

Stericycle®

**2022 Q2
INCINERATION
REPORT**

July 29th, 2022

District Manager
Ministry of the Environment, Conservation and Parks
Halton-Peel District Office
300-4145 North Service Road
Burlington, ON
L7L 6A3

Dear District Manager,

**Re: Stericycle, ULC.
Certificate of Approval for a Waste Disposal Site No. A680324**

As required by Condition 52 of the above-mentioned Certificate of Approval, please find attached the incinerator quarterly report for the second quarter of 2022.

During April 2022 there were 15 occurrences of the 4-hour CO alarm & 3 occurrences of the 12-hour CO alarm. In May 2022 there were 10 occurrences of the 4-hour CO alarm and 5 occurrences of the 12-hour CO alarm. In June 2022 there were 18 occurrences of the 4-hour CO alarm and 7 occurrences of the 12-hour CO alarm. Stericycle will continue to work with the incinerator operators to further reduce the number of CO alarms.

There were 0 occurrences of the 24-hour NOX alarm triggered in Q2 of 2022.

Details on the above noted alarms are available in the body of the attached report.

SECOND QUARTER 2022 INCINERATOR QUARTERLY REPORT - SUPPLEMENTAL INFORMATION

- The Emergency Bypass stack was used three (3) times during Q2 2022. A detailed description is provided in this report. Stericycle believes this was an electrical glitch that triggered the bypass alarm; however, no other indications of a bypass were present.

- Throughout the quarter, minor issues with either the waste feed or the proper operation of certain pieces of equipment caused alarm conditions. In all cases, the problems were fixed, and normal operations resumed. Corrective actions included adjustments to the waste feed mix and rate and corrective maintenance on affected systems.
- Throughout the second quarter of 2022, the incinerator was run by trained Stericycle operators Emilio Perez, Raminderpal Singh, Said M. Said & Lamek Abraha.
- There were no complaints received regarding the operation of the incinerator during the second quarter of 2022.
- Stericycle Inc. operated the incinerator on the following days during the second quarter:

Start-up	Shut Down
03/30/2022 @ 03:27	04/02/2022 @ 17:59
04/02/2022 @ 22:17	04/08/2022 @ 04:51
04/08/2022 @ 11:43	04/12/2022 @ 12:17
04/12/2022 @ 18:10	04/15/2022 @ 08:39
04/15/2022 @ 12:45	04/22/2022 @ 19:41
04/27/2022 @ 08:09	04/28/2022 @ 22:18
04/29/2022 @ 09:21	05/02/2022 @ 18:46
05/02/2022 @ 22:50	05/04/2022 @ 06:22
05/04/2022 @ 14:48	05/07/2022 @ 05:52
05/14/2022 @ 08:12	05/15/2022 @ 19:33
05/15/2022 @ 23:37	05/17/2022 @ 08:20
05/17/2022 @ 15:02	05/20/2022 @ 17:37
05/20/2022 @ 22:38	05/31/2022 @ 16:12
06/01/2022 @ 00:40	06/02/2022 @ 15:46
06/02/2022 @ 22:17	06/04/2022 @ 17:24
06/13/2022 @ 11:49	06/14/2022 @ 03:33
06/14/2022 @ 10:03	06/16/2022 @ 01:20
06/16/2022 @ 05:20	06/16/2022 @ 17:54
06/17/2022 @ 02:30	06/17/2022 @ 16:26
06/18/2022 @ 11:21	06/20/2022 @ 02:01
06/20/2022 @ 06:02	06/20/2022 @ 15:40
06/20/2022 @ 16:27	06/21/2022 @ 05:27
06/21/2022 @ 06:14	06/21/2022 @ 06:49
06/21/2022 @ 11:59	06/22/2022 @ 05:44
06/22/2022 @ 06:12	06/22/2022 @ 12:50
06/22/2022 @ 13:18	06/24/2022 @ 20:46
06/24/2022 @ 08:08	06/26/2022 @ 19:31
06/26/2022 @ 23:34	06/28/2022 @ 18:56
06/28/2022 @ 23:13	06/29/2022 @ 06:52
06/29/2022 @ 13:48	06/30/2022 @ 04:06
06/30/2022 @ 14:40	

During Q2 of 2022 routine maintenance was performed on the incinerator during the scheduled shutdowns along with the following:

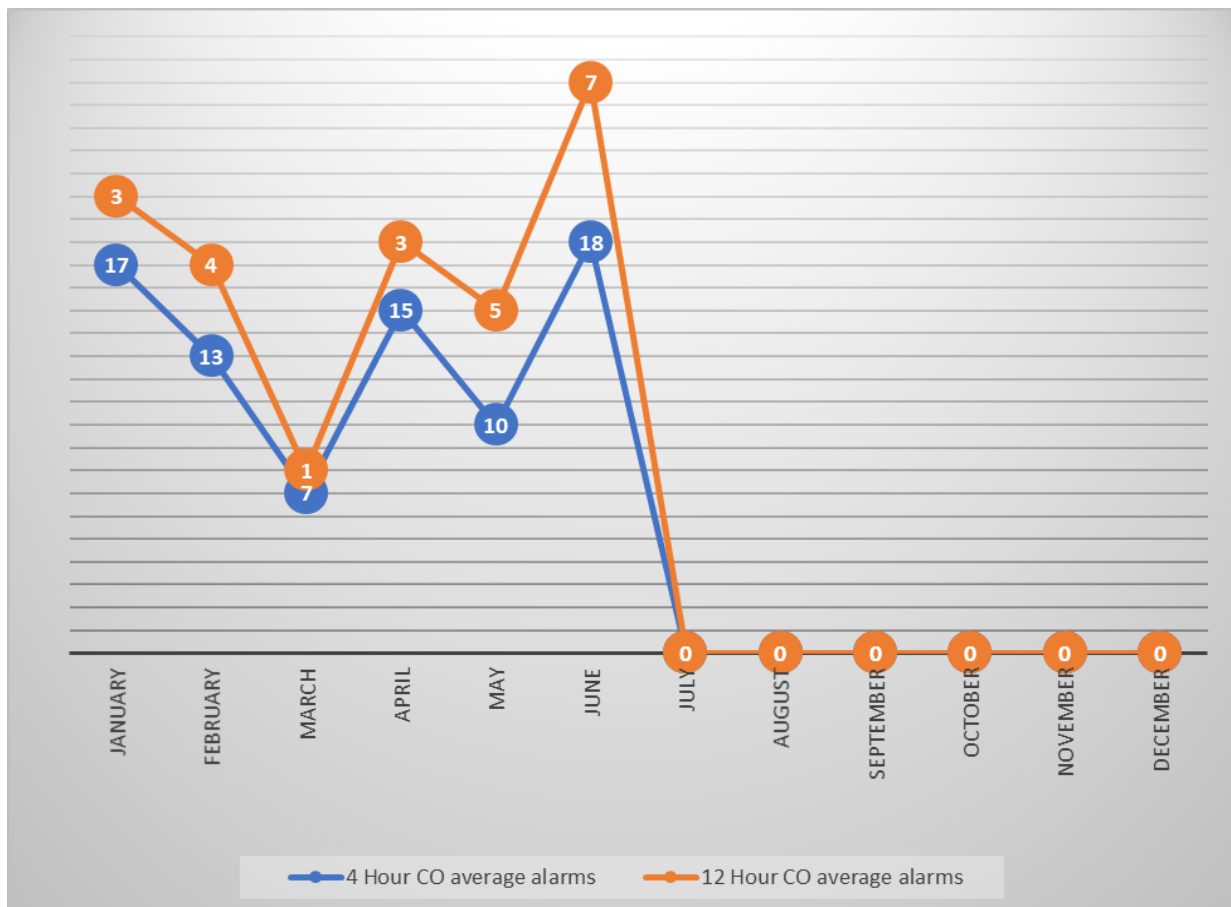
- Repair/replacement of the cooling tower gear box.
- Repair of the lower ram and refractory.
- Repair of the upper chamber burner.
- Annual source test completion.

Emergency Bypass Summary

Date	Start Time	End Time	Duration	Emission Volume (m ³)	Reason	Corrective Action
5/7/2022	6:51	10:51	4:00:00	875.00	The right-angle fan drive on the cooling tower failed causing the system to reach temperatures outside of normal operating parameters. The emergency bypass was engaged to prevent damage to the Air Pollution Control System.	The incinerator was brought to a controlled shut-down. Stericycle operations and maintenance teams are working to repair/replace the cooling tower right angle fan drive.
5/17/2022	6:12	8:43	2:31	550.52	The emergency bypass stack cap opened due to a loss of power the to the PLC control panel.	An electrical contractor was called in to diagnose the cause of the power loss. A loose connection to the PLC control was found and repaired.
5/18/2022	13:01	13:05	0:04	14.58	The emergency bypass stack cap opened due to a loss of communication between the PLC on the incinerator control panel and the PLC for the air pollution control system.	Stericycle operations and maintenance found that due to the loss of communication between the two PLC control panels, the ID fan on the APC system had shut down. Communication between the two PLC control panels was restored, and the ID fan was restarted, the stack cap was closed.

CO Alarm Chart Q2 2022

Month	4 Hour CO average alarms	12 Hour CO average alarms
January	17	3
February	13	4
March	7	1
April	15	3
May	10	5
June	18	7
July		
August		
September		
October		
November		
December		



2021 CO alarms vs. 2022 CO alarms

	2021		2022	
Month	4 Hr. Alarm	12 Hr. Alarm	4 Hr. Alarm	12 Hr. Alarm
January	13	0	17	3
February	11	0	13	4
March	19	2	7	1
April	18	2	15	3
May	5	0	10	5
June	5	1	18	7
July	10	0		
August	6	0		
September	8	2		
October	7	0		
November	7	0		
December	9	1		

Stericycle warrants that it has exercised best efforts to adhere to all the applicable Terms & Conditions of its Waste Disposal Site Certificate of Approval including all inspection and reporting requirements through Q2 of 2022.

Stericycle is very committed to the full compliance with all conditions of its Provisional Certificate of Approval, throughout the year, whenever a situation of possible non-compliance was identified; immediate actions were taken to ensure full compliance. Stericycle has mechanisms in place to always ensure full compliance. Employees are aware of their responsibilities and are trained appropriately.

Stericycle believes that the current monitoring program is sufficient and enables both Stericycle and the MECF to have a good understanding of the Site operations and to assess its compliance with the Certificate of Approval and all the relevant regulations.

However, Stericycle is very committed to looking for ways to improve its operations through better procedures, training, inspections, and monitoring programs and will continue to do so.

I trust that this is the information required and that it meets with your approval. Should you have any questions or require additional information, please do not hesitate to contact me accordingly.

Regards,

A handwritten signature in black ink, appearing to be 'DK' with a stylized flourish extending to the right.

Dan Kokol

ESH Specialist

Phone: 905-595-8532

Email: dkokol@stericycle.com

Kokol, Dan

From: Broux, Christelle (MECP) <Christelle.Broux@ontario.ca>
Sent: Monday, May 9, 2022 5:11 PM
To: Kokol, Dan
Subject: RE: Emergency Bypass ref no. 1-1SM4YO follow-up report

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Thank you Dan for the bypass report, I have noted the details of this incident.

