460869							Prep Batc	h: 459093
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Nonylphenol	50.2	60.8		ug/L		121	56 - 125	
Nonylphenol diethoxylate	201	235		ug/L		117	54 ₋ 128	
Nonylphenol monoethoxylate	100	120		ug/L		119	57 ₋ 125	
Bisphenol-A	10.0	11.6		ug/L		115	52 ₋ 125	
4-tert-Octylphenol	10.0	12.6		ug/L		125	55 - 125	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-nonylphenol (Surr)	122	X	58 - 115
4-nonylphenol monoethoxylate	113		54 _ 139
(Surr)			

Method: D7065-11 - Determination of Nonylphenols (Continued)

Matrix: Water Analysis Batch: 460869 Spike LCSD LCSD LCSD Main (Display) D %Rec 123 Analyte 50.2 61.7 ug/L 123 123 Nonylphenol 00 121 ug/L 114 Nonylphenol monoethoxylate 100 121 ug/L 120 Bisphenol-A 100 11.7 ug/L 128 LCSD LCSD LCSD LCSD LCSD LCSD Surrogate %Recovery Qualifier Limits 128 128 LCSD LCSD LCSD Clear Stange Stange Gurd 115 54 - 139 128 128 Clear 25 X 58 - 115 54 - 139 128 Class POlychlorinated Biphenyls (PCBs) (GC) Client Stange 128 Lab Sample ID: MB 180-279332/1-A MB Matrix: Water Analyse Result Qualifier Result 0.0057 0.010 0.0057 0.011 05/21/19 1144 05/	Prep Type Prep Batc %Rec. Limits F 56 - 125 54 - 128 57 - 125 52 - 125 52 - 125 55 - 125 3mple ID: Mett Prep Type Prep Batc	e: Total/N. ch: 45909 RPD 2 2 2 2 2 2 2 2 2 2 2 2 2
Analysis Batch: 460869 Spike LCSD LCSD LCSD LCSD Analyte 50.2 61.7 ug/L 123 Nonylphenol 201 230 ug/L 114 Nonylphenol diethoxylate 100 121 ug/L 120 Bisphenol-A 10.0 11.7 ug/L 117 4-tert-Octylphenol 10.0 12.8 ug/L 128 Surrogate %Recovery Qualifier Limits - ug/L 128 Surrogate %Recovery Qualifier Limits - <td< th=""><th>Prep Batc %Rec. Limits F 56 - 125 54 - 128 57 - 125 52 - 125 55 - 125 55 - 125</th><th>ch: 45909 RPD 2 2 2 2 2 2 2 2 2 2 2 2 2</th></td<>	Prep Batc %Rec. Limits F 56 - 125 54 - 128 57 - 125 52 - 125 55 - 125 55 - 125	ch: 45909 RPD 2 2 2 2 2 2 2 2 2 2 2 2 2
Spike LCSD LCSD Analyte Added Result Qualifier Unit D %Rec Nonylphenol 50.2 61.7 ug/L 123 123 Nonylphenol diethoxylate 201 230 ug/L 114 120 Bisphenol-A 10.0 121 ug/L 120 121 120 128 128 125 128	%Rec. Limits F 56 - 125 54 - 128 57 - 125 52 - 125 55 - 125 55 - 125 Sample ID: Mett Prep Type Prep Batc	RPD Lim 2 2 1 2 2 2 1 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 3 3 4 5 5 Total/N. ch: 27933 3
Analyte Added Result Qualifier Unit D %Rec Nonylphenol 50.2 61.7 ug/L 123 Nonylphenol diethoxylate 201 230 ug/L 114 Nonylphenol monoethoxylate 100 121 ug/L 120 Bisphenol-A 10.0 11.7 ug/L 128 Surrogate %Recovery Qualifier Limits ug/L 128 4-nonylphenol (Surr) 125 X 58.115 58.115 128 128 Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) K Client S Client S Analyte 115 54.139 58.115 54.139 115 Analysis Batch: 279332/1-A MB MB Client S Client S PCB-1221 <0.0057 0.010 0.0057 0.97/L 05/21/19 11.47 PCB-1221 <0.0052 0.010 0.0052 05/21/19 11.47 05/21/19 11.47 PCB-1222 <0.0052 0.010 0.0052	Limits F 56 - 125 54 - 128 57 - 125 52 - 125 55 - 125 55 - 125	RPD Lim 2 2 1 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 2
Nonylphenol 50.2 61.7 ug/L 123 Nonylphenol diethoxylate 201 230 ug/L 114 Nonylphenol monoethoxylate 100 121 ug/L 120 Bisphenol-A 10.0 11.7 ug/L 117 4-tert-Octylphenol 10.0 11.7 ug/L 128 Surrogate %Recovery Qualifier Limits 4-nonylphenol monoethoxylate 115 58 - 115 4-nonylphenol (Surr) 125 X 58 - 115 Surrogate %Recovery Qualifier Limits 54 - 139 54 - 139 Surro Surro Surro Surro Surro Surro Surro Aenolybenol monoethoxylate 115 54 - 139 Surro S	56 - 125 54 - 128 57 - 125 52 - 125 55 - 125 55 - 125	2 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Nonylphenol diethoxylate 201 230 ug/L 114 Nonylphenol monoethoxylate 100 121 ug/L 120 Bisphenol-A 10.0 11.7 ug/L 117 4-tert-Octylphenol 10.0 12.8 ug/L 128 LCSD LCSD LCSD Limits ug/L 128 4-nonylphenol (Surr) 125 X 58 - 115 54 - 139 125 58 - 115 139 125 128 128 128 115 54 - 139 128 </td <td>54 - 128 57 - 125 52 - 125 55 - 125</td> <td>2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2</td>	54 - 128 57 - 125 52 - 125 55 - 125	2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Nonylphenol monoethoxylate 100 121 ug/L 120 Bisphenol-A 10.0 11.7 ug/L 117 4-tert-Octylphenol 10.0 12.8 * ug/L 128 LCSD LCSD LCSD Limits ug/L 128 4-nonylphenol (Surr) 125 X 58.115 54.139 58.115 4-nonylphenol monoethoxylate 115 54.139 58.115 54.139 Client S (Surr) 115 54.139 Client S Client S Matrix: Water Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	57 - 125 52 - 125 55 - 125	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Bisphenol-A 10.0 11.7 ug/L 117 4-tert-Octylphenol 10.0 12.8 ug/L 128 Surrogate %Recovery Qualifier Limits 125 125 58.115 4-nonylphenol (Surr) 125 X 58.115 54.139 125 54.139 (Surrogate %Recovery Qualifier Limits 58.115 4-nonylphenol monoethoxylate 115 54.139 54.139 Client 5 (Surr) 115 54.139 Client 5 56.115 Lethod: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Lab Sample ID: MB 180-279332/1-A MB MB Matrix: Water Analysis Batch: 279375 Client 5 Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	52 - 125 55 - 125 Sample ID: Met Prep Type Prep Batc	thod Blan e: Total/N.
4-tert-Octylphenol 10.0 12.8 * ug/L 128 LCSD LCSD LCSD LCSD Surrogate %Recovery Qualifier Limits 4-nonylphenol (Surr) 125 X 58 - 115 4-nonylphenol monoethoxylate 115 54 - 139 (Surr) 115 54 - 139 (Surr) 115 54 - 139 Iethod: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Client £ Lab Sample ID: MB 180-279332/1-A Client £ Matrix: Water Analysis Batch: 279375 MB <mb< td=""> PCB-1221 <0.0057</mb<>	55 - 125 Sample ID: Mether Prep Type Prep Bato	2 2 thod Blan e: Total/N. ch: 27933
LCSD LCSD Surrogate %Recovery Qualifier Limits 4-nonylphenol (Surr) 125 x 58 - 115 4-nonylphenol monoethoxylate 115 54 - 139 (Surr) 115 54 - 139 Iethod: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Client S Lab Sample ID: MB 180-279332/1-A Client S Matrix: Water Analysis Batch: 279375 Client S Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057 0.010 0.0057 05/21/19 11:43 PCB-1232 <0.0052 0.010 0.0025 05/21/19 11:43 PCB-124 <0.0091 0.010 0.0048 ug/L 05/21/19 11:43 PCB-1242 <0.0091 0.010 0.0048 ug/L 05/21/19 11:43 PCB-1242 <0.0091 0.010 0.0091 0/21/19 11:43 PCB-1242 <0.0091 0.010 0.0091 0/21/19 11:43 PCB-1242 <0.0095	Sample ID: Met Prep Type Prep Batc	thod Blan e: Total/N. ch: 27933
Surrogate %Recovery Qualifier Limits 4-nonylphenol (Surr) 125 X 58 - 115 4-nonylphenol monoethoxylate 115 54 - 139 (Surr) 115 54 - 139 125 X 58 - 115 4-nonylphenol monoethoxylate 115 54 - 139 (Surr) 125 X 58 - 115 125 X 58 - 115 Iethod: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Client \$ Lab Sample ID: MB 180-279332/1-A Client \$ Client \$ Matrix: Water Analysis Batch: 279375 MB MB PCB-1221 <0.0057 0.010 0.0057 ug/L 05/21/19 11:49 PCB-1232 <0.0052 0.010 0.0052 ug/L 05/21/19 11:49 PCB-1242 <0.0052 0.010 0.0052 ug/L 05/21/19 11:49 PCB-1242 <0.0091 0.010 0.0091 ug/L 05/21/19 11:49 PCB-1248 <0.0030 0.010 0.0030 ug/L	Sample ID: Met Prep Type Prep Batc	thod Blan e: Total/N. ch: 27933
Surrogate Surrecovery Qualifier Limits 4-nonylphenol (Surr) 125 X 58 - 115 4-nonylphenol monoethoxylate 115 54 - 139 (Surr) Iethod: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Client S Lab Sample ID: MB 180-279332/1-A Client S Matrix: Water Analysis Batch: 279375 Client S PCB-1221 <0.0057 0.010 0.0057 ug/L 05/21/19 11:44 PCB-1232 <0.0052 0.010 0.0052 ug/L 05/21/19 11:44 PCB-1242 <0.0091 0.010 0.0091 ug/L 05/21/19 11:44 PCB-1248 <0.0030 0.010 0.0030 ug/L 05/21/19 11:44 PCB-1254 <0.0095 0.010 0.0030 ug/L 05/21/19 11:44	Sample ID: Met Prep Type Prep Batc	thod Blan e: Total/N. ch: 27933
4-nonylphenol (Sulf) 125 X 56 - 113 4-nonylphenol monoethoxylate 115 54 - 139 (Surr) 115 54 - 139 Nethod: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Lab Sample ID: MB 180-279332/1-A Client S Matrix: Water Analysis Batch: 279375 MB MB 0.0057 0.010 0.0057 0g/L 05/21/19 11:42 PCB-1221 <0.0057 0.010 0.0052 0g/L 05/21/19 11:42 PCB-1232 <0.0052 0.010 0.0052 0g/L 05/21/19 11:42 PCB-1242 <0.0091 0.010 0.0091 0.5/21/19 11:42 PCB-1248 <0.0030 0.010 0.0091 0.5/21/19 11:42 PCB-1248 <0.0030 0.010 0.0091 0.5/21/19 11:42 PCB-1254 <0.0030 0.010 0.0091 0.5/21/19 11:42 PCB-1254 <0.0030 0.010 0.0095 0g/L 05/21/19 11:42 PCB-1254 <0.0095 0.010 0.0095 0g/L 05/21/19 11:42 PCB-1254 <0.0095 0.010 <th>Sample ID: Met Prep Type Prep Bato</th> <th>thod Blan e: Total/N ch: 27933</th>	Sample ID: Met Prep Type Prep Bato	thod Blan e: Total/N ch: 27933
4-nonyipnenoi monoetnoxylate 115 54 - 139 (Surr) Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Lab Sample ID: MB 180-279332/1-A Client \$ Matrix: Water Analysis Batch: 279375 Client \$ Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	Sample ID: Met Prep Type Prep Batc	thod Blan e: Total/N ch: 27933
Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Lab Sample ID: MB 180-279332/1-A Client \$ Matrix: Water Analysis Batch: 279375 MB MB Analyte Result Qualifier RL MDL Unit D Prepared Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057 0.010 0.0057 U,010 0.0052 U,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0.0052 0,010 0,0052 0,010 0,0052 0,010 0,0052 0,010 0,0021	Sample ID: Met Prep Type Prep Batc	thod Blan e: Total/N ch: 27933
Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) Lab Sample ID: MB 180-279332/1-A Matrix: Water Client 5 Analysis Batch: 279375 Client 5 MB MB Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	Sample ID: Met Prep Type Prep Bato	hod Blan e: Total/N
Lab Sample ID: MB 180-279332/1-A Client \$ Matrix: Water Analysis Batch: 279375 MB MB Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057 0.010 0.0057 ug/L 05/21/19 11:45 PCB-1232 <0.0052 0.010 0.0052 ug/L 05/21/19 11:45 PCB-1016 <0.0048 0.010 0.0091 ug/L 05/21/19 11:45 PCB-1242 <0.0091 0.010 0.0091 ug/L 05/21/19 11:45 PCB-1248 <0.0030 0.010 0.0091 ug/L 05/21/19 11:45 PCB-1254 <0.0035 0.010 0.0095 ug/L 05/21/19 11:45	Sample ID: Met Prep Type Prep Bato	thod Blan e: Total/N ch: 27933
Lab Sample ID: MB 180-279332/1-A Client \$ Matrix: Water Analysis Batch: 279375 MB MB Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	Sample ID: Met Prep Type Prep Bato	thod Blan e: Total/N ch: 27933
Matrix: Water Analysis Batch: 279375 MB MB Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	Prep Type Prep Bato	e: Total/N ch: 27933
Analysis Batch: 279375 MB MB Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057	Prep Bate	ch: 27933
MB MB Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057		
Analyte Result Qualifier RL MDL Unit D Prepared PCB-1221 <0.0057 0.010 0.0057 ug/L 05/21/19 11:4: PCB-1232 <0.0052 0.010 0.0052 ug/L 05/21/19 11:4: PCB-1232 <0.0052 0.010 0.0052 ug/L 05/21/19 11:4: PCB-1232 <0.0048 0.010 0.0048 ug/L 05/21/19 11:4: PCB-1242 <0.0091 0.010 0.0091 ug/L 05/21/19 11:4: PCB-1248 <0.0030 0.010 0.0030 ug/L 05/21/19 11:4: PCB-1254 <0.0095 0.010 0.0095 ug/L 05/21/19 11:4: PCB-1254 <0.0095 0.010 0.0095 ug/L 05/21/19 11:4: PCB-1254 <0.0095 0.010 0.0095 ug/L 05/21/19 11:4:		
PCB-1221 <0.0057 0.010 0.0057 ug/L 05/21/19 11:44 PCB-1232 <0.0052	Analyzed	Dil Fa
PCB-1232 <0.0052 0.010 0.0052 ug/L 05/21/19 11:4: PCB-1016 <0.0048	5 05/22/19 17:20	0
PCB-1016 <0.0048 0.010 0.0048 ug/L 05/21/19 11:44 PCB-1242 <0.0091	5 05/22/19 17:20	0
PCB-1242 <0.0091 0.010 0.0091 ug/L 05/21/19 11:4: PCB-1248 <0.0030	5 05/22/19 17:20	0
PCB-1248 <0.0030 0.010 0.0030 ug/L 05/21/19 11:4: PCB-1254 <0.0095	5 05/22/19 17:20	0
PCB-1254 <0.0095 0.010 0.0095 ug/L 05/21/19 11:4!	5 05/22/19 17:20	0
	5 05/22/19 17:20	0
FUD-1200 - 1200	5 05/22/19 17:20	0
MB MB	A	D.1
Surrogate %Recovery Qualitier Limits Prepared	Analyzed	
Tetrachloro-m-xylene 88 38 - 146 05/21/19 11:44	5 05/22/19 17:20	0
Lab Sample ID: LCS 180-270332//LA	D: Lab Contr	rol Samol
Matrix: Water	Prop Type	· Total/N
Analysis Retable 270275	Prop Pate	
	%Rec	UII. 27933
Analyte Added Result Auglifier Unit D %Pee	l imite	
Audeu Result Guainer Ont D %Rec PCB-1016 1.00 0.047 1.00// 0.5	50 140	
PCP 1260 1.00 0.053	10 140	
FGB-1200 1.00 0.903 Ug/L 95	10 - 140	
LCS LCS		
Surrogate %Recovery Qualifier Limits		
Tetrachloro-m-xylene 113 38 - 146		

Lab Sample ID: LCSD 180-279332/5-A		Client Sample ID: Lab Control Sample Du							
Matrix: Water	Matrix: Water						Prep T	ype: To	tal/NA
Analysis Batch: 279375						Prep I	Batch: 2	79332	
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	1.00	0.986		ug/L		99	50 _ 140	4	35
PCB-1260	1.00	0.926		ug/L		93	10 _ 140	3	35

