

Nokomis Lab01 1050 Endeavor Court Nokomis, FL 34275 TEL: (941) 234-1000 FAX: (941) 484-6774 Website: www.sanderslabs.net

November 01, 2021

Desoto County 2170 N.E. Roan Street Arcadia, FL 34266 TEL: (863) 491-7500

FAX:

RE: DeSoto - WTP NPDES / Outfall Order No.: 2109985

Dear:

Sanders Laboratories, Inc received 1 sample(s) on 9/28/2021 for the analyses presented in the following report.

These results only pertain to the samples as received. These pages may include, but are not limited to: Analytical Data, Chains of Custodies, Subcontracted Data and Case Narratives for samples. Results relate only to the samples in the report.

Reports are archived for a minimum of 5 years. Copies of reports are available for a fee of \$50.00. Copies will be provided within 2 weeks of the time of the request. Laboratory PQL's are available upon request.

Test results meet all the requirements of the NELAP standards, unless otherwise noted. Nokomis Certificate # E84380 Fort Myers Certificate # E85457

A statement of estimated uncertainty of results is available upon request.

Laboratory report shall not be reproduced except in full, without the written approval of Sanders Laboratories.

Sanders Laboratories follows DEP standard operating procedures for field sampling, unless otherwise noted.

Jeff Walsh

**Operations Manager** 

galin



Nokomis Lab01 1050 Endeavor Court Nokomis, FL 34275

TEL: (941) 234-1000 FAX: (941) 484-6774 Website: www.sanderslabs.net **Definition Only** 

WO#: **2109985**Date: **11/1/2021** 

## **Definitions:**

B: Results based upon colony counts outside the acceptable range.

G: Sample value indicates that the analyte was detected at or above the method detection limit in both the sample and the associated field blank, equipment blank, or trip blank, and the blank value was greater than 10% of the associated sample value. The value in the blank shall not be subtracted from associated samples. Also if the RPD on a field duplicate exceeds allowable control limit.

- I: The reported value is greater than or equal to the laboratory MDL but less than the laboratory PQL.
- J: Estimated Value.
- J7: Excessive amounts of Sodium Sulfite used to dechlorinate the sample due to high levels of chlorine present.
- K: Off scale low, actual value is known to be less than the value given.
- L: Off scale high, actual value is known to be greater than the value given.
- NC: Not Certified. Parameter was ran but is not covered under laboratory accredited scopes.
- Q: Sample held beyond acceptable holding time.
- U: The compound was analyzed for, but not detected.
- V: Indicates that the analyte was detected at or above the MDL in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.
- Y: The laboratory analysis was from an improperly preserved sample.
- Z: Too many colonies were present for accurate counting.



Nokomis Lab01 1050 Endeavor Court Nokomis, FL 34275 TEL: (941) 234-1000 FAX: (941) 484-6774

Website: www.sanderslabs.net

(continuous)

WO#:

Lab Order:

2109985

2109985

**Analytical Report** 

Date Reported:

11/1/2021

**CLIENT:** Desoto County

soto County

**Project:** DeSoto - WTP NPDES / Outfall

Lab ID:2109985-001Collection Date: 9/28/2021 9:20:00 AMClient Sample ID:South Fort Meade D-001Matrix: SURFACE WATER

Client Sample ID: South Fort Mea	t Meade D-001 Matrix: SURFACE WATER							
Analyses	Result	MDL	Qual Units	DF	Date Analyzed			
METALS			E200	.8	Analyst: Pace			
Arsenic	0.0012	0.0005000	mg/L	1	9/30/2021 4:02:00 PM			
TOTAL NITROGEN			E351	.2	Analyst: GC			
Nitrogen, Total	0.930	0.0300	mg/L	1	10/5/2021 12:18:00 PM			
TOTAL PHOSPHOROUS			E365	.4	Analyst: GC			
Phosphorus, Total (As P)	1.27	0.0200	mg/L	1	10/5/2021 12:18:00 PM			
CHLOROPHYLL A			A1020	0Н	Analyst: <b>GC</b>			
Chlorophyll A, Corrected	11.4 12.0	1.00	mg/m³ mg/m³	1 1	9/29/2021 3:40:00 PM			
Pheophytin  FLUORIDE	12.0	1.00	A4500-		9/29/2021 3:40:00 PM  Analyst: <b>PS</b>			
TEOORIDE			A4000	. 0	7 maryot. 1 C			
Fluoride	1.80	0.100	mg/L	1	10/8/2021 9:40:00 AM			
SULFATE			ASTM-D5	516-90	Analyst: <b>EH</b>			
Sulfate	119	1.00	mg/L	1	9/30/2021 2:49:00 PM			
TOTAL DISSOLVED SOLIDS			A254	OC .	Analyst: <b>PS</b>			
Total Dissolved Solids (Residue, Filterable)	352	20.0	mg/L	1	9/28/2021 2:00:00 PM			
TOTAL SOLIDS			A254	0B	Analyst: <b>PS</b>			
Total Solids	300	0.60	mg/L	1	9/29/2021 4:45:00 PM			
TOTAL SUSPENDED SOLIDS			A254	0D	Analyst: PS			

