

CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

AND IN THE MATTER OF the acquisition by Parrish & Heimbecker, Limited of certain grain elevators and related assets from Louis Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

**COMMISSIONER'S MOTION RECORD
CHALLENGING THE ADMISSIBILITY OF
CERTAIN PROPOSED EVIDENCE FROM JOHN HEIMBECKER**

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Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

NOTICE OF MOTION
CHALLENGING THE ADMISSIBILITY OF CERTAIN
PROPOSED EVIDENCE FROM MR. JOHN HEIMBECKER

TAKE NOTICE THAT the Commissioner of Competition (the “**Commissioner**”) will make a motion to the Competition Tribunal (“**Tribunal**”) on December 4, 2020, pursuant to the Scheduling Order of Justice Gascon, dated November 13, 2020. The estimated duration of the motion is one half day.

THIS MOTION IS FOR:

1. An Order ruling inadmissible the following evidence contained within the statement of Mr. John Heimbecker, dated October 13, 2020 (the “**Heimbecker Statement**”), collectively referred to as the “**Opinion Evidence**”;
 - a. Mr. Heimbecker’s opinion on market shares in paragraphs 27-29;
 - b. Mr. Heimbecker’s opinion that the addition of a crop input facility at Virden is expected to increase grain production in the Virden area, which in turn is expected to increase Canadian exports in paragraph 55 and 59;
 - c. Mr. Heimbecker’s opinion that “based on publicly available information, it appears that rival Elevators have excess capacity, such that they could easily increase their purchases of wheat and canola from farmers in the Virden/Moosomin area” in paragraphs 141-147;
 - d. Mr. Heimbecker’s opinion that he “believes that rival Elevators could easily add significant grain purchasing capacity, if needed, in less than 2 years” in paragraph 152; and
 - e. Mr. Heimbecker’s opinion that increased throughput at Virden is an efficiency that accrues entirely to the Canadian economy in paragraphs 178-179.

2. An Order ruling inadmissible the following evidence contained in the Heimbecker statement, collectively referred to as the “**Hearsay Evidence**”;
 - a. Mr. Heimbecker’s hearsay testimony which expressly relies on information provided by a former Louis Dreyfus Company Canada ULC (“**LDC**”) employee (now a P&H employee), on LDC’s practices and policies with respect to the purchase of particular grades and types of grain made in parts of paragraph 166, 167, and 170; and
 - b. Mr. Heimbecker’s hearsay testimony regarding the relationship between a Moosomin customer service representative and one of the farmers the Commissioner is relying on in this proceeding made in paragraph 174.
3. The Commissioner’s costs of this motion; and
4. Such further and other relief as counsel may request and the Tribunal may permit.

THE GROUNDS FOR THE MOTION ARE:

1. Parrish & Heimbecker, Limited (“**P&H**”) has submitted only one witness statement from a P&H representative to support its defence. The witness statement is from Mr. John Heimbecker, the CEO and President Grain Division Canada of P&H.
2. Mr. Heimbecker’s statement covers a wide variety of subjects, including the Opinion Evidence and Hearsay Evidence referred to in paragraphs 1 and 2, above.
3. The Commissioner seeks an Order ruling inadmissible the Opinion Evidence and Hearsay Evidence that P&H proposes to lead at the hearing of this application. Mr.

Heimbecker is a lay witness and not an expert. His opinion evidence does not meet the requirements for admissibility of lay opinions.

4. Mr. Heimbecker is clear that the evidence in given in paragraphs 166, 167, 170 and 174 is hearsay. This evidence is based on information provided to Mr. Heimbecker by other P&H employees. While hearsay evidence can be admissible, if it is necessary and reliable, the Hearsay Evidence contained in the Heimbecker Statement does not meet those requirements.
5. The Hearsay Evidence is not necessary because there is no reason why P&H could not submit witness statements from the individuals on whom Mr. Heimbecker relies. The evidence is also unreliable as the nature of the testimony makes it almost immune to cross-examination.
6. For these reasons, the Opinion Evidence and the Hearsay Evidence should be excluded from Mr. Heimbecker's statement.

THE FOLLOWING DOCUMENTARY EVIDENCE will be used at the hearing of the motion:

- a) the Witness Statement of Mr. John Heimbecker, dated October 13, 2020;
- b) the Expert Report of Margaret Sanderson, dated October 9, 2020;
- c) the Expert Report of Dr. Nathan Miller, dated September 11, 2020;
- d) the pleadings and proceedings; and
- e) such further and other evidence as counsel may advise and the Tribunal may permit.

DATED at Toronto, Ontario on this 27th day of November, 2020.



ATTORNEY GENERAL OF CANADA

Department of Justice Canada
Competition Bureau Legal Services
Place du Portage, Phase I
50 Victoria Street, 22nd Floor
Fax: 819.953.9267

Jonathan Hood
416-954-5925
jonathan.hood@canada.ca

Ellé Nekiar
819-994-4045
Elle.nekiar@canada.ca

Counsel to the Commissioner

CT-2019-

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AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

NOTICE OF APPLICATION

TAKE NOTICE THAT the Applicant, the Commissioner of Competition (the “**Commissioner**”), will make an application to the Competition Tribunal (the

“Tribunal”), on a day and place to be determined by the Tribunal, pursuant to section 92 of the *Competition Act*, R.S.C. 1985, c. C-34 (the “Act”) for:

1. an order requiring the Respondent, Parrish & Heimbecker, Limited (“P&H”), to dispose of all of the assets of the ongoing business of a primary grain elevator in the Relevant Markets (defined below), as well as such other assets, if any, as are required for an effective remedy;
2. an order that P&H is prohibited from acquiring, within a period of five years from the date of the order, any primary grain elevator in the Relevant Markets, unless P&H provides the Commissioner with at least 30 days' advance written notice of such proposed merger, where the proposed merger would not otherwise be subject to notification pursuant to the Act;
3. an order directing P&H to pay costs; and
4. such further and other relief as the Commissioner may request and this Tribunal may consider appropriate.

AND TAKE NOTICE that if you do not file a response with the Registrar of the Tribunal within 45 days of the date upon which this Application is served upon you, the Tribunal may, upon application by the Commissioner and without further notice, make such order or orders as it may consider just, including the orders sought in this application.

AND TAKE FURTHER NOTICE that the Commissioner will rely on the Statement of Grounds and Material Facts (“SGMF”) in support of this Application and on such further or other material as counsel may advise and the Tribunal may permit.

AND TAKE FURTHER NOTICE that a concise statement of economic theory of the case is attached as Schedule “A” to the SGMF.

THE ADDRESSES FOR SERVICE ARE:

For the Respondent:

Borden Ladner Gervais
Bay Adelaide Centre, East Tower
22 Adelaide Street West
Suite 3400
Toronto, ON M5H 4E3

Attention:

Robert S. Russell
Davit Akman

For Commissioner of Competition

Department of Justice Canada
Competition Bureau Legal Services
Place du Portage, Phase I
50 Victoria Street, 22nd Floor
Tel.: 416.954.5925
Fax: 416.973.5131

Attention:

Jonathan Hood
Ellé Nekiar

The Applicant proposes that the hearing of this matter be held in the City of Ottawa, Ontario and be heard in English.

STATEMENT OF GROUNDS AND MATERIAL FACTS

I. OVERVIEW

1. Farmers benefit when primary grain elevators (“**Elevators**”) compete to buy their grain. Without an order of the Tribunal, P&H will exercise enhanced market power at the expense of farmers in certain parts of Saskatchewan and Manitoba. Through an acquisition, P&H has the ability and incentive to increase the price of Grain Handling Services (defined below) for wheat and canola resulting in farmers being paid less.
2. On December 10, 2019, P&H acquired all ten Elevators owned by Louis Dreyfus Company Canada ULC (“**Louis Dreyfus**”) in Western Canada (the “**Acquisition**”).
3. This Application seeks an order to remedy the likely substantial lessening of competition (“**SLC**”) stemming from P&H acquiring the Elevator previously owned by Louis Dreyfus on the TransCanada Highway in Virden, Manitoba (the “**Virden Elevator**”). For many farmers, the Virden Elevator was the closest and most effective competitor to P&H’s Elevator located on the TransCanada Highway in nearby Moosomin, Saskatchewan (the “**Moosomin Elevator**”).
4. Post-Acquisition, P&H controls both Elevators along a 180 km stretch of the TransCanada Highway. Farmers in and around this area are left with limited options. The next closest Elevator is owned by Viterra Inc. in Fairlight, Saskatchewan (the “**Fairlight Elevator**”). However, the Fairlight Elevator is located 35 kilometres south of the TransCanada Highway on a secondary road and, due to highway weight restrictions, farmers may pay more to transport their wheat and canola.

5. P&H will be able to materially raise the implicit price farmers pay for Grain Handling Services for wheat and canola in the Virden-Moosomin corridor. Farmers will be paid less for their wheat and canola.
6. P&H's enhanced market power post-Acquisition will not be effectively constrained by other Elevators or other buyers of wheat and canola due to transportation costs and capacity constraints.
7. The loss of competitive rivalry between the Virden Elevator and the Moosomin Elevator will not be offset by existing competitors expanding or by new competitors entering because barriers to entry are high.
8. Accordingly, the Commissioner brings this application seeking an order requiring P&H to divest itself of such assets as required to ensure that the Acquisition does not or is not likely to lessen competition substantially.

II. THE PARTIES

9. The Commissioner is an officer appointed by the Governor in Council pursuant to section 7 of the Act and is responsible for the administration and enforcement of the Act.
10. P&H is a vertically integrated Canadian agribusiness headquartered in Winnipeg, Manitoba. P&H has operations spanning across Canada in grain trading, handling and merchandising, as well as crop input retail, flour milling and feed mills. P&H employs over 1,500 people with customers in 24 countries.
11. P&H's grain handling and trading business purchases and stores grains of all varieties and then markets that grain to customers around the world. P&H now owns 30 Elevators in Western Canada and has ownership interests in multiple grain terminals at ports in Canada.

III. THE ACQUISITION

12. Pursuant to an Asset Purchase Agreement dated September 3, 2019, P&H agreed to acquire ten Elevators and related assets such as inventories, equipment, machinery and vehicles, in Western Canada from Louis Dreyfus.
13. On December 10, 2019, 32 days after certifying responses to supplementary information requests, P&H and Louis Dreyfus closed the Acquisition.

IV. BACKGROUND

14. Farmers are a vital part of the Canadian economy producing grains such as wheat, canola, barley, corn, oats and rye. In 2018, they produced approximately 31.8 million tonnes of wheat, 20.3 million tonnes of canola, 8.4 million tonnes of barley and 3.4 million tonnes of oats. This Application seeks to address market power with respect to Canada's two biggest grain crops – wheat and canola.
15. Wheat and canola purchasers and processors, such as flour mills, feed mills and canola crushing plants, purchase wheat and canola for use as or as inputs into food, animal feeds, processed products, fuels and other industrial uses. Canadian wheat and canola are sold to customers around the world.
16. Canadian farmers most often sell their wheat and canola to a marketing company like P&H. The marketing company generally has a local presence through Elevators to which the farmers will transport their grain.
17. An Elevator is designed to stockpile or store grain. A farmer's wheat and canola is generally transported by truck from a farm to an Elevator where

it is elevated, graded, and segregated and may be cleaned, dried, blended or stored ("**Grain Handling Services**").

18. Elevators post prices daily based on type of grain, its quality, protein content and month of delivery. The Elevator's price takes into consideration the costs of Grain Handling Services. As such, the costs and the margin earned by the Elevator for Grain Handling Services are implicit in the price paid to the farmer for their wheat and canola. When competing for farmers' wheat and canola, an Elevator regularly pays more than its posted price.
19. Many farmers also set "grain pricing orders" or "target contracts" with Elevators where the farmer chooses a preferred price to sell a certain quantity of grain; however, the Elevators choose whether and when to buy grain pursuant to the contract.
20. Elevators are always located on a rail line to ensure cost-effective transportation. The grain may subsequently be moved to a process elevator whose principal purpose is the receipt and storage of grain for direct manufacture or processing into other products. Usually, grains sold for export move from Elevators by rail to an export terminal either on the West Coast or to the East.

V. THE RELEVANT MARKETS

21. The relevant markets in this Application are the supply of Grain Handling Services for wheat and the supply of Grain Handling Services for canola for the aggregated locations of farmers that benefited from competition between the Virden Elevator and Moosomin Elevator ("**Relevant Markets**"). Farmers most affected are located in the corridor between these two Elevators.

A. The relevant product markets

22. The supply of Grain Handling Services for wheat is a relevant product market and the supply of Grain Handling Services for canola is a separate relevant product market.
23. There are no functional substitutes for these services.
24. Some farmers can sell their wheat and canola directly to processors in Western Canada such as canola crushing facilities. However, these facilities do not have the capacity to constrain Elevators from profitably imposing and sustaining a small but significant non-transitory increase in the price of Grain Handling Services for wheat or canola.

B. The relevant geographic market is local

25. The draw area of an Elevator is local because of transportation costs. Each Elevator has a unique draw area due to characteristics such as road conditions, crop output and local topography. Usually the wheat and canola purchased by an Elevator originates from farms within a one-hour drive time of that Elevator.
26. Elevators can and do charge farmers different implied prices for Grain Handling Services for wheat and canola based on farmers' locations.
27. The relevant geographic market for this Application is the aggregated locations of farmers that benefited from competition for Grain Handling Services for wheat and canola between the Virden Elevator and Moosomin Elevator. Farmers most affected are located in the corridor between these two Elevators.

VI. THE ACQUISITION IS LIKELY TO SUBSTANTIALLY LESSEN COMPETITION

28. The Acquisition is likely to cause a SLC in the Relevant Markets owing to the elimination of Louis Dreyfus as a vigorous and effective competitor. The Virden Elevator and Moosomin Elevator were close competitors in part due to their proximity along the TransCanada Highway. The two Elevators closely monitored each other's wheat and canola prices and responded to competitive activity from the other by offering farmers better prices.
29. As a result of the Acquisition, P&H controls both Elevators along a 180 km stretch of the TransCanada Highway. The Virden Elevator and Moosomin Elevator also compete with the Fairlight Elevator. The Fairlight Elevator, however, is located on a secondary road 35 km south of the TransCanada and, due to highway weight restrictions, farmers may pay more to transport their wheat or canola.
30. With control of the Virden Elevator, P&H has the ability and incentive to unilaterally exercise market power in the Relevant Markets. Affected farmers will be paid less for their wheat and canola.
31. Additionally, prior to the Acquisition, P&H intended to expand the rail car capacity at the Moosomin Elevator, effectively increasing the Elevator's ability to handle more wheat and canola and thereby increasing the level of competition in the Relevant Markets. But for the Acquisition, the capacity expansion at the Moosomin Elevator would have increased the rivalry with the Virden Elevator to the benefit of farmers. P&H no longer intends to expand capacity at the Moosomin Elevator.
32. Direct purchasers or other more distant Elevators are not sufficient to constrain an exercise of market power by P&H in the Relevant Markets. Canola crushers and other direct purchasers do not have sufficient capacity to constrain an exercise of market power. More distant

Elevators are unable to constrain an exercise of market power owing to higher transportation costs for farmers to deliver their wheat and canola.

33. Because barriers to entry and expansion are high, P&H's ability to exercise market power is unlikely to be constrained by new entry or expansion by existing Elevators.
34. The barriers to entry into the Relevant Markets faced by a potential entrant include capital costs of \$40 to \$50 million to construct an Elevator. It is also difficult to find a location that is a suitable site permitting adequate rail and road access. A potential entrant would take more than two years to build an Elevator.

A. There are no mitigating factors to the SLC

35. Other relevant section 93 factors support the conclusion that the Acquisition actually or likely substantially lessens competition in the Relevant Markets:
 - a. *Foreign competitors.* Elevators and direct purchasers in other countries cannot compete directly for the purchase of wheat and canola from farmers in the Relevant Markets because of transportation costs.
 - b. *No alternative substitutes.* For the vast majority of farmers in the Relevant Markets, there are no viable substitutes.
 - c. *Barriers to entry are high.* As described in paragraph 34 above, barriers to entry and expansion are high owing to significant capital costs and difficulty finding a suitable location to build an Elevator.
 - d. *Limited effective remaining competition.* The closest remaining Elevator to the Virden Elevator and Moosomin Elevator is

insufficient to constrain an exercise of market power by P&H owing to its location on a secondary road off the TransCanada Highway. Other more distant Elevators are not effective competitors owing to higher transportation costs faced by the farmer.

- e. *Removal of a vigorous and effective competitor.* The Virden Elevator was a vigorous and effective competitor to the Moosomin Elevator prior to the Acquisition by virtue of its proximity on the TransCanada Highway.
- f. *Not a market subject to change through innovation.* The provision of Grain Handling Services is unlikely to change materially due to innovation in the near future.

VIII. RELIEF SOUGHT

36. The Commissioner therefore seeks:

- a. an order requiring P&H to dispose of all of the assets of the ongoing business of an Elevator in the Relevant Markets, as well as such other assets, if any, as are required for an effective remedy;
- b. an order that P&H is prohibited from acquiring, within a period of ten years from the date of the order, any Elevator in the Relevant Markets, unless P&H provides the Commissioner with at least 30 days' advance written notice of such proposed merger, where the proposed merger would not otherwise be subject to notification pursuant to the Act;
- c. an order directing P&H to pay costs; and

- d. such further and other relief as the Commissioner may request and this Tribunal may consider appropriate.

DATED AT Montréal, Quebec, this 19th day of December, 2019



Matthew Boswell
Commissioner of Competition

SCHEDULE "A"**CONCISE STATEMENT OF ECONOMIC THEORY**

1. Elevators compete to purchase grain from farmers. A farmer's grain is generally transported by truck from a farm to an Elevator where the grain is elevated, graded, and segregated and may be cleaned, dried, blended or stored - defined in this application as Grain Handling Services.
2. Elevators post prices daily for each type of grain they accept which vary by the grain quality, protein content, and month of delivery. Factors that affect any given grain's price includes global supply and demand conditions, the individual grain company's need for the grain to meet its supply agreements, and local competitive conditions. The Elevator's price takes into consideration the costs of Grain Handling Services. As such, the costs and margin earned by the elevator for Grain Handling Services are implicit in the price paid to the farmer for their grains.
3. The supply of Grain Handling Services for wheat is a relevant product market and the supply of Grain Handling Services for canola is a separate relevant product market. A hypothetical monopolist of Grain Handling Services for wheat or canola could profitably impose a small but significant and non-transitory price increase. There are no functional substitutes for Grain Handling Services for wheat and canola.
4. The relevant geographic market is the aggregated locations of farmers that benefited from competition for Grain Handling Services between the Virden Elevator and Moosomin Elevator. Farmers most affected are located in the corridor between these two elevators. Elevators can and do charge farmers different implicit prices for Grain Handling Services for wheat and canola based on, among other factors, a farmer's location. A hypothetical monopolist could profitably impose a small but significant and non-transitory price increase on these farmers.

5. The Relevant Markets are therefore the supply of Grain Handling Services for wheat and the supply of Grain Handling Services for canola for the aggregated locations of farmers that benefited from competition between the Virden Elevator and Moosomin Elevator.
6. The Acquisition causes the loss of competition between the Moosomin Elevator and Virden Elevator likely resulting in an increase in the implicit price paid by farmers for Grain Handling Services in the Relevant Markets. This means that farmers in the Relevant Markets will be paid less for their wheat and canola.
7. The Virden Elevator was a close and effective competitor to the Moosomin Elevator.
8. The closest remaining competing Elevator to the Virden Elevator and the Moosomin Elevator is insufficient to constrain an exercise of market power by P&H. Other more distant Elevators are not effective competitors owing to higher transportation costs faced by the farmer.
9. The Acquisition increases concentration in the Relevant Markets. As such, P&H is likely to find it profitable to raise its prices after the Acquisition because some of the sales that would have been lost prior to the Acquisition will likely be diverted to either one of their Elevators. This diversion may make increasing prices profitable when it would not have been profitable prior to the Acquisition.
10. Entry or expansion by competitors is unlikely to occur in a timely and sufficient manner due to barriers to entry. The barriers to entry faced by a potential entrant include capital costs of \$40 to \$50 million to construct an Elevator. It is also difficult to find a location where there is sufficient demand and also a suitable site permitting adequate rail and road access. A potential entrant would take more than two years to build an Elevator.

11. Based on the above, it is likely that the Acquisition provides P&H with an increased ability to exercise market power. Therefore, the Acquisition will lead to a likely substantial lessening of competition in the Relevant Markets.

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BETWEEN:

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Applicant

- and -

PARRISH & HEIMBECKER, LIMITED

Respondent

RESPONSE OF PARRISH & HEIMBECKER, LIMITED

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OVERVIEW

1. Parrish & Heimbecker, Limited ("**P&H**") opposes the Commissioner of Competition's (the "**Commissioner**") application pursuant to section 92 of the *Competition Act* (the "**Application**").
2. P&H denies that the Commissioner is entitled to any of the relief sought by him on the Application. The Commissioner has incorrectly defined the relevant product and geographic markets and asserts a substantial lessening and prevention of competition where there is none.
3. P&H's acquisition of the primary grain elevator ("**Elevator**") in Virden, Manitoba (the "**Virden Elevator**") formerly owned by Louis Dreyfus Company Canada ULC ("**Louis Dreyfus**") will not provide P&H with either the ability or the incentive to materially lower the prices it pays to farmers for their wheat or canola nor will it lead to a substantial lessening or prevention of competition in any relevant and properly defined market. To the contrary, as a key element of P&H's recent purchase of the ten Elevators in western Canada formerly owned by Louis Dreyfus, the acquisition of the Virden Elevator will contribute to the creation of a more efficient and competitive grain industry in Canada, to the benefit of both farmers and consumers.

FACTS ADMITTED AND DENIED

4. Except for the allegations in paragraphs 2, 9, 12 and 15 of the Notice of Application and as otherwise expressly admitted below, P&H denies all of the Commissioner's allegations.

STATEMENT OF GROUNDS AND MATERIAL FACTS

P&H

5. P&H is a private, family-owned Canadian agribusiness founded in 1909 and headquartered in Winnipeg, Manitoba.

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6. P&H's grain trading business sells many varieties of grains, including wheat and canola, to customers in Asia, South America, Europe and Canada (including P&H's own flour and feed mills). The grains supplied by P&H are purchased (for its own account) from farmers across Canada through its network of 37 Elevators, including its Elevator in Moosomin, Saskatchewan (the "**Moosomin Elevator**") and the ten Elevators purchased from Louis Dreyfus in December 2019.

7. Grains supplied by P&H to overseas customers move by rail from its Elevators to export facilities on the West Coast and in Thunder Bay for shipment by vessel. In the West, P&H has an interest in the Vancouver Alliance Grain Terminal and operates a standing grain berth at the Fraser Surrey Docks. In the East, P&H has an interest in the Superior Terminal in the Port of Thunder Bay.

The Acquisition

8. Pursuant to an Asset Purchase Agreement dated September 3, 2019, P&H agreed to acquire ten Elevators (and related assets) in western Canada from Louis Dreyfus (the "**Transaction**").

9. On December 10, 2019, after P&H and Louis Dreyfus had worked diligently for more than three months with the Commissioner to assist him in his review of the Transaction, P&H and Louis Dreyfus closed the Transaction in respect of the ten Louis Dreyfus Elevators, including the Virden Elevator.

10. The Commissioner's Application relates only to P&H's acquisition of the Virden Elevator (the "**Acquisition**").

11. The Transaction (including the Acquisition) was intended to enhance P&H's efficiency and effectiveness as a competitor in the grain trading business against major industry players such as Viterra, Incorporated, Richardson International Limited, Paterson Grain Limited, Cargill Limited and G3 Canada Limited.

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12. P&H has invested \$ [REDACTED] in the construction of a new export terminal on the Fraser River in Surrey, British Columbia (the "**Fraser Grain Terminal**"), in order to compete more effectively with the leading grain companies in Canada, each of which owns its own export terminals.

13. The Fraser Grain Terminal is projected to open in September 2020 and P&H requires the grain purchased by the Louis Dreyfus Elevators (including the more than 200,000 MT of wheat and canola typically purchased by the Virden Elevator each year) to fully realize the economies, efficiencies and other competition-enhancing benefits associated with the new export terminal.

Prices Paid to Farmers for their Wheat and Canola are Determined by Many Non-Local Factors

14. Whatever the boundaries of a given Elevator's draw area or a farmer's drive, like all Elevators in western Canada (and elsewhere), P&H's prices paid for grain at the Moosomin and Virden Elevators are determined by many non-local factors.

15. Elevators buy grain from farmers at a purchase price that is largely dependent on the global price of the commodity from the international market for grain. This component of the purchase price is independent of local Elevator dynamics and is unaffected by any changes to the competitive landscape around the Virden and Moosomin Elevators.

16. Further, P&H, Viterra, Cargill, Richardson, Paterson, G3 and other purchasers of grain compete to export Canadian grain to international markets, as well as to ship to domestic markets, such as Eastern Canada. Each of these firms will source grain across their respective networks of Elevators to meet their sales commitments. Therefore, each firm's demand for grain across its network is derived from the demand that it faces in the markets into which it sells. The amount of grain demanded, and bought, by P&H is a function of sales made to both export and domestic customers. The purchase prices that P&H pays farmers for grain are derived from the

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demand and prices it receives in these markets, and P&H's costs to transport grain from its network of Elevators to port terminals for export, or to domestic buyers. To meet its sales requirements, P&H (like its rivals) must source grain across numerous Elevators and across large distances. As a result, P&H centrally sets the amount that it will pay farmers across multiple Elevators for grain to meet these needs. Adjustments will be made in local Elevator pricing when insufficient grain supplies across its system are sourced to meet P&H's overall, system-wide demand.

The Relevant Markets

17. The Commissioner has not properly pleaded the relevant product markets nor has he correctly defined the geographic scope of those product markets for antitrust purposes.

18. The relevant geographic market, as noted above, is impacted by many non-local factors which influence the price negotiated between the grain companies and the farmers. Farmers producing grain are effectively competing with other farmers to sell their grain to the grain companies. The networks owned by the grain companies allow the grain companies to compete for the purchase of grain throughout the growing regions in western Canada. As a result, a farmer in Saskatchewan is competing with a farmer in Manitoba. Similarly, a grain company purchasing grain will compete with another grain company to purchase its requirements agnostic to where the grain is purchased subject to transportation and quality differences. This creates a price discipline throughout the western Canadian growing regions.

19. Therefore, it could be argued that the relevant markets in this Application are the purchase of wheat and canola from farmers throughout the western Canadian growing region. However, for the purpose of this Application, even if it were conceded for analysis that the relevant geographic market were limited to southeastern Saskatchewan and southwestern Manitoba (the "**Geographic Market**"), P&H does not hold or exercise monopsony power in this market and the Acquisition will not result in a

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substantial lessening or prevention of competition.

20. In the alternative, even if the relevant geographic market were confined to the farmer locations within the Commissioner's alleged relevant geographic market (which is not admitted, but expressly denied), P&H does not hold or exercise monopsony power in that alleged market and the Acquisition will not result in a substantial lessening or prevention of competition.

a. The relevant product market

21. The relevant product market is the purchase of grain, either wheat or canola, which are the overlapping products purchased by the Virden and Moosomin Elevators from farmers. Contrary to paragraph 17 of the Application, P&H does not supply Grain Handling Services to farmers.

b. The relevant geographic market

22. The Commissioner's alleged relevant geographic market (i.e., "the aggregated locations of farmers that benefited from competition for Grain Handling Services for wheat and canola between the Virden Elevator and Moosomin Elevator") is also factually and legally incorrect.

23. The Virden Elevator is located approximately three hours west of Winnipeg, close to the border between Manitoba and Saskatchewan. It is 64 kilometers driving distance to P&H's Moosomin Elevator along the TransCanada Highway.

24. The Commissioner refers (in paragraph 25 of his Application) to the draw area of an Elevator as being "local" and claims that the wheat and canola purchased by an Elevator originates from farms within a one-hour drive time of that Elevator. This is incorrect. Elevators purchase grain from farmers that are located well beyond an hour's drive away. And farmers are willing to travel distances beyond a one-hour drive to sell their wheat and canola to the Moosomin and Virden Elevators, and to rival Elevators outside

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the small, artificial area defined by the Commissioner; there is no "corridor" as imagined by the Commissioner.

25. The Moosomin and Virden Elevators each purchase grain from hundreds of farmers, with most of these producers located outside the alleged "corridor" between the two Elevators. Thus, the "draw area" for each Elevator covers a geographic area that extends well beyond the narrow geographic area defined by the Commissioner.¹ The Moosomin and Virden Elevators compete with numerous rival Elevators within and beyond their individual Elevator draw areas for the purchase of grain from farmers. Rival Elevators have their own draw areas, which similarly extend well beyond the one-hour driving distance alleged by the Commissioner. Elevators are widely distributed throughout the region creating an overlapping network of Elevator draw areas. As a result, there are numerous Elevators within southeastern Saskatchewan and southwestern Manitoba competing for grain from farmers. To fulfill their requirements, the Moosomin and Virden Elevators must purchase grain at competitive prices against these many other rival Elevators. Thus, the purchase prices set by the Moosomin and Virden Elevators are influenced by rival Elevators that are located far beyond their individual draw areas. In addition to rival Elevators, the Moosomin and Virden Elevators need to purchase canola at prices that are competitive with canola crushers located in Yorkton, SK, Harrowby, MB, Altona, MB and Velva, ND, as well as other direct purchasers.

26. Farmers are price-sensitive and are willing to travel farther than the one-hour drive alleged by the Commissioner, which is already observed in the marketplace given the far-reaching draw areas of the Moosomin, Virden, and rival Elevators. With numerous rival Elevators throughout the region, farmers (including those located in the "corridor" between the Virden and Moosomin Elevators) have access to many competing Elevators to compare

¹ The draw area of an Elevator is the physical boundary from which the Elevator purchases grain from farmers. It represents the physical home locations of all farmers selling grain to the Elevator.

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prices at the time of sale. Thus, the purchase prices received by farmers within a given local area are influenced by competition from Elevators far beyond the driving distance that any one farmer might consider (which as noted is farther than a one-hour drive). Even if the focus of analysis is limited to those farmers located between the Virden and Moosomin Elevators, the prices that they receive from those Elevators are influenced by the many alternative Elevators (and other purchasers) against which the Virden and Moosomin Elevators compete to purchase grain.

27. Moreover, using generally accepted transportation distances that farmers travel to sell their wheat and canola, there are at least four competing Elevators available to farmers located between the Virden and Moosomin Elevators (which, like the Virden and Moosomin Elevators, are) located on the TransCanada Highway, as well as two rival Elevators that are closer to the Virden Elevator than is the Moosomin Elevator, and two rival Elevators that are closer to the Moosomin Elevator than is the Virden Elevator.

28. There are no farmers within the draw areas of the Virden and Moosomin Elevators (including those located in the "corridor" between the Virden and Moosomin Elevators) who are "captive" to the Virden and Moosomin Elevators. Further, contrary to paragraph 26 of the Application, Elevators do not set different purchase prices for grain from individual farmers based on their physical proximity to the Elevator.

29. Therefore, the relevant geographic market – whether defined around the farmer or the Elevator – is much broader than the Commissioner alleges.

The Acquisition Will Not Substantially Lessen or Prevent Competition

30. P&H denies that the Acquisition creates, enhances or maintains monopsony power in any properly defined market.

31. In the face of vigorous and effective competition from competing

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Elevators, as well as canola crushers and other direct purchasers of wheat and canola, P&H's control of the Virden Elevator gives it neither the ability nor the incentive to exercise monopsony power in any properly defined market.

32. Competing purchasers of wheat and canola, including rival Elevators throughout the region and canola crushers located in Yorkton, SK, Harrowby, MB, Altona, MB and Velva, ND, would effectively constrain any attempted exercise of monopsony power. Contrary to paragraphs 4, 6 and 32 of the Application, transportation costs and capacity constraints will not limit their ability to do so. Rival Elevators and other purchasers within and beyond the draw areas of the Virden and Moosomin Elevators already purchase grain from farmers who sell to the Virden and Moosomin Elevators, have significant excess capacity to purchase additional grain and can increase their purchases from those farmers at low cost.

33. Similarly, farmers located in the draw areas of the Virden and Moosomin Elevators (including in the "corridor" between the two Elevators) already sell to multiple Elevators at varying distances from their farms and are unconstrained in their ability to sell more grain to rival Elevators and other purchasers. In this regard, incremental transportation costs associated with selling to more distant Elevators and other purchasers are not economically material to farmers – constituting a very small percentage of current and reasonably anticipated wheat and canola purchase prices – allowing farmers to easily switch purchasers and rival purchasers to influence prices over a very large area.

34. Further, and contrary to paragraphs 7 and 33-34 of the Application, barriers to entry and expansion are low, with the result that P&H's ability to exercise any monopsony power would be constrained by the expansion of existing Elevators' purchases and by those of other alternative purchasers and/or by new entry. Rival Elevators have excess capacity, such that they can easily increase their purchases of grain at low cost. They could also easily add grain purchasing capacity, as needed. Similarly, a potential

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entrant could build a new Elevator within both the Geographic Market and the Commissioner's alleged geographic market in less than 2 years.

35. It is also not the case, contrary to paragraph 31 of the Application, that but for the Acquisition, P&H would have expanded the rail car capacity at the Moosomin Elevator, thereby increasing the rivalry with the Virden Elevator to the benefit of farmers. P&H made the decision not to expand rail capacity at the Moosomin Elevator before LDC solicited P&H to buy the LDC Elevators, including the Virden Elevator.

36. For all of these reasons, the Acquisition will not lead to a substantial lessening or prevention of competition and, contrary to paragraph 30 of the Application, farmers within the Geographic Market (including those located in the "corridor" between the Moosomin and Virden Elevators) will not be paid materially less for their wheat and canola as a result of the Acquisition.

The Acquisition's Efficiencies are Greater than and Offset any Alleged Anti-competitive Effects

37. If the Acquisition substantially lessens or prevents competition (which is not admitted but expressly denied), the efficiencies that the Acquisition is likely to bring about will be greater than, and will offset, the effects of any alleged substantial lessening or prevention of competition, and such gains in efficiency will not likely be attained if the order requested by the Commissioner are made by the Tribunal. The efficiencies from the Acquisition include: improved Fraser Grain Terminal scale economies and cost savings, elimination of the margin that Louis Dreyfus formerly paid to use the Vancouver export terminal owned by Kinder Morgan, output expansion and improved scale economies at the former Louis Dreyfus Elevator and administrative synergies.

Relief Sought

38. The Commissioner is not entitled to any of the relief he seeks on this Application. With respect to:

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- a. **"an order requiring P&H to dispose of all of the assets of the ongoing business of an Elevator in the Relevant Markets"** (paragraph 36(a) of the Application), there is no basis for such a divestiture order because the Acquisition does not substantially lessen or prevent competition; and
- b. **"an order that P&H is prohibited from acquiring, within a period of ten years from the date of the order, any Elevator in the [Commissioner's] Relevant Markets, unless P&H provides the Commissioner with at least 30 days' advance written notice of such proposed merger, where the proposed merger would not otherwise be subject to notification pursuant to the [Competition Act]"** (paragraph 36(b) of the Application), even if the Tribunal were to find a substantial lessening or prevention of competition (which is not admitted but expressly denied), by virtue of subparagraph 92(1)(e)(iii) of the *Competition Act*, the Tribunal has no jurisdiction to make the requested order because P&H does not consent to it, nor would it remedy any substantial lessening or prevention of competition.

39. P&H requests that the Tribunal dismiss the Commissioner's Application with costs to P&H on a substantial indemnity basis.

CONCISE STATEMENT OF ECONOMIC THEORY

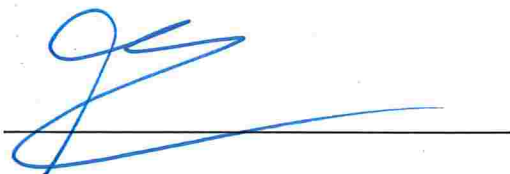
40. P&H's Concise Statement of Economic Theory is attached as Schedule "A".

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LOCATION AND CONDUCT OF THE HEARING

41. P&H agrees that the Application be heard in English and that the hearing be held in Ottawa, Ontario.

Dated this 3rd day of February, 2020



BORDEN LADNER GERVAIS LLP
Bay Adelaide Centre, East Tower
22 Adelaide Street West, 34th Floor
Toronto, ON M5H 4E3
Tel/Fax: 416.367.6000/6749
Attention: Robert S. Russell
Davit Akman

Lawyers for the Respondent, Parrish
& Heimbecker, Limited

TO: **DEPARTMENT OF JUSTICE CANADA**
Competition Bureau Legal Services
Place du Portage, Phase 1
50 Victoria Street, 22nd Floor
Tel: 416.954.5925
Fax: 416.973.5131
Attention: Jonathan Hood
Ellé Nekiar

Lawyers for the Applicant, The Commissioner of Competition

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SCHEDULE "A"**CONCISE STATEMENT OF ECONOMIC THEORY**

1. Grain companies, including P&H, sell many varieties of grains, including wheat and canola, to customers in Asia, South America, Europe, the United States and Canada. The grains supplied by grain companies are purchased (for their own account) from farmers across Canada through their respective networks of Elevators.
2. The grains supplied by grain companies, including P&H, to overseas customers move by rail from their Elevators to export facilities on the West Coast and in Thunder Bay for shipment by vessel.
3. The price paid by grain companies, including P&H, to farmers for their grain is determined by many non-local factors.
4. The relevant product market is the purchase of grain, either wheat or canola, which are the overlapping products purchased by the Virden and Moosomin Elevators from farmers.
5. Elevators buy grain (including wheat and canola) from farmers at a purchase price that is largely dependent on the global price of the commodity from the international market for grain. This component of the purchase price is independent of local Elevator dynamics and is unaffected by any changes to the competitive landscape around the Virden and Moosomin Elevators.
6. Further, P&H, Viterra, Cargill, Richardson, Paterson, G3 and other purchasers of grain compete to export Canadian grain to international markets, as well as to ship to domestic markets, such as Eastern Canada. Each of these firms will source grain across their respective networks of Elevators to meet their sales commitments. Therefore, each firm's demand for grain across its network is derived from the demand that it faces in the markets into which it sells. The amount of grain demanded, and bought, by

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P&H is a function of sales made to both export and domestic customers. The purchase prices that P&H pays farmers for grain are derived from the demand and prices it receives in these markets, and P&H's costs to transport grain from its network of Elevators to port terminals for export, or to domestic buyers. To meet its sales requirements, P&H (like its rivals) must source grain across numerous Elevators and across large distances. As a result, P&H centrally sets the amount that it will pay farmers across multiple Elevators for grain to meet these needs. Adjustments will be made in local Elevator pricing when insufficient grain supplies across its system are sourced to meet P&H's overall system-wide demand.

7. The relevant geographic market, as noted above, is impacted by many non-local factors which influence the price negotiated between the grain companies and the farmers. Farmers producing grain are effectively competing with other farmers to sell their grain to the grain companies. The networks owned by the grain companies allow the grain companies to compete for the purchase of grain throughout the growing regions in western Canada. As a result, a farmer in Saskatchewan is competing with a farmer in Manitoba. Similarly, a grain company purchasing grain will compete with another grain company to purchase their requirements agnostic to where the grain is purchased subject to transportation and quality differences. This creates a price discipline throughout the western Canadian growing regions.

8. Therefore, it could be argued that the relevant markets in this Application are the purchase of wheat and canola from farmers throughout the western Canadian growing region. However, for the purpose of this Application, even if it were conceded for analysis that the relevant geographic market was limited to southeastern Saskatchewan and southwestern Manitoba (the "**Geographic Market**"), P&H does not hold or exercise monopsony power in this market and the Acquisition will not result in a substantial lessening or prevention of competition.

9. In any event, the relevant geographic market – whether defined around

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the farmer or the Elevator – is much broader than the Commissioner alleges.

10. The Moosomin and Virden Elevators purchase wheat and canola from hundreds of farmers, with most of these farmers located outside the alleged “corridor” between the two Elevators. The outer bounds of the farmer locations from whom these Elevators purchase grain comprise their respective “draw areas” and cover a geographic area that extends well beyond the narrow geographic area defined by the Commissioner. The Moosomin and Virden Elevators compete with numerous rival Elevators within and beyond their individual Elevator draw areas for the purchase of grain from farmers. Rival Elevators have their own draw areas, which similarly extend well beyond the one-hour driving distance alleged by the Commissioner. Elevators are widely distributed throughout the region creating an overlapping network of Elevator draw areas. As a result, there are numerous Elevators within southeastern Saskatchewan and southwestern Manitoba competing for grain from farmers. To fulfill their requirements, the Moosomin and Virden Elevators must purchase grain at competitive prices against these many other rival Elevators. Thus, the purchase prices set by the Moosomin and Virden Elevators are influenced by rival Elevators that are located far beyond their individual draw areas. In addition to rival Elevators, the Moosomin and Virden Elevators need to purchase canola at prices that are competitive with canola crushers located in Yorkton, SK, Harrowby, MB, Altona, MB and Velva, ND, as well as other direct purchasers.

11. Farmers are price-sensitive and are willing to travel farther than the one-hour drive alleged by the Commissioner, which is already observed in the marketplace given the far-reaching draw areas of the Moosomin, Virden, and rival Elevators. With numerous rival Elevators throughout the region, farmers (including those located in the “corridor” between the Virden and Moosomin Elevators) have access to many competing Elevators to compare prices at the time of sale. Thus, the purchase prices received by farmers

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within a given local area are influenced by competition from Elevators far beyond the driving distance that any one farmer might consider (which as noted is farther than a one-hour drive). Even if the focus of analysis is limited to those farmers located between the Virden and Moosomin Elevators, the prices that they receive from those Elevators are influenced by the many alternative Elevators (and other purchasers) against which the Virden and Moosomin Elevators compete for grain.

12. There are no farmers in the draw areas of the Virden and Moosomin Elevators (including those located in the "corridor" between the two Elevators) who are "captive" to the Virden and Moosomin Elevators and Elevators do not set different purchase prices for grain from individual farmers based on their physical proximity to the Elevator.

13. Competing purchasers of wheat and canola throughout the region, including rival Elevators throughout the region and canola crushers located in Yorkton, SK, Harrowby, MB, Altona, MB and Velva, ND, would effectively constrain P&H from any attempted exercise of monopsony power. Transportation costs and capacity constraints will not limit their ability to do so. Rival Elevators and other purchasers already purchase grain from farmers from whom the Moosomin and Virden Elevators purchase, and rival purchasers have significant excess capacity to purchase additional grain from farmers at low cost.

14. Farmers within the Geographic Market (including those located in the "corridor" between the Virden and Moosomin Elevators) already sell to multiple Elevators at varying distances from their farms and are unconstrained in their ability to sell more grain to rival Elevators and other purchasers. In this regard, incremental transportation costs associated with selling to more distant Elevators and other purchasers are not economically material to farmers – constituting a very small percentage of current and reasonably anticipated wheat and canola prices – allowing farmers to easily switch purchasers and rival purchasers to influence purchase prices over a

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very large area.

15. In these circumstances, farmers located within the Geographic Market (including in the “corridor” between the Virden and Moosomin Elevators) would readily turn to rival Elevators (and other purchasers) – of which there are many – that are within easy shipping distance if P&H were to attempt to reduce its purchase price to these producers at either the Virden or the Moosomin Elevator.

16. Expansion or entry by competitors is likely to occur in a timely and sufficient manner to constrain any attempted exercise of monopsony power. Barriers to entry and expansion are low. Rival Elevators (and the canola crushers) have excess capacity and can easily expand their purchases at low cost. They could also easily add grain-purchasing capacity, as needed. Similarly, a potential entrant could build a new Elevator within both the Geographic Market and the Commissioner's alleged geographic market in less than 2 years.

17. For all of these reasons, the Acquisition will not lead to a substantial lessening or prevention of competition in the Geographic Market (including for those farmers located in the “corridor” between the Virden and Moosomin Elevators) and farmers will not be paid materially less for their wheat and canola as a result of the Acquisition.

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CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

AND IN THE MATTER OF the acquisition by Parrish & Heimbecker, Limited of certain grain elevators and related assets from Louis Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

BETWEEN:

**THE COMMISSIONER OF
COMPETITION**

Applicant

- **AND** -

PARRISH & HEIMBECKER, LIMITED

Respondent

**RESPONSE OF PARRISH &
HEIMBECKER, LIMITED**

BORDEN LADNER GERVAIS LLP
Bay Adelaide Centre, East Tower
22 Adelaide Street West, 34th Floor
Toronto, ON M5H 4E3

Robert S. Russell
Davit Akman

Tel/Fax : 416.367.6000/6749

Lawyers for the Respondent, Parrish &
Heimbecker, Limited

CT-2019-005

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Respondent

REPLY OF THE COMMISSIONER OF COMPETITION

I. OVERVIEW

1. Local competition between Elevators¹ matters when farmers sell their wheat or canola. P&H's response ignores the impact of local competition to justify its anticompetitive Acquisition. Although the price P&H pays to farmers in the Relevant Markets for their wheat and canola may be impacted by non-local factors, the Acquisition has eliminated the local competition between the Moosomin Elevator and the Virden Elevator. That elimination of competition will allow P&H to decrease the price it pays to farmers increasing the price for Grain Handling Services.
2. Contrary to P&H's assertions, prior to the Acquisition, the Virden Elevator and Moosomin Elevator competed with one another to make sales to farmers in the Relevant Markets. P&H and Louis Dreyfus's internal documents show the Moosomin Elevator and the Virden Elevator closely tracking, monitoring and reporting each others prices.
3. The importance of local competition means the inescapable effect of acquiring control of the only two elevators along a 180-km stretch of the TransCanada Highway is a likely SLC in the Relevant Markets resulting in farmers receiving less money for their wheat and canola. Moreover, any cognizable efficiencies that may be obtained through the Acquisition and that would be lost if the order sought were made will not be greater than or offset the anticompetitive effects of the Acquisition.
4. The Commissioner denies the allegations in P&H's Response, except paragraphs 5-8, 10, and 12. In addition to repeating and relying on the facts pleaded in the Application, the Commissioner makes two additional points in this Reply.

¹ Unless otherwise indicated, defined terms in this Reply have the meaning ascribed to them in the Commissioner's Notice of Application and Statement of Grounds and Material Facts (together the "Application").

II. REGARDLESS OF WHETHER THE RELEVANT PRODUCT MARKET IS GRAIN HANDLING SERVICES OR THE PURCHASE OF GRAIN FROM FARMERS THE ACQUISITION CAUSES OR IS LIKELY TO CAUSE AN SLC

5. As the Application acknowledges in paragraph 2 of the Concise Statement of Economic Theory, a component of the price paid to farmers is influenced by non-local factors such as global supply and demand, or the individual grain company's need for grain to meet its supply agreements.
6. However, another component in the price is the cost to the farmer of obtaining Grain Handling Services. Local competition between Elevators – competition to provide Grain Handling Services - impacts the price that Elevators offer farmers for their wheat and canola. P&H tracks, monitors and reports the prices offered by competing Elevators proximate to their own. Prior to completion of the Acquisition, LDC did the same; the Moosomin Elevator and the Virden Elevator, paid close attention to one another. Elevator operators offer and pay higher prices to farmers for their wheat and canola when faced with greater local competition.
7. The Acquisition has caused, or is likely to cause, an SLC in the provision of Grain Handling Services to farmers in the Relevant Markets. However, even if the relevant product market is more broadly the purchase by Elevators of wheat and canola from farmers, which is denied, the Acquisition has caused, or is likely to cause, an SLC in this product market. The ability to decrease the price of wheat and canola paid to farmers is material.

III. ANY EFFICIENCIES DO NOT OUTWEIGH OR OFFSET THE ANTICOMPETITIVE EFFECTS OF THE ACQUISITION

8. The Acquisition will not generate cognizable gains in efficiencies to the extent alleged by P&H.
9. This Application seeks the divestiture of just one Elevator leaving P&H with an additional nine Elevators as a result of the Acquisition. If the order sought is granted, it would not impact P&H's ability to achieve the alleged efficiencies being claimed.
10. In any event, any cognizable efficiencies that may be obtained through the Acquisition and that would be lost if the order sought were made will not be greater than or offset the anticompetitive effects of the Acquisition.

DATED AT Gatineau, Quebec, this 17th day of February, 2020

Matthew Boswell

Commissioner of Competition
Competition Bureau
Place du Portage, Phase I
50 Victoria Street
Gatineau, Quebec
K1A 0C9

CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

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BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

REPLY OF THE COMMISSIONER OF COMPETITION

Attorney General of Canada
Department of Justice Canada
Competition Bureau Legal Services
50 Victoria Street
Gatineau, QC K1A 0C9
Fax: (819) 953-9267

Jonathan Hood
Tel: (416) 954-5925
Jonathan.Hood@canada.ca

Ellé Nekiari
Tel: (819) 994-4050
Elle.nekiari@canada.ca

**Counsel to the Commissioner of
Competition**

CT-2019-005

THE COMPETITION TRIBUNAL

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BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

**WITNESS STATEMENT OF
JOHN HEIMBECKER**

I, John Heimbecker, of the City of Winnipeg in the Province of Manitoba state as follows:

1. I am the Chief Executive Officer and President Grain Division Canada of Parrish & Heimbecker, Limited ("**P&H**"). I have been at P&H and in the grain business for my entire professional career, starting in May 1987. I was named CEO in September 2019 and have held the position of President Grain Division Canada since April 2017. As President Grain Division Canada, I am in charge of P&H's grain business for all of Canada. I am also on the Board of Directors of P&H and have been a member since 1998. In my more than 30 years with P&H, I have held various other positions, including Executive Vice President (between April 2017 and August 2019), Vice President (between 1999 and March 2017), Senior Merchant in P&H's Toronto Office, Assistant General Manager of P&H's Owen Sound Terminal and Truck Coordinator for Ontario.
2. I have personal knowledge of the matters in this Witness Statement, except where I have otherwise indicated that I am relying on information from others, in which case I believe such information to be true.
3. I make this witness statement in response to the Application by the Commissioner of Competition (the "**Commissioner**") against P&H relating to P&H's acquisition of the primary grain elevator ("**Elevator**") in Virden, Manitoba (the "**Virden Elevator**"), formerly owned by Louis Dreyfus Company Canada ULC ("**LDC**").
4. I understand that the Commissioner's Application against P&H focuses on Red Winter Spring wheat ("**CWRS**") and canola because that is the type of grain that was purchased at the Virden Elevator when it was owned by LDC.

P&H

5. P&H is a private, family-owned Canadian agribusiness founded in 1909 and headquartered in Winnipeg, Manitoba.

6. P&H operates in the grain business by buying grain from farms (for its own account) throughout the crop year (i.e., from August 1st to July 31st of the following year) and selling grain to its customers. In Western Canada, P&H buys wheat and canola from farms through its network of 29 Elevators, including its Elevator in Moosomin, Saskatchewan (the “**Moosomin Elevator**”) and the ten Elevators purchased from LDC in December 2019, including the Virden Elevator.
7. P&H’s grain business sells many varieties of grains, including wheat and canola, to customers in Asia, South America, Europe and Canada. [REDACTED]
8. Domestically, P&H’s Milling Group is also a significant buyer of Western wheat. The Milling Group sources Canadian wheat to produce flour and cereal products, including hard red spring wheat flour for breads and other bakery products, soft winter wheat flour for cakes and cookies, as well as semolina flour for pasta and organic flour. [REDACTED]
9. Wheat and canola sold by P&H to its overseas customers move by rail from our Elevators in Western Canada to our export facilities located on the West Coast and in Thunder Bay for export. [REDACTED]
Wheat supplied to the Milling Group moves by rail or truck from P&H’s Elevators to our mills in both Western and Eastern Canada. P&H buys and sells many varieties of wheat.
10. P&H’s overseas end-use customers (“**Export Grain Customers**”) [REDACTED] while the Milling Group [REDACTED] (collectively, with Export Grain Customers and the Milling Group will be referred to as “**P&H’s Grain Customers**” or “**Grain Customers**”).

ELEVATORS

11. P &H's 29 Elevators are the entry points into its grain network in Western Canada. The storage capacity of those Elevators ranges from 22,000 MT at the Glossop Elevator (in Glossop MB) to 106,000 MT at the Weyburn Elevator (in Weyburn SK), and their annual average throughput ranges from [REDACTED]
12. I n addition to purchasing grain from farms, Elevator staff are responsible for pulling samples from the farms' trucks with a probe, assessing for dockage as needed and grading the grain, unloading the trucks delivering the grain, elevating the grain to the appropriate storage bins, storing the grain and keeping it in condition, blending grain as appropriate, assisting with weighover (i.e., inventory counts), drying grain as needed, preparing cash settlements for farms and loading grain into railcars for shipment to a port terminal or a P&H mill.
13. E levators have "rail car spots", that is the number of railcars they can accommodate for loading on a side-track (or siding) off the main track line. Certain P&H Elevators, including the Virden Elevator, have a 112 car spot, while others, including the Moosomin Elevator, have a 56 car spot. [REDACTED] (assuming no switching or yard congestion issues).
14. P &H's rail car requirements and traffic plans are shared with the railways months in advance in an attempt to assure that there is an orderly flow of grain from the Elevators to the port terminals. [REDACTED] Railway car supply performance can complicate both Elevator and port terminal planning when cars are not available to move grain that are required to meet sales commitments by P&H to its Grain Customers. There are two major (Class 1) railways in Canada – Canadian National ("CN") and Canadian Pacific ("CP") – which operate 75% of the industry's rail tracks.

15. P &H aims to “turn” (i.e., fill and empty) the storage capacity of its Western Canadian Elevators as many times as possible each year. Doing so allows P&H to maximize revenues to cover its fixed costs of operation. A turn rate is calculated as the purchases of grain by an Elevator in a given period divided by the storage capacity (in metric tonnes (“MT”)). For instance, an Elevator with a storage capacity of 20,000 MT, which ships 120,000 MT of grain in a year has a turn rate of 6.0 for that year (120,000 MT / 20,000 MT = 6.0x).
16. T he Moosomin Elevator has 26,000 MT of storage and has had annual throughput capacity [REDACTED]. The Virden Elevator has 46,000 MT of storage and has had annual throughput capacity [REDACTED]. Attached to my Witness Statement at **Exhibit “1”** are images of the Virden and Moosomin Elevators.

EXPORT TERMINALS

17. T he vast majority of grain (including wheat and canola) exported by P&H moves through its export terminals located on the West Coast and in Thunder Bay. [REDACTED] (as noted above, sales by P&H to its Export Grain Customers are made this far in advance). Vessels are booked months in advance of their overseas trips. Travel time from Vancouver to Asia is the range of 35 to 45 days.
18. T he export terminals are used to receive grain from rail; to grade, segregate and store grains by type and quality attribute; to clean grain when required; and to blend and load grain onto vessels.
19. A s with other commodities, wheat and canola of the same grade that is received by rail from our different Elevators across Western Canada is comingled at the terminals and vessels are ultimately loaded from this comingled inventory in order to satisfy P&H’s sales commitments to its Export Grain Customers.

20. The cleaning of wheat and canola (and of other grains purchased by P&H) occurs principally at P&H's export terminals (and not at its Elevators) because there are greater economies of scale available at the export terminals. Typically, we need [REDACTED] at the terminal to clean the received grain before it is loaded onto a vessel. Similarly, blending of grain commonly occurs at the export terminals. [REDACTED]
21. P&H has an interest, together with North West Terminal and Paterson Grain Limited ("**Paterson**"), in the Alliance Grain Terminal ("**AGT**"), an export terminal located on the South Shore of Burrard Inlet in the Port of Vancouver with two deep water loading berths and an upgraded shiploader that was installed in 2018. P&H exports wheat, barley, canola and soybeans through AGT and has grain cleaning and blending capacity at the terminal. AGT has an 80 rail-car rail spot as well as storage capacity of 102,000 MT and an average annual throughput capacity of [REDACTED]. Attached as **Exhibit "2"** to my Witness Statement is a map showing the port terminals in the Port of Vancouver.
22. In partnership with DP World, P&H also operates a standing grain berth and storage facility at the Fraser Surrey Docks in the Greater Vancouver area. P&H exports canola meal pellets, wheat, barley, peas, alfalfa and lentils from this facility. The Fraser Surrey Docks has [REDACTED] and an average annual throughput capacity of [REDACTED].
23. As discussed more fully below, in partnership with GrainsConnect Canada ("**GrainsConnect**"), P&H has also invested [REDACTED] in the construction of a new export terminal on the Fraser River in Surrey, British Columbia (the "**Fraser**

Grain Terminal) to compete more effectively with the leading grain companies in Canada, each of which owns its own export terminals. P&H will use the Fraser Grain Terminal to export wheat, barley, canola, soybeans, peas, flax and lentils.

24. The Fraser Grain Terminal will be connected to the Fraser Surrey Docks. The vessel loading system currently at the Fraser Surrey Docks will be replaced by a three tower state-of-the-art shiploader. Storage capacity will be 92,000 MT, and there will be cleaning and blending capacity as well as a semi-loop rail track with holding capacity of over 300 railcars.

25. The Fraser Grain Terminal is currently able to accept grain and is projected to be fully operational [REDACTED]. The new terminal will have annual throughput capacity of [REDACTED]. Under the terms of our joint venture agreement with GrainsConnect, [REDACTED]

26. P&H also has an interest, together with Cargill Limited ("**Cargill**"), in the Superior Terminal in the Port of Thunder Bay on Lake Superior. P&H exports wheat, canola, lentils, malt barley and soybeans through the Superior Terminal and has blending and cleaning capacity at the facility. The Superior Terminal has a 100-railcar spot as well as storage capacity of 176,020 MT of grain and annual throughput capacity of [REDACTED]

P&H MARKET POSITION

27. Based on data from the Canadian Grain Commission ("**CGC**") (a copy of which is attached to my Witness Statement as **Exhibit "3"**) and P&H's internal estimates, the tables below summarize P&H's storage capacity and "annual primary handle" – and therefore market share – compared to other industry players prior to the Transaction. Primary storage capacity refers to the Elevator storage capacity as licensed by the CGC, where the principal use of the Elevator is the receiving of

grain from farms for storage or forwarding or both. Annual primary handle refers to the total amount of grain received from farms at Elevators for storage or forwarding or both in a 12-month period.

[REDACTED]

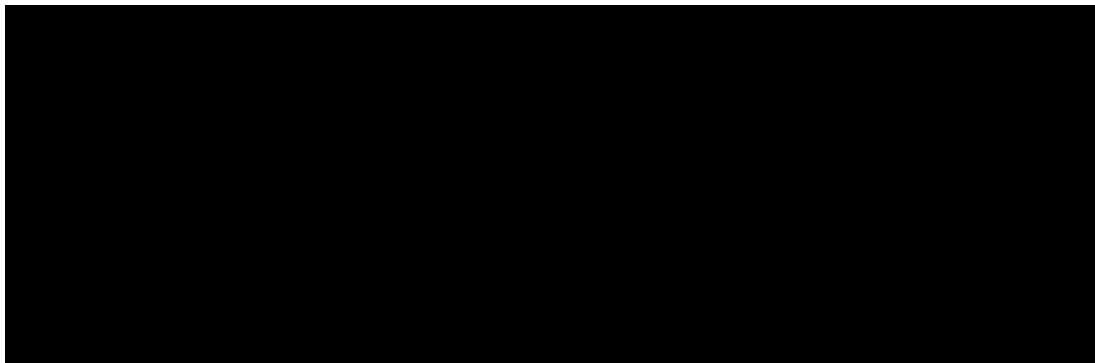
28. Based on data from the CGC (a copy of which is attached to my Witness Statement as **Exhibit “3”**) and P&H’s internal estimates, prior to the Transaction,

[REDACTED]

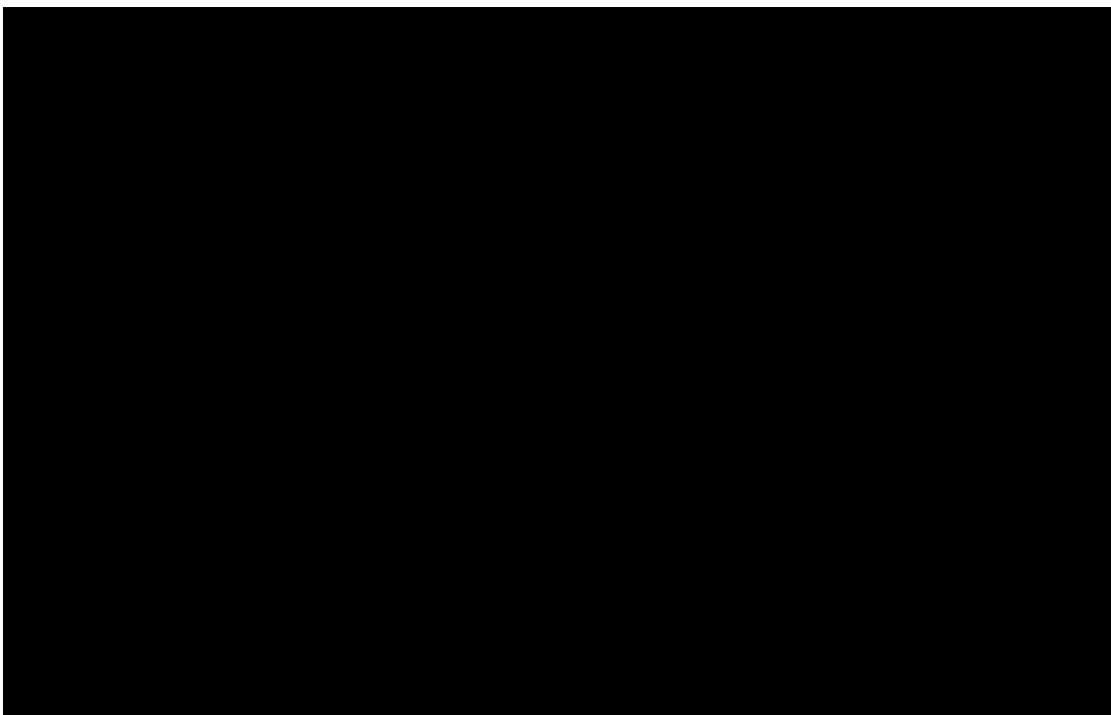
[REDACTED]

¹ Includes 5 assets under construction in Alberta.

² Includes 5 assets under construction in Alberta.



29. Based on the publicly available information (see **Exhibit “4”** to my Witness Statement) and P&H's internal estimates, once the Fraser Grain Terminal and the G3 terminals (referred to above) are fully operational, west coast capacity shares will look like this:



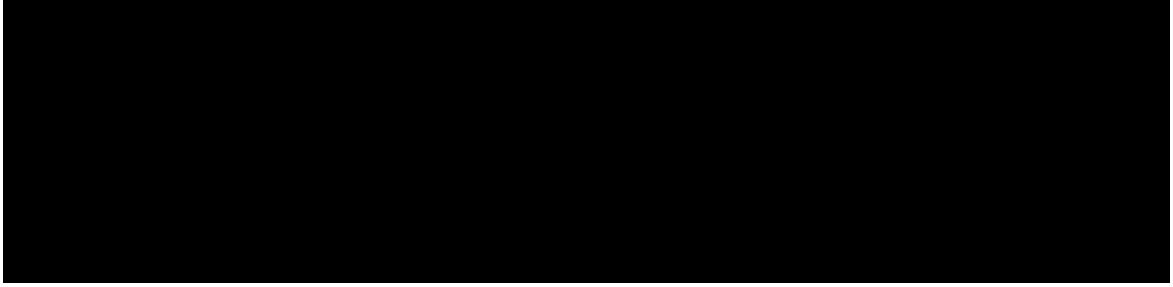
P&H's



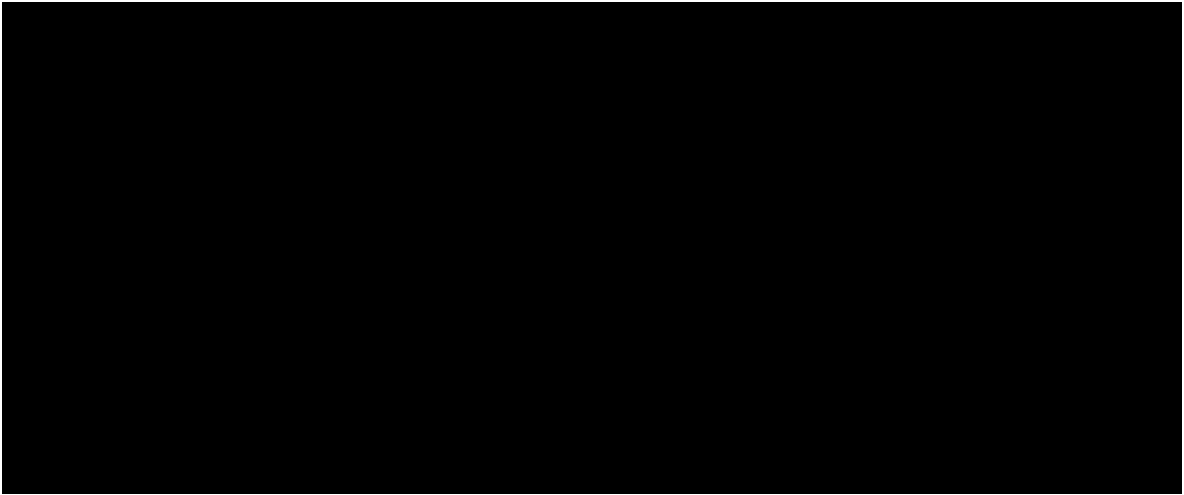
30.



31.



32.



33. or example, in the last fiscal year before the Transaction (i.e., 2018-2019), for Western Canada



34.



THE TRANSACTION

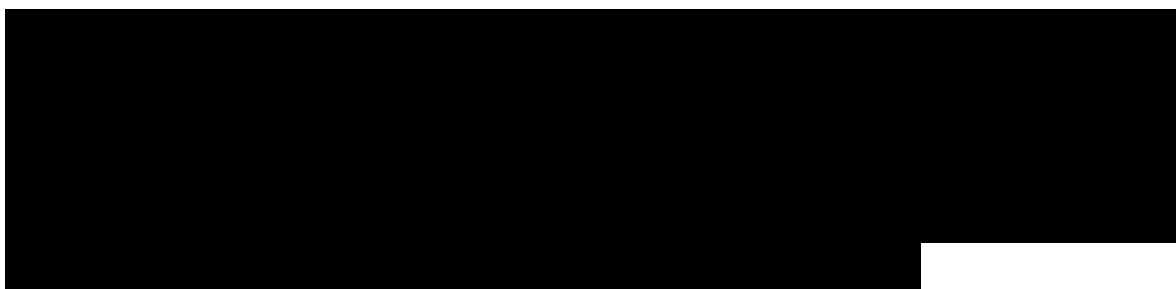
35. Pursuant to an Asset Purchase Agreement dated September 3, 2019, P&H agreed to acquire ten Elevators (and related assets) in Western Canada from Louis Dreyfus (the “**Transaction**”).

36. On December 10, 2019, after P&H and Louis Dreyfus had worked diligently for more than three months with the Commissioner to assist him in his review of the Transaction, P&H and Louis Dreyfus closed the Transaction in respect of the ten Louis Dreyfus Elevators, including the Virden Elevator.

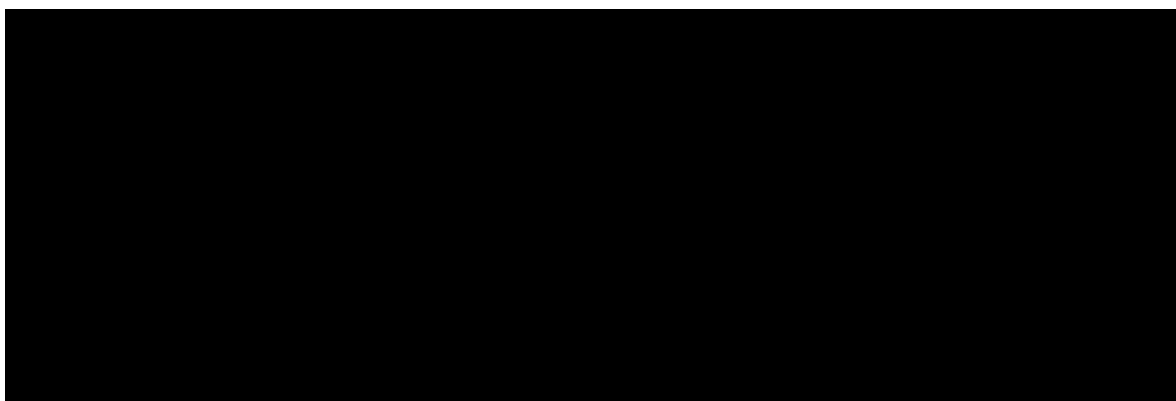
37. The Commissioner's Application relates only to P&H's acquisition of the Virden Elevator (the "**Acquisition**").

RATIONALES FOR AND OBJECTIVES OF THE TRANSACTION

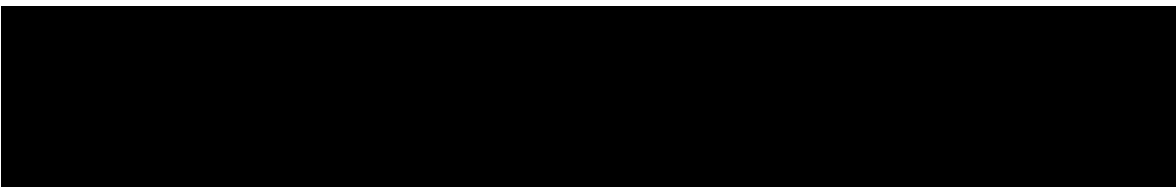
38.



39.



40.



A. INCREASED EFFICENCY AND EFFECTIVENESS AS A COMPETITOR

I.M

[REDACTED]

41.

[REDACTED]

42.

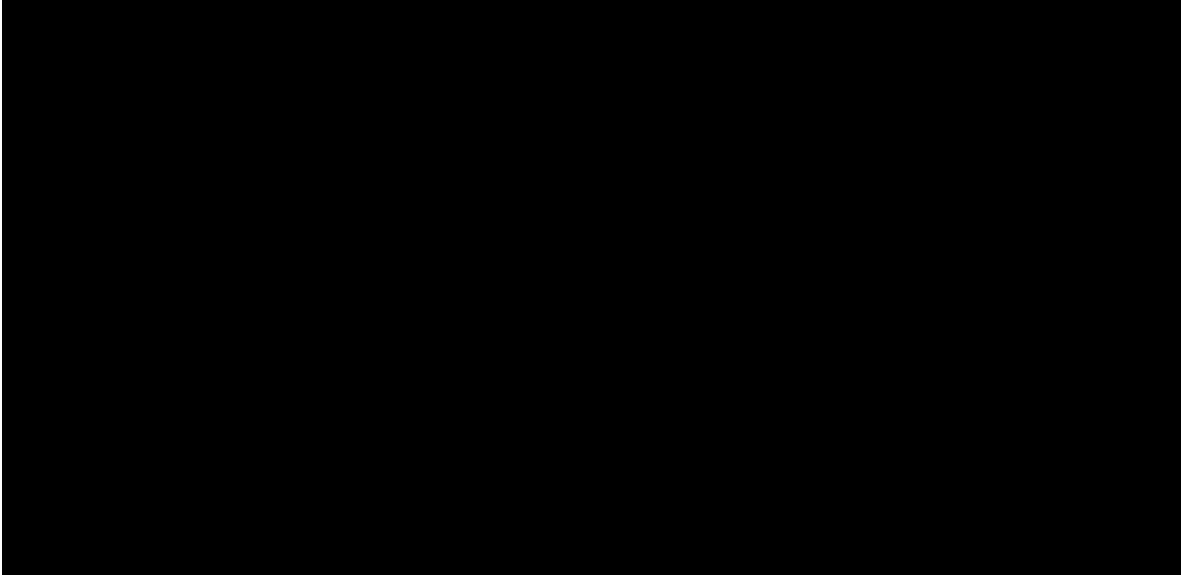
[REDACTED]

43. Elevators have a natural “freight logical” terminal.

[REDACTED]

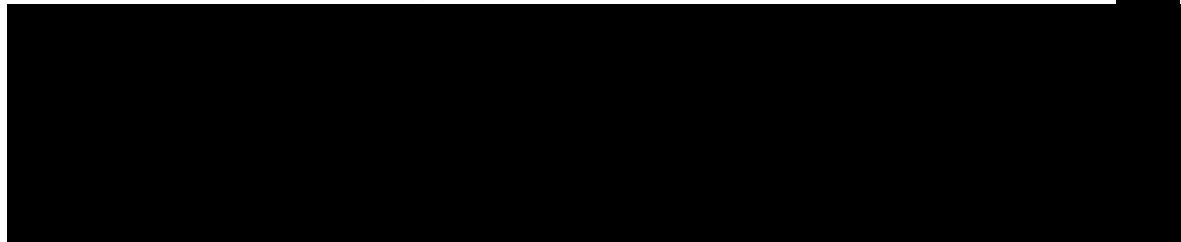


44.



II. INCREASING THROUGHPUT AT THE FORMER LDC ELEVATORS (INCLUDING VIRDEN)

45. P&H's Elevators have a higher turn rate than the former LDC Elevators.



46. The higher turn rate at P&H relative to LDC is due to P&H's superior port access and port storage, P&H's larger grain network and the fact that P&H purchases a larger variety of grains than LDC did. On the first point, P&H had superior terminal access on both the West Coast and Thunder Bay compared to LDC. LDC had limited or no terminal access in Thunder Bay and did not export from that terminal. On the second point, P&H had more Elevators across Western Canada (19 Elevators pre-Transaction) compared to LDC (with just 10 Elevators), allowing P&H to source more grain for export. Finally, LDC purchased only canola and

wheat, whereas P&H Elevators buy all grains, including feed wheat, barley and oats.

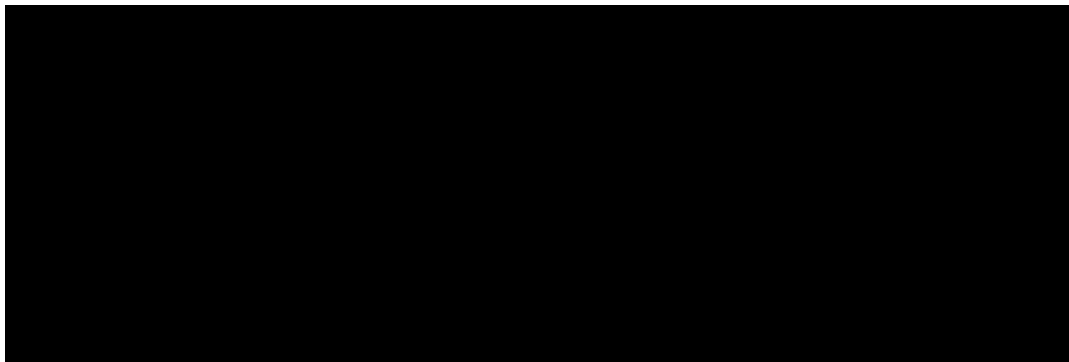
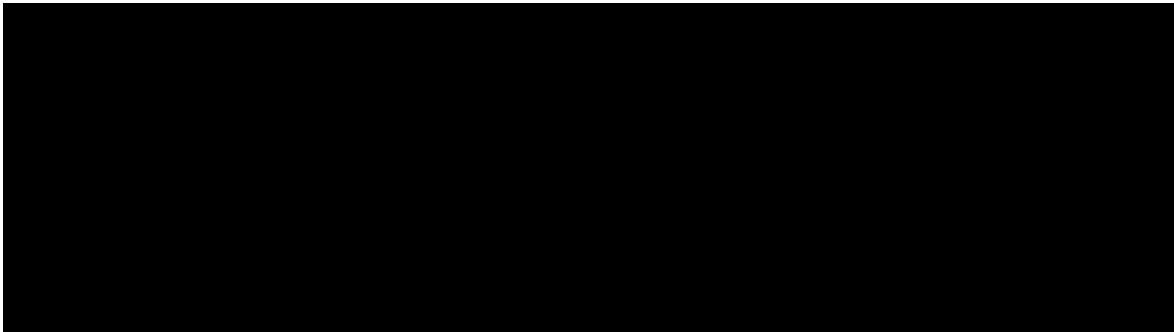
47. Additionally, P&H's AGT facility has significantly more storage and can move grain onto boats at faster speeds than the Kinder Morgan ("**KM**") Vancouver Wharves facility through which LDC used to export wheat and canola on the West Coast. For example, I am advised by Casey McCawley, P&H's VP West Coast Operations (who has managed P&H's use of the KM facility pending the opening of the Fraser Grain Terminal) that the KM facility has total storage of just 30,000 MT (which is half the 60,000 MT storage capacity of the Panamax cargo vessels typically used to ship grain overseas from Vancouver) compared to the storage capacity of 103,000 MT at AGT. [REDACTED]


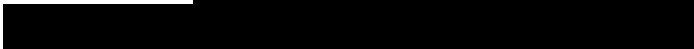

48. [REDACTED]

49. When fully operational in February of next year, the Fraser Grain Terminal (with its 92,000 MT of storage capacity, [REDACTED] [REDACTED] will further enhance P&H's ability to increase our Elevator turn rates. Another advantage of the Fraser Grain Terminal is that it bypasses congested rail corridors on the West Coast. Also, because it is located on Vancouver's South Shore, the Fraser Grain Terminal also bypasses the congested single rail bridge to the North Shore (where KM, Richardson, Neptune, G3, Cargill and Fibreco terminals are all located) that is at capacity. P&H anticipates that railcar cycle times to the Fraser Grain Terminal will be [REDACTED]

50. In light of all of the foregoing, P&H will increase turn rates and throughput at the LDC Elevators, including the Virden Elevator (which will ship to Thunder Bay where, as noted above, LDC did not have any terminal access), to bring these in line with the current turn rates at other P&H Elevators. Specifically, as reflected in **Exhibit "6"** (and as set out below), in FY2020-2021, P&H is forecasting an increase in the 12-month turn rate for the ten LDC Elevators

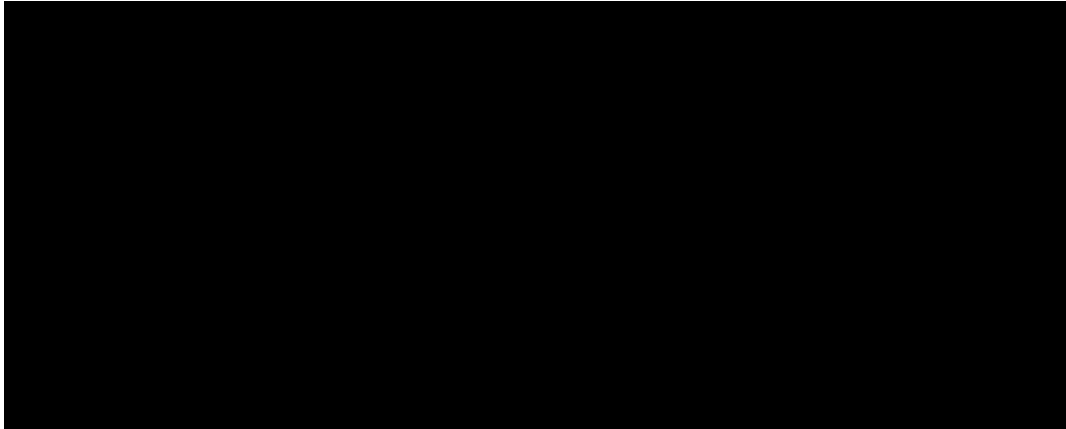
51. Although a full year of post-Transaction data is not yet available, the current data shows an increase in throughput consistent with P&H's expectations. As set out in the table below (which is based on P&H data attached as **Exhibit "7"** to my Witness Statement),



52. Our internal forecasts reflect the expected increase in the throughput at Virden. As shown below (and in the documents attached to my Witness Statement at **Exhibit “7”**) 
 As I described earlier, we budget on a fiscal year basis ending April 30th of each year such that our current budget runs through April 2021. 

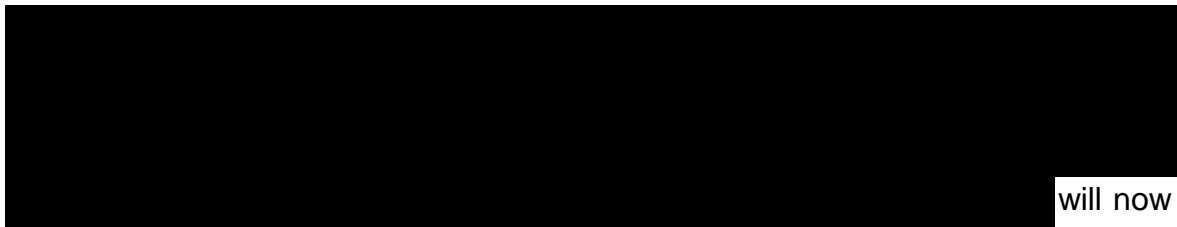
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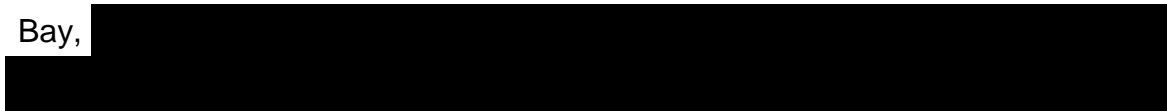
III. INCREASING NETWORK EFFICIENCY

53.



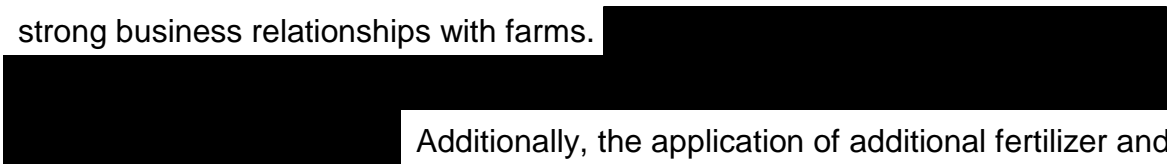
allow P&H to increase the efficiency of its network.

54. More particularly, with the addition of the Virden and Rathwell Elevators as part of the Transaction, both of which are closer, and will ship grain to the east, to Thunder Bay,



B. CROP INPUTS EXPANSION

55. The Transaction allows P&H to compete more effectively with rival grain companies, including Richardson, and others in the CI business by converting the LDC Elevators, which were pure grain facilities, into dual, CI retail/grain facilities. P&H's business model of a "one-stop shop" location for farms helps drive P&H's strong business relationships with farms.



Additionally, the application of additional fertilizer and crop protection is expected to increase grain production in the Virden area, which is expected to increase Canadian exports.

56.

[REDACTED]

The former LDC Elevators, including Virden, do not currently offer CI.

57.

We estimate that it will cost [REDACTED] to convert each of the LDC locations to a combined grain/CI facility.⁴

58.

Based on our experience, [REDACTED]

5

59.

[REDACTED]
[REDACTED]
[REDACTED]. Instead, based on our experience, I believe that there will be an increase in CI sales made within the area. As grain yields continue to improve, farms may use more fertilizer and apply more crop protection products to support higher priced and better yielding seed varieties.

[REDACTED]

PRICE OF WHEAT AND CANOLA

60. P &H buys wheat or canola at our Elevators paying farms a “flat” or “net” or “bid” price for their grain. I use the term “flat” price to describe what we pay and a farm receives. Different terms are used in this proceeding, however, so I will adopt the terminology used by the Commissioner to avoid being confusing. This means I will refer to the flat price paid by Elevators to farms as the “cash price” since this is the cash received by a farm for the net quantity delivered and sold to one of our Elevators. The net quantity refers to the quantity assessed for payment after the amount of any dockage⁶ that may be in the grain delivered by the farm is assessed.

61. P &H’s cash prices for grain (including for wheat and canola) are posted for each of our Elevators. We provide farms with our cash prices daily. The Moosomin Elevator sends daily prices to any farm that has provided us with an email address or mobile number. Examples of those emails are attached to my Witness Statement as **Exhibit “9”**. I am advised by Andy Klippenstein (who was the General Manager of the Virden Elevator when it was owned by LDC and who remains in that role under P&H ownership) that LDC did not send out daily pricing emails and instead communicated its cash prices through its mobile application “MyLDC” and via text message (sent out a minimum weekly). Since August 1, 2019, P&H has also had a mobile App – P&H Direct – which farms can use to see the cash prices at each of our Elevators across western Canada, including the Virden and Moosomin Elevators. On our App, P&H shows the cash price as the “bid”. Screenshots from the mobile application are attached to my Witness Statement as **Exhibit “10”**.

⁶ Dockage is defined in the *Canada Grain Act* as “any material intermixed with a parcel of grain, other than kernels of grain of a standard of quality fixed by or under this Act for a grade of that grain, that must and can be separated from the parcel of grain before that grade can be assigned to the grain” (see **Exhibit “8”** to my Witness Statement).

