U.S. Environmental Protection Agency
Region 5

Purpose: Clean Water Act National Pollutant Discharge Elimination System Compliance Evaluation Inspection

Facility: Cleveland-Cliffs Inc. – Tilden Mine
County Road PEE
Ishpeming, Michigan 49849

Inspection Date: September 13 - 15, 2022

EPA Representatives:
Jonathan Moody, Environmental Engineer, (312) 886-7570, moody.jonathan@epa.gov
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Michigan Environmental, Great Lakes and Energy (EGLE) Representative:
Scott Richards, Marquette District Office, Compliance Inspector

Facility Representatives:
Michael Korvela, Environmental Coordinator: Cliffs Michigan Operations
Brent Ketzenberger, Environmental Manager: Cleveland-Cliffs Michigan Operations
Rob Beranek, Director of Environmental Permitting and Regulatory Affairs
Ryan Korpela, General Manager: Cleveland-Cliffs Michigan Operations

Report Prepared by:
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Water Enforcement and Compliance Assurance Branch, Section 1

Inspector Signature and Date: Berger, Jake Digitally signed by Berger, Jake Date: 2022.11.22 15:59:57 -06'00'

Approver Name and Title: Molly Smith, Section 1 Supervisor, Water Enforcement and Compliance Assurance Branch

Approver Signature and Date: MOLLY SMITH Digitally signed by MOLLY SMITH Date: 2022.11.22 15:51:37 -06'00'

PURPOSE OF INSPECTION

The purpose of the inspection by the U.S. Environmental Protection Agency (USEPA) at the Tilden Mining Company L.C. mine (Tilden) of the Cleveland-Cliffs Inc. facility (Cliffs or Facility) in Ishpeming, Michigan was to describe, evaluate, and document compliance with the Clean Water Act (CWA) and their National Pollutant Discharge Elimination System (NPDES) permit.

BACKGROUND

Tilden is located at County Road PEE, Ishpeming, Michigan and is owned by Cliffs. Hematite and magnetite ore are mined from large surface pits and taken to the onsite processing plant where physical and magnetic processes separate the iron from the rest of the material. The iron is formed into pellets, which are shipped offsite via train, and the unwanted material and used process water is discarded into the tailings basins.

Tilden is still operational and producing ore. Tilden is permitted to discharge treated process wastewater, treated wastewater from the Facility's sanitary plant, noncontact cooling water, and storm water runoff to the receiving waters named Green Creek, the Schweitzer Reservoir, and the Goose Lake Inlet. Tilden's NPDES permit # MI0038369 (Permit) issued by the Michigan Department of Environmental Quality (now known as the Michigan Department of Environment, Great Lakes, and Energy (EGLE)) was effective from November 1, 2012, to October 1, 2016. The Permit has been administratively continued since its expiration and continues to govern and authorize Tilden's discharges.

INSPECTION

Jonathan Moody, Matthew Schulte, and Jake Berger of USEPA first arrived at the East gate security office of the Facility at 9:30 a.m. EDT on September 13, 2022. They were met by Brent Ketzenberger, Rob Beranek, and Ryan Korpela. Jonathan Moody, Matthew Schulte, and Jake Berger presented their credentials and identification and viewed a safety training video in the security office.

Opening Conference

USEPA staff explained that the purpose of the inspection was to:

- Review Cliffs' records, including sample measurements, monitoring activities, and storm water plans, as required by the Permit;
- Conduct a walkthrough of the Facility, including the Empire mining pit, tailings basins, and pellet production plant;
- Identify locations where storm water control had the potential to be insufficient; and

- Inform Cliffs of areas of concern regarding the records review and Facility walkthrough.

Records Review

At 10:00 a.m. EDT on September 13, USEPA began reviewing hard copy and electronic records with the Cliffs staff while they explained the various industrial processes. The following areas of concern were identified:

- Under the Facility's Stormwater Pollution Prevention Plan (SWPPP), if no incidence of non-compliance is noted during a Facility quarterly inspection, the inspection report shall contain a certification statement that the Facility complies with the storm water compliance requirements included in the NPDES Permit. In the last 12 quarters, no certification statements were present with the reports at the time of the inspection.
- Chlorine measurements for compliance purposes at the Tilden wastewater treatment plant are collected with a continuous chlorine analyzer, which was equipped with a free chlorine reagent that would not provide a total chlorine residual value.
- The Facility's permit expired on October 1, 2016, but has been administratively continued by the State.
- During a review of the Stormwater Pollution Prevention Plan (SWPPP), Michael Korvela stated that the rock stockpiles shown in the SWPPP, and located around the Facility, are composed of overburden, noneconomical ore, and other rock that does not contain iron.
- Figure 5 in the SWPPP includes a map showing the locations of significant materials, including rock stockpiles. Runoff from some rock stockpiles adjacent to the location of the historic Empire outfall E003. No stormwater monitoring point nor NPDES monitored outfall was associated with the control structure at the historic outfall E003.
- During the inspection, USEPA observed waste material from mining operations adjacent to a waterway known as Partridge Creek. Runoff from the slopes of the waste material would drain into a waterway flowing through a historic outfall 003. This is shown in Photos 37 through 42. The Facility representatives stated that NPDES compliance monitoring was no longer being conducted at this location because the discharge was not considered a wastewater. A copy of a cover letter from Michigan Department of Environmental Quality (now EGLE) on June 29, 2017, transmitting the compliance evaluation inspection notes from an April 27, 2017, visit at the Empire Mine (MI0000094) was given to EPA. The June 29, 2017, cover letter was provided as the record of the approval from EGLE. The June 29, 2017, letter references a low selenium concentration and no active mine pit dewatering as justification for changing the NPDES permit, which had expired in 2016.
- In addition to the SWPPP, the Permit requires the Facility to develop and implement a Selenium Stormwater Management Plan (SSMP), which includes the operation of a runoff collection system and replenishment water. The Facility develops an annual report. A map from the 2020 SSMP annual report is included in this report and shows the locations of NPDES outfalls, stormwater monitoring locations. During USEPA's inspection, two locations, CC-291 and CC-292, were visited and were not included in the version of the SWPPP or SSMP which were available at the time of the inspection.

