



Envirodyne Laboratories, Inc  
11011 Brooklet Dr., # 230  
Houston, TX 77099  
281.568.7880 Phone  
www.envirodyne.com

13 August 2021

Water Utility Services

Steve Grychka

21617 Rhodes Rd

Spring, TX 77383

**Praxair Surface Tech - WQP**

Enclosed are the results of analyses for samples received by the laboratory on 30-Jul-21 09:50. The analytical data provided relates only to the samples as received in this laboratory report.

ELI certifies that all results are NELAP compliant and performed in accordance with the referenced method except as noted in the Case Narrative or as noted with a qualifier. Any reproductions of this laboratory report should be in full and only with the written authorization from the client.

The total number of pages in this report is 9

Thank you for selecting ELI for your analytical needs. If you have any questions regarding this report, please contact us.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kyle G.', is written over a light blue circular background.

Kyle Chernosky For Monica Smith  
Client Services Representative



Certificate No: T104704265-20-18



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**Client:** Water Utility Services  
**Project:** Praxair Surface Tech - WQP  
**Work Order:** 21G4111  
**PWS ID:** TX1013678

**Reported:**  
13-Aug-21 15:48

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EWQP	EP001 - PT	Water	30-Jul-21 08:45	30-Jul-21 09:50
DSTWQP	OUTSIDE TAP	Water	30-Jul-21 09:10	30-Jul-21 09:50

Envirodyne Laboratories, Inc.

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Kyle Chernosky For Monica Smith, Client Services Representative



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**EP001 - PT**  
**21G4111-01 (Water) Sampled: 30-Jul-21 08:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
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**Envirodyne Laboratories, Inc.**

**Field Analysis**

<b>pH</b>	<b>7.28</b>		SU	1	B1G4348	30-Jul-21	30-Jul-21 08:45	SM4500H+ B	KLC	
<b>Temperature</b>	<b>25.3</b>	0.0	°C	1	B1G4348	30-Jul-21	30-Jul-21 08:45	SM2550 B	KLC	

**Wet Chemistry**

<b>Alkalinity (m) as CaCO3</b>	<b>174</b>	20.0	mg/L	1	B1H0582	05-Aug-21	05-Aug-21 08:52	SM 2320 B	JPC	
Alkalinity (p) as CaCO3	<20.0	20.0	mg/L	1	B1H0582	05-Aug-21	05-Aug-21 08:52	SM 2320 B	JPC	
<b>Total Alkalinity as CaCO3</b>	<b>174</b>	20.0	mg/L	1	[CALC]	05-Aug-21	05-Aug-21 08:52	[CALC]	JPC	
<b>Chloride</b>	<b>49.0</b>	6.0	mg/L	2	B1H0614	05-Aug-21	06-Aug-21 10:15	SM4500 Cl-B	JPC	
<b>Conductivity at 25 C</b>	<b>496</b>	30	umho/cm	1	B1H0465	04-Aug-21	06-Aug-21 11:51	SM2510 B	JPC	
<b>Sulfate</b>	<b>19.8</b>	2.00	mg/L	1	B1H0453	03-Aug-21	03-Aug-21 14:54	ASTM D516-07	JPC	
<b>TDS</b>	<b>260</b>	10.0	mg/L	1	B1H0616	05-Aug-21	05-Aug-21 20:30	SM2540 C	JMM	

**Total Metals by ICP**

<b>Calcium</b>	<b>64.8</b>	2.00	mg/L	1	B1H0112	02-Aug-21	02-Aug-21 16:25	EPA 200.7	JPC	
<b>Total Hardness as CaCO3</b>	<b>188</b>	13.2	mg/L	1	[CALC]	02-Aug-21	02-Aug-21 16:25	SM 2340B	JPC	
<b>Iron</b>	<b>0.0176</b>	0.0050	mg/L	1	B1H0112	01-Aug-21	02-Aug-21 12:48	EPA 200.7	JPC	
<b>Magnesium</b>	<b>6.45</b>	2.00	mg/L	1	B1H0112	02-Aug-21	02-Aug-21 16:25	EPA 200.7	JPC	
Manganese	<0.0050	0.0050	mg/L	1	B1H0112	01-Aug-21	02-Aug-21 12:48	EPA 200.7	JPC	
<b>Sodium</b>	<b>33.6</b>	2.0	mg/L	1	B1H0112	02-Aug-21	02-Aug-21 16:25	EPA 200.7	JPC	

