



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER QUALITY PARAMETER MONITORING FORM 20679

Completed by Laboratory

PWS Name: GAY OF WILLIS

Laboratory Name:

Eastex Environmental Laboratory

PWS ID #: TX 1700003

TCEQ Lab ID #:

TX203

PWS Address: 200 N. BELL ST. WILLIS TX 77378

Laboratory Address:

PO Box 1089, Coldspring Tx 77331

PWS Contact: Bobby Jewells

PWS Contact Phone #: 936 672 2438

Laboratory Contact:

Daniel Bowen

Inhibitor or Stabilizer Used (Y/N): ☒ Phosphate ☐ Silica ☐ Calcium carbonate

TREATMENT

Alkalinity Dosage Rate:

Inhibitor Dosage Rate:

Laboratory Contact Phone #:

936 653 3249

Sample Type (Y/N): ☒ Compliance ☐ Non-compliance

Sample Collector (Y/N): ☒ Public Water System ☐ Accredited Lab

Temperature and pH (Y or N): ☒ Are temperature and pH included on the sampling entity's Laboratory Approval Form on file at the TCEQ?

3rd Party Contractor --> LAB ID AL 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. DSTWOP, EWOP)	Sample Location	Date (MMDYY)	Time - 24 hr (HHMM)	pH	Temp (°C)	Replacement? (S)	Original Sample ID #	Original Sample Date (MMDYY)	Lab Sample ID	Alkalinity (1927)	Calcium (1919)	Chloride (1017)	Conductivity (1064)	Hardness (1915)	Iron (1028)	Manganese (1032)	Sodium (1052)	Sulfate (1055)	TDS (1930)	O-Phosphate (1044) *	Silica (1049) *
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DS01	DSTWOP	9518 Wopk Ridge Court	030918	1017	8.4	22.7				CGC1064-01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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DS01	DSTWOP	211 North Forest Drive	030918	0936	8.3	21.2				CGC1064-02	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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DS01	DSTWOP	519 South Campbell	030918	0952	8.3	22.2				CGC1064-03	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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PBCU001	EWOP	EP001 200 S Bell	030718	0915	8.2	22.0				CGC1064-04	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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PBCU002	EWOP	EP002 Perkins	030918	1005	8.4	22.7				CGC1064-05	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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PBCU003	EWOP	EP003 9637 Live Oak	030918	1025	8.4	23.9				CGC1064-06	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
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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

Chris Winberg

Eastex Lab

030918

Chain of Custody

Relinquished By (Signature)

Relinquished By Courier (Signature)

Date/Time:

Date & Time of Sample Preservation (Acidified):

Thermometer ID #:

15

Received By Courier (Signature)

Date/Time:

Received By Lab (Signature)

Date/Time:



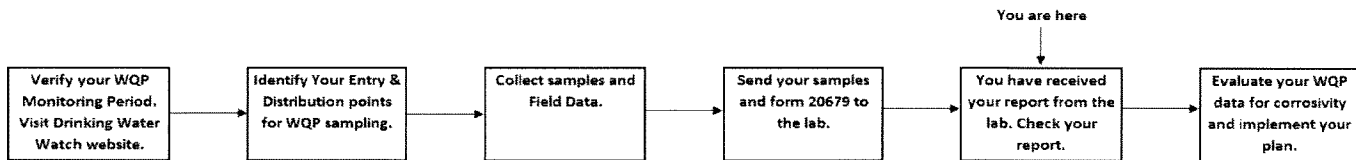
27 March 2018

City of Willis
Willis, City of
200 N. Bell St
Willis, TX 77378

RE: Willis WQP

Water Quality Parameters (WQP) Report

Enclosed, is your Water Quality Parameter (WQP) report with the necessary support data. Eastex Lab has reported your results to TCEQ in the following formats: 1. EDD of your data and 2. PDF of your report.



Here are your next actions:

1. Check your report for any errors, such as: Regulatory ID, site names. Please make sure all your sites are listed correctly.
2. Evaluate your WQP data for corrosivity and implement your plan.
3. Please retain all forms and reports from the lab for future field inspections.

If you have questions regarding any of the enclosed data, please call me at 936-653-3249. For compliance questions, please call TCEQ's WQP team at 512-239-4691.