Qualifiers:

H Holding times for preparation or analysis exceeded

PL Permit Limit

U Samples with CalcVal < MDL

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified at testcode



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# **Analytical Report**

(continuous)

WO#: 2109985
Date Reported: 11/1/2021

CLIENT: Desoto County Lab Order: 2109985

**Project:** DeSoto - WTP NPDES / Outfall

TOTAL SUSPENDED SOLIDS			A254	0D	Analyst: <b>PS</b>
Residue, Suspended Solids	5.30	0.600	mg/L	1	9/28/2021 4:15:00 PM
FIELD PARAMETERS			FLC	)	Analyst:
Conductivity, EPA 120.1	604	1.0	umhos/cm		
Dissolved Oxygen, EPA 360.1	5.26	0.10	mg/L		
pH,EPA 150.1	7.65	0.01	S.U.		
Salinity	0.29	0.01	ppt		
Temperature, EPA 170.1	27.1	0.1	deg C		
Turbidity, EPA 180.1	2.60	0.01	NTU		

## **DBPix Evaluation**

## CHAIN OF CUSTODY RECORD

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					-	-

PAGE: OF:

Sanders

ADDRESS
Nokomis Lab01
1050 Endeavor Court
Nokomis, FL 34275
TEL: (941) 234-1000
FAX: (941) 484-6774
Website: www.sanderslabs.net

Please Include Email Address of Report Recipient Whenever Possible!!!

BMITTING COMPANY Desoto County	1100000		REPO	ORT TO											BIL	L TO		P. O. #
DIECT NAME PROJECT # Soto - WTP NPDES DeSoto - WTP NPI	QUO	TE#	COM	PANY D	esoto	Co	unty				******			-	COMPANY: Desoto County			
CIAL INSTRUCTIONS / COMMENTS	11.37		AERD	RESS 21	70 N	.E.	Roan	Str	eet						ADDRESS 2170 N.E. Roan Street			
····	94 -		CITY	STATE, ZE	Arc	adi	a, FL	34266						CITY, STATE, ZIP. Arcadia, FL. ZIP#34266				
t#		***************************************	PHOS	PHONE. (863) 491-7500				EMAIL (OR FAX IF NO EMA						FAX I	FN	EM	and the second second	
MPLER'S PRINTED NAME MOCTO (	indo	SAMPLER'S S	GIGNATURE	TURE INST				ANALYTICAL PARAMETERS					ETER	5		1	MMENTS	
S. FT MEADE DOD SAMPLE DO M	Maris	Bottle Type	Servic Los d	Date/Time Sampled	186	CONBOSULE C.	NUMBER OF CONTAINERS	CHLOROA	77	METALS 200 \$	KA	804 Gal	TOS	41	ST	158		SE QUOTE 666  Methanol Preserved Weights, HOT Sample Notation
S-Ft Meade outfall D002		HPUTOPA-	V.	8/18/2	1	9		1	H	-	H	Н	1	Н	V	1	-	Additional Sample Description etc.
SEt.Meade outfall D002	Surface Surface	AMRES 11	10		+	91		1	H	+	+	H	Ť	Н	×	+		
S. Ft. Meade outfall D002	Water Surface Water	250PL-NOP	1077003		+	+		-	V	1	+	V	t		7	+		
S. Et Meade outfall-0002	Surface	2500L-MOP	8038006 		+	H		Ť		T	+	Ħ	T	Н	7	+	4	
S: Ft Meade outfall D002	Surface Water	250PL-H2504	ZKDOUTS		1,5	T		T	П		T	Ħ	V	V	T	Ť		
S-Ft-Meade outfall D002	Surface Water	TEPTHON	1/2/2/2000 11/2/1000		15	T		T	П	4	1	П	Ť	П		T	SV	4 - 200.8 - As
SEt-Meade outfall D002	Surface Water	IL HIVO	11 21000 0 80 21-7E	EV	1,5	T		T	П		V		T	П	П	-	SV	V - Gross Alpha
S. Et Meade outfall D002	Surface Water	24 HAD-	10		1,5				П		V	П	T				SW	/ - Rads 226/228
S. Ft Meade outfall D002	Surface Water	,									¥	П					SW	/~ Uranium
S. Ft Meade outfall D002	Surface Water 2	all)(sai	3  9022   2 <b> </b>  2  2  -   <u> </u>	вН	10,10	1			П	П	4					T	SW	V - Oil and Grease
Inquished By W Date Date	Time // US	- Receipt	Yhy			3/2	jker i	Ti	7.4	Ś	Γ	П	IARD	COPY	/ Cest			INSMITTAL DESIRED:
Inquished Be Date	Time	Received F				Date		To	2711.		-							AB USE ONLY
TAT: Standard	<u></u>	SH No	na BD 📋		D []		3rd B	D C	-				np of zenen	sample ta	cá		2,6	*C Attempt to Cool?