62. The cash price received by the farm is a function of the quality of the grain and the delivery month or “delivery period”, as it is commonly referred to. For example, “1CWRS 13.5” is “grade 1” Canadian Western Red Spring Wheat with a protein of 13.5. Similarly, “1CAN CANOLA” is No.1 Canada Canola, the most common grade for harvested canola. As discussed below, P&H (and other grain companies) use 1CWRS and 1CAN CANOLA as its base grades for wheat and canola, respectively.
63. **Exhibit “10”** to my Witness Statement includes a screenshot from P&H Direct on the afternoon of October 5, 2020, showing the bid/cash prices we were offering to pay farms at the Moosomin Elevator to buy 1CWRS 13.5 at 4:57 pm ET that day, with the prices indicated for various delivery months between October 2020 and September 2021. For example, if a farm sold 1CWRS 13.5 to P&H on October 5th for delivery to Moosomin within the month of October, we would have paid a cash price (or bid) of \$6.03 per bushel (“**bu**”). If the farm wished to enter into a contract with P&H on October 5th to deliver the same wheat to Moosomin in March 2021, we would have paid a cash price (or bid) of \$6.20 per bushel. We use different cash prices for different delivery months to manage our inventories at our Elevators. Offering a higher cash price for a future delivery month signals farms that they would be paid more by P&H if they deliver later.
64. To meet our sales commitments to our Grain Customers, we buy grain across our entire network of Elevators. We manage these purchases centrally, setting our cash prices across all our Elevators centrally.
65. The world futures prices for wheat and canola are determinative of P&H's prices for those commodities. As a result, P&H's cash prices are “live” and change instantaneously (on the monitors in P&H's Elevators and on P&H Direct) with movements in the futures prices and/or exchange rate when the futures markets

are open.⁷ For wheat traded in Western Canada, P&H uses the Minneapolis Hard Red Spring wheat futures contract price (traded in USD per MT on the Minneapolis Grain Exchange (“MGEX”). For canola, P&H uses the Intercontinental Exchange (“ICE”) price for canola in Saskatchewan in CAD/MT.

66.

[REDACTED] We set our cash prices at our Elevators using our “Workback Algorithm”. P&H’s grain merchants who sell our grain to our Grain Customers are also responsible for setting our purchase prices at our Elevators across Western Canada. The analysis undertaken by them to set our cash prices can be illustrated using the following simplified example involving the Virden Elevator. [REDACTED]

[REDACTED] The resulting amount is the cash price P&H will pay to farms at the Virden Elevator for 1CWRS 13.5 (in this case \$257.20 (\$248.67 - \$68 = \$257.20)).

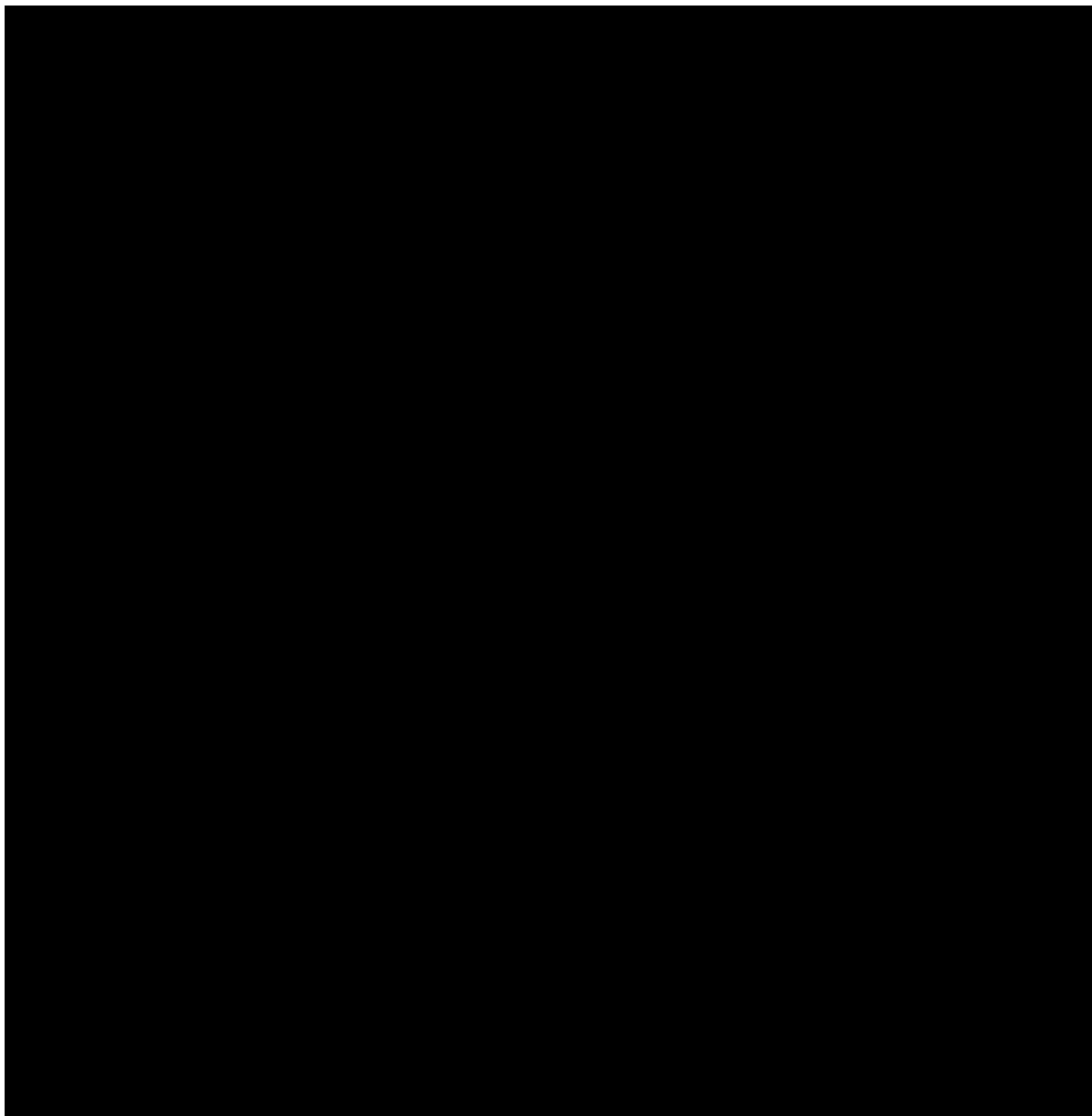
⁷ This means that the cash price remains fixed from close of the market until the next open of the market. The canola futures market closes at 1:15pm CST while the wheat futures market closes at 1:30pm (Minneapolis) and 1:20pm (CBOT). All other markets are open 24/7.

67. P&H sets the cash prices at each of its Elevators across its Western network daily. The Workback Algorithm is run for each Elevator and for each commodity, for each delivery month over the next 8 to 12 months (including the current month) in which P&H has sales commitments to its Grain Customers. As a result, each Elevator will post the cash prices it will pay if the farm enters into a contract with the Elevator today for delivery of the commodity in question within the current month or in any of the specified future months.

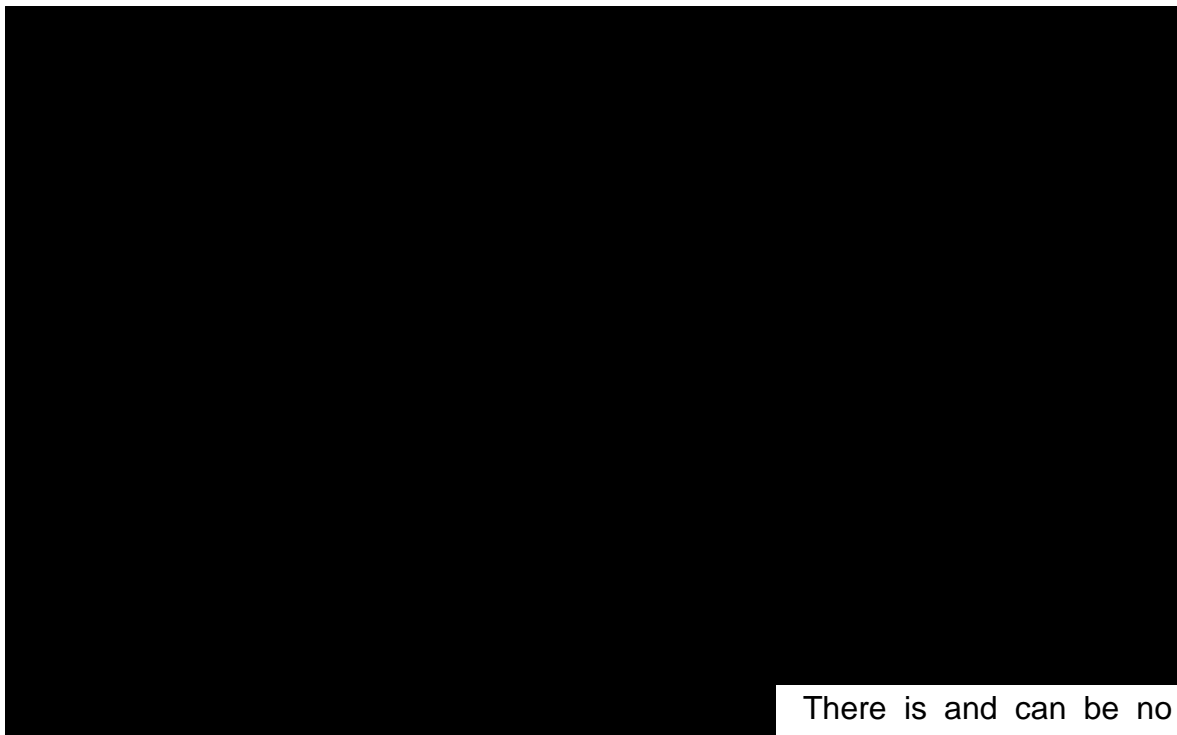
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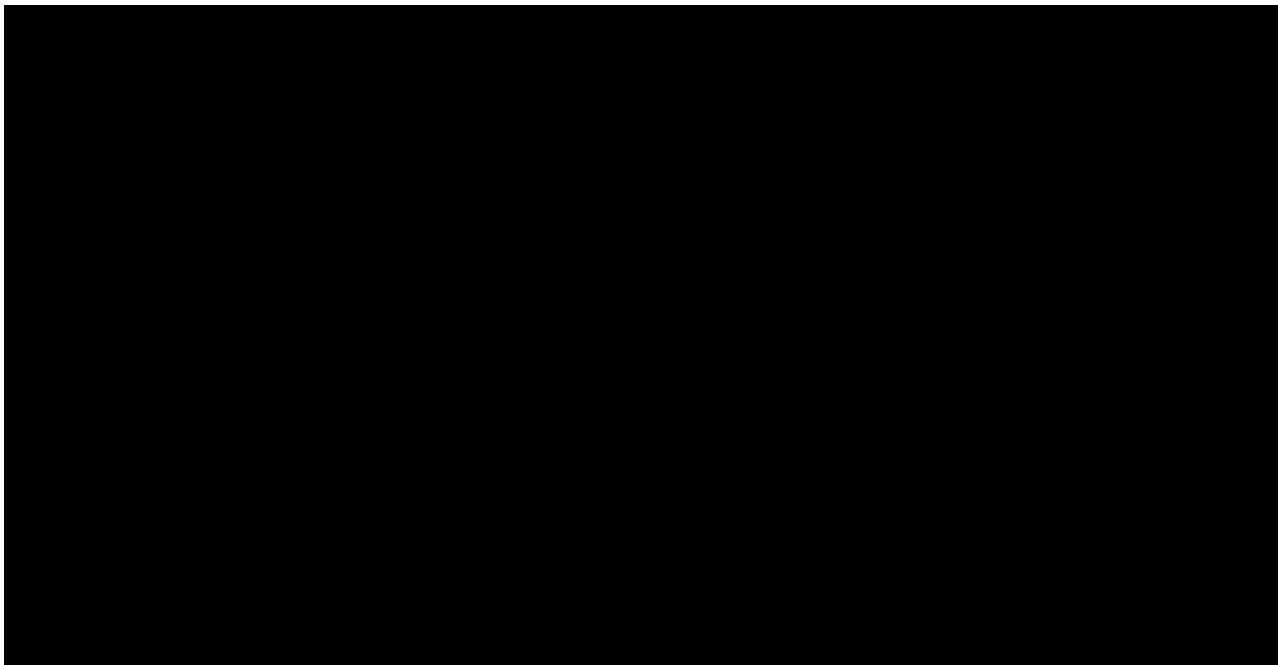


There is and can be no discrimination with respect to these inputs based on Elevator location or costs.

72.



P&H does not "charge"



farms these costs through the target margin (or the “basis”, which I discuss below).

73.



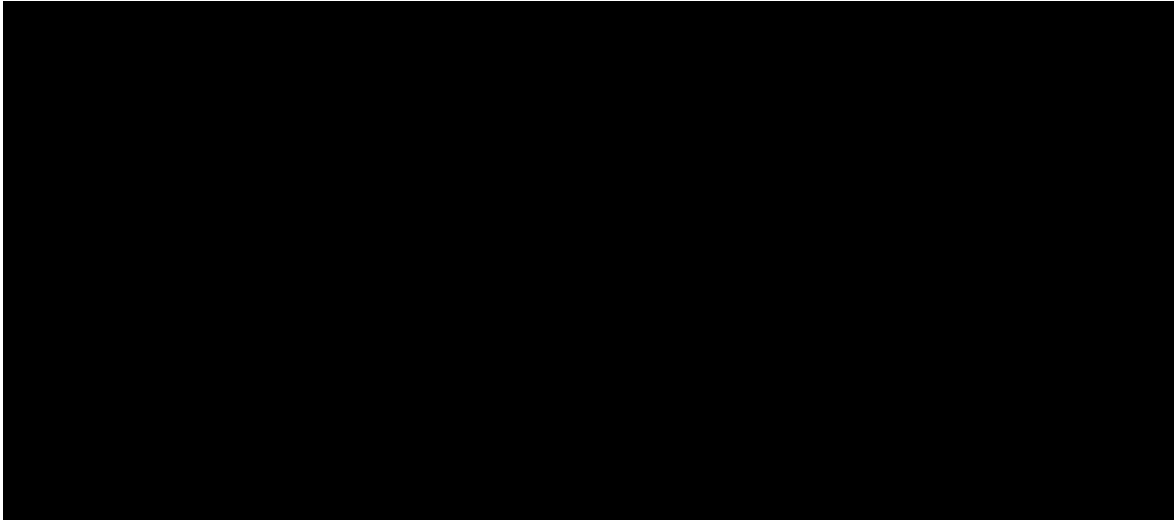
74. In some cases (including on the monitors in its Elevators, emails sent daily to farms and on P&H Direct), when it communicates cash prices, P&H also posts what is referred to as the “basis”. Basis is simply the difference between the cash price offered by P&H to the farm and the futures price in the delivery period specified in the sales contract between P&H and its Grain Customer (i.e., basis = cash price *minus* futures price). As noted above, the Minneapolis Hard Red Spring wheat futures contract price (traded in USD per MT on the MGEX) is used for wheat and for canola P&H uses the ICE price for canola in Saskatchewan in CAD/MT.¹⁰
75. By way of illustration, the screenshot from the P&H Direct App at **Exhibit “10”** to my Witness Statement show the cash prices on October 5, 2020 to purchase 1CWRS 13.5 at Moosomin for each month from October 2020 through September

¹⁰ P&H uses a variety of commodity series in the Workback Algorithm. For example, for deliveries in crop year 2018-2019, P&H used RSN18, RSX18, RSF19, RSH19, RSK19, RSN19, RSX19, RSF20, RSH20 and RSK20 for canola and MWU18, MWZ18, MWH19, MWK19, MWN19, MWU19, MWZ19, MWH20, MWK20, and MWN20 for wheat.

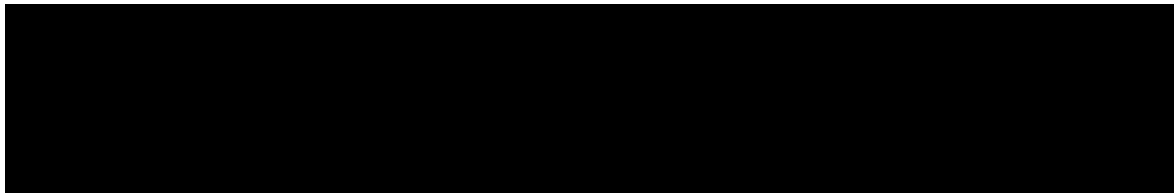
2021 (inclusive). As noted above, the “cash price” is referred to as the “bid” on P&H’s mobile application. As shown on **Exhibit “10”**, if a farm had contracted with P&H on October 5, 2020, to deliver 1CWRS 13.5 to Moosomin in October 2020, P&H would have paid the farm the cash price (or bid) of \$6.03 CAD/bu, reflecting a US futures price (based on MGEX October wheat futures of \$5.3550 USD/bu and a basis of 0.67 (= 6.03 – 5.36).

76. Notably, [REDACTED] shown in **Exhibit “10”**, both the cash price and the basis may vary by delivery period as a result of changes in futures prices. For example, in March 2021, the cash price is 6.20 CAD/bu (up from \$6.03 CAD/bu in October 2020) and the basis is 0.71 (up from 0.67 in October 2020). This is because [REDACTED] the MGEX wheat futures underlying the March 2021 cash price (or bid) is \$5.49/bu, up from the MGEX wheat futures of \$5.36/bu underlying the October 2020 cash price (or bid).
77. The pricing differential that is observed daily is not based on the location of the Elevators but rather on the time of day the contract is concluded and the delivery month. The availability and functioning of futures markets and deferred delivery periods explains why, on any given day, an Elevator may contract to pay different prices for precisely the same quantity and quality of wheat or canola. Based on futures price in the current month, an Elevator may contract to pay a cash price of \$9.10/bu for canola delivered sometime over the next week. On the same day, that same Elevator may contract (based on the futures price in four months) to pay \$9.98/MT for delivery in four months – representing a \$0.68/bu differential. [REDACTED]

78.

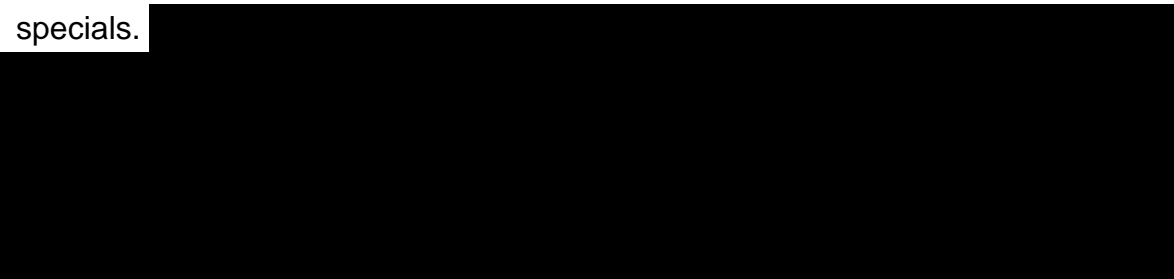


79.



POSTED SPECIALS

80. When P&H needs to fill remaining space in a train waiting at an Elevator or in a vessel berthed at one of its port terminals or otherwise has insufficient grain supplies across its network to meet sales commitments to its Grain Customers, our merchants may make adjustments to the cash prices at one (in the waiting train scenario) or more (in the other two scenarios) of our Elevators by paying a premium above the posted cash price to encourage farms to sell and quickly deliver their grain to us. These are referred to as “limited tonne” and “limited time” specials.



81. In my experience, other grain companies also offer “special” or “premium” cash prices in the circumstances described above. The fact that grain companies may urgently require grain at different times from one another explains why one often

sees widely divergent posted cash prices at Elevators in close proximity to one another.

82. When P&H has a special, the CSRs for the participating Elevators will send out an email or text message to all farms in the area who have previously consented to receiving texts or emails from P&H, letting them know that the Elevators are looking to purchase wheat or canola meeting certain specifications at a cash price above the posted cash price and are taking delivery until a specified date. CSRs may also call those farms who they know have wheat or canola in their storage bins that meets P&H requirements to see if they are interested in selling at the special price.
83. Limited tonne and limited time specials are always posted for the Elevator(s) running the special, communicated via email or text blast to all farms for which the participating Elevators have contact information and, since August 1, 2019, via notification to all farms with the P&H mobile application who have activated the notification function and have an account at the Elevator running the special. An example of a push notification sent by the Virden Elevator is set out below.
84. Across its network, on average, P&H will offer a special at one or more of its Elevators roughly once a week and, over the course of a year, an individual Elevator may offer such specials roughly a dozen times.
85. [REDACTED] farms may have one-on-one negotiations with P&H for higher cash prices. I am advised by Darren Amerongen, P&H's Director of Merchandising (who is in charge of our Western merchants), Trevor Letkeman (our Western wheat merchant) and Kris Grant (our Western canola merchant) that [REDACTED]

[REDACTED] of P&H's grain purchase transactions are at posted cash prices (including limited time and limited tonne specials) which are publicly communicated via the monitors in the Elevators, text and email blast and the P&H mobile application. Any individually negotiated cash price must be approved by the appropriate grain merchant before it can offered or agreed to by an Elevator. [REDACTED]

[REDACTED]

GRAIN PURCHASE CONTRACTS WITH FARMS

86. P &H uses three different types of contracts for purchasing wheat and canola from farms – fixed price contracts, grain pricing order agreements and basis contracts.
87. T o my knowledge, P&H's fixed price contracts are similar to those used by other grain companies. Under this type of contract, the posted cash price (which, as noted above, appears on P&H contracts as the "net price") to be paid by P&H to the farm (and, hence, each of the futures price and the basis which comprise the cash price) is fixed when the contract is executed and the farm agrees to deliver the specified quality and quantity of wheat or canola during an agreed delivery period. An example of a P&H fixed price contract is attached to my Witness Statement as **Exhibit "12"**.
88. F ixed price contracts are used for both forward or deferred delivery purchase transactions and spot purchase transactions. Spot refers to immediate or "nearby" delivery, typically for some time between "right now" up to a day or two.
89. I n my experience, it is very unusual for farms to make spot sales – to drive up with a truck full of wheat or canola and just take the posted cash price at that time of day. As discussed below, farms are always looking to get the highest price they can for their grain and they will use deferred delivery fixed price contracts, grain pricing orders and basis contracts for that purpose. Spot sales are normally

confined to situations where a farm has a contract with an Elevator to deliver a certain number of bushels and has a few extra bushels in one or more of their grain storage bins that they want to sell so those bins are fully cleaned out or where the farm arrives to deliver its contracted bushels but finds it has a few additional bushels in the truck. In these situations, the farm will sell those extra bushels (which are referred to as “overage”) on the “spot”, at the posted cash price in effect at that time.

90. More commonly, farms will enter into forward or deferred delivery contracts to deliver a specified quantity and quality of grain to an Elevator for an agreed cash price within a prescribed delivery window in the future. Forward or deferred delivery refers to some point in the future, beyond “spot”. Because of the availability and functioning of futures markets, farms can sell and set cash prices at any time in the crop year – for delivery at just about any time in the future. Many farms will sell a portion of their crop even before its harvested (forward selling) – specifying a delivery period at or just after the expected harvest-time. They will then sell and deliver the balance of their crop at different times throughout the year.
91. Farms can also enter into “grain pricing orders” (“**GPOs**”) (also known as grain purchase orders or target contracts) with P&H and other grain companies. A GPO is a contract wherein a farm sets a cash price above the cash price posted by an Elevator (the “**target cash price**” or “**ask price**”) at which it will sell and deliver to that Elevator a specified quantity and quality of grain in a specified delivery month. If the Elevator’s posted price reaches the farm’s target cash price, the GPO is automatically triggered and the Elevator is required to purchase the agreed quantity and quality of grain from the farm at that price. An example of a GPO is attached to my Witness Statement as **Exhibit “13”**.
92. At any time before it is triggered, the farm is free to cancel the GPO or amend it by changing the target cash price, the grade or quantity of wheat or canola to be delivered and/or the delivery month.

93. The farm also chooses the expiry date for the GPO – it can be in effect for days, weeks or months. At any time before the GPO expires, the farm can agree to extend or "roll" the GPO to a future delivery period.
94. GPOs are used extensively by P&H and by all grain companies in western Canada. GPOs allow producers to capture the market peaks and obtain a high cash price when the market moves quickly. As noted above, P&H's posted cash prices are live and change instantaneously with movements in the futures prices when the futures markets are open. In my experience, futures prices can fluctuate by \$0.50 to \$1.00 per bushel without notice and sometimes for only minutes. Without a GPO (which is automatically triggered when futures prices, and hence the posted cash price, spikes momentarily) a farm may miss out (because they are busy in the field or there simply isn't enough time to contact the Elevator) on the opportunity to get the best possible cash price for their wheat or canola.
95. Once a GPO has been triggered, it becomes (and P&H and the farm enter into a) fixed price contract at the farm's target cash price.
96. In the circumstances described in paragraph 80 above, as part of a limited special, a merchant may authorize one or more Elevators to proactively trigger GPOs at a given target cash price, even though cash prices posted at those Elevators have not reached that target cash price. When this occurs, P&H will contact the farms whose GPOs are being triggered. At the same time, the target cash price is communicated via email or text blast as a special to all farms for which the participating Elevators have contact information and via push notification on the P&H mobile application.
97. A basis contract is similar to a fixed price contract in that the quantity and quality of the wheat or canola to be delivered and a delivery month are set. However, in terms of the price to be paid by P&H for the wheat or canola, only the basis is agreed. At some point prior to delivery, the contract must be priced using the current futures price at the time (futures + basis = cash price). These contracts

allow farms to lock in what they consider to be a favourable basis while still permitting them to “play the market” with the opportunity to participate in a possible futures prices rally. Attached to my Witness Statement as **Exhibit “14”** is an example of a P&H basis contract.

GRADING ADJUSTMENTS TO CASH PRICES AT TIME OF DELIVERY

98. At the time the farm delivers its grain to the Elevator, adjustments may be made to the cash price paid to the farm if the quality of the wheat or canola delivered differs from the quality that was contracted for in the grain purchase contract.

99. Grading (or quality) is part of the posted cash price structure. As discussed above, P&H’s posted cash prices for grain are a function of the specific commodity as well as its quality. Producers have access to the posted cash prices as well as to the price adjustments associated with certain grading factors.

100. The CGC has set detailed grading standards and procedures (as outlined in its Official Grain Grading Guide) to be followed by grain companies in applying those standards. A copy of the CGC’s Official Grain Grading Guide is attached to my Witness Statement as **Exhibit “15”**.

101. A grading factor is a physical condition of grain that indicates a change in quality. Certain of those factors are “objective grading factors” (such as Ergot), meaning that they have numerical tolerances or minimums and maximums per grade. In the case of wheat, almost all the grading factors are objective. For example, wheat can only have a certain quantity of Ergot (i.e., a fungal disease which occurs on cereals and grasses) before it drops to the next lower grade. For canola, there are only objective grading factors.

102. Other grading factors are “visual grading factors”, meaning that they are graded using the Degree of Soundness/definition of the grade and standard samples or pictures published by the CGC. There are only three “visual grading” factors for

wheat (namely, Frost, Mildew and immature kernel) and none for canola. In determining the grade, grain company graders compare samples to the applicable grade definition and to the standards that represent the minimum level of quality expected for a particular grade as per the CGC standards.

103. The following are the quality or grading factors that come into account in determining the final cash price to be paid for wheat and/or canola at the time of delivery. A description of each of those quality factors or determinants appears in **Exhibit "16"** to my Witness Statement.

- € Admix (canola)
- € Damage % (canola)
- € Drying (wheat and canola)
- € Ergot % (wheat)
- € Frost (wheat)
- € Fusarium% (wheat)
- € Germ % (non-wheat or canola)
- € Green % (canola)
- € Heated % (wheat and canola)
- € HVK % (wheat)
- € Midge % (wheat)
- € Mildew (wheat)
- € Moisture % (wheat and canola)
- € Other colors % (canola)
- € Other damage % (canola)
- € Other grains % (non-wheat or canola)
- € Peeled & broken % (non-wheat or canola)
- € Protein % (wheat)
- € Sclerotinia (canola)
- € Shrinkage % (wheat and canola)

- € Splits (non-wheat or canola)
- € Spring thrashed (canola)
- € Sprouts % (wheat and canola)
- € Test weight (wheat)
- € Thin % (non-wheat or canola)
- € Wild oats % (non-wheat or canola)

104. As noted above, the highest quality grade wheat is “1CWRS”. The most common grade for harvested canola is “1CAN CANOLA” and that is the base grade for canola futures contracts. P&H (and other grain companies and, in the case of canola, crushers and elevators) uses 1CWRS and 1CAN CANOLA as its base grades.

105. Grade spreads showing the reduction in the cash price associated with lower grades of wheat (i.e., grade 2 and grade 3) and canola (i.e., grade 2) are posted in P&H’s Elevators, commonly shown on its daily cash price emails to farms, and can be obtained by calling or emailing the Elevator.

106. None of the grading factors, except for drying (i.e., moisture %), carries a fee and only certain of them (namely, admix, green%, heated%, spring thrashed, other damage% and test weight) carry a cash price adjustment for wheat or canola beyond the reduction in price indicated by the grade spreads. In the case of green %, for example, this factor does not carry a fee but it carries a cash price reduction as the higher green % indicates a lower oil content and a lower quality canola. P&H (like other grain companies) sets its grading factor price adjustment schedules on a network-wide basis, such that they are consistent across all P&H Elevators in Western Canada. Those schedules are posted in the Elevator lobby or available by calling any CSR or Elevator personnel. A copy of P&H’s current grading factor price adjustment schedules is attached to my Witness Statement as **Exhibit “17”**.

107. Drying is a service for which a charge may be levied by an Elevator. Grain is contracted to have “straight” moisture levels. Grain that is not “straight” may be susceptible to deterioration. Drying is only required when grain (including wheat and canola) is “tough”, “damp”, “moist” or “wet”, as determined in accordance with CGC moisture specifications. By way of illustration, pursuant to those specifications, CWRS will be “straight” if it has a moisture content of less than 14.6 Dry, it will be “tough” if it has a moisture of 14.6 to 17.0 Dry and it will be “damp” if it has a moisture over 17.0 Dry. The CGC moisture specifications are attached to my Witness Statement as **Exhibit “18”**.
108. A copy of P&H’s current drying rates is attached to my Witness Statement as **Exhibit “19”**. Drying charges are calculated by finding the correct grain and moisture and multiplying the rate by the total tonnage. P&H’s drying rates (like those of other grain companies) are also uniform across its Western Canadian Elevators, except in Moosomin where they are lower because Moosomin has a cost advantage relative to P&H’s other Western Elevators.
109. Because of the typically dry weather conditions in Western Canada, it is not the norm for Elevators to have a dryer. Certain P&H Elevators, such as Moosomin and Tisdale SK, have a dryer, while others (such as Transcona MB and Hanover Junction SK) do not. The Virden Elevator does not have a dryer (and did not have one when it was owned by LDC) and neither do many of the rival Elevators that compete with the Virden and Moosomin Elevators, including Ceres Northgate, Cargill Oakner, Cargill Elva, G3 Bloom, Richardson Kemnay and Viterra Binscarth.
110. In the case of wheat (but not canola), the protein content also affects the cash price. The base protein content commonly used by grain companies, including P&H, is 13.5%. Generally speaking, higher protein wheat (i.e., above 13.5%) has a higher cash price relative to CWRS 13.5, while lower protein wheat (i.e., below 13.5%) has a lower cash price relative to CWRS 13.5. Again, protein spreads showing the cash price adjustment (either up or down from the cash price for

CWRS 13.5) based on protein content are posted in P&H's Elevators, are commonly shown on our daily cash price emails sent to farms and are otherwise available on request. A copy of P&H's current protein spreads is attached to my Witness Statement as **Exhibit "20"**.

111. P& H (like other grain companies) sets its protein spreads, grading spreads and grading factor price adjustment schedules at the network-level, such that they are same at any moment in time across all of P&H's Elevators in western Canada.

112. Depending on P&H's inventory (at the Elevator, the port terminal and across its network) at the time of delivery, it may be possible for the Elevator to purchase grain that is of a marginally lower grade at the higher cash price for the next higher grade if that marginally lower grade grain can be blended either at the Elevator or at the port terminal with higher grade grain without risking the classification of the higher grade grain. For example, consider fusarium damage for CWRS. 1 CWRS can have up to 0.3% fusarium damage and No. 2 CWRS can have up to 0.8% fusarium damage. If a farm delivers a grain that meets 1 CWRS standards on all elements, except it has 0.4% fusarium damage, it is possible that the grader will still award this delivery No. 1 status and No. 1 pricing if we can blend the delivered grain with 0.4% fusarium damage with existing inventory stocks across our network and still meet the 0.3% fusarium damage limit for 1 CWRS. If this were to occur, it is referred to as "upgrading". It is important to emphasize that "upgrading" occurs in only very rare circumstances as P&H's policy and practice is to purchase and record grain at the actual grade. What grain is paid at is how it shows in our inventory system and the merchants need to know with accuracy what grain they have in our network to sell to Grain Customers – if Elevators buy as #2 grain that is actually #3 it would be disaster as the merchants would be making sales of #2 and when delivered it would be sub-par to our Grain Customer.

P&H DOES NOT SUPPLY “GRAIN HANDLING SERVICES” AND THERE IS NO PRICE FOR “GRAIN HANDLING SERVICES”

113. When the Canadian Wheat Board (“**CWB**”) was operating, wheat and barley were bought by grain companies on behalf of the CWB on a “toll basis”. Other grains, including canola, were purchased by grain companies from farms in the same way as they are today.

114. In the CWB era, a typical wheat transaction occurred as follows:

€ a farm would deliver their wheat to P&H and, on behalf of the CWB, we would pay the farm the Initial Price or the Total Net Amount Payable (minus deductions for elevation or cleaning) based on the quantity and quality of the wheat delivered. The Initial Price was based on the CWB’s perception of the market value in Vancouver (or other export ports, such as Thunder Bay). Attached to my Witness Statement as **Exhibit “21”** are a cash purchase ticket settlement for wheat from August 2009 showing tariff deductions for cleaning and elevation to arrive that the Total Net Amount Payable (or the Initial Price);

€ the CWB paid our charges or tariffs for elevation and cleaning, as applicable, after the wheat had shipped. Storage was calculated based on the quantity in store multiplied by the number of days the wheat was held in our Elevator before it shipped. Our tariffs for cleaning, elevation, drying and storing had to be approved prior to each crop year by the CGC. Drying worked as it did today; if the farm required drying by the Elevator it was a separate service they paid for directly (albeit at an approved CGC tariff). Attached to my

Witness Statement as **Exhibit “22”** are the Elevator tariffs in effect for the 2009-2010 crop year.

€ the CWB’s job was to market the wheat for the farm and get the best price in the open market that they could;

€ our role in this transaction was to handle the wheat, so we were paid our approved tariffs for elevating, cleaning and/or storing the wheat. At no time did we “own” the wheat. It was the property of the CWB and P&H was their agent. Hence, we did not hedge it and were not responsible for marketing it. Our job was to keep track of the wheat and keep it in good condition for when the CWB had made a sale and called for us to load their railcar with their wheat; and

€ the CWB had “pools” of earnings by commodity, by grade and by protein. Essentially, this means they kept track of the profits made on these pools of grain and at the end of the year they would send the farm their pro-rata share of the difference between what the farm was paid initially (the Initial Price) and what the pool earned (after deducting costs).

115. Since the CWB ended in 2012, wheat (and barley) has been purchased by grain companies like P&H from farms and sold by those grain companies (including P&H) to their grain customers like every other type of grain purchased from farms in Canada. P&H does not supply “grain handling services”, as the Commissioner defines this, and there is no “price for grain handling services”. As noted above:

€ in setting its cash prices at its Elevators, the Elevator Costs which P&H seeks to recover as part of its “target margin” reflect its *aggregate costs* related to the operation of *all* of its Elevators in Western Canada. P&H does not “charge” farms these costs through the “target margin”, the basis or otherwise. P&H also does not vary or adjust the target margin, the basis or its cash prices to reflect or

recoup the costs at any individual Elevators and it has never done so (and could not do so) at either the Moosomin or Virden Elevator;

- € P&H (like other grain companies) sets its protein spreads, grading spreads and grading adjustment price schedules at the network-level, such that they are consistent across all of P&H's Elevators in western Canada; and
- € Drying is a service for which a charge may be levied. P&H's drying rates (like those of other grain companies) are also uniform across its Western Canadian Elevators, except in Moosomin where they are lower. In any event, the Virden and Moosomin Elevators did not compete with respect to drying prior to the Acquisition because the Virden Elevator does not have a dryer.

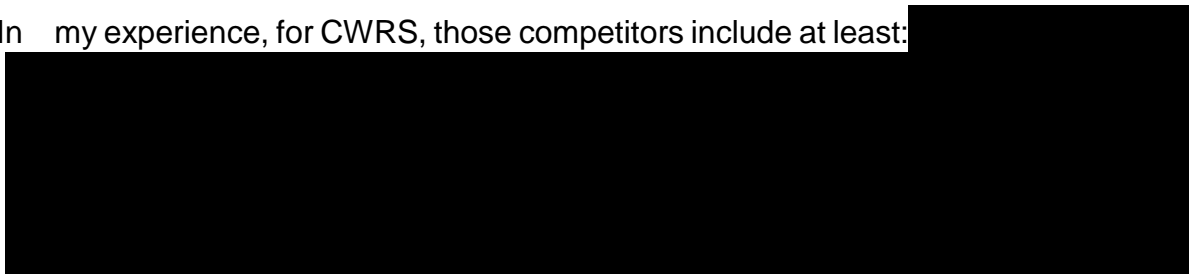
116. In the post-CWB world, P&H (like other grain companies and crushers) buys canola and CWRS from farms, taking title to the grain at the time the farm delivers it to the Elevator. At that time, the farm receives the contracted cash price for its grain and ownership of the grain passes to P&H. From that point, the farm has no right or interest in the grain and bears no risk in relation to the purchase transaction. Instead, P&H is fully responsible for the costs, risks, and rewards of aggregating, transporting and selling the grain to a Grain Customer.

117. Although the CWB tariffs/fees for service are no longer charged by P&H or other grain companies, all grain Elevators licensed by the CGC to operate as a "primary elevator" (such as the Virden and Moosomin Elevators) are required to submit at least annually, their "maximum tariffs" for "elevation", "removal of dockage", "storage", "cleaning" and "blending". These are anachronisms of the CWB era. Grain companies do not charge these fees any longer, yet the *Canadian Grain Act* states that they must submit values annually to the CGC. P&H and other grain companies do not charge any such fees or tariffs to farms.

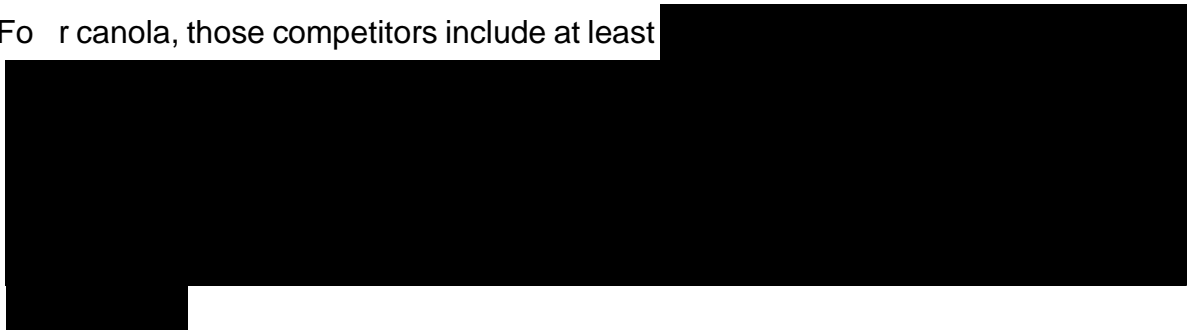
RIVAL ELEVATORS AND CRUSHERS


118. P& H operates in a highly competitive industry, including within the area surrounding the Virden and Moosomin Elevators where it competes with numerous Elevators and canola crushers to purchase farms' wheat and/or canola.

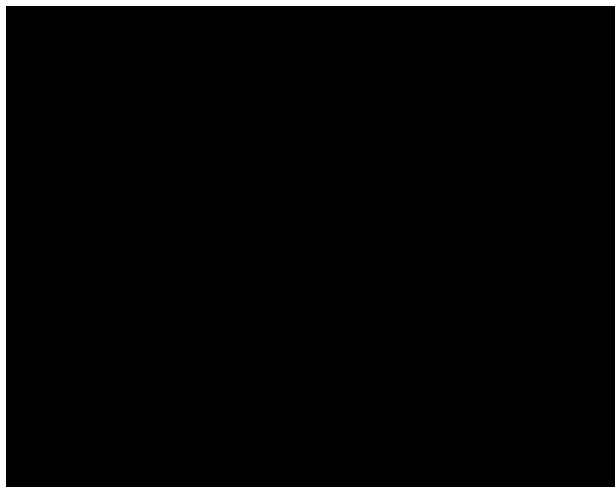
119. In my experience, for CWRS, those competitors include at least:

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120. For canola, those competitors include at least

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121. This is borne out in numerous, internal documents of P&H and LDC. For example, the business plans for the Moosomin Elevator for FY2019 and FY2020 (attached to my Witness Statement as **Exhibit "23"**), identify  Elevators and crushers, apart from the Virden Elevator, as competitors of the Moosomin Elevator; namely

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122. Similarly, I have attached as **Exhibit "24"**, P&H's 2018 Draw Analysis Report

[REDACTED]

Like the business plans discussed above, this document predates both the Acquisition and the solicitation by LDC. The same list of competitors appears in the 2019 and 2020 versions of this report, both of which are attached to my Witness Statement at **Exhibit "25"**.

123. In addition, P&H emails show CSRs at the Moosomin Elevator referring to and tracking prices of many other Elevators beyond Virden,

[REDACTED]

I attach examples of such emails to my Witness Statement as **Exhibit "26"**.

124. Likewise, emails and other documents produced by LDC as part of its response to the SIR issued by the Commissioner in October 2019 identify and/or track the pricing of many competitors apart from Moosomin, including:

[REDACTED]

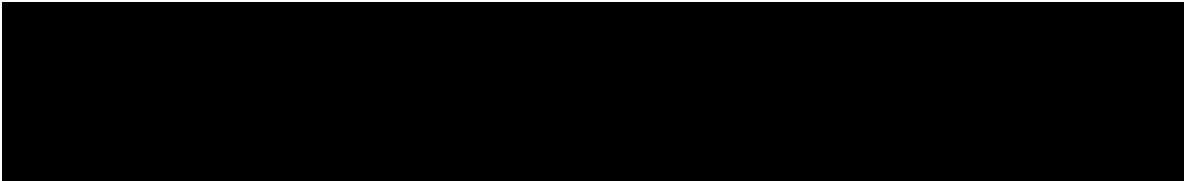
I attach examples of such LDC documents to my Witness Statement as **Exhibit "27"**.

125.

[REDACTED]

126.


[REDACTED]




127. I understand that the Commissioner is discounting the importance of Viterra Fairlight as a competitor based on the fact that there are seasonal road restrictions in effect for some part of March to June each year. To my knowledge, most farms are seeding, not hauling, when those road restrictions are in effect and/or they plan their deliveries to avoid those restrictions altogether. Further, and in any event, there is little question based on annual average throughput that, as between Virden, Fairlight and Moosomin, Fairlight is the top Elevator. In the 2018-2019 crop season, for example, despite the alleged disadvantage from seasonal road restrictions, Fairlight paid cash prices high enough to purchase 321,800 MT of grain from farms in the area, just 46,200 MT less than Moosomin (165,700 MT) and Virden (202,300 MT) shipped combined. See **Exhibit “28”** to my Witness Statement.

MOOSOMIN EXPANSION

128. In his expert report, Dr. Miller states that “P&H has restructured, downsized, and postponed its proposed railcar expansion at the Moosomin Elevator (‘Moosomin expansion’), which may be a manifestation of the [Acquisition’s] effect on competition”. He also claims that “all of the changes [related to the Moosomin expansion] are consistent with a reduced incentive to compete aggressively due to the [Acquisition]”. I can confirm that P&H’s decisions to postpone and modify the rail car expansion at the Moosomin Elevator were completely unrelated to any such alleged “reduced incentive” resulting from the addition of the Virden Elevator to our western network.

129. By way of background, an expansion at Moosomin has been under consideration (off and on) for many years, and certainly since before 2017. 



[REDACTED]

[REDACTED] is attached to my Witness Statement as **Exhibit "29"**.

130. While having a 56-car spot is not ideal because rail service tends to be poorer, Moosomin is very competitive [REDACTED]

[REDACTED]

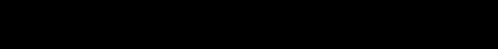
131. [REDACTED]

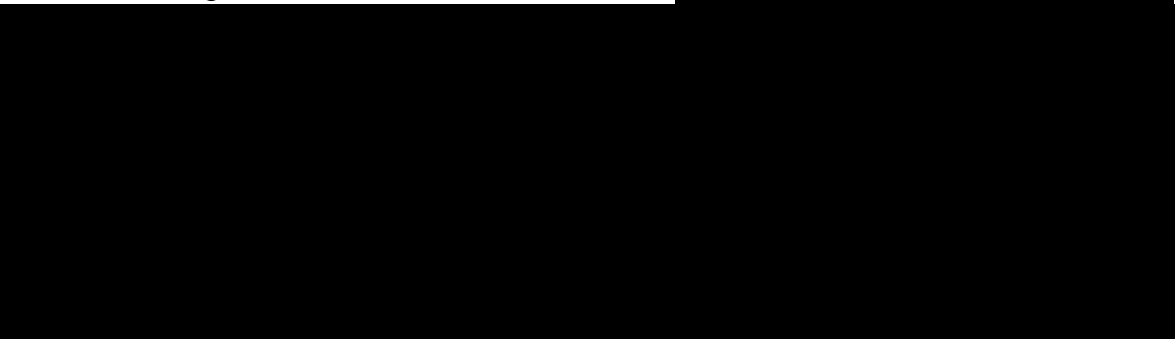
[REDACTED] Attached to my Witness Statement at **Exhibit "30"** is a copy of that email.

132. On or about July 5, 2019, I met with Brant Randles (then the President of LDC) for lunch and he indicated that LDC might be interested in selling the LDC Elevators to P&H.

133. [REDACTED]

Attached to my Witness Statement as **Exhibit "31"** is a copy of the ROA analysis.

134. On July 11, 2019, following a discussion with Joan Hardy, Vice President Sales and Marketing – Grain and Fertilizer at CP, 



On this basis, I came to the view that P&H would be better served by financing the expansion on its own. Attached to my Witness Statement as **Exhibit “32”** is an email dated July 11, 2019, to Anthony Kulbacki (P&H’s VP of Canadian Grain Operations) outlining my reasoning.

135. The decision to go it alone in July 2019 meant that the Moosomin expansion had to be included our new capital budgeting cycle for 2020, and (in accordance with P&H’s standard budget process) would not be considered for Board approval until the spring of 2020. Attached to my Witness Statement as **Exhibit “32”** is an email dated November 25, 2019, from Mr. Kulbacki to Kevin Klippenstein (P&H’s CFO) confirming that this was the effect of my decision.

136. By letter dated July 19, 2019, I received an invitation to submit an indication of interest from Mr. Randles. A copy of Mr. Randles letter is attached to my Witness Statement as **Exhibit “33”**.

137. My decision on July 11th to terminate negotiations with CP was unrelated to the possibility that P&H might be able to purchase the LDC Elevators (and the Virden Elevator, in particular). When I made my decision on July 11th, there was no assurance that a formal solicitation would be received or, if one was, that P&H would be the successful bidder.

138. Fortunately, LDC ultimately selected P&H’s bid over a competing bid from G3. As a matter of prudent financial management in light of the fact that we would be

spending [REDACTED] to purchase the LDC Elevators, [REDACTED]

[REDACTED] Attached to my Witness Statement as **Exhibit “34”** is the Final FY2020 capital budget dated January 16, 2020, which shows that the Moosomin expansion had been put on hold until FY2021.

139. Subject to the outcome of this Application (as a result of which P&H could potentially be ordered to divest the Moosomin Elevator) [REDACTED]

140. In the meantime, P&H continues to compete very effectively at Moosomin. Moosomin’s purchases of wheat in the period between January and July 2020 over the same period in 2019 [REDACTED]

EXCESS CAPACITY, EXPANSION AND NEW ENTRY

A. EXCESS CAPACITY

141. Based on publicly available information, it appears that rival Elevators have excess capacity, such that they could easily increase their purchases of wheat and canola from farms in the Virden/Moosomin area.

I.C. COMPARING MAXIMUM OBSERVED VOLUMES TO 5-YEAR AVERAGE VOLUMES

142. Data provided publicly by the CGC shows the tonnage of each grain delivered to Elevators, by delivery point. This data is conventionally used to approximate the amount of grain that an Elevator purchases and ships in a crop year, as it is

assumed that grain that is delivered into an elevator will be shipped out as well. Therefore, it can be used to compare volumes by Elevator.

143. Attached to my Witness Statement as **Exhibit “35”** is the CGC data showing the volume of grain that rival Elevators referred to above, as well as the Virden and Moosomin Elevators, purchased and shipped in each of the last five years.¹¹ From that data, I have set out below the average amount of grain purchased and shipped annually by each of those competing Elevators in the period between 2014-2015 and 2018-2019.
144. As the amount of grain purchased and shipped in a given year is a function of the crop size, and since crop sizes vary each year, in my experience, this five-year average tonnage is a reasonable estimate of what can be normally expected.
145. I have also set out each Elevators maximum annual throughput in that five year period and their average and best turn rates.¹²

Location	Operator	5-year avg throughput (000 tonnes) 2014-15 to 2018-19	Avg turn ratio	Maximum annual throughput (000 tonnes)	Best Turn Ratio	Year	Excess capacity (000 tonnes)
Binscarth	Viterra & Paterson	196.9	6.7	207.4	7.0	18-19	10.5
Bloom	G3	318.8	9.4	398.0	11.7	18-19	79.2
Brandon	Viterra & Richardson	495.8	7.9	610.6	9.8	18-19	114.8
Carnduff	Viterra & Paterson	225.0	6.4	293.5	8.4	18-19	68.5
Elva	Cargill	330.3	13.5	383.4	15.6	18-19	53.1

¹¹ Deliveries are published by CGC by delivery point, not specific Elevator; therefore, the CGC-reported deliveries to those points with two or more Elevators are the total of all Elevators at that location.

¹² Turn ratios are calculated by dividing the annual throughput (tonnage purchased and shipped) of the Elevator or, where there is more than one Elevator at a single delivery point, the total deliveries to the delivery point by the licensed storage capacity of the Elevator(s). Both data are published by the CGC (see **Exhibit “35”** to my Witness Statement).

Location	Operator	5-year avg throughput (000 tonnes) 2014-15 to 2018-19	Avg turn ratio	Maximum annual throughput (000 tonnes)	Best Turn Ratio	Year	Excess capacity (000 tonnes)
Estevan	Richardson & Southland	247.8	6.1	350.0	8.6	16-17	102.2
Fairlight	Viterra	257.8	7.7	321.8	9.7	18-19	64.0
Langenburg	Richardson	69.3	4.8	86.4	6.0	14-15	17.1
Melville	G3 & Richardson	174.5	6.2	446.8	8.5	18-19	272.3
Northgate	Ceres Ag	483.7 ¹³	6.6	530.9	7.2	18-19	47.2
Oakner	Cargill	112.3	8.5	165.4	14.1	18-19	53.1
Shoal Lake	Richardson	255.1	6.8	298.1	7.9	18-19	43.0
Souris East	Viterra	199.9	8.1	234.9	9.5	17-18	35.0
Whitewood	Richardson	203.5	6.5	235.2	7.6	18-19	31.7
TOTAL		3,570.7	6.3	4,562.4	7.7		991.7.3

146. Summing their individual maximum annual throughputs, the aggregate maximum capacity of competing Elevators is at least 4,562.4 million MT. In comparison, the five-year average of total throughput of these Elevators is 3,570.7 million MT. Due to fluctuations of the crop size, in my experience, this would be a reasonable expectation of future throughput.
147. A comparison of these two figures indicates that these rival Elevators are capable of handling at least 991,700 MT more than their average throughput over the past five years – or their expected throughput in the future, assuming normal sized crops. This excess capacity exceeds by 585,900 MT the maximum annual combined tonnage purchased and shipped by Moosomin and Virden (405,800 MT in 2014-15) in the last 5 years.

¹³ Operating for only three years so the average is a three-year average.

II. RAIL SHIPPING CAPACITY

148. The shipping capacity of an Elevator is impacted by numerous factors, including the provision of railcars by CN or CP. Typically, railcars service is provided weekly, and noting that Elevator facilities are typically built to enable them to load a full train each week, operators will make every effort to maximize the use of their rail car allocation in order to lower their freight costs.
149. The maximum tonnage that could be shipped by rail from an Elevator in a year can be estimated by multiplying the car spot (in number of cars) by the average tonnage in a car (90 MT) and multiplying by 52 weeks.
150. Comparing actual annual deliveries as reported by the CGC (see **Exhibit “35”**) (as a proxy for shipments) at each rival Elevator, to their maximum potential shipments based on their car spots (attached to my Witness Statement as **Exhibit “36”** is the publicly available data on the number of car spots at each Elevator), shows most Elevators ship well below their potential capacity measured in car shipment capacity. Considering the selected rival high-throughput Elevators only, the data shows that there is excess, or unused, Elevator capacity (based on car spots) of over 4,765.2 million MT annually.

Location	Operator	5-year avg throughput (000 tonnes) 2014-15 to 2018-19	car spot	Max estimated tonnage based on car spot	unused car spot capacity
Binscarth	Viterra	196.9	56	262.1	317.9
	Paterson		54	252.7	
Bloom	G3	318.8	100	468.0	149.2
Brandon	Richardson	495.8	112	524.2	515.1
	Viterra		104	486.7	
Carnduff	Viterra	225.0	112	524.2	299.1
Elva	Cargill	330.3	112	524.2	193.8
Estevan	Richardson	247.8	112	524.2	533.8
	Southland		55	257.4	
Fairlight	Viterra	257.8	104	486.7	228.9

Location	Operator	5-year avg throughput (000 tonnes) 2014-15 to 2018-19	car spot	Max estimated tonnage based on car spot	unused car spot capacity
Langenburg	Richardson	69.3	52	243.4	174.0
Melville	G3	174.5	134	627.1	686.7
	Richardson		50	234.0	
Moosomin	P&H	149.3	53	248.0	98.8
Northgate	Ceres Ag	483.7	140	468.0	171.5
Oakner	Cargill	112.3	52	243.4	131.0
Shoal Lake	Richardson	255.1	112	524.2	269.1
Souris East	Viterra	199.9	112	524.2	324.2
Virден	P&H	210.2	120	561.6	351.4
Whitewood	Richardson	203.5	112	524.2	320.6
TOTAL		3,930.2		8,695.4	4,765.2

151. Although it would be unreasonable to expect full employment of rail capacity, even a small portion of the unused capacity – say 20%, or 953,040 MT – is double the total shipped by Moosomin and Virден in their best year in the last five years.

B. EXPANSION

152. Based on P&H's experience with its own capacity and throughput expansions, I believe that rival Elevators could easily add significant grain purchasing capacity, if needed, in less than 2 years. More particularly, P&H has been able to complete rail and storage expansions at several of its Elevators in nine months or less. In each case, those projects significantly increased throughput capacity at the facility in question.
153. For example, P&H completed a rail expansion at its Hamlin SK Elevator which increased the rail car spots from 56 to 104 in six and a half months. Construction work began August 2009 and was completed in February 2010. [REDACTED]

154. Similarly, two expansion projects at our Bow Island Elevator were five and six months, respectively. A rail expansion from 65 to 100 car spots was completed in under five months (between June 2016 and October 2016) [REDACTED]. A storage expansion which added 20,000 MT of storage was completed in six months, between March and August 2016 [REDACTED]. Together, these projects resulted in an increase of [REDACTED]. [REDACTED] Since its completion, Bow Island's shipping volume has continued to increase over its pre-expansion volumes, [REDACTED]. [REDACTED]

155. P&H also completed a rail and storage expansion project at its Parrish Siding Elevator in nine months, between January to September 2019. [REDACTED] storage capacity was doubled from 23,600 MT to 43,600 MT. At the same time, the number of rail car spots was increased from 100 to 150 [REDACTED]. Overall, the project resulted in [REDACTED]. [REDACTED]

C. ENTRY

156. Based on P&H's experience, a motivated competitor could build a new Elevator in the Virden/Moosomin area in approximately 18 months. In our experience, acquiring suitable land on rail lines in the prairies, engineering/design and obtaining any required approvals are typically not an issue.

157. For example, P&H constructed its greenfield Elevator at Gladstone MB in 18 months. Construction of this new Elevator with 55,000 MT of storage capacity and a 104 rail car spot, began in May 2014. By November 2015, the Elevator was purchasing and shipping grain. [REDACTED]. [REDACTED]

158. P& H also built a new Elevator at Hanover Junction SK (also known as Biggar) in in 19 months. Construction of this new Elevator (with 35,000 MT of storage capacity and a 100 rail car spot) began in May 2013 and was completed by December 2014. P&H began purchasing grain from farms in August 2014. That grain was then stored until track construction was completed four months later. The project replaced an aging elevator in Saskatoon [REDACTED] The [REDACTED]

159. Finally, construction of P&H's most recent new build project, the Dugald Elevator, will be completed in less than two years. Construction on Dugald began in June 2019 and will finish by April/May 2021 (despite a brief delay arising from a mistake on our part in filing a permit application with the regional municipality of Springfield MB instead of the province). Dugald, which will replace the aging Transcona Elevator, will have 150 car spots and storage capacity of 25,000 MT.

COMMISSIONER'S FARM WITNESS STATEMENTS

160. I have reviewed farm witness statements served by the Commissioner and disagree with many of the statements made therein. I do not intend to respond here to each such statement but wish to note the following.

161. By way of overarching comment, I observe that the certain of the farm witnesses talk vaguely about the "prices" without specifics as to the precise point in time, the commodity, grade, protein, delivery period, moisture content and/or any of the other factors that may affect the cash price to be paid by an Elevator, including whether the Elevator was running a limited time or limited tonne special. The missing specifics matter.

162. The statement by [REDACTED] at paragraph 13 of his Witness Statement (“[p]rior to the acquisition, I observed price differences between \$0.40 and \$0.50 cent per bushel between what I can get for my crops from P&H at Moosomin and Louis Dreyfus at Virden”) is a case in point. Based on relative rail freight costs from Moosomin and Virden, respectively, to Thunder Bay, one would generally not expect to see more than \$0.15/bu difference (in Virden’s favour) unless LDC was running a limited tonne or limited time special. However, Mr. [REDACTED] does not indicate whether this was the context for this alleged price differential nor does he say when or for how long he observed this alleged difference in cash prices or in respect of which specific grade, protein, delivery period, moisture content, etc. I note in this regard that in respect of wheat at least, he could not have observed this alleged price differential in the latter half of 2019 because P&H Moosomin’s CWRS prices during that time were better than Virden’s, a fact which Mr. [REDACTED] omits to mention. In the same period, P&H Moosomin’s prices for canola were also sometimes above those of Virden, another fact which does not appear in Mr. [REDACTED]’s Witness Statement.

163. I have similar concerns with [REDACTED]’s vague statement (at paragraph 21 of his Witness Statement) that “[p]rior to the [A]cquisition, it appeared to me that [LDC] at Virden would push P&H at Moosomin to bid higher” and [REDACTED]’s claims (in paragraph 15 of his Witness Statement) about his alleged loss of income as a result of P&H’s protein discounts.

164. For the reasons set out herein, I also disagree with and reject any suggestion that either the Virden or the Moosomin Elevator has been less competitive since P&H bought the Virden Elevator in December 2019.

165. I note that the Commissioner’s farm witnesses’ claims in this regard are contradicted by a comparison of their sales of wheat and canola to the Virden and Moosomin Elevators, before and after P&H bought the Virden Elevator. As shown on **Exhibit “37”** to my Witness Statement, the Commissioner’s farm witnesses

have sold more wheat and canola to P&H at Virden and Moosomin in the first 9 months of this year than they sold to Virden (when it was owned by LDC) and Moosomin (when it was owned by P&H) combined in each twelve month period from January to December 2017 and from January to December 2019. Further, over the same nine month period this year, they have already sold P&H (at Virden and Moosomin) more than 90% of the total amount of wheat and canola they sold to those two Elevators combined over the entire 12-month period from January to December 2018.

166. At paragraph 14 of his Witness Statement [REDACTED] suggests that P&H has a different and stricter approach to grading than LDC did. In support for this assertion, Mr. [REDACTED] points to P&H's assessment of the "falling number" and suggests that by virtue of his personal relationship with certain unidentified people at LDC they would not grade his grain as strictly. As mentioned above, the CGC prescribes detailed grading standards and procedures for the grain companies and P&H abides by and applies those standards and procedures. Andy Klippenstein, the General Manager of Virden Elevator now and when it was owned by LDC, advises that LDC (like P&H) also abided by and followed those standards and procedures. He also advises that, like P&H, LDC's practice and policy was to purchase and record grain at the actual grade in order to maintain accurate inventory records and avoid delivering sub-par grain to its grain customers. Finally, he confirms that LDC did not grade the wheat or canola delivered by a given farm less strictly because the Elevator may have had a good relationship with that farm.
167. As for the falling number ("FN"), the facts are the opposite to what Mr. [REDACTED] claims – LDC Virden did assess FN and they did so more, not less, strictly than P&H. By way of background, while it is not a grading factor in the CGC Grain Grading Guide, FN is a world standard in the grain and flour milling industries for wheat, durum, triticale, rye, and barley. A low FN indicates that wheat is not sound or satisfactory for most baking processes. P&H's wheat sales contracts with its Grain Customers who require wheat for baking-related purposes will

specify a minimum FN and P&H is required to check the FN in order to ensure that it meets its contractual obligations. I am advised by Mr. Klippenstein that when LDC owned the Virden Elevator it sold a significant amount of its wheat to ADM Milling and that ADM's specifications for wheat were for a minimum 300 FN. Mr. Klippenstein further advises that for most wheat sales an FN below 285 would not be accepted by LDC's end-use customers. For our part, and in contrast, based on our Grain Customers' specifications, P&H would (and does) purchase and accept below 300 FN, and all the way down to 250 FN.

168. At paragraph 18 of his Witness Statement, Mr. [REDACTED] asserts that when Virden was rushing to fill a train he would call Moosomin and play the two Elevators off against one another to allegedly obtain an additional \$0.50 to \$1 per bushel. We have reviewed our records and have found no evidence of such calls to the Moosomin Elevator.¹⁴ The scenario described by [REDACTED] is also implausible. Unless the Moosomin Elevator also had an urgent need for the *same quality of grain* as Virden at that time (and there is no certainty that it would, even though they are on the same rail line), it would not be prepared to offer a premium to the posted price and, if it did, that premium would not be offered because Mr. Nolan called to attempt to play Moosomin and Virden off against one another. Instead, it would be offered because P&H needed the grain urgently and therefore had decided to run a limited time or limited tonne special (communicated to all farms in the area) so it could buy the grain it needed.

169. At paragraph 14 of his Witness Statement, [REDACTED] states that "[a]fter P&H acquired Virden, I have noticed that the price for lower protein wheat has been lower", explaining that that "[w]hen Louis Dreyfus owned Virden the discount for lower protein wheat was \$0.01 - \$0.02 cents. P&H at Virden now applies a \$0.05

¹⁴ Similarly, we have no record of [REDACTED] playing the Virden and Moosomin Elevators off against one another, contrary to what he appears to suggest. Messrs. [REDACTED] do not claim to have played the two Elevators off against one another.

cent discount. So for example, from 13.5% protein to 11.5% protein = 0.60c/bushel discount". This statement is misleading and/or inaccurate in several respects. First, the protein spreads for P&H (and other grain companies) are dictated by Grain Customer demand and other factors which impact all grain purchasers. P&H increased its discounts for low protein wheat in the fall of 2019 (not "[a]fter P&H acquired Virden") because there was an overall lower protein crop in 2019, accompanied by reduced demand in the world market for low protein wheat. That change in P&H's discounts had nothing to do with the change in ownership of Virden – P&H did not acquire the former LDC Elevators, including Virden, until December 2019 – and was made despite the fact that Virden was still owned by LDC at the time. (I note that, as a result of increased Grain Customer demand for low protein wheat, P&H's spreads for low protein wheat have narrowed since the fall of 2019, improving the cash price offered by P&H to farms across Western Canada, including those in the Virden/Moosomin area.)

170. Second, after P&H acquired Virden, it learned that LDC's spreads for low protein wheat were consistent with P&H's. Further, I am advised by Mr. Klippenstein that LDC did not buy wheat that could not be blended to a minimum 13.0 protein, meaning that LDC generally did not buy CWRS below 12.5 protein. Consistent with the foregoing, when P&H acquired Virden, there was no inventory below CWRS 13.0 and no contracts below CWRS 13.0.

171. In view of all of the foregoing, Mr. [REDACTED] claim (at paragraph 15 of his Witness Statement) that he has lost or will lose revenue (relative to what he would have earned if Virden were still owned by LDC) as a result of P&H applying a discount to his 12.5 (or lower) protein wheat appears to be fictional.

172. Mr. [REDACTED] comment at paragraph 15 of his Witness Statement that P&H is not "as competitive on other commodities" is also curious because, as he must be aware, when it was owned by LDC, the Virden Elevator did not buy other commodities; it bought only canola and CWRS. Further, and in any event, it

appears from Mr. [REDACTED] Witness Statement that he does not grow any other commodities.

173. As a result of the Acquisition, Virden (like all of the other Elevators in the P&H network in western Canada) now buys all commodities/grains (including barley, oats, flax, and feed wheat), all protein levels and all moisture levels of wheat, as well as allowing an FN below 300. Hence, P&H's Acquisition of the Virden Elevator has *expanded* and *increased* demand (and competition) for farms' wheat and other commodities in the Virden and Moosomin area.

174. At paragraph 13 of his Witness Statement, [REDACTED] suggests that, after P&H acquired the Virden Elevator, he was forced to take samples of his grain to the Moosomin Elevator. [REDACTED]

175. More generally, I note that, after P&H acquired the Virden Elevator, we undertook an administrative process by which we looked at which farms sold to either Moosomin or Virden or to both and we assigned each of them to a CSR at one of the two Elevators to ensure that we managed our farm/supplier relationships as efficiently and effectively as possible. It is our practice assign farms/suppliers to specific CSRs at all our Elevators across western Canada.

176. The following criteria were used to assign the farms as between the Virden and Moosomin Elevators: CSR workload, scope of business with the farm (i.e., previous business volume and whether there was a significant CI component to the relationship), and the quality of the relationship with the farm (i.e., which Elevator had a better relationship with the farm both qualitatively and quantitatively). A farm assigned to the Moosomin Elevator can access the posted

cash price at Virden and deliver there (and vice versa). A farm may also deal with either Elevator and any staff, as they wish.

177. Each of the farms who the Commissioner intends to call as a witness was assigned to a CSR at the Elevator, as between Virden and Moosomin, to which they had historically delivered the most grain. To my knowledge, we have received no complaints from the Commissioner's farm witnesses in this regard.

EFFICIENCIES

178. P&H has increased the actual throughput at Virden from 2019 to 2020 over the seven months from January through July. P&H is forecasting further increases in Virden's post-Transaction throughput in 2020. The increases at Virden have not come at the expense of reduced purchases at Moosomin, as described above. Further, P&H has expanded throughput at Virden without the need for any additional investment. Increased throughput at Virden is an efficiency that accrues entirely to the Canadian economy.

179. To quantify the value of these increased volumes, I apply P&H's FY19 "grain margin"¹⁵ [REDACTED] to the increased volumes at Virden.¹⁶ Based on 12 months of throughput data ending in December 2020, which includes P&H's forecasts from August through December 2020, the increase in Virden's post-Transaction throughput in 2020 equates to an annual efficiency of [REDACTED]

¹⁵ See note 8 above.

¹⁶ [REDACTED]

[REDACTED] see Exhibit "38").

NO ADVERSE EFFECT FROM THE ACQUISITION

180. P& H does not have the ability to reduce the cash prices paid to farms for their wheat and canola at the Virden and Moosomin Elevators. If P&H were to do so, farms could and would easily switch to one or more of the many rival Elevators and crushers with which we compete.

181. P& H also does not have the incentive to reduce cash prices.¹⁷ In fact, it would be economically irrational of us to do so. First, if we pay less, we will buy less grain and, for the reasons outlined above, we will make less, not more money. Second, if we were to buy less grain we would undermine our own [REDACTED] investment to build the Fraser Grain Terminal. As discussed above, we need the full throughput available from the former LDC Elevators to realize the value of that investment. Consistent with the foregoing, comparing the January to July 2020 to the same seven months in 2019, for canola our combined purchases at and shipments from the Virden and Moosomin Elevators have increased [REDACTED] year-over-year, while we are up a combined [REDACTED] for CWRS at Virden and Moosomin in the first seven months since the Acquisition, compared to the same period last year.

RECORDS

182. In connection with the notification filed by P&H on September 4, 2019, pursuant to section 114 of the *Competition Act*, in response to the Supplementary Information

¹⁷ The Commissioner has pointed to an email by Scott Beachell (then Merchant/Logistics; currently P&H's National Transportation Manager) from February 2019 which the Commissioner claims is proof that P&H has the incentive decrease the cash price of wheat and canola to farms in the Virden and Moosomin area by (at least) \$0.02/bushel and is evidence of "materiality". The Commissioner misreads and misunderstands this email in two important respects. [REDACTED]

Request issued by the Commissioner issued to P&H on October 4, 2019 and in connection with this Application, P&H has produced certain records, including data (the "**Records**").

183. I confirm that the Records were made in the usual and ordinary course of business, that it would not be possible to provide the original records and I attest that each of the Records is a true copy of the original and was in the power, possession or control of P&H.

Signed this 13th day of October, 2020

A solid black rectangular redaction box covering the signature area.

John Heimbecker

CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*,
R.S.C. 1985,
c. C-34, as amended;

AND IN THE MATTER OF the acquisition by
Parrish & Heimbecker, Limited of certain grain
elevators and related assets from Louis
Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by
the Commissioner of Competition for one or
more orders pursuant to section 92 of the
Competition Act.

BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

**WITNESS STATEMENT OF
JOHN HEIMBECKER**

File No. CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

AND IN THE MATTER OF the acquisition by Parrish & Heimbecker, Limited of certain grain elevators and related assets from Louis Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

B E T W E E N :

THE COMMISSIONER OF COMPETITION

Applicant

- and -

PARRISH & HEIMBECKER, LIMITED

Respondents

**AFFIDAVIT OF MARGARET SANDERSON
SWORN OCTOBER 9, 2020**

I, **MARGARET SANDERSON**, of the City of Toronto, Province of Ontario, MAKE OATH AND SAY:

I. INTRODUCTION AND QUALIFICATIONS

1. I am a Vice President and the global practice leader of the Competition and Antitrust Economics practice for the consulting firm Charles River Associates International Limited (“Charles River Associates”), a multinational firm that provides economic, financial and business strategy consulting, and as such I have knowledge of the matters to which I herein depose.
2. Prior to joining Charles River Associates, I was Assistant Deputy Director of Investigation and Research within the Economics and International Affairs Branch of

the Competition Bureau. In that capacity, I managed the provision of expert economic advice on competition cases, regulatory interventions and enforcement policy within the Competition Bureau. I have thirty years of experience addressing the competitive effects of mergers and other firm conduct. I have worked on cases involving mergers, conspiracies, resale price maintenance, predatory pricing, abuse of dominance and misleading advertising, as well as matters involving regulatory policy in the areas of telecommunications, broadcasting and securities.

3. I have provided expert evidence concerning competition and regulatory matters in proceedings before the Superior Court of Quebec, the Competition Tribunal, Supreme Court of British Columbia, Ontario Superior Court of Justice, Court of Queen’s Bench of New Brunswick (Trial Division), Federal Court – Trial Division, the Canadian Radio-television and Telecommunications Commission and the United States District Court – District of Idaho. Attached hereto as Exhibit “A” is a copy of my *curriculum vitae*.
4. I have been asked by counsel to Parrish & Heimbecker (“P&H”) to provide my opinion on the likely competitive effects of P&H’s acquisition of the Virden MB grain elevator from Louis Dreyfus Canada (“LDC”) (hereafter referred to as the “Acquisition”). I have also been asked to respond to the Expert Report of Nathan H. Miller, Ph.D., (hereafter referred to as the “Miller Report”) filed on behalf of the Commissioner of Competition (“Commissioner”).¹
5. To prepare this affidavit, I have relied on the materials, data and other information listed in Exhibit “B”, attached hereto.

II. SUMMARY OF MY OPINION

6. The Commissioner alleges that P&H’s purchase of the Virden elevator will harm farms because they will receive less for their grain post-Acquisition. The two grains of relevance in this application are canola and wheat. The Canadian wheat relevant is

¹ Expert Report of Nathan H. Miller, Ph.D., Exhibit A to the Affidavit of Nathan H. Miller, affirmed/sworn September 4, 2020 [hereafter referred to as the “Miller Report”].

referred to as Canadian Western Red Spring (“CWRS”), which I will use throughout my report.

7. While the Commissioner claims the Acquisition will result in P&H increasing prices for “grain handling services”, there is no such product transacted between P&H and farms. P&H purchases grain from farms and sells grain to end customers. Any processing of grain purchased by P&H to sell to its end customers is a cost to P&H.
8. Farms sell grain to elevators and canola crushing facilities for a single “cash” price.² Elevators and crushers purchase grain from farms for a single cash price. The cash price paid to farms to purchase grain is the “ordinary” and “prevailing price in the relevant market”.³ The cash prices to purchase grain are the correct base prices to use when postulating a price decrease in the prices to be paid to farms under the hypothetical monopolist test,⁴ and when considering the competitive effects of the Acquisition.
9. The cash prices paid for the purchase of grain are “posted prices” by the elevator or crushing facility.⁵ This is not a case where buyers “may identify and charge different prices to various targeted sets of [farms]”⁶ such that price discrimination exists. Grain companies do not negotiate each individual farm-specific price that would make the purchase of grain from each farm a separate relevant product market. Only a limited

² To make comparisons with the Miller Report easier, in this report, I will use the term “cash price” to refer to the price paid to farms. As I describe herein, there are other terms used for the “cash” price paid to farms for their grain by elevators and crushers, including “flat” prices, “net” prices, and “bid” prices. The Miller Report uses the term “discounted cash price” to describe the amount paid to farms by elevators. See Miller Report, paragraph 35.

³ Competition Bureau of Canada, *Merger Enforcement Guidelines*, October 6, 2011 [hereafter referred to as “MEGs”], paragraph 4.6.

⁴ MEGs, paragraphs 4.6-4.7.

⁵ The Commissioner’s expert Dr. Miller agrees that the right economic model to address any competitive concerns arising from the Acquisition is a posted price model. See Miller Report, paragraph 47.

⁶ MEGs, paragraph 4.8, speaking to market power in respect of the selling side of the market state: “When price discrimination is feasible, it may be appropriate to define relevant markets with reference to the characteristics of the buyers who purchase the product (assuming they can be delineated) or to the particular locations of the targeted buyers.” This is not the case here.

number of one-on-one negotiations take place, where for example, P&H is asked to meet specials offered by competitors.

10. The relevant product markets are properly defined as the purchase of canola and the purchase of CWRS, such that the prices used to evaluate competition in the relevant product markets are the cash prices paid to farms for the purchase of their canola or CWRS.
11. The Moosomin and Virden elevators are located within southeastern Saskatchewan and southwestern Manitoba, respectively. Before the Acquisition, these two elevators competed for the purchase of canola and the purchase of CWRS. The issue to be addressed is whether P&H's purchase of Virden provides P&H with monopsony power in the purchase of these grains such that P&H will be able to depress purchase prices by a material amount post-Acquisition.
12. P&H will have no such ability because farms within the area are "well-placed to forego sales to the merging parties in favour of other buyers when faced with an attempt to lower prices."⁷ P&H's post-Acquisition shares of purchases meet the criteria set out at paragraph 9.3 of the MEGs, where there should be no challenge of the Acquisition. The transactions data collected by the Commissioner (which does not include all elevators vying for grain in the area) shows that pre-Acquisition the Moosomin and Virden elevators' combined share of canola purchases is [REDACTED] and their combined share of CWRS purchases is [REDACTED]⁸ both of which are less than the 35% safe harbour threshold contained in the MEGs.
13. The transactions data collected by the Commissioner provides a compelling picture of robust competition for the purchase of canola and the purchase of CWRS in the area surrounding the Moosomin and Virden elevators. The transactions data includes farm

⁷ MEGs, paragraph 9.3.

⁸ See Exhibit 14 of the Miller Report, reporting share before Acquisition for Moosomin and Virden for wheat (CWRS) and canola including crushers.

location information that allows draw areas to be constructed for the elevators within the immediate area owned by P&H, LDC, Viterra, Richardson, and Cargill, as well as the crushers owned by Bunge, ADM, Richardson, and LDC.⁹ It is clear from this data that many elevators and crushers purchase canola and CWRS from the same farms from which Moosomin and Virden purchase. The transactions data also shows the draw areas of numerous elevators and crushers intersect and overlap with the draw areas for the Moosomin and Virden elevators. As a result, Moosomin and Virden compete with many rival elevators and crushers for the same farms' canola and CWRS. This competition extends well beyond the Viterra Fairlight elevator only.

14. The relevant geographic market is properly defined to include current purchasers of canola and CWRS that compete with Moosomin and Virden. This area may be defined as (at least) southeastern Saskatchewan and southwestern Manitoba. The market participants included in the relevant geographic market are numerous, and include many competing elevators and crushers beyond Moosomin, Virden and Fairlight.
15. The evidence of extensive competition for individual farms' grain is clear at multiple levels, including for those farms defined by the Commissioner to be "most affected" by the Acquisition because these farms "are located in the corridor between these two Elevators."¹⁰ In this report, I define all farm locations that are within one-hour commercial trucking driving distance to *both* Virden and Moosomin as within the corridor between these two elevators. I refer to this area as the "corridor of concern" throughout my report. In defining this area, I limit the one-hour driving distance to be using commercial trucking roads only to address the Commissioner's concern that not all roads within the area can handle commercial trucks for the transportation of grain from farms to elevators.¹¹ This "corridor of concern" is much smaller than the relevant

⁹ Farm location data was not included in the transactions data submitted by Ceres. However, farm names are provided in Ceres' transactions data which allows Ceres to be included in several analyses I discuss in my report.

¹⁰ Notice of Application, paragraph 21.

¹¹ Notice of Application, paragraphs 4, 29 and 35.

geographic market. There are [REDACTED] farms identified within the “corridor of concern” that grow canola or CWRS (with some of the [REDACTED] farms growing both).

16. Because I have intentionally selected those farms that are physically closest to the Moosomin and Virden elevators (by being within a one-hour commercial trucking drive distance), it is not surprising they sell canola or CWRS to Moosomin or Virden. Yet these same farms also sell canola or CWRS to many other elevators and crushers. Most of these farms have sold canola or CWRS to multiple buyers in the last three crop years, with [REDACTED] of these farms having sold canola or CWRS to rival elevators and crushers. The transactions data shows there are significant canola deliveries from these

[REDACTED] farms to [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] The distances travelled to make canola sales to crushers from farms within the “corridor of concern” are well over [REDACTED]. Similarly, there are significant CWRS deliveries from the farms in the “corridor of concern” made to [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

17. Different farms make different choices. While one farm within the “corridor of concern” (such as, for example, the [REDACTED]) sold its CWRS to [REDACTED] [REDACTED] in the last three crop years, a neighbouring farm (such as, for example, [REDACTED]) sold its CWRS to [REDACTED] [REDACTED] over the last three crop years, while another farm in the “corridor of concern” (such as, for example, the [REDACTED]) sold its CWRS to [REDACTED]. As a result, different farms deliver to elevators at different distances. This is expected because farms and elevators are physically dispersed throughout the area, such that a farm will have some elevators closer and some farther away. For example, while one farm in Elkhorn MB selling CWRS to [REDACTED] another farm in

Elkhorn MB delivered CWRS to [REDACTED]
[REDACTED]).

18. There are many examples of farms within the “corridor of concern” selling to distant elevators and crushers. A single farm’s trucking costs to a single elevator will not determine P&H’s purchase prices to buy grain from many farms. Instead, elevators (including P&H) need to set purchase prices that are attractive to a broad set of farms, that will have varying trucking costs to reach any one elevator. Therefore, trucking costs neither shield P&H from competition from more distant elevators, nor do they artificially restrict the relevant geographic market to only containing Moosomin, Virden and Fairlight, as the Commissioner claims.
19. The transactions data collected by the Commissioner demonstrates that farms within the Commissioner’s area of concern avail themselves of many alternative buyers of canola and CWRS in the area. This is consistent with internal business documents that identify numerous elevator and crusher purchasers of canola and CWRS against which the Moosomin and Virden elevators compete.
20. The witness statements received from farms within the area surrounding the Moosomin and Virden confirm many elevators and crushers are considered when farms choose where to deliver their grain, even when they have an elevator very close.
- i. [REDACTED] regularly checks prices at [REDACTED]
[REDACTED]. He has sold wheat to [REDACTED]
[REDACTED].¹³
 - ii. [REDACTED] has sold wheat to [REDACTED] and can easily
switch to selling to [REDACTED].

¹² Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraph 7.

¹³ [REDACTED] Witness Statement, paragraph 8.

¹⁴ Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraphs 17-18.

[REDACTED] has sold canola to [REDACTED]
[REDACTED]

iii. [REDACTED] has sold wheat to [REDACTED]
[REDACTED]

[REDACTED] He can easily switch to selling wheat to [REDACTED]
[REDACTED]

[REDACTED] [REDACTED] has sold canola to crushers in [REDACTED]
[REDACTED]
[REDACTED]¹⁸

iv. [REDACTED] has sold to [REDACTED]
[REDACTED] and has contacted [REDACTED] for prices.¹⁹

v. [REDACTED] receives daily prices from [REDACTED]
[REDACTED]

[REDACTED]²⁰ [REDACTED] has sold wheat to [REDACTED]
[REDACTED] and has sold canola to [REDACTED]
[REDACTED]²¹

¹⁵ [REDACTED] Witness Statement, paragraph 19.

¹⁶ Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraph 19.

¹⁷ [REDACTED] Witness Statement, paragraph 21.

¹⁸ [REDACTED] Witness Statement, paragraphs 22 and 24.

¹⁹ Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraphs 8-10.

²⁰ Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraph 9.

²¹ [REDACTED] Witness Statement, paragraphs 22-23.

- vi. [REDACTED] is closest to [REDACTED], yet he has sold wheat to [REDACTED] [REDACTED] which is [REDACTED] away.²² [REDACTED] has sold canola to the [REDACTED]²³
- vii. [REDACTED] prefers to sell to [REDACTED] which is only [REDACTED] from his farm, but he has sold some wheat and canola to [REDACTED]²⁴

21. To repeat my earlier quotation from the MEGs, even those farms that the Commissioner identifies as “most likely to be affected” by the Acquisition are “well-placed to forego sales to the merging parties in favour of other buyers when faced with an attempt to lower prices.”²⁵
22. There is further evidence of extensive competition from elevators and crushers such that the relevant geographic market is properly defined to include more elevators than the three claimed by the Commissioner. The diversion ratios calculated by the Commissioner’s expert, Dr. Miller, using the transactions data, confirm the extensive sales of canola and CWRS made to elevators and crushers other than Moosomin, Virden and Fairlight from farms within the area examined in the Miller Report. Dr. Miller’s estimated diversion ratio from Moosomin to rival elevators and crushers beyond that going to Virden and Fairlight is [REDACTED] in canola and [REDACTED] in CWRS. Dr. Miller’s estimated diversion ratio from Virden to rival elevators and crushers beyond that going to Moosomin and Fairlight is [REDACTED] in canola and [REDACTED] in CWRS. It is incorrect to ignore this substantial substitution to elevators beyond Fairlight. If Moosomin, Virden and Fairlight were the only elevators that mattered for farms within area surrounding the Moosomin and Virden elevators, diversion ratios to rival elevators and crushers would

²² Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraph 8. While Ceres Northgate is farther away, it has offered bid prices high enough to justify the extra delivery costs. See [REDACTED] Witness Statement, paragraph 12.

²³ [REDACTED] Witness Statement, paragraph 9.

²⁴ Witness Statement of [REDACTED] [hereafter referred to as “[REDACTED] Witness Statement”], paragraphs 8-9.

²⁵ MEGs, paragraph 9.3.

be much lower than the amounts estimated by Dr. Miller using the transactions data collected by the Commissioner.

