# **PMTurkeyCOLPEm Resource**

From:Lopez, Alex [Alex.Lopez@dep.state.fl.us]Sent:Wednesday, July 25, 2012 10:01 AMTo:Willingham, MichaelCc:mhwillingham@yahoo.comSubject:MDWASD South District WWTP 2012 Annual Effluent AnalysisAttachments:PrimaryandSecondaryDWS03052012.pdf

Hi Michael,

Please see the attached results for the Miami-Dade South District WWTP's 2012 Annual Effluent Analysis,

I should have the rest of the reports dating back to 2007 by the end of today,

Please let me know if I can assist you with anything else,

Thanks,

Alex Lopez, E.I. Engineer Specialist - Water Facilities FL Department of Environmental Protection Southeast District Phone: (561) 681-6782 Alex.Lopez@dep.state.fl.us

\*Did you know you can submit your Wastewater DMRs online using our newly enhanced eDMR System? To sign up to use eDMR and learn more, please visit us online at the following web address: <u>http://edmr.dep.state.fl.us</u>

Please take a few minutes to share your comments on the service you received from the department by clicking on this link <u>DEP Customer Survey</u>.

Hearing Identifier:TurkeyPoint\_COL\_PublicEmail Number:642

Mail Envelope Properties (4B583FDBCE32AD45AA1A7A01EA8319FC0469CF5276)

Subject:	MDWASD South District WWTP 2012 Annual Effluent Analysis
Sent Date:	7/25/2012 10:01:14 AM
Received Date:	7/25/2012 2:35:45 PM
From:	Lopez, Alex

Created By: Alex.Lopez@dep.state.fl.us

Recipients:

"mhwillingham@yahoo.com" <mhwillingham@yahoo.com> Tracking Status: None "Willingham, Michael" <Michael.Willingham@nrc.gov> Tracking Status: None

Post Office:	ECHMBB.floridadep.net

FilesSizeMESSAGE947PrimaryandSecondaryDWS03052012.pdf

Options	
Priority:	Standard
Return Notification:	No
Reply Requested:	No
Sensitivity:	Normal
Expiration Date:	
Recipients Received:	

**Date & Time** 7/25/2012 2:35:45 PM 615718



March 05, 2012

Clive Powell Miami Dade Water & Sewer-South 8950 SW 232 Street Miami, FL 33190

RE: Project: PRIMARY & SECONDARY DW STDS Pace Project No.: 3550282

Dear Clive Powell:

Enclosed are the analytical results for sample(s) received by the laboratory on February 17, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

1111

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

Sincerely,

Rossy Guima

rossy.guima@pacelabs.com Project Manager

Enclosures

cc: Accounts Payable, Miami Dade Water & Sewer Department



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

Page 1 of 58



#### CERTIFICATIONS

Project: PRIMARY & SECONDARY DW STDS Pace Project No.: 3550282

#### Pennsylvania Certification IDs

1638 Roseytown Road Suites 2,3&4, Greensburg, PA 15601 Alabama Certification #: 41590 Arizona Certification #: AZ0734 Arkansas Certification California/NELAC Certification #: 04222CA **Colorado Certification** Connecticut Certification #: PH 0694 **Delaware Certification** Florida/NELAC Certification #: E87683 Guam/PADEP Certification Hawaii/PADEP Certification Idaho Certification Illinois/PADEP Certification Indiana/PADEP Certification Iowa Certification #: 391 Kansas/NELAC Certification #: E-10358 Kentucky Certification #: 90133 Louisiana/NELAC Certification #: LA080002 Louisiana/NELAC Certification #: 4086 Maine Certification #: PA0091 Maryland Certification #: 308 Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification

### **Ormond Beach Certification IDs**

8 East Tower Circle, Ormond Beach, FL 32174 Alabama Certification #: 41320 Arizona Certification #: A20735 Colorado Certification: FL NELAC Reciprocity Connecticut Certification #: PH 0216 Florida Certification #: B3079 Georgia Certification #: 855 Guarn Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity Illinois Certification: FL NELAC Reciprocity Illinois Certification: FL NELAC Reciprocity Kansas Certification: FL NELAC Reciprocity Kansas Certification #: 90050 Louisiana Certification #: FL NELAC Reciprocity Louisiana Certification #: FL NELAC Reciprocity Louisiana Certification #: FL NELAC Reciprocity Maine Certification #: FL NELAC Reciprocity Louisiana Certification #: FL NELAC Reciprocity Maine Certification #: FL NELAC Reciprocity Mississippi Certification #: 9911 Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 235 Montana Certification #: Cert 0082 Nevada Certification New Hampshire/NELAC Certification #: 2976 New Jersey/NELAC Certification #: PA 051 New Mexico Certification New York/NELAC Certification #: 10888 North Carolina Certification #: 42706 Oregon/NELAC Certification #: PA200002 Pennsylvania/NELAC Certification #: 65-00282 Puerto Rico Certification #: PA01457 South Dakota Certification Tennessee Certification #: TN2867 Texas/NELAC Certification #: T104704188-09 TX Utah/NELAC Certification #: ANTE Virgin Island/PADEP Certification Virginia Certification #: 00112 Virginia VELAP (Cert # 460198) Washington Certification #: C1941 West Virginia Certification #: 143 Wisconsin/PADEP Certification Wyoming Certification #: 8TMS-Q

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nevada Certification: FL NELAC Reciprocity New Hampshire Certification #: 2958 New Jersey Certification #: 1265 New York Certification #: 11608 North Carolina Environmental Certificate #: 667 North Carolina Certification #: 12710 Pennsylvania Certification #: 68-00547 Puerto Rico Certification #: 68-00547 Puerto Rico Certification #: FL01264 Tennessee Certification #: TN02974 Texas Certification: FL NELAC Reciprocity U.S.Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certificate #: 460165 Washington Certification: #: NELAC Reciprocity Wyoming Certification: FL NELAC Reciprocity Wyoming (EPA Region 8): FL NELAC Reciprocity

#### South Florida Certification IDs

3610 Park Central Blvd N Pompano Beach, FL 33064

Florida Certification #: E86240

#### REPORT OF LABORATORY ANALYSIS

Page 2 of 58

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

đ

ú



# SAMPLE SUMMARY

Project: Pace Project No	PRIMARY & SECONDARY DW b.: 3550282	STDS			a di santa se	an ta shekarar Marta a shekarar
Lab ID	Sample ID	Matrix	Date Collected	Date Received		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	Water Water	02/15/12 00:00 02/15/12 00:00	02/17/12 13:07 02/17/12 13:07	na na provinsi Na marina	an a
		3 1				
(x = x)						
$C_{\rm eff} = 0.5  {\rm gm}$		i.				
. <sup>1</sup> 1		· .				
	4	:				
	. · ·					
	:					
19 (A)		. e				
47 F						
1						
	т. т					
		4 T				

### **REPORT OF LABORATORY ANALYSIS**

Page 3 of 58



清

06

# SAMPLE ANALYTE COUNT

Project: Pace Project N	PRIMARY & SECONDARY DW S o.: 3550282	TDS	z = (z, M)	a Maria ang Pangalan Sang P	a ve	n po Alexandro and the
Lab ID	Sample ID		Method	Analysts	Analytes Reported	Laboratory
3550282001	SD COMBINED EFFLUENT		EPA 504.1	JLR	2	PASI-O
		$(1,1) \in [1,1] \in \{1,1\}$	EPA 508.1	KMH	22	PASI-O
			EPA 515.3	LJM	7	PASI-O
			EPA 531.1	DWL	6	PASI-O
			EPA 547	DWL	1	PASI-O
			EPA 549.2	DWL	1	PASI-O
			EPA 8081	JLG	3	PASI-O
			EPA 200.7	IST	8	PASI-O
			EPA 200.8	HEA	9	PASI-O
			EPA 245.1	HEA	1	PASI-O
			EPA 525.2	WFH	6	PASI-O
			EPA 548.1	EAO	1	PASI-O
			EPA 625	JEZ	15	PASI-O
			EPA 524.2	JBH	31	PASI-O
			EPA 900.0m	JC2	1	PASI-PA
			EPA 903.1	SLA	1	PASI-PA
	,		EPA 904.0	AMK	· 1	PASI-PA
			SM 2120B	DMH	1	PASI-SF
			SM 2150B	DMH	2	PASI-SF
			SM 2540C	LCM	1	PASI-SF
			EPA 300.0	DMH	2	PASI-SF
			SM 4500-H+B	DMH	2	PASI-SF
			SM 5540C	SLS	1	PASI-SF
			SM 9222B	SLS	1	PASI-SF
			TKN+NOx Calculation	AMD	1	PASI-O
			EPA 300.0	IRL	3	PASI-O
			EPA 335.4	SOA	1	PASI-O
			EPA 350.1	SOA	1	PASI-O
			EPA 351.2	MBS	1	PASI-O
			EPA 353.2	MBS	1	PASI-O
			EPA 365.4	MBS	1	PASI-O
3550282002	SD HLD EFFLUENT		EPA 504.1	JLR	2	PASI-O
			EPA 508.1	КМН	22	PASI-O
			EPA 515.3	LJM	7	PASI-O
			EPA 531.1	DWL	6	PASI-O
			EPA 547	DWL	1	PASI-O
			EPA 549.2	DWL	1	PASI-O

### **REPORT OF LABORATORY ANALYSIS**

Page 4 of 58

Pace Analytical<sup>®</sup>

Ĥ.

Pace Analytical Services, Inc. 3610 Park Central Blvd N Pompano Beach, FL 33064 954-582-4300

### SAMPLE ANALYTE COUNT

Project: PRIMARY & SECONDARY DW STDS Pace Project No.: 3550282		· .	an Brei Breise	a ingena Sanatan A
Lab ID Sample ID	Method	Analysts	Analytes Reported	Laboratory
	EPA 8081	JLG	3	PASI-O
	EPA 200.7	IST	. 8	PASI-O
and the second	EPA 200.8	HEA	: 9 <sup>1</sup>	PASI-O
	EPA 245.1	HEA	· · · · · 1	PASI-O
	EPA 525.2	WFH	6	PASI-O
1.4.24 A # 11	EPA 548.1	EAO	1	PASI-O a
	EPA 625	JEZ	15	PASI-O
	EPA 524.2	JBH	31.	PASI-O
	EPA 900.0m	JC2	1	PASI-PA
	EPA 903.1	SLA	1	PASI-PA
	EPA 904.0	AMK	1	PASI-PA
$(r, S) = (r_1, \dots, r_{n-1}) + (r_1, \dots, r_{n-1})$	SM 2120B	DMH	1	PASI-SF
	SM 2150B	DMH	2	PASI-SF
	SM 2540C	LCM	1.	PASI-SF
$\mathbf{H}_{\mathrm{exp}} = -\mathbf{H}_{\mathrm{exp}} + \mathbf{H}_{\mathrm{exp}} + \mathbf{H}_{exp$	EPA 300.0	DMH	2	PASI-SF
	SM 4500-H+B	DMH	2	PASI-SF
	SM 5540C	SLS	- 1	PASI-SF
	SM 9222B	SLS	1	PASI-SF
	TKN+NOx Calculation	AMD	. 1	PASI-O
	EPA 300.0	IRL	3	PASI-O
	EPA 335.4	SOA	1	PASI-O
	EPA 350.1	SOA	. 1	PASI-O
	EPA 351.2	MBS	1	PASI-O
	EPA 353.2	MBS	1	PASI-O
	EPA 365.4	MBS	1	PASI-O

 $\frac{1}{2} \int \int dx dx = \frac{1}{2} \int dx dx$   $= \frac{1}{2} \int \int dx dx = \frac{1}{2} \int dx dx$   $= \frac{1}{2} \int \int dx dx = \frac{1}{2} \int dx$   $= \frac{1}{2} \int \int dx dx = \frac{1}{2} \int dx$ 

.

1

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

Page 5 of 58



ħ

H,

### ANALYTICAL RESULTS

Sample: SD COMBINED EFFLUENT	Lah ID:	3550282001	Collected:	02/15/12	2.00-00	Received: 02/	17/12 13:07 Ma	trix: Water	
	Las ID.	0000202001	obliceted.		2 00.00	NCCONCO. OL			
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504.1 GCS EDB and DBCP	Analytical	Method: EPA	504.1 Prepar	ation Meth	nod: EP/	504.1			
1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB)	0.0049U u 0.0062U u	· •	0.020	0.0049 0.0062	1 1	02/20/12 09:00 02/20/12 09:00	02/20/12 21:25 02/20/12 21:25		J(M1) J(M1)
508.1 GCS Pesticides	Analytical	Method: EPA	508.1 Prepara	ation Meth	nod: EP/	\$508.1			
Alachlor	0.039U u	ig/L	0.23	0.039	1	02/20/12 11:15	02/22/12 04:50	15972-60-8	
Atrazine	<b>0.024U</b> ເ	ıg/L	0.11	0.024	1	02/20/12 11:15	02/22/12 04:50	1912-24-9	
gamma-BHC (Lindane)	0.0034U u	ıg/L	0.023	0.0034	1	02/20/12 11:15	02/22/12 04:50	58-89-9	
Chlordane (Technical)	0.053U (	ig/L	0.23	0.053	1	02/20/12 11:15	02/22/12 04:50	57-74-9	
Dieldrin	<b>0.016U</b> ເ	ig/L	0.11	0.016	1	02/20/12 11:15	02/22/12 04:50		
Endrin	0.0023U (	ig/L	0.011	0.0023	1	02/20/12 11:15	02/22/12 04:50		
Heptachlor	0.0068U u	ıg/L	0.045	0.0068	1	02/20/12 11:15			
Heptachlor epoxide	0.0034U (	ıg/L	0.023	0.0034	1	02/20/12 11:15	02/22/12 04:50	· ·	
Hexachlorobenzene	0.013U (	ıg/L	0.11	0.013	1	02/20/12 11:15	02/22/12 04:50	118-74-1	
Hexachlorocyclopentadiene	0.014U u	ıg/L	0.11	0.014	1	02/20/12 11:15	02/22/12 04:50	77-47-4	
Methoxychior	0.016U (	ıg/L	0.11	0.016	1	02/20/12 11:15	02/22/12 04:50		
PCB-1016 (Aroclor 1016)	<b>0.091U</b> ເ	ig/L	0.11	0.091	1	02/20/12 11:15	02/22/12 04:50		
PCB-1221 (Aroclor 1221)	0.033U u	ig/L	0.11	0.033	1	02/20/12 11:15	02/22/12 04:50	11104-28-2	
PCB-1232 (Aroclor 1232)	0.033U u	ig/L	0.11	0.033	1	02/20/12 11:15	02/22/12 04:50	11141-16-5	
PCB-1242 (Aroclor 1242)	0.058U เ	ıg/L	0.11	0.058	1	02/20/12 11:15	02/22/12 04:50	53469-21-9	
PCB-1248 (Aroctor 1248)	<b>0.071U</b> ເ	ıg/L	0.11	0.071	1	02/20/12 11:15	02/22/12 04:50	12672-29-6	
PCB-1254 (Aroclor: 1254)	0.026U u	ig/L	0.11	0.026	1	02/20/12 11:15	02/22/12 04:50	11097-69-1	
PCB-1260 (Aroclor 1260)	0.075U u	ig/L	0.11	0.075	1	02/20/12 11:15	02/22/12 04:50	11096-82-5	
PCB, Total	ີ <b>0.11U</b> ເ	ig/L	Ò.11	0.11	1	02/20/12 11:15	02/22/12 04:50	1336-36-3	
Simazine	0.050U u	ig/L	0.080	0.050	1	02/20/12 11:15	02/22/12 04:50	122-34-9	
Toxaphene Surrogates	0.69U u	ig/L	1.1	0.69	1	02/20/12 11:15	02/22/12 04:50	8001-35-2	
Decachlorobiphenyl (S)	79 %	6	<b>70-1</b> 30		1	02/20/12 11:15	02/22/12 04:50	2051-24-3	
515.3 Chlorinated Herbicides	Analytical	Method: EPA	515.3 Prepara	ation Meth	nod: EP/	A 515.3			
2,4-D	0.017U u	ia/L	0,10	0.017	1	02/20/12 16:30	02/21/12 04:43	94-75-7	
Dalapon	0.36U u		1.0	0.38	1	02/20/12 16:30	02/21/12 04:43	127-20-8	L3
Dinoseb	0.050U u		0.20	0.050	1	02/20/12 16:30	02/21/12 04:43		L3
Pentachlorophenol	0.0090U u	•	0.040	0.0090	1	02/20/12 16:30	02/21/12 04:43	87-86-5	
Picloram	0.050U u		0.10	0.050	1		02/21/12 04:43		
2,4,5-TP (Silvex)	0.0350		0.20	0.035	1		02/21/12 04:43		
Surrogates		-3							
2,4-DCAA (S)	115 %	%	70-130		1	02/20/12 16:30	02/21/12 04:43	19719-28-9	
531.1 GCS Carbamates	Analytical	Method: EPA	531.1						
Aldicarb	0.64U u	ıg/L	2.0	0.64	1		02/22/12 09:41	116-06-3	
Aldicarb sulfone	0.35U u	-	2.0	0.35	1		02/22/12 09:41	1646-88-4	
Aldicarb sulfoxide	0.30U u		2.0	0.30	1		02/22/12 09:41	1646-87-3	
Carbofuran	0.32U u	-	2.0	0.32	1		02/22/12 09:41	1563-66-2	
Oxamyl	0.41U u	-	2.0	0.41	1		02/22/12 09:41		L3
Surrogates		-	-					-	
									S3