Daniel Bowen
Laboratory Director



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Website: eastexlabs.com
Email: eastexlab@eastex.net
Tel: 936 653 3249



Willis, City of
200 N. Bell St
Willis TX, 77378

TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

Project: **Willis WQP**
Laboratory Sample ID: **C8C1064-01**
Sampling Point: **DSTWQP**
Sample Location: **9518 Maple Ridge Court**
State Assigned ID: **DS01**

Sample Received Date and Time: 03/09/2018 11:10
Sample Date and Time: 03/09/2018 10:17
Sample Matrix: Potable
Sample Type: Grab
Collector: CEW

Analyte	Result	Units	Reporting Limits	MDL	Nelac Status	Batch	Analyzed	Analyst	Method
Eastex Environmental Laboratory - Coldspring									
Alkalinity	268	mg CaCO ₃ /L	20	9	P	B8C2151	03/20/2018 15:40	ACW	SM 2320 B
Calcium, Total	4.46	mg/L	0.100	0.0225	A	B8C2164	03/21/2018 10:23	MLJ	EPA 200.7
Chloride	118	mg/L	5.0	1.9	A	B8C3002	03/24/2018 09:00	LAN	EPA 300.0
Conductivity	1058	µmhos/cm @25C	10	0.3	A	B8C1779	03/14/2018 16:30	DSF	SM 2510 B
Hardness	16.0	mg CaCO ₃ /L	5.00	1.50	A	B8C1627	03/14/2018 15:45	DSF	SM 2340 C
Iron, Total	<0.100	mg/L	0.100	0.00520	A	B8C2165	03/20/2018 16:38	MLJ	EPA 200.7
Manganese, Total	0.0320	mg/L	0.00100	0.000105	A	B8C2165	03/20/2018 16:38	MLJ	EPA 200.7
Orthophosphate	0.11	mg/L	0.02	0.006	P	B8C1258	03/09/2018 14:00	DSF	SM 4500-P E
pH	8.40	std unit			P	B8C1240	03/09/2018 10:17	CEW	SM 4500 H + B
Sodium, Total	193	mg/L	0.500	0.0222	A	B8C2164	03/21/2018 10:23	MLJ	EPA 200.7
Sulfate	87.1	mg/L	5.0	5.0	A	B8C3002	03/24/2018 09:00	LAN	EPA 300.0
TDS	632	mg/L	10	10	A	B8C1472	03/13/2018 13:30	ACW	SM 2540 C
Temp	22.7	degrees C			P	B8C1240	03/09/2018 10:17	CEW	SM 2550



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TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

Project: **Willis WQP**
Laboratory Sample ID: **C8C1064-02**
Sampling Point: **DSTWQP**
Sample Location: **211 North Forest Drive**
State Assigned ID: **DS01**

Sample Received Date and Time: 03/09/2018 11:10
Sample Date and Time: 03/09/2018 09:36
Sample Matrix: Potable
Sample Type: Grab
Collector: CEW

Analyte	Result	Units	Reporting Limits	MDL	Nelac Status	Batch	Analyzed	Analyst	Method
Eastex Environmental Laboratory - Coldspring									
Alkalinity	314	mg CaCO ₃ /L	20	9	P	B8C2151	03/20/2018 15:40	ACW	SM 2320 B
Calcium, Total	4.36	mg/L	0.100	0.0225	A	B8C2164	03/21/2018 10:31	MLJ	EPA 200.7
Chloride	244	mg/L	5.0	1.9	A	B8C3002	03/24/2018 09:00	LAN	EPA 300.0
Conductivity	1399	µmhos/cm @25C	10	0.3	A	B8C1779	03/14/2018 16:30	DSF	SM 2510 B
Hardness	21.0	mg CaCO ₃ /L	5.00	1.50	A	B8C1627	03/14/2018 15:45	DSF	SM 2340 C
Iron, Total	0.117	mg/L	0.100	0.00520	A	B8C2165	03/20/2018 16:57	MLJ	EPA 200.7
Manganese, Total	0.0257	mg/L	0.00100	0.000105	A	B8C2165	03/20/2018 16:57	MLJ	EPA 200.7
Orthophosphate	0.09	mg/L	0.02	0.006	P	B8C1258	03/09/2018 14:00	DSF	SM 4500-P E
pH	8.30	std unit			P	B8C1240	03/09/2018 09:36	CEW	SM 4500 H + B
Sodium, Total	250	mg/L	0.500	0.0222	A	B8C2164	03/21/2018 10:31	MLJ	EPA 200.7
Sulfate	49.8	mg/L	5.0	5.0	A	B8C3002	03/24/2018 09:00	LAN	EPA 300.0
TDS	764	mg/L	10	10	A	B8C1472	03/13/2018 13:30	ACW	SM 2540 C
Temp	21.2	degrees C			P	B8C1240	03/09/2018 09:36	CEW	SM 2550



