

July 13, 2022 Project No. GL2040906201

Mack Borchardt

City of Frisco 6101 Frisco Square Boulevard Frisco, Texas 75034

RE: 2022 SECOND QUARTER FRENCH DRAIN OPERATIONAL REPORT, FRISCO COMMUNITY DEVELOPMENT CORPORATION SITE, 7471 OLD 5TH STREET, FRISCO, TEXAS

Dear Mr. Borchardt,

Golder Associates USA Inc. (Golder), a member of WSP Global Inc. (WSP), has prepared this quarterly operational report for the French Drain System (FDS) at the City of 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 City of Frisco CDC.

This report includes general FDS background information and summarizes operation of the FDS system during the second quarter 2022. 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 and 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

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pumped to mobile storage tanks adjacent to the wastewater treatment area for offsite disposal. Additional FDS 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 during the second quarter of 2022 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 second quarter 2022 were completed by both City of Frisco Site personnel as well as Golder/WSP staff. City of Frisco Site personnel conducted daily and weekly activities, and Golder/WSP personnel conducted the quarterly inspection.

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) or in Dallas, Texas (data obtained from https://www.wunderground.com/history/monthly/us/tx/dallas/KDAL/date/) for dates not listed by the Frisco, Texas weather station.

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 second quarter 2022. 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 first quarter 2022 (with some readings being slightly higher and some readings being slightly lower) than in the previous event.



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3.3 Floodwall Seepage

A floodwall inspection was conducted on June 1, 2022. Floodwall seepage was observed and reported to the City of Frisco Site personnel for repairs. According to the City of Frisco Site personnel, repairs were completed on June 13, 2022.

3.4 White Crystalline Material Observations

White crystalline material (that has been previously reported) was not observed on the flood wall during the Golder inspection conducted on June 1, 2022. 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 second quarter 2022. Sampling of the French Drain was conducted on April 8, 2022. 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 second quarter 2022 described above, the FDS appears to be operating as designed.



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5.0 CLOSURE

Golder/WSP appreciates the opportunity to assist the City of 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.

Rahel Pommerenke

Environmental Engineer

Todd H. Rees, PhD Senior Director

RSP/THR

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

Apr-22			May-22			Jun-22			
Total Flow/Water Removed (gal)	Total Precip (in)	Total Flow/Water Removed	ved (gal) Precip (in) Total Flow/Water Removed (gal)		(gal)	Total Precip (in)		
21,537		3.69	5,148		4.29	5,572		3.08	
Date	Daily Flow (gal)	Daily Precip (in)	Date	Daily Flow (gal)	Daily Precip (in)	Date	Daily Flow (gal)	Daily Precip (in)	
Friday, April 1, 2022	358	0.00	Sunday, May 1, 2022	166	0.00	Wednesday, June 1, 2022	62	0.05	
Saturday, April 2, 2022	119	0.00	Monday, May 2, 2022	241	0.00	Thursday, June 2, 2022	1,848	2.94	
Sunday, April 3, 2022	179	0.00	Tuesday, May 3, 2022	329	0.05	Friday, June 3, 2022	632	0.09	
Monday, April 4, 2022	122		Wednesday, May 4, 2022	220	0.01	Saturday, June 4, 2022	288	0.00	
Tuesday, April 5, 2022	281	0.00	Thursday, May 5, 2022	291	0.00	Sunday, June 5, 2022	297	0.00	
Wednesday, April 6, 2022	5,619	0.00	Friday, May 6, 2022	220	0.00	Monday, June 6, 2022	296	0.00	
Thursday, April 7, 2022	4,021	0.00	Saturday, May 7, 2022	108	0.00	Tuesday, June 7, 2022	243	0.00	
Friday, April 8, 2022	1,753	0.00	Sunday, May 8, 2022	207	0.00	Wednesday, June 8, 2022	120	0.00	
Saturday, April 9, 2022	1,191	0.00	Monday, May 9, 2022	179	0.00	Thursday, June 9, 2022	178	0.00	
Sunday, April 10, 2022	1,074	0.00	Tuesday, May 10, 2022	112	0.00 1	Friday, June 10, 2022	72	0.00	
Monday, April 11, 2022	1,043	0.00	Wednesday, May 11, 2022	109	0.00 1	Saturday, June 11, 2022	132	0.00	
Tuesday, April 12, 2022	589	0.00	Thursday, May 12, 2022	120	0.00 1	Sunday, June 12, 2022	124	0.00	
Wednesday, April 13, 2022	505	0.05	Friday, May 13, 2022	116	0.00 1	Monday, June 13, 2022	238	0.00	
Thursday, April 14, 2022	453	0.00	Saturday, May 14, 2022	52	0.00 1	Tuesday, June 14, 2022	57	0.00	
Friday, April 15, 2022	389	0.50	Sunday, May 15, 2022	56	0.00 1	Wednesday, June 15, 2022	83	0.00	
Saturday, April 16, 2022	220	0.44	Monday, May 16, 2022	170	0.00 1	Thursday, June 16, 2022	67	0.00	
Sunday, April 17, 2022	303	0.01	Tuesday, May 17, 2022	231	0.00 1	Friday, June 17, 2022	60	0.00	
Monday, April 18, 2022	487		Wednesday, May 18, 2022	120	0.00	Saturday, June 18, 2022	57	0.00	
Tuesday, April 19, 2022	236	0.00	Thursday, May 19, 2022	115	0.00	Sunday, June 19, 2022	66	0.00	
Wednesday, April 20, 2022	287	0.00	Friday, May 20, 2022	113	0.02	Monday, June 20, 2022	61	0.00	
Thursday, April 21, 2022	225	0.00	Saturday, May 21, 2022	59	0.02	Tuesday, June 21, 2022	62	0.00	
Friday, April 22, 2022	207	0.00	Sunday, May 22, 2022	122	0.11	Wednesday, June 22, 2022	120	0.00	
Saturday, April 23, 2022	169	0.25	Monday, May 23, 2022	59	0.02	Thursday, June 23, 2022	61	0.00	
Sunday, April 24, 2022	175	0.27	Tuesday, May 24, 2022	55	0.64	Friday, June 24, 2022	NR	0.00	
Monday, April 25, 2022	397		Wednesday, May 25, 2022	429	0.34	Saturday, June 25, 2022	61	0.00	
Tuesday, April 26, 2022	346	0.00	Thursday, May 26, 2022	288	0.00	Sunday, June 26, 2022	56	0.00	
Wednesday, April 27, 2022	287	0.00	Friday, May 27, 2022	239	0.00	Monday, June 27, 2022	60	0.00	
Thursday, April 28, 2022	280		Saturday, May 28, 2022	206	0.34	Tuesday, June 28, 2022	62	0.00	
Friday, April 29, 2022	114	2.15	Sunday, May 29, 2022	119	0.00	Wednesday, June 29, 2022	58	0.00	
Saturday, April 20, 2022	108	0.02	Monday, May 30, 2022	123	0.00	Thursday, June 30, 2022	51	0.00	
5555. 5577 NPIN 507 ESEE	100	0.02	Tuesday, May 31, 2022	175	2.76		7-	0.00	