Following the records review a Facility walkthrough was conducted, which included a tour of the mining pits, tailings basins, water conveyance systems, processing plant sanitary treatment works, and pellet plant with Cliffs' environmental staff. The tour continued into September 14 and September 15, 2022.

Facility Walkthrough

USEPA staff made the following observations during the Facility walkthrough, further documented in the Photograph Log (attached):

- Process wastewater that is discharged to the tailing basins have a retention period of approximately 90 days before reaching the Gribben Clarification Facility, which is not operated during winter months due to cold weather.
- Numerous fish and bugs were present within the clarifiers at the Gribben Clarification Facility.
- USEPA field monitoring of the replenishment water at the location '17,' or CC-95, showed a background specific conductivity of approximately 200 µS/cm (microSiemens per centimeter).
- USEPA observed and conducted field monitoring on flowing water originating from a location near the toe of the outslope of the east side of the Tilden tailings basin, at a location north of the Gribben Clarification Facility. The waterway is shown in photos 19 through 24, including a video of the flowing water. This location is a possible daylighted seep, which is not monitored as an NPDES outfall, stormwater monitoring location, nor an SSMP location. USEPA field monitoring at this location showed a conductivity of greater than 1,000 µS/cm, which is above the background values.
- USEPA observed and conducted field monitoring of flowing water originating near Hoover Pond impoundment of process water. Water flowing from inside culvert connected to impoundment was originating from an unspecified source. Northeast of the culvert is a possible daylighted seep and EPA field monitoring at this location showed a conductivity of greater than 900 µS/cm, which is above the background values. The waterway, culvert, and possible daylight seep are depicted in photos 29 through 32.
- The Facility has constructed numerous berm structures, impoundments and rock stockpiles from mining material, which includes overburden and waste rock. Runoff from the rock stockpiles is currently being monitored as stormwater runoff. Runoff from rock stockpiles needs to be reevaluated to review classification as process wastewater.
    - Stormwater monitoring location '6' or CC-69: the SWPPP shows that the rock stockpiles are a source of exposure in the tributary to this location. Field monitoring conducted by USEPA showed a conductivity greater than 1,000 µS/cm, which is above the background values. At the time of the inspection, this stormwater monitoring location was flowing despite dry weather conditions.
    - Stormwater monitoring location 'M' or CC-93: the SWPPP shows that the rock stockpiles are a source of exposure in the tributary to this location. Field monitoring conducted by USEPA showed a conductivity of 585 µS/cm, which is above the background values. At the time of the inspection, this stormwater monitoring location was flowing despite dry weather conditions.

    - Locations CC-291 and CC-292 were not in the current version of the SWPPP available during the inspection, and are not associated with an NPDES outfall. USEPA field monitoring during the inspection showed a specific conductivity of 623 µS/cm and 439 µS/cm respectively. At the time of the inspection, these monitoring locations were flowing despite dry weather conditions.
- During the inspection, USEPA observed unvegetated rock piles in the tributary for the water flowing to the control structure for the historic Empire outfall E003.
- Several on-site water bodies present with dark orange coloring, suggesting high levels of iron and conductivity within the water.
    - Stormwater monitoring location '13' or CC-179, was visited during the inspection. The water at this location had an unnatural red color and is shown in photo 63.

Following the Facility walkthrough, the closing conference was performed on September 15, 2022.

Field Monitoring

USEPA staff conducted field monitoring using an AT-600 manufactured by In-Situ Inc., serial number 692432. The AT-600 included a pH probe, a temperature/specific conductivity probe, and a Rugged Dissolved Oxygen (RDO) probe. A calibration was conducted in the morning on September 14, 2022. A three-point pH calibration with 4.00, 7.00 and 10.00 standards, a specific conductivity calibration with a 1,413 µS/cm and the RDO sensor was calibrated with a percent saturation. The results of the monitoring are shown in the table below:

Monitoring Point	Description	Photo Number	Date Time	Temperature (°C)	pH (SU)	Specific Conductivity (µS/cm)	DO Concentration (mg/L)
01	At Outfall 002, rapid mix before reclaim water.	14	9/14/2022 10:13	12.82	6.90	0.59	11.38
02	At Outfall 002, rapid mix after reclaim water	16	9/14/2022 10:20	14.70	7.12	341.87	10.79
03	Bridge over channel downstream of the rapid mix chamber after Outfall 003	18	9/14/2022 10:29	14.60	7.26	1111.40	10.76
04	Possible location of daylighted seep at a location east of the Tilden tailings basin and north of the tailings basin treatment building.	21	9/14/2022 10:51	11.69	6.99	1054.69	5.24
05	Empire 001 outfall, at staff gage	25	9/14/2022 11:34	18.40	7.98	558.27	9.15
06	At Culvert leading away from Hoover Pond. Location of emergency Tilden 001.	29	9/14/2022 12:17	9.91	7.43	928.98	5.04
07	West of the end of pipe leading from Hoover pond	31	9/14/2022 12:21	12.21	7.36	949.46	9.77
08	South side of Hoover	33	9/14/2022 12:29	17.15	8.99	914.99	10.31
09	Historic Empire Outfall 003	39	9/15/2022 8:32	17.60	7.24	200.13	7.13
10	Stormwater location '16' or CC-96	NA	9/15/2022 8:54	16.38	7.85	323.08	9.87
11	Replenishment water at Stormwater location '17' or CC-95, representative of background water quality.	44	9/15/2022 9:03	18.08	7.20	52.69	8.75
12	Replenishment water downstream of stormwater location '17' or CC-	46	9/15/2022 9:05	18.19	7.19	198.07	8.64

	95, representative of background water quality.						
13	Stormwater location '12' or CC-175	50	9/15/2022 9:43	11.50	8.07	244.45	10.90
14	Stormwater location '6' or CC-69	NA	9/15/2022 10:48	4.15	8.67	1140.55	12.39
15	Stormwater location CC-292	56	9/15/2022 11:31	11.25	7.86	439.09	10.77
16	Stormwater location CC-291	57	9/15/2022 11:38	9.85	7.56	626.98	10.84
17	Stormwater location 'M' or CC-93	59	9/15/2022 11:54	13.54	8.14	584.66	10.41
18	Stormwater location '13' or CC-179	63	9/15/2022 14:32	18.42	6.67	202.87	3.24