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Willis, City of
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Willis TX, 77378

TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

Project: **Willis WQP**
Laboratory Sample ID: **C8C1064-03**
Sampling Point: **DSTWQP**
Sample Location: **519 South Campbell**
State Assigned ID: **DS01**

Sample Received Date and Time: 03/09/2018 11:10
Sample Date and Time: 03/09/2018 09:52
Sample Matrix: Potable
Sample Type: Grab
Collector: CEW

Analyte	Result	Units	Reporting Limits	MDL	Nelac Status	Batch	Analyzed	Analyst	Method
Eastex Environmental Laboratory - Coldspring									
Alkalinity	480	mg CaCO ₃ /L	20	9	P	B8C2151	03/20/2018 15:40	ACW	SM 2320 B
Calcium, Total	4.70	mg/L	0.100	0.0225	A	B8C2164	03/21/2018 10:33	MLJ	EPA 200.7
Chloride	171	mg/L	5.0	1.9	A	B8C3002	03/24/2018 09:00	LAN	EPA 300.0
Conductivity	1205	µmhos/cm @25C	10	0.3	A	B8C1779	03/14/2018 16:30	DSF	SM 2510 B
Hardness	27.0	mg CaCO ₃ /L	5.00	1.50	A	B8C1632	03/15/2018 13:30	DSF	SM 2340 C
Iron, Total	<0.100	mg/L	0.100	0.00520	A	B8C2165	03/20/2018 17:01	MLJ	EPA 200.7
Manganese, Total	0.0228	mg/L	0.00100	0.000105	A	B8C2165	03/20/2018 17:01	MLJ	EPA 200.7
Orthophosphate	0.05	mg/L	0.02	0.006	P	B8C1258	03/09/2018 14:00	DSF	SM 4500-P E
pH	8.30	std unit			P	B8C1240	03/09/2018 09:52	CEW	SM 4500 H + B
Sodium, Total	227	mg/L	0.500	0.0222	A	B8C2164	03/21/2018 10:33	MLJ	EPA 200.7
Sulfate	70.6	mg/L	5.0	5.0	A	B8C3002	03/24/2018 09:00	LAN	EPA 300.0
TDS	612	mg/L	10	10	A	B8C1472	03/13/2018 13:30	ACW	SM 2540 C
Temp	22.2	degrees C			P	B8C1240	03/09/2018 09:52	CEW	SM 2550



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TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

Project: **Willis WQP**
Laboratory Sample ID: **C8C1064-04**
Sampling Point: **EWQP**
Sample Location: **200 S Bell**
State Assigned ID: **PBCU001**

Sample Received Date and Time: 03/09/2018 11:10
Sample Date and Time: 03/09/2018 09:15
Sample Matrix: Potable
Sample Type: Grab
Collector: CEW

Analyte	Result	Units	Reporting Limits	MDL	Nelac Status	Batch	Analyzed	Analyst	Method
Eastex Environmental Laboratory - Coldspring									
Alkalinity	304	mg CaCO ₃ /L	20	9	P	B8C2151	03/20/2018 15:40	ACW	SM 2320 B
Calcium, Total	3.49	mg/L	0.100	0.0225	A	B8C2164	03/21/2018 10:35	MLJ	EPA 200.7
Chloride	333	mg/L	5.0	1.9	A	B8C3001	03/24/2018 09:00	LAN	EPA 300.0
Conductivity	1636	µmhos/cm @25C	10	0.3	A	B8C1779	03/14/2018 16:30	DSF	SM 2510 B
Hardness	21.0	mg CaCO ₃ /L	5.00	1.50	A	B8C1632	03/15/2018 13:30	DSF	SM 2340 C
Iron, Total	0.226	mg/L	0.100	0.00520	A	B8C2165	03/20/2018 17:06	MLJ	EPA 200.7
Manganese, Total	0.0321	mg/L	0.00100	0.000105	A	B8C2165	03/20/2018 17:06	MLJ	EPA 200.7
Orthophosphate	0.1	mg/L	0.02	0.006	P	B8C1258	03/09/2018 14:00	DSF	SM 4500-P E
pH	8.20	std unit			P	B8C1240	03/09/2018 09:15	CEW	SM 4500 H + B
Sodium, Total	260	mg/L	0.500	0.0222	A	B8C2164	03/21/2018 10:35	MLJ	EPA 200.7
Sulfate	25.1	mg/L	5.0	5.0	A	B8C3001	03/24/2018 09:00	LAN	EPA 300.0
TDS	956	mg/L	10	10	A	B8C1472	03/13/2018 13:30	ACW	SM 2540 C
Temp	22	degrees C			P	B8C1240	03/09/2018 09:15	CEW	SM 2550



