

January 14, 2022 Project No. 2040906201

Mack Borchardt
City of Frisco
6101 Frisco Square Boulevard
Frisco, Texas 75034

RE: 2021 THIRD QUARTER FRENCH DRAIN OPERATIONAL REPORT, FRISCO COMMUNITY DEVELOPMENT CORPORATION SITE, 7471 OLD 5TH STREET, FRISCO, TEXAS, SWR 30516

Dear Mr. Borchardt,

Golder Associates USA Inc. (Golder) has prepared this quarterly operational report for the French Drain System (FDS) at the Frisco Community Development Corporation (CDC) facility located at 7471 Old 5th Street in Frisco, Texas (Site). This report has been prepared in response to the Texas Commission on Environmental Quality (TCEQ) comments to Exide Technologies, Inc. (Exide) on the 2013 Affected Property Assessment Report (APAR) dated October 8th, 2013 which requested additional information regarding the performance of the French Drain and the TCEQ comments to Exide for the 2014 APAR dated May 5, 2015 which requested quarterly reports on the operation of the FDS. This work is being continued under new ownership by the Frisco CDC.

This report includes general FDS background information and summarizes operation of the FDS system during the third quarter 2021. Specifically, the quarterly report includes a discussion of the performance of the system, gallons of water intercepted, concentrations of constituents in the water, the presence and/or absence of leakage along the flood wall into Stewart Creek, the presence or absence of white crystalline substance, sample results (if applicable), and a determination as to whether ongoing discharges to Stewart Creek are continuing to occur. As stated in previous quarterly reports, survey data for the French Drain and Stewart Creek and specific notes on which days the French Drain was pumped, as requested by the TCEQ, are included in this report.

1.0 FRENCH DRAIN SYSTEM HISTORY

According to historical information contained in the French Drain Construction Report (W&M Environmental Group, Inc. [W&M], 2013), the concrete retaining wall along the southern edge of the operating area was constructed in the late 1980s to keep Stewart Creek floodwaters from entering the operating portion of the facility and to retain storm water from the operating portion of the facility for subsequent collection and treatment at the onsite water treatment plants. After construction of the retaining wall, areas of seepage along the Stewart Creek side of the retaining wall were previously observed by Exide and its consultants; primarily between the Battery Receiving Building and the Slag Treatment Building. In response, Exide sealed numerous cracks in the retaining wall. In 2011, W&M designed the FDS and associated repairs to drain any water that collected below the pavement on the north side of the FDS and eliminate seepage through the flood wall. Water from the FDS is pumped to mobile storage tanks adjacent to the wastewater treatment area for offsite disposal. Additional FDS

Mack Borchardt Project No. 2040906201
City of Frisco January 14, 2022

information, including system specifications, is included in the June 2014 French Drain Monitoring Plan (FDMP) that was previously provided to the TCEQ.

2.0 DESCRIPTION OF MONITORING AND INSPECTION ACTIVITIES

Activities completed by the City of Frisco employees and Golder during the third quarter 2021 included the following:

- Daily (weekday) Inspections and Maintenance Inspection of the flowmeter and recording flow rate and totalizer reading.
- Weekly Inspections and Maintenance Inspection and maintenance of the FDS collection sump.
- Quarterly Inspections and Maintenance
 - Inspection of the FDS for sedimentation.
 - Inspection of the Flood Wall waterstop and joint fillers.
 - Inspection of the Flood Wall for signs of seepage through the wall, cracks, or other signs of damage.

Monitoring and inspection activities completed for the FDS in accordance with the FDMP during the third quarter 2021 were completed by both City of Frisco Site personnel as well as Golder staff. City of Frisco Site personnel conducted daily and weekly activities, and Golder personnel conducted the quarterly inspection.

Golder inspected the outside portion of the flood wall and identified that sealant previously added by the City of Frisco was working well and did not identify additional areas needing attention. A more detailed description of the results of data collection activities and inspections is included in Section 3.0 below.

3.0 OBSERVATIONS AND RESULTS

3.1 Gallons of Water Intercepted

The flow rate and totalizer reading for the FDS were generally recorded each weekday. Table 1 summarizes the recorded flows of the FDS and the offsite daily precipitation based on data recorded at a local weather station located in Frisco, Texas (data obtained from https://www.wunderground.com/dashboard/pws/KTXDALLA25).

3.2 Groundwater and Perched Water Level Observations

Water levels for MW-26, MW-29, MW-31, MW-32, MW-33, MW-34, MW-35, and MW-46 were measured and recorded during the third quarter 2021. Table 2 summarizes the groundwater depths and elevations from this sampling event as well as previous data and includes the elevations of the banks and bottom of Stewart Creek at transects located near the upstream, midpoint and downstream end of the FDS. Monitoring well locations, transect locations, and Stewart Creek elevations are shown on Figure 1. Water levels were generally consistent when compared to the second quarter of 2021 (with some readings being slightly higher and some readings being slightly lower) than in the previous event.

3.3 Floodwall Seepage

There was no floodwall seepage observed during the flood wall inspections conducted on August 30, 2021.



Mack Borchardt Project No. 2040906201
City of Frisco January 14, 2022

3.4 White Crystalline Material Observations

White crystalline material was not observed on the flood wall during the Golder inspection conducted on August 30, 2021. As such, no samples of white crystalline material were collected or analyzed.

3.5 Laboratory Analytical Results

Water samples were collected by City of Frisco Site personnel from the FDS during the third quarter 2021. Sampling of the French Drain was conducted on July 8, 2021. All analytical results from these samples are included in Table 3 and Attachment A.

4.0 SUMMARY OF SYSTEM PERFORMANCE

Based on the results of the inspection and monitoring activities for the third quarter 2021 described above, the FDS appears to be operating as designed.



Mack Borchardt Project No. 2040906201
City of Frisco January 14, 2022

5.0 CLOSURE

Golder appreciates the opportunity to assist the Frisco Community Development Corporation with this project. Please contact us if you have any questions or comments concerning this quarterly operational report.

Sincerely,

Golder Associates USA Inc.

