

May 28, 2020

Steven Fonville
Martindale WSC
PO Box 175
Martindale, TX 78655

SATL Report No.: 2005279
RE: WQP
Project Number: TX0280013

Dear Steven Fonville

SATL received 4 Sample(s) on 05/19/2020 for analyses identified on the chain of custody. The analyses were performed using methods indicated on the laboratory report. Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

Sincerely,

For San Antonio Testing Laboratory, Inc.



Richard Hawk,
General Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Martindale WSC
PO Box 175
Martindale TX, 78655

Project: WQP
Project Number: TX0280013
Project Manager: Steven Fonville

NELAC Cert. No.: T104704360

Reported:
05/28/20 16:32
Received:
05/19/20 14:19

Additional Notes:

Report No. 2005279

SAMPLE SUMMARY

Total Samples received in this work order: 4

The following samples were requested for analysis as per the CoC. Any re-runs or re-analyses requested are identified as such.

<u>Sample ID</u>	<u>Laboratory ID</u>	<u>Matrix</u>	<u>Sampling Method</u>	<u>Date Sampled</u>	<u>Date Received</u>
206 Main St Martindale	2005279-01	Drinking Water	Grab	05/19/20 11:30	05/19/20 14:19
FM 1984 SH 80 Martindale	2005279-02	Drinking Water	Grab	05/19/20 10:30	05/19/20 14:19
287 Meadow Ln	2005279-03	Drinking Water	Grab	05/19/20 10:55	05/19/20 14:19
104 Wandas Ct	2005279-04	Drinking Water	Grab	05/19/20 10:20	05/19/20 14:19

Notes

All quality control samples and checks are within acceptance limits unless otherwise indicated.

Test results pertain only to those items tested.

All samples were in good condition when received by the laboratory unless otherwise noted.

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05/28/20 16:32
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05/19/20 14:19

Additional Notes:

Report No. 2005279

Sample ID #: 206 Main St Martindale

Sampling Method: Grab

Lab Sample ID #: 2005279-01

Sample Matrix: Drinking Water

Date/Time Collected: 05/19/20 11:30

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
General Chemistry									
Conductivity (@25C)	721	umhos/cm	1.00		B022140	05/19/20 16:26	SM2510B	HS	
Total Alkalinity	280	mg/L as CaCO3	20.0	SM2320B	B021167	05/20/20 14:26	SM2320B	HS	
Total Dissolved Solids *	455	mg/L	2.50	SM2540C	B021195	05/20/20 16:17	SM2540C	JL	
Anions by Ion Chromatography									
Chloride *	37.5	mg/L	1.00	EPA 300.0	B021178	05/20/20 13:25	EPA 300.0	JL	
Sulfate *	34.4	mg/L	1.00	EPA 300.0	B021178	05/20/20 13:25	EPA 300.0	JL	
Total Metals									
Calcium	107	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:08	EPA 200.7	ME	
Iron *	<0.050	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:08	EPA 200.7	ME	
Magnesium *	7.52	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:08	EPA 200.7	ME	
Manganese *	<0.010	mg/L	0.010	EPA 200.7	B022178	05/27/20 17:08	EPA 200.7	ME	
Sodium *	30.7	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:08	EPA 200.7	ME	
Hardness as CaCO3 (Value more than 120 = Hard water)									
Hardness	298	mg/L as CaCO3	2.50	[CALC]	[CALC]	05/27/20 17:08	SM2340B	ME	

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Received:
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Additional Notes:

