



8 November 2024

Matthew J. Podniesinski
 Director, Bureau of Mines, Facilities and Technology
 NYS S Department of Environmental Conservation Albany

By e-mail to: Matthew.Podniesinski@dec.ny.gov

Re: unpermitted flooding of the S3 area of Cayuga Salt Mine

Dear Mr. Podniesinski:

Thank you for your letter of 16 October 2024, which was in reply to my letter of 30 June 2024 to Dereth Glance and Kevin Balduzzi. In my letter of 7 October 2024 to Dereth Glance and Tim Walsh, I raised some additional issues, but here I would like to reply to your letter of 16 October 2024.

In paragraph 2, you write, *“As conditioned by the permit, DEC requires Cargill to report annually on the source and volume of water inflow as well as the storage location.”*

As shown in my Table 1 below, Cargill has willfully omitted from their annual reports to DEC any reference to Shaft #4 process and leakage waters and where they are stored. We do know that DEC granted permission for Cargill to build a 2-mile PVC pipeline for storing Shaft 4 process waters in brine ponds constructed near the western ends of mining panels U58 and U60.

However, contrary to your sentence cited above, Cargill has consistently neglected to mention either the volume of waters associated with Shaft 4 or where these waters are stored. We have seen a reference to Shaft 4 waters being used for dust suppression in the mine.

Similarly, for the 5 years 2019-2023, Cargill has reported “other inflows” within the range of 2 to 4 gpm *without specifying the sources of these inflows.*

Table 1. Inflows to Cayuga Salt Mine as Reported to DEC								
Year	Shaft 1	Shaft 2	Shaft 3	Shaft 4	ED Plant	Other Inflows	Total Inflow gpm	Total Inflow million gallons/year*
2016	20	4	--	--	3	--	27	14.2
2017	23	9	1	--	3	--	36	18.9
2018	25	<1	1	--	3	--	30	15.8
2019	25	<1	1	--	3	2.5	32.5	17.1
2020	22	<1	1	--	1	4	29	15.2
2021	23	<1	1	--	1	4	30	15.8
2022	29	<1	1	--	<1	4	35	18.4
2023	29	<1	1	--	<1	2	33	17.4

Source of data: Cargill Annual Reports to DEC *derived from the gpm data

In 2020, the 4 gpm of “other inflows” is equivalent to 14% of total inflows reported, and yet DEC appears to have not yet insisted that Cargill explain the source of “other inflows” in their annual reporting. **Please send us the data on the source of “other inflows” for 2019 and all subsequent years.**

Although reported “other inflows” dropped by half from 2022 to 2023, we are nonetheless concerned that Cargill may have put the mine up for sale due to an unintended tapping into a hydraulic connection with the overlying artesian aquifer when seeking to depressurize a brine pocket that they bored into over panel U12. If “other inflows” refers not to ongoing borehole decompression fluids but to, say, Shaft 4 leakage waters, we are confident that Cargill would have been more transparent about the sources of “other inflows.”

Also, in paragraph 2, you write, *“The water is pumped to an underground settling pond where it is fully saturated before it is pumped to abandoned areas of the mine.”*

I appreciate that you may be the only DEC official who has been regularly involved with Cayuga Salt Mine reporting and regulation over the past two decades. It’s only natural for you to feel some ownership of the environmental safety aspects of the mine and to feel some pride in the level of regulation carried out thus far. Nonetheless, I think it fair to describe the above sentence as a gilding of the lily that asserts that full saturation of waters is occurring pre-disposal when, for example, we see on [page 33 of Cargill’s 36-page application](#) of a permit modification sent to Kevin Balduzzi on June 20, 2023, this rather vague and imprecise statement,

“All water stored in this area will be sufficiently saturated to minimize dissolution of the remaining salt pillars, floor, and roof.”

[DEC’s Jonathan Stercho, in his January 17, 2024, NOIA letter to Cargill](#), wrote on page 2, section 5, *“It is noted in documents from the third party consultant JT Boyd Company that a system will be constructed to saturate the water to be stored in the S3 Main approximately 24%-25% salt. There does not appear to be any mention of this system in the application materials, therefore, please provide such information.”*

Although water temperature may have some effect on the amount of salt needed to achieve full saturation, it is generally understood that fully saturated brine contains 26.4% salt. Our impression reading through documents released under FOIL is that a) Cargill has been reluctant to describe the issue of saturation as relates to S3, b) Cargill has, however, indicated an intent to saturate to within 1.4% to 2.4% of full saturation, and c) any use of a settling pond may have been on the now largely abandoned 4-level.

[In my November 5, 2024, letter to Interim Commissioner Mahar and Commissioner Moy](#), I mentioned your sentence in your 5th paragraph about the S3 area being “approximately 150 acres within the 13,579 acre life of mine.” As you were copied on that letter, perhaps you have already read footnote 3, which made the point that even a limited area of roof collapse in this mine could lead to a rubble chimney to Cayuga Lake, and therefore, it makes no sense to for the DEC to allow Cargill to implement this least-cost approach to brine disposal anywhere under one of our invaluable Finger Lakes, let alone in the very portion of the mine that was abandoned for being

seismically unstable. Figure 1 below shows the location of the S3 area within the portion of the Life of Mine that Cargill abandoned in 2014.

