

Appendix B
Exhibit Log

Exhibit 1
SWMP Figure 1A – Location Map

Figure 1A - LOCATION MAP

Suncor Energy Commerce City Refinery



Exhibit 2
Figure 5 – Wastewater and Stormwater Outfalls

Figure 5—Wastewater and Stormwater Outfalls
Suncor Energy Commerce City Refinery

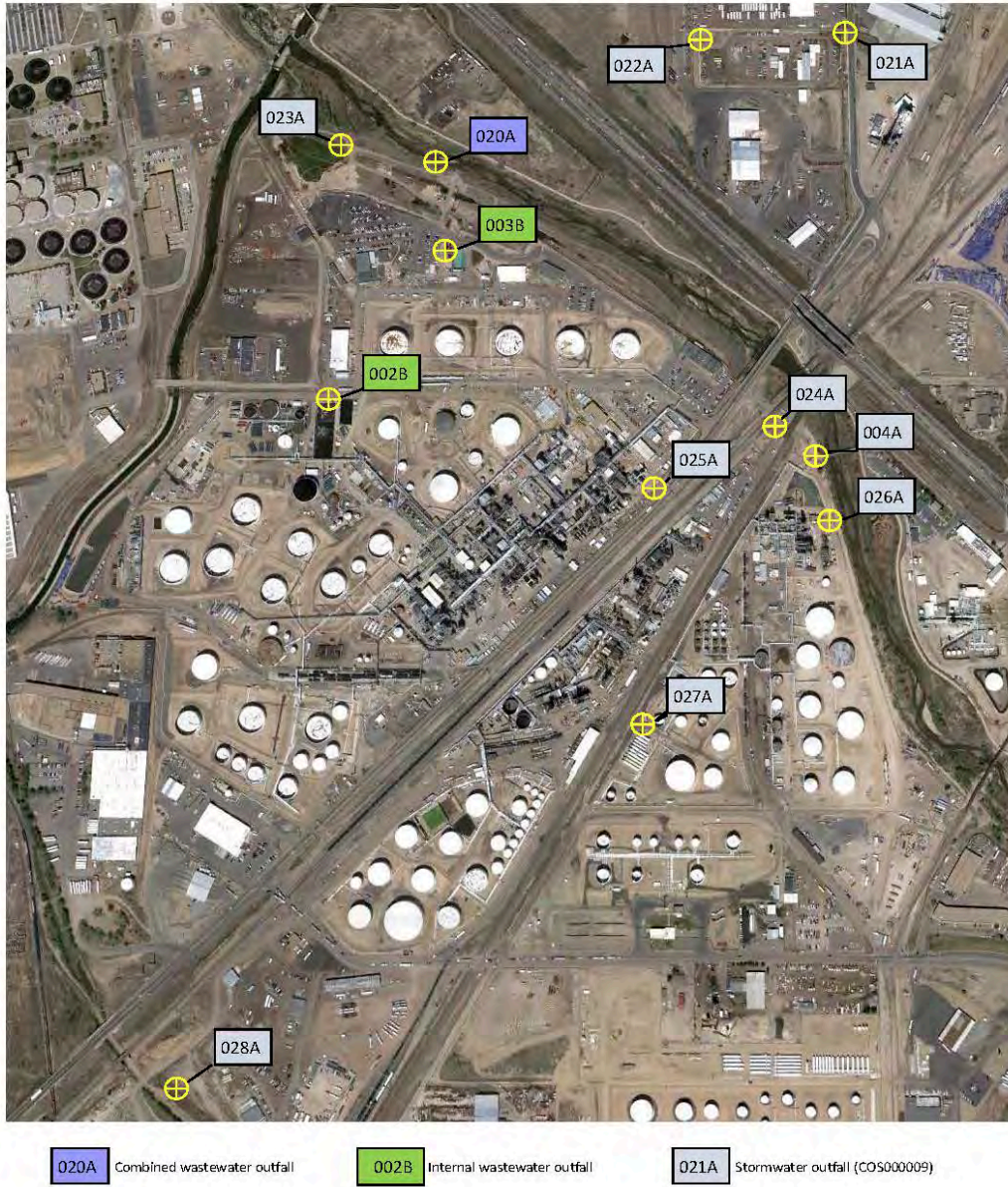


Exhibit 3
May 2021 SPCC Plan Tertiary Containment Ponds

Suncor Commerce City Refinery (COS000009)
 Compliance Evaluation Inspection Appendix B