Emily Forthaus

Emily P. Forthaus Senior Consultant Anne M. Faeth-Boyd, PG Senior Lead Consultant

Anne Fach - Boyd

EPF/AMF

CC Jerry Wick, Texas Commission on Environmental Quality

Brad Weaver – JEM Connections LLC (City of Frisco)

Attachments: Table 1: French Drain Daily Flow Volumes

Table 2: Perched and Groundwater Monitoring Well Water Elevations

Table 3: French Drain Water Analytical Data

Figure 1: Stewart Creek Transects

Attachment A: French Drain Water Laboratory Analytical Results



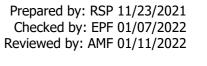
French Drain Daily Flow Volumes

Jul-21			Aug-21			Sep-21		
Total Flow/Water Removed (gal)	Total Precip (in)	Total Flow/Water Removed	(gal)	Total Precip (in)	Total Flow/Water Removed	Total Flow/Water Removed (gal) Pro (i	
8,129		3.37	4,954		2.06	936 0.0		
Date	Daily Flow (gal)	Daily Precip (in)	Date	Daily Flow (gal)	Daily Precip (in)	Date	Daily Flow (gal)	Daily Precip (in)
Thursday, July 1, 2021	269		Sunday, August 1, 2021	53	0.04	Wednesday, September 1, 2021	52	0.00
Friday, July 2, 2021	494	1.33	Monday, August 2, 2021	140	0.33	Thursday, September 2, 2021	53	0.00
Saturday, July 3, 2021	607	0.00	Tuesday, August 3, 2021	160	0.00	Friday, September 3, 2021	52	0.00
Sunday, July 4, 2021	440		Wednesday, August 4, 2021	61	0.00	Saturday, September 4, 2021	47	0.00
Monday, July 5, 2021	309	0.00	Thursday, August 5, 2021	107	0.00	Sunday, September 5, 2021	95	0.00
Tuesday, July 6, 2021	187	0.00	Friday, August 6, 2021	56	0.00	Monday, September 6, 2021	41	0.00
Wednesday, July 7, 2021	121	0.00	Saturday, August 7, 2021	NR	0.00	Tuesday, September 7, 2021	37	0.00
Thursday, July 8, 2021	179	0.00	Sunday, August 8, 2021	NR	0.00	Wednesday, September 8, 2021	54	0.00
Friday, July 9, 2021	109	0.00	Monday, August 9, 2021	232	0.00	Thursday, September 9, 2021	55	0.00
Saturday, July 10, 2021	NR	0.00	Tuesday, August 10, 2021	52	0.00	Friday, September 10, 2021	0	0.00
Sunday, July 11, 2021	NR	0.32	Wednesday, August 11, 2021	52	0.00	Saturday, September 11, 2021	58	0.00
Monday, July 12, 2021	760	0.00	Thursday, August 12, 2021	54	0.00	Sunday, September 12, 2021	1	0.00
Tuesday, July 13, 2021	167	0.00	Friday, August 13, 2021	45	0.00	Monday, September 13, 2021	73	0.00
Wednesday, July 14, 2021	161	0.00	Saturday, August 14, 2021	3	0.43	Tuesday, September 14, 2021	0	0.00
Thursday, July 15, 2021	108	0.00	Sunday, August 15, 2021	100	0.01	Wednesday, September 15, 2021	53	0.00
Friday, July 16, 2021	112	0.00	Monday, August 16, 2021	86	0.01	Thursday, September 16, 2021	0	0.00
Saturday, July 17, 2021	109	0.00	Tuesday, August 17, 2021	107	0.14	Friday, September 17, 2021	56	0.00
Sunday, July 18, 2021	157	0.56	Wednesday, August 18, 2021	603	0.80	Saturday, September 18, 2021	40	0.00
Monday, July 19, 2021	350	1.15	Thursday, August 19, 2021	998	0.30	Sunday, September 19, 2021	23	0.00
Tuesday, July 20, 2021	1,439	0.01	Friday, August 20, 2021	539	0.00	Monday, September 20, 2021	21	0.00
Wednesday, July 21, 2021	458	0.00	Saturday, August 21, 2021	317	0.00	Tuesday, September 21, 2021	0	0.00
Thursday, July 22, 2021	341	0.00	Sunday, August 22, 2021	208	0.00	Wednesday, September 22, 2021	0	0.00
Friday, July 23, 2021	144	0.00	Monday, August 23, 2021	152	0.00	Thursday, September 23, 2021	55	0.00
Saturday, July 24, 2021	NR	0.00	Tuesday, August 24, 2021	161	0.00	Friday, September 24, 2021	0	0.00
Sunday, July 25, 2021	NR	0.00	Wednesday, August 25, 2021	162	0.00	Saturday, September 25, 2021	0	0.00
Monday, July 26, 2021	531	0.00	Thursday, August 26, 2021	109	0.00	Sunday, September 26, 2021	55	0.00
Tuesday, July 27, 2021	161		Friday, August 27, 2021	109	0.00	Monday, September 27, 2021	15	0.00
Wednesday, July 28, 2021	143		Saturday, August 28, 2021	51	0.00	Tuesday, September 28, 2021	0	0.00
Thursday, July 29, 2021	111		Sunday, August 29, 2021	108	0.00	Wednesday, September 29, 2021	0	0.00
Friday, July 30, 2021	54		Monday, August 30, 2021	76	0.00	Thursday, September 30, 2021	0	0.00
Saturday, July 31, 2021	108		Tuesday, August 31, 2021	53	0.00	1		

Notes:

Precipitation data obtained from https://www.wunderground.com/dashboard/pws/KTXDALLA25. Daily flow volumes provided by the Site.

NR - Not Recorded.





		Ste	wart Creek Elevat	tions				
C	Dalas		Measurement		evation			
Surv	ey Point		Date		624.04 630.52 628.20 622.70 622.88 628.18 Groundwater Elevation (ft msl) 621.95 622.41 622.72 626.13 626.14 623.03 626.61 626.61 626.61 626.52 626.46 626.52 626.46 626.42 626.28 626.12 626.72 626.37 626.22			
Fransect 1				· ·				
Top of North Bank			3/7/2016	(628.74			
Toe of North Bank			3/7/2016					
Creek Centerline			3/7/2016		622.79			
oe of South Bank			3/7/2016		624.27			
Top of South Bank			3/7/2016	(534.09			
ransect 2			, ,					
op of North Bank			3/7/2016		627.97			
oe of North Bank			3/7/2016		623.57			
oe of South Bank			3/7/2016	624.04				
op of South Bank			3/7/2016		630.52			
ransect 3								
op of North Bank			3/7/2016					
oe of North Bank			3/7/2016					
oe of South Bank			3/7/2016					
Top of South Bank			3/7/2016		528.18			
	TOC	Screen	Monguyamani	Depth to	Groundwater			
Well ID	Elevation	Interval	Measurement	Groundwater	Elevation			
	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)			
1W-26	631.93	5-15	3/11/2013	9.98	• •			
Groundwater)	051.95	3-13	4/5/2013	9.52				
diodilawater)			4/29/2013	9.21				
			1/21/2014	5.80	·			
			7/29/2014	5.79				
			9/23/2014	8.9				
			6/12/2015	5.32				
			9/8/2015	5.72				
			12/17/2015	5.32				
			2/29/2016	5.41				
			6/1/2016	5.47				
			9/8/2016	5.51				
			12/2/2016	5.65				
			3/2/2017	5.81				
			5/4/2017	6.21				
			8/28/2017	5.56				
			11/27/2017	5.71				
			2/15/2018	5.75	626.18			
			5/9/2018	5.65	626.28			
			9/24/2018	NA	NA			
			12/4/2018	5.60	626.33			
			3/7/2019	5.64	626.29			
			6/3/2019	5.92	626.01			
			9/9/2019	5.87	626.06			
			12/2/2019	5.63	626.30			
			2/26/2020	5.71	626.22			
			5/27/2020	4.67	627.26			
			8/27/2020	6.12	625.81			
			12/8/2020	5.41	626.52			
			3/4/2021	5.62	626.31			
			6/2/2021	5.56	626.37			
	1	1	8/30/2021	5.56	626.37			