Please provide a status update on the repair/replacement of the right-angle cooling tower fan drive. Have normal operations resumed?

Regards,

Christelle Broux

Senior Environmental Officer (P.O. #1896)

Halton Peel District Office | Ministry of Environment, Conservation and Parks (MECP)
4145 North Service Rd, Suite 300 | Burlington, ON | L7L 6A3
christelle.broux@ontario.ca | **289-208-5057**

Spills/After-Hours: 1-800-268-6060

Ontario

From: Kokol, Dan <DKokol@STERICYCLE.com>
Sent: May-09-22 3:02 PM
To: Broux, Christelle (MECP) <Christelle.Broux@ontario.ca>
Subject: Emergency Bypass ref no. 1-1SM4YO follow-up report

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good afternoon Christelle,

Attached is the follow-up report for the reported use of the emergency bypass stack that occurred on May 7th 2022.

Respect the unexpected, think through your risks; safety is a choice you make

Dan Kokol

EHS Specialist

O: +1 905-595-8532 | M: +1 416-702-5470 | stericycle.ca | shredit.ca [Stericycle's 10 Critical Safety Rules](#)

95 Deerhurst Dr, Brampton, ON L6T 5R7

  Shred-it® is a Stericycle solution.

CONFIDENTIAL NOTICE: The information in this Email is confidential and may be privileged. This Email is intended solely for the named recipient or recipients. If you are not the intended recipient, any use, disclosure, copying or distribution of this Email is prohibited. If you are not the intended recipient, please inform us by replying with the subject line marked "Wrong Address" and then deleting this Email and any attachments. Stericycle, Inc. uses regularly

updated anti-virus software in an attempt to reduce the possibility of transmitting computer viruses. We do not guarantee, however, that any attachments to this Email are virus-free. AVIS DE CONFIDENTIALITÉ: L'information contenue dans ce courriel est privilégiée et confidentielle et est exclusivement adressée à son destinataire principal et aux autres destinataires indiqués. Si vous avez reçu ce message alors que vous n'êtes pas un destinataire désigné, tout usage, divulgation, copie ou distribution sont défendues. Veuillez en aviser immédiatement l'émetteur en indiquant « Reçu par erreur » en objet et détruire ce courriel et ses pièces jointes. Stericycle, Inc. utilise des logiciels régulièrement mis à jour pour réduire la possibilité de transmission de virus informatiques. Il est toutefois impossible de garantir que les pièces jointes sont exemptes de tout virus.

Kokol, Dan

From: Broux, Christelle (MECP) <Christelle.Broux@ontario.ca>
Sent: Tuesday, May 24, 2022 2:15 PM
To: Kokol, Dan
Subject: RE: Emergency Bypass Follow-up Reports

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Thank you Dan, I have received both reports and added them to each respective incident.

As these recent bypasses suggest the incinerator is running again, can you please confirm whether the issue with the cooling tower was resolved?

Regards,

Christelle Broux

Senior Environmental Officer (P.O. #1896)

Halton Peel District Office | Ministry of Environment, Conservation and Parks (MECP)
4145 North Service Rd, Suite 300 | Burlington, ON | L7L 6A3
christelle.broux@ontario.ca | **289-208-5057**

Spills/After-Hours: 1-800-268-6060

Ontario

From: Kokol, Dan <DKokol@STERICYCLE.com>
Sent: May-20-22 3:03 PM
To: Broux, Christelle (MECP) <Christelle.Broux@ontario.ca>
Subject: Emergency Bypass Follow-up Reports

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good afternoon Christelle,

Attached are the follow-up reports for the 2 reported uses of the emergency bypass stack at the Deerhurst site this week.

Have a great weekend,

Respect the unexpected, think through your risks; safety is a choice you make

Dan Kokol

EHS Specialist

O: +1 905-595-8532 | M: +1 416-702-5470 | stericycle.ca | shredit.ca [Stericycle's 10 Critical Safety Rules](#)

95 Deerhurst Dr, Brampton, ON L6T 5R7

  Shred-it® is a Stericycle solution.

CONFIDENTIAL NOTICE: The information in this Email is confidential and may be privileged. This Email is intended solely for the named recipient or recipients. If you are not the intended recipient, any use, disclosure, copying or

distribution of this Email is prohibited. If you are not the intended recipient, please inform us by replying with the subject line marked "Wrong Address" and then deleting this Email and any attachments. Stericycle, Inc. uses regularly updated anti-virus software in an attempt to reduce the possibility of transmitting computer viruses. We do not guarantee, however, that any attachments to this Email are virus-free. AVIS DE CONFIDENTIALITÉ: L'information contenue dans ce courriel est privilégiée et confidentielle et est exclusivement adressée à son destinataire principal et aux autres destinataires indiqués. Si vous avez reçu ce message alors que vous n'êtes pas un destinataire désigné, tout usage, divulgation, copie ou distribution sont défendues. Veuillez en aviser immédiatement l'émetteur en indiquant « Reçu par erreur » en objet et détruire ce courriel et ses pièces jointes. Stericycle, Inc. utilise des logiciels régulièrement mis à jour pour réduire la possibilité de transmission de virus informatiques. Il est toutefois impossible de garantir que les pièces jointes sont exemptes de tout virus.

April 2022 Incinerator Averages and Ranges

	TheDate	OX6min	COmin	NOXmin	PrimTemp	SecTemp	SNCR	DemTemp	CarbTemp	DiffTemp	IDFanTemp	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
1-Apr-22	Average	11.4	3.6	43.4	922.6	1068.1	5.0	22.5	51.6	29.1	43.9	7.6	7.4	7.5	41.0	40.7	1.0	Normal(On)
	Min	8.6	0.0	0.0	717.2	702.3	5.0	12.9	50.2	21.4	40.4	7.3	7.2	7.0	39.2	40.0	0.0	
	Max	20.4	829.7	143.7	995.0	1110.2	5.0	32.3	53.7	39.5	49.1	8.0	7.6	7.8	41.7	41.3	1.0	
2-Apr-22	Average	11.8	5.4	66.1	947.4	1064.7	5.0	22.6	51.1	28.5	42.8	8.0	7.4	7.6	40.4	40.4	1.0	Normal(On)/Shut-down/Preheat
	Min	7.5	0.0	0.0	733.9	543.6	5.0	14.7	49.7	23.5	39.7	7.4	7.2	7.4	40.1	40.0	1.0	
	Max	20.4	3434.7	194.0	1023.3	1092.5	5.0	29.4	52.9	35.5	47.7	8.4	7.5	7.7	40.6	40.5	1.0	
3-Apr-22	Average	11.3	2.4	54.9	957.7	1075.8	5.0	21.6	50.2	28.6	42.3	7.9	7.4	7.6	40.6	40.5	1.1	Preheat/Normal(On)
	Min	8.5	0.0	5.3	760.0	989.5	5.0	16.9	48.4	25.4	40.2	7.4	7.2	7.5	40.3	40.2	1.0	
	Max	14.4	780.8	157.8	1004.3	1099.1	5.2	26.2	51.6	33.5	43.9	8.2	7.7	7.7	40.8	40.7	2.0	
4-Apr-22	Average	11.4	1.5	66.8	987.0	1077.6	5.0	19.6	48.2	28.6	40.9	8.1	7.5	7.7	40.6	40.4	1.0	Normal(ON)
	Min	9.4	0.0	17.5	951.6	1042.0	5.0	17.8	44.3	25.2	38.7	7.5	7.4	7.5	40.4	40.3	1.0	
	Max	14.0	694.9	210.8	1042.3	1114.8	5.2	22.4	49.3	30.6	42.2	8.4	7.6	7.7	40.6	40.5	1.0	
5-Apr-22	Average	11.4	1.4	54.4	967.2	1074.1	5.2	19.8	49.5	29.6	41.5	7.8	7.4	7.6	40.5	40.3	1.0	Normal(ON)
	Min	9.4	0.0	17.5	933.7	986.0	5.0	16.5	45.7	26.9	38.9	7.5	7.3	7.5	40.4	40.3	1.0	
	Max	14.6	237.3	187.6	1005.3	1094.5	5.5	23.4	51.3	32.7	43.6	8.0	7.6	7.7	40.6	40.4	1.0	
6-Apr-22	Average	11.2	0.6	58.0	951.8	1070.4	5.4	21.3	50.5	29.2	42.2	7.8	7.4	7.7	40.6	40.3	1.0	Normal(ON)
	Min	8.7	0.0	8.3	939.8	997.4	5.2	17.8	49.1	27.5	40.3	7.2	7.2	7.5	40.4	40.2	1.0	
	Max	14.2	291.1	166.0	963.6	1093.1	5.8	24.5	52.0	32.2	43.8	8.3	7.6	8.2	40.8	40.5	1.0	
7-Apr-22	Average	11.2	0.8	62.1	948.1	1077.8	5.7	21.8	51.6	29.7	43.1	8.2	7.1	7.5	40.3	40.3	1.1	Normal(ON)
	Min	8.9	0.0	12.4	928.1	1025.1	5.4	18.0	49.9	24.5	41.0	7.8	7.0	7.0	40.0	40.1	1.0	
	Max	14.1	369.1	184.6	960.5	1116.6	5.9	28.8	53.4	32.5	46.4	8.8	7.5	8.0	40.5	40.4	2.0	
8-Apr-22	Average	12.9	5.2	46.2	794.3	985.3	5.3	27.2	47.4	20.3	37.4	8.6	7.4	7.2	33.8	34.2	1.2	Normal(ON)/Shut-down/Off/Preheat/Normal(ON)
	Min	6.9	0.0	-5.8	521.4	251.5	5.0	14.6	31.9	-34.1	14.7	7.8	7.0	6.8	0.1	0.0	0.0	
	Max	20.4	690.7	205.9	956.3	1096.9	5.5	66.3	51.7	34.7	44.5	9.6	8.4	7.9	40.3	41.1	2.0	
9-Apr-22	Average	11.3	0.7	42.8	950.0	1075.0	5.1	20.3	49.4	29.1	40.7	7.9	7.2	7.6	40.1	40.6	1.4	Normal(ON)
	Min	8.4	0.0	7.6	931.6	1006.8	5.0	16.7	48.7	27.1	39.3	7.5	7.0	7.4	39.9	40.3	1.0	
	Max	14.1	338.3	148.1	964.9	1106.2	5.4	23.0	50.2	32.5	42.4	8.8	7.5	7.7	40.3	40.9	2.0	
10-Apr-22	Average	11.4	0.5	70.9	936.0	1068.4	5.0	18.9	49.0	30.1	40.2	7.7	7.4	7.6	40.0	40.3	1.5	Normal(ON)
	Min	8.2	0.0	18.6	879.4	1005.8	5.0	16.3	48.6	27.7	39.3	7.5	7.3	7.5	39.9	40.0	1.0	
	Max	13.9	224.7	187.0	957.5	1091.5	5.2	22.5	50.2	32.6	42.1	7.9	7.5	7.7	40.1	40.6	2.0	
11-Apr-22	Average	11.3	0.2	76.9	926.5	1069.2	5.2	19.5	49.2	29.7	40.7	7.5	7.4	7.6	40.0	40.3	1.2	Normal(ON)
	Min	9.1	0.0	13.5	886.9	975.0	5.0	17.1	48.0	28.5	39.1	7.3	7.3	7.4	39.9	40.1	1.0	
	Max	14.4	78.2	188.9	948.0	1092.3	5.7	21.7	51.0	31.7	42.9	7.8	7.6	7.7	40.1	40.7	2.0	
12-Apr-22	Average	12.6	6.7	43.8	820.8	987.9	5.4	18.5	50.1	31.6	42.2	8.1	7.5	7.6	40.3	40.3	1.2	Normal(ON)/Shut-down/Off/Preheat
	Min	8.5	0.0	-5.9	527.3	87.1	5.1	12.8	48.9	27.3	40.4	7.6	7.2	7.2	40.0	39.8	1.0	
	Max	20.4	1228.6	192.2	954.9	1092.9	5.9	23.5	51.3	37.2	44.1	8.8	8.3	8.2	40.9	40.6	2.0	
13-Apr-22	Average	11.3	5.9	39.8	876.7	1072.5	6.0	24.9	52.1	27.2	45.2	8.0	7.4	7.5	40.2	40.2	1.6	Preheat/Normal(ON)
	Min	7.8	0.0	10.9	669.0	975.9	5.5	18.8	50.3	23.4	43.3	7.6	7.3	7.4	40.1	40.1	1.0	
	Max	14.4	668.4	163.1	954.2	1096.4	6.7	31.0	54.5	33.4	48.5	8.8	7.6	7.7	40.5	40.8	2.0	
14-Apr-22	Average	11.4	1.4	48.3	937.3	1076.6	5.8	24.9	51.5	26.6	44.0	7.5	7.5	7.6	41.2	41.7	1.6	Normal(ON)
	Min	9.3	0.0	8.4	922.8	990.2	5.3	20.3	49.1	23.5	41.4	7.2	7.3	7.6	40.5	40.8	1.0	
	Max	13.9	288.4	182.0	959.2	1101.3	6.6	30.7	54.5	29.1	48.1	7.9	7.6	7.7	41.3	41.9	2.0	
15-Apr-22	Average	12.3	7.8	38.7	761.0	1037.5	5.3	21.1	40.2	19.0	37.1	7.7	7.4	7.7	41.1	41.7	1.1	Normal(ON)/Shut-down/Off/Preheat/Normal(ON)
	Min	8.3	0.0	0.0	528.7	736.2	5.0	16.4	17.2	-0.7	24.4	7.3	7.0	7.5	41.0	41.3	1.0	
	Max	20.3	4150.6	182.0	969.8	1101.3	6.6	30.7	54.5	31.6	48.1	8.2	12.0	10.2	41.3	41.9	2.0	
16-Apr-22	Average	11.2	1.9	50.3	929.0	1073.7	5.0	21.6	49.9	28.3	42.0	7.3	7.4	7.7	41.1	41.3	1.0	Normal(ON)
	Min	9.3	0.0	17.5	899.9	996.4	5.0	20.0	49.4	26.8	40.5	7.2	7.2	7.6	40.9	41.1	1.0	
	Max	14.9	629.2	153.5	953.7	1095.5	5.3	23.8	51.2	29.8	43.3	7.6	7.6	7.8	41.3	41.5	1.0	
17-Apr-22	Average	11.2	2.3	46.0	924.4	1073.8	5.0	20.9	49.8	28.9	42.9	7.7	7.4	7.6	40.9	41.3	1.0	Normal(ON)
	Min	8.2	0.0	13.9	883.8	1009.1	5.0	18.7	49.3	27.1	42.1	7.2	7.2	7.5	40.8	41.1	1.0	
	Max	13.8	743.8	134.6	938.3	1098.9	5.0	22.7	50.5	31.1	43.6	8.2	7.6	7.7	41.1	41.4	1.0	
18-Apr-22	Average	11.2	4.4	42.5	933.0	1075.4	5.0	22.4	49.7	27.4	43.0	8.4	7.5	7.6	40.9	41.3	1.0	Normal(ON)
	Min	8.9	0.0	8.5	917.2	1002.0	5.0	20.7	48.9	24.5	41.9	7.0	7.3	7.2	40.7	41.0	1.0	
	Max	13.9	809.1	134.4	961.8	1100.7	5.0	25.5	50.3	29.1	44.0	9.6	7.8	7.7	41.1	41.4	1.0	