Closing Conference

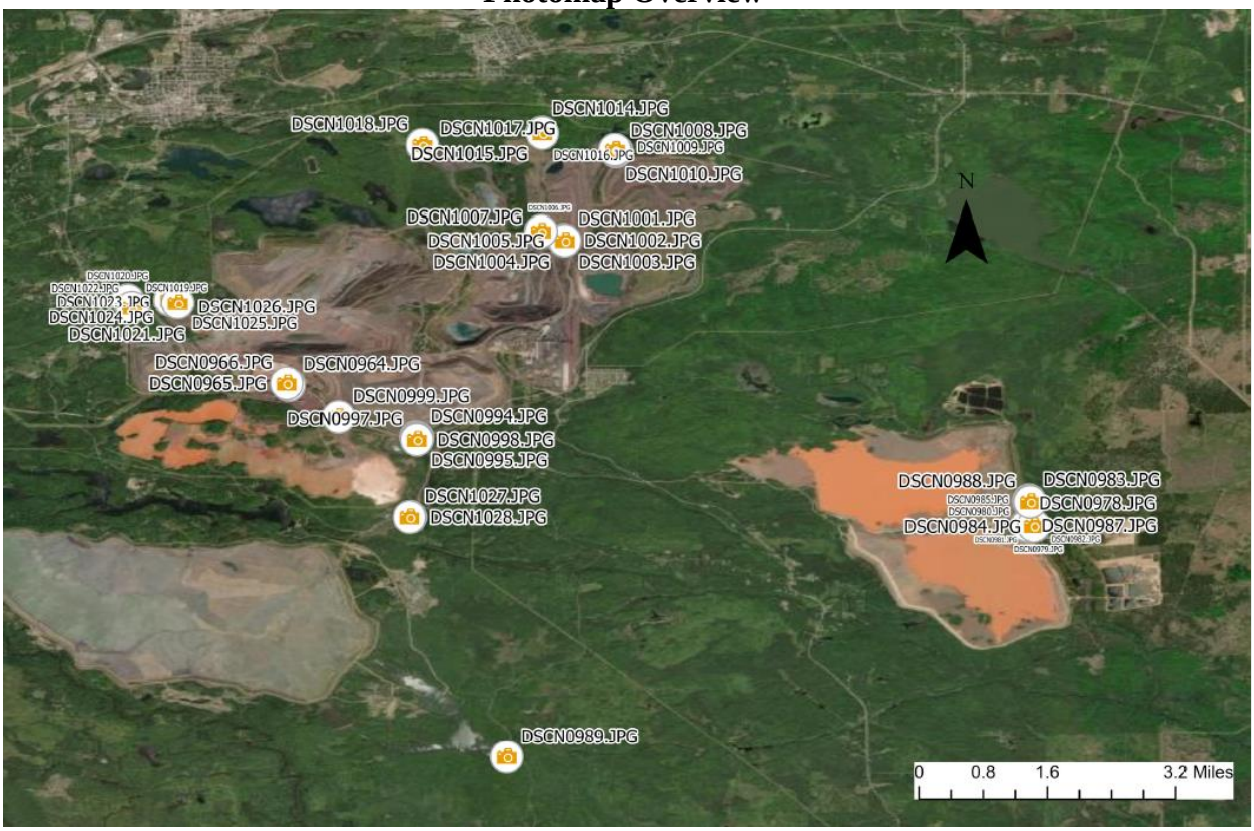
USEPA staff relayed the following preliminary comments to the Cliffs' environmental staff during the closing conference:

- Quarterly inspections performed by the Facility, as required by the SWPPP, should contain a certification statement verifying no incidence of non-compliance.
- It is unclear what structural and non-structural best management practices are present throughout the Facility based on the quarterly inspection reports. Facility should include more details within the reports.
- Some stormwater discharge locations may also be comprised of industrial contact wastewater from mining activities.

USEPA confirmed with the Cliffs' staff which photographs taken during the inspection were considered Confidential Business Information. Those photos were removed from the photolog attached to this report.

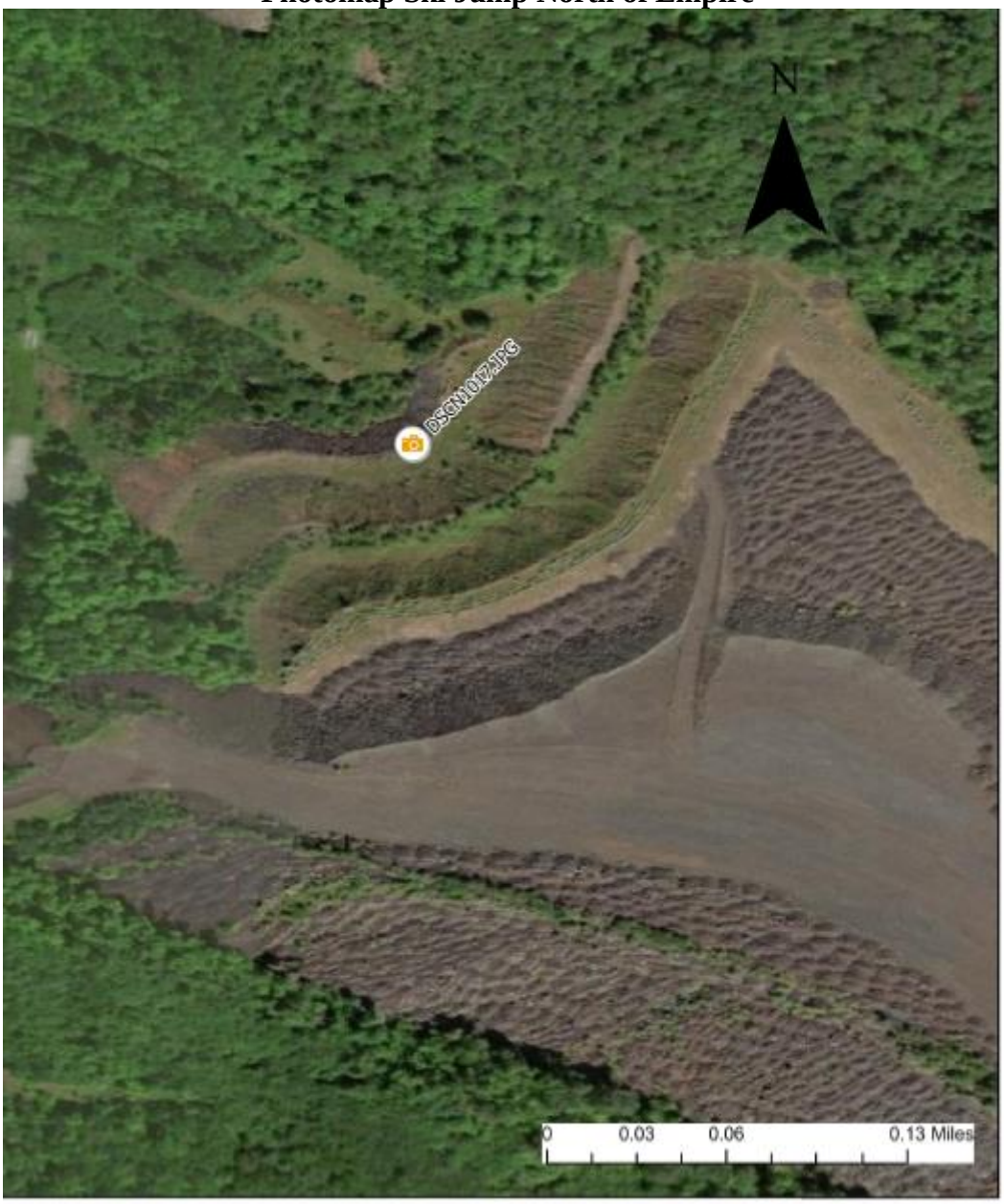
USEPA concluded the inspection and left the Facility on September 15, 2022.

Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
Photomap Overview



Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
Photomap East of Tilden Tailings Basin, Treatment Plant and Possible Daylighted Seep

Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
Photomap Ski Jump North of Empire



Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
Photomap Hoover Pond and Inactive Outfall Tilden 001

Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
Photomap Partial Tributary to Partridge Creek and Historic Empire Outfall 003

Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
Photomap Location 'M' or CC-93, CC-290 and CC-291

CLIFFS

MICHIGAN OPERATIONS MANAGED BY CLEVELAND-CLIFFS IRON COMPANY

Selenium Storm Water Managment System
2020 Mass Balance Report
Collection and Conveyance Performance

Based on water quality concentrations and flow monitoring collected from 1/1/2017 -12/31/2020

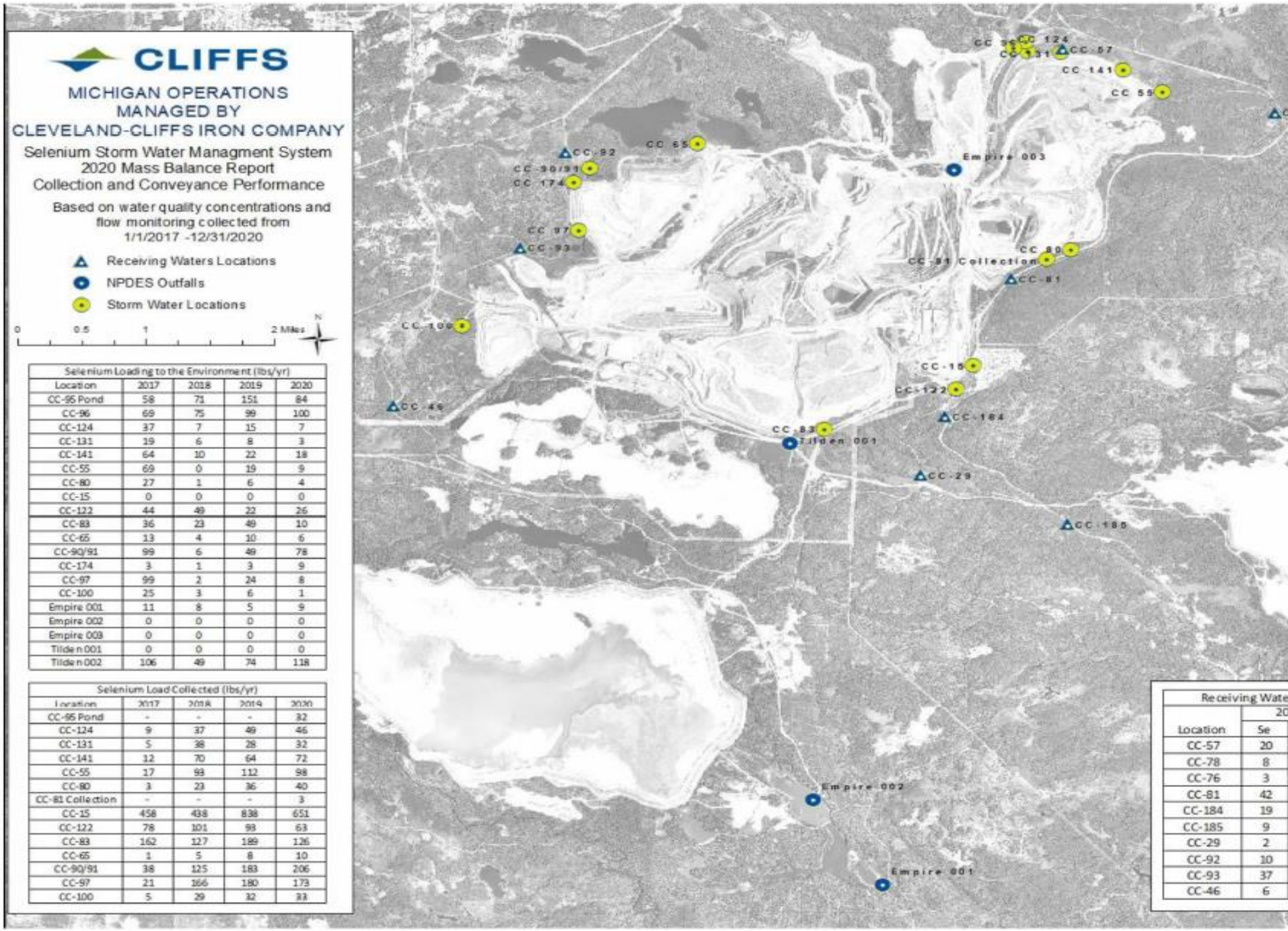
- Receiving Waters Locations
- NPDES Outfalls
- Storm Water Locations