Notes:

NR - Not Recorded.



Prepared by: RSP 7/5/2022 Checked by: WLW 7/6/2022

Reviewed by: THR 7/7/2022

^{1 -} As denoted, precipitation data obtained from https://www.wunderground.com/history/monthly/us/tx/frisco/KDAL/ (Dallas Love field), otherwise precipitation data primarily obtained from: https://www.wunderground.com/dashboard/pws/KTXDALLA25 (Frisco). Daily flow volumes provided by the Site.

		Stev	wart Creek Elevat	tions		
S.u.	vov Doint		Measurement		evation	
Sur	vey Point		Date	(ft msl)	
Transect 1						
Top of North Bank			3/7/2016		628.74	
Toe of North Bank			3/7/2016		624.79	
Creek Centerline			3/7/2016		622.79	
Toe of South Bank			3/7/2016 628.74 3/7/2016 624.79 3/7/2016 622.79 3/7/2016 624.27 3/7/2016 634.09 3/7/2016 627.97 3/7/2016 623.57 3/7/2016 623.57 3/7/2016 624.04 3/7/2016 630.52 3/7/2016 628.20 3/7/2016 622.70 3/7/2016 622.88 3/7/2016 628.18 Measurement Depth to Groundwater Groundwater Elevation			
Top of South Bank					634.09	
Transect 2						
Top of North Bank			3/7/2016		627.97	
Toe of North Bank			3/7/2016		623.57	
Toe of South Bank			3/7/2016		624.04	
Top of South Bank					630.52	
Transect 3						
Top of North Bank						
Toe of North Bank						
Toe of South Bank	e of North Bank e of South Bank p of South Bank ansect 3 p of North Bank e of North Bank e of South Bank p of South Bank TOC Well ID TOC Elevation (ft msl) (ft bgs V-26 631.93 5-15					
op of South Bank		3/7/2016		628.18		
	TOC	Screen	Manauramant	Depth to	Groundwater	
Well ID	Elevation	Interval	Measurement	Groundwater	Elevation	
	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)	
MW-26	631.93	5-15	3/11/2013	9.98	621.95	
(Groundwater)						
(, ,			
			, ,			
			, ,			
			, ,			
			, ,			
			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	
			8/30/2021	5.56	626.37	
			12/9/2021	5.46	626.47	
			3/3/2022	5.62	626.31	
1	1		6/1/2022	5.59	626.34	