23. Rather than make use of the transactions data evidence on actual farm sales to competing elevators and crushers to identify the market participants that currently compete with Moosomin and Virden when defining the relevant geographic market, the Commissioner's expert, Dr. Miller, relies on a high percentage margin over his constructed price for "grain handling services" in a hypothetical monopolist test for the Moosomin, Virden and Fairlight elevators. As I discuss herein, the Commissioner and his expert, Dr. Miller, have parsed the single cash price paid to farms for their grain into two components thereby creating a product which they call "grain handling services". But "grain handling services" is not an actual service transacted, contracted, or discussed, in any dealings between farms and purchasers of grain. As "grain handling services" is neither observed nor transacted, Dr. Miller must create a method to measure the price for it. His method for measuring prices for "grain handling services" leads to highly divergent prices for "grain handling services" such that these prices are measured with significant error.
24. The error in defining the price (and its measurement) as "grain handling services" affects multiple aspects of Dr. Miller's analysis beyond product market definition. As just noted, Dr. Miller uses the price of "grain handling services" to compute a percentage margin used in his hypothetical monopolist test, leading him to the incorrect conclusion that the geographic market is limited to only Moosomin, Virden and Fairlight. If the cash prices to purchase canola and CWRS are used in the hypothetical monopolist test instead, or if Dr. Miller referred to the transactions data evidence when defining the geographic market, it would be clear, even on his own analysis, that more elevators and crushers must be included as market participants in the relevant geographic market.
25. Similarly, Dr. Miller's measures of gross upward pricing pressure resulting from the Acquisition are overstated because they are represented as a fraction of the artificially constructed "grain handling services" prices. When properly expressed as a fraction of the cash prices paid to purchase canola and CWRS, Dr. Miller's gross upward pricing

pressure measures reveal insignificant incentive for P&H to reduce purchase prices paid for canola and CWRS post-Acquisition.

26. Even if one accepts the merger simulation results presented by Dr. Miller, they show the profit improvement from the Acquisition is minimal to P&H. Dr. Miller's simulation model predicts a profit improvement for P&H of only [REDACTED] annually, based on his prediction that the Moosomin and Virden elevators reduce their purchases of canola and CWRS by about [REDACTED] further to a purported increase in the price of "grain handling services". The profit increase at rival elevators generated by Dr. Miller's simulation swamps the profit improvement for P&H. Diversion from the Moosomin and Virden elevators to rival elevators and crushers increases profits at all elevators and crushers by [REDACTED] annually. Viterra's Fairlight elevator alone increases profits by [REDACTED] which is nearly [REDACTED] as much as the profit increase at Moosomin and Virden that Dr. Miller predicts. This is [REDACTED] one expects the beneficiary of an alleged anticompetitive transaction to be the merging parties, not their rivals. If [REDACTED] the expected primary beneficiaries, it makes Dr. Miller's prediction that P&H will increase the price for "grain handling services" (or decrease the prices at which it purchases canola and CWRS) [REDACTED]
27. In keeping with [REDACTED] of the profit increase accruing to rival elevators and crushers in Dr. Miller's merger simulation results, it is also the case that [REDACTED] the consumer surplus losses that he finds, which are defined as changes in farm expected utility, are incurred by farms that did not deliver canola or CWRS to Moosomin or Virden pre-Acquisition. Yet when Dr. Miller compares his estimated consumer surplus losses and profit gains to compute changes in total surplus using the results of his merger simulation, he includes expected utility losses in consumer surplus from farms that never purchased from Moosomin, Virden or Fairlight, but he does not include the increase in profits associated with elevators and crushers to which these farms divert their sales, as his model predicts will occur. The result is Dr. Miller understates the profit gains to rivals in his total surplus calculation. Using his simulation results, the sum of the total expected change in consumer surplus and the change in total profits to elevators and crushers to which farms sell their grain, the change in total surplus is [REDACTED] annually in

canola and [REDACTED] annually in CWRS. In other words, there is [REDACTED] in total surplus in canola and [REDACTED] in total surplus in CWRS.

28. But even these surplus changes have not been borne out. The [REDACTED] surplus changes predicted by Dr. Miller's simulation result from a predicted [REDACTED] in purchases of canola and CWRS at the Moosomin and Virden elevators. This has not occurred. Since the Acquisition, total purchases of canola and CWRS have [REDACTED] at the Moosomin and Virden elevators. As well, P&H's forecasted grain purchases at Virden show it plans to [REDACTED] total grain purchases at Virden post-Acquisition. [REDACTED] aggregate purchases at Moosomin and Virden post-Acquisition are [REDACTED] with P&H exercising monopsony power. In keeping with these [REDACTED] in purchases, regression analysis of bid prices since the Acquisition shows P&H has [REDACTED] [REDACTED] for canola or for CWRS at Moosomin or Virden. [REDACTED] one of the Commissioner's witnesses, also reports [REDACTED] "has been [REDACTED] with their bids" such that he has "[REDACTED] [REDACTED]"²⁶

29. In sum, P&H's Acquisition of the Virden elevator has not provided and will not provide P&H with either the incentive or ability to materially lower the prices it pays to farms for their canola and CWRS. P&H has not [REDACTED] at the Moosomin and Virden elevators since the Acquisition closed, but instead it [REDACTED] [REDACTED]. These elevators compete with far too many other purchasers of canola and CWRS within the area to provide P&H with market power in respect of the purchase of canola or the purchase of CWRS. The Acquisition will not substantially lessen competition in any relevant and properly defined market.

30. The remainder of this Affidavit is organized as follows. Section III provides an overview of P&H's grain business. Section IV provides my economic analysis of the

²⁶ [REDACTED] Witness Statement, paragraph 15.

competitive effects of the Acquisition. Section VI contains my comments on the Miller Report.

III. P&H'S GRAIN BUSINESS

31. P&H is one of several grain companies operating in Canada that purchases grain from farms for export to international customers or for shipment to domestic mills.²⁷ Other large grain companies against which P&H competes include Viterra Incorporated, Richardson International Limited, Cargill Limited, Paterson Grain Limited, G3 Canada Limited, Ceres Global Ag Corp, Archer Daniels Midland ("ADM"), Bunge Limited, and GrainsConnect Canada, as well as local grain companies such as Northwest Terminal, Southwest Terminal and Providence Grain.²⁸
32. Canada is a large exporter of wheat and is the world's largest exporter of canola. Canada also produces large volumes of canola oil domestically. There are several large crushers of canola seed competing – pre- and post-Acquisition – for the purchase of canola in the area, such as Bunge at Altona MB and Harrowby SK, Richardson at Yorkton SK, and LDC at Yorkton SK. Crushers buy canola directly from farms as is evident from the transactions data collected by the Commissioner in this case. P&H and other grain companies compete with crushers for the purchase of canola from farms.
33. P&H acquires grain using a network of 29 primary elevators throughout Western Canada. Western Canadian elevators are connected by rail. [REDACTED]

²⁷ P&H's business is described at length in the Witness Statement of John Heimbecker [hereafter referred to as the "Heimbecker Witness Statement"].

²⁸ Request for ARC – P&H Asset Purchase from LDC dated August 23, 2019; P&H Response to the Notice of Application dated February 3, 2020; Moosomin Business Plan 2019 (P&H_0007141) and Moosomin Business Plan 2020 (P&H_0006457).

[REDACTED]

34.

[REDACTED]

35.

P&H does not supply “grain handling services”, as the Commissioner defines this.³² Instead, P&H (like other grain companies and crushers) buys canola and buys CWRS from farms, taking title to the grain at the time the farm delivers the grain to the elevator.

[REDACTED]

P&H grain purchase targets

36. [REDACTED]

37. [REDACTED] The global commodity supply and demand conditions for Canada's grain also vary year over year.

38. [REDACTED]

³³ See the Heimbecker Witness Statement generally for a discussion of P&H's planning and grain purchase budgeting, and paragraph 32 specifically.

³⁴ See 2020-21 Western Canada Budget – Grain Tonnes, attached to the Heimbecker Witness Statement

³⁵ See 2020-21 Western Canada Budget – Grain Tonnes, attached to the Heimbecker Witness Statement.

³⁶ For example, Fusarium head blight (“FHB”) is a fungal disease that may affect many Canadian crops including “wheat, barley, oats, rye, corn, canary seed and forage grasses”, and negatively impacts grain quality and overall yield. FHB proliferates in warm, humid conditions; it “is associated with rainfall during the flowering stage” and “is spread by wind”. See <https://www.grainscanada.gc.ca/en/grain-research/scientific-reports/fhb-western/fhb-1.html>. For maps that show the effect of FHB across Canada (2011 to 2016) see <https://grainscanada.gc.ca/en/grain-research/export-quality/cereals/wheat/western/annual-fusarium->

[REDACTED]

39.

[REDACTED]

Understanding grain pricing for purchases from farms

40. There are various terms being used to describe prices in this case. In this section, I will clarify meanings.

41. Elevators post prices they are paying to buy grain. The posted price is sometimes called the “flat” price,⁴³ the “net” price,⁴⁴ the “bid” price,⁴⁵ or the “cash” price.⁴⁶ I will refer to the “cash” price to be consistent with the terminology used in the Miller Report when describing the prices paid and received by farms. From the elevators’ perspective, the cash price paid to farms is the *cost to acquire grain*. Elevators pay one single cash price to farms for their grain.⁴⁷ From the farm’s perspective, the cash price is the price received for the *sale of grain*. Farms receive this single cash price when selling their grain to elevators.
42. The posted price for grain identifies its attributes or quality – typically this is “1 CAN WEST” for canola, reflecting “grade 1” Canadian western canola and “1 CWRS 13.5” for wheat, reflecting “grade 1” and 13.5% protein.⁴⁸ The posted price is the cash price for immediate (i.e., within the month) delivery to the elevator (also referred to as “spot”). Elevators also post “deferred” or “forward” prices, which are the cash prices that will be paid for a future delivery if the contract is entered into today.⁴⁹ ■

⁴³ See, for example, Heimbecker Witness Statement, paragraph 60.

⁴⁴ See, for example, the ■ Witness Statement, paragraph 7, the ■ Witness Statement, paragraph 8, and the ■ Witness Statement, paragraph 7.

⁴⁵ When P&H contracts to acquire grain from farms, this price appears on the contract as the “Net Price.” It is a Canadian dollar amount per metric tonne of grain. For example, see Figure 2.

⁴⁶ See Figure 1a and Figure 1b. The posted price for a bushel of grain is referred to as the “Bid.”

⁴⁷ I refer to a “single” cash price to distinguish this from the Miller Report which breaks this one cash price into two components.

⁴⁸ The Canadian Grain Commission provides canola and CWRS grade definitions based on “degree of soundness”, “variety” and “standard of cleanliness commercially pure seed”. Canola No. 1 Canada has soundness defined as “reasonably well matured, sweet, good natural colour”, variety defined as “any variety of canola registered under the Seeds Act”, and cleanliness defined as “not more than 1.0% of other seeds that are conspicuous and that are not readily separable from canola, to be assessed as dockage” (see www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/10-canola-rapeseed/primary-grade-determinants-tables.html.) No. 1 CWRS has soundness defined as “reasonably well matured, reasonably free from damaged kernels” (see www.grainscanada.gc.ca/en/grain-quality/grain-grading/standard-grading-tool.html).

⁴⁹ Deferred or forward cash prices apply to forward contracts, where the farm contracts to deliver a set quantity of grain for the contracted price within a future delivery month. See Heimbecker Witness Statement, paragraph 90.

[REDACTED]
[REDACTED]
[REDACTED]⁵⁰ Elevators post cash prices measured in bushels, with the amount derived from the cash price calculated per MT.⁵¹

43. P&H provides a reference price when it posts its cash prices for purchase. The reference price provides the farm with information on the world commodity index that underlies the posted cash price. World commodity prices for grain can change frequently throughout a day and across days. The futures price used by P&H (and other grain companies) as its reference price for CWRS is the Minneapolis Hard Red Spring Wheat price which is in USD/MT.⁵² The futures price used by P&H as its reference price for canola is the Intercontinental Exchange (“ICE”) price for canola in Saskatchewan in CAD/MT.⁵³ It is common in the industry for elevators to post the difference between their cash prices and the futures price, which is referred to as the “basis”.⁵⁴ The Alberta Wheat Commission describes “basis treatment on wheat prices” as follows:

“As Western Canadian wheat bids are in Canadian dollars and the futures used in pricing are reported and traded in US dollars, the exchange rate becomes a significant influence on the basis. Regarding this unusual situation, the convention of the trade appears to be unconventional. Most buyers report their basis as simply the difference between their bid and the futures price, regardless of the fact that their bid is in Canadian dollars and the futures are in US dollars. For example, if their bid for CWRS is

\$6.75/bu (Canadian) and the relevant futures price is 5.50/bu (US), their reported basis is 1.25 over the futures (6.75-5.50).”⁵⁵

44. Figures 1a and Figure 1b are screenshots of P&H’s mobile application’s posted prices on May 14, 2020 to purchase 1CWRS 13.5 at Moosomin for various delivery months. Figure 1a is the initial screen view, and Figure 1b is the screenshot if one clicks through to “View Detail”. Figure 1b provides details on the futures index used as the benchmark (“MWN20”) and the futures price in USD per bushel. As shown there, if a farm were to contract with P&H on May 14, 2020 to deliver 1CWRS 13.5 to Moosomin in June 2020, P&H will pay the cash bid price of [REDACTED] CAD/bu to the farm, reflecting a US futures price of [REDACTED] USD/bu and a basis of [REDACTED] (= [REDACTED]).
45. Examples of contracts with farms also illustrate the cash prices and reference prices.
- i. Figure 2 provides an example of a P&H purchase contract with [REDACTED] to purchase [REDACTED] MT of 1 CWRS 13.5 for the “net” (i.e., cash) price of [REDACTED] CAD/MT. The contract refers to the futures price of [REDACTED] USD/MT and a basis of [REDACTED]. As noted above, the basis is the numerical difference between [REDACTED] which is in CAD and [REDACTED] which is in USD, such that it is not a price.⁵⁶ The contract is dated [REDACTED] for delivery in the month of [REDACTED]
 - ii. Figure 3 provides an example of a Virden purchase contract with [REDACTED] to purchase [REDACTED] MT of CWRS #1 13.5 for the “net” (i.e., cash) price of [REDACTED] CAD/MT (or [REDACTED] CAD/bu). The contract was agreed on [REDACTED] and is for delivery in the month of [REDACTED]. Unlike the P&H

⁵⁵ See <http://www.pdqinfo.ca/about/procedures>. PDQ is the Alberta Wheat Commission’s website providing wheat price data.

⁵⁶ When P&H contracts to acquire grain from farms, this basis appears on the contract as the “Basis Price.” Although the default contract template puts a “\$” before this amount, it is neither a “price” nor is it necessarily denoted in a currency. The basis is the numerical difference between the cash price and the referenced futures without regard for the currencies of either of those values. For example, see Figure 2 when the cash price is [REDACTED] CAD/MT and the “Futures Price” is [REDACTED] USD/MT and the basis is [REDACTED]/MT (= [REDACTED]).

contract, the LDC Virden contract does not provide a reference futures price or basis.

- iii. Figure 4 provides an example of a P&H purchase contract with [REDACTED] to purchase [REDACTED] MT of 1CAN Canola for the “net” (i.e., cash) price of [REDACTED] CAD/MT. The contract refers to the futures price of [REDACTED] CAD/MT and a basis of [REDACTED]. The basis is the numerical difference between [REDACTED] and [REDACTED] both of which are in CAD. The contract is dated [REDACTED] for delivery in the month of [REDACTED].
- iv. Figure 5 provides an example of a Virden purchase contract with [REDACTED] to purchase [REDACTED] MT of grade #1 canola for the “net” (i.e., cash) price of [REDACTED] CAD/MT (or [REDACTED] CAD/bu). Unlike the P&H contract, there is no futures price or basis used in the Virden canola contract. The contract is dated [REDACTED] for delivery in the month of [REDACTED].

46. The internal process through which P&H sets its posted prices is referred to as its “[REDACTED]” because, in the simplest sense, [REDACTED]
[REDACTED]
[REDACTED] The [REDACTED]
[REDACTED] to derive initial cash prices. [REDACTED]
[REDACTED] In addition, [REDACTED]
[REDACTED]
[REDACTED] The posted prices for grain are a function of the specific commodity as well as its quality.⁵⁷ [REDACTED]

⁵⁷ P&H sets posted prices for every elevator for a set of “Benchmark Commodities” which are regularly purchased from farms by that elevator. For instance, the Benchmark Commodity for CWRS wheat is “1CWRS 13.5”—that is, Canada Western Red Spring (“CWRS”) of grade 1 with 13.5 percent protein. Similarly, the Benchmark Commodity for Canola is Canada West Canola, Grade 1 denoted by “1CAN CANOLA W.” If a farm wants to contract to sell a grade or protein of either of these commodities that is different than the Benchmark Commodity standards to P&H, P&H uses a set of publicly reported “Protein Spreads” and “Grade Spreads” to adjust the posted price of the Benchmark Commodity to the posted price of the non-Benchmark Commodities. The Protein Spreads and Grade Spreads are the same across all elevators in the P&H network at a moment in

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁵⁹

47. [REDACTED]⁶⁰ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] The outcome of this calculation is the posted cash price that P&H will pay for grain at the elevator.

48. [REDACTED]
[REDACTED]
[REDACTED] Different freight costs from an elevator to a terminal result

time Heimbecker Witness Statement, paragraph 110 and P&H Discount Table (found in Appendix A to Answers to Undertakings Given on the Examination of John Heimbecker on July 15, 16, and 17, 2020), P&H CWRS Protein Spreads (found in Appendix I to Answers to Undertakings Given on the Examination of John Heimbecker on July 15, 16, and 17, 2020), and Quality Determinants (found in Appendix CC to Responses to Follow-up Questions from Heimbecker Examination]. Contracted prices for grain that are adjusted using the Spreads are still considered posted price transactions by P&H in the normal course of business, as the posted price for the non-standard proteins and grades are algorithmic adjustments to the posted prices of the Benchmark Commodities.

⁵⁸ For example, see Figure 1a and Figure 1b which illustrate posted bid prices on May 14, 2020 for 1CWRS 13.5 for deliveries in every month from May 2020 to March 2021.

⁵⁹ Cash prices vary one-to-one with CAD movements in the benchmark futures prices. See, Heimbecker Witness Statement, paragraph 73.

⁶⁰ Adapted from P&H Workback Analysis (Appendix DD found in Responses to Follow-up Questions from John Heimbecker’s Examination for Discovery).

⁶¹ The freight logical port for P&H’s elevators in Alberta and western Saskatchewan is [REDACTED] where P&H has made significant investments [REDACTED]. The freight-logical port for the [REDACTED] elevators is [REDACTED] Heimbecker Witness Statement, paragraphs 24 and 43.

in different posted prices by elevator. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

49. Figures 7-8 show there is no change in the relationships between Moosomin and Dutton since P&H acquired the Virden elevator.⁶³

Posted prices, contract prices and negotiated prices

50. Farms have several ways to sell grain to elevators and crushers. Sales may be made with contracts signed for delivery within the same month.⁶⁴ Forward (or deferred) contracts establish the quantity to be delivered by the farm at a future month for the contracted cash price.⁶⁵ Such contracts may take the form of a grain purchase order (“GPO”), under which a farm provides a target cash price to the elevator, indicating the quantity and quality of grain the farm will deliver to the elevator if the target cash price is reached.⁶⁶
51. If the posted cash price at the elevator reaches the target price set in a farm’s GPO, the elevator contacts the farm to secure the delivery. An elevator can also proactively

⁶² Freight costs are attached to the Heimbecker Witness Statement.

⁶³ [REDACTED] freight-logical terminal. While there are other P&H elevators that ship to [REDACTED], a number of these are within the draw areas of some of the LDC elevators acquired by P&H (see Request for ARC – P&H Asset Purchase from LDC dated August 23, 2019). Dutton has the same terminal as Moosomin and would be unaffected by the Acquisition; hence, it is used in this and other price comparisons.

⁶⁴ See, for example, [REDACTED] Witness Statement, paragraph 13, and [REDACTED] Witness Statement, paragraph 12.

⁶⁵ See, for example, [REDACTED] Witness Statement, paragraph 13, and [REDACTED] Witness Statement, paragraph 12.

⁶⁶ See, for example, [REDACTED] Witness Statement, paragraphs 12-13, [REDACTED] Witness Statement, paragraphs 14-15, and [REDACTED] Witness Statement, paragraphs 13-14.

trigger GPOs by agreeing to pay the target price to secure the contracted grain even if the posted cash price at the elevator has not reached the target price. At P&H, these are part of a limited special, when the commodity merchant may authorize one or more elevators to proactively trigger GPOs at their target prices.⁶⁷

52. When P&H offers a “Special” price, which are referred to as “limited tonne” and “limited time” specials, it does so to meet a particular need, like, for example, filling remaining space in a train waiting at an elevator.⁶⁸ [REDACTED]
[REDACTED]
53. Posted “specials” are broadcast to farms through P&H customer service representatives (“CSRs”) at individual elevators by sending emails or texts, sending a push notification through P&H’s mobile application, and by calling farms within the area.⁷⁰
54. [REDACTED] farms may have one-on-one negotiations with P&H for higher cash prices. As I discuss below, the instances of one-on-one negotiations are [REDACTED] relative to the [REDACTED]. The evidence is that [REDACTED] of P&H’s purchases occur at posted cash prices, such that [REDACTED].⁷¹

Grading adjustments to cash prices at the time of delivery

55. Adjustments may be made to the cash price at the time of delivery if the quality delivered differs from the quality that was contracted. Grain quality at the time of contract may be uncertain when forward contracts are used. As well, there can be differences in quality within a single farm’s crop. Elevators follow a formal process for

⁶⁷ Heimbecker Witness Statement, paragraph 96.

⁶⁸ Heimbecker Witness Statement, paragraph 80.

⁶⁹ Heimbecker Witness Statement, paragraph 80.

⁷⁰ Heimbecker Witness Statement, paragraphs 82.

⁷¹ Heimbecker Witness Statement, paragraph 85. See also [REDACTED] Witness Statement, paragraph 27, which states:
[REDACTED]

grading the quality of grain delivered, using a schedule of published price adjustments. Grade standards are established by the Canadian Grain Commission (“CGC”).

56. Elevator staff grade grain through sampling taken at the time of delivery. The sample taken at the elevator can be sent to CGC for an official assessment if the farm disagrees with the elevator staff’s assessment. This assessment has three parts.
- i. First, the sample is assessed using a CGC-approved procedure to determine the amount of foreign material in the sample (e.g., materials that are not the desired grain). This determines the “net” compared to “gross” volume to which the cash price is applied.⁷² The difference between gross and net volume is referred to as “dockage”.⁷³
 - ii. Second, the grain is assessed for moisture and protein levels.⁷⁴ Grain is contracted to have “straight” moisture levels.⁷⁵ If the delivered grain has a higher moisture percentage (e.g., “tough” or “damp” grain), a weight reduction is applied for the excess moisture (i.e., excess weight due to the moisture) in the sample. Reductions due to higher moisture levels are a fixed charge per MT. At elevators with a dryer, farms may have their grain dried for a fee instead of having the moisture reduction applied.⁷⁶ Drying charges or moisture fees are considered “fees” in the normal course of business, as they are a fee for providing drying services (directly or indirectly). P&H applies similar fees for drying or moisture



reductions across elevators, although these can change over time.⁷⁷ Protein levels are assessed with pricing adjusted based on “protein spreads”. P&H has the same protein spreads across elevators,⁷⁸ and like drying fees these may change over time.⁷⁹

- iii. Third, the grain is graded. Grading grain has objective measurable elements – green%, ergot%, etc. – and visual inspection elements. The visual quality inspection determines the degree of soundness.⁸⁰ The grader can use samples circulated by the CGC as benchmarks for guiding accurate and consistent visual grading, and there is an official grading guide that defines the degree of soundness associated with the different grades of grain. Although there are many grading factors, the primary objective and visual factors are summarized in “grading tables”.⁸¹ Adjustments in cash prices due to grade determination are done using the grain spreads at the elevator at delivery. Some of the measurable elements that affect grade only affect the price through the grade determination (e.g., ergot percentage or fusarium percentage).⁸² Other grading factors have additional

⁷⁷ Heimbecker Witness Statement, paragraph 108 and P&H Discount Table (found in Appendix A to Answers to Undertakings Given on the Examination of John Heimbecker on July 15, 16, and 17, 2020. Additionally, P&H has supplied the quality determinants and fees in Quality Determinants (found in Appendix CC to Responses to Follow-up Questions from Heimbecker Examination).

⁷⁸ Occasionally, the personnel at the elevator may choose to contract grain from a farm at a price that is different from that which would be expected given the Protein and Grade Spreads at the time of the contract. See, for example, Heimbecker Witness Statement, paragraph 112. P&H stated that this [REDACTED]

⁷⁹ For an example of protein Spreads at the time of the transaction, see P&H CWRS Protein Spreads (found in Appendix I to Answers to Undertakings Given on the Examination of John Heimbecker on July 15, 16, and 17, 2020).

⁸⁰ <https://www.grainscanada.gc.ca/en/grain-quality/grain-grading/standard-grading-tool.html>

⁸¹ <https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/04-wheat/primary-grade->

quality reductions (e.g., admix, green%, heated%, spring thrashed, other damage% and test weight).⁸³

57. Depending on P&H's inventory (at the elevator, port terminal and across its network) at the time of delivery, it may be possible for the elevator to blend a somewhat lower grade without affecting the overall grade of the elevator's full inventory.⁸⁴ For example, consider fusarium damage for CWRS. According to the grading tables, No. 1 CWRS can have up to 0.3% fusarium damage and No. 2 CWRS can have up to 0.8% fusarium damage. If a farm delivers a grain that meets No. 1 CWRS standards on all elements, except it has 0.4% fusarium damage, it is possible that the grader will still award this delivery No. 1 status and No. 1 pricing if the elevator can blend the delivered grain with 0.4% fusarium damage with existing inventory stocks and still meet the 0.3% fusarium damage limit for No. 1 CWRS.⁸⁵ If this were to occur, it is referred to as a form of "upgrading". It is P&H's policy not to upgrade grain in this manner.⁸⁶
58. In summary, P&H manages its price setting, including adjustments for grade, and any offers of "Specials" centrally, at the network level. Individual elevators implement the directions provided from P&H's headquarters. In keeping with this central organizing principle, P&H also manages its costs at the network level.⁸⁷ P&H does not maintain
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profit and loss or other financial accounts for individual elevators.⁸⁸ Instead, P&H treats all elevators as “costs” in its financial records.⁸⁹

IV. ECONOMIC ASSESSMENT OF THE ACQUISITION

Economics of monopsony power

59. This is a case about monopsony power (i.e., market power on the buying side of the market) because the competition concern is one involving P&H lowering the prices it pays to farms for their canola and CWRS after acquiring the Virden elevator.
60. Monopsony or oligopsony reflects market power on the buying side of the market, as opposed to the more usual competition framework involving market power on the selling side (i.e., monopoly or oligopoly power). In the textbook case of monopsony, the sole purchaser chooses the input quantity to purchase in order to maximize the value received from using the input less the total expenditure. When the input is homogeneous, price discrimination is not possible and an upward-sloping supply curve for the input exists,⁹⁰ the monopsonist lowers the input price by lowering its input

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[REDACTED]

Response by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC (the “Proposed Transaction”) — P&H Response to SIR dated November 9, 2019, at p.4, q. 9.

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[REDACTED]

Response by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC (the “Proposed Transaction”) — P&H Response to SIR dated November 9, 2019, at p.4, q. 9.

- ⁹⁰ If the supply of the input is flat, the monopsonist cannot change the price of the input by lowering its purchases. Not all industries will have upward sloping supply curves. In a study of 26 US manufacturing industries, for example, 16 industries were found to have upward sloping supply functions, while seven had flat supply functions and three had downward sloping supply functions (see J. Shea (1993) “Do Supply Curves Slope Up?”, *Quarterly Journal of Economics*, 108:1-32). Outside of manufacturing, the supply curves for many agricultural products generally slope upward (see Dobson Consulting (1999) *Buyer Power and its Impact on Competition in*

purchases below competitive levels. It is only by reducing its purchases that the monopsonist is able to reduce the input purchase price because lowering the price of one unit also serves to lower the price paid for all other units.⁹¹

61. The source of inefficiency is the reduced input purchase quantities: the below-competitive input purchase level is associated with an allocative inefficiency (or “deadweight loss”) caused by the monopsonist’s decision not to purchase additional units for which the marginal value exceeds the marginal cost of the input supply. This is analogous to the familiar deadweight loss or allocative inefficiency associated with the exercise of market power when considering monopoly.⁹²
62. Economists’ concern with monopsony stems from the efficiency loss associated with fewer inputs being purchased relative to a competitive market. As a result, it is important to distinguish monopsony from arguments over the split of upstream profits among possible suppliers. It is possible that mergers may change the bargaining position of purchasers in their dealings with suppliers, thereby shifting the terms of trade

the Food Retail Distribution Sector of the European Union, Study prepared for the European Commission – DGIV, May, at 13).

⁹¹ See Michael Trebilcock, Ralph Winter, Paul Collins and Edward Iacobucci (2003), *The Law and Economics of Canadian Competition Policy*, (Toronto: University of Toronto Press) at 69: “The distortion in the monopsony purchase arises because at any output, the marginal expenditure exceeds the supply price of the product. The marginal expenditure is higher than the supply price because to elicit an additional unit of supply the monopsonist must raise the price paid on all units, not just on the marginal unit.”

⁹² “The analysis of the monopsonist reminds us that inefficiencies associated with market power arise from insufficient quantities, not excessive prices.” Trebilcock et al., *The Law and Economics of Canadian Competition Policy*, at 70.

between purchasers and suppliers, but this need not alter the quantity of input purchases.^{93, 94}

63. Monopsony power can exist even when output markets are competitive, as ultimately what matters are the alternatives available to input suppliers. An efficiency loss is still evident even with competitive downstream markets, since input suppliers that would have produced the relevant input at the competitive marginal cost of doing so do not supply it owing to the distorted input prices. At the same time, competitive output markets may act to attenuate monopsony concerns in some circumstances.⁹⁵
64. The ability of the input purchaser to force a price and input purchase reduction below competitive levels depends critically on the alternatives that are available to suppliers. If suppliers have numerous ready alternatives, then supply is highly elastic. At high firm supply elasticities, any attempt to lower input prices will require a considerable reduction in input purchases. As a result, the input purchaser will have little ability to suppress price below the competitive level, implying little loss in efficiency.

⁹³ The division of the gains from trade between two bargaining firms depends on the profits each firm would lose in the event that no trade occurs. In the context of a manufacturer negotiating with a distributor, if the manufacturer has many attractive distribution channels available to it and the manufacturer's product is highly desirable such that the distributor would lose considerable sales if it failed to stock the manufacturer's product the split of rents between the manufacturer and distributor will be more heavily weighted to the manufacturer. A merger that reduces the number of distributors may change this dynamic allowing the merged distributor to capture a larger share of the gains from trade than was the case pre-merger. There is no change in the quantity of product bought by the distributor however and hence no change in input purchases.

⁹⁴ Alternatively, the structure of pricing may be non-linear, having two-part tariffs (i.e., a fixed fee plus a payment based on volume purchased), or quantity discounts, which may allow the merged firm to reduce the total payment made to suppliers without reducing the quantity of inputs purchased from those suppliers. In such circumstances, there is no monopsony efficiency loss, although to the extent that returns to input suppliers are reduced over the longer term we might expect reduced entry or possible exit in the production of inputs, which in turn should raise returns to input suppliers again. If instead, a reduction in the economic return to suppliers reduces their output over the longer term owing to barriers to entry in input supply markets, there is an efficiency loss.

⁹⁵ When the merging firms compete in competitive output markets and when inputs are combined in fixed proportions to yield final output, any reduction of input purchases necessarily reduces the merged firm's outputs. By reducing input purchases, the monopsonist cedes market share in the output market. As a result, while input costs may decline owing to lower input prices and lower input purchases, these potential cost savings may be offset by the reduction in margin earned on the forgone output.

65. As I discuss below, farms have numerous alternative buyers available beyond the Moosomin and Virden elevators, such that P&H faces a high supply elasticity. As a result, P&H is unable to materially reduce its purchase prices for grain from farms in the area surrounding the Moosomin and Virden elevators. To do so would require an uneconomic reduction in the volume of P&H's purchases at these elevators, particularly in light of the sizeable capital investments made by P&H in expanded terminal capacity in Vancouver.⁹⁶ Indeed, since closing the Acquisition, P&H has increased purchases at the Moosomin and Virden elevators.⁹⁷

Relevant product markets

66. In cases where the market power concern is in respect of the *sale* of products or services, market definition is approached from the buyers' perspective.⁹⁸ However, this case is about market power on the *buying* side; hence, market definition should be approached from the farms' perspective.
67. If P&H were to have monopsony power post-Acquisition, it would reduce the cash prices paid to farms for their grain, owing to farms having few alternative buyers for their grain. Pre-Acquisition, the Virden elevator bought canola and CWRS from farms, while the Moosomin elevator bought canola, CWRS and other grains. As a result, any competitive effects from the Acquisition would be in respect of the purchase of canola and the purchase of CWRS as these are only two grains of overlap.
68. The Commissioner seeks to define the relevant product market differently, by claiming that elevators provide "grain handling services" to farms simultaneously with farms selling grain to elevators. This is an artificial construct that does not apply to the actual

interactions between farms and elevators that exist today.⁹⁹ For instance, the [REDACTED] [REDACTED] Witness Statements refer to receiving the “net” or “cash” price from elevators and crushers, which is the price that they use to compare across buyers and is the price that “matters to me and ... drives my decision to sell [to] a given Elevator or crusher.”¹⁰⁰ I discuss the error in the Commissioner’s approach at length when commenting on the Miller Report in the next section. Market interactions between farms and elevators support a relevant product market defined as the purchase of canola or the purchase of CWRS.¹⁰¹

⁹⁹ The Commissioner’s characterization of the industry may have been relevant in the past, but it is not how the industry operates currently. With respect to past industry practices, I note the Competition Bureau filed an application before the Competition Tribunal challenging a joint venture between the Saskatchewan Wheat Pool and James Richardson International Limited at the Port of Vancouver in November 2005. At the time of that transaction, the merging firms did not purchase grain from farms. Instead, the Canadian Wheat Board (“CWB”) purchased all grain from farms. Grain companies would handle grain delivered by farms on behalf of the CWB on a “toll basis”. Under the terms of the handling agreements then in place, grain companies would pay farms what was referred to as an “Initial Price” determined by the CWB, minus certain deductions. The Initial Price was based on the CWB’s perception of the market value in Vancouver (or other export ports, such as Thunder Bay). Grain companies would deduct certain charges (or tariffs) from that price including: (a) the effective rail tariff from their elevator to the export terminal; (b) tariffs for elevation, handling and cleaning; and (c) a CGC service fee. The net price, after applying those deductions, was the amount payable to the farm. With the end of the CWB on July 31, 2012, the historical tariffs and fees for service ended.

¹⁰⁰ [REDACTED] Witness Statement, paragraph 11.

¹⁰¹ The Competition Bureau has defined the relevant product as the purchase of an input in other merger cases. For example, in its review of Cargill Limited’s acquisition of the Better Beef Group of Companies, the Bureau examined the transaction’s competitive effects in respect of cattle procurement, which is analogous to the purchase of grain here. The Bureau defined the relevant upstream product market as the procurement of fed cattle, or slaughter cattle under 30 months of age. Fed cattle are steers and heifers that have reached an optimum slaughter weight of 1,200 to 1,400 pounds. See Competition Bureau Backgrounder on the Acquisition of Better Beef by Cargill Limited, available at: <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/01941.html>.

Shortly before dealing with the Cargill/Better Beef merger, the Bureau had completed a broader investigation of monopsony allegations made against Canadian packers following the U.S. and other countries’ ban on imports of Canadian beef with the discovery of bovine spongiform encephalopathy (“BSE”) in Canada in May 2003. Beef packers were accused of coordinating the prices paid to ranchers for cattle contrary to the conspiracy provisions of the *Competition Act*, and also of engaging in anti-competitive practices contrary to the abuse of dominance provisions of the *Competition Act*, notably refusal to deal, using captive supply to drive down cattle prices and margin squeezing. There were also allegations of strategic bidding among packers to depress cattle prices, black listing or boycotting of auction houses, cattle producers or feedlots attempting to sell cattle, and reducing prices offered for cattle by an amount equivalent to government aid. In late April 2005 the Bureau reported the results of its investigation, finding no evidence of conduct contrary to the *Competition Act*. See Competition Bureau Backgrounder on the Competition Bureau’s Examination into Cattle and Beef Pricing, available at <http://www.competitionbureau.gc.ca/internet/index.cfm?itemID-1311&lg=e>.

69. Using the language of the MEGs, the cash price paid to farms to purchase canola or CWRS is “ordinarily considered to be the price of the product in the sector of the industry (e.g. manufacturing, wholesale, retail) being examined”,¹⁰² such that it is the “prevailing price in the relevant market”.¹⁰³ The cash price to purchase canola and the cash price to purchase CWRS are also the correct base prices to use when postulating a price increase under the hypothetical monopolist test.¹⁰⁴
70. The cash prices paid for the purchase of canola or the purchase of CWRS are “posted prices” at the elevator.¹⁰⁵ These prices apply across multiple farms. This is not a case where buyers “may identify and charge different prices to various targeted sets of [farms]”¹⁰⁶ such that price discrimination exists. P&H does not negotiate each individual farm-specific price that would make the purchase of grain from each farm a separate relevant product market. Instead, the relevant product markets are defined as the purchase of canola and the purchase of CWRS, such that the prices used to evaluate competition in the relevant product markets are the cash prices paid to farms for the purchase of their canola or CWRS.

Relevant geographic markets

71. Adapting the language of the MEGs to account for this case being one of monopsony, the relevant geographic markets should be defined to include all *purchasers* that would have to be included in order for a sole profit-maximizing buyer (a “hypothetical monopsonist”) to impose and sustain a small but significant and non-transitory decrease in the cash price paid to farms. The geographic boundaries are drawn to include the

¹⁰² MEGs, paragraph 4.7.

¹⁰³ MEGs, paragraph 4.6.

¹⁰⁴ MEGs, paragraphs 4.6-4.7.

¹⁰⁵ The Commissioner’s expert Dr. Miller agrees that the right economic model to address any competitive concerns arising from the acquisition is a posted price model. See Miller Report, paragraph 47.

¹⁰⁶ MEGs, paragraph 4.8, speaking to market power in respect of the selling side of the market state: “When price discrimination is feasible, it may be appropriate to define relevant markets with reference to the characteristics of the buyers who purchase the product (assuming they can be delineated) or to the particular locations of the targeted buyers.” This is not the case here.

locations of all such purchasers. I discuss the application of the hypothetical monopsonist test in my comments on the Miller Report.

72. The Moosomin and Virden elevators purchase canola and CWRS. Rival elevators also purchase both grains. In canola, there are also additional purchasers who crush canola seed to produce canola oil. I will adopt the common industry nomenclature to refer to the latter group of grain purchasers as “crushers”.
73. Figure 9 provides a map of the elevators and canola crushers within the area surrounding the Moosomin and Virden elevators. Elevators and crushers buy grain from numerous farms that are widely dispersed throughout the area. The cash prices set by elevators and crushers need to be high enough to attract sufficient volumes from many dispersed farms. As such, the cash prices must cover the trucking costs for more distant farms to be willing to truck grain to the elevator’s or crusher’s location.¹⁰⁷ Because a single cash price is paid to farms at varying distance from the elevator or crusher, farms that are located very close to the elevator or crusher receive the same cash price as farms that are farther away. The result is that very close farms realize a location “rent” or benefit that more distant farms do not realize. Nevertheless, without price discrimination and given the quantity of grain purchased by P&H, it cannot take advantage of farms based on proximity.
74. A single farm will be close to one elevator and more distant to another elevator, yet both elevators compete for this farm’s grain, as well as many other farms’ grain. The result is a set of interconnecting and overlapping “draw” areas where a draw area depicts the geographic locations of farms that deliver grain to any single elevator or crusher location. Using this concept, Figure 10 shows the locations of all farms from which

¹⁰⁷ Farms selling to more distant buyers are doing so because the cash prices they receive make the longer trip worthwhile. See, for example, [REDACTED] Witness Statement, paragraph 21, [REDACTED] Witness Statement, paragraph 24, and [REDACTED] Witness Statement, paragraph 25.

each of Moosomin and Virden purchase 95% of their respective canola,¹⁰⁸ based on the transactions data collected by the Commissioner for the last three crop years. Only farms making deliveries over 50 MT in a single crop year are included to ensure farms making regular sales to each elevator are used.¹⁰⁹ Each elevator buys canola from a wide area that extends well beyond its immediate area. There are [REDACTED] from which Moosomin purchases canola and [REDACTED] from which Virden purchases canola. In the 2018-19 crop year, these farms delivered [REDACTED] MT of canola to Moosomin and [REDACTED] MT of canola to Virden.

75. When distance is measured using roads suitable for commercial trucking,¹¹⁰ the farms located on the periphery of the Moosomin 95% draw area for canola are approximately [REDACTED] from Moosomin. In the case of Virden, its 95% draw area for canola extends to farms located [REDACTED] from Virden based on commercial trucking roads. The Witness Statements of [REDACTED] refer to sales made to elevators and crushers within and beyond these distances.¹¹¹
76. Crushers purchase larger quantities of canola than elevators; hence the purchase prices paid by crushers are higher to attract canola from more distant farms.¹¹² Figure 11 provides the draw area for Richardson's Yorkton crusher's purchases of canola in 2018-19 superimposed on the canola draw areas for Moosomin and Virden. The periphery of

¹⁰⁸ A 95% draw area is used to match the share of total net quantity from the Moosomin, Virden and Fairlight elevators which is contained in Dr. Miller's "union of 90% service areas", as shown at Exhibit 18 of his report. Dr. Miller's union of 90% service areas (baseline) accounts for [REDACTED] of the Moosomin, Virden and Fairlight elevators' canola deliveries and [REDACTED] of their CWRS deliveries. Even if Dr. Miller uses an 85% service area (as shown in his Exhibit 18), this accounts for [REDACTED] of the Moosomin, Virden and Fairlight elevators' canola deliveries and [REDACTED] of their CWRS deliveries as report by Dr. Miller.

¹⁰⁹ A single truck holds 45 MT of grain. By using a threshold of 50 MT, the farm must deliver more than a single truckload to the elevator.

¹¹⁰ These distances are based on commercial truck driving distances calculated using the HERE API and account for road weight limitations.

¹¹¹ See [REDACTED] Witness Statement, paragraphs 17 and 19, [REDACTED] Witness Statement, paragraphs 19 and 22, and [REDACTED] Witness Statement, paragraphs 22-23.

¹¹² See [REDACTED] Witness Statement, paragraph 10, [REDACTED] Witness Statement, paragraph 12, and [REDACTED] Witness Statement, paragraph 11.

Richardson's Yorkton's crusher's 95% draw area for canola is [REDACTED] which is [REDACTED] than that of Moosomin and Virden. Richardson's Yorkton crusher purchased canola from [REDACTED] farms in 2018-19.

77. The transactions data collected by the Commissioner includes farm location information that allows draw areas to be constructed for the elevators within the immediate area owned by P&H, LDC, Viterra, Richardson, and Cargill, as well as the crushers owned by Bunge, ADM, Richardson, and LDC.¹¹³ Figure 12 provides the draw area outlines for each elevator and crusher purchasing canola in crop year 2018-19 based on the transactions data collected by the Commissioner. It shows a network of many overlapping draw areas. There is no obvious demarcation of a natural "end" or "limit" to these overlapping draw areas.¹¹⁴ If I arbitrarily choose a threshold based on including those elevators and crushers that have at least [REDACTED] of their draw area intersect and overlap with the draw areas of both Moosomin and Virden, this results in [REDACTED] elevator/crusher purchasers of canola in the area.¹¹⁵ Even if I were to arbitrarily restrict the set to only include those elevators and crushers that have at least [REDACTED] of their draw area intersect and overlap with the draw areas of both Moosomin and Virden, this results in [REDACTED] elevator/crusher purchasers of canola in the area.¹¹⁶ Even with these arbitrarily

¹¹³ Ceres is another grain company with elevators within the area, [REDACTED] (see Miller Report, paragraph 151). The G3 transactions data [REDACTED] (see Miller Report, paragraph 170).

¹¹⁴ Individual farms have options available beyond those that they use currently, given the overlaps and intersections between competing elevator and crusher draw areas. The number of additional options available to their specific farms is noted in the [REDACTED] Witness Statement, paragraphs 18 and 20, and [REDACTED] Witness Statement, paragraphs 21 and 25.

¹¹⁵ The list of purchasers of canola includes: [REDACTED]

¹¹⁶ The list of purchasers of canola includes: [REDACTED]

chosen restrictions, the relevant geographic market for the purchase of canola clearly includes more than Moosomin, Virden and Fairlight as claimed by the Commissioner.

78. Turning next to the purchase of CWRS, Figure 13 provides the 95% draw areas for Moosomin and Virden using the same criteria. When distance is measured using roads suitable for commercial trucking,¹¹⁷ the farms located on the periphery of the Moosomin 95% draw area for CWRS are approximately [REDACTED]. In the case of Virden, its 95% draw area for CWRS extends to farms located [REDACTED] based on commercial trucking roads. There are [REDACTED] included in the CWRS draw area for Moosomin and [REDACTED] within the CWRS draw area for Virden. In the 2018-19 crop year, these farms delivered [REDACTED] MT of CWRS to Moosomin and [REDACTED] MT of CWRS to Virden.
79. Figure 14 provides the draw area outlines for each elevator purchasing CWRS in crop year 2018-19 based on the transactions data collected by the Commissioner. Like canola, a network of many overlapping draw areas exists for CWRS. There is no obvious demarcation of a natural “end” or “limit” to these overlapping draw areas. If I arbitrarily use a threshold based on including those elevators that have at least [REDACTED] of their draw area intersect with the draw areas of both Moosomin and Virden, this results in [REDACTED] elevator purchasers of CWRS in the area.¹¹⁸ Even if I were to arbitrarily restrict the set to only include those elevators that have at least [REDACTED] of their draw area intersect with the draw areas of both Moosomin and Virden, this results in [REDACTED] elevator purchasers of CWRS in the area.¹¹⁹ As with canola, even using these arbitrarily chosen restrictions, the relevant geographic market for the purchase of CWRS clearly includes more than Moosomin, Virden and Fairlight as claimed by the Commissioner.

¹¹⁷ These distances are based on commercial truck driving distances calculated using the HERE API and account for road weight limitations.

¹¹⁸ The list of purchasers of CWRS includes: [REDACTED]

¹¹⁹ The list of purchasers of CWRS includes: [REDACTED]

80. The Witness Statements provided by farms in this matter whether by the Commissioner or by P&H refer to sales made regularly to – or prices regularly checked at – elevators beyond Moosomin, Virden and Fairlight. The elevator and crushers referred to are discussed above at paragraph 20, and include [REDACTED]

81. Internal documents maintained in the ordinary course of business provide support for including these many market participants within the relevant geographic market. P&H's SIR responses show that P&H and its CSRs at Moosomin refer to and track prices of many other elevators beyond Virden, including [REDACTED]

[REDACTED]¹²⁰ LDC's SIR responses show that its Virden elevator competes with many other competitors besides Moosomin and Fairlight, including elevators at [REDACTED]

[REDACTED]¹²¹

¹²⁰ See, for example, P&H email regarding [REDACTED]

¹²¹ See, for example, the email from [REDACTED]

82. Moosomin’s fiscal 2019 and fiscal 2020 business plans¹²² identify numerous competing elevators. Both plans (which pre-date the Acquisition) provide each competing elevator’s overlap with Moosomin providing an indication of the percentage of Moosomin’s draw area that the competing elevator touches. There are [REDACTED] elevators and crushers referenced. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

83. The relevant geographic market should include current purchasers of canola and CWRS that compete with Moosomin and Virden. This area may be defined as (at least) southeastern Saskatchewan and southwestern Manitoba. The market participants included in the relevant geographic market are numerous, and include many competing elevators and crushers beyond Moosomin, Virden and Fairlight.

The Commissioner’s defined relevant geographic market

84. In the Notice of Application, the Commissioner defines the relevant geographic market as “the aggregated locations of farmers that benefited from competition between the Virden Elevator and Moosomin Elevator... Farmers most affected are located in the corridor between these two Elevators.”¹²³ In this section, I discuss whether the farm locations within this area, which I will refer to as the “corridor of concern” between

¹²² Moosomin Business Plan Fiscal 2019 (P&H_0007141) and Moosomin Business Plan Fiscal 2020 (P&H_0006457).

¹²³ Notice of Application, paragraph 21.

Moosomin and Virden differ systematically from the other farm locations within the relevant geographic markets for the purchase of canola and CWRS that I described above.

85. I begin by identifying the area defined as the “corridor of concern”. Figure 15 maps all farm locations that are within one-hour commercial trucking driving distance to *both* Virden and Moosomin.¹²⁴ In order to identify the specific farms within this area, staff under my direction acquired property ownership maps from each of the rural municipalities (“RMs”) that are within the “corridor of concern”.¹²⁵ Each RM map identifies the owner of each 160 acre section of land within the RM.¹²⁶ Scans of the four RM maps are attached in Figures 16a-16d. Staff under my direction digitized the paper copies of these maps. Each collection of sections under a single common family name (and common address) is considered a “farm.” The list of farms identified was provided to P&H for confirmation and correction of the classified farms ensuring that only farms growing canola or CWRS were included. The result is ■ grain farms located in the “corridor of concern”, covering ■ acres of land, all within one-hour commercial trucking drive of both the Moosomin and Virden elevators.
86. The ■ farms within the “corridor of concern” are within the Commissioner’s area of concern as they would be expected to benefit from competition between Moosomin and Virden pre-Acquisition. To situate these farms, Figure 17 maps the one-hour driving distance “corridor of concern” against the 95% draw areas for the Moosomin and Virden elevators purchases of CWRS. These ■ delivered ■ of the combined purchases of canola made by Moosomin and Virden in the last three crop years, and

¹²⁴ Drive times and distances are calculated using the HERE Technologies API for commercial trucking routes. The drive times are calculated for a 45 tonne tractor truck including considerations such as road weight restrictions. HERE is an industry leader supplier of mapping data.

¹²⁵ There are four RMs within the “corridor of concern”: Moosomin, Ellice-Archie, Wallace-Woodsworth, and Maryfield. Note that an RM is the same unit of geography as Dr. Miller’s census sub-division or “CCS.”

¹²⁶ “Each square parcel within the township is known as a “section” each being one mile square and consisting of 640 acres each. Title to each section may be further subdivided either into half-mile square 160-acre “quarters” and 40-acre sixteenths (“legal subdivisions” or LSDs)”.
<https://www.isc.ca/signedinhome/help/land/pages/landdescriptions.aspx>

█ of the combined purchases of CWRS made by Moosomin and Virden in the last three crop years. Both elevators purchase grain well beyond the farms within what I refer to as the “corridor of concern”. Hence, P&H must set its cash prices to purchase canola and CWRS at high enough levels to attract more grain to the Moosomin and Virden elevators than that which is produced by the █ within the “corridor of concern” alone. In other words, the farms in the “corridor of concern” do not account for a large enough fraction of total deliveries to Moosomin and Virden that P&H would change the posted cash prices for all farms from which it purchases grain in order to buy grain from farms within the “corridor of concern” at a lower price, if that were hypothetically possible.

87. Staff under my direction searched the transactions data collected by the Commissioner to determine if the █ in the “corridor of concern” deliver canola or CWRS to elevators and crushers beyond Moosomin and Virden. Figures 18a-18c colour code each farm within the “corridor of concern” based on the elevators and crushers to which the farm sold canola or CWRS (Figure 18a), the elevators and crushers to which the farm sold canola (Figure 18b) and the elevators to which it sold CWRS (Figure 18c) during the last three crop years. Pink identifies those farms delivering canola only to Moosomin. Blue identifies those farms delivering canola only to Virden. Red identifies those farms delivering canola only to Moosomin and Virden. Green identifies those farms delivering canola to Moosomin and Virden and a rival. Orange identifies those farms delivering canola to one of Moosomin and Virden and a rival. Black identifies those farms that did not deliver canola to either Moosomin or Virden.
88. As shown in the maps at Figures 18a-18c and in the summary table at Figure 19, there are █ farms within the “corridor of concern” that sold only to Moosomin, █ farms that sold only to Virden and █ farms that sold only to both Moosomin and Virden in the last three crop years. Of the █ within the Corridor, █ (representing █) within the “corridor of concern” sold canola or CWRS to rival elevators and crushers.

89. Details for each of the [REDACTED] within the “corridor of concern” are provided in Figures 20-21 for canola (Figure 20) and CWRS (Figure 21). For each farm, total observed deliveries for each crop year are identified, as well as the percentage of deliveries to different elevators and crushers observed in the transactions data. Viterra’s Fairlight elevator is frequently listed, but it is not the only alternative to which the farms in the “corridor of concern” deliver canola and CWRS. Figure 20 shows significant canola deliveries from these [REDACTED] to [REDACTED]
[REDACTED]
[REDACTED] Figure 21 provides similar information for the CWRS deliveries from the farms in the “corridor of concern”.

90. Different farms make different choices. For example, the [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

91. Figures 22-23 report the distances using commercial trucking roads from each farm within the “corridor of concern” to the different buyers of canola (Figure 22) and CWRS (Figure 23) to which these farms collectively made deliveries in the last three crop years. Shading identifies when the farm made deliveries over 50MT to the elevator or crusher within a crop year. The number of elevators/crushers used by each farm over the last three crop years is also provided.¹²⁷ Figure 22 clearly shows the attractiveness of

¹²⁷ Some farms have divided locations, in which case they appear twice. For example, [REDACTED] has a collection of sections in Elkhorn MB and another in Virden MB.

crushers for canola sales. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] If P&H wishes to secure these farms' canola deliveries, P&H must set its cash prices to purchase canola at levels that are competitive with the many different elevator and crusher options to which these farms deliver canola.

92. Figure 23 provides the commercial truck driving distances for each farm within the "corridor of concern" to each elevator shading the elevators to which that farm sold over 50 MT of CWRS in any one of the last three crop years. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] While a single farm may deliver CWRS to only one elevator, its neighbour may deliver CWRS to multiple elevators at varying distances. P&H is setting a common cash price to purchase CWRS from many different farms that clearly avail themselves of many different options. As a result, P&H must set its CWRS cash prices to be competitive with the many different elevators within the area that compete for the same farms' grain.

93. In sum, the farms within the "corridor of concern" sell canola and CWRS to many different rival elevators and crushers beyond Moosomin, Virden and Fairlight. The information contained in this analysis of the "corridor of concern" farm locations corroborates the witness statements from farms, which also reported numerous elevators and crushers to which individual farms have sold their grain in recent years as well as numerous alternative purchasers also available if farms are seeking better pricing. Whether the farms considered at those that are located within the narrow confines of one hour commercial driving distance from both Moosomin and Virden, or are within the larger draw areas for the Moosomin and Virden elevators, the buyers vying for these farms' grain extends well beyond Moosomin, Virden and Fairlight, which are the only elevators included in the Commissioner's relevant geographic market.

94. Given the range of options available to farms and the different choices they each make, the cash prices that P&H sets to purchase canola and CWRS must be competitive with the cash prices set by numerous elevators operated by [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] as they purchase canola from the same farms that deliver canola to Moosomin and Virden.

P&H's share of purchases in the defined product and geographic markets

95. I have defined the relevant markets to be the purchase of canola by elevators and crushers located within at least southeastern Saskatchewan and southwestern Manitoba, and the purchase of CWRS by elevators located within at least southeastern Saskatchewan and southwestern Manitoba. As described above, there is no obvious dividing point among the many intersecting and overlapping draw areas of elevators and crushers buying grain from farms surrounding the Moosomin and Virden elevators. This complicates market share calculations.
96. Nevertheless, using the transactions data collected by the Commissioner, Figures 24-25 provide the share of canola purchases (Figure 24) and share of CWRS purchases (Figure 25) that each of Moosomin and Virden had using the date ranges used for crop years in the Miller Report as well as the share of purchases for each other elevator and crusher included in the geographic market for which there is transactions data.
97. P&H's post-acquisition combined share of canola purchases is [REDACTED] and its combined share of CWRS purchases is [REDACTED], both of which are less than the 35% safe harbour threshold contained in the MEGs. Thus, the merging elevators "represent only a small percentage of the total purchases of the relevant product, [such that] the suppliers [i.e., farms] [are] well-placed to forego sales to the merging parties in favour of other buyer

when faced with an attempt to lower prices.”¹²⁸ P&H’s post-Acquisition share of purchases meets the criteria set out at paragraph 9.3 of the MEGs where there should be no challenge of the Acquisition.

Number of buyers of canola and CWRS available to farms within the area

98. To illustrate the number of elevator and crusher buyers available to farms within the area surrounding the Moosomin and Virden elevators, “heat maps” provide a count of buyers based on the intersection and overlap of the above-noted draw areas using the transactions data collected by the Commissioner. As was done when producing draw area maps for Moosomin and Virden, only farms delivering more than 50 MT to each elevator or crusher in a single crop year are included.
99. Figure 26 provides a heat map showing the number of elevators and crushers buying canola from farms across the area.¹²⁹ Farms within the area surrounding Moosomin and Virden have [REDACTED] elevators and crushers vying for their canola.¹³⁰ Figure 27 provides a heat map that extends beyond the immediate area surrounding Moosomin and Virden. It shows that farms surrounding Moosomin and Virden are no different from farms in other parts of western Canada with respect to the many elevators and crushers seeking to buy their canola.
100. Figure 28 provides the same information for CWRS based on the 95% draw areas using the transactions data collected by the Commissioner.¹³¹ Farms within the area

¹²⁸ MEGs, paragraph 9.3.

¹²⁹ For elevators and crushers that did not provide transactions data to the Commissioner, the average 95% draw area based on the transactions data is applied. For elevators with less than 100 rail car spots, the average 95% draw area is [REDACTED] for canola. For elevators with at least 100 rail car spots the average 95% draw area is [REDACTED] for canola. The average 95% draw area for crushers is [REDACTED]. These distances are based on commercial truck driving distances calculated using the HERE API and account for road weight limitations.

¹³⁰ Heatmaps based on the number of firms purchasing grain that consolidate multiple elevators owned by a single firm show a similar picture in that the farms in the area surrounding Moosomin and Virden have similar counts of “firm buyers” as do farms in other parts of western Canada.

¹³¹ For elevators that did not provide transactions data to the Commissioner, the average 95% draw area based on the transactions data is applied. For elevators with less than 100 rail car spots, the average 95% draw area is [REDACTED] for CWRS. For elevators with at least 100 rail car spots the average 95% draw area is [REDACTED] for CWRS.

surrounding Moosomin and Virden have [REDACTED] elevators vying for their CWRS. Figure 29 shows that the number of elevators buying CWRS from farms within the immediate area surrounding Moosomin and Virden is not fewer than in other parts of western Canada.

Defining a material price decrease

101. Given the number of competing buyers of grain against which P&H will compete post-Acquisition, its purchase of Virden will not substantially lessen competition because purchasing Virden has not provided P&H with the incentive or ability to materially reduce cash prices paid to farms for canola and CWRS. This begs the question what constitutes a *material* change in price.
102. It is well known that economic models generally predict price effects from mergers between firms that have positive diversion (however small) and positive variable margins if efficiencies are not incorporated.¹³² While the MEGs indicate the Bureau does not have numerical threshold for a material change in price,¹³³ because economic models will predict some change in price when efficiencies are not incorporated it is important to avoid considering any change in price from an economic model either likely or material.
103. Cash prices paid for the purchase of canola and the purchase of CWRS move in real time with global commodity markets.¹³⁴ Industry participants – be they farms, elevators or crushers – deal with fluctuating cash prices as part of the normal course of business.

These distances are based on commercial truck driving distances calculated using the HERE API and account for road weight limitations.

¹³² See OECD paper available at [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP\(2012\)13&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP(2012)13&docLanguage=En) which notes that “in the absence of efficiencies, the (gross) upward pricing pressure is always positive if margins and diversion ratios are positive”.

¹³³ MEGs, paragraph 2.14.

¹³⁴ Cash prices vary one-to-one with CAD movements in the benchmark futures prices. See Heimbecker Witness Statement, paragraph 74.

Figure 30 illustrates the average daily range in the canola and CWRS futures prices that P&H uses as reference prices when posting its cash purchase prices. Pricing throughout August 2018 – July 2019 (inclusive) is shown. For each of the trade days for those commodities in the last year that they expired,¹³⁵ the difference between the high and low futures values are considered. The average of these within day ranges is reported in Figure 30. [REDACTED]

[REDACTED] When expressed in dollars per bushel, these values translate into 0.10 CAD/bu for each of canola and CWRS.¹³⁶ Should a farm be successful in timing its grain sale within a day, it can achieve a cash purchase price that is [REDACTED] higher by selling grain at the right hour of the day. While within-day average variation is [REDACTED], the variation in cash purchase prices that industry participants deal with across days can be much greater than this.

104. The Commissioner points to the “[REDACTED]” email¹³⁷ to suggest that two cents per bushel is a candidate for a material difference in price. I do not interpret this email to mean 2 cents per bushel should be used as the threshold for a material change in the cash purchase price of canola or CWRS.¹³⁸ During 2018-19, the average cash purchase price paid at Moosomin for canola was [REDACTED],¹³⁹ making 2 cents equal to [REDACTED] of the cash purchase price of canola. During 2018-19, the average cash purchase price paid at Moosomin for CWRS was [REDACTED],¹⁴⁰ making 2 cents equal to [REDACTED] of the

¹³⁵ Commodities expire on the last week day prior to the 15th of the contract month. <https://www.barchart.com/futures/futures-expirations/grains>. This is the last delivery date that would ever be pegged to this commodity. <https://www.alberta.ca/understanding-the-canola-futures-contract.aspx>, https://www.crmg.us/content/docs/study-guides/grain_and_oilseed_futures_and_options.pdf.

¹³⁶ For canola, there are 44,092 bushels of canola in a MT of canola. Thus, the average variation in futures price is [REDACTED]. For wheat, there are 36,744 bushels of wheat in a MT of wheat. Thus, the average variation in futures price is [REDACTED].

¹³⁷ [REDACTED]

¹³⁸ See, also, the interpretation provided at Heimbecker Witness Statement, paragraph 180.

¹³⁹ See Figure 49 which reports that the average price for canola at Moosomin is [REDACTED]. There are 44,092 bushels of canola per MT, thus the price per bushel is [REDACTED].

¹⁴⁰ See Figure 49 which reports that the average price for CWRS at Moosomin is [REDACTED]. There are 36,744 bushels of CWRS per MT, thus the price per bushel is [REDACTED].

cash purchase price of CWRS. In contrast, [REDACTED] cents per bushel represents [REDACTED] of the cash purchase price of canola, and [REDACTED] of the cash purchase price of CWRS – both still well below the usual 5% threshold used to signify a small but significant and non-transitory change in price.

105. If the 5% threshold were to be used, a material price decrease would be [REDACTED] [REDACTED]. Even if a material price decrease is less than 5%, it should not be less than 1% of the cash purchase price; hence, a material change in price cannot be less than [REDACTED]. Indeed, a material change in price is very likely greater than [REDACTED] given the normal fluctuations in cash purchase prices within the industry. In the witness statements from farms, [REDACTED] refers to receiving prices from [REDACTED] that are [REDACTED] than he has received from Virden, Moosomin or Fairlight, [REDACTED].¹⁴¹ [REDACTED] notes that an elevator located farther than [REDACTED] would have to offer a significant premium to overcome the additional time and cost to haul his grain that distance.¹⁴² It is clear from the “corridor of concern” analysis described above, the witness statements from [REDACTED] [REDACTED] and the transactions data that many farms travel such distances. Therefore, the prices they are being offered must compensate them for this effort, which would mean they exceed [REDACTED].

106. As I discuss below, the weighted average price increases predicted using the Miller Report simulations are only [REDACTED] in canola and [REDACTED] for CWRS (for Moosomin, Virden and Fairlight), which are [REDACTED], let alone [REDACTED] of cash prices.

¹⁴¹ [REDACTED] Witness Statement, paragraph 11.

¹⁴² [REDACTED] Witness Statement, paragraph 14.

Cash prices to purchase canola and CWRS have not declined by a material amount since P&H acquired Virden

107. In this section, I discuss whether there is any observed material change in the cash prices paid at Moosomin or Virden to purchase canola or CWRS post-Acquisition. As shown earlier in Figures 7-8 comparing Moosomin cash prices against those at Dutton there is no indication that Moosomin's cash prices for deliveries within the same month [REDACTED] [REDACTED] to those paid at Dutton post-Acquisition.
108. Figures 31-32 expand the comparison to include Virden and include posted prices for deliveries in future months. Posted prices from January 2019 to July 2020 are shown, for canola (Figure 31) and CWRS (Figure 32). On a given day, elevators post prices for delivery in the current month and deliveries up to ten months forward (see, for example, Figure 1a). Figures 31-32 show the average of the daily posted cash prices for deliveries beginning in the current month and including deliveries up to six months from the current month.¹⁴³ For example, on January 5, 2019 the average is calculated using cash prices for delivery from January 2019 to July 2019.
109. Figure 31 compares Moosomin and Virden posted cash prices to the Dutton average before and after the Acquisition for canola. Prior to the Acquisition there were periods of time when Virden's canola posted cash prices were above or below those of Moosomin. Figure 32 provides the comparison for CWRS. It shows that prior to the Acquisition, Moosomin's posted CWRS prices were better than Virden's in the latter half of 2019. Since the Acquisition closed, there has been an increase in Virden's posted cash prices for CWRS. This is consistent with the observation made in the Witness Statements of [REDACTED]¹⁴⁴ and [REDACTED]¹⁴⁵

¹⁴³ The comparison is for up to six months forward in Figures 31-32 for illustration purposes. In the regression analysis, prices for delivery in all future months are used.

¹⁴⁴ [REDACTED] Witness Statement, paragraph 15.

¹⁴⁵ [REDACTED] Witness Statement, paragraph 27.

110. Figures 33-34 report the results of regression analyses testing if posted cash prices at Virden and Moosomin have [REDACTED] since the Acquisition, relative to Dutton which is used as a comparator. The same conclusion is reached whether comparing charts of posted prices over time or regression results. P&H has [REDACTED] the cash prices it pays farms at Virden or Moosomin post-Acquisition in an economically significant way. This is consistent with P&H [REDACTED] its canola and CWRS purchases at these two elevators, which I discuss below. P&H would be unable to [REDACTED] its purchases if it was offering farms [REDACTED] competitive levels.
111. The regression analysis compares the posted cash prices at Moosomin (or Virden) to posted cash prices at Dutton, controlling for the bid-delivery month combination.¹⁴⁶ As the data available for the post-Acquisition period runs from December 10, 2019 to June 30, 2020, these same dates are used for the 2016-2019 pre-Acquisition period. If Virden and Moosomin only compete with Fairlight, as the Commissioner claims, then the loss of Virden as a competitor would be expected to lead to Virden and Moosomin offering lower prices post-Acquisition than they did earlier. The posted prices at Dutton are used to control for market conditions over time in locations that are unaffected by P&H's acquisition of Virden.¹⁴⁷ Details of the regression methodology are provided in the attached Appendix.
112. Figure 33 reports the regression results comparing Virden cash prices to those at Dutton for all delivery months. The variable of interest is the interaction term that combines the indicator variable for Virden and the post-Acquisition period as this interaction term identifies if prices at Virden post-Acquisition were lower relative to posted prices at Dutton, controlling for changes over time that affected both elevators' pricing. The regression results show that prices [REDACTED] since the Acquisition. The canola result is [REDACTED], meaning that Virden canola posted prices

¹⁴⁶ As described earlier, elevators post prices daily for deliveries in that month or future months.

¹⁴⁷ [REDACTED] such that it would be unaffected by the Acquisition.

have declined by about [REDACTED] since the Acquisition. The CWRS result is [REDACTED] meaning that CWRS posted prices at Virden have increased by about [REDACTED] since the Acquisition.

113. Figure 34 reports the regression results comparing Moosomin posted prices to those at Dutton. The canola result is [REDACTED] meaning that Moosomin canola posted prices have [REDACTED] since the Acquisition. The CWRS result is [REDACTED], meaning that Moosomin CWRS prices have [REDACTED] since the Acquisition. These changes [REDACTED] such that I interpret them to show there has been no material reduction in the cash prices paid to farms resulting from the Acquisition.

Farms are not using Moosomin and Virden in negotiations with the other

114. While the analysis described above shows the Acquisition has not substantially lessened competition, I have also considered the Commissioner's concern that farms have lost the ability to trade off Moosomin and Virden against each other to achieve better cash prices for the purchase of canola and CWRS. As noted above, [REDACTED] of P&H's grain purchases are at posted prices such that the incidence of purchases at higher prices due to specials and one-on-one negotiations is not the norm. In those limited instances where negotiations do occur, I consider the Commissioner's concern that farms have lost a significant advantage post-Acquisition by comparing the frequency of using Virden to negotiate better prices from Moosomin and vice versa. To do this comparison, the "Producer Report" documents were reviewed and classified. These documents include any discussion between farms and the respective elevator related to prices or competitors contained in emails, meeting minutes, or Jabber (an instant messaging tool used by Virden employees).
115. Each negotiation produces a document record as farms communicate a rival's price to CSRs, who in turn communicate that price to offsite traders who ultimately decide if the CSRs can offer the farm a comparable cash price. Only Producer Reports prior to the Acquisition are considered.

116. Figure 35a provides the classification of these documents for negotiations between farms and Virden from January 1, 2017 to December 2019 at the time of the Acquisition. Over these three years, the transactions data for Virden shows it had [REDACTED] deliveries of canola and [REDACTED] deliveries of CWRS, dealing with [REDACTED] unique farms. There is a total of [REDACTED] pre-Acquisition Producer Reports, of which there are [REDACTED] instances of farms using prices from a rival elevator in negotiations with Virden, for either canola or CWRS. Moosomin was mentioned only [REDACTED] in these [REDACTED] reports. Of the [REDACTED] negotiations in which farms mentioned [REDACTED] competitor, only [REDACTED] mentioned Moosomin or P&H. Instead, [REDACTED] [REDACTED] were all used as bargaining chips to increase Virden's cash purchase prices.
117. Figure 35b provides the classification of these documents for negotiations between farms and Moosomin between January 1, 2017 to December 2019 at the time of the acquisition. Over these three years, the transactions data for Moosomin shows it had [REDACTED] deliveries of canola and [REDACTED] deliveries of CWRS, dealing with [REDACTED] unique farms. There are [REDACTED] instances of farms negotiating with Moosomin using a rival buyer's cash purchase prices, for either canola or CWRS. Negotiations mentioning Virden account for only [REDACTED] such instances. [REDACTED] is used in more than t [REDACTED] of all negotiations at Moosomin. Additionally, [REDACTED] negotiations only mention a single competitor, and Virden was only referenced [REDACTED] times in these negotiations, whereas [REDACTED] was mentioned [REDACTED] times.

P&H has increased grain purchases post-Acquisition

118. P&H's demonstrated purchases post-Acquisition, and its plans for the future (at Virden and also given its investments [REDACTED] show it is [REDACTED] its total purchases at the Moosomin and Virden elevators, which is consistent with a pro-competitive or competitively neutral rationale for the Acquisition rather than an anti-competitive rationale. Figure 36 provides the year over year grain deliveries to Moosomin and Virden comparing deliveries for the January to July period. Total canola

deliveries to the combined elevators [REDACTED] post-Acquisition. Total CWRS deliveries to the combined elevators [REDACTED] post-Acquisition.

119. Figure 37 provides P&H's forecasted grain purchases at Virden compared to its actuals in 2019 and post-Acquisition in 2020. Virden did not previously purchase feed wheat, barley or oats but will do so post-Acquisition. The [REDACTED] Witness Statement refers to Virden purchasing oats, barley and soybeans that it did not purchase when owned by LDC.¹⁴⁸ In canola, P&H's forecast has total grain purchases [REDACTED] over 2019 while the increase in CWRS is [REDACTED]. Higher aggregate purchases at Moosomin and Virden post-Acquisition are wholly inconsistent with P&H exercising monopsony power.
120. In summary, the evidence from the transactions data, P&H and LDC documents, and P&H's post-Acquisition conduct demonstrates P&H does not have market power in the purchase of canola or the purchase of CWRS in southeastern Saskatchewan and southwestern Manitoba. The Moosomin and Virden elevators compete with numerous rival elevators and crushers for the purchase of canola and the purchase of CWRS from farms within the area surrounding these elevators. P&H has increased its canola and CWRS purchases at Moosomin and Virden since the Acquisition consistent with its grain purchase budget targets. P&H has not reduced the cash prices paid to farms at Moosomin and Virden due to the Acquisition. There is vigorous and effective remaining competition, such that P&H's purchase of the Virden elevator has not substantially lessened competition in any properly defined relevant market.

V. ANALYSIS OF THE MILLER REPORT

“Grain handling services” is not how farms and purchasers contract for the sale and purchase of grain

121. Dr. Miller divides the single cash price that farms receive from elevators and crushers when selling their grain to elevators and crushers into two components: (i) a price for

¹⁴⁸ [REDACTED] Witness Statement, paragraph 23.

grain; and (ii) a price for “grain handling services”. Dr. Miller describes two transactions occurring simultaneously such that one price offsets the other in that a farm buys “grain handling services” from an elevator at the same time that an elevator buys grain from a farm.¹⁴⁹ As discussed above, this is not how P&H or the industry operates.¹⁵⁰ Farms receive a single cash price when selling grain to elevators and crushers; hence the relevant market from the farms’ perspective is the “sale of grain”. Elevators and crushers pay a single cash price when buying grain from farms; hence the relevant market from P&H’s perspective is the “purchase of grain from farms”. From either perspective there is one integrated cash price.

122. Parsing a single integrated cash price into two components is problematic because it requires assigning costs to each component, and it requires a method to divide or measure the single cash price into each component. Error may be introduced in the division and in the measurement. If the price of “grain handling services” is incorrectly defined and measured, an incorrect input is used by Dr. Miller in market definition and in his competitive effects analyses. As noted in the Miller Report: “The price of grain handling services is relevant in two ways: it provides the base, pre-transaction price for calculating percentage increase in price during the HMT and the GUPPI; and it is used to estimate a markup at Virden (which in turn is used in HMT, UPP and merger simulation).”¹⁵¹
123. The Miller Report describes the industry as one where farms would export their grain directly, but because “farms are not ordinarily equipped to directly supply grain to the swath of potential end-customers, they typically purchase grain handling services from a

¹⁴⁹ Miller Report, paragraph 29.

¹⁵⁰ The basis in CWRS is not equal to the price of “grain handling services” as it is defined in the Miller Report because Dr. Miller converts the US futures reference price into CAD/MT and then compares that to the cash price paid to the farm. In contrast, they are equal in canola where the cash and futures prices are both quoted in CAD/MT.

¹⁵¹ Miller Report, paragraph 156.

local primary elevator by accepting a discount on the grain's market value."¹⁵² The interaction is described in the Miller Report as if farms contract with primary elevators to realize the grain's value by "executing a series of logistical and transactional steps that convey the grain from a farm to the end-customer."¹⁵³ Even under this view of the world, the "logistical and transactional" services provided by P&H and other grain companies to farms would include:

- i. Marketing and selling expenses to negotiate export customer contracts;
- ii. Grading, cleaning, and drying to meet the end customer's quality requirements;
- iii. Storing, blending and loading at the elevator;
- iv. Logistics, freight, and terminal costs to transport grain from elevators to port terminals for export to end-customers;
- v. Managing market risk with respect to changes in commodity values and exchange rates; and,
- vi. Depreciation and capital investments to maintain and build the physical assets used in the elevator and terminal network.

124. The Miller Report only assigns the second and third items in the above-noted costs to "grain handling services". Dr. Miller does not apportion any of the first, fourth, fifth or sixth items to the services he says primary elevators provide to farms, yet these costs are incurred if farms are to realize the grain's value in export markets.¹⁵⁴ The first set of costs are never addressed by Dr. Miller. The fourth set of costs is discussed in the Miller Report as follows:

"One cost that I exclude that is worth further discussion is freight cost. First, [Virden's] accounting statements attribute freight to the trading business, which is part of a separate product market, as discussed above in

Section 3. Second, freight does not conceptually belong in the *marginal* cost of providing grain handling services since the *price* I imputed for these services does not include freight service. The futures market price does not capture the increased value of the grain after it has been shipped to the coast. Therefore, it is most appropriate *not* to include freight as a cost of grain handling services.”¹⁵⁵ (emphasis in the original)

“I also do not include any adjustment for differences in freight costs relative to the theoretical expected costs to ship from the futures market location. For Canola, there is no adjustment to consider as the futures market location is Saskatchewan. For wheat, as discussed above, most shipments flow east or west, to ports to Thunder Bay or Vancouver, while the futures prices that I used for wheat are based on delivery to Minneapolis. Minneapolis is not appreciably closer to coastal ports than the Moosomin or Virden elevators are.”¹⁵⁶

125. Rail costs from elevators to ports are significant, in the range of █████ CAD/MT depending on the elevator location, such that excluding these costs, or any portion thereof, from the costs that grain companies incur when purchasing grain from farms and selling grain to export customers is a meaningful omission.¹⁵⁷
126. The Miller Report defines the price of “grain handling services” as “the difference between the futures price and the price actually paid to the farm, after converting both to the same currency.”¹⁵⁸ The futures price is equated to the price of grain (the first component of the price noted above). The Miller Report claims this is consistent with how the Moosomin and Virden elevators determine the “basis” in their contracts with farms.¹⁵⁹ This is an incorrect interpretation of the basis that is posted at elevators for CWRS. As I discussed above, the basis is the difference between the cash price and the

¹⁵⁵ Miller Report, paragraph 204.

¹⁵⁶ Miller Report, paragraph 205.

¹⁵⁷ Freight costs attached to the Heimbecker Witness Statement

¹⁵⁸ Miller Report, paragraph 39.

¹⁵⁹ Miller Report, paragraph 40.

futures price used as a reference price to determine the cash price. The basis posted at the elevator is not a measure of the cost of “grain handling services”. But even if the basis were to be used as a measure of the cost that farms incur to realize the value of their grain in export markets through farms’ transactions with elevators, all costs associated with elevators’ operations should be considered.¹⁶⁰ This is not what Dr. Miller does.

127. To illustrate that the elevator posted basis and the price of “grain handling services” are unequal and even uncorrelated in the case of CWRS, consider the five examples of posted prices in Figure 38. In examples A, B, and C, the posted basis is 40/MT, yet the prices of “grain handling services” (using the method described in the Miller Report) in these examples would be \$14/MT, \$23/MT and \$38/MT respectively. Example D has a lower basis at 25/MT than examples A, B, and C, but the price of “grain handling services” in example D is \$42.50/MT which is higher than the other three examples. Example E is identical to Example B on all posted values – they have the same posted cash price, the same posted futures price, and the same posted basis – and yet they have different prices of “grain handling services” as Dr. Miller defines these owing to a different exchange rate. The point of these examples is simple: there is no relationship between the basis posted at the elevator for CWRS and what Dr. Miller constructs as the price of “grain handling services”. A farm cannot look at the basis posted at the elevator for CWRS and know the price of “grain handling services” for CWRS.

¹⁶⁰ There is another purported “price” discussed in the Commissioner’s filings, which is the “export basis” described in the Witness Statement of Harvey Brooks. The export basis described by Dr. Brooks is the difference between the FOB price paid to a grain company by its end-customer at a port (in CAD/MT) and the cash price paid to a farm in Rosetown SK (in CAD/MT). The FOB price at the port is not equivalent to the Minneapolis futures price, but instead is the amount an export customer pays to a grain company for its grain at the port terminal. The difference in these values, which Dr. Brooks defines as the “export basis”, is said to cover “the costs to the primary grain elevator for primary elevation and handling, rail transportation to port, terminal elevation and vessel loading plus an undefined risk premium and any profits captured by the grain elevator company.” Dr. Brooks’ export basis is not equal to the price of “grain handling services” as it is defined by the Commissioner’s expert Dr. Miller. However, Dr. Brooks includes more costs for grain companies’ purchases from farms than does Dr. Miller.

128. The Miller Report claims the “price of grain handling services reflects local market conditions including weather or road restrictions, storage and freight capacity constraints, and the potential (or likely cost) for a particular elevator to help meet the grain marketing companies’ existing sales commitments”.¹⁶¹ Dr. Miller also states that “[l]ocal competition between primary elevators also affects the price for grain handling services.”¹⁶² If, as argued by Dr. Miller, there is limited local competition in an area such the few elevators operating in the area could hypothetically increase their prices for “grain handling services” these same elevators would also hold market power in their purchases of grain from local farmers as well.
129. Consider the following hypothetical. Imagine there is one single primary elevator buying CWRS in all southeastern Saskatchewan and southwestern Manitoba, such that the 15 elevators included in the Miller Report analysis are replaced with one elevator. If there were only one primary elevator in all southeastern Saskatchewan and southwestern Manitoba, it would have market power with respect to purchasing grain from farms within the region as well as the same degree of market power providing “grain handling services” to farms within the region, even though this hypothetical elevator would not have market power in the sale of CWRS in export markets. There is no distinction to be drawn between this hypothetical monopsonist elevator’s position buying grain from local farms and selling “grain handling services” to local farms. Therefore, there is no reason to artificially divide the single cash price the elevator pays to farms for their grain into the two components that Dr. Miller discusses.

Prices for “grain handling services” are measured with error

130. Agreements between farms and elevators for the purchase of grain by elevators refer to the single integrated cash price. There is no mention of any price for “grain handling

¹⁶¹ Miller Report, paragraph 41.

¹⁶² Miller Report, paragraph 42.

services”.¹⁶³ As a result, Dr. Miller must impute a price. Conceptually, the imputed price seems straightforward but practically it is measured with substantial error in the Miller Report. The measurement error exists with respect to canola and CWRS.¹⁶⁴

There are multiple sources of measurement error, including the following:

- i. The futures price chosen by Dr. Miller in his calculation for the price of “grain handling services” does not reflect the futures price that the farm and elevator used at the time of the contract, which determined the farm’s cash price. Futures prices vary significantly across days and within a day, leading to measurement error.
- ii. Multiple deliveries are contained in the transactions data for a single contract between a farm and elevator. While a single cash price and single futures price govern the contracted cash price between the farm and elevator, deliveries on different days result in Dr. Miller’s methodology using different futures prices with each delivery day even though a single futures price governed the contract between the farm and elevator.
- iii. The quality of grain in a given delivery by a farm may not always match the quality that was contracted, leading to a quality adjustment in the transactions data that Dr. Miller’s methodology incorrectly assigns to his imputed price of “grain handling services” rather than to the price of grain.

131. One example contract illustrates these multiple measurement errors. [REDACTED] entered into a contract with P&H at Moosomin on [REDACTED] to sell [REDACTED] metric tonnes of grade 1 CWRS with protein 13.5 with delivery to occur in [REDACTED]. The

¹⁶³ A P&H contract specifies the cash price per MT in CAD, the futures price the commodity is indexed to in its native currency and a basis that is equal to the numerical difference between these two numbers. The posted prices include the same three numbers. There is no price for grain handling services. See Figures 2-5.

¹⁶⁴ As discussed herein, there is tremendous variation in Dr. Miller’s measured prices for “grain handling services” even for canola, where conceptually his definition of the price for “grain handling services” equals the basis posted at the elevator for canola. As a result, the prices for “grain handling services” measured in the Miller Report are not equivalent to the basis posted for canola. Even if they were measured to be equal to the basis for canola, this is still not the correct price for the relevant product which is the price for the purchase of canola.

contract specifies a cash price to be paid to [REDACTED] CAD/MT with a futures price of [REDACTED] USD/MT and a basis of [REDACTED]/MT.¹⁶⁵ Figure 2 provides this contract. There is no contracted price for “grain handling services” in this document. The contracted price is the cash price to be received by [REDACTED] and paid by P&H of [REDACTED] CAD/MT provided the delivered grain meets the quality standards in the contract.

132. The futures price on this contract is [REDACTED] USD/MT. On [REDACTED] the exchange rate was 1.3078 USD/CAD,¹⁶⁶ generating a CAD equivalent futures price of [REDACTED] CAD/MT. The difference between the CAD equivalent futures price and cash price in the contract is [REDACTED] CAD/MT, which using Dr. Miller’s methodology, would be the price of “grain handling services” paid by [REDACTED] at Moosomin.
133. The transactions data does not include the futures price referenced on the grain contracts of any grain purchase transaction. As a result, Dr. Miller must choose a futures price to compare to the cash price paid to the farm. Suppose one knew the contract date, that alone would not be enough to accurately choose the right futures value for calculating the price of “grain handling services”. Consider that the futures price of the index commodity¹⁶⁷ on [REDACTED], when [REDACTED] entered his contract ranged from [REDACTED] CAD/MT to [REDACTED] CAD/MT, as shown in Figure 39. The futures price specified in [REDACTED] contract corresponds to the price observed around 9:00 - 9:30am (CST). Even if one had the date of [REDACTED] contract, which is not contained in the transactions data, this does not provide the time of the relevant futures price. If

¹⁶⁵ The basis for CWRs is equal to the difference between [REDACTED] and [REDACTED] but the cash price of [REDACTED] is in CAD and the futures price of [REDACTED] is in USD, which means the basis (as the difference in these two numbers) is unequal to a single currency denominated value with respect to CWRs. The CWRs basis is not equivalent to Dr. Miller’s price of “grain handling services” because Dr. Miller converts the USD-denominated futures price into CAD before comparing it to the CAD-denominated cash price that the elevator pays the farm.