	TOC	Screen	Management	Depth to	Groundwater
Well ID	Elevation	Interval	Measurement	Groundwater	Elevation
	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)
MW-29	633.51	4.5-14.5	3/11/2013	13.08	620.43
(Groundwater)			4/5/2013	6.96	626.55
			4/29/2013	6.56	626.95
			1/21/2014	6.62	626.89
			7/29/2014	6.57	626.94
			9/23/2014	6.04	627.47
			6/12/2015 9/8/2015	5.21 6.35	628.30 627.16
			12/17/2015	5.67	627.84
			2/29/2016	5.79	627.72
			6/1/2016	5.69	627.82
			9/8/2016	5.67	627.84
			12/2/2016	6.25	627.26
			3/2/2017	6.51	627.00
			5/4/2017	5.80	627.71
			8/28/2017	5.90	627.61
			11/27/2017	6.77	626.74
			2/15/2018	6.77	626.74
			5/9/2018	5.95	627.56
			9/24/2018	NA 6.12	NA 627.39
			12/4/2018 3/7/2019	6.12	627.39
			6/3/2019	6.27	627.24
			9/9/2019	6.25	627.26
			12/2/2019	6.27	627.24
			2/26/2020	5.18	628.33
			5/27/2020	5.09	628.42
			8/27/2020	6.96	626.55
			12/8/2020	6.06	627.45
			3/4/2021	6.12	627.39
			6/2/2021	6.09	627.42
MM 24	626.71	0.22	8/30/2021	6.12	627.39
MW-31 (Groundwater)	636.71	8-23	5/13/2013 1/21/2014	10.58 10.87	626.13 625.84
(Groundwater)			7/29/2014	10.81	625.90
			9/23/2014	11.32	625.39
			6/12/2015	9.61	627.10
			9/8/2015	10.53	626.18
			12/17/2015	9.42	627.29
			2/29/2016	9.78	626.93
			6/1/2016	9.82	626.89
			9/8/2016	9.90	626.81
			12/2/2016	10.21	626.50
			3/2/2017	12.23 10.58	624.48
			5/4/2017 8/28/2017	9.99	626.13 626.72
			11/27/2017	10.82	625.89
			2/15/2018	10.90	625.81
			5/9/2018	10.19	626.52
			9/24/2018	NA	NA
			12/4/2018	10.42	626.29
			3/7/2019	10.13	626.58
			6/3/2019	10.31	626.40
			9/9/2019	10.51	626.20
			12/2/2019	9.85	626.86
			2/26/2020 5/27/2020	8.96 8.54	627.75 628.17
			8/27/2020	8.5 4 10.56	626.15
			12/8/2020	9.71	627.00
			3/4/2021	9.79	626.92
			6/2/2021	9.86	626.85
I			8/30/2021	9.56	627.15



	TOC	Screen	Management	Depth to	Groundwater
Well ID	Elevation	Interval	Measurement	Groundwater	Elevation
	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)
MW-32	630.96	2.5-5	1/21/2014	4.16	626.80
(Perched)			7/29/2014	4.59	626.37
			9/23/2014	4.59	626.37
			6/12/2015	3.79	627.17
			9/8/2015	R	R
			2/29/2016	3.57	627.39
			6/1/2016	3.62	627.34
			9/8/2016	3.83	627.13
			12/2/2016	3.40	627.56
			3/2/2017	3.26	627.70
			5/4/2017	3.49	627.47
			8/28/2017	3.55	627.41
			11/27/2017	3.54	627.42
			2/15/2018	3.21	627.75
			5/9/2018	3.30	627.66
			9/24/2018	NA 2.70	NA C20.26
			12/4/2018	2.70	628.26
			3/7/2019	3.88	627.08
			6/3/2019	3.67	627.29
			9/9/2019	3.92	627.04
			12/2/2019	3.32 2.92	627.64
			2/26/2020	2.39	628.04
			5/27/2020	3.86	628.57 627.10
			8/27/2020 12/8/2020	3.16	627.80
			3/4/2021	3.29	627.67
			6/2/2021	3.19	627.77
			8/30/2021	3.19	627.77
MW-33	632.59	2.5-5	1/21/2014	1.09	631.50
(Perched)	032.33	2.5 5	7/29/2014	2.14	630.45
(1 0.000)			9/23/2014	1.55	631.04
			12/17/2015	1.21	631.38
			2/29/2016	1.07	631.52
			6/1/2016	1.09	631.50
			9/8/2016	1.07	631.52
			12/2/2016	0.95	631.64
			3/2/2017	0.88	631.71
			5/4/2017	0.91	631.68
			8/28/2017	0.86	631.73
			11/27/2017	0.85	631.74
			2/15/2018	0.81	631.78
			5/9/2018	0.80	631.79
			9/24/2018	NA	NA
			12/4/2018	0.95	631.64
			3/7/2019	0.64	631.95
			6/3/2019	0.92	631.67
			9/9/2019	1.13	631.46
			12/2/2019	0.33	632.26
			2/26/2020	0.39	632.20
			5/27/2020	0.16	632.43
			8/27/2020	0.99	631.60
			12/8/2020	0.46	632.13
			3/4/2021	0.72	631.87
			6/2/2021	0.61	631.98
			8/30/2021	0.26	632.33