Well ID Elevation (ft msl) Interval (ft bgs) Measurement Date Groundwater (ft btoc) MW-29 633.51 4.5-14.5 3/11/2013 13.08	roundwater Elevation
MW-29 633.51 4.5-14.5 3/11/2013 13.08	
	(ft msl)
	620.43
(Groundwater) 4/5/2013 6.96	626.55
4/29/2013 6.56 1/21/2014 6.62	626.95 626.89
7/29/2014 6.57	626.94
9/23/2014 6.04	627.47
6/12/2015 5.21	628.30
9/8/2015 6.35	627.16
12/17/2015 5.67 2/29/2016 5.79	627.84 627.72
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 8/28/2017 5.90	627.71 627.61
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	NA
12/4/2018 6.12 3/7/2019 6.07	627.39 627.44
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 5/27/2020 5.09	628.33 628.42
8/27/2020 5.09	626.55
12/8/2020 6.06	627.45
3/4/2021 6.12	627.39
6/2/2021 6.09	627.42
8/30/2021 6.12 12/9/2021 6.12	627.39 627.39
12/9/2021 6.12 3/3/2022 6.27	627.24
6/1/2022 5.06	628.45
MW-31 636.71 8-23 5/13/2013 10.58	626.13
(Groundwater) 1/21/2014 10.87 7/29/2014 10.81	625.84 625.90
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 6/1/2016 9.82	626.93 626.89
9/8/2016 9.90	626.81
12/2/2016 10.21	626.50
3/2/2017 12.23	624.48
5/4/2017 10.58 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 C2C 2O
12/4/2018 10.42 3/7/2019 10.13	626.29 626.58
6/3/2019 10.13	626.40
9/9/2019 10.51	626.20
12/2/2019 9.85	626.86
2/26/2020 8.96 5/27/2020 8.54	627.75
5/27/2020 8.54 8/27/2020 10.56	628.17 626.15
12/8/2020 9.71	627.00
3/4/2021 9.79	626.92
6/2/2021 9.86	626.85
8/30/2021 9.56	627.15
12/9/2021 9.67 3/3/2022 9.86	627.04 626.85
6/1/2022 8.76	627.95

	тос	Screen	Measurement	Depth to	Groundwater
Well ID	Elevation	Interval		Groundwater	Elevation
MM 22	(ft msl)	(ft bgs)	Date	(ft btoc)	(ft msl)
MW-32 (Perched)	630.96	2.5-5	1/21/2014	4.16 4.59	626.80 626.37
(Perched)			7/29/2014	4.59	626.37
			9/23/2014 6/12/2015	3.79	627.17
			9/8/2015	3.79 R	027.17 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 12/4/2018	NA 2.70	NA 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	627.64
			2/26/2020	2.92	628.04
			5/27/2020	2.39	628.57
			8/27/2020	3.86	627.10
			12/8/2020	3.16	627.80
			3/4/2021	3.29	627.67
			6/2/2021	3.19	627.77
			8/30/2021 12/9/2021	3.19 3.24	627.77 627.72
			3/3/2022	3.31	627.65
			6/1/2022	2.77	628.19
MW-33	632.59	2.5-5	1/21/2014	1.09	631.50
(Perched)			7/29/2014	2.14	630.45
			9/23/2014	1.55	631.04
			12/17/2015	1.21	631.38
			2/29/2016	1.07 1.09	631.52 631.50
			6/1/2016 9/8/2016	1.09	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 0.05	NA C21 C4
			12/4/2018	0.95	631.64
			3/7/2019 6/3/2019	0.6 4 0.92	631.95 631.67
			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
			12/9/2021	0.71	631.88
			3/3/2022	0.72	631.87
		l	6/1/2022	0.56	632.03

	тос	Screen	Measurement	Depth to	Groundwater
Well ID	Elevation (ft msl)	Interval (ft bgs)	Date	Groundwater (ft btoc)	Elevation (ft msl)
MW-34	632.83	2.5-5	1/21/2014	4.31	628.52
(Perched)	032.03	2.5-5	7/29/2014	4.45	628.38
(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 9/8/2016	2.04 2.59	630.79 630.24
			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 5/9/2018	3.71 3.57	629.12 629.26
			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 2/26/2020	2.89 1.37	629.94 631.46
			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
			8/30/2021 12/9/2021	2.73 2.51	630.10 630.32
			3/3/2022	2.69	630.14
			6/1/2022	1.26	631.57
MW-35	632.55	2.5-5	1/21/2014	DRY	DRY
(Perched)			7/29/2014	DRY	DRY
			9/23/2014	DRY 4.97	DRY 627.58
			6/12/2015 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 3/2/2017	3.85 3.94	628.70 628.61
			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 9/24/2018	3.92 NA	628.63 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 5/27/2020	3.89 2.95	628.66 629.60
			8/27/2020	4.52	628.03
			12/8/2020	4.06	628.49
			3/4/2021	4.22	628.33
			6/2/2021	4.19	628.36
			8/30/2021	3.92	628.63
			12/9/2021 3/3/2022	4.12 4.29	628.43 628.26
			6/1/2022	3.77	628.78

