

**STATE OF NEW YORK
SUPREME COURT : COUNTY OF TOMPKINS**

In the Matter of the Application of CAYUGA LAKE ENVIRONMENTAL ACTION NOW (CLEAN), an unincorporated association, by its President JOHN V. DENNIS, LOUISE BUCK, BURKE CARSON, JOHN V. DENNIS, WILLIAM HECHT, HILARY LAMBERT, ELIZABETH and ROBERT THOMAS, and KEN ZESERSON,

AFFIDAVIT OF SHAWN WILCZYNSKI IN OPPOSITION TO ARTICLE 78 PETITION

Petitioners,

For a Judgment pursuant to Article 78 of the New York Civil Practice Law and Rules

Index No. EF2021-0422
RJI No. 2021-0265-M

vs.

Hon. Elizabeth Aherne

THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION and CARGILL INCORPORATED,

Respondents.

STATE OF NEW YORK)
 :SS
COUNTY OF TOMPKINS)

SHAWN WILCZYNSKI, being duly sworn, deposes and says:

1. I am the Mine Manager at the Cayuga Mine in Lansing, New York, operated by the Respondent Cargill, Incorporated (“Cargill”). I have held this position for the past eight years, but I have worked for Cargill in their underground salt mines for well over two decades, 20 years of which have been spent at the Cayuga Mine that is the subject of this proceeding. I received my Bachelor of Science in Mining Engineering from the South Dakota School of Mines and Technology in June 1997 and have spent my entire professional career since that time in the underground mining industry.

2. In my current capacity as Mine Manager, I oversee all operational aspects of the Cayuga mine, including mining methodology and design, permitting, extraction, production, conveyance and storage. I have personal knowledge of all matters testified to in this affidavit, either as a result of my direct participation in the matter or from my personal review of company files and documents through the regular course of my employment duties. I have thoroughly reviewed all papers filed by Petitioners in this proceeding.

3. Throughout my tenure at the Cayuga Mine, I have been closely involved in all aspects of mine planning and permitting. I also participate directly in the annual review process conducted by the New York State Department of Environmental Conservation (“DEC”) to monitor Cargill’s compliance with permit conditions imposed nearly two decades ago (with Cargill’s full consent) and brought forward into every subsequent mining permit. These conditions, and the ongoing studies and analyses they require, ensure a safe, stable and environmentally compatible underground mine. In this litigation, Petitioners seek to reopen those settled permit conditions and the environmental determinations that accompanied them.¹

4. In this affidavit, I will first briefly summarize the mine’s operational history to provide some background context for the lawsuit. I will then review the permitting history of the mine, with particular focus on the initial identification of the mine’s “anomalous” features,² the permit conditions addressing those features, and the on-going studies and

¹ In 2017, Petitioners made similar arguments when DEC approved a modification to Cargill’s mining permit that authorized the construction of an additional access shaft for improved ventilation and miner safety. This challenge, however, was rejected by Judge Rowley of this Court (*see Matter of City of Ithaca v New York State Dept. of Envntl. Conservation* [EF2017-0285] at [NYSCEF Doc Nos. 84](#) and [136](#)).

² When the term “anomaly” is used in the geological context, it simply means a feature or structure that differs from its surrounding environment with respect to composition, texture or genesis. It does not mean an inherently dangerous feature or that mining cannot safely occur under that feature.

investigations of those features pursuant to the permit conditions. Finally, this affidavit will review the current status of mining under the modification permit issued in 2021, which is challenged in this proceeding.

I. Operational History of the Cayuga Mine

5. For nearly a century, Cargill and its predecessors have mined salt from a series of underground mining levels at the Cayuga Mine under private lands owned or leased on both sides of Cayuga Lake, and from public lands beneath the lake owned by the State and leased from the New York State Office of General Services.

6. The salt occurs in seams of varying thickness, separated by thick layers of bedrock. The No. 6 Level seam, where mining has been focused since 1968, is approximately 2,300 feet (or nearly 1/2 mile) beneath ground surface.

7. Cargill acquired the mine in 1970, before the adoption of New York State mining or environmental regulations. Even so, Cargill immediately began modernizing the facilities, focusing on best mining practices, miner safety and environmental integrity.

8. Cargill is a major contributor to public safety in the Northeast and Mid-Atlantic region. Virtually all salt mined from the Cayuga Mine is sold as road salt for de-icing highways and bridges in the Mid-Atlantic, Northeast and New England states. Cargill's largest customer is the State of New York and their de-icing products are also used by several local municipalities, including Tompkins County, the Town of Lansing and the City of Ithaca, to maintain safe winter driving conditions throughout the region.

9. The mine employs a "room-and-pillar" design that has been used in salt mining for centuries. As the salt is removed, large pillars are left in place for support. The designs specific to the Cayuga Mine were developed over several decades of research and

experimentation with different pillar designs. The behavior of the pillars and the surrounding geology are constantly monitored both by Cargill's mining engineers and independent experts to assure mine stability.