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## **DBPix Evaluation**

## **DBPix Evaluation**



#### CHAIN OF CUSTODY RECORD

PAGE:	OF:	
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2109985

#### ADDRES

Nokomis Lab01 1050 Endeavor Court Nokomis, FL 34275 TEL: (941) 234-1000 FAX: (941) 484-6774

Website: www.sanderslahs.net

Please Include Email Address of Report Recipient Whenever Passible!!!

SUBMITTING CO	MPANY Desoto County			T	REPORT TO							100	*	80	LL TO		P. O. #
PROJECT NAME DeSoto - WTP	NPDES   DeSoto - WTP   NPDES /	QUOT	Es		COMPANY Desoto County							CC	COMPANY Desoto County				
	CIAL INSTRUCTIONS / COMMENTS				ADDRESS 2170 N.E. Roan Street							· AI	ADDRESS 2170 N.E. Roan Street				
	V3 -				CITY, STATE, ZIP	Ar	cadia, FL	. 34	266		-	7		cr	TY, STATE	ZIP AI	readia, FL. ZIP#34266
Çin #				100	PHONE. (863) 491-7500 EMAR. (OR FAX							AX IF N	IF NO EMAIL AVAILABLE)				
SAMPLER'S PRINT	TED NAME		SAMPLER'S SIGN	ATU	RE ,				Α	NALY	пса	L PAR	AME	ERS			MMENTS E QUOTE 666
ETEM #	SAMPLE ID	Maix	Boxte Type	Borde Lot 6	Dane/Tune Sampled	pH	COMPOSITE CONTAINERS CONTAINERS NUMBER OF	CHLOROA	F. F.	METALS 200 8	VS	204 Chi	N. N.	51	TURB :		Methanol Preserved Weights: HOT Sample Notation Additional Sample Description on