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
			12/9/2021	4.16	626.82
			3/3/2022	4.38	626.60
			6/1/2022	3.06	627.92

Notes:

- 1. bgs below ground surface.
- 2. msl above mean sea level.
- 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 7/5/2022 Checked by: WLW 7/6/2022 Reviewed by: THR 7/7/2022

Table 3 French Drain Water Analytical Data

	FD0408	ole ID 322-001	Samp FD0408	322-002		
		tory ID	Laboratory ID			
		172-001	22040172-002 Date Collected 4/8/2022 7:15			
		ollected 22 7:15				
Metals						
Parameter:	Result	Units	Result	Units		
Arsenic	NA	mg/L	0.268	mg/L		
Barium	NA	mg/L	0.037	mg/L		
Cadmium	NA	mg/L	0.0006 J-5	mg/L		
Chromium	NA	mg/L	< 0.003	mg/L		
Copper	NA	mg/L	0.0930	mg/L		
Iron	NA	mg/L	1.47	mg/L		
Lead	NA	mg/L	0.005	mg/L		
Manganese	NA	mg/L	0.131	mg/L		
Nickel	NA	mg/L	0.006	mg/L		
Selenium	NA	mg/L	0.0165	mg/L		
Silver	NA	mg/L	< 0.001	mg/L		
Zinc	NA	mg/L	0.009	mg/L		
Mercury	NA	mg/L	< 0.0001	mg/L		
General Chemistry						
Parameter:	Result	Units	Result	Units		
Total Suspended Solids	123	mg/L	NA	mg/L		
Total Dissolved Solids	15,100	mg/L	NA	mg/L		

Notes:

1) NA - Not Analyzed

2) mg/L - milligrams per liter

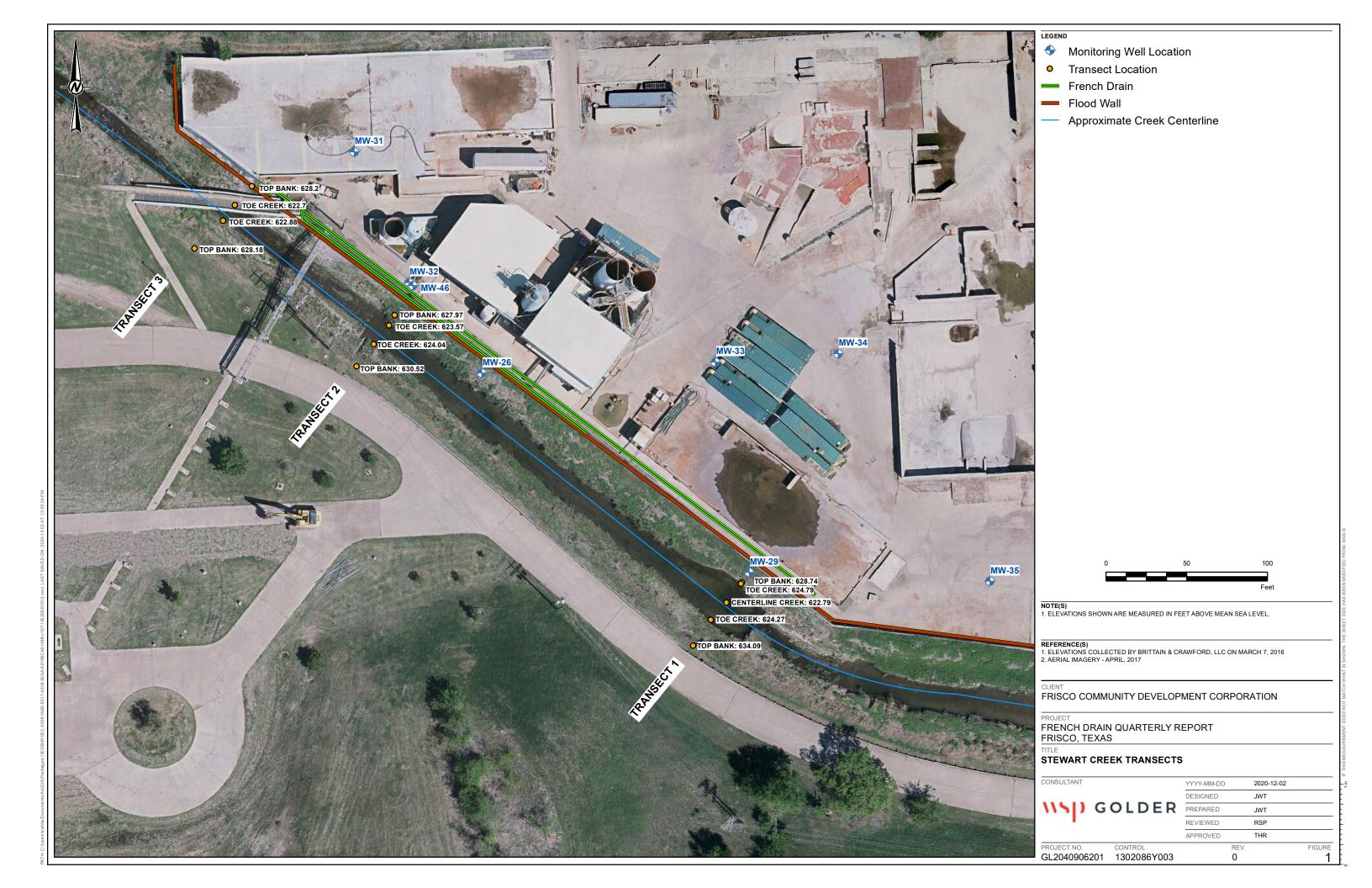
3) **Bold** values indicate a detection.