¹⁶⁶ <https://www.wsj.com/market-data/quotes/fx/USDCAD>. The quoted exchange rate is the rate at close of [REDACTED]

¹⁶⁷ <https://www.barchart.com/futures/quotes/MWU18/overview>; the “Option Month: U = September 2018” corresponds to the “U” and the “18” in the commodity code MWU18. The “M” in this code stands for the Minneapolis Grain Exchange (“MGEX”).

the futures price at close¹⁶⁸ were to be used instead of the value recorded on [REDACTED] contract, the imputed price for “grain handling services” would be 25.22 CAD/MT rather than 34.83 CAD/MT.¹⁶⁹

134. The transactions data that Dr. Miller uses to impute prices for “grain handling services” is based on deliveries not contracts. The grain associated with [REDACTED] contract in Figure 2 arrived at Moosomin in [REDACTED] separate deliveries of an average tonnage of [REDACTED] MT for each delivery. These [REDACTED] deliveries took place between [REDACTED] (the day of the contract) and [REDACTED] on [REDACTED] unique days. Use of Dr. Miller’s methodology would generate different imputed prices for “grain handling services” because each delivery date has a different futures price. Figure 40a shows the variation which results from using a different futures price and the same cash price for the contracted quality. Figure 40b shows the variation that results from using the cash prices for each delivery and a futures price for each delivery.¹⁷⁰
135. There is another source of variation that further creates measurement error. The cash prices on delivery vary in the transactions data because not every delivery made by [REDACTED] has the same quality as that which was contracted. As noted above, when the quality of grain differs from the quality in the contract, there will be different cash prices paid for different qualities delivered. The Miller Report uses the difference between the observed transactions price and an estimated futures price without adjusting the futures price to account for different quality of grain delivered. Thus, the futures price used in the comparison would be for the single first quality grade, but the cash prices paid will reflect different qualities delivered. Using the Miller Report method will lead to different prices for “grain handling services” that are due to differences in qualities of

¹⁶⁸ Dr. Miller uses the settlement prices, or the futures prices at the close of the market, on the delivery day in his calculation. See Miller Report at paragraph 176.

¹⁶⁹ Figure 40a shows that the close price on [REDACTED] for MWU18 was [REDACTED] CAD/MT.

¹⁷⁰ The varying futures price is not the only contributor to the varying implied prices of grain handling services. Dr. Miller does not use the contracted cash price (which is the same across all [REDACTED] deliveries) in his calculation, but the net price (i.e., the cash price paid for the total net quantity assessed at the elevator on delivery) associated with each delivery.

grain with each delivery. As shown in Figure 40b, there are [REDACTED] deliveries of the [REDACTED] deliveries that exactly meet the contracted protein of 13.5%. The methodology used in the Miller Report results in [REDACTED] imputed prices for “grain handling services” that are associated with one contract, ranging from [REDACTED] CAD/MT to [REDACTED] CAD/MT. None of the [REDACTED] different imputed prices for “grain handling services” matches the [REDACTED] CAD/MT that the methodology is presumed to be intended to capture.

136. These measurement errors result in a wide range of imputed prices of “grain handling services” that do not reflect differences in local market conditions. Exhibit 6 of the Miller Report shows huge variation in the price of a purportedly well-defined product for “grain handling services”. For example, the imputed price of “grain handling services” for wheat at Virden ranges from less than [REDACTED] CAD/MT to over [REDACTED] CAD/MT, and the imputed price of “grain handling services” for canola at Virden ranges from less than [REDACTED] CAD/MT to over [REDACTED] CAD/MT. As a result, the Miller Report’s imputed prices of “grain handling services” at Virden for wheat range from [REDACTED] below the median to over [REDACTED] above than the median within 12 months. The Miller Report’s imputed prices of “grain handling services” at Virden for canola range from [REDACTED] below the median to over [REDACTED] above the median within 12 months.
137. There can be tremendous variation in the imputed price of “grain handling services” even within a *single delivery day* as shown in Figures 41-44, which provide scatterplots of the Miller Report’s imputed prices of “grain handling services” in Moosomin and Virden for canola and CWRS for the month of August 2018. The imputed prices vary widely across transactions, within a single day, across days within a single elevator, and across elevators for a single commodity. For example, on [REDACTED], the Miller Report’s imputed price of “grain handling services” at Moosomin for CWRS ranges from [REDACTED] CAD/MT to [REDACTED] CAD/MT, and on the same day the range at Virden is from [REDACTED] CAD/MT to [REDACTED] CAD/MT.
138. The median value of the imputed prices of “grain handling services” at Moosomin and Virden are used in the Miller Report analyses. However, in doing so, no explanation is provided for how P&H was able to maintain a median price for “grain handling

services” at Moosomin that was \$34.78 for CWRS in contrast to the median price at Virden of \$27.18, representing a 20% premium for “grain handling services” at Moosomin.¹⁷¹ The reverse is true in canola, where Moosomin’s median price of “grain handling services” was [REDACTED] in contrast to Virden’s median price of [REDACTED], representing a [REDACTED] premium for “grain handling services” at Virden.¹⁷² If “grain handling services” were truly a well-defined product, this large difference in its prices should mean farms would be unwilling to acquire “grain handling services” for CWRS from Moosomin when they could acquire the same services at Virden for [REDACTED]. The reverse is true for canola: farms using Virden for canola “grain handling services” would be paying a [REDACTED] using Moosomin. These differences are far larger than the usual SSNIP of 5% or 10%.

139. Or consider the price for “grain handling services” across commodities at a single elevator. Exhibit 6 of the Miller Report indicates Virden’s median price of “grain handling services” for CWRS is [REDACTED] % greater than the median price of “grain handling services” for canola,¹⁷³ yet the cost that the Miller Report references for Virden to provide “grain handling services” in respect of one MT of canola or one MT of CWRS are nearly identical.¹⁷⁴ The differential is greater at Moosomin, where the Miller Report’s price of “grain handling services” for wheat is [REDACTED] % greater than for canola.¹⁷⁵ There is no explanation for why the price of “grain handling services” at a single elevator would differ so much by commodity if the costs are equivalent. Recall that under the method adopted in the Miller Report the value of the grain is separate from the value of grain handling services such that differences in the value of grain should not be

¹⁷¹ The calculation is: [REDACTED].

¹⁷² The calculation is: [REDACTED].

¹⁷³ The calculation is: [REDACTED].

¹⁷⁴ Miller Report, Exhibit 13.

¹⁷⁵ The calculation is: [REDACTED].

the explanation for these significant differences in the prices for “grain handling services” between canola and CWRS at a single elevator.

140. These very different imputed prices for “grain handling services” cannot be used as a reliable base price from which markups and margins are calculated. Choosing a median value among this diverse set of incorrectly defined prices will not provide an accurate representation of the markup or margin. The error in imputing a price for “grain handling services” introduces error in markups and margins making the conclusions reached in the Miller Report with respect the hypothetical monopolist test, UPP, GUPPI or merger simulation unreliable.

The relevant geographic market includes more elevators than only Moosomin, Virden and Fairlight

141. The Miller Report defines the relevant geographic market to include only three elevators: Moosomin, Virden and Fairlight. Fairlight is included because of its proximity to Moosomin. As noted in the Miller Report, Fairlight is closer to Moosomin than is Virden.¹⁷⁶
142. The Miller Report refers to documents from Moosomin CSRs referring to comparisons of cash prices paid to farms at Fairlight and Virden. This is a limited and highly selective reference to the documents. Review of LDC’s SIR documents shows that Virden staff routinely referred to numerous competing elevators beyond Moosomin and Fairlight, including elevators at [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]¹⁷⁷ I described the numerous elevators and crushers that Virden

¹⁷⁶ Miller Report, Exhibit 8.

¹⁷⁷ See, for example, email [REDACTED]
[REDACTED]

and Moosomin considered as their competitors for the purchase of canola and CWRS before the Acquisition in paragraphs 78-88 above. P&H must compete with these competitors post-Acquisition to attract grain to Virden. Moosomin and Fairlight are not the only competitive constraints on Virden.

143. Similarly, Moosomin’s fiscal 2019 and fiscal 2020 business plans¹⁷⁸ identify numerous competing elevators beyond Virden. Both plans (which pre-date the Acquisition and pre-date LDC’s solicitation of P&H to purchase 10 elevators from it) provide each rival elevator’s overlap with Moosomin providing an indication of the percentage of Moosomin’s draw area that the competing elevator touches. There are [REDACTED] grain purchasing competitors referenced. [REDACTED]

[REDACTED]

144. The Miller Report acknowledges “there are other nearby elevators”¹⁷⁹ but finds “the [REDACTED] margin earned by the Virden elevator . . . suggests it faces a relatively small set of relevant competitors.”¹⁸⁰ It is noted that:

[REDACTED]

¹⁷⁸ Moosomin Business Plan 2019 [P&H_0007141] and Moosomin Business Plan 2020 [P&H_0006457].

¹⁷⁹ Miller Report, paragraph 72.

¹⁸⁰ Miller Report, paragraph 72.

“the [REDACTED] margins suggest that the firms have not been forced to lower prices to keep the customers they have from being tempted away to such would-be competitors. Similarly, they have not been tempted to lower price in order to attract potential customers from more distant elevators. These [REDACTED] margins suggest that a geographic market with few participants is likely correct.”¹⁸¹

145. The importance of the error in defining and measuring the price of “grain handling services” is immediately evident. The Miller Report claims that the Virden elevator earns a [REDACTED] margin on “grain handling services” for canola and a [REDACTED] margin on “grain handling services” for CWRS.¹⁸² As noted above, Virden’s median price of “grain handling services” for canola is [REDACTED] than that at Moosomin¹⁸³ If Virden has a [REDACTED] margin on “grain handling services” for canola while its prices are [REDACTED] than Moosomin, the implication is Moosomin has not constrained Virden’s prices for “grain handling services” in canola. In CWRS, the median price of “grain handling services” at Virden is [REDACTED] than at Moosomin,¹⁸⁴ yet the Miller Report claims Virden has a [REDACTED] margin in wheat grain handling services.¹⁸⁵
146. The percentage margins defined in the Miller Report for “grain handling services” at Virden are not correctly defined or measured indicators of market power. As such, these margins should not be used to define the relevant market. I discuss this further below. As shown there, if the same markups are measured against cash prices, which are for the purchase of canola or CWRS, the percentage margins (using the Miller Report’s markup at Virden) are well below the values used to define markets. Quite apart from the margin percentages, the observed sales by farms within the local area surrounding Moosomin and Virden using the transactions data collected by the Commissioner and

¹⁸¹ Miller Report, paragraph 72.

¹⁸² Miller Report, paragraph 72.

¹⁸³ The calculation is: [REDACTED]

¹⁸⁴ The calculation is: [REDACTED]

¹⁸⁵ Miller Report, Exhibit 13.

analyzed in the Miller Report confirm that many other elevators beyond Fairlight buy canola and CWRS in competition with Moosomin and Virden.

147. The Miller Report includes additional elevators beyond Moosomin, Virden and Fairlight in the competitive effects analysis on the basis that “classifying such elevators as outside the market does not remove them from the menu of choices available to a farm.”¹⁸⁶ These additional elevators are illustrated in Figures 45-46. I agree that these many elevators are competitive constraints to P&H post-Acquisition. Indeed, the Miller Report’s analysis of the transactions data collected by the Commissioner shows that elevators “outside” the defined geographic market are significant enough that his definition of the relevant geographic market should be expanded to include these additional elevators and crushers.
148. The Miller Report states “high diversion ratios between the Moosomin and Virden elevators indicate that many farms view the Moosomin and Virden elevators as substitutes”,¹⁸⁷ yet the Miller Report ignores equal or higher diversion ratios between Moosomin or Virden and rival competing elevators and crushers when defining the geographic market. Exhibit 11 of the Miller Report provides the diversion ratios estimated using transaction sales and distances between farms and elevators, which show Moosomin and Virden compete with many elevators beyond Fairlight only.
149. Exhibit 11 only provided diversions from and to Moosomin, Virden and Fairlight. In Figures 47-48 I provide diversions from Moosomin and Virden to all elevators and crushers included in the transactions dataset using the Miller Report backup. As shown there, in canola, the diversion ratio from Virden to Moosomin ([REDACTED]) is [REDACTED] than the diversion ratio from Virden to each [REDACTED]
[REDACTED] Similarly, the diversion ratio from Moosomin to Virden in canola (at [REDACTED]) is [REDACTED] than the

¹⁸⁶ Miller Report, paragraph 73.

¹⁸⁷ Miller Report, paragraph 106.

diversion ratio from Moosomin to [REDACTED]. If Dr. Miller regards Moosomin and Virden as having “high diversion ratios” for canola, then [REDACTED] diversion ratios to rival elevators and crushers mean these rival elevators and crushers are closer competitors to Virden and Moosomin than they are to each other.

150. If a diversion ratio of [REDACTED] from Virden to Moosomin is sufficient to include Moosomin in Virden’s geographic market for canola, then [REDACTED] should also be included in the geographic market. If a [REDACTED] diversion ratio is used for CWRS, Figure 48 shows the diversion ratios from Moosomin to [REDACTED] exceed [REDACTED]; the diversion ratios from Virden to Brandon (both the Richardson and Viterra elevators), Elva, Fairlight, Moosomin, Oakner, Shoal Lake, and Souris exceed 5%; and the diversion ratios from Fairlight to [REDACTED] exceed [REDACTED].
151. Expanding the relevant geographic market beyond Moosomin, Virden and Fairlight to include at least the elevators identified within and on the periphery of each elevator’s 90% service area (as defined in the Miller Report) would match the above-noted diversion ratios and the numerous references to these competing elevators and crushers contained in P&H and LDC documents. Consider first Exhibit 2 of the Miller Report which provides the Miller Report’s 90% wheat service area for the Moosomin elevator, and identifies [REDACTED] within the 90% service area. Exhibit 3 of the Miller Report is the defined 90% wheat service area for the Virden elevator, and identifies [REDACTED] within Virden’s 90% service area. Exhibit 38 of the Miller Report is the defined 90% wheat service area for the Fairlight elevator and identifies [REDACTED] on the periphery. Exhibit 17 of the Miller Report provides the union of 90% service areas for the Moosomin, Virden and Fairlight elevators, and identifies [REDACTED]. [REDACTED] While these many competing elevators are contained *within* the 90% service areas defined by the Miller Report or are immediately on the periphery, none of these elevators are included in Dr. Miller’s geographic market.

Instead, the Miller Report artificially limits the relevant geographic market to only include Moosomin, Virden and Fairlight.

152. In summary, there are multiple pieces of evidence showing Moosomin and Virden compete with more elevators than only Fairlight, including elevator draw areas (or service areas as defined in the Miller Report), diversion ratios, P&H and LDC documents, and the farm witness statements filed on behalf of the Commissioner and P&H. The Miller Report restricts the relevant geographic market to only Moosomin, Virden and Fairlight by relying on a flawed margin calculation for “grain handling services” at Virden, which I discuss below.

The Miller Report’s hypothetical monopolist test uses the wrong price

153. The Miller Report formally tests if a relevant market comprised of “grain handling services” at Moosomin, Virden and Fairlight exists by simulating a merger among the three elevators and comparing the change in price to a SSNIP. The results are presented at Exhibit 9 of the Miller Report.
154. The median price of “grain handling services” measured by Dr. Miller is key to his conclusion from the hypothetical monopolist test. Exhibit 9 of the Miller Report indicates a hypothetical monopolist that owns Moosomin, Virden and Fairlight would increase the price of canola by █████ CAD/MT at Moosomin, █████ CAD/MT at Virden, and █████ CAD/MT at Fairlight, when crushers are included. Exhibit 9 reports these changes as a percentage of the median price of grain handling services; specifically, █████ at Moosomin and █████ at Virden, both of which exceed a SSNIP of 5%. But, if the hypothetical monopolist price increase amounts are considered against the cash prices paid to farms for canola and CWRS as I provide in Figure 49, these price increases represent a █████ increase at Moosomin, a █████ increase at Virden, and a

█ increase at Fairlight (using Virden average price as a proxy), all well below a 5% SSNIP.¹⁸⁸

155. A similar conclusion is reached for CWRS. The Miller Report finds that a hypothetical monopolist that owns Moosomin, Virden and Fairlight would increase the price of wheat by █ CAD/MT at Moosomin, █ CAD/MT at Virden, and █ CAD/MT. Exhibit 9 refers to these as █ and █ changes in the prices of wheat “grain handling services” at Moosomin and Virden, respectively. The average CWRS cash price paid to farms is █ CAD/MT at Virden and █ CAD/MT at Moosomin, such that these price increases represent a █ increase at Moosomin, a █ increase at Virden, and a █ increase at Fairlight, all well below a 5% SSNIP (see Figure 49).

Market shares are overstated by excluding rival elevators from the relevant geographic market

156. By artificially limiting the relevant geographic market to only three elevators, the Miller Report overstates P&H’s post-Acquisition share, inferring *prima facie* harm from the Acquisition because shares “far exceed the 35% threshold”.¹⁸⁹ Exhibit 10 of the Miller Report computes Moosomin and Virden’s share of deliveries as a fraction of only these three elevators deliveries from any farm.¹⁹⁰ By only counting shares amongst Moosomin, Virden and Fairlight, the Miller Report ignores all other rival elevators and crushers to which these same farms delivered █ of their canola and █ of their CWRS prior to the Acquisition (see Figures 25-26).¹⁹¹

¹⁸⁸ The average cash price paid to farms for canola is █ CAD/MT for Virden and █ CAD/MT for Moosomin

¹⁸⁹ Miller Report, paragraph 83.

¹⁹⁰ Miller Report, paragraph 81.

¹⁹¹ The shares of deliveries made by farms included in the area used in the Miller Report to estimate P&H’s post-Acquisition shares to all elevators and crushers other than Moosomin, Virden and Fairlight are calculated using the transactions data collected by the Commissioner and analyzed by Dr. Miller. Miller Report, Exhibit 14.

157. Another illustration of the error in defining the relevant geographic market in this way uses the diversion ratios from the Miller Report. These diversion ratios show that Virден would lose [REDACTED] of its canola sales to elevators and crushers other than Moosomin and Fairlight and [REDACTED] of its CWRS sales to those other rivals.¹⁹² Moosomin would lose [REDACTED] of its canola sales to elevators and crushers other than Virден and Fairlight and [REDACTED] of its CWRS sales to those other rivals.¹⁹³ Fairlight would lose [REDACTED] of its canola sales to elevators and crushers other than Moosomin and Virден and [REDACTED] of its CWRS sales to those other rivals.¹⁹⁴ It is incorrect to calculate shares using only Moosomin, Virден and Fairlight when farms within the Miller Report’s defined 90% service area deliver this much canola and CWRS to other competing elevators and crushers.
158. Moosomin’s share of canola delivered to all elevators and crushers from these farms is only [REDACTED]¹⁹⁵ Virден’s share of the net quantity of canola delivered to elevators and crushers from these farms is only [REDACTED]¹⁹⁶ With a combined share of net quantity delivered of less than [REDACTED]¹⁹⁷ there is no *prima facie* competition concern in canola. Moosomin and Virден have a higher share of net quantity of CWRS delivered to elevators from these farms, at [REDACTED] and [REDACTED] respectively.¹⁹⁸ Together, the Moosomin and Virден elevators received [REDACTED] of net quantities of CWRS from these farms,¹⁹⁹ which is well below the 35% safe harbour threshold contained in the MEGs.²⁰⁰

¹⁹² See Figure 50 based on Miller Report, Exhibit 11.

¹⁹³ See Figure 50 based on Miller Report, Exhibit 11.

¹⁹⁴ See Figure 48.

¹⁹⁵ Miller Report, Exhibit 14, reporting “Share Before Acquisition”.

¹⁹⁶ Miller Report, Exhibit 14, reporting “Share Before Acquisition”.

¹⁹⁷ The calculation is: [REDACTED]

¹⁹⁸ Miller Report, Exhibit 14, reporting “Share Before Acquisition”.

¹⁹⁹ The calculation is: [REDACTED]

²⁰⁰ MEGs, paragraph 5.9 (“The Commissioner generally will not challenge a merger on the basis of a concern related to the unilateral exercise of market power when the post-merger market share of the merged firm would be less than 35 percent.”)

159. A correct representation of P&H's post-Acquisition shares of farm deliveries of canola and CWRS shows they are well below levels that create competition concerns.

GUPPIs are overstated because they are measured against the wrong price

160. The flaws identified in measuring the price of “grain handling services” also affect the Miller Report’s GUPPI measures, since these are expressed as a fraction of median prices for grain handling services. Exhibit 12 of the Miller Report reports UPP values at Moosomin of [REDACTED] CAD/MT for canola including crushers and [REDACTED] CAD/MT for CWRS. The UPP values at Virden are [REDACTED] CAD/MT for canola including crushers and [REDACTED] CAD/MT for CWRS.
161. Using the average canola cash price paid to farms of [REDACTED] CAD/MT at Virden and [REDACTED] CAD/MT at Moosomin for the time periods used in Dr. Miller’s analyses, these UPP measures imply a GUPPI of [REDACTED] at Moosomin and [REDACTED] at Virden. Using the average CWRS cash price paid to farms of [REDACTED] CAD/MT at Virden and [REDACTED] at Moosomin for the time periods used in Dr. Miller’s analyses, these UPP measures imply a GUPPI of [REDACTED] at Moosomin and [REDACTED] at Virden (see Figure 51). These are well under the thresholds that require additional analysis.

The Miller Report’s merger simulation inputs

162. There are two key components that determine the merger simulation price and welfare predictions found in the Miller Report: (i) diversion ratios; and (ii) the dollar markup. Each is discussed in turn. The diversion ratios are primarily a function of farm distances to elevators and observed deliveries in the transactions data collected by the Commissioner.²⁰¹ In Dr. Miller’s modelling, the dollar markup is used to determine the marginal utility of income or how sensitive farms are to the prices of “grain handling services”.

²⁰¹ Miller Report, Exhibit 20, see note: “Diversion ratios are based on a choice model that controls for drive times to each elevator choice and is weighted by net quantity sold per grower per crop year to the chosen elevator.”

163. The diversion ratios are derived from the farm choice model described in the Miller Report. All farms within the [REDACTED] contained within the union of the 90% service areas of Moosomin, Virden and Fairlight are included in the farm choice model. There are [REDACTED] deliveries included in the resulting dataset, many of which will be from the same farms, although they are treated as independent transactions.²⁰² The aggregated transactions data shows these farms make deliveries to [REDACTED]. [REDACTED] elevators are excluded because no farm location information was included in the data that [REDACTED] provided to the Commissioner.²⁰⁴
164. With an aggregated dataset of farm deliveries to [REDACTED], drive time calculations based on road distance between each farm and each elevator or crusher are calculated.²⁰⁵ Dr. Miller creates a dataset for every farm/elevator and farm/crusher combination, dropping any combinations that have zero deliveries. The remaining observations are weighted by quantity which accords greater significance to larger deliveries.²⁰⁶ Dr. Miller uses regression analysis to determine farms' elevator and crusher choices as a function of drive time and indicator variables for each elevator and

²⁰² Miller Report, paragraph 163: "I did not attempt to standardize farms across companies. For example, the same entity might appear as 'John Smith', 'Smith, John A.', and 'Smith Farm' in three different datasets, and I treat these entries as separate farms making separate decisions." Because Dr. Miller does not attempt to match farm names across or within the transactions data for each of the [REDACTED] in the dataset, the total number of farms is overstated, and his dataset cannot be used to determine the extent to which a single farm uses multiple elevators of varying distance. Considerable work was undertaken by staff under my direction to compare, aggregate and match farm names across the transactions data of the [REDACTED] for the farms identified as within the "corridor of concern". The farms within the "corridor of concern" are a subset of those within the union of 90% service areas used by Dr. Miller. I have no reason to believe the farms within the "corridor of concern" differ from those in the broader union of 90% service areas with respect to selling their canola and CWRS to multiple buyers at varying distances.

²⁰³ Dr. Miller uses a 12-month period that differs between canola and CWRS. The time period for canola is March 2018-February 2019. The time period for CWRS is August 1, 2018 to July 31, 2019 (for the 2018–2019 crop year). A crop year starts in August and ends in July the following year. Miller Report, paragraphs 48 and 52.

²⁰⁴ Miller Report, paragraph 151. Note that Ceres Northgate does provide identifying information on the location of farms who made the sale. Had Dr. Miller chosen to identify farms he may have been able to include Ceres Northgate in his analysis.

²⁰⁵ Dr. Miller's geocoding methodology is described in the Miller Report, paragraphs 166-68. Dr. Miller assigns coordinates to farms first by postal code and then by town or city (if postal code is not available).

²⁰⁶ Dr. Miller uses "net" quantity for the weighting, which is the quantity that is used to pay the farm.

crusher. The indicator variables for each elevator and crusher are used to explain the elevator/crusher choice that is unrelated to distance for a farm. If an elevator or crusher offers farms consistently higher prices or is otherwise preferred to deal with, farms will have deliveries to these locations even though they are farther away.

165. I report the coefficients on the elevator and crusher indicator variables contained in the Miller Report backup from the farm choice modelling in Figure 52. These show the [REDACTED], reflecting the fact that these purchasers of grain are attractive to the farms within the union of 90% service areas even though they are farther away. The “Distance Equivalent” columns in Figure 52 show how much farther a farm would be willing to drive to sell to each elevator or crusher compared to Richardson – Brandon/Kemnay (which is set to 0 in the Miller Report modelling). For example, farms would be willing to drive [REDACTED] to Moosomin and [REDACTED] [REDACTED] (both compared to Richardson – Brandon/Kemnay), which means that a farm will be indifferent between selling canola to Moosomin and LDC Yorkton only when Moosomin is [REDACTED] to the farm than Yorkton.²⁰⁷ Figure 52 also provides “Dollar Equivalent” columns that convert the coefficient values from the elevator and crusher indicator variables in Dr. Miller’s regression results into dollars. The “Dollar Equivalent” columns show that the Miller Report’s results indicate a farm is indifferent between selling to Moosomin and LDC Yorkton if Moosomin’s price was about [REDACTED] per MT.²⁰⁸ This shows that the driving distance has not removed

²⁰⁷ Drive distance equivalencies are calculated using Dr. Miller’s driving time coefficients and the average speed used by Dr. Miller. Dr. Miller estimates a time coefficient of about [REDACTED] for CWRS (utility decrease per minute) and uses an average speed of about [REDACTED] (inferred from his backup). This equates to a utility coefficient per km of about [REDACTED] (see Figure 53). The coefficients on Dr. Miller’s elevator and crusher indicator variables (i.e., his “fixed effects” variables) are converted to driving distance using this coefficient, such that Virden’s drive equivalent of [REDACTED] is computed as follows: [REDACTED] (FE coefficient) / [REDACTED]. For canola the calculation is analogous, but we use Dr. Miller’s driving time coefficient for Canola of [REDACTED]. These calculations are illustrated in Figure 53.

²⁰⁸ Utility can be converted into dollar terms using the calibrated alpha from Dr. Miller’s farm choice model. The calibrated alphas from Dr. Miller’s results for CWRS and canola are [REDACTED] and [REDACTED] respectively. Utility can be converted to dollars by dividing by alpha. For example, for CWRS the coefficient on Virden is [REDACTED] which is equivalent to [REDACTED].

crushers from the relevant market or from being competitive constraints to P&H post-Acquisition. In fact, the Miller Report's own regression results show the farms in the analysis have a strong preference for selling canola to crushers.

166. Using the Miller Report's farm choice model results, Figure 54 plots the probability that a farm within the transactions dataset sells canola to Moosomin, Virden, another elevator or a crusher for a given drive distance.²⁰⁹ Figure 54 shows that at [REDACTED] drive distance, there is typically about a [REDACTED] probability the farm delivers canola to Moosomin, a [REDACTED] probability the farm delivers canola to Virden, and a [REDACTED] probability the farm delivers to Harrowby (a crusher). While there is a near zero probability a farm delivers canola to an elevator more than [REDACTED] drive distance away, there is on average more than a [REDACTED] probability a farm sells canola to Velva (a crusher) at drive distances of [REDACTED]. Crushers offer attractive cash purchase prices to farms that overcome higher costs to deliver canola to crushers. It is clear from the farm choice model results that crushers are part of the relevant market and should be included when considering the competitive effects of the Acquisition.
167. Figure 55 plots the probability that a farm within the area sells CWRS to Moosomin or Virden or any other elevator for a given drive distance using the farm choice model results. Controlling for drive distance from the farm to the elevator, the Moosomin and Virden elevators are [REDACTED] to be chosen by a farm within the transactions dataset than any other elevator, with the exception of [REDACTED] which is preferred even with longer drive times.

Understanding the Miller Report's surplus results

168. The surplus calculations generated by Dr. Miller's simulation model differ from the more typical case, so they are worth explaining. In a typical case, price increases

²⁰⁹ The probabilities depend on the relative utilities (and thus distance) for farms from selling to each of the other elevators. The values reported are inferred from the Miller Report farm-elevator level regressions of choice on distance.

resulting from a merger reduce total quantity demanded leading to a deadweight loss and a wealth transfer from buyers to sellers. The deadweight loss has two components – a loss in consumer surplus and a loss in producer surplus. The loss in consumer surplus is due to buyers no longer purchasing the product at the higher post-merger prices despite having a willingness to purchase at pre-merger prices. The loss in producer surplus is due to sellers no longer earning a margin on the quantities that were sold pre-merger but are not sold post-merger due to reduced demand at higher post-merger prices.

169. In the merger simulation model employed by Dr. Miller to assess the welfare effects associated with his predicted increase in the price of “grain handling services”, all farms included in the simulation supply the same quantity of grain to elevators and crushers pre- and post-Acquisition, such that there is no reduction in the total quantity of grain delivered.²¹⁰ The Acquisition changes the distribution of grain volumes from farms to elevators and crushers with volumes shifting away from Moosomin and Virden towards Fairlight and rival elevators and crushers, which results in a loss of share for Moosomin and Virden.²¹¹ The volumes that shift to elevators other than Fairlight and to crushers are treated as “outside” the relevant market in the Miller Report.²¹²
170. Dr. Miller reports “total welfare in the model is given by the sum of the value that each farm receives from the market for grain handling services, together with the profits of elevators within the relevant market. Change in deadweight loss is then the opposite of the change in total welfare.”²¹³ Importantly, the change in consumer surplus in the Miller Report’s simulation is a change in the *expected utility* of farms – it is the

²¹⁰ The quantity sold by all farms in Dr. Miller’s simulation is [REDACTED] MT of canola and [REDACTED] MT of CWRS. These amounts do not change pre- and post-acquisition.

²¹¹ Miller Report, paragraph 137, and also Exhibit 14.

²¹² Miller Report, paragraph 139.

²¹³ Miller Report, paragraph 136.

difference in farms' expected utility post-Acquisition compared to farms' expected utility pre-Acquisition.

171. In Dr. Miller's farm choice model, every farm location has some positive probability of delivering grain to every elevator and crusher included in the modelling.²¹⁴ In his model, each farm location selects the elevator to provide its "grain handling services" based on the highest utility score.²¹⁵ One elevator or crusher is selected by each farm location.²¹⁶ Even though a single farm location delivers 100% of its grain to one elevator pre-Acquisition, the model provides some small probability that this farm location would purchase "grain handling services" from every other elevator (and crusher) when these are included in the simulation for canola.²¹⁷ In aggregate, across all farm locations, the pre-Acquisition probabilities that a given farm location will choose a particular elevator or crusher are calibrated to the observed deliveries in the transactions data.²¹⁸
172. The price increases that are predicted by any merger simulation model, including that used in the Miller Report, are the result of the merger internalizing diversion between the merging firms. When there is positive diversion and a positive margin, a merger simulation model will predict a price increase for the merging firms when efficiencies are not modelled. In the simulation discussed in the Miller Report, Fairlight is a "strategic" firm within the defined relevant market, such that it also increases its price for "grain handling services" somewhat in response to the price increase that the Miller Report predicts for P&H.²¹⁹ No other elevator or crusher alters its price in the Miller

²¹⁴ Miller Report, paragraphs 111 and 189.

²¹⁵ Miller Report, paragraphs 111 and 189.

²¹⁶ Miller Report, paragraphs 186-188.

²¹⁷ Miller Report, paragraphs 186-196.

²¹⁸ Miller Report, paragraphs 189-196.

²¹⁹ Miller Report, paragraph 137.

Report's simulation.²²⁰ With the changes in prices by Moosomin, Virden and Fairlight relative to no changes in prices at rival elevators and crushers, the probabilities that farms use a given elevator change.²²¹ In Dr. Miller's model, all probabilities change for every farm whether or not the farm sells grain to either the Moosomin or Virden elevators.²²²

173. Under this model, all farm locations within the union of 90% service areas of the Moosomin, Virden and Fairlight elevators experience a loss in expected utility due to the Acquisition.²²³ The farm location does not have to be close to the Moosomin and Virden elevators or purchase "grain handling services" from either elevator to experience a loss in expected utility. In fact, as I discuss below most of the loss in expected utility that is identified in the Miller Report is for farm locations that do not deliver grain to the Moosomin and Virden elevators.
174. Figures 56-57 disaggregate the expected utility losses provided in the Miller Report to compare the distribution of these losses for canola and CWRS for farm locations that sell canola or CWRS to Moosomin or Virden pre-Acquisition compared to the farm locations that did not deliver grain to Moosomin or Virden pre-Acquisition.
- i. In the case of canola, [REDACTED] of the farm-elevator consumer surplus losses in the Miller Report's results are less than [REDACTED] annually, and of these [REDACTED] are for farm-elevator combinations that did not deliver canola to Moosomin or Virden pre-Acquisition.
 - ii. For CWRS, [REDACTED] of the farm-elevator consumer surplus losses in the Miller Report's results are less than [REDACTED] annually, and of these [REDACTED] are for farm-elevator combinations that did not deliver CWRS to Moosomin or Virden pre-

²²⁰ Miller Report, paragraph 216.

²²¹ Miller Report, paragraphs 214 and 215.

²²² Miller Report, paragraphs 214 and 215.

²²³ Miller Report, paragraphs 212 - 214.

Acquisition. For those farm-elevator combinations delivering CWRS to Moosomin or Virden pre-Acquisition, the Miller Report's calculations show there were [REDACTED] farms with consumer surplus losses between [REDACTED] and [REDACTED] annually, [REDACTED] farms with consumer surplus losses between [REDACTED] and [REDACTED] annually, and [REDACTED] farms with consumer surplus losses between [REDACTED] and [REDACTED] annually.

175. Across all consumer surplus loss categories identified in the Miller Report, there are far more farm-elevator combinations that delivered canola or CWRS to rivals than farm-elevator combinations that delivered canola or CWRS to Moosomin and Virden. This makes the Miller Report's consumer surplus loss calculations different from the more typical merger case. In most mergers with price increases, the consumer surplus losses arise from buyers who made purchases from market participants pre-merger who do not make purchases post-merger at the higher prices. But in the Miller Report model, most of the consumer surplus losses – measured as changes in expected utility – are with respect to farm-elevator or farm-crusher combinations that Dr. Miller excludes from his defined relevant market.
176. Another depiction of the distribution of consumer surplus losses is provided in Figure 58 which shows the fraction of consumer surplus losses associated with those farm-elevator combinations that have Moosomin and Virden as their two closest elevators. In canola, the Miller Report's results indicate [REDACTED] in consumer surplus losses for those farm locations with Moosomin and Virden as their closest elevators, compared to total consumer surplus losses in canola of [REDACTED]. In CWRS, the Miller Report's results indicate [REDACTED] in consumer surplus losses for those farm locations with Moosomin and Virden as their closest elevators, compared to total consumer surplus losses in CWRS of [REDACTED].
177. As Figure 59 makes clear, most of the consumer surplus loss described in the Miller Report are for farm locations that have numerous rival elevator and crusher locations preferred to Moosomin or Virden because these rivals are closer. Thus, the consumer surplus losses described in the Miller Report are *not* resulting from farms whose nearest choices are Moosomin and Virden hypothetically travelling farther post-Acquisition.

Instead, much of the change in expected utility that forms the basis of the Miller Report's consumer surplus losses are from farms that are not close to either Moosomin or Virden and for which one would not expect the Acquisition to matter.

178. Notwithstanding the Miller Report's finding that most consumer surplus losses are associated with farm locations that do not deliver grain to Moosomin or Virden pre-Acquisition and that do not have Moosomin and Virden as their closest elevator options, all farm location consumer surplus losses are included by Dr. Miller in his reported welfare results without including the profit improvement that accrues to the many rival elevators that these farm locations use. Instead, Exhibit 15 of the Miller Report provides the consumer surplus losses for all farm-elevator combinations but only the profit improvement that is estimated for Moosomin, Virden and Fairlight. This is not an apples-to-apples comparison.
179. Accepting for the purposes of illustration Dr. Miller's use of expected utility to measure the change in consumer surplus from the Acquisition, a proper accounting of the welfare change should compare the consumer surplus losses and profit improvements for the same set of players – either the profits of all rival elevators should be included if the consumer surplus losses are calculated for all farm-elevator combinations or only the consumer surplus losses associated with the farms that use the elevators included in Dr. Miller's defined market (i.e., Moosomin, Virden and Fairlight) should be compared to the profits at these three elevators. Between these two comparisons, the correct one would include all rival elevators since a correct definition of the relevant market would include more elevators than only Moosomin, Virden and Fairlight.
180. Figure 60 provides the change in consumer surplus, total profit and total surplus for canola (including crushers) and for CWRS using the Miller Report's results incorporating the profit improvements at elevators beyond Moosomin, Virden and Fairlight. It shows the [REDACTED] in canola and [REDACTED] in

CWRS.²²⁴ Even if one were to accept the use of expected utility as a meaningful way to measure the Acquisition's effects on total surplus, Dr. Miller's own estimates show there are no significant reductions in total surplus when all farm-elevator combinations in a properly defined relevant market are included.

181. The price and volume changes found in Dr. Miller's simulation results can be used to construct deadweight loss estimates using the more familiar model of linear demand.²²⁵ The resulting deadweight loss is estimated to be a mere [REDACTED] annually in canola and [REDACTED] in CWRS annually, summed across Moosomin and Virden.
182. However, there is a more fundamental point to the Miller Report surplus calculations – most of the profit improvement from the alleged anticompetitive Acquisition accrues to Viterra and other rivals, and not to P&H. This is highly unusual. Normally, one expects the beneficiary of an alleged anticompetitive transaction to be the merging parties (or acquirer), not their rivals. If rivals are the expected primary beneficiaries, it makes the price increase predictions questionable or certainly less likely. That is the case here.
183. Figures 61-62 provide the details of the estimated changes in elevator shares, volume, price and profits using the Miller Report's simulation results. Exhibit 14 of the Miller Report shows a price change of [REDACTED] CAD/MT for canola in the price of "grain handling services" at Virden, which is a [REDACTED] change in the price of grain handling services. When this change is considered relative to the average cash price paid to farms for their canola at Virden, it represents only a [REDACTED] change in the average canola cash price of

²²⁴ Alternatively, Figure 60 reports the change in consumer surplus, total profit and total surplus if the farm-elevator combinations are restricted to Moosomin, Virden and Fairlight only. If Dr. Miller's welfare comparison is done for farm-elevator combinations using only Moosomin, Virden and Fairlight, the annual total surplus loss is [REDACTED] in canola and [REDACTED] in CWRS. Once Dr. Miller's welfare results are reported on an apples-to-apples basis, the changes in total surplus (i.e., changes in expected utility which he uses to measure consumer surplus together with the change in profits) are smaller than those reported in Exhibit 15 of the Miller Report.

²²⁵ The formula for the deadweight loss calculation, assuming linear demand, is the change in quantity multiplied by the change in price divided by 2. This can be calculated using the Miller Report results for each of Moosomin and Virden, and then summed. The price and quantity changes found in Dr. Miller's simulation results and reported in Figure 62.

█████ CAD/MT paid to farms by the Virden elevator using Dr. Miller's time period. Expressed as a change in the price per bushel, this is an increase of █████ per bushel at Virden (see Figure 62). In CWRS, the Miller Report's simulation results generate an increase of about █████ per bushel increase at Moosomin and Virden and █████ per bushel increase at Fairlight for an average change across Moosomin, Virden and Fairlight of █████ per bushel (see Figure 62).

184. The price increases that Dr. Miller's simulation model predicts at Moosomin and Virden lead to predicted lower purchases at these elevators, in the range of █████ for Virden's CWRS purchases and █████ for Moosomin's CWRS purchases.²²⁶ The Miller Report's predicted purchase reductions are smaller for canola. Whether canola or CWRS are considered, the merger simulation predicts that volumes which pre-Acquisition were delivered to Moosomin and Virden would be diverted to Fairlight and other rival elevators (and crushers in the case of canola) in proportion to the diversions estimated in the Miller Report's farm choice model. Figure 61 provides the firm-level changes in the profit for each of Moosomin, Virden and Fairlight that are reflected in the Miller Report's back-up materials.
185. The details contained in Figure 61 show that even Dr. Miller's simulation model finds it is █████ for Moosomin to implement a price increase for "grain handling services" in respect of canola post-Acquisition, whether one includes or excludes crushers in the set of canola buyers. Dr. Miller's model finds there is █████ in canola (with crushers included) at Virden such that the combined Moosomin + Virden profit █████ to P&H from implementing the predicted price increases in Dr. Miller's simulation are an aggregate █████ annually in canola and █████ annually in CWRS, for a total profit improvement of █████ annually. These are remarkably █████ for P&H to implement the reduction in purchases of canola

²²⁶ Miller Report, Exhibit 14, reporting the change in share. Dr. Miller's backup materials provide the details, which I present in Figures 61 and D62.

and CWRS, and increase the prices of “grain handling services” for canola and CWRS predicted in the Miller Report.

186. According to Dr. Miller’s simulation results, the firm that benefits the most from the Acquisition [REDACTED]. The Miller Report’s simulation results have [REDACTED] increase by [REDACTED] in canola and [REDACTED] in CWRS for a total improvement of [REDACTED] annually. As a result, P&H only earns [REDACTED] of the total profit improvement among Moosomin, Virden and Fairlight predicted by Dr. Miller’s merger simulation, while [REDACTED] of the total profit improvement goes to [REDACTED]. It is highly unlikely that P&H would increase prices for “grain handling services” as this model suggests given the [REDACTED] in profits achieved by P&H and [REDACTED] achieved by [REDACTED]. P&H paid more than [REDACTED] for the 10 LDC elevators and allocated [REDACTED] of its purchase price for the [REDACTED].²²⁷ The annual profit improvement of [REDACTED] in the context of these purchase prices and belies any suggestion that P&H was motivated by a desire to create monopsony power or will, in fact, obtain monopsony power in acquiring the Virden elevator.
187. In conclusion, the price increases, purchase reductions and changes in total surplus identified in the Miller Report are unreliable. They have not occurred since the Acquisition and are unlikely to occur in the future. The Acquisition has not substantially lessened competition in any properly defined relevant market to date and it is unlikely to do so in the future.

²²⁷ See Notification re Asset Purchased from LDC – Schedule A at Section 4.2.

SWORN remotely by)
Margaret Sanderson at the City of)
Toronto, in the Province of Ontario,)
before me on October 9, 2020 in)
accordance with O. Reg. 431/20,)
Administering Oath or Declaration)
Remotely.)



_____)
Commissioner for Taking Affidavits)
(or as may be))
IAN C. MATTHEWS)



_____)
MARGARET SANDERSON)

Appendix on the Difference-in-Differences Regression Analysis of Posted Prices at Moosomin and Virden

1. A standard difference-in-differences regression methodology is used to test whether Moosomin's (or Virden's) posted prices have stayed on the trajectory they were on pre-Acquisition relative to the Dutton elevator since P&H purchased the LDC elevators. The Dutton elevator is used as a benchmark since it also has Thunder Bay as its terminal port and it is not within the draw area of any acquired LDC elevator; hence it would be unaffected by the Acquisition.

2. The regression specification for this analysis is as follows:

$$Y_i = \beta_0 + x_i'\beta + \alpha I_M + \gamma I_A + \delta(I_D \times I_A) + \varepsilon_i$$

where:

- Y_i is the log of the observed posted bid (also known as net or cash) price;
- I_M is an indicator or dummy variable that takes the value 1 if the observed price was at Moosomin, and a value of 0 if the observed price was at Dutton;
- I_A is an indicator variable that take a value of 1 if the observed price is in the post-Acquisition period, and a value of 0 if the observed price was in the pre-acquisition period;
- x_i are a set of control variables that explain some of the variation in the observed prices. Here, these control variables include the futures price in the same day of the observed price, and a collection of indicator variables associated with the month of the posted price and the delivery month of the posted price.

3. The estimate of the differential in price of Dutton pre- and post-Acquisition is given by γ and reflects factors unrelated to the Acquisition since Dutton's price would not be affected by the Acquisition of Virden.

4. The estimated differential in price of Moosomin pre- and post-Acquisition is given by $\gamma + \delta$. This differential in price is assumed to come from factors that are unrelated to the Acquisition, and the effect of Acquisition. Absent any effects of the Acquisition we

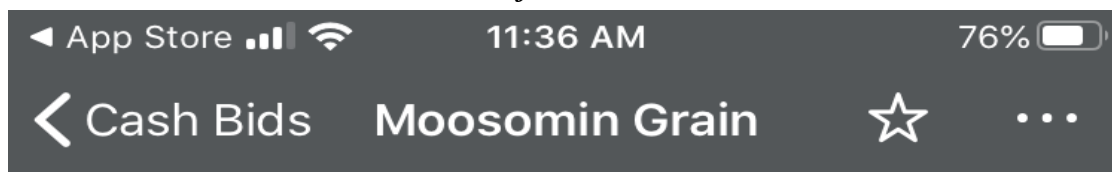
expect any differential in price at Moosomin that has occurred over time to be equal to γ , which is the same differential at Dutton that exists between the post-Acquisition and pre-Acquisition periods. Therefore, δ , is interpreted as the percent difference in Moosomin's price that the regression attributes to the Acquisition, because it tells us how much the differential in price is different from γ . Hence, δ is the coefficient of interest in this analysis, as it would be an indicator of how much prices at Moosomin changed due to the Acquisition.

5. A similar analysis is undertaken to evaluate the potential effects of the Acquisition on the prices at Virden. The analysis is identical except that instead of using data on Moosomin prices, data on Virden prices are used. The interpretation of the coefficients such as γ and δ is analogous to the interpretation of these coefficients in the difference-in-differences analysis of Moosomin.
6. It bears noting that *any* difference estimated in the coefficient of interest δ is assumed to result from the Acquisition in this analysis.

Figure 1a

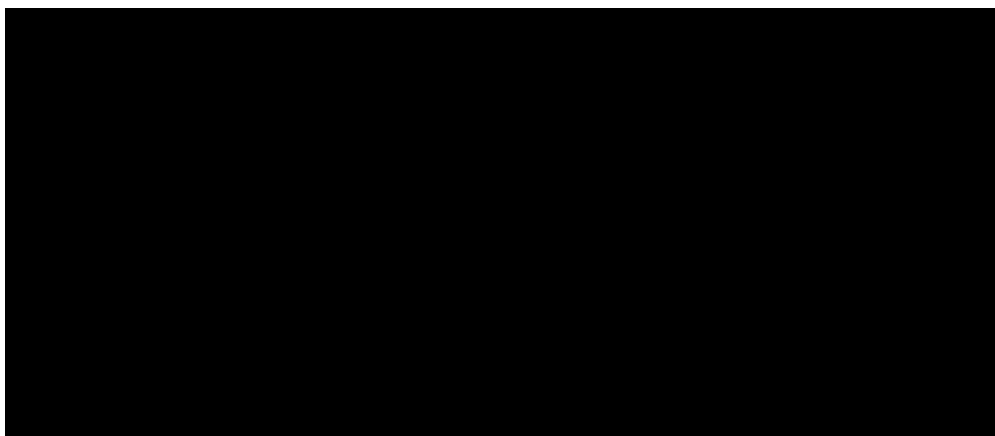
PUBLIC

Screenshot of P&H Mobile Application the Morning of May 14, 2020 Posted Prices of CWRS at Moosomin



1CWRS 13.5

Date	Bid	Basis
May20	6.11	0.99
Jun20	6.11	0.99
Jul20	6.11	0.99
Aug20	6.13	0.89
Sept20	6.13	0.89



[VIEW DETAIL](#)

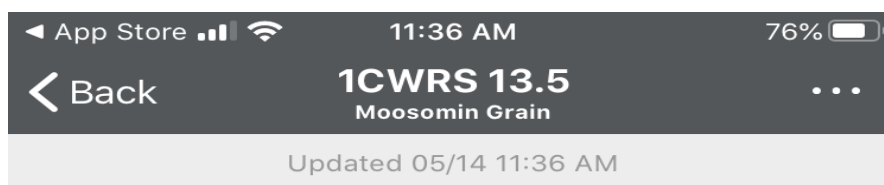
Notes:

- [1] Bid is the posted cash price of CWRS grade 1 with 13.5% protein in Canadian dollars per bushel for deliveries during the month indicated in the "Date" column.
- [2] Basis is the posted basis value of CWRS grade 1 with 13.5% protein per bushel for deliveries during the month indicated in the "Date" column.

Figure 1b

PUBLIC

Screenshot of P&H Mobile Application the Morning of May 14, 2020 Posted Prices of CWRS at Moosomin (Details)



May20

Bid	6.11
Basis	0.99
Futures Month	MWN20
Futures Change	0.0000
Futures Price	5.1200

Jun20

Bid	6.11
Basis	0.99
Futures Month	MWN20
Futures Change	0.0000
Futures Price	5.1200

Notes:

- [1] This screen is the first screen after clicking "View Details" on the main postings screen (see Figure D1a). Scrolling down will reveal a similar panel for all posted prices listed on the main posting screen (e.g., Jul20, Aug20, etc.).
- [2] Bid is the posted cash price of CWRS grade 1 with 13.5% protein in Canadian dollars per bushel for deliveries during the month indicated in the "Date" column.
- [3] Basis is the posted basis value of CWRS grade 1 with 13.5% protein per bushel for deliveries during the month indicated in the "Date" column.
- [4] Futures Month, Change, and Price indicate the indexed commodity (e.g., MWN20 for May 20 Deliveries), its current value in US dollars, and changes from recent values.

Figure 2

PUBLIC



Purchase Confirmation

Parrish & Heimbecker, Limited

Moosomin Grain
 Box 1590
 Moosomin, SK S0G 3N0
 Ph: (306)435-4905
 Fax:(306)435-4353

Account Information	
Purchased From:	[REDACTED]
Account Nbr:	[REDACTED]
Phone Nbr:	[REDACTED]
Fax Nbr:	[REDACTED]

Contract Number:	[REDACTED]
Original Date:	[REDACTED]
Contract Type:	FIXED PRC CONTRACT
Delivery Location:	Moosomin Grain

Confirmation of a Verbal Agreement between [Seller] [REDACTED] and [Buyer] Cassandra Beutler.

Contract Details		
Date:	[REDACTED]	1,580.000 Quantity MT UOM
Commodity:	CWRS - WEST	
Grade:	1CWRS 13.5	Futures Price:
Currency:	CAD Per MT (kg)	Basis Price:
Basis Location:	Moosomin Divd	Net Price:
GPO Number:	[REDACTED]	Option Month:

Shipping Details		Rules to Govern	
Ship From/To:	[REDACTED] - [REDACTED]	Rules:	National Grain & Feed Assoc
Delivery Mode:	Truck	Grade:	Destination
Transport Type:	Truck (kg)	Weight:	Destination

Special Instructions and Conditions

The Buyer(s) and Seller(s) signature on this contract acknowledge(s) the parties are authorized to enter into a binding agreement. By signing this Contract, the parties understand and agree to the terms and conditions on both the front and reverse side of this Contract. Any errors and omissions must be confirmed in writing within 24 hours of receipt of this contract or Contract is duly noted as accepted.

Maximum 2.0 PPM Vomitoxin, subject to rejection or discounts
 Minimum 300 Falling Number

P&H limits basis contracts to a maximum of 1 calendar year from original contract delivery period start date. If at that time pricing has not been established P&H retains the right to price outstanding contract or unpriced portion thereof.

Authorized Signature of Seller

[REDACTED]

Authorized Signature of Buyer

Parrish & Heimbecker, Limited

Date: _____

Date: _____

Figure 2

PUBLIC

- 1) Buyer shall receive good title to the Commodity free and clear of all encumbrances and Seller warrants that he/she has full right to enter into this Contract, he/she is full owner of the Commodity, he/she has not sold or contracted to sell the Commodity to anyone other than Buyer, and will keep Commodity free of all liens and encumbrances. Seller agrees to settle any outstanding accounts relating to the Commodity delivered to Buyer by hereby expressly allowing Buyer to deduct and pay any such outstanding accounts from monies due to Seller under this contract. Seller shall produce reasonable evidence of payment of any outstanding accounts at the request of Buyer. If Buyer is notified of any security interests in the Commodity before delivery, Buyer shall have the option of accepting or rejecting deliver hereunder. Buyer may honor any security interests, liens or other claims against the Commodity if notification of the same is received before the Commodity is delivered or paid for. In the event that Seller has encumbered the Commodity without disclosing this to Buyer, Seller shall indemnify and save harmless any costs and damages incurred by Buyer as a result thereof.
- 2) Unless otherwise expressly agreed to in writing by the Buyer or unless otherwise specified at the time of sale, Seller warrants that the Commodity was or will be grown in Canada, may be introduced into commerce under the Food and Drugs Act (Canada) or other applicable federal, and provincial laws, and complies with other applicable federal and provincial laws, including but not limited to Canada Agricultural Products Act and Plant Protection Act (Canada).
- 3) Buyer's weights and grades will govern this Contract, unless otherwise specified. Seller warrants that the Commodity shall be of merchantable quality and shall not be adulterated, misbranded, or in any way violate any federal and provincial laws, including without limitation the Pest Control Products Act (Canada), the Canada Agricultural Products Act, the Food and Drugs Act, the Plant Protection Act (Canada), the Canadian Environmental Protection Act. Seller guarantees the Commodity to arrive at final destination "cool and sweet" and free from any kind of infestation.
- 4) The Commodity shall be delivered in containers that meet all provincial and federal laws, and are in all respects in compliance with applicable provincial and federal regulations related to the delivery of grain intended for human consumption. The Commodity may be delivered only during Buyer's designated receiving hours. Buyer may schedule deliveries of the Commodity by Seller to suit the availability of appropriate storage and cleaning facilities. Buyer has 90 days after the end date of the contract to arrange for delivery (Buyer's Call). Buyer may designate any reasonable alternate delivery point if necessary to expedite or facilitate Seller's performance of this Contract, but shall not be obligated to do so. Seller shall pay any increased shipping charges under this provision; reductions in shipping charges shall be for Buyer's convenience, increases or decreases in shipping charges shall be for Buyer's account.
- 5) Notwithstanding any other provisions of this agreement to the contrary, all rights, title and interest to the Commodity shall remain in Seller until such time as the crop has been delivered to Buyer's designated point or picked up by Buyer. Buyer's acceptance of any delivery shall not waive its rights for conditions which are not disclosed or reasonably discoverable at time of transfer.
- 6) Buyer may reject any Commodities delivered or tendered for delivery hereunder that do not comply with conditions contained herein. Buyer's rejection of delivery for this reason shall not release Seller for this contract. If Buyer accepts any Commodity not meeting contract grade or quality, market scale discounts and premiums at time of delivery will apply, unless otherwise specified in writing. Seller shall pay all freight costs or other charges incurred by Buyer in connection with rejected Commodities.
- 7) If Seller finds he/she cannot deliver the contracted quantity, Seller shall immediately advise Buyer. If Seller fails to notify Buyer of their ability to complete the contracted delivery, Seller's liability shall continue until Buyer can determine whether Seller has defaulted. Buyer, when so notified or upon such determination, shall by the close of the next business day elect either to: (a) agree with Seller to extend the time for delivery; or (b) after having given notice to Seller to complete the contract, buy-in for Seller's account the defaulted portion of the contract; or (c) after having given notice to Seller to complete the contract, cancel the defaulted portion of the contract at the difference between the contracted price and the replacement cost, plus an administration fee of \$10 per metric tonne. Seller shall pay to Buyer on demand the amount as may be determined under paragraph 7(b) or (c), as may be applicable.
- 8) No course of dealing by Buyer (including without limitation accepting any partial delivery or making any payment before complete delivery), nor any delivery or failure to exercise any right, shall operate a waiver of such right. Any waiver must be in writing, and shall not be construed as a continuing waiver or a waiver of any subsequent breach of this Contract.
- 9) Any increase in freight rates taking effect before fulfillment of this Contract, and not pursuant to paragraph 4 above, and excessive freight or other charges occasioned by the shipper's erroneous billing and routing, or loading of cars, trucks and barges below minimum and over maximum weight, will be for Seller's account. Seller is to pay weighing and inspection fees. Any freight reductions shall be for Buyer's account.
- 10) Except as expressly stated herein, Buyer shall not be liable in any respect for failure or delay in the fulfillment or performance of this contract if hindered or prevented, directly or indirectly, by war, national emergency, inadequate transportation facilities, inability to secure fuel or power, fire flood, windstorm or other acts of God, strikes, lockouts or other labour disturbances, embargo, orders, or acts of any government or governmental agency or authority, accidents to machinery, or any cause of like or different kind beyond buyer's reasonable control. However, notwithstanding this provision, the Buyer shall have an additional 90 days beyond the expiry of delivery period to call for a delivery of the Commodity without penalty. If additional delivery options have not been provided by the Buyer by the end of the 90 day extension period, the Seller will be entitled to a \$3.00 per metric tonne penalty on the undelivered portion of the Contract. The original Contract and its terms will remain in force until the Buyer is able to receive and/or other delivery options are provided. If the Seller is unable to deliver the contracted quantity and quality when called for, this clause shall be deemed void and no penalty will be awarded. This clause does not pertain or apply to commercial transactions between the Buyer and other grain companies or commercial entities.
- 11) This instrument constitutes the sole agreement between the parties respecting the Commodity. Any prior agreements, negotiations or representations not expressly set forth in this Contract have no effect. This Contract may not be modified except in writing duly signed by both parties.
- 12) This Contract shall be governed by the laws of the Province in which it was written and the laws of Canada as may be applicable therein except where an issue may be decided under the National Grain and Feed Association Grain Trade Rules. Any claim relating to this Contract shall be settled by arbitration under the National Grain and Feed Association Arbitration Rules as are in effect at the date of this agreement. The parties agree to submit to arbitration. Judgment upon any arbitration award may be entered in any court or tribunal of competent jurisdiction. Copies of the National Grain and Feed Association Trade Rules and National Grain and Feed Association Arbitration Rules are available upon request and also on the National Grain and Feed Association's website at <http://www.ngfa.org>.
- 13) Buyer may liquidate this contract because of (a) the Seller's insolvency, (b) a case being commenced by or against the Seller, (c) a trustee for the Seller being appointed in a case, or a custodian being appointed before such commencement, (d) any default of the terms and conditions herein. Without limiting any other remedies available to Buyer, this Contract is subject to Buyer's right to set off against any amount payable to Seller, all amounts owing by the Seller to Buyer, including, without limitation, all amounts owing in respect of any crop inputs provided by the Buyer and interest at 1.5% per month.
- 14) This contract is binding on the parties and their heirs, successors and assigns. Seller may assign this contract only upon Buyer's prior written consent.
- 15) It is agreed by both parties that the United Nations Convention on Contracts for the International Sales of Goods shall not apply to this Contract.
- 16) None of the terms of this Contract may be added to, deleted, or altered in any way without the written consent of an authorized representative of the Buyer.
- 17) This contract is not valid unless it has been signed by an authorized representative of the Buyer.
- 18) If Seller, or anyone on my behalf, deliver(s) grain to P&H that is not an eligible variety, Seller will be liable to P&H for all claims, damages, losses and costs (including legal fees) that may result from such false and/or negligent representation. Seller further acknowledge and agree that P&H may consider Seller to be in default of my delivery contract as a result of the delivery on a non-eligible variety.

 Authorized Signature of Seller

 Authorized Signature of Buyer

Date: _____

Date: _____

Figure 3

Canada

Deferred Delivery Contract (DDC)

FINAL BINDING AGREEMENT

Louis Dreyfus Company Canada ULC
P.O. Box 2459
Virden, Manitoba, Canada
Tel: 204 748-6282 Fax: 204 748-6285

DEFERRED DELIVERY CONTRACT (DDC)

Contract [REDACTED]

This contract has been agreed to on the [REDACTED] between Louis Dreyfus Company Canada ULC (referred to as LDC) and the PRODUCER (referred to as Seller).

Last Name:	[REDACTED]	CWB ID:	CLARK20009
First Name:	[REDACTED]	Company:	[REDACTED]
Address:	[REDACTED]	Phone #:	[REDACTED]
Province:	[REDACTED]	Fax #:	[REDACTED]
Town:	[REDACTED]	DocuSign: Yes	
Postal Code:	[REDACTED]		

The Seller hereby agrees to sell and LDC hereby agrees to buy from the Seller the commodity described below on the following terms and conditions:

Net Amount 200.000 MT	Grain CWRS #1 13.5	Grade #1	Net Price (\$/MT) [REDACTED]
Delivery Period [REDACTED]	Delivery Point Virden	Delivery Via Truck	Net Price (\$/Bu) [REDACTED]

If applicable, the above mentioned Deferred Delivery Contract, has been transferred from GPO/BC/MPC/PPC No. [REDACTED]

Contract Terms:

- Immediately upon delivery of the commodity to the delivery point, a grade and dockage shall be established. In the event of a disagreement between LDC and/or LDC's representative and the Seller, a representative sample of the commodity shall be forwarded to the Chief Inspector of the Canadian Grain Commission, whose decision shall be final and binding.
- All rights, title and interest to the commodity shall remain with the Seller until such time as the commodity has been delivered to LDC's designated delivery point and a grade and dockage has been established by LDC, whereupon all rights, title and interest to the commodity shall be transferred to LDC.
- LDC shall receive good title to the commodity, free and clear of all encumbrances.
- The Seller agrees to settle any outstanding accounts relating to the commodity delivered to LDC by hereby expressly allowing LDC to deduct any such outstanding accounts from revenue due to the Seller under this contract.
- In the event that the Seller does not deliver against this agreement, LDC shall retain the right to charge the Seller an Administration fee that shall not exceed \$15.00 per MT in addition to any charges from contract term No.8.
- In the event that LDC is unable to receive the commodity by the end of the Delivery Period, then the Delivery Period shall be deemed to be extended for a period of 90 days (the "Extended Period"). If LDC does not call for delivery of the commodity by the end of the Extended Period, LDC shall pay the Seller a storage payment for each day beyond the Extended Period until the day delivery is called for by LDC (the "Storage Payment"). Notwithstanding the foregoing, no Storage Payment shall be due to the Seller if the commodity delivered is not in accordance with the contract. The Storage Payment on each outstanding tonne shall be calculated in accordance with the Canadian Grain Commission Licensed Primary Elevator tariffs applicable to LDC and calculated for each day beginning on the first day following the Extended Period until delivery. LDC shall provide the Seller with at least 24 hours' notice of the delivery date (the "Delivery Date") and LDC shall not be liable for any Storage Payments for storage occurring after such Delivery Date. In the event that LDC notifies the Seller of a Delivery Date that falls within the Delivery Period or the Extended Period and the Seller fails to make such delivery on the Delivery Date, LDC may, at its sole option, charge the producer \$0.10/mt per day of such non delivery ("Late Delivery Charge"): if the Delivery Date is during the Delivery Period, from the first day following the end of the Delivery Period until the date commodity is delivered; or, if the Delivery Date is during the Extended Period, from the Delivery Date to the date on which the Seller delivers to LDC all undelivered commodity remaining outstanding on this contract. For the avoidance of doubt, the Late Delivery Charge is in addition to any other rights or remedies under law or contract that LDC may have for late or non-delivery.
- Unless LDC agrees in writing, the Seller shall not sell or deliver the specific commodity contracted for to anyone other than LDC if that sale and delivery would result in the Seller being unable to deliver under this contract.
- In the event the Seller does not deliver in accordance with the terms of this agreement, the Seller will be liable to LDC for damages for the difference between the contract price and the price LDC is required to pay in order to replace the commodity at the delivery point or an alternative location at LDC's discretion and for any other loss or expense incurred resulting from the failure to deliver. The exercise by LDC of any right or remedy provided in this contract does not affect other rights or remedies LDC may have under this contract.
- Grade and protein discounts to apply at time of delivery. For all classes of wheat and durum, maximum vomitoxin allowance of 2 ppm and maximum moisture allowance at 14.0% and minimum falling number of 300 seconds.

Producer _____ Louis Dreyfus Company Canada ULC _____
 Date _____ Date _____

SELLERS ARE URGED TO CAREFULLY READ THE CONTRACT. DISPUTES IN RESPECT OF THE CONTRACT MUST BE SETTLED EITHER BY THE TWO PARTIES OR BY CIVIL ACTION. IN WITNESS WHEREOF, LDC AND SELLER HAVE SIGNED THIS AGREEMENT.

Figure 4

PUBLIC



Purchase Confirmation

Parrish & Heimbecker, Limited

Moosomin Grain
 Box 1590
 Moosomin, SK S0G 3N0
 Ph: (306)435-4905
 Fax:(306)435-4353

Account Information	
Purchased From:	[REDACTED]
Account Nbr:	[REDACTED]
Phone Nbr:	[REDACTED]
Fax Nbr:	[REDACTED]

Contract Number:	[REDACTED]
Original Date:	[REDACTED]
Contract Type:	FIXED PRC CONTRACT
Delivery Location:	Moosomin Grain

Confirmation of a Verbal Agreement between [Seller] [REDACTED] and [Buyer] Cassandra Beutler.

Contract Details			
Date:	[REDACTED]	500.000	MT
Commodity:	CANOLA - WEST	Quantity	UOM
Grade:	1CAN CANOLA W	Futures Price:	[REDACTED]
Currency:	CAD Per MT (kg)	Basis Price:	[REDACTED]
Basis Location:	Moosomin Dlvd	Net Price:	[REDACTED]
GPO Number:	[REDACTED]	Option Month:	H=[REDACTED]

Shipping Details		Rules to Govern	
Ship From/To:	[REDACTED] - [REDACTED]	Rules:	National Grain & Feed Assoc
Delivery Mode:	Truck	Grade:	Destination
Transport Type:	Truck (kg)	Weight:	Destination

Special Instructions and Conditions

The Buyer(s) and Seller(s) signature on this contract acknowledge(s) the parties are authorized to enter into a binding agreement. By signing this Contract, the parties understand and agree to the terms and conditions on both the front and reverse side of this Contract. Any errors and omissions must be confirmed in writing within 24 hours of receipt of this contract or Contract is duly noted as accepted.

P&H limits basis contracts to a maximum of 1 calendar year from original contract delivery period start date. If at that time pricing has not been established P&H retains the right to price outstanding contract or unpriced portion thereof.

Authorized Signature of Seller

[REDACTED]

Authorized Signature of Buyer

Parrish & Heimbecker, Limited

Date: _____

Date: _____

Figure 4

PUBLIC

- 1) Buyer shall receive good title to the Commodity free and clear of all encumbrances and Seller warrants that he/she has full right to enter into this Contract, he/she is full owner of the Commodity, he/she has not sold or contracted to sell the Commodity to anyone other than Buyer, and will keep Commodity free of all liens and encumbrances. Seller agrees to settle any outstanding accounts relating to the Commodity delivered to Buyer by hereby expressly allowing Buyer to deduct and pay any such outstanding accounts from monies due to Seller under this contract. Seller shall produce reasonable evidence of payment of any outstanding accounts at the request of Buyer. If Buyer is notified of any security interests in the Commodity before delivery, Buyer shall have the option of accepting or rejecting deliver hereunder. Buyer may honor any security interests, liens or other claims against the Commodity if notification of the same is received before the Commodity is delivered or paid for. In the event that Seller has encumbered the Commodity without disclosing this to Buyer, Seller shall indemnify and save harmless any costs and damages incurred by Buyer as a result thereof.
- 2) Unless otherwise expressly agreed to in writing by the Buyer or unless otherwise specified at the time of sale, Seller warrants that the Commodity was or will be grown in Canada, may be introduced into commerce under the Food and Drugs Act (Canada) or other applicable federal, and provincial laws, and complies with other applicable federal and provincial laws, including but not limited to Canada Agricultural Products Act and Plant Protection Act (Canada).
- 3) Buyer's weights and grades will govern this Contract, unless otherwise specified. Seller warrants that the Commodity shall be of merchantable quality and shall not be adulterated, misbranded, or in any way violate any federal and provincial laws, including without limitation the Pest Control Products Act (Canada), the Canada Agricultural Products Act, the Food and Drugs Act, the Plant Protection Act (Canada), the Canadian Environmental Protection Act. Seller guarantees the Commodity to arrive at final destination "cool and sweet" and free from any kind of infestation.
- 4) The Commodity shall be delivered in containers that meet all provincial and federal laws, and are in all respects in compliance with applicable provincial and federal regulations related to the delivery of grain intended for human consumption. The Commodity may be delivered only during Buyer's designated receiving hours. Buyer may schedule deliveries of the Commodity by Seller to suit the availability of appropriate storage and cleaning facilities. Buyer has 90 days after the end date of the contract to arrange for delivery (Buyers Call). Buyer may designate any reasonable alternate delivery point if necessary to expedite or facilitate Seller's performance of this Contract, but shall not be obligated to do so. Seller shall pay any increased shipping charges under this provision; reductions in shipping charges shall be for Buyer's convenience, increases or decreases in shipping charges shall be for Buyer's account.
- 5) Notwithstanding any other provisions of this agreement to the contrary, all rights, title and interest to the Commodity shall remain in Seller until such time as the crop has been delivered to Buyer's designated point or picked up by Buyer. Buyer's acceptance of any delivery shall not waive its rights for conditions which are not disclosed or reasonably discoverable at time of transfer.
- 6) Buyer may reject any Commodities delivered or tendered for delivery hereunder that do not comply with conditions contained herein. Buyer's rejection of delivery for this reason shall not release Seller for this contract. If Buyer accepts any Commodity not meeting contract grade or quality, market scale discounts and premiums at time of delivery will apply, unless otherwise specified in writing. Seller shall pay all freight costs or other charges incurred by Buyer in connection with rejected Commodities.
- 7) If Seller finds he/she cannot deliver the contracted quantity, Seller shall immediately advise Buyer. If Seller fails to notify Buyer of their ability to complete the contracted delivery, Seller's liability shall continue until Buyer can determine whether Seller has defaulted. Buyer, when so notified or upon such determination, shall by the close of the next business day elect either to: (a) agree with Seller to extend the time for delivery; or (b) after having given notice to Seller to complete the contract, buy-in for Seller's account the defaulted portion of the contract; or (c) after having given notice to Seller to complete the contract, cancel the defaulted portion of the contract at the difference between the contracted price and the replacement cost, plus an administration fee of \$10 per metric tonne. Seller shall pay to Buyer on demand the amount as may be determined under paragraph 7(b) or (c), as may be applicable.
- 8) No course of dealing by Buyer (including without limitation accepting any partial delivery or making any payment before complete delivery), nor any delivery or failure to exercise any right, shall operate a waiver of such right. Any waiver must be in writing, and shall not be construed as a continuing waiver or a waiver of any subsequent breach of this Contract.
- 9) Any increase in freight rates taking effect before fulfillment of this Contract, and not pursuant to paragraph 4 above, and excessive freight or other charges occasioned by the shipper's erroneous billing and routing, or loading of cars, trucks and barges below minimum and over maximum weight, will be for Seller's account. Seller is to pay weighing and inspection fees. Any freight reductions shall be for Buyer's account.
- 10) Except as expressly stated herein, Buyer shall not be liable in any respect for failure or delay in the fulfillment or performance of this contract if hindered or prevented, directly or indirectly, by war, national emergency, inadequate transportation facilities, inability to secure fuel or power, fire flood, windstorm or other acts of God, strikes, lockouts or other labour disturbances, embargo, orders, or acts of any government or governmental agency or authority, accidents to machinery, or any cause of like or different kind beyond buyer's reasonable control. However, notwithstanding this provision, the Buyer shall have an additional 90 days beyond the expiry of delivery period to call for a delivery of the Commodity without penalty. If additional delivery options have not been provided by the Buyer by the end of the 90 day extension period, the Seller will be entitled to a \$3.00 per metric tonne penalty on the undelivered portion of the Contract. The original Contract and its terms will remain in force until the Buyer is able to receive and/or other delivery options are provided. If the Seller is unable to deliver the contracted quantity and quality when called for, this clause shall be deemed void and no penalty will be awarded. This clause does not pertain or apply to commercial transactions between the Buyer and other grain companies or commercial entities.
- 11) This instrument constitutes the sole agreement between the parties respecting the Commodity. Any prior agreements, negotiations or representations not expressly set forth in this Contract have no effect. This Contract may not be modified except in writing duly signed by both parties.
- 12) This Contract shall be governed by the laws of the Province in which it was written and the laws of Canada as may be applicable therein except where an issue may be decided under the National Grain and Feed Association Grain Trade Rules. Any claim relating to this Contract shall be settled by arbitration under the National Grain and Feed Association Arbitration Rules as are in effect at the date of this agreement. The parties agree to submit to arbitration. Judgment upon any arbitration award may be entered in any court or tribunal of competent jurisdiction. Copies of the National Grain and Feed Association Trade Rules and National Grain and Feed Association Arbitration Rules are available upon request and also on the National Grain and Feed Association's website at <http://www.ngfa.org>.
- 13) Buyer may liquidate this contract because of (a) the Seller's insolvency, (b) a case being commenced by or against the Seller, (c) a trustee for the Seller being appointed in a case, or a custodian being appointed before such commencement, (d) any default of the terms and conditions herein. Without limiting any other remedies available to Buyer, this Contract is subject to Buyer's right to set off against any amount payable to Seller, all amounts owing by the Seller to Buyer, including, without limitation, all amounts owing in respect of any crop inputs provided by the Buyer and interest at 1.5% per month.
- 14) This contract is binding on the parties and their heirs, successors and assigns. Seller may assign this contract only upon Buyer's prior written consent.
- 15) It is agreed by both parties that the United Nations Convention on Contracts for the International Sales of Goods shall not apply to this Contract.
- 16) None of the terms of this Contract may be added to, deleted, or altered in any way without the written consent of an authorized representative of the Buyer.
- 17) This contract is not valid unless it has been signed by an authorized representative of the Buyer.
- 18) If Seller, or anyone on my behalf, deliver(s) grain to P&H that is not an eligible variety, Seller will be liable to P&H for all claims, damages, losses and costs (including legal fees) that may result from such false and/or negligent representation. Seller further acknowledge and agree that P&H may consider Seller to be in default of my delivery contract as a result of the delivery on a non-eligible variety.

 Authorized Signature of Seller

 Authorized Signature of Buyer

Date: _____

Date: _____

Figure 5

PUBLIC

Deferred Delivery Contract (DDC)

FINAL BINDING AGREEMENT

Louis Dreyfus Company Canada ULC
 P.O. Box 2459
 Virden, Manitoba, Canada
 Tel: 204 748-6282 Fax: 204 748-6285

DEFERRED DELIVERY CONTRACT (DDC)

Contract [REDACTED]

This contract has been agreed to on the 20th day of April, 2018 between **Louis Dreyfus Company Canada ULC** (referred to as **LDC**) and the **PRODUCER** (referred to as **Seller**):

Last Name: [REDACTED]
 First Name: [REDACTED]
 Address: [REDACTED]
 Province: [REDACTED]
 Town: [REDACTED]
 Postal Code: [REDACTED]

CWB ID: 0010716702
 Company: [REDACTED]
 Phone #: [REDACTED]
 Fax #: [REDACTED]
 DocuSign: No

The Seller hereby agrees to sell and LDC hereby agrees to buy from the Seller the commodity described below on the following terms and conditions:

Net Amount 109.000 MT	Grain Canola	Grade #1	Net Price (\$/MT) [REDACTED]
Delivery Period [REDACTED]	Delivery Point Virden	Delivery Via Truck	Net Price (\$/Bu) [REDACTED]

If applicable, the above mentioned Deferred Delivery Contract, has been transferred from GPO/BC/MPC/PPC No.

Contract Terms:

- Immediately upon delivery of the commodity to the delivery point, a grade and dockage shall be established. In the event of a disagreement between LDC and/or LDC's representative and the Seller, a representative sample of the commodity shall be forwarded to the Chief Inspector of the Canadian Grain Commission, whose decision shall be final and binding.
- All rights, title and interest to the commodity shall remain with the Seller until such time as the commodity has been delivered to LDC's designated delivery point and a grade and dockage has been established by LDC, whereupon all rights, title and interest to the commodity shall be transferred to LDC.
- LDC shall receive good title to the commodity, free and clear of all encumbrances.
- The Seller agrees to settle any outstanding accounts relating to the commodity delivered to LDC by hereby expressly allowing LDC to deduct any such outstanding accounts from revenue due to the Seller under this contract.
- In the event that the Seller does not deliver against this agreement, LDC shall retain the right to charge the Seller an Administration fee that shall not exceed \$15.00 per MT in addition to any charges from contract term No.8.
- In the event that LDC is unable to receive the commodity by the end of the Delivery Period, then the Delivery Period shall be deemed to be extended for a period of 90 days (the "Extended Period"). If LDC does not call for delivery of the commodity by the end of the Extended Period, LDC shall pay the Seller a storage payment for each day beyond the Extended Period until the day delivery is called for by LDC (the "Storage Payment"). Notwithstanding the foregoing, no Storage Payment shall be due to the Seller if the commodity delivered is not in accordance with the contract. The Storage Payment on each outstanding tonne shall be calculated in accordance with the Canadian Grain Commission Licensed Primary Elevator tariffs applicable to LDC and calculated for each day beginning on the first day following the Extended Period until the delivery day called for by LDC. LDC shall make such Storage Payment within a reasonable period following completion of delivery. LDC shall provide the Seller with at least 24 hours' notice of the delivery date (the "Delivery Date") and LDC shall not be liable for any Storage Payments for storage occurring after such Delivery Date. In the event that LDC notifies the Seller of a Delivery Date that falls within the Delivery Period or the Extended Period and the Seller fails to make such delivery on the Delivery Date, LDC may, at its sole option, charge the producer \$0.10/mt per day of such non delivery ("Late Delivery Charge"): if the Delivery Date is during the Delivery Period, from the first day following the end of the Delivery Period until the date commodity is delivered; or, if the Delivery Date is during the Extended Period, from the Delivery Date to the date on which the Seller delivers to LDC all undelivered commodity remaining outstanding on this contract. For the avoidance of doubt, the Late Delivery Charge is in addition to any other rights or remedies under law or contract that LDC may have for late or non-delivery.
- Unless LDC agrees in writing, the Seller shall not sell or deliver the specific commodity contracted for to anyone other than LDC if that sale and delivery would result in the Seller being unable to deliver under this contract.
- In the event the Seller does not deliver in accordance with the terms of this agreement, the Seller will be liable to LDC for damages for the difference between the contract price and the price LDC is required to pay in order to replace the commodity at the delivery point or an alternative location at LDC's discretion and for any other loss or expense incurred resulting from the failure to deliver. The exercise by LDC of any right or remedy provided in this contract does not affect other rights or remedies LDC may have under this contract.
- Grade and protein discounts to apply at time of delivery. For all classes of wheat and durum, maximum vomitoxin allowance of 2 ppm and maximum moisture allowance at 14.0% and minimum falling number of 300 seconds.

Produce [REDACTED]
 Date [REDACTED]

Louis Dreyfus Company Canada ULC
 Date _____

SELLERS ARE URGED TO CAREFULLY READ THE CONTRACT. DISPUTES IN RESPECT OF THE CONTRACT MUST BE SETTLED EITHER BY THE TWO PARTIES OR BY CIVIL ACTION. IN WITNESS WHEREOF, LDC AND SELLER HAVE SIGNED THIS AGREEMENT.