Testcode to method definitions: ALK=A2320,APC=BAMCH23,APC PETRI=AOAC 990.12,APC/G=CCMEF 6.33/AOAC 966.23,APC/ML=CCFRA 2.1,APC/SWAB=AOAC 986.33,BOD=A5210B,BOD FM=A5210B,Ca Hard=EPA 215.2,CBOD=A5210B,CBOD FM=A5210B,CHLOROA=A10200H,CL-B DW=A4500-Cl-B,CL-E NP=A4500-Cl-E,CL-SOLID=FM\_5-552,CL2=E330,5,COL PM=E330,5,COL PETRI=AOAC 991.14,COLOR=A2120B,Color FM=A2120B,COND FM=A2510B,EB=AOAC 2003.01,EB C=CMMEF 8.631,EC 0157=AOAC Cert #001101,EC J=AOAC 992.3,EC01572=AOAC 996.09,ECOL1=EC + MUG,Enterococcus=E1600,ENTEROLERT=Enterolert,F-a4500-F-C,FC=A9222D,FC MPN=A9221E,FC MPN FM=A9221E,FC MUG=A9223B,FC MUG FM=A9223B,FC STREP=A9230C,FCMPN=A9221E,HARD=A2340C,HPC=A9215B,LEGA=Legiolert,LIST PCR=AOAC #099701,LISTERIA BR=R030406,LMONO PCR=010802,MOLD=FDA/BAM Ch. 18,MOLD G RES=ASTM D3273,MOLD ID=McCrone,NH3=E350.1,NH3
Solid=E350.1,NH4=E350.1,NO2=E353.2,NO2 FM=A4500-NO2-B,NO3 SOLID=E353.2,NOX=E353.2,NOX Solid=E353.2,ODOR=A2150B,Odor FM=A2150B,OPHOS=A4500-P-E,Org N=E351.2,OFg N Solid=E351.2,PH=A4500-H+-B,PH F=AOAC 981.12,PH FM=A4500-H+-B,PH Sludge=E9040C,PH SOLID=E9045D,SALM PCR=010803,SIO2=A4500-SiO2 C,SO4=ASTM-D516-90,STAPH=AOAC 2003.07,Strep=A9230B,CA Subcontract PACE BCS ALS FRC Microbac Eurofins,TC MF=A9222B,TC MF FM=A9222B,TC MUG=A9223B,TC MUG=

Relinquished By:	Date	Time:	Received North	9/28 kac	Ting/245	REPORT TRANSMITTAL DESIRED:
Relaquished By	Date	Time	Received By	Date	Time	☐ HARDCOPY (curs con) ☐ FAX ☐ EMAIL ☐ ONLENE
Relaquished By:	Date	Tirat	Received By	Dase	Time.	17.6 FOR LAB USE ONLY
TAT:	Standard []	RUS	II Next BD □ 2nd BD □			Temp of samples 12-10 °C Affernat to Cool?  Consequents
			Note: RUSH requests will incur as	rcharges!	1	

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## **DBPix Evaluation**

## **DBPix Evaluation**

2109985



Pield Tech Mario Pineda

	0)											Location:	De	Soto	
Site S, FOR MEAD D.OOI	2	Flow* Ft/sec or tidal change	Total Depth,ft	Sample Depth (ft)	Water Temp EPA 170.1 (C)	DO EPA 360.1 (mg/L)	DO (%)	Cond EPA 120.1 (umhos /cm)	Salinity M 250B (pp	pH EPA 150.1 (std units)	Turbidity EPA 180.1 (NTU)	Weath Cloud Cover		Air Temp (C)	Second (ft)
Soneson Sol	920	2-3-A over wer	Ц.3	1	27.(	5.26	66.1	604	0.29	1.65	2.60	15%	NE	25	
Loc	ÁT/C	on c	1An	19e	Per	De	50	10 0	CO.				4		
					14										
									t <sup>3</sup> .	!					+ 11
	250PUN 5 <del>00 P</del> 1 <del>4.P</del>		Preserva TCE H,SO <sub>4</sub> HNO <sub>3</sub>	TOS, SO, TN, TP As TSS, TFS	Multi 20A100132	Turb 18051/784	Depth 6240	Peri Pump 4116	016549	4999 p		Comments	:		
	L GA		ICE Haso	Chloro	Alpha		F-03 Ap	proved by: I	KS	WHIN	9,	hefood	11:49	ŝ	

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October 22, 2021

Tami Bright
Sanders Laboratories, Inc.
1050 Endeavor Court
Nokomis, FL 34275

RE: Project: 2109985

Pace Project No.: 35666555

## Dear Tami Bright:

Enclosed are the analytical results for sample(s) received by the laboratory on September 29, 2021. 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 National Mt. Juliet
- Pace Analytical Services Greensburg

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

Sincerely,

Brad Smith

brad.smith@pacelabs.com

bradles Smith

(386) 672-5668

Project Manager

Enclosures

cc: Katie Strothman, Sanders

Katie Strothman, Sanders Laboratories, Inc.