- 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 7/6/2022

Checked by: WLW 7/6/2022

Reviewed by: THR 7/7/2022







Order ID: 22040172 Date: 4/19/2022 Page 1 of 14

Tuesday, April 19, 2022

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

Tel: (972) 335-2121 Fax:

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

Project Number: Influent water flows

Project Location: 7471 Fifth Street Frisco, TX 75034

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

<u>Sample</u>	Sample ID	<u>Matrix</u>	<u>Collected</u>	<u>Analysis</u>
22040172-001	FD040822-001	Liquid	4/8/2022 07:15	Total Dissolved Solids, Total Suspended Solids
22040172-002	FD040822-002	Liquid	4/8/2022 07:15	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc
22040172-003	SO040822-001	Liquid	4/8/2022 07:40	Total Dissolved Solids, Total Suspended Solids
22040172-004	SO040822-002	Liquid	4/8/2022 07:40	Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc
22040172-005	L040822-001	Liquid	4/8/2022 07:35	Total Dissolved Solids, Total Suspended Solids
22040172-006	L040822-002	Liquid	4/8/2022 07:35	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,

Shoyne Jordan

Shoyne Jordan Manager

Oxidor An SPL Company • 1825 E. Plano Parkway #160 • Plano, TX 75074 • Tel: (972) 424-6422 • NELAP# T104704227





Order ID: 22040172 Date: 4/19/2022 Page 2 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Analytical Report

Customer Sample ID: Oxidor Sample ID: Sample Received:	22040	172-001		Sam	Matrix: ple Collected: 4	-	15	
Parameter	SDL	MQL	Result	Units	Date Analyzed	Method	Analyst	Flags
General Chemistry								
Total Dissolved Solids	50.0	125	15100	mg/L	04/12/22 16:15	SM 2540-C	K.V.	
Total Suspended Solids	1.0	5	123	mg/L	04/12/22 09:50	SM 2540-D	K.V.	





Order ID: 22040172 Date: 4/19/2022 Page 3 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Analytical Report

Customer Sample ID: Oxidor Sample ID: Sample Received:	220401	72-002		Sam	Matrix: ple Collected:	•	15	
Parameter	SDL	MQL	Result	Units	Date Analyzed	Method	Analyst	Flags
Metals Digested by method 200.8 on 04/13/22 at	09:51							
Arsenic	0.003	0.005	0.268	mg/L	04/13/22 15:40	200.8	K.E.L.	
Barium	0.003	0.005	0.037	mg/L	04/13/22 15:40	200.8	K.E.L.	
Cadmium	0.0005	0.001	0.0006	mg/L	04/13/22 15:40	200.8	K.E.L.	J-5
Chromium	0.003	0.005	ND	mg/L	04/13/22 15:40	200.8	K.E.L.	
Copper	0.0025	0.005	0.0930	mg/L	04/13/22 15:40	200.8	K.E.L.	
Iron	0.25	0.5	1.47	mg/L	04/13/22 15:40	200.8	K.E.L.	
Lead	0.003	0.005	0.005	mg/L	04/13/22 15:40	200.8	K.E.L.	
Manganese	0.001	0.002	0.131	mg/L	04/13/22 15:40	200.8	K.E.L.	
Nickel	0.003	0.005	0.006	mg/L	04/13/22 15:40	200.8	K.E.L.	
Selenium	0.0025	0.005	0.0165	mg/L	04/13/22 15:40	200.8	K.E.L.	
Silver	0.001	0.001	ND	mg/L	04/13/22 15:40	200.8	K.E.L.	
Zinc	0.003	0.005	0.009	mg/L	04/13/22 15:40	200.8	K.E.L.	
Digested by method 245.1 on 04/11/22 at	09:45							
Mercury	0.0001	0.0002	ND	mg/L	04/11/22 16:22	245.1	A.G.J.	