Method: EPA 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: LCSD 180-27	'9332/5-A						Cli	ient Sai	mple ID: L	ab Control Sam	ple Dup
Matrix: Water										Prep Type: "	Total/NA
Analysis Batch: 279375										Prep Batch	: 279332
· · · · · , · · · · · · · · · · · · · · · · · · ·											
	LCSD LCS	D									
Surrogate	%Recovery Qua	lifier	Limits								
Tetrachloro-m-xylene	104		38 - 146								
Method: EPA 608 - Organ	ochlorine Pest	icides/P	CBs in Wate	ər							
Lab Sample ID: MB 180-2793	32/1-A								Client Sa	ample ID: Metho	od Blank
Matrix: Water										Prep Type: 7	Total/NA
Analysis Batch: 279668										Prep Batch	: 279332
	MB	MB									
Analyte	Result	Qualifier	RL	Ν	MDL	Unit		D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.00021		0.0013	0.00	021	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
4,4'-DDE	<0.00011		0.0013	0.00	011	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
4,4'-DDT	<0.00030		0.0013	0.00	030	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Aldrin	<0.00012		0.0013	0.00	012	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
alpha-BHC	<0.00012		0.0013	0.00	012	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
cis-Chlordane	<0.00014		0.0013	0.00	014	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
beta-BHC	<0.00015		0.0013	0.00	0015	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Chlordane (technical)	<0.0015		0.013	0.0	015	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
delta-BHC	<0.00034		0.0013	0.00	034	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Dieldrin	<0.00013		0.0013	0.00	013	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Endosulfan, alpha	<0.00015		0.0013	0.00	015	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Endosulfan, beta	<0.00012		0.0013	0.00	012	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Endosulfan sulfate	<0.00029		0.0013	0.00	029	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Endrin	<0.00023		0.0013	0.00	023	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Endrin aldehyde	<0.00024		0.0013	0.00	024	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Endrin ketone	<0.00017		0.0013	0.00	017	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
gamma-BHC (Lindane)	<0.00012		0.0013	0.00	012	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
trans-Chlordane	<0.00012		0.0013	0.00	012	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Heptachlor	<0.00045		0.0013	0.00	045	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Heptachlor epoxide	<0.00014		0.0013	0.00	014	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Methoxychlor	<0.00034		0.0013	0.00	034	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Mirex	<0.00021		0.0013	0.00	021	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
Toxaphene	<0.011		0.10	0.	.011	ug/L		05/	/21/19 11:45	05/24/19 15:46	1
	MB	MB MB	••••						_ ,		
	%Recovery	Qualifier						-05	Prepared	Analyzed	Dil Fac
Tetrachioro-m-xylene	/5		38 - 146					05/	/21/19 11:45	05/24/19 15:46	1
DCB Decachiorobiphenyi (Surr)	92		42 - 150					05/	/21/19 11:45	05/24/19 15:46	1
Lab Sample ID: LCS 180-279	332/2-1							Clion	t Sample	ID: Lab Control	Samplo
Matrix: Wator	JJZ/Z-A							Cilei	it Sample	Prop Type:	
Analysis Batch: 279668										Prop Batch	· 270222
Analysis Batch. 279000			Snike	LCS	1.05					%Rec	. 219332
Analyte			Added	Result	Quali	ifier	Unit	л	%Rec	Limits	
4.4'-DDD			0.0250	0.0210			ua/l		84	31 - 141	
4 4'-DDF			0.0250	0.0183			ua/l		73	30 - 145	
4 4'-DDT			0.0250	0.0200			ug/L		, 0 80	25 - 150	
Aldrin			0.0250	0.0200			ug/L		62	42 140	
alpha-BHC			0.0250	0.0158			ug/L		63	37 - 140	
cis-Chlordane			0.0250	0.0173			~ . 9′⊏ ⊔0/l		69	45 - 140	
			0.0200	0.0170			~g, =		00		

Eurofins TestAmerica, Corpus Christi

Client Sample ID: Lab Control Sample

Method: EPA 608 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID:	LCS 180-279332/2-A
Matrix: Wator	

Spike				Prep Batch: 2/9332
•	LCS LCS			%Rec.
Added	Result Qualifier	Unit D	%Rec	Limits
0.0250	0.0160	ug/L	64	17 _ 147
0.0250	0.0130	ug/L	52	19 - 140
0.0250	0.0168	ug/L	67	36 - 146
0.0250	0.0180	ug/L	72	45 _ 150
0.0250	0.0204	ug/L	81	10 _ 150
0.0250	0.0171	ug/L	69	26 - 144
0.0250	0.0189	ug/L	76	30 - 147
0.0250	0.0152	ug/L	61	56 - 125
0.0250	0.0181	ug/L	72	49 - 120
0.0250	0.0168	ug/L	67	32 - 140
0.0250	0.0168	ug/L	67	45 - 140
0.0250	0.0151	ug/L	60	34 - 140
0.0250	0.0169	ug/L	68	37 _ 142
0.0250	0.0223	ug/L	89	42 - 119
	0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250 0.0250	0.0250 0.0160 0.0250 0.0130 0.0250 0.0168 0.0250 0.0168 0.0250 0.0180 0.0250 0.024 0.0250 0.0171 0.0250 0.0189 0.0250 0.0152 0.0250 0.0181 0.0250 0.0168 0.0250 0.0168 0.0250 0.0151 0.0250 0.0151 0.0250 0.0169 0.0250 0.0223	0.0250 0.0160 ug/L 0.0250 0.0130 ug/L 0.0250 0.0168 ug/L 0.0250 0.0168 ug/L 0.0250 0.0180 ug/L 0.0250 0.0180 ug/L 0.0250 0.0204 ug/L 0.0250 0.0171 ug/L 0.0250 0.0189 ug/L 0.0250 0.0152 ug/L 0.0250 0.0181 ug/L 0.0250 0.0168 ug/L 0.0250 0.0168 ug/L 0.0250 0.0168 ug/L 0.0250 0.0168 ug/L 0.0250 0.0169 ug/L 0.0250 0.0151 ug/L 0.0250 0.0169 ug/L 0.0250 0.0223 ug/L	0.0250 0.0160 ug/L 64 0.0250 0.0130 ug/L 52 0.0250 0.0168 ug/L 67 0.0250 0.0180 ug/L 72 0.0250 0.0180 ug/L 72 0.0250 0.0204 ug/L 81 0.0250 0.0171 ug/L 69 0.0250 0.0189 ug/L 76 0.0250 0.0182 ug/L 61 0.0250 0.0181 ug/L 72 0.0250 0.0184 ug/L 67 0.0250 0.0184 ug/L 67 0.0250 0.0168 ug/L 67 0.0250 0.0168 ug/L 67 0.0250 0.0168 ug/L 60 0.0250 0.0169 ug/L 68 0.0250 0.0169 ug/L 89

	203	203	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	64		38 - 146
DCB Decachlorobiphenyl (Surr)	86		42 - 150

Lab Sample ID: LCSD 180-279332/3-A Matrix: Water Analysis Batch: 279668

Analysis Batch: 279668							Prep I	Batch: 2	79332
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
4,4'-DDD	0.0250	0.0207		ug/L		83	31 _ 141	1	35
4,4'-DDE	0.0250	0.0194		ug/L		78	30 - 145	6	35
4,4'-DDT	0.0250	0.0192		ug/L		77	25 _ 150	4	35
Aldrin	0.0250	0.0167		ug/L		67	42 - 140	7	35
alpha-BHC	0.0250	0.0173		ug/L		69	37 - 140	9	35
cis-Chlordane	0.0250	0.0171		ug/L		68	45 _ 140	1	35
beta-BHC	0.0250	0.0176		ug/L		70	17 - 147	9	35
delta-BHC	0.0250	0.0142		ug/L		57	19 _ 140	9	35
Dieldrin	0.0250	0.0171		ug/L		68	36 - 146	2	35
Endosulfan, alpha	0.0250	0.0189		ug/L		75	45 - 150	5	28
Endosulfan, beta	0.0250	0.0207		ug/L		83	10 _ 150	2	35
Endosulfan sulfate	0.0250	0.0177		ug/L		71	26 - 144	3	35
Endrin	0.0250	0.0185		ug/L		74	30 - 147	2	35
Endrin aldehyde	0.0250	0.0174		ug/L		70	56 _ 125	13	35
Endrin ketone	0.0250	0.0185		ug/L		74	49 - 120	3	30
gamma-BHC (Lindane)	0.0250	0.0172		ug/L		69	32 - 140	2	35
trans-Chlordane	0.0250	0.0170		ug/L		68	45 - 140	1	35
Heptachlor	0.0250	0.0171		ug/L		68	34 - 140	12	35
Heptachlor epoxide	0.0250	0.0175		ug/L		70	37 _ 142	3	26
Methoxychlor	0.0250	0.0212		ug/L		85	42 _ 119	5	30
Methoxychlor	0.0250	0.0212		ug/L		85	42 _ 119	5	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
Tetrachloro-m-xylene	68		38 - 146
DCB Decachlorobiphenyl (Surr)	78		42 _ 150

Furofine	TestAmerica	Cornus	Christi
Euroiins	restAmenca,	Corpus	CHIISU

Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA Prep Batch: 279332

Lab Sample ID: MB 180-279328/1-A

Matrix: Water

Analyte

Guthion

Chlorpyrifos

Demeton

Diazinon

Parathion

Malathion

Surrogate

Triphenylphosphate

Analysis Batch: 279371

MB MB

<0.051

<0.045

< 0.032

< 0.036

< 0.039

< 0.043

%Recovery

MB MB

95

Qualifier

Result Qualifier

Prep Type: Total/NA

Prep Batch: 279328

Dil Fac

1

1

1

1

1

Client Sample ID: Method Blank

Analyzed

05/22/19 06:32

05/22/19 06:32

05/22/19 06:32

05/22/19 06:32

05/22/19 06:32

05/22/19 06:32

Analyzed

05/22/19 06:32

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

6

1 1 Dil Fac

Lab Sample ID: LCS 180-279328/2-A Matrix: Water Analysis Batch: 279371

Analysis Batch: 279371							Prep Ba	atch: 279328
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Guthion	2.00	2.10		ug/L		105	56 _ 142	
Chlorpyrifos	2.00	2.34		ug/L		117	82 - 134	
Demeton	2.00	2.81		ug/L		140	10 - 150	
Diazinon	2.00	2.18		ug/L		109	58 ₋ 150	
Parathion	2.00	2.05		ug/L		103	79 ₋ 118	
Malathion	2.00	2.25		ug/L		113	81 - 123	

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Triphenylphosphate	96		69 - 130

Lab Sample ID: LCSD 180-279328/3-A Matrix: Water

Analysis Batch: 279371							Prep E	Batch: 2	79328
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Guthion	2.00	2.20		ug/L		110	56 - 142	5	15
Chlorpyrifos	2.00	2.37		ug/L		119	82 - 134	1	15
Demeton	2.00	2.42		ug/L		121	10 _ 150	15	28
Diazinon	2.00	2.22		ug/L		111	58 - 150	2	34
Parathion	2.00	2.09		ug/L		104	79 ₋ 118	2	15
Malathion	2.00	2.27		ug/L		113	81 ₋ 123	1	15
LCS	D LCSD								

Surrogate	%Recovery	Qualifier	Li
Triphenvlphosphate	96		69

imits 9 - 130

Method: 8321A - Hexachlorphene (LC/MS)

Lab Sample ID: MB 280-459027/12 Matrix: Water							Client S	ample ID: Metho Prep Type: 1	d Blank Fotal/NA
Analysis Batch: 459027									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorophene	<0.0049		0.30	0.0049	ug/L			05/22/19 11:39	1

Eurofins TestAmerica, Corpus Christi

RL

0.20

0.20

0.40

0.20

0.20

0.20

Limits

69 - 130

MDL Unit

0.051 ug/L

0.045 ug/L

0.032 ug/L

0.036 ug/L

0.039 ug/L

0.043 ug/L

D

Prepared

05/21/19 10:45

05/21/19 10:45

05/21/19 10:45

05/21/19 10:45

05/21/19 10:45

05/21/19 10:45

Prepared

05/21/19 10:45

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Job ID: 560-79907-1

Method: 8321A - Hexachlorphene (LC/MS)

Lab Sample ID: LCS 280-459027/13 Matrix: Water	Lab Sample ID: LCS 280-459027/13 Matrix: Water Analysis Batch: 459027						ID: Lab Con Prep Typ	trol Sample e: Total/NA
Analysis Batch: 459027								
	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Hexachlorophene	0.496	0.483		ug/L		97	74 - 142	
Method: 1631E - Mercury, Low Level (C)	/AFS)							
– Lab Sample ID: MB 240-382159/1-A						Client S	ample ID: Me	thod Blank
Matrix: Water							Prep Typ	e: Total/NA

Analysis Batch: 382540											Prep Batc	h: 382159
	MB	MB										
Analyte	Result	Qualifier	RL		MDL	Unit		D	P	repared	Analyzed	Dil Fac
Mercury	<0.00014		0.00050	0.0	0014	ug/L			05/2	0/19 14:30	05/21/19 16:24	1
								C	lient	Sample	ID: Lab Contro	ol Sample
Matrix: Water											Prep Type:	Total/NA
Analysis Batch: 382540											Prep Batc	h: 382159
			Spike	LCS	LCS						%Rec.	
Analyte			Added	Result	Qual	lifier	Unit		D	%Rec	Limits	
Mercury			0.00500	0.00513			ug/L		_	103	77 - 123	

Method: EPA 200.8 Rev 5 - Metals (ICP/MS)

Lab Sample ID: MB 180-279350/1-A								Client Sample ID: Method Blank				
Matrix: Water									Prep 1	Type: Total Rec	overable	
Analysis Batch: 279515										Prep Batch	: 279350	
	MB	MB										
Analyte	Result	Qualifier	RL		MDL	Unit		D F	Prepared	Analyzed	Dil Fac	
Silver	<0.22		1.0		0.22	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Arsenic	<0.17		1.0		0.17	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Beryllium	<0.087		1.0	(0.087	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Chromium	<0.58		2.0		0.58	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Copper	<0.99		2.0		0.99	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Nickel	<0.46		1.0		0.46	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Lead	<0.16		1.0		0.16	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Antimony	<0.35		2.0		0.35	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Selenium	<0.81		5.0		0.81	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Thallium	<0.12		1.0		0.12	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Zinc	<2.2		5.0		2.2	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Aluminum	<12		30		12	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Barium	<1.2		10		1.2	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
Cadmium	<0.21		1.0		0.21	ug/L		05/2	21/19 14:47	05/22/19 19:21	1	
								Clien	t Sample	ID: Lab Control	Sample	
Matrix: Water									Prep 1	Type: Total Rec	overable	
Analysis Batch: 279515										Prep Batch	: 279350	
		Spike		LCS	LCS					%Rec.		
Analyte		Added		Result	Qua	lifier	Unit	D	%Rec	Limits		
Silver		250		252			ug/L		101	85 - 115		
Arsenic		1000		901			ug/L		90	85 ₋ 115		
Beryllium		500		515			ug/L		103	85 ₋ 115		
Chromium		500		550			ug/L		110	85 ₋ 115		
Copper		500		469			ug/L		94	85 - 115		

.....

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6

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable Prep Batch: 279350 5

6

Lab Sample ID: LCS 180-279 Matrix: Water Analysis Batch: 279515	350/2-A
Analysis Batoli. 273010	Spike
Analyte	Added
Nickel	500
Lead	500

Method: EPA 200.8 Rev 5 - Metals (ICP/MS) (Continued)

Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Nickel	500	477	ug/L		95	85 - 115	· · ·
Lead	500	496	ug/L		99	85 - 115	
Antimony	250	272	ug/L		109	85 ₋ 115	
Selenium	1000	1060	ug/L		106	85 ₋ 115	
Thallium	1000	968	ug/L		97	85 - 115	
Zinc	250	236	ug/L		94	85 ₋ 115	
Aluminum	5000	5110	ug/L		102	85 - 115	
Barium	1000	1030	ug/L		103	85 - 115	
Cadmium	500	531	ug/L		106	85 - 115	

LCS LCS

Lab Sample ID: 560-79907-2 MS **Matrix: Water** Analysis Batch: 279515

Client Sample ID: South Laredo Effluent

Client Sample ID: South Laredo Effluent

Prep Type: Total Recoverable

%Rec.

Prep Type: Total Recoverable Prep Batch: 279350

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Silver	<0.22		250	251		ug/L		101	70 - 130	
Arsenic	0.70	J	1000	972		ug/L		97	70 - 130	
Beryllium	<0.087		500	502		ug/L		100	70 - 130	
Chromium	<0.58		500	538		ug/L		108	70 ₋ 130	
Copper	2.5		500	481		ug/L		96	70 - 130	
Nickel	2.4		500	479		ug/L		95	70 - 130	
Lead	0.30	J	500	515		ug/L		103	70 - 130	
Antimony	0.92	J	250	286		ug/L		114	70 ₋ 130	
Selenium	<0.81		1000	1050		ug/L		105	70 - 130	
Thallium	<0.12		1000	996		ug/L		100	70 - 130	
Zinc	58		250	303		ug/L		98	70 ₋ 130	
Aluminum	18	J	5000	5150		ug/L		103	70 - 130	
Barium	73		1000	1140		ug/L		107	70 ₋ 130	
Cadmium	<0.21		500	536		ug/L		107	70 - 130	

Lab Sample ID: 560-79907-2 MSD

Matrix: Water nalysis Batch: 279515

Analysis Batch: 279515									Prep I	Batch: 2	79350
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Silver	<0.22		250	253		ug/L		101	70 - 130	1	20
Arsenic	0.70	J	1000	973		ug/L		97	70 - 130	0	20
Beryllium	<0.087		500	501		ug/L		100	70 - 130	0	20
Chromium	<0.58		500	529		ug/L		106	70 - 130	2	20
Copper	2.5		500	474		ug/L		94	70 - 130	2	20
Nickel	2.4		500	473		ug/L		94	70 - 130	1	20
Lead	0.30	J	500	495		ug/L		99	70 - 130	4	20
Antimony	0.92	J	250	280		ug/L		111	70 - 130	2	20
Selenium	<0.81		1000	1050		ug/L		105	70 - 130	0	20
Thallium	<0.12		1000	969		ug/L		97	70 - 130	3	20
Zinc	58		250	298		ug/L		96	70 - 130	2	20
Aluminum	18	J	5000	5120		ug/L		102	70 - 130	1	20
Barium	73		1000	1110		ug/L		103	70 - 130	3	20
Cadmium	<0.21		500	525		ug/L		105	70 - 130	2	20

Laboratory: Eurofins TestAmerica, Corpus Christi

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Program		Identification Number	Expiration Date	
exas	as NELAP		6	T104704210-19-23	03-31-20	
The following analytes	are included in this report, but th	he laboratory is not co	ertified by the governir	ng authority. This list may inc	lude analytes for whic	
the agency does not of Analysis Method	fer certification. Prep Method	Matrix	Analyt	te		
the agency does not of Analysis Method 624	fer certification. Prep Method	Matrix Water	Analyt	te chloropropylene		
the agency does not of Analysis Method 624 625	fer certification. Prep Method CWA_Prep_CLLE	Matrix Water Water	Analyt 1,3-Di 1,2-Di	te chloropropylene phenylhydrazine (as Azobenz	ene)	

Total Cresols, TCEQ Definition

Laboratory: Eurofins TestAmerica, Canton

CWA_Prep_CLLE

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All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Water