Date: 03/05/2012 02:34 PM

# REPORT OF LABORATORY ANALYSIS

Page 6 of 58



### **ANALYTICAL RESULTS**

Sample: SD COMBINED EFFLUE	ENT Lab ID: 355	0282001 Collect	ed: 02/15/1	2 00:00	Received: 02	/17/12 13:07 M	atrix: Water	
Parameters	Results U	Inits PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
547 HPLC Glyphosate	Analytical Meth	·						
Glyphosate	2.1U ug/L	6.0	2.1	1		02/20/12 09:58		
549.2 GCS Paraquat Diquat	-	nod: EPA 549.2 Prep			A 549.2			
Diquat	0.15U ug/L	0.40	0.15	1		02/22/12 10:59	85-00-7	
8081 GCS Pesticides	Analytical Meth	od: EPA 8081 Prepa	aration Meth	nod: EPA				
Aldrin	0.00056U ug/L	0.011	0.00056	1		02/22/12 04:04	309-00-2	
<b>Surrogates</b> Tetrachloro-m-xylene (S)	74 %	66.5-		1	02/20/12 08:00	02/22/12 04:04	877-09-8	
Decachlorobiphenyl (S)	66 %	120.3 41.7- 109.1		1	02/20/12 08:00	02/22/12 04:04	2051-24-3	J(S1)
200.7 MET ICP	Analytical Meth	iod: EPA 200.7 Prep	aration Met	hod: EP/	A 200.7			
Aluminum Cadmium Chromium Iron	0.050U mg/L 0.00050U mg/L 0.0025U mg/L 0.17 mg/L	0.10 0.0010 0.0050 0.040	0.050 0.00050 0.0025 0.020	1 1 1	02/20/12 09:54 02/20/12 09:54	02/21/12 06:19 02/21/12 06:19 02/21/12 06:19 02/21/12 06:19	7440-43-9 7440-47-3	
Nickel Silver Sodium	0.0025U mg/L 0.0025U mg/L 48.1 mg/L	0.0050 0.0050 1.0	0.0025 0.0025 0.50	1 1 1	02/20/12 09:54 02/20/12 09:54 02/20/12 09:54	02/21/12 06:19 02/21/12 06:19 02/21/12 06:19	7440-02-0 7440-22-4 7440-23-5	
Zinc 200.8 MET ICPMS	0.011 l mg/L	0.020	0.010	1		02/21/12 06:19	7440-66-6	
Antimony	0.00050U mg/L	od: EPA 200.8 Prep 0.0010	0.00050			00/00/40 40 44	7440.00.0	
Arsenic Barium Beryllium Copper Lead Manganese	0.0012 mg/L 0.012 mg/L 0.000050U mg/L 0.0018 mg/L 0.00050U mg/L 0.011 mg/L	0.0010 0.0010 0.00010 0.0010 0.0010 - 0.0010	0.00050 0.00050 0.00050 0.00093 0.00050 0.00050 0.00069	1 1 1 1 1	02/20/12 09:54 02/20/12 09:54 02/20/12 09:54	02/22/12 13:14 02/22/12 13:14 02/22/12 13:14 02/22/12 13:14	7440-38-2 7440-39-3 7440-41-7 7440-50-8 7439-92-1	
Selenium Thallium	0.00050U mg/L 0.00050U mg/L	0.0010 0.0010	0.00050 0.00050	1 1	02/20/12 09:54 02/20/12 09:54	02/22/12 13:14 02/22/12 13:14		
245.1 Mercury	Analytical Meth	od: EPA 245.1 Prep	aration Meth	nod: EPA	245.1			
Mercury	0.00010U mg/L	0.00020	0.00010	1	02/18/12 11:00	02/24/12 14:05	7439-97-6	
525.2 Base Neutral Extractable	Analytical Meth	od: EPA 525.2 . Prep	aration Meth	nod: EPA	525.2			
Benzo(a)pyrene bis(2-Ethylhexyl)adipate bis(2-Ethylhexyl)phthalate Surrogates	0.021U ug/L 0.42U ug/L 41.4 ug/L	0.11 1.8 4.4	0.021 0.42 1.1	1 1 2		02/21/12 13:25 02/21/12 13:25 02/22/12 10:11	103-23-1	L3
I,3-Dimethyl-2-nitrobenzene(S) <sup>P</sup> erylene-d12 (S) Friphenylphosphate (S)	89 % 97 % 105 %	70-130 70-130 70-130		1 1 1		02/21/12 13:25 02/21/12 13:25 02/21/12 13:25	1520963	

Date: 03/05/2012 02:34 PM

# **REPORT OF LABORATORY ANALYSIS**

Page 7 of 58



þ

ы

### ANALYTICAL RESULTS

#### Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

Sample: SD COMBINED EFFLU	JENT Lab ID: 355028200	1 Collecter	d: 02/15/1	2 00:00	Received: 02/	17/12 13:07 M	atrix: Water	
Parameters	Results Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
548.1 GCS Endothall	Analytical Method: EP	A 548.1 Prepa	aration Meth	nod: EF	PA 548.1			
Endothall	2.7U ug/L	9.0	2.7	1	02/20/12 15:45	02/21/12 14:35		
625 MSSV	Analytical Method: EP	A625 Prepara	ation Metho	d: EPA	625		<i>i</i>	
Anthracene	0.67U ug/L	5.6	0.67	1	02/18/12 08:30	02/19/12 16:26	120-12-7	
Butylbenzylphthalate	0.81U ug/L	5.6	0.81	1	02/18/12 08:30	02/19/12 16:26	85-68-7	
2-Chiorophenol	0.76U ug/L	5.6	0.76	1	02/18/12 08:30	02/19/12 16:26	95-57-8	
Dimethylphthalate	0.72U ug/L	5.6	0.72	1	02/18/12 08:30	02/19/12 16:26	131-11-3	
Dioxin Screen	11.2U ug/L	11.2	11.2	1	02/18/12 08:30	02/19/12 16:26		N2
Naphthalene	0.87U.ug/L	5.6	0.87	1	02/18/12 08:30	02/19/12 16:26	91-20-3	
Phenanthrene	0.58U ug/L	5.6	0.58	1	02/18/12 08:30	02/19/12 16:26	85-01-8	
Phenol	0.60U ug/L	5.6	0.60	1	02/18/12 08:30	02/19/12 16:26	108-95-2	
2,4,6-Trichlorophenol <b>Surrogates</b>	0.77U ug/L	2.2	0.77	1	02/18/12 08:30	02/19/12 16:26	88-06-2	
Nitrobenzene-d5 (S)	49 %	37.3- 107.7		1	02/18/12 08:30	02/19/12 16:26	4165-60-0	
2-Fluorobiphenyl (S)	57 %	35.3- 102.4		1	02/18/12 08:30	02/19/12 16:26	321-60-8	
Terphenyl-d14 (S)	86 %	50.1- 115.1		1	02/18/12 08:30	02/19/12 16:26	1718-51-0	
Phenol-d6 (S)	16 %	1 <b>0-47.1</b>		1	02/18/12 08:30			
2-Fluorophenol (S)	26 %	16.3- 59.8		1	02/18/12 08:30	02/19/12 16:26	367-12-4	9
2,4,6-Tribromophenol (S)	74 %	54.2- 114.4		1	02/18/12 08:30	02/19/12 16:26	118-79-6	
524.2 MSV	Analytical Method: EP/	A						
Benzene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26	71-43-2	
Bromodichloromethane	0.92 ug/L	0.50	0.25	1		02/21/12 15:26	-	
Bromoform	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		L3
Carbon tetrachloride	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		
Chlorobenzene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		
Chloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		
Chloroform	7.4 ug/L	0.50	0.25	1		02/21/12 15:26		
Dibromochloromethane	0.25U ug/L	0.50	0.25	1		02/21/12 15:26	-	
1,2-Dichlorobenzene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		
1,4-Dichlorobenzene	1.3 ug/L	0.50	0.25	1		02/21/12 15:26		
1,2-Dichloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		
1,1-Dichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		L3
cis-1,2-Dichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		LJ
trans-1,2-Dichloroethene		0.50		1				
	0.25U ug/L	0.50	0.25 0.25	1		02/21/12 15:26		
1,2-Dichloropropane	0.25U ug/L			1		02/21/12 15:26		
Ethylbenzene Mothylena Chlorida	0.25U ug/L	0.50	0.25	T A		02/21/12 15:26		1.2
Methylene Chloride	0.44U ug/L	0.50	0.44	1		02/21/12 15:26		L3
Styrene Tataablaraatbana	0.25U ug/L	0.50	0.25	'  ∡		02/21/12 15:26		
Tetrachloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26		
Toluene	0.42 l ug/L	0.50	0.25	1		02/21/12 15:26	108-88-3	
Total Trihalomethanes (Calc.)	8.3 ug/L	0.50	0.25	1		02/21/12 15:26		

Date: 03/05/2012 02:34 PM

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

Page 8 of 58



Negoti ach

#### ANALYTICAL RESULTS

#### Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

Sample: SD COMBINED EFFLUENT Lab ID: 3550282001 Collected: 02/15/12 00:00 Received: 02/17/12 13:07 Matrix: Water

Parameters	Results L	Inits PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Met	nod: EPA 524.2	· · · ·			•		
1,2,4-Trichlorobenzene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26	120-82-1	1 2
1,1,1-Trichloroethane	0.25U ug/L	0.50	0.25	. 1 .		02/21/12 15:26	71-55-6	
1,1,2-Trichloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 15:26	79-00-5	
Trichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 15:26	79-01 <b>-</b> 6	80 - 10 - 10 <sup>11</sup>
Vinyl chloride	<b>0.25U</b> ug/L	0.50	0.25	. 1		02/21/12 15:26		L3
Xylene (Total) Surrogates	<b>0.25U</b> ug/L	0.50	0.25	1		02/21/12 15:26	1330-20-7	
4-Bromofluorobenzene (S)	111 %	70-130		1		02/21/12 15:26	460-00-4	1 (A)
Dibromofluoromethane (S)	112 %	70-130	1.	1		02/21/12 15:26		and the second s
Toluene-d8 (S)	96 %	70-130		1		02/21/12 15:26		
1,2-Dichloroethane-d4 (S)	104 %	70-130		1		02/21/12 15:26		· .1.
2120B True Color	Analytical Meth	nod: SM 2120B	• ÷					an an an Arab
True Color	30.0 units	5.0	5.0	1		02/17/12 20:50		Q
2150B Threshold Odor Number	Analytical Meth	nod: SM 2150B						
Temperature, Water (C)	40.0 deg C			1		02/17/12 19:15		
Threshold Odor Number	40.0 TON	1.0	1.0	1		02/17/12 19:15		Q
2540C Total Dissolved Solids	Analytical Meth	nod: SM 2540C						
Total Dissolved Solids	<b>360</b> mg/L	5.0	5.0	1		02/20/12 14:56		
300.0 IC Anions DW	Analytical Meth	nod: EPA 300.0						
Nitrate as N	0.025U mg/L	0.050	0.025	1		02/17/12 22:35	14797-55-8	Q
Nitrite as N	<b>0.11</b> mg/L	0.050	0.025	1		02/17/12 22:35	14797-65-0	Q
4500H+ pH, Electrometric	Analytical Meth	od: SM 4500-H+B						
Temperature, Water (C)	25.0 deg C	0.010	0.010	1		02/29/12 12:10		
pH at 25 Degrees C	7.9 Std. U	nits 0.10	0.10	1		02/29/12 12:10		Q
5540C MBAS Surfactants	Analytical Meth	od: SM 5540C						
Surfactants	0.121 mg/L	0.20	0.059	1		02/17/12 13:40		Q
9222B Totsl Coliform MF	Analytical Meth	od: SM 9222B Prep	aration Meth	nod: SM	9222B			
Total Coliforms	22.0 CFU/1	00 mL 2.0	2.0	2	02/17/12 15:00	02/18/12 15:10		Q
Total Nitrogen Calculation	Analytical Meth	od: TKN+NOx Calcu	lation					
Total Nitrogen	<b>17.6</b> mg/L	0.50	0.25	1		02/21/12 15:34		
300.0 IC Anions 28 Days	Analytical Meth	od: EPA 300.0						
Chloride	76.1 mg/L	5.0	2.5	1		02/23/12 05:22	16887-00-6	
Fluoride	0.31 mg/L	0.050	0.025	1		02/23/12 05:22	16984-48-8	
Sulfate	19.8 mg/L	5.0	2.5	1		02/23/12 05:22	14808- <b>7</b> 9-8	

Date: 03/05/2012 02:34 PM

# **REPORT OF LABORATORY ANALYSIS**

Page 9 of 58



ţî,

### ANALYTICAL RESULTS

Project: PRIMARY & SE Pace Project No.: 3550282	CONDARY DW STDS				1	· · ·		ata - a 41
Sample: SD COMBINED EFFLUEN	T Lab ID: 3550282001	Collected	1: 02/15/12	00:00	Received: 02/	17/12 13:07 Ma	atrix: Water	1.4.1.1.1
Parameters	Results Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
335.4 Cyanide, Total	Analytical Method: EPA	.335.4 Prepa	ration Meth	od: EP	A 335.4		· · ·	an e a
Cyanide	0.00721 mg/L	0.010	0.0050	1	02/22/12 08:50	02/23/12 05:35	57-12-5	· .
350.1 Ammonia	Analytical Method: EPA	350.1					1990 - A. A. A. A.	9 a. 18.
Nitrogen, Ammonia	15.5 mg/L	0.10	0.040	2		02/21/12 12:42	7664-41-7	
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA	351.2 Prepa	ration Meth	od: EP	A 351.2			and a first state and a state stat
Nitrogen, Kjeldahl, Total	16.9 mg/L	0.50	0.086	1	02/20/12 09:00	02/21/12 11:06	7727-37-9	J(M1)
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA	353.2					· · · ·	
Nitrogen, NO2 plus NO3	0.67 mg/L	0.050	0.010	1		02/20/12 12:53		a tyr.
365.4 Phosphorus, Total	Analytical Method: EPA	365.4 Prepa	ration Meth	od: EP	A 365.4			
Phosphorus, Total (as P)	<b>1.5</b> mg/L	0.10	0.050	1	02/20/12 09:00	02/21/12 11:06	7723-14-0	

Date: 03/05/2012 02:34 PM

**REPORT OF LABORATORY ANALYSIS** 

Page 10 of 58



### **ANALYTICAL RESULTS**

Pace Project No.: 3550282								
Sample: SD HLD EFFLUENT	Lab ID: 355028200	2 Collecter	d: 02/15/12	2 00:00	Received: 02/	17/12 13:07 M	atrix: Water	a dina s
Parameters	Results Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
504.1 GCS EDB and DBCP	Analytical Method: EF	PA 504.1 Prepa	ration Meth	od: EP/	\$ 504.1			· · · · .
1,2-Dibromo-3-chloropropane	0.0047U ug/L	0.019	0.0047	1	02/20/12 09:00	02/20/12 22:10	96-12-8	1. J. J. P
1,2-Dibromoethane (EDB)	0.0060U ug/L	0.0096	0.0060	1	02/20/12 09:00	02/20/12 22:10	106-93-4	
508.1 GCS Pesticides	Analytical Method: EF	PA 508.1 Prepa	ration Meth	od: EP/	A 508.1			
Alachlor	0.034U ug/L	0.20	0.034	1	02/20/12 11:15	02/22/12 05:48	15972-60-8	
Atrazine	0.021U ug/L	0.10	0.021	1	02/20/12 11:15	02/22/12 05:48	1912-24-9	
gamma-BHC (Lindane)	0.0030U ug/L	0.020	0.0030	1	02/20/12 11:15	02/22/12 05:48	58-89-9	11 A.
Chlordane (Technical)	0.048U ug/L	0.20	0.048	1	02/20/12 11:15	02/22/12 05:48	57-74-9	· · · ·
Dieldrin	0.014U ug/L	0.10	0.014	1	02/20/12 11:15	02/22/12 05:48	60-57-1	
Endrin	0.0020U ug/L	0.010	0.0020	1	02/20/12 11:15	02/22/12 05:48		
Heptachlor	0.0061U ug/L	0.041	0.0061	1	02/20/12 11:15	02/22/12 05:48		
Heptachlor epoxide	0.0030U ug/L	0.020	0.0030	1	02/20/12 11:15	02/22/12 05:48		
Hexachlorobenzene	0.011U ug/L	0.10	0.011	1	02/20/12 11:15	02/22/12 05:48	118-74-1	÷ .
Hexachlorocyclopentadiene	0.012U ug/L	0.10	0.012	1	02/20/12 11:15			
Methoxychlor	0.014U ug/L	0.10	0.014	1	02/20/12 11:15			
PCB-1016 (Aroclor 1016)	0.081U ug/L	0.10	0.081	1	02/20/12 11:15	02/22/12 05:48		
PCB-1221 (Aroclor 1221)	0.029U ug/L	0.10	0.029	1	02/20/12 11:15	02/22/12 05:48		
PCB-1232 (Aroclor 1232)	0.029U ug/L	0.10	0.029	1	02/20/12 11:15			
PCB-1242 (Aroclor 1242)	0.052U ug/L	0.10	0.052	1	02/20/12 11:15			1
PCB-1248 (Aroclor 1248)	0.063U ug/L	0.10	0.063	1	02/20/12 11:15	02/22/12 05:48		
PCB-1254 (Aroclor 1254)	0.023U ug/L	0.10	0.023	1	02/20/12 11:15	02/22/12 05:48		
PCB-1260 (Aroclor 1260)	0.067U ug/L	0.10	0.023	1	02/20/12 11:15			
PCB, Total	0.10U ug/L	0.10	0.007	-1	02/20/12 11:15	02/22/12 05:48		
Simazine	-	0.10	0.10	1	02/20/12 11:15	02/22/12 05:48		
Toxaphene	0.045U ug/L 0.62U ug/L	1.0	0.62	1	02/20/12 11:15	02/22/12 05:48		
Surrogates	0.020 ug/L	1.0	0.02	I	02/20/12 11.15	02/22/12 00:40	0001-30-2	
Decachlorobiphenyl (S)	75 %	70-130		1	02/20/12 11:15	02/22/12 05:48	2051-24-3	
515.3 Chlorinated Herbicides	Analytical Method: EF	PA 515.3 Prepa	aration Meth	od: EP	A 515.3			
2,4-D	0.017U ug/L	0.10	0.017	1	02/20/12 16:30	02/21/12 05:13	94-75-7	
Dalapon	0.38U ug/L	1.0	0.38	1	02/20/12 16:30	02/21/12 05:13	127-20-8	L3
Dinoseb	0.050U ug/L	0.20	0.050	1	02/20/12 16:30	02/21/12 05:13	88-85-7	L3
Pentachlorophenol	0.0090U ug/L	0.040	0.0090	1	02/20/12 16:30	02/21/12 05:13	87-86-5	
Picloram	0.050U ug/L	0.10	0.050	1	02/20/12 16:30	02/21/12 05:13	1918-02-1	
2,4,5-TP (Silvex)	0.035U ug/L	0.20	.0.035	1	02/20/12 16:30	02/21/12 05:13	93-72-1	
Surrogates 2,4-DCAA (S)	120 %	70-130		1		02/21/12 05:13		
531.1 GCS Carbamates	Analytical Method: EF			. '	01/20/12 10:00		101 10 20 0	
Aldicarb	0.64U ug/L	2.0	0.64	1	· · · ·	02/22/12 10:25	116-06-3	
Aldicarb sulfone	-	2.0	0.34	1		02/22/12 10:25		
Aldicarb sulfoxide	0.35U ug/L	2.0	0.35					
	0.30U ug/L			1		02/22/12 10:25		
Carbofuran	0.32U ug/L	2.0	0.32	1		02/22/12 10:25		10
Oxamyl Surrogatos	0.41U ug/L	2.0	0.41	1		02/22/12 10:25	23135-22-0	L3
Surrogates						02/22/12 10:25		