Order ID: 22040172 Date: 4/19/2022 Page 8 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Sample Cross Reference

Customer ID:	Lab ID:	Test	Method	QCBatchID:		
FD040822-001	22040172-001	Total Dissolved Solids	SM 2540-C	TDS10628_L		
		Total Suspended Solids	SM 2540-D	TSS07248_L		
FD040822-002	22040172-002	Mercury	245.1	MERC_02650_L		
		Arsenic	200.8	META_09282_L		
		Selenium	200.8	META_09282_L		
		Silver	200.8	META_09282_L		
		Zinc	200.8	META 09282 L		
		Manganese	200.8	META_09282_L		
		Lead	200.8	META_09282_L		
		Iron	200.8	META_09282_L		
		Copper	200.8	META 09282 L		
		Chromium	200.8	META_09282_L		
		Nickel	200.8	META 09282 L		
		Barium	200.8	META_09282_L		
		Cadmium	200.8	META 09282 L		
SO040822-001	22040172-003	Total Dissolved Solids	SM 2540-C	TDS10628_L		
		Total Suspended Solids	SM 2540-D	TSS07248_L		
SO040822-002	22040172-004	Mercury	245.1	MERC 02650 L		
		Copper	200.8	META_09282_L		
		Silver	200.8	META_09282_L		
		Selenium	200.8	META_09282_L		
		Nickel	200.8	META_09282_L		
		Manganese	200.8	META_09282_L		
		Iron	200.8	META 09282 L		
		Chromium	200.8	META_09282_L		
		Zinc	200.8	META_09282_L		
		Cadmium	200.8	META_09282_L		
		Barium	200.8	META_09282_L		
		Arsenic	200.8	META 09282 L		
		Lead	200.8	META_09282_L		
_040822-001	22040172-005	Total Dissolved Solids	SM 2540-C	TDS10628_L		
		Total Suspended Solids	SM 2540-D	TSS07348_L		
_040822-002	22040172-006	Mercury	245.1	MERC_02650_L		
		Lead	200.8	META_09282_L		
		Arsenic	200.8	META_09282_L		
		Barium	200.8	META_09282_L		
		Cadmium	200.8	META_09282_L		
		Chromium	200.8	META_09282_L		
		Iron	200.8	META_09282_L		
		Manganese	200.8	META_09282_L		
		Nickel	200.8	META_09282_L		
		Selenium	200.8	META_09282_L		
		Silver	200.8	META_09282_L		
		Zinc	200.8	META_09282_L		
		Copper	200.8	META_09282_L		





Order ID: 22040172 Date: 4/19/2022 Page 9 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	Flag
QCBatch	nID TDS10628_L								
Blank	Total Dissolved Solids	ND mg/L							
LCS	Total Dissolved Solids	990 mg/L		1000 mg/L	99%	90-110%			
LCSD	Total Dissolved Solids	1000 mg/L		1000 mg/L	100%	90-110%	1.0%	0-5%	
Replicate	Total Dissolved Solids	15000 mg/L	15100 mg/L				0.7%	0-5%	
QCBatch	nID TSS07248_L								
Blank	Total Suspended Solids	ND mg/L							
LCS	Total Suspended Solids	486 mg/L		500 mg/L	97%	85-115%			
LCSD	Total Suspended Solids	499 mg/L		500 mg/L	100%	85-115%	2.6%	0-15%	
Replicate	Total Suspended Solids	208 mg/L	215 mg/L				3.6%	0-15%	
QCBatch	nID TSS07348_L								
Blank	Total Suspended Solids	ND mg/L							
LCS	Total Suspended Solids	495 mg/L		500 mg/L	99%	85-115%			
LCSD	Total Suspended Solids	470 mg/L		500 mg/L	94%	85-115%	5.2%	0-15%	
Replicate	Total Suspended Solids	256 mg/L	267 mg/L	J .			4.2%	0-15%	
QCBatch	nID MERC_02650_L								
Blank	Mercury	ND mg/L							
LCS	Mercury	0.0088 mg/L		0.01 mg/L	88%	85-115%			
LCSD	Mercury	0.0094 mg/L		0.01 mg/L	94%	85-115%	6.4%	0-25%	
MS	Mercury	0.0095 mg/L	ND	0.01 mg/L	95%	80-120%			
MSD	Mercury	0.0094 mg/L	ND	0.01 mg/L	94%	80-120%	0.9%	0-25%	
QCBatch	nID META_09282_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	ND mg/L							
	Silver	ND mg/L							
	Zinc	ND mg/L							
LCS	Arsenic	0.103 mg/L		0.1 mg/L	103%	85-115%			
	Barium	0.103 mg/L		0.1 mg/L	103%	85-115%			
	Cadmium	0.1018 mg/L		0.1 mg/L	102%	85-115%			
	Chromium	0.104 mg/L		0.1 mg/L	104%	85-115%			
	Copper	0.1041 mg/L		0.1 mg/L	104%	85-115%			
	In a se	10.5 mg/L		10.1 mg/L	104%	85-115%			
	Iron	0.095 mg/L		0.1 mg/L	95%	03-11370			