April 2022 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Total
4/1/2022	623	622.1	623.8	620	622.4	619.2	434.6	605.3	412.4	610.6	416.7	600.1	0	0	0	0	24.8	604.3	605.8	452.3	410.3	404.6	608.8	78.9	10000.0	220159.8
4/2/2022	521.5	524.3	522	522.5	531.5	523.6	207.6	608.3	501.5	548.2	503.2	516.1	515.5	504.3	523.6	540.3	503.2	539.1	57.8	0	0	0	0	506.4	9720.5	
4/3/2022	403.4	404.7	352.9	412.3	403.5	410.5	182.3	504	518.7	516.2	506.3	503.4	511.4	507.3	502	522	529.4	532	508.9	400.8	219.8	201.2	361.6	84.2	9998.8	
4/4/2022	403.5	403.9	401.8	403.9	401.5	408.4	210.6	507.5	504.7	410	504	507.4	536	546.8	502	566.1	506.1	527.7	565.7	341.1	374.6	266.6	173.1	0	9973.0	
4/5/2022	473	502.7	500	500.4	509.2	502.2	314.5	451	595.5	609.6	594	490.5	517.2	509.4	503.6	670	134.6	247.5	233.7	201.4	201.8	205.4	200.6	132.4	9800.2	
4/6/2022	525.5	528.5	527.3	529.8	531.2	525.7	252.4	507.8	505.8	510.4	512.9	502.2	500.8	501.1	494.7	500.9	501	311.3	257.6	202.1	200.7	202.5	200.8	167	10000.0	
4/7/2022	405.6	412.5	412.1	413.9	471.9	416.3	472.4	507.7	506.2	510.3	503.5	505.7	518.7	550.6	507.6	404.9	415	412	454	203.3	328.3	360.4	276.5	30.6	10000.0	
4/8/2022	524.8	508.9	501.5	279.1	432.3	0	0	0	0	0	0	0	0	0	0	462.5	610.3	604.2	616.5	654.6	602.3	599.1	605.5	549.6	7551.2	
4/9/2022	501.3	504.6	557.1	461.8	501.5	506.1	231.2	225.2	364.7	554.1	503.8	557	542.9	536	341.5	545.1	520	460.3	509.3	523.7	152.4	0	400.4	0	10000.0	
4/10/2022	520.5	523.5	527.4	532.8	533.6	531	177.6	488.6	402	514.3	510.5	508.6	508.9	506	0	537.6	521.9	569.5	547	402	177.6	160.2	103.8	187.2	9992.1	
4/11/2022	416.4	426.7	436.7	429.6	421.2	403.7	471.1	500.5	511.6	506.4	513.5	489.6	503.5	505	505.3	520	507.6	518.5	258	255	225.4	224.3	225.7	224.7	10000.0	
4/12/2022	525	521.7	525	530.6	526.9	519.8	361	429.8	530.3	506	411.2	0	0	0	0	0	0	0	0	0	0	0	0	293.7	5681.0	
4/13/2022	337	453.6	458.8	63.4	207.6	412.1	522.9	407.4	478	516.3	0	0	0	0	66.7	484.7	437.5	552.1	579.4	551.4	557.1	553	560.5	553.4	8752.9	
4/14/2022	534.2	503.7	505.4	514.2	505.5	507.4	499	204.2	507.7	558.8	411.5	457.2	503.4	515.7	422.1	505.3	560.2	0	504.3	282.8	223.4	285.4	251.9	236.7	10000.0	
4/15/2022	525	524.5	527.7	0	0	0	0	0	0	0	0	0	0	0	0	0	504.3	524.4	505.5	557.2	557	556.2	559.5	565.2	5906.5	
4/16/2022	555.4	555.6	554.6	553	556.2	557.4	373.3	197.9	555.1	555.8	567.4	477.7	559.1	531.8	523	123.3	128	566.1	133	553.8	559.6	261.8	0	0	9998.9	
4/17/2022	553.2	594.3	553.4	552.6	556	550.8	162.5	342.3	541.8	0	556.5	550.2	550	0	552.2	126.2	555.7	234.2	126.6	527.9	552.2	554.3	452.4	0	9745.3	
4/18/2022	550.9	570.5	0	552.8	550.1	555.4	377.4	219.1	551.4	434.2	555.1	461.8	470.2	0	487.2	571.2	405.5	554	305	454.3	401.8	261.3	576.9	133.7	9999.8	
4/19/2022	504.5	504.2	500.7	506.6	503.7	505.4	224.5	589.3	501.4	368.2	38.9	505.1	501	404.9	514	416.1	538.2	516.5	521.5	300.2	301.1	304.2	261.8	168	10000.0	
4/20/2022	521.5	531.4	527.1	523.2	524.9	530.2	151.7	504.2	504.7	337.8	545.7	535.4	510.8	510.9	369.6	504.1	505.3	439.7	0	322.3	302.7	300.3	301.9	194.6	10000.0	
4/21/2022	526.5	527.6	529.1	528.2	528.5	525.8	44.8	483	387.3	562.4	0	551.2	0	551.8	558.3	550.9	443.8	555.3	183.8	280.1	338.7	223.1	601.9	516.7	9998.8	
4/22/2022	508.5	500.5	502.8	511	501.4	500.2	207	422.6	601.7	533.5	603	601.2	601.9	332.4	508.3	605.2	611.5	670	625.6	8	0	0	0	0	9956.3	
4/23/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10000.0	
4/24/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
4/25/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
4/26/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
4/27/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
4/28/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	
4/29/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	531	553.9	516.9	573.7	523.5	558.4	558.9	557.1	462.2	4835.6	
4/30/2022	457	456.5	450	451.5	453.8	454.3	626.7	453	468.6	370.5	459.7	469.5	457.5	90.7	561.7	651	550	371.5	0	0	0	0	0	0	0	8253.5



April 2022 CEM Calibration Log

TheDate	COspanRes	CO Calgas	COspan%Drift	NOxSpanRes	NOX Calgas	NOxSpan%drift	O2SpanRes	O2 Calgas	O2SpanDrift	COZeroRes	COZero%Drift	NOxZeroRes	NOxZero%Drift	O2ZeroRes	O2 Zerogas	O2ZeroDrift	Comment
4/26/2022 11:11	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.4	0	0.4	
4/26/2022 11:15	0	90.4	0	0	779	0	0.3	8.08	7.78	0	0	0	0	0	0	0	
4/26/2022 11:21	0	90.4	0	0	779	0	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	
4/26/2022 13:49	0	90.4	0	0	779	0	0	8.08	0	0	0	0	0	0.1	0	0.1	
4/26/2022 13:53	91	90.4	6.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
4/26/2022 13:56	0	90.4	0	0	779	0	8	8.08	8.00E-02	0	0	0	0	0	0	0	
4/26/2022 13:59	0	90.4	0	720	779	5.9	0	8.08	0	0	0	0	0	0	0	0	
4/26/2022 14:03	0	90.4	0	781	779	0.2	0	8.08	0	0	0	0	0	0	0	0	
4/29/2022 23:44	0	90.4	0	0	779	0	0	8.08	0	2	0.6666667	-2	-0.2	0.1	0	0.1	
4/29/2022 23:47	91	90.4	6.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
4/29/2022 23:51	0	90.4	0	780	779	0.1	0	8.08	0	0	0	0	0	0	0	0	
4/29/2022 23:53	0	90.4	0	0	779	0	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	

