AUGUST 15, 2023



MUNICIPALITY OF TOA ALTA JULY 2023 MONTHLY REPORT CIV. NO. 3:21-01087-DRD





Contents

I.	DISTRIBUTION LIST	1
II.	REPORT ORGANIZATION	1
III.	Section 1: SUMMARY	2
	SECTION 2: DETAIL INFORMATION OR SUPPORTING DOCUMENTATION OF EACH REQUIREMENT D OF COMPREHENSIVE DESCRIPTION OR STATUS DETAILS	
А	COMPLETED REQUIREMENTS	3
В	Supporting documentation of each requirement in need of comprehensive description or state	JS
d	etails	6
	1. ID 1: Intermediate Cover	6
	2. ID 2: Leachate Management	8
D	NER Meeting	. 11
V.	SECTION 3: PROJECTION OF NEXT MONTH'S ACTIVITIES	. 12
VI.	Section 4: Attachments	. 12



I. DISTRIBUTION LIST

- DOJ: david.l.gordon@usdoj.gov
- EPA: <u>spielmann.lee@epa.gov</u> <u>plossl.carl@epa.gov</u> <u>gonzalez.eduardo@epa.gov</u> DNER: <u>nildasanchez@drna.pr.gov</u> <u>mariavrodriguez@drna.pr.gov</u>

 carmelovazquez@drna.pr.gov

 MTA:
 carlos@cwllegal.com

 dbatlle@cstlawpr.com

 jramirez@amrclaw.com

 cagosto674@gmail.com

II. REPORT ORGANIZATION

As part of the USA-MTA Civ. No. 3:21-01087-DRD Stipulation and Preliminary Injunction Order, MTA shall prepare and submit monthly reports regarding the performance of its obligations under this Order until completion of the requirements of Paragraphs 3 through 10 of this Order. Each report shall cover the period ending on the last day of each month. Each report must be sent to DOJ, EPA, and DNER on or before the 15th day of the month following the reporting period. Each monthly report shall include:

i. description of compliance with each requirement of this Order;

ii. the volume, acreage, and location of the Intermediate Cover that was applied;

iii. the volume and disposition of leachate and leachate-contaminated stormwater collected;

iv. results of any sampling analysis performed; and

v. Notification of any noncompliance with this Order, including a statement describing the noncompliance and its underlying causes, proposed measures, and an implementation schedule to correct the noncompliance.

The monthly report is divided into four sections.

Section 1 presents a summary of the order requirements and the compliance status for each requirement. *Please note that Task IDs are not related to the order assigned paragraphs.*

Section 2 will include detailed information or supporting documentation regarding the compliance status of each requirement in need of a comprehensive description or status details.

Section 3 is a projection of next month's activities.

Section 4 includes all the attachments included with the report.

III. Section 1: SUMMARY

	Municipality of Toa Alta							
	Civ. No. 3:21-01087-DRD							
Reportin	Reporting Period: July 01 to July 31, 2023							
	-							
	g Number:							
	g Official:	Nivia Ayala, PE/TerraTek						
Reportin	-	8/15/2023						
		ion of Compliance with Each Requirement of the Order						
ID 1	Requirement	Compliance Status						
1	Daily Cover	In Compliance						
2	Cessation of Waste Disposal	In-Compliance						
3	Posting of Signs	In Compliance						
4 Intermediate Cover Intermediate cover was scheduled to start by October 1, 2022 In a meeting with DNER, MTA agreed to start the intermediate task by August 2023 to the top deck and include stormwater r chutes. After DNER approves or approves with modifications or condi MTA permanent closure plan, and if the approved plan includes a schedule for complete		After DNER approves or approves with modifications or conditions an						
5	Maintenance of Cover	In-Compliance						
6	Slope Stability	In-Compliance with agreed Short Term Controls.						
7	Leachate Management	The LTA Leachate tanks are full of "leachate." Please see additional comments for ID 2 item						
8		Stormwater Management						
8a	Short Term Controls	When necessary, catch basins, ditches, swales, and channels were inspected weekly, cleaned of accumulated debris, and any observed standing/stagnant water was eliminated. When applicable, catch basins, ditches, swales, and channels were periodically mowed and cleaned. The diesel tank secondary containment is inspected weekly, when necessary, cleaned of accumulated debris, and eliminates any observed standing/stagnant water.						

8b	Survey of Leachate Seeps	In-Compliance
8c	Stormwater Management Plan	A stormwater management plan update was submitted to EPA (Mr. Carl Plossl) on March 31, 2023. A conceptual design was included. However, a more detailed plan was submitted on July 31, 2023.
8d	Discharges of Stormwater Not from Pond	N/A
8e	Discharge/Disposal of Pond Liquid	N/A
		Additional Requirements
of the In	ime, acreage, and location termediate Cover applied.	N/A
The volume and disposition of leachate-contaminated stormwater collected.		None
Results Of Any Sampling Analysis Pe rformed		None
Notification Of Noncompliance		None

IV. SECTION 2: DETAIL INFORMATION OR SUPPORTING DOCUMENTATION OF EACH REQUIREMENT IN NEED OF COMPREHENSIVE DESCRIPTION OR STATUS DETAILS

A. COMPLETED REQUIREMENTS Access:

Access is granted to the United States and the Commonwealth of Puerto Rico and their employees, representatives, and contractors to conduct the necessary inspections and studies, including reviewing the applicable record to evaluate existing conditions, following the agreed terms in the Stipulation.

Daily Cover:

Daily Cover at the facility was completed on April 30, 2022. Daily Cover covered all areas of exposed waste.



Cessation of Waste Disposal:

The cessation of waste disposal at the facility was completed by March 30, 2022. However, as agreed in the Stipulation, the temporary storage of construction and demolition (C&D) waste, bulk household waste (durable goods such as mattresses, furniture, and appliances), or yard waste (vegetation waste generated by land maintenance) for final disposal at a different landfill is active and been performed daily.



Posting of Signs:

A sign with a size of four feet by five feet was installed at the landfill entrance. See the attached pictures.



Safety Barrier Fencing

Completed on April 28, 2023.



B. Supporting documentation of each requirement in need of comprehensive description or status details

1. ID 1: Intermediate Cover

As has been explained numerous times throughout the process, the Municipality needs the funding to perform several of the required tasks, commencing with the Intermediate Cover Task, as it is one of the more costly initial tasks to be completed. The following is a chronological order of the Municipality performed steps to negotiate and acquire the funds to perform this task:

Rural Development:

- 1. On May 18, 2020, the Municipality submitted a Notice of Intent to Rural Development requesting the award of funds under the Disaster Mitigation Assistance Grant for the Landfill.
- 2. On September 4, 2020, the Municipality amended its request to include the landfill closure, post-closure activities, and expansion.
- 3. On July 16, 2021, the Municipality received a Rural Development email confirming that all the documents for the appropriate Disaster Mitigation Assistance Grant for the Landfill were completed.

- 4. On August 22, 2022, the Municipality held a Public Hearing about the requested grant funds.
- USDA Rural Grant Program, MTA submitted a final Environmental Assessment to: Quiles, Danna - RD, San Juan, PR <danna.quiles@usda.gov>; Cabrera, Jose - RD, San Juan, PR
 Jose.Cabrera@usda.gov>; Davila, Sandimary - RD, San Juan, PR
 <Sandimary.Davila@usda.gov>; Gonzalez, Melvin - RD, SAN JUAN, PR
 <Melvin.Gonzalez@usda.gov>. The document was submitted on September 30, 2022.
- 6. As of today, the Rural Development process is still ongoing but has not yet been completed.

Department of Natural and Environmental Resources (DNER)

- 1. The DNER, during the EPA Public Hearing held on February 23, 2022, stated publicly and during the hearing that they would make available to the Municipality the required funds for the appropriate landfill closure.
- 2. As a result of DNER's public comments, a meeting on March 24, 2022, between the Municipality, DNER, and La Fortaleza was held to discuss the details related to the funds' availability.
- 3. On March 31, 2022, the Municipality provided the required information by the DNER, including the schedule and cost estimate for said agency to prepare a Memorandum of Understanding (MOU) that would provide the necessary funds to the Municipality for the Landfill's closure activities.
- After continuous inquiries by the Municipality, the DNER, on June 10, 2022, they finally provided a draft MOU for the funds' access. The Municipality issued its comments to the MOU on July 12, 2022.
- 5. A meeting was held on November 2, 2022, with Puerto Rico Office of Management and Budget, the DNER, and MTA to discuss the extent of the DOJ requirements and DNER Closure Plan request. The purpose of the meeting also includes the addition of a transfer station located at the Landfill's existing site.
- 6. A conference call was held on November 29, 2022, where PROMB required an additional cost spreadsheet, including the cost of a transfer station design and construction.

- 7. As of today, and after significant follow-up efforts with the DNER, they have not responded with the definitive version of the MOU and the availability of funds.
- 8. An email was sent on December 5 and 20, 2022, and January 24, 2023, to Ms. Maria V. Rodriguez, Anais Rodriguez Vega, Elid Ortega Orozco, and Claribel Rivera, following up regarding the MOU with the agency.
- 9. An email was received on January 27, 2023, from Ms. Maria V. Rodriguez (DNER) clarifying that the Department of Budget and Management at the State level handled any economic assistance to the Municipality.
- 10. A letter dated January 26, 2023, was directed to the MTA Mayor approving \$1.3M for planning and design of the closure activities. No disbursement has been received at this moment.
- 11. The Municipality designated \$3 Million of their ARPA funds to commence the execution of the required Intermediate Cover tasks.
- 12. The \$1.3M was reimbursed for planning and design in February 2023.
- 13. The MTA commenced in January 2023 an RFQ process for a Landfill Contractor to implement the Intermediate. Unfortunately, no contractor submitted a proposal for the RFQ.
- 14. Thus, a new formal drawing was developed to identify the specific project specifications to issue an RFP purpose that would allow more flexibility for contractors to participate. The MTA prepared a new RFP that was published in May 2023.
- 15. The MTA had two contractors participate in the RFP process, and it is evaluating the proposals to issue the final determination that would allow the commencement of the work during August 2023.
- 16. The RFP was awarded to LC Group on July 16, 2023.

2. ID 2: Leachate Management

The LTA Leachate tanks are full of "leachate." On June 28, 2023, a sample was taken from the sampling point at the tank facility for the following parameters:

PARAMETRO	LIMITE DE DESCARGA (mg/l)
Aceites y Grasas	50.0
BOD ₅ ²	250
Cadmio	0.1
Cianuro	0.1
Cinc	0.5
Cobre	1.0
Cromo total	1.0
Fenoles 1	1.0
Manganeso	4.0
Mercurio	0.05
Níquel	0.5
Plata	0.05
Plomo	0.2
SST 2	250.0
Selenio	0.20

LIMITES DE PRETRATAMIENTO ADICIONALES

pH (UE) ³	6.5-9.0
Temperatura (°C)	60
Temperatura inflamabilidad (°F)	>140
Arsénico	MS
Bario	MS
Boro	MS
Cromo Hexavalente	MS
Detergentes (MBAS)	MS
Fluoruro	MS
Molibdeno	MS
Nitrógeno (NO ₃ , NO ₂ , NH ₃)	MS
Sulfato	MS
Sulfuro	MS

Results were received on July 20, 2023. A new permit renewal application was submitted to PRASA on July 30, 2023.