Order ID: 22040172 Date: 4/19/2022 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_09282_L								
	Manganese	0.103 mg/L		0.1 mg/L	103%	85-115%			
	Nickel	0.101 mg/L		0.1 mg/L	101%	85-115%			
	Selenium	0.0989 mg/L		0.1 mg/L	99%	85-115%			
	Silver	0.100 mg/L		0.1 mg/L	100%	85-115%			
	Zinc	0.098 mg/L		0.1 mg/L	98%	85-115%			
LCSD	Arsenic	0.104 mg/L		0.1 mg/L	104%	85-115%	1.0%	0-20%	
	Barium	0.103 mg/L		0.1 mg/L	103%	85-115%	0.0%	0-20%	
	Cadmium	0.1016 mg/L		0.1 mg/L	102%	85-115%	0.2%	0-20%	
	Chromium	0.104 mg/L		0.1 mg/L	104%	85-115%	0.0%	0-20%	
	Copper	0.1026 mg/L		0.1 mg/L	103%	85-115%	1.5%	0-20%	
	Iron	10.3 mg/L		10.1 mg/L	102%	85-115%	1.9%	0-20%	
	Lead	0.098 mg/L		0.1 mg/L	98%	85-115%	3.1%	0-20%	
	Manganese	0.108 mg/L		0.1 mg/L	108%	85-115%	4.7%	0-20%	
	Nickel	0.101 mg/L		0.1 mg/L	101%	85-115%	0.0%	0-20%	
	Selenium	0.1015 mg/L		0.1 mg/L	102%	85-115%	2.6%	0-20%	
	Silver	0.103 mg/L		0.1 mg/L	103%	85-115%	3.0%	0-20%	
	Zinc	0.098 mg/L		0.1 mg/L	98%	85-115%	0.0%	0-20%	
MS	Arsenic	0.518 mg/L	ND	0.5 mg/L	104%	80-120%			
	Barium	-	0.038 mg/L	0.5 mg/L	99%	80-120%			
	Cadmium	_	0.0008 mg/L	0.5 mg/L	102%	80-120%			
	Chromium	•	0.013 mg/L	0.5 mg/L	100%	80-120%			
	Copper		0.0085 mg/L	0.5 mg/L	95%	80-120%			
	Iron	51.0 mg/L	ND	50.5 mg/L	101%	80-120%			
	Lead		0.030 mg/L	0.5 mg/L	101%	80-120%			
	Manganese	0.522 mg/L	_	0.5 mg/L	102%	80-120%			
	Nickel	•	0.005 mg/L	0.5 mg/L	98%	80-120%			
	Selenium	_	0.0259 mg/L	0.5 mg/L	102%	80-120%			
	Silver	0.466 mg/L	ND	0.5 mg/L	93%	80-120%			
	Zinc	0.478 mg/L	ND	0.5 mg/L	96%	80-120%			
MSD	Arsenic	0.507 mg/L	ND	0.5 mg/L	101%	80-120%	2.2%	0-20%	
	Barium	_	0.038 mg/L	0.5 mg/L	102%	80-120%	2.8%	0-20%	
	Cadmium	_	0.0008 mg/L	0.5 mg/L	97%	80-120%	4.2%	0-20%	
	Chromium	•	0.013 mg/L	0.5 mg/L	97%	80-120%	3.4%	0-20%	
	Copper	•	0.0085 mg/L	0.5 mg/L	95%	80-120%	0.1%	0-20%	
	Iron	49.6 mg/L	ND	50.5 mg/L	98%	80-120%	2.8%	0-20%	
	Lead	0.523 mg/L		0.5 mg/L	99%	80-120%	1.9%	0-20%	
	Manganese	0.511 mg/L	-	0.5 mg/L	100%	80-120%	2.1%	0-20%	
	Nickel	0.483 mg/L	_	0.5 mg/L	96%	80-120%	2.9%	0-20%	
	Selenium	_	0.0259 mg/L	0.5 mg/L	94%	80-120%	7.1%	0-20%	
	Silver	0.450 mg/L	ND	0.5 mg/L	90%	80-120%	3.5%	0-20%	
	Zinc	0.459 mg/L	ND	0.5 mg/L	92%	80-120%	4.1%	0-20%	





Order ID: 22040172 Date: 4/19/2022 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.