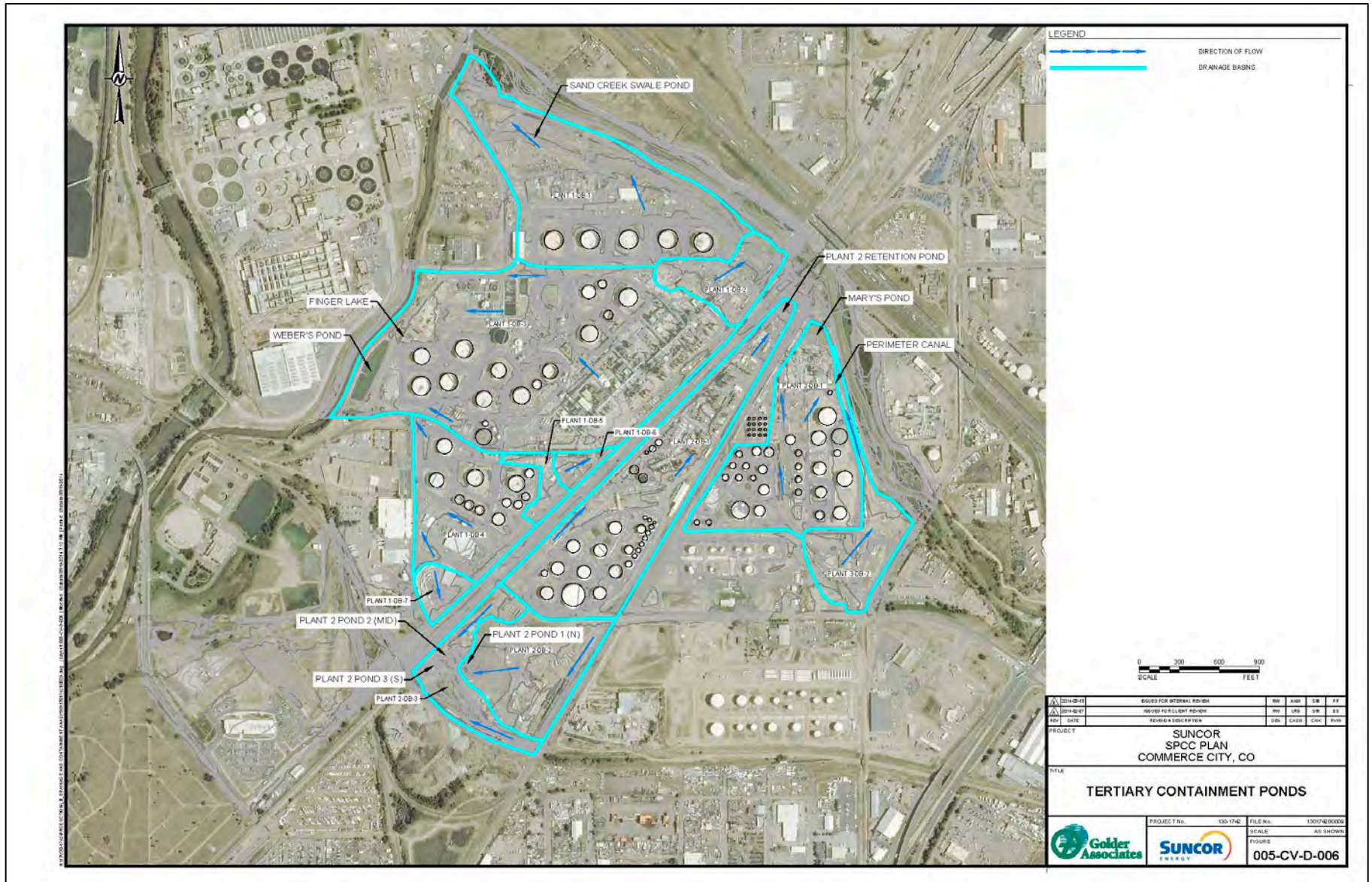
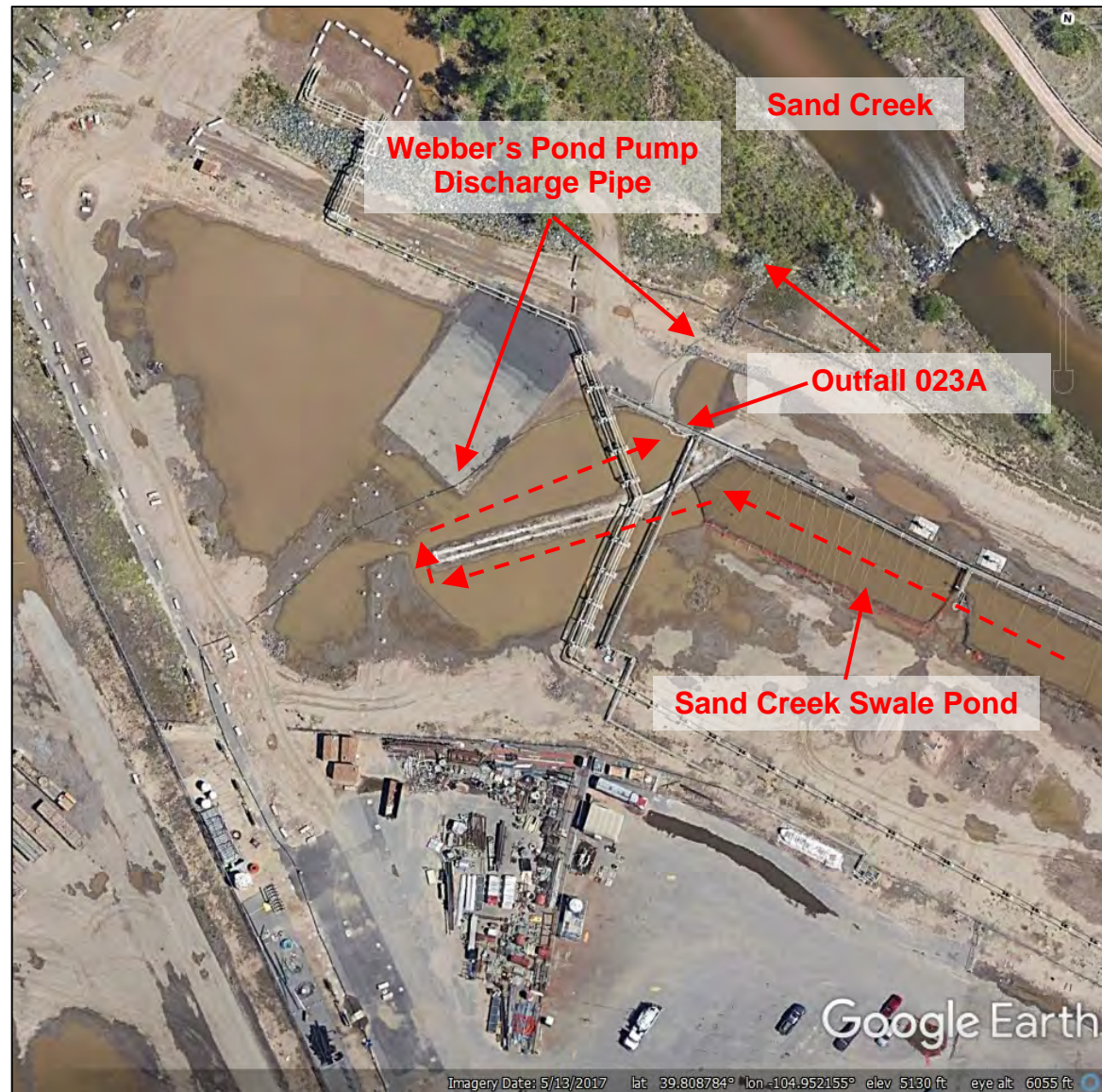