Date: 03/05/2012 02:34 PM

# REPORT OF LABORATORY ANALYSIS

Page 11 of 58



\$I

\*

# ANALYTICAL RESULTS

### Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

Sample: SD HLD EFFLUENT	Lab ID: 3	550282002	Collecte	d: 02/15/1	2 00:00	Received: 02/	17/12 13:07 Ma	atrix: Water	
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
547 HPLC Glyphosate	Analytical M	ethod: EPA	547						
Glyphosate	2.1U ug/l		, 6.0	2.1	1		02/20/12 10:53		÷ ·
549.2 GCS Paraquat Diquat	Analytical M	ethod: EPA	549.2 Prepa	aration Met	hod: EP/	\$549.2			17
Diquat	0.15U ug/l	-	0.40	0.15	1	02/21/12 22:30	02/22/12 11:08	85-00-7	
8081 GCS Pesticides	Analytical M	ethod: EPA	8081 Prepa	ration Meth	nod: EPA	3510			÷.
Aldrin Surrogates	0.00052U ug/l	-	0.010	0.00052	1	02/20/12 08:00	02/22/12 04:24	309-00-2	
Tetrachloro-m-xylene (S)	79 %		66.5- 120.3		1	02/20/12 08:00	02/22/12 04:24	877-09-8	
Decachlorobiphenyl (S)	74 %		41.7- 109.1		1	02/20/12 08:00	02/22/12 04:24	2051-24-3	• .
200.7 MET ICP	Analytical M	ethod: EPA	200.7 Prepa	aration Met	hod: EP/	A 200.7			
Aluminum Cadmium Chromium Iron Nickel Silver Sodium Zinc 200.8 MET ICPMS Antimony Arsenic Barium Beryllium Copper Lead Manganese Selenium	0.050U mg/ 0.00050U mg/ 0.0025U mg/ 0.0025U mg/ 0.0025U mg/ 47.9 mg/ 0.010U mg/ Analytical M 0.0025U mg/ 0.0025U mg/ 0.0025U mg/ 0.00025U mg/ 0.00050U mg/ 0.00050U mg/ 0.0098 mg/ 0.0025U mg/	և և և և և է է է է է է	0.10 0.0010 0.0050 0.040 0.0050 1.0 0.020 200.8 Preps 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050 0.0050	0.050 0.00050 0.0025 0.020 0.0025 0.0025 0.0025 0.0010 aration Met 0.0025 0.0025 0.0025 0.0025 0.0025 0.00050 0.0034 0.00050	1 1 1 1 1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5	02/20/12 09:54 02/20/12 09:54	02/21/12 06:27 02/21/12 06:27 02/21/12 06:27 02/21/12 06:27 02/21/12 06:27 02/21/12 06:27 02/21/12 06:27 02/23/12 13:31 02/23/12 13:31 02/23/12 13:31 02/23/12 13:31	7440-43-9 7440-47-3 7439-89-6 7440-02-0 7440-22-4 7440-23-5 7440-66-6 7440-36-0 7440-38-2 7440-38-2 7440-39-3 7440-41-7 7440-50-8 7439-92-1 7439-96-5	D3 D3 D3 D3 D3 D3 D3 D3 D3
Thallium	0.00050U mg/	L.	0.0010	0.00050	1		02/22/12 13:21	7440-28-0.	
245.1 Mercury	Analytical M						00/04/40 44-09	7420 07 6	
Mercury	0.00012 l mg/		0.00020	0.00010	1 hod: ED	02/18/12 11:00	02/24/12 14:08	1438-91-0	
525.2 Base Neutral Extractable	Analytical M						02/21/12 13:41	50 32 9	1.2
Benzo(a)pyrene bis(2-Ethylhexyl)adipate bis(2-Ethylhexyl)phthalate <i>Surrogates</i>	0.022U ug/l 0.44U ug/l 3.3 ug/l	L	0.11 1.8 2.3	0.022 0.44 0.57	1 1 1	02/21/12 09:10 02/21/12 09:10	02/21/12 13:41 02/21/12 13:41	103-23-1 117-81-7	L3
1,3-Dimethyl-2-nitrobenzene(S) Perylene-d12 (S) Triphenylphosphate (S)	90 % 109 % 106 %		70-130 70-130 70-130		1 1 1	02/21/12 09:10	02/21/12 13:41 02/21/12 13:41 02/21/12 13:41	1520963	

Date: 03/05/2012 02:34 PM

,

## **REPORT OF LABORATORY ANALYSIS**

Page 12 of 58



#### **ANALYTICAL RESULTS**

Project: PRIMARY & Pace Project No.: 3550282	SECONDARY DW ST	DS			÷.			
Sample: SD HLD EFFLUENT	Lab ID: 3550	282002 Collected	: 02/15/12	2 00:00	Received: 02/	17/12 13:07 M	atrix: Water	
Parameters	Results U	nits PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
548.1 GCS Endothall	Analytical Meth	od: EPA 548.1 Prepa	ration Meth	od: EP/	A 548.1			a the second
Endothall	2.7U ug/L	9.0	2.7	1	02/20/12 15:45	02/21/12 14:50		
625 MSSV	Analytical Meth	od: EPA 625 Preparat	tion Method	d: EPA (	625			
Anthracene	0.62U ug/L	5.2	0.62	1	02/18/12 08:30	02/19/12 16:44	120-12-7	•
Butylbenzylphthalate	0.74U ug/L	5.2	0.74	1	02/18/12 08:30	02/19/12 16:44	85-68-7	
2-Chlorophenol	0.70U ug/L	5.2	0.70	1	02/18/12 08:30	02/19/12 16:44	95-57-8	
Dimethylphthalate	0.66U ug/L	5.2	0.66	1	02/18/12 08:30	02/19/12 16:44	131-11-3	
Dioxin Screen	10.3U ug/L	10.3	10.3	1	02/18/12 08:30	02/19/12 16:44		N2
Naphthalene	0.81U ug/L	5.2	0.81	1	02/18/12 08:30	02/19/12 16:44	91-20-3	
Phenanthrene	0.54U ug/L	5.2	0.54	1	02/18/12 08:30	02/19/12 16:44	85-01-8	
Phenol	0.56U ug/L	5.2	0.56	1	02/18/12 08:30	02/19/12 16:44		1
2,4,6-Trichlorophenol	0.71U ug/L	2.1	0.71	1	02/18/12 08:30	02/19/12 16:44		
Surrogates	v./To uy/∟	2.1	0.71	I	02/10/12 00:50	02/15/12 10.44	00-00-2	
Nitrobenzene-d5 (S)	42 %	37.3- 107.7		1	02/18/12 08:30	02/19/12 16:44	4165-60-0	
2-Fluorobiphenyl (S)	44 %	35.3- 102.4		1	02/18/12 08:30	02/19/12 16:44	321-60-8	
Terphenyl-d14 (S)	82 %	50.1- 115.1		1	02/18/12 08:30	02/19/12 16:44	1718-51-0	
Phenol-d6 (S)	13 %	10-47.1		1	02/18/12 08:30	02/19/12 16:44	13127-88-3	
2-Fluorophenol (S)	22 %	16.3- 59.8		1	02/18/12 08:30	02/19/12 16:44	367-12-4	
2,4,6-Tribromophenol (S)	65 %	54.2- 114.4		1	02/18/12 08:30	02/19/12 16:44	118-79-6	
524.2 MSV	Analytical Meth	od: EPA 524.2	$e = e_{1}$					
Benzene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	71-43-2	·· · · ·
Bromodichloromethane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	75-27-4	
Bromoform	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	75-25-2	L3
Carbon tetrachloride	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	56-23-5	
Chlorobenzene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		-
Chloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
Chloroform	0.84 ug/L	0.50	0.25	1		02/21/12 14:59		
Dibromochloromethane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
1,2-Dichlorobenzene								
1,4-Dichlorobenzene	0.98 ug/L	0.50	0.25	1		02/21/12 14:59		
1,2-Dichloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
1,1-Dichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		L3
cis-1,2-Dichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
trans-1,2-Dichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	156-60-5	
1,2-Dichloropropane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	78-87-5	
Ethylbenzene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	100-41-4	
Methylene Chloride	0.44U ug/L	0.50	0.44	1		02/21/12 14:59	75-09 <b>-</b> 2	L3
Styrene	0.25U ug/L	0.50	0.25	1	1.	02/21/12 14:59	100-42-5	
Tetrachloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	127-18-4	
Toluene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
Total Trihalomethanes (Calc.)	0.84 ug/L	0.50	0.25	1		02/21/12 14:59		

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 13 of 58



jh

Á,

# **ANALYTICAL RESULTS**

#### Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

Sample: SD HLD EFFLUENT	Lab ID: 3550282002	Collected	d: 02/15/12	2 00:00	Received: 02/	17/12 13:07 Ma	trix: Water	an Dan se
Parameters	Results Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA	524.2						n en setter
1,2,4-Trichlorobenzene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	120-82-1	
1,1,1-Trichloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	71-55-6	
1,1,2-Trichloroethane	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		
Trichloroethene	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	-	
Vinyl chloride	0.25U ug/L	0.50	0.25	1		02/21/12 14:59		_L3
Xylene (Total)	0.25U ug/L	0.50	0.25	1		02/21/12 14:59	1330-20-7	
Surrogates	95 %	70-130		1		02/21/12 14:59	460-00-4	· · ·
4-Bromofluorobenzene (S) Dibromofluoromethane (S)	125 %	70-130		1		02/21/12 14:59		
Toluene-d8 (S)	93 %	70-130		1		02/21/12 14:59		
1,2-Dichloroethane-d4 (S)	121 %	70-130		1		02/21/12 14:59		1.00
1,2-DiGillor Definanc-04 (C)		70-100						
2120B True Color	Analytical Method: SM 2	2120B						
True Color	30.0 units	5.0	5.0	1		02/17/12 20:50	5.	Q
2150B Threshold Odor Number	Analytical Method: SM 2	2150B						
Temperature, Water (C)	40.0 deg C			1		02/17/12 19:15		
Threshold Odor Number	40.0 TON	1.0	1.0	1		02/17/12 19:15		Q
2540C Total Dissolved Solids	Analytical Method: SM 2	2540C						
Total Dissolved Solids	334 mg/L	5.0	5.0	1		02/20/12 14:56		
300.0 IC Anions DW	Analytical Method: EPA	300.0						
Nitrate as N	0.17 mg/L	0.050	0.025	1		02/17/12 22:19	14797-55-8	Q
Nitrite as N	1.3 mg/L	0.050	0.025	1		02/17/12 22:19	14797-65-0	Q
4500H+ pH, Electrometric	Analytical Method: SM 4	4500-H+B					· .	
Temperature, Water (C)	25.0 deg C	0.010	0.010	1		02/29/12 12:10		
pH at 25 Degrees C	7.8 Std. Units	0.10	0.10	1		02/29/12 12:10		Q
5540C MBAS Surfactants	Analytical Method: SM &	5540C						
Surfactants	0.11 l mg/L	0.20	0.059	1		02/17/12 13:40		Q
9222B Total Coliform MF	Analytical Method: SM S	2228 Prepa	aration Meth	nod: SM	1 9222B			
Total Coliforms	4000 CFU/100 mL	20.0	20.0	20	02/17/12 15:00	02/18/12 15:10		Q,Z
Total Nitrogen Calculation	Analytical Method: TKN	+NOx Calcul	ation		~			
Total Nitrogen	16.5 mg/L	0.50	0.25	1		02/21/12 15:34		
300.0 IC Anions 28 Days	Analytical Method: EPA	300.0						
Chloride	68.3 mg/L	5.0	2.5	1		02/23/12 05:34	16887-00-6	
Fluoride	0.30 mg/L	0.050	0.025	1		02/23/12 05:34	16984-48-8	
Sulfate	21.4 mg/L	5.0	2.5	1		02/23/12 05:34	14808-79-8	

Date: 03/05/2012 02:34 PM

## **REPORT OF LABORATORY ANALYSIS**

Page 14 of 58



### **ANALYTICAL RESULTS**

Project: PRIMARY & Pace Project No.: 3550282	SECONDARY DW STDS			stan tang	'		tan da Angelaria
Sample: SD HLD EFFLUENT	Lab ID: 3550282002	Collected:::02/15/12.0	0:00	Received: 02/1	17/12 13:07 M	atrix: Water	Art Carl
Parameters	Results Units	PQL MDL I	DF	Prepared	Analyzed	CAS No.	Qual
335.4 Cyanide, Total	Analytical Method: EPA :	335.4 Preparation Method	EPA 3	335.4			e e des
Cyanide	0.0050U mg/L	0.010 0.0050	1 0	2/22/12 08:50	02/23/12 05:36	57-12-5	
350.1 Ammonia	Analytical Method: EPA	350.1		i		1	
Nitrogen, Ammonia	<b>14.7</b> mg/L	0.10 0.040	2	1	02/21/12 12:43	7664-41 <b>-7</b>	• :
351.2 Total Kjeldahl Nitrogen	Analytical Method: EPA :	351.2 Preparation Method	EPA 3	351.2		a et al.	ar en sela. Astro
Nitrogen, Kjeldahl, Total	15.7 mg/L	0.50 0.086	1 0	2/20/12 09:00	02/21/12 11:14	7727-37-9	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA	353.2					ata a k Thuath
Nitrogen, NO2 plus NO3	0.79 mg/L	0.050 0.010	1		02/20/12 12:57		
365.4 Phosphorus, Total	Analytical Method: EPA	365.4 Preparation Method	EPA 3	365.4	· · · ·		а на 1911 г. – С
Phosphorus, Total (as P)	<b>1.8</b> mg/L	0.10 0.050	1 0	2/20/12 09:00	02/21/12 11:14	7723-14-0	

Date: 03/05/2012 02:34 PM

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

• •

Page 15 of 58

g = 1

.

11



JII

. Agus

#### QUALITY CONTROL DATA

Project: Pace Project No.:	PRIMARY & SE 3550282	CONDARY DW STDS					en e		te ta kana	n Beer Stera
QC Batch:	GCSV/5395		Analysis Met			A 531.1		·	New York	4 1 2
QC Batch Method:	EPA 531.1		Analysis Des	cription:	53	1.1 HPLC Carbam	ate			
Associated Lab San	nples: 355028	2001, 3550282002	· · · ·							
METHOD BLANK:	342247		Matrix:	Water					1.1.2.9.2	) - <i>2</i> 2
Associated Lab San	nples: 355028	2001, 3550282002					· •			
			Blank	Reporting	g					
Paran	neter	Units	Result	Limit	:	Analyzed	Qualifiers		1997 - 1997.	
Aldicarb	and the second second	ug/L	0.64U		2.0	02/21/12 23:20	-	-		nd. S
Aldicarb sulfone		ug/L	0.35U		2.0	02/21/12 23:20				
Aldicarb sulfoxide		ug/L	0.30U	$A_{ij} = D_{ij} = -D_{ij}$	2.0	02/21/12 23:20			1997 - 1992 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 - 1993 -	

Carbofuran ug/L 0.32U 2.0 02/21/12 23:20 2.0 02/21/12 23:20 Oxamyl ug/L 0.41U 80-120 02/21/12 23:20 147 Propoxur (S) % LABORATORY CONTROL SAMPLE: 342248 LCS LCS % Rec Spike

Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aldicarb	ug/L	10	9.4	94	80-120	
Aldicarb sulfone	ug/L	10	11.1	111	80-120	
Aldicarb sulfoxide	ug/L	10	10.5	105	80-120	
Carbofuran	ug/L	10	9.0	90	80-120	
Oxamyl	ug/L	10	12.3	123	80-120	
Propoxur (S)	%			90	80-120	

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 34224	9		342250							
Parameter	3: Units	549852001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Aldianak		0.00064	10	10	10.8	11.1	108	111	80-120	3	20	
Aldicarb	ug/L	U mg/L	10	10	10.0	11.1	100		00-120	5	20	
Aldicarb sulfone	ug/L	0.00035	10	10	12.6	13.0	126	130	80-120	3	20	
		U mg/L						400	00.400	•	•••	
Aldicarb sulfoxide	ug/L	0.00030 U mg/L	10	10	12.2	12.6	122	126	80-120	3	20	
Carbofuran	ug/L	0.00032	10	10	13.7	14.2	137	142	80-120	4	20	
Overnul	ug/L	U mg/L 0.00041	10	10	13.6	13.9	136	139	80-120	2	20	
Oxamyl	uyr	U mg/L	10	10	10.0	10.0	100	100	00 120	-	20	
Propoxur (S)	%						136	143	80-120			

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 16 of 58



### QUALITY CONTROL DATA

Project: PRIM Pace Project No.: 35502	ARY & SECONDARY DW STDS 282					•		· (···		1.20	ta ant Nati
QC Batch: GCS	SV/5408	Analysi	s Method	: E	PA 547					;	
QC Batch Method: EPA	547	Analysi	s Descrip	tion: 👘 5	47 HPLC GI	yphosate		· · · ]		$\theta = \pi$	1.128
Associated Lab Samples:	3550282001, 3550282002								· •	t	e statistica.
METHOD BLANK: 3431	58	M	latrix: Wa	ter						1.0	
Associated Lab Samples:	3550282001, 3550282002										$s^{1}=1/N$
Parameter	Units	Blank Result		eporting Limit	Analyz	ed	Qualifiers	;			
Glyphosate	ug/L	- ;	2.10	6.0	02/20/12	09:21					5. S. 1
LABORATORY CONTROL	SAMPLE: 343159								• •		
	1997 - N.	Spike	LCS	3	LCS	% Rec	3				
Parameter	Units	Conc.	Resu	ult	% Rec	Limits	Q	ualifiers			
Glyphosate	ug/L	50		46.0	92	70	-130		-		"I :
MATRIX SPIKE & MATRIX	SPIKE DUPLICATE: 343160		· .	343161					••		· .,
		MS	MSD								
Parameter	3550282001	Spike	Spike	MS	MSD Result	MS % Rea	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
	Units Result	Conc.	Conc.	Result		% Rec			·		Qual
Glyphosate	ug/L 2.1U	50	50	45:5	42.8	91	86	70-130	6	30	11.1

Date: 03/05/2012 02:34 PM

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

Page 17 of 58



ø

Ъ.