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-20
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19 *
Illinois	NELAP	5	200004	07-31-19 *
lowa	State Program	7	421	06-01-21
Kansas	NELAP	7	E-10336	04-30-20
Kentucky (UST)	State Program	4	58	02-23-20
Kentucky (WW)	State Program	4	98016	12-31-19
Minnesota	NELAP	5	039-999-348	12-31-19 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19 *
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19 *
New York	NELAP	2	10975	03-31-20
Ohio VAP	State Program	5	CL0024	06-05-21
Oregon	NELAP	10	4062	02-23-20
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-18-10	08-31-19 *
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19 *
Washington	State Program	10	C971	01-12-20 *
West Virginia DEP	State Program	3	210	12-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

uthority	Program	EPA Region	Identification Number	Expiration Date
2LA	DoD		2907.01	10-31-19
abama	State Program	4	40730	09-30-12 *
aska (UST)	State Program	10	UST-30	01-08-20
rizona	State Program	9	AZ0713	12-20-19
kansas DEQ	State Program	6	88-0687	06-01-19 *
alifornia	State Program	9	2513	01-08-20
onnecticut	State Program	1	PH-0686	09-30-20
orida	NELAP	4	E87667	06-30-19
eorgia	State Program	4	N/A	01-08-20
inois	NELAP	5	200017	04-30-19 *
wa	State Program	7	370	12-01-20
ansas	NELAP	7	E-10166	04-30-20
puisiana	NELAP	6	02096	06-30-19
aine	State Program	1	CO0002	03-03-21
innesota	NELAP	5	8-999-405	12-31-19
evada	State Program	9	CO0026	07-31-19
ew Hampshire	NELAP	1	205310	04-28-20
ew Jersey	NELAP	2	CO004	06-30-19
ew York	NELAP	2	11964	04-01-20
orth Carolina (WW/SW)	State Program	4	358	12-31-19
orth Dakota	State Program	8	R-034	01-08-20
regon	NELAP	10	4025	01-08-20
ennsylvania	NELAP	3	68-00664	07-31-19
outh Carolina	State Program	4	72002001	01-08-20
exas	NELAP	6	T104704183-18-15	09-30-19
S Fish & Wildlife	Federal			07-31-19
SDA	Federal			03-26-21
tah	NELAP	8	CO00026	07-31-19
rginia	NELAP	3	460232	06-14-19
ashington	State Program	10	C583	08-03-19
/est Virginia DEP	State Program	3	354	11-30-19
lisconsin	State Program	5	999615430	08-31-19 *
yoming (UST)	A2LA	8	2907.01	10-31-19

Accreditation/Certification Summary

EPA

6

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PA001462015-4

460189

998027800

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Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Authority

California

Florida

Illinois

Kansas

Louisiana

Nevada

Connecticut

Kentucky (DW)

New Hampshire

North Carolina (WW/SW)

New Jersey

New York

Oregon

Texas

USDA

Utah

Virginia

Wisconsin

Pennsylvania South Carolina

US Fish & Wildlife

West Virginia DEP

Arkansas DEQ

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certific

Program

NELAP

Federal

Federal

NELAP

NELAP

State Program

State Program

State Program

State Program

State Program

Kentucky UST

State Program

State Program

State Program

cations are	applicable to this report.		3
Region	Identification Number	Expiration Date	
	88-0690	06-27-19	_
	2891	04-30-20	5
	PH-0688	09-30-20	
	E871008	06-30-19	
	200005	06-30-19	
	E-10350	01-31-20	7
	162013	04-30-20	
	04041	06-30-19	8
	PA00164	07-31-19	0
	2030	04-04-20	0
	PA005	06-30-19	9
	11182	03-31-20	
	434	12-31-19	
	PA-2151	02-06-20	
	02-00416	04-30-20	
	89014	04-30-20	
	T104704528-15-2	03-31-20	
	LE94312A-1	07-31-19	
	P330-16-00211	06-26-19	

05-31-19 *

09-14-19

01-31-20

08-31-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Method Description

Volatile Organic Compounds (GC/MS)

Determination of Nonylphenols

Hexachlorphene (LC/MS)

Metals (ICP/MS)

Mercury, Low Level (CVAFS)

Semivolatile Organic Compounds (GC/MS)

Organochlorine Pesticides/PCBs in Water

Polychlorinated Biphenyls (PCBs) (GC)

Organophosphorous Pesticides (GC)

8321 - Carbaryl & Diuron (Ana-Lab)

Preparation, Total Recoverable Metals

Liquid-Liquid Extraction (Continuous)

Liquid-Liquid Extraction (Continuous)

Liquid-Liquid Extraction (Separatory Funnel)

Liquid-Liquid Extraction (Separatory Funnel)

Preparation, Mercury, Low Level

Laboratory

TAL CC

TAL CC

TAL DEN

TAL PIT

TAL PIT

TAL PIT

TAL DEN

TAL CAN

TAL PIT

TAL CAN

TAL PIT

TAL PIT

TAL PIT

TAL CC

TAL DEN

Protocol

ASTM

SW846

SW846

EPA

EPA

None

EPA

FPA

SW846

ASTM

40CFR136A

40CFR136A

40CFR136A

40CFR136A

40CFR136A

40CFR136A

5	
8	
9	

Protocol References:

Method

D7065-11

EPA 608

EPA 608

8321A

1631E

1631E

200.8

3510C

D7065-11

608

EPA 8141B

Subcontract

EPA 200.8 Rev 5

CWA_Prep_CLLE

624

625

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions. ASTM = ASTM International

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= Kilgore, TX, PO BOX 9000, Kilgore, TX 75663-9000, TEL (903)984-0551

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

TAL CC = Eurofins TestAmerica, Corpus Christi, 1733 N. Padre Island Drive, Corpus Christi, TX 78408, TEL (361)289-2673

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Client: City of Laredo Project/Site: Table II & III -South Laredo 5/16/19

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
560-79907-1	South Laredo Influent	Water	05/16/19 10:00	05/17/19 08:00	
560-79907-2	South Laredo Effluent	Water	05/16/19 10:00	05/17/19 08:00	
560-79907-3	Trip Blank	Water	05/16/19 00:00	05/17/19 08:00	

Table of Contents

Page 1 of 1



LELAP-accredited #02008

Report

Account

Project

TAML-G

874603

Printed 05/31/2019

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Eurofins TestAmerica,Corpus Christi

1733 N. Padre Island Drive Corpus Christi, TX 78408

Lindy Maingot

· · · · · · · · · · · · · · · · · · ·	This report consists of this Table of Contents and the following pages:	
Report Name 874603_r03_03_ProjectResults	Description Ana-Lab Project P:874603 C:TAML Project Results t:304 PO: 3037906	Pages 2
874603_r10_05_ProjectQC	Ana-Lab Project P:874603 C:TAML Project Quality Control Groups	1
874603_r99_09_CoC1_of_1	Ana-Lab CoC TAML 874603_1_of_1	5
	Total Pages:	8

Total Pages:



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Phone 903/9 Page 138 off 57 corp@ana-lab.com

	Ana-Lab Corp.	P.O. Box	x 9000	Kilgore,	TX 75	663	Rep	ort Page 2	of 9
	hone 903/984-0551 FAX	903/984-5914	e-Mail corp	ana-lab.co	om Continue	1.1	out		
	_	Employee Own	ed Integrity	Caring	Continua	li improvem	lent	Page	l of 2
E COMPLETE SERVICE LAB	Results	Printed: 05	5/31/2019	13:13				874	4603
Report To	560003	544		Acco	ount				
Eurofins TestAmerica,Corpus Ch Lindy Maingot 1733 N. Padre Island Drive Corpus Christi, TX 78408	risti			IAN	IL-G				
		Res	sults						
1784812 South Laredo Inf	luent	560-79907-1					Received:	05/18/2019	
Non-Potable Water	Collected by: Client Taken: 05/16/2019 10:	Eurofi 00:00	ns TestAmerica			PO:	3037906		
EPA 8321B	Prepa	ured: 839003	05/20/2019	07:00:00	Analyzed	839451	05/21/2019	18:32:00	BRU
Parameter	Results	Ui	nits RL		Flag		CAS	Bot	tle
Carbaryl (Sevin)	<2.70	ug	L 2.70				63-25-2	03	
Diuron	<0.048	5 ug	y/L 0.0485				330-54-1	03	
1784813 South Laredo Eff	luent	560-79907-2					Received.	05/18/2019	
Non-Potable Water	Collected by: Client Taken: 05/16/2019 10:	Eurofi 00:00	ns TestAmerica			PO:	3037906		
EPA 8321B	Prepo	ured: 839003	05/20/2019	07:00:00	Analyzed	839451	05/21/2019	19:01:00	BRU
Parameter	Results	Ui	nits RL		Flag		CAS	Bot	tle
/ Carbaryl (Sevin)	<2.69	ug	yL 2.69				63-25-2 330 54 1	03	
	~0.040	Sample P	reparation				550-54-1	05	
1784812 South Laredo Inf	luent	560-79907-1					Received:	05/18/2019	
							3037906		
EPA 3510C	Prepo	ured: 839003	05/20/2019	07:00:00	Analyzed	839003	05/20/2019	07:00:00	MCC
Liquid-Liquid Extr. W/Hex Ex	1/927	m	I					01	
EPA 8321B	Prepo	ured: 839003	05/20/2019	07:00:00	Analyzed	839451	05/21/2019	18:32:00	BRU
√ Carbaryl/Diuron	Entere	1						03	
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A	Ana-Lab Corp.	P.O. Box 9000	Kilgore,	TX 75	663	Rep	ort Page 3 o	of 9	
ANA-LAB	Phone 903/984-0551 FAX	X 903/984-5914 e-Mail co Employee Owned Inte	orp@ana-lab.com grity Caring	n Continua	l Improvem	ent			1
THE COMPLETE SERVICE LAB	Results	<i>Printed:</i> 05/31/2019	13:13				Page 2 8740	of 2 603	
1784813 South Laredo	Effluent	560-79907-2				Received:	05/18/2019	_	5
						3037906			
EPA 3510C	Prep	pared: 839003 05/20/2019) 07:00:00	Analyzed	839003	05/20/2019	07:00:00	MCC	
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Liquid-Liquid Extr. W/Hex Ex	1/930	ml					01	_	g
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N Carbaryl/Diuron	Enter	red					03	_	

Qualifiers:

We report results on an As Received or wet basis unless marked Dry Weight. Unless otherwise noted, testing was performed at Ana-labs corporate laboratory that holds the following Federal and State certificates: EPA Lab Number TX00063, US Department of Agriculture Soil Import Permit P330-17-00117, Texas Commission on Environmental Quality Commercial Drinking Water Lab Approval (Lab ID: TX219), Texas Commission on Environmental Quality NELAP T104704201-19-15, Louisiana Department of Environmental Quality Laboratory Certification (NELAP, LELAP) #02008, Louisiana Department of Health and Hospitals Drinking Water (NELAP) Certificate No LA026, Oklahoma Department of Environmental Quality TNI Laboratory Accreditation Program Certificate No. 2018-126, Arkansas Department of Environmental Quality Certification #18-068-0. The Accredited column designates accreditation by N -- NELAC, or z -- not covered under NELAC scope of accreditation.

These analytical results relate to the sample tested. This report may NOT be reproduced EXCEPT in FULL without written approval of Ana-Lab Corp. Unless otherwise specified, these test results meet the requirements of NELAC.

RL is the Reporting Limit (sample specific quantitation limit) and is at or above the Method Detection Limit (MDL). CAS is Chemical Abstract Service number. RL is our Reporting Limit, or Minimum Quantitation Level. The RL takes into account the Instrument Detection Limit (IDL), Method Detection Limit (MDL), and Practical Quantitation Limit (PQL), and any dilutions and/or concentrations performed during sample preparation (EQL). Our analytical result must be above this RL before we report a value in the 'Results' column of our report (without a 'J' flag). Otherwise, we report ND (Not Detected above RL), because the result is "<" (less than) the number in the RL column. MAL is Minimum Analytical Level and is typically from regulatory agencies. Unless we report a result in the result column, or interferences prevent it, we work to have our RL at or below the MAL.

U

Trey Peery, MA, Project Manager



Gulf Coast Region: 4141 Directors Row Ste C Houston TX 77092



WPage 40 of 57

1	3	Ana-La	b Corp	. P.C). Box	9000	Kilgore	, TX 756	63	Repo	rt Pag	e 4 of 9	1
ANA-L	AB)	Phone 903/984	- 0551 FA Emp	X 903/9 bloyee O	84-5914 wned	e -Mail corp Integrity	@ana-lab.c Carin	om g Cont	LELAP inual Improven	-accredit	ted #02()08	122
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Report T	o						Т						5
Eurofins	TestAmerica,Corpus	s Christi					L	ANL-G	r				
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1733 N. F	Padre Island Drive												
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	Analytical Set	839451									E	PA 8321B	
					Blank								8
	<u>Parameter</u>	PrepSet	Reading	MDL	MQL	Units			File				
	Carbaryl (Sevin)	839003	0.108	0.018	2.50	ug/L			119953825				9
	Diuron	839003	0.045	0.0342	0.045	ug/L			119953825				
					CCV								10
	<u>Parameter</u>		Reading	Known	Units	Recover%	Limits%		File				
	Carbaryl (Sevin)		1100	1000	ug/L	110	70.0 - 130		119953824				
			1140	1000	ug/L	114	70.0 - 130		119953829				
			1160	1000	ug/L	116	70.0 - 130		119953833				
			1170	1000	ug/L	117	70.0 - 130		119953836				
			1210	1000	ug/L	121	70.0 - 130		119953837				
			1220	1000	ug/L	122	70.0 - 130		119953838				
	Diuron		1120	1000	ug/L	112	70.0 - 130		119953839				
	Diaton		1120	1000	ug/L	112	70.0 - 130		119953829				
			1150	1000	ug/L	115	70.0 - 130		119953833				
			1160	1000	ug/L	116	70.0 - 130		119953836				
			1190	1000	ug/L	119	70.0 - 130		119953837				
			1200	1000	ug/L	120	70.0 - 130		119953838				
			1100	1000	ug/L	110	70.0 - 130		119953839				
					LCS Du	р							
	Parameter_	PrepSet	LCS	LCSD		Known	Limits%	LCS%	LCSD%	Units	RPD	Limit%	
	Carbaryl (Sevin)	839003	0.880	0.814		1.00	44.0 - 131	88.0	81.4	ug/L	7.79	30.0	
	Diuron	839003	0.866	0.788		1.00	0.100 - 187	86.6	78.8	ug/L	9.43	30.0	

* Out RPD is Relative Percent Difference: abs(r1-r2) / mean(r1,r2) * 100%

Recover% is Recovery Percent: result / known * 100%

Blank - Method Blank; CCV - Continuing Calibration Verification

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Eurofins TestAmerica, Corpus Christi 273 N. Padre Isand Drive 2753 Octofisti, TX 78408 2009 Schristi, TX 78408	C	hain o	f Cust	ody R	eord							≫ eurofin	15 Environment Testic 1 TestAmerica
Client Information (Sub Contract Lab)	Sampler			Main;	nt, Undy			Certi	r Tracking I	Jc(\$).		200 No: 580-19135.1	
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onitary: (na-Lab Corporation					VELAP - Te	tes Toguingo (Sec	neto):					Jab#: 560-79907-1	
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3kd# 7[p TX, 75883-9000				L	8321						<u></u>	E-NaHSO4	P - Na2045 Q - Na2SQ3 D - Ma2SQ3
hone. 203-984-0551(Tel)	10 PO #				1) -Lata]}/							G - Amphier R - Ascorbid Acid	S2SC4 T - TSP Dedecaryerate
-mailt	NO IN				or Ni Vali 1 (Ans						rs	U-158 U-01Water	U - Acetone V - VCAA
revet Narto. Fable II & III -South Laredo 5/16/19	Project # 56020544				or (Ye taisan ee uur a Lituro a Lab)						ntaine	60 A	Z - uther (spec fy)
She: City of Laredo	SSO/W#				Samp SD:0 peryll on (An						of co	Dither	
		Sample (Sample Type C≖comp.	Matrix (ni-aster, Sraolia,	ld Filtered Younivis/ 19321 - Ca Daryl & Diu						tal Number		
Sample deathireanon - Chennic (Fab 10)		X	Preservation							<u></u>		1000 C	
South Laredo Influent (500-79907-1)	5/16/19	10:00 Central		V/valler	×		,	36	4	2/8	10	TX Cert for Car Can meet dient	tsaryi & Diuron 8321 ts' MALs
South Laredo Effluent (560-79807-2)	5/16/19	10.00 Central		Waler	×				8	-6	10 (N)	TX Cert for Cer Can meet client	ttaryl & Diuron 8321 ts' MALs
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890 Attached for Texcion # and Texco						_							
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Report Page 6 of 9

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Report Page 7 of 9

3 of 5

Scan QR code for field sampler instructions	Notes to Field Staff:	Deliver By Date: 5/17/2019 11:59:00PM Lab Project Number: Sets: Bottles/Set: Chy. Bottle Type Description	Date Order Posted: Order Status: Ready To Process Prepared By:	Bottie Order #: Bottie Order #: Request From Client: 5/17/2019	Bottle Order Information
	Health and Safety Notes	Preservative Meth			
	mment	nde so a substantia service type and comments and the Lot #	Sent Via: Tracking #:	Creator: Asmey viveros Filled by: Sent Date:	Order Completion Information

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Go to http://www.testamericainc.com/customer-support/specialized-instructions-for-field-samplers/ for field sampler instructions. Please notify your PM immediately if an error is found in shipment.