0 0.5 1 2 Miles

N

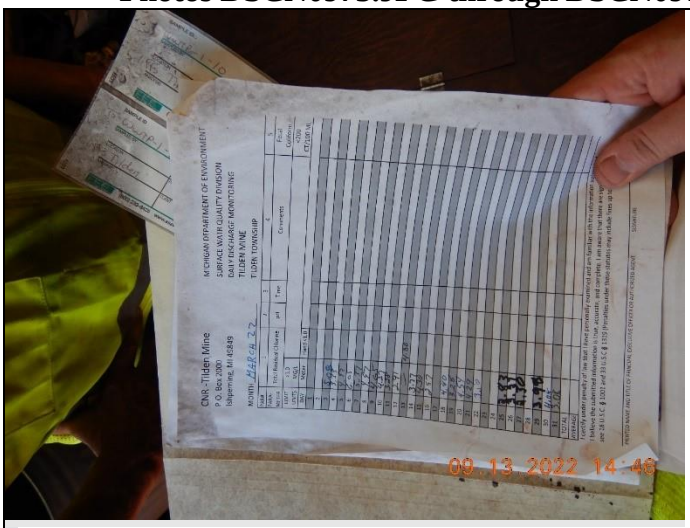
Selenium Loading to the Environment (lbs/yr)				
Location	2017	2018	2019	2020
CC-95 Pond	58	71	151	84
CC-96	69	75	99	100
CC-124	37	7	15	7
CC-131	19	6	8	3
CC-141	64	10	22	18
CC-55	69	0	19	9
CC-80	27	1	6	4
CC-15	0	0	0	0
CC-122	44	49	22	26
CC-83	36	23	49	10
CC-65	13	4	10	6
CC-90/91	99	6	49	78
CC-174	3	1	3	9
CC-97	99	2	24	8
CC-100	25	3	6	1
Empire 001	11	8	5	9
Empire 002	0	0	0	0
Empire 003	0	0	0	0
Tilden 001	0	0	0	0
Tilden 002	106	49	74	118

Selenium Load Collected (lbs/yr)				
Location	2017	2018	2019	2020
CC-95 Pond	-	-	-	32
CC-124	9	37	49	46
CC-131	5	38	28	32
CC-141	12	70	64	72
CC-55	17	93	112	98
CC-80	3	23	36	40
CC-81 Collection	-	-	-	3
CC-15	458	438	838	651
CC-122	78	101	93	63
CC-83	162	127	189	126
CC-65	1	5	8	10
CC-90/91	38	125	183	206
CC-97	21	166	180	173
CC-100	5	29	32	33



Receiving Wate	
	20
Location	Se
CC-57	20
CC-78	8
CC-76	3
CC-81	42
CC-184	19
CC-185	9
CC-29	2
CC-92	10
CC-93	37
CC-46	6

Cleveland Cliffs Inc. – Tilden and Empire Mine
EPA Inspection 9/13/2022 – 9/15/2022
All photos taken by Jonathan Moody, Environmental Engineer, U.S. EPA
Camera: Nikon Coolpix W300
Timestamp is in the Central timezone
Photos
Photos DSCN0973.JPG through DSCN0977.JPG removed because of CBI



1: DSCN0960.JPG
Location: Tilden Mine
Photographer: Jonathan Moody
Date/Time: 9/13/2022 2:46 PM
Description: Residual chlorine bench sheet from the sewage treatment system at Tilden.

2: DSCN0961.JPG
Location: Tilden Mine
Photographer: Jonathan Moody
Date/Time: 9/13/2022 2:59 PM
Description: Filter on the water line with the continuous chlorine analyzer at the Tilden sewage treatment system.

3: DSCN0962.JPG

Location: Tilden Mine
Photographer: Jonathan Moody
Date/Time: 9/13/2022 2:59 PM
Description: Continuous chlorine analyzer at the Tilden sewage treatment system. The chlorine probe was labeled for free chlorine analysis.

4: DSCN0963.JPG

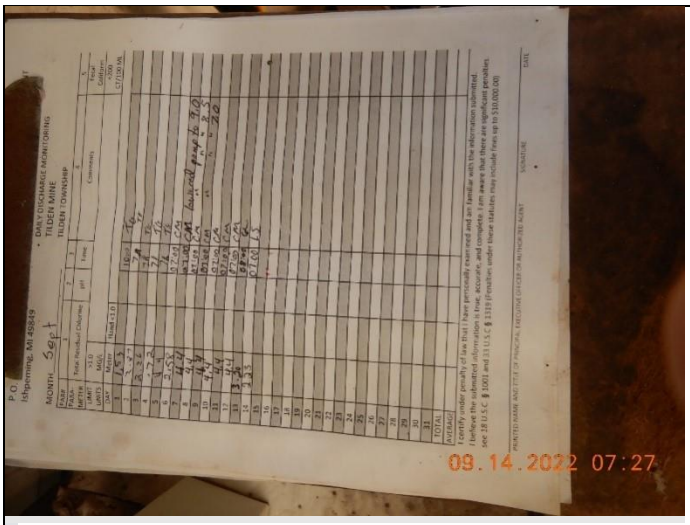
Location: Tilden Mine
Photographer: Jonathan Moody
Date/Time: 9/13/2022 3:00 PM
Description: Tilden sewage treatment.

5: DSCN0964.JPG

Location: Tilden Mine
Photographer: Jonathan Moody
Date/Time: 9/13/2022 3:00 PM
Description: Tilden sewage treatment.

6: DSCN0965.JPG

Location: Tilden Mine
Photographer: Jonathan Moody
Date/Time: 9/13/2022 3:07 PM
Description: Flowing hydrant near the Tilden Mine sewage treatment facility.



7: DSCN0966.JPG

Location: Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 7:27 AM
Description: Log sheet at the Empire Mine sewage treatment facility.