	TOC	Screen	M	Depth to	Groundwater
Well ID	Elevation	Interval	Measurement	Groundwater	Elevation
	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)
MW-34	632.83	2.5-5	1/21/2014	4.31	628.52
(Perched)			7/29/2014	4.45	628.38
ĺ			9/23/2014	4.45	628.38
			6/12/2015	3.42	629.41
			12/17/2015	3.03	629.80
			2/29/2016	1.95	630.88
			6/1/2016	2.04	630.79
			9/8/2016	2.59	630.24
			12/2/2016	2.50	630.33
			3/2/2017	2.75	630.08
			5/4/2017	3.93	628.90
			8/28/2017	2.95	629.88
			11/27/2017	3.62	629.21
			2/15/2018	3.71	629.12
			5/9/2018	3.57	629.26
			9/24/2018	NA	NA
			12/4/2018	3.08	629.75
			3/7/2019	3.41	629.42
			6/3/2019	3.17	629.66
			9/9/2019	3.31	629.52
			12/2/2019	2.89	629.94
			2/26/2020	1.37	631.46
			5/27/2020	1.86	630.97
			8/27/2020	3.49	629.34
			12/8/2020	2.58	630.25
			3/4/2021	2.76	630.07
			6/2/2021	2.67	630.16
MW-35	632.55	2.5-5	8/30/2021	2.73 DRY	630.10 DRY
(Perched)	032.33	2.5-5	1/21/2014 7/29/2014	DRY	DRY
(reicheu)			9/23/2014	DRY	DRY
			6/12/2015	4.97	627.58
			9/8/2015	DRY	DRY
			12/17/2015	4.10	628.45
			2/29/2016	3.86	628.69
			6/1/2016	3.99	628.56
			9/8/2016	4.13	628.42
			12/2/2016	3.85	628.70
			3/2/2017	3.94	628.61
			5/4/2017	4.58	627.97
			8/28/2017	4.16	628.39
			11/27/2017	3.98	628.57
			2/15/2018	3.81	628.74
			5/9/2018	3.92	628.63
			9/24/2018	NA	NA
			12/4/2018	3.74	628.81
			3/7/2019	3.65	628.90
			6/3/2019	3.91	628.64
			9/9/2019	4.05	628.50
			12/2/2019	4.06	628.49
			2/26/2020	3.89	628.66
			5/27/2020	2.95	629.60
			8/27/2020	4.52	628.03
			12/8/2020	4.06	628.49
			3/4/2021 6/2/2021	4.22 4.19	628.33 628.36
			8/30/2021	3.92	628.63



Well ID	TOC Elevation	Screen Interval	Measurement	Depth to Groundwater	Groundwater Elevation
	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)
MW-46	630.98	10-20	1/21/2014	5.21	625.77
(Groundwater)			7/29/2014	5.47	625.51
			9/23/2014	5.08	625.90
			6/12/2015	5.50	625.48
			9/8/2015	4.17	626.81
			2/29/2016	5.23	625.75
			6/1/2016	5.30	625.68
			9/8/2016	5.41	625.57
			12/2/2016	4.96	626.02
			3/2/2017	5.00	625.98
			5/4/2017	5.50	625.48
			8/28/2017	4.44	626.54
			11/27/2017	5.41	625.57
			2/15/2018	5.81	625.17
			5/9/2018	4.24	626.74
			9/24/2018	NA	NA
			12/4/2018	4.61	626.37
			3/7/2019	4.29	626.69
			6/3/2019	4.61	626.37
			9/9/2019	4.41	626.57
			12/2/2019	4.32	626.66
			2/26/2020	3.29	627.69
			5/27/2020	3.26	627.72
			8/27/2020	4.89	626.09
			12/8/2020	4.21	626.77
			3/4/2021	4.42	626.56
			6/2/2021	4.39	626.59
			8/30/2021	4.17	626.81

Notes:

- 1. bgs below ground surface.
- 2. msl above mean sea level.
- 3. btoc below top of casing.
- $4.\,\,$ R depth to groundwater was disqualified as a field error because depth was greater than total depth of the well.
- 5. NA not accessible due to Site conditions.



Prepared by: RSP 11/23/2021 Checked by: EPF 01/07/2022

Reviewed by: AMF 01/11/2022

Table 3 French Drain Water Analytical Data

	FD1008 Labora	ole ID 321-001 tory ID	Sample ID FD100821-002 Laboratory ID				
		206-001	210702				
		ollected 21 12:30	Date Collected 7/8/2021 12:30				
Metals							
Parameter:	Result	Units	Result	Units			
Arsenic	NA	mg/L	<0.003	mg/L			
Barium	NA	mg/L	0.061	mg/L			
Cadmium	NA	mg/L	<0.0005	mg/L			
Chromium	NA	mg/L	0.010	mg/L			
Copper	NA	mg/L	0.0044 J-5	mg/L			
Iron	NA	mg/L	<0.25	mg/L			
Lead	NA	mg/L	0.006	mg/L			
Manganese	NA	mg/L	<0.001	mg/L			
Nickel	NA	mg/L	< 0.003	mg/L			
Selenium	NA	mg/L	0.0137	mg/L			
Silver	NA	mg/L	<0.001	mg/L			
Zinc	NA	mg/L	<0.003	mg/L			
Mercury	NA	mg/L	< 0.0001	mg/L			
General Chemistry							
Parameter:	Result	Units	Result	Units			
Total Suspended Solids	3.9 J-5	mg/L	NA	mg/L			
Total Dissolved Solids	1,160	mg/L	NA	mg/L			

Notes:

1) NA - Not Analyzed

2) mg/L - milligrams per liter

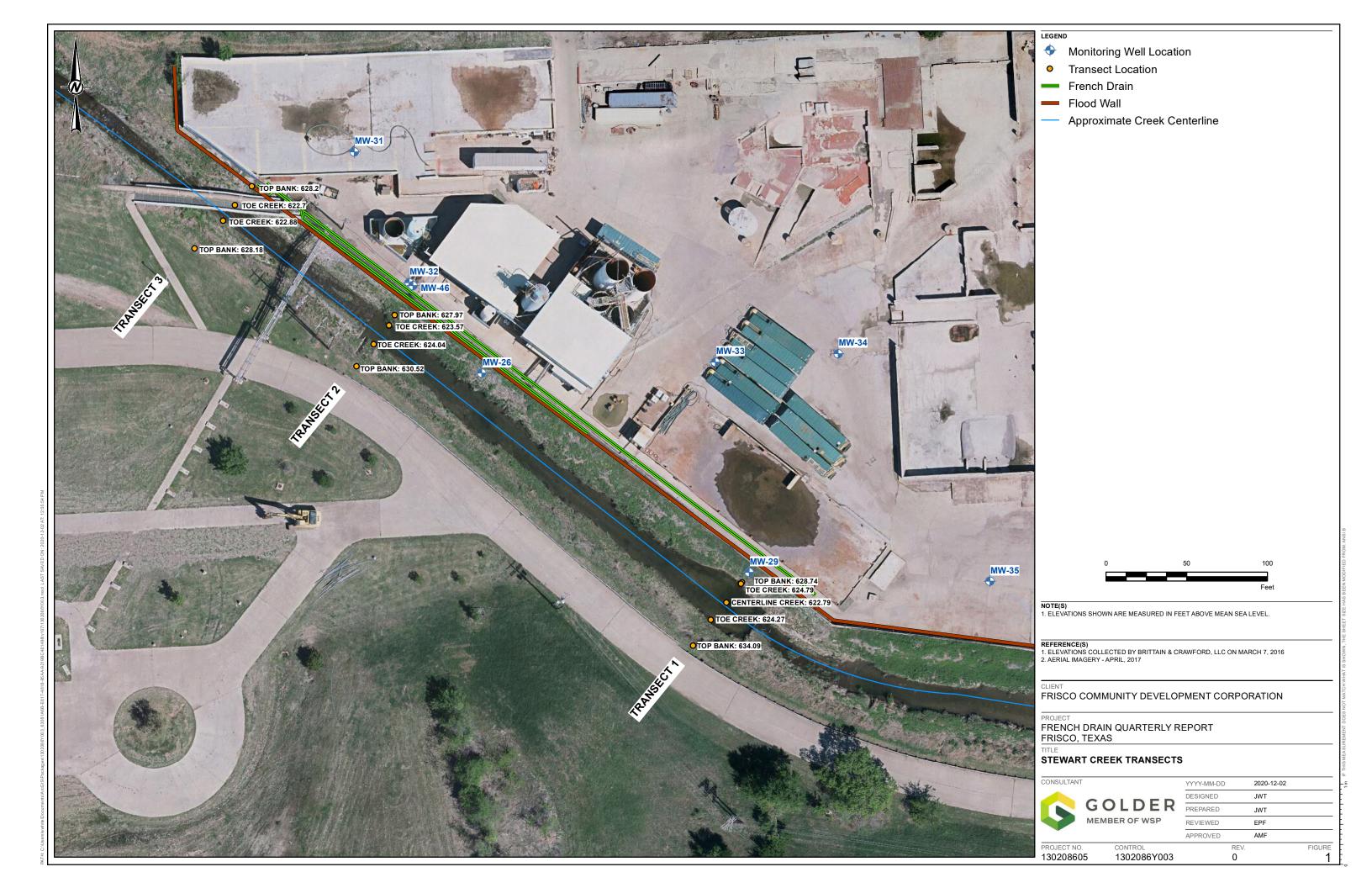
- 3) **Bold** values indicate a detection.
- 4) < denotes analyte not detected, value shown is the sample detection limit (SDL)
- 5) J-5 the associated concentration is an estimated value between the SDL and the adjusted method quantitation limit (MQL).



Prepared by: RSP 01/07/2022

Checked by: EPF 01/07/2022

Reviewed by: AMF 01/11/2022







Order ID: 21070206 Date: 7/16/2021 Page 1 of 14

Friday, July 16, 2021

Frisco Community Development Corp/City of Fri Eduardo Salazar 6101 Frisco Square Blvd Frisco, Texas 75034

Tel: (972) 335-2121 Fax: esalazar@friscotexas.gov

Re: Project Name: F.C.D.C / Former Exide Technologies

Project Number: Influent water flows

Project Location: 7471 Fifth Street Frisco, Texas 75034

Oxidor received 6 liquid sample(s). The analysis performed were as follows:

<u>Sample</u>	Sample ID	<u>Matrix</u>	Collected	<u>Analysis</u>
21070206-001	FD070821-001	Liquid	7/8/2021 12:30	Total Dissolved Solids, Total Suspended Solids
21070206-002	FD070821-002	Liquid	7/8/2021 12:30	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc
21070206-003	SO070821-001	Liquid	7/8/2021 12:45	Total Dissolved Solids, Total Suspended Solids
21070206-004	SO070821-002	Liquid	7/8/2021 12:45	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc
21070206-005	L070821-001	Liquid	7/8/2021 12:55	Total Dissolved Solids, Total Suspended Solids
21070206-006	L070821-002	Liquid	7/8/2021 12:55	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc

To the best of my knowledge, all problems/ anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified via associated flags and/ or in the case narrative. The analyses and data met requirements of NELAP except where noted. All non-NELAP methods are identified accordingly and all estimated uncertainties of test results are within method or EPA specifications.

Respectfully submitted,

Charles Brungardt

President





Order ID: 21070206 Date: 7/16/2021 Page 2 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Analytical Report

Customer Sample ID: Oxidor Sample ID: Sample Received:	21070	206-001		Sam	Matrix: L ple Collected: 7	•	30	
Parameter	SDL	MQL	Result	Units	Date Analyzed	Method	Analyst	Flags
General Chemistry								
Total Dissolved Solids	50.0	25	1160	mg/L	07/14/21 16:12	SM-2540-C	K.V.	
Total Suspended Solids	1.0	5	3.9	mg/L	07/14/21 10:15	SM-2540-D	K.V.	J-5





Order ID: 21070206 Date: 7/16/2021 Page 3 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Analytical Report

Customer Sample ID: Oxidor Sample ID: Sample Received:	210702	06-002		Sam	Matrix: ple Collected:	-	0	
Parameter	SDL	MQL	Result	Units	Date Analyzed	Method	Analyst	Flags
Metals								
Digested by method 200.8 on 07/12/21 at	10:42							
Arsenic	0.003	0.005	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Barium	0.003	0.005	0.061	mg/L	07/13/21 13:19	200.8	K.E.L.	
Cadmium	0.0005	0.001	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Chromium	0.003	0.005	0.010	mg/L	07/13/21 13:19	200.8	K.E.L.	
Copper	0.0025	0.005	0.0044	mg/L	07/13/21 13:19	200.8	K.E.L.	J-5
Iron	0.25	0.5	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Lead	0.003	0.005	0.006	mg/L	07/13/21 13:19	200.8	K.E.L.	
Manganese	0.001	0.002	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Nickel	0.003	0.005	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Selenium	0.0025	0.005	0.0137	mg/L	07/13/21 13:19	200.8	K.E.L.	
Silver	0.001	0.001	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Zinc	0.003	0.005	ND	mg/L	07/13/21 13:19	200.8	K.E.L.	
Digested by method 245.1 on 07/13/21 at	09:05			-				
Mercury	0.0001	0.0002	ND	mg/L	07/13/21 15:05	245.1	C.L.B.	