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TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

Project: **Willis WQP**
Laboratory Sample ID: **C8C1064-05**
Sampling Point: **EWQP**
Sample Location: **Perkins**
State Assigned ID: **PBCU002**

Sample Received Date and Time: 03/09/2018 11:10
Sample Date and Time: 03/09/2018 10:05
Sample Matrix: Potable
Sample Type: Grab
Collector: CEW

Analyte	Result	Units	Reporting Limits	MDL	Nelac Status	Batch	Analyzed	Analyst	Method
Eastex Environmental Laboratory - Coldspring									
Alkalinity	284	mg CaCO ₃ /L	20	9	P	B8C2151	03/20/2018 15:40	ACW	SM 2320 B
Calcium, Total	4.67	mg/L	0.100	0.0225	A	B8C2164	03/21/2018 10:37	MLJ	EPA 200.7
Chloride	232	mg/L	5.0	1.9	A	B8C3001	03/24/2018 09:00	LAN	EPA 300.0
Conductivity	1368	µmhos/cm @25C	10	0.3	A	B8C1779	03/14/2018 16:30	DSF	SM 2510 B
Hardness	21.0	mg CaCO ₃ /L	5.00	1.50	A	B8C1632	03/15/2018 13:30	DSF	SM 2340 C
Iron, Total	0.125	mg/L	0.100	0.00520	A	B8C2165	03/20/2018 17:11	MLJ	EPA 200.7
Manganese, Total	0.0266	mg/L	0.00100	0.000105	A	B8C2165	03/20/2018 17:11	MLJ	EPA 200.7
Orthophosphate	0.12	mg/L	0.02	0.006	P	B8C1258	03/09/2018 14:00	DSF	SM 4500-P E
pH	8.40	std unit			P	B8C1240	03/09/2018 10:05	CEW	SM 4500 H + B
Sodium, Total	258	mg/L	0.500	0.0222	A	B8C2164	03/21/2018 10:37	MLJ	EPA 200.7
Sulfate	52.5	mg/L	5.0	5.0	A	B8C3001	03/24/2018 09:00	LAN	EPA 300.0
TDS	768	mg/L	10	10	A	B8C1472	03/13/2018 13:30	ACW	SM 2540 C
Temp	22.9	degrees C			P	B8C1240	03/09/2018 10:05	CEW	SM 2550



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Willis, City of
200 N. Bell St
Willis TX, 77378

TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

Project: **Willis WQP**
Laboratory Sample ID: **C8C1064-06**
Sampling Point: **EWQP**
Sample Location: **9637 Live Oak**
State Assigned ID: **PBCU003**

Sample Received Date and Time: 03/09/2018 11:10
Sample Date and Time: 03/09/2018 10:25
Sample Matrix: Potable
Sample Type: Grab
Collector: CEW