# QUALITY CONTROL DATA

	RIMARY & 550282	SECONDAR	Y DW STD	6		-			. 5	·		ş - 1	n je sti P <sup>ri</sup> Na d
QC Batch:	MERP/250	2		Analys	is Method:	. (	PA 245.1						
QC Batch Method:	EPA 245.1			Analys	is Descript	ion: 2	45.1 Mercury	y				• .	
Associated Lab Sample	es: 355	0282001, 355	0282002		,				1.5				
METHOD BLANK: 34	12943			N	latrix: Wa	ter					. :		in a t
Associated Lab Sample	es: 355	0282001, 355	0282002				• :		1		·. C .	· .• ,	i yan
				Blank		eporting							
Paramete	er		Units	Resul	t	Limit	Analyz	ed	Qualifiers				
Mercury		mg/L		0.000	010U	0.0002	0 02/24/12	13:47					e de p
LABORATORY CONTR	ROL SAMP	PLE: 34294	4						. ==		:		
Paramete	er jest		Units	Spike Conc.	LCS Resu		LCS % Rec	% Red Limits		alifiers			
Mercury		mg/L		.002	0	.0020	100	85	5-115				
MATRIX SPIKE & MAT	RIX SPIKI	E DUPLICATE	E: 34294	5		342946							
				MS	MSD								
	· .	35	50307001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter		Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Mercury		mg/L	0.10U ug/L	.002	.002	0.0020	0.0020	98	98	70-130	.6	20	
MATRIX SPIKE & MAT			E: 34294	7		342948							
WATCH OF ITLE OF WAT			_, 01201	MS	MSD	012010							
		35	50307002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	i.
Parameter		Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD		Qual
Mercury		mg/L	0.10U ug/L	.002	.002	0.0022	2 0.0022	109	108	70-130	.3	20	

Date: 03/05/2012 02:34 PM

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

Page 18 of 58



# QUALITY CONTROL DATA

Project: Pace Project No.:	PRIMARY & SE( 3550282	CONDARY DW STDS					•	at said Ala
QC Batch: QC Batch Method: Associated Lab Sar	MPRP/7499 EPA 200.7 nples: 3550282	001, 3550282002	Analysis Met Analysis Des		PA 200.7 00.7 MET			
METHOD BLANK:	343205	· · ·	Matrix:	Water	· · · · · · · · · · · · · · · · · · ·			a ta parte
Associated Lab Sar	nples: 3550282	001, 3550282002	Blank	Reporting		1		
Parar	neter	Units	Result	Limit	Analyzed	Qualifiers		11 A.
Aluminum Cadmium Chromium Iron Nickel Silver Sodium Zinc		mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.050U 0.00050U 0.025U 0.025U 0.0025U 0.0025U 0.50U 0.010U	0.10 0.0010 0.0050 0.040 0.0050 0.0050 1.0 0.020	02/21/12 05:38 02/21/12 05:38 02/21/12 05:38 02/21/12 05:38 02/21/12 05:38 02/21/12 05:38			، بر ۲۱ بر بر بر

#### LABORATORY CONTROL SAMPLE: 343206

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/L	2.5	2.6	102	85-115	
Cadmium	mg/L	.025	0.026	103	85-115	
Chromium	mg/L	.25	0.26	106	85-115	
Iron	mg/L	2.5	2.6	105	85-115	
Nickel	mg/L	.25	0.26	103	85-115	
Silver	mg/L	.025	0.025	102	85-115	
Sodium	mg/L	12.5	13.1	105	85-115	
Zinc	mg/L	1.2	1.3	102	85-115	

MATRIX SPIKE & MATRIX S	SPIKE DUPLICAT	E: 34320	7		343208							
	3	550252001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Сопс.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Aluminum	mg/L	196 ug/L	2.5	2.5	2.8	2.8	103	104	70-130	.7	20	
Cadmium	mg/L	0.50U ug/L	.025	.025	0.026	0.026	103	103	70-130	.3	20	
Chromium	mg/L	2.5U ug/L	.25	.25	0.27	0.27	106	106	70-130	.1	20	
Iron	mg/L	220 ug/L	2.5	2.5	2.8	2.8	104	105	70-130	1	20	
Nickel	mg/L	3.5 l ug/L	.25	.25	0.26	0.26	104	103	70-130	.4	20	
Silver	mg/L	2.5U ug/L	.025	.025	0.028	0.026	110	102	70-130	7	20	
Sodium	mg/L	61100 ug/L	12.5	12.5	74.6	76.7	108	125	70-130	3	20	
Zinc	mg/L	313 ug/L	1.2	1.2	1.6	1.6	103	103	70-130	.06	20	

Date: 03/05/2012 02:34 PM

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

Page 19 of 58



J)

4

# QUALITY CONTROL DATA

# Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

MATRIX SPIKE & MATRIX	SPIKE DUPLICAT	E: 34320	9 🐁 👔		343210							
			MS	MSD								
	38	550290003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Солс.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Aluminum	mg/L	50.2 I ug/L	2.5	2.5	2.6	2.6	101	102	70-130	.9	20	5 . j
Cadmium	mg/L	0.50U ug/L	.025	.025	0.026	0.025	102	102	70-130	9	20	:
Chromium	mg/L	2.5U ug/L	.25	.25	0.27	0.26	107	105	70-130	- 1	20	
Iron	mg/L	171 ug/L	2.5	2.5	2.7	2.8	102	104	70-130	2	20	an ta Tanàn
Nickel	mg/L	2.5U ug/L	.25	.25	0.26	0.26	103	103	70-130	.6	20	
Silver	mg/L	2.5U ug/L	.025	.025	0.027	0.026	108	104	70-130	4	20	5 <u>1</u>
Sodium	mg/L	48200 ug/L	12.5	12.5	59.8	61.6	93	107	<b>70-</b> 130	3	20	n an An An
Zinc	mg/L	10.4 l ug/L	1.2	1.2	1.3	1.3	103	103	70-130	.8	20	÷.*

Date: 03/05/2012 02:34 PM

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

Page 20 of 58



### QUALITY CONTROL DATA

Project: PRIMAR Pace Project No.: 3550282	Y & SECONDARY	DW STDS	5								ta an	ta ya sa
QC Batch: MPRP/	7500		Analys	is Method	: E	PÁ 200.8				-	1.4.4	
QC Batch Method: EPA 20	0.8		Analys	is Descrip	tion: 20	00.8 MET						
· · · · · · · · · · · · · · · · · · ·	550282001, 35502	82002	·									
· · · · · · · · · · · · · · · · · · ·		<u> </u>		A-A-2 AA7-	4							
METHOD BLANK: 343213			N	Aatrix: Wa	iter							1.1
Associated Lab Samples: 3	1550282001, 35502	82002										
	·		Blank		Reporting			o				
Parameter	Ur	nits	Resul	t ,	Limit	Analyz	·	Qualifiers	_ ·		· · ·	
Antimony	mg/L		0.00		0.0010							
Arsenic	mg/L		0.00		0.0010							
Barium	mg/L		0.00		0.0010							
Beryllium	mg/L		0.000		0.00010							· .
Copper	mg/L		0.00		0.0010							
Lead	mg/L		0.00	069U	0.0010 0.0010							
Manganese Selenium	mg/L mg/L		0.00		0.0010							
Thallium	mg/L			050U	0.0010							· .
	ing/L		0.00	0000	0.0010	VDLD IL						
1												¢.
LABORATORY CONTROL SA	MPLE: 343214											
			Spike	LC		LCS	% Rec					
Parameter	Ur	nits	Conc.	Res	ult	% Rec	Limits	Qu	alifiers	_		
Antimony	mg/L		.05		0.046	92	85	-115				
Arsenic	mg/L		.05		0.052	103	- 85	-115				
Barium	mg/L		.05		0.048	96	85	-115				
Beryllium	mg/L		.005	. (	0.0051	102	85	-115				
Copper	mg/L		.05		0.052	104		-115				
Lead	mg/L		.05		0.047	94		-115				
Manganese	mg/L		.05		0.051	102		-115				
Selenium	mg/L		.05		0.054	107		-115				
Thallium	mg/L		.05		0.048	96	85	-115				
MATRIX SPIKE & MATRIX SF	PIKE DUPLICATE:	343215			343216							
			MS	MSD								
	3550	307001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	0.50U ug/L	.05	.05	0.045	0.045	90	90	70-130	.04	20	
Arsenic	mg/L	0.50U ug/L	.05	.05	0.048	0.049	95	97	70-130	2	20	
Barium	mg/L	54.4 ug/L	.05	.05	0.10	0.10	96	97	70-130	.6	20	
Beryllium	mg/L	0.050U ug/L	.005	.005	0.0043	0.0043	86	85	70-130	.4	20	
Copper	mg/L	2.7 ug/L	.05	.05	0.047	0.048	88	91	70-130	3	20	
Lead		2.0 ug/L	.05	.05	0.051	0.051	97	98	70-130		20	
Manganese	mg/L	22.4	.05	.05	0.069	0.070	94	96	70-130	2	20	
		ug/L										

Date: 03/05/2012 02:34 PM

Selenium

# **REPORT OF LABORATORY ANALYSIS**

.05

0.047

0.047

93

94 70-130

0.500

ug/L

mg/L

.05

Page 21 of 58

.7 20



3

4

# QUALITY CONTROL DATA

Project:	PRIMARY & SEC 3550282	ONDARY	DW STD	S									1996 (199
Pace Project No.:			0.4004	-		0.40040				1			. · · · ·
MATRIX SPIKE & N	ATRIX SPIKE DU	PLICATE:	34321			343216							4 A 1 - 2 -
Parame	ter		307001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Thallium	mg/	 L	0.50U ug/L	.05	`. <b>0</b> 5	0.051	0.052	102	104	70-130	2		an a
MATRIX SPIKE & N	ATRIX SPIKE DU	PLICATE:	34321	7		343218							
				MS	MSD								
		3550	290002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	les in a
Parame	ter	Jnits	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/	–	0.50U ug/L	.05	.05	0.046	0.046	92	92	70-130	.2	20	
Arsenic	mg/	L	1.3 ug/L	.05	.05	0.052	0.051	102	100	70-130	2	20	
Barium	mg/	L ,	18.4 ug/L	.05	.05	0.069	0.068	101	99	<b>70</b> -130	2	20	
Beryllium	mg/	L	0.05ŎU ug/L	.005	.005	0.0048	0.0050	96	100	70-130	4	20	
Copper	mg/	L	23.1 ug/L	.05	.05	0.075	0.070	103	95	70-130	6	20	
Lead	mg/	L	0.84 l ug/L	.05	.05	0.044	0.044	86	86	70-130	.3	<sup>°</sup> 20	
Manganese	mg/	L.	13.5 ug/L	.05	.05	0.066	0.064	105	101	70-130	3	20	
Selenium	mg/	L	0.55 l ug/L	.05	.05	0.056	0.054	111	107	70-130	4	20	
Thallium	mg/	L	0.50U ug/L	.05	.05	0.045	0.045	89	90	70-130	1	20	

Date: 03/05/2012 02:34 PM

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

Page 22 of 58



#### QUALITY CONTROL DATA

Analysis Method:

Matrix: Water

PRIMARY & SECONDARY DW STDS Project: 3550282

Pace Project No.:

QC Batch: MSV/4837 QC Batch Method: CEPA 524.2

3550282001, 3550282002

Analysis Description: 524.2 MSV

EPA 524.2

METHOD BLANK: 343954

Associated Lab Samples:

Associated Lab Samples: 3550282001, 3550282002

Associated Lab Samples.	3550282001, 3550282002					nta a secondaria.
	•	Blank	Reporting		·	
Parameter	Units	Result	Limit	Analyzed	Qualifiers	
1,1,1-Thchloroethane	ug/L	0.25U	0.50	02/21/12 13:39		a state of the second
1,1,2-Trichloroethane	ug/L	9 0.25U	0.50	02/21/12 13:39		
1,1-Dichloroethene	ug/L	0.25U	0.50	02/21/12 13:39		
1,2,4-Trichlorobenzene	· ug/L	0.25U	0.50	02/21/12 13:39		
1,2-Dichlorobenzene	ug/L	0.25U	0.50	02/21/12 13:39		
1,2-Dichloroethane	ug/L	0.25U	0.50	02/21/12 13:39		
1,2-Dichloropropane	ug/L	0.25U	0.50	02/21/12 13:39		
1,4-Dichlorobenzene	ug/L	0.25U	0.50	02/21/12 13:39		
Benzene	ug/L	0.25U	0.50	02/21/12 13:39		
Bromodichloromethane	ug/L	0.25U	0.50	02/21/12 13:39		
Bromoform	ug/L	0.25U	0.50	02/21/12 13:39		
Carbon tetrachloride	ug/L	0.25U	0.50	02/21/12 13:39		
Chlorobenzene	ug/L	0.25U	0.50	02/21/12 13:39		
Chloroethane	ug/L	0.25U	0.50	02/21/12 13:39		
Chloroform	ug/L	0.25U	0.50	02/21/12 13:39		
cis-1,2-Dichloroethene	ug/L	0.25U	0.50	02/21/12 13:39		
Dibromochloromethane	ug/L	0.25U	0.50	02/21/12 13:39		
Ethylbenzene	ug/L	0.25U	0.50	02/21/12 13:39		
Methylene Chloride	ug/L	0.44U	0.50	02/21/12 13:39		
Styrene	ug/L	0.25U	0.50	02/21/12 13:39		
Tetrachioroethene	ug/L	0.25U	0.50	02/21/12 13:39		
Toluene	ug/L	0.25U	0.50	02/21/12 13:39		
Total Trihalomethanes (Calc.)	ug/L	0.25U	0.50	02/21/12 13:39		
trans-1,2-Dichloroethene	ug/L	0.25U	0.50	02/21/12 13:39		
Trichloroethene	ug/L	0.25U	0.50	02/21/12 13:39		
Vinyl chloride	ug/L	0.25U	0.50	02/21/12 13:39		
Xylene (Total)	ug/L	0.25U	0.50	02/21/12 13:39		
1,2-Dichloroethane-d4 (S)	%	115	70-130	02/21/12 13:39		
4-Bromofluorobenzene (S)	%	122	70-130	02/21/12 13:39		
Dibromofluoromethane (S)	% ↔	119	70-130	02/21/12 13:39		
Toluene-d8 (S)	%	104	70-130	02/21/12 13:39		

LABORATORY CONTROL SAM	PLE & LCSD: 343955		34	3956				-		
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	5	4.8	4.9	96	97	70-130	1	40	
1,1,2-Trichloroethane	ug/L	5	4.7	5.4	95	109	70-130	14	40	
1,1-Dichloroethene	ug/L	5	6.5	6.4	131	128	70-130	2	40	J(L0)
1,2,4-Trichlorobenzene	ug/L	5	5.4	5.4	107	108	70-130	1	40	
1,2-Dichlorobenzene	ug/L	5	4.6	5.1	92	103	70-130	11	40	
1,2-Dichloroethane	ug/L	5	5.1	5. <b>2</b>	103	104	70-130	1	40	