Order ID: 21070206 Date: 7/16/2021 Page 8 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Sample Cross Reference

Customer ID:	Lab ID:	Test	Method	QCBatchID:
FD070821-001	21070206-001	Total Dissolved Solids	SM-2540-C	TDS02228_L
		Total Suspended Solids	SM-2540-D	TSS09646_L
FD070821-002	21070206-002	Mercury	245.1	MERC_05948_L
		Arsenic	200.8	META_19080_L
		Selenium	200.8	META_19080_L
		Silver	200.8	META_19080_L
		Zinc	200.8	META 19080 L
		Manganese	200.8	META_19080_L
		Lead	200.8	META_19080_L
		Iron	200.8	META_19080_L
		Copper	200.8	META 19080 L
		Chromium	200.8	META 19080 L
		Nickel	200.8	META 19080 L
		Barium	200.8	META 19080 L
		Cadmium	200.8	META_19080_L
SO070821-001	21070206-003	Total Dissolved Solids	SM-2540-C	TDS02228_L
		Total Suspended Solids	SM-2540-D	TSS09646_L
SO070821-002	21070206-004	Mercury	245.1	MERC 05948 L
		Copper	200.8	META_19080_L
		Silver	200.8	META_19080_L
		Selenium	200.8	META_19080_L
		Nickel	200.8	META_19080_L
		Manganese	200.8	META 19080 L
		Iron	200.8	META 19080 L
		Chromium	200.8	META 19080 L
		Zinc	200.8	META 19080 L
		Cadmium	200.8	META 19080 L
	Total Susp 21070206-002 Mercury Arsenic Selenium Silver Zinc Manganes Lead Iron Copper Chromium Nickel Barium Cadmium 21070206-003 Total Disso Total Susp 21070206-004 Mercury Copper Silver Selenium Nickel Manganes Iron Chromium Zinc Cadmium Barium Arsenic Lead 21070206-005 Total Disso Total Susp 21070206-006 Mercury Lead Arsenic Barium Cadmium Cadmium Cadmium Chromium	Barium	200.8	META_19080_L
070821-002 21070206-00 0070821-001 21070206-00 0070821-002 21070206-00		Arsenic	200.8	META_19080_L
		Silver 200.8 M Zinc 200.8 M Manganese 200.8 M Lead 200.8 M Iron 200.8 M Copper 200.8 M Chromium 200.8 M Nickel 200.8 M Barium 200.8 M Cadmium 200.8 M Cadmium 200.8 M Mercury 245.1 M Copper 200.8 M Silver 200.8 M Selenium 200.8 M Nickel 200.8 M Manganese 200.8 M Iron 200.8 M Chromium 200.8 M Zinc 200.8 M Cadmium 200.8 M Barium 200.8 M Total Dissolved Solids SM-2540-C T Total Dissolved Solids SM	META_19080_L	
_070821-001	21070206-005	Total Dissolved Solids	SM-2540-C	TDS02228_L
		Total Suspended Solids	SM-2540-D	TSS09646_L
_070821-002	21070206-006	Mercury	245.1	MERC_05948_L
		Lead	200.8	META_19080_L
		Arsenic	200.8	META 19080 L
		Barium	200.8	META_19080_L
		Cadmium	200.8	META_19080_L
		Chromium	200.8	META_19080_L
		Iron		META_19080_L
		Manganese	200.8	META_19080_L
		Nickel	200.8	META_19080_L
		Selenium	200.8	META_19080_L
		Silver	200.8	META_19080_L
		Zinc	200.8	META_19080_L
		Copper	200.8	META_19080_L





Order ID: 21070206 Date: 7/16/2021 Page 9 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

QC Summary

QC Type	Parameter	Result	Reference Value	Spike Conc	Rec	Rec Limits	RPD	RPD Limits	Flag
QCBatch	nID TDS02228_L								
Blank	Total Dissolved Solids	ND mg/L							
LCS	Total Dissolved Solids	1000 mg/L		1000 mg/L	100%	90-110%			
LCSD	Total Dissolved Solids	1000 mg/L		1000 mg/L	100%	90-110%	0.0%	0-5%	
Replicate	Total Dissolved Solids	2060 mg/L	2100 mg/L				1.9%	0-5%	
QCBatch	ID TSS09646_L								
Blank	Total Suspended Solids	ND mg/L							
LCS	Total Suspended Solids	498 mg/L		500 mg/L	100%	85-115%			
LCSD	Total Suspended Solids	507 mg/L		500 mg/L	101%	85-115%	1.8%	0-15%	
Replicate	Total Suspended Solids	2320 mg/L	2320 mg/L				0.0%	0-15%	
QCBatch	ID MERC_05948_L								
Blank	Mercury	ND mg/L							
LCS	Mercury	0.0103 mg/L		0.01 mg/L	103%	85-115%			
LCSD	Mercury	0.0104 mg/L		0.01 mg/L	104%	85-115%	1.0%	0-25%	
MS	Mercury	0.0102 mg/L	ND	0.01 mg/L	102%	80-120%			
MSD	Mercury	0.0086 mg/L	ND	0.01 mg/L	86%	80-120%	17.0%	0-25%	
QCBatch	ID META_19080_L								
Blank	Arsenic	ND mg/L							
	Barium	ND mg/L							
	Cadmium	ND mg/L							
	Chromium	ND mg/L							
	Copper	ND mg/L							
	Iron	ND mg/L							
	Lead	ND mg/L							
	Manganese	ND mg/L							
	Nickel	ND mg/L							
	Selenium Silver	ND mg/L ND mg/L							
	Zinc	ND mg/L							
LCS	Arsenic	0.102 mg/L		0.1 mg/L	102%	85-115%			
LOC	Barium	0.100 mg/L		0.1 mg/L 0.1 mg/L	100%	85-115%			
	Cadmium	0.1058 mg/L		0.1 mg/L	106%	85-115%			
	Chromium	0.104 mg/L		0.1 mg/L	104%	85-115%			
	Copper	0.0981 mg/L		0.1 mg/L	98%	85-115%			
	Iron	10.3 mg/L		10.1 mg/L	102%	85-115%			
	Lead	0.100 mg/L		0.1 mg/L	100%	85-115%			
	Manganese	0.103 mg/L		0.1 mg/L	103%	85-115%			
	Nickel	0.100 mg/L		0.1 mg/L	100%	85-115%			
	Selenium	0.0994 mg/L		0.1 mg/L	99%	85-115%			
	Silver	0.105 mg/L		0.1 mg/L	105%	85-115%			
	Zinc	0.097 mg/L		0.1 mg/L	97%	85-115%			