Analyte	Result	Units	Reporting Limits	MDL	Nelac Status	Batch	Analyzed	Analyst	Method
Eastex Environmental Laboratory - Coldspring									
Alkalinity	262	mg CaCO ₃ /L	20	9	P	B8C2151	03/20/2018 15:40	ACW	SM 2320 B
Calcium, Total	4.48	mg/L	0.100	0.0225	A	B8C2164	03/21/2018 10:39	MLJ	EPA 200.7
Chloride	115	mg/L	5.0	1.9	A	B8C3001	03/24/2018 09:00	LAN	EPA 300.0
Conductivity	1084	µmhos/cm @25C	10	0.3	A	B8C1779	03/14/2018 16:30	DSF	SM 2510 B
Hardness	22.0	mg CaCO ₃ /L	5.00	1.50	A	B8C1632	03/15/2018 13:30	DSF	SM 2340 C
Iron, Total	<0.100	mg/L	0.100	0.00520	A	B8C2165	03/20/2018 17:16	MLJ	EPA 200.7
Manganese, Total	0.0246	mg/L	0.00100	0.000105	A	B8C2165	03/20/2018 17:16	MLJ	EPA 200.7
Orthophosphate	0.04	mg/L	0.02	0.006	P	B8C1258	03/09/2018 14:00	DSF	SM 4500-P E
pH	8.40	std unit			P	B8C1240	03/09/2018 10:25	CEW	SM 4500 H + B
Sodium, Total	202	mg/L	0.500	0.0222	A	B8C2164	03/21/2018 10:39	MLJ	EPA 200.7
Sulfate	86.6	mg/L	5.0	5.0	A	B8C3001	03/24/2018 09:00	LAN	EPA 300.0
TDS	616	mg/L	10	10	A	B8C1472	03/13/2018 13:30	ACW	SM 2540 C
Temp	23.9	degrees C			P	B8C1240	03/09/2018 10:25	CEW	SM 2550



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Willis, City of
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TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

SM 4500-P E - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8C1258 - No Prep										
Blank (B8C1258-BLK1)				Prepared & Analyzed: 03/09/18						
Orthophosphate	ND	0.02	mg/L							
LCS (B8C1258-BS1)				Prepared & Analyzed: 03/09/18						
Orthophosphate	0.257		mg/L	0.250		103	80-120			
Matrix Spike (B8C1258-MS1)				Prepared & Analyzed: 03/09/18						
Orthophosphate	1.39	0.02	mg/L	1.25	0.11	102	80-120			
Matrix Spike Dup (B8C1258-MSD1)				Prepared & Analyzed: 03/09/18						
Orthophosphate	1.37	0.02	mg/L	1.25	0.11	101	80-120	1.45	20	
Batch B8C1472 - No Prep										
Blank (B8C1472-BLK1)				Prepared & Analyzed: 03/13/18						
TDS	ND	10	mg/L							
LCS (B8C1472-BS1)				Prepared & Analyzed: 03/13/18						
TDS	264		mg/L	300		88.0	80-120			
Duplicate (B8C1472-DUP1)				Prepared & Analyzed: 03/13/18						
TDS	656	10	mg/L		632			3.73	10	
Batch B8C1627 - No Prep										
Blank (B8C1627-BLK1)				Prepared & Analyzed: 03/14/18						
Hardness	ND	5.00	mg CaCO ₃ /L							



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TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

SM 2340 C - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C1627 - No Prep

LCS (B8C1627-BS1)

Prepared & Analyzed: 03/14/18

Hardness	100		mg CaCO ₃ /L	100		100	80-120			
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Matrix Spike (B8C1627-MS1)

Source: C8C0644-01

Prepared & Analyzed: 03/14/18

Hardness	600	5.00	mg CaCO ₃ /L	500	100	100	80-120			
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Matrix Spike Dup (B8C1627-MSD1)

Source: C8C0644-01

Prepared & Analyzed: 03/14/18

Hardness	600	5.00	mg CaCO ₃ /L	500	100	100	80-120	0.00	20	
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Batch B8C1632 - No Prep

Blank (B8C1632-BLK1)

Prepared & Analyzed: 03/15/18

Hardness	ND		5.00 mg CaCO ₃ /L							
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LCS (B8C1632-BS1)

Prepared & Analyzed: 03/15/18

Hardness	100		mg CaCO ₃ /L	100		100	80-120			
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Matrix Spike (B8C1632-MS1)

Source: C8C1064-03

Prepared & Analyzed: 03/15/18

Hardness	513	5.00	mg CaCO ₃ /L	500	27.0	97.2	80-120			
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Matrix Spike Dup (B8C1632-MSD1)

Source: C8C1064-03

Prepared & Analyzed: 03/15/18

Hardness	525	5.00	mg CaCO ₃ /L	500	27.0	99.6	80-120	2.31	20	
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Batch B8C1779 - No Prep

Blank (B8C1779-BLK1)

Prepared & Analyzed: 03/14/18

Conductivity	ND		10 μmhos/cm @25C							
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Willis, City of
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TCEQ Report ID: **PWS_TX1700003_AC_20180309_WQP Analysis Report**