Exhibit 4
GoogleEarth Aerial Imagery Outfall 023A
May 13, 2017



**Sand Creek Swale Pond
Hydraulically Connected
to Stormwater Detention
Area and Outfall 023A**

Exhibit 5
GoogleEarth Aerial Imagery Outfall 023A
June 9, 2017



Exhibit 6
GoogleEarth Aerial Imagery Outfall 023A
May 31, 2018



Exhibit 7
August 20, 2018 (Page 1 only), April 15, 2019 (Page 1 only),
October 14, 2019 (Page 1 only), December 16, 2019 (Page 1
only), and January 15, 2020 (Page 1 only)
Monthly Industrial Stormwater Inspection Report

August

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

Inspection Date: 8/20/18
 Weather Conditions:

Time: 0815

PLANT 1	Yes	No	N/A
Is there discharge occurring from Outfall 023A (detention area along Sand Creek)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Are there any signs of erosion of the swale or detention area along Sand Creek?		X	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek (other than Outfalls 002 and 003)?		X	
Is there discharge occurring from Outfall 025A (Sulfur Rail Loading Gate)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Is there any debris blocking the stormwater drain at the sulfur loading gate?		X	
Is there any evidence of contaminants or non-stormwater discharges along Brighton Blvd?		X	
Are there any signs of structural deficiencies with the detention area located near the North Gate?		X	
Is there any oil or solids present in the detention area located near the North Gate?		X	
Are there any structural deficiencies associated with tank berms?		X	
Are drain valves along north tank berm open or unlocked?		X	
Are drain valves at Waste Pad open?		X	
Are there any deficiencies or blockages associated with the ditches leading to Finger Lake?		X	
Are there any structural deficiencies with Finger Lake or the large detention area at the west end of the property?		X	
Is there any oil or solids present in Finger Lake or the large detention area at the west end of the property?		X	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along Denver Metro property, the paper mill property, or Burlington Ditch?		X	
Is the secondary containment structure associated with the fueling area filled with accumulated stormwater?		X	