Attachment 2 includes the complete laboratory results.

Sample results are summarized below:

Pace Analytical Services, LLC



ANALYTICAL RESULTS

Sample: LIXIVIADO DE TANQUES	Lab ID: 202	81318001	Collected:	06/25/2	3 09:00	Received: (06/25/23 10:03	Matrix: Water	
Parameters	Results	Units	Repor	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical Met	hod:							
	Pace Analytica	al Services -	New Orlean	5					
Collected By	JL				1		07/14/23 16:2	6	
Collected Date	06-28-23				1		07/14/23 16:2	6	
Collected Time	0900				1		07/14/23 16:2		
field pH	8.10 S.U.	Std. Units			1		07/14/23 16:2		
ield Temperature	30.0 °C	deg C			1		07/14/23 16:2	6	
010 Metals, Total	Analytical Met	hod: EPA 60	10 Preparat	ion Meth	od: EP/	A 3010			
	Pace Analytica	al Services -	New Orlean	5					
rsenic	837	ug/L		50.0	1	07/06/23 06:1	6 07/06/23 12:4	1 7440-35-2	P1
Barlum	ND	ug/L		1000	1	07/06/23 06:1	6 07/06/23 12:4	1 7440-39-3	
loron	12000	ug/L		250	1		6 07/06/23 12:4		
admium	ND	ug/L		25.0	1		6 07/06/23 12:4		
chromium	73.6	ug/L		50.0	1		6 07/06/23 12:4		
lopper	ND	ug/L		50.0	1		6 07/06/23 12:4		
ead	ND	ug/L		25.0	1		6 07/06/23 12:4		
langanese	125	ug/L		50.0	1		6 07/06/23 12:4		
lolybdenum lickel	ND ND	ug/L		50.0 200	1		6 07/06/23 12:4 6 07/06/23 12:4		
ielenium	ND	սցե		100	1		6 07/06/23 12:4		
liver	ND	UgL		50.0	÷.		6 07/06/23 12:4		
Inc	ND	ugL		100	1		6 07/06/23 12:4		
					-			1110-00-0	
7470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470									
	Pace Analytica	al Services -	New Orlean	5					
fercury	ND	ugL		2.0	1	07/05/23 05:2	5 07/05/23 19:0	1 7439-97-6	P1
010 Flashpoint Closed Cup	Analytical Method: EPA 1010								
	Pace Analytica	al Services -	New Orlean	5					
lashpoint	>212	deg F		75.0	1		06/30/23 13:5	6	
EM, OII and Grease	Analytical Met Pace Analytica								
01 and Grease	ND	molL		25.0	1		07/04/23 07:0	9	P1
				20.0			0110412.0 0110	-	
2540D Total Suspended Solids	Analytical Met Pace Analytica			s					
fotal Suspended Solids	60.0	mg/L		4.0	1		07/03/23 07:3	9	
500S2D Sulfide, Total	Analytical Met Pace Analytica			s					
Sulfide, Total	ND	mg/L		1.0	50		07/04/23 07:2	6 15496-25-5	M1,M3
210B BOD, 5 day	Analytical Met Pace Analytica				hod: SN	5210B			
BOD, 5 day	177	mg/L		6.0	6		6 07/04/23 09:5		Rő

REPORT OF LABORATORY ANALYSIS

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Date: 07/20/2023 03:01 PM	without the written consent of Pace Analytical Services, LLC.	Page 21 of 45

Pace

Pace Analytical Services, LLC

ANALYTICAL RESULTS

Project: VERTEDERO TOA Pace Project No.: 20251315	ALTA							
Sample: LIXIVIADO DE TANQUES	Lab ID: 20281	318001 Collected:	06/25/2	3 09:00	Received: 00	5/25/23 10:03	Matrix: Water	
Parameters	Results	Units Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation		: 40CFR PART 432.2 ervices - New Orlean						
Nitrogen	1130	mgL	0.15	1		07/13/23 19:4	4 7727-37-9	
Hexavalent Chromium 24 Hour	Analytical Method Pace Analytical S	: EPA 215.6 ervices - Ormond Bea	ach					
Chromium, Hexavalent	ND	ug/L	2.5	100		07/05/23 14:5	3 15540-29-9	D3,H3
EPA 300.0	Analytical Method Pace Analytical G							
Fluoride	26.8	mg/L	4.00	20		07/11/23 23:0	4 10954-45-5	
351.2 Total Kjeldahl Nitrogen		I: EPA 351.2 Prepara ervices - New Orlean		hod: EP	A 351.2			
Nitrogen, Kjeldahl, Total	1130	mg/L	16.0	40	06/30/23 09:49	07/06/23 15:4	7 7727-37-9	D4,P1
420.1 Phenolics, Total		: EPA 420.1 Prepara ervices - New Orlean		hod: EP	A 420.1			
Phenolics, Total Recoverable	1.7	mg/L	0.12	1	07/06/23 10:15	07/06/23 14:5	0 64743-03-9	
4500CNE Cyanide, Total	4500CNE Cyanide, Total Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - New Orleans							
Cyanide	ND	mg/L	0.12	1	07/07/23 12:24	07/07/23 16:1	0 57-12-5	P1
4500NO3-F, NO3-NO2		I: SM 4500-NO3 F ervices - New Orlean	s					
Nitrogen, NO2 plus NO3	ND	mg/L	2.5	50		07/12/23 10:3	9	D4
ASTM D516-9002 Sulfate Water		: ASTM D516-90,02 ervices - New Orlean	s					
Sulfate	ND	mg/L	500	500		07/04/23 12:0	1 14505-79-5	D3
SM 5540 C-2011	Analytical Method Pace Analytical G	: SM 5540C Prepara fulf Coast	tion Met	hod: ME	THOD			
Surfactants	4.43	mgL	2.00	20	06/30/23 09:00	06/30/23 09:2	9	

REPORT OF LABORATORY ANALYSIS

Date: 07/20/2023 03:01 PM

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Page 22 of 45

DNER Meeting

As planned, we met on March 17, 2023, with DNER (Mr. Carmelo Vazquez). We discussed the following:

• Leachate stored at LTA Tanks with possible course of action.

- Closure Preliminary Design to be submitted by November 30, 2023
- H-H Report with structural control measures to be submitted by July 31, 2023.
- Geotechnical Study Report to be submitted by September 31, 2023.
- Intermediate Cover placement on the top deck with stormwater down chutes by August 2023.

We appreciate all the technical assistance received by DNER personnel during our meeting and their interest in keeping up-to-date with the insights of this project.

V. SECTION 3: PROJECTION OF NEXT MONTH'S ACTIVITIES

August 11, 2023

Weekly Inspection

August 18m, 2023

Weekly Inspection

August 26, 2023 Survey of Intermediate Cover August 28, 2023 Intermediate Cover Project Start Date

These dates are subject to change.

VI. Section 4: Attachments

Attachment 1: Weekly Inspections

Attachment 2: Laboratory report

ATTACHMENT 1



Approval Status	Approved
Nombre de la persona que hace la inspeccion	Christian Villalta Calderón
Email	cristhianvillalta@gmail.com
Fecha	Monday, July 10, 2023
Hora	03:40 PM
Condicion del Clima	Soleado
Esta la entrada limpia y libre de basura?	Si



Hay Personal en la caseta de seguridad?	SI
Cuantos camiones han llegado en el dia?	4
Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur?	Monday, July 10, 2023
Horas de operacion de la planta electrica	8
Datos de eventos de lluvia No hay registros de precipitacion. No hay p	luviometro instalado en el vertedero.
Estan las areas verdes limpias y se ha realizado mantenimiento?	SI

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado?

Condicion de Cubierta Talud Norte

Incluir foto

SI

Excelentes condiciones



Condicion Operacion Recibo de Escombros

Necesita Limpieza

Tomar foto



Equipos Operando

Una retroexcavadora y un D4 al momento de la inspección.

Condicion de medidas de control de erosion y sedimentacion

Buena

SI

Se pueden notar brotes de lixiviado?

Añadir fotos deal area de brotes visibles



Añadir fotos deal area de brotes visibles



Condicion de los caminos internos

Condicion de areas de desvio de

Excelentes condiciones

Area completamente limpia.

Signature

materiales

A:Harft

Approval Activity History

Actor	Actions	Date
Nivia Ayala nayala@terratekpr.com	Approve	Tuesday, July 11, 2023
Notification	Email sent. (Your request has been approved.) cristhianvillalta@gmail.com	Tuesday, July 11, 2023

Approval Status	Approved
Nombre de la persona que hace la inspeccion	Christian Villalta Calderón
Email	cristhianvillalta@gmail.com
Fecha	Friday, July 14, 2023
Hora	02:51 PM
Condicion del Clima	Soleado
Esta la entrada limpia y libre de basura?	Si



Hay Personal en la caseta de seguridad?	SI
Cuantos camiones han llegado en el dia?	7 según información del guarda.
Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur?	Friday, July 14, 2023
Horas de operacion de la planta electrica	8
Datos de eventos de lluvia No hay datos registrados. No hay pluviometro instalado	
Estan las areas verdes limpias y se ha realizado mantenimiento?	SI

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado?

Condicion de Cubierta Talud Norte

Incluir foto

SI

Excelentes condiciones



Condicion Operacion Recibo de Escombros

Buena

Tomar foto



Equipos Operando

Una retroexcavadora.

Condicion de medidas de control de erosion y sedimentacion

Se pueden notar brotes de lixiviado?

Condicion de los caminos internos

Condicion de areas de desvio de materiales

Signature

Buena



Excelentes condiciones

Area completamente limpia.

Haffe

Approval Activity History

Actor	Actions	Date
Nivia Ayala nayala@terratekpr.com	Approve	Wednesday, July 19, 2023

Actor	Actions	Date
Notification	Email sent. (Your request has been approved.) cristhianvillalta@gmail.com	Wednesday, July 19, 2023

Approval Status	Approved
Nombre de la persona que hace la inspeccion	Christian Villalta Calderón
Email	cristhianvillalta@gmail.com
Fecha	Friday, July 21, 2023
Hora	11:50 AM
Condicion del Clima	Soleado
Esta la entrada limpia y libre de basura?	Si



Hay Personal en la caseta de seguridad?	SI
Cuantos camiones han llegado en el dia?	6
Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur?	Friday, July 21, 2023
Horas de operacion de la planta electrica	8
Datos de eventos de lluvia No hay datos de lluvia registrados. No hay j	pluviometro.
Estan las areas verdes limpias y se ha realizado mantenimiento?	SI

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado?

Condicion de Cubierta Talud Norte

Incluir foto

SI

Excelentes condiciones



Condicion Operacion Recibo de Escombros

Necesita Limpieza

Tomar foto



Equipos Operando

Ninguno al momento de la inspección.

Condicion de medidas de control de erosion y sedimentacion

Buena

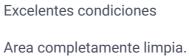
NO

Se pueden notar brotes de lixiviado?