Date: 03/05/2012 02:34 PM

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

Page 23 of 58



Û

• . •

ţ

#### QUALITY CONTROL DATA

Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

LABORATORY CONTROL SAMPL	E & LCSD: 3	43955		34	3956					
Parameter	Units	1	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD Qualifiers
1,2-Dichloropropane	ug/L		5	4.2	3.8	84	77	70-130	10	40
1,4-Dichlorobenzene	ug/L		5	4.9	5.1	98	101	70-130	3	<b>40</b> - 25 Automotion
Benzene	ug/L		5	4.9	5.0	97	99	70-130	2	<b>40</b>
Bromodichloromethane	ug/L		5	4.2	3.9	85	79	70-130	7	40
Bromoform	ug/L		5	5.2	7.0	104	139	70-130	29	40 J(L0)
Carbon tetrachloride	ug/L		5	5.0	5.4	100	108	70-130	8	40
Chlorobenzene	ug/L		5	4.4	4.3	89	86	70-130	3	40
Chloroethane	ug/L		5	6.2	6.1	124	123	70-130	2	40
Chloroform	ug/L		5	5.6	5.1	112	102	70-130	9	40
cis-1,2-Dichloroethene	ug/L		5	5.6	5.6	113	112	70-130	.7	40
Dibromochloromethane	ug/L		5	4.8	5.4	97	109	70-130	12	40
Ethylbenzene	ug/L		5	5.1	5.5	103	111	70-130	7	40
Methylene Chloride	ug/L	1.	5	7.4	5.7	148	115	70-130	25	40 J(L0)
Styrene	ug/L		5	5.3	6.1	106	123	70-130	15	40
Tetrachloroethene	ug/L		5	4.7	4.6	94	92	70-130	2	40
Toluene	ug/L		5	4.5	4.5	89	90	70-130	,9	40
Total Trihalomethanes (Calc.)	ug/L			19.9	21.5				8	$c = t^{*}$
trans-1,2-Dichloroethene	ug/L		5	5.3	6.2	106	124	70-130	15	40
Trichloroethene	ug/L		5	3.7	4.4	74	88	70-130	17	40
Vinyl chloride	ug/L		5	7.1	7.2	143	144	70-130	.9	40 J(L0)
Xylene (Total)	ug/L			16.7	18.6				.11	
1,2-Dichloroethane-d4 (S)	%					126	121	70-130		
4-Bromofluorobenzene (S)	%					107	119	70-130		
Dibromofluoromethane (S)	%					127	121	70-130		
Toluene-d8 (S)	%					103	99	70-130		

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 34399	4		343995							
	60 <sup>,</sup>	115522001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L.	ND	5	5	5.3	4.2	106	83	70-130	24	40	
1,1,2-Trichloroethane	ug/L.	. ND	5	5	6.2	3.4	124	68	70-130	59	40	J(D6), J(M1)
1,1-Dichloroethene	ug/L	ND	5	5	8.1	7.8	163	156	70-130	4	40	J(M0)
1,2,4-Trichlorobenzene	ug/L	ND	5	5	6.2	4.7	124	95	70-130	27	40	
1,2-Dichlorobenzene	ug/L	ND	5	5	4.7	4.3	94	86	70-130	9	40	,
1,2-Dichloroethane	ug/L	ND	5	5	5.3	4.9	106	98	70-130	8	40	
1,2-Dichloropropane	ug/L	ND	5	5	5.7	3.6	114	71	70-130	46	40	J(D6)
1,4-Dichlorobenzene	ug/L	ND	5	5	4.9	4.5	97	91	70-130	7	40	
Benzene	ug/L	ND	5	5	5.3	4.5	106	90	70-130	16	40	
Bromodichloromethane	ug/L	ND	5	5	5.4	3.5	109	70	70-130	44	40	J(D6)
Bromoform	ug/L	ND	5	5	4.4	3.9	88	77	70-130	13	- 40	
Carbon tetrachloride	ug/L	ND	5	5	6.1	5.2	123	105	70-130	16	40	
Chlorobenzene	ug/L	ND	5	5	4.9	4.1	98	81	70-130	19	40	
Chloroethane	ug/L	ND	5	5	9.3	8.7	185	174	70-130	7	40	J(M1)
Chloroform	ug/L	ND	5	5	4.9	5.7	99	114	70-130	15	40	
cis-1,2-Dichloroethene	ug/L	ND	5	5	6.0	5.0	120	100	70-130	18	40	

Date: 03/05/2012 02:34 PM

# REPORT OF LABORATORY ANALYSIS

Page 24 of 58



Part and the second proves

### QUALITY CONTROL DATA

### Project: PRIMARY & SECONDARY DW STDS Pace Project No.: 3550282

MATRIX SPIKE & MATRIX SPIR	KE DUPLICAT	E: 34399	4		343995				1			
		· · ·	MS	MSD						•	2017	$(1, \sqrt{2})$
	60	115522001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	• .
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Dibromochloromethane	ug/L	ND .	5	5	5.5	4.0	109	81	70-130	30	40	
Ethylbenzene	ug/L	ND	5	5	5.1	5.7	102	113	70-130	11	40	1.41.11
Methylene Chloride	ug/L	ND	5	· 5	7.9	7.6	158	152	70-130	4	40	J(M0)
Styrene	ug/L	<sup>1</sup> ND	· 5	5	4.8	5.8	96	116	70-130	- 19	· 40	
Tetrachloroethene	ug/L	ND.	5	5	5.0	3.3	99.	66	70-130	<b>4</b> 1	40	J(D6), J(M1)
Toluene	ug/L	ŃD	5	5	4.7	3.6	95	71	70-130	28	40	
Total Trihalomethanes (Calc.)	ug/L	ND			20.2	17.1				17		
trans-1,2-Dichloroethene	ug/L	ND	5	5	6.1	5.9	122	119	70-130	2	40	
Trichloroethene	ug/L	ND	5	5	4.2	3.0	85	59	70-130	36	40	J(M1)
Vinyl chloride	ug/L	ND	5	5	8.9	10.2	178	204	70-130	14	40	J(M0)
Xylene (Total)	ug/L	ND			15.0	17.1	1			13		
1,2-Dichloroethane-d4 (S)	%						137	111	70-130			J(S0)
4-Bromofluorobenzene (S)	%						97	130	70-130			1
Dibromofluoromethane (S)	%						128	120	70-130			
Toluene-d8 (S)	%						101	82	70-130			
									19 A.	e		· .

Date: 03/05/2012 02:34 PM

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

Page 25 of 58



6

ŝ

### **QUALITY CONTROL DATA**

· · · · · · · · · · · · · · · · · · ·	IMARY & SECOND	ARY DW STDS	6							<sup>ан</sup> и К.	•		stat Tipot
QC Batch: C	EXT/7535		Analys	is Method:	ËF	PA 504.1	· · · · <b>_</b>			. And a	<i>n</i>		an a
QC Batch Method: E	PA 504.1		Analys	is Descripti	ion: 50	4 EDB D	BCP						
Associated Lab Sample	s: 3550282001, 3	550282002											
METHOD BLANK: 34	2838		Ň	latrix: Wat	er								
Associated Lab Sample	s: 3550282001, 3	550282002									1		1414 ( 1414 (
jinar in the	and the second		Blank		eporting		• .						
Paramete	r	Units	Resul	t	Limit	Ana	lyzed	Quali	fiers	_			
1,2-Dibromo-3-chloropr	opane ug/L	,		049U	0.020		2 20:25	i.				• 1.	
1,2-Dibromoethane (ED	B) ug/L		0.00	)62U	0.010	02/20/1	2 20:25						. :.
× ;													1. set 1
LABORATORY CONTR	OL SAMPLE & LCS	D: 342839		3	43322								
Paramete	ана — А л <b>г</b>	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RP		/lax PD	Qu	alifiers
1,2-Dibromo-3-chloropr	opane ug/L		.25	0.24	0.24	94	95	70-130		1	40		
1,2-Dibromoethane (ED	B) ug/L	•	.25	0.24	0.25	95	101	70-130		6	40		
MATRIX SPIKE & MATI		ATE: 343323	3		343324							1	
			MS	MSD	0.002.								
		3550282001	Spike	Spike	MS	MSD	MS	i MS	D	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% R	∋c %F	lec	Limits	RPD	RPD	Qual
1,2-Dibromo-3-chloropr	opane ug/L	0.0049 U	.44	.44	0.64	0.5	4	145	122	65-135	17	40	J(M1)
1,2-Dibromoethane (ED	B) ug/L	0.0062 U	.44	.44	0.62	0.5	7	141	131	65-135	8	40	J(M1)

Date: 03/05/2012 02:34 PM

## **REPORT OF LABORATORY ANALYSIS**

Page 26 of 58



### QUALITY CONTROL DATA

Project: PRIMA Pace Project No.: 355020	RY & SECONDARY DW STDS 32						na senti Santa Santa San
QC Batch: OEX	T/7532	Analysis Meth	nod: EF	A 508.1			e e contra da tal
QC Batch Method: EPA	508.1	Analysis Des	cription: 50	8 GCS Pesticide			
Associated Lab Samples:	3550282001, 3550282002				•		
METHOD BLANK: 342832	2	Matrix:	Water				
Associated Lab Samples:	3550282001, 3550282002						1997
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers		an a
Alachlor	• ug/L	0.034U	0.20	02/21/12 15:11			and a state of the
Atrazine	ug/L	0.021U	0.10	02/21/12 15:11		;	
Chlordane (Technical)	ug/L	0.047U	0.20	02/21/12 15:11			
Dieldrin	ug/L	0.014U	0.10	02/21/12 15:11			
Endrin	ug/L	0.0020U	0.010	02/21/12 15:11			en de la companya de
gamma-BHC (Lindane)	ug/L	0.0030U	0.020	02/21/12 15:11			
Heptachlor	ug/L	0.0060U	0.040	02/21/12 15:11			an director
Heptachlor epoxide	ug/L	0.0030U	0.020	02/21/12 15:11			
Hexachlorobenzene	ug/L	0.011U	0.10	02/21/12 15:11			
Hexachlorocyclopentadiene	ug/L	0.012U	0.10	02/21/12 15:11			
Methoxychlor	ug/L	0.014U	0.10	02/21/12 15:11			
PCB, Total	ug/L	0.10U	0.10	02/21/12 15:11			
PCB-1016 (Aroclor 1016)	ug/L	0.080U	0.10	02/21/12 15:11			
PCB-1221 (Aroclor 1221)	ug/L	0.029U	0.10	02/21/12 15:11			
PCB-1232 (Aroclor 1232)	ug/L	0.029U	0.10	02/21/12 15:11			
PCB-1242 (Aroclor 1242)	ug/L	0.051U	0.10	02/21/12 15:11			
PCB-1248 (Aroclor 1248)	ug/L	0.062U	0.10	02/21/12 15:11			
PCB-1254 (Aroclor 1254)	ug/L	0.023U	0.10	02/21/12 15:11			
PCB-1260 (Aroclor 1260)	ug/L	0.066U	0.10	02/21/12 15:11			
Simazine	ug/L	0.044U	0.070	02/21/12 15:11			
<b>T</b> 1		0.0411	4.0	00/04/40 45.44			

1.0 02/21/12 15:11

70-130 02/21/12 15:11

#### LABORATORY CONTROL SAMPLE: 342833

ug/L

%

Toxaphene

Decachlorobiphenyl (S)

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alachlor	ug/L		0.72	72	70-130	
Atrazine	ug/L	.5	0.37	73	70-130	
Dieldrin	ug/L	.5	0.48	97	70-130	
Endrin	ug/L	.05	0.051	101	70-130	
gamma-BHC (Lindane)	ug/L	.1	0.091	91	70-130	
Heptachlor	ug/L	.2	0.17	85	70-130	
Heptachlor epoxide	ug/L	.1	0.071	71	70-130	
lexachlorobenzene	ug/L	.5	0.50	100	70-130	
-lexachlorocyclopentadiene	ug/L	.5	0.44	87	70-130	
Vethoxychlor	ug/L	.5	0.52	103	70-130	
Simazine	ug/L	.35	0.39	112	70-130	
Decachlorobiphenyl (S)	%			109	70-130	

0.61U

87

Date: 03/05/2012 02:34 PM

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

Page 27 of 58



alte provat

će.

### QUALITY CONTROL DATA

# Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

MATRIX SPIKE & MATRIX SPI	KE DUPLICAT	E: 34333	4 .		343335				51		· 	
Parameter	92 Units	112145001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alachlor	ug/L	ND	2	2	1.4	1.5	68	75	70-130		40	J(M1)
Atrazine	ug/L	ND	1	· 1	0.70	0.85	. 70	85	70-130	20	40	
Dieldrin	ug/L	ND	1	1	0.94	1.0	94	105	70-130	11	40	
Endrin	ug/L	ND	.1	.1	0.12	0.14	119	140	70-130	16	40	J(M1)
gamma-BHC (Lindane)	ug/L	ND	.2	.2	0.16	0.17	79	87	70-130	10	40	
Heptachlor	ug/L	ND	.4	.4	0.29	0.33	72	82	70-130	13	40	$t = e^{-i\omega t} \sqrt{t}$
Heptachlor epoxide	ug/L	ND	.2	.2	0.18	0.20	90	102	70-130	12	40	
Hexachlorobenzene	ug/L	· ND	1	1	0.90	0.84	90	84	70-130	7	· · · 40	
Hexachlorocyclopentadiene	ug/L	ND	1	1	0:76	0.68	76	68	70-130	10	40	J(M1)
Methoxychlor	ug/L	ND	1	1	0.93	0.79	93	79	70-130	16	40	
Simazine	ug/L	ND	.7	.7	0.60	0.74	86	106	70-130	- 20	40	
Decachlorobiphenyl (S)	%	1.11	5 C. 1				96	113	70-130		40	
		· · · ·									t 	

Date: 03/05/2012 02:34 PM

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

Page 28 of 58



# QUALITY CONTROL DATA

Project: Pace Project No.:	PRIMARY & SE 3550282	CONDARY DW STDS					tanata 1. a.
QC Batch:	OEXT/7533		Analysis Met	hod: E	PA 515.3		
QC Batch Method:	EPA 515.3		Analysis Des	cription: 5	153 GCS Herbicides		
Associated Lab Sa	mples: 355028	2001, 3550282002					
METHOD BLANK:	342834		Matrix:	Water			te generation
Associated Lab Sa	mples: 355028	2001, 3550282002					the contract of the
1 - A - 12		· · · ·	Blank	Reporting			na shirt
Para	meter	Units	Result	Limit	Analyzed	Qualifiers	
2,4,5-TP (Silvex)			0.035U	0.20	02/20/12 23:46		
2,4-D		ug/L	0.017U	0.10	02/20/12 23:46		
Dalapon		ug/L	0.38U	1.0	02/20/12 23:46		
Dinoseb		ua/L	0.050U	0.20	02/20/12 23:46		

	0			
Dinoseb	ug/L	0.050U	0.20	02/20/12 23:46
Pentachlorophenol	ug/L	U0000.0	0.040	02/20/12 23:46
Picloram	ug/L	0.050U	0.10	02/20/12 23:46
2,4-DCAA (S)	%	129	70-130	02/20/12 23:46

LABORATORY CONTROL SAMPLE:	342835						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
						Guainera	
2,4,5-TP (Silvex)	ug/L	1	1.2	122	70-130		
2,4-D	ug/L	.5	0.56	112	70-130		
Dalapon	ug/L	5	6.6	133	70-130	J(LO)	
Dinoseb	ug/L	1	1.3	134	70-130	J(L0)	
Pentachlorophenol	ug/L	.2	0.21	106	70-130		
Picloram	ug/L	.5	0.51	102	70-130		
2,4-DCAA (S)	%			130	70-130		

MATRIX SPIKE & MATRIX S	PIKE DUPLICATI	E: 34315	6		343157							
Parameter	35 Units	50223001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND	1	1	1.2	1.3	123	131	70-130	6	40	J(M1)
2,4-D	ug/L	ND	.5	.5	0.62	0.63	124	127	7 <b>0-1</b> 30	2	40	
Dalapon	ug/L	ND	5	5	6.8	6.8	136	136	70-130	.2	40	J(M0)
Dinoseb	ug/L	ND	1	1	1.2	1.3	119	125	70-130	5	40	
Pentachlorophenol	ug/L	ND	.2	.2	0.22	0.23	110	117	70-130	6	40	
Pictoram	ug/L	ND	.5	.5	0.73	0.65	147	130	70-130	12	40	J(M1)
2,4-DCAA (S)	%						121	130	70-130			

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 34324	7		343248							
	-	112145001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2,4,5-TP (Silvex)	ug/L	ND	1	1	1.0	1.2	105	116	70-130	10	40	
2,4-D	ug/L	ND	.5	.5	0.46	0.50	91	100	70-130	9	40	
Dalapon	ug/L	ND	5	5	4.3	5.1	87	102	<b>70-1</b> 30	16	40	

Date: 03/05/2012 02:34 PM

## **REPORT OF LABORATORY ANALYSIS**

Page 29 of 58



### QUALITY CONTROL DATA

ATRIX SPIKE & MATRIX SPIKE Parameter		92112145001	7 MS Spike Conc.	MSD Spike Conc.	343248 MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec	RPD	Max RPD C	Qual
binoseb eentachlorophenol icloram ,4-DCAA (S)	ug/L ug/L ug/L %	ND ND ND	1 .2 .5	1 .2 .5	1.1 0.23 0.52	1.2 0.25 0.71	107 113 103 119	119 124 141 127	70-130 70-130 70-130 70-130	11 9 31	40 40 40 J(N	
			· · · · ·		e i i Sili Maria							•
		· · ·						,		:	· . · ·	
									х.	¥ .		
х х				:							С.,	
						· .	• •					
										а (17 ц ,		
										·		
				:			1. 1					



### QUALITY CONTROL DATA

Project: PRIMARY & SEC Pace Project No.: 3550282	CONDARY DW STDS					 1	n de la composition de la composition de la composition
QC Batch: OEXT/7534		Analysis Meth	nod: El	PA 525.2			e de la com
QC Batch Method: EPA 525.2	1	Analysis Des	cription: 52	5.2 Base Neutral	Extractables	• •	a the second second
Associated Lab Samples: 3550282	001, 3550282002						$\gamma = r^{\Lambda}$
METHOD BLANK: 342836		Matrix:	Water			.`	*
Associated Lab Samples: 3550282	001, 3550282002				4 a		11.11
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers		
Benzo(a)pyrene		0.019U	0.10	02/21/12 10:51			
bis(2-Ethylhexyl)adipate	ug/L	0.38U	1.6	02/21/12 10:51			
bis(2-Ethylhexyl)phthalate	ųg/L	0.50U	2.0	02/21/12 10:51			
1,3-Dimethyl-2-nitrobenzene(S)	%	118	70-130	02/21/12 10:51			
Perylene-d12 (S)	%	105	70-130	02/21/12 10:51			
Triphenylphosphate (S)	%	95	70-130	02/21/12 10:51			
	· .			•			