Sec. 3

4 of 5





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5 of 5

874603 CoC Print Group 001 of 001 ONESCONDITI MECTINE SHIP DATE: 17MAY19 ACTWBT: 50.00 LB MAN CAD: 0202075/CAFE3211 GRIGIN ID:CRPA (361) 209-2879 SAMPLE_RECEIVING MERICA N. PADRE ISLAND DR. TESTAI 1793 CORPUS CHRISTI, TX 28408 UNITED STATES US BILL SENDER 55 LCL/D66C/104C **TO ATTN: SHIPPING/RECEIVING** ANA-LAB CORPORATION PO BOX 9000 KILGORE TX 756639000 (903) 984-0551 THUT PO1 A EF 1 . AL BRAND DIALTIN A COMPLEXIBILITY AND AND A COMPLEXIBLE AND A COMP FedEx Express SATURDAY 12:001 1 of 2 THK# 4866 7336 1178 ## master ## **PRIORITY OVERNIGH1** XO GGGA 75663 TX-US SHV SAL POS <u>Therm#: 6093 Corr Fact: 0.0</u> Temp: ______/.2__//...C Tech: <u>Time:</u>

(MMB)

Date: 5-18-19

1310
TestAmerica Corpus Christi 1733 N. Padre Island Drive Corpus Christi, TX 78408 Phone (361) 289-2673 Fax (361) 289-2471	0	Chain o	of Cust	ody Re	cord								Test	Ameri IN ENVIRONMENTAL	TE GTIMO
Client Information	Sampler:	Iont O	Rector	Lab PM: Boykei	n, Nicole M				Carrier T	racking I	Vo(s):		COC No: 560-26020-2	2722.1	70007
Client Contact: Angelteen EN: 20 501.5	Phone: (95	()721·	ooo-c	E-Mail: nicole.	boyken@tes	tamerica	inc.com						Page: of		
Company: City of Laredo							Analys	is Req	ueste	- -			Job # Job	LOP	
Address: 5816 Daugherty Avenue	Due Date Reques	ted:			uo				(wi		Preservation	Codes:	-
City: Laredo	TAT Requested (c	days):			,Zn iteluoli				HONU		hromiu hromiu		B - NaOH C - Zn Acetate	N - None 0 - AsNaO2	
State, Zp: TX, 78041					dT,QA, sO mu				astria		O finelia D fine		D - Nitric Acid E - NaHSO4	P - Na204S Q - Na2S03	
Phone: 956-721-2022(Tel) 956-721-2001(Fax)	PO #: 289759				,Ni,Se,	(NC			(NC 3) spdi	(evexel S Diuro	IVER)	G - Amchlor H - Ascorbic A	Cid T - TSP Dodec	ahydrate
Email: zeon@citaredo.w.us Colis CC: / w.c. K.us	:# OM			M 10 3	No) (Cu,Pb alent (DUSUO	(NOT2	N)	OP Cn CANTO	NVER	I - A36	e (DEV	y J-DI Water	U - Acetone V - MCAA	
Project Name: Table II & III	Project #: 56000544				es or ,Cd,Cr , Triv)H) əbi		0TSUC		30) lor	ide, 71	orphen	rtaine L-EDA	W - pH 4-5 Z - other (spec	(A)
Site: Texas	SSOW#:			lues	Y) G2I 98,24, 43617 ,	il Cyan	xəvlis	ofol (HC	81418 81418,	i Albµeu	r - 832	oldosxa	of cot		
		Sample	Sample Type (C=comp,	Matrix N=water, S=solid,	M/SM mrohi d2s8,IA - 8.0 (HORU82TT (HORU82TT	stoT - 90/2 - 7	61A - 2,4-D &	8_Pest - Dicc	31E - Low Le TTSBRUGH)	10N - 11_230	BCONTRAC	eH - xeH_Ars	tedmuN lbb		
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Eurofins TestAmerica, Corpus Christi	ALLANT I'L							🔅 eurofins	Environment Testing	
Corpus Christi, TX 78408 Phone (361) 289-2673 Fax (361) 289-2471	も、、 Cnair	I OT CUSI	oay Ke	scora	_				TestAmerica	
Client Information (Sub Contract Lab)	Sampler.		Lab PN Maing	: ot, Lindy		Carrier Tr	acking No(s):	COC No: 560-19134.1		
lient Contact: Shipping/Receiving	Phone:		E-Mail: lindy.	naingot@testame	ericainc.com	State of C Texas)rigin:	Page 1 of 1		
Company: TestAmerica I aboratories Inc				Accreditations Require	d (See note):			Job #: 560-79907-1		
ddress: 301 Alpha Drive RIDC Park	Due Date Requested: 5/28/2019				Analvsi	s Requested		Preservation Co	des:	
Dity. Pittsburgh Zuna, Zion	TAT Requested (days):			11iQ)				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid	M - Hexane N - None O - AsNaO2 P - Na2O4S	
state, Lip PA, 15238 bene,	* Cd			UZ,	(H981)			E - NaHSO4 F - MeOH	Q - Na2SO3 R - Na2S2O3	
^{none:} 412-963-7058(Tel) 412-963-2468(Fax)	#0d			(0) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	N8ST.			G - Amchlor H - Ascorbic Acid	S - H2SO4 T - TSP Dodecahydrate	
Email:	"#OM			0 V VO) VO) A,92,il 6T,28,	TIG) 28			J - DI Water	U - Acetone V - MCAA	
Project Name: Table II & III -South Laredo 5/16/19	Project #: 56000544			e (Yes b, Cmp P, Cmp	B PCB			tainer K - EDTA L - EDA	W - pH 4-5 Z - other (specify)	
site City of Laredo	SSOW#:			STIF OI SPICE'C BD (A®	DQ (QQ)			of con		
Sample Identification - Client ID (Lab ID)	Sample Date Time	Sample Type Ie (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, 3T=Tissue, A=Air)	Field Filtered 5 Perform MS/M mS/M mS/M mS/M mS/S mS/S mS/S mS/	M) q974_808/808 P14_808/804_808			Total Number		
		Preserval	ion Code:	X						1
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Note: Since laboratory accreditations are subject to change. TestAmerica Lat currently maintain accreditation in the State of Origin listed above for analysis ta boratories. Inc. attention mimediately. If all requested accreditations are c	boratories, Inc. places the ownership s/tests/matrix being analyzed, the sa surrent to date, return the stored Che sa	of method, analyte mples must be ship in of Custody attest	& accreditation ped back to the ing to said comi	compliance upon out TestAmerica laborato	subcontract labore y or other instruct a Laboratories. In	atories. This samp ions will be provide c.	e shipment is forward	ed under chain-of-custody. creditation status should be	f the laboratory does not brought to TestAmerica	
Possible Hazard Identification				Sample Dispo	osal (A fee m	ay be assesse	d if samples are	retained longer than	1 month)	
Unconfirmed				Return	To Client	Disposa	By Lab	Archive For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Ra	2 :Xr		Special Instruc	ctions/QC Req	uirements:				
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Refining the part of the	Date/Tume: () - (9	BU	Company	Received by	W Cr	MON	Date/Time	1-8-0	Company At	1
Relinquished by:	Date/Time:		Company	Received by			Date/Time:	100	Company	
Relinquished by:	Date/Time:		Company	Received by			Date/Time:	1	Company	
Custody Seals Intact: Custody Seal No.: A Yes A No				Cooler Temp	erature(s) °C and	Other Remarks:				
									Ver 01/16/2019	-

1733 N. Padre Island Drive Corpus Christ, TX 78408 Phone (361) 289-2673 Fax (361) 289-2471	0	hain o	of Cus	tody R	ecord				Environment Test TestAmerica
Client Information (Sub Contract Lab)	Sampler			Lab F Mair	M. Igot, Lindy		Carrier Tracking No(s)	COC No: 560-19128.1	
Client Contact. Shipping/Receiving	Phone.			E-Ma lind)	it r.maingot@testameric	cainc.com	State of Origin. Texas	Page Page 1 of 1	
Company: TestAmerica Laboratories, Inc.					Accreditations Required (NELAP - Texas	(See note):		Job # 560-79907-1	
Address 4101 Shuffel Street NW,	Due Date Requeste 5/29/2019	1				Analysis Req	uested	Preservation C	odes:
City North Canton	TAT Requested (da	;(5/			()			B - MCL B - NaOH C - Zn Acetate	M - Hexane N - None O - AsNaO2
Slate. Zip. OH, 44720					NOTN			E - NaHSO4	P - Na204S Q - Na2SO3
Phone 330-497-9396(Tel) 330-497-0772(Fax)	#0#				(c AD) (11			F - MeOH G - Amchlor H - Ascorbic Acid	R - Na2S203 S - H2SO4 T - TSP Dodecahvdra
Email	# OM				vo) Mercu			I - Ice J - DI Water	U - Acetorie V - MCAA
Project Name: Table II & III - South Laredo 5/16/19	Project # 56000544				es or l			teiner K - EDTA L - EDA	W - pH 4-5 Z - other (specify)
Site City of Laredo	SSOW#				iqme2 Y) d2			of Cother:	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (v/*water. s=solid. O=wasterioli. BT=Tissue.A=Air	Field Filtered M/SM more 1631E/1631E_P			redmuN lsto7	Instructions/Note-
	X	X	Preserva	tion Code.					
South Laredo Influent (560-79907-1)	5/16/19	10:00 Central		Water	×			2 price includes fi	eld blank
South Laredo Effluent (560-79907-2)	5/16/19	10:00 Central		Water	×			2 price includes fil	eld blank
								000	
Note: Since laboratory accreditations are subject to change. TestAmerica L currently marritain accreditation in the State of Ongin listed above for analys	Laboratories, Inc. places the sistests/matrix being analyz	ownership of n ad, the sample	ethod, analyte s must be ship	t & accreditatio	n compliance upon out sut TestAmerica iaboratory o	bcontract laboratories T	his sample shipment is forwarde e provided Any changes to acc	d under chain-of-custody.	If the laboratory does not e brought to TestAmerica
Laboratories, Inc. attention immediately. If all requested accreditations are Possible Hazard Identification	e current to date, return the si	gned Chain of	Custody attes	ing to said con	plicance to TestAmerica L	aboratories, Inc.	scossad if samples are	atomod loncor those	1 monthi
u ossime tazara jucciancanon Unconfirmed					Return To	Client D	Visposal By Lab	Archive For	Months
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Delivera	ble Rank: 2			Special Instructio	ons/QC Requiremen	its		
Empty Kit Relinquished by		Date:			Time:		Method of Shipment		
Keingustealby	Date/Time:	7 1	DOL	Company	Received by	1946	Date Time	19 10/5	Company AC
Reinquarted by	DateTime			Company	Received by	1	Date/Time'		Company
Reinquished by	Date/Time:			Company	Received by:		Date/Time:		Company
Custody Seals Intact Custody Seal No.: A Yes A No					Cooler Tempera	Iture(s) °C and Other Rei	marks		
									ALC: NUMBER

Canton Facility	# :
Vient PIA Corry Christisite Name	Cooler unpacked by:
Then 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	man
ooler Received on <u>5</u> -70 77 Opened on <u>5</u> 70 77	Other
edex: 1 Grd Exp OPS FAS Chipper Chem Drop On Testamenca Counter	Other
Certempt Anter-Induity. Diop-on Date Time Storiege Location	and the second sec
 testAmerica Cooler #Foam Box Client Cooler Box OtherPoam @lastic.Bag None OtherCOOLANT: Wet Ice Blue Ice Dry Ice Water None OtherCooler temperature upon receipt Cooler temperature upon receipt Corrected Cooler Temp Cooler temperature upon receipt Corrected Cooler Temp Cooler temperature upon receipt Yes Corrected Cooler temperature the seals on the outside of the cooler(s)? If Yes Quantity Yes Yere tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes Yes Were tamper/custody seals intact and uncompromised? Yes Nerver tamper/custody seals intact and uncompromised? Yes Nerver tempers relinquished & signed in the appropriate place?	n np. <u>5.5</u> °C p. °C No No No No No No No No No No
5. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # Yes	No
Contacted PM Date by via Verbal Vo	vice Mail Other
Contacted PM Date by via Verbal Vo	Samples processed by:
Contacted PM Date by via Verbal Vo	Samples processed by:
Contacted PM Date by via Verbal Vo	Samples processed by:
Contacted PM Date by via Verbal Vo	Samples processed by:
Contacted PM Date by via Verbal Vo	Samples processed by:
Contacted PM Date by via Verbal Vo Concerning 7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 8. SAMPLE CONDITION ample(s) were received after the recommended holdin	Samples processed by:
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Contacted PM Date by via Verbal Vo Concerning 7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 8. SAMPLE CONDITION ample(s) were received after the recommended holdir ample(s) were received after the recommended holdir ample(s) were received after the recommended holdir ample(s) were received with bubble >6 mm in	samples processed by: Samples processed by: g time had expired. in a broken container. diameter. (Notify PM)
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Contacted PM Date by via Verbal Vo Concerning	samples processed by: Samples processed by: g time had expired. in a broken container. diameter. (Notify PM) her preserved in the laboratory.
Contacted PM Date by via Verbal Vo Concerning 7. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES 8. SAMPLE CONDITION ample(s) were received after the recommended holdir ample(s) were received after the recommended holdir ample(s) were received with bubble >6 mm in 9. SAMPLE PRESERVATION ample(s) were furt ime preserved: Preservative(s) added/Lot number(s): 'OA Sample Preservation - Date/Time VOAs Frozen:	samples processed by: Samples processed by: g time had expired. in a broken container. diameter. (Notify PM) her preserved in the laboratory.

6/14/2019

Eurofins TestAmerica, Corpus Christi 1733 N. Padre Island Drive

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Curofins Environment Testing

Phone (361) 289-2673 Fax (361) 289-2471									-				~
Client Information (Sub Contract Lab)	Sampler.			Mai	PM. ngot, Lindy				-	Carrier Tracking No(s):	COC No. 560-19130	L.	
Client Contact Shipping/Receiving	Phone			E-M	ail y maingot(@testa	meric	ainc.c	mo	State of Origin: Texas	Page 1 of 1	_	
Company TestAmerica Laboratories, Inc.					Accreditation -	Texas	wired (S	See note	(2		Job#. 560-79907.	-1	
Address: 6310 Rothway Street,	Due Date Requested: 5/29/2019							Ani	alysis F	kequested	Preservatio	n Codes: M Horston	
City Houston State. Zip TX: 77040	TAT Requested (days							(1			P - HCL B - NaOH C - Zh Acetat D - Nithe Acit	M - Frevane N - None d P - Na2O4S O - Na2O4S O - Na2S03	
Phone 713-690-4444(Tel) 713-690-5646(Fax)	#Od				((NO1		votsu	-		F - MeOH G - Amchior H - Ascorbic	R - Na2S203 S - H2SO4 Acid T - TSP Dodecahvdi	ate
Email	#OM				(o) ot No	NOTEN		он) ха	1010:		I - Ice J - Di Water	U - Acetone V - MCAA	
Project Name Table II & III -South Laredo 5/16/19	Project # 56000544				es or l	OH) sb		AIIS 18 (K - EDTA L - EDA	W - pH 4-5 Z - other (specify)	
Site City of Laredo	#MOSS				(dwes	IC yani		P 2.4-D	W) dəı,		of cor		
Samole Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=wasterioli, BT=Tissue, A=Al	Field Filtered Perform MS/W	335.4/Distill_Ph	CRO_ABEIT	A_ATE18\ATE18	9.808\tz=9.808	560	Total Number S	cial Instructions/Note:	
	X	X	Preserval	tion Code.	X					-79	X		
South Laredo Influent (560-79907-1)	5/16/19	10:00 Central		Water		×	×	×	×	907 (9		
South Laredo Effluent (560-79907-2)	5/16/19	10:00		Water		×	×	×	×	Chai	9		
										n of Custody			
						+				+-+			
Note: Since laboratory accreditations are subject to change. TestAmerica currently maintain accreditation in the State of Orgin listed above for ana Laborationes, inc. attention immediately. If all roquested accreditations are	a Laboratories, inc. places the ov ilysis/tests/matrix being analyzec re current to date. return the sign	vnership of m 1. the sample: ned Chain of (ethod, analyte s must be ship Custody attesi	 & accreditation back to to	on compliand he TestAmer mplicance to	te upon Ica labo TestAn	out sub ratory o terica L	contrac r other aborate	t laboratori nstructions ries, Inc.	as. This sample shipment is fo will be provided. Any change	rwarded under chain-of-cust to accreditation status shou	tody. If the laboratory does n ald be brought to TestAmerica	ō -
Possible Hazard Identification					Sam	ple Di	spose	I (A	ee may	De assessed if samples	are retained longer t	than 1 month)	
Uncommed Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverat	ole Rank: 2			Spec	cial Ins	tructio	Ullen	C Require	ments:	AICHINE FOI	NOTIN	
Empty Kit Relinquished by:		ate:			Time:		6		-	Method of Shipme			
Reinspurpose by Reinspurpose	Dated ime	5	00/	Company		received	1	2	M		20119 9	HI Company H	
Reinquished by	Date/Time	_		Company	<u></u>	Received	1 PA	-	1	Date/T	me	Company	
Relinquished by	Date/Time:			Company		Received	1 by		>	Date/T	me	Company	
Custody Seals Intact: Custody Seal No.						Cooler T	empera	ture(s)	C and Oth	er Remarks			
												Vet:/01/16/2019	

TestAmerica Houst	^{on} ample Receipt Che	Loc: 560 79907 ecklist	TestAmeric THE LEADER IN ENVIRONMENTAL TES	
JOB NUMBER:	47	Date/Time Received: CLIENT: CARRIER/DRIVER:	TA-COYPUS Fedex Sta.	• []
Custody Seal Present:	YES NO Temp Trip Blank Y N	Number of Coolers Re Observed Temp	eceived: Therm Them Corrected Temp CF (S) 100 - 0.2 1.2 18.0 19.0 10.0 10.0 10.0 10.0	119
Base samples are>pH	12:	Acid preserved are <p< td=""><td>H 2: YES NO</td><td>_</td></p<>	H 2: YES NO	_
COMMENTS:	Baboratory's standard condition	s of sample acceptability up	pon receipt? Melteal antainers have dots on lids. Jan 51	



560-79907 W tybill





Login Sample Receipt Checklist

Client: City of Laredo

Login Number: 79907 List Number: 1

Creator: Scott, Kohen 1

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Job Number: 560-79907-1

List Source: Eurofins TestAmerica, Corpus Christi

Client: City of Laredo

Login Number: 79907 List Number: 5 Creator: Zimmerman, Steven M

Question

meter.

List Source: Eurofins TestAmerica, Denver List Creation: 05/21/19 08:03 PM Comment Answer Radioactivity wasn't checked or is </= background as measured by a survey N/A

The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	False	
COC is filled out in ink and legible.	N/A	
COC is filled out with all pertinent information.	N/A	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 560-79907-1

Client: City of Laredo

Login Number: 79907 List Number: 2 Creator: Watson, Debbie

Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>N/A</td> <td></td>	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	

True

N/A

Job Number: 560-79907-1

List Creation: 05/18/19 11:05 AM

List Source: Eurofins TestAmerica, Pittsburgh

12

Samples do not require splitting or compositing.

Residual Chlorine Checked.