### **CERTIFICATIONS**

Project: 2109985
Pace Project No.: 35666555

#### Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706

North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249 Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282 South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3 Utah/TNI Certification #: PA014572017-9 USDA Soil Permit #: P330-17-00091 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 9526 Washington Certification #: C868 West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L

#### Pace Analytical Services National

12065 Lebanon Road, Mt. Juliet, TN 37122

Alabama Certification #: 40660
Alaska Certification 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197

DOD Certification: #1461.01

EPA# TN00003

Florida Certification #: E87487 Georgia DW Certification #: 923 Georgia Certification: NELAP Idaho Certification #: TN00003 Illinois Certification #: 200008 Indiana Certification #: C-TN-01 Iowa Certification #: 364 Kansas Certification #: E-10277

Kentucky UST Certification #: 16

Kentucky Certification #: 90010 Louisiana Certification #: Al30792 Louisiana DW Certification #: LA180010

Maine Certification #: TN0002
Maryland Certification #: 324

Massachusetts Certification #: M-TN003

Michigan Certification #: 9958

Minnesota Certification #: 047-999-395 Mississippi Certification #: TN00003 Missouri Certification #: 340 Montana Certification #: CERT0086 Nebraska Certification #: NE-OS-15-05 Nevada Certification #: TN-03-2002-34

Nebraska Certification #: NE-OS-15-05
Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742

North Carolina Aquatic Toxicity Certification #: 41 North Carolina Drinking Water Certification #: 21704 North Carolina Environmental Certificate #: 375

#### **REPORT OF LABORATORY ANALYSIS**

(386)672-5668



### **CERTIFICATIONS**

Project: 2109985
Pace Project No.: 35666555

### **Pace Analytical Services National**

North Dakota Certification #: R-140 Ohio VAP Certification #: CL0069 Oklahoma Certification #: 9915 Oregon Certification #: TN200002 Pennsylvania Certification #: 68-02979 Rhode Island Certification #: LAO00356 South Carolina Certification #: 84004

South Dakota Certification

Tennessee DW/Chem/Micro Certification #: 2006 Texas Certification #: T 104704245-17-14 Texas Mold Certification #: LAB0152 USDA Soil Permit #: P330-15-00234 Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 998093910

Wyoming UST Certification #: via A2LA 2926.01 A2LA-ISO 17025 Certification #: 1461.01 A2LA-ISO 17025 Certification #: 1461.02 AIHA-LAP/LLC EMLAP Certification #:100789





## **SAMPLE SUMMARY**

Project: 2109985
Pace Project No.: 35666555

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35666555001	2109985-001	Water	09/28/21 09:20	09/29/21 11:50



## **SAMPLE ANALYTE COUNT**

Project: 2109985
Pace Project No.: 35666555

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35666555001	2109985-001	EPA 900.0	CLA	1	PASI-PA
		EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		EPA 1664A	WAW	1	PAN

PAN = Pace National - Mt. Juliet

PASI-PA = Pace Analytical Services - Greensburg

10/06/21 09:08 10/07/21 01:42



## **ANALYTICAL RESULTS**

Project: 2109985
Pace Project No.: 35666555

Oil and Grease

Date: 10/22/2021 11:10 AM

Sample: 2109985-001	Lab ID:	35666555001	Collecte	ed: 09/28/2	21 09:20	Received: 09/2	29/21 11:50 Ma	atrix: Water		
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
Wet Chemistry 1664A	Analytical Method: EPA 1664A Preparation Method: 1664A Pace National - Mt. Juliet									

1.16

5.00

1.16 U

mg/L



2109985

LABORATORY CONTROL SAMPLE & LCSD:

Date: 10/22/2021 11:10 AM

Project:

### **QUALITY CONTROL DATA**

Pace Project No.: 35666555 QC Batch: 1752230 Analysis Method: EPA 1664A QC Batch Method: 1664A Analysis Description: Wet Chemistry 1664A Pace National - Mt. Juliet Laboratory: Associated Lab Samples: 35666555001 METHOD BLANK: R3713363-1 Matrix: Water Associated Lab Samples: 35666555001 Blank Reporting Units Result Limit MDL Analyzed Qualifiers Parameter Oil and Grease mg/L 1.16 U 5.00 1.16 10/07/21 01:42

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	40.0	37.8	37.8	94.5	94.5	78.0-114	0.00	20	
MATRIX SPIKE SAMPLE:	R3713363-4									
Parameter	Units	L14120 Resu		Spike Conc.	MS Resu	lt	MS % Rec	% R Lim		Qualifiers
Oil and Grease	mg/L		ND	40.0		30.7	76.	.7 78	3.0-114 J(	ML)