Condicion de los caminos internos

Condicion de areas de desvio de materiales

Signature



Al-H-

Approval Activity History

Actor	Actions	Date
Nivia Ayala nayala@terratekpr.com	Approve	Tuesday, September 5, 2023

Actor	Actions	Date
Notification	Email sent. (Your request has been approved.) cristhianvillalta@gmail.com	Tuesday, September 5, 2023

Approval Status	Approved
Nombre de la persona que hace la inspeccion	Christian Villalta Calderón
Email	cristhianvillalta@gmail.com
Fecha	Friday, July 28, 2023
Hora	03:53 PM
Condicion del Clima	Nublado
Esta la entrada limpia y libre de basura?	Si



Hay Personal en la caseta de seguridad?	SI
Cuantos camiones han llegado en el dia?	4
Fecha de la ultima verificacion del sistema de manejo de lixiviados Celda Sur?	Friday, July 28, 2023
Horas de operacion de la planta electrica	8

Datos de eventos de lluvia

El dia de esta inspección ha estado lloviendo. Sin embargo no hay registros de lluvia debido a la falta de instrumento.

Estan las areas verdes limpias y se ha	SI
realizado mantenimiento?	

Incluir Foto



Estan los diques limpios y sus valvulas cerradas con candado?

Condicion de Cubierta Talud Norte

Incluir foto

SI

Excelentes condiciones



Condicion Operacion Recibo de Escombros

Necesita Limpieza

Tomar foto



Equipos Operando

Al momento de la inspección no hay equipos operando.

Condicion de medidas de control de Buena erosion y sedimentacion Se pueden notar brotes de lixiviado?

SI

Añadir fotos deal area de brotes visibles



Condicion de los caminos internos

Condicion de areas de desvio de

Excelentes condiciones

Area completamente limpia.

Signature

materiales

Hatta

Approval Activity History

Actor	Actions	Date
Nivia Ayala nayala@terratekpr.com	Approve	Friday, July 28, 2023
Notification	Email sent. (Your request has been approved.) cristhianvillalta@gmail.com	Friday, July 28, 2023

ATTACHMENT 2



July 20, 2023

Nivia Ayala Terratek PR PO Box 367445 San Juan, PR 00936

RE: Project: VERTEDERO TOA ALTA Pace Project No.: 20281318

Dear Nivia Ayala:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Gulf Coast
- Pace Analytical Services New Orleans
- Pace Analytical Services Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

1 Aca

Juan Redondo juan.redondo@pacelabs.com (787)720-0319 Project Manager

Enclosures



CERTIFICATIONS

Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Pace Analytical Services New Orleans

Florida Department of Health (NELAC): E87595 Illinois Environmental Protection Agency: 0025721 Kansas Department of Health and Environment (NELAC): E-10266 Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006 Texas Commission on Env. Quality (NELAC): T104704405-09-TX U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174 Alaska DEC- CS/UST/LUST Alabama Certification #: 41320 Colorado Certification: FL NELAC Reciprocity Connecticut Certification #: PH-0216 Delaware Certification: FL NELAC Reciprocity DoD-ANAB #:ADE-3199 Florida Certification #: E83079 Georgia Certification #: 955 Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity Illinois Certification #: 200068 Indiana Certification: FL NELAC Reciprocity Kansas Certification #: E-10383 Kentucky Certification #: 90050 Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007 Maine Certification #: FL01264 Maryland Certification: #346 Massachusetts Certification #: M-FL1264 Michigan Certification #: 9911 Mississippi Certification: FL NELAC Reciprocity

Pace Analytical Gulf Coast

7979 Innovation Park Drive, Baton Rouge, LA 70820 Arkansas Certification #: 88-0655 DoD ELAP Certification #: 6429-01 Florida Certification #: E87854 Illinois Certification #: 004585 Kansas Certification #: E-10354 Louisiana/LELAP Certification #: 01955 North Carolina Certification #: 618 Missouri Certification #: 236 Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14 New Hampshire Certification #: 2958 New Jersey Certification #: FL022 New York Certification #: 11608 North Carolina Environmental Certificate #: 667 North Carolina Certification #: 12710 North Dakota Certification #: R-216 Ohio DEP 87780 Oklahoma Certification #: D9947 Pennsylvania Certification #: 68-00547 Puerto Rico Certification #: FL01264 South Carolina Certification: #96042001 Tennessee Certification #: TN02974 Texas Certification: FL NELAC Reciprocity US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165 West Virginia Certification #: 9962C Wisconsin Certification #: 399079670 Wyoming (EPA Region 8): FL NELAC Reciprocity

North Dakota Certification #: R-195 Oklahoma Certification #: 2019-101 South Carolina Certification #: 73006001 Texas Certification #: T104704178-19-11 USDA Soil Permit # P330-19-00209 Virginia Certification #: 460215 Washington Certification #: C929



SAMPLE SUMMARY

Project: VERTEDERO TOA ALTA Pace Project No.: 20281318

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20281318001	LIXIVIADO DE TANQUES	Water	06/28/23 09:00	06/28/23 10:03



SAMPLE ANALYTE COUNT

Project: VERTEDERO TOA ALTA Pace Project No.: 20281318

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
20281318001	LIXIVIADO DE TANQUES	EPA 6010	AJS	13	PASI-N
		EPA 7470	ARW	1	PASI-N
		EPA 1010	LJL	1	PASI-N
		EPA 1664B, 2010	ТМО	1	PASI-N
		SM 2540D 2011	KLZ	1	PASI-N
		SM 4500-S-2 D	AMP	1	PASI-N
		SM 5210B	JMB	1	PASI-N
		40CFR PART 432.2	ABW	1	PASI-N
		EPA 218.6	CMB	1	PASI-O
		EPA 300.0	CS	1	PASI-GCLA
		EPA 351.2	JLH	1	PASI-N
		EPA 420.1	ABW	1	PASI-N
		SM 4500-CN-E	ABW	1	PASI-N
		SM 4500-NO3 F	ABW	1	PASI-N
		ASTM D516-90,02	ABW	1	PASI-N
		SM 5540C	EAN	1	PASI-GCLA

PASI-GCLA = Pace Analytical Gulf Coast

PASI-N = Pace Analytical Services - New Orleans

PASI-O = Pace Analytical Services - Ormond Beach



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method:	EPA 6010
Description:	6010 Metals, Total
Client:	Terratek PR
Date:	July 20, 2023

General Information:

1 sample was analyzed for EPA 6010 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

QC Batch: 290651

- P1: Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.
- LIXIVIADO DE TANQUES (Lab ID: 20281318001)

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 290651

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20281582002

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
 - MS (Lab ID: 1393134)
 - Manganese
 - MSD (Lab ID: 1393135)
 - Manganese

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method:	EPA 7470
Description:	7470 Mercury
Client:	Terratek PR
Date:	July 20, 2023

General Information:

1 sample was analyzed for EPA 7470 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

QC Batch: 290584

- P1: Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.
 - LIXIVIADO DE TANQUES (Lab ID: 20281318001)

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: EPA 1010

Description:1010 Flashpoint,Closed CupClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for EPA 1010 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: EPA 1664B, 2010

Description:HEM, Oil and GreaseClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for EPA 1664B, 2010 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: SM 2540D 2011

Description:2540D Total Suspended SolidsClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for SM 2540D 2011 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: SM 4500-S-2 D

Description:4500S2D Sulfide, TotalClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for SM 4500-S-2 D by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 290507

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20281318001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

• MS (Lab ID: 1392323)

Sulfide, Total

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: SM 5210B

Description:5210B BOD, 5 dayClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for SM 5210B by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with SM 5210B with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: 40CFR PART 432.2

Description:Total Nitrogen CalculationClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for 40CFR PART 432.2 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: EPA 218.6

Description:Hexavalent Chromium 24 HourClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for EPA 218.6 by Pace Analytical Services Ormond Beach. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Sample was received or analysis requested beyond the recognized method holding time. • LIXIVIADO DE TANQUES (Lab ID: 20281318001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 931445

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- LIXIVIADO DE TANQUES (Lab ID: 20281318001)
 - Chromium, Hexavalent



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method:EPA 300.0Description:EPA 300.0Client:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for EPA 300.0 by Pace Analytical Gulf Coast. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:





Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: EPA 351.2

Description:351.2 Total Kjeldahl NitrogenClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for EPA 351.2 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

QC Batch: 290420

P1: Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.

• LIXIVIADO DE TANQUES (Lab ID: 20281318001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 290420

- D4: Sample was diluted due to the presence of high levels of target analytes.
 - LIXIVIADO DE TANQUES (Lab ID: 20281318001)
 - Nitrogen, Kjeldahl, Total



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: EPA 420.1

Description:420.1 Phenolics, TotalClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for EPA 420.1 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 420.1 with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: SM 4500-CN-E

Description:4500CNE Cyanide, TotalClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for SM 4500-CN-E by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with SM 4500-CN-C with any exceptions noted below.

QC Batch: 290828

P1: Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.

• LIXIVIADO DE TANQUES (Lab ID: 20281318001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: SM 4500-NO3 F

Description:4500NO3-F, NO3-NO2Client:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for SM 4500-NO3 F by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Batch Comments:

The calibration did not meet the %RSD requirements for all points. Samples analyzed due to hold time restictions. • QC Batch: 290633

Analyte Comments:

.

QC Batch: 290633

D4: Sample was diluted due to the presence of high levels of target analytes.

- LIXIVIADO DE TANQUES (Lab ID: 20281318001)
 - Nitrogen, NO2 plus NO3



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: ASTM D516-90,02

Description:ASTM D516-9002 Sulfate WaterClient:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for ASTM D516-90,02 by Pace Analytical Services New Orleans. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 290550

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 20281163001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

• MS (Lab ID: 1392517)

Sulfate

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 290550

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DUP (Lab ID: 1392516)
 - Sulfate
- LIXIVIADO DE TANQUES (Lab ID: 20281318001)
 - Sulfate



Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Method: SM 5540C

Description:SM 5540 C-2011Client:Terratek PRDate:July 20, 2023

General Information:

1 sample was analyzed for SM 5540C by Pace Analytical Gulf Coast. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

ace[®]