8: DSCN0967.JPG

Location: Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 8:22 AM
Description: Automatic sampler at the treatment facility for the Tilden tailings basin discharge point 002B. Samples for TSS, TDS and Iron are collected in this composite bottle.

9: DSCN0968.JPG

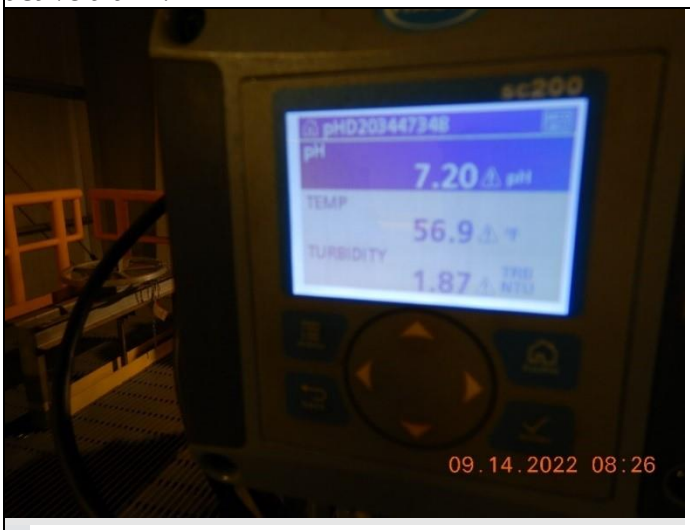
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 8:22 AM
Description: Non-NIST traceable thermometer at the location shown in photo 8.

10: DSCN0969.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 8:24 AM
Description: At the Tilden mine treatment plant for the discharge from the Tilden tailings basin.

11: DSCN0970.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 8:24 AM
Description: pH, temperature and turbidity measurements on train #2 at the treatment facility for the Tilden tailings basin discharge. Per Michael Korvela, these continuous measurements are for operational purposes only. At the time of the inspection, the turbidity measurement had an active alarm.



12: DSCN0971.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 8:26 AM
Description: pH, Temperature and Turbidity measurements on train #1 at the treatment facility for the Tilden tailings basin discharge. Per Michael Korvela, these continuous measurements are for operational purposes only. At the time of the inspection, pH, temperature, and turbidity all had active alarms.

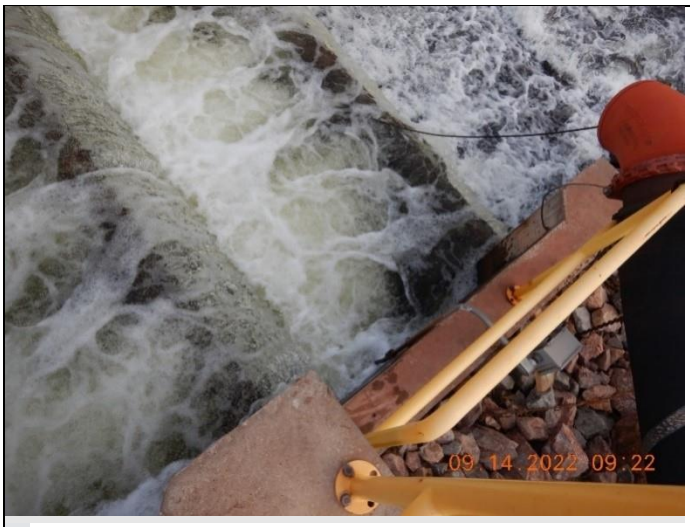
13: DSCN0972.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 8:34 AM
Description: Label for the Rosemount flow meter at the influent to the treatment facility used for the Tilden mine tailings basin discharge.

14: DSCN0978.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:05 AM
Description: Discharge structure at the Tilden tailings basin treatment facility. This is where monitoring for Outfall 002A and 002B is collected. The diffuser structure brings in replenishment water for augmenting the discharge to meet the water quality based effluent limits. Location of monitoring point 01.

15: DSCN0979.JPG
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:06 AM
Description: Discharge structure at the Tilden tailings basin treatment facility. This is where monitoring for Outfall 002A and 002B is collected. The diffuser structure brings in replenishment water for augmenting the discharge to meet the water quality based effluent limits.



16: DSCN0980.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:22 AM
Description: Discharge structure at the Tilden tailings basin treatment facility. This is where monitoring for Outfall 002A and 002B is collected. Looking down at the location where samples are collected for compliance with water quality based effluent limits. Location of monitoring point 02.

17: DSCN0981.JPG
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:27 AM
Description: Channel conveying the discharge from Tilden outfall 002. Photographer is standing on a roadway bridge and camera is looking downstream.

18: DSCN0982.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:28 AM
Description: Channel conveying the discharge from Tilden outfall 002. Photographer is standing on a roadway bridge and camera is looking Down at monitoring point 03.

19: DSCN0983.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:42 AM
Description: Location of possible daylighted seep at the east side of the tailings basin. The water had an iridescent sheen.

20: DSCN0984.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:43 AM
Description: Location of possible daylighted seep at the east side of the tailings basin. Flow was visible The water had an iridescent sheen.

21: DSCN0985.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:45 AM
Description: Location of possible daylighted seep at the east side of the tailings basin. Camera is facing downstream. Location of monitoring point 04.

22: DSCN0986.MP4

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:45 AM
Duration: 14 seconds
Description: Video of flowing water at the location of possible daylighted seep at the east side of the tailings basin. Camera is facing down, flowing water was contributing to the waterway shown in photo 21 where monitoring point 04 was conducted. At the time of the inspection, there was an iridescent sheen on this water at this location.

23: DSCN0987.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:52 AM
Description: Location of possible daylighted seep at the east side of the tailings basin. The water had an iridescent sheen. Camera is looking upstream at the outslope of the tailings basin.