### LABORATORY CONTROL SAMPLE: 342837

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)pyrene	ug/L	.4	0.71	176	70-130	J(L0)
bis(2-Ethylhexyl)adipate	ug/L	6.4	7.2	113	70-130	
bis(2-Ethylhexyl)phthalate	ug/L	8	8.5	107	70-130	
1,3-Dimethyl-2-nitrobenzene(S)	%			90	70-130	
Pervlene-d12 (S)	%			103	70-130	
Triphenylphosphate (S)	%		-	95	70-130	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 34317	0		343171							
Parameter	92 Units	112145001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzo(a)pyrene	ug/L	- <u> </u>	8	.8	1.2	1.2	148	153	70-130	3	40	J(M0)
bis(2-Ethylhexyl)adipate	ug/L	ND	12.8	12.8	14.8	15.6	116	122	70-130	5	40	
bis(2-Ethylhexyl)phthalate	ug/L	ND	16	16	17.5	18.9	109	118	70-130	8	40	
1,3-Dimethyl-2- nitrobenzene(S)	%						97	92	70-130			
Pervlene-d12 (S)	%						102	103	70-130			
Triphenylphosphate (S)	%						95	99	<b>70-13</b> 0			

Date: 03/05/2012 02:34 PM

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

Page 31 of 58



96 E. B

### QUALITY CONTROL DATA

Project: Pace Project No.:	PRIMAR 3550282	RY & SECONDAR	Y DW STD	6						2		· • .	يەر يارىغ بە
QC Batch:	OEXT/	7542		Analys	sis Method:		PA 548.1		N				
QC Batch Method:	EPA 54	18.1		Analys	sis Descript	lion: 5	48 GCS End	lothall					,
Associated Lab San	nples:	3550282001, 355	0282002					et. 1			- A+		
METHOD BLANK:	343233	-		I	Matrix: Wat	ter							
Associated Lab San	nples:	3550282001, 355	0282002						ter e co				
				Blan		eporting	:						
Paran	neter		Units	Resu	lt	Limit	Analyz	ed	Qualifiers				
Endothall		ug/L		1	2.7U	9.0	02/21/12	11:53					
			· ·					".		1	с <sup>1</sup> . С.		
LABORATORY CO	NTROL S	AMPLE: 34323	4		· · · ·					· · ·			
				Spike	LCS	\$	LCS	% Red					
Paran	neter		Units	Conc.	Resu	lit	% Rec	Limits	i: Q	ualifiers		:	
Endothall		ug/L		50	)	48.9	98	80	)-120				
								•		.1			ананан 1911 - Ал
MATRIX SPIKE & M	ATRIX S	PIKE DUPLICATE	E: 343511			343512							
				MS	MSD								
D		35 Units	50110002 Result	Spike Conc.	<ul> <li>Spike</li> <li>Conc.</li> </ul>	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max	Qual
Paramet	er												
Endothall		ug/L	2.7U	50	50	7.7	6.7 1	15	13	80-120		40	J(M1)
										-			
MATRIX SPIKE & M	IATRIX S	PIKE DUPLICATE	E: 34351:			343514							
		25	60460004	MS	MSD	MS	MSD	MS	MSD	% Rec		Max	
Paramet	ler	კე Units	50153001 Result	Spike Conc	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD		Qual
Endothall		ug/L	2.7U	50	50	15.7	16.8	31	34	80-120	7	40	 J(M1)
		-3											
an a									<sup>1</sup> .				

Date: 03/05/2012 02:34 PM

## **REPORT OF LABORATORY ANALYSIS**

Page 32 of 58



## QUALITY CONTROL DATA

-	PRIMARY & SEC 3550282	ONDAF	RY DW STDS	3								·	t. A table a
QC Batch:	OEXT/7552			Airebu	to balance								
					is Method		PA 549.2						- 1
QC Batch Method:	EPA 549.2			Analys	is Descrip	tion: 5	49 GCS Par	aquat Diqu	at				
Associated Lab Sam	ples: 3550282	001, 35	50282002										
METHOD BLANK:	343800			N	Aatrix: Wa	ter				0.02			1.1
Associated Lab Sam	ples: 3550282	001 358	50282002				,	1 . C	e e g	· ·			
	0000101		JOLOLOOL	Blank	r - R	Reporting							
Param	eter		Units	Resul		Limit	Analyz	ed	Qualifiers		1.1		
Diquat		ug/L	}		.15U	0.40	02/22/12	09:33				• • , •	(i,j)
		•				100 A.		•	5. C			- 1	· · ·
									• •		·		
LABORATORY CON	TROL SAMPLE:	34380	)1	5 <u>- 1</u> -								1	
Param	eter		Units	Spike Conc.	LCS Resi		LCS % Rec	% Rec Limits		alifiers			
	0.01								·		-		e (ae
Diquat		ug/L		. 2		2.0	102	70	-130				·
													12.1.1
MATRIX SPIKE & M	ATRIX SPIKE DU	PLICAT	E: 344049	)		344050						-	
			· .	MS	MSD								
;		38	550110002	Spike	Spike	MS	MSD	MS	MSD	% Rec	1.1.1	Max	
Paramete	r	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Diquat	ug/l	L	0.15U	2	2	2.2	2.4	108	118	70-130	8	40	,
MATRIX SPIKE & M		PLICAT	E: 344051			344052							
		·		MS	MSD								

	38	550120001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	Мах	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec ,	% Rec	Limits	RPD RPD	Qual
Diquat	ug/L	0.15U	2	2	2.3	2.3	115	114	70-130	1 40	

Date: 03/05/2012 02:34 PM

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

Page 33 of 58



# QUALITY CONTROL DATA

· · · <b>/</b> · · · ·	PRIMARY & SECONDARY DW ST 8550282	DS					an dan series An an
QC Batch:	OEXT/7530	Analysis Meth	od: EF	A 625			1
QC Batch Method: EPA 625		Analysis Desc	ription: 62	5 MSS			the second s
Associated Lab Samp	eles: 3550282001, 3550282002				$a_1 \delta^{(1)} = b_1$		and the second
METHOD BLANK: 3	342816	Matrix:	Water			4	for et avier e
Associated Lab Samp	les: 3550282001, 3550282002				· · · ·		suure in a suure suur
		Blank	Reporting				
Parame	ter Units	Result	Limit	Analyzed	Qualifiers		
2,4,6-Trichlorophenol	ug/L	0.69U	2.0	02/19/12 14:21		-	
2-Chlorophenol	ug/L	0.68U	5.0	02/19/12 14:21			
Anthracene	ug/L	0.60U	5.0	02/19/12 14:21			
Butylbenzylphthalate	ug/L	0.72U	5.0	02/19/12 14:21			e e verde service e com
Dimethylphthalate	ug/L	0.64U	5,0	02/19/12 14:21			
Dioxin Screen	ug/L	10.0U	10.0	02/19/12 14;21	N2		1. I.
Naphthalene	ug/L	0.78U	5.0	02/19/12 14:21			
Phenanthrene	ug/L	0.52U	5.0	02/19/12 14:21			1. (a. 1997)
Phenol	ug/L	0.54U	5.0	02/19/12 14:21			
2,4,6-Tribromophenol	(S) %	82	54.2-114.4	02/19/12 14:21			
2-Fluorobiphenyl (S)	%	80	35.3-102.4	02/19/12 14:21			the strategy of the strategy o
2-Fluorophenol (S)	%	34	18.3-59.8	02/19/12 14:21			
Nitrobenzene-d5 (S)	%	72	37.3-107.7	02/19/12 14:21			
Phenol-d6 (S)	%	20	10-47.1	02/19/12 14:21			
Terphenyl-d14 (S)	%	103	50.1-115.1	02/19/12 14:21			

LABORATORY CONTROL SAMP	'LE: 342817						
		. Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
2,4,6-Trichlorophenol	ug/L	50	38.9	78	37-144		
2-Chlorophenol	ug/L	-50	24.2	48	23-134		
Anthracene	ug/L	50	42.5	85	27-133		
Butylbenzylphthalate	ug/L	50	47.3	95	0-152		
Dimethylphthalate	ug/L	50	39.8	80	10-112		
Dioxin Screen	ug/L		10.0U			N2	
Naphthalene	ug/L	50	29.9	60	21-133		
Phenanthrene	ug/L	50	42.4	85	54-120		
Phenol	ug/L	50	9.5	19	10-112		
2,4,6-Tribromophenol (S)	%			83	54.2-114.4		
2-Fluorobiphenyl (S)	%			73	35.3-102.4		
2-Fluorophenol (S)	%			27	16.3-59.8		
Nitrobenzene-d5 (S)	%			62	37.3-107.7		
Phenol-d6 (S)	%			18	10-47.1		
Terphenyl-d14 (S)	%			101	50.1-115.1	•	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 34311	8		343119							
Parameter	38 Units	550204015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4,6-Trichlorophenol	ug/L	0.65U	100	83.3	81.7	66.4	82	80	37-144	21	40	
Date: 03/05/2012 02:34 PM	M REPORT OF LABORATORY ANALYSIS									Page	34 of 58	

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

This report shall not be reproduced, except in full,

without the written consent of Pace Analytical Services, Inc..

ų γ

1

fa.



### QUALITY CONTROL DATA

#### Project: PRIMARY & SECONDARY DW STDS Pace Project No.: 3550282

MATRIX SPIKE & MATRIX S	PIKE DUPLICAT	E: 34311	8		343119				-			11 -4
		· · ·	MS	MŚD	i.				1.00			ί γr e
	3	550204015	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	1.000
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
2-Chlorophenol	ug/L	0.64U	100	83.3	56.8	42.7	57	51	23-134	28	40	
Anthracene	ug/L	0.57U	100	83.3	83.3	67.0	83	-80	27-133	22	40	$(1, \dots, n)$
Butylbenzylphthalate	ug/L	0.68U	100	83.3	91.9	78.3	92	94	0-152	16	40	
Dimethylphthalate	ug/L	0.61U	100	83.3	79.8	65.3	80	78	10-112	20	40	
Naphthalene	ug/L	0.74U	100	83.3	83.0	64.5	83	77	21-133	25	40	
Phenanthrene	ug/L	0.49U	100	83.3	86.0	72.5	86	87	54-120	17	.40	a ta ista
Phenol	ug/L	0.51U	100	83.3	32.7	22.3	33	27	10-112	38		
2,4,6-Tribromophenol (S)	%						81	84	54.2-114			
2-Fluorobiphenyl (S)	%						77	77	35.3-102			
2-Fluorophenol (S)	%						42	36	16.3-59.			
Nitrobenzene-d5 (S)	%						65	62	37.3-107			
Phenol-d6 (S)	%						34	29				
Terphenyl-d14 (S)	%						88	97	50.1-115			
												1

Date: 03/05/2012 02:34 PM

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

Page 35 of 58



Project: PRIMAR	Y & SECONDARY DW STD	S				· .		an taon			
Pace Project No.: 3550282								· **		a e e	
QC Batch: OEXT/7	538	Analysis	Method:	E	PA 8081				sal.	11	
QC Batch Method: EPA 35	10	Analysis	Descripti	on: 80	081 GCS Pe	sticides					
Associated Lab Samples: 3	550282001, 3550282002										
METHOD BLANK: 343114		Ma	atrix: Wate	er							
Associated Lab Samples: 3 Parameter	550282001, 3550282002 Units	Blank Result		eporting Limit	Analyz	ed	Qualifiers			n sole ato actoria	
Aldrin Decachlorobiphenyl (S) Tetrachloro-m-xylene (S)	ug/L % %	0.000	50U 82 4	0.010 11.7-109.1 36.5-120.3	02/21/12	23:03 23:03					an a
LABORATORY CONTROL SA Parameter	MPLE: 343115 Units	Spike Conc.	LCS Resul		LCS % Rec	% Rec Limits		ualifiers	· ,		ی کار م باریک کار در
Aldrin Decachlorobiphenyl (S) Tetrachloro-m-xylene (S)	ug/L % %	.5	•	0.40	80 70 78	42 41.7-1 66.5-1					
MATRIX SPIKE & MATRIX SP	3550204015	MS Spike	MSD Spike	342828 MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD .	Qual
Aldrin	ug/L 0.00047 U	1	.83	0.81	0.66	81	79	42-122	21	40	
Decachlorobiphenyl (S) Tetrachloro-m-xylene (S)	% %					89 78		41.7-109 66.5-120			

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 36 of 58



Project: Pace Project No.:	PRIMARY & SEC 3550282	CONDARY DW STDS							1 også 1 også størte til
QC Batch:	SFL/3970	· · · · ·	Analysis M	ethod:	SM 2120B				<u>- 11</u>
QC Batch Method:	SM 2120B		Analysis D		2120B True Co	olor			1
Associated Lab San	nples: 3550282	001, 3550282002						14	1997 - 1992 1997 - 1997
METHOD BLANK:	342936		Matri	x: Water	•		······································		
Associated Lab San	nples: 3550282	001, 3550282002			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			a at a	al an ge
Paran	neter	Units	Blank Result	Reporting Limit	Analyze	d Quali	fiers		
True Color	·	units	5.00	<b>)</b>	5.0 02/17/12 2	0:50		н. 	and and Shara Marata Shara Marata
LABORATORY CON	TROL SAMPLE:	342937							
Paran	neter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers		
True Color		units	30	30.0	100	90-110			
	, ,							anti. Anti-Anti-Anti-Anti-Anti-Anti-Anti-Anti-	en de la companya de La companya de la comp
SAMPLE DUPLICAT	TE: 342938								
			3550110002	Dup		Max			
Paran	ieter	Units	Result	Result	ŘPD	RPD	Qual	fiers	
True Color		units	400	) 4	100	0	20		

Date: 03/05/2012 02:34 PM

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

Page 37 of 58



### QUALITY CONTROL DATA

Project:		CONDARY DW STDS	6			anta de es		
Pace Project No.:	3550282							ente en l'han
QC Batch:	SFL/3969		Analysis Meth	nod: SM	A 2150B			
QC Batch Method:	SM 2150B	x ==	Analysis Des	cription: Th	reshold Odor Num	ber		ales e fotoset
Associated Lab Sam	ples: 3550282	001, 3550282002			a - 7			$(f_{i},f_{i}) \in [0,1]^{n}$
METHOD BLANK:	342934		Matrix:	Water				the group top
Associated Lab Sam	ples: 3550282	001, 3550282002			. 1	a kata k		
			Blank	Reporting		:		
Param	eter	Units	Result	Limit	Analyzed	Qualifiers		
Temperature, Water	(C)	deg C	40.0		02/17/12 19:15			1997 - E. 1997 -
Threshold Odor Num	nber	TON	1.0U	1.0	02/17/12 19:15			
SAMPLE DUPLICAT	E: 342935			· · · · · <b>·</b>				
			3550222005	Dup		Max	8 g (	:
Param	leter	Units	Result	Result	RPD	RPD	Qualifiers	
Temperature, Water	(C)	deg C	40.0	40.0	0	20		•
Threshold Odor Num	nber	TON	ND	1.0U		20 0	ב	

Date: 03/05/2012 02:34 PM

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

Page 38 of 58



Project: PRIMARY & SEC Pace Project No.: 3550282	CONDARY DW STDS	3					17 - 48 a 17 17 - 17 - 18 a 19
QC Batch: SFL/3985		Analysis Me	thod:	SM 2540C			
QC Batch Method: SM 2540C	4 .	Analysis De	scription:	2540C Total Di	ssolved Solids		
Associated Lab Samples: 3550282	001, 3550282002				· · · · · · ·		en Normal Carpenous Topologia Status
METHOD BLANK: 343325		Matrix	Water			· · · ·	
Associated Lab Samples: 3550282	001, 3550282002				50 (b.)	ten an	
Parameter	Units	Blank Result	Reporting Limit	Analyze	d Quali	fiers	
Total Dissolved Solids	mg/L	5.0U	5	.0 02/20/12 14	4:43		
LABORATORY CONTROL SAMPLE:	343326						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
Total Dissolved Solids	mg/L	300	313	104	90-110	· .	
	1						
SAMPLE DUPLICATE: 343327							
Parameter	Units	3549901001 Result	Dup Result	RPD	Max RPD	Qualifier	<b>S</b>
Total Dissolved Solids	mg/L	<5.0	. 5.0	U.	1	20	
	$\mathcal{M}_{\mathcal{M}} = \{\mathcal{M}_{\mathcal{M}}\}$			:	-		
SAMPLE DUPLICATE: 343328	· · ·						1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
		3550269003	Dup	í.	Max		1
Parameter	Units	Result	Result	RPD	RPD	Qualifier	°S
Total Dissolved Solids	mg/L	12400	121(	00	3	20	

Date: 03/05/2012 02:34 PM

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

.