PLANT 2	Yes	No	N/A
Is there discharge occurring from Outfall 024A (detention basin at north end of facility)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Are there any signs of structural deficiencies associated with the detention basin?		X	
Is there any oil or solids present in the detention basin?		X	
Is the detention basin full or close to full of water?		X	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		X	
Are there any structural deficiencies associated with tank berms?		X	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or west property boundaries?		X	
Is there discharge occurring from Outfall 027A (East Tank Farm manual pumping of bermed area)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

Inspection Date: 04/05/19

Time: 1342

Weather Conditions

PLANT 1	Yes	No	N/A
Is there discharge occurring from Outfall 023A (detention area along Sand Creek)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of erosion of the swale or detention area along Sand Creek?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek (other than Outfalls 002 and 003)?		✓	
Is there discharge occurring from Outfall 025A (Sulfur Rail Loading Gate)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Is there any debris blocking the stormwater drain at the sulfur loading gate?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Brighton Blvd?		✓	
Are there any signs of structural deficiencies with the detention area located near the North Gate?		✓	
Is there any oil or solids present in the detention area located near the North Gate?			
Are there any structural deficiencies associated with tank berms?		✓	
Are drain valves along north tank berm open or unlocked?		✓	
Are drain valves at Waste Pad open?		✓	
Are there any deficiencies or blockages associated with the ditches leading to Finger Lake?		✓	
Are there any structural deficiencies with Finger Lake or the large detention area at the west end of the property?		✓	
Is there any oil or solids present in Finger Lake or the large detention area at the west end of the property?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along Denver Metro property, the paper mill property, or Burlington Ditch?		✓	
Is the secondary containment structure associated with the fueling area filled with accumulated stormwater?		✓	

PLANT 2	Yes	No	N/A
Is there discharge occurring from Outfall 024A (detention basin at north end of facility)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of structural deficiencies associated with the detention basin?		✓	
Is there any oil or solids present in the detention basin?		✓	
Is the detention basin full or close to full of water?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		✓	
Are there any structural deficiencies associated with tank berms?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or west property boundaries?		✓	
Is there discharge occurring from Outfall 027A (East Tank Farm manual pumping of bermed area)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

Inspection Date: 10/14/19 Time: 1425

Weather Conditions

PLANT 1	Yes	No	N/A
Is there discharge occurring from Outfall 023A (detention area along Sand Creek)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of erosion of the swale or detention area along Sand Creek?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek (other than Outfalls 002 and 003)?		✓	
Is there discharge occurring from Outfall 025A (Sulfur Rail Loading Gate)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Is there any debris blocking the stormwater drain at the sulfur loading gate?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Brighton Blvd?		✓	
Are there any signs of structural deficiencies with the detention area located near the North Gate?		✓	
Is there any oil or solids present in the detention area located near the North Gate?		✓	
Are there any structural deficiencies associated with tank berms?		✓	
Are drain valves along north tank berm open or unlocked?		✓	
Are drain valves at Waste Pad open?		✓	
Are there any deficiencies or blockages associated with the ditches leading to Finger Lake?		✓	
Are there any structural deficiencies with Finger Lake or the large detention area at the west end of the property?		✓	
Is there any oil or solids present in Finger Lake or the large detention area at the west end of the property?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along Denver Metro property, the paper mill property, or Burlington Ditch?		✓	
Is the secondary containment structure associated with the fueling area filled with accumulated stormwater?		✓	

PLANT 2	Yes	No	N/A
Is there discharge occurring from Outfall 024A (detention basin at north end of facility)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of structural deficiencies associated with the detention basin?		✓	
Is there any oil or solids present in the detention basin?		✓	
Is the detention basin full or close to full of water?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		✓	
Are there any structural deficiencies associated with tank berms?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or west property boundaries?		✓	
Is there discharge occurring from Outfall 027A (East Tank Farm manual pumping of bermed area)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

Inspection Date: 12-16-19

Time: 1000

Weather Conditions:

PLANT 1	Yes	No	N/A
Is there discharge occurring from Outfall 023A (detention area along Sand Creek)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of erosion of the swale or detention area along Sand Creek?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek (other than Outfalls 002 and 003)?		✓	
Is there discharge occurring from Outfall 025A (Sulfur Rail Loading Gate)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Is there any debris blocking the stormwater drain at the sulfur loading gate?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Brighton Blvd?		✓	
Are there any signs of structural deficiencies with the detention area located near the North Gate?		✓	
Is there any oil or solids present in the detention area located near the North Gate?		✓	
Are there any structural deficiencies associated with tank berms?			
Are drain valves along north tank berm open or unlocked?		✓	
Are drain valves at Waste Pad open?		✓	
Are there any deficiencies or blockages associated with the ditches leading to Finger Lake?		✓	
Are there any structural deficiencies with Finger Lake or the large detention area at the west end of the property?		✓	
Is there any oil or solids present in Finger Lake or the large detention area at the west end of the property?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along Denver Metro property, the paper mill property, or Burlington Ditch?		✓	
Is the secondary containment structure associated with the fueling area filled with accumulated stormwater?		✓	

PLANT 2	Yes	No	N/A
Is there discharge occurring from Outfall 024A (detention basin at north end of facility)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of structural deficiencies associated with the detention basin?		✓	
Is there any oil or solids present in the detention basin?		✓	
Is the detention basin full or close to full of water?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		✓	
Are there any structural deficiencies associated with tank berms?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or west property boundaries?		✓	
Is there discharge occurring from Outfall 027A (East Tank Farm manual pumping of bermed area)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

Inspection Date: 1-15-20

Time: 0730

Weather Conditions:

PLANT 1	Yes	No	N/A
Is there discharge occurring from Outfall 023A (detention area along Sand Creek)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of erosion of the swale or detention area along Sand Creek?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek (other than Outfalls 002 and 003)?		✓	
Is there discharge occurring from Outfall 025A (Sulfur Rail Loading Gate)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Is there any debris blocking the stormwater drain at the sulfur loading gate?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Brighton Blvd?		✓	
Are there any signs of structural deficiencies with the detention area located near the North Gate?		✓	
Is there any oil or solids present in the detention area located near the North Gate?		✓	
Are there any structural deficiencies associated with tank berms?		✓	
Are drain valves along north tank berm open or unlocked?		✓	
Are drain valves at Waste Pad open?		✓	
Are there any deficiencies or blockages associated with the ditches leading to Finger Lake?		✓	
Are there any structural deficiencies with Finger Lake or the large detention area at the west end of the property?		✓	
Is there any oil or solids present in Finger Lake or the large detention area at the west end of the property?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along Denver Metro property, the paper mill property, or Burlington Ditch?		✓	
Is the secondary containment structure associated with the fueling area filled with accumulated stormwater?		✓	

PLANT 2	Yes	No	N/A
Is there discharge occurring from Outfall 024A (detention basin at north end of facility)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of structural deficiencies associated with the detention basin?		✓	
Is there any oil or solids present in the detention basin?		✓	
Is the detention basin full or close to full of water?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		✓	
Are there any structural deficiencies associated with tank berms?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or west property boundaries?		✓	
Is there discharge occurring from Outfall 027A (East Tank Farm manual pumping of bermed area)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓

Exhibit 8
March 29, 2016
Corrective Action Report

3/29/2016

Corrective Action Report

Problem

Stormwater discharge from Outfall 023A (Sand Creek former pond area) exceeded the permit 30-day average benzene benchmark concentration of 5 ug/l on 3/25/2016. A benchmark concentration exceedance is not a violation of the permit. However, the permit requires that a corrective action review be performed in order to determine the appropriate actions needed to prevent a reoccurrence.

In order to prevent an unpermitted storm water discharge in to Burlington Canal, water from SW-6 (Webber's Pond) was pumped to the area of the former pond at Sand Creek during the night of 3/24/2016 and morning of 3/25/2016. The area of the former pond was already nearly full of storm water and at 10:00 am on 3/25/2016, stormwater was discharged from Outfall 023A to prevent the water from overflowing from the former pond and swale.

The discharge showed no visible signs of contamination, and a sample of water in the area of the outfall taken on 3/23/2016 was below the detection limit for benzene. However, two samples taken of the discharge on 3/25/2016 both exceeded the benchmark concentration. It is believed that hydrocarbons coming to the surface in the swale likely contributed to the benzene exceedance. The hydrocarbons came to the surface during the time the remediation wells lost power as a result of the Substation 16 power cutover.

Immediate Actions Taken

Results of analysis of the first discharge sample were received at 1:00 pm on 3/25/2016. The outfall was immediately closed to prevent further discharge. The pump from SW-6 was subsequently shut down. A pump was then set up in the area of the former pond to allow for pumping accumulated water into the refinery waste water treatment system (WWTS) headworks. Pumping to the WWTS was started at approximately midnight of 3/25/2016.