R3713363-3

R3713363-2



## **ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: 2109985
Pace Project No.: 35666555

<b>Sample: 2109985-001</b> PWS:	Lab ID: 3566 Site ID:	<b>6555001</b> Collected: 09/28/21 09:20 Sample Type:	Received:	09/29/21 11:50	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg		•		
Gross Alpha	EPA 900.0	4.37 ± 1.46 (1.82) C:NA T:NA	pCi/L	10/20/21 17:43	3 12587-46-1	
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	1.17 ± 0.623 (0.704) C:NA T:92%	pCi/L	10/20/21 15:21	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	1.27U ± 0.667 (1.27) C:72% T:79%	pCi/L	10/20/21 14:23	3 15262-20-1	



#### **QUALITY CONTROL - RADIOCHEMISTRY**

Project: 2109985
Pace Project No.: 35666555

QC Batch: 467233

QC Batch Method: EPA 904.0

Analysis Method:

EPA 904.0

Analysis Description:

904.0 Radium 228

Laboratory:

Pace Analytical Services - Greensburg

Associated Lab Samples: 35666555001

METHOD BLANK: 2256272

Matrix: Water

Associated Lab Samples: 35666555001

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

Qualifiers

Radium-228

0.128 ± 0.357 (0.799) C:67% T:89%

pCi/L

10/20/21 11:25



### **QUALITY CONTROL - RADIOCHEMISTRY**

Project: 2109985
Pace Project No.: 35666555

QC Batch: 467701

QC Batch Method: EPA 900.0

Analysis Method: EPA 900.0

Analysis Description: 900.0 Gross Alpha/Beta

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 35666555001

METHOD BLANK: 2258322 Matrix: Water

Associated Lab Samples: 35666555001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Gross Alpha
 0.081 ± 0.610 (1.60) C:NA T:NA
 pCi/L
 10/20/21 08:52



#### **QUALITY CONTROL - RADIOCHEMISTRY**

Project: 2109985 Pace Project No.: 35666555

QC Batch:

QC Batch Method:

467232

EPA 903.1

Analysis Method:

EPA 903.1

Analysis Description:

903.1 Radium-226

Laboratory:

Pace Analytical Services - Greensburg

Associated Lab Samples: 35666555001

METHOD BLANK: 2256271

Matrix: Water

Associated Lab Samples: 35666555001

Parameter

Act ± Unc (MDC) Carr Trac

Units

Analyzed

Qualifiers

Radium-226

0.000 ± 0.273 (0.578) C:NA T:100%

pCi/L

10/20/21 15:07



#### **QUALIFIERS**

Project: 2109985 Pace Project No.: 35666555

#### **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

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.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

#### **ANALYTE QUALIFIERS**

Date: 10/22/2021 11:10 AM

U Compound was analyzed for but not detected.

J(ML) Estimated Value. Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: 2109985
Pace Project No.: 35666555

Date: 10/22/2021 11:10 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35666555001	2109985-001	EPA 900.0	467701		
35666555001	2109985-001	EPA 903.1	467232		
35666555001	2109985-001	EPA 904.0	467233		
35666555001	2109985-001	1664A	1752230	EPA 1664A	1752230



MO#: 35666555

Nokomis Lab01 1050 Endeavor Court Nokomis, FL 34275 TEL: (941) 234-1000 FAX: (941) 484-6774

ADDRESS

OF:

PAGE: 1

Omega COCID 17885

Website: www.sanderslabs.net

COMMENTS					NUMBER OF COMMENTS: Methanol Preserved Weights CONTAINERS HOT Sample Notation, Additional Sample Description	1 SW - Gross Alpha		1 SW - Rads 226/228		1 SW - Oil and Grease	
STECHELINSTRUCTIONS/COMMENTS					DATE COLLECTED	9/28/2021 09:20:00 AM		9/28/2021 09:20:00 AM		9/28/2021 09:20:00 AM	
cal					MATREX	Surface Water		Surface Water		Surface Water	
Pace Analytical					BOTTLE TYPE						
COMPANY:	rcle	FL 32174	86) 673-4001 EMAE.		CLIENT SAMPLE ID	Lonesome outfall D		Lonesome outfall D		Lonesome outfall D	
MOR Pace	8 East Tower Circle	CITY, STATE, ZIP: Ormond Beach, FL 32174	PHONE: (386) 676-4837 FAX: (386) 673-4001		SAMPLE ID	2109985-001F	See Attached	2109985-001G	See Attached	2109985-001H	See Attached
SUB CONTRATOR Pace	ADDRESS:	CITY, STATE,	PHONE: (38)	ACCOUNT #.	ITEM #	-	7	٠	7	·	<b>n</b>