Carbon Monoxide > 8ppm 12 hour alarm



Carbon Monoxide > 8ppm 12 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
4/12/2022	11:00	17:00	6:00	Normal	11.1	12.8	High CO levels were caused by an incorrect flame port air setting.	The incinerator was brought to a controlled shut-down and the flame port air setting was corrected. No waste was fed until the CO levels returned to the normal operating range.
4/15/2022	18:01	1:00	6:59	Normal	10.7	12.3	Volatile waste fed into the incinerator caused multiple CO spikes.	No waste was fed at this time, the incinerator resumed once CO levels returned to the normal operating range.
4/29/2022	19:00	11:00	16:00	Normal	15.1	17.4	High CO levels were caused by an incorrect flame port air setting.	The flame port air setting was corrected. No waste was fed until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O ₂	as mg/m ³	Explanation	Taken
4/1/2022	11:00	15:00	4:00	Normal/Shut-down	13	15.0	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/1/2022	20:00	21:00	1:00	Normal	10.1	11.7	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/8/2022	4:00	7:00	3:00	Normal	11	12.7	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/8/2022	15:00	19:00	4:00	Normal	10.6	12.2	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/8/2022	20:00	21:00	1:00	Normal	8.1	9.3	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/12/2022	11:00	15:00	4:00	Normal	29.4	33.9	High CO levels were caused by an incorrect flame port air setting.	The incinerator was brought to a controlled shut-down and the flame port air setting was corrected. No waste was fed until the CO levels returned to the normal operating range.
4/13/2022	5:00	6:00	1:00	Normal	8.7	10.0	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

4/13/2022	7:00	11:00	4:00	Normal	12.7	14.7	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/13/2022	20:00	22:00	2:00	Normal	10.4	12.0	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/15/2022	2:00	6:00	4:00	Normal	20.1	23.2	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/16/2022	15:00	18:00	3:00	Normal	9.9	11.4	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/17/2022	3:00	6:00	3:00	Normal	10.1	11.7	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/18/2022	2:00	6:00	4:00	Normal	16	18.5	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
4/29/2022	19:04	3:00	7:56	Normal	23.7	27.3	High CO levels were caused by an incorrect flame port air setting.	The flame port air setting was corrected. No waste was fed until the CO levels returned to the normal operating range.
4/30/2022	15:00	20:00	5:00	Normal	10.3	11.9	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
4/11/2022	23:38	0:21	0:43	Normal	978	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
4/15/2022	6:49	8:35	1:46	Normal	978	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
4/20/2022	6:52	7:24	0:32	Normal	976	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
4/22/2022	21:44	23:41	1:57	Shut-down	960	Low secondary chamber temperature was caused by a high flame port air fan setting during shut-down.	No waste was fed at this time. The incinerator was brought to a controlled shut-down.

Differential from Demister < 10 C



Differential from Demister < 10°C

	Start	Stop		Op.	Differential Temp		Actions
Date	Time	Time	Duration	Mode	Outlet °C	Explanation	Taken
4/15/2022	9:16	12:39	3:23	Normal	1.7	Lack of reheat steam due to boiler repair caused a low differeintial temperature.	The incinerator was brought to a controlled shut-down while the boiler reapiar took place.



May 2022 Incinerator Averages and Ranges

TheDate	OX6min	COmin	NOXmin	PrimTemp	SecTemp	SNCR	DemTemp	CarbTemp	DiffTemp	IDFanTemp	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
1-May-22	Average	12.49	5.32	36.79	885.16	1071.17	5.58	23.27	53.40	30.14	45.02	7.40	7.31	7.64	42.11	0.00	0.37
	Min	8.79	0.00	10.84	690.01	1004.97	5.08	18.04	51.67	25.49	41.84	7.28	7.09	7.51	41.60	0.00	0.00
	Max	15.28	643.95	138.09	946.86	1103.18	6.01	28.97	54.46	34.44	49.06	7.56	7.52	7.78	42.50	0.00	1.00
2-May-22	Average	12.69	5.34	37.80	825.40	1058.57	6.25	26.08	54.22	28.14	46.44	7.49	7.37	7.70	41.60	0.00	0.43
	Min	8.62	0.00	0.00	561.79	837.26	5.97	21.42	53.51	22.60	42.49	7.33	7.13	7.38	39.99	0.00	0.00
	Max	20.27	881.02	185.42	977.08	1092.12	6.52	31.75	54.51	32.26	50.07	7.76	7.63	7.90	42.24	0.00	1.00
3-May-22	Average	12.33	3.78	49.25	899.62	1074.57	6.35	28.23	54.06	25.83	47.06	7.38	7.39	7.82	39.98	0.00	0.87
	Min	10.23	0.00	0.39	731.71	1024.18	6.07	22.24	53.21	20.10	43.16	7.29	7.12	7.71	39.65	0.00	0.00
	Max	14.65	699.57	165.80	958.52	1095.61	6.67	34.25	54.49	31.71	49.59	7.65	7.53	9.00	40.43	0.00	1.00
4-May-22	Average	14.27	4.66	29.85	860.63	914.98	6.15	34.80	51.26	16.47	41.41	7.42	7.48	7.71	33.80	0.00	0.81
	Min	6.27	0.00	-12.10	558.66	109.80	5.39	19.19	36.23	-41.03	18.68	5.61	7.00	7.32	0.10	0.00	0.00
	Max	20.37	830.40	104.04	999.22	1090.70	6.60	78.14	54.48	31.09	48.05	8.67	8.41	8.46	43.11	0.00	1.00
5-May-22	Average	12.20	1.25	76.46	892.81	1070.36	5.55	26.05	52.23	26.18	45.22	7.35	7.36	7.72	39.61	36.75	0.93
	Min	9.96	0.00	-12.10	686.98	678.12	5.25	20.57	49.15	15.82	35.86	7.25	7.04	7.57	31.90	0.00	0.00
	Max	20.37	816.92	191.49	963.33	1098.97	5.80	34.76	53.64	30.96	48.28	7.47	7.46	7.87	40.99	40.43	1.00
6-May-22	Average	12.13	1.01	57.60	918.95	1081.06	5.70	26.24	52.43	26.19	46.86	7.27	7.40	7.74	40.65	40.20	1.00
	Min	11.11	0.00	17.02	891.18	996.29	5.47	23.15	51.11	25.08	44.92	7.21	7.05	7.16	40.36	39.12	1.00
	Max	13.92	819.66	125.39	948.09	1104.52	5.93	28.00	53.40	27.96	47.86	7.32	7.58	7.82	41.39	41.06	1.00
7-May-22	Average	17.90	1.05	11.87	617.06	586.03	9.29	40.21	58.64	18.43	34.57	7.96	7.54	7.74	12.49	12.61	0.33
	Min	11.06	0.00	0.00	236.41	149.61	5.22	22.96	33.71	-29.72	17.12	7.22	7.22	7.34	0.04	0.00	0.00
	Max	20.41	839.06	104.35	964.77	1090.10	11.82	65.69	76.94	43.36	63.96	8.68	7.81	8.00	40.67	41.00	1.00
8-May-22	Average	20.25	0.00	0.00	137.36	95.09	9.12	34.42	69.00	34.58	31.02	8.65	7.90	7.46	0.10	0.00	0.00
	Min	20.07	0.00	0.00	80.52	67.52	8.59	28.07	44.67	-5.57	19.70	8.60	7.81	6.76	0.10	0.00	0.00
	Max	20.42	0.00	0.00	235.45	148.98	9.74	50.27	76.41	43.08	36.81	8.70	8.00	7.96	0.10	0.00	0.00
9-May-22	Average	20.25	0.00	0.00	60.45	54.85	8.27	33.65	73.77	40.12	36.03	8.50	8.01	7.63	0.08	0.00	0.00
	Min	20.10	0.00	0.00	47.71	46.11	8.10	29.42	69.54	30.74	33.66	8.40	7.98	7.10	0.02	0.00	0.00
	Max	20.40	0.00	0.00	80.48	67.74	8.59	47.71	78.44	43.96	39.12	8.60	8.07	8.00	0.10	0.00	0.00
10-May-22	Average	20.26	0.00	0.00	43.81	43.86	8.04	51.31	79.01	27.70	34.05	8.49	8.01	7.65	0.09	0.00	0.00
	Min	20.09	0.00	0.00	40.83	41.11	8.00	47.75	78.46	25.67	33.67	8.43	8.00	7.52	0.07	0.00	0.00
	Max	20.40	0.00	0.00	47.69	47.09	8.10	53.43	79.39	30.71	35.15	8.50	8.08	7.72	0.10	0.00	0.00
11-May-22	Average	20.26	0.00	0.00	43.79	43.84	8.04	51.33	79.02	27.68	34.05	8.49	8.01	7.65	0.09	0.00	0.00
	Min	20.09	0.00	0.00	40.83	41.11	8.00	47.75	78.46	25.67	33.67	8.43	8.00	7.52	0.07	0.00	0.00
	Max	20.40	0.00	0.00	47.69	47.09	8.10	53.43	79.39	30.71	35.15	8.50	8.08	7.72	0.10	0.00	0.00
12-May-22	Average	20.26	0.00	0.00	43.77	43.83	8.03	51.35	79.02	27.67	34.04	8.49	8.01	7.65	0.09	0.00	0.00
	Min	20.09	0.00	0.00	40.83	41.11	8.00	47.75	78.46	25.67	33.67	8.43	8.00	7.52	0.07	0.00	0.00
	Max	20.40	0.00	0.00	47.69	47.09	8.10	53.43	79.39	30.71	35.15	8.50	8.08	7.72	0.10	0.00	0.00
13-May-22	Average	20.26	0.00	0.00	43.75	43.82	8.03	51.37	79.02	27.65	34.04	8.49	8.01	7.65	0.09	0.00	0.00
	Min	20.09	0.00	0.00	40.83	41.11	8.00	47.75	78.46	25.67	33.67	8.43	8.00	7.52	0.07	0.00	0.00
	Max	20.40	0.00	0.00	47.69	47.09	8.10	53.43	79.39	30.71	35.15	8.50	8.08	7.72	0.10	0.00	0.00
14-May-22	Average	12.88	5.21	24.31	673.69	985.92	7.39	39.40	51.26	11.86	45.12	7.39	7.70	7.64	32.02	33.42	0.52
	Min	0.00	0.00	-13.20	-17.78	-17.78	0.00	-17.78	-17.78	-29.44	-17.78	0.00	0.00	0.00	0.00	0.00	0.00
	Max	20.37	610.88	102.31	903.20	1090.69	8.20	70.93	56.11	25.18	55.56	8.10	8.67	7.90	40.60	42.87	1.00
15-May-22	Average	13.02	63.30	28.46	902.72	1069.08	7.05	31.82	53.77	21.95	47.27	7.24	7.73	7.55	16.64	40.81	1.00
	Min	10.56	0.00	-9.27	852.41	797.99	6.87	26.27	52.14	19.31	45.36	7.20	7.24	7.34	0.10	36.74	1.00
	Max	20.27	200.86	129.90	931.32	1094.08	7.20	35.14	54.49	26.82	49.16	7.35	7.92	7.64	40.41	43.13	1.00
16-May-22	Average	15.16	117.44	28.71	861.24	1031.52	6.52	33.72	53.80	20.08	45.24	7.30	7.48	7.79	1.65	36.50	0.86
	Min	7.76	0.00	-30.80	611.94	742.47	6.17	26.50	52.55	-4.07	33.55	7.17	7.26	7.28	0.10	10.76	0.00
	Max	20.37	683.04	468.90	936.86	1129.47	7.52	59.34	56.18	26.38	48.72	7.89	7.79	8.60	31.44	40.66	1.00
17-May-22	Average	14.74	8.69	27.68	791.46	929.39	5.76	35.37	52.19	16.82	39.51	7.53	7.48	7.75	13.22	32.57	0.61
	Min	4.73	0.00	-7.70	489.99	102.58	5.00	12.83	33.38	-33.49	22.39	7.17	7.11	7.03	0.10	0.00	0.00
	Max	20.41	675.89	140.40	1049.84	1092.91	6.35	78.87	56.41	40.64	49.14	8.40	8.26	8.12	40.13	41.76	1.00