SM 2510 B - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C1779 - No Prep

LCS (B8C1779-BS1)

Prepared & Analyzed: 03/14/18

Conductivity	993		µmhos/cm @25C	1000		99.3	80-120			
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Duplicate (B8C1779-DUP1)

Source: C8C1064-01

Prepared & Analyzed: 03/14/18

Conductivity	1058	10	µmhos/cm @25C		1058			0.00	20	
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Batch B8C2151 - No Prep

Blank (B8C2151-BLK1)

Prepared & Analyzed: 03/20/18

Alkalinity	ND		20 mg CaCO ₃ /L							40
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LCS (B8C2151-BS1)

Prepared & Analyzed: 03/20/18

Alkalinity	50		mg CaCO ₃ /L	50.0		100	80-120			40
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Duplicate (B8C2151-DUP1)

Source: C8C1064-01

Prepared & Analyzed: 03/20/18

Alkalinity	268		20 mg CaCO ₃ /L		268			0.00	20	40
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Batch B8C2164 - EPA 200.7

Blank (B8C2164-BLK1)

Prepared: 03/20/18 Analyzed: 03/21/18

Calcium, Total	ND	0.100	mg/L							
Sodium, Total	ND	0.500	mg/L							

Blank (B8C2164-BLK2)

Prepared: 03/20/18 Analyzed: 03/21/18

Calcium, Total	ND	0.100	mg/L							
Sodium, Total	ND	0.500	mg/L							



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EPA 200.7 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8C2164 - EPA 200.7										
Blank (B8C2164-BLK3)				Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	ND	0.100	mg/L							
Sodium, Total	ND	0.500	mg/L							
Blank (B8C2164-BLK4)				Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	ND	0.100	mg/L							
Sodium, Total	ND	0.500	mg/L							
LCS (B8C2164-BS1)				Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	23.6	0.100	mg/L	25.0		94.3	85-115			
Sodium, Total	25.7	0.500	mg/L	25.0		103	85-115			
LCS (B8C2164-BS2)				Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	24.1	0.100	mg/L	25.0		96.5	85-115			
Sodium, Total	26.1	0.500	mg/L	25.0		104	85-115			
LCS (B8C2164-BS3)				Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	23.8	0.100	mg/L	25.0		95.1	85-115			
Sodium, Total	25.5	0.500	mg/L	25.0		102	85-115			
LCS (B8C2164-BS4)				Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	24.3	0.100	mg/L	25.0		97.0	85-115			
Sodium, Total	26.1	0.500	mg/L	25.0		104	85-115			
Matrix Spike (B8C2164-MS1)		Source: C8C1064-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	28.6	0.100	mg/L	25.0	4.46	96.7	70-130			
Sodium, Total	214	0.500	mg/L	25.0	193	81.1	70-130			
Matrix Spike (B8C2164-MS2)		Source: C8C1891-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	25.6	0.100	mg/L	25.0	0.749	99.4	70-130			
Sodium, Total	268	0.500	mg/L	25.0	250	70.8	70-130			



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EPA 200.7 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C2164 - EPA 200.7

Matrix Spike (B8C2164-MS3)		Source: C8C2839-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	84.9	0.100	mg/L	25.0	60.6	97.2	70-130			
Sodium, Total	66.8	0.500	mg/L	25.0	40.3	106	70-130			
Matrix Spike (B8C2164-MS4)		Source: C8C3285-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	66.4	0.100	mg/L	25.0	40.7	103	70-130			
Sodium, Total	365	0.500	mg/L	25.0	340	99.7	70-130			
Matrix Spike Dup (B8C2164-MSD1)		Source: C8C1064-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	28.9	0.100	mg/L	25.0	4.46	97.8	70-130	0.999	20	
Sodium, Total	216	0.500	mg/L	25.0	193	89.5	70-130	0.978	20	
Matrix Spike Dup (B8C2164-MSD2)		Source: C8C1891-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	24.8	0.100	mg/L	25.0	0.749	96.2	70-130	3.15	20	
Sodium, Total	268	0.500	mg/L	25.0	250	70.8	70-130	0.00	20	
Matrix Spike Dup (B8C2164-MSD3)		Source: C8C2839-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	81.5	0.100	mg/L	25.0	60.6	83.4	70-130	4.15	20	
Sodium, Total	65.1	0.500	mg/L	25.0	40.3	99.1	70-130	2.50	20	
Matrix Spike Dup (B8C2164-MSD4)		Source: C8C3285-01		Prepared: 03/20/18 Analyzed: 03/21/18						
Calcium, Total	60.1	0.100	mg/L	25.0	40.7	77.5	70-130	9.96	20	
Sodium, Total	399	0.500	mg/L	25.0	340	237	70-130	8.95	20	