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**OUTSIDE TAP**

**21G4111-02 (Water) Sampled: 30-Jul-21 09:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Analyst	Notes
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**Envirodyne Laboratories, Inc.**

**Field Analysis**

<b>pH</b>	<b>7.34</b>		SU	1	B1G4348	30-Jul-21	30-Jul-21 09:10	SM4500H+ B	KLC	
<b>Temperature</b>	<b>24.6</b>	0.0	°C	1	B1G4348	30-Jul-21	30-Jul-21 09:10	SM2550 B	KLC	

**Wet Chemistry**

<b>Alkalinity (m) as CaCO3</b>	<b>178</b>	20.0	mg/L	1	B1H0582	05-Aug-21	05-Aug-21 08:52	SM 2320 B	JPC	
Alkalinity (p) as CaCO3	<20.0	20.0	mg/L	1	B1H0582	05-Aug-21	05-Aug-21 08:52	SM 2320 B	JPC	
<b>Total Alkalinity as CaCO3</b>	<b>178</b>	20.0	mg/L	1	[CALC]	05-Aug-21	05-Aug-21 08:52	[CALC]	JPC	
<b>Chloride</b>	<b>48.0</b>	6.0	mg/L	2	B1H0614	05-Aug-21	06-Aug-21 10:15	SM4500 Cl-B	JPC	
<b>Conductivity at 25 C</b>	<b>496</b>	30	umho/cm	1	B1H0465	04-Aug-21	06-Aug-21 11:51	SM2510 B	JPC	
<b>Sulfate</b>	<b>20.5</b>	2.00	mg/L	1	B1H0453	03-Aug-21	03-Aug-21 14:54	ASTM D516-07	JPC	
<b>TDS</b>	<b>270</b>	10.0	mg/L	1	B1H0616	05-Aug-21	05-Aug-21 20:30	SM2540 C	JMM	

**Total Metals by ICP**

<b>Calcium</b>	<b>58.2</b>	2.00	mg/L	1	B1H0112	02-Aug-21	05-Aug-21 14:13	EPA 200.7	JPC	
<b>Total Hardness as CaCO3</b>	<b>169</b>	13.2	mg/L	1	[CALC]	02-Aug-21	05-Aug-21 14:13	SM 2340B	JPC	
<b>Iron</b>	<b>0.0054</b>	0.0050	mg/L	1	B1H0112	02-Aug-21	02-Aug-21 14:21	EPA 200.7	JPC	
<b>Magnesium</b>	<b>5.81</b>	2.00	mg/L	1	B1H0112	02-Aug-21	05-Aug-21 14:13	EPA 200.7	JPC	
Manganese	<0.0050	0.0050	mg/L	1	B1H0112	02-Aug-21	02-Aug-21 14:21	EPA 200.7	JPC	
<b>Sodium</b>	<b>31.3</b>	2.0	mg/L	1	B1H0112	02-Aug-21	05-Aug-21 14:13	EPA 200.7	JPC	

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**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B1H0453 - Inorganics</b>										
<b>Blank (B1H0453-BLK1)</b> Prepared & Analyzed: 03-Aug-21										
Sulfate	<2.00	2.00	mg/L							
<b>LCS (B1H0453-BS1)</b> Prepared & Analyzed: 03-Aug-21										
Sulfate	20.8		mg/L	20.0		104	90-110			
<b>Matrix Spike (B1H0453-MS1)</b> Source: 21G3949-01 Prepared & Analyzed: 03-Aug-21										
Sulfate	58.1	2.00	mg/L	20.0	38.7	97.0	80-120			
<b>Matrix Spike Dup (B1H0453-MSD1)</b> Source: 21G3949-01 Prepared & Analyzed: 03-Aug-21										
Sulfate	56.8	2.00	mg/L	20.0	38.7	90.5	80-120	2.26	20	
<b>Batch B1H0465 - Inorganics</b>										
<b>Blank (B1H0465-BLK2)</b> Prepared: 04-Aug-21 Analyzed: 06-Aug-21										
Conductivity at 25 C	<30	30	umho/cm							
<b>Duplicate (B1H0465-DUP1)</b> Source: 21G3261-03 Prepared: 04-Aug-21 Analyzed: 06-Aug-21										
Conductivity at 25 C	1020	30	umho/cm		1020			0.196	20	
<b>Reference (B1H0465-SRM1)</b> Prepared: 04-Aug-21 Analyzed: 06-Aug-21										
Conductivity at 25 C	181		umho/cm	180		100	0-200			
<b>Batch B1H0582 - Inorganics</b>										
<b>Blank (B1H0582-BLK1)</b> Prepared & Analyzed: 05-Aug-21										
Alkalinity (m) as CaCO3	<20.0	20.0	mg/L							
Alkalinity (p) as CaCO3	<20.0	20.0	"							