Figure 6

PUBLIC

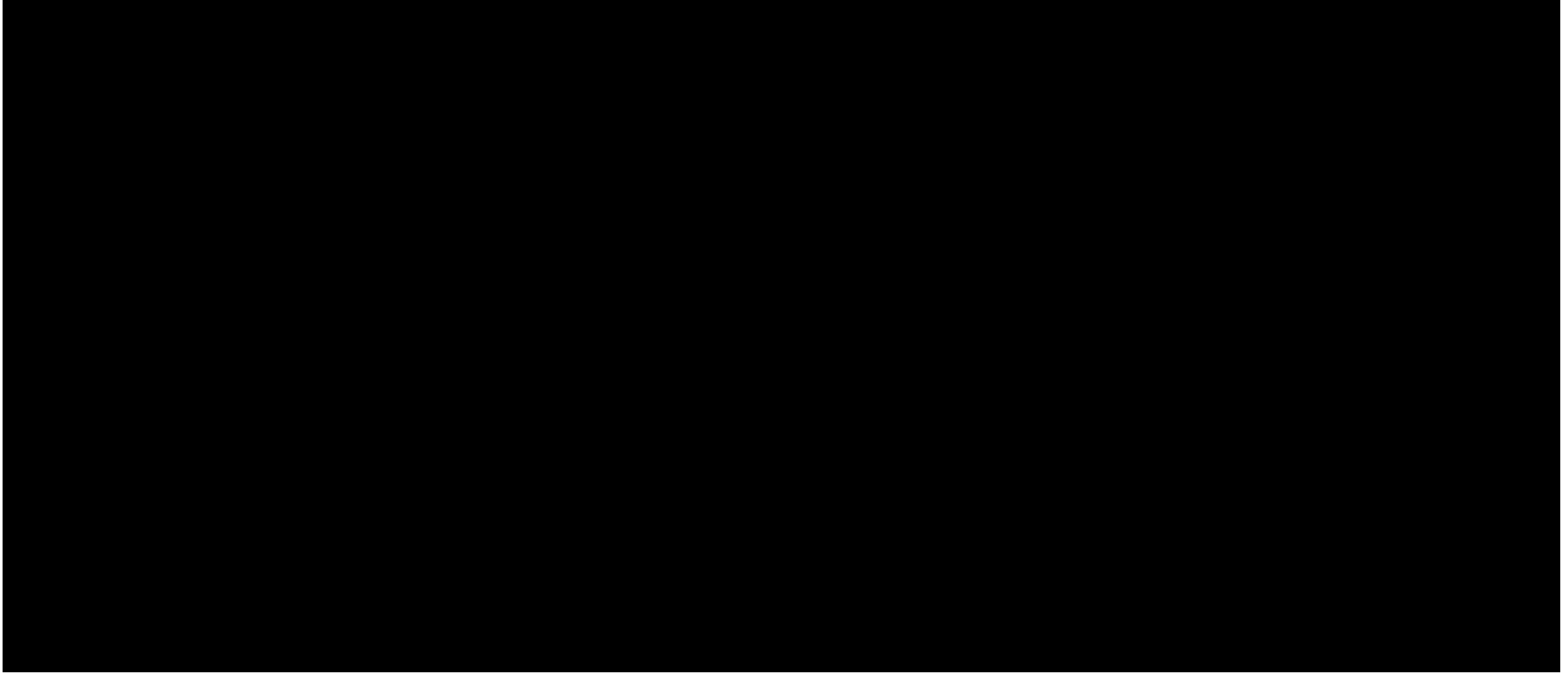


Figure 7

PUBLIC

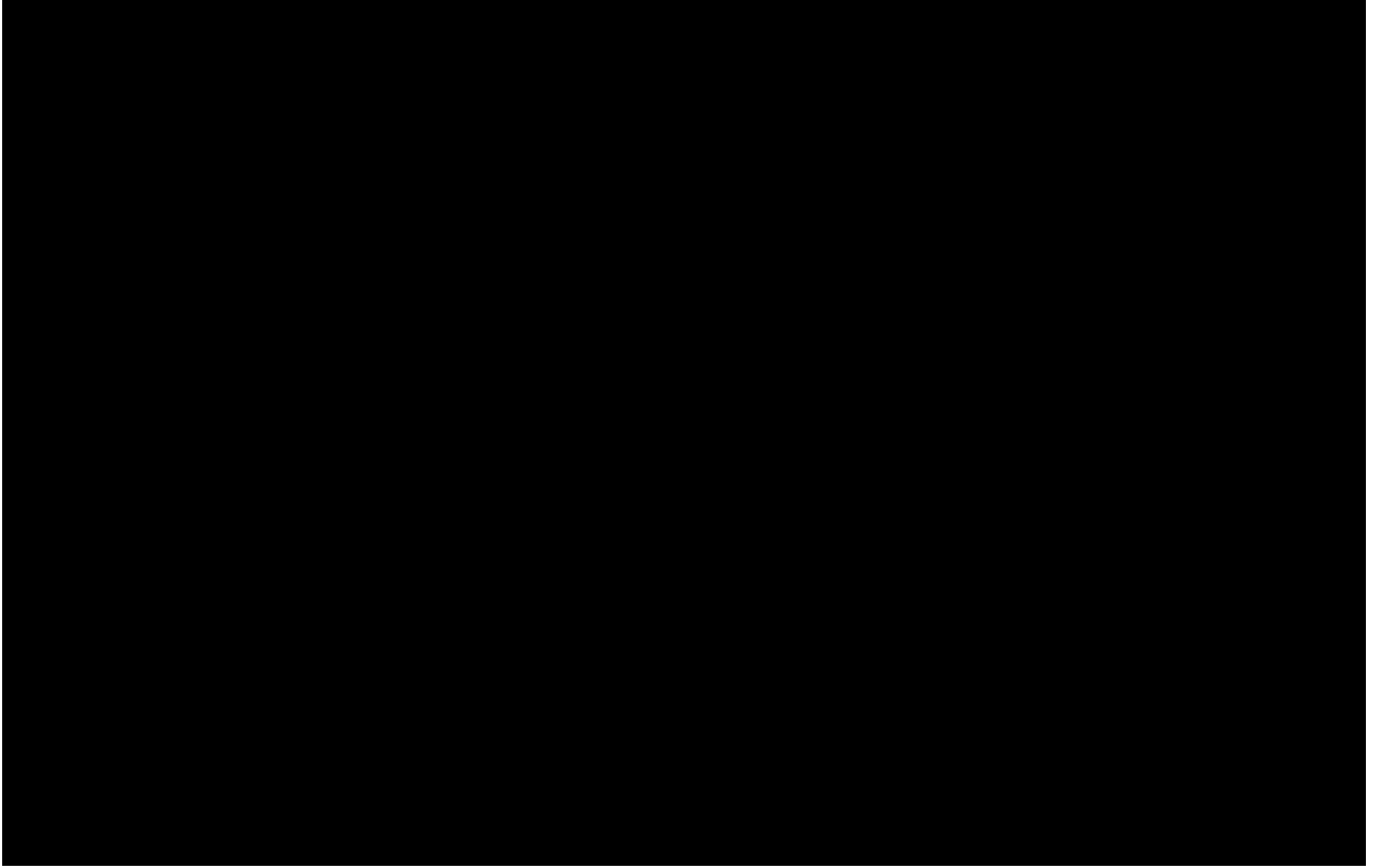


Figure 8

PUBLIC

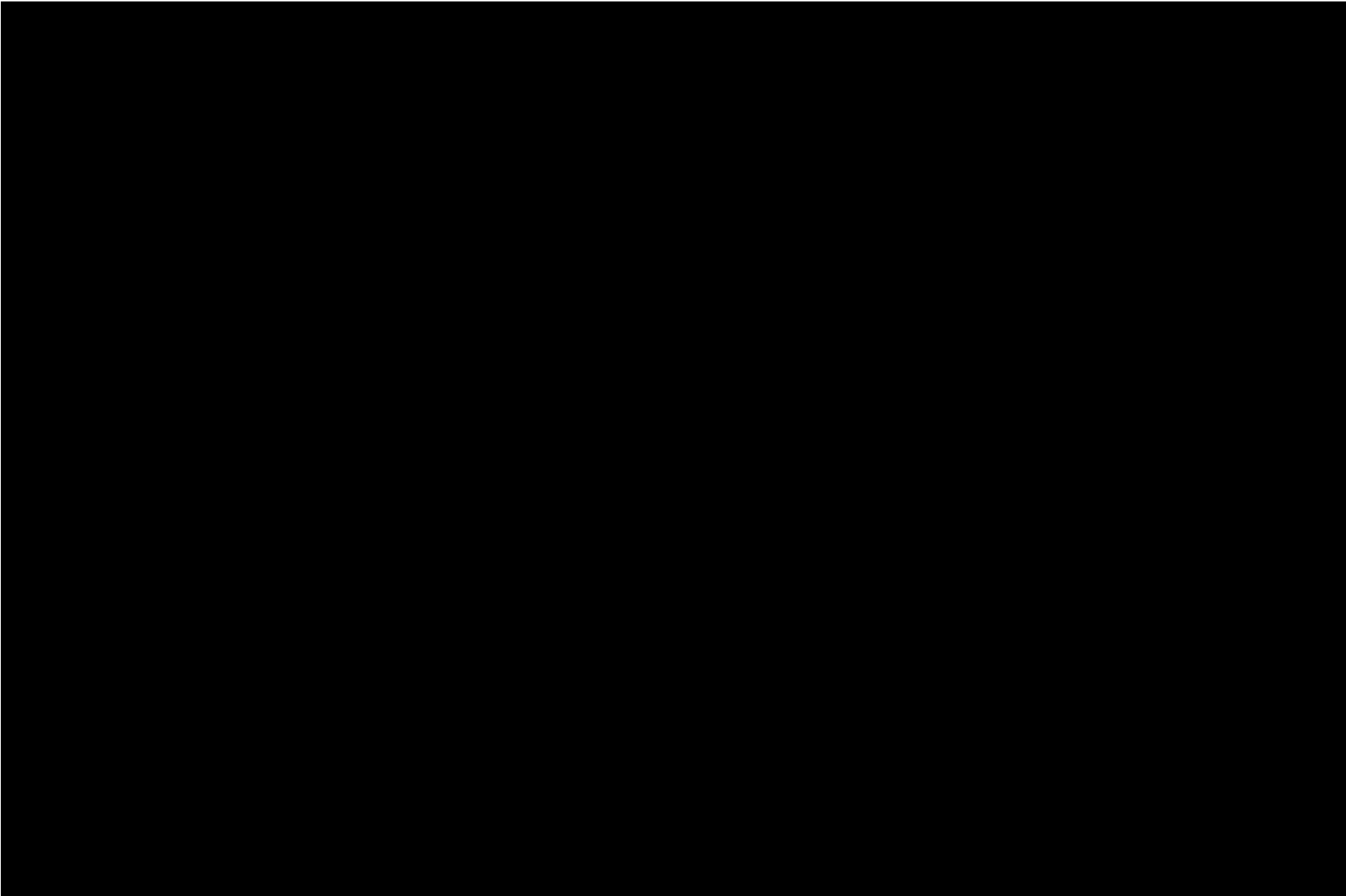
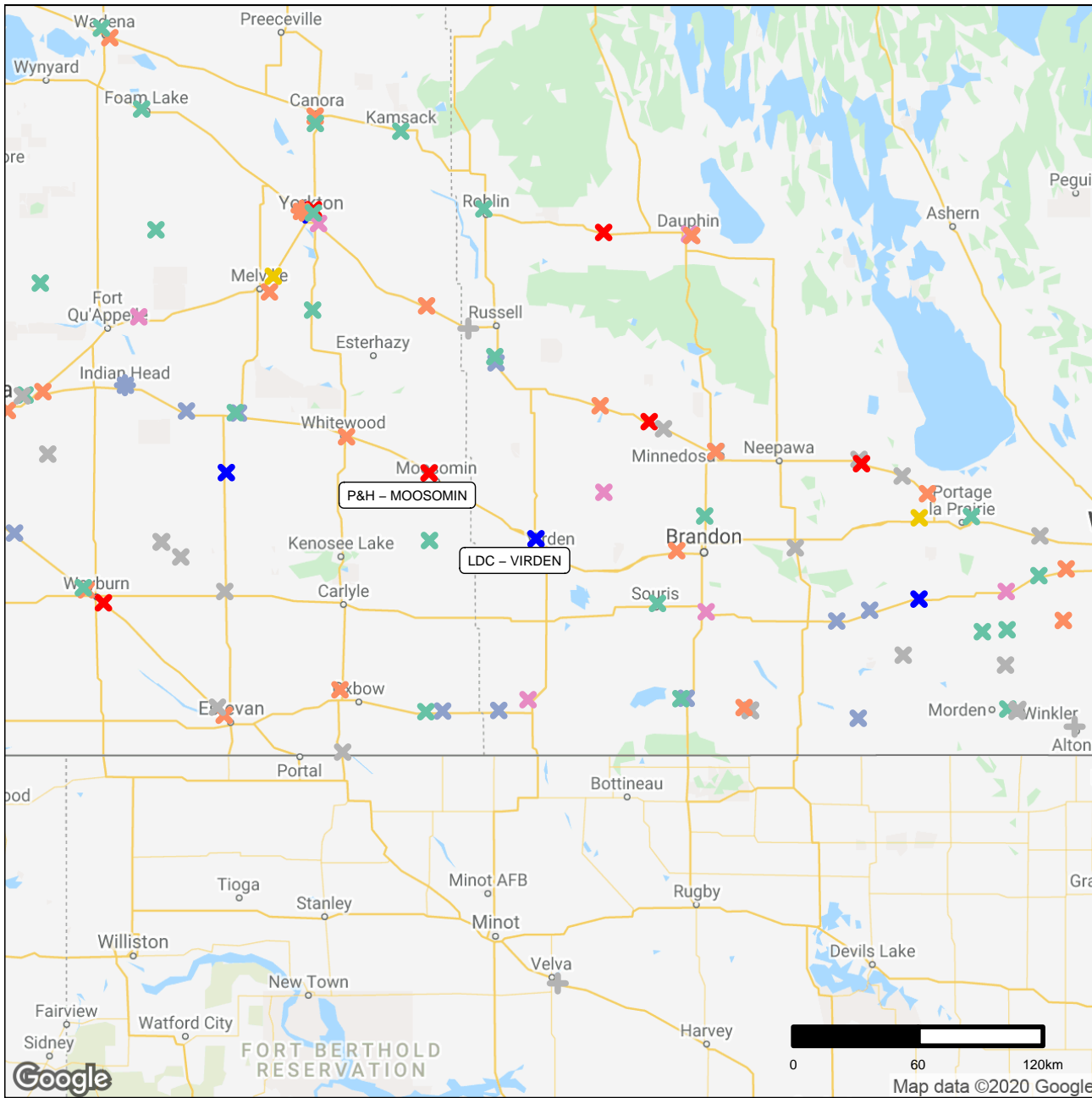


Figure 9

PUBLIC

Grain Elevator and Processor Locations Map Virden–Moosomin Area



Company

- ✕ P&H
- ✕ LDC
- ✕ Viterra
- ✕ Richardson
- ✕ Paterson Grain
- ✕ Cargill Limited
- ✕ G3
- ✕ Other

Buyer Type

- ✕ Elevator
- + Crusher

Sources:
Grain Elevators in Canada Data

Figure 10

PUBLIC

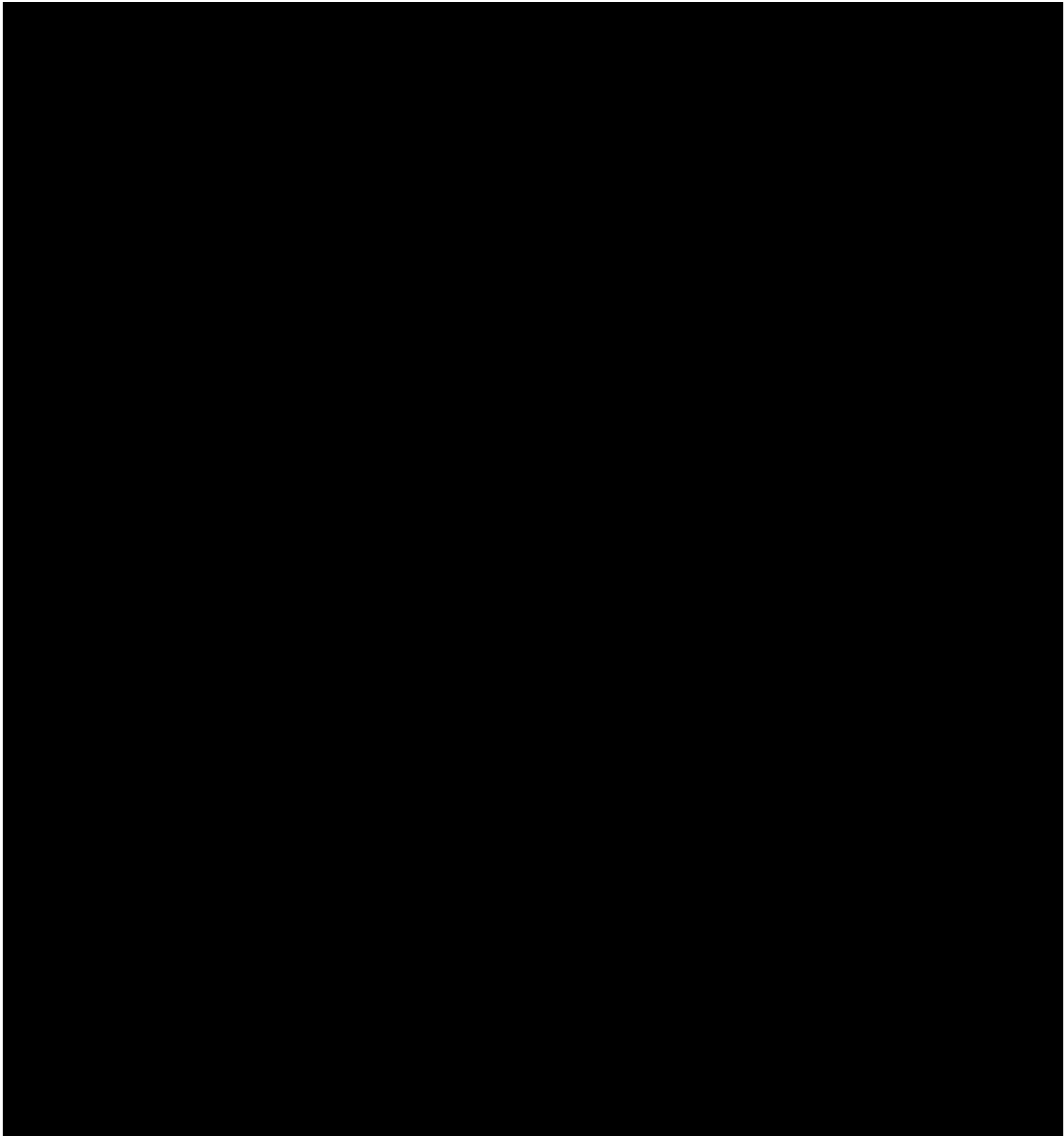


Figure 11

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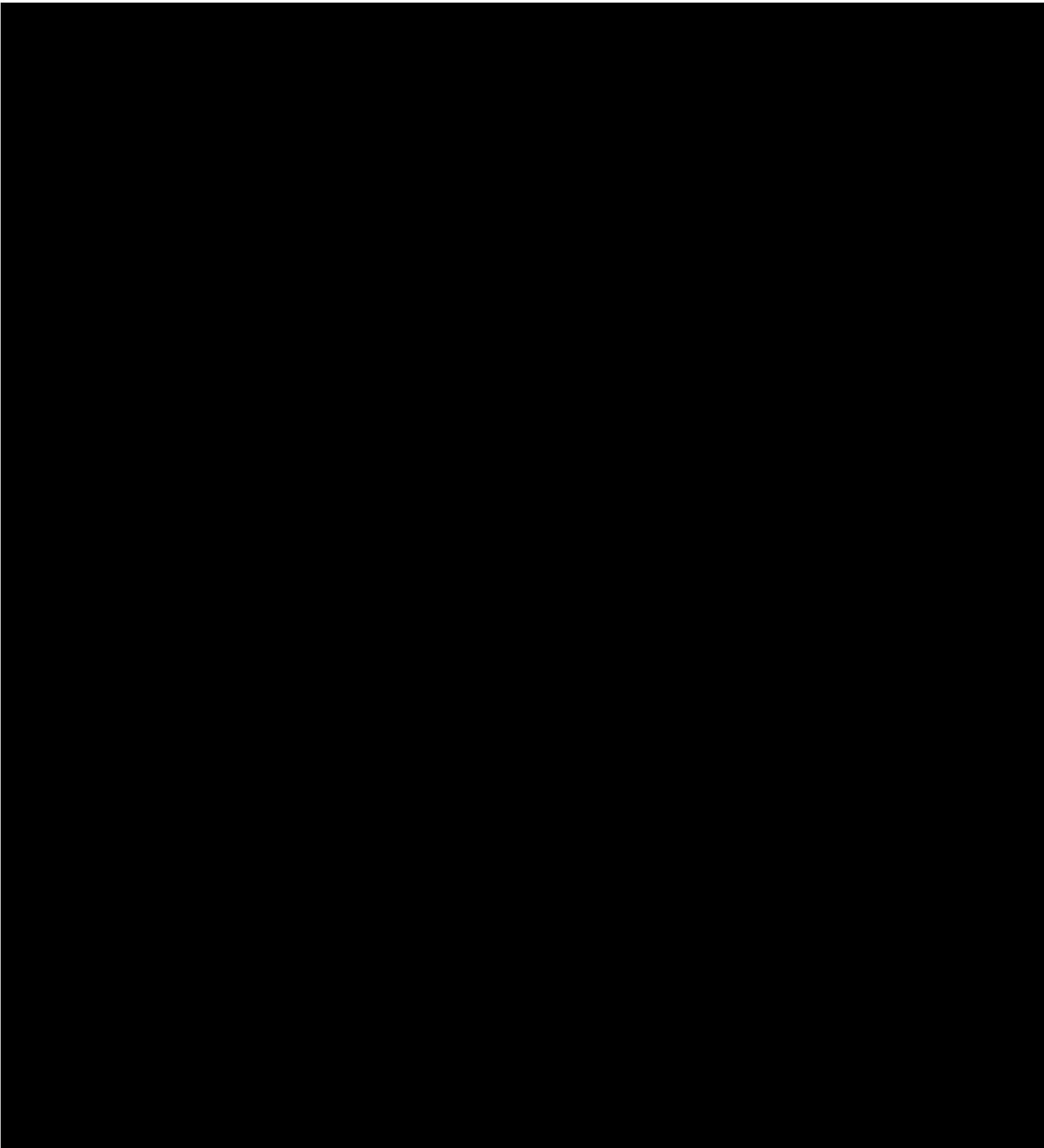


Figure 12

PUBLIC

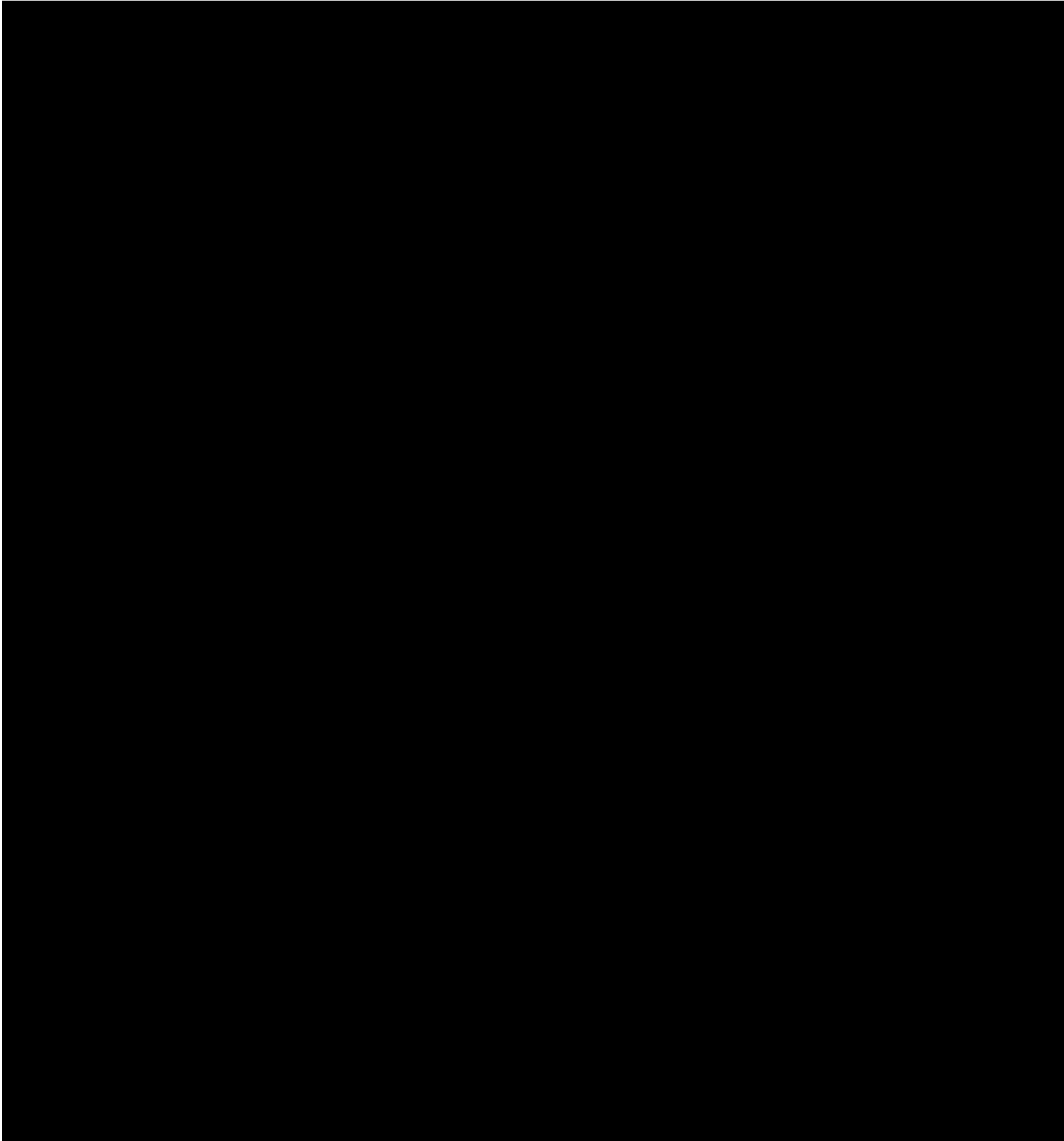


Figure 13

PUBLIC

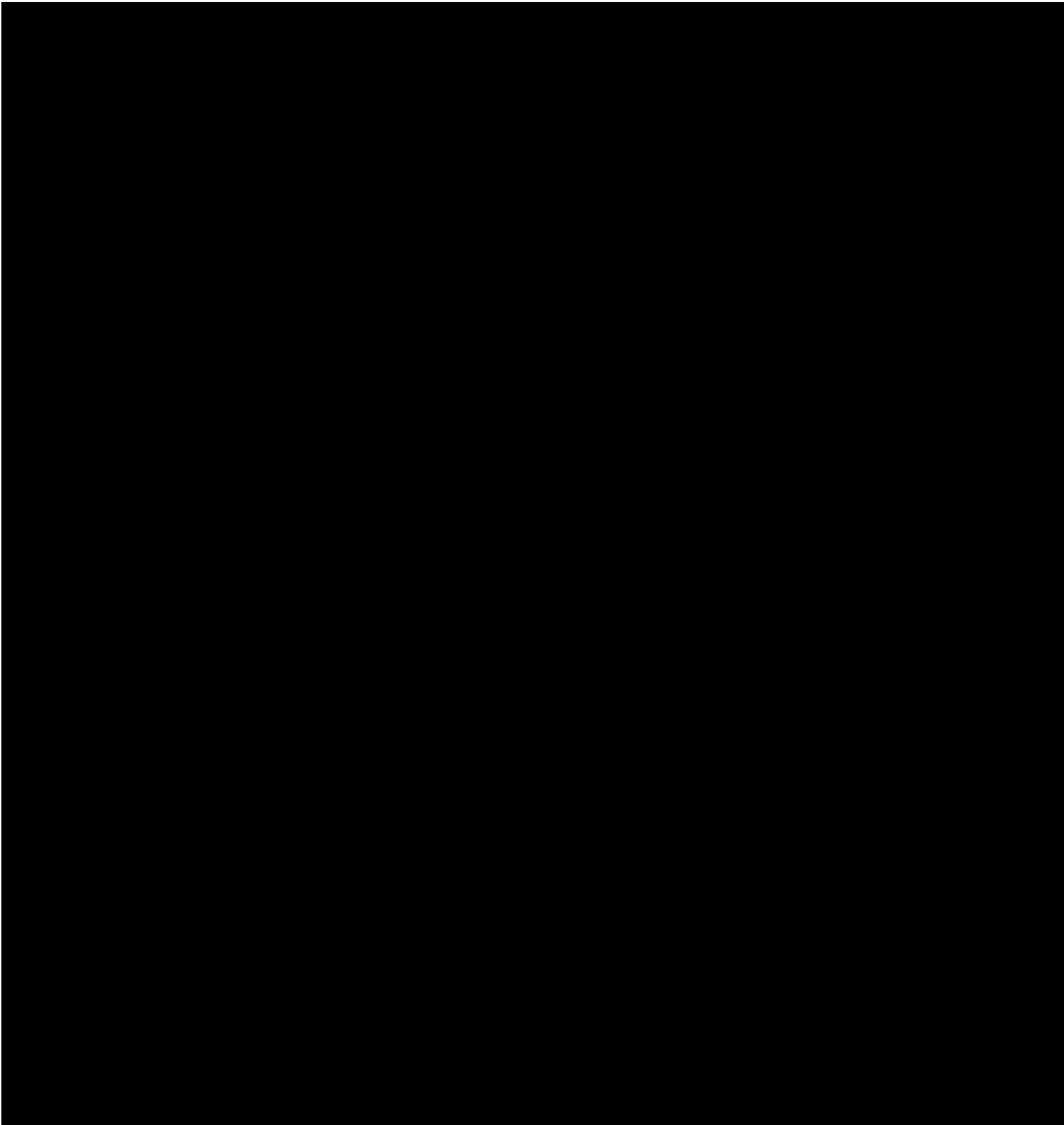


Figure 14

PUBLIC

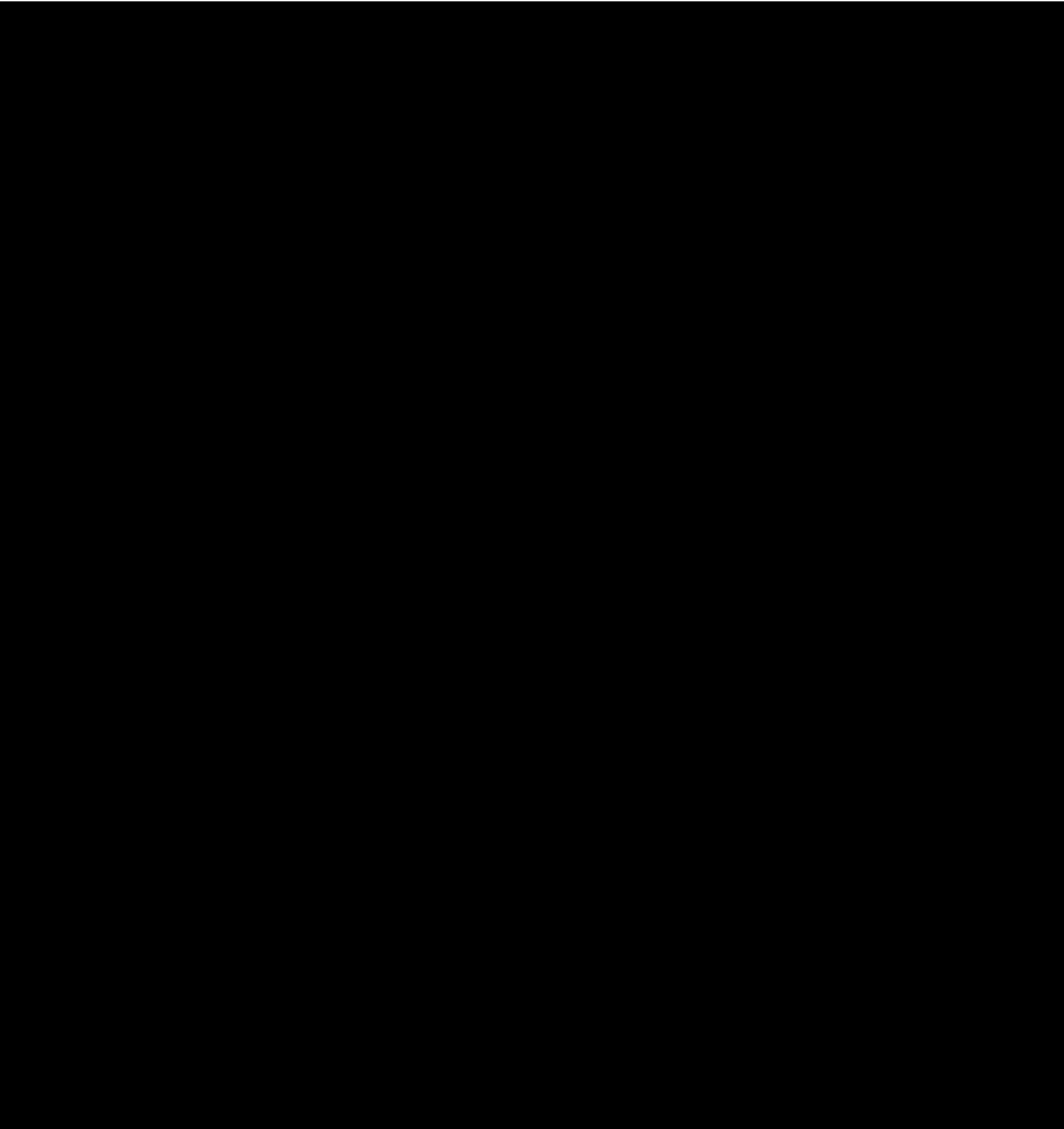


Figure 15

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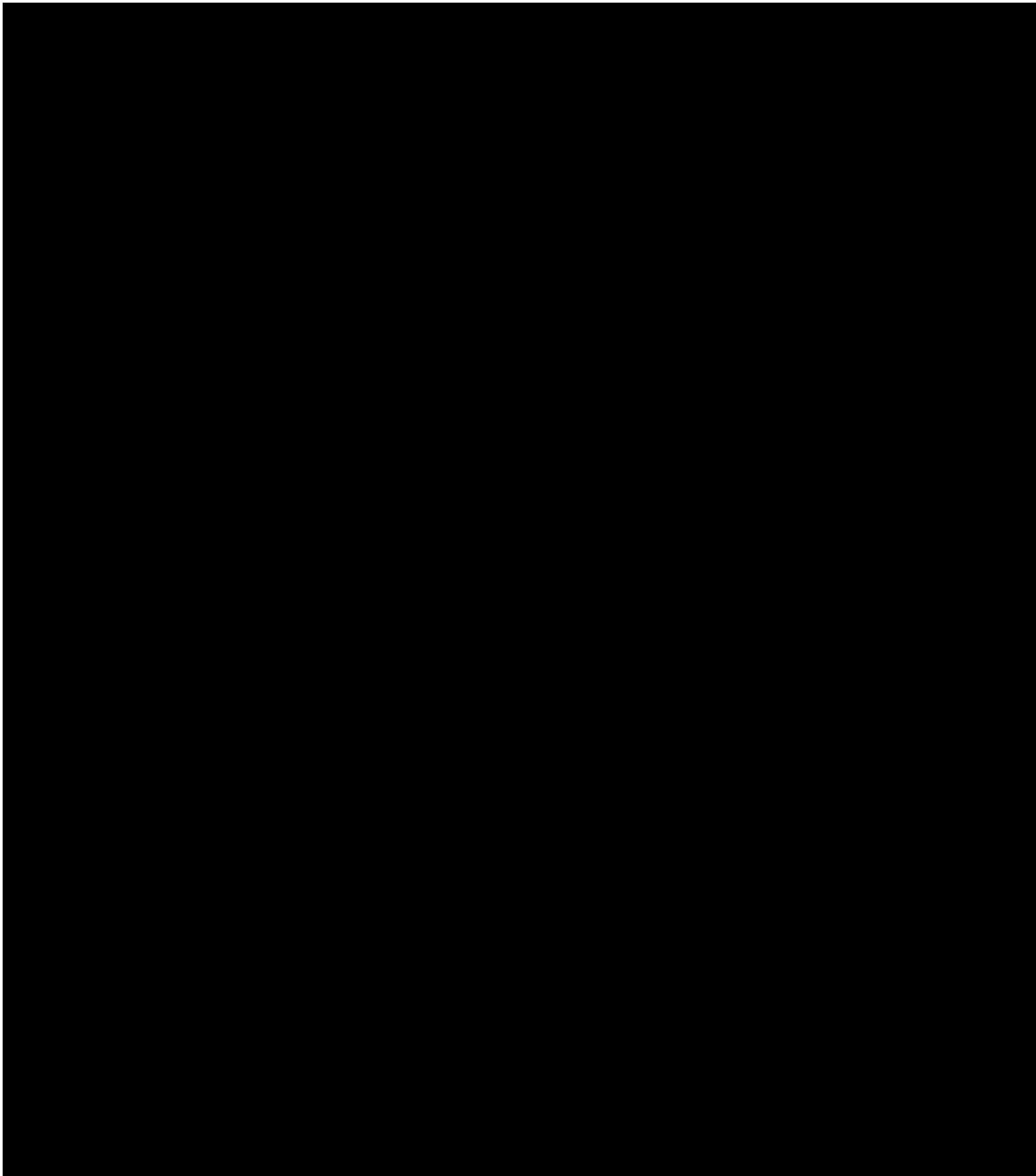


Figure 16a

PUBLIC

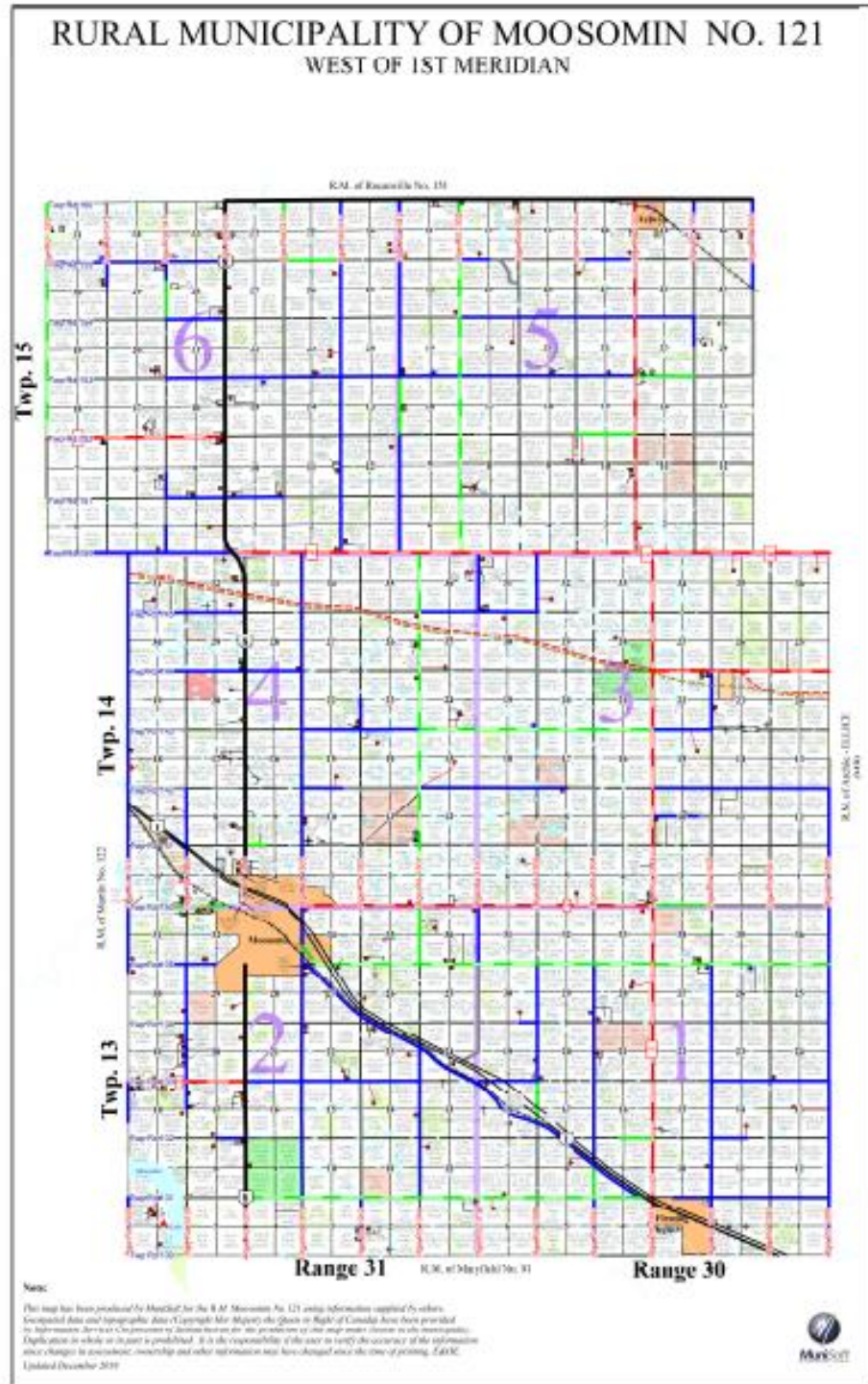
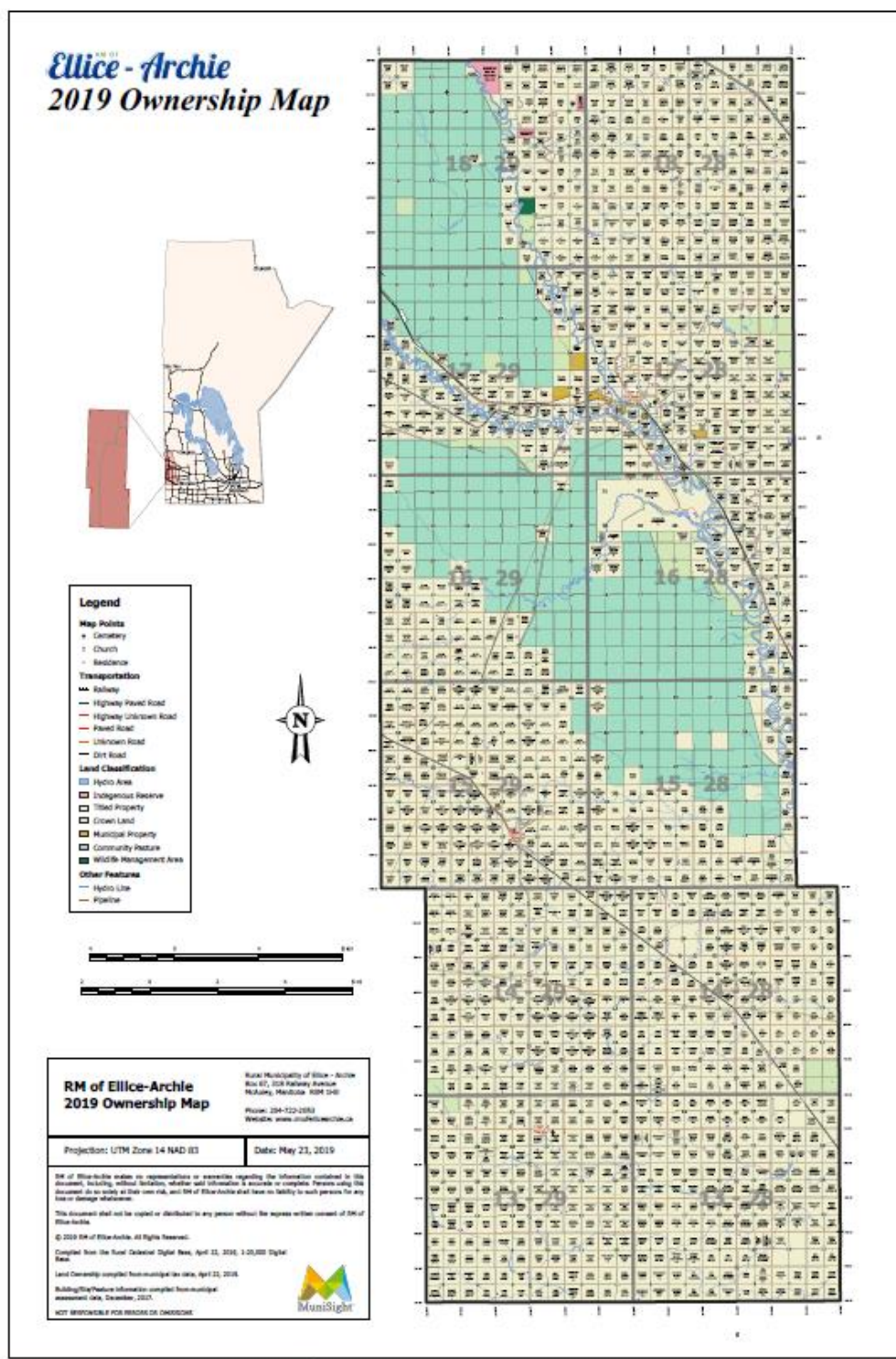


Figure 16b

PUBLIC



PUBLIC

Figure 16d

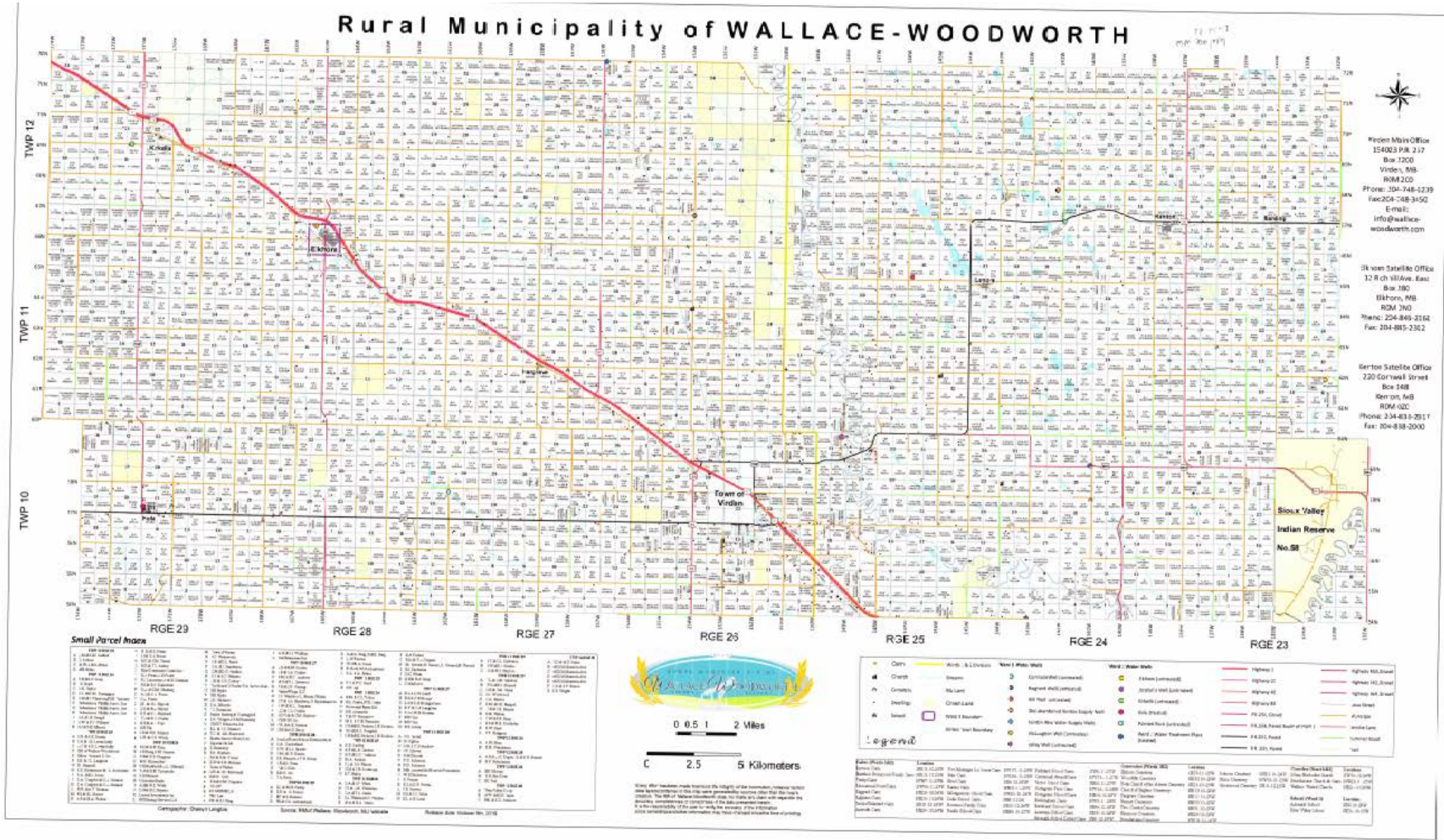


Figure 17

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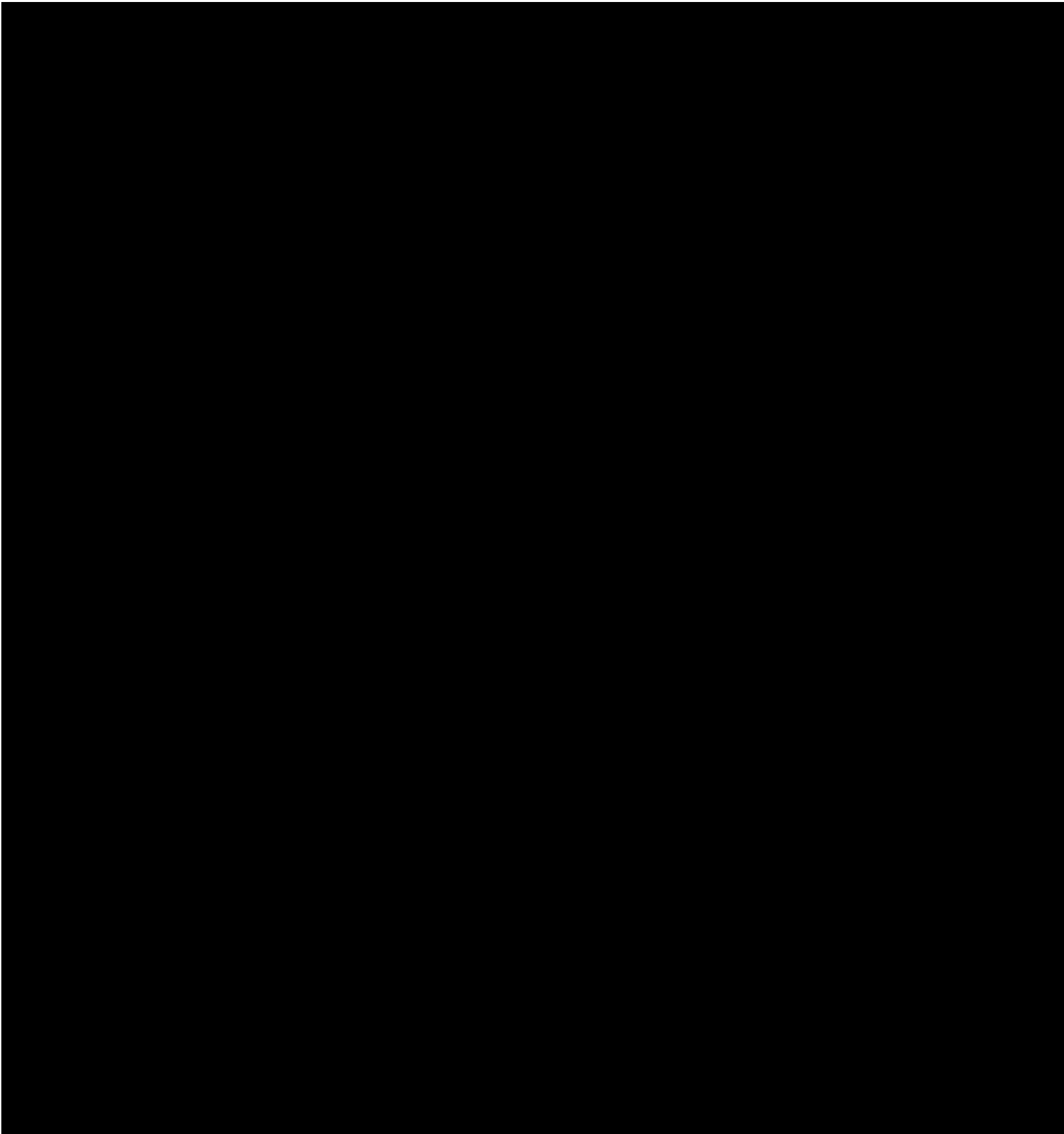


Figure 18a

PUBLIC

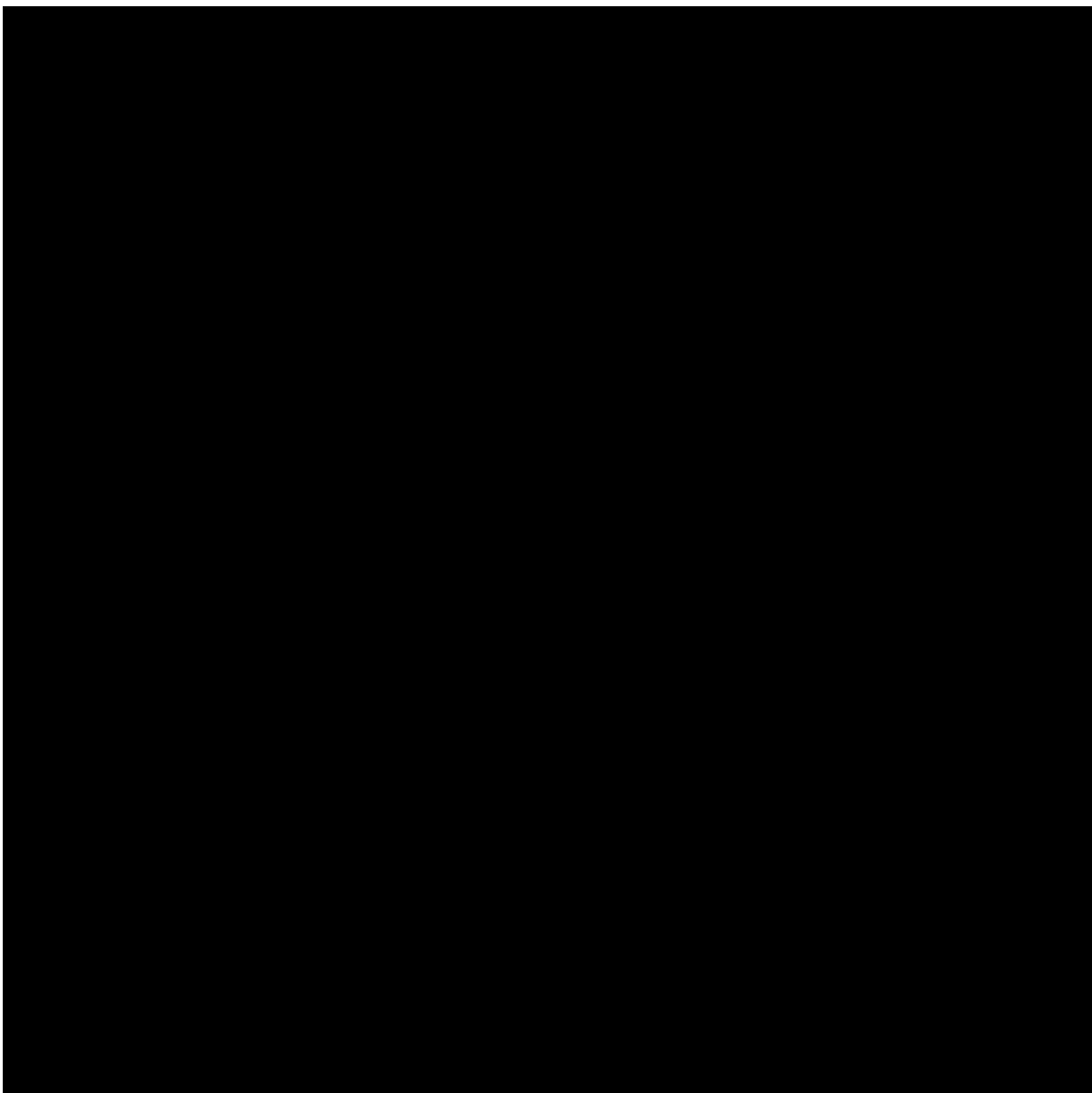


Figure 18b

PUBLIC

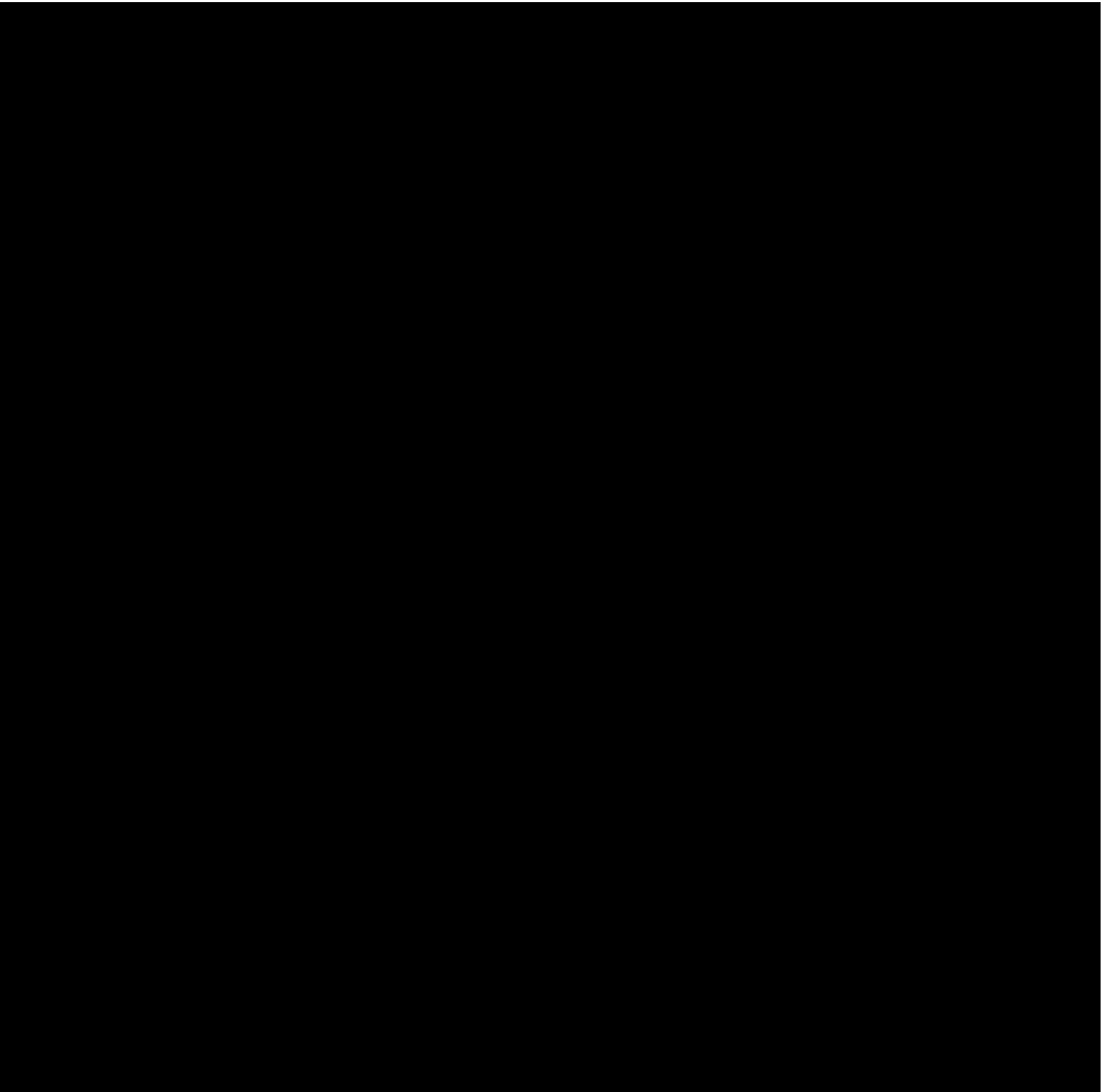


Figure 18c

PUBLIC

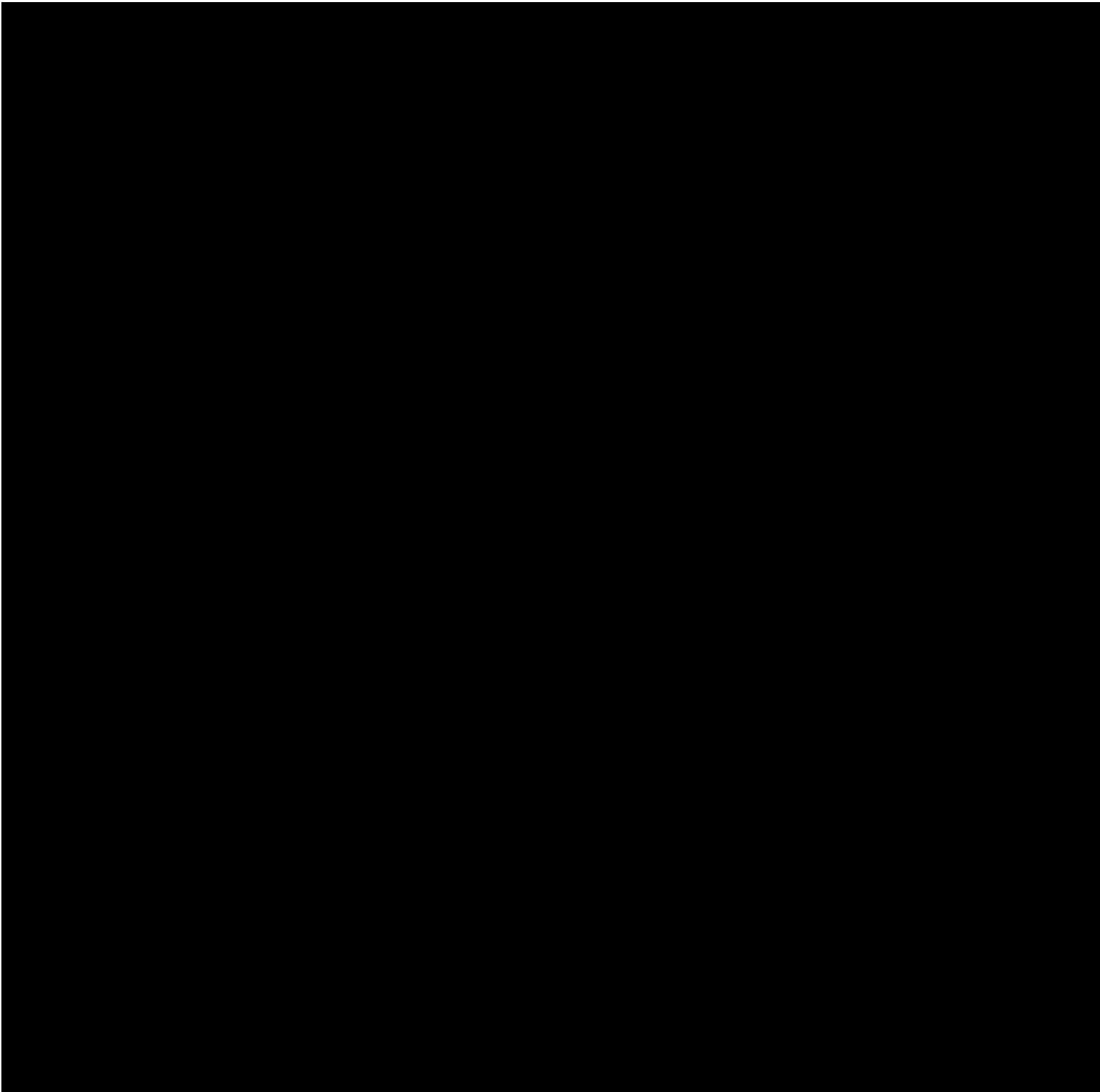


Figure 19

PUBLIC

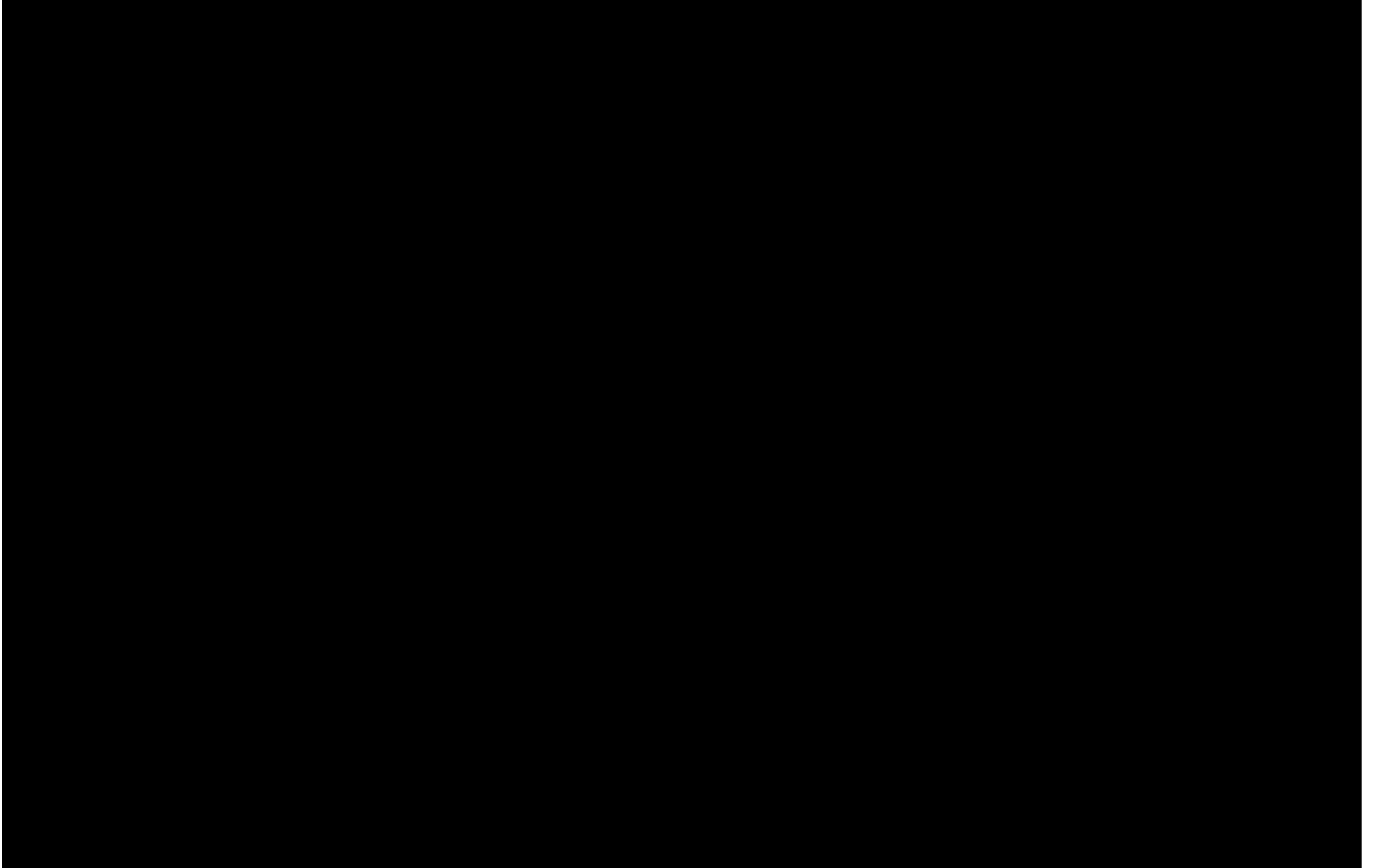


Figure 20

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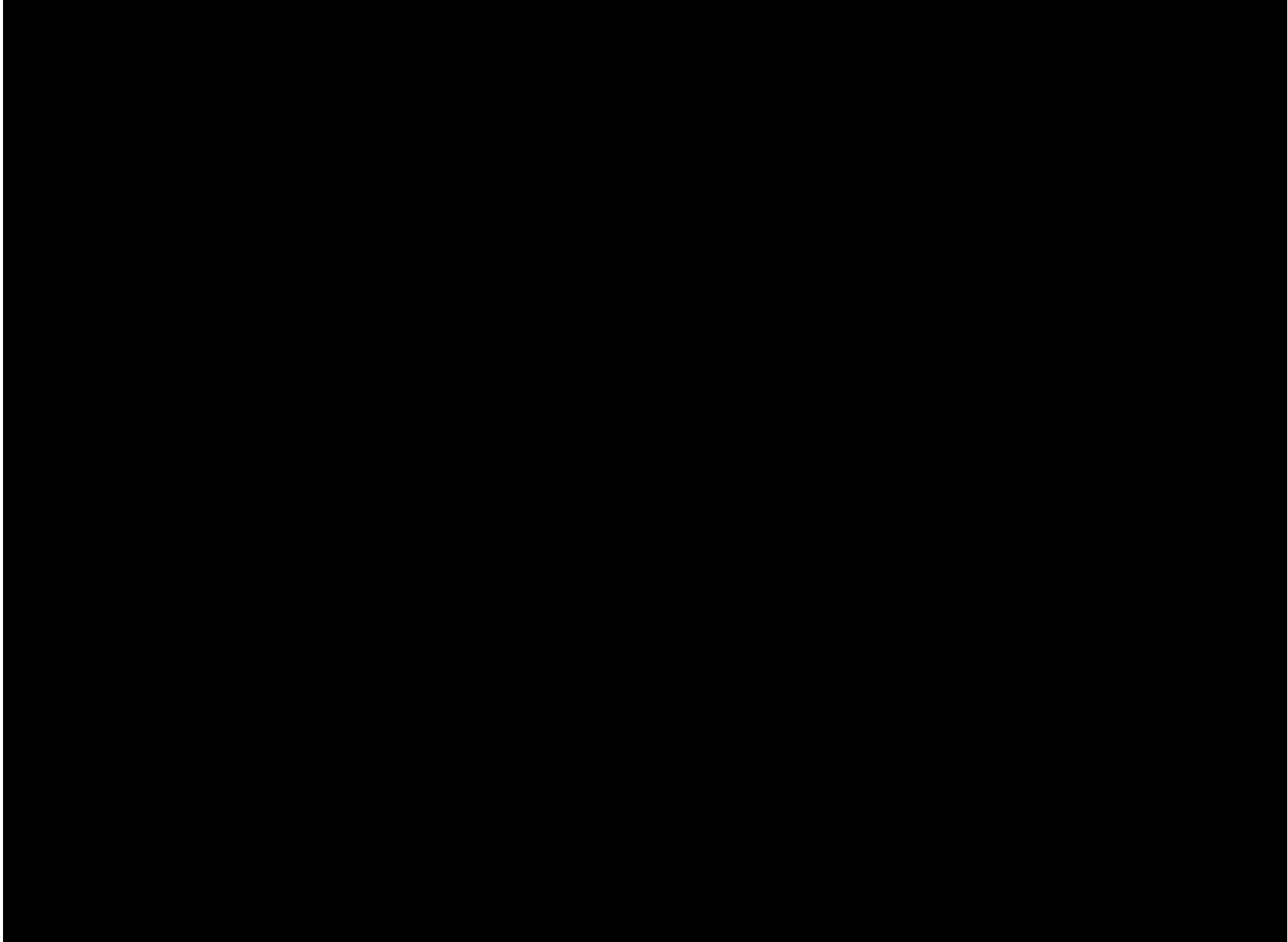


Figure 20

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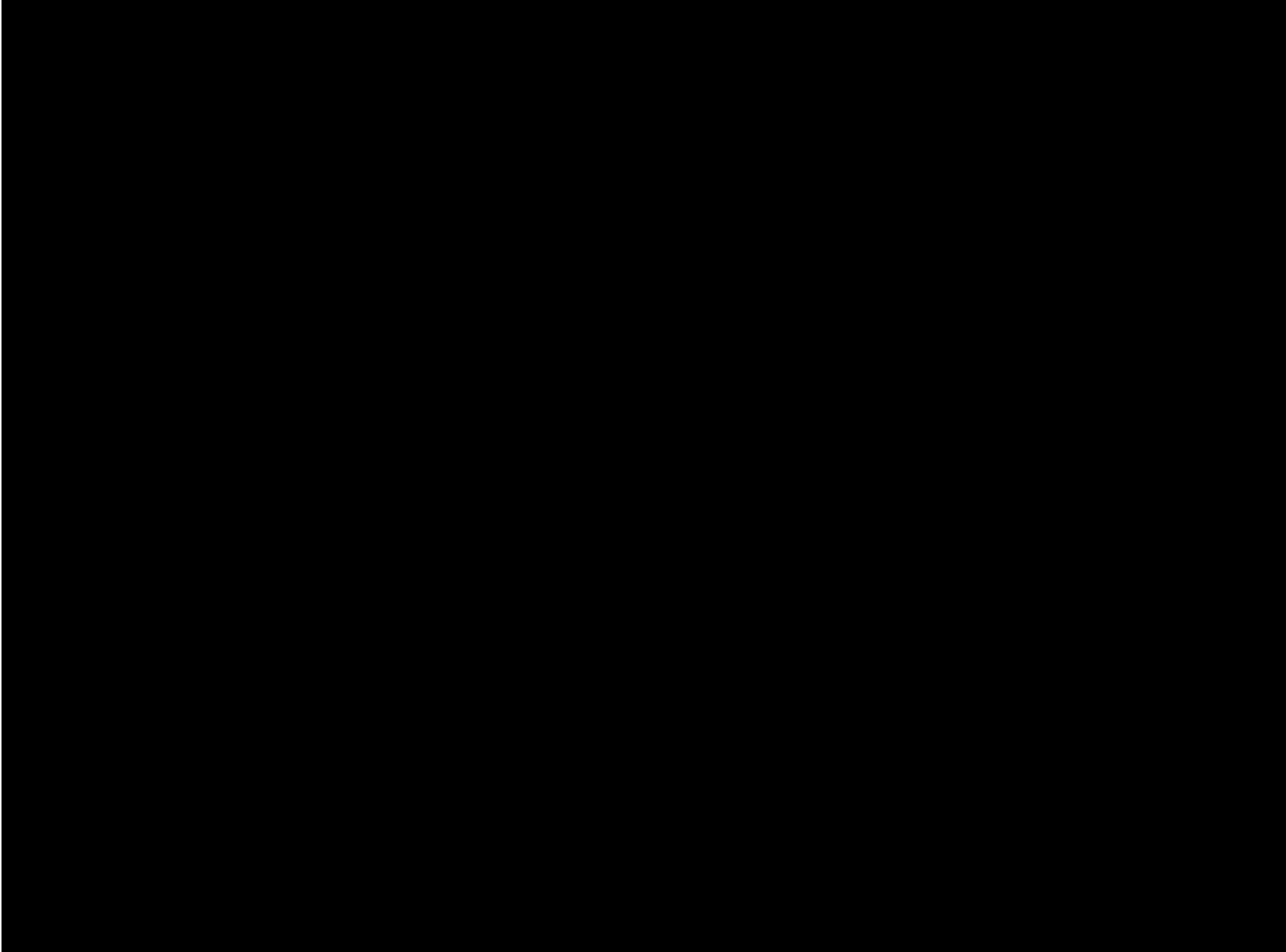


Figure 20

PUBLIC

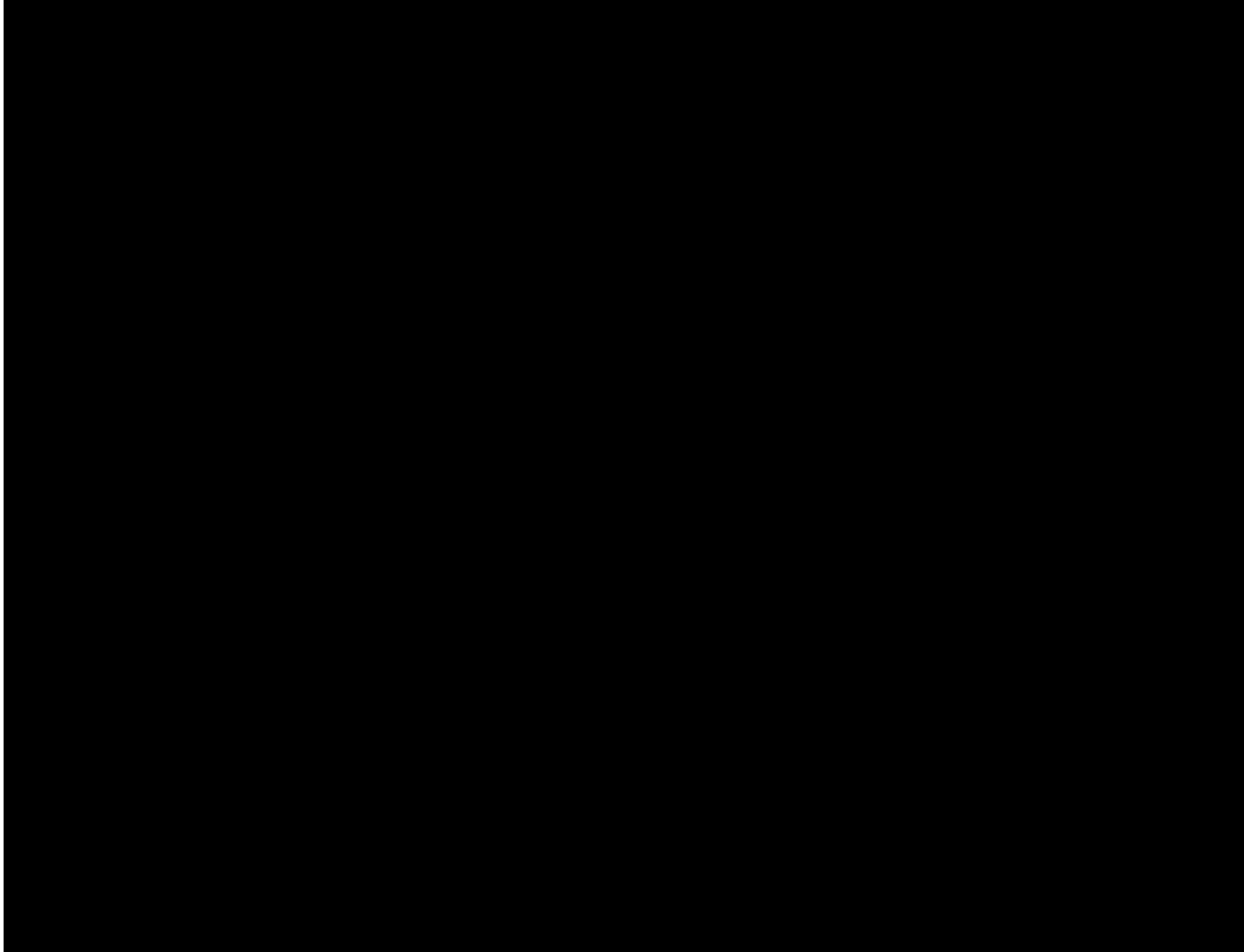


Figure 20

PUBLIC

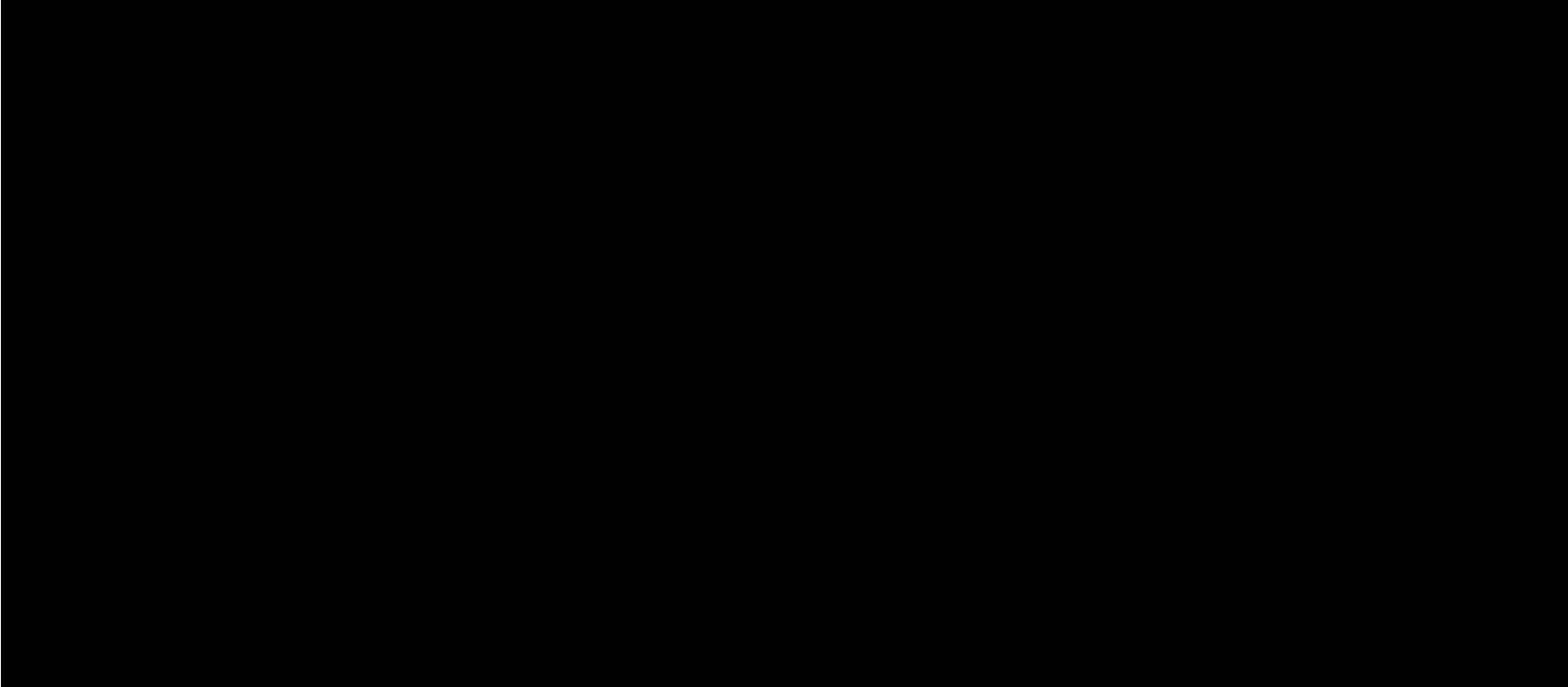


Figure 21

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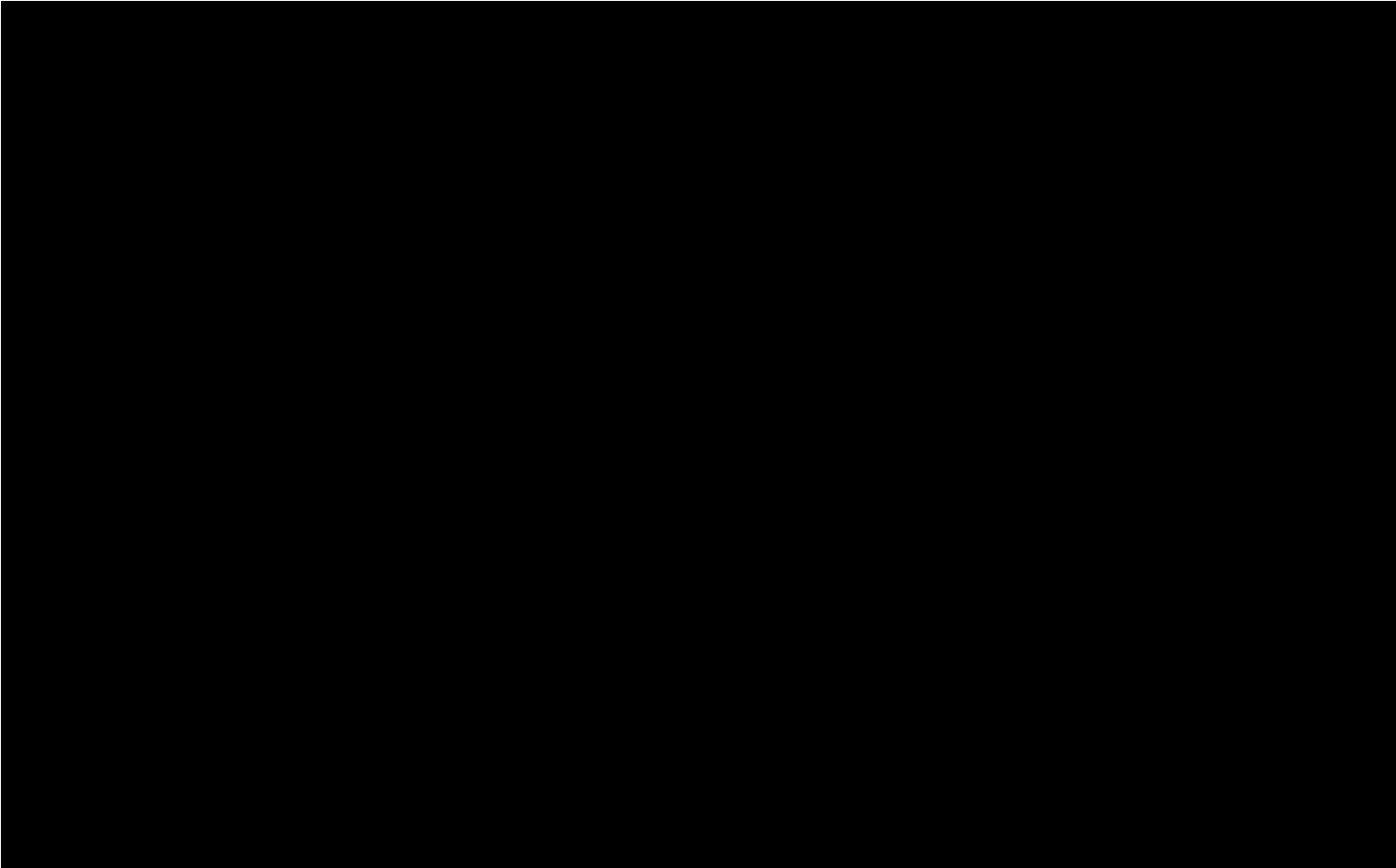


Figure 21

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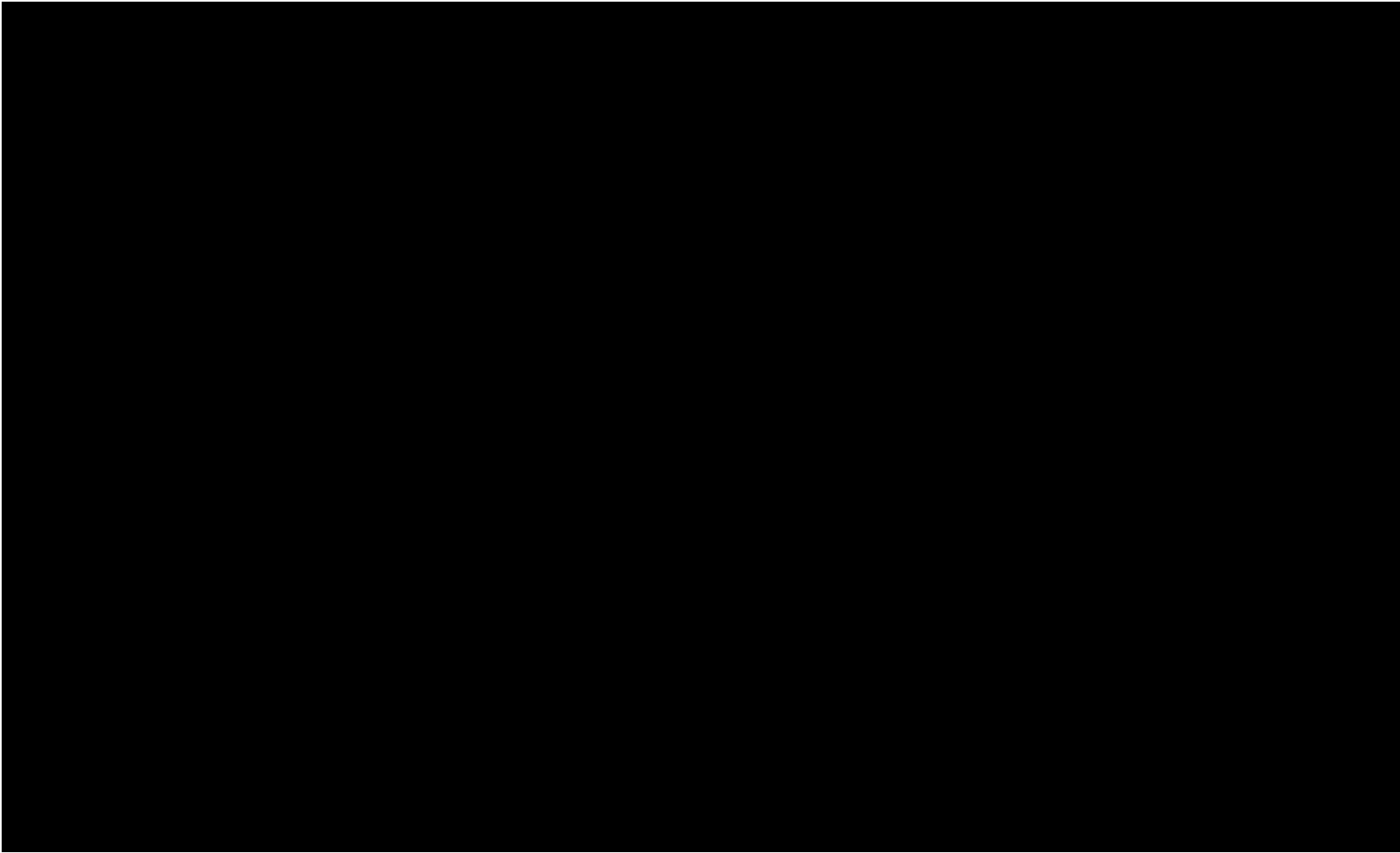