Additional Corrective Actions Planned

In the event that accumulated stormwater in the area of Sand Creek swale threatens to flow offsite from the former pond area, pumps and piping/hose will be proactively set up to transfer the water to the WWTS headworks or 4th Lagoon rather than directly discharging via Outfall 023A. Written directions and specifications for setting up the pumping will be prepared. Note that work will not be performed in the area of Sand Creek if flooding or storms make it unsafe.

Exhibit 9
August 2, 2021 Email Correspondence from Mr. Eric Marler
(Suncor's Sr. Environmental Advisor)

From: [Eric Marler](#)
To: [Anthony D'Angelo](#)
Cc: [Meyers, Stephanie](#); [Jared Richardson](#); [Wes Mineil](#)
Subject: RE: Suncor Corrective Action Report for Discharges from Webber's Pond to Outfall 023A
Date: Monday, August 2, 2021 11:49:38 AM

Hi Anthony,

Thank you for the opportunity to talk through your follow up questions this morning. Following is a summary of our discussion.

The "former stormwater pond" is the pond associated with Outfall 023A. This area was referred to as the "former stormwater pond" because it used to be a deeper, more permanent pond. It was filled in 2012 to prevent contact with groundwater, which is why the current "pond" is very shallow, as you saw during the inspection, and typically only fills with water after a heavy storm. The discharge from Webber's Pond to Burlington Ditch occurred on 5/10/2015. When heavy precipitation was experienced in 2016, the pump and piping was put into place from Webber's Pond to Outfall 023A to prevent a reoccurrence. We did not observe discharge into Burlington Ditch in 2016.

Although preliminary sampling indicated that stormwater from both the Webber's Pond area and the pond associated with Outfall 023A was below permit limits and benchmark concentrations, discharge sampling from Outfall 023A unexpectedly exceeded the benchmark concentration for benzene when the water was discharged on March 25, 2016. This was reported to CDPHE in the DMR and annual stormwater report.

Since March 2016, Outfall 023A has discharged four times, twice in 2017 and twice in 2021. During discharges in January 2017 and May 2017, water from the Webber's Pond area was again pumped to Outfall 023A. However, in these instances, the piping was extended to the area between the pond associated with the outfall and the outfall, itself. This allowed water to be discharged from Webber's Pond out of Outfall 023A, thus avoiding discharge to Burlington Ditch, without discharging water from the pond associated with Outfall 023A. The configuration of the line can be seen in the Google Earth image from May 13, 2017 and June 9, 2017. Water from the Webber's Pond area was sampled prior to discharge and the discharge samples were within permit limits and benchmark concentrations.

The most recent two discharges from Outfall 023A occurred in May and June of 2021. In both cases, only water from the pond associated with Outfall 023A was discharged. There was no line set up between Webber's Pond and Outfall 023A. Sampling from both discharges showed the water was within the permit limits and benchmark concentrations, as reported in the DMR's.

The Google Earth image from May 2018 shows the line between Webber's Pond and Outfall 023A was disconnected upstream of the outfall. This is because earlier in that year we needed to pump the area of Webber's Pond again to avoid discharge into Burlington Ditch. However, there was plenty of capacity in the pond associated with 023A, so the water was pumped into the pond rather than the outfall, and no discharge was necessary.

The second line shown in the image from May 2018 extending to Sand Creek was used for bypass of the wastewater line between Outfall 020A and Sand Creek. This was used to allow tie in to the new flume associated with Outfall 020A in late 2017 and again in May 2018 to replace a reducer downstream of the flume to correct an issue with flow out of the flume. By the time of the Google Earth image on May 31, 2018, the line was no longer in use and had been partially removed. By the time of the 2019 Google Earth image, all the temporary piping had been removed and has not put into place again, since.

Completion of the Membrane Bioreactor (MBR) project and combination of outfalls in 2018 has resulted in additional hydraulic capacity through Outfall 002B. Therefore, Suncor does not anticipate the need to reinstall these temporary lines in the future.

Feel free to let me know if you would like to discuss further or have any more questions.

Regards,

Eric Marler
Suncor Energy (U.S.A.) Inc.
Senior Environmental Advisor
303-227-7524
Cell 720-305-6155

From: Anthony D'Angelo <anthony.dangelo@pgenv.com>
Sent: Thursday, July 29, 2021 1:09 PM
To: Eric Marler <EMarler@Suncor.com>
Cc: Meyers, Stephanie <meyers.stephanie@epa.gov>; Jared Richardson <Jared.Richardson@pgenv.com>
Subject: Suncor Corrective Action Report for Discharges from Webber's Pond to Outfall 023A

EXTERNAL EMAIL: Always be cautious. COURRIEL EXTERNE : Il faut toujours être prudent.