10. The facility also has a tremendous, positive economic impact on the Town of Lansing, Tompkins County and New York State. It employs approximately 230 full-time workers. An economic impact study published in 2015 reported that the total annual economic impact of the facility in 2014 was nearly \$4.6 million to the Town of Lansing, over \$173 million to Tompkins County, and over \$221 million to New York State (2014 Economic Impacts of Cargill Deicing Technology, Final Report, July 10, 2015 attached hereto as Exhibit A, at 3). Of these totals, nearly \$2 million was in direct annual compensation to Town of Lansing residents, nearly \$7 million was in direct compensation to Tompkins County residents and over \$16 million was in direct compensation statewide (*id.* at 6). Taking into account indirect employment effects (*e.g.*, suppliers), the labor income attributable to the Cayuga Mine was estimated at over \$23 million in Tompkins County and nearly \$35 million statewide (*id.* at 5). The Cayuga Mine purchases nearly \$25 million per year in trucking services and over \$10 million in materials and outside labor (*id.* at 6). It contributes approximately \$1.5 million in sales tax revenue to the State and local governments (not including sales tax paid for services and materials purchased) and hundreds of thousands of dollars in property taxes (*id.* at 4). In the six year period preceding the study, Cargill had contributed more than 11,000 employee volunteer hours and \$443,000 in monetary donations to the Lansing community alone (*id.* at 6). And on average it pays the State more than \$1 million annually in royalties for the salt mined under the lake.

II. Cayuga Mine Relevant Permitting History: The Development of the Permit Conditions Related to the Frontenac Point Anomaly and the Thinning Rock Overburden (Anomalies A through E)

11. Cargill has operated the Cayuga Mine pursuant to successively issued mining permits since 1975, when the Mined Land Reclamation Law (“MLRL”) first came into existence and DEC began to administer the mining program. By the end of the 1993 permit term, DEC had already reviewed approximately 8,361 acres of mining under Cayuga Lake with associated upland facilities totaling 260.04 acres.

12. In 1995, following the collapse of the Retsoff mine (referenced often in Petitioners’ papers), Cargill commissioned RESPEC, recognized experts in geoscience and mine engineering, to assess the stability of the Cayuga mine workings and, more specifically, the potential impacts of the continued mining northwest under Cayuga Lake. RESPEC determined that mining plans were suitable for the regional conditions and that no stability problems were expected in the future.

13. In 1997, Cargill sought to expand the subsurface mine by an additional 5,056 acres of reserves underlying Cayuga Lake. Cargill accordingly sought to modify its MLRL permit, and the DEC conducted an extensive environmental and technical review of the application. Reports and studies by experts in several relevant domains—geology, hydrogeology, and rock mechanics—were submitted for DEC review, as were comprehensive geotechnical and environmental assessments (*see* DEC Administrative Record [“R.”], [\[NYSCEF Doc Nos. 100 and 101\]](#) at R0290-R0726).

14. The SEQRA Determination adopted by DEC in connection with that application recites the extensive level of analysis and review that supported the ultimate issuance of the 2003 Permit in January 2003:

A series of consultants, including RESPEC, Sear-Brown Group and Spectra Environmental Group, Inc. has previously been engaged to provide technical consulting services to review the mine planning and design. The Sear-Brown Group (Sear Brown) has conducted geologic and hydrogeologic investigations and RESPEC has provided geotechnical and rock mechanics evaluations on behalf of the permittee. John T. Boyd Company was hired as the consultant to the NYSDEC and has been involved with this project since 1994. The major environmental and technical issues that have been evaluated relate to the mine design, such as, mining methods, rock mechanic and stability issues, as well as the geology of overlying bedrock. John T. Boyd has prepared three reports provided to the NYSDEC since 1995 regarding the review and analysis of Cargill submissions.

The technical consulting services (Spectra Environmental Group, Inc.) were used to develop and prepare a Mined Land-Use Plan (MLUP). The MLUP, Volume 1, and an Expanded Environmental Assessment (Volume 2) are a summation of a continuing series of technical evaluations that have been conducted over the previous 30 years. This data and evaluation have been reviewed as part of the SEQR review process as outlined in a stipulation with the NYSDEC. Both Sear-Brown and RESPEC are contributing authors to these volumes. John T. Boyd Company reviewed the MLUP, Volume 1, and the Expanded Environmental Assessment (Volume 2) for the purpose of identifying environmental risk issues as related to geotechnical conditions and mine design. NYSDEC's Mined Land Reclamation staff, both central office and region 7, also reviewed the MLUP, Volume 1, and the Expanded Environmental Assessment (Volume 2) for compliance with the MLRL and regulations, and SEQR.

Boyd's review of the documents that comprise the application focused on the primary issue associated with the Cargill proposal, that being the manner in which the underground workings are mined and the long term structural stability of the mine. Technical data was collected, analyzed and evaluated in support of the conclusions reached in this negative declaration. John T. Boyd provided a report to the NYSDEC, dated February 2002, which concluded that the current design provides stable mine conditions.

(R. [[NYSCEF Doc. No. 100](#)] at 303-304).