Figure 21

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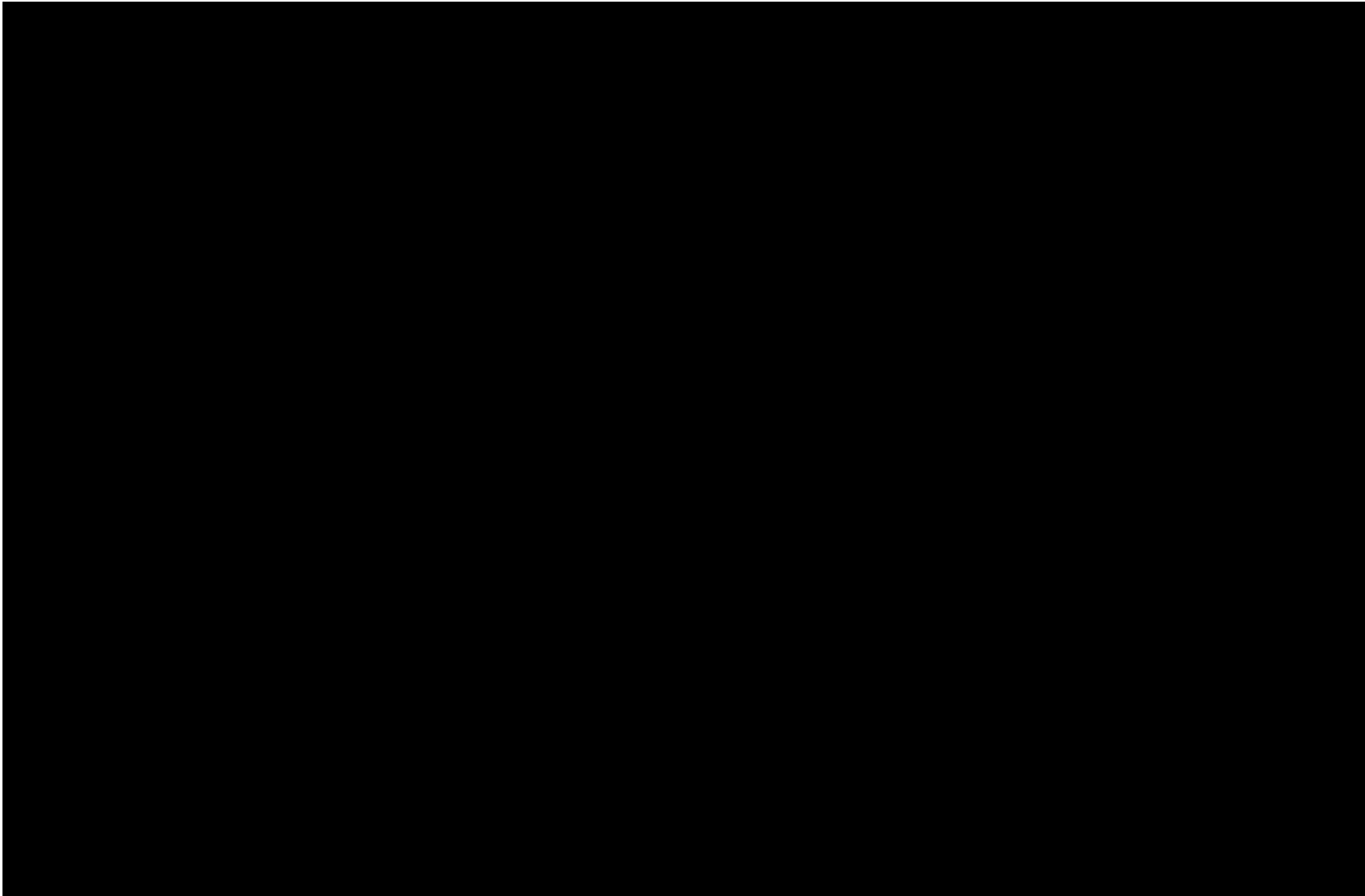


Figure 21

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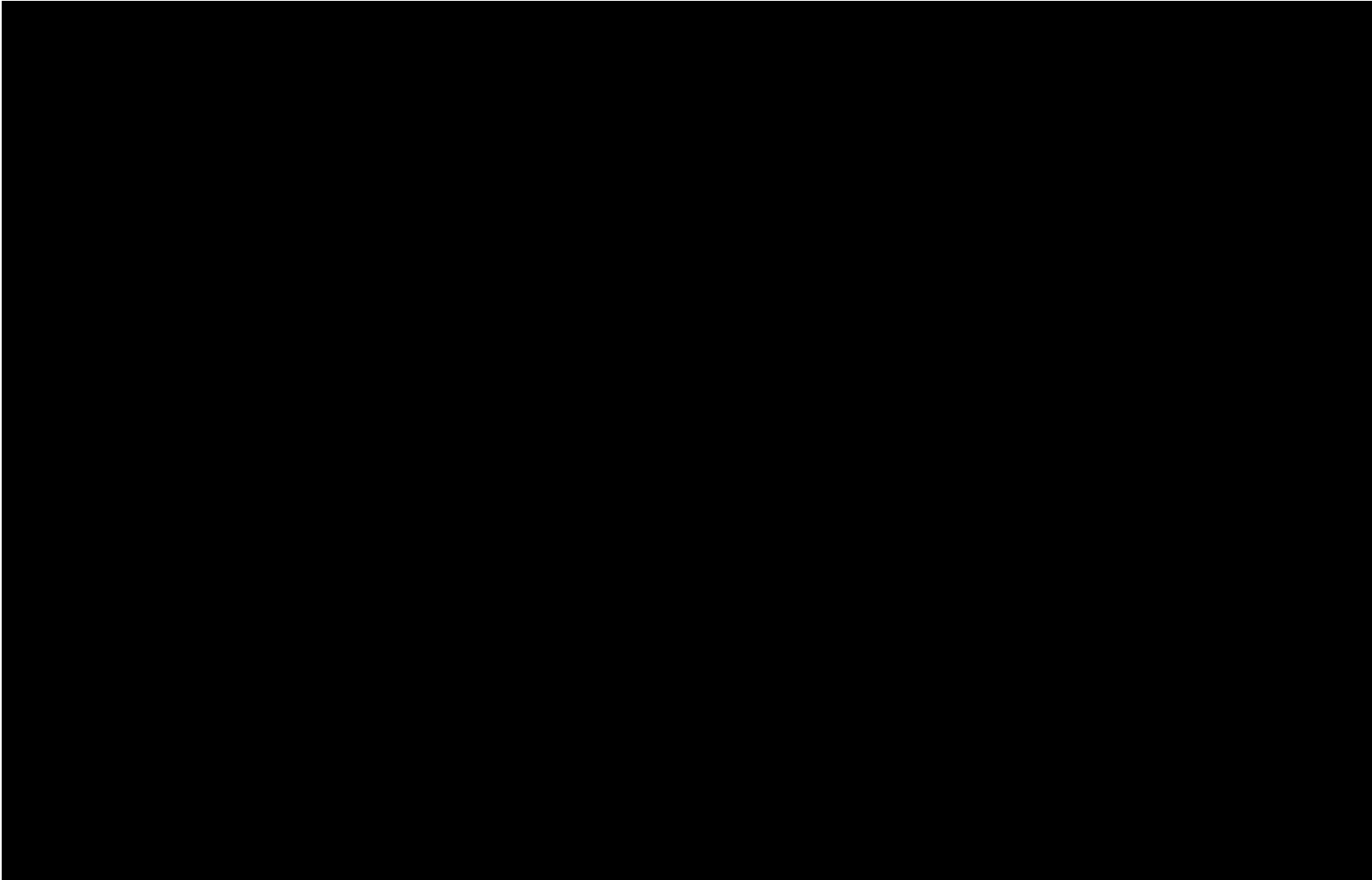


Figure 21

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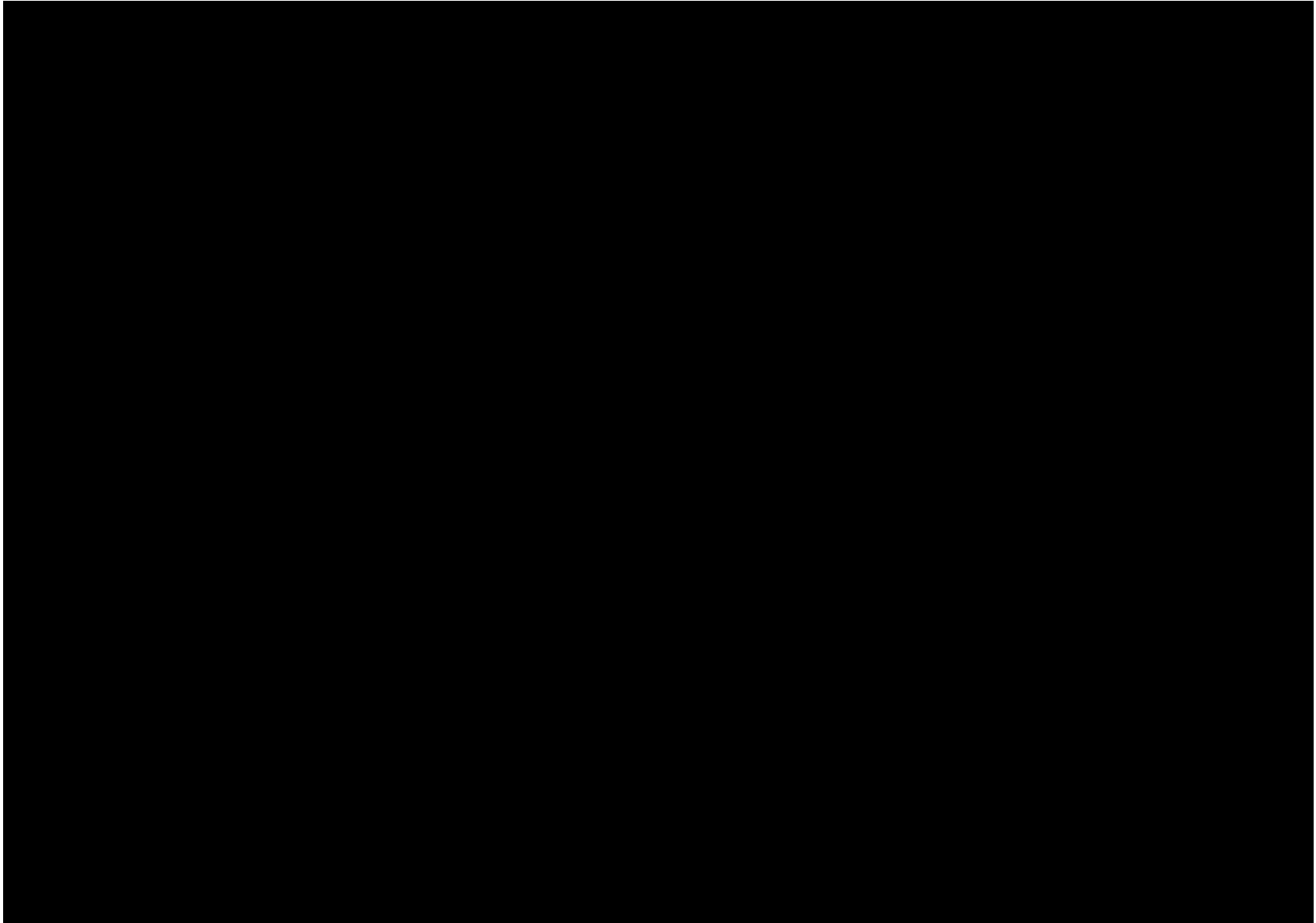


Figure 21

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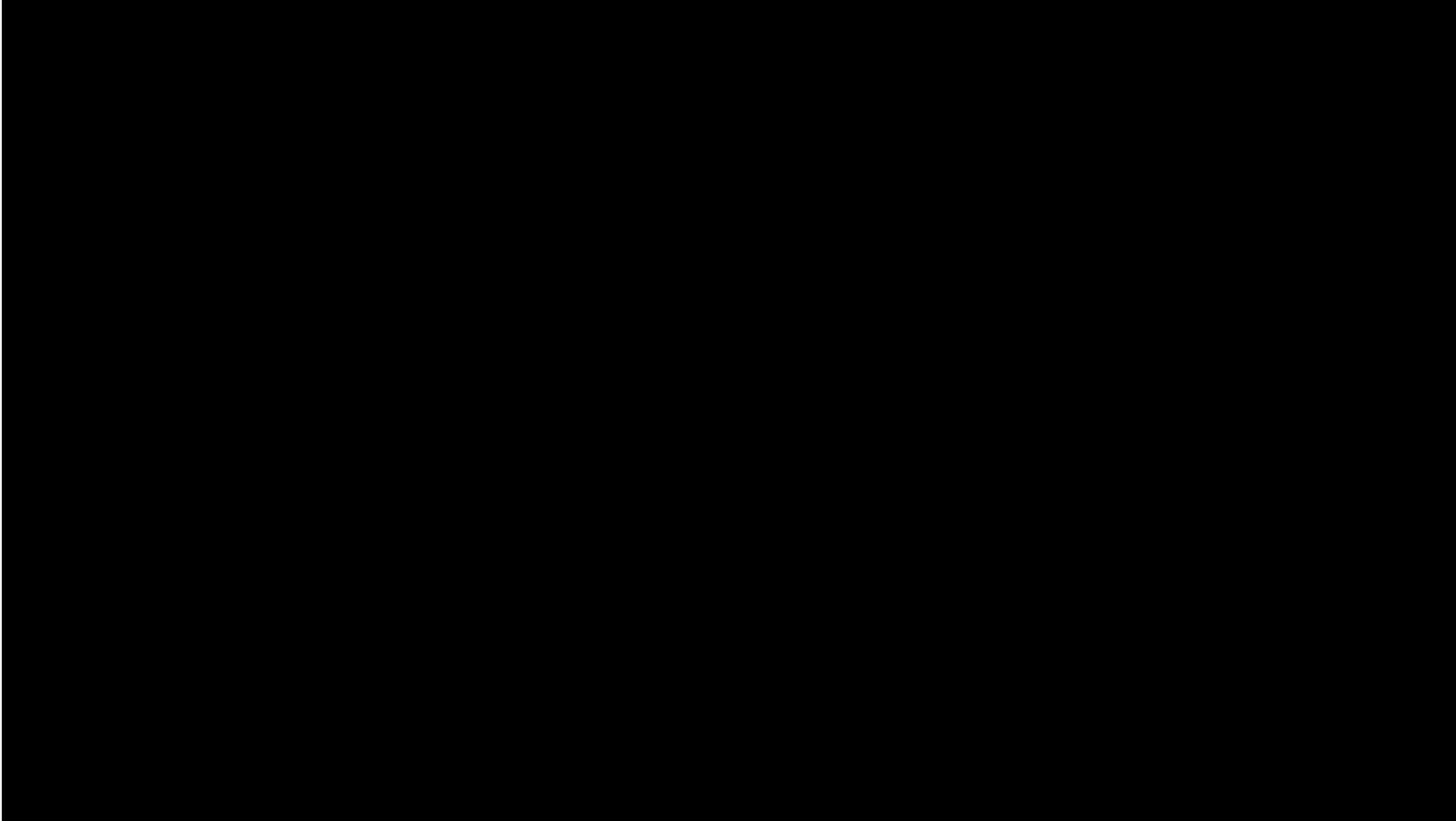


Figure 22

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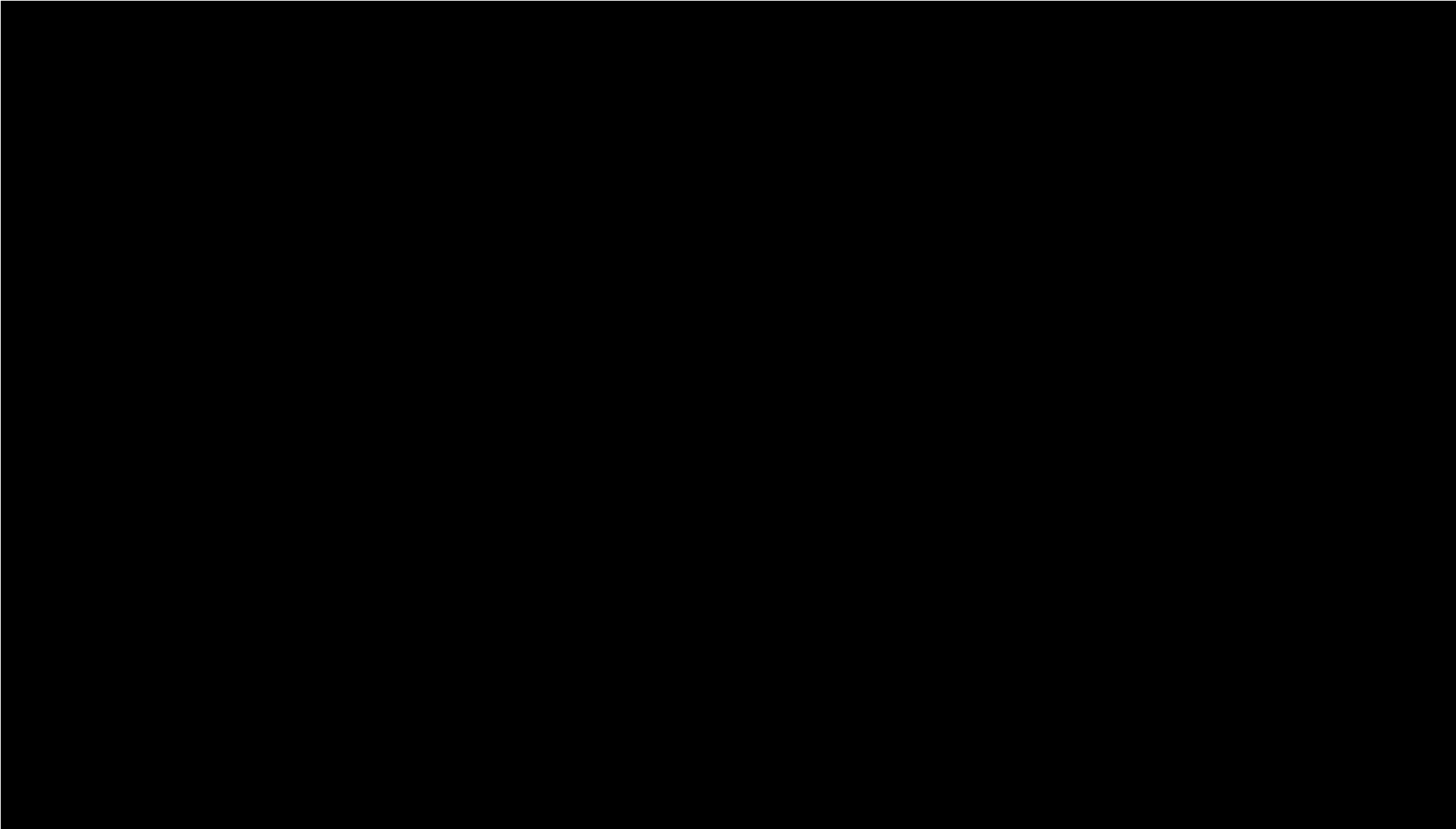


Figure 22

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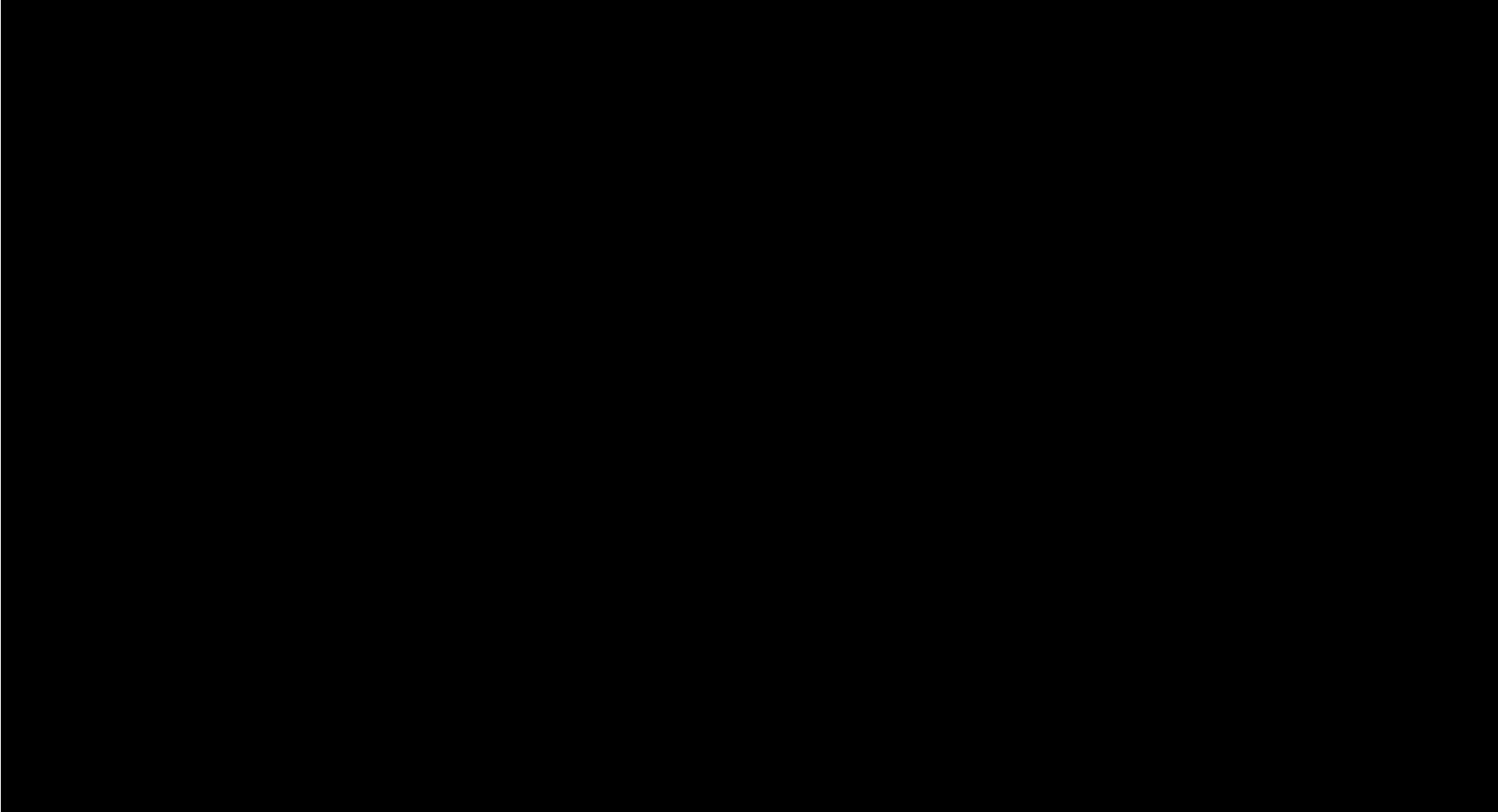


Figure 23

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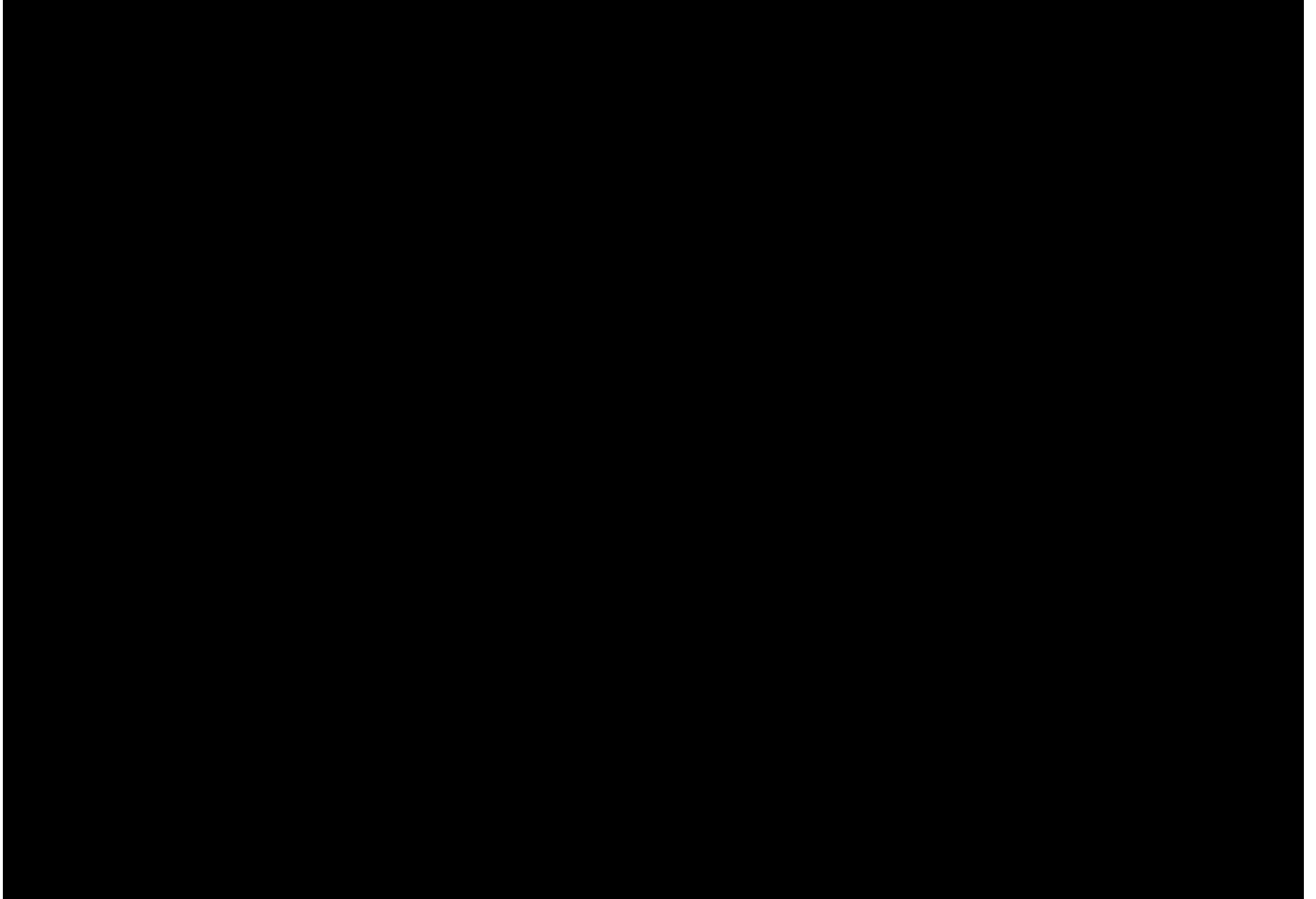


Figure 23

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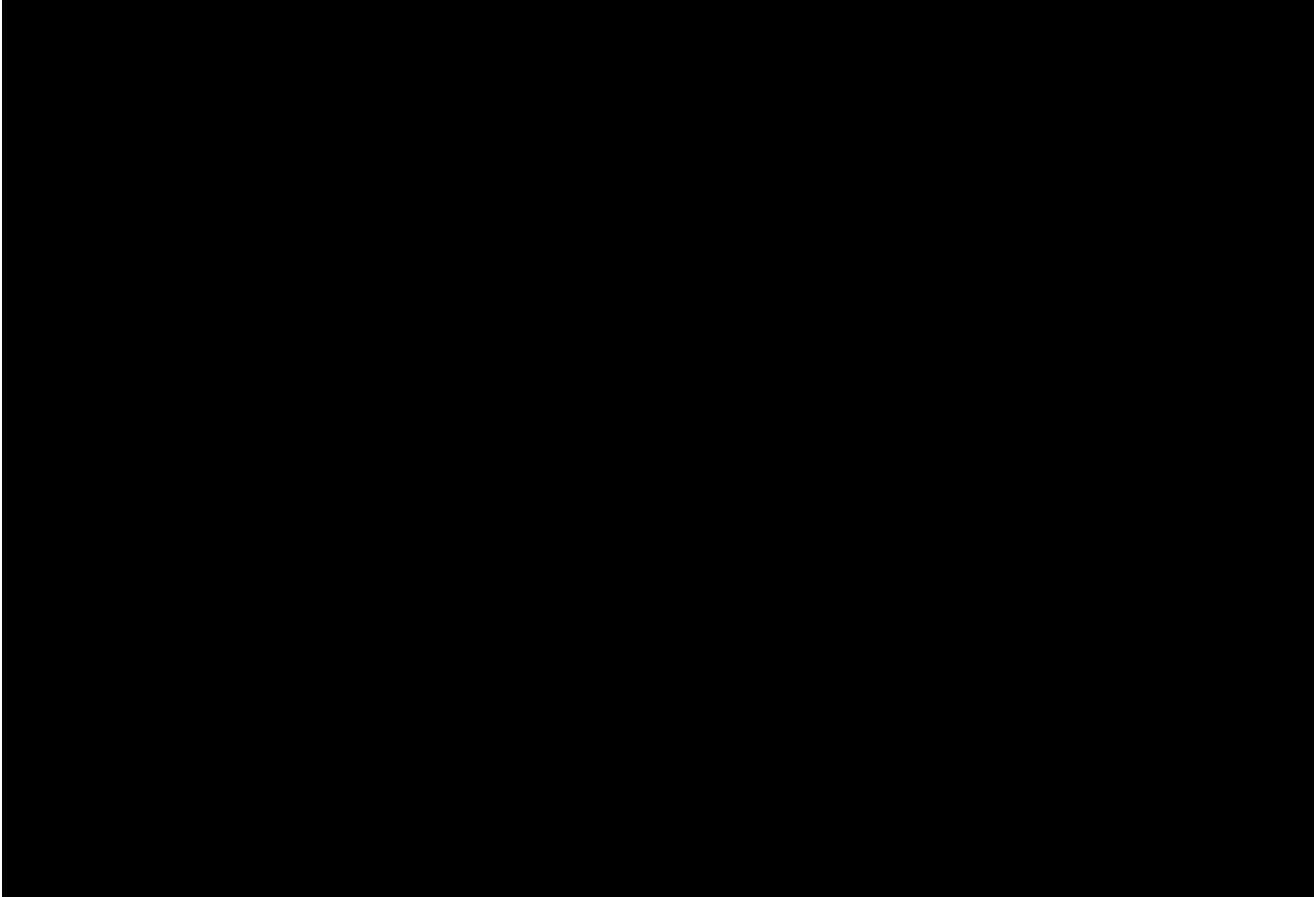


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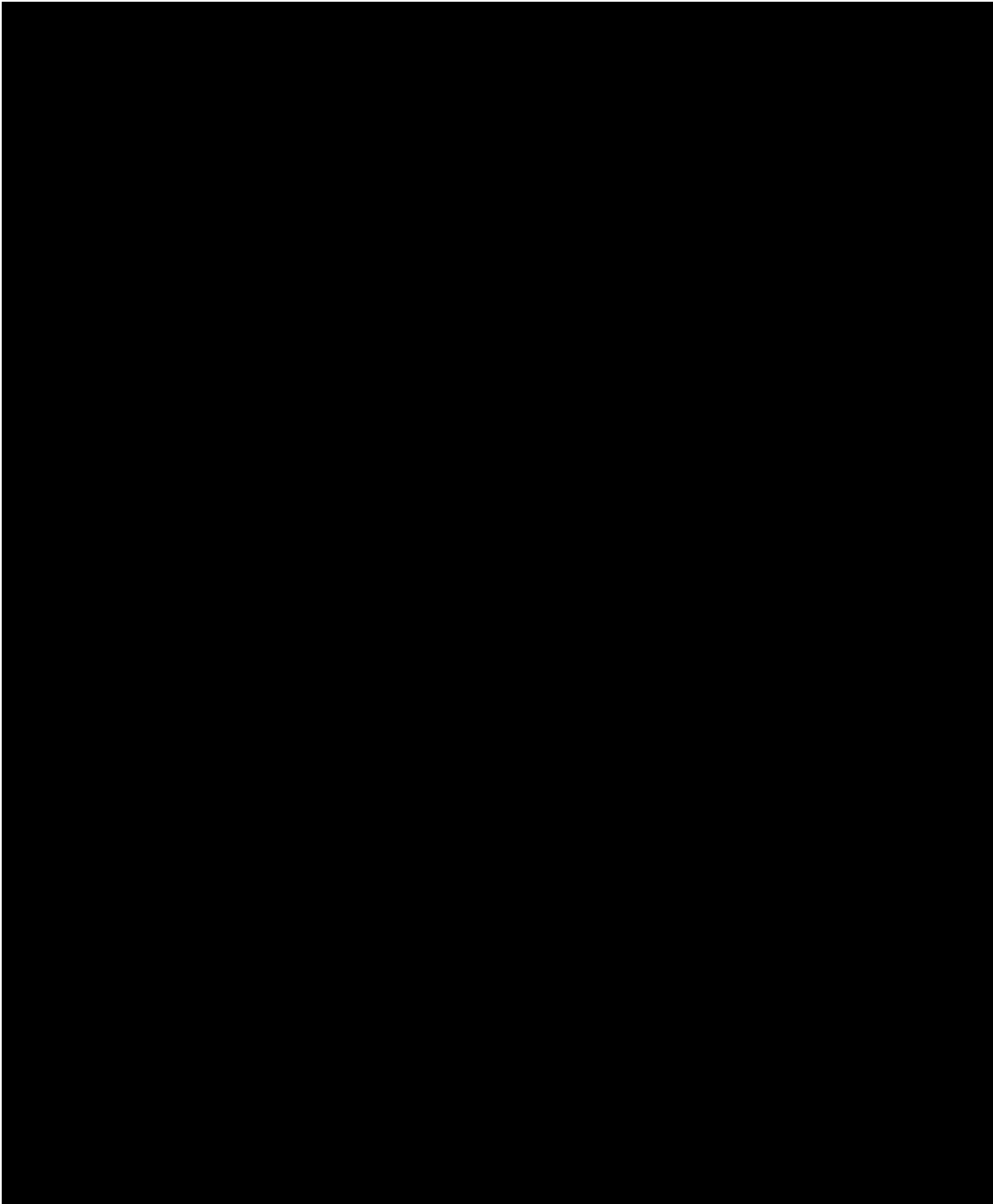


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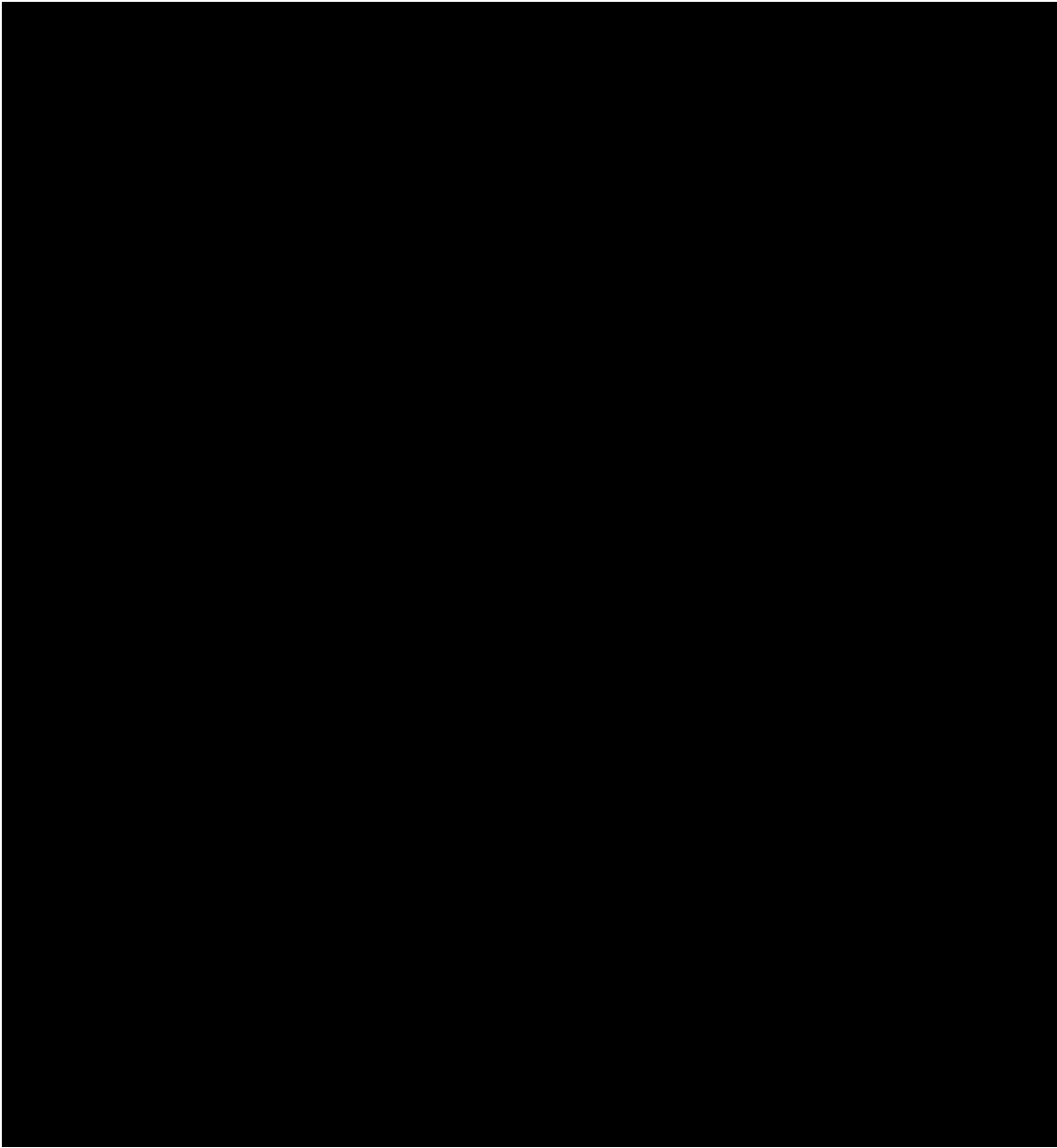
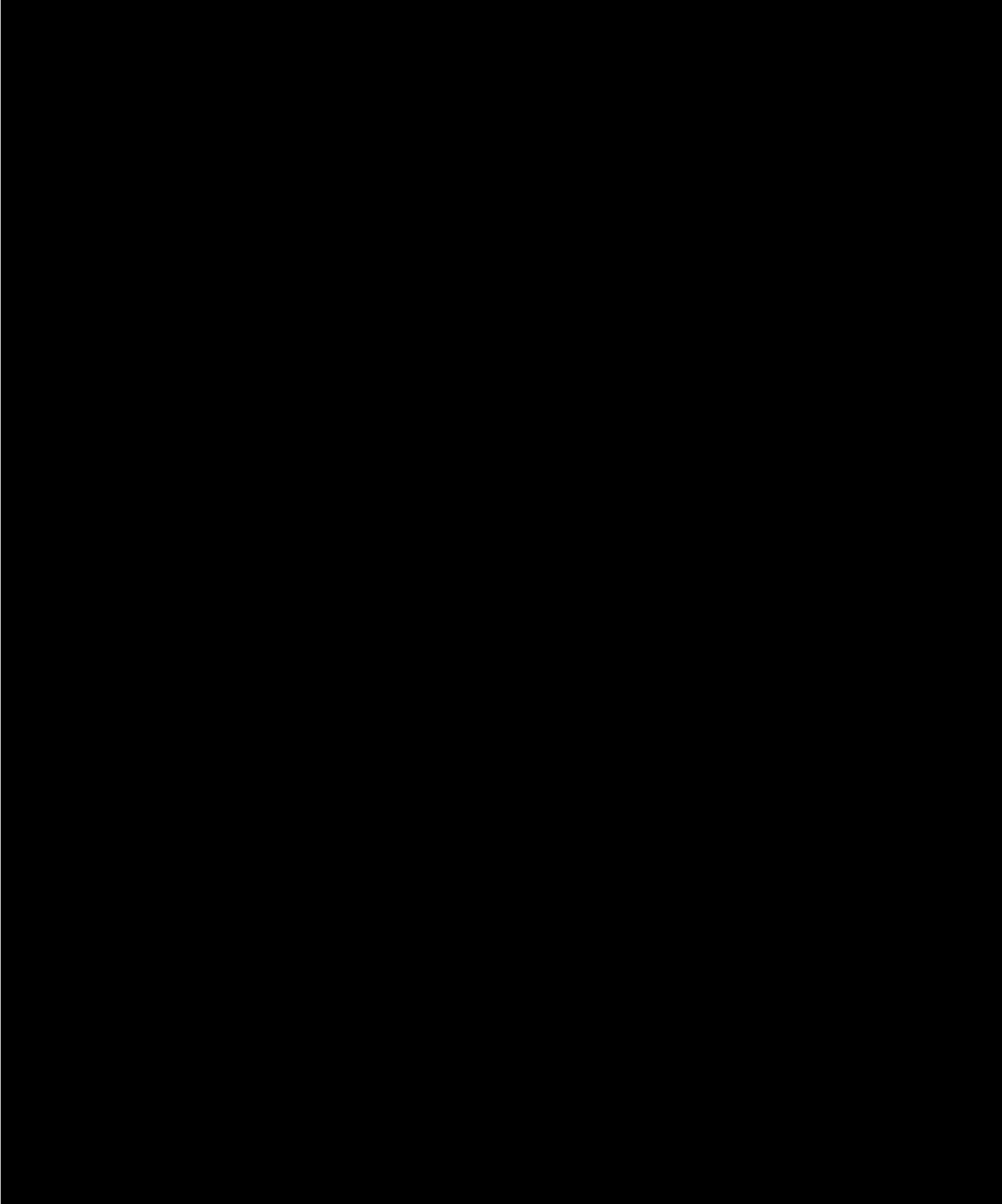


Figure 26

PUBLIC



d

Figure 27

PUBLIC

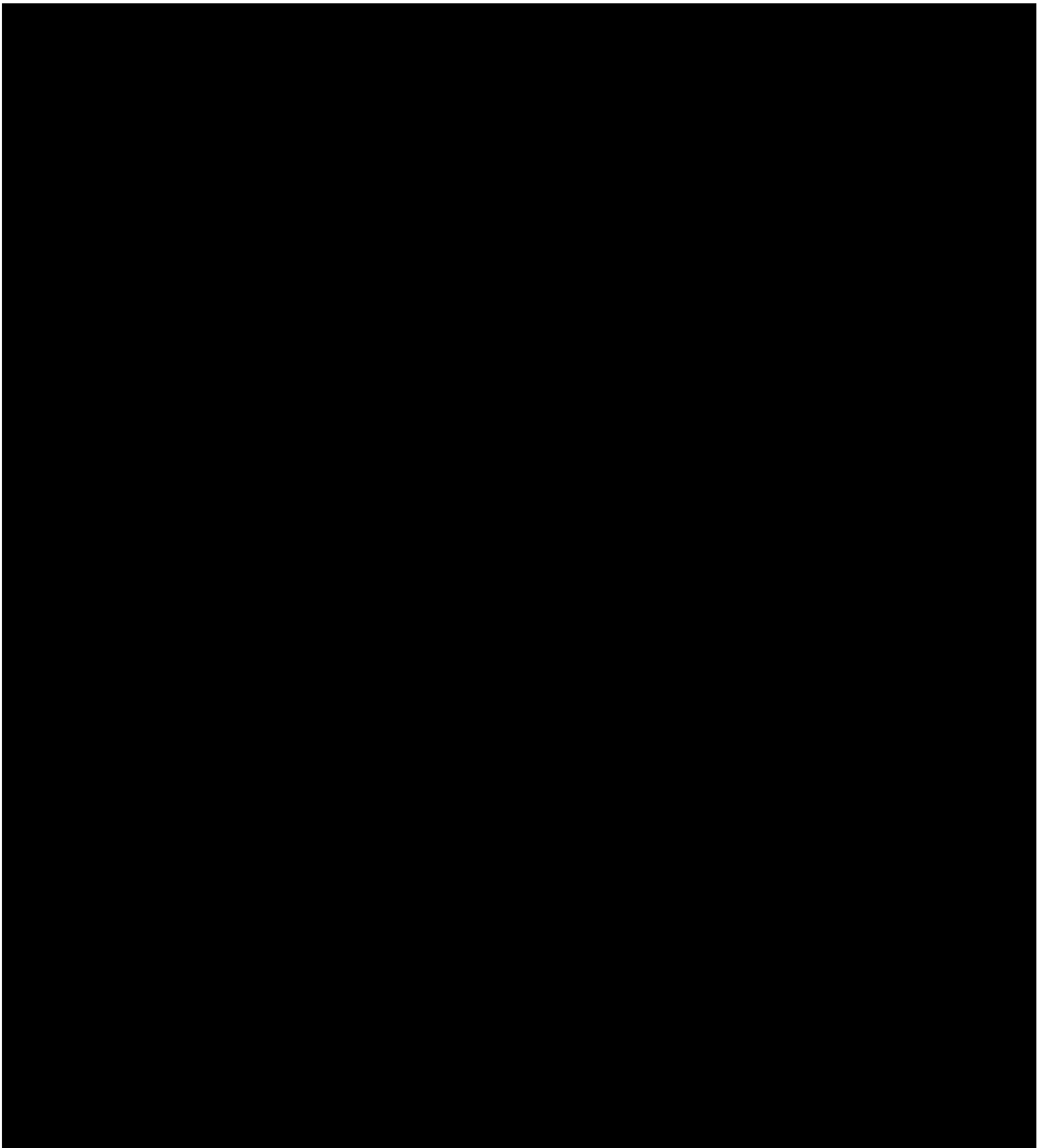


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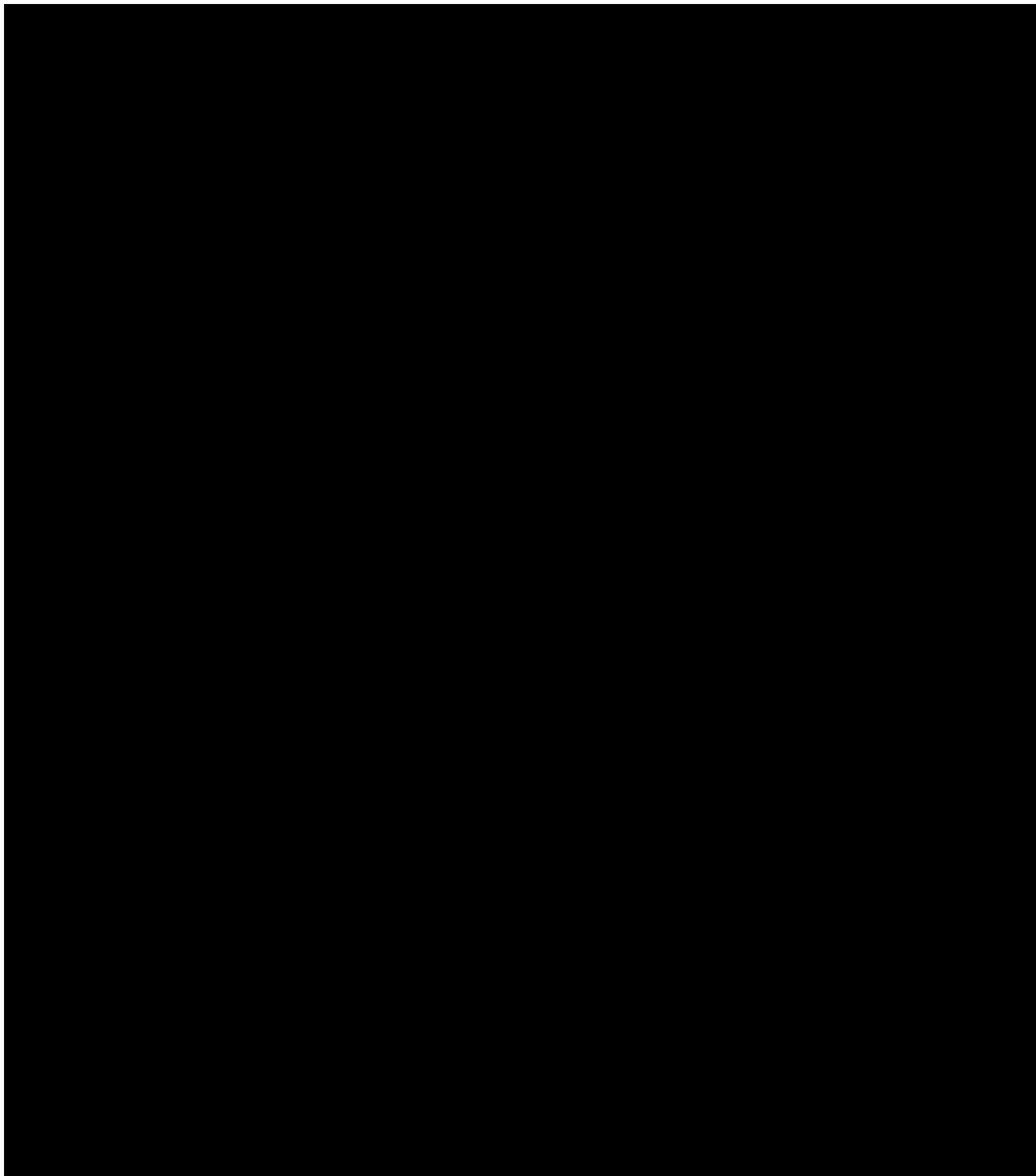


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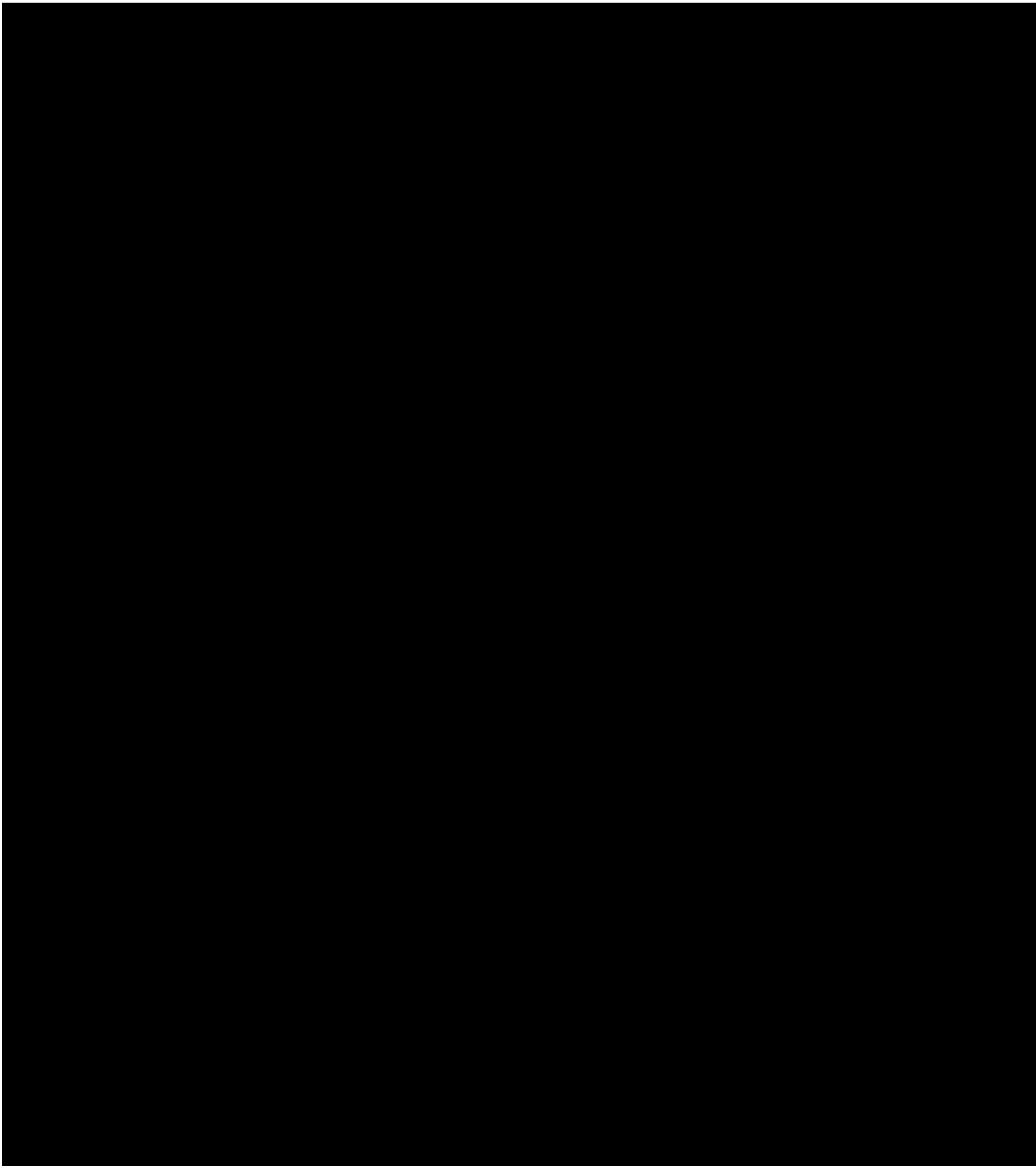


Figure 30

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Figure 31

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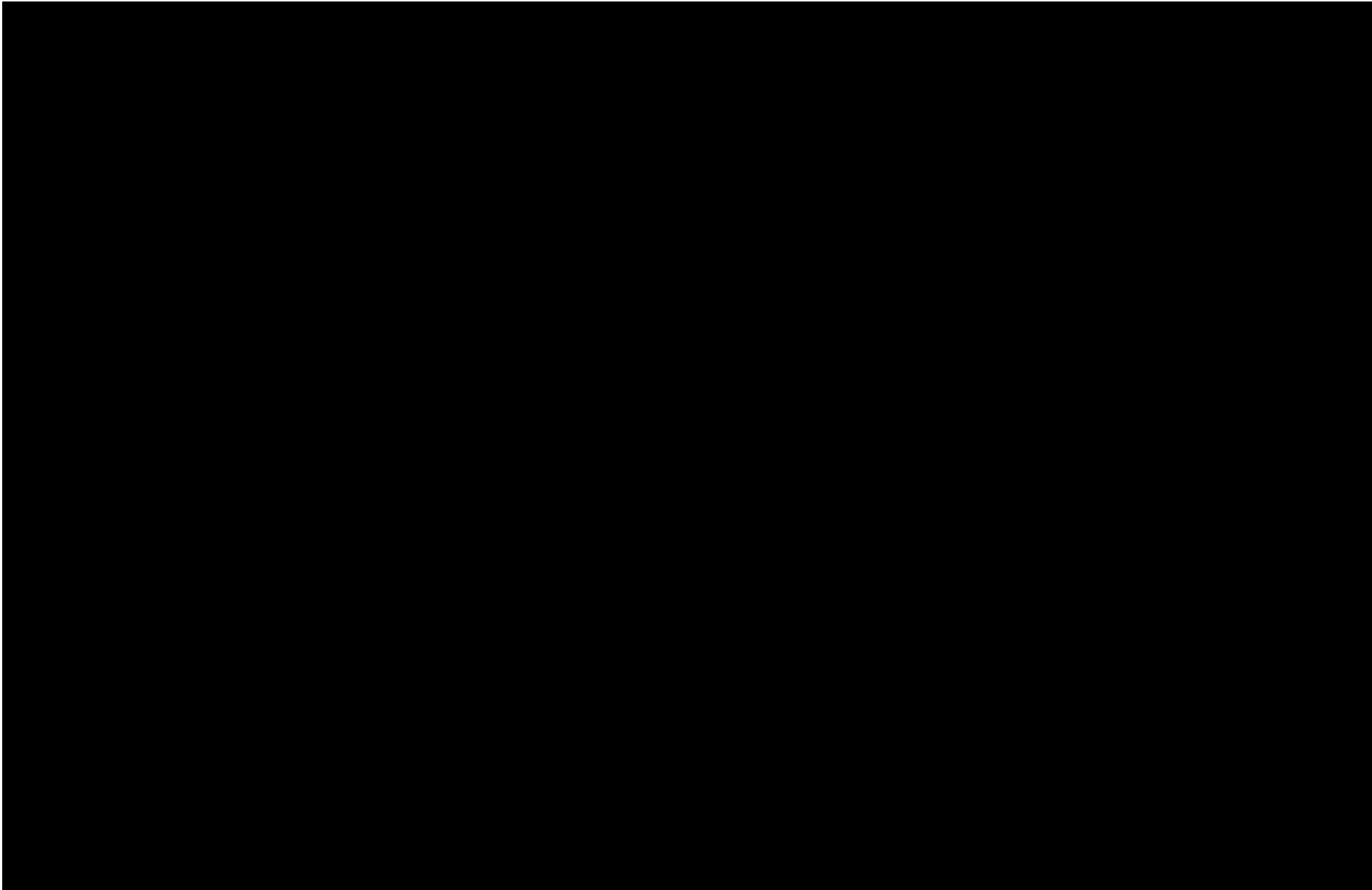


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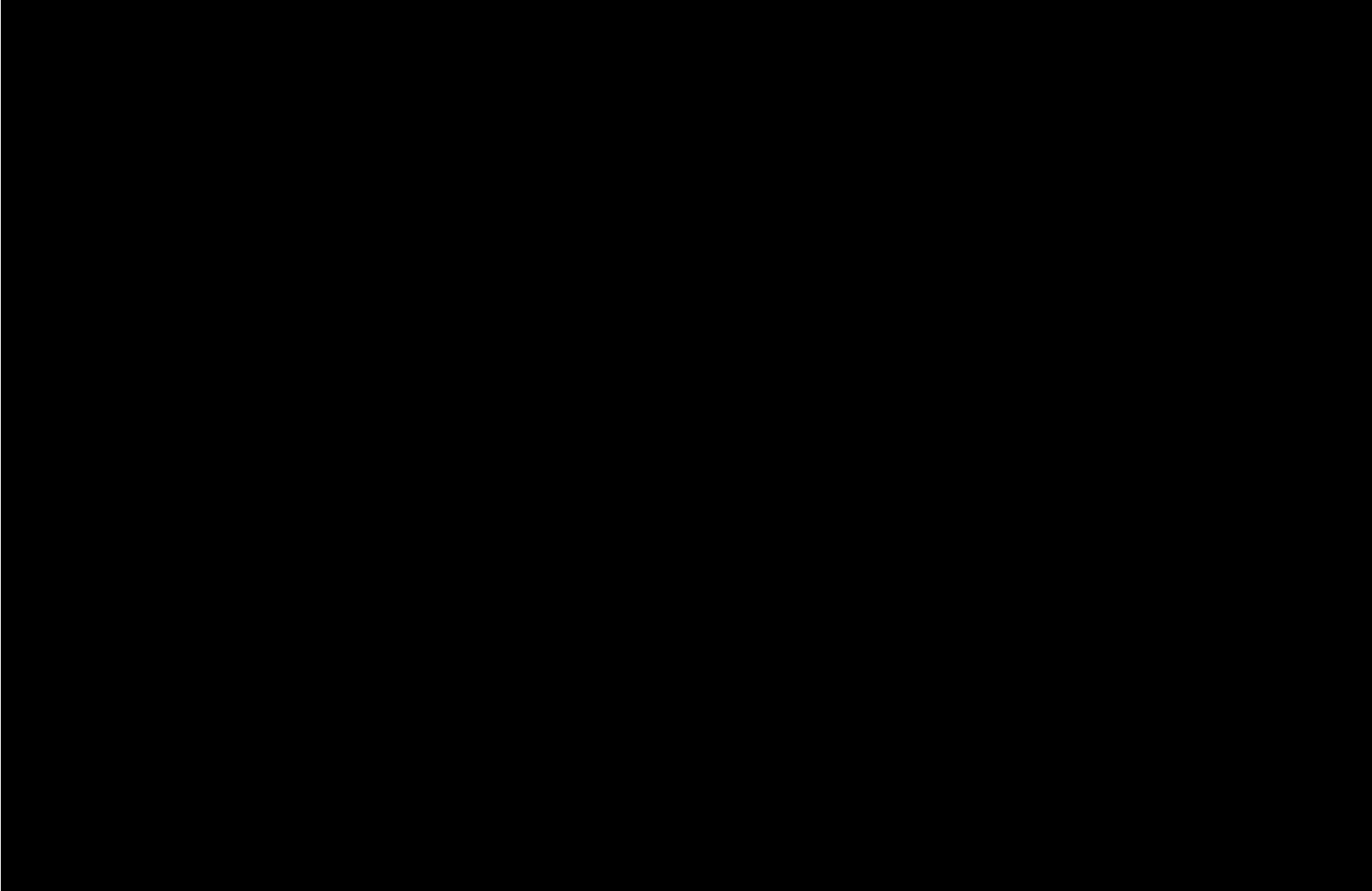


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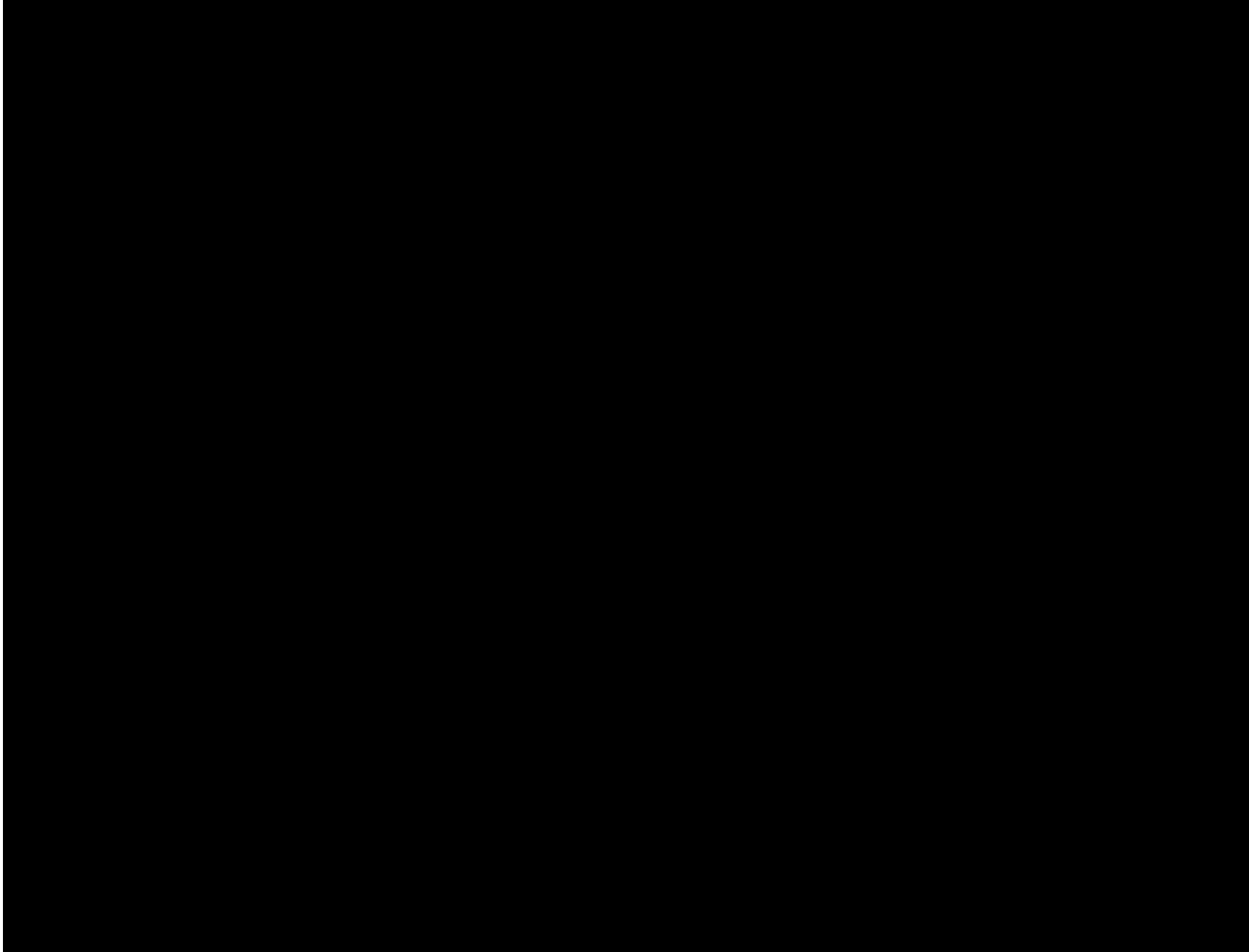


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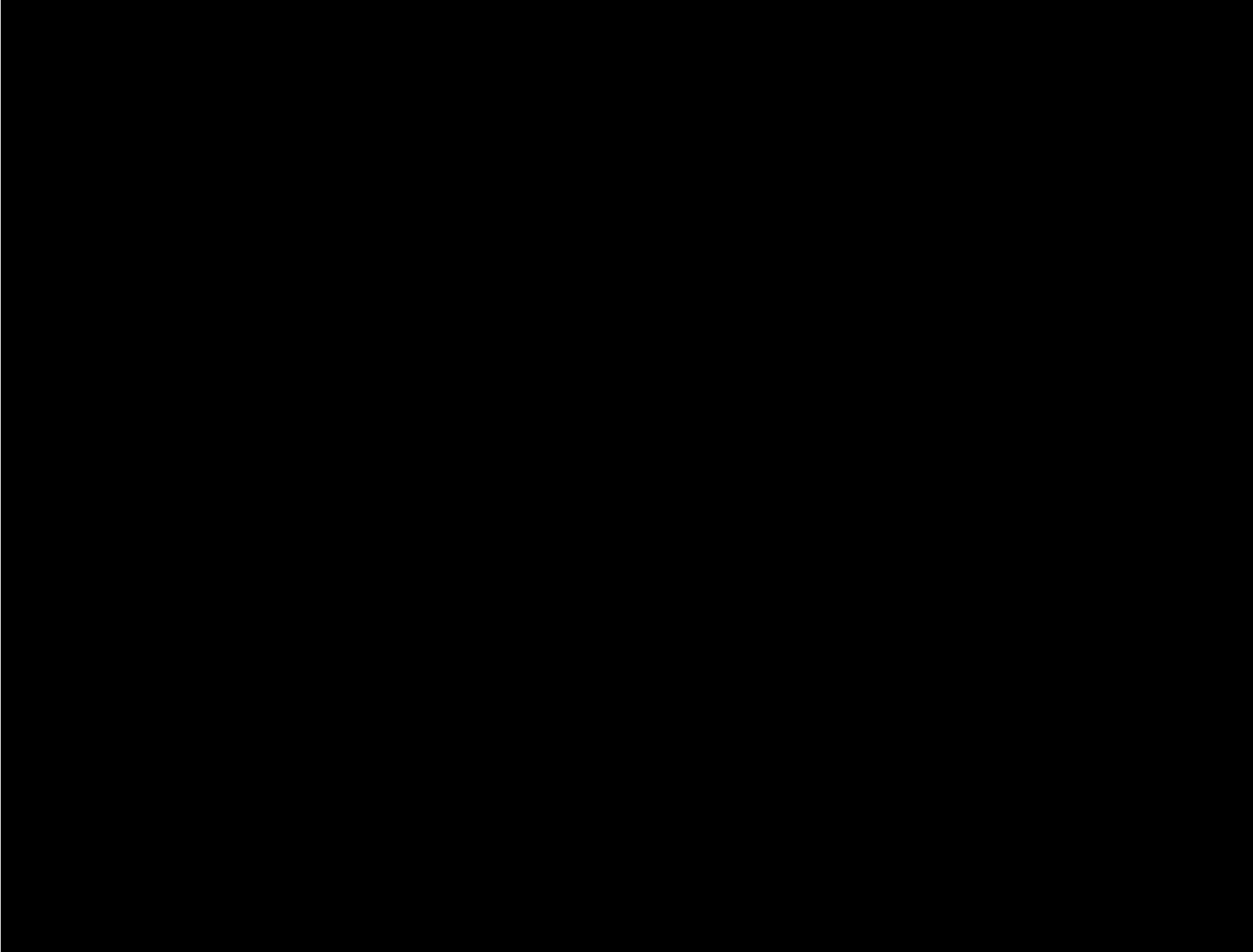


Figure 35a

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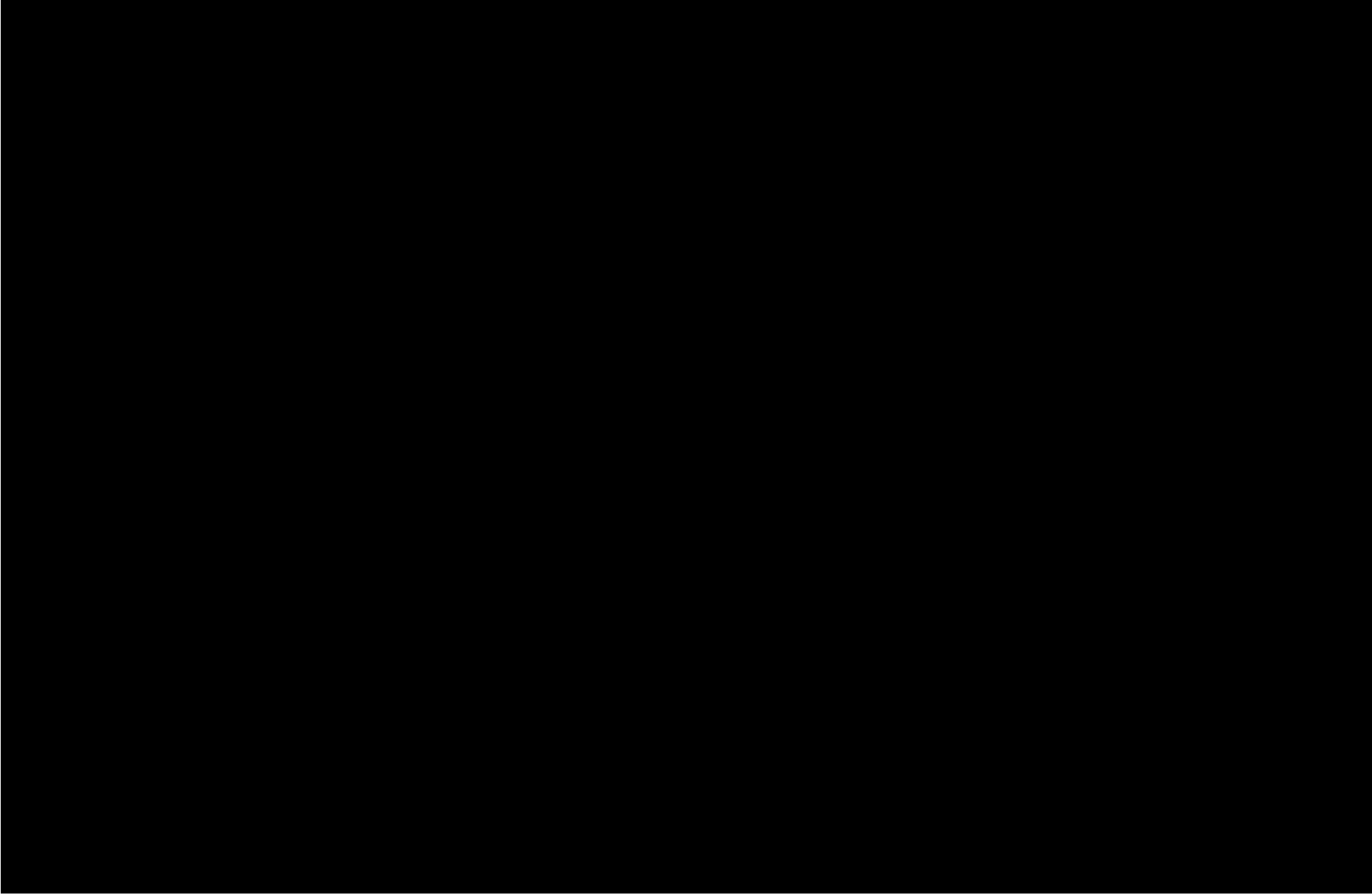


Figure 35b

CONFIDENTIAL - LEVEL A

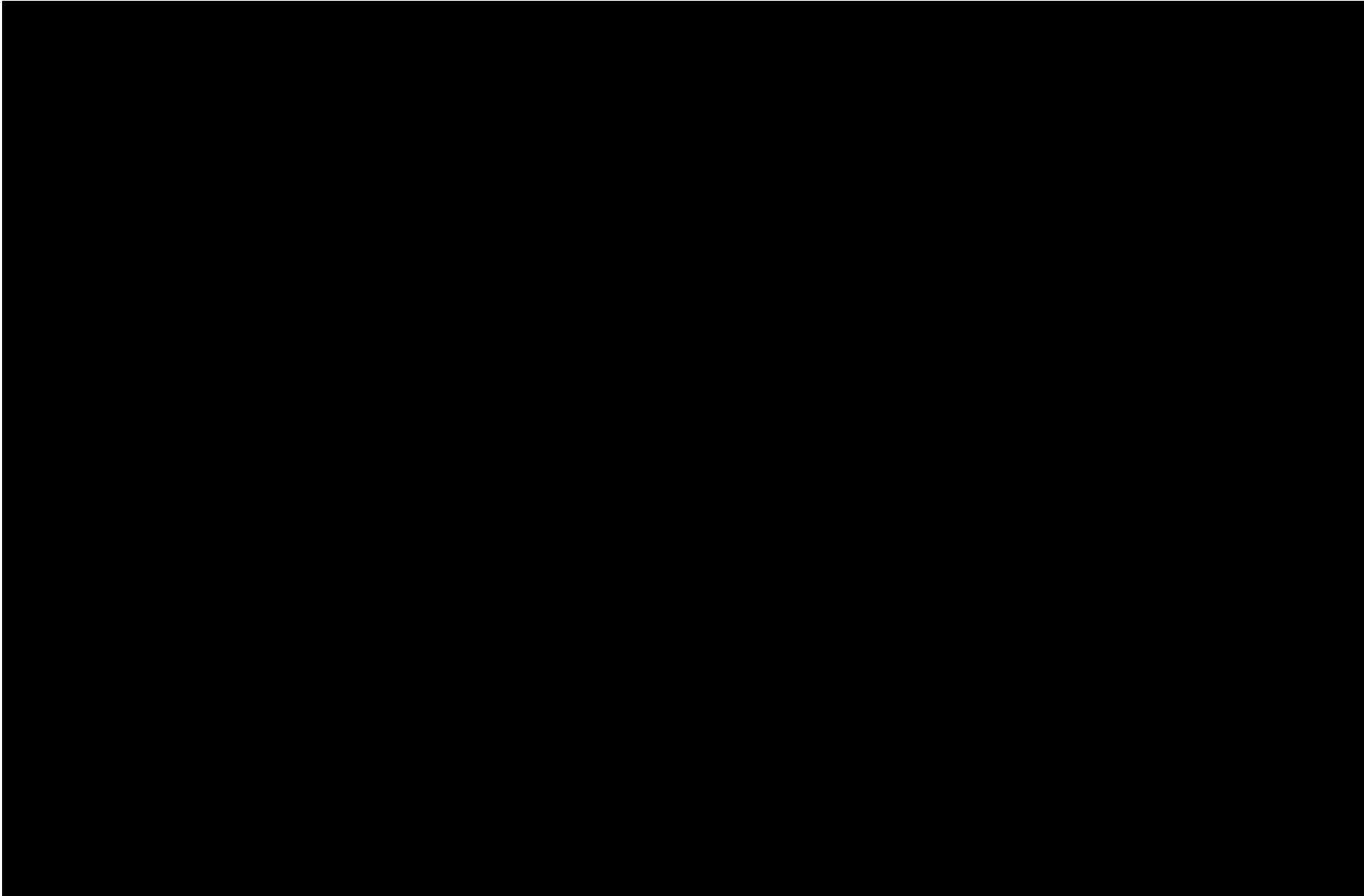


Figure 36

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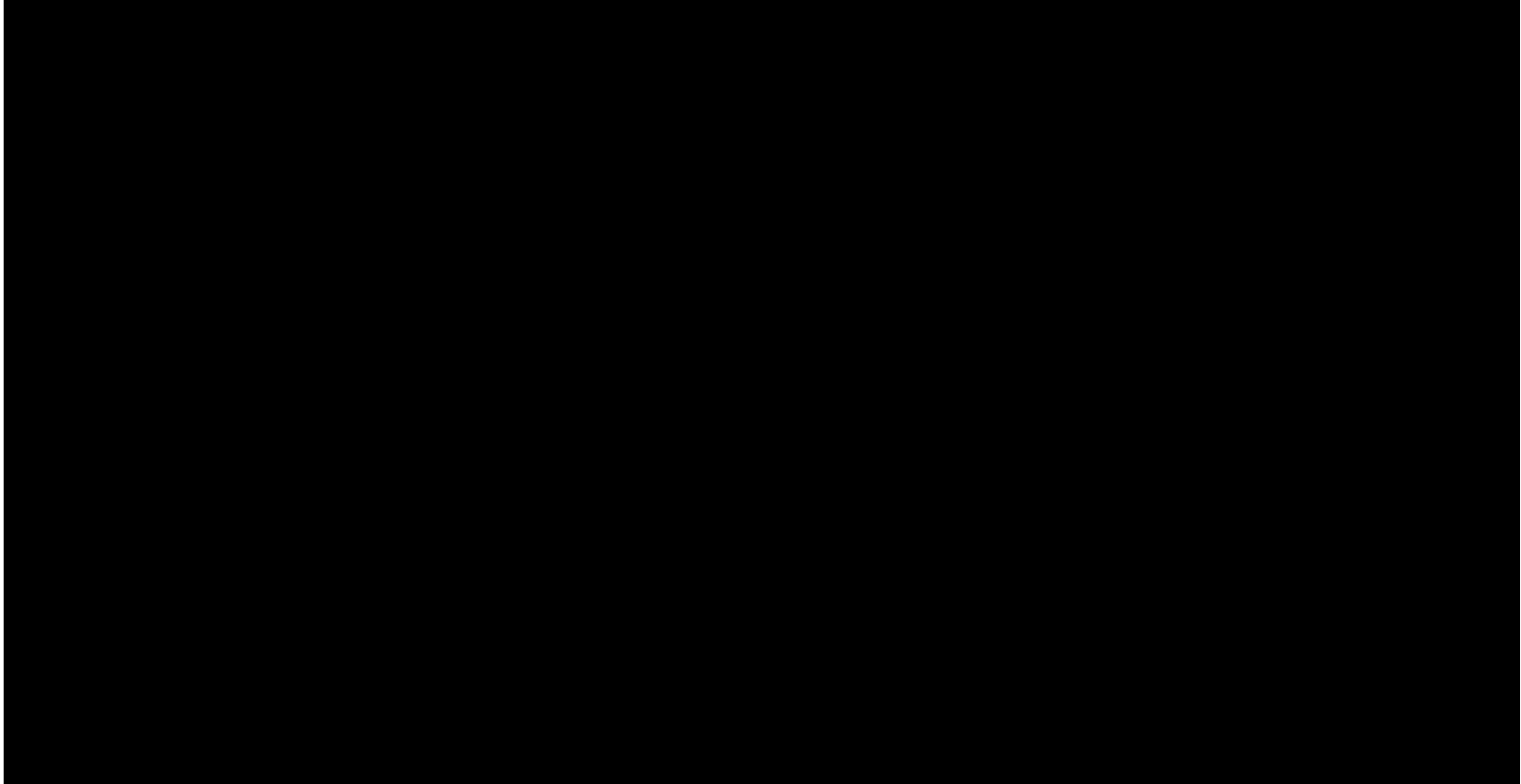


Figure 37

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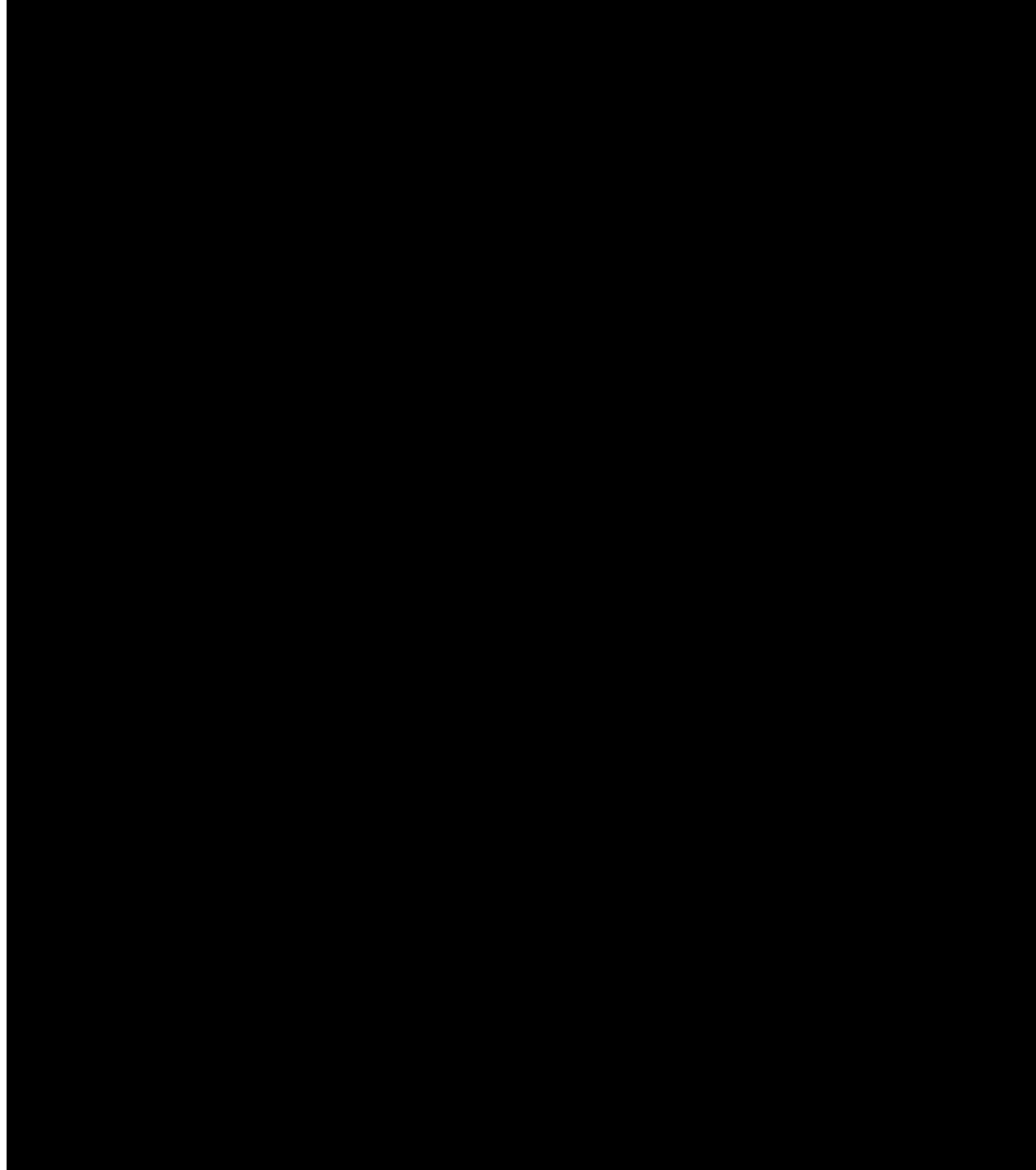


Figure 38

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Basis Examples

Does Basis Reflect the Price of Grain Handling Services?

Feature	A	B	C	D	E
Cash Price (CAD/MT)	\$220.00	\$250.00	\$300.00	\$250.00	\$250.00
Futures Price (USD/MT)	\$180.00	\$210.00	\$260.00	\$225.00	\$210.00
Basis (/MT)	40.00	40.00	40.00	25.00	40.00
Exchange Rate (CAD/USD)	1.30	1.30	1.30	1.30	1.35
Price of GHS (CAD/MT)	\$14.00	\$23.00	\$38.00	\$42.50	\$33.50

Notes:

- [1] Examples A, B, C have the same basis, but different prices of grain handling services using Dr. Miller's definition.
- [2] Examples A, B, C have a higher basis than example D, but example D has a higher price of grain handling services using Dr. Miller's definition than examples A, B, C.
- [3] Examples B & E are identical on all transparent elements, but have very different prices of grain handling services using Dr. Miller's definition because of the different exchange rates.