Report No. 2005279

Sample ID #: FM 1984 SH 80 Martindale

Sampling Method: Grab

Lab Sample ID #: 2005279-02

Sample Matrix: Drinking Water

Date/Time Collected: 05/19/20 10:30

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
General Chemistry									
Conductivity (@25C)	494	umhos/cm	1.00		B022140	05/19/20 16:26	SM2510B	HS	
Total Alkalinity	196	mg/L as CaCO ₃	20.0	SM2320B	B021167	05/20/20 14:26	SM2320B	HS	
Total Dissolved Solids *	304	mg/L	2.50	SM2540C	B021195	05/20/20 16:17	SM2540C	JL	
Anions by Ion Chromatography									
Chloride *	34.0	mg/L	0.500	EPA 300.0	B021178	05/20/20 14:00	EPA 300.0	JL	
Sulfate *	31.6	mg/L	0.50	EPA 300.0	B021178	05/20/20 14:00	EPA 300.0	JL	
Total Metals									
Calcium	69.4	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:24	EPA 200.7	ME	
Iron *	<0.050	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:24	EPA 200.7	ME	
Magnesium *	12.2	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:24	EPA 200.7	ME	
Manganese *	<0.010	mg/L	0.010	EPA 200.7	B022178	05/27/20 17:24	EPA 200.7	ME	
Sodium *	11.3	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:24	EPA 200.7	ME	
Hardness as CaCO₃ (Value more than 120 = Hard water)									
Hardness	223	mg/L as CaCO ₃	2.50	[CALC]	[CALC]	05/27/20 17:24	SM2340B	ME	

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Reported:
05/28/20 16:32
Received:
05/19/20 14:19

Additional Notes:

Report No. 2005279

Sample ID #: 287 Meadow Ln

Sampling Method: Grab

Lab Sample ID #: 2005279-03

Sample Matrix: Drinking Water

Date/Time Collected: 05/19/20 10:55

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
General Chemistry									
Conductivity (@25C)	526	umhos/cm	1.00		B022140	05/19/20 16:26	SM2510B	HS	
Total Alkalinity	216	mg/L as CaCO3	20.0	SM2320B	B021167	05/20/20 14:26	SM2320B	HS	
Total Dissolved Solids *	326	mg/L	2.50	SM2540C	B021195	05/20/20 16:17	SM2540C	JL	
Anions by Ion Chromatography									
Chloride *	35.0	mg/L	1.00	EPA 300.0	B021178	05/20/20 14:17	EPA 300.0	JL	
Sulfate *	31.9	mg/L	1.00	EPA 300.0	B021178	05/20/20 14:17	EPA 300.0	JL	
Total Metals									
Calcium	75.2	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:29	EPA 200.7	ME	
Iron *	<0.050	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:29	EPA 200.7	ME	
Magnesium *	12.3	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:29	EPA 200.7	ME	
Manganese *	<0.010	mg/L	0.010	EPA 200.7	B022178	05/27/20 17:29	EPA 200.7	ME	
Sodium *	14.2	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:29	EPA 200.7	ME	
Hardness as CaCO3 (Value more than 120 = Hard water)									
Hardness	238	mg/L as CaCO3	2.50	[CALC]	[CALC]	05/27/20 17:29	SM2340B	ME	

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Received:
05/19/20 14:19

Additional Notes:

Report No. 2005279

Sample ID #: 104 Wandas Ct

Sampling Method: Grab

Lab Sample ID #: 2005279-04

Sample Matrix: Drinking Water

Date/Time Collected: 05/19/20 10:20

Analyte	Result	Units	PQL	Prep Method	Batch	Analyzed	Method	Analyst	Notes
General Chemistry									
Conductivity (@25C)	500	umhos/cm	1.00		B022140	05/19/20 16:26	SM2510B	HS	
Total Alkalinity	208	mg/L as CaCO3	20.0	SM2320B	B021167	05/20/20 14:26	SM2320B	HS	
Total Dissolved Solids *	290	mg/L	2.50	SM2540C	B021195	05/20/20 16:17	SM2540C	JL	
Anions by Ion Chromatography									
Chloride *	31.4	mg/L	0.500	EPA 300.0	B021178	05/20/20 14:52	EPA 300.0	JL	
Sulfate *	28.4	mg/L	0.50	EPA 300.0	B021178	05/20/20 14:52	EPA 300.0	JL	
Total Metals									
Calcium	71.3	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:35	EPA 200.7	ME	
Iron *	<0.050	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:35	EPA 200.7	ME	
Magnesium *	12.1	mg/L	0.050	EPA 200.7	B022178	05/27/20 17:35	EPA 200.7	ME	
Manganese *	<0.010	mg/L	0.010	EPA 200.7	B022178	05/27/20 17:35	EPA 200.7	ME	
Sodium *	12.5	mg/L	1.00	EPA 200.7	B022178	05/27/20 17:35	EPA 200.7	ME	
Hardness as CaCO3 (Value more than 120 = Hard water)									
Hardness	228	mg/L as CaCO3	2.50	[CALC]	[CALC]	05/27/20 17:35	SM2340B	ME	

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Report No. 2005279

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit
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Batch B021167 - SM2320B

Blank (B021167-BLK1)				Prepared: 05/20/20 09:30 Analyzed: 05/20/20 14:26					
Total Alkalinity	<20.0	20.0	mg/L as CaCO3						
LCS (B021167-BS1)				Prepared: 05/20/20 09:30 Analyzed: 05/20/20 14:26					
Total Alkalinity	104	20.0	mg/L as CaCO3	106		98	80-120		
LCS Dup (B021167-BSD1)				Prepared: 05/20/20 09:30 Analyzed: 05/20/20 14:26					
Total Alkalinity	104	20.0	mg/L as CaCO3	106		98	80-120	0	20
Duplicate (B021167-DUP1)				Source: 2005140-01		Prepared: 05/20/20 09:30 Analyzed: 05/20/20 14:26			
Total Alkalinity	232	20.0	mg/L as CaCO3	224				4	20
Duplicate (B021167-DUP2)				Source: 2005279-03		Prepared: 05/20/20 09:30 Analyzed: 05/20/20 14:26			
Total Alkalinity	208	20.0	mg/L as CaCO3	216				4	20

Batch B021195 - SM2540C

Blank (B021195-BLK1)				Prepared: 05/20/20 09:45 Analyzed: 05/20/20 16:17					
Total Dissolved Solids	<2.50	2.50	mg/L						
LCS (B021195-BS1)				Prepared: 05/20/20 09:45 Analyzed: 05/20/20 16:17					
Total Dissolved Solids	107	2.50	mg/L	100		107	80-120		
LCS Dup (B021195-BSD1)				Prepared: 05/20/20 09:45 Analyzed: 05/20/20 16:17					
Total Dissolved Solids	106	2.50	mg/L	100		106	80-120	0.9	20
Duplicate (B021195-DUP1)				Source: 2005286-01		Prepared: 05/20/20 09:45 Analyzed: 05/20/20 16:17			
Total Dissolved Solids	2600	12.5	mg/L	2610				0.2	20

Batch B022140 - NO PREP

LCS (B022140-BS1)				Prepared: 05/19/20 16:26 Analyzed: 05/19/20 16:26					
Conductivity (@25C)	1000	1.00	umhos/cm	1000		100	80-120		
Duplicate (B022140-DUP1)				Source: 2005260-01		Prepared: 05/19/20 16:26 Analyzed: 05/19/20 16:26			
Conductivity (@25C)	1140	1.00	umhos/cm	1140				0	20

Anions by Ion Chromatography - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B021178 - EPA 300.0

Blank (B021178-BLK1)

Prepared: 05/20/20 11:00 Analyzed: 05/20/20 11:41

Chloride	<0.100	0.100	mg/L						
Sulfate	<0.10	0.10	mg/L						

LCS (B021178-BS1)

Prepared: 05/20/20 11:00 Analyzed: 05/20/20 11:58

Chloride	5.35	0.100	mg/L	5.00		107	90-110		
Sulfate	5.27	0.10	mg/L	5.00		105	90-110		