Page 39 of 58



18. Ha

### QUALITY CONTROL DATA

Project: Pace Project No.:	PRIMARY & S 3550282	ECONDA	RY DW STDS	6				· .				чг. т	
QC Batch:	SFL/3972			Analys	sis Method:	E	PA 300.0						
QC Batch Method:	EPA 300.0		sap ta s	Analys	sis Descript	ion: 3	00.0 IC Anio	ns DW					na pinata
Associated Lab San	nples: 35502	82001, 35	50282002		-				4 - <u>1</u>		50	· .	na shekara Kariyar
METHOD BLANK:	343055			· · · · ·	Matrix: Wat	er							5 T 25
Associated Lab San	nples: 35502	82001, 35	50282002									in a	
Paran	neter		Units	Blani Resu		eporting Limit	Analyz	ed	Qualifiers				
Nitrate as N Nitrite as N		mg/L mg/L	· · · · · · · · · · · · · · · · · · ·		025U 025U	0.050 0.050				_			1. (.).
LABORATORY COM	NTROL SAMPL	E: 3430	56										·
Paran	neter		Units	Spike Conc.	LCS Resu		LCS % Rec	% Rec Limits		alifiers			
Nitrate as N		mg/L				4.5	90	90	)-110		•		
Nitrite as N		mg/L		5	<b>j</b> - 1	4.8	96	90	)-110				
											· · ·		
MATRIX SPIKE & M	ATRIX SPIKE	DUPLICAT	FE: 343057	7		343058							
	•	3	550269012	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Paramet	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Nitrate as N		mg/L	0.50U	100	100	85.6	80.1	86	80	90-110	7	20	M6
Nitrite as N	I	ng/L	11.5	100	100	117	113	106	101	90-110	4	20	
											-		

Date: 03/05/2012 02:34 PM

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

Page 40 of 58



- p.

#### QUALITY CONTROL DATA

Project:	PRIMARY & SECONDARY DW STDS			1997 - A.	1. jar ()
Pace Project No .:	3550282			N <sup>2</sup>	and the second states of
QC Batch:	SFL/4091	Analysis Method:	SM 4500-H+B	 <u> </u>	
QC Batch Method:	SM 4500-H+B	Analysis Description:	4500H+B pH		(1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,

Associated Lab Samples: 3550282001, 3550282002

SAMPLE DUPLICATE: 346996							1. A.
		3550110002	Dup	· ·	Max		and the second
Parameter	Units	Result	Result	RPD	RPD	Qualifiers	
pH at 25 Degrees C	Std. Units	7.7	7.7	.3	20 Q	· · · ·	
Temperature, Water (C)	deg C	25.0	25.0	0	20		a Dartaa

Date: 03/05/2012 02:34 PM

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

Page 41 of 58



¥

tte, Wie

.

# QUALITY CONTROL DATA

Project: PRIMARY & Pace Project No.: 3550282	SECONDARY DW STDS				· · ·		toria Less cattoria
QC Batch: SFL/3968	· · · ·	Analysis Metho		SM 5540C			
QC Batch Method: SM 5540C	2	Analysis Desci	ription: 5	5540C MBAS SL	irfactants		en stationer i de
Associated Lab Samples: 355	0282001, 3550282002				stand the second	$-B_{\rm eff} = \frac{1}{2} \frac{T_{\rm eff}}{T_{\rm eff}}$	a agus 12 an seisin
METHOD BLANK: 342930		Matrix: V	Vater				
Associated Lab Samples: 3550	0282001; 3550282002			. • • •			
5. E		Blank	Reporting				
Parameter	Units	Result	Limit	Analyzed	Qualif	ers	
Surfactants	mg/L	0.059U	0.2	0 02/17/12 13:	40 ·		94 1
LABORATORY CONTROL SAMP	PLE: 342931		 CS	LCS	% Rec		
Parameter	Units		esult	% Rec	Limits	Qualifiers	
Surfactants	mg/L.	.3	0.27	90	90-110		
MATRIX SPIKE SAMPLE:	342933						
Parameter	Units	3550181001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Surfactants	mg/L	<0.059	.3	0.30	9	9 80-120	
SAMPLE DUPLICATE: 342932		0550404004					
Parameter	Units	3550181001 Result	Dup Result	RPD	Max RPD	Qualifiers	
Surfactants	mg/L	<0.059	0.059	U		20	_

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 42 of 58



Project: PRIMA Pace Project No.: 35502	ARY & SECONDARY DW STD 82	S		1	· .		siste Solationalis
QC Batch:         SFL/           QC Batch Method:         SM 9           Associated Lab Samples:         Smples:	4047 )222B 3550282001, 3550282002	Analysis Meth Analysis Des		4 9222B 22B MBIO Total C	oliforms	:	
METHOD BLANK: 34458	9	Matrix:	Water		ı. ı	· · · · · ·	
Associated Lab Samples:	3550282001, 3550282002						the taxes of
Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers		
Total Coliforms	CFU/100 mL	1.0U	1.0	02/18/12 15:10	i.	_	هيد مريد ماند مريد م
SAMPLE DUPLICATE: 34	14590						
Parameter	Units	3550292001 Result	Dup Result	RPD	Max RPD	Qualifiers	e ata
Total Coliforms	CFU/100 mL	1300	1120	15			
							5. Bas
i a		*					1997 - 1997
						·	
		· · · · · ·					
					а 19		
	<u>.</u>						

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 43 of 58



4

(15 B)

# QUALITY CONTROL DATA

Project: Pace Project No.:	PRIM/ 35502	ARY & SECONDAF 82	NY DW STDS	6			· . ·	·	i, €ijere				No y Br George
QC Batch:	WET	A/15364		Analys	is Method:	El	PA 300.0						• .
QC Batch Method:		300.0		-	is Descript	• • • •	0.0 IC Anio	ns ·				(	inter de la Calendaria. En la companya de la
Associated Lab Sar		3550282001, 355	0282002						. 11 [5		er. Se		1 1 - 
······											• • • •		n stitet.
METHOD BLANK:	34496	3		N	Aatrix: Wat	er					· · ·		1997 1997
Associated Lab Sar	mples:	3550282001, 355	50282002								÷.,		· . ·
_				Blank		eporting	Analys	- <b>d</b>	Qualifiam				
Parar	meter		Units	Resu		Limit	Analyz	<u> </u>	Qualifiers		1.11		
Chloride		mg/L		1 A A A A A A A A A A A A A A A A A A A	2.5U	5.0						4. A	1.11
Fluoride		mg/L		0.9	025U	0.050							
Sulfate		mg/L			2.5U	5.0	02/23/12	03.09					
LABORATORY CO	NTROL	SAMPLE: 34496	64										
				Spike	LCS		LCS	% Rec					
Parar	meter		Units	Conc.	Resu	lt	% Rec	Limits		alifiers			
Chloride		mg/L		50		48.7	97	-	-110				
Fluoride		mg/L		5		5.0	100		)-110				
Sulfate		mg/L		50	)	46.0	92	90	)-110				
MATRIX SPIKE & N	JATRIX	SPIKE DUPLICAT	E: 344965	5		344966							
				MS	MSD								
		35	550206022	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parame	ter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride		mg/L	2.91	50	50	51.4	51.3	97	97	90-110	.1	20	
Fluoride		mg/L	0.025U	5	5	4.9	5.0	99	99	90-110	.6	20	
Sulfate		mg/L	2.5U	50	50	44.6	44.6	89	89	90-110	.2	20	J(M1)
			E: 344967	7		344968							
MATRIX SPIKE & N	VIA I KIX	SPIRE DUPLICAT	E. 34490/	MS	MSD	544500							
		21	550351003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Мах	
Parame	ter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride		mg/L	3.5	50	50	52.4	52.4	98	98	90-110	.04	20	·
Fluoride		mg/L	0.16	5	5	5.0		96	97	90-110		20	
				= -		45.4	46.0	90	00	00 110	2	20	1/6.443

Date: 03/05/2012 02:34 PM

Sulfate

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

50

50

2.5U

mg/L

45.1

45.2

89

89

90-110

.3

20 J(M1)

Page 44 of 58



Project: F	PRIMARY & SEC	ONDARY	DW STD	S				· ·	$(\gamma,\gamma) \in [1,1]$	· · · · .			÷
Pace Project No.: 3	550282											V	
QC Batch:	WETA/15341			Analy	sis Method:		EPA 335.4						·· ·
QC Batch Method:	EPA 335.4			Analys	sis Descript	ion:	335.4 Cyanic	le, Total					·
Associated Lab Samp	les: 35502820	001, 3550	282002					2					. 1. N. N
METHOD BLANK: 3	44446				Matrix: Wat	er							. >
Associated Lab Samp	les: 35502820	001, 3550	282002					e en en				6 E	the days
B	tan 199			Blan		eporting							
Parame		U	nits	Resu	it 	Limit	Analyz	zed	Qualifiers				
Cyanide		mg/L		0.0	050U	0.01	0 02/23/12	05:31					4 m g
LABORATORY CONT	ROL SAMPLE:	344447	<u> </u>							: •			
				Spike	LCS		LCS	% Red	>				
Paramet	ter	UI UI	nits	Conc.	Resul	t	% Rec	Limits	Q	ualifiers	1		
Cyanide		mg/L		.05		0.048	96	90	)-110		-		. a./-
MATRIX SPIKE & MAT	RIX SPIKE DUI	PLICATE:	34444	8		344449					·		
				MS	MSD								
Deservation			286003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Мах	
Parameter	(		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Cyanide	mg/l	L	0.0055	.05	.05	0.046	6 0.046	82	81	90-110	.4	20	J(M1)
MATRIX SPIKE & MAT	RIX SPIKE DUP	PLICATE:	344450	0		344451	***						
				MS	MSD								
Parameter	L		204006 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/l	_	0.051	.05	.05	0.089	9 0.097	75	92	90-110	9		J(M1)

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 45 of 58



k

98 - **1**09

#### QUALITY CONTROL DATA

Project: Pace Project No.:	PRIMARY & SEC 3550282	ONDARY DW STDS						1. 1. 190 1. 1994 - 1. 199
QC Batch:	WETA/15314	:	Analysis Me	ethod: I	EPA 350.1			
QC Batch Method:	EPA 350.1		Analysis De	escription;	350.1 Ammonia			RAN AL AL
Associated Lab Sam	nples: 3550282	001, 3550282002				e de la composition	e y	
METHOD BLANK:	343741		Matrix	c Water				
Associated Lab San	nples: 3550282	001, 3550282002						an tata
			Blank	Reporting				
Paran	neter	Units	Result	Limit	Analyzec	Qualifie	ers	
Nitrogen, Ammonia		mg/L	0.020U	0.05	0 02/21/12 10	;44		
LABORATORY CON	TROL SAMPLE:	343742					<u> </u>	
Paran	neter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
Nitrogen, Ammonia		mg/L	1	1.0	104	90-110		
MATRIX SPIKE SAM	MPLE:	343744						· · · · · · · · · · · · · · · · · · ·
Paran	neter	Units	3550008001 Result	1 Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia		mg/L	0.02	20U 1	1.0	102	90-110	
	$\mathcal{A}^{(0)} = \mathcal{A}^{(0)}$	0	· .					
SAMPLE DUPLICA	TE: 343743						· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
			3550008001	Dup		Мах		•
Paran	neter	Units	Result	Result	RPD		Qualifiers	
Nitrogen, Ammonia		mg/L	0.020U	0.020	U	· ·	20	

Date: 03/05/2012 02:34 PM

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

Page 46 of 58



Project: PRIMARY & SEC Pace Project No.: 3550282	CONDARY DW STDS	<b>,</b>				11 g + 1 g + 1 e -	and An La statistic
QC Batch: WETA/15305	•	Analysis Me	thod:	EPA 351.2	•••	100 C	
QC Batch Method: EPA 351.2		Analysis De	scription:	351.2 TKN			$(f_{i})_{i=1}^{i} = (f_{i})_{i=1}^{i} = (f_{$
Associated Lab Samples: 3550282	001, 3550282002						and a set of the
METHOD BLANK: 343299		Matrix	Water			· · · ·	
Associated Lab Samples: 3550282	001, 3550282002					ч	e e strengen an eur
Parameter	Units	Blank Result	' Reporting Limit	Analyzed	Qualifier	rs.	
Nitrogen, Kjeldahl, Total	mg/L	0.086U	0.5	02/21/12 10:5	8	<u> </u>	
LABORATORY CONTROL SAMPLE:	343300						
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	the second second
Nitrogen, Kjeldahl, Total	mg/L	20	20.4	102	90-110	<u> </u>	
MATRIX SPIKE SAMPLE:	343302				· .		
Parameter	Units	3550282001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	16	5.9 20	39.5	113	90-1	10 J(M1)
SAMPLE DUPLICATE: 343301							
Parameter	Units	3550282001 Result	Dup Result	RPD	Max RPD	Qualifier	S
Nitrogen, Kjeldahl, Total	mg/L	16.9	17.	4 3	2	0	A A A A A A A A A A A A A A A A A A A

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 47 of 58



,ŧ

### QUALITY CONTROL DATA

QC Batch:       WETA/15302       Analysis Method:       EPA 353.2         QC Batch Method:       EPA 353.2       Analysis Description:       353.2 Nitrate + Nitrite, preserved         Associated Lab Samples:       3550282001, 3550282002       353.2 Nitrate + Nitrite, preserved         METHOD BLANK:       343267       Matrix: Water         Associated Lab Samples:       3550282001, 3550282002       Blank       Reporting         Parameter       Units       Result       Limit       Analyzed       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       0.010U       0.050       02/20/12 12:43       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       2       2.0       99       90-110         MATRIX SPIKE SAMPLE:       343270       3550250005       Spike       MS       MS       % Rec         Nitrogen, NO2 plus NO3       mg/L       1.9       2       3.8       96       80-120         MATRIX SPIKE SAMPLE:       343270       3550280005       Spike       MS       % Rec       Limits       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       1.9       2       3.8       96       80-120         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS			a data Alata	e af a s	· · · · ·						CONDARY DW STDS		roject: PRIM/ ace Project No.: 35502
METHOD BLANK:       343267       Matrix:       Water         Associated Lab Samples:       3550282001, 3550282002       Blank       Reporting       Qualifiers         Parameter       Units       Result       Limit       Analyzed       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       0.010U       0.050       02/20/12 12:43         LABORATORY CONTROL SAMPLE:       343268       LCS       LCS       % Rec       Limits       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       2       2.0       99       90-110       90-110         MATRIX SPIKE SAMPLE:       343270       3550250005       Spike       MS       MS       % Rec         Parameter       Units       Result       Conc.       Result       % Rec       Limits       Qualifiers         MATRIX SPIKE SAMPLE:       343270       3550250005       Spike       MS       % Rec       Limits       Qualifi         Nitrogen, NO2 plus NO3       mg/L       1.9       2       3.8       96       80-120         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       MS       % Rec       Limits       Qualif         MATRIX SPIKE SAMPLE:       343272       3550285004	200 g 2			ved	te, preserv	+ Nitrit				· •	0004 0550202000	A/15302 353.2	C Batch: WET C Batch Method: EPA
Associated Lab Samples:       3550282001, 3550282002         Parameter       Units       Result       Limit       Analyzed       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       0.010U       0.050       02/20/12 12:43         LABORATORY CONTROL SAMPLE:       343268         Parameter       Units       Conc.       Result       % Rec         Nitrogen, NO2 plus NO3       mg/L       2       2.0       99       90-110         MATRIX SPIKE SAMPLE:       343270       3550250005       Spike       MS       % Rec       Limits       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       1.9       2       3.8       96       80-120         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       MS       % Rec         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       MS       % Rec         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       MS       % Rec         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       % Rec       Limits       Qualifiers	1.1				· · ·						2001, 3550282002	355028200	ssociated Lab Samples:
ParameterUnitsBlank ResultReporting LimitAnalyzedQualifiersNitrogen, NO2 plus NO3mg/L0.010U0.05002/20/12 12:43LABORATORY CONTROL SAMPLE:343268ParameterUnitsConc.Result% Rec % RecLimitsQualifiersNitrogen, NO2 plus NO3mg/L22.09990-110MATRIX SPIKE SAMPLE:3432703550250005Spike ResultMS Conc.MS Result% Rec LimitsQualifiersNitrogen, NO2 plus NO3mg/L1.923.89680-120MATRIX SPIKE SAMPLE:3432723550285004 ResultSpike Conc.MS Result% Rec MS % Rec LimitsQualifiersMATRIX SPIKE SAMPLE:3432723550285004 ResultSpike Conc.MS 	1 N	n gran e						iter	trix: W	Mat		7	ETHOD BLANK: 34326
ParameterUnitsResultLimitAnalyzedQualifiersNitrogen, NO2 plus NO3mg/L0.010U0.05002/20/12 12:43LABORATORY CONTROL SAMPLE:343268ParameterUnitsConc.Result% RecUnitsConc.Result% RecLimitsQualifiersNitrogen, NO2 plus NO3mg/L22.09990-110MATRIX SPIKE SAMPLE:3432703550250005SpikeMSMS% RecParameterUnitsResultConc.Result% RecLimitsQualifiersNitrogen, NO2 plus NO3mg/L1.923.89680-120MATRIX SPIKE SAMPLE:3432723550285004SpikeMSMS% RecQualifiersMATRIX SPIKESubscienceConc.Result% RecLimitsQualifiersMATRIX SPIKESubscienceSubscienceSubscienceSubscienceSubscienceSubscience <td></td> <td>the start of</td> <td></td> <td>San a</td> <td></td> <td>190 - 191 -</td> <td></td> <td></td> <td></td> <td></td> <td>2001, 3550282002</td> <td>355028200</td> <td>ssociated Lab Samples:</td>		the start of		San a		190 - 191 -					2001, 3550282002	355028200	ssociated Lab Samples:
LABORATORY CONTROL SAMPLE:       343268         Parameter       Units       Conc.       Result       % Rec       Limits       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       2       2.0       99       90-110         MATRIX SPIKE SAMPLE:       343270       3550250005       Spike       MS       MS       % Rec         Parameter       Units       Result       Conc.       Result       % Rec       Limits       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       1.9       2       3.8       % Rec       Limits       Qualifiers         Nitrogen, NO2 plus NO3       mg/L       1.9       2       3.8       96       80-120         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       MS       % Rec         Parameter       Units       Result       Conc.       Result       % Rec       Limits       Qualifiers         MATRIX SPIKE SAMPLE:       343272       3550285004       Spike       MS       MS       % Rec       Limits       Qualifiers         Parameter       Units       Result       Conc.       Result       % Rec       Limits       Qualifiers		i		lifiers	Quali	zed	Analyz	• • •			Units		Parameter
ParameterUnitsSpike Conc.LCS ResultLCS % Rec LimitsQualifiers QualifiersNitrogen, NO2 plus NO3mg/L22.09990-110MATRIX SPIKE SAMPLE:3432703550250005Spike ResultMS Conc.MS Result% Rec % Rec LimitsQualifiersMATRIX SPIKE SAMPLE:3432703550250005Spike ResultMS Conc.MS Result% Rec % Rec LimitsQualifiersMATRIX SPIKE SAMPLE:3432723550285004Spike ResultMS Conc.MS Result% Rec % Rec LimitsQualifiersMATRIX SPIKE SAMPLE:3432723550285004 ResultSpike Conc.MS ResultMS % Rec LimitsMatrix QualifiersMATRIX SPIKE SAMPLE:3432723550285004 ResultSpike Conc.MS Result% Rec % Rec LimitsQualifiersMATRIX SPIKE3432723550285004 ResultSpike KesultMS % Rec Kesult% Rec LimitsQualifiersMATRIX SPIKE3432723550285004 ResultSpike KesultMS % Rec Kesult% Rec LimitsQualifiersMATRIX SPIKE3432723550285004 ResultSpike KesultMS % Rec Kesult% Rec LimitsQualifiers	e tes	- 1) - 1			н	12:43	02/20/12	0.050	0U	0.010	mg/L		itrogen, NO2 plus NO3
Nitrogen, NO2 plus NO3mg/L22.09990-110MATRIX SPIKE SAMPLE:343270ParameterUnits3550250005SpikeMSMS% RecLimitsQualifNitrogen, NO2 plus NO3mg/L1.923.89680-120MATRIX SPIKE SAMPLE:343272ParameterUnitsResultConc.Result% RecLimits23.89680-120MATRIX SPIKE SAMPLE:343272ParameterUnitsResultConc.Result% RecLimitsQualifQualifQualifQualifQualifConc.Result% RecQualifQualifQualifQualifQualifQualifQualifQualifQualifParameterUnitsResult% RecLimitsQualifQualifQualifQualif	24									•		SAMPLE:	
MATRIX SPIKE SAMPLE:     343270       Parameter     Units     3550250005 Result     Spike Conc.     MS     MS     % Rec Limits     Qualif       Nitrogen, NO2 plus NO3     mg/L     1.9     2     3.8     96     80-120       MATRIX SPIKE SAMPLE:     343272     3550285004     Spike     MS     MS     % Rec Limits     Qualif       Parameter     Units     Result     Conc.     Result     % Rec     Limits     Qualif						·'·			Res			· · · · · · · · · · · · · · · · · · ·	
ParameterUnits3550250005 ResultSpike Conc.MSMS Result% Rec LimitsQualifNitrogen, NO2 plus NO3mg/L1.923.89680-120MATRIX SPIKE SAMPLE:343272ParameterUnits3550285004 ResultSpike Conc.MS Result% Rec % Rec LimitsQualif				)	90-110	•	99	2.0		2	mg/L		iitrogen, NO2 plus NO3
Parameter     Units     Result     Conc.     Result     % Rec     Limits     Qualif       Nitrogen, NO2 plus NO3     mg/L     1.9     2     3.8     96     80-120       MATRIX SPIKE SAMPLE:     343272       Parameter     Units     3550285004     Spike     MS     % Rec       Limits     Qualif	e e Na		% Rec					0-11			343270		ATRIX SPIKE SAMPLE:
MATRIX SPIKE SAMPLE: 343272 3550285004 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualif	rs	Qualifier	Limits				Result	Conc.			Units	: 	Parameter
3550285004 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualif		e '	80-120	96		3.8		2	1.9		mg/L		litrogen, NO2 plus NO3
	× '		% Rec	<i>t.</i> ,	MS		MS	Spike	004	35502850	343272		IATRIX SPIKE SAMPLE:
Nitrogen, NO2 plus NO3         mg/L         0.078         2         2.1         103         80-120	rs	Qualifier	Limits		% Rec		Result	Conc.	L	Result	Units		Parameter
			80-120	103	1	2.1		2	0.078	. 1	mg/L		litrogen, NO2 plus NO3
SAMPLE DUPLICATE: 343269				-								43269	AMPLE DUPLICATE: 3
3550250005 Dup Max Parameter Units Result Result RPD RPD Qualifiers			Qualifiers			)	RPD	-	)5		Units		Parameter
Nitrogen, NO2 plus NO3         mg/L         1.9         1.9         .7         20				20		.7		1.5	1.9	1	mg/L		litrogen, NO2 plus NO3
SAMPLE DUPLICATE: 343271												43271	AMPLE DUPLICATE: 3
3550285004 Dup Max Parameter Units Result Result RPD RPD Qualifiers			Qualifiers			)	RPD		)4		1 Inite		Decomptor
ParameterOffitsResultResultResultResultResultNitrogen, NO2 plus NO3mg/L0.0780.075320		-		•					078				