ANALYTICAL RESULTS

Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Pace Analytical Services - New Orleans 1 07/14/23 16.2 Iollected Dye 66-29-23 1 07/14/23 16.26 Iollected Time 0900 1 07/14/23 16.26 Iaid F Time 0900 1 07/06/23 07/06/23 14 7440-39-3 Iaid F Time 0901 1000 1 07/06/23 07/06/23 14 7440-39-3 Iaid F Time 0901 0901 25.0 1 07/06/23 07/06/23 14 7440-39-3 Iaid F Time ND 0901 25.0 1 07/06/23 07/06/23 14 7440-39-3 Iaid F Time ND 0911 50.0 1 07/06/23 14 7440-39-3 Iaid F Time ND 0911 50.0 1 07/06/23 17/06/23 14 7440-39-3 Iaid F Time ND	Sample: LIXIVIADO DE TANQUES	Lab ID: 202	281318001	Collected: 06/28/2	23 09:00	Received: 06	6/28/23 10:03 N	Aatrix: Water	
Pace Analytical Services - New Orleans 1 07/14/23 516.26 Iollected Dye 66-28-27 1 07/14/23 16.26 Iollected Time 0900 1 07/14/23 16.26 Ieid PH 81.03 St.Units 1 07/14/23 16.26 Ieid PH 81.03 St.Units 1 07/06/23 07/06/23 70/06/23 <th>Parameters</th> <th>Results</th> <th>Units</th> <th>Report Limit</th> <th>DF</th> <th>Prepared</th> <th>Analyzed</th> <th>CAS No.</th> <th>Qual</th>	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
bioleceid Dane 0 9900	Field Data	•		ew Orleans					
ialid prime 9000 ist Usins	Collected By	JL			1		07/14/23 16:26		
ieid pFinie in a 5.0 S. U. (1997) (1	Collected Date	06-28-23			1		07/14/23 16:26		
ield Temperature 30.0 °C deg C 1 07/14/23 16:26 010 Metals, Total Analytical Method: EFA 6010 Preparation Method: EFA 3010 Preparation Method: EFA 3010 Pace Analytical Method: EFA 404 30 Pace 400 700623 1241 7440-430 Pace 400 700623 1241 7440-430 Pace 400 700623 1241 7440-430 Pace 400 700623 1241 7440-630 Pace 400 700623 1241 7440-630 Pace 400 700623 1241 7440-630 Pace 400 7006	Collected Time	0900			1		07/14/23 16:26		
Oto Metals, Total Analytical Method: EPA 6010 Preparation Method: EPA 3010 Preparation Method: SUS	Field pH	8.10 S.U.	Std. Units		1		07/14/23 16:26		
rsenic 837 ugL 50.0 1 0706/23 06:16 0706/23 12:41 7440-38-2 P1 admium ND ugL 25.0 1 0706/23 06:16 0706/23 12:41 7440-38-2 P1 admium ND ugL 25.0 1 0706/23 06:16 0706/23 12:41 7440-43-8 P1 informium ND ugL 25.0 1 0706/23 06:16 0706/23 12:41 7440-43-8 P1 informium ND ugL 50.0 1 0706/23 06:16 0706/23 12:41 7440-43-8 P1 informium ND ugL 50.0 1 0706/23 06:16 0706/23 12:41 7439-96-5 P2 P3	Field Temperature	30.0 °C	deg C		1		07/14/23 16:26		
nnd vg/L 1000 vg/L 1000 1000/10/23 06:16 07/06/23 12:41 7440-39-3 izomon 12000 ug/L 25.0 1 07/06/23 06:16 07/06/23 12:41 7440-39-3 izomon 73.6 ug/L 25.0 1 07/06/23 06:16 07/06/23 12:41 7440-47-3 izopper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-47-3 izopper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-89-3 izopper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-94-3 izopper ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-92-3 izopper ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-92-3 izopper ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-92-3 izopper ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-92-3 izopper <td>6010 Metals, Total</td> <td>•</td> <td></td> <td>•</td> <td>nod: EP</td> <td>A 3010</td> <td></td> <td></td> <td></td>	6010 Metals, Total	•		•	nod: EP	A 3010			
nm ND ug/L 100 1 07/06/23 06:6 07/06/23 12:4 7440-39-3 ioron 12000 ug/L 25.0 1 07/06/23 06:6 07/06/23 12:4 7440-43-9 idamium ND ug/L 25.0 1 07/06/23 06:6 07/06/23 12:4 7440-43-9 ibromium 73.6 ug/L 50.0 1 07/06/23 06:6 07/06/23 12:41 7440-43-9 opper ND ug/L 50.0 1 07/06/23 06:6 07/06/23 12:41 7440-43-9 langanese 125 ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-92-9 lobydenum ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-92-9 lobydenum ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-92-9 lobydenum ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-92-9 lobydenum ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-92-9 lobydenum	Arsenic	837	ug/L	50.0	1	07/06/23 06:16	07/06/23 12:41	7440-38-2	P1
oron 1200 ug/L 250 1 07/06/23 06:16 07/06/23 12:41 7440-49-8 iadmium ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-49-8 iadmium ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-49-8 iopper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-49-8 iopper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-49-8 iadaganese 125 ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7439-96-7 iakel ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7440-20-0 iakel Method: ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7440-26-0 iakel Method: ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7440-26-0 iakel Method: ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7440-26-0 <td>Barium</td> <td>ND</td> <td>-</td> <td>1000</td> <td>1</td> <td>07/06/23 06:16</td> <td>07/06/23 12:41</td> <td>7440-39-3</td> <td></td>	Barium	ND	-	1000	1	07/06/23 06:16	07/06/23 12:41	7440-39-3	
thromium 73.6 ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-47-3 topper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-47-3 topper ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96-5 totggene ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96-5 totgene ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96-5 totgene ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-62-6 totgene ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 totgene ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-62-6 totgene ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 totgene ND ug/L 2.0 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 <	Boron	12000	-	250	1	07/06/23 06:16	07/06/23 12:41	7440-42-8	
ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-50.8 ead ND ug/L 25.0 1 07/06/23 06:16 07/06/23 12:41 7439-96.5 tanganese 125 ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-98.5 tolybdenum ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7439-98.7 tolybdenum ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7440-20.9 tolybdenum ND ug/L 20.0 1 07/06/23 06:16 07/06/23 12:41 7440-22.4 tolw ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-22.4 tolw ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-26.4 tolw ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-26.4 tolm ug/L 100 g/L 20 1 07/06/23 12:41 7440-26.4 tolm ug/L 2.0 g/L	Cadmium	ND	ug/L	25.0	1	07/06/23 06:16	07/06/23 12:41	7440-43-9	
ND ug/L 25.0 1 07/06/23 06:16 07/06/23 12:41 7439-92-1 langanese 125 ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96-5 lickel ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96-5 lickel ND ug/L 200 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 lielenium ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 lielenium ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 line ND ug/L 100 1 07/06/23 12:41 7440-22-4 line ND ug/L 100 1 07/06/23 12:41 7440-22-4 line ND ug/L 2.0 1 07/06/23 06:16 07/06/23 13:51 7440-36-66 diad MD ug/L 2.0 1 07/05/23 08:16 07/05/23 19:01 7439-97-7 diad MD ug/L 2.0 1 <	Chromium	73.6	ug/L	50.0	1	07/06/23 06:16	07/06/23 12:41	7440-47-3	
tanganese 125 ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96.5 lolybdenum ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96.7 lickel ND ug/L 200 1 07/06/23 06:16 07/06/23 12:41 7439-96.7 lickel ND ug/L 200 1 07/06/23 06:16 07/06/23 12:41 7439-96.7 liker ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-96.7 liker ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-97.6 470 Mercury ND ug/L 100 1 07/06/23 06:16 07/06/23 19:01 7439-97.6 P1 470 Mercury ND ug/L 2.0 1 07/05/23 08:26 07/05/23 19:01 7439-97.6 P1 010 Flashpoint,Closed Cup Analytical Method: EPA 1010 2.0 1 06/30/23 13:56 - 91 101 Grase Analytical Method: EPA 1064B, 2010 1 07/04/23 07:09 P1<	Copper	ND	ug/L	50.0	1	07/06/23 06:16	07/06/23 12:41	7440-50-8	
ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7439-98-7 lickel ND ug/L 200 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 lickel ND ug/L 200 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 lickel ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 line ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 drop metury ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 470 Mercury ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 470 Mercury ND ug/L 20 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 470 Mercury ND ug/L 2.0 1 97/05/23 08:08 07/05/23 19:01 743-97-0 P1 010 Flashpoint,Closed Cup Analytical Metho-: EPA 1664B, 2010- 1 06/30/23 13:55 1 97/04/23 07:09 <td< td=""><td>Lead</td><td>ND</td><td>ug/L</td><td>25.0</td><td>1</td><td>07/06/23 06:16</td><td>07/06/23 12:41</td><td>7439-92-1</td><td></td></td<>	Lead	ND	ug/L	25.0	1	07/06/23 06:16	07/06/23 12:41	7439-92-1	
ND ug/L 200 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-02-0 470 MD ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-66-6 470 Morcury Analytical Method: EPA 7470 Preparation Method: Proparation Method: Proparation Method: Prace Analytical Method: EPA 1010 07/06/23 08:26 07/05/23 19:01 7439-97-6 P1 010 Flashpoint,Closed Cup Analytical Method: EPA 1010 Prace Analytical Method: EPA 1010 Prace Analytical Method: EPA 164B, 2010 06/30/23 13:56 F F 1010 Flase Analytical Method: EPA 1664B, 2010 Pace Analytical Method: SM 2540D 2011 Prace Analytical Method: SM 2540D 2011 P1 500 MD mg/L 4.0 1 07/03/23 07:39 F P1 500S2D Sulfide, Total Analytical Method: SM 4500-S-2 D Prace Analytical Method: SM 4500-S-2 D P1 P1 P1 P1 500S2D Sulfide, Total ND <td< td=""><td>Manganese</td><td>125</td><td>ug/L</td><td>50.0</td><td>1</td><td>07/06/23 06:16</td><td>07/06/23 12:41</td><td>7439-96-5</td><td></td></td<>	Manganese	125	ug/L	50.0	1	07/06/23 06:16	07/06/23 12:41	7439-96-5	
ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 742-49-2 ND ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 ATO ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 ATO ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-66-6 ATO ug/L 100 1 07/06/23 06:16 07/06/23 12:41 7440-66-6 ATO ug/L 20 1 07/06/23 08:28 07/05/23 12:41 7440-66-6 ATO ug/L 2.0 1 07/06/23 08:28 07/05/23 19:01 7439-97-6 P1 OTO Flashpoint,Closed Cup Analytical Method: EPA 1010 EPA 1010 Pace Analytical Method: EPA 1648, 2010 07/05/23 07:03 06/30/23 13:55 F1 Ital And Grease ND mg/L 25.0 1 07/04/23 07:09 P1 500 Total Suspended Solids 60.0 mg/L 4.0 1 07/03/23 07:39 F1 F1 50032D Sulfide, Total Analytical Method: SM 4500-S-2 D Pace Analytical Method: SM 4500-S-2 D Pace	Molybdenum	ND	ug/L	50.0	1	07/06/23 06:16	07/06/23 12:41	7439-98-7	
ND ug/L 50.0 1 07/06/23 06:16 07/06/23 12:41 7440-22-4 470 Mercury Analytical Method: EPA 7470 Preparation MEthod: EPA 7470 Preparation Hercury ND ug/L 2.0 1 07/06/23 06:16 07/06/23 12:41 7440-26-4 100 ug/L 2.0 1 07/06/23 06:16 07/06/23 12:41 7440-66-6 470 Mercury ND ug/L 2.0 1 07/06/23 08:28 07/05/23 19:01 7439-97-6 P1 010 Flashpoint,Closed Cup Analytical Method: EPA 100 EPA-7470 Pace Analytical Services - New Orleans 06/30/23 13:55 1 7439-97-6 P1 1010 Flashpoint,Closed Cup Analytical Method: EPA 100 Pace Analytical Services - New Orleans 07/07/23 07:35 1 93/2 93/2 91/2	Nickel	ND	ug/L	200	1	07/06/23 06:16	07/06/23 12:41	7440-02-0	
inic ND ug/L 100 i 1070/23 06:16 07/06/23 12:41 7440-66-6 470 Mercury Analytical Method EPA 7470 Preparation Preparat	Selenium	ND	ug/L	100	1	07/06/23 06:16	07/06/23 12:41	7782-49-2	
470 Mercury Analytical Method: EPA 7470 Preparation Method: EPA 7470 Preparation Method: EPA 7470 Preparation Method: EPA 7470 470 Mercury ND ug/L 2.0 1 07/05/23 08:28 07/05/23 19:01 7439-97-6 P1 010 Flashpoint,Closed Cup Analytical Method: EPA 1010 Pace Analytical Method: EPA 1664B, 2010 Pace Analytical Method: SM 2540D 2011 Pace Analytical Method: SM 4500-S-2 D Pace Analytical Method: SM 5210B Pace Analytical	Silver	ND	ug/L	50.0	1	07/06/23 06:16	07/06/23 12:41	7440-22-4	
Pace Analytical Services - New OrleansMercuryNDug/L2.0107/05/23 08:2807/05/23 19:017439-97-6P1O10 Flashpoint,Closed CupAnalytical Method: EPA 1010 Pace Analytical Services - New Orleans55106/30/23 13:56FFItashpoint>212deg F75.0106/30/23 13:56FFFFItashpoint>212deg F75.0106/30/23 13:56FFFFItashpoint>212deg F75.0106/30/23 13:56FFFFItashpointSNDmg/L25.00106/30/23 13:56FFFFItashpointAnalytical Method: EPA 1664B, 2010 Pace Analytical Services - New OrleansFF <td>Zinc</td> <td>ND</td> <td>ug/L</td> <td>100</td> <td>1</td> <td>07/06/23 06:16</td> <td>07/06/23 12:41</td> <td>7440-66-6</td> <td></td>	Zinc	ND	ug/L	100	1	07/06/23 06:16	07/06/23 12:41	7440-66-6	
Origonal Price Analytical Method: EPA 1010 Pace Analytical Services - New Orleans Iashpoint >212 deg F 75.0 1 06/30/23 13:56 IEM, Oil and Grease Analytical Method: EPA 1664B, 2010 Pace Analytical Services - New Orleans The Services - New Orleans P1 Studi and Grease ND mg/L 25.0 1 07/04/23 07:09 P1 540D Total Suspended Solids Analytical Method: SM 2540D 2011 Pace Analytical Services - New Orleans The Services - New Orleans The Services - New Orleans P1 540D Total Suspended Solids 60.0 mg/L 4.0 1 07/03/23 07:39 P1 500S2D Sulfide, Total Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans The Services - New Orleans ND Mg/L 1.0 50 07/04/23 07:26 18496-25-8 M1,M3 210B BOD, 5 day ND mg/L 1.0 50 07/04/23 07:26 18496-25-8 M1,M3	7470 Mercury	-			nod: EP	A 7470			
Pace Analytical Services - New OrleansIashpoint>212deg F75.0106/30/23 13:56IEM, Oil and GreaseAnalytical Method: EPA 1664B, 2010 Pace Analytical Services - New Orleans25.0107/04/23 07:09P1540D Total Suspended SolidsAnalytical Method: SM 2540D 2011 Pace Analytical Method: SM 2540D 2011 Pace Analytical Services - New Orleans25.0107/03/23 07:39P1540D Total Suspended Solids60.0mg/L4.0107/03/23 07:39P1500S2D Sulfide, TotalAnalytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans1.05007/04/23 07:2618496-25-8M1,M3210B BOD, 5 dayNDmg/L1.05007/04/23 07:2618496-25-8M1,M3	Mercury	ND	ug/L	2.0	1	07/05/23 08:28	07/05/23 19:01	7439-97-6	P1
IEM, Oil and Grease Analytical Method: EPA 1664B, 2010 Pace Analytical Services - New Orleans O7/04/23 07:09 P1 bil and Grease ND mg/L 25.0 1 07/04/23 07:09 P1 540D Total Suspended Solids Analytical Method: SM 2540D 2011 Pace Analytical Services - New Orleans 5 1 07/03/23 07:09 P1 500S2D Sulfide, Total 60.0 mg/L 4.0 1 07/03/23 07:39 1 500S2D Sulfide, Total Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans 07/04/23 07:26 18496-25-8 M1,M3 210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B Pace Analytical Services - New Orleans 500 S21 Services - New Orleans SM 5210B SM 5210B SM 5210B SM 5210B	1010 Flashpoint,Closed Cup	-							
Pace Analytical Services - New Orleans91bil and GreaseNDmg/L25.0107/04/23 07:09P1540D Total Suspended SolidsAnalytical MethodSM 2540D 2011 Pace Analytical Services - New OrleansP1500S2D Sulfide, TotalAnalytical MethodM14.0107/03/23 07:39M1,M3101 GreaseNDmg/L1.05007/04/23 07:2618496-25.8M1,M3210B BOD, 5 dayAnalytical MethodSM 5210B Preparations - New OrleansSM 5210B Preparations - New OrleansM1,M3	Flashpoint	>212	deg F	75.0	1		06/30/23 13:56		
540D Total Suspended Solids Analytical Method: SM 2540D 2011 Pace Analytical Services - New Orleans 501 Suspended Solids 60.0 mg/L 4.0 1 07/03/23 07:39 500S2D Sulfide, Total Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans 07/04/23 07:26 18496-25-8 M1,M3 sulfide, Total ND mg/L 1.0 50 07/04/23 07:26 18496-25-8 M1,M3 210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B Preparation Method: SM 5210B	HEM, Oil and Grease	•							
Pace Analytical Services - New Orleanstotal Suspended Solids60.0mg/L4.0107/03/23 07:39500S2D Sulfide, TotalAnalytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans	Oil and Grease	ND	mg/L	25.0	1		07/04/23 07:09		P1
500S2D Sulfide, Total Analytical Method: SM 4500-S-2 D Pace Analytical Services - New Orleans D mg/L 1.0 50 07/04/23 07:26 18496-25-8 M1,M3 210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B Preparation Method: SM 5210B Pace Analytical Services - New Orleans	2540D Total Suspended Solids	,							
Pace Analytical Services - New Orleans Sulfide, Total ND mg/L 1.0 50 07/04/23 07:26 18496-25-8 M1,M3 210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B Preparation Method: SM 5210B Pace Analytical Services - New Orleans Pace Analytical Services - New Orleans SM 5210B	Total Suspended Solids	60.0	mg/L	4.0	1		07/03/23 07:39		
210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B Pace Analytical Services - New Orleans	4500S2D Sulfide, Total	2							
Pace Analytical Services - New Orleans	Sulfide, Total	ND	mg/L	1.0	50		07/04/23 07:26	18496-25-8	M1,M3
OD, 5 day 177 mg/L 6.0 6 06/29/23 13:06 07/04/23 09:51 R6	5210B BOD, 5 day	-			thod: SN	/ 5210B			
	BOD, 5 day	177	mg/L	6.0	6	06/29/23 13:06	07/04/23 09:51		R6