Hi Eric,

Thank you for providing all the subsequent information that we requested. Just to follow-up on one item, we noted that a corrective action report from Suncor to CDPHE on March 29, 2016 noted that Webber's Pond was pumped directly to the "former stormwater pond" (please clarify where this is located), and subsequently to Outfall 023A to prevent an overflow of Webber's Pond to the adjacent Burlington Ditch. The March 29, 2016 corrective action report does not indicate that an actual discharge from Webber's Pond to the Burlington Ditch occurred but you had mentioned during the field tour that there was an instance where Webber's Pond may have overtopped the perimeter wall and discharged to Burlington Ditch. Can you confirm this overtopping and was this the same instance that prompted the Webber's Pond pump down to Outfall 023A?

The March 29, 2016 Corrective Action Report states, "In order to prevent an unpermitted storm water discharge in to Burlington Canal, water from SW-6 (Webber's Pond) was pumped to the area of the former pond at Sand Creek during the night of 3/24/2016 and morning of 3/25/2016. The area of the former pond was already nearly full of storm water and at 10:00 am on 3/25/2016, stormwater was discharged from Outfall 023A to prevent the water from overflowing from the former pond and swale."

In reviewing historic GoogleEarth imagery of the facility, we observed potential hose lines leading to Outfall 023A and Sand Creek visible in May 13, 2017, June 9, 2017, and May 31, 2018 imagery (see attached). A second potential hose line is also visible in vicinity of Outfall 023A in the May 31, 2018 imagery. Do you know if the lines visible at the outfall in these images are actual stormwater discharge lines and if they were installed for the March 2016 discharge event? Can you confirm the number of instances and dates when Webber's Pond was discharged to Outfall 023A since the March 2016 pumping event discussed in the corrective action.

We observed that the potential hose lines are no longer visible in 2019 imagery available on GoogleEarth.

Thank you for any additional clarification you can provide. Happy to discuss further on a call if needed.

Anthony D'Angelo
PG Environmental
1113 Washington Avenue, Suite 200
Golden, Colorado 80401
720-789-8049 (office)
303-994-3203 (cell)
anthony.dangelo@pgenv.com

visit our website at www.pgenv.com

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Exhibit 10
Excerpt From Suncor's 2016 Annual Report

Permit COS000009 Annual Report

Part F : Corrective Actions (contd.)

If the answer to any of the above questions is 'Yes', provide a description of the conditions that met the criterion/criteria and describe the corrective action(s) taken.

- Stormwater discharge from Outfall 023A (Sand Creek former pond area) exceeded the permit 30-day average benzene benchmark concentration of 5 ug/l on 3/25/2016. This was reported in the March 2016 DMR.

In order to prevent an unpermitted storm water discharge in to Burlington Canal, water from SW-6 (Webber's Pond) was pumped to the area of the former pond at Sand Creek during the night of 3/24/2016 and morning of 3/25/2016. The area of the former pond was already nearly full of storm water and at 10:00 am on 3/25/2016, stormwater was discharged from Outfall 023A to prevent the water from overflowing from the former pond and swale.

The discharge showed no visible signs of contamination, and a sample of water in the area of the outfall taken on 3/23/2016 was below the detection limit for benzene. However, two samples taken of the discharge on 3/25/2016 both exceeded the benchmark concentration. It is believed that hydrocarbons coming to the surface in the swale likely contributed to the benzene exceedance. The hydrocarbons came to the surface during a time the remediation wells were not functioning as a result of a power outage.

Results of analysis of the first discharge sample were received at 1:00 pm on 3/25/2016. The outfall was immediately closed to prevent further discharge. The pump from SW-6 was subsequently shut down. A pump was then set up in the area of the former pond to allow for pumping accumulated water into the refinery waste water treatment system (WWTS) headworks. Pumping to the WWTS was started at approximately midnight of 3/25/2016.

- A brief but heavy downpour during the afternoon of 6/13/2016 revealed issues with Structural controls in Plant 2 and resulted in damage to structural controls in Plant 3. Heavy lightning in the area curtailed immediate efforts to inspect the outfalls and perform sampling.

Plant 2

Immediately following the storm event, stormwater was observed to have run on from the railroad ROW along the west side of Plant 2 into the detention pond associated with Outfall 024A and into the outfall basin below the pond. All stormwater from the refinery property was contained within the pond and did not discharge during the event. During recent railroad operations, additional rock was placed and the area re-graded. As a result, the flow of stormwater was altered.

The discharge pipe was not draining properly and stormwater from the railroad ROW was observed to fill and briefly overflow the basin. Subsequent inspection of the outfall revealed that the end of the discharge pipe has been covered with sediment and sand had completely blocked the flow.