May 2022 Incinerator Averages and Ranges

	TheDate	OX6min	COmin	NOXmin	PrimTemp	SecTemp	SNCR	DemTemp	CarbTemp	DiffTemp	IDFanTemp	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
18-May-22	Average	11.51	2.06	62.70	931.95	1069.15	5.74	28.65	53.36	24.71	46.13	7.20	7.40	7.63	40.21	40.95	1.00	Normal(ON)
	Min	8.19	0.00	0.00	905.26	1006.88	5.57	23.89	51.94	20.82	42.97	7.15	7.02	7.06	40.02	40.62	1.00	
	Max	17.84	64.67	128.05	959.36	1091.27	6.04	33.61	54.49	28.49	48.71	7.30	8.23	7.73	40.42	41.76	1.00	
19-May-22	Average	12.04	2.31	69.67	921.67	1080.57	6.24	30.57	53.83	23.27	47.11	7.19	7.29	7.61	40.00	40.54	1.00	Normal(ON)
	Min	10.84	0.72	13.80	890.26	1030.52	5.73	27.05	52.42	20.61	45.55	7.18	7.20	7.56	39.77	39.83	1.00	
	Max	13.29	53.66	162.43	946.95	1108.43	6.67	33.83	54.50	25.47	48.79	7.20	7.41	7.69	40.20	40.74	1.00	
20-May-22	Average	12.45	2.86	56.15	932.22	1045.23	6.78	32.02	54.17	22.15	47.84	7.21	7.30	7.63	39.97	39.37	1.00	Normal(ON)/Shut-down/Preheat/Normal(ON)
	Min	10.82	0.00	0.00	870.68	530.90	6.20	26.09	53.04	17.52	45.32	7.18	7.12	7.54	39.72	39.14	1.00	
	Max	20.37	520.63	171.00	950.37	1103.27	7.37	36.93	54.51	28.36	50.64	7.31	7.47	7.71	40.11	39.84	1.00	
21-May-22	Average	12.03	1.92	56.11	881.35	1064.90	7.28	33.69	54.44	20.75	48.58	7.23	7.27	7.63	39.88	39.25	0.91	Normal(ON)
	Min	8.76	0.00	17.24	648.86	957.01	6.91	22.46	53.72	16.76	43.19	7.18	7.12	7.50	39.73	39.00	0.00	
	Max	14.54	349.78	128.63	934.08	1093.53	7.59	37.66	54.54	31.99	51.72	7.40	7.46	9.10	40.07	39.43	1.00	
22-May-22	Average	12.07	0.98	56.64	915.27	1066.72	6.44	31.54	54.27	22.73	46.27	7.20	7.30	7.63	40.74	41.17	1.00	Normal(ON)
	Min	10.81	0.00	17.33	891.57	996.80	5.94	28.43	53.68	19.19	44.93	7.19	7.20	7.57	39.82	39.13	1.00	
	Max	13.98	140.07	209.28	932.42	1091.39	6.92	35.23	54.49	25.78	48.22	7.22	7.39	7.69	41.07	41.77	1.00	
23-May-22	Average	12.31	1.75	63.63	924.83	1064.63	5.79	27.85	52.47	24.63	44.42	7.19	7.33	7.59	40.93	41.87	1.05	Normal(ON)
	Min	10.11	0.00	21.89	898.21	928.46	5.51	25.56	50.89	22.89	42.43	7.18	7.20	7.51	40.71	41.52	1.00	
	Max	15.34	375.80	145.71	971.77	1094.36	6.01	30.71	53.84	26.19	46.31	7.20	7.58	7.66	41.20	42.11	2.00	
24-May-22	Average	12.43	3.43	69.70	929.16	1073.33	5.86	28.59	52.63	24.04	44.75	7.19	7.41	7.54	40.85	41.99	1.09	Normal(ON)
	Min	11.07	0.12	19.46	903.39	945.41	5.44	25.58	50.66	22.73	42.67	7.18	7.26	7.38	40.42	41.53	1.00	
	Max	15.69	775.80	184.28	956.88	1101.62	6.16	30.83	53.97	26.40	46.12	7.20	7.57	7.67	41.11	42.30	2.00	
25-May-22	Average	12.22	2.09	69.03	930.32	1079.36	6.16	28.84	53.09	24.25	45.60	7.18	7.40	7.55	40.95	41.97	1.11	Normal(ON)
	Min	10.93	0.11	17.01	899.03	1032.28	5.74	24.01	51.49	21.89	43.19	7.17	7.02	7.07	40.78	41.47	1.00	
	Max	13.45	778.16	165.97	969.26	1106.83	6.58	32.57	54.49	27.59	47.49	7.20	7.51	7.66	41.23	42.22	2.00	
26-May-22	Average	11.98	2.28	63.41	922.13	1073.80	6.93	33.56	54.36	20.80	48.18	7.18	7.41	7.49	41.26	41.73	1.23	Normal(ON)
	Min	7.74	0.00	-1.00	897.04	1016.11	6.39	29.56	53.80	17.16	45.99	7.16	7.30	7.24	40.82	41.21	1.00	
	Max	13.63	723.83	180.46	950.64	1093.69	7.39	37.30	54.53	24.30	50.18	7.20	7.51	7.67	41.87	42.20	2.00	
27-May-22	Average	11.90	0.45	61.28	895.99	1076.46	7.11	34.56	54.45	19.89	48.21	7.21	7.34	7.42	41.76	41.69	1.00	Normal(ON)
	Min	10.73	0.00	22.78	885.36	1043.64	6.71	32.32	54.38	17.78	46.86	7.17	7.20	7.21	41.33	41.43	1.00	
	Max	12.85	8.93	161.61	907.84	1099.89	7.28	36.65	54.53	22.10	49.85	7.57	7.47	7.69	41.95	41.84	2.00	
28-May-22	Average	12.03	1.90	67.82	906.21	1075.65	6.53	32.62	54.47	21.85	47.26	7.38	7.32	7.60	41.38	41.67	1.86	Normal(ON)
	Min	10.85	0.00	16.31	886.46	1023.19	6.35	30.37	54.39	18.71	46.02	7.28	7.12	7.35	41.12	41.20	1.00	
	Max	13.10	696.61	164.92	933.36	1096.64	6.71	35.71	54.73	24.08	49.37	7.60	7.63	7.94	41.69	42.57	2.00	
29-May-22	Average	12.00	0.86	63.89	908.69	1075.47	6.54	33.40	54.40	21.00	47.70	7.35	7.22	7.67	41.29	41.43	1.88	Normal(ON)
	Min	9.66	0.00	14.65	875.49	1005.19	6.09	29.87	53.97	17.35	45.75	7.30	7.10	7.58	41.15	41.29	1.00	
	Max	13.63	74.23	141.85	945.18	1093.66	6.95	37.12	54.52	24.58	49.73	7.42	7.34	7.78	41.43	41.62	2.00	
30-May-22	Average	11.98	0.85	68.48	883.37	1072.49	7.03	31.97	54.39	22.42	47.08	7.29	7.42	7.53	41.13	41.51	1.87	Normal(ON)
	Min	9.95	0.00	-3.70	849.11	994.68	6.55	29.64	53.97	20.23	43.90	7.25	7.15	7.33	40.46	39.69	1.00	
	Max	14.50	248.32	202.02	917.54	1091.06	7.38	34.23	54.52	24.83	48.88	7.34	7.72	7.79	41.61	42.69	2.00	
30-May-22	Average	12.68	79.01	65.15	885.22	1026.01	7.35	32.14	54.41	22.28	46.01	7.25	7.50	7.35	40.88	40.49	1.00	Normal(ON)/Shut-down
	Min	7.67	0.00	-0.62	821.12	534.51	7.14	25.46	53.33	17.92	42.93	7.17	7.08	7.00	40.53	39.65	1.00	
	Max	20.28	2908.85	162.52	932.11	1093.12	7.61	36.47	54.71	28.52	49.34	7.40	7.73	7.53	41.09	41.56	1.00	