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

Sample: LIXIVIADO DE TANQUES	Lab ID: 202	81318001	Collected:	06/28/2	23 09:00	Received: 06	5/28/23 10:03 N	Aatrix: Water	
Parameters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
Total Nitrogen Calculation	Analytical Meth Pace Analytica								
Nitrogen	1130	mg/L		0.15	1		07/13/23 19:44	7727-37-9	
Hexavalent Chromium 24 Hour	Analytical Meth Pace Analytica			ch					
Chromium, Hexavalent	ND	ug/L		2.5	100		07/05/23 14:53	18540-29-9	D3,H3
EPA 300.0	Analytical Meth Pace Analytica								
Fluoride	26.8	mg/L		4.00	20		07/11/23 23:04	16984-48-8	
351.2 Total Kjeldahl Nitrogen	Analytical Meth Pace Analytica		•		hod: EP	A 351.2			
Nitrogen, Kjeldahl, Total	1130	mg/L		16.0	40	06/30/23 09:49	07/06/23 15:47	7727-37-9	D4,P1
420.1 Phenolics, Total	Analytical Meth Pace Analytica		•		hod: EP	A 420.1			
Phenolics, Total Recoverable	1.7	mg/L		0.12	1	07/06/23 10:15	07/06/23 14:50	64743-03-9	
4500CNE Cyanide, Total	Analytical Meth Pace Analytica				n Methoo	1: SM 4500-CN-0	2		
Cyanide	ND	mg/L		0.12	1	07/07/23 12:24	07/07/23 16:10	57-12-5	P1
4500NO3-F, NO3-NO2	Analytical Meth Pace Analytica								
Nitrogen, NO2 plus NO3	ND	mg/L		2.5	50		07/12/23 10:39		D4
ASTM D516-9002 Sulfate Water	Analytical Meth Pace Analytica		-						
Sulfate	ND	mg/L		500	500		07/04/23 12:01	14808-79-8	D3
SM 5540 C-2011	Analytical Meth Pace Analytica		•	ion Met	thod: ME	THOD			
Surfactants	4.43	mg/L		2.00	20	06/30/23 09:00	06/30/23 09:29		



- ,	RTEDERO TOA 81318	ALTA										
QC Batch: 29	0584		Anal	ysis Metho	od:	EPA 7470						
	PA 7470			ysis Descr		7470 Mercu	rv					
	-			pratory:	•	Pace Analyt		es - New O	rleans			
Associated Lab Samples	: 202813180	01		,		,						
METHOD BLANK: 139	2672			Matrix: W	/ater							
Associated Lab Samples	: 202813180	01										
			Bla	nk	Reporting							
Parameter		Units	Res	sult	Limit	Analy	yzed	Qualifiers	6			
Mercury		ug/L		ND	0.2	0 07/05/2	3 18:51					
LABORATORY CONTRO	DL SAMPLE:	1392673										
_			Spike		CS	LCS	% R					
Parameter		Units	Conc.	Re	sult	% Rec	Limi	ts (Qualifiers	_		
Mercury		ug/L		1	0.98	98	8 8	80-120				
MATRIX SPIKE & MATR	IX SPIKE DUPI	_ICATE: 1392	674		1392675	;						
			MS	MSD								
		20281318001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
	ug/L	 ND	10	10	7.9	7.9	79	79	75-125	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: VERTEDERO TOA ALTA

Pace Project No.:	20281318
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Boron

QC Batch:	290651		Analysis Metl	hod: El	PA 6010	
QC Batch Method: EPA 3010		Analysis Des	cription: 60	010 MET		
			Laboratory:	Pa	ace Analytical Servi	ces - New Orleans
Associated Lab Sam	ples: 20281318001					
METHOD BLANK:	1393132		Matrix:	Water		
Associated Lab Sam	ples: 20281318001					
			Blank	Reporting		
Param	eter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic		ug/L	ND	10.0	07/06/23 12:33	

ND

50.0 07/06/23 12:33 B

Cadmium	ug/L	ND	5.0	07/06/23 12:33
Chromium	ug/L	ND	10.0	07/06/23 12:33
Copper	ug/L	ND	10.0	07/06/23 12:33
Lead	ug/L	ND	5.0	07/06/23 12:33
Manganese	ug/L	ND	10.0	07/06/23 12:33
Molybdenum	ug/L	ND	10.0	07/06/23 12:33
Nickel	ug/L	ND	40.0	07/06/23 12:33
Selenium	ug/L	ND	20.0	07/06/23 12:33
Silver	ug/L	ND	10.0	07/06/23 12:33
Zinc	ug/L	ND	20.0	07/06/23 12:33

ug/L

LABORATORY CONTROL SAMPLE: 1393133

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
rsenic	ug/L	1000	963	96	85-115	
rium	ug/L	1000	1010	101	85-115	
on	ug/L	1000	1010	101	85-115	
dmium	ug/L	1000	961	96	85-115	
omium	ug/L	1000	942	94	85-115	
oper	ug/L	1000	983	98	85-115	
d	ug/L	1000	966	97	85-115	
ganese	ug/L	1000	955	96	85-115	
bdenum	ug/L	1000	960	96	85-115	
el	ug/L	1000	970	97	85-115	
enium	ug/L	1000	860	86	85-115	
er	ug/L	500	472	94	85-115	
C	ug/L	1000	942	94	85-115	