24: DSCN0988.JPG

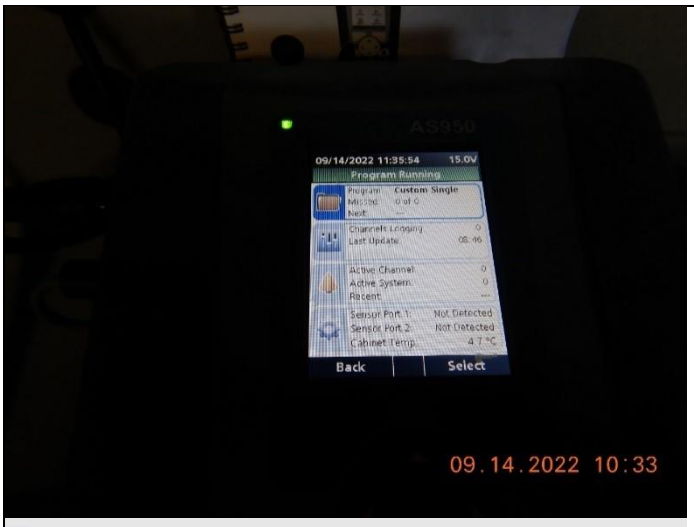
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 9:52 AM
Description: Location of possible daylighted seep at the east side of the tailings basin. Camera is facing downstream. Location of monitoring point 04. Camera is facing downstream.

25: DSCN0989.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 10:30 AM
Description: Control structure at Empire outfall 001. Staff gage for flow measurement.

26: DSCN0990.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 10:32 AM
Description: Thermometer at the composite sampler at Empire outfall 001.



27: DSCN0991.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 10:33 AM
Description: Control screen for the composite sampler at Empire outfall 001. This temperature is the compliance temperature.

28: DSCN0992.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 10:45 AM
Description: At Empire outfall 001.

29: DSCN0993.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:13 AM
Description: Downstream of Hoover Pond at the downstream end of a culvert leading away from Hoover Pond. This is the historic E003 discharge which is no longer an active outfall. At the time of the inspection there was water flowing through the culvert and joining with another surface conveyance of red discolored water. Monitoring point 06.

30: DSCN0994.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:16 AM
Description: Northeast of the location of the downstream end of the culvert shown in photo 29. Possible location of a daylighted seep. At the time of the inspection the water shown in this photo was flowing and had a red/orange discoloration.

31: DSCN0995.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:16 AM
Description: Northeast of the location of the downstream end of the culvert shown in photo 29. Possible location of a daylighted seep. At the time of the inspection the water shown in this photo was flowing and had a red/orange discoloration.

32: DSCN0996.MP4

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:16 AM
Duration: 11 seconds
Description: Northeast of the location of the downstream end of the culvert shown in photo 29. Possible location of a daylighted seep. At the time of the inspection the water shown in this video was flowing and had a red/orange discoloration.

33: DSCN0997.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:27 AM
Description: Hoover pond at the control structure at the upstream end of the culvert shown in photo 29. Monitoring point 08.

34: DSCN0998.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:27 AM
Description: Hoover pond at the control structure at the upstream end of the culvert shown in photo 29. Monitoring point 08.

35: DSCN0999.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/14/2022 11:41 AM
Description: Roadway next to the drainage structure shown in photo 29.

36: DSCN1000.JPG

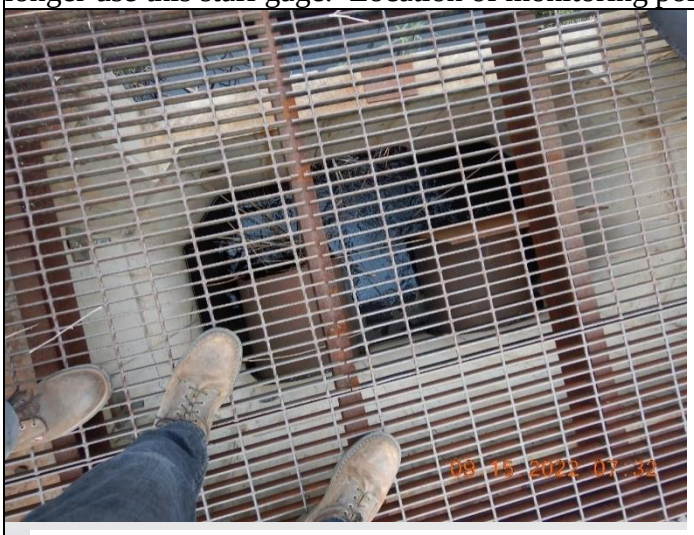
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:22 AM
Description: Pump house near historic outfall 003.

37: DSCN1001.JPG
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:26 AM
Description: Historic Empire outfall 003. At the time of the inspection, water flowing from this location was

38: DSCN1002.JPG
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:27 AM
Description: At the historic Empire outfall 003, the pipe in the foreground is replenishment water.

39: DSCN1003.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:31 AM
Description: Staff gage at the historic Empire Outfall 003. Facility representatives said they no longer use this staff gage. Location of monitoring point 09.



40: DSCN1004.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:32 AM
Description: Control structure at the historic Empire Outfall 003.

41: DSCN1005.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:35 AM
Description: Overview of the control structure at the historic Empire Outfall 003.

42: DSCN1006.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:39 AM
Description: Area tributary to Partridge Creek. Runoff from this area is tributary to the control structure shown in photos 37 through 41.

43: DSCN1007.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:39 AM
Description: Area tributary to Partridge Creek. Area tributary to Partridge Creek. Runoff from this area is tributary to the control structure shown in photos 37 through 41.

44: DSCN1008.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 7:59 AM
Description: At the location where replenishment water is discharged at CC-95. EPA monitoring location 11.

45: DSCN1009.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:00 AM
Description: At the location where replenishment water is discharged at CC-95. This location flows into a waterbody north of the collection point and out through the stormwater monitoring location.

46: DSCN1010.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:01 AM
Description: Downstream of the control structure shown in Photo 45. EPA monitoring location 12.

47: DSCN1011.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:09 AM
Description: Inside collection system pump house at CC-95.

48: DSCN1012.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:09 AM
Description: Inside collection system pump house at CC-95. Flow meter shown in this photo.

49: DSCN1013.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:10 AM
Description: An overflow weir could be seen under the grating in the pump house for location CC-95. The water level in the wet well for this pump station was below the overflow weir elevation. If the water level in the wet well exceeds the weir it will discharge out the structure shown in photo 45.

50: DSCN1014.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:42 AM
Description: At stormwater monitoring location '12' or CC-175. Stormwater is monitored at the location shown in this photo, as the water flows over the end of a small stone bridge. EPA monitoring location 13.