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$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Calibrated By		mg/L	(PPT)	Factor	5 = 500 ft	C°	ma/L	lime		-			
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CITY OF LAREDO UTILITIES LABORATORY FIELD ANALYSIS WORKSHEET SOUTHSIDE WWTF



CITY OF LAREDO HEALTH DEPARTMENT

Laboratory - Environmental Division

2600 Cedar St.

Laredo, TX 78040

TCEQ ID: T 10474638 - 08 TX

Phone: (956) 795 - 4908 x 4693

Fax: (956) 795 - 2188



Quanti-tray *E.coli* and Chain of Custody Form EL02 APPENDIX DD

CLIENT NAME:	City of La	redo						
ADDRESS:	Springfiel	d & Aldama St			COUNTY: Webb	SAMDI	ETVES Grab	
CITY/STATE/ZIP C	CODE:	Laredo, TX 78041				SAWFL	CITPE: Olab	
CONTACT:					PHONE: <u>956-795-2720</u>	FAX:	956-795-272	3
Circle One:	Water So Effluent	urce Facility N Facility	lame: Southside V	Wastewater Treatm \ ID# TX 0085316	ent Facility		×	
Sample ID:		Sampling Point	Disinfection Type	Chlorine Residual	Test Requested		Total Coliform Results (MPN/100mL)	E. Coli Results (MPN/100mL)
Final Effluent	End of cl	hlorine contact chamber	Chlorine	2.3	IDEXX Laboratories Co	olilert	. NA	21.0
Sampled by:	Ratural	Castaneda	Date: 1-31-20	Time: 750	E.coli (enumeration))].()	3120	
Relinquished by:	Rexy	Cardenes	Date: 013120	Time: 0825	Received by: Lab:	Date:	16.120	Time: 9:29
Laboratory:		1				1.000	Jarra	
Sample Arrival	Condition:	Jeed	Sample Arrival	Volume:	Sample arriv	val temp. observed	d/ corrected:	5.5/55
Sample Acce	epted:	Sample Reje	cted:	Chlorine Residual : _	0 - 00 CI Strip Lot	# & Exp. Date:_	9080 1	12025
Date & Tim	e Analysis S	tarted: 1/3	31/20@ 911	10 An	Date & Time Analysis I	Finished 2	1/20.0	9:10.
Date & Time	Results Repo	orted to:	120 @ 9:1	OR	Reported By:	Coup A	K	
The te	st results o	on this report meets a	II NELAC requiremen	ts: Acceptable		t Accentable:	www.	
Labor	ratory Co	ntact: Ms. Rebeca	I. Castro, Technica	al Director - (956)	795 - 4908 x 4693	Acceptable.		
Remarks / L	ab ID #:	394663						
Unsuitable S	Analysis	1) Sx. Exceeds 6 hrs Holding	Time 3) Exces	sive chlorine Residual (> 10) mg/L) (5) Form Incor	nplete, not Filled ac	cordingly/Date Discr	epancy
Rejection (Criteria	2) Insufficient Sx Volume (100) ml) (4) Heavy	/ Turbidity Present / Excessiv	ve Material 6) Other:			

ATTACHMENT H

Biomonitoring Results Wksht 5.0, Section 1 and 3

ATTACHMENT H CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

BIOMONITORING RESULTS 48-HOUR ACUTE

Test		
Initiation		
Date	Test Species	NOEC Lethal
5/13/2015	Daphnia pulex	41%
5/13/2015	Pimephales promelas	41%
7/22/2015	Daphnia pulex	41%
7/22/2015	Pimephales promelas	41%
11/17/2015	Daphnia pulex	41%
11/17/2015	Pimephales promelas	41%
1/27/2016	Daphnia pulex	41%
1/27/2016	Pimephales promelas	41%
4/27/2016	Daphnia pulex	41%
4/27/2016	Pimephales promelas	41%
7/27/2016	Daphnia pulex	41%
7/27/2016	Pimephales promelas	41%
11/2/2016	Daphnia pulex	41%
11/2/2016	Pimephales promelas	41%
2/22/2017	Daphnia pulex	41%
2/22/2017	Pimephales promelas	41%
4/26/2017	Daphnia pulex	41%
4/26/2017	Pimephales promelas	41%
7/19/2017	Daphnia pulex	41%
7/19/2017	Pimephales promelas	41%
12/7/2017	Daphnia pulex	41%
12/7/2017	Pimephales promelas	41%
1/31/2018	Daphnia pulex	41%
1/31/2018	Pimephales promelas	41%
4/19/2018	Daphnia pulex	41%
4/19/2018	Pimephales promelas	41%
7/19/2018	Daphnia pulex	43%
7/19/2018	Pimephales promelas	43%
10/17/2018	Daphnia pulex	43%
10/17/2018	Pimephales promelas	43%
2/14/2019	Daphnia pulex	43%
2/14/2019	Pimephales promelas	43%
4/26/2019	Daphnia pulex	43%
4/26/2019	Pimephales promelas	43%
8/8/2019	Daphnia pulex	43%
8/8/2019	Pimephales promelas	43%
10/31/2019	Daphnia pulex	43%
10/31/2019	Pimephales promelas	43%

ATTACHMENT H CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

BIOMONITORING RESULTS 24-HOUR ACUTE

Test		
Initiation		
Date	Test Species	LC50
5/13/2015	Daphnia pulex	>100%
5/13/2015	Pimephales promelas	>100%
11/17/2015	Daphnia pulex	>100%
11/17/2015	Pimephales promelas	>100%
4/27/2016	Daphnia pulex	>100%
4/27/2016	Pimephales promelas	>100%
11/2/2016	Daphnia pulex	>100%
11/2/2016	Pimephales promelas	<100%
11/23/2016	Pimephales promelas	>100%
11/30/2016	Pimephales promelas	>100%
2/22/2017	Daphnia pulex	>100%
2/22/2017	Pimephales promelas	>100%
12/7/2017	Daphnia pulex	>100%
12/7/2017	Pimephales promelas	>100%
4/20/2018	Daphnia pulex	>100%
4/20/2018	Pimephales promelas	>100%
7/19/2018	Daphnia pulex	>100%
7/19/2018	Pimephales promelas	>100%
4/26/2019	Daphnia pulex	>100%
4/26/2019	Pimephales promelas	>100%

ATTACHMENT I

Parameters above MAL Wksht 6.0, Section 2.C

ATTACHMENT | CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

Date	Parameter	MAL (µg/L)	Concentration (µg/L)
6/6/2017	Arsenic, Total	0.5	1.1
9/13/2017	Arsenic, Total	0.5	1.9
11/14/2017	Arsenic, Total	0.5	0.7
9/13/2017	Copper, Total	2.0	6.3
6/6/2017	Nickel, Total	2.0	2.5
9/13/2017	Nickel, Total	2.0	<2.2
6/6/2017	Zinc, Total	5.0	43.0
9/13/2017	Zinc, Total	5.0	47.0
11/14/2017	Zinc, Total	5.0	48.0
6/6/2017	Cyanide	10.0	17.0
9/13/2017	Cyanide	10.0	12.0
11/14/2017	Cyanide	10.0	11.0
9/13/2018	Chlorodibromomethane	10.0	14.0
9/13/2017	Chloroform	10.0	20.0
9/13/2017	Dichlorobromomethane	10.0	25.0
6/6/2017	Aluminum	2.5	17.0
9/13/2017	Aluminum	2.5	<23.0
11/14/2017	Aluminum	2.5	25.0
6/6/2017	Barium	3.0	52.0
9/13/2017	Barium	3.0	67.0
11/14/2017	Barium	3.0	45.0
9/13/2017	Fluoride	500.0	630.0
9/13/2017	Nitrate-nitrogen	100.0	18000.0
9/13/2017	TTHM (total Trihalomethanes)	10.0	62.0
5/15/2018	Aluminum	2.5	21.0
9/12/2018	Aluminum	2.5	41.0
11/6/2018	Aluminum	2.5	58.0
5/15/2018	Barium	3.0	69.0
9/12/2018	Barium	3.0	54.0
11/6/2018	Barium	3.0	56.0
5/15/2018	Nitrate-nitrogen	100.0	16000.0
5/15/2018	TTHM (total Trihalomethanes)	10.0	14.0
5/16/2019	Arsenic, Total	0.5	0.7
8/21/2019	Arsenic, Total	0.5	1.6
11/19/2019	Arsenic, Total	0.5	2.4
5/16/2019	Copper, Total	2.0	2.5
8/21/2019	Copper, Total	2.0	3.7
11/19/2019	Copper, Total	2.0	3.1
5/16/2019	Nickel, Total	2.0	2.4
11/19/2019	Nickel, Total	2.0	2.5
5/16/2019	Zinc, Total	5.0	58.0

EFFLUENT PARAMETERS ABOVE MAL

ATTACHMENT | CITY OF LAREDO SOUTH LAREDO WASTEWATER TREATMENT FACILITY TPDES PERMIT RENEWAL APPLICATION

Date	Parameter	MAL (µg/L)	Concentration (µg/L)
8/21/2019	Zinc, Total	5.0	31.0
11/19/2019	Zinc, Total	5.0	62.6
5/16/2019	Chlorodibromomethane	10.0	22.0
5/16/2019	Chloroform	10.0	16.0
5/16/2019	Dichlorobromomethane	10.0	27.0
5/16/2019	Aluminum	2.5	18.0
8/21/2019	Aluminum	2.5	49.0
11/19/2019	Aluminum	2.5	16.1
5/16/2019	Barium	3.0	73.0
8/21/2019	Barium	3.0	60.0
11/19/2019	Barium	3.0	54.8
5/16/2019	TTHM (total Trihalomethanes)	10.0	71.0

EFFLUENT PARAMETERS ABOVE MAL

Att I - 2

POST-SUBMITTAL CORRESPONDENCE

Attachment 1 City of Laredo – South Laredo WWTP WQ0010681003

Technical Report Data Completeness Review - Domestic Wastewater Permit Application

- Domestic Technical Report 4.0
 - 1. Toxic Pollutants
 - From reviewing the Worksheet 4.0 pollutant test data, we note that Dicofol as a non-detect constituent was not tested down to the MAL (1.0 μg/L). A retest is required for this pollutant. Please follow the EPA recommended method to do the retest, which is ASTM D5812 - 96(02) in accordance with June 2010 Procedures to Implement the Texas Surface Water Quality Standards.

Please note that the TCEQ may request additional information, as necessary, to aid in drafting an accurate and representative permit. If you should have any questions, please contact Tong Li of the Municipal Permits Team at (512) 239-4653 or Tong.Li@tceq.texas.gov.

English, Jenni

From:	Tong Li <tong.li@tceq.texas.gov></tong.li@tceq.texas.gov>
Sent:	Thursday, March 26, 2020 1:25 PM
То:	Lewis, Ashley
Cc:	Koenings, Tres
Subject:	RE: Application to Renew Permit No. WQ0010681003 - Review of Notice and Additional Information

Great, thanks!



Tong Li, EIT Municipal Wastewater Permit Coordinator Water Quality Division Texas Commission on Environmental Quality Phone: 512-239-4653 Tong.Li@tceq.texas.gov

From: Lewis, Ashley <alewis@plummer.com>
Sent: Thursday, March 26, 2020 12:40 PM
To: Tong Li <Tong.Li@tceq.texas.gov>
Cc: Koenings, Tres <tkoenings@plummer.com>
Subject: RE: Application to Renew Permit No. WQ0010681003 - Review of Notice and Additional Information

Hi Tong,

Attached is the 2019 lab report that includes the analysis for Dicofol. Please let us know if you need anything else for your assessment.

Thanks,

Ashley Lewis

P: 512.452.5905 D: 512.687.2154 alewis@plummer.com www.plummer.com

From: Tong Li <<u>Tong.Li@tceq.texas.gov</u>>
Sent: Tuesday, March 24, 2020 1:58 PM
To: Lewis, Ashley <<u>alewis@plummer.com</u>>
Cc: Koenings, Tres <<u>tkoenings@plummer.com</u>>
Subject: RE: Application to Renew Permit No. WQ0010681003 - Review of Notice and Additional Information

Hi Ashley,

Can you provide me with the lab report for the effluent value in 2019? After reviewing the pretreatment report sample and the existing permit, it looks acceptable to waive the resampling request. But I hope to double check that it will still pass in the toxic pollutant screening when I draft the permit.

If you have any questions, please let me know.

Thanks,



Tong Li, EIT Municipal Wastewater Permit Coordinator Water Quality Division Texas Commission on Environmental Quality Phone: 512-239-4653 Tong.Li@tceq.texas.gov

From: Lewis, Ashley <<u>alewis@plummer.com</u>>
Sent: Monday, March 23, 2020 3:57 PM
To: Tong Li <<u>Tong.Li@tceq.texas.gov</u>>
Cc: Koenings, Tres <<u>tkoenings@plummer.com</u>>
Subject: RE: Application to Renew Permit No. WQ0010681003 - Review of Notice and Additional Information

Good Afternoon Tong,

Thank you for your comment on the technical portion of the City of Laredo (City) South Laredo Wastewater Treatment Facility permit application (WQ001681003). In your technical review, you requested the City resample for the pollutant Dicofol because it was not tested down to the MAL of $1.0 \mu g/L$.

The parameter Dicofol was analyzed using a test method with an MDL of 5.25 μ g/L. It was analyzed but not detected. The MDL of 5.25 μ g/L is well below 70% and 85% of the daily average effluent limit for human health of 18.5 μ g/L and 22.5 μ g/L, respectively. Additionally, based on the past three years of pretreatment programs influent and effluent monitoring results, Dicofol has been analyzed and reported as <1.0 μ g/L. The reported values for 2019 are samples that were taken one year prior to the date the permit application was submitted to TCEQ. Please see attached pretreatment program influent and effluent monitoring results.

In light of the current limitations at most governmental entities, including the City, the City requests that you consider the additional data in lieu of resampling and assess Dicofol as if it were detected at level of the MDL. Please let us know if you have any questions.

Thanks,

Ashley Lewis Project Scientist



6300 La Calma Drive, Suite 400 Austin, Texas 78752 P: 512.452.5905 D: 512.687.2154

alewis@plummer.com www.plummer.com

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FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0010681003, EPA I.D. No. TX0085316, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	City of Laredo 1110 Houston Street Laredo, Texas 78040
Prepared By:	Tong Li, E.I.T. Municipal Permits Team Wastewater Permitting Section (MC 148) Water Quality Division (512) 239-4653
Date:	6/22/2020

Permit Action: Renewal

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **five years from the date of issuance**.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of the existing permit that authorizes the discharge of treated domestic wastewater at an annual average flow not to exceed 18 million gallons per day (MGD). The existing wastewater treatment facility serves the City of Laredo - South Side.

3. FACILITY AND DISCHARGE LOCATION

The plant site is located at 309 River Front Street, in the City of Laredo, Webb County, Texas 78046.

Outfall Location:

Outfall Number	Latitude	Longitude
001	27.445931 N	99.494992 W

The treated effluent is discharged directly to Rio Grande Below Amistad Reservoir in Segment No. 2304 of the Rio Grande Basin. The designated uses for Segment No. 2304 are primary contact recreation, public water supply, and high aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The South Laredo Wastewater Treatment Facility (WWTF) is an activated sludge process plant operated in the complete mix mode. Treatment units include three bar screens, three aeration basins, four final clarifiers, a belt filter press, a sludge holding tank, a gravity thickener, and two chlorine contact chambers. The facility is in operation.

The draft permit authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The facility does not appear to receive significant industrial wastewater contributions. However, the permittee plans to divert approximately 40 percent of the influent wastewater flow form the Zacate Creek WWTF to the South Laredo WWTF when construction is completed for the Manadas Creek WWTF. The Zacate Creek WWTF receives significant industrial wastewater contributions, therefore, the South Laredo WWTF will receive significant wastewater contributions.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

The following is a summary of the applicant's effluent monitoring data for the period from April 2018 through April 2020. The average of Daily Average value is computed by the averaging of all 30-day average values for the reporting period for each parameter: flow, five-day biochemical oxygen demand (BOD₅), and total suspended solids (TSS). The average of Daily Average value for *Escherichia coli* in colony-forming units (CFU) or most probable number (MPN) per 100 ml is calculated via geometric mean.

<u>Parameter</u>	<u>Average of Daily Avg</u>
Flow, MGD	6.6
BOD ₅ , mg/l	3.3
TSS, mg/l	4.3
E. coli, CFU or MPN per 100 ml	2

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 18 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 50,000 gallon per minute (gpm).

City of Laredo TPDES Permit No. WQ0010681003 Fact Sheet and Executive Director's Preliminary Decision

Parameter	<u>30-Day Average</u>		<u>7-Day</u>	<u>Daily</u>
			Average	Maximum
	<u>mg/l</u>	<u>lbs/day</u>	<u>mg/l</u>	<u>mg/l</u>
BOD ₅	20	3002	30	45
TSS	20	3002	30	45
DO (minimum)	2.0	N/A	N/A	N/A
E. coli, CFU or	126	N/A	N/A	399
MPN/100 ml				

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored daily by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

<u>Parameter</u>	Monitoring Requirement
Flow, MGD	Continuous
BOD ₅	One/day
TSS	One/day
DO	One/day
E. coli	Five/week

B. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. The draft permit authorizes the disposal of sludge at a TCEQ-authorized land application site, codisposal landfill, wastewater treatment facility, or facility that further processes sludge.

C. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 315, which references 40 Code of Federal Regulations (CFR) Part 403, "General Pretreatment Regulations for Existing and New Sources of Pollution" *[rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798]*. The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works (POTWs) or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on **December 29**, **2005** and modified on **August 20,2020** (nonsubstantial Streamlining Rule). This permit has appropriate pretreatment language for a facility of this size and complexity. The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of **January** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Effective December 21, 2023, the permittee must submit the pretreatment program annual status report electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

The permittee is under a continuing duty to: establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, to develop and enforce local limits as necessary, and to modify the approved POTW pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee is required to effectively enforce such limits and to modify their pretreatment program, including the Legal Authority, Enforcement Response Plan, and/or Standard Operating Procedures, if required by the Executive Director to reflect changing conditions at the POTW.

The permittee submitted on March 24, 2020, a written notification that they have performed a technical reassessment of their technically based local limits of their approved pretreatment program and found their current local limits to be protective of interference, pass-through, and sludge disposal requirements for the **Zacate Creek Wastewater Treatment Facility (WWTF)** (TPDES Permit No. WQ0010681002), **North Laredo WWTF** (TPDES Permit No. WQ0010681004) and the **South Laredo WWTF** (TPDES WQ0010681003). The TCEQ is currently reviewing this submission

D. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

- (1) The draft permit includes 48-hour acute freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 14%, 18%, 24%, 32%, and 43%. The low-flow effluent concentration (critical dilution) is defined as 32% effluent.
 - (a) Acute static renewal 48-hour definitive toxicity tests using the water flea (*Daphnia pulex*) or (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
 - (b) Acute static renewal 48-hour definitive toxicity test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.

- (2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:
 - (a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).
 - (b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

E. SUMMARY OF CHANGES FROM APPLICATION

None.

F. SUMMARY OF CHANGES FROM EXISTING PERMIT

The Interim phase in the existing permit was deleted since it is no longer applicable.

The Standard Permit Conditions, Sludge Provisions, Other Requirements, and Biomonitoring sections of the draft permit have been updated.

The pretreatment language has been updated from the current permit. The pretreatment requirements will continue until permit expiration. Please see specific details in the Pretreatment Requirements Section of the fact sheet.

For Publicly Owned Treatment Works (POTWs), effective December 21, 2023, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

Effective December 21, 2020, the permittee must submit the annual sludge report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The Reporting Requirements of the Sludge Provisions have also been updated.

Certain accidental discharges or spills of treated or untreated wastewater from wastewater treatment facilities or collection systems owned or operated by a local government may be reported on a monthly basis in accordance with 30 TAC § mml,.305.132.