May 2022 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum	
5/1/2022	0	0	204.7	127.6	190.8	51.8	279.8	509.3	500.4	536.9	516.4	508.9	351.6	195	403.9	386.6	383.6	508.2	520.9	455.4	0	0	0	0	0	6631.8	214776.4
5/2/2022	0	0	0	244.4	294.1	98.5	0	311.7	538	184.6	511.8	482.3	507.1	212.8	422.2	549.6	0	594	0	0	0	0	0	0	0	4951.1	
5/3/2022	0	254.6	0	38.4	617.7	317.5	130.8	260.1	464.8	500.2	503.8	505.1	504.1	494.8	504.2	509.1	493	458.1	316.1	512.3	500.6	431.4	0	132.5	0	8449.2	
5/4/2022	336.4	157.6	107.9	509.4	329.2	666.1	0	0	0	0	0	0	0	0	0	0	502.4	508.9	347.3	355	0	0	0	0	0	3820.2	
5/5/2022	331.6	463.7	460	497.9	454.6	461.3	235.8	508.5	514.1	510.9	511.6	511.4	514.3	530.4	508.9	517.1	502.4	0	23.1	96.6	502.7	502.9	510.5	329.7	0	10000	
5/6/2022	501.2	473.8	488.4	502.5	503.4	502.8	133.5	504.2	511.3	553.6	0	545.2	544.2	517.3	533.8	576.5	550.4	562.7	133	417.4	292.6	195.4	94.1	0	0	9637.3	
5/7/2022	509.9	512.9	501.5	501.1	506	423.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2954.8	
5/8/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/9/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/10/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/11/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/12/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/13/2022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5/14/2022	0	0	0	0	0	0	0	0	0	0	0	0	235.4	512.5	560.5	508.7	523.2	507	541.2	560.2	558.5	550.5	549.3	564.1	0	6171.1	
5/15/2022	555.8	556.2	552.1	551.1	550.8	555.8	238	507	516.9	548.8	508	551.8	518.5	509.5	504.1	509.7	508	536.5	500.9	219	0	0	0	0	0	9998.5	
5/16/2022	0	0	444	550.7	554.4	551	243.7	507.6	501.1	149.1	223.3	505.3	526.9	0	0	0	116.9	613.5	603.1	550.8	550.7	558.4	553.4	208.5	0	8512.4	
5/17/2022	558.7	551.6	553.2	555.9	550.8	550.2	251.9	0	0	0	0	0	0	0	0	0	0	396.9	365.4	548.7	550.8	551.2	559	636.4	0	7180.7	
5/18/2022	498.8	500.8	334.1	501.5	524.1	631	306.4	495.2	506.8	528.9	497.1	506.4	496.5	493	526.8	507.9	503.3	504.8	63	304.3	301.8	289	116	62.5	0	10000	
5/19/2022	557.3	490.8	485.4	551.1	488.4	557.5	107	564.8	562.3	563.5	502.3	507	516.7	508.7	522.1	519.3	0	0	0	0	374.5	575.9	552.5	277.2	0	9784.3	
5/20/2022	503.6	504.8	280.6	502.5	500	531.1	238.5	502.5	506.4	523.8	508.9	516.1	520	555.4	542	560.6	519	518.9	0	0	0	0	0	0	0	8834.7	
5/21/2022	0	0	423.3	500.2	502.1	0	587.3	504.2	508.8	506.5	562.9	441.5	546.4	499.8	496.3	508.2	509.6	502.2	0	502.7	616.5	390.6	505.8	373.9	0	9988.8	
5/22/2022	503	501.9	304.4	503.9	504.2	501.5	195.8	626.1	441	506.2	600	595.4	300.6	511.4	494.9	529.3	498.6	501.4	33.1	500.7	504.6	181.4	154.4	6.2	0	10000	
5/23/2022	500.8	520.4	501	563.7	476.4	501	0	513.6	115	501.5	435.6	503.3	519	394.5	505	524.8	506.9	508.8	135.5	505.5	516.5	328.6	242.4	63.3	0	9883.1	
5/24/2022	507.2	500.1	501.4	542.6	512.8	527.9	465	520	508	523	505.9	543.6	568.4	508.2	514.1	522.8	534.4	193.5	65.4	237.8	296.3	212	185.5	0	0	9995.9	
5/25/2022	475.7	475.9	475	474.7	477.8	484.2	298	502.7	476.1	480.3	530.2	476.6	490.2	477.3	477.3	475.5	506.3	452.4	201.2	349.2	288	266	314.8	73.6	0	9999	
5/26/2022	476.2	474.8	476.6	475.2	476.8	475.3	228.7	520	464.7	525.7	519.2	503	492.4	516.5	468.6	496.9	456.2	561.2	14.2	306.2	350.1	393.9	209.8	117.8	0	10000	
5/27/2022	501.6	501	515.7	506.8	498.4	506.8	124.6	425.5	518.5	451.1	471.8	465.8	488.5	475.4	450.6	535.9	455.7	465	45.5	482	396.6	91.3	381	214.1	0	9969.2	
5/28/2022	500.7	505	502.8	515.3	500.1	501.4	62.4	506	503.2	509.1	507.6	501.1	544.1	507.1	322.7	517.5	584.1	528.8	410.3	253.8	253.9	162.2	150.1	149.9	0	9999.2	
5/29/2022	475.2	475.5	420.5	481.1	477.8	482.6	276.3	504.8	513.8	513.1	552	516.4	515.4	534.4	513.5	523.5	610	270.2	406.8	270	221.8	212.5	210.8	22	0	10000	
5/30/2022	477.6	477.2	475.2	475.4	474.2	488.8	213.8	502.3	505.4	509.4	502.2	501.7	529.5	451.6	458	459.5	460.5	454.5	450.6	353.4	200.2	159.8	311.3	107.2	0	9999.3	
5/31/2022	478.2	477.9	477.2	474.2	481.4	475.5	457.2	454	483.5	500.2	467	455.1	454.9	453.5	454.8	464.7	506.5	0	0	0	0	0	0	0	0	8015.8	



May 2022 CEM Calibration Log

TheDate	COSpanRes	CO Calgas	COSpan%Drift	NOxSpanRes	NOx Calgas	NOxSpan%drift	O2SpanRes	O2 Calgas	O2SpanDrift	COZeroRes	COZero%Drift	NOxZeroRes	NOxZero%Drift	O2ZeroRes	O2 Zerogas	O2ZeroDrift	Comment
5/3/2022 22:29	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.1	0	0.1	
5/3/2022 22:32	91	90.4	6.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/3/2022 22:35	0	90.4	0	779	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/3/2022 22:38	0	90.4	0	0	779	0	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	
5/14/2022 21:13	0	90.4	0	0	779	0	0	8.08	0	3	1	-1	-0.1	13.9	0	13.9	
5/14/2022 21:19	3	90.4	8.74	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/14/2022 21:22	0	90.4	0	-2	779	78.1	0	8.08	0	0	0	0	0	0	0	0	
5/14/2022 23:16	0	90.4	0	0	779	0	0	8.08	0	7	2.333333	-2	-0.2	16.9	0	16.9	
5/14/2022 23:25	0	90.4	0	0	779	0	0	8.08	0	6	2	-2	-0.2	17.7	0	17.7	
5/14/2022 23:29	5	90.4	8.54	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/14/2022 23:33	0	90.4	0	-1	779	78	0	8.08	0	0	0	0	0	0	0	0	
5/15/2022 0:20	0	90.4	0	0	779	0	0	8.08	0	91	30.33333	-1	-0.1	14.3	0	14.3	
5/16/2022 9:17	53	90.4	3.74	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 9:48	0	90.4	0	0	779	0	0	8.08	0	38	12.66667	-1	-0.1	20.6	0	20.6	
5/16/2022 10:10	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.1	0	0.1	
5/16/2022 10:17	0	90.4	9.04	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 10:19	0	90.4	0	0	779	0	0	8.08	0	27	9	-1	-0.1	0.1	0	0.1	
5/16/2022 10:19	27	90.4	6.34	0	779	0	0	8.08	0	27	9	-1	-0.1	0.1	0	0.1	
5/16/2022 10:27	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.1	0	0.1	
5/16/2022 11:01	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0.1	0	0.1	
5/16/2022 11:04	93	90.4	0.2599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 11:14	91	90.4	6.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 11:24	0	90.4	0	0	779	0	14.6	8.08	6.52	0	0	0	0	0	0	0	
5/16/2022 11:27	0	90.4	0	0	779	0	14.6	8.08	6.52	0	0	-1	-0.1	0	0	0	
5/16/2022 14:18	0	90.4	0	-1	779	78	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 14:20	0	90.4	0	-1	779	78	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	
5/16/2022 14:38	0	90.4	0	789	779	1	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 14:52	0	90.4	0	0	779	0	0	8.08	0	1	0.3333333	-1	-0.1	0.1	0	0.1	
5/16/2022 14:57	92	90.4	0.1599998	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/16/2022 14:59	0	90.4	0	0	779	0	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	
5/16/2022 15:04	0	90.4	0	779	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/17/2022 23:40	0	90.4	0	0	779	0	0	8.08	0	1	0.3333333	-1	-0.1	0.1	0	0.1	
5/17/2022 23:44	91	90.4	6.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/26/2022 19:39	0	90.4	0	0	779	0	0	8.08	0	0	0	-2	-0.2	0.1	0	0.1	
5/26/2022 19:43	91	90.4	6.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/26/2022 19:46	0	90.4	0	779	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/26/2022 19:49	0	90.4	0	0	779	0	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	
5/31/2022 23:00	0	90.4	0	0	779	0	0	8.08	0	0	0	-1	-0.1	0	0	0	
5/31/2022 23:02	90	90.4	4.00E-02	0	779	0	0	8.08	0	0	0	0	0	0	0	0	
5/31/2022 23:06	0	90.4	0	790	779	1.1	0	8.08	0	0	0	0	0	0	0	0	
5/31/2022 23:09	0	90.4	0	0	779	0	8.1	8.08	2.00E-02	0	0	0	0	0	0	0	

Carbon Monoxide > 8ppm 12 hour alarm



Carbon Monoxide > 8ppm 12 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
5/1/2022	20:00	3:00	7:00	Normal	8.5	9.8	Volatile waste fed into the incinerator caused multiple CO spikes.	No waste was fed at this time, the incinerator resumed once CO levels returned to the normal operating range.
5/2/2022	16:00	17:00	1:00	Normal	8.1	9.3	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/2/2022	18:00	21:00	3:00	Normal	8.5	9.8	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/15/2022	11:26	0:00	12:34	Normal	50.3	58.0	High CO levels were caused by intermittent upper chamber burner failures.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/31/2022	18:00	8:00	14:00	Shutdown/Normal	169.9	196.1	High CO average caused by low secondary chamber temperature caused by a failure of the upper chamber burner due to a clogged air filter.	Stericycle operations called in 3rd party vendor to repair the upper chamber burner. The incinerator was brought to a controlled shut-down, no waste was fed until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O ₂	as mg/m ³	Explanation	Taken
5/1/2022	16:01	0:00	7:59	Normal	11.2	12.9	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/2/2022	12:00	16:00	4:00	Normal	10.4	12.0	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/2/2022	18:00	20:00	2:00	Normal	9.8	11.3	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/3/2022	14:30	19:00	4:30	Normal	9.3	10.7	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/3/2022	21:00	22:00	1:00	Normal	8.7	10.0	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/15/2022	0:00	11:00	11:00	Normal	77.7	89.7	High CO levels were caused by intermittent upper chamber burner failures.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/15/2022	13:00	0:00	11:00	Normal	49.25	56.8	High CO levels were caused by intermittent upper chamber burner failures.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/17/2022	20:02	23:00	2:58	Normal	29	33.5	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

5/24/2022	5:30	10:00	4:30	Normal	12.85	14.8	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
5/31/2022	17:00	0:00	7:00	Shutdown	470.7	543.2	High CO average caused by low secondary chamber temperature caused by a failure of the upper chamber burner due to a clogged air filter.	Stericycle operations called in 3rd party vendor to repair the upper chamber burner. The incinerator was brought to a controlled shut-down, no waste was fed until the CO levels returned to the normal operating range.