Figure 39

PUBLIC

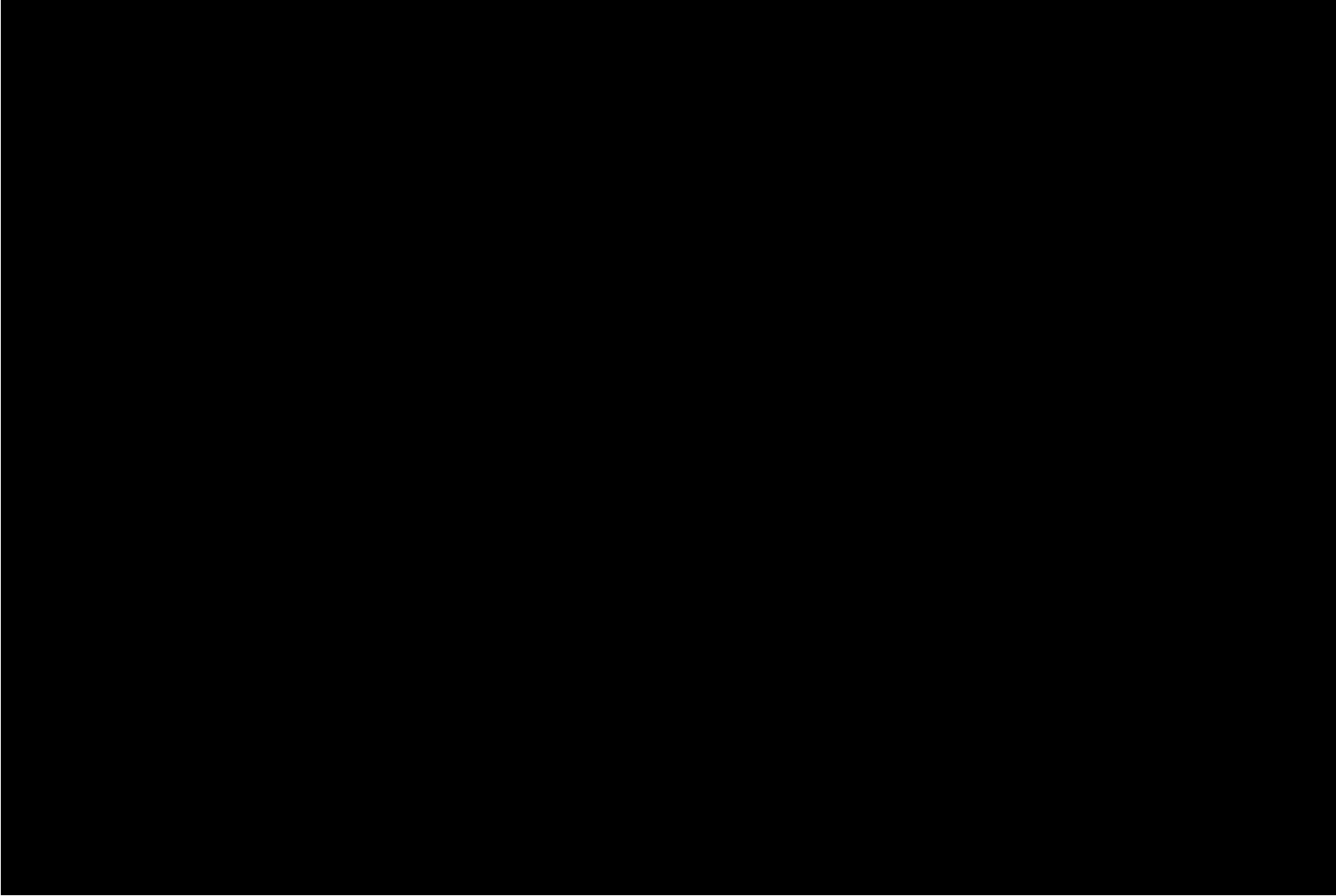


Figure 40a

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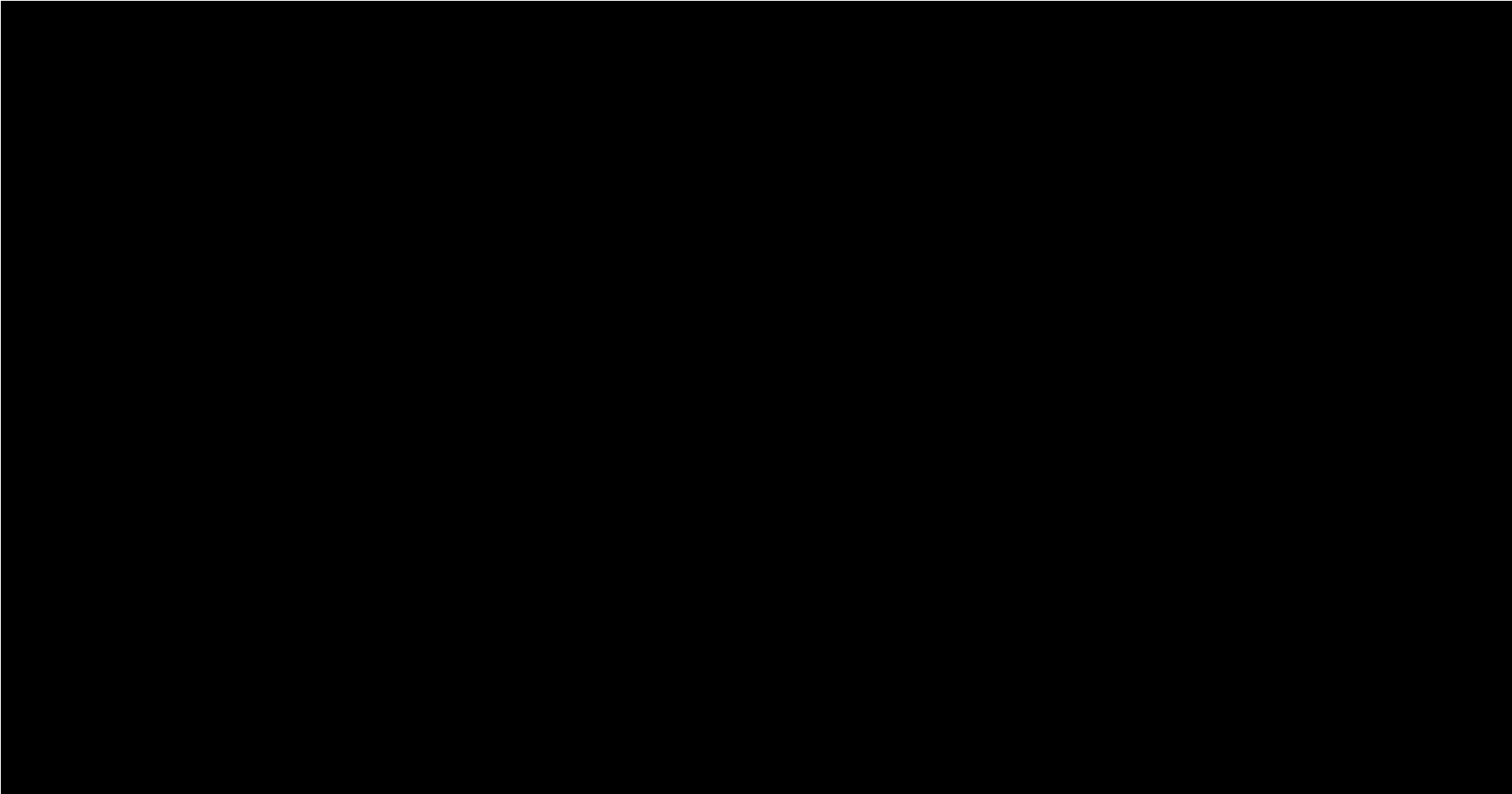


Figure 40b

PUBLIC

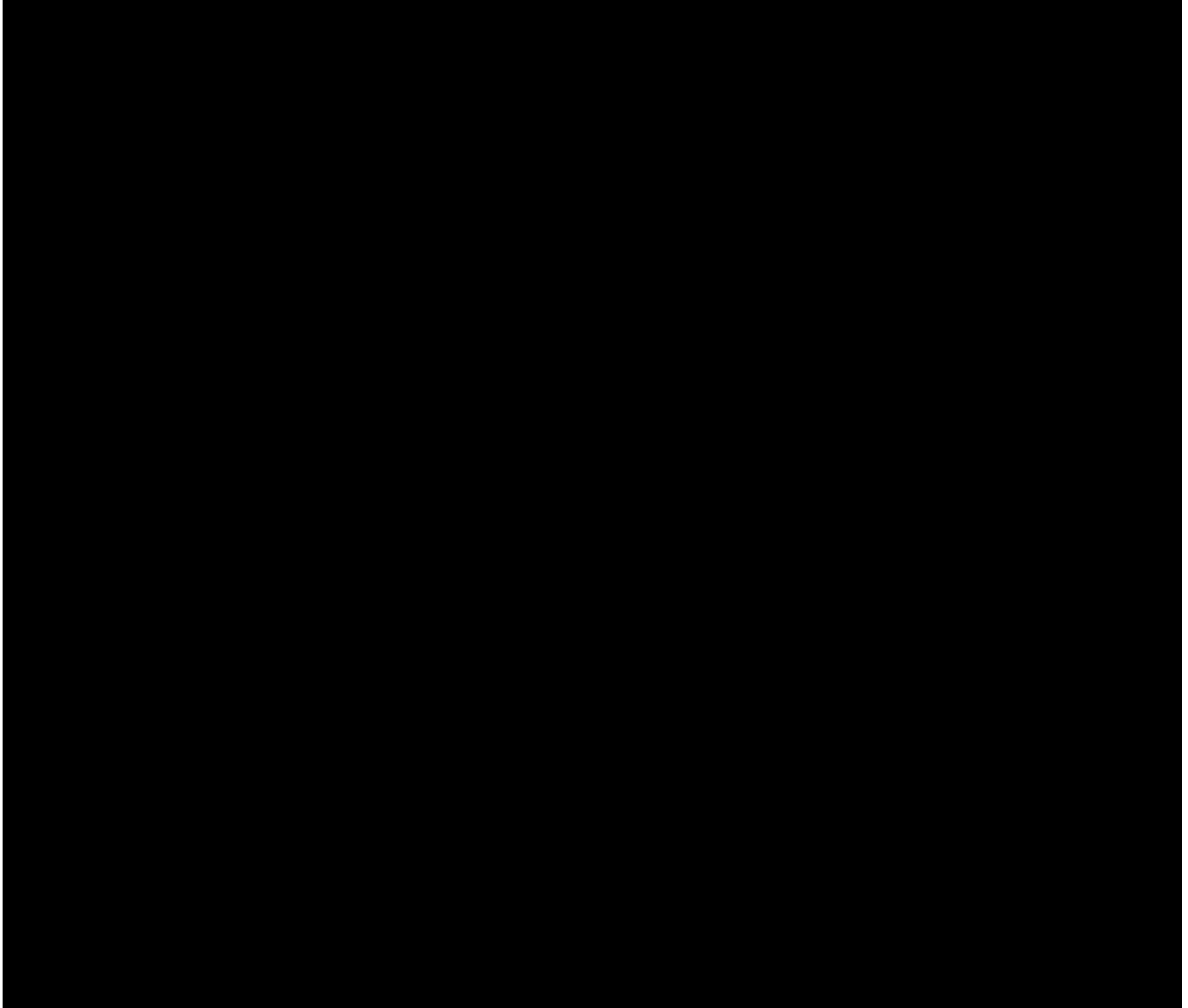


Figure 41

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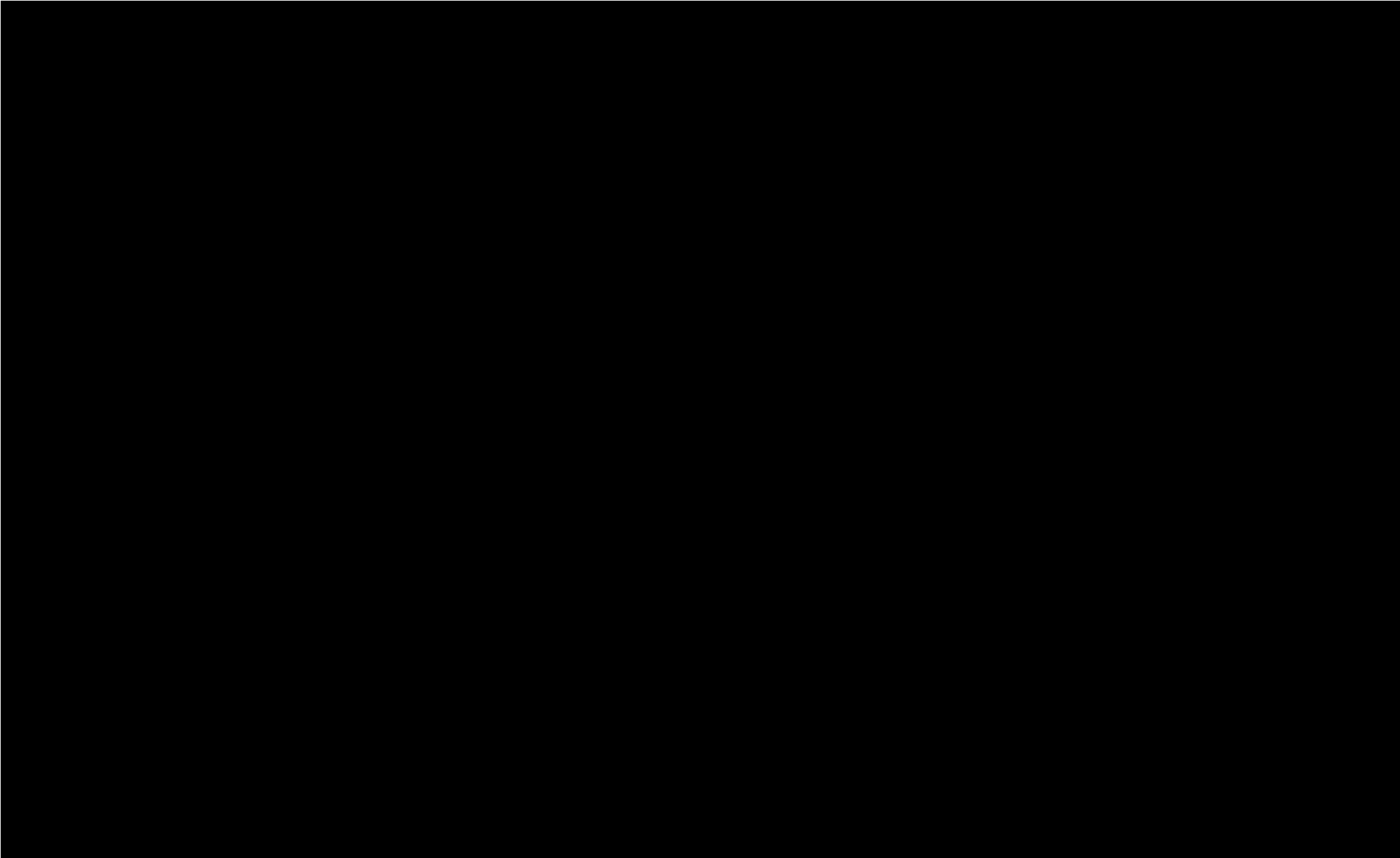


Figure 42

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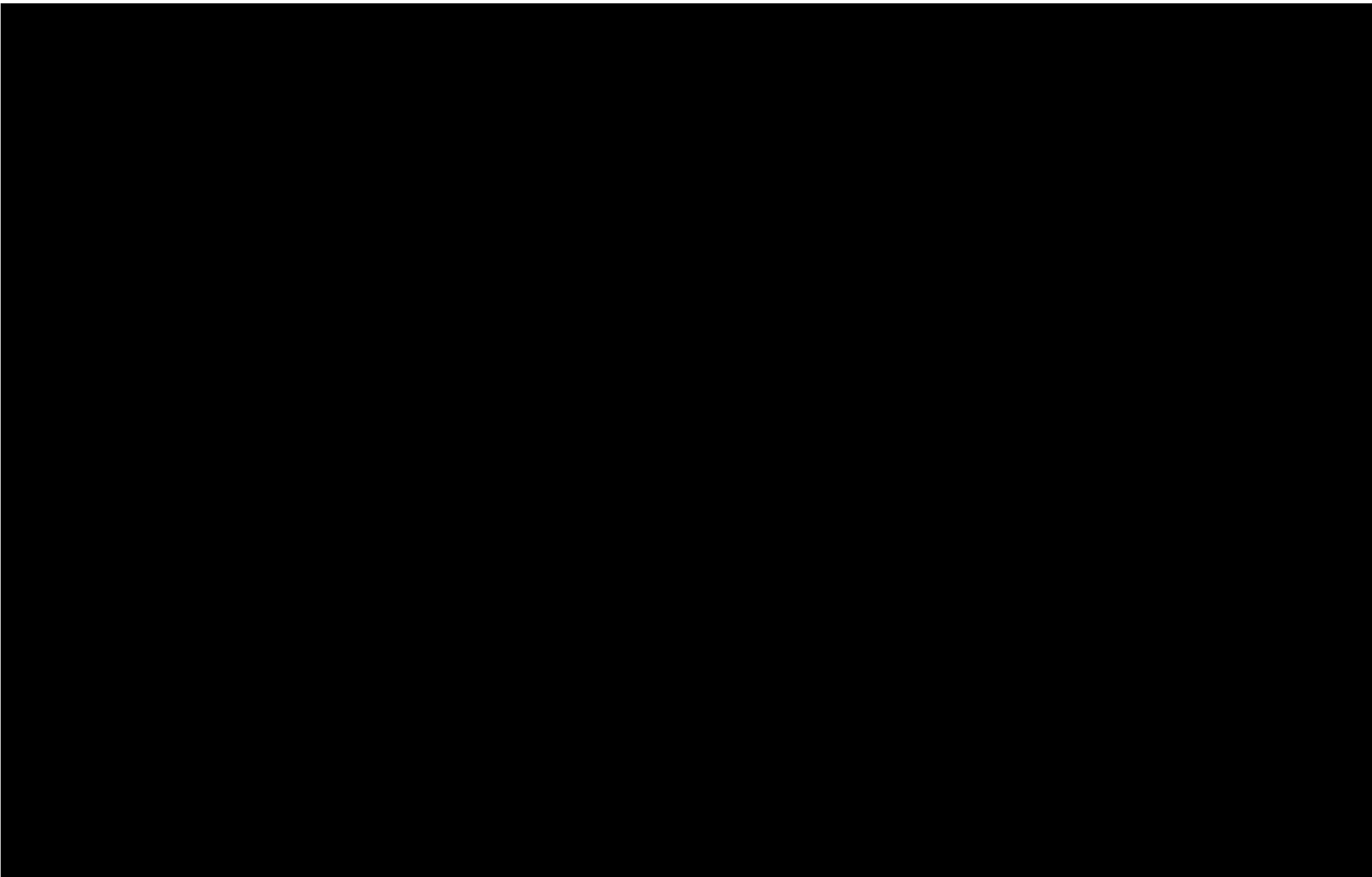


Figure 43

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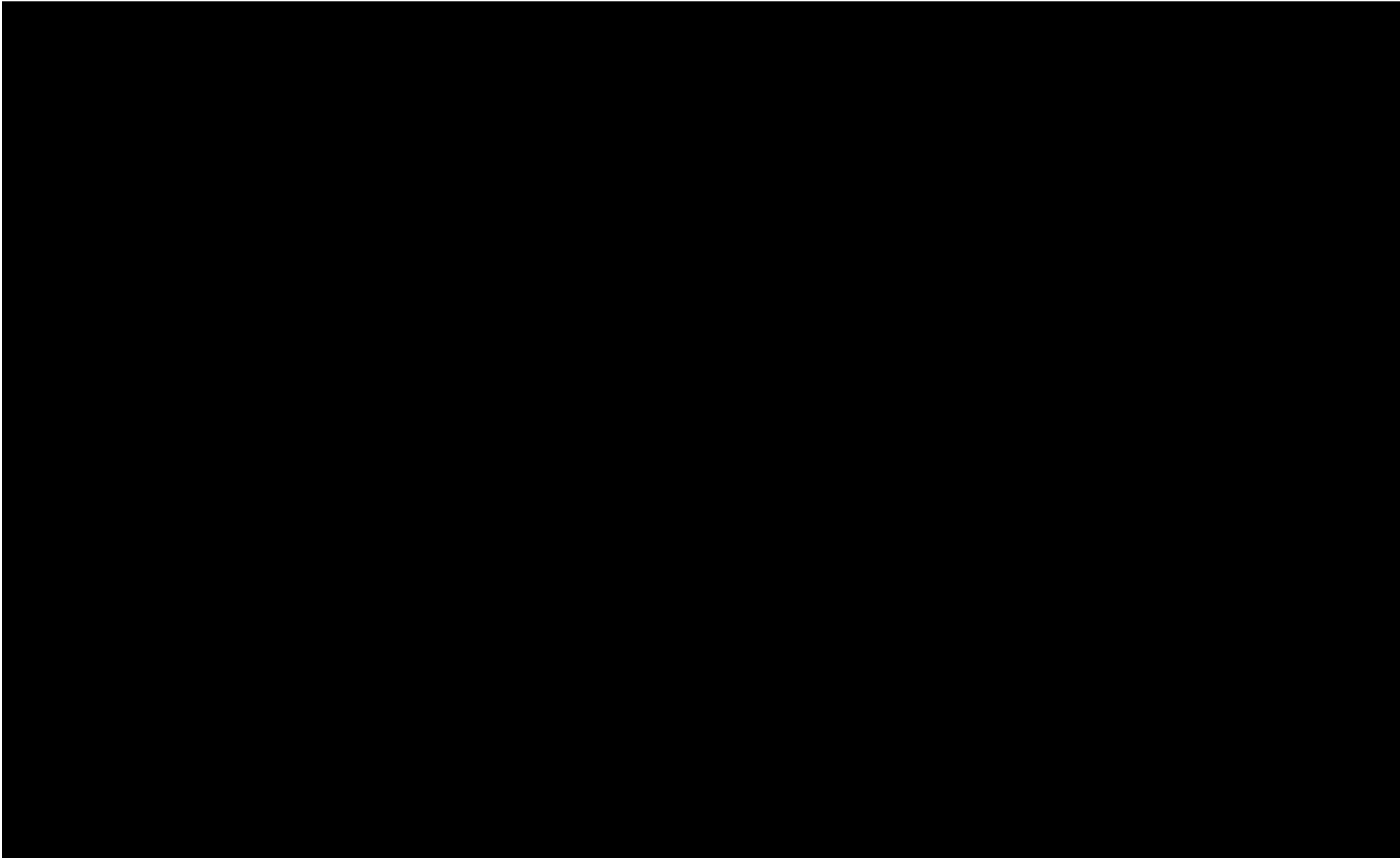


Figure 44

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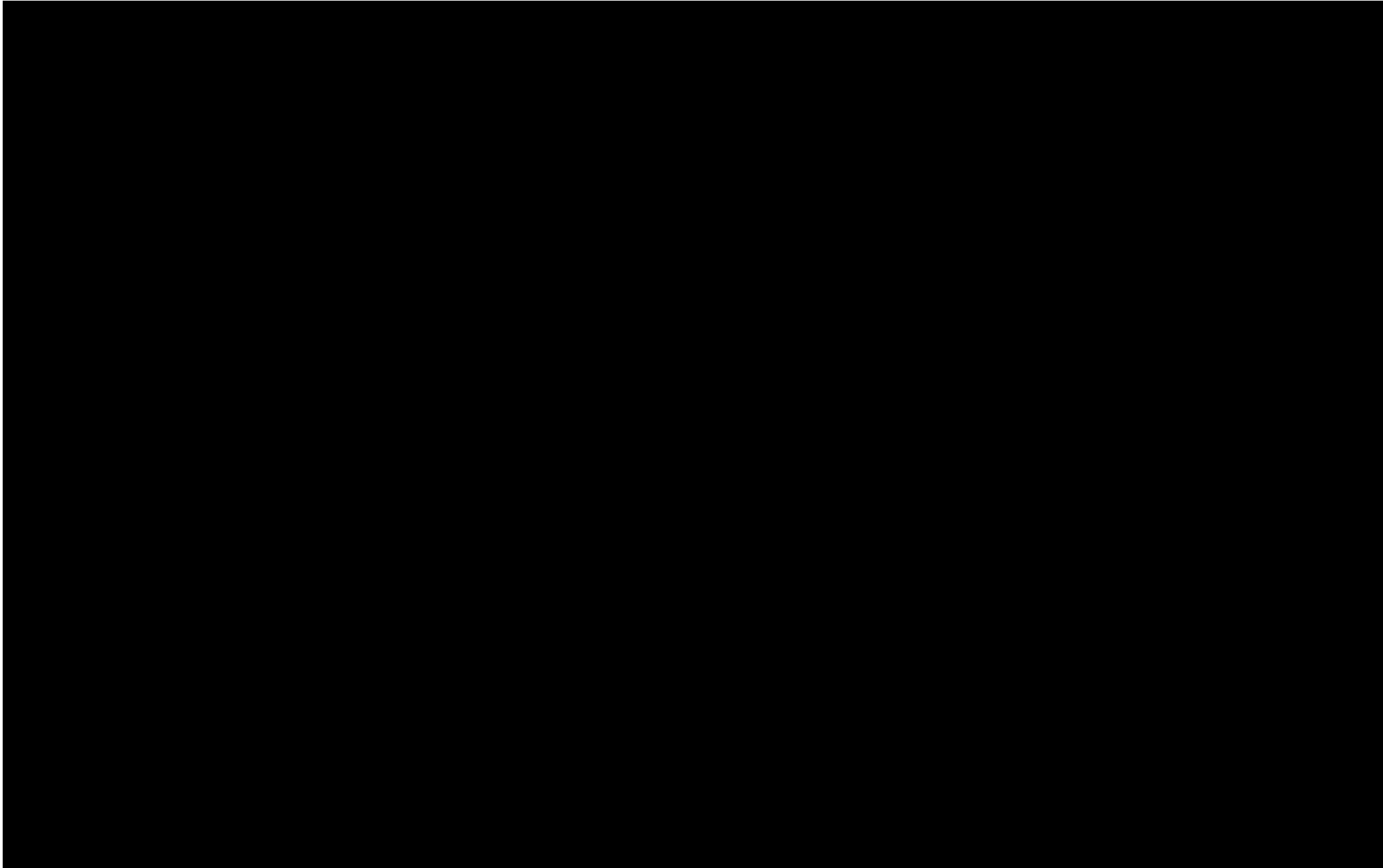


Figure 45

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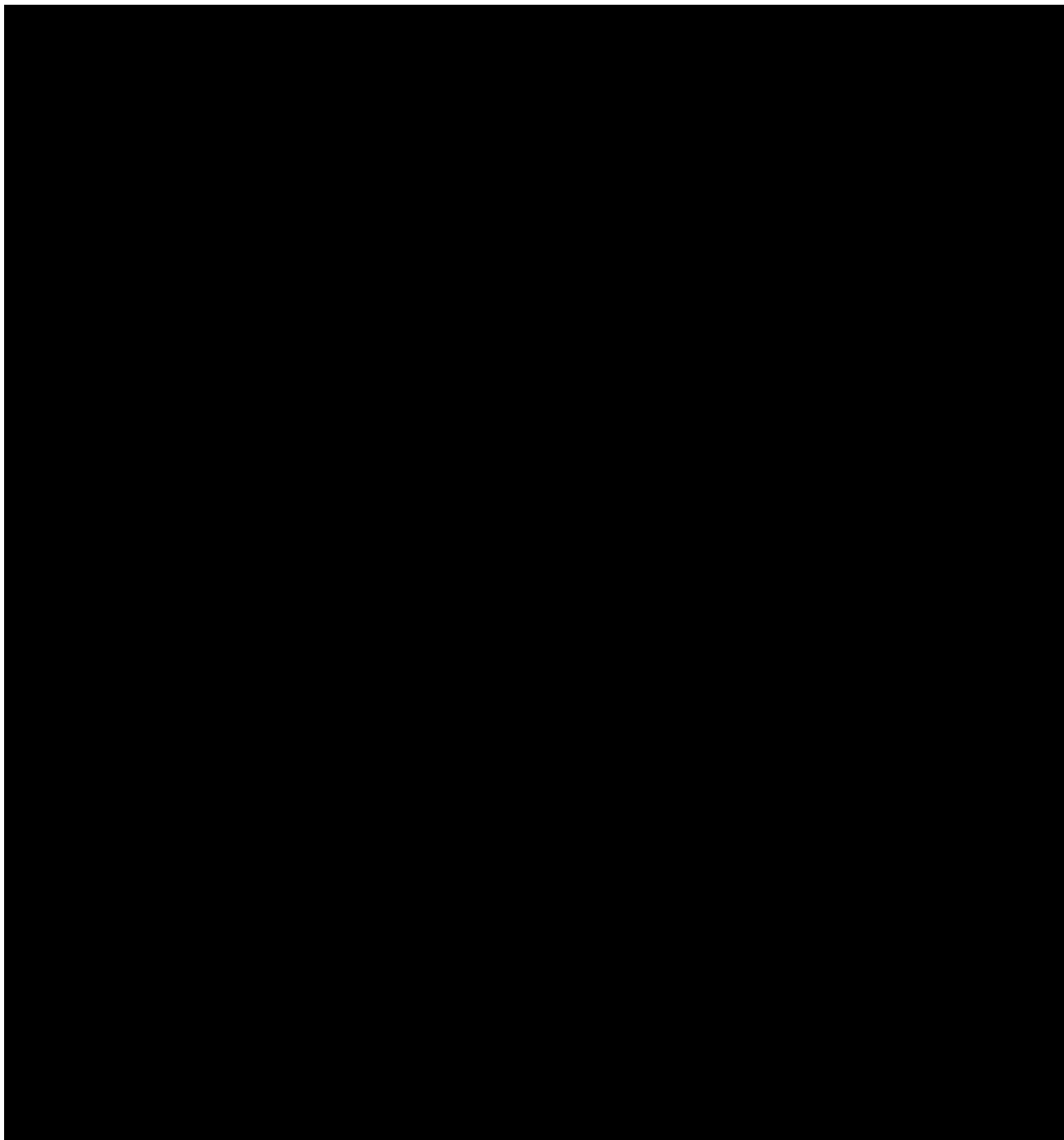


Figure 46

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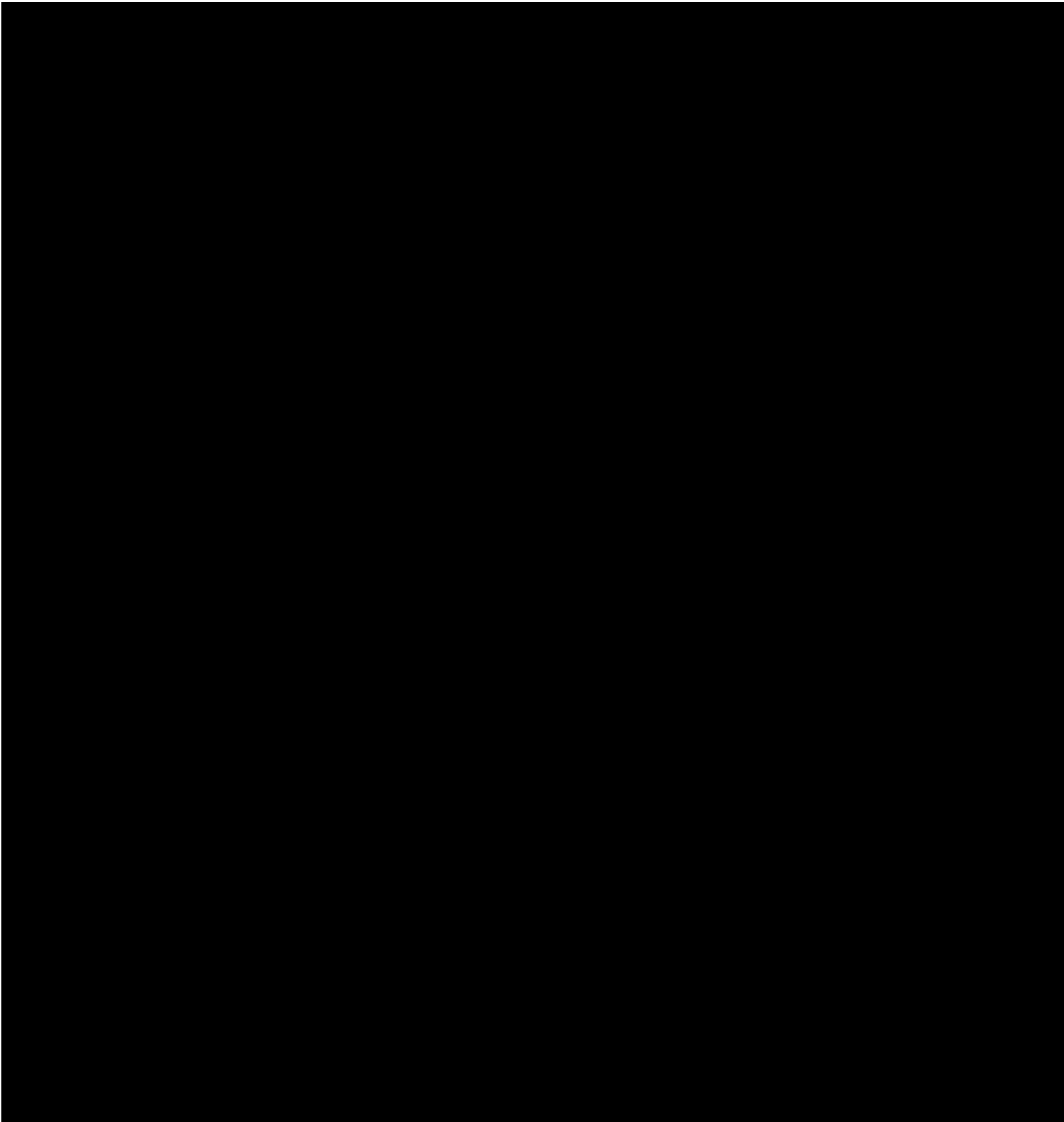


Figure 47

CONFIDENTIAL - LEVEL A

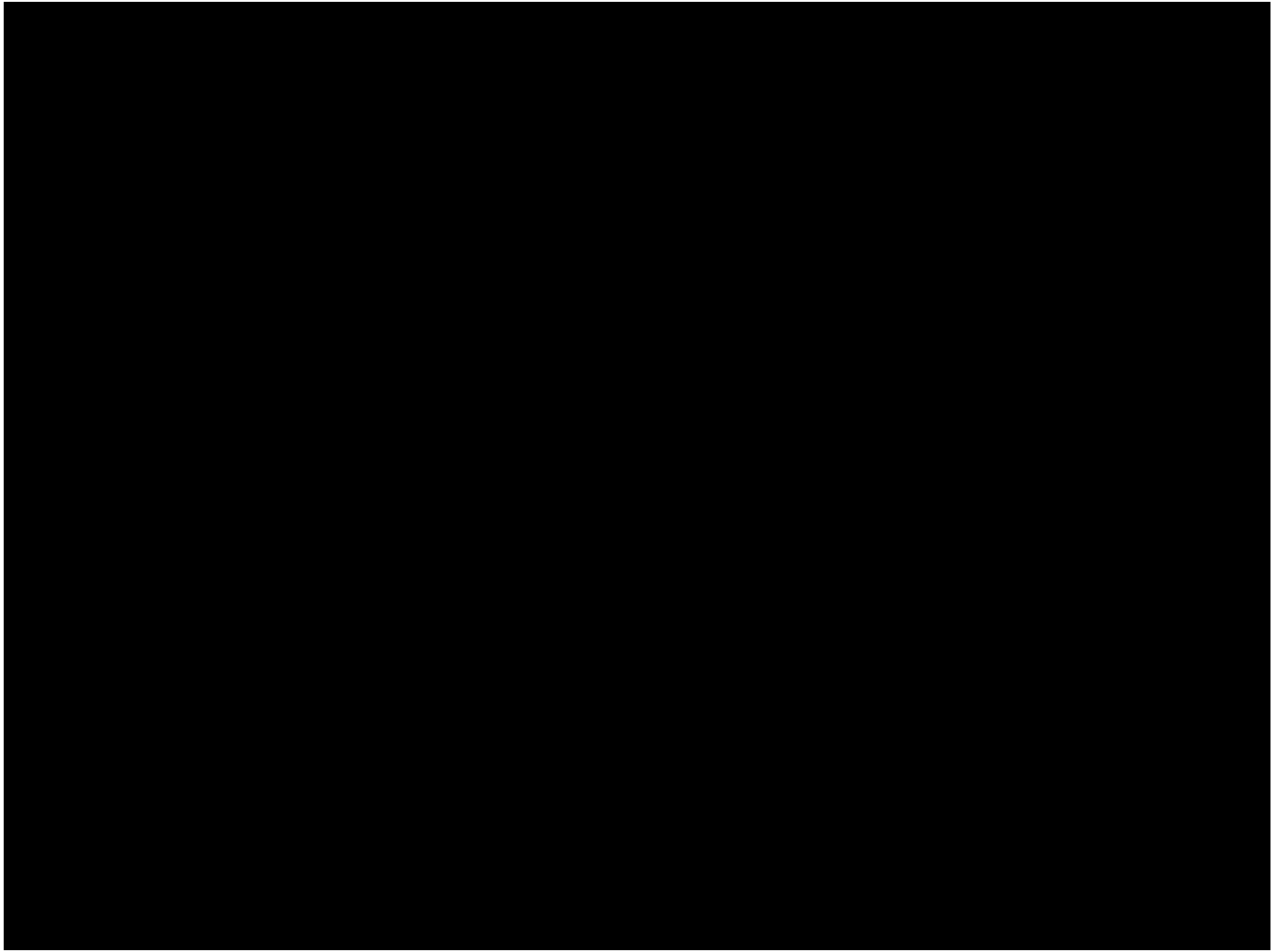


Figure 48

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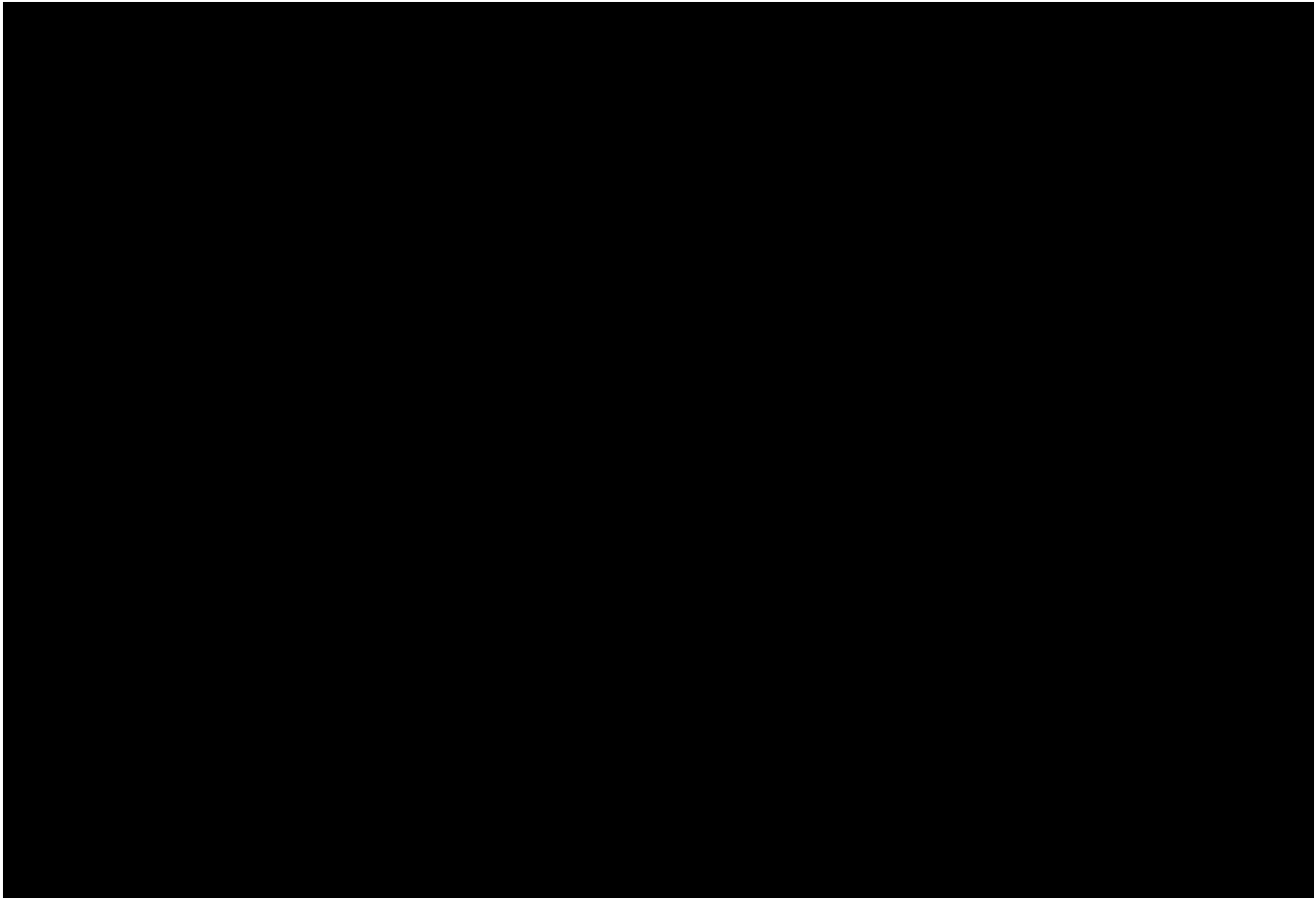


Figure 49

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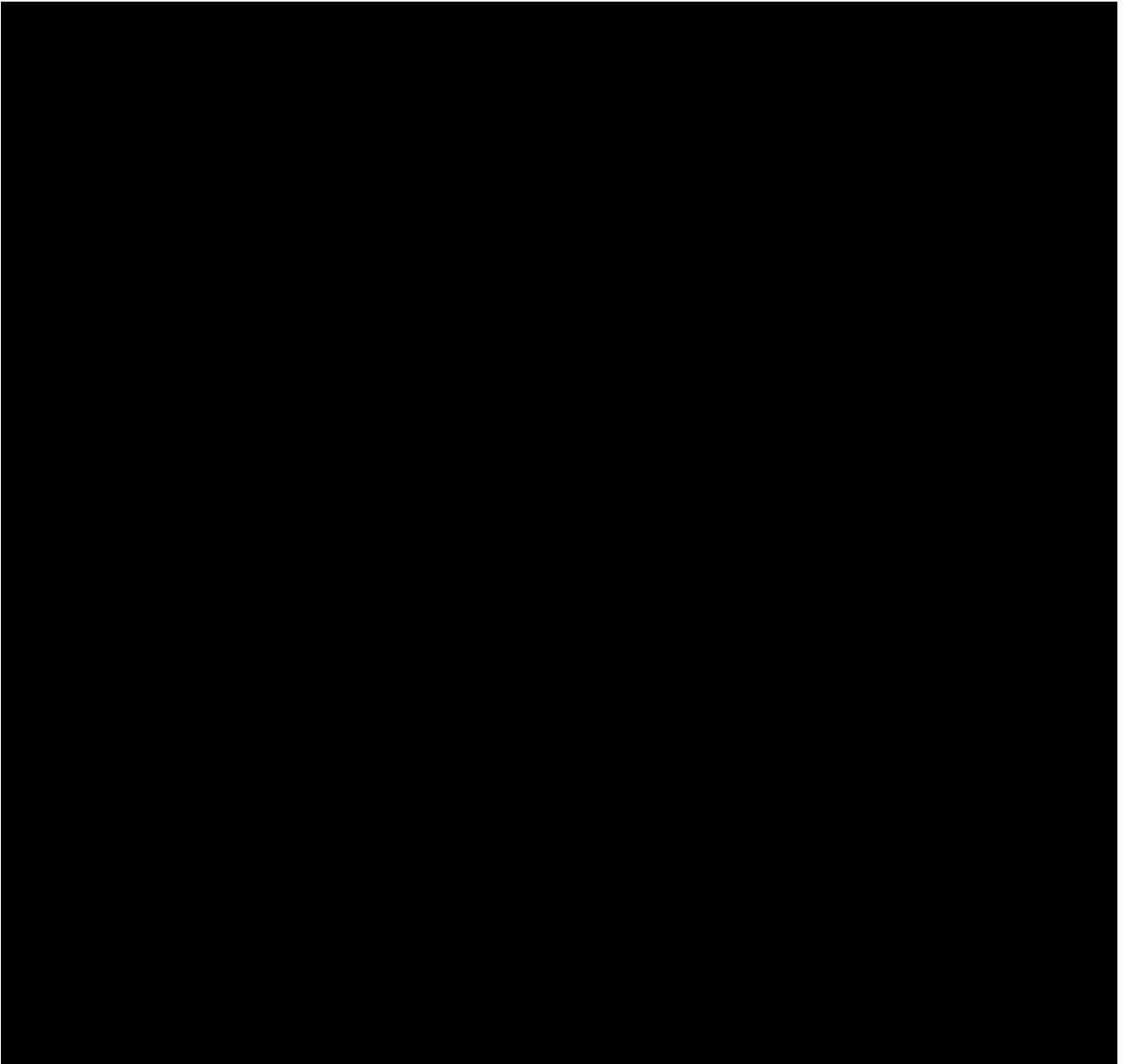


Figure 50

PUBLIC



Figure 51

PUBLIC

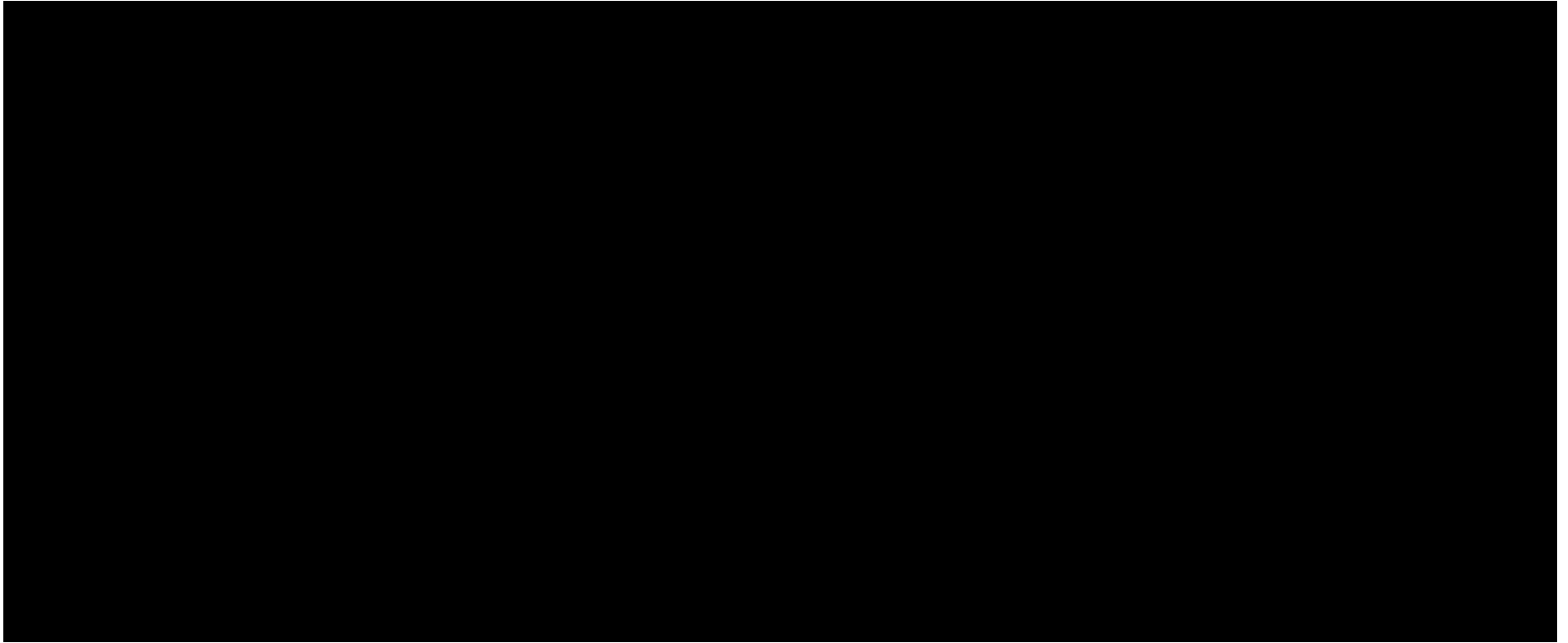


Figure 52

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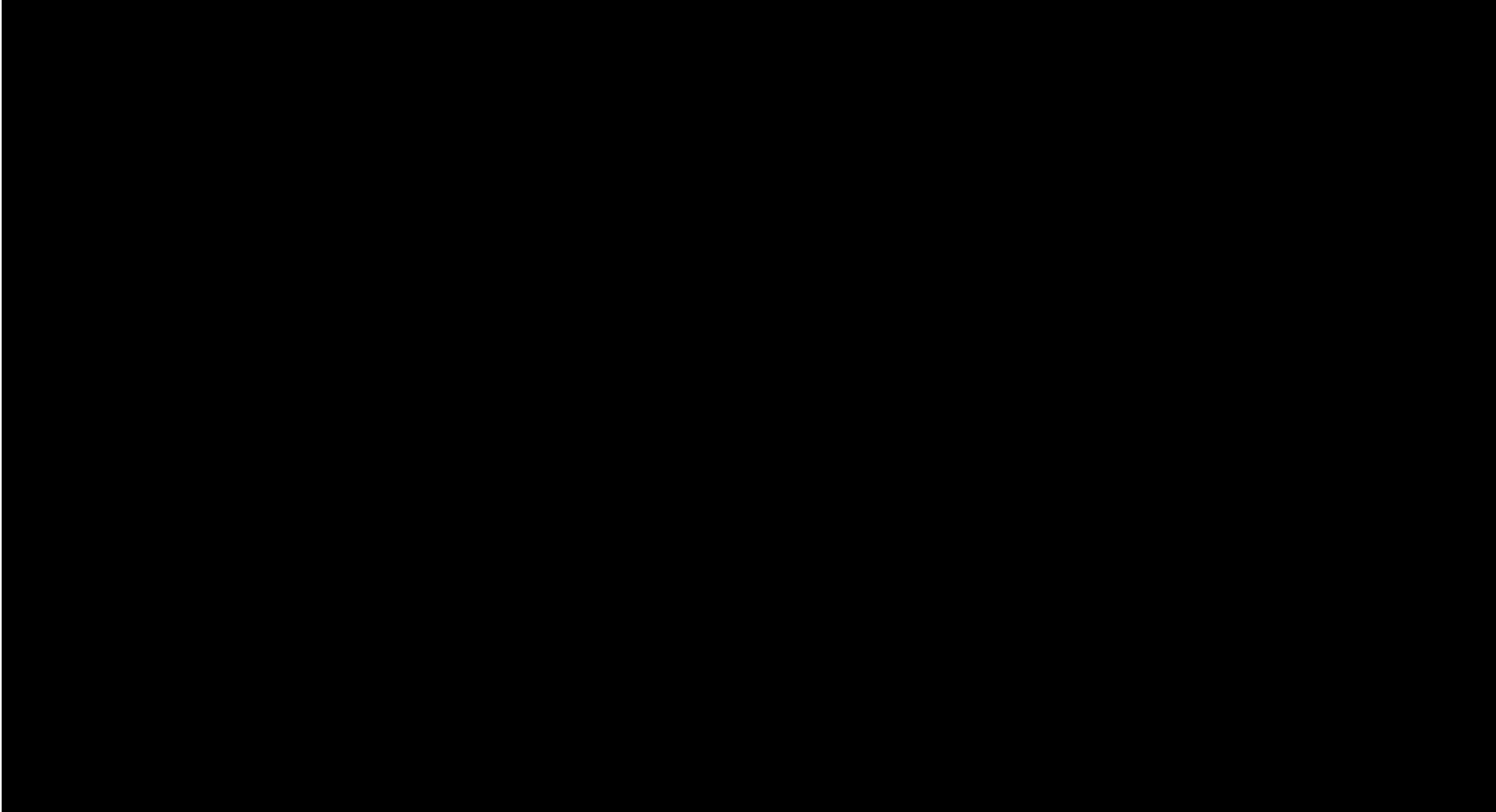


Figure 53

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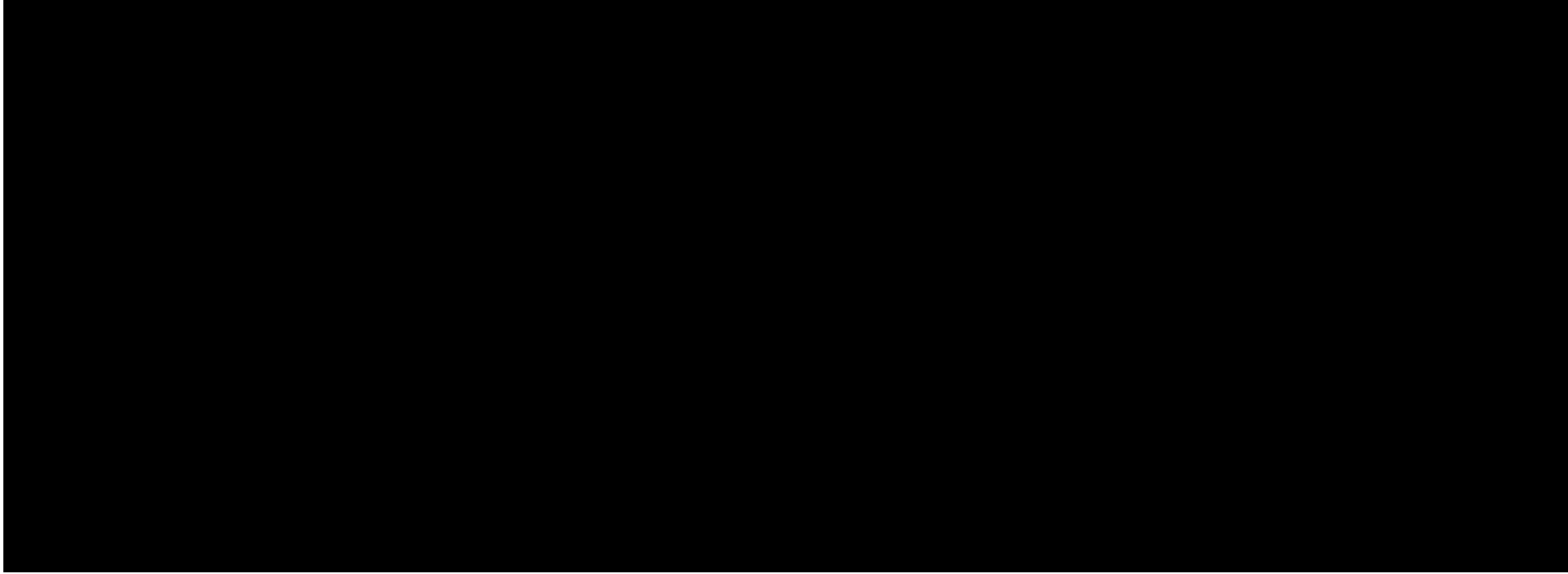


Figure 54

PUBLIC

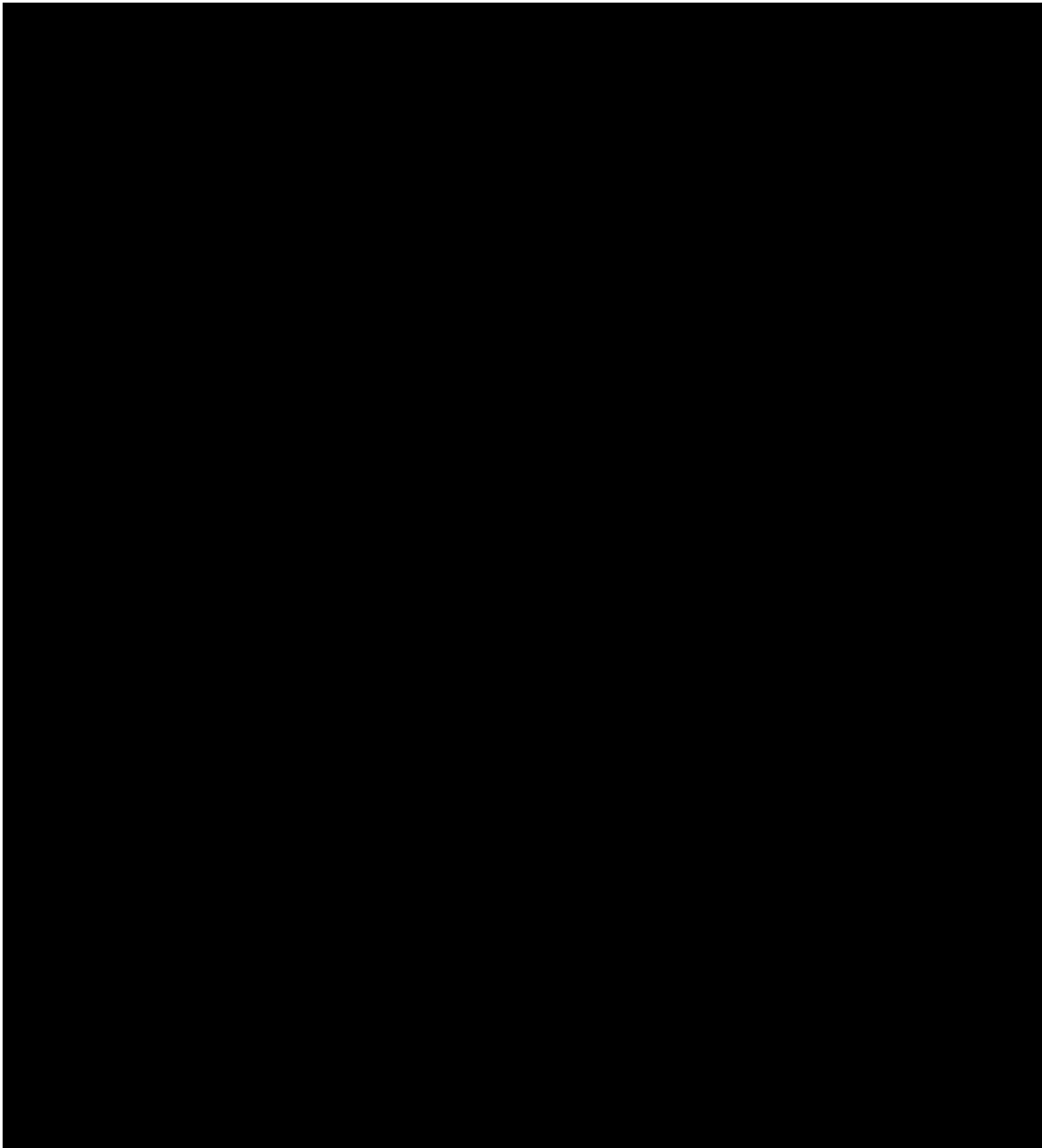


Figure 55

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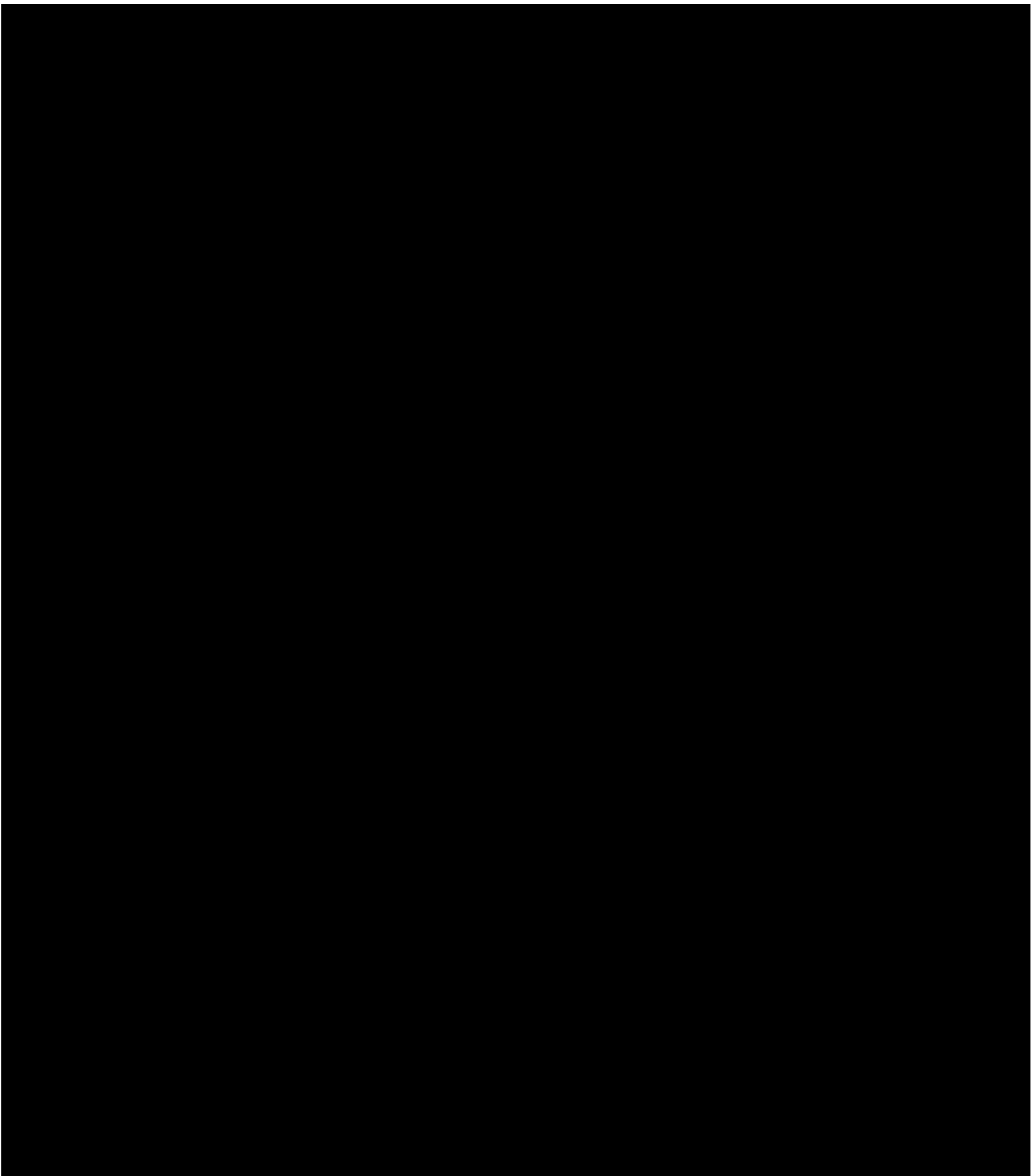


Figure 56

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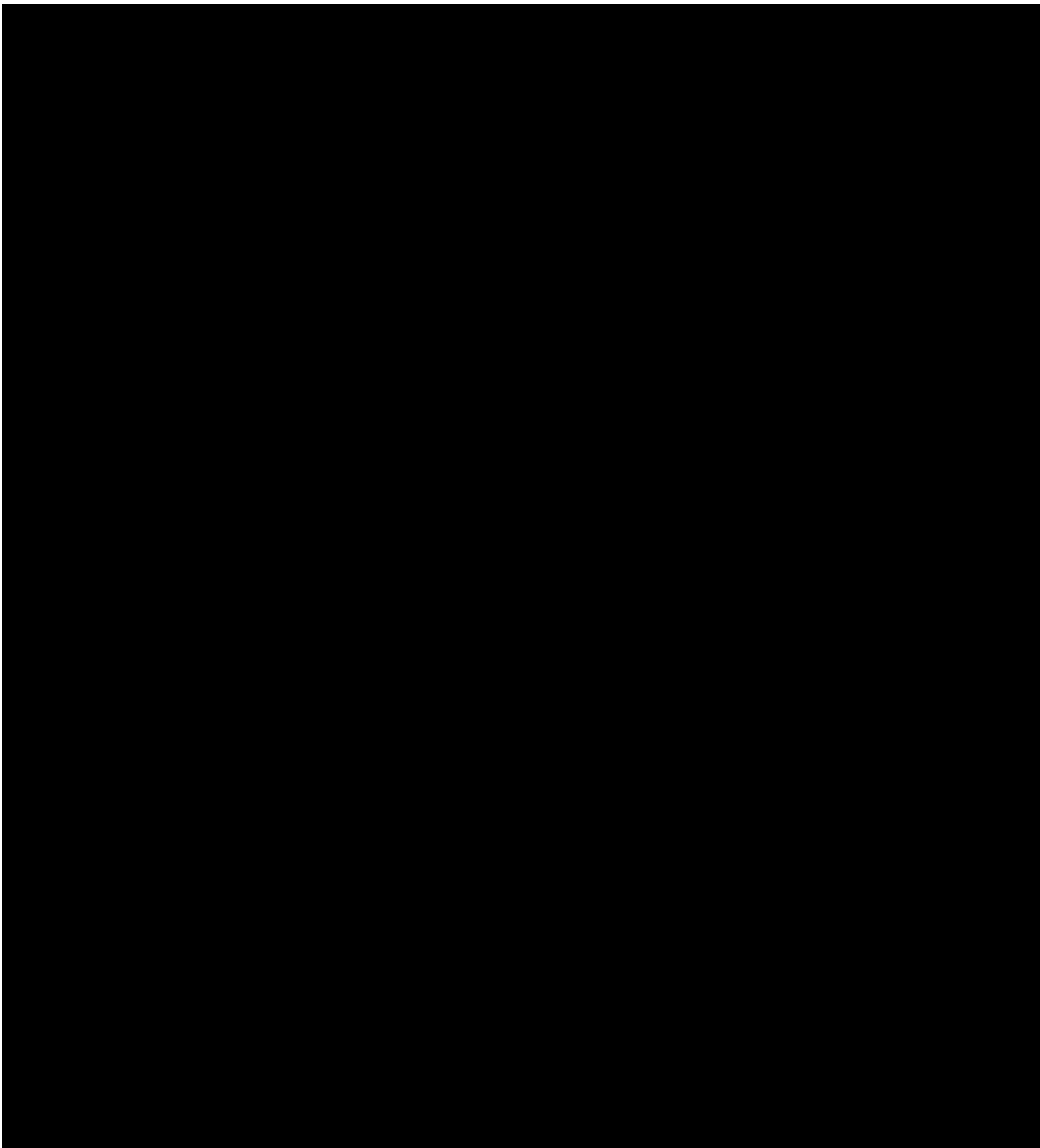


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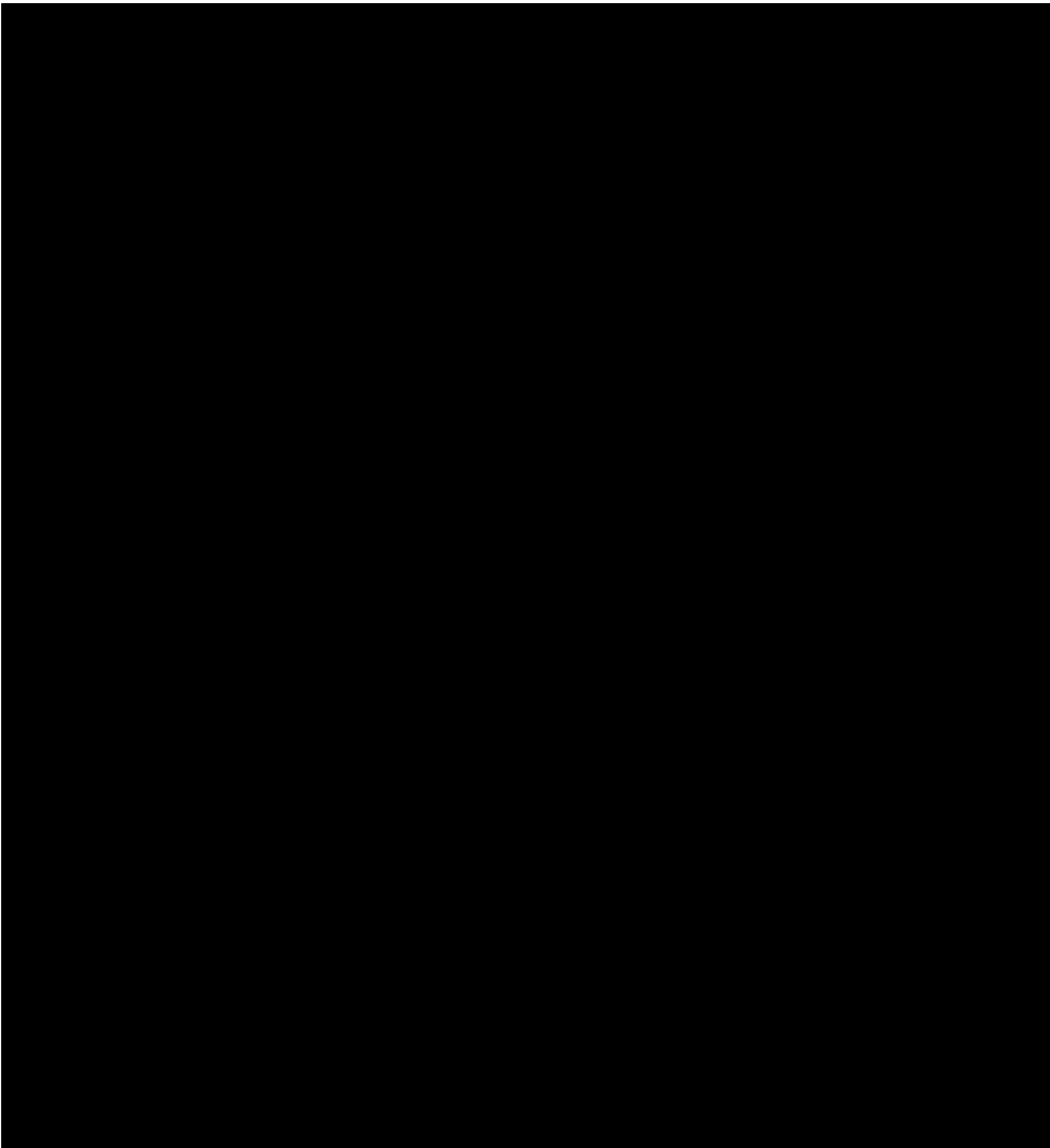


Figure 58

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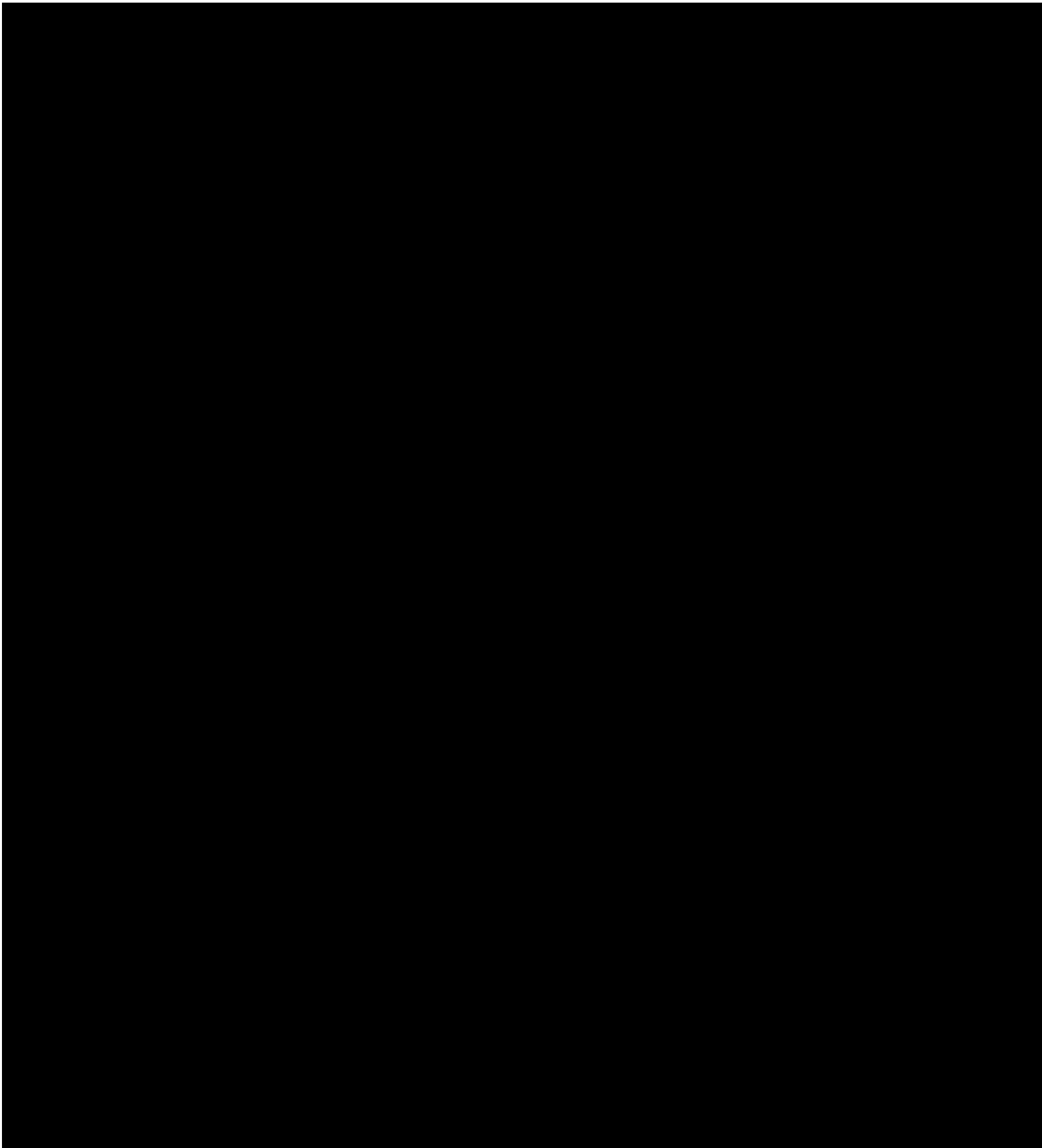


Figure 59

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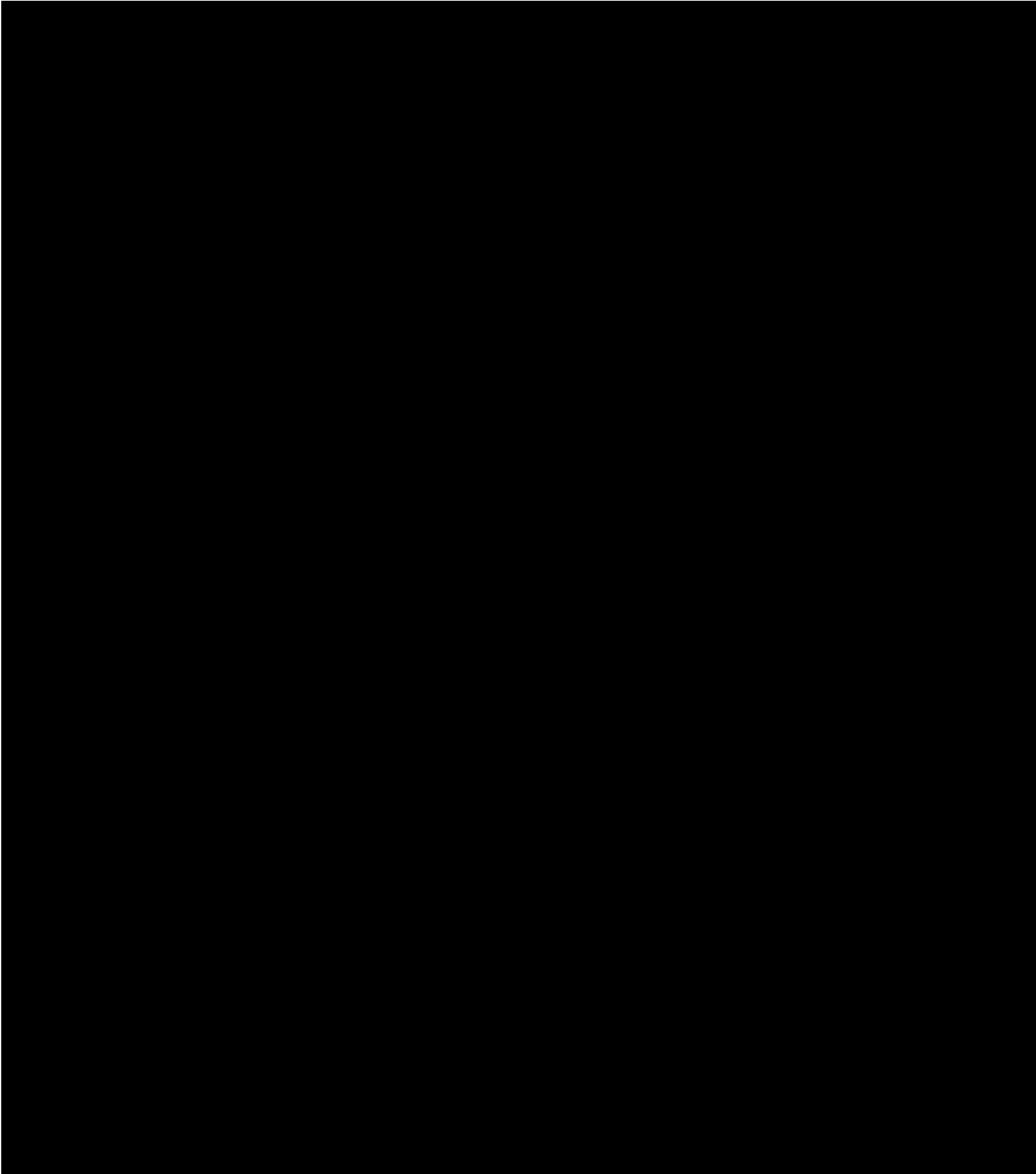


Figure 60

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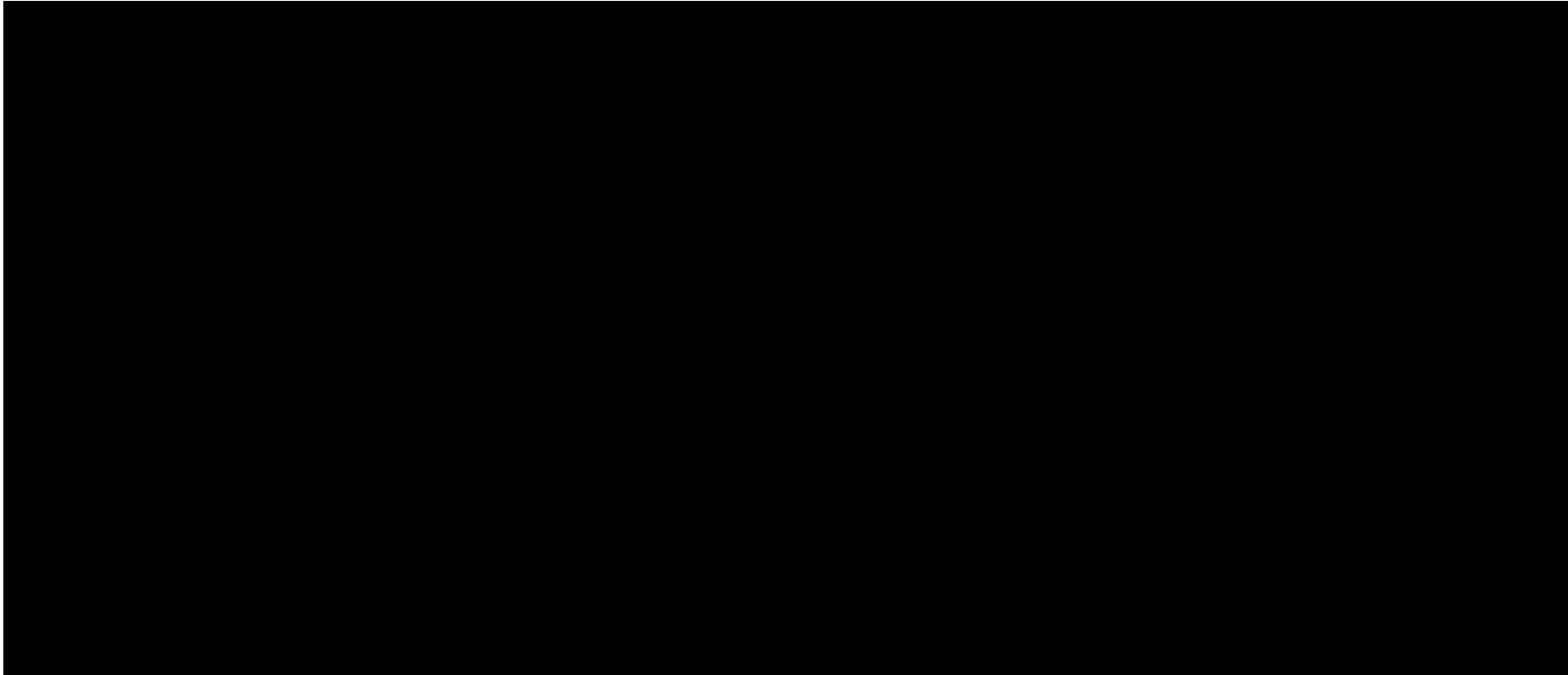


Figure 61

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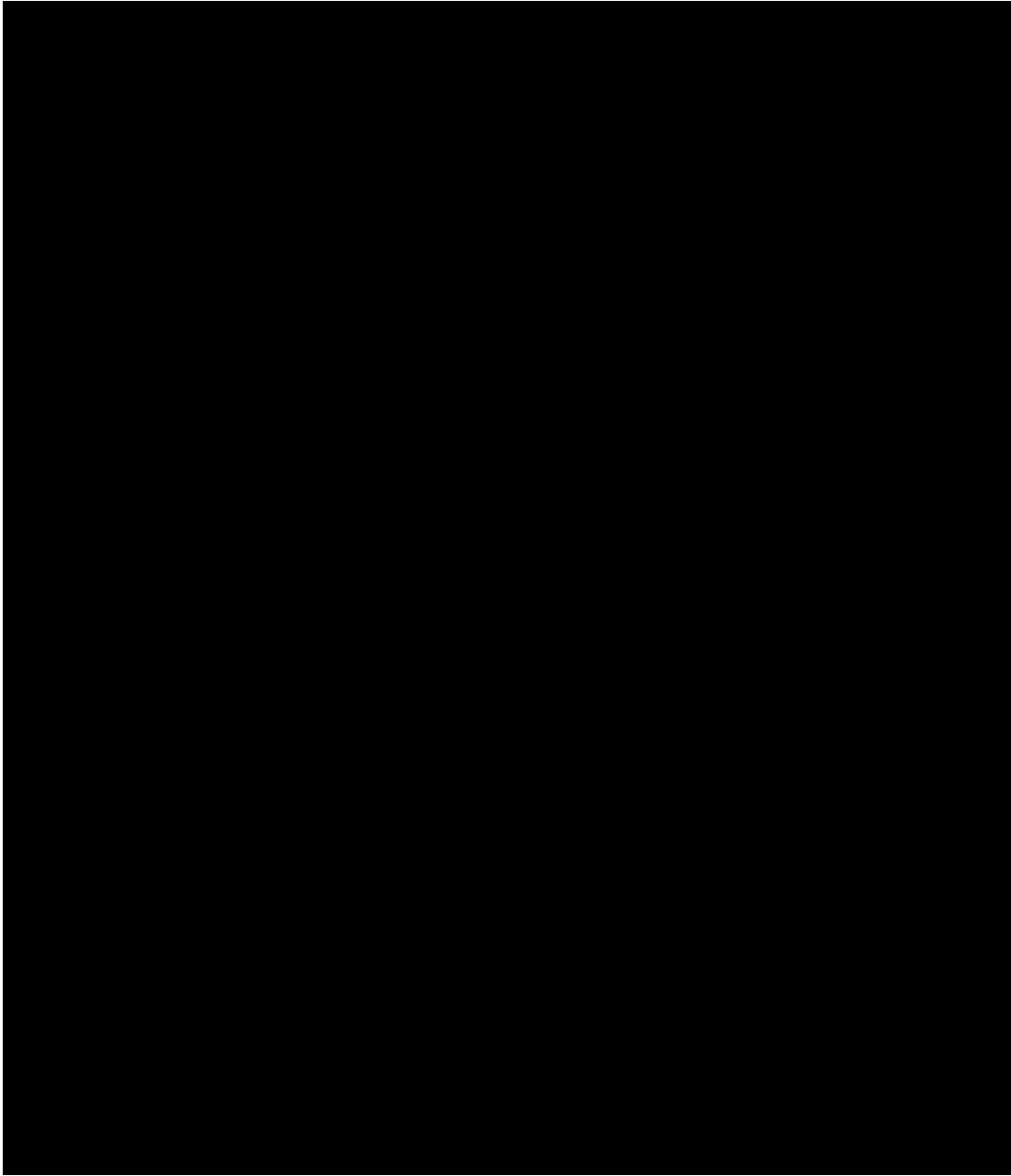
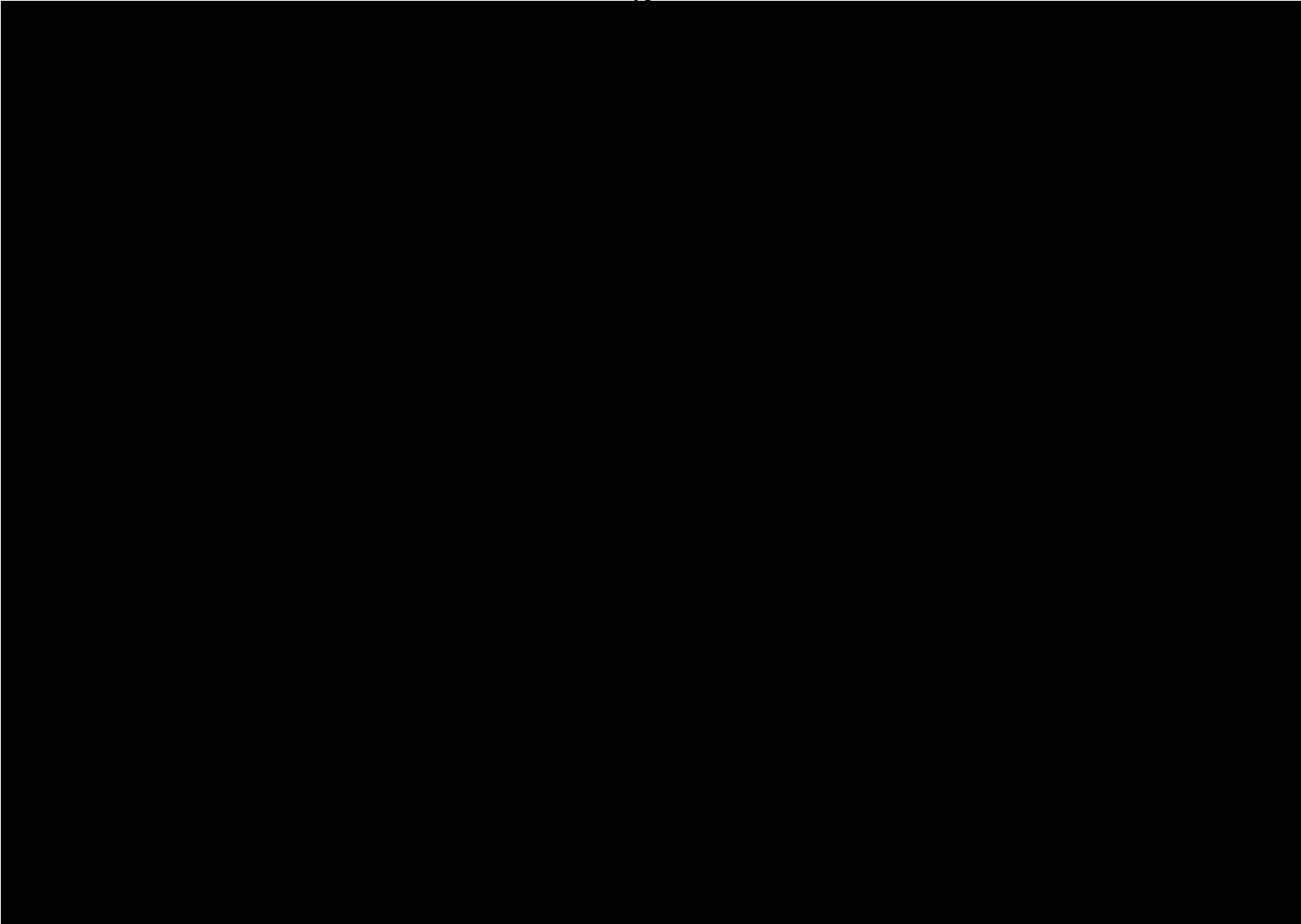


Figure 62

PUBLIC



This is Exhibit "A" to the Affidavit of **MARGARET SANDERSON** of Toronto,
Ontario SWORN REMOTELY before me at the City of Toronto, in the Province
of Ontario on October 9, 2020 in accordance with O. Reg. 431/20,
Administering Oath of Declaration Remotely.