Lastly, in the last two paragraphs of your October 16, 2024, letter, you discuss the issue of “Cargill’s desire to restrict the dissemination of proprietary information from competitors.” We know of no room and pillar salt mine in the eastern United States that has either a desire or a current practice to store brine in their mine, and so we remain unpersuaded that Cargill has any fears that a competitor might gain any economic and competitive advantage for implementing in their mine this risky practice that Cargill has been allowed to pursue at Cayuga Salt Mine.

We worry that by protecting this procedure as a trade secret, the DEC is deviating from its mandate to “promote industry” and colluding with Cargill to prevent would-be buyers of Cayuga Salt Mine from conducting the robust due diligence that would enable them to make a well-researched decision about whether or not to purchase the Mine.

In conclusion, CLEAN asks that an immediate moratorium be placed on further brine disposal in the S3 area and that an EIS be required to determine whether or not the disposal of brine in the S3 area is safe and whether or not it recklessly excludes the future use of abandoned mine voids for other purposes by the State or by private industry.

Best regards,



John V. Dennis for CLEAN

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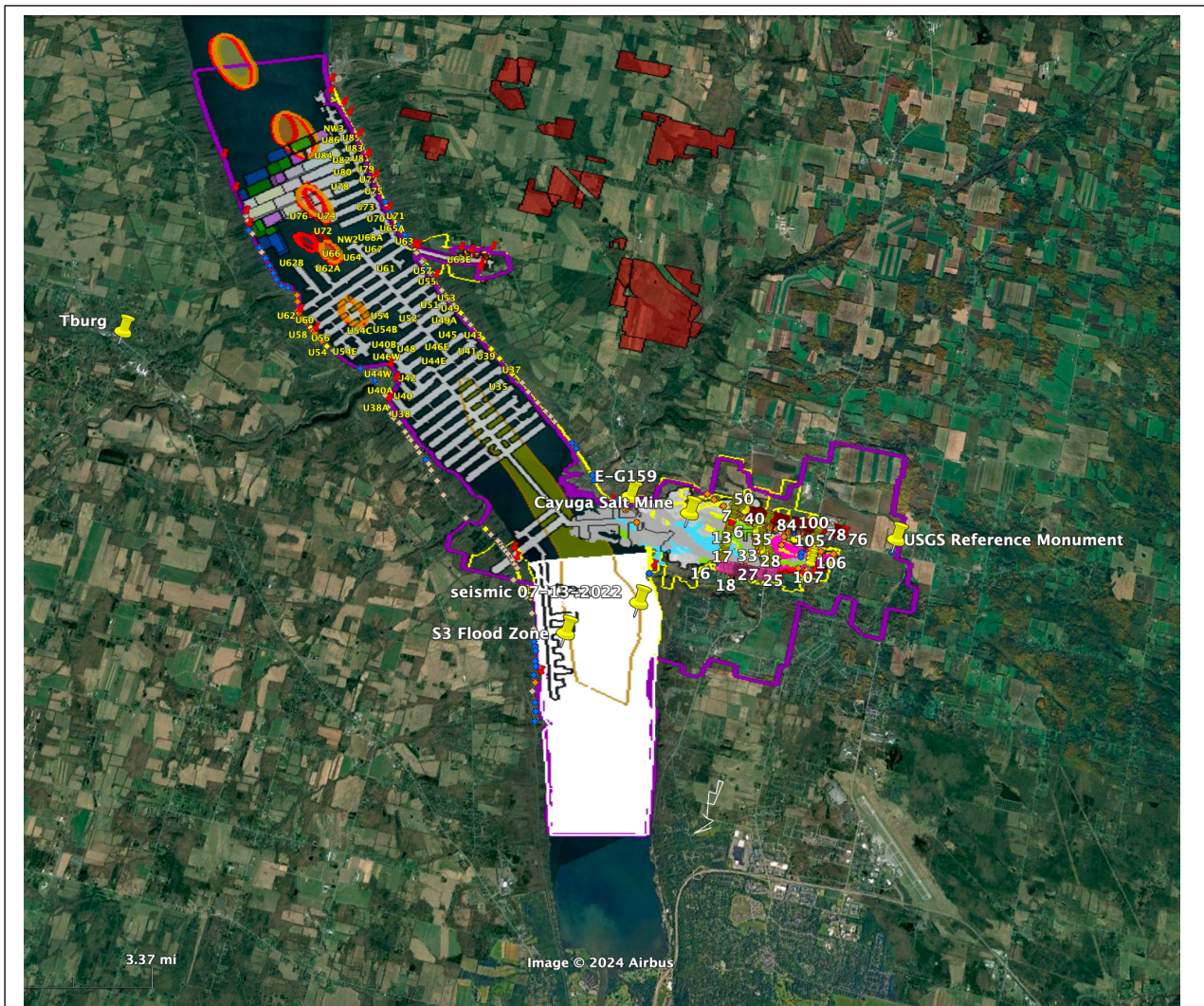
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Figure 1. The 2,535-acre Life of Mine area under Cayuga Lake that Cargill abandoned in 2014.



Purple outline = Cargill's mineral rights within existing Life of Mine

White shared area = S3 area within the larger area of mineral right abandoned by Cargill in 2014 due to seismic instability issues.

Yellow-green line within white area = boundaries of artesian aquifer between the mine and the lake identified by a Cargill 1995 seismic study.