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**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1H0582 - Inorganics**

<b>LCS (B1H0582-BS1)</b>		Prepared & Analyzed: 05-Aug-21								
Alkalinity (m) as CaCO3	51.0		mg/L	50.0		102	90-110			
Alkalinity (p) as CaCO3	50.0		"	50.0		100	90-110			

<b>Duplicate (B1H0582-DUP1)</b>		<b>Source: 21G3260-01</b>		Prepared & Analyzed: 05-Aug-21						
Alkalinity (m) as CaCO3	97.0	20.0	mg/L		98.0			1.03	20	
Alkalinity (p) as CaCO3	<20.0	20.0	"		<20.0			0	20	

**Batch B1H0614 - Inorganics**

<b>Blank (B1H0614-BLK2)</b>		Prepared: 05-Aug-21 Analyzed: 06-Aug-21								
Chloride	<3.0	3.0	mg/L							

<b>LCS (B1H0614-BS1)</b>		Prepared: 05-Aug-21 Analyzed: 06-Aug-21								
Chloride	102		mg/L	100		102	90-110			

<b>Matrix Spike (B1H0614-MS2)</b>		<b>Source: 21G4111-01</b>		Prepared: 05-Aug-21 Analyzed: 06-Aug-21						
Chloride	70.0	6.0	mg/L	20.0	49.0	105	80-120			

<b>Matrix Spike Dup (B1H0614-MSD2)</b>		<b>Source: 21G4111-01</b>		Prepared: 05-Aug-21 Analyzed: 06-Aug-21						
Chloride	71.0	6.0	mg/L	20.0	49.0	110	80-120	1.42	20	

**Batch B1H0616 - Inorganics**

<b>Blank (B1H0616-BLK1)</b>		Prepared & Analyzed: 05-Aug-21								
TDS	<10.0	10.0	mg/L							

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 13-Aug-21 15:48

**Wet Chemistry - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1H0616 - Inorganics**

Duplicate (B1H0616-DUP1)	Source: 21G4013-01	Prepared & Analyzed: 05-Aug-21			
TDS	282	10.0 mg/L	234	18.6	20

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 13-Aug-21 15:48

**Total Metals by ICP - Quality Control**  
**Envirodyne Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B1H0112 - Metals - EPA 200.2**

<b>Blank (B1H0112-BLK2)</b>			Prepared: 01-Aug-21 Analyzed: 02-Aug-21							
Magnesium	<2.00	2.00	mg/L							
Calcium	<2.00	2.00	"							
Sodium	<2.0	2.0	"							
Iron	<0.0050	0.0050	"							
Manganese	<0.0050	0.0050	"							

<b>LCS (B1H0112-BS1)</b>			Prepared: 01-Aug-21 Analyzed: 02-Aug-21							
Calcium	21.0		mg/L	20.0		105	85-115			
Iron	264		ug/L	250		106	85-115			
Magnesium	20.9		mg/L	20.0		104	85-115			
Manganese	267		ug/L	250		107	85-115			
Sodium	21.0		mg/L	20.0		105	85-115			

<b>Matrix Spike (B1H0112-MS1)</b>			Source: 21G4111-01		Prepared: 01-Aug-21 Analyzed: 02-Aug-21					
Calcium	110	4.00	mg/L	40.0	64.8	112	70-130			
Sodium	79.0	4.0	"	40.0	33.6	113	70-130			
Manganese	1.04	0.0100	"	1.00	ND	104	70-130			
Magnesium	50.8	4.00	"	40.0	6.45	111	70-130			
Iron	1.11	0.0100	"	1.00	0.0176	109	70-130			