LCS Dup (B021178-BSD1)

Prepared: 05/20/20 11:00 Analyzed: 05/20/20 12:16

Chloride	5.34	0.100	mg/L	5.00		107	90-110	0.1	20
Sulfate	5.27	0.10	mg/L	5.00		105	90-110	0.09	20

Duplicate (B021178-DUP1)

Source: 2005279-01

Prepared: 05/20/20 11:00 Analyzed: 05/20/20 13:42

Chloride	36.9	1.00	mg/L		37.5			2	20
Sulfate	34.0	1.00	mg/L		34.4			1	20

Total Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B022178 - EPA 200.7

Blank (B022178-BLK1)

Prepared: 05/27/20 13:00 Analyzed: 05/27/20 16:37

Calcium	<1.00	1.00	mg/L						
Iron	<0.050	0.050	mg/L						
Magnesium	<0.050	0.050	mg/L						
Manganese	<0.010	0.010	mg/L						
Sodium	<1.00	1.00	mg/L						

LCS (B022178-BS1)

Prepared: 05/27/20 13:00 Analyzed: 05/27/20 16:42

Calcium	2.08	1.00	mg/L	2.00		104	85-115		
Iron	2.07	0.050	mg/L	2.00		103	85-115		
Magnesium	1.85	0.050	mg/L	2.00		92	85-115		
Manganese	2.02	0.010	mg/L	2.00		101	85-115		
Sodium	1.97	1.00	mg/L	2.00		98	85-115		

LCS Dup (B022178-BSD1)

Prepared: 05/27/20 13:00 Analyzed: 05/27/20 16:47

Calcium	2.09	1.00	mg/L	2.00		104	85-115	0.2	20
Iron	2.08	0.050	mg/L	2.00		104	85-115	0.4	20
Magnesium	1.85	0.050	mg/L	2.00		92	85-115	0.2	20
Manganese	2.03	0.010	mg/L	2.00		101	85-115	0.1	20



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Total Metals - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B022178 - EPA 200.7

LCS Dup (B022178-BSD1)

Prepared: 05/27/20 13:00 Analyzed: 05/27/20 16:47

Sodium	1.98	1.00	mg/L	2.00		99	85-115	0.5	20
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Duplicate (B022178-DUP1)

Source: 2005279-01

Prepared: 05/27/20 13:00 Analyzed: 05/27/20 17:13

Calcium	106	1.00	mg/L		107			0.8	20
Iron	0.00200	0.050	mg/L		0.00190			5	20
Magnesium	7.51	0.050	mg/L		7.52			0.1	20
Manganese	0.000400	0.010	mg/L		0.000400			0	20
Sodium	30.7	1.00	mg/L		30.7			0	20

Matrix Spike (B022178-MS1)

Source: 2005279-01

Prepared: 05/27/20 13:00 Analyzed: 05/27/20 17:19

Iron	2.06	0.050	mg/L	2.00	0.00190	103	75-125		
Magnesium	8.95	0.050	mg/L	2.00	7.52	71	75-125		M
Manganese	2.01	0.010	mg/L	2.00	0.000400	100	75-125		
Sodium	31.0	1.00	mg/L	2.00	30.7	17	75-125		M

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DEFINITIONS

*	TNI / NELAC accredited analyte
PQL	Practical Quantitation Limit
MCL	Maximum Contaminant Level
mg/Kg	Milligrams per Kilogram (Parts per Million)
mg/L	Milligrams per Liter (Parts per Million)
PPM	Parts per Million
L	LCS recovery is outside QC acceptance limits, the results may have a slight bias.
M	MS recovery is outside QC limits, the results may have a slight bias due to possible matrix interferences.
RMCCCL	Recommended Maximum Concentration of Contaminants Level
Surr L	Surrogate recovery is low outside QC limits.
Surr H	Surrogate recovery is high outside QC limits.
μR/hr	MicroRoentgens per hour (Measure of Radioactivity Level)
HT	Sample received past holdtime
IC	Improper Container
IT	Improper Temperature
V	Inssufficient Volume
B	Sample collected in Bulk
S	RPD is outside QC limits. This may be due to possible matrix interferences in Matrix spike samples.
AB	VOA Vial contained air bubbles.
OP	ortho-Phosphate was not filtered in the field within 15minutes of collection.
CCV	Continuing Calibration Verification Standard.
ICV	Initial Calibration Verification Standard.