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Oxidor An SPL Company 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: 22040172 Date: 4/19/2022 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: 1.3 °C on Ice Receipt method: Courier

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

Customer Sample ID: FD040822-001 Collected By: Eduardo Salazar Oxidor Sample ID: 22040172-001 Collector Affiliation: City of Frisco

> Collected: 04/08/22 07:15 Matrix: Liquid

> > Indicated / Observed

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

Customer Sample ID: FD040822-002 Collected By: Eduardo Salazar Oxidor Sample ID: 22040172-002 Collector Affiliation: City of Frisco

> Collected: 04/08/22 07:15 Matrix: Liquid

> > Indicated / Observed

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

Customer Sample ID: SO040822-001 Collected By: Eduardo Salazar Oxidor Sample ID: 22040172-003 Collector Affiliation: City of Frisco

> Collected: 04/08/22 07:40 Matrix: Liquid

> > Indicated / Observed

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

Customer Sample ID: SO040822-002 Collected By: Eduardo Salazar Oxidor Sample ID: 22040172-004

Collector Affiliation: City of Frisco

Collected: 04/08/22 07:40 Matrix: Liquid

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

250 mL Plastic Grab HNO3 <2

Customer Sample ID: L040822-001 Collected By: Eduardo Salazar Oxidor Sample ID: 22040172-005 Collector Affiliation: City of Frisco

> Collected: 04/08/22 07:35 Matrix: Liquid

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

1000 mL Plastic Grab Temp





Order ID: 22040172 Date: 4/19/2022 Page 13 of 14

Frisco Community Development Corp/City of Fri Eduardo Salazar

Sample Preservation Verification

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

Customer Sample ID: **L040822-002**Oxidor Sample ID: **22040172-006**Collected By: **Eduardo Salazar**Collector Affiliation: **City of Frisco**

Collected: 04/00/00 07:05

Collected: 04/08/22 07:35 Matrix: Liquid

Indicated / Observed

Bottle TypeCountCollection MethodParts / IntervalPreservationpH250 mL Plastic1GrabHNO3<2</td>

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

K.K.



Order ID: 22040172 Date: 4/19/2022 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

CHAIN OF CUSTODY RECORD

			INITIALS	ES	ES	ES	ES	S∃	ES
ı		dayo	PRESERVATION/ REMARKS/CONTAINERS / ALL, SAMPLES COOL ≤ 6° C	None/1 liter	HNo3//250ml/plastic	None/1 liter	HNo3//250ml/plastic	None/1 liter	HNo3//250ml/plastic
Eduardo Salazar	City of Frisco	de	INIT	3	80	23	83	88	8
SAMPLER: Edu	REPRESENTING: Ci	SIGNATURE:	DATE TIME	04/08/22 7:15 AM	04/08/22 7:15 AM	04/08/22 7:40 AM	04/08/22 7:40 AM	04/08/22 7:35 AM	04/08/22 7:35 AM
			Hd	8.9	8.9	9.0	9.0	12.4	12.4
OUTFALL: Influent water flows	INDUSTRY: ary Smelting		ANALYSES REQUESTED	TDS-TSS	As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn	TDS-TSS	As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn	TDS-TSS	As,Cd,Cu,Mn, Ni,Ag,Fe,Ba,C r,Pb,Hg,Se,Zn
OUTFALL:	NATURE OF INDUSTRY: Former Secondary Smelting		SAMPLE TYPE **	Grab	Grab	Grab	Grab	Grab	Grab
		salazar ,	TIME (S)	7:15 AM	7:15 AM	7:40 AM	7:40 AM	7:35 AM	7:35 AM
INDUSTRY: F.C.D.C / Former Exide Technologies	7471 Fifth Street Frisco, Texas 75034	INDUSTRY REPRESENTATIVE (S): , Eduardo Salazar ,	DATE (S)	04/08/22	04/08/22	04/08/22	04/08/22	04/08/22	04/08/22
INDUSTRY: F.C.D.C.	ADDRESS: 7471 Fifth Street Frisco, Texas 75	INDUSTRY REPRESE	SAMPLE No. / IDENTIFICATION 220+0-10-10-10-10-10-10-10-10-10-10-10-10-10	FD040822-001	-005 FD040822-002	-W3 SO040822-001	-324 SO040822-002	L040822-001	-000 L040822-002
				35	100-	183	3	500-	-000-

ı	_	-	
	TIME	10:10Hm	TIME
	,pATE	21/8/	DATE
	REPRESENTING)CS6	REPRESENTING
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** TC = TIME COMPOSITE (96 PARTS) FC = FLOW WEIGHTED COMPOSITE (96 PARTS) G = GRAB

E-MAIL RESULTS TO Billy.king.mete @gmail.com <u>ESalazar@friscotexas.gov</u> jmaynor@braunintertec.com

FIELD INFORMATION: Raw Grab Samples Quarterly

USE WASTE WATER REPORT FORMAT