MATRIX SPIKE & MATRIX SP	PIKE DUPLI	CATE: 1393	1393135												
	2	20281582002	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max				
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual			
Arsenic	ug/L	39.7	1000	1000	1020	1020	98	98	80-120	0	20				
Barium	ug/L	322	1000	1000	1320	1310	100	99	80-120	1	20				

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Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 1393	134 MS	MSD	1393135							
	2	0281582002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Boron	ug/L	51.7	1000	1000	1040	1040	99	99	80-120	0	20	
Cadmium	ug/L	ND	1000	1000	949	946	95	95	80-120	0	20	
Chromium	ug/L	ND	1000	1000	937	938	94	94	80-120	0	20	
Copper	ug/L	ND	1000	1000	976	975	98	98	80-120	0	20	
Lead	ug/L	ND	1000	1000	970	967	97	97	80-120	0	20	
Manganese	ug/L	3360	1000	1000	4120	4080	76	72	80-120	1	20	M1
Molybdenum	ug/L	ND	1000	1000	962	956	96	95	80-120	1	20	
Nickel	ug/L	ND	1000	1000	962	958	96	96	80-120	0	20	
Selenium	ug/L	ND	1000	1000	869	860	87	86	80-120	1	20	
Silver	ug/L	ND	500	500	480	481	96	96	80-120	0	20	
Zinc	ug/L	ND	1000	1000	919	917	92	92	80-120	0	20	

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REPORT OF LABORATORY ANALYSIS

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Project: Pace Project No.:	VERTEDERO TO 20281318	A ALTA								
QC Batch:	290436		Analysis M	ethod:	EPA 1010					
QC Batch Method:	EPA 1010		Analysis Description:		1010 Flash Poi					
			Laboratory	:	Pace Analytical Services - New Orleans					
Associated Lab Sar	nples: 20281318	001								
LABORATORY CO	NTROL SAMPLE:	1391922								
Parar	neter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers			
Flashpoint		deg F		82.4						
SAMPLE DUPLICA	TE: 1391923									
			20281318001	Dup		Max				
Paran	neter	Units	Result	Result	RPD	RPD	Qualifiers			
Flashpoint		deg F	>212	2 >2	212					

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Pace Project No.:	VERTEDERO TO 20281318	A ALTA										
QC Batch:	290508		Analysis	Method	d: E	EPA 1664B, 20 ²	10					
QC Batch Method:	EPA 1664B, 201	0	Analysis	Analysis Description:			1664 HEM, Oil and Grease					
			Laborato	ry:	F	Pace Analytical	Services - Nev	v Orleans				
Associated Lab San	nples: 20281318	001										
METHOD BLANK:	1392324		Ма	trix: Wa	ater							
Associated Lab San	nples: 20281318	001										
			Blank	I	Reporting							
Paran	neter	Units	Result		Limit	Analyzec	l Qualif	fiers				
Oil and Grease		mg/L	1	ND	5.0	07/04/23 07	:09					
LABORATORY CON	NTROL SAMPLE:	1392325										
			Spike	LC	S	LCS	% Rec					
Paran	neter	Units	Conc.	Res	ult	% Rec	Limits	Qualifiers				
Oil and Grease		mg/L	40		37.8	94	78-114					
MATRIX SPIKE SAM	MPLE:	1392326										
			20281419	001	Spike	MS	MS	% Rec				
Paran	neter	Units	Result		Conc.	Result	% Rec	Limits	Qualifiers			
Oil and Grease		mg/L		ND	40	33.4	8	32 78-114				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TOA AL	TA										
Pace Project No.:	20281318											
QC Batch:	290502		Analysis Method:			SM 2540D 2011						
QC Batch Method:	SM 2540D 2011		Analysis Description:			2540D Total Suspended Solids						
			Laboratory	/:	Pa	Pace Analytical Services - New Orleans						
Associated Lab Sam	ples: 20281318001											
METHOD BLANK:	1392299		Matr	ix: Water								
Associated Lab Sam	ples: 20281318001											
			Blank	Reportir	g							
Param	eter	Units	Result	Limit	Analyzed Qualifiers					_		
Total Suspended Sol	ids	mg/L	N	D	4.0 07/03/23 07:39							
LABORATORY CON	TROL SAMPLE: 13	92300										
			Spike	LCS		LCS	% F					
Param	eter	Units	Conc	Result		% Rec	Lin	nits	Qu	alifiers		
Total Suspended Sol	ids	mg/L	100	100		100		80-120				
SAMPLE DUPLICAT	E: 1392301			_								
Param	otor	Units	2028131800 ² Result	I Dup Result		RPD		Max RPD		Qualifiers		
	· · · · · · · · · · · · · · · · · · ·							RFD		Quaimers		
Total Suspended Sol	ids	mg/L	60.	60.0 52			14		20			
	E. 4202202											
SAMPLE DUPLICAT	E. 1392302		20281330002	2 Dup				Мах				
Param	eter	Units	Result	Result		RPD		RPD		Qualifiers		
Total Suspended Sol	ids	mg/L	271	0 3	8070		12		20			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TO	A ALTA									
Pace Project No.:	20281318										
QC Batch:	290507		Analysis Me	thod:	SM 4500-S-2 D						
QC Batch Method:	Batch Method: SM 4500-S-2 D			Analysis Description: 4500S2D Sulfide, Total							
				l	Pace Analytical	Services - Nev	v Orleans				
Associated Lab Sam	oles: 20281318	001									
METHOD BLANK:	1392320		Matrix:	Water							
Associated Lab Sam	oles: 20281318	001									
			Blank	Reporting							
Param	eter	Units	Result	Limit	Analyzed	Quali	iers				
Sulfide, Total		mg/L	ND	0.02	0 07/04/23 07:	24					
LABORATORY CON	TROL SAMPLE:	1392321									
				LCS	LCS	% Rec					
Param	eter	Units	Conc I	Result	% Rec	Limits	Qualifiers	<u>} </u>			
Sulfide, Total		mg/L	0.2	0.21	105	90-110					
MATRIX SPIKE SAM	PLE:	1392323									
			20281318001	Spike	MS	MS	% Re	ec			
Paramo	eter	Units	Result	Conc.	Result	% Rec	Limi	ts Qualifie	ərs		
Sulfide, Total		mg/L	Ν	ND 0.2	ND		0 7	75-125 M1			
SAMPLE DUPLICAT	E: 1392322										
D	- 4	Linita	20281318001	Dup		Max	0	111			
Paramo	eter	Units	Result	Result	RPD	RPD		alifiers			
Sulfide, Total		mg/L	ND	N	0		20				

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



- ,	VERTEDERO TOA A 20281318	ILTA					
QC Batch:	290376		Analysis M	Method:	SM 5210B		
QC Batch Method:	SM 5210B		-	Description:	5210B BOD, 5	day	
			Laborator	y:	Pace Analytica	I Services - Nev	w Orleans
Associated Lab Sam	ples: 2028131800	1					
METHOD BLANK:	1391663		Mat	rix: Water			
Associated Lab Sam	ples: 2028131800	1					
			Blank	Reporting	I		
Param	eter	Units	Result	Limit	Analyze	d Quali	fiers
BOD, 5 day		mg/L	N	ID 0	.20 07/04/23 0	9:15	
LABORATORY CON	ITROL SAMPLE: 1	391665	Cailco	LCS	LCS	% Rec	
Param	eter	Units	Spike Conc.	Result	% Rec	% Rec Limits	Qualifiers
BOD, 5 day		mg/L		176		85-115	
202, 0 day		mg/E	150	170		05-115	
SAMPLE DUPLICAT	E: 1391666						
			2028131000	2 Dup		Max	
Param	neter	Units	Result	Result	RPD	RPD	Qualifiers
BOD, 5 day		mg/L	6	.7	6.4	6	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TO	A ALTA										
Pace Project No.:	20281318											
QC Batch:	769198		Analysi	s Method:	SI	M 5540C						
QC Batch Method:	METHOD		Analysis Description:		on: SM	M 5540C	Surfacta	nts				
			Laboratory:			Pace Analytical Gulf Coast						
Associated Lab Sar	nples: 20281318	001										
METHOD BLANK: 2501799 Matrix: Water												
Associated Lab Sar	nples: 20281318	001										
			Blank	Re	porting							
Paran	neter	Units	Result	: I	Limit	Ana	lyzed	Qualifiers				
Surfactants		mg/L		ND	0.100	06/30/2	23 09:27					
LABORATORY CO	NTROL SAMPLE &	LCSD: 2501800		25	501801							
			Spike	LCS	LCSD		LCSD	% Rec		Max		
Parar	neter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers	
Surfactants		mg/L	1	1.02	0.960	102	96	80-120		6 25		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TOA	ALTA										
Pace Project No.:	20281318											
QC Batch:	931445		Analy	ysis Meth	bd:	EPA 218.6						
QC Batch Method:	EPA 218.6		Anal	ysis Desc	ription:	Chromium,	Hexavalen	t by IC 24 I	Hour			
			Labo	oratory:		Pace Analy	tical Servic	es - Ormon	d Beach			
Associated Lab Sar	nples: 202813180	001										
METHOD BLANK:	5117919			Matrix: N	Vater							
Associated Lab Sar	nples: 202813180	001										
			Blai	nk	Reporting							
Paran	neter	Units	Res	ult	Limit	Anal	yzed	Qualifier	s			
Chromium, Hexaval	ent	ug/L		ND	0.02	25 07/05/2	3 14:27					
LABORATORY CO	NTROL SAMPLE:	5117920										
			Spike	L	CS	LCS	% R	ес				
Paran	neter	Units	Conc.	Re	esult	% Rec	Lim	its (Qualifiers			
Chromium, Hexaval	ent	ug/L	0.07	7 5	0.073	9	7	90-110		_		
MATRIX SPIKE & M	IATRIX SPIKE DUP	LICATE: 5117	921		5117922	2						
			MS	MSD								
		35809532001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	· Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chromium, Hexaval	ent ug/L	0.056U	0.75	0.75	0.75	0.75	93	93	90-110	0	20	