15. The SEQRA Determination further noted that the studies had identified certain areas under the lake as requiring further investigation before mining could safely be permitted there. These include two areas that Petitioners have re-focused on in this litigation. As set forth in that determination, these areas include: “the disturbed salt zone near the western lake

shore which is scheduled to be mined in the period from 2016 to 2020, [and] the area of thinning solid bedrock strata above the mine level near the northern extent of the proposed mining area scheduled to be mined after 2030” (*id.*, at 306).

16. The first area identified—the “disturbed salt zone”—gave rise to Condition No. 18 in the 2003 Permit. This condition required Cargill to “conduct further investigations of the disturbed salt zone, identified by seismic survey and shown on No. 6 Salt structure contours (top of salt), which may exist near the western shore of the lake,” and further on restricted mining in this area until such investigations had been completed and submitted to the Department for review (*see* R. [[NYSCEF Doc. No. 100](#)] at R0288). The “disturbed salt zone” later became known as the Frontenac Point Anomaly due to its proximity to an upland feature on Cayuga Lake named Frontenac Point.

17. The second area identified in the Negative Declaration—the “area of thinning solid bedrock strata . . . near the northern extent of the proposed mining area”—gave rise to Condition No. 19, requiring Cargill to “conduct further investigations and report on the adequacy of the thin rock overburden at the northern extent of the mineral lease area where the solid rock overburden becomes thinner where the glacial till and lake sediment thickens and lake depth increases and where mining is proposed for this area after 2030” (R. [[NYSCEF Doc. No. 100](#)] at R0288). Condition 19 further required that “this condition [the adequacy of the thin rock overburden] be thoroughly analyzed for stability by Cargill and reviewed by the Department before mining proceeds in this area.” (*id.*)

18. These areas—referred to as anomalies in this instance because Cayuga Lake is deeper in these sections than in others—later became identified as Anomalies A through E.³

³ Petitioners’ papers suggest that they have been deprived of an opportunity to review and comment on the DEC permitting decisions allowing mining under lake, particularly the anomalies. In their Memorandum of Law,

19. The 2003 Permit was renewed and/or modified at periodic intervals between 2003 and 2019. Conditions 18 and 19 were carried forward into these permits verbatim, although the conditions were renumbered from time to time (*see e.g.* R. [\[NYSCEF Doc. No. 100\]](#) at R0273 [2008 renewal permit with 2003 Permit conditions 18 and 19 renumbered as 10a and 10b; *id.* at R0258 [2012 permit with conditions numbered as 10a and 10b]; R. [\[NYSCEF Doc. No. 99\]](#) at R065 [conditions renumbered as 9a and 9b]).

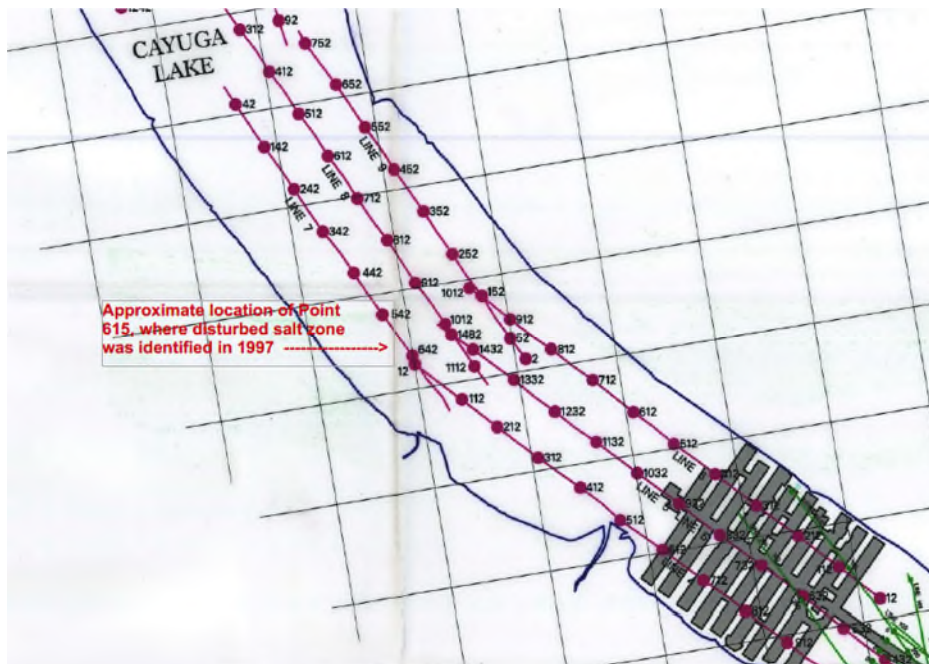
III. 2003 Permit Condition 18 (9a); Ongoing Studies and Analyses

The 1997 Seismic Survey; Early Identification of Potential Disturbed Salt Zone

20. In connection with its modification application in 1997, Cargill retained experts to perform a seismic survey of the Cayuga Mine and the area proposed for expansion. The 1997 seismic survey placed seismic sensors along three parallel lines running vertically up Cayuga Lake. The map below (Exhibit Inset 1) depicts the three seismic lines in the area where a potential salt disturbance zone was first identified. I have added to the map a red arrow indicating the single point on Line 7, the westernmost line, where the potential disturbance was indicated.

dated March 25, 2022 ([NYSCEF Doc. No. 86](#)), Petitioners state that DEC has never required an Environmental Impact Statement at the Cayuga Salt Mine and, as a result, “neither the lead agency, nor the public, has been given the opportunity to review and analyze the risks and rewards associated with the permit modifications and to comment thereon” (*id.* at 12-13).