The berm and swale previously existing between the west fence line in the area of Outfall 024A and the railroad ROW were restored to return the flow of storm water from the ROW directly to Sand Creek rather than into Outfall 024A. In addition, the discharge pipe associated with Outfall 024A was uncovered and cleared of sediment. These corrective actions were completed on 6/27/2016.

Plant 3

Immediately following the storm event, a large amount of debris was found to have washed down the concrete channel leading to Mary's Pond, partially blocking the bar screen at the inlet to the pond. Visible signs of a high water mark and erosion indicate that water may have discharged from the ditch just upstream of Outfall 026A. However, if this occurred, it must have been for a very brief period of time, because the water level in the ditch was approximately 2 feet below the top of the ditch soon after the storm, and there was more than adequate capacity remaining in Mary's Pond.

Exhibit 11
June 17, 2019 and September 9, 2019
PSS Monthly Inspection Reports

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

PLANT 2	Yes	No	N/A
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the railroad south of the facility (south side of 56 th)?		X	
Are there any signs of leaks or contamination associated with rail or truck loading/unloading areas?		X	
Are there any structural deficiencies associated with secondary containment structures at crude unloading docks?		X	
Is there discharge occurring from Outfall 028A (retention pond behind South Park trailers)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Is the retention pond full or close to full of water?		X	

PLANT 3	Yes	No	N/A
Is there discharge occurring from Outfall 004A (Mary's Lake)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Are there any signs of structural deficiencies associated with Mary's Lake?		X	
Is there any oil or solids present in Mary's Lake?		X	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		X	
Is Mary's Lake full or close to full of water?		X	
Is there discharge occurring from Outfall 026A (Overflow of inlet into Mary's Lake)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Are there any deficiencies or blockages associated with the east perimeter stormwater ditch?	X		
Are there any structural deficiencies associated with tank berms?		X	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or south property boundaries?		X	
Are there structural deficiencies associated with the earthen berm around the Turnaround Boneyard?		X	

Nelson Property	Yes	No	N/A
Is there discharge occurring from Outfall 021A (constructed outlet at northeast corner of property)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Are there any structural deficiencies or blockages associated with the constructed outlet?		X	
Is there discharge occurring from Outfall 022A (outlet of retention pond located at northwest corner of property)?		X	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			X
Are there any structural deficiencies or blockages associated with the constructed outlet?		X	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along property boundaries?		X	
Is the secondary containment structure used for storage containers of oil and antifreeze filled with accumulated stormwater?		X	
Are the perimeter concrete stormwater swales filled with sediment and/or debris?		X	

SEUSA Commerce City Refinery

CCR-ENV 100.24

Monthly Industrial Stormwater Inspection

PLANT 2	Yes	No	N/A
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the railroad south of the facility (south side of 56 th)?		✓	
Are there any signs of leaks or contamination associated with rail or truck loading/unloading areas?		✓	
Are there any structural deficiencies associated with secondary containment structures at crude unloading docks?		✓	
Is there discharge occurring from Outfall 028A (retention pond behind South Park trailers)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Is the retention pond full or close to full of water?		✓	

PLANT 3	Yes	No	N/A
Is there discharge occurring from Outfall 004A (Mary's Lake)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any signs of structural deficiencies associated with Mary's Lake?		✓	
Is there any oil or solids present in Mary's Lake?		✓	
Is there any evidence of contaminants or non-stormwater discharges along Sand Creek?		✓	
Is Mary's Lake full or close to full of water?		✓	
Is there discharge occurring from Outfall 026A (Overflow of inlet into Mary's Lake)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any deficiencies or blockages associated with the east perimeter stormwater ditch?	✓		
Are there any structural deficiencies associated with tank berms?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along the east or south property boundaries?		✓	
Are there structural deficiencies associated with the earthen berm around the Turnaround Boneyard?		✓	

Nelson Property	Yes	No	N/A
Is there discharge occurring from Outfall 021A (constructed outlet at northeast corner of property)?	✓		
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?		✓	
Are there any structural deficiencies or blockages associated with the constructed outlet?		✓	
Is there discharge occurring from Outfall 022A (outlet of retention pond located at northwest corner of property)?		✓	
If so, are there any indications of stormwater pollution (floating material, oil sheen, discoloration, turbidity, odor, etc.)?			✓
Are there any structural deficiencies or blockages associated with the constructed outlet?		✓	
Are there any signs of contamination, non-stormwater discharges, or leaking/improperly stored containers/equipment along property boundaries?		✓	
Is the secondary containment structure used for storage containers of oil and antifreeze filled with accumulated stormwater?		✓	
Are the perimeter concrete stormwater swales filled with sediment and/or debris?		✓	