Batch B8C2165 - EPA 200.7

Blank (B8C2165-BLK1)		Prepared & Analyzed: 03/20/18								
Iron, Total	ND	0.100	mg/L							
Manganese, Total	ND	0.00100	mg/L							



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EPA 200.7 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8C2165 - EPA 200.7										
Blank (B8C2165-BLK2)				Prepared & Analyzed: 03/20/18						
Iron, Total	ND	0.100	mg/L							
Manganese, Total	ND	0.00100	mg/L							
Blank (B8C2165-BLK3)				Prepared & Analyzed: 03/20/18						
Iron, Total	ND	0.100	mg/L							
Manganese, Total	ND	0.00100	mg/L							
Blank (B8C2165-BLK4)				Prepared & Analyzed: 03/20/18						
Iron, Total	ND	0.100	mg/L							
Manganese, Total	ND	0.00100	mg/L							
LCS (B8C2165-BS1)				Prepared & Analyzed: 03/20/18						
Iron, Total	0.276	0.100	mg/L	0.250		110	85-115			
Manganese, Total	0.264	0.00100	mg/L	0.250		106	85-115			
LCS (B8C2165-BS2)				Prepared & Analyzed: 03/20/18						
Iron, Total	0.289	0.100	mg/L	0.250		116	85-115			13
Manganese, Total	0.266	0.00100	mg/L	0.250		106	85-115			
LCS (B8C2165-BS3)				Prepared & Analyzed: 03/20/18						
Iron, Total	0.268	0.100	mg/L	0.250		107	85-115			
Manganese, Total	0.248	0.00100	mg/L	0.250		99.1	85-115			
LCS (B8C2165-BS4)				Prepared & Analyzed: 03/20/18						
Iron, Total	0.258	0.100	mg/L	0.250		103	85-115			
Manganese, Total	0.235	0.00100	mg/L	0.250		93.9	85-115			
Matrix Spike (B8C2165-MS1)		Source: C8C1064-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.344	0.100	mg/L	0.250	0.0301	126	70-130			
Manganese, Total	0.261	0.00100	mg/L	0.250	0.0320	91.6	70-130			



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EPA 200.7 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B8C2165 - EPA 200.7										
Matrix Spike (B8C2165-MS2)		Source: C8C1891-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.369	0.100	mg/L	0.250	0.0752	117	70-130			
Manganese, Total	0.269	0.00100	mg/L	0.250	0.00304	106	70-130			
Matrix Spike (B8C2165-MS3)		Source: C8C2839-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.272	0.100	mg/L	0.250	0.0111	104	70-130			
Manganese, Total	0.241	0.00100	mg/L	0.250	ND	96.2	70-130			
Matrix Spike (B8C2165-MS4)		Source: C8C3285-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.295	0.100	mg/L	0.250	0.0302	106	70-130			
Manganese, Total	0.249	0.00100	mg/L	0.250	0.0101	95.5	70-130			
Matrix Spike Dup (B8C2165-MSD1)		Source: C8C1064-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.344	0.100	mg/L	0.250	0.0301	126	70-130	0.0142	20	
Manganese, Total	0.258	0.00100	mg/L	0.250	0.0320	90.3	70-130	1.25	20	
Matrix Spike Dup (B8C2165-MSD2)		Source: C8C1891-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.339	0.100	mg/L	0.250	0.0752	106	70-130	8.37	20	
Manganese, Total	0.248	0.00100	mg/L	0.250	0.00304	98.1	70-130	8.08	20	
Matrix Spike Dup (B8C2165-MSD3)		Source: C8C2839-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.266	0.100	mg/L	0.250	0.0111	102	70-130	2.51	20	
Manganese, Total	0.234	0.00100	mg/L	0.250	ND	93.5	70-130	2.87	20	
Matrix Spike Dup (B8C2165-MSD4)		Source: C8C3285-01		Prepared & Analyzed: 03/20/18						
Iron, Total	0.287	0.100	mg/L	0.250	0.0302	103	70-130	2.55	20	
Manganese, Total	0.242	0.00100	mg/L	0.250	0.0101	92.9	70-130	2.66	20	