But this is not true. With respect to the 2003 Permit alone, DEC invited public review and comment prior to making the determination of non-significance and held a public hearing on the application. In a notice published in the Environmental Notice Bulletin on June 26, 2002 (Exhibit B hereto) and in the Ithaca Journal on the following day (Exhibit C hereto), DEC provided notice of a public hearing to be held on July 9, 2002 and the opportunity to submit written comments until July 19, 2002. The notice also informed the public that documents related to the proposal were available for public review in the office of the Lansing Town Clerk, the Lansing Community Library and DEC’s Regional Headquarters. Cargill’s representatives attended that public hearing; no one appeared in opposition to the project. None of the individual Petitioners in this proceeding attended, and none filed comments in opposition to the permit.

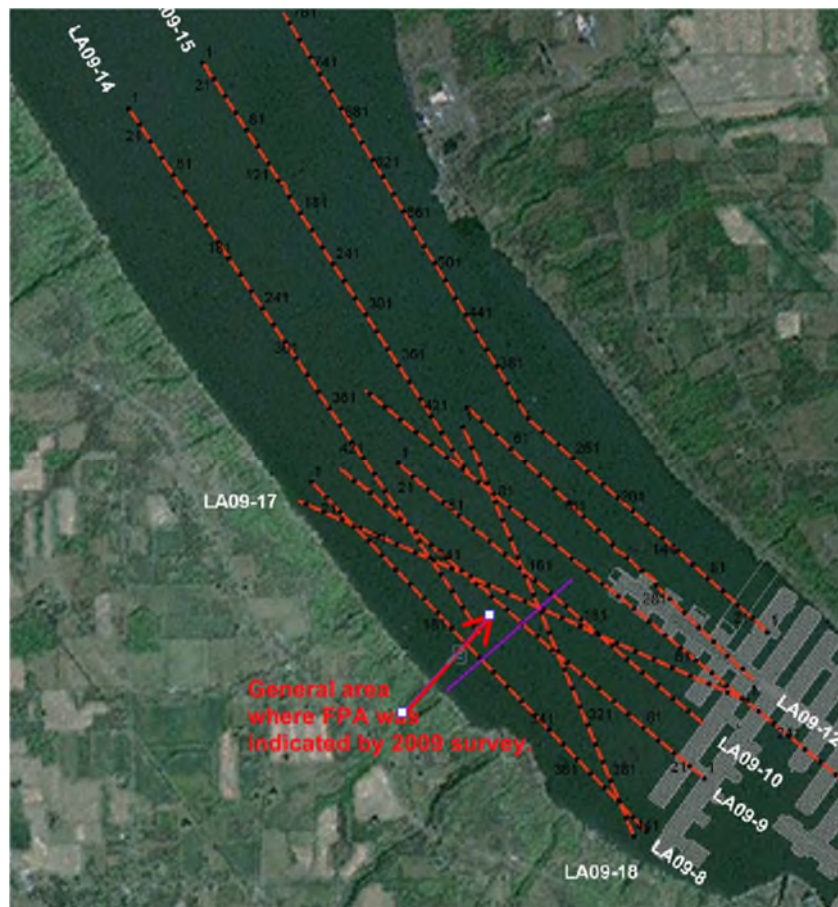


(Exhibit Inset 1)

21. This single data point (Line 7, Point 615) did not enable the scientists to fully understand the depth, location and geology of the potential disturbance and whether it would present a risk to mining. Hence, as stated above, Permit Condition 18 required further investigation before any mining could occur under this potential anomaly.

The 2009 Seismic Survey and Related Studies; Mapping the “Thinning Overburden” Anomalies