<b>Matrix Spike Dup (B1H0112-MSD2)</b>			Source: 21G4111-01		Prepared: 01-Aug-21 Analyzed: 02-Aug-21					
Magnesium	49.6	4.00	mg/L	40.0	6.45	108	70-130	2.40	20	
Iron	1.09	0.0100	"	1.00	0.0176	107	70-130	1.56	20	
Manganese	1.02	0.0100	"	1.00	ND	102	70-130	2.24	20	
Calcium	107	4.00	"	40.0	64.8	105	70-130	2.46	20	
Sodium	77.2	4.0	"	40.0	33.6	109	70-130	2.29	20	

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### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
CLT Client Representative

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Kyle Chernosky For Monica Smith, Client Services Representative



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
WATER QUALITY PARAMETER MONITORING FORM 20679

Completed by PWS (or Agent)

Completed by Laboratory

PWS Name:	Praxair Surface Tech			Laboratory Name:	Envirodyne Laboratories, Inc.
PWS ID#:	TX 1013678			TCEQ Lab ID #:	TX-288
PWS Address:	7615 Fairview St Houston TX			Laboratory Address:	11011 Brooklet Dr #230
PWS Contact:	Lo Wanda Weiss			Laboratory Address:	Houston, TX 77099
PWS Contact Phone #:	832-942-1041			Laboratory Contact:	Laura Bonjonia
Inhibitor or Stabilizer Used (✓):	Phosphate	Silica	Calcium carbonate	Laboratory Contact Phone #:	281-568-7880
TREATMENT	Alkalinity Dosage Rate:	Inhibitor Dosage Rate:			

Sample Information					
Sample Type (✓):	Compliance	Non-compliance			
Sample Collector (✓):	Public Water System	Accredited Lab	3rd Party Contractor --> LAB ID	AL TX02604	
Temperature and pH (Y or N):	Are temperature and pH included on the sampling entity's Laboratory Approval Form on file at the TCEQ?		Were temperature and pH measured in the field within 15 minutes of sample collection?		

Parameters Requested: Analyses are required for the parameters checked. \* If inhibitors containing phosphate or silica are used, then these parameters should also be analyzed depending on which is in use.

Facility ID (e.g. DS01, PBCU001)	Sample Point ID (e.g. DSTWQP, EWQP)	Sample Location	Sample Collection		Field Measurements		Replacement? (✓)	Original Sample ID #	Original Sample Date (MMDDYY)	Lab Sample ID	Alkalinity (1927)	Calcium (1919)	Chloride (1017)	Conductivity (1054)	Hardness (1915)	Iron (1028)	Manganese (1032)	Sodium (1052)	Sulfate (1055)	TDS (1930)	O-Phosphate (1044)	Silica (1049)	
			Date (MMDDYY)	Time - 24 hr (HHMM)	pH	Temp (°C)																	
✓ PBCU001	EWQP	EPOO1 - PT	7-28-21 <sup>30</sup>	8:45	7.28	25.3				2194111-01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓ DS01	DSTWQP	Outside Tap	7-28-21 <sup>30</sup>	9:10	7.34	24.6				2194111-02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
											✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

I acknowledge that information on this form is true and correct and sites selected for sampling follow the instructions in the TCEQ Monitoring and Sample Collection Guidance for Water Quality Parameters. This includes, but not limited to the measurement of pH and temperature immediately upon collection. Falsification of this form or tampering with water samples is a crime punishable under state and/or federal law. (Texas Penal Code, Title 8, Chapter 37.10)

Name of Authorized PWS Representative (Print)	Signature	Organization	Date	Rejection Code (if applicable):	Actual / Corrected sample temperature:
Steve Grychka		WUST Inc.	7-28-21		21.6 / 22.9
Chain of Custody	Date & Time of Sample Preservation (Acidified):	Thermometer ID #:			
	7/30/21 @ 1820	30249			

Relinquished By (Signature)	Date/Time: 9:50 7/30/21	Relinquished By Courier (Signature)	Date/Time:	Laboratory Comments:
Received By Courier (Signature)	Date/Time:	Received By Lab (Signature)	Date/Time: 7/31/21 9:50	