Other Requirement No. 7 in the existing permit has been fulfilled and was removed. The summary transmittal letter for the Final phase has been reviewed and approved by TCEQ on September 13, 2016 (log# 0816/051).

Other Requirement No. 8 in the existing permit has been removed since the facility is currently operating in the Final phase.

Other Requirement No. 11 in the existing permit has been removed since the

closure of the aerobic digester has been completed based on the notification letter from the permittee dated on January 9, 2019.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated in Title 40 of the CFR require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b).

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged directly to Rio Grande Below Amistad Reservoir in Segment No. 2304 of the Rio Grande Basin. The designated uses for Segment No. 2304 are primary contact recreation, public water supply, and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and/or revisions.

A priority watershed of critical concern has been identified in Segment No. 2304 in Kinney and Val Verde Counties. The devil's river minnow, Dionda diaboli, a threatened aquatic species, has been determined to occur in the watershed of Segment No. 2304. To make this determination for TPDES permits, TCEQ and Environmental Protection Agency (EPA) only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the United States Fish and Wildlife Service's (USFWS's) biological opinion. Species distribution information for the Segment No. 2304 watershed is provided by the USFWS and documents the minnow's presence in Sycamore Creek, Pinto Creek, Pinto Spring, Las Moras Creek and Las Moras Spring in Kinney and Val Verde Counties. Based upon this information, it is determined that the facility's discharge is not expected to impact the devil's river minnow. The permit does not require EPA review with respect to the presence of endangered or threatened species. This determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion.

Segment No. 2304 is currently listed on the state's inventory of impaired and threatened waters (the 2018 Clean Water Act Section 303(d) list). The listing is specifically for elevated levels of bacteria from a point 0.66 kilometers (km) (0.41 mile) upstream of the confluence of the Arroyo El Lobo (Mexico) in Webb County upstream to the San Idelfonso Creek confluence (AU 2304_01), from the San Idelfonso Creek confluence upstream to International Bridge #2 (AU 2304_02), from the International Bridge #2 upstream to the City of Laredo water treatment plant intake (AU 2304_03), from El Indio upstream to downstream of U.S. Highway 277 (Eagle Pass) (AU 2304_07), and from the Las Moras Creek confluence upstream to the San Felipe Creek confluence (AU 2304_09). This facility is designed to provide adequate disinfection and, when operated properly, should not add to the bacterial impairment of the segment. In addition, in order to ensure that the discharge meets the stream bacterial standard, an effluent limitation of 126 CFU or MPN of *E. coli* per 100 ml will be continued in draft permit.

The pollutant analysis of treated effluent provided by the permittee in the application indicated 1060 mg/l total dissolved solids (TDS), 467 mg/l sulfate, and 1480 mg/l chloride present in the effluent. The segment criteria for Segment No. 2403 are 650 mg/l for TDS, 212 mg/l for sulfate, and 117 mg/l for chlorides. Based on the dissolved solids screening, no additional limits or monitoring requirements are needed for total dissolved solids, chloride, or sulfate. See Attachment A of this Fact Sheet.

The effluent limitations and conditions in the draft permit comply with EPA-approved portions of the 2018 Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10, effective March 1, 2018; 2014 TSWQS, effective March 6, 2014; 2010 TSWQS, effective July 22, 2010; and 2000 TSWQS, effective July 26, 2000.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Biochemical Oxygen Demand or Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The existing effluent limits have been reviewed for consistency with the WQMP. The existing limits are consistent with the approved WQMP.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

The facility is not located in the Coastal Management Program boundary.

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life.

The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

Water quality-based effluent limitations are calculated from freshwater aquatic life criteria found in Table 1 of the Texas Surface Water Quality Standards (30 TAC Chapter 307).

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters the Rio Grande Below Amistad Reservoir. The aquatic life mixing zone for this discharge is defined as 100 feet upstream and 300 feet downstream from the point where the Rio Grande Below Amistad Reservoir.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 18 MGD and the 7-day, 2-year (7Q2) flow of 845 cubic feet per second (cfs) for the Rio Grande Below Amistad Reservoir. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 18 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %:11.65%Chronic Effluent %:3.19%

Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard

number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segment-specific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards, June 2010." The segment values are 237 mg/l for hardness (as calcium carbonate), 117 mg/l chlorides, 7.7 standard units for pH, and 5.0 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water quality-based effluent limitation.

(b) **PERMIT ACTION**

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does not exceed 70% of the calculated daily average water quality-based effluent limitations for aquatic life protection.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue (and drinking water) found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation (and drinking water) criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 18 MGD and the harmonic mean flow of 1,706 cfs for the Rio Grande Below Amistad Reservoir. The following critical effluent percentage is being used:

Human Health Effluent %: 1.61%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation.

(b) PERMIT ACTION

Reported analytical data does not exceed 70% of the calculated daily average water quality-based effluent limitation for human health protection.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 2304, which receives the discharge from this facility, is designated as a public water supply. The screening procedure used to calculate water quality-based effluent limitations and determine the need for effluent limitations or monitoring requirements is identical to the procedure outlined in the aquatic organism bioaccumulation section of this fact sheet. Criteria used in the calculation of water quality-based effluent limitations for the protection of a drinking water supply are outlined in Table 2 (Water and Fish) of the Texas Surface Water Quality Standards (30 TAC Chapter 307). These criteria are developed from either drinking water maximum contaminant level (MCL) criteria outlined in 30 TAC Chapter 290 or from the combined human health effects of exposure to consumption of fish tissue and ingestion of drinking water.

(b) PERMIT ACTION

Criteria in the "Water and Fish" section of Table 2 do not distinguish if the criteria is based on a drinking water standard or the combined effects of ingestion of drinking water and fish tissue. Effluent limitations or monitoring requirements to protect the drinking water supply (and other human health effects) were previously calculated and outlined in the aquatic organism bioaccumulation criteria section of this fact sheet.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The existing permit includes 48-hour acute freshwater biomonitoring requirements. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee performed twenty-four 48-hour acute tests, with no demonstrations of significant toxicity (i.e., failures) by the water flea or fathead minnow.

A reasonable potential (RP) determination was performed in accordance with 40 CFR §122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The RP determination is based on representative data from the previous three years of chronic (or 48-hour acute) WET testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to the EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

With no demonstrations of significant toxicity during the period of record for either test species, a determination of no reasonable potential was made.

All of the test results were used for this determination.

(b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

(6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)

(a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language. A summary of the biomonitoring testing for the facility indicates that in the past three years, the permittee has performed twelve 24-hour acute tests, with no failures by the water flea and one failure by the fathead minnow.

(b) PERMIT ACTION

The draft permit includes 24-hour 100% acute biomonitoring tests for the life of the permit.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the Chief Clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for review and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case proceeding.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled Commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the Commission grants a contested case hearing as described above, the Commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the Commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.
For additional information about this application, contact Tong Li, E.I.T. at (512) 239-4653.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. PERMIT(S)

TPDES Permit No. WQ0010681003 issued on March 29, 2018.

B. APPLICATION

Application received on March 4, 2020, and additional information received on March 26, 2020 and June 18, 2020.

C. MEMORANDA

Interoffice memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice memorandum from the Pretreatment Team of the TCEQ Water Quality Division.

D. MISCELLANEOUS

Federal Clean Water Act § 402; Texas Water Code § 26.027; 30 TAC Chapters 30, 305, 309, 312, and 319; Commission policies; and U.S. Environmental Protection Agency guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by the U.S. Environmental Protection Agency, and the IP, January 2003, for portions of the 2010 IP not approved by the U.S. Environmental Protection Agency.

Texas 2018 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, September 27, 2019; approved by the U.S. Environmental Protection Agency on December 23, 2019.

Texas Natural Resource Conservation Commission, Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

ATTACHMENT A WQ0010681003 – City of Laredo TDS, CHLORIDE, AND SULFATE SCREENING

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate						
Menu 3 - Discharge to a Perennial Stream or River						
Applicant Name:	City of Lar	edo (Sou	th Laredo WWTP)		
Permit Number, Outfall:	10681-003					
Segment Number:	2304					
Enter values needed for screening:			Data Source (e	dit if differe	nt)	
QE - Average effluent flow	18	MGD				
QS - Perennial stream harmonic mean flow	1706.00	cfs	Critical conditions memo			
QE - Average effluent flow	27.8501	cfs	Calculated			
CA - TDS - ambient segment concentration	650	mg/L	2010 IP, Appendix D			
CA - chloride - ambient segment concentration	117	mg/L	2010 IP, Appendix D			
CA - sulfate - ambient segment concentration 212 mg/		mg/L	2010 IP, Appen	dix D		
CC - TDS - segment criterion	1,000	mg/L	2018 TSWQS, Appendix A			
CC - chloride - segment criterion	200	mg/L	2018 TSWQS, Appendix A			
CC - sulfate - segment criterion	300	mg/L	2018 TSWQS, A	ppendix A		
CE - TDS - average effluent concentration	1060	mg/L	Permit application			
CE - chloride - average effluent concentration	1480	mg/L	Permit application			
CE - sulfate - average effluent concentration	467	mg/L	Permit application			
Screening Equation						
$CC \ge [(QS)(CA) + (QE)(CE)]/[QE + QS]$						

ATTACHMENT A WQ0010681003 – City of Laredo TDS, CHLORIDE, AND SULFATE SCREENING

No further screening for TDS needed if:	656.59	<	1000		
No further screening for chloride needed if:	138.89	≤	200		
No further screening for sulfate needed if:	216.10	≤	300		
Permit Limit Calculations					
TDS					
Calculate the WLA	WLA= [CC((QE+QS) - ((QS)(CA)]/QE	22439.75	
Calculate the LTA	LTA = WLA	* 0.93		20868.97	
Calculate the daily average	Daily Avg.	= LTA * 1.4	17	30677.38	
Calculate the daily maximum	Daily Max.	. = LTA * 3.	11	64902.48	
Calculate 70% of the daily average	70% of Dai	ily Avg. =		21474.17	
Calculate 85% of the daily average	85% of Dai	ily Avg. =		26075.77	
No permit limitations needed if:	1060	≤	21474.17		
Reporting needed if:	1060	>	21474.17	but≤	26075.77
Permit limits may be needed if:	1060	>	26075.77		
No permit limitations needed for TDS					
Chloride					
Calculate the WLA	WLA= [CC((QE+QS) - ((QS)(CA)]/QE	5284.28	
Calculate the LTA	LTA = WLA	* 0.93		4914.38	
Calculate the daily average	Daily Avg.	= LTA * 1.4	17	7224.14	
Calculate the daily maximum	Daily Max. = LTA * 3.11		15283.73		
Calculate 70% of the daily average	70% of Daily Avg. =		5056.90		
Calculate 85% of the daily average	85% of Dai	ily Avg. =		6140.52	
No permit limitations needed if:	1480	≤	5056.90		
Reporting needed if:	1480	>	5056.90	but≤	6140.52
Permit limits may be needed if:	1480	>	6140.52		
No permit limitations needed for chloride					
Sulfate					
Calculate the WLA	WLA= [CC((QE+QS) - ((QS)(CA)]/QE	5690.57	
Calculate the LTA	LTA = WLA	* 0.93		5292.23	
Calculate the daily average	Daily Avg.	= LTA * 1.4	17	7779.57	
Calculate the daily maximum	Daily Max.	. = LTA * 3.	11	16458.82	
Calculate 70% of the daily average	70% of Dai	ily Avg. =		5445.70	
Calculate 85% of the daily average	85% of Dai	ily Avg. =		6612.64	
No permit limitations needed if:	467	≤	5445.70		
Reporting needed if:	467	>	5445.70	but≤	6612.64
Permit limits may be needed if:	467	>	6612.64		
No permit limitations needed for sulfate					
no permit minutions needed for sunate					



TPDES PERMIT NO. WQ0010681003 [For TCEQ office use only - EPA I.D. No. TX0085316]

This is a renewal that replaces TPDES Permit No. WQ0010681003 issued on

March 29, 2018.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY P.O. Box 13087 Austin, Texas 78711-3087

<u>PERMIT TO DISCHARGE WASTES</u> under provisions of Section 402 of the Clean Water Act

and Chapter 26 of the Texas Water Code

City of Laredo

whose mailing address is

1110 Houston Street Laredo, Texas 78040

is authorized to treat and discharge wastes from the South Laredo Wastewater Treatment Facility, SIC Code 4952

located at 309 River Front Street, in the City of Laredo, Webb County, Texas 78046

directly to Rio Grande Below Amistad Reservoir in Segment No. 2304 of the Rio Grande Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, five years from the date of issuance.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning upon the date of issuance and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 18 million gallons per day (MGD), nor shall the average discharge during any twohour period (2-hour peak) exceed 50,000 gallons per minute (gpm).

Effluent Characteristic		Discharge I	Limitations		Min. Self-Monitoring I	Requirements
	Daily Avg mg/l (lbs/day)	7-day Avg mg/l	Daily Max mg/l	Single Grab mg/l	Report Daily Avg. & Measurement Frequency	Daily Max. Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Biochemical Oxygen Demand (5-day)	20 (3,002)	30	45	65	One/day	Composite
Total Suspended Solids	20 (3,002)	30	45	65	One/day	Composite
<i>E. coli</i> , CFU or MPN/100 ml	126	N/A	399	N/A	Five/week	Grab

- 2. The effluent shall contain a chlorine residual of at least 1.0 mg/l and shall not exceed a chlorine residual of 4.0 mg/l after a detention time of at least 20 minutes (based on peak flow), and shall be monitored daily by grab sample. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample.
- 4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- 5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- 6. The effluent shall contain a minimum dissolved oxygen of 2.0 mg/l and shall be monitored once per day by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

Page 2

Outfall Number 001

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC § 305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§ 5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§ 361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in TWC § 26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

- 1. Flow Measurements
 - a. Annual average flow the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.
 - b. Daily average flow the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determinations on days of discharge.
 - c. Daily maximum flow the highest total flow for any 24-hour period in a calendar month.
 - d. Instantaneous flow the measured flow during the minimum time required to interpret the flow measuring device.
 - e. 2-hour peak flow (domestic wastewater treatment plants) the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
 - f. Maximum 2-hour peak flow (domestic wastewater treatment plants) the highest 2-hour peak flow for any 24-hour period in a calendar month.
- 2. Concentration Measurements
 - a. Daily average concentration the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

- ii. For all other wastewater treatment plants When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge the discharge of a pollutant measured during a calendar day or any 24hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

The daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the daily discharge determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (*E. coli* or Enterococci) Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
- g. Daily maximum loading (lbs/day) the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC § 319.9 (b).

- b. Grab sample an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
- 5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
- 6. Bypass the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§ 319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Compliance Monitoring Team of the Enforcement Division (MC 224), by the 20th day of the following month for each discharge which is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act (CWA); TWC §§ 26, 27, and 28; and THSC § 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

- 2. Test Procedures
 - a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
 - b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.
- 3. Records of Results
 - a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
 - b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period

of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site and/or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective December 21, 2023, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEO website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Compliance Monitoring Team of the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.
- 8. In accordance with the procedures described in 30 TAC §§ 35.301 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.
- 9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the Regional Office, orally or by facsimile transmission within 24 hours, and both the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D,

Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- i. One hundred micrograms per liter (100 μ g/L);
- ii. Two hundred micrograms per liter (200 μ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μ g/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
- iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
- iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 μ g/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- 10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC § 305.128 (relating to Signatories to Reports).

- 11. All POTWs must provide adequate notice to the Executive Director of the following:
 - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
 - c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

- 1. General
 - a. When the permittee becomes aware that it failed to submit any relevant facts in a permit

application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;
 - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.
- 2. Compliance
 - a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
 - b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
 - c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
 - d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
 - e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
 - f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
 - g. There shall be no unauthorized discharge of wastewater or any other waste. For the

purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 7.075 (relating to Administrative Penalties), 7.101 7.111 (relating to Civil Penalties), and 7.141 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).
- 3. Inspections and Entry
 - a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.
 - b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.
- 4. Permit Amendment and/or Renewal
 - a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for

determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or

- ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
- iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate upon the effective shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
- 5. Permit Transfer
 - a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of

facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

- b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).
- 6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to TWC Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

- 11. Notice of Bankruptcy
 - a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.
 - b. This notification must indicate:
 - i. the name of the permittee and the permit number(s);
 - ii. the bankruptcy court in which the petition for bankruptcy was filed; and

iii. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

- 1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
- 2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§ 319.21 319.29 concerning the discharge of certain hazardous metals.
- 3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
- 4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
- 5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
- 6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC § 7.302(b)(6).
- 7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for

information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §§ 1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words confidential business information on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

- 8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
 - a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion and/or upgrading of the domestic wastewater treatment and/or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment and/or collection facilities. In the case of a domestic wastewater treatment facility which reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
- c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be

made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

- 9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
- 10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
- 11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 221) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
 - f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:

- i. Volume of waste and date(s) generated from treatment process;
- ii. Volume of waste disposed of on-site or shipped off-site;
- iii. Date(s) of disposal;
- iv. Identity of hauler or transporter;
- v. Location of disposal site; and
- vi. Method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC § 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC § 361.

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. **The disposal of sludge by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Sewage Sludge. This provision does not authorize the permittee to land apply sludge on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE LAND APPLICATION

A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.
- 2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.

B. Testing Requirements

1. Sewage sludge shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 16) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 16) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year. Effective December 21, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

2. Sewage sludge shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C. of this permit.

<u>Pollutant</u>	<u>Ceiling Concentration</u> (<u>Milligrams per kilogram</u>)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

TABLE 1

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B pathogen requirements.

a. For sewage sludge to be classified as Class A with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

<u>Alternative 1</u> - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information;

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion; or

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

<u>Alternative 2</u> - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

<u>Alternative 3</u> - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information; or

<u>Alternative 4</u> - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

- c. Sewage sludge that meets the requirements of Class AB sewage sludge may be classified a Class A sewage sludge if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.
- d. Three alternatives are available to demonstrate compliance with Class B criteria for

sewage sludge.

Alternative 1

- i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

<u>Alternative 2</u> - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

<u>Alternative 3</u> - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a

single location, except as provided in paragraph v. below;

- ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;
- iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and
- v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1 - 3, the following site restrictions must be met if Class B sludge is land applied:

- i. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.
- v. Animals shall not be allowed to graze on the land for 30 days after application of sewage sludge.
- vi. Turf grown on land where sewage sludge is applied shall not be harvested for 1 year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn.

- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of sewage sludge.
- viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
- ix. Land application of sludge shall be in accordance with the buffer zone requirements found in 30 TAC § 312.44.
- 4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

- <u>Alternative 1</u> The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.
- <u>Alternative 2</u> If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.
- <u>Alternative 3</u> If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.
- <u>Alternative 4</u> The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.
- <u>Alternative 5</u> Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.
- <u>Alternative 6</u> The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.
- <u>Alternative 7</u> The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are

defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

<u>Alternative 8</u> - The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials at the time the sludge is used. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

- <u>Alternative 9</u> i. Sewage sludge shall be injected below the surface of the land.
 - ii. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.
 - iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
- <u>Alternative 10</u>i. Sewage sludge applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
 - ii. When sewage sludge that is incorporated into the soil is Class A or Class AB with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure	- annually
(TCLP) Test	-
PCBs	- annually

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of sewage sludg metric tons per 365-day	ge (*) 7 period	Monitoring Frequency
o to less than 29	0	Once/Year
290 to less than 1,50	00	Once/Quarter
1,500 to less than 15,00	00	Once/Two Months
15,000 or greater		Once/Month

(*) The amount of bulk sewage sludge applied to the land (dry wt. basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

A. Pollutant Limits

	Table 2	
<u>Pollutant</u> Arsenic Cadmium Chromium Copper Lead Mercury Molybdenum Nickel Selenium Zinc		Cumulative Pollutant Loading Rate (<u>pounds per acre</u>)* 36 35 2677 1339 268 15 Report Only 375 89 2500
	Table 3	Monthly Average
Dollutont		Concentration
Arsenic		(<u>ininigranis per Kilograni</u>) 41
Cadmium		39
Chromium		1200
Copper		1500
Lead		300
Mercury		17 Benert Only
Nickel		
Selenium		420
Zinc		2800

*Dry weight basis

B. Pathogen Control

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B pathogen reduction requirements as defined above in Section I.B.3.

C. Management Practices

- 1. Bulk sewage sludge shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
- 2. Bulk sewage sludge not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.
- 3. Bulk sewage sludge shall be applied at or below the agronomic rate of the cover crop.
- 4. An information sheet shall be provided to the person who receives bulk sewage sludge sold or given away. The information sheet shall contain the following information:
 - a. The name and address of the person who prepared the sewage sludge that is sold or given away in a bag or other container for application to the land.
 - b. A statement that application of the sewage sludge to the land is prohibited except in accordance with the instruction on the label or information sheet.
 - c. The annual whole sludge application rate for the sewage sludge application rate for the sewage sludge that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

- 1. If bulk sewage sludge is applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk sewage sludge is proposed to be applied. The notice shall include:
 - a. The location, by street address, and specific latitude and longitude, of each land application site.
 - b. The approximate time period bulk sewage sludge will be applied to the site.
 - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk sewage sludge.
- 2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.

E. Record keeping Requirements

The sludge documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at

the facility site and/or shall be readily available for review by a TCEQ representative for a period of <u>five years</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

- 1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), <u>or</u> the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
- 2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B sludge, if applicable).
- 3. A description of how the vector attraction reduction requirements are met.
- 4. A description of how the management practices listed above in Section II.C are being met.
- 5. The following certification statement:

"I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk sewage sludge is applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

- 6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk sewage sludge or a sewage sludge material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative <u>indefinitely</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:
 - a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
 - b. The location, by street address, and specific latitude and longitude, of each site on which sludge is applied.
 - c. The number of acres in each site on which bulk sludge is applied.
 - d. The date and time sludge is applied to each site.

- e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
- f. The total amount of sludge applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 16) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year the following information. Effective December 21, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

- 1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.
- 3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
- 4. The frequency of monitoring listed in Section I.C. that applies to the permittee.
- 5. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 6. PCB concentration in sludge in mg/kg.
- 7. Identity of hauler(s) and TCEQ transporter number.
- 8. Date(s) of transport.
- 9. Texas Commission on Environmental Quality registration number, if applicable.
- 10. Amount of sludge disposal dry weight (lbs/acre) at each disposal site.
- 11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.
- 12. Level of pathogen reduction achieved (Class A, Class AB or Class B).
- 13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B sludge, include information on how site restrictions were met.

- 14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.
- 15. Vector attraction reduction alternative used as listed in Section I.B.4.
- 16. Amount of sludge transported in dry tons/year.
- 17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge treatment activities, shall be attached to the annual reporting form.
- 18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.
 - a. The location, by street address, and specific latitude and longitude.
 - b. The number of acres in each site on which bulk sewage sludge is applied.
 - c. The date and time bulk sewage sludge is applied to each site.
 - d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk sewage sludge applied to each site.
 - e. The amount of sewage sludge (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

- A. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- B. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge disposal practice.
- D. Sewage sludge shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

Following failure of any TCLP test, the management or disposal of sewage sludge at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 16) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 16) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

- E. Sewage sludge shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- F. Record keeping Requirements

The permittee shall develop the following information and shall retain the information for five years.

- 1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.
- 2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 16) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year the following information. Effective December 21, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

- 1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 3. Annual sludge production in dry tons/year.
- 4. Amount of sludge disposed in a municipal solid waste landfill in dry tons/year.
- 5. Amount of sludge transported interstate in dry tons/year.
- 6. A certification that the sewage sludge meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- 7. Identity of hauler(s) and transporter registration number.
- 8. Owner of disposal site(s).
- 9. Location of disposal site(s).
- 10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge that is transported to another wastewater treatment facility or facility that further processes sludge. These provisions are intended to allow transport of sludge to facilities that have been authorized to accept sludge. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.
- 2. Sludge may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

- 1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:
 - a. the amount of sludge transported;
 - b. the date of transport;
 - c. the name and TCEQ permit number of the receiving facility or facilities;
 - d. the location of the receiving facility or facilities;
 - e. the name and TCEQ permit number of the facility that generated the waste; and
 - f. copy of the written agreement between the permittee and the receiving facility to accept sludge.
- 2. For sludge transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge transported.
- 3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 16) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year. Effective December 21, 2020, the permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

- 1. Identify in the following categories (as applicable) the sewage sludge treatment process or processes at the facility: preliminary operations (e.g., sludge grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. the annual sludge production;
- 3. the amount of sludge transported;
- 4. the owner of each receiving facility;
- 5. the location of each receiving facility; and
- 6. the date(s) of disposal at each receiving facility.

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OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and in particular 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category A facility must be operated by a chief operator or an operator holding a Class A license or higher. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

- 2. The facility is not located in the Coastal Management Program boundary.
- 3. Chronic toxic criteria apply at the edge of the mixing zone. The mixing zone is defined as 300 feet downstream and 100 feet upstream from the point of discharge.
- 4. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).
- 5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
- 6. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, 5/week may be reduced to 3/week. A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater Permitting Section (MC 148). The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.
- 7. The permittee is authorized to receive, process, and dispose of the wastewater sludge generated at the Columbia Bridge Wastewater Treatment Plant (WWTP) (Permit No. WQ0010681006), Unitec WWTP (Permit No. WQ0010681005), North Laredo WWTP (Permit No. WQ0010681004), Webb County Detention Center WWTP (Permit No. WQ0012271001), El Cenizo WWTP (Permit No. WQ0013577001), Zacate Creek WWTP

(Permit No. WQ0010681002), Penitas WWTP (Permit No. WQ0010681007), and Sombreretillo WWTP (Permit No. WQ0010681008). The permittee shall ensure that the appropriate sludge metals and toxicity characteristic leaching procedure (TCLP) analysis satisfies 30 TAC Chapter 312 rules for disposing of sewage sludge.

- 8. The permittee must maintain capacity in the South Laredo Wastewater Treatment Facility to treat the supernatant from the Zacate Creek digester. The permittee shall monitor the flow and five-day biochemical oxygen demand (BOD₅) concentration of the supernatant.
- 9. The expansion of this facility to 18 million gallons per day is designed to accommodate wastewater flow currently being treated at another facility (City of Laredo Zacate Creek WWTP, WQ0010681002). The Zacate Creek facility will be closed after its wastewater flow is diverted. The modeling analysis was performed assuming cessation of discharge from the Zacate Creek facility.

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

1. The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved **City of Laredo** publicly owned treatment works (POTW) pretreatment program submitted by the permittee. The pretreatment program was approved on **December 29, 2005,** and modified on **August 20, 2020** (nonsubstantial Streamlining Rule).

The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- a. Industrial user (IU) information shall be kept current according to 40 CFR §§403.8(f)(2)(i) and (ii) and updated at a frequency set forth in the approved pretreatment program to reflect the accurate characterization of all IUs.
- b. The frequency and nature of IU compliance monitoring activities by the permittee shall be consistent with the approved POTW pretreatment program and commensurate with the character, consistency, and volume of waste. The permittee is required to inspect and sample the effluent from each significant industrial user (SIU) at least once per year, except as specified in 40 CFR §403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities.
- c. The permittee shall enforce and obtain remedies for IU noncompliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program.
- d. The permittee shall control through permit, order, or similar means, the contribution to the POTW by each IU to ensure compliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program. In the case of SIUs (identified as significant under 40 CFR §403.3(v)), this control shall be achieved through individual permits or general control mechanisms, in accordance with 40 CFR §403.8(f)(1)(iii).

Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;

- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
- e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).
- f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
- g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
- h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.

If after review of a substantial modification submission, the Executive Director determines that the submission does not comply with applicable requirements, including 40 CFR §§403.8 and 403.9, the Executive Director will notify the permittee. According to 40 CFR §403.11(c), the notification will include suggested revisions to bring the substantial modification submission into compliance with applicable requirements, including 40 CFR §§403.8(b) and (f) and 403.9(b). In such a case, revised information will be necessary for the Executive Director to make a determination on whether to approve or deny the permittee's substantial modification submission.

Upon approval by the Executive Director of a substantial modification to this approved POTW pretreatment program the requirement to develop and enforce specific prohibitions and/or limits to implement the prohibitions and limits set forth in 40 CFR §§403.5(a)(1), (b), (c)(1) and (3), and (d) is a condition of this permit. The specific prohibitions set out in 40 CFR §403.5(b) shall be enforced by the permittee unless modified under this provision.

3. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in the Texas Surface Water Quality Standards [30 TAC Chapter 307], and 40 CFR Part 122, Appendix D, Table II at least **once per year** and the toxic pollutants listed in 40 CFR Part 122, Appendix D, Table III at least **once per six months**. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in 40 CFR Part 122, Appendix D, Table II at least **once per six months**. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in 40 CFR Part 122, Appendix D, Table V, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least **once per six months** on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24-hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR Part 136, as amended; as approved by the EPA through the application for alternate test procedures; or as suggested in Tables E-1 and E-2 of the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194), June 2010, as amended and adopted by the TCEQ. The effluent samples shall be analyzed to the minimum analytical level (MAL), if necessary, to determine compliance with the daily average water quality based effluent concentration from the TCEQ's Texas Toxicity Modeling Program (TEXTOX) and other applicable water quality discharge standards. Where composite samples are inappropriate due to sampling, holding time, or analytical constraints, at least four (4) grab samples shall be taken at equal intervals over a representative 24-hour period.

4. The permittee shall prepare annually a list of IUs, which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS," SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [*rev.* 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **January** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

In addition, each **January** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §§403.12(i) [*rev. 10/22/15*] and (m), to the TCEQ Pretreatment Team (MC148) of the Water Quality Division. The report summary shall be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218]. The report shall contain the following information as well as the information on the tables in this section:

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
 - (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code *and* categorical determination.
 - (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [*rev.* 10/14/05], then the list must also identify:

- categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR § 403.12(e)(1) [*rev. 10/22/15*] and (3);
- those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
- those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
- (3) Control mechanism status.
 - Indicate whether the IU has an effective individual or general control mechanism, and the date such control mechanism was last issued, reissued, or modified;
 - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
 - Include the type of general control mechanisms; and
 - Report all NSCIU annual evaluations performed, as applicable.
- (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
 - Total number of inspections performed; and
 - Total number of sampling events conducted.
- (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
 - Compliant (C) no violations during the pretreatment year reporting period;
 - Non-compliant (NC) one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
 - Significant Noncompliance (SNC) in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.), and the current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.

- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, Act of God, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee.
- d. The results of all influent and effluent analyses performed pursuant to Item 3 of this section.
- e. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of IUs that meet the criteria of SNC, giving the name of the newspaper and date the list was published.
- f. The daily average water quality based effluent concentrations (from the TCEQ's Texas Toxicity Modeling Program (TexTox)) necessary to attain the Texas Surface Water Quality Standards, 30 TAC Chapter 307, in water in the state.
- g. The maximum allowable headworks loading (MAHL) in pounds per day (lb/day) of the approved TBLLs or for each pollutant of concern (POC) for which the permittee has calculated a MAHL. In addition, the influent loading as a percent of the MAHL, using the annual average flow of the wastewater treatment plant in million gallons per day (MGD) during the pretreatment year reporting period, for each pollutant that has an adopted TBLL or for each POC for which the permittee has calculated a MAHL. (*See Endnotes No. 2 at the end of this section for the influent loading as a percent of the MAHL equation.*)
- h. The permittee may submit the updated pretreatment program annual status report information in tabular form using the example table format provided. Please attach, on a separate sheet, explanations to document the various pretreatment activities, including IU permits that have expired, BMP violations, and any sampling events that were not conducted by the permittee as required.
- i. A summary of changes to the POTW's approved pretreatment program that have not been previously reported to the Approval Authority.

Effective December 21, 2023, the permittee must submit the updated pretreatment program annual status report required by this section electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. *[rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].*

- 5. The permittee shall provide adequate written notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the Clean Water Act, if the indirect discharger was directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works

at the time of issuance of the permit.

Adequate notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Revised June 2020

TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List

Reporting month/year: _____, ____ to _____, ____

TPDES Permit No.: Permittee: Treatment Plant:

PRE	TREATN	IENT	PR(DGRA	M ST	TATUS	REP	ORT	UP	DAT	ED	INDU	STRI/	AL US	ERS1	LIST
ə				CON MECH	NTRO HANIS	L SM		he CA	le CA	((D C = 0 SNC	COM uring t Re Compli C= Sign	PLIAN he Pret porting ant, NC ificant	CE STA reatme g Perioc C = Nor Nonco	TUS ent Yea l ⁴ ncomp mplia	ar liant, nce)
r Nam	Code			r NR			or N)	ed by t	l by th		RI	EPORT	s			
Industrial User	SIC or NAICS (CIU ²	m Y/N or NR5	IND or GEN of	Last Action ⁶	TBLLs or TBLLs only ⁷	New User ³ (Y	Times Inspecte	Times Sampled	BMR	90-Day	Semi- Annual	Self- Monitoring ⁸	NSCIU Certifications	Effluent Limits	Narrative Standards

- Include all significant industrial users (SIUs), non-significant categorical industrial users (NSCIUs) as 1 defined in 40 CFR §403.3(v)(2), and/or middle tier categorical industrial users (MTCIUs) as defined in 40 CFR §403.12(e)(3). Please do not include non-significant noncategorical IUs that are covered under best management practices (BMPs) or general control mechanisms.
- Categorical determination (include 40 CFR citation and NSCIU or MTCIU status, if applicable). 2
- Indicate whether the IU is a new user. If the answer is No or N, then indicate the expiration date of the 3 last issued IU permit.
- The term SNC applies to a broader range of violations, such as daily maximum, long-term average, 4 instantaneous limits, and narrative standards (which may include enforceable BMPs, narrative limits and/or operational standards). Any other violation, or group of violations, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program now includes BMP violations (40 CFR §403.8(f)(2)(viii)(H)).
- Code NR= None required (NSCIUs only): IND = individual control mechanism: GEN = general control 5 mechanism. Include as a footnote (or on a separate page) the name of the general control mechanism used for similar groups of IUs, identify the similar types of operations and types of wastes that are the same for each general control mechanism. Any BMPs through general control mechanisms that are applied to nonsignificant IUs need to be reported separately, *e.g.* the sector type and BMP description.
- Permit or NSCIU evaluations as applicable. 6
- According to 40 CFR §403.12(i)(1), indicate whether the IU is subject to technically based local limits 7 (TBLLs) that are more stringent than categorical pretreatment standards, e.q. where there is one endof-pipe sampling point at a CIU, and you have determined that the TBLLs are more stringent than the categorical pretreatment standards for any pollutant at the end-of-pipe sampling point; **OR** the IU is subject only to local limits (TBLLs only), e.g. the IU is a non-categorical SIU subject only to TBLLs at the end-of-pipe sampling point.
- For those IUs where a monitoring waiver has been granted, please add the code "W" (after either C, 8 NC, or SNC codes) and indicate the pollutant(s) for which the waiver has been granted.

TPDES Pretreatment Program Annual Report Form *Revised* July 2007 TCEQ-20218a

TPDES Pretreatment Program Annual Report Form for Industrial User Inventory Modifications

Reporting month/year: _____, ____ to ____, ____

 TPDES Permit No:
 Permittee:
 Treatment Plant:

	INDUSTI	RIAL USER I	NVENTORY MC	DIFICATIONS	
FACILITY NAME,	ADD, CHANGE.	IF DELETION:	IF ADDITIC	ON OR SIGNIFICA	ANT CHANGE:
ADDRESS AND CONTACT PERSON	DELETE (Including categorical reclassification to NSCIU or MTCIU)	Reason For Deletion	PROCESS DESCRIPTION	POLLUTANTS (Including any sampling waiver given for each pollutant not present)	FLOW RATE ⁹ (In gpd) R = Regulated U = Unregulated T = Total

9 For NSCIUs, total flow must be given, if regulated flow is not determined.

TCEQ-20218b TPDES Pretreatment Program Annual Report Form

Revised July 2007

TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken

Reporting month/year: _____, ____ to ____, ____

 TPDES Permit No:
 Permittee:
 Treatment Plant:

Overall SNC % SNC ¹⁰ based on: Effluent Violations % Reporting Violations___% Narrative Standard Violations___%

	N	Nonc	ompli	iant In	dus	trial	Use	rs - l	Enfe	orceme	ent A	ctio	ns T	aken	
	Nat	ure o	f Viola	tion 11	Nu	ımbe T	r of A 'aken	Action	ns	d (Do arge)	Cor Sc	nplia hedu	nce ile	turned or N)	
Industrial User Name	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	NOV	A.O.	Civil	Criminal	Other	Penalties Collecte not Include Surch	Y or N	Date Issued	Date Due	Current Status Re to Compliance: (Y	Comments

10 <u>#__%</u>

Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)

_____ Reporting Requirements [WENDB-PSNC]

_____ Narrative Standards

Please specify a separate number for each type of violation, *e.g.* report, notification, 11 and/or NSCIU certification.