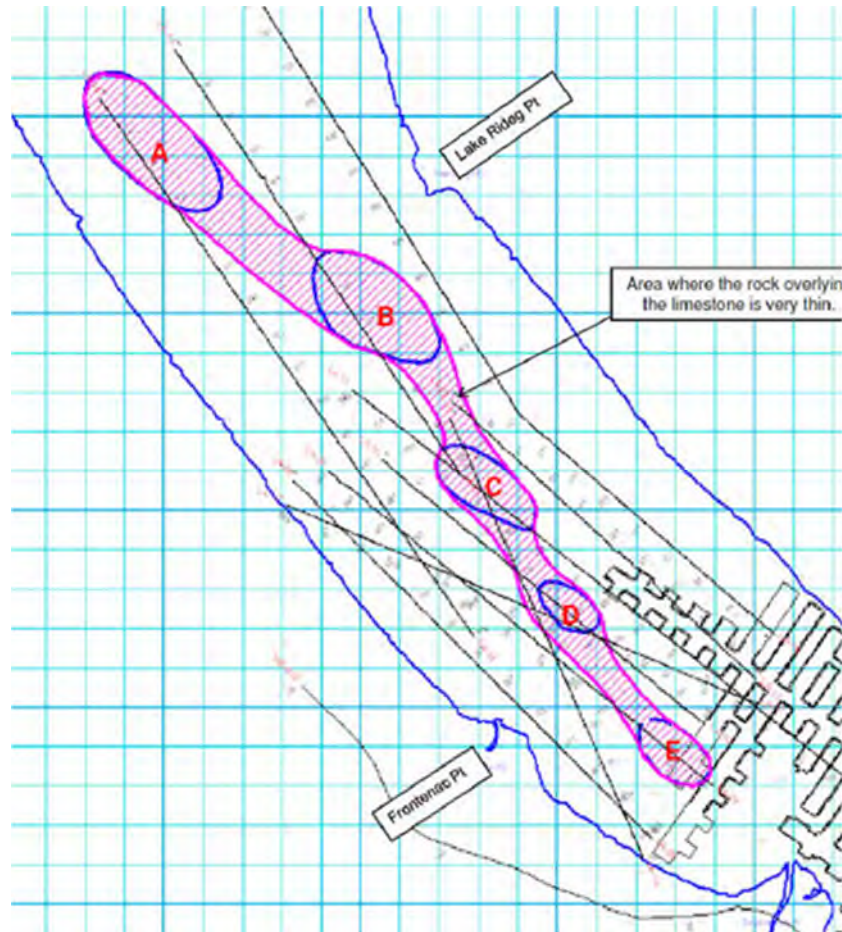
22. In 2009, as mining moved northward and was approaching the area by now known as the FPA, Cargill hired Walker Marine Seismic to conduct an additional lake seismic survey. These data were processed by CGG Veritas and interpreted by scientists at RESPEC and John T. Boyd Company (“Boyd”), DEC’s selected consultant during the 2003 Permit review process. The 2009 seismic lines are depicted below:



(Exhibit Inset 2)

23. The FPA feature was only potentially present on lines LA 09-09 and LA 09-17 where they intersected the 1997-07 line on which it was first detected, indicating that the potential disturbance zone did not extend much beyond that point. (I have indicated this area in red on Exhibit Inset 2 above). In 2010, Cargill agreed to maintain a 1000 ft. buffer around this area until additional studies and analyses had been completed (*see* R. [\[NYSCEF Doc. No. 100\]](#) at R0269).

24. Additionally, the 2009 seismic survey and related analyses provided sufficient data to permit mapping of the areas of “thinning overburden” slated for further study in Condition 19 of the 2003 Permit. As depicted in Exhibit Inset 3 below, Geophysicist Richard Willot, then with Boyd-Petrosearch, labeled these features as “A” through “E.”



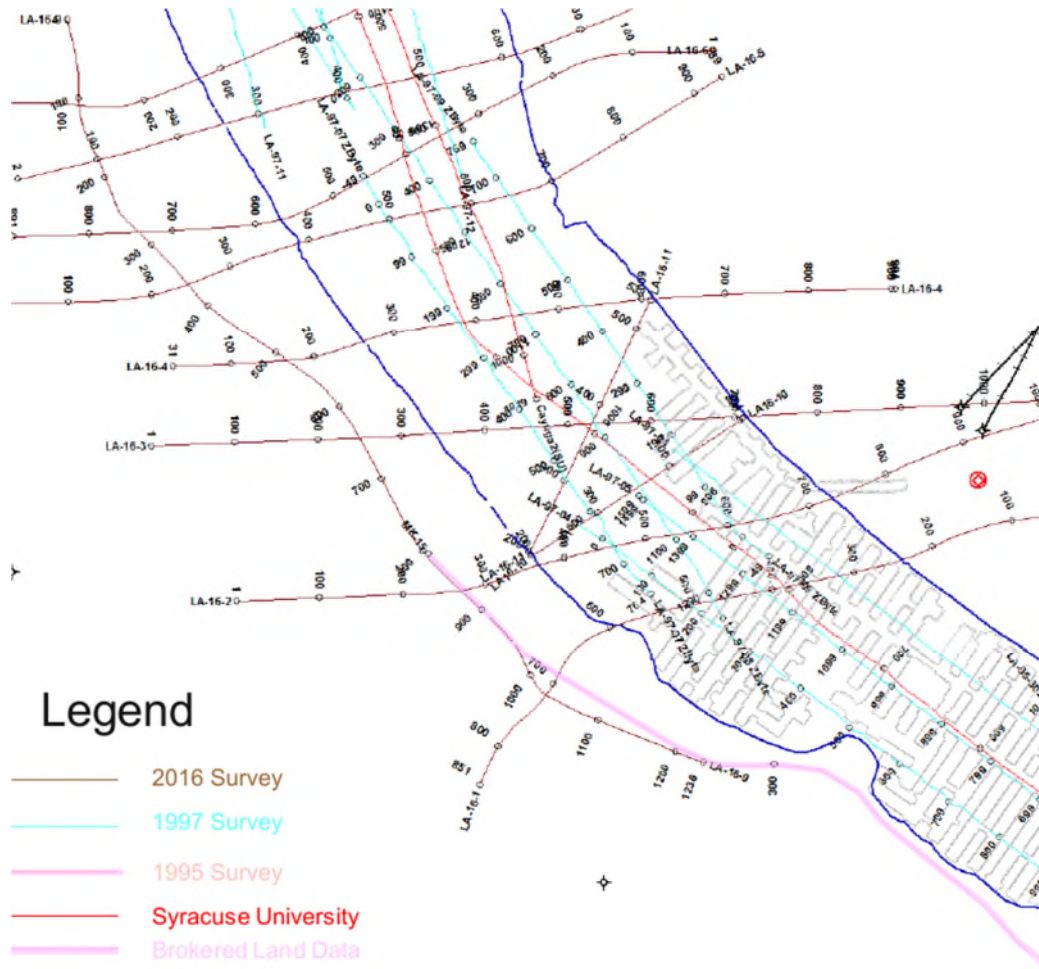
(Exhibit Inset 3)