Remitted By	Castor	Time	Received By: Oac	Date	29/7 TIPE	Tries of	REPOR	REPORT TRANSMITTAL DESIRED:	L DESIRED:		
Reinquished By:	Date:	Time:	Received By.	Date:	Ĭ		☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE	□ FAX	☐ EMAIL	ONEINE	
Relinquished By:	Date:	Time:	Received By:	Date:	: Time:			FOR LAB USE ONLY	NLY		
TAT:	Standard	RUSH	Next BD	2nd BD	3rd BD	r- C	Temp of samples	ů v	°C Attempt to Cool?		
			Note: RUSH requests will incur surcharges!	will incur surcharge	es!						

Pace Analytical Sample Condition Upon Receipt Form (SCUR)

Project #

WO#: 35666555

Project Manager:

ager: PM: BTS CLIENT:

Due Date: 10/06/21

Client: CLIENT: SANLAB

Date an	d Initials of person:
Examinir	ng contents:
Label:	
Deliver:	
pH:	

			pH:
Thermometer Used: 1-337	Date: 4/2912	- <u> </u> Time: <u>  レ</u> 13	Initials: 45
State of Origin:	☐ For WV p	projects, all containers verified to	2° 6≥ c
Cooler #1 Temp. C ( (Visual) -0 1 (	Correction Factor)	(Actual)	Samples on ice, cooling process has begun
Cooler #2 Temp. C(Visual)(	Correction Factor)	(Actual)	Samples on ice, cooling process has begun
	Correction Factor)		Samples on ice, cooling process has begun
Cooler #4 Temp.°C(Visual)	Correction Factor)	(Actual)	Samples on ice, cooling process has begun
Cooler #5 Temp.°C(Visual)			Samples on ice, cooling process has begun
Cooler #6 Temp. C(Visual)(			Samples on ice, cooling process has begun
Recheck for OOT °C(Visual)			Initials:
Courier: Fed Ex UPS USPS	□ Client □ Co	ommercial Desce	Other
Shipping Method:			☐ International Priority
□ Other			·
Billing: ☐ Recipient ☐ Sender	☐ Third Party	☐ Credit Card ☐ □	Unknown
Tracking # 8166 0944 L	1932		
Custody Seal on Cooler/Box Present:	□ No Seals in	ntact:  Yes  No	Ice: Wet Blue Melted None
Packing Material: 🗹 Bubble Wrap 🔲 Bubble Bag	ıs □ None □ C	Other	
Samples shorted to lab (If Yes, complete)	Shorted Date:		Time: Qty:
<u></u>	, <del></del>	Comments:	*
Chain of Custody Present	DYes □ No □N/A		
Chain of Custody Filled Out	DYes □ No □N/A		
Relinquished Signature & Sampler Name COC	DYes □ No □N/A		
Samples Arrived within Hold Time	ÚYes □ No □N/A		51
Rush TAT requested on COC	∐Yes □ No □N/A		The state of the
Sufficient Volume	∐Yes □ No □N/A		
Correct Containers Used	DYes □ No □N/A		
Containers Intact	Yes □ No □N/A		
Sample Labels match COC (sample IDs & date/time of collection)	EYes □ No □N/A		
All containers needing acid/base preservation have		Preservation Information:	
been checked.  All Containers needing preservation are found to be in	□Yes □ No □N/A	Preservative:	
compliance with EPA recommendation:	□Yes □ No □N/A	Lot #/Trace #:T	ime:
Exceptions: Vials, Microbiology, O&G, Pf	FAS	Initials:	
Headspace in VOA Vials? ( >6mm):	□Yes □ No □N/A		
Trip Blank Present:	□Yes □ No ☑N/A	5	
Comments/ Resolution (use back for additional con	nments):		
70L			

F-FL-C-007 rev.14 Issued: 08/24/21

Issuing Authority: PacesFlorion Quality Office