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EPA 300.0 - Quality Control
Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C3001 - No Prep

Blank (B8C3001-BLK1)

Prepared & Analyzed: 03/24/18

Chloride	ND	5.0	mg/L							
Sulfate	ND	5.0	mg/L							

LCS (B8C3001-BS1)

Prepared & Analyzed: 03/24/18

Chloride	125		mg/L	125		100	80-120			
Sulfate	99.7		mg/L	100		99.7	80-120			

Matrix Spike (B8C3001-MS1)

Source: C8C1064-04

Prepared & Analyzed: 03/24/18

Chloride	462	5.0	mg/L	125	333	103	80-120			
Sulfate	133	5.0	mg/L	100	25.1	108	80-120			

Matrix Spike Dup (B8C3001-MSD1)

Source: C8C1064-04

Prepared & Analyzed: 03/24/18

Chloride	463	5.0	mg/L	125	333	103	80-120	0.0635	20	
Sulfate	136	5.0	mg/L	100	25.1	111	80-120	2.78	20	

Batch B8C3002 - No Prep

Blank (B8C3002-BLK1)

Prepared & Analyzed: 03/24/18

Chloride	ND	5.0	mg/L							
Sulfate	ND	5.0	mg/L							

LCS (B8C3002-BS1)

Prepared & Analyzed: 03/24/18

Chloride	125		mg/L	125		100	80-120			
Sulfate	99.8		mg/L	100		99.8	80-120			

Matrix Spike (B8C3002-MS1)

Source: C8C1064-01

Prepared & Analyzed: 03/24/18

Chloride	246	5.0	mg/L	125	118	103	80-120			
Sulfate	199	5.0	mg/L	100	87.1	112	80-120			



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EPA 300.0 - Quality Control

Eastex Environmental Laboratory - Coldspring

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8C3002 - No Prep

Matrix Spike Dup (B8C3002-MSD1)

Source: C8C1064-01

Prepared & Analyzed: 03/24/18

Chloride	245	5.0	mg/L	125	118	102	80-120	0.510	20	
Sulfate	198	5.0	mg/L	100	87.1	111	80-120	0.484	20	



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Notes and Definitions

40	Alkalinity titrated to pH 4.5 endpoint.
13	LCS associated with sample batch outside of acceptance limits.
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



EASTEX ENVIRONMENTAL LABORATORY, INC.

www.eastexlab.com

Sampler's Name (please print)
CHRIS WIVZBAR

Project Number	Project Name
C8C1064	Willis WQP

Remarks:

Remarks:		Date	Time	5	DO	PH	C-2	Flow	Temp	6	Material	#Con	Size	Type	Pres
Order ID	4 Sample ID														

WOP

ortho

C8C1064	EP001 200 S Bell	3/9/18	0915	G	8.2	22	DN	P	✓	✓
	DS01 211 North Forest	3/9/18	0936	G	8.3	21.2		P	✓	✓
	DS01 519 South Campbell		0952	G	8.3	22.2		P	✓	✓
	EP002 Perkins		1005	G	8.4	22.9		P	✓	✓
	DS01 9518 Maple Ridge		1017	G	8.4	22.7		P	✓	✓
	EP003 9637 Live Oak		1025	G	8.4	23.9		P	✓	✓

Relinquished By: (Signature)		Date	Time	Received Iced:	Yes / No

Relinquished By: (Signature)	Received By: (Signature)	Date	Time	Received Icd: Yes / No
				

Relinquished By: (Signature) <i>[Signature]</i>		Received and/or Checked in By: (Signature) <i>[Signature]</i>		Date <i>11/18</i>		Time <i>11:10</i>		Received Iced: <i>[X]</i> / No	
LAB USE ONLY		Sample Condition Acceptable: (Yes / No)		Temp °C		* Therm ID		Logged in By: (Signature)	
Alternate Check in: (Signature)		Date		Time				Date	
				15.9		15		<i>KLP</i>	
								Date	
								Time	
								<i>3/9/18</i>	
								<i>1130</i>	
								Write Copy-Follows Samples	
								Yellow Copy-Laboratory	
								Pink Copy-Client Copy	
								SEE BACK FOR INSTRUCTIONS	