25. Notably, the area containing Feature “E,” however, was well to the south of the area subject to the subject to Permit Condition 19. The condition pertained only to the area “where mining [was] proposed . . . after 2030,” and Cargill had proposed mining in the area (where Feature “E” would later be identified) in the early 2000s (see DEC Record, Item 34, Condition No. 19; see also R. [NYSCEF Doc. No. 100] at 299). When DEC issued the 2003 Permit, it had excluded this area from Permit Condition 19 because the overlying bedrock carbonate beam was determined to be sufficiently thick (approximately 1000 ft.) to safely support the proposed mine design. Cargill’s mining in this area confirmed this determination: mining in the area was completed more than ten years ago and on-going mine monitoring studies have not revealed any adverse effects on global mine stability.

The 2016-2017 Seismic Survey and Analyses; Definition of FPA Feature

26. Cargill commissioned additional studies in 2016 and 2017 to further define the depth, location and geology of the potential anomalies, including the FPA.

27. In 2016, Cargill retained Bay Geophysical to complete a cross-lake seismic survey, with lines running more or less perpendicular to those placed in previous surveys, as represented in Exhibit Inset 4 below, which shows the 2016 survey lines crossing Cargill's 1997 survey as well as earlier survey work, as explained in the map's legend.

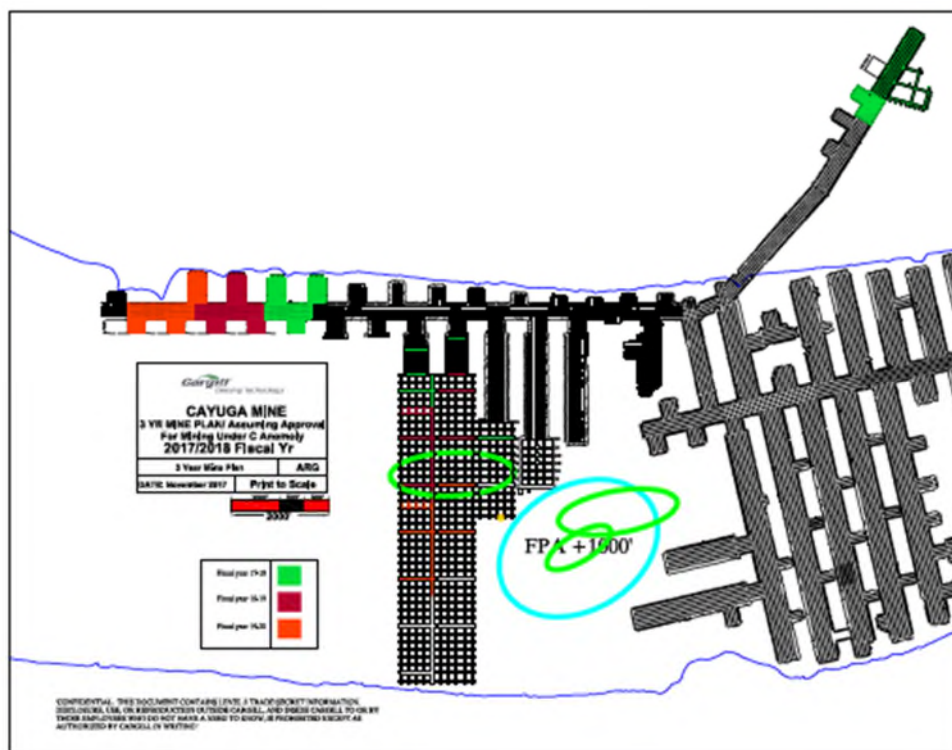


(Exhibit Inset 4)

28. The 2016 survey data were subsequently processed by Sterling Seismic Service and, in 2017, interpreted by both lead investigator John Clark (Corona Consulting) and Dr.

William Goodman (RESPEC). The joint conclusion of these two experts confirmed that the FPA is geographically small, elliptical in shape and located near Point 615, where it was initially discovered.

29. Consequently, in connection with its 2017 application to renew its Cayuga Mine permit, Cargill submitted to DEC an updated mine plan, dated August 2017, showing the oval-shaped FPA with its 1000 ft. buffer, as shown in Exhibit Inset 5 below. The updated mine plan map reflected the conclusions of the 2016-2017 analyses and further drew a 1000 ft. buffer zone around this potential feature consistent with Cargill's 2010 agreement:



(Exhibit Inset 5)

30. DEC issued the renewal permit on April 24, 2019 (R. [\[NYSCEF Doc. No. 99\]](#) at R0062-0072). The permit explicitly requires that Cargill “strict[ly]” conform its mining activities to the “approved plans submitted by the applicant,” including the Mine Plan depicted above (*id.* at R0063).