51: DSCN1015.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:42 AM
Description: At stormwater monitoring location ‘12’ or CC-175. Looking downstream from where stormwater monitoring occurs.

52: DSCN1016.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 8:51 AM
Description: At stormwater monitoring location ‘12’ or CC-175. Location where stormwater flows across the top of a bridge for a rough pathway upstream of where stormwater monitoring occurs.

53: DSCN1017.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 9:54 AM
Description: At stormwater monitoring location ‘12’ or CC-175. Looking upstream of where stormwater monitoring occurs.

54: DSCN1018.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 9:54 AM
Description: At stormwater monitoring location ‘12’ or CC-175. Looking upstream of where stormwater monitoring occurs.

55: DSCN1019.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:28 AM
Description: At the location of stormwater monitoring location CC-292. This location is downstream from location 'M' or CC-93. At the time of the inspection, the depth of the water at this location was several inches.

56: DSCN1020.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:28 AM
Description: At the location of stormwater monitoring location CC-292. At the time of the inspection, the depth of the water at this location was several inches. EPA monitoring location 15.

57: DSCN1021.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:36 AM
Description: At the location of the selenium monitoring location CC-291. EPA monitoring location 16.

58: DSCN1022.JPG

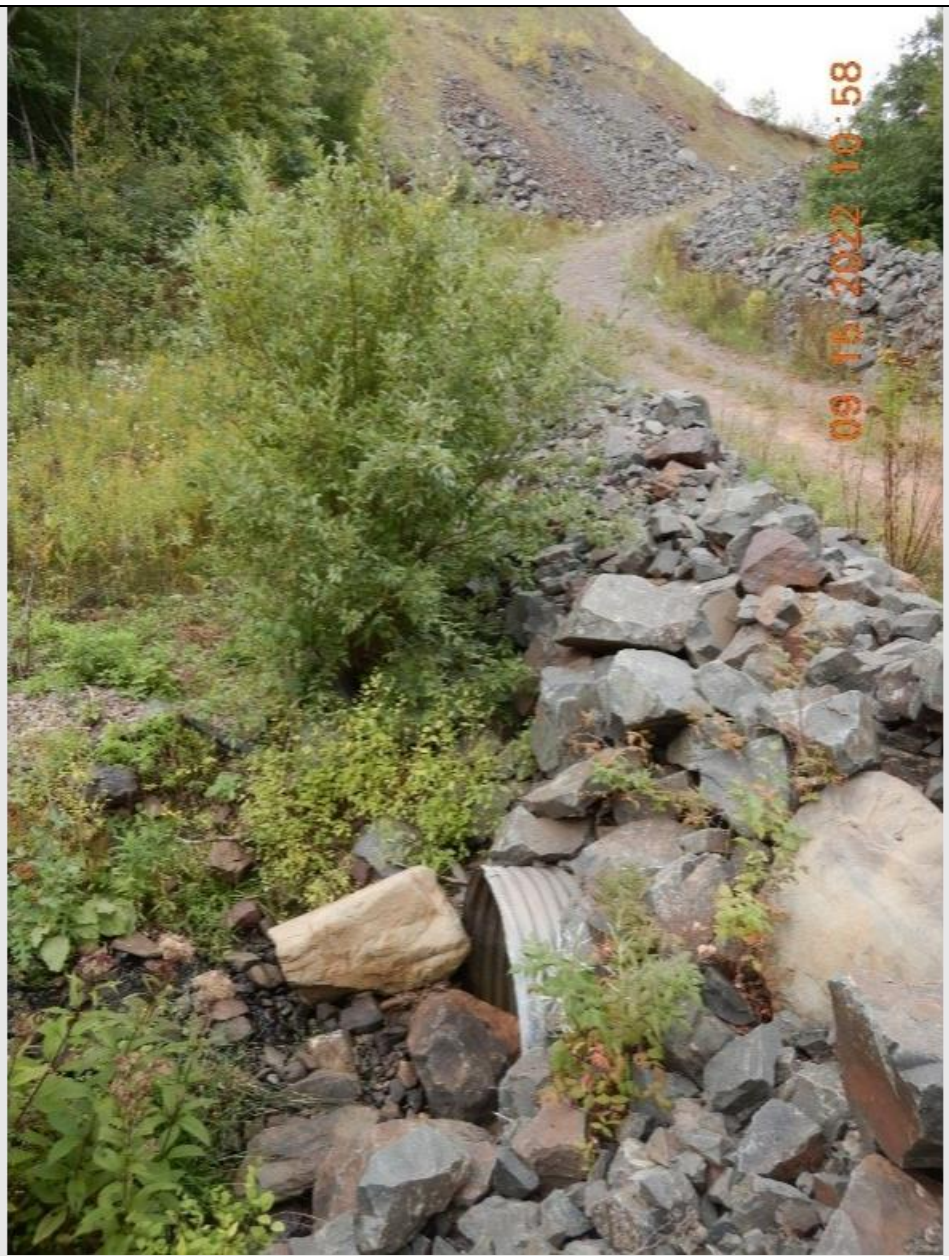
Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:36 AM
Description: Downstream of the location of the selenium monitoring location CC-291.

59: DSCN1023.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:53 AM
Description: At the location of the stormwater monitoring location ‘M’ or CC-93.

60: DSCN1024.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:55 AM
Description: At the location of the stormwater monitoring location ‘M’ or CC-93.



61: DSCN1025.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:58 AM
Description: Upstream of the stormwater monitoring location ‘M’ or CC-93.

62: DSCN1026.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 10:58 AM
Description: Upstream of the stormwater monitoring location ‘M’ or CC-93.

63: DSCN1027.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 1:30 PM
Description: At the location of the stormwater monitoring location ‘13’ or CC-179. This was the upstream end of a culvert under the County Road 476. At the time of the inspection, the water in this culvert had an unnatural red color. EPA monitoring location 18.

64: DSCN1028.JPG

Location: Tilden and Empire Mine
Photographer: Jonathan Moody
Date/Time: 9/15/2022 1:33 PM
Description: Standing on the far side County Road 476 from the upstream end of the culvert shown in photo 63. The camera is looking upstream.