TCEQ-20218c TPDES Pretreatment Program Annual Report Form Revised July 2007

TPDES Pretreatment Program Annual Report Form for Influent and Effluent Monitoring Results¹

Reporting month/year: _____, ____ to _____, ____

 TPDES Permit No.:
 Permittee:
 Treatment Plant:

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS

POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influ easure ual Cor or < 1	uent d in µg ncentra MAL)	j/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Me (Actu	Effle easure ual Cor or < N	uent d in µg ncentra /IAL) 4	/L ation
		Date	Date	Date	Date			Date	Date	Date	Date
METALS, CYANIDE AND PHI	ENOLS				·					·	
Antimony, Total											
Arsenic, Total											
Beryllium, Total											
Cadmium, Total											
Chromium, Total											
Chromium (Hex)											
Chromium (Tri) ⁵											
Copper, Total											
Lead, Total											
Mercury, Total											
Nickel, Total											
Selenium, Total											
Silver, Total											
Thallium, Total											
Zinc, Total											

PRETREATMENT	PROGRAM IN	NFLU	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	M (Act	Influ easure ual Cor or < 1	ıent d in μg ncentra MAL)	/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Mo (Actu	Effl easure ual Cor or < N	uent d in µg ncentra IAL) 4	/L ation
		Date	Date	Date	Date			Date	Date	Date	Date
Cyanide, Available ⁶											
Cyanide, Total											
Phenols, Total											
VOLATILE COMPOUNDS		JI	I <u></u>				I <u></u>	JI		I <u></u>	
Acrolein											
Acrylonitrile											
Benzene			I								
Bromoform							See TTHM				
Carbon Tetrachloride			ı							1	
Chlorobenzene											
Chlorodibromomethane							See TTHM				
Chloroethane											
2-Chloroethylvinyl Ether											
Chloroform							See TTHM				
Dichlorobromomethane							See TTHM				
1,1-Dichloroethane											
1,2-Dichloroethane											
1,1-Dichloroethylene											
1,2-Dichloropropane											

PRETREATMENT P	ROGRAM IN	IFLU	ENT A	ND E	FFLU	ENT MOI	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	Mo (Act	Infl easure ual Cor or < 1	uent d in µg ncentra MAL)	/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Mo (Act	Efflu easure ual Con or < M	uent d in µg ncentra IAL) 4	/L ation
		Date	Date	Date	Date			Date	Date	Date	Date
1,3-Dichloropropylene											
Ethyl benzene											
Methyl Bromide											
Methyl Chloride											
Methylene Chloride											
1,1,2,2-Tetra-chloroethane											
Tetrachloroethylene											
Toluene											
1,2-Trans-Dichloroethylene											
1,1,1-Trichloroethane											
1,1,2-Trichloroethane											
Trichloroethylene											
Vinyl Chloride											
ACID COMPOUNDS	<u>, , , , , , , , , , , , , , , , , , , </u>	<u></u>	11	<u>11</u>				<u>. </u>	1	<u></u>	
2-Chlorophenol											
2,4-Dichlorophenol											
2,4-Dimethylphenol											
4,6-Dinitro-o-Cresol											
2,4-Dinitrophenol											
2-Nitrophenol	·										

PRETREATMENT P	ROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MOI	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	Mo (Actu	Influ easure	uent d in µg ncentra	/L ation	Average Influent % of the	Daily Average Effluent Limit	Mo (Actu	Effl easure	uent d in µg ncentra	/L ation
			or <]	MAL)	1	MAHL ²	(µg/L) ³		or < N	(IAL) 4	
	1	Date	Date	Date	Date		1	Date	Date	Date	Date
4-Nitrophenol											
P-Chloro-m-Cresol											
Pentachlorophenol											
Phenol											
2,4,6-Trichlorophenol											
BASE/NEUTRAL COMPOUN	DS	1				7 <u>. </u>	<u> </u>				
Acenaphthene											
Acenaphthylene											
Anthracene											
Benzidine											
Benzo(a)Anthracene											
Benzo(a)Pyrene											
3,4-Benzofluoranthene											
Benzo(ghi)Perylene											
Benzo(k)Fluoranthene											
Bis(2-Chloroethoxy)Methane											
Bis(2-Chloroethyl)Ether											
Bis(2-Chloroisopropyl)Ether											
Bis(2-Ethylhexyl)Phthalate											
4-Bromophenyl Phenyl Ether											

PRETREATMENT P	ROGRAM IN	IFLU	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	M (Act	Infl easure ual Cor or < 1	uent d in µg ncentra MAL)	/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Mo (Act	Efflu easure ual Con or < N	uent d in µg ncentra IAL) 4	;/L ation
		Date	Date	Date	Date			Date	Date	Date	Date
Butylbenzyl Phthalate											
2-Chloronaphthalene											
4-Chlorophenyl Phenyl Ether											
Chrysene						·					
Dibenzo(a,h)Anthracene											
1,2-Dichlorobenzene											
1,3-Dichlorobenzene											
1,4-Dichlorobenzene											
3,3-Dichlorobenzidine											
Diethyl Phthalate											
Dimethyl Phthalate											
Di-n-Butyl Phthalate											
2,4-Dinitrotoluene											
2,6-Dinitrotoluene											
Di-n-Octyl Phthalate											
1,2-Diphenyl Hydrazine											
Fluoranthene											
Fluorene											
Hexachlorobenzene											
Hexachlorobutadiene											

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PRETREATMENT P	ROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influ easured ual Con or < 1	uent d in µg ncentra MAL)	;/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Me (Actu	Efflu easure ual Cou or < M	uent d in µg ncentra IAL) 4	/L ation
		Date	Date	Date	Date			Date	Date	Date	Date
Hexachloro- cyclopentadiene											
Hexachloroethane											
Indeno(1,2,3-cd)pyrene											
Isophorone											
Naphthalene											
Nitrobenzene											
N-Nitrosodimethylamine											
N-Nitrosodi-n-Propylamine											
N-Nitrosodiphenylamine											
Phenanthrene											
Pyrene											
1,2,4-Trichlorobenzene											
PESTICIDES	<u>,</u>			<u></u>		<u>, , , , , , , , , , , , , , , , , , , </u>	<u>.</u>	·			
Aldrin											
Alpha-hexachlorocyclohexane (BHC)											
beta-BHC											
gamma-BHC (Lindane)											
delta-BHC											
Chlordane											
4,4-DDT											

PRETREATMENT P	ROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MOI	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	Mo (Act	Influe easure ual Cor or < 1	uent d in µg ncentra MAL)	/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Mo (Act	Efflu easure ual Cor or < N	uent d in µg ncentra IAL) 4	;/L ation
		Date	Date	Date	Date			Date	Date	Date	Date
4,4-DDE											
4,4-DDD											
Dieldrin											
alpha-Endosulfan											
beta-Endosulfan											
Endosulfan Sulfate											
Endrin											
Endrin Aldehyde											
Heptachlor											
Heptachlor Epoxide											
Polychlorinated biphenols (PCBs) The sum of PCB concentrations not to exceed daily average value.											
PCB-1242							See PCBs				
PCB-1254							See PCBs				
PCB-1221							See PCBs				
PCB-1232							See PCBs				
PCB-1248							See PCBs	·			
PCB-1260							See PCBs				
PCB-1016							See PCBs				

PRETREATMENT P	ROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MON	NITORIN	G RES	SULTS	3	
POLLUTANT	MAHL, if Applicable in lb/day	Me (Actu	Influ easure ual Cou or < 1	uent d in µg ncentra MAL)	/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Mo (Acti	Effl easure ual Cor or < N	uent d in µg ncentra /IAL) 4	/L ation
	-	Date	Date	SAND EFFLUENT MONITORING RESULTS Influent % of the MAHL2 Daily Average Influent % of the MAHL2 Daily Average Officient (Actual Councentron < MAL) 4 Concentration % of the MAHL2 Daily Average Officient (MAL) 3 Daily Average Officient (Measured in $\mu e MAL) 4$ Participation (MAL) 3 Date Date Date Date Date Date Date Date Date CHAPTER 307 UNDER SOTAC CHAPTER 307 Influent (Measured in $\mu e MAL) 4$ Influent (Measured in $\mu e MAL) 4$ Date Date Date Date Date Date Date Date Jate Math2 Influent (Measured in $\mu e MAL) 4$ Influent (MaL) 3 Date Date Date Jate Math2 Influent (Measured in $\mu e MAL) 4$ Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ Jate Math2 Influent (Measured in $\mu e MAL) 4$ <td>Date</td>							Date
Toxaphene											
ADDITIONAL TOXIC POLLU	TANTS REG	ULAT	ED U	NDER	30 T	AC CHAP	TER 307				
Aluminum											
Barium											
Bis(chloromethyl)ether 7											
Carbaryl											
Chloropyrifos											
Cresols											
2,4-D											
Danitol ⁸											
Demeton											
Diazinon											
Dicofol											
Dioxin/Furans 9											
Diuron											
Epichlorohydrin 9											
Ethylene glycol 9											
Fluoride											
Guthion											
Hexachlorophene											

PRETREATMENT P	ROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MOI	NITORIN	G RES	SULTS	5	
POLLUTANT	MAHL, if Applicable in lb/day	NFLUENT AND EFFLUENT Influent Measured in μ g/L (Actual Concentration or < WAL)		Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Mo (Act	Efflu easure ual Cou or < N	uent d in µg ncentra IAL) 4	;/L ation		
		Date	Date	Date	Date			Date	Date	Date	Date
4,4'- Isoproplidenediphenolediphenol (biphenol A) 9											
Malathion											
Methoxychlor											
Methyl Ethyl Ketone											
Methyl tert-butyl-ether (MTBE)											
Mirex											
Nitrate-Nitrogen											
N-Nitrosodiethylamine											
N-Nitroso-di-n-Butylamine											
Nonylphenol											
Parathion											
Pentachlorobenzene											
Pyridine											
1,2-Dibromoethane											
1,2,4,5-Tetrachlorobenzene											
2,4,5-TP (Silvex)											
Tributyltin 9											
2,4,5-Trichlorophenol											
TTHM (Total Trihalomethanes)											

Endnotes:

- 1. It is advised that the permittee collect the influent and effluent samples considering flow detention time through each wastewater treatment plant (WWTP).
- 2. The MAHL of the approved TBLLs or for each pollutant of concern (POC) for which the permittee has calculated a MAHL. Only complete the column labeled "Average Influent % of the MAHL," as a percentage, for pollutants that have approved TBLLs or for each POC for which the permittee has calculated a MAHL (U.S. Environmental Protection Agency *Local Limits Development Guidance*, July 2004, EPA933-R-04-002A).

The % of the MAHL is to be calculated using the following formulas:

Equation A: $L_{INF} = (C_{POLL} \times Q_{WWTP} \times 8.34) / 1000$

Equation B: $L_{\%}$ = (L_{INF} / MAHL) x 100

Where:	
$L_{INF} =$	Current Average (Avg) influent loading in lb/day
$C_{POLL} =$	Avg concentration in μ g/L of all influent samples collected during the pretreatment year.
Q _{WWTP} =	Annual average flow of the WWTP in MGD, defined as the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months (or during the pretreatment year), and as described in the Definitions and Standard Permit Conditions section.
L% =	% of the MAHL
MAHL =	Calculated MAHL in lb/day
8.34 =	Unit conversion factor

- 3. Daily average effluent limit (metal values are for total metals) as derived by the Texas Toxicity Modeling Program (TexTox). Effluent limits as calculated are designed to be protective of the Texas Surface Water Quality Standards. The permittee shall determine and indicate which effluent limit is the most stringent between the 30 TAC Chapter 319, Subchapter B (Hazardous Metals) limit, TexTox values, or any applicable limit in the Effluent Limitations and Monitoring Requirements Section of this TPDES permit. Shaded blocks need not be filled in unless the permittee has received a permit requirement/limit for the particular parameter.
- 4. Minimum analytical levels (MALs) and analytical methods as suggested in Tables E-1 and E-2 of the *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), as amended and adopted by the TCEQ. Pollutants that are not detectable above the MAL need to be reported as less than (<) the MAL numeric value.
- 5. Report result by subtracting Hexavalent Chromium from Total Chromium.
- 6. Either the method for Amenable to Chlorination or Weak-Acid Dissociable is authorized.
- 7. Hydrolyzes in water. Will not require permittee to analyze at this time.
- 8. EPA procedure not approved. Will not require permittee to analyze at this time.
- 9. Analyses are not required at this time for these pollutants unless there is reason to believe that these pollutants may be present.

TCEQ-20218d TPDES Pretreatment Program Annual Report Form Rev

Revised February 2020

BIOMONITORING REQUIREMENTS

48-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

- 1. <u>Scope, Frequency, and Methodology</u>
 - a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival of the test organisms.
 - b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
 - 1) Acute static renewal 48-hour definitive toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.
 - 2) Acute static renewal 48-hour definitive toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and submit a valid test for each test species during the required reporting period for that species. A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution. A repeat test shall include the control and all effluent dilutions and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 14%, 18%, 24%, 32%, and 43% effluent. The critical dilution, defined as 32% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, a chemical-specific limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.
- e. Testing Frequency Reduction
 - 1) If none of the first four consecutive quarterly tests demonstrates

significant lethal effects, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

2) If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant lethal effects, the permittee shall resume a quarterly testing frequency for that species until this permit is reissued.

2. <u>Required Toxicity Testing Conditions</u>

- a. Test Acceptance The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:
 - 1) a control mean survival of 90% or greater; and
 - 2) a coefficient of variation percent (CV%) of 40 or less for both the control and critical dilution. However, if significant lethality is demonstrated, a CV% greater than 40 shall not invalidate the test. The CV% requirement does not apply when significant lethality occurs.
- b. Statistical Interpretation
 - 1) The statistical analyses used to determine the inhibition concentration of effluent that would cause a 25% reduction (IC25) in survival shall be as described in the methods manual referenced in Part 1.b.
 - 2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled "Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.
 - 4) Most point estimates are derived from a mathematical model that assumes a continuous dose-response relationship. For any test result that demonstrates a non-continuous (threshold) response, or a nonmonotonic dose-response relationship, the IC25 should be determined based on the method guidance manual referenced in Item 2.
 - 5) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic dose-response relationship may be submitted, prior to the due date, for technical review of test validity and acceptability. The method guidance manual referenced in Item 2 will be used as the basis, along with best professional judgment, for making a determination of test validity and acceptability.

- c. Dilution Water
 - 1) Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:
 - a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or
 - b) use the closest downstream perennial water unaffected by the discharge.
 - 2) Where the receiving water proves unsatisfactory as a result of preexisting instream toxicity (i.e. fails to fulfill the test acceptance criteria Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;
 - b) the test indicating receiving water toxicity was carried out to completion; and
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.
 - 3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.
- d. Samples and Composites
 - 1) The permittee shall collect a minimum of two composite samples from Outfall 001. The second composite sample will be used for the renewal of the dilution concentrations for each toxicity test.
 - 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding

time for the subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

- 4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.
- 5) The effluent sample may be dechlorinated after sample collection.

3. <u>Reporting</u>

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b for every valid and invalid toxicity test initiated, whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
 - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter T4M3D, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter T6M3D, report the IC25 for survival.

- 3) For the fathead minnow, Parameter T4M6C, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
- 4) For the fathead minnow, Parameter T6M6C, report the IC25 for survival.
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the IC25 for survival is less than the critical dilution; otherwise, enter a "0."
- 4. <u>Persistent Toxicity</u>

The requirements of this part apply only when a toxicity test demonstrates significant lethality. Significant lethality was defined in Part 2.b.

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates significant lethality. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.
- c. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

5. <u>Toxicity Reduction Evaluation</u>

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity

characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identifications: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- 3) Quality Assurance Plan The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
- 4) Project Organization The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - 1) results and interpretation of any chemical specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation which identifies the

pollutant(s) and source of effluent toxicity;

- 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
- 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
- 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing

the selected control mechanism.

- h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

Dates and Times Composites Collected		No. 1 FRO	D M: M:	Date Time	I TO: TO:	Date Time			
Test initiated: Dilution water used:		am/pmdatedatedate							
Time	Rep	Percent effluent							
		0%	14%	18%	24%	32%	43%		
24h	A								
	В								
	C								
	D								
	E								
48h	A								
	В								
	C								
	D								
	E								
Mean at test end									
CV%*									

*Coefficient of Variation = Standard Deviation x 100/mean

1. Is the IC25 for survival less than the critical dilution (32%)? _____ YES _____ NO

2. Enter percent effluent corresponding to the IC25 below:

IC25 survival = ____%

TABLE 1 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

Dates and Times Composites Collected		No. 1 FROM	D M: M:	ate Time	_ TO: TO:	Date Tir	ne				
Test initiated:		am/pmdate									
Di	lution wate	used: Receiving water Synthetic Dilution water									
PERCENT SURVIVAL											
Time	Rep	Percent effluent									
		0%	14%	18%	24%	32%	43%				
24h	A										
	В										
	C										
	D										
	E										
48h	А										
	В										
	C										
	D										
	E										
Mean at test end											
CV%*											

* Coefficient of Variation = standard deviation x 100/mean

1. Is the IC25 for survival less than the critical dilution (32%)? _____ YES _____ NO

2. Enter percent effluent corresponding to the IC25 below:

IC25 survival = ____%

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

- 1. <u>Scope, Frequency, and Methodology</u>
 - a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
 - b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
 - 1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
 - 2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. The control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. <u>Required Toxicity Testing Conditions</u>

- a. Test Acceptance The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- c. Samples and Composites

- 1) The permittee shall collect one composite sample from Outfall 001.
- 2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
- 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
- 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.
- 5) The effluent sample may be dechlorinated after sample collection.
- 3. <u>Reporting</u>

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

- a. The permittee shall prepare a full report of the results of all tests conducted pursuant to this permit in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
 - 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if

the mean survival is less than or equal to 50%, enter "1."

- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
 - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."
- 4. <u>Persistent Mortality</u>

The requirements of this part apply when a toxicity test demonstrates significant lethality, which is defined as a mean mortality of 50% or greater of organisms exposed to the 100% effluent concentration for 24 hours.

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50%, and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.

5. <u>Toxicity Reduction Evaluation</u>

- a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - 1) Specific Activities The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations,

treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

- 2) Sampling Plan The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- 3) Quality Assurance Plan The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
- 4) Project Organization The TRE Action Plan should describe the project staff, manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE Activities Reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

- 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
- 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
- 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Ttesting for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism.
- h. Within 3 years of the last day of the test confirming toxicity, the permittee shall
comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, this permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

- i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementing corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

	Rep	Percent effluent					
Time		0%	6%	13%	25%	50%	100%
24h	Α						
	В						
	С						
	D						
	Е						
	MEAN*						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = ____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	В						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = ____% effluent