31. Accordingly, since April 24, 2019, Cargill has been prohibited, by operation of the permit, from mining under the oval-shaped FPA and within a 1,000 ft. radius of that feature.

The 2016 RESPEC Presentation Map

32. In this litigation, Petitioners' papers focus almost exclusively on a figure appearing in a September 2016 RESPEC presentation depicting the FPA as a linear feature (see [NYSCEF Doc. 61](#) at p. 16). The most recent affidavit of Raymond C. Vaughn ([NYSCEF Doc. No. 87](#)), in particular, notes with emphasis that "respondents are silent on [the] RESPEC [Report's] basis for showing the FPA as linear in September 2016, and . . . on the reasoned basis for any subsequent determination . . . that the FPA is best represented as oval" (*id.*, ¶ 13).

33. The answer to Mr. Vaughn's inquiry is quite simple.

34. First, as explained by the RESPEC Report's author Kerry Devries in his affidavit filed herewith, the presentation in which that map appears has nothing to do with the FPA. It was a presentation regarding the potential use of large pillar design for mining under Anomaly C, and the map was included only to show the location of that feature. The location of the FPA was not relevant to the presentation (see Affidavit of Kerry DeVries, sworn to on May 10, 2022, at ¶¶ 2-3).

35. Second, close examination of the map shows that the middle 1/3 of the line is bolder than the remainder. Mr. Devries' review of the source maps for the 2015 map reveals that the understanding of the FPA from 2009 until 2015 was confined to the middle segment of that line (*id.*, ¶ 5).

36. Finally, the RESPEC map included in the report was created in 2015, *prior to the 2016 seismic survey and 2017 analyses of the survey data that more accurately defined the feature and provided the reasoned basis for the determination that the FPA is best represented as an oval*. In short, the even linear representation of the FPA in the 2016 RESPEC presentation (*i.e.*, the middle segment of that line) became obsolete shortly after the presentation was created (*id.*, ¶ 4).

37. The 2017 analysis was the basis for the depiction of the FPA on the mine plan that became a part of Cargill's mining permit in 2019.

Current Status of Mining under Cayuga Lake

38. Petitioners ask this court to enjoin all mining activities under both the linear and oval representations of the FPA, as well as under “the continuous trough extending from Anomalies A through E, and under a 1,000 ft. buffer surrounding all of these until SEQRA has been fully complied with” ([NYSCEF Doc. No. 6](#), p. 10).

39. Putting aside the legal question of whether such relief is appropriate in this article 78 proceeding—I have been informed by counsel that it is not—the request itself proceeds from several faulty factual premises that I would like to address.

40. First, all permit applications and related permit issuances were subject to full and compliant SEQRA reviews conducted by DEC, the state agency charged by the legislature with administering the environmental review statute statewide. This includes the extensive environmental and geotechnical analyses underlying the 2003 Permit and its protective conditions requiring further studies before mining could proceed under the very features identified by Petitioners in their injunction request.