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
5/2/2022	2:53	3:56	1:03	Normal	979	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
5/4/2022	8:14	10:21	2:07	Shut-down	961	Low secondary chamber temperature was caused by a high flame port air fan setting during shut-down.	No waste was fed at this time. The incinerator was brought to a controlled shut-down.
5/7/2022	7:05	9:53	2:48	Shut-down	885	Low secondary chamber temperature was caused by a high flame port air fan setting during shut-down.	No waste was fed at this time. The incinerator was brought to a controlled shut-down.
5/15/2022	22:00	23:34	1:34	Shut-down	968	Low secondary chamber temperature was caused by a high flame port air fan setting during shut-down.	No waste was fed at this time. The incinerator was brought to a controlled shut-down.
5/17/2022	7:33	8:19	0:46	Normal	971	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
5/20/2022	20:57	21:36	0:39	Shut-down	964	Low secondary chamber temperature was caused by a high flame port air fan setting during shut-down.	No waste was fed at this time. The incinerator was brought to a controlled shut-down.
5/23/2022	8:17	8:56	0:39	Normal	990	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.

5/23/2022	9:28	10:07	0:39	Normal	961	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
5/24/2022	6:53	7:20	0:27	Normal	972	Low secondary chamber temperature was caused by an incorrect flame port air setting.	No waste was fed until the secondary chamber temperature returned to the normal operating range.
5/31/2022	16:20	19:54	3:34	Normal/Shutd own	778	Low secondary chamber temperature caused by a failure of the upper chamber burner due to a clogged air filter.	Stericycle operations called in 3rd party vendor to repair the upper chamber burner. The incinerator was brought to a controlled shut-down, no waste was fed until the upper chamber temperature returned to the normal operating range.

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
5/7/2022	6:13:00	9:53:00	3:40:00	Shut-down	13.1	0.0	Low atomizer amperage occurred during a controlled shut-down due to the failure of the cooling tower.	The incinerator was brought to a controlled shut-down for the repair of the cooling tower.
5/17/2022	11:00:00	14:37:00	3:37:00	Shut-down		7.7	Low atomizer amperage occurred during a controlled shut-down due to an Air Pollution Control System malfunction.	The incinerator was brought to a controlled shut-down.

Carbon Bed Inlet Temperature <57C

	Start	Stop		Op.	Carbon bed		Actions
Date	Time	Time	Duration	Mode	inlet °C	Explanation	Taken
5/7/2022	6:53	9:53	3:00	Normal	63	High carbon inlet temperatures occurred during shut-down due to the failure of the cooling tower.	The incinerator waste brought to a controlled shut-down for the repair of the cooling tower.



June 2022 Incineration Averages and Ranges

TheDate		OX6min	COmin	NOXmin	PrimTemp	SecTemp	SNCR	DemTemp	CarbTemp	DiffTemp	IDFanTemp	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
1-Jun-22	Average	12.57	2.04	51.47	901.12	1068.45	7.27	31.13	54.31	23.18	47.76	7.27	7.55	7.45	41.04	40.78	1.69	Shutdown/Off/Preheat/Normal(On)
	Min	9.74	0.00	-7.57	820.23	981.46	6.60	28.89	53.15	21.22	45.71	7.23	7.15	7.31	40.87	40.49	1.00	
	Max	17.51	702.36	385.77	934.55	1092.14	7.53	33.22	54.66	25.65	48.93	7.30	7.86	7.54	41.19	41.32	2.00	
2-Jun-22	Average	13.73	5.71	50.37	896.93	990.10	6.18	25.55	51.48	25.93	43.69	7.33	7.60	7.51	40.95	40.63	1.81	Normal(ON)/Shutdown/Off/Preheat
	Min	11.68	0.00	0.00	617.41	84.53	5.43	17.22	47.63	23.56	39.44	7.24	7.21	7.14	40.75	40.41	1.00	
	Max	20.37	1811.93	118.86	951.57	1114.71	6.64	29.65	53.32	30.56	46.26	8.50	9.00	8.61	41.17	40.97	2.00	
3-Jun-22	Average	12.54	2.57	54.80	885.47	1073.64	6.35	26.63	51.96	25.34	44.93	7.29	7.63	7.43	40.91	40.66	1.89	Preheat/Normal(ON)
	Min	9.80	0.00	17.84	614.44	908.02	5.68	19.16	49.24	22.56	40.18	7.23	7.48	7.14	40.81	40.33	1.00	
	Max	15.19	662.65	128.24	962.30	1153.42	6.73	31.66	54.28	30.09	48.30	7.79	8.04	7.56	41.09	40.87	2.00	
4-Jun-22	Average	13.89	1.70	34.63	999.70	950.94	6.07	28.34	50.66	22.32	38.51	7.28	7.51	7.55	39.17	38.69	1.11	Normal(ON)/Shutdown/Off
	Min	11.19	0.00	0.00	725.58	74.89	5.70	22.55	38.82	-19.24	26.25	7.20	7.20	7.43	8.21	8.07	0.00	
	Max	20.37	309.38	145.33	1060.49	1100.41	6.58	58.06	53.58	27.05	47.47	7.95	8.10	8.09	40.95	40.84	2.00	
5-Jun-22	Average	20.25	0.00	0.00	296.37	79.71	7.03	70.64	42.15	-28.48	22.97	8.28	8.32	8.08	0.20	0.10	0.00	Off
	Min	20.08	0.00	0.00	127.49	51.20	6.40	58.31	24.60	-40.03	14.41	7.93	8.11	8.00	0.10	0.00	0.00	
	Max	20.41	0.00	0.00	723.77	145.31	7.49	81.78	65.00	-2.97	30.33	8.47	8.59	8.21	7.99	7.84	0.00	
6-Jun-22	Average	20.25	0.00	0.00	81.94	40.45	7.57	52.78	37.88	-14.90	23.37	7.75	8.95	7.86	0.07	0.00	0.00	Off
	Min	20.07	0.00	0.00	53.54	30.57	7.49	40.16	28.70	-27.57	19.92	7.70	8.59	7.78	0.01	0.00	0.00	
	Max	20.42	0.00	0.00	127.39	51.60	7.60	62.57	46.45	6.01	28.11	7.93	9.30	8.00	0.10	0.00	0.00	
7-Jun-22	Average	20.26	0.00	0.00	44.12	34.69	7.62	41.62	47.21	5.59	30.33	7.70	9.64	7.71	0.06	0.00	0.00	Off
	Min	20.07	0.00	0.00	37.54	32.49	7.60	29.16	39.44	-18.81	23.19	7.70	9.30	7.70	0.02	0.00	0.00	
	Max	20.44	0.00	0.00	53.51	36.66	7.69	58.26	52.06	22.29	38.50	7.70	10.00	7.80	0.10	0.00	0.00	
8-Jun-22	Average	20.25	0.00	0.00	34.14	33.27	7.60	39.20	49.69	10.49	31.86	7.73	10.22	7.83	0.06	0.00	0.00	Off
	Min	20.05	0.00	0.00	32.73	30.79	7.60	35.82	47.53	2.98	28.59	7.60	10.01	7.64	0.03	0.00	0.00	
	Max	20.43	0.00	0.00	37.53	36.52	7.66	44.75	52.12	16.22	35.75	7.88	10.38	8.00	0.09	0.00	0.00	
9-Jun-22	Average	20.25	0.00	0.00	34.14	33.28	7.60	39.21	49.68	10.48	31.85	7.73	10.22	7.83	0.06	0.00	0.00	Off
	Min	20.05	0.00	0.00	32.73	30.79	7.60	35.82	47.53	2.98	28.59	7.60	10.01	7.64	0.03	0.00	0.00	
	Max	20.43	0.00	0.00	37.53	36.52	7.66	44.75	52.12	16.22	35.75	7.88	10.38	8.00	0.09	0.00	0.00	
10-Jun-22	Average	20.25	0.00	0.00	34.13	33.28	7.60	39.22	49.68	10.47	31.84	7.73	10.22	7.83	0.06	0.00	0.00	Off
	Min	20.05	0.00	0.00	32.73	30.79	7.60	35.82	47.53	2.98	28.59	7.60	10.01	7.64	0.03	0.00	0.00	
	Max	20.43	0.00	0.00	37.53	36.52	7.66	44.75	52.12	16.22	35.75	7.88	10.38	8.00	0.09	0.00	0.00	
11-Jun-22	Average	20.25	0.00	0.00	34.12	33.28	7.60	39.23	49.68	10.46	31.84	7.73	10.22	7.83	0.06	0.00	0.00	Off
	Min	20.05	0.00	0.00	32.73	30.79	7.60	35.82	47.53	2.98	28.59	7.60	10.01	7.64	0.03	0.00	0.00	
	Max	20.43	0.00	0.00	37.53	36.52	7.66	44.75	52.12	16.22	35.75	7.88	10.38	8.00	0.09	0.00	0.00	
12-Jun-22	Average	20.25	0.00	0.00	34.12	33.28	7.60	39.24	49.68	10.44	31.83	7.73	10.22	7.83	0.06	0.00	0.00	Off
	Min	20.05	0.00	0.00	32.73	30.79	7.60	35.82	47.53	2.98	28.59	7.60	10.01	7.64	0.03	0.00	0.00	
	Max	20.43	0.00	0.00	37.53	36.52	7.66	44.75	52.12	16.22	35.75	7.88	10.38	8.00	0.09	0.00	0.00	
13-Jun-22	Average	17.16	8.89	24.68	142.13	686.64	6.82	28.45	33.16	4.71	32.39	7.43	9.05	7.53	28.61	28.54	0.42	Off/Preheat
	Min	13.24	0.00	0.00	64.08	540.34	6.39	22.26	26.81	-1.26	26.11	7.22	7.15	7.42	0.00	0.00	0.00	
	Max	20.37	532.85	69.30	284.32	861.74	7.70	41.11	48.20	17.45	36.87	7.80	14.00	7.70	39.76	39.90	1.00	
14-Jun-22	Average	12.91	7.06	46.09	595.52	912.94	6.80	32.72	45.51	12.78	42.30	7.31	7.41	7.30	39.49	39.80	0.00	Preheat/Shutdown/Preheat/Normal(ON)
	Min	3.80	0.00	0.00	262.93	713.39	6.53	27.48	27.62	0.13	32.27	6.54	7.00	7.03	38.79	39.24	0.00	
	Max	20.36	673.68	139.55	1012.77	1125.22	7.13	39.91	54.55	25.58	48.90	8.39	8.03	7.47	40.66	40.63	0.00	
15-Jun-22	Average	11.67	6.20	62.57	947.76	1076.98	6.96	33.09	54.44	21.36	48.73	7.96	7.53	7.19	39.79	40.27	0.00	Normal(ON)
	Min	9.50	0.00	0.00	890.26	1026.26	6.69	30.79	54.38	17.12	47.17	7.61	7.28	7.11	39.55	39.56	0.00	
	Max	15.01	981.97	135.84	1028.86	1163.48	7.35	37.35	54.54	23.70	49.77	8.37	7.68	7.30	40.03	41.00	0.00	
16-Jun-22	Average	13.58	81.40	55.86	868.96	923.14	7.28	32.44	53.89	21.45	49.82	7.83	7.72	7.16	39.25	40.07	0.00	Normal(ON)/Shutdown/Off
	Min	7.00	0.00	0.00	644.84	94.93	6.69	22.70	42.95	13.54	41.37	7.20	7.03	6.93	26.58	27.39	0.00	
	Max	20.37	2888.89	206.43	938.32	1087.63	7.99	40.91	56.00	32.90	54.40	8.53	8.63	7.70	39.71	41.36	0.00	
17-Jun-22	Average	13.65	15.44	39.77	855.39	852.50	6.61	39.75	51.29	11.53	46.47	8.21	7.80	7.28	31.39	31.20	0.11	Off/Preheat/Normal(ON)/Shutdown/Off
	Min	6.44	0.00	0.00	597.89	65.06	5.97	23.33	33.69	-31.79	22.44	7.36	7.14	7.11	0.10	0.00	0.00	
	Max	20.37	1936.00	165.49	959.44	1076.37	6.87	68.36	58.22	31.67	55.72	9.52	9.68	7.53	39.68	40.10	1.00	