Test Methods followed by the laboratory are referenced in the following approved methodology, unless otherwise specified.

Standard Methods for the Examination of Water and Wastewater, 21st Edition 2005
Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983
EPA SW Test Methods for the Examination of Solid Waste, SW-846, 1996

Aimee Landon For Sairam Abburu, Lab Director For

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Richard Hawk, General Manager



SAN ANTONIO TESTING LABORATORY, INC.

Sample Receipt Checklist

Client: Morandale

Report Number: 2005279

Project Name: _____

Date Received: 5/19/20

Shipped via: FedEx UPS Lonestar Hand Delivered DHL SATL Other

Date Due: 5/27/20

Rush: Specify: 5 2 1

Items to be checked upon Receipt: [Yes, No, N/A]

1. Custody Seals present?	Yes	No	NA	If NA-reason:	
2. Custody Seals intact?	Yes	No	NA	If NA-reason:	
3. Air Bill included in folder, if received?	Yes	No	NA	If NA-reason:	
4. Is COC included with samples?	Yes	No	NA	If NA-reason:	
5. Is COC signed and dated by client?	Yes	No	NA	If NA-reason:	
6. Sample temperature: Thermal preservation between >0° - 6°C? (Samples that are delivered to the laboratory on the same day that they are collected may not meet this criterion, but are acceptable if they arrive on ice.)	Yes	No	NA	Temp: <u>2.8</u> °C	
7. Samples received with ice <input checked="" type="checkbox"/> ice packs <input type="checkbox"/> other cooling <input type="checkbox"/>	Yes	No	NA	If NA-reason:	
8. Is the COC filled out correctly, and completely?	Yes	No	NA	If NA-reason:	
9. Information on the COC matches the samples?	Yes	No	NA	If NA-reason:	
10. Samples received within holding time?	Yes	No	NA	If NA-reason:	
11. Samples properly labeled?	Yes	No	NA	If NA-reason:	
12. Samples submitted with chemical preservation? (e.g. pH adjusted, or sodium thiosulfate added for microbiological tests)	Yes	No	NA	If NA-reason:	<u>in lab</u>
13. Proper sample containers used?	Yes	No	NA	If NA-reason:	
14. All samples received intact, containers not damaged or leaking?	Yes	No	NA	If NA-reason:	
15. VOA vials (requesting BTEX/VOC analysis) received with no air bubbles? Bubbles acceptable on VOA vials for TPH.	Yes	No	NA	If NA-reason:	<u>none</u>
16. Preservative for THMs only (Na ₂ S ₂ O ₃)	Yes	No	NA	If NA-reason:	<u>none</u>
17. Sample volume sufficient for requested analysis?	Yes	No	NA	If NA-reason:	
18. Sample amount sufficient for TCLP analysis?	Yes	No	N/A	If NA-reason:	<u>not req</u>
19. Subcontracted Samples: [if Yes, complete the next section]	Yes	No	NA	If NA-reason:	

Analyses Subcontracted Out: _____

No. of Samples _____

Samples sent to: _____

Sent By: _____

Date samples sent: _____

Samples shipped via: _____

TAT Requested: _____

Tracking number [if any]: _____

Comments: _____

Received By: [Signature]

Date: 5/19/20

Labeled By: _____

Date: _____

Logged into LIMS By: _____

Date: _____

Logged into RF By: _____

Date: _____