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Project:	VERTEDERO TO	A ALTA							
Pace Project No.:	20281318								
QC Batch:	290420		Analysis N	/lethoo	d:	EPA 351.2			
QC Batch Method:	EPA 351.2		Analysis D	Descrip	ption:	351.2 TKN			
			Laborator	y:		Pace Analytical	Services - New	Orleans	
Associated Lab Sar	mples: 20281318	3001							
METHOD BLANK:	1391878		Matr	ix: Wa	ater				
Associated Lab Sar	mples: 20281318	3001							
			Blank	I	Reporting				
Parar	neter	Units	Result		Limit	Analyzeo	l Qualifi	ers	
Nitrogen, Kjeldahl,	Total	mg/L	N	D	0.1	0 07/06/23 10	:12		
LABORATORY CO	NTROL SAMPLE:	1391879							
			Spike	LC	-	LCS	% Rec		
Parar	neter	Units	Conc.	Res	sult	% Rec	Limits	Qualifiers	
Nitrogen, Kjeldahl,	Total	mg/L	6.4		6.2	96	80-120		
MATRIX SPIKE SA	MPLE:	1391881							
			202812240	02	Spike	MS	MS	% Rec	
Parar	neter	Units	Result		Conc.	Result	% Rec	Limits	Qualifiers
Nitrogen, Kjeldahl,	Total	mg/L		4.4	2.5	7.2	10	9 75-125	
SAMPLE DUPLICA	TE: 1391880								
	12. 1391000		20281224002	2	Dup		Max		
Parar	neter	Units	Result	-	Result	RPD	RPD	Qualifiers	
Nitrogen, Kjeldahl,	Total	mg/L	4.	.4	4.	2	6	20	-

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TOA	ALTA							
Pace Project No.:	20281318								
QC Batch:	290684		Analysis	Method:	EF	PA 420.1			
QC Batch Method:	EPA 420.1		Analysis	Description:	42	20.1 Phenolic	3		
			Laborate	ory:	Pa	ace Analytical	Services - Ne	w Orleans	
Associated Lab Sar	mples: 202813180	001							
METHOD BLANK:	1393285		Ма	atrix: Water					
Associated Lab Sar	mples: 202813180	001							
			Blank	Repor	ting				
Para	neter	Units	Result	Lim	it	Analyze	d Qual	ifiers	
Phenolics, Total Re	coverable	mg/L		ND	0.020	07/06/23 15	5:40		
LABORATORY CO	NTROL SAMPLE:	1393286							
			Spike	LCS		LCS	% Rec		
Para	neter	Units	Conc.	Result		% Rec	Limits	Qualifiers	
Phenolics, Total Re	coverable	mg/L	0.1	0.09	0	90	80-120		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TO	A ALTA						
Pace Project No.:	20281318							
QC Batch:	290828		Analysis Meth	od:	SM 4500-CN-E			
QC Batch Method:	SM 4500-CN-C		Analysis Desc	ription: 4	4500CNE Cyani	de, Total		
			Laboratory:	F	Pace Analytical	Services - New	Orleans	
Associated Lab Sar	nples: 20281318	8001						
METHOD BLANK:	1394062		Matrix:	Water				
Associated Lab Sar	nples: 20281318	8001						
			Blank	Reporting				
Paran	neter	Units	Result	Limit	Analyzed	Qualifi	ers	
Cyanide		mg/L	ND	0.02	0 07/07/23 16:	09		
LABORATORY CO	NTROL SAMPLE:	1394063						
				CS	LCS	% Rec		
Parar	neter	Units	Conc R	esult	% Rec	Limits	Qualifiers	
Cyanide		mg/L	0.1	0.084	84	80-120		
MATRIX SPIKE SAI	MPLE:	1394065						
			20280982005	Spike	MS	MS	% Rec	
Paran	neter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Cyanide		mg/L	NE	0.1	0.084	84	4 75-125	H3
SAMPLE DUPLICA	TE: 1394064			_				
Paran	notor	Units	20280982005 Result	Dup Result	RPD	Max RPD	Qualifiers	
	IIEIEI							
Cyanide		mg/L	ND	N	2		20 H3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TO	A ALTA						
Pace Project No.:	20281318							
QC Batch:	290633		Analysis Met	hod: S	M 4500-NO3 F			
QC Batch Method:	SM 4500-NO3 F		Analysis Des	scription: S	M4500NO3-F, N	Vitrate, Preserv	ved	
			Laboratory:	F	Pace Analytical S	Services - New	Orleans	
Associated Lab Sam	oles: 20281318	001						
METHOD BLANK:	1393021		Matrix:	Water				
Associated Lab Samp	oles: 20281318	001						
			Blank	Reporting				
Parame	eter	Units	Result	Limit	Analyzed	Qualifie	ers	
Nitrogen, NO2 plus N	103	mg/L	ND	0.050	07/12/23 10:	30		
LABORATORY CON	TROL SAMPLE:	1393022						
			-1 -	LCS	LCS	% Rec		
Parame	eter	Units	Conc	Result	% Rec	Limits	Qualifiers	
Nitrogen, NO2 plus N	103	mg/L	6.2	6.0	98	90-110		
MATRIX SPIKE SAM	PLE:	1393024						
			20280082001	Spike	MS	MS	% Rec	
Parame	eter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Nitrogen, NO2 plus N	103	mg/L	N	ID 1	0.98	96	80-120	
SAMPLE DUPLICATI	E: 1393023							
_			20280082001	Dup		Max		
Parame		Units	Result	Result	RPD	RPD	Qualifiers	_
Nitrogen, NO2 plus N	103	mg/L	ND	NE)		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TO	ALTA									
Pace Project No .:	20281318										
QC Batch:	768830		Analysi	s Method:	El	PA 300.0					
QC Batch Method:	EPA 300.0		Analysi	s Descriptio	on: El	PA 300.0	Inorgani	c Anions			
			Laborat	tory:	Pa	ace Analy	/tical Gul	f Coast			
Associated Lab Sar	nples: 20281318	001									
METHOD BLANK:	2499748		М	atrix: Wate	er						
Associated Lab Sar	nples: 20281318	001									
			Blank		porting						
Parar	neter	Units	Result		Limit	Ana	lyzed	Qualifi	ers		
Fluoride		mg/L		ND	0.200	07/11/2	23 13:19				
LABORATORY CO	NTROL SAMPLE &	LCSD: 2499749		24	199750						
			Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Paran	neter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
Fluoride		mg/L	2.5	2.38	2.39	95	96	80-120		1 15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:	VERTEDERO TO	A ALTA						
Pace Project No.:	20281318							
QC Batch:	290550		Analysis Meth	iod:	ASTM D516-90,	02		
QC Batch Method:	ASTM D516-90,	02	Analysis Desc	ription:	ASTM D516-900	2 Sulfate Wate	r	
			Laboratory:	I	Pace Analytical	Services - New	Orleans	
Associated Lab Sar	nples: 20281318	8001						
METHOD BLANK:	1392514		Matrix:	Water				
Associated Lab Sar	nples: 20281318	8001						
			Blank	Reporting				
Parar	neter	Units	Result	Limit	Analyzed	Qualifie	ers	
Sulfate		mg/L	ND	1.	0 07/04/23 11:	34		
LABORATORY CO	NTROL SAMPLE:	1392515						
				CS	LCS	% Rec		
Parar	neter	Units	Conc. R	esult	% Rec	Limits	Qualifiers	
Sulfate		mg/L	20	20.3	101	90-110		
MATRIX SPIKE SA	MPLE:	1392517						
			20281163001	Spike	MS	MS	% Rec	
Parar	neter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Sulfate		mg/L	NE	D 10	51.4	514	75-125	M1
SAMPLE DUPLICA	TE: 1392516							
			20281163001	Dup		Max		
Parar	neter	Units	Result	Result	RPD	RPD	Qualifiers	
Sulfate		mg/L	ND	N	 D		20 D3	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: VERTEDERO TOA ALTA

Pace Project No.: 20281318

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

BATCH QUALIFIERS

Batch: 290633

[1] The calibration did not meet the %RSD requirements for all points. Samples analyzed due to hold time restictions.

ANALYTE QUALIFIERS

В	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- D4 Sample was diluted due to the presence of high levels of target analytes.
- H3 Sample was received or analysis requested beyond the recognized method holding time.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.
- P1 Routine initial sample volume or weight was not used for extraction, resulting in elevated reporting limits.
- R6 The RPD between valid sample dilutions exceeded 30%.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:VERTEDERO TOA ALTAPace Project No.:20281318

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20281318001	LIXIVIADO DE TANQUES				
20281318001	LIXIVIADO DE TANQUES	EPA 3010	290651	EPA 6010	290666
20281318001	LIXIVIADO DE TANQUES	EPA 7470	290584	EPA 7470	290642
20281318001	LIXIVIADO DE TANQUES	EPA 1010	290436		
20281318001	LIXIVIADO DE TANQUES	EPA 1664B, 2010	290508		
20281318001	LIXIVIADO DE TANQUES	SM 2540D 2011	290502		
20281318001	LIXIVIADO DE TANQUES	SM 4500-S-2 D	290507		
20281318001	LIXIVIADO DE TANQUES	SM 5210B	290376	SM 5210B	290611
20281318001	LIXIVIADO DE TANQUES	40CFR PART 432.2			
20281318001	LIXIVIADO DE TANQUES	EPA 218.6	931445		
20281318001	LIXIVIADO DE TANQUES	EPA 300.0	768830		
20281318001	LIXIVIADO DE TANQUES	EPA 351.2	290420	EPA 351.2	290556
20281318001	LIXIVIADO DE TANQUES	EPA 420.1	290684	EPA 420.1	290704
20281318001	LIXIVIADO DE TANQUES	SM 4500-CN-C	290828	SM 4500-CN-E	290830
20281318001	LIXIVIADO DE TANQUES	SM 4500-NO3 F	290633		
20281318001	LIXIVIADO DE TANQUES	ASTM D516-90,02	290550		
20281318001	LIXIVIADO DE TANQUES	METHOD	769198	SM 5540C	769199