June 2022 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum
01-Jun-22	0.00	69.20	402.90	502.30	283.00	601.50	502.40	451.50	456.00	456.60	450.80	455.50	453.10	491.70	459.40	459.30	456.20	466.50	314.20	600.20	600.90	605.90	406.00	54.90	10000.0	140969.2
02-Jun-22	663.30	502.70	500.80	509.50	506.30	498.80	582.90	504.60	502.00	451.20	462.60	454.20	451.60	453.60	472.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7516.5	
03-Jun-22	478.30	477.60	476.80	484.60	475.40	476.20	300.30	452.50	461.70	482.50	295.20	418.20	456.10	466.20	459.70	366.10	321.90	458.30	576.80	477.00	256.90	535.30	339.40	0.00	9993.0	
04-Jun-22	480.10	477.40	489.80	478.00	477.90	484.00	237.40	452.60	450.80	383.00	453.70	537.40	462.80	452.80	460.80	358.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7136.7	
05-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
06-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
07-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
08-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
09-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
10-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
11-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
12-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
13-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
14-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	590.20	363.40	420.60	565.80	473.50	477.90	489.00	477.20	477.10	585.90	4920.6	
15-Jun-22	475.20	488.60	473.00	0.00	485.60	502.60	310.20	494.40	401.20	125.40	538.00	0.00	539.70	503.20	501.00	501.10	507.00	463.40	297.60	559.30	605.80	519.50	482.60	225.60	10000.0	
16-Jun-22	485.20	0.00	0.00	0.00	0.00	0.00	0.00	503.40	505.50	504.60	513.50	500.20	502.80	553.60	508.00	500.50	508.00	501.60	0.00	0.00	0.00	0.00	0.00	0.00	6086.9	
17-Jun-22	0.00	0.00	0.00	0.00	180.90	311.20	136.40	505.10	506.60	514.70	505.00	121.60	306.00	628.10	527.20	584.60	260.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5087.4	
18-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	506.60	555.60	261.30	1323.5	
19-Jun-22	552.70	456.40	403.20	461.10	503.30	625.50	292.60	427.00	497.00	504.00	494.10	0.00	0.00	0.00	0.00	500.90	503.20	503.90	254.10	503.70	514.50	213.10	226.40	302.00	8738.7	
20-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	326.20	516.00	96.80	344.70	500.00	506.40	508.60	324.40	502.30	502.70	526.50	322.00	401.30	303.60	97.80	171.90	18.90	5970.1	
21-Jun-22	0.00	0.00	0.00	385.70	383.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	378.40	107.40	479.90	0.00	0.00	0.00	1734.4	
22-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	346.60	532.10	0.00	0.00	0.00	74.60	503.90	192.20	476.40	523.70	251.50	352.30	372.50	460.70	374.40	504.90	4965.8	
23-Jun-22	502.20	500.50	500.80	497.80	499.10	502.80	211.80	457.40	279.00	504.40	497.40	499.60	502.90	496.40	504.30	502.10	511.40	509.40	330.60	558.20	305.00	214.20	112.70	0.00	10000.0	
24-Jun-22	513.80	529.10	510.90	520.00	380.40	524.00	521.10	516.00	499.00	500.80	507.00	500.30	501.00	500.80	503.00	501.50	513.80	499.60	78.40	0.00	0.00	0.00	0.00	0.00	9120.5	
25-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65.50	503.10	372.60	96.90	0.00	0.00	0.00	0.00	570.10	356.80	471.80	2436.8	
26-Jun-22	502.40	500.70	502.50	500.80	504.50	499.80	224.10	503.00	504.70	535.60	501.60	507.90	553.30	508.50	513.60	502.80	502.10	536.10	348.00	0.00	0.00	0.00	0.00	0.00	9252.0	
27-Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	276.20	554.60	550.70	554.90	607.30	558.20	561.80	560.10	552.70	557.90	554.00	549.10	6437.5	
28-Jun-22	549.40	553.10	554.20	552.00	551.20	548.90	36.50	480.70	505.80	501.20	503.20	501.20	556.90	555.70	517.80	474.10	504.50	508.40	363.60	0.00	0.00	0.00	0.00	0.00	9318.4	
29-Jun-22	0.00	550.30	561.00	559.20	557.20	551.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	72.70	570.00	421.00	550.10	555.80	386.20	557.00	506.50	6398.7	
30-Jun-22	551.40	550.90	557.00	567.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	406.10	355.70	547.80	538.10	457.30	0.00	0.00	4531.7	



June 2022 CEM Calibration Log

TheDate	COSpanRes	CO Calgas	COSpan%Drift	NOxSpanRes	NOX Calgas	NOxSpan%drift	O2SpanRes	O2 Calgas	O2SpanDrift	COZeroRes	COZero%Drift	NOxZeroRes	NOxZero%Drift	O2ZeroRes	O2 Zerogas	O2ZeroDrift	Comment
6/1/2022 2:04	0	90.4	0	779	779	0	0	8.08	0	0	0	0	0	0	0	0	
6/1/2022 5:09	0	90.4	0	0	779	0	0	8.08	0	1	0.3333333	0	0	0	0	0	
6/1/2022 5:12	0	90.4	0	780	779	0.1	0	8.08	0	0	0	0	0	0	0	0	
6/14/2022 23:37	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	0	0	0	
6/20/2022 0:08	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	0	0	0	
6/20/2022 0:57	0	90.4	0	0	779	0	0	8.08	0	0	0	1	0.1	-0.1	0	0.1	



02 < 7.5

[illegible]

Carbon Monoxide > 8ppm 12 hour alarm



Carbon Monoxide > 8ppm 12 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O ₂	as mg/m ³	Explanation	Taken
6/14/2022	15:00	7:00	16:00	Normal	9.53	11.0	High CO levels were caused by intermittent upper chamber burner failures.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
6/16/2022	0:00	21:00	21:00	Normal	106.4	122.8	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown and restarted to allow trouble-shooting of the upper chamber burner.
6/21/2022	9:00	10:00	1:00	Shutdown	95	109.6	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown and restarted to allow trouble-shooting of the upper chamber burner.
6/21/2022	21:00	23:00	26:00:00	Normal/Shut-down/Normal	171.7	198.1	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown and restarted to allow trouble-shooting of the upper chamber burner.
6/22/2022	9:00	15:00	6:00	Normal	198.7	229.3	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown and restarted to allow trouble-shooting of the upper chamber burner.
6/24/2022	21:00	1:00	4:00	Normal/Shut-down	81.2	93.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown and restarted to allow trouble-shooting of the upper chamber burner.

Carbon Monoxide > 8ppm 12 hour alarm

6/25/2022	15:00	7:00	16:00	Normal	146.2	168.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown and restarted to allow trouble-shooting of the upper chamber burner.
-----------	-------	------	-------	--------	-------	-------	--	--

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O ₂	as mg/m ³	Explanation	Taken
6/2/2022	9:00	13:00	4:00	Normal	12.3	14.2	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
6/15/2022	3:00	6:00	3:00	Normal	13.25	15.3	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
6/15/2022	12:00	16:00	4:00	Normal	8.58	9.9	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
6/16/2022	0:00	6:00	6:00	Shutdown	243.2	280.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/16/2022	6:38	13:00	6:22	Normal	85.8	99.0	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/16/2022	14:00	18:00	4:00	Normal	18.5	21.3	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/17/2022	6:00	8:00	2:00	Normal	71.7	82.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/17/2022	9:00	21:00	12:00	Normal	19.2	22.2	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.

Carbon Monoxide > 8ppm 4 hour alarm

6/19/2022	23:00	4:00	5:00	Normal	11.8	13.6	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator.
6/20/2022	16:00	20:00	4:00	Normal	10	11.5	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator.
6/20/2022	23:00	3:00	4:00	Normal	9.9	11.4	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator.
6/21/2022	9:00	10:00	1:00	Shutdown	273.6	315.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/21/2022	21:00	4:00	7:00	Normal	438.2	505.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/24/2022	20:00	1:00	5:00	Shutdown	249.6	288.0	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/25/2022	15:00	16:00	1:00	Normal	279.4	322.4	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/25/2022	17:00	22:00	5:00	Normal	180	207.7	High CO levels were the result of a low secondary chamber temperature caused by failure of the upper chamber burner.	No waste was fed at this time, the incinerator was brought to a controlled shutdown.
6/28/2022	11:00	12:00	1:00	Normal	8.1	9.3	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

6/28/2022	16:00	18:00	2:00	Normal	8.2	9.5	High CO average caused by CO spike that occurred after waste the charged into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
-----------	-------	-------	------	--------	-----	-----	--	--

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
6/21/2022	21:17	1:21	4:04	Normal	701	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/24/2022	18:20	0:45	6:25	Normal/Shutdown		Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/4/2022	17:04	21:23	4:19	Normal/Shutdown	961	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/14/2022	14:35	15:03	0:28	Normal	931	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.

6/14/2022	15:17	16:53	1:36	Normal	923	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/14/2022	17:59	18:37	0:38	Normal	960	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/16/2022	1:23	5:19	3:56	Shut-down	748	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/16/2022	19:33	21:53	2:20	Shut-down	931	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.

6/19/2022	11:13	12:00	0:47	Normal	951	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/20/2022	23:00	7:00	8:00	Normal/Shutdown	880	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/21/2022	7:03	9:17	2:14	Shut-down	807	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/21/2022	21:16	1:22	4:06	Normal	701	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.

6/22/2022	9:03	11:06	2:03	Normal	848	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/22/2022	11:39	12:23	0:44	Normal	919	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/24/2022	18:20	0:35	6:15	Normal	621	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/25/2022	14:42	15:39:00	0:57	Normal	967	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.

6/25/2022	15:54	21:50	5:56	Normal	842	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/26/2022	21:38	23:31	1:53	Normal	947	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.
6/29/2022	7:44	10:30	2:46	Shut-down	927	Low secondary chamber temperature caused by failure of the upper chamber burner due to a defective cone.	Stericycle maintenance worked with the burner parameter to stabilize the upper chamber burner. No waste was fed until the upper chamber temperature returned to the normal operating range.

Atomizer Amps < 36

	Start	Stop		Op.	Atom. A	Atom. B		Action
Date	Time	Time	Duration	Mode	amps	amps	Explanation	Taken
6/21/2022	22:53:00	6:13:00	7:20:00	Normal		15.5	Atomizer B was shutdown to repair a wter feed line.	Maintenance restarted the atomizer when the water line repair was complete.