Order ID: 21070206 Date: 7/16/2021 Page 10 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

QC Summary

			Reference			Rec		RPD	
QC Type	Parameter	Result	Value	Spike Conc	Rec	Limits	RPD	Limits	Flags
QCBatch	ID META_19080_L								
LCSD	Arsenic	0.104 mg/L		0.1 mg/L	104%	85-115%	1.9%	0-20%	
2002	Barium	0.100 mg/L		0.1 mg/L	100%	85-115%	0.0%	0-20%	
	Cadmium	0.1060 mg/L		0.1 mg/L	106%	85-115%	0.2%	0-20%	
	Chromium	0.105 mg/L		0.1 mg/L	105%	85-115%	1.0%	0-20%	
	Copper	0.0999 mg/L		0.1 mg/L	100%	85-115%	1.8%	0-20%	
	Iron	10.4 mg/L		10.1 mg/L	103%	85-115%	1.0%	0-20%	
	Lead	0.102 mg/L		0.1 mg/L	102%	85-115%	2.0%	0-20%	
	Manganese	0.104 mg/L		0.1 mg/L	104%	85-115%	1.0%	0-20%	
	Nickel	0.102 mg/L		0.1 mg/L	102%	85-115%	2.0%	0-20%	
	Selenium	0.1063 mg/L		0.1 mg/L	106%	85-115%	6.7%	0-20%	
	Silver	0.106 mg/L		0.1 mg/L	106%	85-115%	1.0%	0-20%	
	Zinc	0.099 mg/L		0.1 mg/L	99%	85-115%	2.0%	0-20%	
MS	Arsenic	0.543 mg/L	ND	0.5 mg/L	109%	80-120%			
	Barium	0.556 mg/L	0.051 mg/L	0.5 mg/L	101%	80-120%			
	Cadmium	0.5336 mg/L	ND	0.5 mg/L	107%	80-120%			
	Chromium	0.539 mg/L	ND	0.5 mg/L	108%	80-120%			
	Copper	0.5214 mg/L		0.5 mg/L	101%	80-120%			
	Iron	52.4 mg/L	_	50.5 mg/L	104%	80-120%			
	Lead	0.522 mg/L	ND	0.5 mg/L	104%	80-120%			
	Manganese	0.554 mg/L	0.02 mg/L	0.5 mg/L	107%	80-120%			
	Nickel	0.525 mg/L	ND	0.5 mg/L	105%	80-120%			
	Selenium	0.5149 mg/L	ND	0.5 mg/L	103%	80-120%			
	Silver	0.516 mg/L	ND	0.5 mg/L	103%	80-120%			
	Zinc	0.514 mg/L	0.01 mg/L	0.5 mg/L	101%	80-120%			
MSD	Arsenic	0.547 mg/L	ND	0.5 mg/L	109%	80-120%	0.7%	0-20%	
	Barium	0.559 mg/L	0.051 mg/L	0.5 mg/L	102%	80-120%	0.5%	0-20%	
	Cadmium	0.5424 mg/L	ND	0.5 mg/L	109%	80-120%	1.6%	0-20%	
	Chromium	0.537 mg/L	ND	0.5 mg/L	107%	80-120%	0.4%	0-20%	
	Copper	0.5280 mg/L	0.017 mg/L	0.5 mg/L	102%	80-120%	1.3%	0-20%	
	Iron	52.6 mg/L	0.046 mg/L	50.5 mg/L	104%	80-120%	0.4%	0-20%	
	Lead	0.519 mg/L	ND	0.5 mg/L	104%	80-120%	0.6%	0-20%	
	Manganese	0.537 mg/L	0.02 mg/L	0.5 mg/L	103%	80-120%	3.1%	0-20%	
	Nickel	0.533 mg/L	ND	0.5 mg/L	107%	80-120%	1.5%	0-20%	
	Selenium	0.5269 mg/L	ND	0.5 mg/L	105%	80-120%	2.3%	0-20%	
	Silver	0.511 mg/L	ND	0.5 mg/L	102%	80-120%	1.0%	0-20%	
	Zinc	0.520 mg/L	0.01 mg/L	0.5 mg/L	102%	80-120%	1.2%	0-20%	





Order ID: 21070206 Date: 7/16/2021 Page 11 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Case Narrative

Project Name: F.C.D.C / Former Exide Technologies

J-5 The associated concentration is an estimated value detected between the SDL and the Adjusted MQL

Dx [Value] Sample diluted by [Value] amount

ppm Parts per million = mg/Kg or mg/L

ppb Parts per billion = ug/Kg or ug/L

MQL Method quantitation limit

SDL Sample detection limit (reflects any laboratory adjustments made to the sample during analysis such as dry weight or dilutions)

SQL Sample quantitation limit (reflects any laboratory adjustments made to the sample during analysis such as dry weight or dilution

ND Analyte not detected at or above SDL

LCS/LCSD Laboratory control spike / Laboratory control spike duplicate

MS/MSD Matrix spike / Matrix spike duplicate

RPD Relative percent difference

Sub Analysis performed by subcontract laboratory

Solid samples submitted to the laboratory for analysis by SW-846 Method 8260 should be collected by SW-846 Method 5035. Those samples in which concentrations are less than or equal to 200 ug/kg should be collected in accordance with SW-846 Method 5035, Section 6.2.1. For samples with higher concentrations (> 200 ug/kg), collect samples by SW-846 Method 5035, Section 6.2.2 or 6.2.3. Sample results may not accurately reflect volatile concentrations if collection is not performed according to the referenced methodologies.

Solid samples submitted to the laboratory for analysis by TNRCC Method 1005 should be collected in accordance to the methodology. Those samples in which concentrations of C6 to C12 are known to be absent, or fall under the Petroleum Storage Tank (PST) rule, may be collected in bulk sample jars in accordance with TNRCC Method 1005, Revision 3 clarifications. For samples with concentrations of C6 to C12, or where knowledge of the site does not exist, collect samples by TNRCC Method 1005, Section 6.1. Sample results may not accurately reflect TPH concentrations if collection is not performed according to the referenced methodologies.