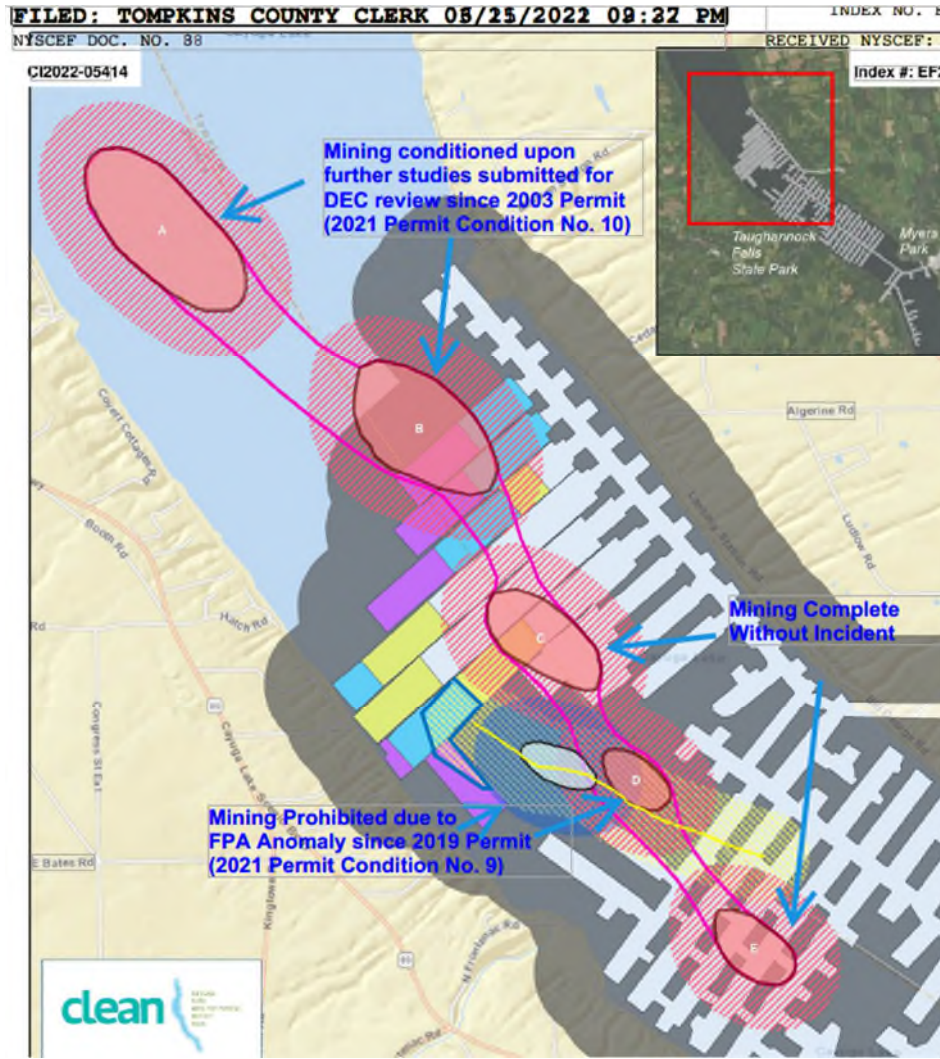
41. Second, the request ignores the fact that Cargill is required by permit condition to submit annual reports to DEC regarding the mine and its operations. The annual mining report is itself extensive. Among other things, it provides DEC with information regarding *in situ* measurements of rock mechanics (to note trends in rock mass behavior), subsidence monitoring data, and the source and volume of any water inflow into the mine. DEC scientists review these reports and inspect the mine annually. DEC also relies, in part, on the scientific expertise of Dr. Vincent Scovazzo from the Boyd Company, who reviews the mine monitoring and other empirical data and attends the annual mine inspections to provide input to Cargill and DEC.

42. Third, there is no scientific basis to prohibit mining within 1000 ft. of Anomalies A through E, and DEC has never imposed such a restriction. DEC and Cargill determined early on to treat the FPA differently as a conservative measure, because investigations indicated that the FPA, unlike the other features, was potentially a fracture in the bedrock overlying the mine with the potential (not certainty) for fluid migration into the mine during mining activities. Even so, the 1000' buffer is more than twice the distance needed to ensure miner safety and mine stability.

43. Fourth, from a practical standpoint, there is almost nothing to be gained from enjoining mining under Anomalies A through E or under the linear FPA and 1000 ft. buffer area for one of three reasons: (i) mining is already prohibited (oval-shaped FPA with 1000 ft. buffer and Anomaly D); (ii) mining remains conditioned upon further study in accordance with the original 2003 Permit Conditions, which were brought forward into every subsequent permit, including the 2021 Modification permit challenged in this litigation (Anomalies A

and B); or (iii) the area has already been fully undermined, with no detrimental effects to global mine stability (Anomalies C and E).

44. I have indicated these areas in blue text on Exhibit Inset 6 below. The base map was created by Petitioners for purposes of this litigation ([NYSCEF Doc. No. 88](#), Exh. D):




(Exhibit Inset 6)

Note that the yellow hatched area overlying the FPA and Anomaly D depicts CLEAN’s representation of the linear FPA with a 1000 ft. no-mining buffer. *Significantly, virtually all of this yellow-hatched area is subject to existing mining prohibitions or has already been mined out.*

Only the small area inside the irregularly shaped blue-outlined polygon (overlying the turquoise and purple rectangles) remains to be mined.


45. Finally, the request for an injunction to halt all mining—arising in this case where DEC merely made housekeeping changes to Cargill’s permit that did nothing to expand or alter the scope or nature of our permitting mining activities—seems to me to be just one more attempt by CLEAN to undo the environmental determinations and permitting decisions made years ago.

46. Privately-held companies, like Cargill, must be able to rely on the finality of government-issued authorizations, such as permits, when making decisions about where to invest business capital. Once DEC issued the 2003 Permit, and once that permit was no longer subject to challenge, Cargill made a decision to invest heavily in the Cayuga Mine. Since 2003, Cargill has spent in excess of \$850 million to develop and extract its resources while protecting worker safety and developing, implementing and refining systems to ensure the stability and sustainability of the mine and Cayuga Lake.



Shawn Wilczynski

Sworn before me this 13
Day of May, 2022



Notary Public

JESSICA L. HALL
Notary Public, State of New York
No. 01HA6401119
Qualified in Tompkins County
Commission Expires Dec. 2, 2023

**CERTIFICATE OF COMPLIANCE WITH
WORD COUNT LIMIT**

The undersigned attorney hereby certifies:

This document complies with the word count limitations pursuant to Rule 202.8-b(c) of the Uniform Civil Rules for the Supreme Court and the County Court as amended by the Administrative Order 270-20, effective February 1, 2021. According to the word processing system used in this office, this document, exclusive of the sections excluded by Rule 202.8-b (b), contains 4,308 words.



Kevin G. Roe