Date: 03/05/2012 02:34 PM

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

Page 48 of 58



Project: PRIMARY & Pace Project No.: 3550282	SECONDARY DW STDS	5			**• • •		н н Н	an a
QC Batch: WETA/153 QC Batch Method: EPA 365.4	06	Analysis M Analysis D	lethod: escription:	EPA 36	5.4 hosphoru	8	-	
Associated Lab Samples: 3550	282001, 3550282002					- 1 - 2 		
METHOD BLANK: 343307		Matri	ix: Water	an a		. !		
Associated Lab Samples: 3550	282001, 3550282002	·	e ege e	. *		· .		an ta series de la compañía. La compañía de la comp
Parameter	Units	Blank Result	Reporting Limit	-	Analyzed	Qualifi	ers	
Phosphorus, Total (as P)	mg/L	0.050	J (	0.10 02/	21/12 11:3	13		
LABORATORY CONTROL SAMP	LE: 343308		· · · · · · · · · · · · · · · · · · ·					
Parameter	Units	Spike Conc.	LCS Result	LCS % Re		% Rec Limits	Qualifiers	
Phosphorus, Total (as P)	mg/L	4	4.0		101	90-110		
MATRIX SPIKE SAMPLE:	343310							
Parameter	Units	355028200 Result	1 Spike Conc.		1S sult	MS % Rec	% Rec Limits	Qualifiers
Phosphorus, Total (as P)	mg/L		1.5	4	5.8	10	6 80-120	
SAMPLE DUPLICATE: 343309								
Parameter	Units	3550282001 Result	Dup Result		RPD	Max RPD	Qualifiers	
Phosphorus, Total (as P)	mg/L	1.	5	1.6	3		20	-

Date: 03/05/2012 02:34 PM

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

Page 49 of 58



1

ley fr

# ANALYTICAL RESULTS

#### Project: PRIMARY & SECONDARY DW STDS

#### Pace Project No.: 3550282

t, i s

Sample: SD COMBINED EFFLUEN PWS:	IT Lab ID: 355028200 Site ID:	1 Collected: 02/15/12 00:00 Sample Type:	Received:	02/17/12 13:07	Matrix: Water	
Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 903.1 0	.995U ± 0.594 (0.995)	pCi/L pCi/L pCi/L	02/27/12 14:3	1 12587-46-1 3 13982-63-3 4 15262-20-1	tin ka

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 50 of 58



#### **ANALYTICAL RESULTS**

-	RIMARY & 550282	SECONDARY DW STDS					tanys <sup>in</sup> t 1
Sample: SD HLD EFF PWS:	LUENT	Lab ID: 355028 Site ID:	2002 Collected: 02/15/12 00:00 Sample Type:	Received:	02/17/12 13:07	Matrix: Water	
Parameters	S	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Gross Alpha Radium-226 Radium-228		EPA 900.0m EPA 903.1 EPA 904.0	2.84U ± 1.51 (2.84) 0.927U ± 0.538 (0.927) 1.02U ± 0.578 (1.02)	pCi/L pCi/L pCi/L	02/24/12 06:3 <sup>4</sup> 02/27/12 15:13 02/27/12 18:34	3 13982-63-3	an an Christian Receptor

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 51 of 58



÷4

# QUALITY CONTROL DATA

· / •]===	PRIMARY & SECONDARY DW STDS 3550282	8		an the second	•	and and a second se Second second
QC Batch: QC Batch Method:	RADC/11147 EPA 900.0m	Analysis Method: Analysis Description:	EPA 900.0r 900.0 Gros	m is Alpha/Beta		and the second sec
Associated Lab Sam	ples: 3550282001, 3550282002				- 	
METHOD BLANK: Associated Lab Sam	407946 ples: 3550282001, 3550282002	Matrix: Water				in a sub- transformer transfor
Param	eter Act ±	Unc (MDC)	Units	Analyzed	Qualifiers	
Gross Alpha	-0.889 ± 0.348 (1	.92)	pCi/L	02/24/12 06:31		

Date: 03/05/2012 02:34 PM

## REPORT OF LABORATORY ANALYSIS

Page 52 of 58



ł.

### QUALITY CONTROL DATA

Project:	PRIMARY & SECONDARY DW	STDS	1	at the first set	n dav Born	1.1
Pace Project No.:	3550282				the second	$(e^{-i\theta})^{-i\theta} I = (e^{-i\theta})^{-i\theta} I = (e^{$
QC Batch:	RADC/11158	Analysis Method:	EPA 903.1			
QC Batch Method:	EPA 903.1	Analysis Description	: 903.1 Radium	-226		and the first of
Associated Lab Sam	ples: 3550282001, 35502820	02		· ·		$(1, 2, \dots, 2^{d-1}) \in \mathcal{D}_{1}$
METHOD BLANK:	407961	Matrix: Water	1	· · · · · · · · · · · · · · · · · · ·		
Associated Lab Sam	ples: 3550282001, 35502820	02			1. A. A. A.	
Param	eter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers	
Radium-226	-0.292 ± 0.48	2 (0.973)	pCi/L	02/27/12 14:56		- 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997

Date: 03/05/2012 02:34 PM

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

Page 53 of 58



俸

#### QUALITY CONTROL DATA

Project:	PRIMARY & SECONDARY DW STDS				de la composition	Sec. (1)
Pace Project No.:	3550282					$\{ i_{i_1, \dots, i_k}, i_{i_k}, \dots, i_{i_k} \}$
QC Batch:	RADC/11159	Analysis Method:	EPA 904.0		n an	
QC Batch Method:	EPA 904.0	Analysis Description:	904.0 Radium 22	28		1. Jan 199
Associated Lab Sam	ples: 3550282001, 3550282002		$r_{\rm e}$ (	$1 \sim 10^{10}$		$1 = \{1, \dots, n\}, \dots, \{n, N\}$
METHOD BLANK:	407962	Matrix: Water	· · ·			9.4 A.
Associated Lab Sam	nples: 3550282001, 3550282002			a stational		$(x,y) \in \mathbb{R}^{n \times n} (a)$
Param	neter Act ±	Unc (MDC)	Units	Analyzed	Qualifiers	
Radium-228	2.87 ± 0.780 (0.85	i8)	pCi/L	02/27/12 12:4	2	·: · .

Date: 03/05/2012 02:34 PM

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

Page 54 of 58



#### QUALIFIERS

Project: PRIMARY & SECONDARY DW STDS

Pace Project No .: 3550282

#### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

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

#### LABORATORIES - - - - - -

PASI-O	Pace Analytical Services - Ormond Beach
--------	---

PASI-PA Pace Analytical Services - Greensburg

PASI-SF Pace Analytical Services - South Florida

#### **ANALYTE QUALIFIERS**

- Т The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory J(D6) control limits.
- J(L0) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- Estimated Value. Matrix spike recovery was outside laboratory control limits. J(M0)
- Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) J(M1) recovery. J(S0)
- Estimated Value. Surrogate recovery outside laboratory control limits.
- J(S1) Estimated Value. Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in L3 associated samples. Results unaffected by high bias. M6
- Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
- N2 The lab does not hold TNI accreditation for this parameter.
- Q Sample held beyond the accepted holding time.
- Q Sample held beyond the accepted holding time. Analysis initiated more than 15 minutes after sample collection.
- Q Sample held beyond the accepted holding time. Sample was received outside EPA method holding time.
- Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. **S**3 Results unaffected by high bias.

Date: 03/05/2012 02:34 PM

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

Page 55 of 58



ą

(D) 10

#### QUALIFIERS

#### Project: PRIMARY & SECONDARY DW STDS

Pace Project No.: 3550282

#### ANALYTE QUALIFIERS

Z Too many colonies were present (TNTC); the numeric value represents the estimated colony counts from the highest dilution used in this test.

Date: 03/05/2012 02:34 PM

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

Page 56 of 58



### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pace Project No.:	PRIMARY & SECONDARY DW STDS 3550282			an sta <sub>n</sub> sta An standard	aras Secolarias 12 anos
Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 504.1 EPA 504.1	OEXT/7535 OEXT/7535	– – EPA 504.1 EPA 504.1	GCSV/5413 GCSV/5413
3550282001	SD COMBINED EFFLUENT	EPA 508.1	OEXT/7532	EPA 508.1	GCSV/5417
3550282002	SD HLD EFFLUENT	EPA 508.1	OEXT/7532	EPA 508.1	GCSV/5417
3550282001	SD COMBINED EFFLUENT	EPA 515.3	OEXT/7533	EPA 515.3	GCSV/5416
3550282002	SD HLD EFFLUENT	EPA 515.3	OEXT/7533	EPA 515.3	GCSV/5416
3550282001	SD COMBINED EFFLUENT	EPA 531.1	GCSV/5395	n an	en Anne
3550282002	SD HLD EFFLUENT	EPA 531.1	GCSV/5395		Anne
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 547 EPA 547	GCSV/5408 GCSV/5408		an a
3550282001	SD COMBINED EFFLUENT	EPA 549.2	OEXT/7552	EPA 549.2	GCSV/5431
3550282002	SD HLD EFFLUENT	EPA 549.2	OEXT/7552	EPA 549.2	GCSV/5431
3550282001	SD COMBINED EFFLUENT	EPA 3510	OEXT/7538	EPA 8081	GCSV/5421
3550282002	SD HLD EFFLUENT	EPA 3510	OEXT/7538	EPA 8081	GCSV/5421
3550282001	SD COMBINED EFFLUENT	EPA 200.7	MPRP/7499	EPA 200.7	ICP/5088
3550282002	SD HLD EFFLUENT	EPA 200.7	MPRP/7499	EPA 200.7	ICP/5088
3550282001	SD COMBINED EFFLUENT	EPA 200.8	MPRP/7500	EPA 200.8	ICPM/3202
3550282002	SD HLD EFFLUENT	EPA 200.8	MPRP/7500	EPA 200.8	ICPM/3202
3550282001	SD COMBINED EFFLUENT	EPA 245.1	MERP/2502	EPA 245.1	MERC/2505
3550282002	SD HLD EFFLUENT	EPA 245.1	MERP/2502	EPA 245.1	MERC/2505
3550282001	SD COMBINED EFFLUENT	EPA 525.2	OEXT/7534	EPA 525.2	MSSV/3003
3550282002	SD HLD EFFLUENT	EPA 525.2	OEXT/7534	EPA 525.2	MSSV/3003
3550282001	SD COMBINED EFFLUENT	EPA 548.1	OEXT/7542	EPA 548.1	MSSV/3004
3550282002	SD HLD EFFLUENT	EPA 548.1	OEXT/7542	EPA 548.1	MSSV/3004
3550282001	SD COMBINED EFFLUENT	EPA 625	OEXT/7530	EPA 625	MSSV/3001
3550282002	SD HLD EFFLUENT	EPA 625	OEXT/7530	EPA 625	MSSV/3001
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 524.2 EPA 524.2	MSV/4837 MSV/4837		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 900.0m EPA 900.0m	RADC/11147 RADC/11147		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 903.1 EPA 903.1	RADC/11158 RADC/11158		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 904.0 EPA 904.0	RADC/11159 RADC/11159		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	SM 2120B SM 2120B	SFL/3970 SFL/3970		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	SM 2150B SM 2150B	SFL/3969 SFL/3969		

Date: 03/05/2012 02:34 PM

SD COMBINED EFFLUENT

3550282001

## **REPORT OF LABORATORY ANALYSIS**

SM 2540C

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

SFL/3985

Page 57 of 58



11.4

# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:	PRIMARY & SECONDARY DW STDS
Pace Project No.:	3550282

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3550282002	SD HLD EFFLUENT	SM 2540C	SFL/3985		t sau di g
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 300.0 EPA 300.0	SFL/3972 SFL/3972		an a
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	SM 4500-H+B SM 4500-H+B	SFL/4091 SFL/4091		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	SM 5540C SM 5540C	SFL/3968 SFL/3968		· · · · · · · · · · · · · · · · · · ·
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	SM 9222B SM 9222B	SFL/4047 SFL/4047	SM 9222B SM 9222B	SFL/4048 SFL/4048
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	TKN+NOx Calculation TKN+NOx Calculation	WET/12027 WET/12027		· · · · · · · · · · · · · · · · · · ·
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 300.0 EPA 300.0	WETA/15364 WETA/15364		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 335.4 EPA 335.4	WETA/15341 WETA/15341		WETA/15356 WETA/15356
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 350.1 EP <b>A 350.1</b>	WETA/15314 WETA/15314		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 351.2 EPA 351.2	WETA/15305 WETA/15305		WETA/15307 WETA/15307
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 353.2 EPA 353.2	WETA/15302 WETA/15302		
3550282001 3550282002	SD COMBINED EFFLUENT SD HLD EFFLUENT	EPA 365.4 EPA 365.4	WETA/15306 WETA/15306		WETA/15308 WETA/15308

Date: 03/05/2012 02:34 PM

### **REPORT OF LABORATORY ANALYSIS**

Page 58 of 58

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..

[≫ i•( o − i