Solid sample results reported on a dry weight basis for all applicable analysis, unless otherwise noted. Dry weight calculations based upon % solids obtained as outlined in EPA method 5035 section 7.5.

This report is intended only for the use of Frisco Community Development Corp/City of Frisco and may contain information that is privileged and confidential. It may not be reproduced in full (or in part) without the expressed written permission of Frisco Community Development Corp/City of Frisco and Oxidor Laboratories, LLC.

Oxidor Laboratories, LLC certifies to the best of its knowledge that all results contained in this report are consistent with the National Environmental Laboratory Accreditation Program, except where otherwise noted.





Order ID: 21070206 Date: 7/16/2021 Page 12 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Sample Preservation Verification

Project Name: F.C.D.C / Former Exide Technologies

Receipt temp:	3.5 °C on Ice
Receipt method:	Customer Courier

Custody seal intact: Yes All samples / labels received intact: Yes

Customer Sample ID: FD070821-001 Collected By: Eduardo Salazar Oxidor Sample ID: 21070206-001 Collector Affiliation: City of Frisco

> Collected: 07/08/21 12:30 Matrix: Liquid

> > Indicated / Observed

Collection Method Parts / Interval **Bottle Type** Count Preservation pН 1000 mL Plastic Grab Temp

Collected By: Eduardo Salazar Customer Sample ID: FD070821-002 Oxidor Sample ID: 21070206-002 Collector Affiliation: City of Frisco

> Collected: 07/08/21 12:30 Matrix: Liquid

> > Indicated / Observed

Bottle Type Count **Collection Method** Parts / Interval **Preservation** <u>рН</u> 250 mL Plastic Grab HNO3 <2

Customer Sample ID: SO070821-001 Collected By: Eduardo Salazar Oxidor Sample ID: 21070206-003 Collector Affiliation: City of Frisco

> Collected: 07/08/21 12:45 Matrix: Liquid

Indicated / Observed **Bottle Type** Count **Collection Method** Parts / Interval Preservation pН 1000 mL Plastic Grab Temp

Customer Sample ID: SO070821-002 Collected By: Eduardo Salazar Oxidor Sample ID: 21070206-004 Collector Affiliation: City of Frisco

> Collected: 07/08/21 12:45 Matrix: Liquid

Indicated / Observed **Collection Method** Parts / Interval **Bottle Type** Preservation Count <u>pH</u> <2

250 mL Plastic Grab HNO3

Customer Sample ID: L070821-001 Collected By: Eduardo Salazar Oxidor Sample ID: 21070206-005 Collector Affiliation: City of Frisco

> Collected: 07/08/21 12:55 Matrix: Liquid

Indicated / Observed **Bottle Type Collection Method** Parts / Interval **Preservation** Count pН

1000 mL Plastic Grab Temp





Order ID: 21070206 Date: 7/16/2021 Page 13 of 14

<2

Frisco Community Development Corp/City of Fri Eduardo Salazar

Sample Preservation Verification

Project Name: F.C.D.C / Former Exide Technologies

Customer Sample ID: L070821-002 Collected By: Eduardo Salazar Oxidor Sample ID: 21070206-006 Collector Affiliation: City of Frisco

Collected: 07/08/21 12:55 Matrix: Liquid

Indicated / Observed **Bottle Type** Count **Collection Method** Parts / Interval **Preservation** pН

HNO3 250 mL Plastic Grab

Sample conditions at time of receipt at laboratory verified in part or in whole by:

H.Y.





Order ID: 21070206 Date: 7/16/2021 Page 14 of 14

Documentation

PROJECT DESCRIPTION: F.C.D.C / Former Exide Technologies

Frisco Community Development Corporation 6101 Frisco Square Blvd Frisco, TX 75034 Telephone 972-335-2121 Facsimile 972-377-2707

CHAIN OF CUSTODY RECORD

30202 OM

INITIALS ES ES ES ES ES ES REMARKS/CONTAINERS / ALL SAMPLES COOL < 6° HNo3//250ml/plastic HNo3//250ml/plastic HNo3//250ml/plastic None/1 liter None/1 liter None/1 liter Eduardo Salazai City of Frisco Z. 2 INIT W. Ø W 07/09/21 9:45 AM REPRESENTING: SIGNATURE: DATE SAMPLER: 8.7 8.1 9.6 9.6 펉 8.1 As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn ANALYSES REQUESTED OUTFALL: Influent water flows TDS-TSS TDS-TSS TDS-TSS NATURE OF INDUSTRY: Former Secondary Smelting SAMPLE TYPE ** Grab Grab Grab Grab Grab Grab 12:**5**45PM 12:55 PM 12:30 PM 12:30 PM 12:45 PM 12:55 PM TIME (S) Eduardo Salazar INDUSTRY: F.C.D.C / Former Exide Technologies 07/08/21 07/08/21 07/08/21 07/08/21 07/08/21 07/08/21 ADDRESS: 7471 Fifth Street Frisco, Texas 75034 INDUSTRY REPRESENTATIVE (S): SAMPLE No. / IDENTIFICATION SO070821-002 FD070821-001 FD070821-002 SO070821-001 L070821-001 L070821-002 200-900-100-1007

E-MAIL RESULTS TO Billy.king.mete @gmail.com <u>ESabzar@friscolexas.gov</u> jmaynor@braunintertec.com	USE WASTE WATER REPORT FORMAT	
FIELD INFORMATION: Raw Grab Samples Quarterly	1	

RELINQUISHED BY: (Sign-fure)	REPRESENTING City Of Frisco	DATE 79-2	JIME 9 CK-A	TIME RECEIVED BY (Signature)	Signature)	REPRESENTING 19ATE JCS6 /6/2/	7 pare	G. C. Have
RELINQUISHED BY: (Signature)	REPRESENTING -7/ DATE	J DATE	TIME	REGEIVED/BY: (Signature)	Signature)	REPRESENTING	DATE	TIME
The Unner	JCS6	18/51	12.30pm	Kelielle		OKIDOR	1/3/21	1230
)			h					
** TC = TIME COMPOSITE (96 PARTS) FC = FLOW WEIGHTED COMPOSITE (96 PARTS) G = GRAB	FC = FLOW WEIGHTED	COMPOSITE	96 PARTS) G=	- GRAB	J	~ 04,105 3.5°C	3.5C	