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V N	Trin	Accthum: Tomphete		1001	Date/Time:		ature)	pany: (Signature	Blog and Share	10:02 Ref	Date/Time:	Date/		Finature	ned w/compan	Relinquist
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Comments		MTJL LAB USE ONLY	نې []	0	Date/Time:	<u> </u>	(Signature)	pany: (Signa	Received by/Com		Date/Time: 9	Date/	-	/Company: (Signature) /)	A A A	
Cooler 1 Therm Corr. Factor:oC Cooler 1 Corrected Temp:oC		Courier Pace Courier	Client C		FEDEX UPS	- Same	N NA	۲	Radchem sample(s) screened (<500 cpm):	mple(s) scree	Radchem sa					
Cooler 1 Temp Upon Receipt: 260	Cool			4		2222								· .		
Therm ID#	lem Ther	2602401	Э		Lab Tracking #:	Lap 1				erial Used:	Packing waterial Used:		9.6	2	un c	1
Lab Sample Temperature Iyro		SHORT HOLDS PRESENT (<72 hours): Y N N/A	<72 hours	PRESENT (RT HOLDS	IOHS	None	Dry 1	et Blue	Usea: Wet	Type of Ice Used:	_	ns / Possible F		cusuoriter Retharks / Special Conditions / Possible Hazards:	
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# / Comments:	Lab Sample #	<u>/</u>	<u>A</u> E	7	рh F	[4 	Ctns	nd Res	Composite End	e Start)	Collected (or Composite Start)	Comp / Grab	Matrix *	•	Customer Sample ID	Custome
Strips:	Lead Acetate	UL	v L	2	en	30	L.	r (OT)	ipor (V), Othei	ia water (Or iassay (B), Va	sue (TS), Bio	Air (AR), Tis	, Wipe (WP), /	SL), Oil (OL),	Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)	Produc
sent Y N NA	Sulfide Present	<u>Ľ</u>	p 1 a	5	ist	D D		T (VADA)	/ Wastewate	d Water (GV	(DW). Groun	ing Water f	below): Drink	Matrix box	Matrix Codes (Insert in Matrix box below): Drinking Water (DW). Ground Water (GW) Wastewater (WAW)	* Matrix
	Cl Strips: Sample pH Acceptable	al 	ich Ne	se Sul	5). do	J.F.	0	} No	[] Yes [Analysis:		[] 4 Day X5 Day	{ JSame Day [JNext I Day [] 3 Day [] 4 Day (Expedite Charges Apple)	{]2Day] {]2Day]	Return	J Juspose as appropriate [] Return] Archive:] Hold:	[] Archive:
g Time Y N Present V N	Samples in Holding Residual Chlorine 1		n v	р 1	7	Ile:	3997.7	applicable)	tered (if			,	Rush:		Sample Disposal:	Sample
ptable Y N Y N	VOA - Headspace Acce USDA Regulated Soils		45 le	all A	ofa h	na zh] No	HYVes [] No		ea: イアムア	ARRAN	SRUSH			
	Correct Bottles Sufficient Volume Samples Received on			E	I J	101)de:	DW Location Code:				Quote #:		Collected By (signature)	Collecter
ture Present y Y	Bottles Intact				41	<u>,</u> 'n'		INC				er#:	Purchase Order #:		Collected By (prigt):	Collecte
Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA	Custody Sea Custody Sign			<u>e</u> n	rog	7 ,		nitoring?	nce Mo	- 0	A	1	Site/Facility ID #:	-	787-505-6139	Phone:
Receipt Checklist:	Lab Sample Receipt				20		य है मि नि	Time Zone Collected: [] PT [] MT [] CT		County/City:	State:	Č.	ed th	10 / OR	CUSTOME HOLEL NAME / NUMBER	
(c) ammonium hydroxide, (b) TSP, (L) Unpreserved, (0) Other Control of the Activity of animumum strate, Analysee		served, (O) Other	(U) Unpres	ide, (D) TSP,	ium hydrox	C) ammon		Arta	tress:	Site Collection Info/Address:	Site Collect			-		
s: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, inn hisulfate (8) sodium thiserutes (70) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate,	oric acid, (4) sodium f	iric acid, (3) hydrochk	id, (2) sulfu	(1) nitric ac	Preservative Types: methanol. (7) sodiu	** Preserva 6) methan					Email To:		tyale	Inal	00	Report To
	H Project Manager				11011		3					्	4 m - 1 /	note		Address:
					18	02813	~		me	rmation:	Billing Information:			stell	Ken	Company:
							b	relevent fiel	Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields	DOCUMENT -	is a LEGAL E	-of-Custody	Chain	ucai		2
rr List Pace Workorder Number or 45	ir List Pace	18	313	20281318	# N	tOM	nent	t Docun	CHAIN-OF-CUSTODY Analytical Request Document	Analytics	STODY J	I-OF-CU	CHAIN		hent ared	_
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DC#_Title: ENV-FRM-SROS-0009 v02_NOLA SCUR Form Effective Date: 3/23/2022

0			WO#:20281318	
Pace 1000 Riv St. Rose	verbend. Blvd., Suite F 9, LA 70087	Projec	PM: JAR1 Due Date: 07/06/23 CLIENT: 98-Terratek	
Courier: Pace Courier Hire	d Courier 🖉 Fed X 🗆			
Custody Seal on Cooler/Box Preser		dy Seals intact:		
,		Ly Cours march.		
Samples on ice: YES 🛛	NO Type of Ice:	Net Blue None	Date and Initials of person example contents: 0/04/23	
Temp should be ≤6°C *Temp must be	measured from Temperature blant	k when present 🥱		<u> </u>
Cooler #1 Thermometer Used:_/C	∠ Cooler Temp °C: ($\frac{9}{2}$ (CF) O (Actual) 3.9	
Cooler #2 Thermometer Used:	Cooler Temp °C: ((CF) (Actual)	•
Cooler #3 Thermometer Used:	Cooler Temp °C: ((CF) (Actual)	
Cooler #4 Thermometer Used:	Cooler Temp °C: ((CF) (Actual)	
Tracking #5 1009052	<u>LOD37</u>			
				•
Temperature Blank Present"?	Yes ZNo	V/A		
Chain of Custody Present:		V/A		
Chain of Custody Complete:		1/A		
Chain of Custody Relinquished:		I/A		
Sampler Name & Signature on COC:	<u>Pres []No []</u> N	I/A		
Samples Arrived within Hold Time:		/A		
Sufficient Volume:				
Correct Containers Used:	 ∭Yes ⊡No ⊡N			
Filtered vol. Rec. for Diss. tests	Yes No No			
Sample Labels match COC:				
All containers received within manafactu	ire's			
precautionary and/or expiration dates.	Ves 🗆 No 💷 N/.	A		
All containers needing chemical preservent of the preservent of th	ation have O&G). □Yes □No □N/	A If No, was pres		
All containers preservation checked four	nd to be in	If added record		
compliance with EPA recommendation.		HNO3	H2SO4	
leadspace in VOA Vials (>6mm):			Time:	
rip Blank Present:		<u> </u>]
		,	· · · · · · · · · · · · · · · · · · ·	
Client Notification/ Resolution:				<u> </u>
Person Contacted:		Date/Time:		
omments/ Resolution:		vale/ (Ime:		
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Page 1 of 1

c	ito Jantinas da Guaynaco latia Migonal Biq A-10 Kuaynaco, PR 108889				Projec	PM: JAR1 Due Date: 07/06. CLIENT: 98-Terratek
Courier: 🖸 Pace Courier-	Hired Courier	🖸 Fea	ях		S 🖸 DHI	L 🗆 USPS 🗆 Customer 🗆 Other
Custody Seal on Cooler/Box Pres	ient <u>(see C</u> #1/5	:OC]				Custody Seals intact: Yes No
Therometer Therm Fish Used: Therm Fish	erJR 4 er IR 6	Typë c	of ice:		Biue No	ne Samples on ice. [see COC]
Cooler Temperature: [see CO 2.6°C	• * • •		d be a	bove fi	eezing to 6°C	Date and Initials of person examining contents: <u>6/28/23</u> JAE Pa
Temp must be measured from Temp	erature blank when p	resent			Comments:	- · ·
Temperature Blank Present"?		<u>Zires</u>			1	
Chain of Custody Present		VEXes			2	
Chain of Custody Complete		Xyes			3	
Chain of Custody Relinquished:	· · · · · · · · · · · · · · · · · · ·	Ka	⊡ No		4	
Sampler Name & Signature on C	00:	A 2	-;			
Samples Arrived within Hold Time	B.	Xia	⊡ No	⊡n/a	6	
Sufficient Volume:		Yes	⊡No.	LIN /A	7	
Correct Containers Used	· · · ·	Xyes		En/a	8	
Filtered vol. Rec. for Diss. tests		⊡¥es	DNo.	XINA	9.	
Sample Labels match COC:					· ·	
All containers received within ma precautionary and/or expiration d	ates.	X Yes			1.1	
All containers needing chemical p been checked (except VOA, colif	om, & O&G).	X tres		⊡n/a	12	
All containers preservation check compliance with EPA recommen	dation.	Xres	Cin o		If No, 1 13 If adde	was preserative added?YesNo ed record lot no.: HNO3 H2SO4
Headspace in VOA Viais (>6mm	<u>).</u>	□Yes		XINA	14	
Trip Blank Present		⊡Y es	X No		15	
Client Notification/ Resolution	· · ·		• <u></u>	··	•	
Person Contacled:					•	Date/Time:
Comments/ Resolution:						
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Ship To: Pace Analytical Ormond Beach 8 East Tower Circle Ormond Beach, FL 32174 Phone (386)672-5668

INTER_LABORATORY WORK ORDER # 20281318

(To be completed by sending lab)

Sending Project No:	20281318
Receiving Project No:	
Check Box for Consolidated Invoice	
Date Prepared	06/28/23
REQUESTED COMPLETION DATE:	7/6/2023

Sending Region	IR20-New Orleans	Sending Project Mgr.	Juan Redondo
Receiving Region	IR35-Ormand Beach	External Client	
State of Sample Origin		QC Deliverable	Terratek PR
A	Questions should be address		STD REPORT

All questions should be addressed to sending project manager.

Requested Reportable Units

Contractory of the

Report Wet or Dry Weight? Wet

Cert. Needed

Method Description	Container Type	Quantity of Preservative	Quantity of Samples	Unit Price	Amount
HEX CHROMIUM (218.6)	BP2U	Unpreserved	1	¢70.00	
				\$70.00 TOTAL	\$70.00 \$70.00

Special Requirements: Report C, QC Limits (C), FR Only no EDD (0)

Receiving Region Department			Receiving Region	Allocation Client Services Dept Sending Region (20%
/et Chemistry	21	\$70.00	\$56.00	straing region (20%) \$14.
ustom Revenue Allocation	TOTAL	\$70.00	\$56.00	\$14.
FORANALYT	CAL WORK COMPL			· · · · · · · · · · · · · · · · · · ·
	CAL WORK COMPL	EIED THIS SECTION	DNALSO	The second states of the second states of
Return Samples to Sending Region: Yes	NO	ETED THIS SECTION	DNALSO	

Date: 29Jun23 Ngt: 23.40 LBS

SVOB; PRIORITY OVERNIGH TRCK: 6494 6777 27

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Ref Dep SHIPPING: SPECIAL: HANDLING:

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nternal Transfer Chain of Custody	ain of Cus	stodv –							5	
	Ŭ,	Samples Pre-Logged into eCOC.	ed into eCOC.	Catt N	Cart Naadad.	1			Pace	Pace Analytical [®] www.pacelaba.com
Vorkorder: 20281318 Worko	Workorder Name: V	VERTEDERO TOAA	A ALTA	Owner	pa	n	6/28/2023	Results Requested By:	uested By:	7/6/2023
uan Redondo vace PR Service Center Irb. Jardines de Guaynabo valle Marginal Blq A-10 suayanbo, PR 00969 hone (787)720-0319		Pace Analytical Ormond Beach 8 East Tower Circle Ormond Beach, FL 32174 Phone (386)672-5668	mond Beach e 668 668		(3.815) M		sisvier data	Analysis		
Sample ID	Sample Collect Type Dateffime	LabiD		Preserved Containers	нех снвожіл					LAB USE ONLY
LIXIVIADO DE TANQUES	PS 6/28/2023 09:00	09:00 20281318001	11 Water 1		×					
Fransfers Refeased By	Date	Date/Time r700 Received By	d By		Date/Time			SUBUUM	D	
1 Parana / 10 - 15	- 1 Pace 628	a:2120/00/1								4
Sooler Temperature on Receipt	°c	Custody Seal	Y or N	Receiv	Received on Ice	Y or N		Samples Intact	s Intact Y	or N
**In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature n This chain of custody is considered complete as is since this information is available in the owner laboratory.	itiality, location/ od complete as i	hame of the sam is since this infor	pling site, sampl mation is availab	ig site, sampler's name and signature may not be provided on this COC document. tion is available in the owner laboratory.	l signature i r laboratory	nay not be	provided (on this COC d	locument.	

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Page 1 of 1