IAN C. MATTHEWS

MARGARET F. SANDERSON

Vice President, Practice Leader of
Antitrust & Competition Economics

M.A. Economics,
University of Toronto

B.S. Economics and
Quantitative Methods
(with distinction),
University of Toronto

Margaret Sanderson is Vice President & Practice Leader of Charles River Associate's Antitrust & Competition Economics Practice. She has experience analysing the competitive effects of a wide range of business conduct (mergers, horizontal restraints, predatory pricing, abuse of dominance and vertical restraints) and government regulatory policy. Ms. Sanderson has worked on competition and regulatory cases in a number of industries, including communications (broadcasting, telecom, satellite, wireless), media (newspapers, magazines), transportation (airlines, automotive, rail), consumer products (alcohol, books, retailing), finance (banking, securities), industrial (chemicals, forest products, petroleum, waste) and health care. She has testified before Canadian courts and regulatory authorities and has appeared before the U.S. Federal Trade Commission.

PROFESSIONAL EXPERIENCE

2006 – Present *Practice Leader, Antitrust & Competition Economics, Charles River Associates*

Lead the Antitrust & Competition Economics Practice, which is comprised of a research staff of 125 professional economists located in nine offices throughout North America and Europe.

1998–Present *Vice President, Charles River Associates*

Analyze the economic effects of mergers and acquisitions in a wide variety of industries, including conducting econometric studies and merger simulations. Examine the competitive effects of alleged price-fixing conspiracies and various business contracting practices, including loyalty programs, exclusive contracts, and pricing behaviour. Prepare economic affidavits for testimony in a variety of civil litigation matters, including class certification motions, private and class actions alleging competition infractions, and damages. Advise governments on regulatory policy matters in respect of competition law, climate change policy, communications policy, regulation of securities markets, and investment activity.

1996–1998 *Assistant Deputy Director of Investigation and Research, Competition Bureau, Economics and International Affairs Branch*

Directed the Enforcement Economics and Economic Policy Division, which provided economic expertise on enforcement cases, regulatory interventions, enforcement policy, and competition policy advocacy.

Provided advice to the director of investigation and research on enforcement policy, such as merger enforcement guidelines as applied to a bank merger, sentencing principles, and use of economic experts. Promoted competition policy principles to other government departments in areas such as spectrum auctions, electricity deregulation, and transportation regulation review.

1992–1996 *Chief, Competition Bureau, Enforcement Economics Division*

Modeled the Enforcement Economics Division after the Economic Analysis Group of the Antitrust Division at the U.S. Department of Justice. Staffed the division with Ph.D.-trained economists, provided economic expertise to the enforcement branches of the Competition Bureau through the analysis and resolution of cases, and conducted independent research.

Conducted economic analysis and provided written reports and recommendations to the Director of Investigation and Research and other senior executives on resolution of enforcement cases, including preparation for litigation. Provided technical assistance to former Soviet countries through the OECD and the World Bank. Principal author of the *Strategic Alliances Bulletin*.

1990–1992 *Executive Assistant to the Senior Deputy Director of Investigation Research Competition Bureau, Mergers Branch*

Critically reviewed all assessment documents, litigation material, and correspondence that involved merger transactions. Analysed the potential anticompetitive effects and claimed efficiency gains in several key cases. Assisted in the development and release of the Merger Enforcement Guidelines, including presentation of the technical aspects of this policy to Canadian and foreign government officials, antitrust practitioners, and businesspeople.

1990 *Commerce Officer, Competition Bureau, Mergers Branch*

Conducted merger investigations in several industries, including industrial and commercial insulation and newspapers.

1988–1989 *Economist, Competition Bureau, Economics and International Affairs Branch*

Analysed the role played by import competition in several merger cases and prepared a discussion paper on the assessment of foreign competition in a merger.

1987–1988 *Tax Policy Officer, Department of Finance, Business and Resource Tax Analysis Division*

Examined the influence played by tax measures commonly regarded as having a non-neutral impact on mergers and acquisitions, the competitive position of Canadian trucking firms engaged in trans-border activity with the United States, and the tax positions of small and large real estate companies.

TESTIMONY AND AFFIDAVITS

- Canadian International Trade Tribunal
 - CITT Inquiry No. NQ-2016-002, Gypsum Board, on behalf of CGC Inc., addressing market definition and the effect provisional duties would have on competition among gypsum board producers, consumers and businesses in Canada. Report filed November 8, 2016. Testimony December 5, 2016.
- Canadian Radio-television Telecommunications Commission
 - Telecom Notice of Consultation CRTC 2019-57, Review of mobile wireless services, on behalf of Bell Canada (co-authored with Andy Baziliauskas and Migiwa Tanaka), addressing the value of high quality mobile wireless networks. Report filed May 13, 2019.
 - Telecom Notice of Consultation CRTC 2017-259, Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service, on behalf of Bell Canada, addressing investment and competition in respect of retail mobile wireless services. Report filed September 8, 2017.
 - Telecom Notice of Consultation CRTC 2014-76, Review of wholesale mobile wireless services, on behalf of Bell Canada, addressing the competitiveness of retail wireless services in Canada and the set of supply options available for tower and site sharing, and roaming. Report filed May 15, 2014.
 - Telecom Notice of Consultation CRTC 2013-551, Review of wholesale service and associated policies, on behalf of Bell Canada, addressing whether forbearance from regulation of certain high-speed data access and transport facilities led to a substantial lessening of competition in the provision of data services to business customers. Report filed January 31, 2014.
 - Broadcasting Notice of Consultation CRTC 2013-106, Call for comments on a change in effective control of Astral Media Inc. to BCE Inc., on behalf of Bell Canada Enterprises, Inc., addressing the economics of vertical transactions as applied to the revised Bell/Astral transaction. Report (co-authored with David Reitman) filed April 15, 2013.
 - Broadcasting Notice of Consultation CRTC 2010-41, Call for comments on opening up the general interest pay services genre to competition in the French-language market and on proposed conditions of licence for competing Canadian general interest pay services in the French-language market, on behalf of Astral, addressing the impact of entry on Super Écran. Report filed March 30, 2010.
 - Broadcasting Notice of Public Hearing CRTC 2007-10, Review of the Regulatory Frameworks for Broadcast Distribution Undertakings and Discretionary Programming Services, on behalf of CTVglobemedia and Canwest Media Inc., addressing the economic outlook for private conventional television in Canada, and modeling the impact of compensation for carriage. Reports filed January 25, 2008 and February 22, 2008.
 - Telecom Public Notice CRTC 2005-2, Forbearance from Regulation of Local Exchange Services, on behalf of Aliant, addressing competitive conditions within certain exchanges for local service in Nova Scotia and Prince Edward Island to determine if sufficient competition exists for the CRTC to forbear from regulation. Report filed June 20, 2005. Testimony on September 26, 2005.

- Telecom Public Notice CRTC 2005-8-1, Framework for Forbearance from Regulation of High-speed Intra-exchange Digital Services, on behalf of Bell Canada, addressing competitive conditions within certain exchanges for high-speed digital services to determine if sufficient competition exists for the CRTC to forbear from regulation. Report filed September 1, 2005.

☐ Competition Tribunal

- Commissioner of Competition v. Hudson's Bay Company, CT-2017-008, on behalf of Hudson's Bay Company, addressing the likely effects on competition from the advertised ordinary selling prices on mattresses and sleep sets used by Hudson's Bay Company. Affidavit sworn March 1, 2019.
- Commissioner of Competition v. Parkland Industries Ltd. et al., CT-2015-003, on behalf of Parkland, addressing the likely competitive effects of Parkland's acquisition of Pioneer in selected local geographic retail gasoline markets. Affidavit sworn May 5, 2015. Cross examination on May 8, 2015.
- Nadeau Ferme Avicole Limitée/Nadeau Poultry Farm Limited v. Groupe Westco Inc. and Groupe Dynaco, Coopérative Agroalimentaire and Volailles Acadia S.E.C. and Volailles Acadia Inc./Acadia Poultry Inc., CT-2008-004, on behalf of Groupe Westco Inc., addressing whether Nadeau is substantially affected in its business due to its inability to obtain adequate supply and whether the refusal to deal is having an adverse effect on competition. Report filed October 20, 2008. Testimony on November 27-28, 2009.
- Commissioner of Competition v. Labatt Brewing Company Limited, Labatt Brewing Income Fund, Lakeport Brewing Limited Partnership, Roseto Inc. and Teresa Cascioli, CT-2007-03-22, on behalf of Labatt, addressing whether there will be immediate and long-term irreparable anti-competitive effects if Labatt were to acquire the units of Lakeport Brewing Income Fund. Affidavit sworn March 23, 2007.

☐ Court of Queen's Bench of New Brunswick (Trial Division)

- In the matter of Rombaut v. Province of New Brunswick for a motion to declare unconstitutional certain features of the New Brunswick's Physician Resource Management Plan, Court File No. S/C/751/94. Affidavit sworn January 4, 1999. Deposition on April 27, 1999. Testimony on February 29, 2000.

☐ Federal Court—Trial Division

- In the matter of Commissioner of Competition v. Labatt Brewing Company Limited, Labatt Brewing Income Fund and Lakeport Brewing Limited Partnership, for the issuance of orders under paragraph 11(1)(b) and 11(1)(c) of the *Competition Act*, Court File No. T-325-07. Affidavit sworn November 26, 2007.
- In the matter of Always Travel Inc. et al. v. Air Canada, American Airlines Inc., United Airlines Inc., Delta Air Lines Inc., Continental Airlines Inc., Northwest Airlines Inc., and the International Air Transport Association (IATA) for a motion to certify a proposed class action amongst travel agents further to an alleged agreement among Defendants to fix commissions, Court File No. T-757-02. Affidavit sworn November 28, 2003.

☐ Ontario Superior Court of Justice

- In the matter of Joseph S. Mancinelli et al. v. Royal Bank of Canada et al. for a motion to certify a class comprised of all persons in Canada who entered into a foreign exchange instrument directly or indirectly through an intermediary between 2003 and 2013, Court File No. CV-15-536174CP. Affidavit sworn December 10, 2018. Sur-reply sworn October 31, 2019. Examination on November 29, 2019.
- In the matter of Yaing-Ja Lee and Yong Han Lee v. Korean Air Lines Co., Ltd. for a motion to certify a class of purchasers of direct and one-stop connecting flights between Canada and Korea, the first segment of which originated in Canada from Korean Air Lines during the period from September 8, 2003 to and including August 1, 2007, Court File No. CV-56747 CP. Affidavit sworn October 6, 2014.
- In the matter of Rhonda Tetefsky et al. v. General Motors Corporation et al. for a motion to certify a class proceeding related to purchases or leases of motor vehicles in Canada during September 2005 to September 2007, Court File No. 07-CV-340633CP. Affidavit sworn June 30, 2011.
- In the matter of The Fanshawe College of Applied Arts and Technology and Michael Harris v. LG Philips LCD Co. Ltd. et al. for a motion to certify a class proceeding related to purchases of liquid crystal display ("LCD") and televisions, computer monitors and laptops containing LCD, Court File No. 54054-CP. Affidavit sworn April 29, 2009. Responding Affidavit sworn July 16, 2010.
- In the matter of Kathryn Robinson and Rick Robinson v. Rochester Financial Limited et al. for a motion to certify a class proceeding related to all individuals who participated in the Banyan Tree Gift Program for the taxation years 2003, 2004, 2005, 2006 and 2007, Court File No. 08-CV-349792. Affidavit sworn March 3, 2009.
- In the matter of Nutech Brands Inc. and Startech.com Ltd. v. Air Canada et al. for a motion to certify a class proceeding related to purchases of airfreight shipping services, Court File No. 50389CP. Affidavit sworn December 16, 2008. Reply Affidavit sworn January 30, 2012.
- In the matter of Axiom Plastics Inc. v. E.I. Du Pont Canada Company for a motion to certify a class proceeding related to purchases of engineering resins used to manufacture parts for automotive supply, Court File No. 05-CV-302358 CP. Affidavit sworn October 3, 2006. Examination on April 12, 2007.
- In the matter of North York Branson Hospital et al. v. Praxair, Canadian Liquid Air, Liquid Carbonic, Canadian Oxygen, Air Products Canada et al. for a motion to determine common damages amongst a set of hospitals further to a price-fixing conspiracy in compressed gases, Court File No. 93-CQ-42118. Affidavit sworn October 17, 2001.
- In the matter of Minnema v. ADM, Ajinomoto, Heartland Lysine and Sewon America for a motion to certify a class of indirect purchasers alleged to have suffered damages further to a price-fixing conspiracy in lysine, Court File No. G23495-99-CP. Affidavit sworn September 13, 2000.

☐ Ontario Court (General Division)

- In the matter of Chadha v. Bayer for a motion to certify a class that alleged it suffered damages further to an alleged price-fixing conspiracy in iron oxide, Court File No. 98-CV-142211. Affidavit sworn November 25, 1998.

☐ Province of Quebec Superior Court

- In the matter of Option Consommateurs and Guillaume Girard v. British Airways PLC for a motion to certify a class that alleged it suffered damages further to an alleged price-fixing conspiracy between British Airways and Virgin Atlantic Airways in passenger fuel surcharges. Court File No. 500-06-00410-072. Expert report filed November 14, 2017. Affidavit sworn December 5, 2014 in earlier proceeding.

☐ Supreme Court of British Columbia

- In the matter of Jeremy Schimpf v. Samsung Electronics Co. Ltd. et al. for a motion to certify a class of purchasers of static random access memory (SRAM) or products that contain SRAM, Court File No. S-070350. Affidavit sworn August 22, 2014.
- In the matter of Michelle Fairhurst v. Anglo American PLC et al. for a motion to certify a class of purchasers of Gem Grade Diamonds, Court File No. S-071209. Affidavit sworn November 2, 2010. Reply Affidavit sworn December 3, 2010.
- In the matter of Lana Wakelam v. Johnson & Johnson et al. for a motion to certify a class of consumers of children's cough medicine for use by children under age six, Court File No. S078806. Affidavit sworn November 19, 2009.
- In the matter of Sun-Rype Products Ltd. and Wendy Weberg v. Archer Daniels Midland Company et al. for a motion to certify a class of purchasers of high-fructose corn syrup (HFCS) and products containing HFCS, Court File No. L051456. Affidavit sworn October 27, 2009. Reply Report filed December 7, 2009. Examination on February 1, 2010.
- In the matter of Pro-Sys Consultants Ltd. v. Infineon Technologies AG et al. for a motion to certify a class of purchasers of dynamic random access memory (DRAM) and products containing DRAM, Court File No. L043141. Affidavit sworn December 22, 2006. Supplementary Affidavit sworn May 15, 2007. Examination on June 15, 2007.

☐ United States District Court, District of Idaho

- In re Micron Technology Inc., Securities Litigation, Case No. 1:06-cv-00085-BLW, on behalf of Micron, addressing the extent to which any DRAM overcharges arising from an alleged price-fixing agreement. Report filed on November 9, 2009.

PUBLICATIONS AND SELECTED PAPERS

"Why is Price Fixing the Most Egregious Competition Offense?" With Mary Beth Savio, Thomas Vinje and Dieter Paemen. Paper prepared for a Debate session comparing the harm from conduct that stifles innovation to price fixing at the American Bar Association Antitrust Section Spring Meeting, 2019.

"Building a Stronger Cognizable Efficiencies Case with Economic Analysis." With Keith Bockus. Paper prepared for the American Bar Association Antitrust Section Spring Antitrust Meeting, 2018.

"The Economics of Upward Pricing Pressure – Understanding the Parkland Case." With Andy Baziliauskas. *Canadian Competition Record*, 2017.

"Economic Analysis Used in Canadian Merger Cases." Chapter 4 in *Competition and Antitrust Laws in Canada: Mergers, Joint Ventures, and Competitor Collaborations*, by Brian A. Facey and Cassandra Brown, LexisNexis Canada, 2013.

“Rigorous Analysis of Economic Evidence on Class Certification in Antitrust Cases.” With D. Hawthorne. *Antitrust Magazine*, Fall 2009.

“Competition Class Actions: An Evaluation of Deterrence, Accountability and Corrective Justice.” With M.J. Trebilcock. University of Western Ontario Press, 2007.

“Merger to Monopsony in Canada, Europe and the United States: A Selected International Comparison.” Chapter 3 in *Handbook of Research in Trans-Atlantic Antitrust*, edited by Philip Marsden, Edward Elgar Publishing Limited, 2006.

“Going Mobile – Slowly: How Wireline Telephone Regulation Slows Cellular Network Development.” With N. Quigley. *C.D. Howe Institute Commentary*, December 2005.

“Merger Review in Regulated Industries.” With M.J. Trebilcock. *Canadian Business Law Journal*, September 2005.

“Profits versus Rents in Antitrust Analysis: An Application to the Canadian Waste Services Merger.” With R.A. Winter. *Antitrust Law Journal*, November 2002.

“Competition Tribunal’s Redetermination Decision in *Superior Propane*: Continued Lessons on the Value of the Total Surplus Standard.” *Canadian Competition Record*, spring/summer 2002.

“Geographic Market Definition in *Canadian Waste Services*.” With R.A. Winter. *Canadian Competition Record*, spring/summer 2002.

“Bad Policy, Bad Law: Bill C-26 Amendments to the *Competition Act* on Airline Predation.” With M. J. Trebilcock. *Canadian Competition Record*, spring/summer 2000.

“Conspiracy Law in Canada: Towards an Economic Approach.” With P. Hughes. *Review of Industrial Organization*, 13:1-2, 1998.

“Treatment of Mergers.” With R. Pittman. Chapter in the *Technical Assistance Manual*, World Bank, 1998.

“Efficiency Analysis in Canadian Merger Cases.” *Antitrust Law Journal* 65, 1997.

“Commentary: Antitrust and Health Care: A Canadian’s Perspective.” *Antitrust Bulletin* 39:2, 1994.

“Divestiture Relief in Merger Cases: An Assessment of Canadian Experience.” With A. Wallwork. *McGill Law Journal* 38:3, 1993.

“The Perfect is Not the Enemy of the Good: A Response to Roy Davidson.” With A. Kleit. *Canadian Competition Policy Record*, 1992.

“Competition Policy in Canada: The First Hundred Years.” With W.T. Stanbury. *Competition Bureau*, 1989. (Released in connection with the centenary proceedings of Canadian competition policy.)

SELECTED PRESENTATIONS

“Monopsony”. Panel discussant at the Canadian Bar Association Economist Roundtable with the Competition Bureau. May 2019.

“Umbrella Purchasers”. Panel discussant at the Ontario Bar Association’s panel on umbrella purchasers. May 2018.

“Macroeconomic Implications of Market Power: Canada compared to the United States.” Presentation to the International Monetary Fund. March 2018.

"Net Neutrality". Panel discussant at the University of Toronto Law and Economics Symposium on Competition Policy in the Age of Big Data. Fall 2018.

"Time to Redesign the *Competition Act*? Exploring Potential Changes on the Act's 30th Anniversary". Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2015.

"Economics of Retail Mergers." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2014.

"Economics of Price Maintenance." Panel discussant at the Canadian Bar Association Roundtable: Draft Enforcement Guidelines for Price Maintenance, 2014.

"Class Certification Today: How Rigorous is 'Rigorous Analysis'?". Panel discussant at the American Bar Association 61st Antitrust Law Spring Meeting, 2013.

"Behavioural Economics: Cutting Edge or Junk Science." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2011.

"Economic Theories of Monopsony in Competition Cases." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2007.

"Efficiencies Analysis in Canadian Merger Review: A Case for Leaving Things Be." Panel discussant at the Canadian Bar Association Competition Law Section Spring meeting, 2006.

"Year in Review." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2005.

"Industrial Economics and Performance in Canada." Panel discussant at the Industry Canada Workshop, 2004.

"Selected Comments on Revisions to the Canadian Merger Enforcement Guidelines." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2003.

"Economics of Loyalty Discounts." Panel discussant at the Conference Board Antitrust Conference, New York, 2002.

"Establishing Efficiencies: Successful Approaches to Using Economic Evidence." Panel discussant at the Conference Board Antitrust Conference, New York, 2001.

"Economic Issues Arising from the Air Canada/CAIL Merger." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 2000.

"Process and Politics in Canadian Merger Review." With M.J. Trebilcock. Panel discussant at the Law and Economics Programme University of Toronto Roundtable, 2000.

"Differentiated Products Mergers: Recent Experience in Canada and the United States" With L. Csorgo. Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 1998.

"Treatment of Joint Ventures." Panel discussant at the U.S. Federal Trade Commission's Roundtables on Joint Ventures, 1998.

"Treatment of Efficiencies." Panel discussant at the U.S. Federal Trade Commission's Global Hearings on Competition and Innovation, 1996.

"Emerging Issues in Competition Policy." Panel discussant at the Canadian Bar Association Competition Law Section Annual Fall Meeting, 1996.

"Facilitating Practices: Canadian and U.S. Experience." With J. Langenfeld. University of Toronto Law and Economics Programme, 1994.

“Antitrust and Health Care.” Panel discussant at the Western Economic Association meetings, 1993.

This is Exhibit “**B**” to the Affidavit of **MARGARET SANDERSON** of Toronto, Ontario SWORN REMOTELY before me at the City of Toronto, in the Province of Ontario on October 9, 2020 in accordance with O. Reg. 431/20, Administering Oath of Declaration Remotely.



IAN C. MATTHEWS

PUBLIC

Materials Relied Upon by Margaret Sanderson**Bates-Numbered Documents**

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P&H0003019	P&H0007372	P&H0008618
P&H0003096	P&H0007374	

Expert Reports

Expert Report of Nathan H. Miller, Ph.D

Public Sources

Canadian Grain Commission, "Glossary," available at <https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/27-glossary/glossary.html>

Competition Bureau Backgrounder on the Competition Bureau's Examination into Cattle and Beef Pricing, available at <http://www.competitionbureau.gc.ca/internet/index.cfm?itemID-1311&lg=e>

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Competition Bureau of Canada, Merger Enforcement Guidelines

Dobson Consulting (1999) Buyer Power and its Impact on Competition in the Food Retail Distribution Sector of the European Union, Study prepared for the European Commission – DGIV, May, at 13)

Michael Trebilcock, Ralph Winter, Paul Collins and Edward Iacobucci (2003), The Law and Economics of Canadian Competition Policy, (Toronto: University of Toronto Press) at 69:

OECD paper available at

[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP\(2012\)13&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DAF/COMP(2012)13&docLanguage=En)

<http://www.pdqinfo.ca/about/procedures>

<https://grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/02-moisture-testing/introduction-moisture-testing.html>

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<https://grainscanada.gc.ca/en/grain-research/export-quality/cereals/wheat/western/annual-fusarium-damage/maps-charts/>

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<https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/04-wheat/primary-grade-determinants/cwrs-en.html>

<https://www.grainscanada.gc.ca/en/protection/delivery/dispute-grain-grade.html>

<https://www.isc.ca/signedinhome/help/land/pages/landdescriptions.aspx>

<https://www.phmilling.com/home>

<https://www.wsj.com/market-data/quotes/fx/USDCAD>

<https://www.grainscanada.gc.ca/en/grain-research/scientific-reports/fhb-western/fhb-1.html>

<https://www.grainscanada.gc.ca/en/grain-quality/grain-grading/standard-grading-tool.html>

<https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/10-canola-rapeseed/primary-grade-determinants-tables.html>

Other Documents

2018-19 Western Canada Budget – Grain Tonnes, attached to the Heimbecker Witness Statement

2020-21 Western Canada Budget – Grain Tonnes, attached to the Heimbecker Witness Statement

Appendix I to Answers to Undertakings Given on the Examination of John Heimbecker

Appendix F – 2016-2018 Grain Purchases – Moosomin.xlsx, as submitted with P&H’s SIR

Notice of Application, Parrish & Heimbecker, Limited, December 19, 2019

P&H Response to SIR dated November 9, 2019

P&H Response to the Notice of Application dated February 3, 2020

P&H [REDACTED] Analysis (Appendix DD found in Responses to Follow-up Questions from John Heimbecker’s Examination for Discovery)

Request for ARC – P&H Asset Purchase from LDC dated August 23, 2019

Response by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC

Notification re Asset Purchased from LDC – Schedule A

Trebilcock et al., The Law and Economics of Canadian Competition Policy, at 70

Witness Statement of [REDACTED]

Witness Statement of [REDACTED]

Witness Statement of [REDACTED]

Witness Statement of [REDACTED]

Witness Statement of [REDACTED]

Witness Statement of John Heimbecker

Witness Statement of [REDACTED]

Witness Statement of [REDACTED]

Data

LDC:

LDCCA Ticket Detail 2016-2018.xlsx

LDCCA Ticket Scale w Grade and Address Info
13-18_LDCCA.xlsx

Grain Purchase Data- Virden 1-1-19 thru 10-4-19
KH - CONFIDENTIAL LEVEL A.xlsx

Virden All Commodity Ticket Detail 2019 CWRS -
CONFIDENTIAL LEVEL A.xlsx

PMJB00001_000000006-CONFIDENTIAL
LEVEL A.xlsx

PMJB00001_000000011-CONFIDENTIAL
LEVEL A.xlsx

P&H:

P&H_-_Asset_Purchase_from_LDC_-_Appendix_D_to RFI Response - Protected_and_Confidential.XLSX

P&H_-_Asset_Purchase_from_LDC_-_Appendix_E_to RFI Response - Protected_and_Confidential.XLSX

P&H_-_Asset_Purchase_from_LDC_-_Appendix_F_to RFI Response - Protected_and_Confidential.XLSX

P&H_-_Notification_re_Asset_Purchase_from_LDC_-_2018_Calendar_Year_Transaction_Data_-_Protected_and_Confidential.XLSX

D#10 Grain Purchases 2019 Moosomin.xlsx

D#10 Grain Purchases 2019 Virden.xlsx

Moosomin Virden - Tonnes (Transactions).xlsx

Richardson:

PMDC00004_000000001-CONFIDENTIAL LEVEL A.xlsx

PMDC00006_000000002-CONFIDENTIAL LEVEL A.xlsx

PMDC00007_000000002 - CONFIDENTIAL LEVEL A.xlsx

Viterra:

PMDD00001_000000002-CONFIDENTIAL LEVEL A.xlsx

Cargill:

Highly Confidential - Cargill Data Request - Elva and Oakner- Aug 2020.xlsx

Ceres:

PMDB00002_000000046-CONFIDENTIAL LEVEL A.xls

Bunge:

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ADM:

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Additional Data:

P&H LDC Pricing Data.xlsx

Public Data:

<https://open.canada.ca/data/en/dataset/05870f11-a52a-4bf4-bc15-910fd0b8a1a3>

Rural Municipality Ownership Maps

CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

AND IN THE MATTER OF the acquisition by Parrish & Heimbecker, Limited of certain grain elevators and related assets from Louis Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

BETWEEN:**THE COMMISSIONER OF COMPETITION****Applicant**

– and –

PARRISH & HEIMBECKER, LIMITED**Respondent**

**AFFIDAVIT OF NATHAN H. MILLER
(AFFIRMED/SWORN SEPTEMBER 04, 2020)**

1. My name is Nathan H. Miller. I am the Saleh Romeih Associate Professor at the McDonough School of Business at Georgetown University in Washington, DC. I earned my B.A. in Economics and History from the University of Virginia in 2000 and my Ph.D. in Economics from the University of California at Berkeley in 2008. I have served as a Visiting Professor at Toulouse School of Economics in 2019

and 2020. Prior to joining Georgetown University in 2013, I served as a Staff Economist at the U.S. Department of Justice from 2008 to 2013.

2. My area of expertise is in the field of Industrial Organization, which is the area of economics that addresses the behavior of firms, industries, and their markets. Within that field I have specialized in Antitrust Economics, with a recent focus on collusion and the competitive effects of mergers. I have taught graduate level courses on Microeconomics, Industrial Organization, Firm Analysis and Strategy, and Strategic Pricing. My research has been published in leading economics journals, including the *American Economic Review*, *Econometrica*, and the *RAND Journal of Economics*, among others. I serve on the editorial board of the *Review of Industrial Organization*.
3. In addition to my academic work in the area of Antitrust Economics, I have provided economic analysis for antitrust litigation matters. I served as a staff economist at the U.S. Department of Justice (DOJ), where I received an Award of Distinction for my work on a high-profile merger review. As a staff economist for the DOJ, I analyzed a number of merger matters across multiple industries, including Bazaarvoice/PowerReviews, AT&T/T-Mobile, and Ticketmaster/Live Nation. I have also analyzed the competitive effects of a merger on behalf of the merging parties, including the Express Scripts acquisition by Cigna. Finally, I have been retained by both the DOJ and Federal Trade Commission (FTC) as a testifying expert on several merger-related matters, and I worked with the Commissioner of Competition on the matter regarding Evonik Industries AG's acquisition of PeroxyChem Holding Company LLC.
4. I have been asked by the Commissioner of Competition to prepare a report examining the competitive effects and deadweight loss, if any, with respect to the acquisition of grain elevators and related assets from Louis Dreyfus Company by Parrish & Heimbecker, Limited.

CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

AND IN THE MATTER OF the acquisition by Parrish & Heimbecker, Limited of certain grain elevators and related assets from Louis Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

**AFFIDAVIT OF NATHAN H. MILLER
(AFFIRMED/SWORN SEPTEMBER 04, 2020)**



Exhibit A to the Affidavit of
Nathan H. Miller
Affirmed on the 11th day of September 2020



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Applicant

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PARRISH & HEIMBECKER, LIMITED

Respondent

EXPERT REPORT OF NATHAN H. MILLER, PH.D.

September 4, 2020

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1. SUMMARY OF OPINIONS

1. In December, 2019, Parrish & Heimbecker, Limited (“P&H”)—a vertically-integrated Canadian agribusiness—acquired 10 grain elevators located throughout Western Canada from Louis Dreyfus Company (“LDC”)—a U.S.-based conglomerate that processes and sells agricultural goods, as well as handles and trades grains.¹

2. I have been asked “to provide independent expert economic opinion and analysis regarding this transaction.” In particular, I have been asked to “prepare a report examining the competitive effects and deadweight loss, if any, caused by” the above transaction.² This report focuses specifically on P&H’s acquisition of the previously LDC-owned elevator at Virden (“the Transaction”).

3. After reviewing the available documents and data, I have concluded that the Transaction will have anticompetitive effects.

4. **First**, I find that the relevant product markets are the market for grain handling services for wheat and the market for grain handling services for canola, and the relevant geographic market consists of the Moosomin, Virden, and Fairlight elevators.

- Regarding the relevant product market, review of industry background and case documents shows that it is inappropriate to include the other services or business lines offered by the Moosomin and Virden elevators. (Section 3.1)
- Regarding the relevant geographic market, review of case documents, distances that farms tend to send their grain, distances between the

¹ Brian Cross, “Elevator deal expands P&H handling network,” *The Western Producer*, September 12, 2019, available at <https://www.producer.com/2019/09/elevator-deal-expands-ph-handling-network/> (“The Winnipeg-based company announced last week that it reached a deal to acquire 10 Louis Dreyfus Commodities elevators located in Manitoba, Saskatchewan, Alberta and British Columbia. [...] LDC will retain its grain terminal in Port Cartier, Que., and a canola crushing plant and refinery in Yorkton, Sask. [...] which processes more than one million tonnes of canola annually.”) (accessed on September 1, 2020); Louis Dreyfus Company, “Reports & Publications,” 2019, available at <https://www.ldc.com/news-and-insights/reports-and-publications/>, p. 65 (“On December 10, 2019, LDC successfully completed the sale of ten grain elevators located in Canada to Parrish & Heimbecker, Limited.”) (accessed on July 14, 2020); Dave Bedard, “P+H to buy Louis Dreyfus’ Prairie elevators,” *AGCanada.com*, September 4, 2019, available at <https://www.agcanada.com/daily/ph-to-buy-louis-dreyfus-prairie-elevators/> (“The elevators run between 21,340 and 53,040 tonnes in capacity.”) (accessed on July 14, 2020).

² I understand that the Commissioner has asked my opinion of the deadweight loss as it is relevant to responding to the efficiencies defense raised by P&H pursuant to section 96 of the Competition Act. See Letter from the Commissioner of Competition to Dr. Nathan Miller, “RE: The Commissioner of Competition v. Parrish & Heimbecker, Limited (“P&H”), CT-2019-005,” August 27, 2020; Canadian Competition Act (R.S.C., 1985, c. C-34) Section 96, July 1, 2020.

elevators, and profit margins all suggest a candidate market consisting of the Moosomin, Virden, and Fairlight elevators. A hypothetical monopolist test confirms this geographic market. (Sections 3.1–3.2)

5. **Second**, I find that the post-transaction market shares clearly exceed the thresholds identified in the *Guidelines*—that the Transaction is on the side of that line identified with the possibility of competitive harm. (Section 4)

6. **Third**, I find that the price of grain handling services will likely increase. This conclusion follows from several analyses:

- A review of case documents establishes that farms view the Moosomin and Virden elevators as close substitutes and have benefitted from competition between them. (Section 5.2)
- Using a model of farms' elevator choices, I quantify the propensity of farms to substitute between elevators—including the extent to which farms view the Moosomin and Virden elevators as each other's next best substitute—using diversion ratios. I find that diversion ratios between the Moosomin and Virden elevators range between [REDACTED] and [REDACTED] for wheat and between [REDACTED] and [REDACTED] for canola. (Section 5.3)
- I use these diversion ratios to quantify the upward pricing pressure (“UPP”) created by the transaction. The results suggest the transaction generates impetus for price increases, with UPPs of over [REDACTED]/metric tonne (“MT”) for wheat and over [REDACTED]/MT for canola, and gross upward pricing pressure indices (“GUPPIs”) of over [REDACTED] for wheat and over [REDACTED] for canola. (Section 5.4)
- A merger simulation model based on the model of farms' elevator choices predicts an increase in price of [REDACTED]/MT or [REDACTED] for wheat, and [REDACTED]/MT or [REDACTED] for canola. (Section 5.5)

7. **Fourth**, I find that the transaction will lead to an increase in deadweight loss. Specifically, the same merger simulation model shows an increase in deadweight loss of about [REDACTED] for wheat and about [REDACTED] for canola. Consumer surplus in particular—i.e., welfare for farms—will fall by about [REDACTED] for wheat and about [REDACTED] for canola. These effects are computed assuming elevators post their prices; given data limitations, this approach is appropriate even though there exists some evidence of price discrimination. (Section 5.5)

8. **Finally**, I find that Moosomin's [REDACTED] [REDACTED] is consistent with the reduced incentives to compete as a result of the Transaction and may constitute an additional, unquantified negative effect for local farms and may contribute to additional, unquantified increase in deadweight loss. (Section 5.6)

2. INDUSTRY BACKGROUND ON GRAIN HANDLING SERVICES FOR CANOLA AND WHEAT

9. Parrish & Heimbecker, Limited (“P&H”), is a vertically-integrated Canadian agribusiness that is family-owned and operated. P&H operates four core business units: (1) Grain handling and trading;³ (2) Crop inputs & services;⁴ (3) “New-Life;”⁵ and (4) P&H Milling group.⁶

10. Louis Dreyfus Company (“LDC”) is a U.S.-based conglomerate that processes and sells agricultural goods, as well as handles and trades grains.⁷

11. In December, 2019, P&H acquired ten LDC grain elevators located throughout Western Canada, while LDC retained ownership of its Port Cartier grain terminal and Yorkton crushing plant.⁸

12. In this section, I provide an overview of the industry and describe how grains, namely canola and wheat, move from farmers to grain users, and the value added by elevators in the distribution process.

³ Parrish and Heimbecker, “P&H National Grain Asset Network,” available at <https://parrishandheimbecker.com/grain/> (accessed on September 1, 2020).

⁴ Parrish and Heimbecker, “Crop Inputs & Services,” available at <https://parrishandheimbecker.com/crop-inputs-and-services/> (accessed on September 1, 2020).

⁵ The New-Life Mills branch of P&H develops feed products for broiler chickens, turkeys, cattle, etc. See New Life Mills, “About,” available at <https://www.newlifemills.com/about/> (“New-Life Mills is a Canadian-owned manufacturer of livestock nutrition since 1964. With five production facilities and a dedicated team of experts in species management, nutrition and production, our commitment to the best possible inputs, feed, and services for; broiler chickens, eggs, turkey, beef, dairy, and swine, is the driving force behind our success. [...] New-Life Mills is a division of Parrish and Heimbecker, Limited and operates as the animal feed and farm division.”) (accessed on September 1, 2020).

⁶ Parrish & Heimbecker, Limited, “P&H Milling Group,” available at <https://parrishandheimbecker.com/ph-milling-group/> (“P&H is the largest Canadian-owned milling company. The P&H Milling Group sources wheat from Western Canada, Ontario, Quebec and Atlantic Canada to produce quality flour and cereal products.”) (accessed on September 1, 2020).

⁷ Russell, Robert S., and Davit Akman, “Proposed purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC,” August 29, 2019, pp. 1-40 at p. 11 (“In Canada, LDC is engaged in the grain handling and trading business, which involves the origination (purchase) and storage of grains at its grain elevators for marketing and sale to customers in Canada and export markets.”).

⁸ Brian Cross, “Elevator deal expands P&H handling network,” *The Western Producer*, September 12, 2019, available at <https://www.producer.com/2019/09/elevator-deal-expands-ph-handling-network/> (“The Winnipeg-based company announced last week that it reached a deal to acquire 10 Louis Dreyfus Commodities elevators located in Manitoba, Saskatchewan, Alberta and British Columbia. [...] LDC will retain its grain terminal in Port Cartier, Que., and a canola crushing plant and refinery in Yorkton, Sask. [...] which processes more than one million tonnes of canola annually.”) (accessed on September 1, 2020).

2.1. The role of primary elevators in the supply chain of canola and wheat

13. The grain supply chain in Western Canada involves an interconnected network of businesses and infrastructure that moves grain from individual farms to end-customers such as companies that manufacture food, feeds, and biofuels.⁹ In theory, farms could produce, clean, store, sell, and ship the grain directly to end-customers. In practice, farms specialize in farming and rely on other companies (“grain marketing companies”),¹⁰ to invest in storage and cleaning facilities, develop the expertise in financial risks, identify end-customers, and arrange shipments, often overseas, that deliver the grain to those customers. The primary elevators that P&H acquired from LDC are one of the layers in this multi-layered supply chain.

14. Exhibit 1 displays the primary grain distribution channels in Canada. Most commonly, farms deliver their grain to a primary elevator operated by a grain marketing company. As of December 2019, evidence suggests that Canadian farms sold of the majority of their canola and wheat shipments to primary elevators operated by grain marketing companies, such as P&H.¹¹ Grain marketing companies do not just operate primary elevators. They generally employ traders that negotiate sales of grain with domestic and international purchasers and they arrange the shipping and other logistics necessary to move the grain taken in at primary elevators to its end use.¹²

15. Domestic purchasers of grain include feed users, which add grain as a source of protein in livestock and poultry feed, and processors (e.g., wheat mills and canola “crushers”), which transform the grain into a retail product.¹³ Feed

⁹ Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at pp. 10, 37–38 (“The Canadian grain supply chain is vast and includes many different businesses and interconnected infrastructure, and there are aspects that differentiate it from a typical supply chain. First and foremost is the separation of those controlling the production (farmers / producers) from those who manage and control the primary marketing and selling of grain to the end use customer (grain exporters and dealers).”).

¹⁰ In the schematic representation of the supply chain in Exhibit 1, these companies are labeled “Grain Companies Dealers/Traders” which reflects the fact that these companies differ in the degree to which they are vertically integrated into later stages of the grain distribution process. Prior to the Transaction, P&H and LDC both served as grain marketing companies available to farms in Manitoba and Saskatchewan.

¹¹ In Manitoba and Saskatchewan, primary elevators have the greatest grain capacity, at around 87 percent and 91 percent of total capacity, respectively, compared to process and terminal elevators. Canadian Grain Commission, “Grain Elevators in Canada, Crop year 2019-2020,” December 1, 2019, pp. 1-72 at p. 9 “Table 1.”

¹² Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at p. 36 (“Many grain companies are fully integrated entities with processing divisions as well as export terminals and export marketing services.”).

¹³ Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at pp. 37–38 (“The main domestic purchasers and users of Canadian grains are the processing and feed industries. The processing industry primarily consists of maltsters, millers, oilseed crushers and ethanol plants. [...] Feed wheat and barley,

users and processors appear in Exhibit 1 because some of them may also contract directly with some farms for delivery to their plants.¹⁴ These plants maintain small elevators for that purpose; consistent with the Canadian Grain Act, I refer to the plant, together with its elevator, as a “process elevator.”¹⁵

16. However, most Canadian grain is not consumed locally or even domestically. Canadian grain production far exceeds domestic demand.¹⁶ In addition to facilitating domestic purchases, grain marketing companies provide access to vital international export markets. Farms are typically not equipped to trade widely and internationally.¹⁷ Nevertheless, from August 2018 to July 2019, Canada exported at least 40% of its total canola production and 62% of its total wheat production.¹⁸

corn, soybean and canola meal, distillers’ grains and forage (hay or silage) may all be used [as sources of protein for livestock and poultry].”).

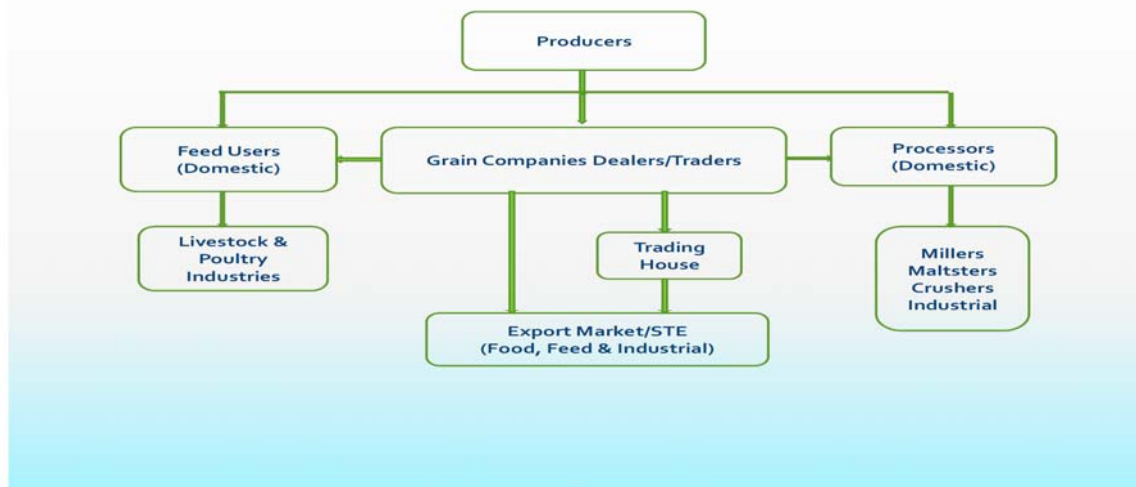
¹⁴ For example, farmer testimony confirms that several sell canola to canola crush plants, which are processors. See Witness Statement of ██████████, September, 2020, pp. 1-13 at p. 3 (“Over the last three years on average 30-40% of our canola sales have been split between Fairlight and Moosomin with the remaining canola being sold to the Louis Dreyfus crush plant in Yorkton, Saskatchewan (160 km away).”); Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 3 (“I grow a variety of canola which is contracted through a crushing plant and they arrange “pick up” off farm as part of the contract.”).

¹⁵ Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at p. 61 (“Most of the canola seed delivered to crushing facilities for processing is shipped by truck directly from producers with a small volume of seed arriving at crushing plants from primary elevators by rail.”). Process elevators store grain used to manufacture goods and tend to have low storage capacity according to the Canadian Grain Commission. See Canadian Grain Commission, “Grain Elevators in Canada, Crop year 2019-2020,” December 1, 2019, pp. 1-72, p. 9 “Table 1”; Canadian Grain Act (R.S.C., 1985, c. G-10), July 1, 2020, pp. 1- 75 at p. 5 (“process elevator means an elevator the principal use of which is the receiving and storing of grain for direct manufacture or processing into other products”).

¹⁶ Russell, Robert S., and Davit Akman, “Proposed purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC,” August 29, 2019, pp. 1-40 at p. 3 (“In 2018, Canada produced approximately 20.3 million tonnes of canola, 31.8 million tonnes of wheat (including durum), 8.4 million tonnes of barley and 3.4 million tonnes of oats. [...] Approximately 9.3 MT of wheat produced annually is sold to domestic end users.”).

¹⁷ As shown in Exhibit 1, farms do not interact directly with export markets. Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at p. 30 (“The flow of grain that moves via Canada’s west coast ports to global markets is the one that is most challenging for stakeholders as it must move through a few highly utilized port terminal elevators, particularly at Vancouver, which handles the great majority of this volume.”).

¹⁸ Note that the wheat percentage exported includes processed wheat products, but the canola percentages exported does not contain canola oilseed products. Statistics Canada (STC) and Agriculture and Agri-Food Canada (AAFC), “Canada: Grains and Oilseeds Supply and Disposition,” May 22, 2020, available at <https://aimis-simia.agr.gc.ca/rp/index-eng.cfm?action=pR&r=245&lang=EN> (accessed on August 31, 2020). Russell, Robert S., and Davit Akman, “Proposed purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC,” August 29, 2019, pp. 1-40 at p. 3 (“Canada is the number one canola producing and exporting country in the world and produces about 13.8% of the world’s wheat exports (by dollar value).”); Canola Council of Canada, “Industry Overview,” available at <https://www.canolacouncil.org/markets-stats/industry-overview/> (“Canada exports more than 90% of its canola as seed, oil or meal to 50 markets around the world, bringing billions of dollars into Canada.”) (accessed on August 14, 2020).

EXHIBIT 1**Supply chain flow chart**

Source: Quorum Corporation, September 2014, *Grain Supply Chain Study*

Note: While millers represent an alternative destination for wheat, just as crushers represent an alternative destination for canola, millers represent a much less important competitor in the wheat market. See Section 3.1.

17. Like most grains, the production of canola and wheat is constrained by harvesting cycles that do not mirror the steady demand for grain-based products and uses. Canadian farms typically plant the crop in April or May, take care of it during the summer, and harvest the grain between August and October.¹⁹ Yet the demand from consumers of these grains does not necessarily follow the harvesting cycle, so some portion of grain production needs to be stored. Further, grain also needs to be stored, at least temporarily, to generate enough stock to be efficiently shipped in bulk.²⁰

¹⁹ Quorum Corporation, "Grain Supply Chain Study," September 2014, pp. 1-107 at p. 31 ("Harvest may occur between late August and October depending on the crop, location and weather factors."); Quorum Corporation, "Grain Supply Chain Study," September 2014, pp. 1-107 at p. 29 ("For most agricultural products in Canada, there is only one harvest each year and the decisions on what will be seeded can begin a year before the crop is harvested. In addition, prudent agronomic practices require good land stewardship through strategically managed actions such as crop rotation and planned application of crop inputs."); Province of Manitoba, "Agriculture Spring Wheat Production and Management," available at <https://www.gov.mb.ca/agriculture/crops/crop-management/print.spring-wheat.html> (accessed on September 1, 2020); Canola Council of Canada, "Time of Seeding," available at <https://www.canolacouncil.org/canola-encyclopedia/plant-establishment/time-of-seeding/> (accessed on September 1, 2020).

²⁰

Quorum Corporation, "Grain Supply Chain Study," September 2014, pp. 1-107 at pp. 44, 56 ("Effectively managing supply chain risk associated with more distant markets can involve capital expenditures for local storage capacity and increased working capital requirements for inventory management and infrastructure maintenance for both

18. As grain moves through the various distribution channels of Exhibit 1, it may be stored in a number of different kinds of elevators. Technically, an elevator is just one piece of the equipment involved in grain storage; however, the term may also encompass the entire grain-storage facility, which usually includes equipment to perform a number of other grain handling services.²¹ These services, performed by elevator operators, are capital-intensive, require specialized expertise, and are important to preserving grain value. For example, raw grain with a high moisture content may spoil on its way from a primary elevator to a terminal elevator—“an elevator whose principal uses are the receiving of grain from another elevator and the cleaning, storing and treating of the grain before it is moved forward,” usually located at ports.²² Primary elevators are often equipped to dry the grain before storing and/or shipping it. Likewise, grain with a lower protein content or a slightly sub-optimal grade may require blending before reselling it in the domestic or international markets.²³

19. Most of the farms I will be examining in this report ship their grain less than 100 kilometers to a primary elevator.²⁴ They would need to ship their grain at least 1000 kilometers to reach the nearest terminal elevator, Thunder Bay.²⁵

buyers and sellers. [...] The port terminal network provides a secondary warehousing role within the supply chain as bulk grains are stored in these terminals awaiting loading and dispatching of ocean vessels at the point of export.”).

²¹ Canadian Grain Commission, “Grain Elevators in Canada, Crop year 2019-2020,” December 1, 2019, pp. 1-72 at pp. 4-5 (“In this Act, ‘elevator’ means (a) any *premises* in the Western Division (i) into which grain may be received or out of which grain may be discharged directly from or to railway cars or ships, (ii) constructed for the purpose of handling and storing grain received directly from producers, otherwise than as a part of the farming operation of a particular producer, and into which grain may be received, at which grain may be weighed, elevated and stored and out of which grain may be discharged, or (iii) constructed for the purpose of handling and storing grain as part of the operation of a flour mill, feed mill, seed cleaning plant, malt house, distillery, grain oil extraction plant or other grain processing plant, and into which grain may be received, at which grain may be weighed, elevated and stored and out of which grain may be discharged for processing or otherwise” [emphasis added]). Canadian Grain Commission, “Deductions for handling your grain,” available at <https://grainscanada.gc.ca/en/protection/delivery/deductions-handling-grain.html> (“Elevators...can charge your for various grain handling services...including...cleaning...drying...blending.”) (accessed on September 2, 2020).

²²

Canadian Grain Commission, “Grain Elevators in Canada, Crop year 2019-2020,” December 1, 2019, pp. 1-72 at p. 9, “Table 1.” Table 1 shows the vast majority of terminal elevators in British Columbia, Quebec, and Ontario, with Alberta and Saskatchewan having none and Manitoba having only one small terminal elevator, suggesting the terminal elevators are generally located in ports.

²³ Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at p. 10 (“Market strategies for blending of grain to meet customer specifications require the segregation of grains in elevators either in the country or at port. Segregation activities can have inherently higher costs and therefore negative effects on the performance of the logistics system.”).

²⁴ See Exhibit 7.

²⁵ See Workpaper 1. The minimum driving distance between Virden and the Thunder Bay terminal elevators present in my data is 1004 km. See also Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at pp. 10, 53 (“Unlike many other competing countries where production is relatively close to export

Bypassing the primary elevators would considerably increase costs to these farms. They would need to coordinate truck and rail transportation and would forego the efficiencies of bulk shipments. They would also need to invest in equipment to prepare their raw grain for the long journey.²⁶ These costs would be prohibitive for individual farms in our data.²⁷

20. Consequently, primary elevators play a unique and important role for Canadian farms, including those directly affected by the Transaction. Farms rely on these primary elevators and the grain handling services they provide as the farms could not achieve the same efficiencies in moving the grain from the farm to domestic and international markets. The remainder of my report focuses on the competition between *primary elevators*.

tidewater, in Canada the average rail haul from inland elevator to port is about 1,500 km. [...] The average railway loaded transit time for grain moving between primary and port terminal elevators in Western Canada was 6 days during the 2010-11 crop year.”).

²⁶ As noted in the above paragraph, the grain must not have a high moisture content for rail transport.

²⁷ Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 4 (“A producer could have received a price approximating the above price if they had been able to deliver a tonne of 1 CWRS 13.5 to the west coast on this date. For many reasons, it is not practical for a producer in Saskatchewan to deliver the grain themselves to a port in Vancouver.”); Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at p. 44 (“Effectively managing supply chain risk associated with more distant markets can involve capital expenditures for local storage capacity and increased working capital requirements for inventory management and infrastructure maintenance for both buyers and sellers.”). While a single farm may not be large enough to erect full-scale primary elevator facilities on-site, [REDACTED] to construct one of their primary elevators. See Undertaking to John Heimbecker Examination for Discovery, July 15, 2020, pp. 1-313 at p. 15, found in the undertaking pp. 1-38 at p. 1 (“The estimated cost to build an elevator within compliance without a crop inputs component is in the range of approximately [REDACTED]. This estimate is based on the costs to build two recent elevators, one at Biggar and the other Gladstone without crop inputs retail capacity. [REDACTED]

[REDACTED]

2.2. Proximity is an important factor in a farm's choice of primary elevator

21. Farms will typically consider a number of factors in choosing among the nearby elevators.²⁸ Farms value the proximity of an elevator to the farm because it decreases farms' delivery costs,²⁹ and because they likely have more experience interacting with proximate elevators.³⁰ The most readily observable factors driving farms' decisions are the prices charged for grain handling services and the expected time and costs spent delivering the grain to each potential elevator.³¹ I address the role of distance in the farm's choice of elevator overall, and in the context of the Transaction, throughout this section.

22. As a general matter, in industries where the supplied products or services are relatively homogeneous aside from location, suppliers' location relative to the consumer can greatly influence consumer decisions. Relative location is

²⁸ One farmer testified that he considers four factors, including the distance to travel, delivery costs, pricing, the grade of his grain, and the delivery date. See Witness Statement of ██████████, September 3, 2020, pp. 1-13 at pp. 3-4 ("There are four main factors that I consider when making sales of my crop. The first, and most obvious, is price. Everyday most elevators will email or text pricing so that we can compare the different bids and weigh them against the cost to deliver to that particular location. [...] when an elevator can accept the grain. [...] grade of grain that I have to sell. [...] distance we have to travel to the elevator.").

²⁹ In their witness statements, farms describe the increased costs to transport their grain to farther away elevators. See Witness Statement of ██████████, September 3, 2020, pp. 1-13 at p. 4 ("However, the extra distance to Ceres means a higher transportation cost, so the bid has to be high enough to justify the extra delivery cost."); Witness Statement of ██████████, August 26, 2020, pp. 1-7 at p. 4 ("An elevator located farther than 50 miles would have to offer a significant premium to overcome the additional time and cost it would take to haul my crop that far.").

³⁰ Quorum Corporation, "Grain Supply Chain Study," September 2014, pp. 1-107 at p. 44 ("From a seller's [farm's] perspective markets that are local, or nearby, can be easily serviced by smaller firms. Buyers [grain marketing companies or elevators] in these markets tend to be easier to identify and cultivate while lot sizes tend to be smaller, transportation less complex and more easily accessible. There tend to be fewer trade barriers and phytosanitary standards are more likely to be low or non-existent making the management of risk easier and easing the administrative burden on the seller. All other things being equal—especially quality—buyers will often favor a local supplier."); Witness Statement of ██████████, August 19, 2020, ("I had a good relationship with the people at LDC as they were familiar with my grain and would not grade it as strictly as P&H. [...] As well, I don't want to have to leave my local area to start new relationships with different elevators that are a higher cost to get service from."); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 8 ("Some producers may try to maximize the price for their wheat by selling their full harvest to one elevator. By having a good relationship with one elevator, the producer may believe that they obtain some of the price and non-price benefits I described above.").

³¹ See Appendix Section 6.1 for a discussion of the transaction and travel distance and time data. Farmers, in their witness testimonies, describe the price and distance trade-off explicitly. See Witness Statement of ██████████, August 11, 2020, pp. 1-7 at p. 4 ("Given the time and cost associated with hauling my grain, more distant elevators would have to offer a higher price for me to consider selling to them."); Witness Statement of ██████████, August 26, 2020, pp. 1-7 at p. 3 ("I choose where I will sell my crop based on a combination of the price an elevator offers for my crop and the distance to the elevator. For logistical issues, I try to sell most of my crop to P&H's elevator in Moosomin, SK which is located about 2 miles from my farm."); Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 3 ("Due to the time and cost of hauling crop, I need an additional \$0.25 - \$0.30 cents a bushel to haul my crop an extra hour.").

particularly important to customers when transportation costs are high and the differences between the products or services across locations is small.³²

23. With a few exceptions, primary elevators process and store grain using similar equipment before passing it on to the next stage of the supply chain.³³ Farms are responsible for transporting their grain to the primary elevator, and they may employ a commercial trucking company to load, ship, and unload their grain.³⁴ Paying by the tonne and kilometer or in the farmer's own time, these costs add up and can be a major consideration for the farms.³⁵

³² Two examples of industries that have these properties are gasoline (Houde, Jean-Francois. "Spatial differentiation in retail markets for gasoline," *American Economic Review*, 102(5), 2012, pp. 2147-82) and cement (Miller, Nathan H., and Matthew Osborne, "Spatial differentiation and price discrimination in the cement industry: evidence from a structural model," *The RAND Journal of Economics*, 45(2), 2014, pp. 221-47).

³³ John Heimbecker Examination for Discovery, July 17, 2020, pp. 552-771 at pp. 731-735 ("... but an elevator can clean grain; is that correct? A. Like a country elevator has the ability to clean grain. [...] Q. Has the ability to dry grain; is that correct? A. Some do, some don't. Q. And a primary elevator can grade a farmer's grain? A. Well, yes. Q. And a primary elevator can also elevate a farmer's grain? [...] Q. Raise it into a storage bin? A. Right. Q. And an elevator can also store grain? A. Yes. Q. And an elevator can load grain on to a railcar to be shipped to another destination? A. Yes. [...] A. Well it's buying – the primary elevator buys the grain [...] Not all elevators offer the exact same services. For example, the Virден elevator did not have drying capabilities at the time it was acquired.

³⁴ John Heimbecker Examination for Discovery, July 16, 2020, pp. 315-550 at pp. 330-331 ("Well, for one, the vast majority of farmers use commercial truckers. [...] They want to have the largest truck possible to be able to move the grain out. It's expensive for farmers to have an expensive truck so they use commercial trucking, plus the commercial truckers often help load the grain at the farm which farmers like."). Several farms testified that they are often able to truck their own grain in multiple loads, especially when the destination elevators are not located far away. See Witness Statement of [REDACTED], September 3, 2020, pp. 1-13 at p. 5 ("We are fortunate to own our own super b trailers so we can haul our own grain."); Witness Statement of [REDACTED], August 26, 2020, pp. 1-7 at p. 3 ("I haul 95% of my own crop to elevators using a 3-axle grain trailer and semitruck. I can haul an average load of approximately 31 metric tonnes. I prefer to sell to the Moosomin Elevator because it is so close."); Witness Statement of [REDACTED], August 7, 2020, pp. 1-7 at p. 3 ("I have a straight trailer that can only haul 26 tonnes at a time so it is not a good use of my time to haul my crop to more distant elevators. For example, I can haul approximately 4 loads a day in my trailer to Virден. By contrast, I could only haul 1 load per day to G3's elevator at Bloom.").

³⁵ Witness Statement of [REDACTED], August 7, 2020, pp. 1-7 at p. 3 ("The rates are to Portage \$22/MT, to Kemnay \$12.10/MT and Oakner \$11.50/MT.").

The costs to haul grain with their own trucks are also factors that the farms consider. Witness Statement of [REDACTED], August 26, 2020, pp. 1-7 at p. 4 ("Currently my cost to ship grain is approximately \$4.00 per metric tonne to locations under 10 miles away from my farm. The cost per metric tonne doubles when hauling to locations further than 30 miles away from my farm. [...] An elevator located farther than 50 miles would have to offer a significant premium to overcome the additional time and cost it would take to haul my crop that far."); Witness Statement of [REDACTED], August 7, 20, pp. 1-7 at p. 3 ("Due to the time and cost of hauling crop, I need an additional \$0.25 - \$0.30 cents a bushel to haul my crop an extra hour."); Witness Statement of [REDACTED], August 25, 2020, pp. 1-7 at p. 3 ("I own a Super B truck that I use to haul crop to grain elevators. It costs me approximately 25 cents per bushel to get my crop to Virден, Moosomin, or Fairlight. Transportation costs increase if I sell my crops to elevators farther away.").

24. Prior to the Transaction, P&H and LDC operated two elevators—Moosomin and Virden, respectively³⁶—which span the Manitoba and Saskatchewan Provincial boundary and are located close to one another. These two elevators “draw” most of their grain from farms located in nearby Census Consolidated Subdivisions (“CCSs”),³⁷ the boundaries of which are less than 100 kilometers away from either elevator. The “draw area” is an industry delineation that describes the locations of farms from which the elevator expects to acquire most of its grain.³⁸ While the draw area does not appear to be a precise delineation, I use the available data to implement a similar concept for my competition analysis: An elevator’s “service area” is the set of the closest CCSs from which an elevator draws at least 90% of their total wheat or canola intake.³⁹

25. In Exhibits 2 and 3, I present the 90% wheat service areas for the Moosomin and Virden elevators, respectively. As illustrated in the Exhibits, these service areas are comprised mostly of those CCSs immediately surrounding the elevator. Comparing the two exhibits reveals that the Moosomin and Virden service areas largely overlap, suggesting that the two elevators expect to draw grain from similar or geographically clustered farms.

26. In contrast, the Bloom elevator (for example), which is located nearly 250 kilometers east of the Moosomin elevator,⁴⁰ exhibits a distinct service area that overlaps less with the Moosomin and Virden elevators’ service areas.

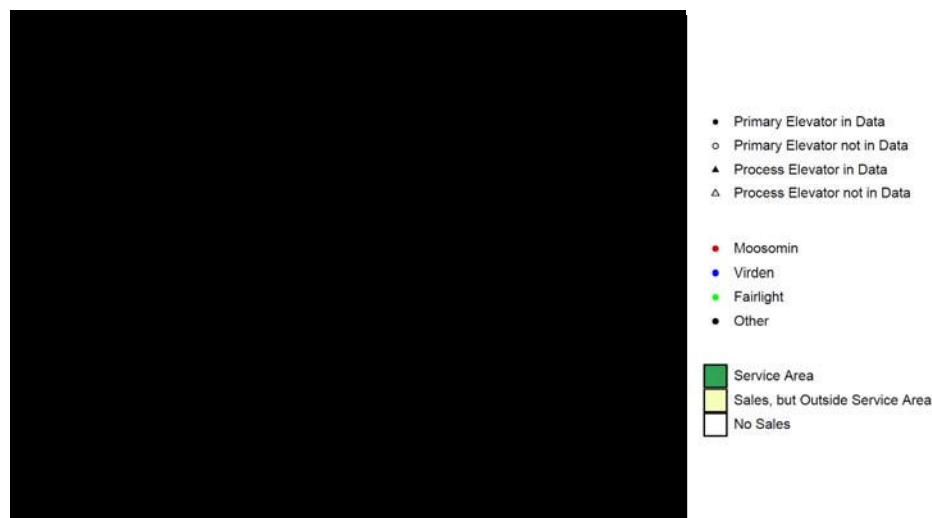
³⁶ Described in Section 1, Parrish & Heimbecker, Limited owns the Moosomin elevator and the Louis Dreyfus Company formerly owned the Virden elevator.

³⁷ CCSs are administratively drawn boundaries that attempt to uniformly, spatially divide Canadian provinces. Appendix Section 6.1 describes how CCSs are drawn and how I use them to construct services areas for my competition analysis.

³⁸ [REDACTED]

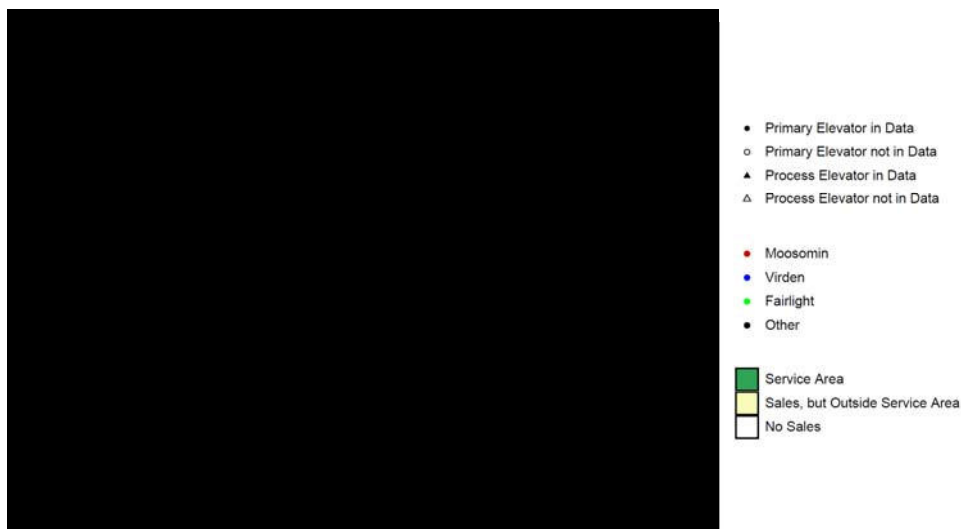
³⁹ Refer to Section 3.2 describing the “relevant geographic market” and Appendix Section 6.1.3 for more details.

⁴⁰ See Workpaper 2.

EXHIBIT 2**90% wheat service area for the Moosomin elevator**

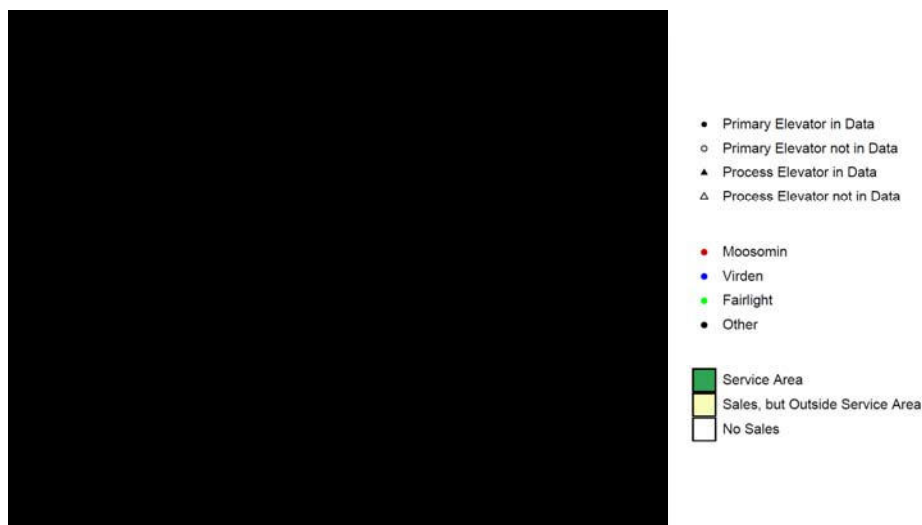
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Moosomin that collectively form 90% of the total net quantity bought by Moosomin. Elevators shown are primary elevators and process elevators, which include crushers. The size of each elevator is proportional to elevator capacity. CCSs whose centroids are within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 3**90% wheat service area for the Virden elevator**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Virden that collectively form 90% of the total net quantity bought by Virden. Elevators shown are primary elevators and process elevators, which include crushers. The size of each elevator is proportional to elevator capacity. CCSs whose centroids are within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 4**90% wheat service area for the Bloom elevator**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Bloom that collectively form 90% of the total net quantity bought by Bloom. Elevators shown are primary elevators and process elevators, which include crushers. The size of each elevator is proportional to elevator capacity. CCSs whose centroids are within 200 km from Virden or Moosomin are shown. The Bloom elevator is more than 200km from Moosomin and Virden and therefore is not shown on this map. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

27. Notably, each of the elevators' service areas comprises CCSs located near each elevator location, confirming that distance is important for farms' elevator choices.

28. Farms sometimes send grains directly to more distant canola "crushers,"⁴¹ or facilities that process harvested canola seeds into oil and meal,⁴² without enlisting a primary elevator. In Exhibit 5, I present the 90% service area for LDC's Yorkton canola crusher, which is located about 160 kilometers from the Moosomin elevator.⁴³ The median farm that sells to LDC's Yorkton crusher is [REDACTED] kilometers from Yorkton, while the median farm that sells to Moosomin

⁴¹ Quorum Corporation, "Grain Supply Chain Study," September 2014, pp. 1-107 at p. 61 ("Most of the canola seed delivered to crushing facilities for processing is shipped by truck directly from producers with a small volume of seed arriving at crushing plants from primary elevators by rail."); Witness Statement of [REDACTED], September 3, 2020, pp. 1-13 at p. 3 ("Over the last three years on average 30-40% of our canola sales have been split between Fairlight and Moosomin with the remaining canola being sold to the Louis Dreyfus crush plant in Yorkton, Saskatchewan (160 km away).").

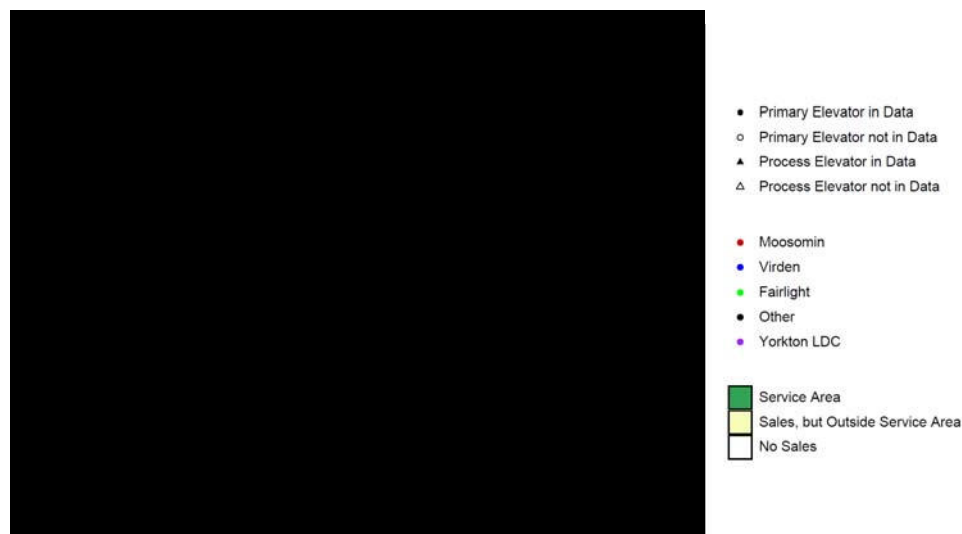
⁴² Canola Council of Canada, "Industry Overview," available at <https://www.canolacouncil.org/markets-stats/industry-overview/> ("Canada's canola processing industry transforms harvested seeds into oil and meal, which are then manufactured into a wide variety of products. Canada's 14 crushing and refining plants (mapped below) have the capacity to crush about 10 million tonnes of canola seed, and produce about 3 million tonnes of canola oil and 4 million tonnes of canola meal annually.") (accessed on September 1, 2020).

⁴³ See Workpaper 2.

is only ■ kilometers from Moosomin, and the median farm that sells to Virden is only ■ kilometers from Virden.⁴⁴ This suggests that farms may be more willing to travel farther distances to reach crushers. To the extent that prices offered at crushers may induce some farmers to forego the benefits of primary elevators and transport their canola farther distances, I will consider the possibility that canola crushers compete with primary elevators.

EXHIBIT 5

90% canola service area for LDC's Yorkton crusher



Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Yorkton LDC that collectively form 90% of the total net quantity bought by Yorkton LDC. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. CCSs whose centroids are within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

2.3. The price farms pay for the handling services provided by the elevator are an offset to the price the elevator pays for the grain

29. As discussed above, realizing the grain's value hinges on executing a series of logistical and transactional steps that convey the grain from a farm to the end-customer. Because farms are not ordinarily equipped to directly supply grain to the swath of potential end-customers, they typically purchase grain handling services from a local primary elevator by accepting a discount on the grain's market value. Thus, the payment made from the elevator to the farm is

⁴⁴ See Workpaper 3.

the net of two prices reflecting the simultaneous exchange of two products – the elevator purchases the grain and the farmer purchases grain handling services.

30. Because these two products face different competitive conditions, the net price obscures an examination of the competitive effects for each product separately. The price of the grain depends on global market conditions and is typically reflected in contracts between farms and elevators by an index to the financial futures markets for that grain (Section 2.3.1). The price for grain handling services is where competition between local primary elevators can have an effect. This price is reflected in the “basis” – the difference between the futures price index and the payment the farmer receives in a typical contract (Section 2.3.2).

2.3.1. Futures market prices reflect the grain’s value based on global supply and demand

31. Market prices for many commodities, such as grains, are ultimately set by global supply and demand. For example, wheat prices will depend on the global wheat production and inventory, as well as global demand, dictated by food and livestock feed manufacturers, as well as industrial users.⁴⁵

32. The Minneapolis Grain Exchange trades “hard red spring wheat.”⁴⁶ Trades on the exchange determine spot and future prices for the delivery of the wheat in Minneapolis.⁴⁷ These trades reflect fluctuations in the expectations of traders of the value of the specified wheat if the trader were to take possession on a specified day in Minneapolis. As such, these prices incorporate the market’s information about supply and demand anywhere the wheat might be shipped, as well as the cost to bring the wheat from Minneapolis to any such point.

⁴⁵ Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 3 (“[T]he price of wheat is driven by worldwide supply and demand factors such as climate/weather; global production, export and import competition; the price and availability of substitutes; relative crop economics; energy prices; policy; the uses of wheat as food, feed, seed and industrially; population growth; and dietary shifts.”).

⁴⁶ [REDACTED]

⁴⁷ The futures market prices specify the grain be delivered on a particular date. See The Minneapolis Grain Exchange, Inc., “Hard Red Spring Wheat Futures Contract Specifications,” available at http://www.mgex.com/contract_specs.html, (accessed on September 2, 2020).

Likewise, the ICE trades canola and specifies a global spot and future price for the delivery of canola in Saskatchewan.⁴⁸

33. The value of canola delivered to a primary elevator in Saskatchewan or Manitoba is, therefore, identified by the ICE market prices for Saskatchewan deliveries. For wheat, there is potentially a question of whether the value of wheat in Minneapolis is noticeably different from the value of wheat at the actual elevators. This question amounts to asking if the expected cost to ship wheat from the elevator to end customers is noticeably different from the expected cost to ship it from Minneapolis. However, most wheat ships east or west to ports or ships to domestic customers, so the expected costs should be similar to the expected shipment costs from Minneapolis.⁴⁹ Moreover, if there were noticeable and persistent differences across the growing areas for this type of wheat, I would expect traders to recognize the arbitrage opportunity and to have set up a second market location in response to it. I am not aware of any notable wheat exchange in Saskatchewan or Manitoba, [REDACTED]

34. Consequently, these commodity market prices are a reliable measure of the price for the grain, and I will use them to separate the net payments to farms into the price of grain and the price of grain handling services.

2.3.2. The price of grain handling services reflects the local competitive conditions

35. Farms may contract with an elevator for delivery of grain months ahead of the actual delivery date.⁵⁰ These contracts usually identify a specific financial

⁴⁸ [REDACTED]

⁴⁹ Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 3 (“The reference price indicating this international price could be considered to be the free on board (“FOB”) price for a metric tonne (tonne hereafter) of wheat at a west coast terminal since the majority of Western Canadian wheat flows through west coast ports, especially the Port of Vancouver.”); Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at p. 57 (“However, these summary statistics understate the much higher than average utilization of the west coast elevators at Vancouver and Prince Rupert which had turnover ratios [ratio of grain throughput to storage] of 16 and 23 respectively in crop year 2011/12. These high rates of utilization were in contrast to the rates for elevators in Churchill and Thunder Bay which had ratios of 4.7 and 4.6 respectively.”). In Section 2.5 below, I discuss the possible effects of an international trade shock that occurred in 2019.

⁵⁰ Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 8 (“Many producers might forward contract perhaps 20-40% of their wheat over the course of the production and marketing year, though for some

futures market that will be used at a time related to the actual delivery to establish the value of the grain.⁵¹ This practice of indexing the price to a futures market price reflects the fact that ebbs and flows in the worldwide grain market are outside the control of either the farm or the elevator. Importantly, the contract typically specifies a *level difference* between whatever the futures market price may be and the amount paid to the farm at the delivery date.⁵² The industry refers to the price paid to farms as the “discounted cash price”⁵³ and to the difference between futures and cash price as the “basis.”⁵⁴

36. For farms that do not pre-commit to a contract for delivery, the prices follow this same pattern. The grain is valued using the relevant commodity market price, and the elevator deducts their current basis from that value to determine the payment to the farm. In either formulation, the basis is an offset against the price of grain that the elevator pays the farm, and in netting out payments, it is often referenced as a negative value to reflect that this payment is from the farm to the elevator.

producers this could be lower or higher based on their understanding of markets, access to delivery opportunities and appetite for risk.”).

⁵¹ [REDACTED]

⁵² [REDACTED]

⁵³ Witness Statement of [REDACTED], August 6, 2020, pp. 1-13 at p. 5 (“The elevator will also adjust its basis to reflect its need for grain. A wide basis (a greater *discount* and hence a lower price for my grain) means that the elevator does not need as much grain.” [emphasis added]); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 4 (“The export basis essentially is the *deduction* grain elevators charge producers to get wheat from a prairie delivery point to market. This export basis is the difference between the price that the producer could get if they delivered their wheat directly to a west coast terminal and the price that the producer gets when they sell to a primary prairie elevator.” [emphasis added]).

⁵⁴ [REDACTED]

37. For example, the relevant futures market price for a bushel of wheat may be \$5.77 and the elevator might pay the farm a discounted cash price of \$5.12, reflecting a basis of $-\$0.65$, i.e., a price for the grain handling service of $\$0.65$.

38. This framing is consistent with the elevator's role as an intermediary and the fact that some elevators are part of a vertically integrated grain marketing company. Depending on how integrated, the eventual point of sale for the grain could include multiple layers of additional services or it could be immediately after collection in the primary elevator. Separating prices into the price for each product or each layer of the supply chain focuses attention on the relevant competition at each level rather than introducing differences due only to the corporate structure.

39. For the remainder of this report, I will refer to the difference between the futures price and the price actually paid to the farmer, after converting both to the same currency, as the price of grain handling services.

40. The fact that this difference reflects the price for grain handling services is

[REDACTED]
[REDACTED] For example, the basis will vary with the elevators' costs to provide grain handling services,⁵⁵ which depend on factors such as grain quality.⁵⁶ Grain quality factors include the grain grade,⁵⁷ moisture

⁵⁵ Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 4 ("It represents the costs to the primary grain elevator for primary elevation and handling, rail transportation to port, terminal elevation and vessel loading plus an undefined risk premium and any profits captured by the grain elevator company"); Email from Norm Cobb, "Gain From Your Grain," September 13, 2018 [P&H_0004032] ("The basis reflects each grain company's own particular handling, transportation and marketing costs, combined with the bid values from their own end-use customers. Some farmers have asked why they can't book these futures values in their own pocket. The answer is that each grain company has its own cost structure to get your product to the marketplace or end user.").

⁵⁶ [REDACTED]
[REDACTED]
[REDACTED] Our analysis focuses on Canadian red spring wheat ("CRSW"), [REDACTED] (refer to Appendix 6.1.1). Within this classification, there are only three grades, thereby limiting the variation in grain quality observed in my data.

⁵⁷ Canadian Grain Commission, "Glossary," August 1, 2020, available at <https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/27-glossary/glossary.html>, ("A grading factor is a physical condition of grain, the result of growing conditions, handling procedures or storage practices. It is a visual characteristic that indicates a reduction in quality; for example, frost damage, sprouted kernels, or heated kernels. Only relevant grading factors are shown as reasons for a grade.") (accessed on August 18, 2020); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 4 ("The grade of wheat is determined by reference to standards set by the Canadian Grain Commission ('CGC'). First grade CWRS wheat (1 CWRS hereafter) is the highest quality of hard red spring wheat under the classification system set by the CGC.").

content,⁵⁸ green count (specific to canola),⁵⁹ and protein content,⁶⁰ among others.⁶¹ [REDACTED]

[REDACTED],⁶² and final prices will depend on the grain quality actually delivered to the elevator.⁶³

41. The price of grain handling services reflects local market conditions including weather or road restrictions, storage and freight capacity constraints, and the potential (or likely cost) for a particular elevator to help meet the grain marketing companies' existing sales commitments.⁶⁴ Primary elevators under

⁵⁸ Canadian Grain Commission, "Glossary," August 1, 2020, available at <https://www.grainscanada.gc.ca/en/grain-quality/official-grain-grading-guide/27-glossary/glossary.html>, (accessed on September 2, 2020) ("Moisture content is a measure of the water content of grain. Grain that is within acceptable limits of moisture is referred to as a straight grade. With increasing moisture content, grain may be referred to as tough, damp, moist and wet.") (accessed on September 2, 2020).

⁵⁹ [REDACTED]

⁶⁰ Reported as a percentage, protein content describes the amount of protein in the grain, wherein different levels of protein content facilitate processing to feed wheat (around 11 percent) and bread flour (around 12 percent), for example. See YARA, "How to increase wheat protein content," available at <https://www.yara.com.au/crop-nutrition/wheat/how-to-increase-wheat-protein-content-and-quality/>, (accessed on September 2, 2020). Elevators may offer higher prices for higher protein contents. [REDACTED]

[REDACTED]

⁶¹ [REDACTED]

⁶² [REDACTED]

⁶³ [REDACTED]

⁶⁴ [REDACTED]; Witness

Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 7 ("If two elevators are on the same rail line, this means that they may compete with each other to fill cars at the same time since the supply of cars can be constrained or rationed by the railroads at times."); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 10 ("[W]hen an elevator is capacity constrained the elevator company tends to increase the export basis they charge the producer and hence the amount the producer is paid for their wheat decreases."); [REDACTED]

[REDACTED]

[REDACTED]. A farmer noted that seasonal road restrictions affect how much he is able to transport, increasing his costs to haul grain to the elevator. See Witness Statement of [REDACTED], August 19, 2020, pp. 1-9 at p. 3 ("Viterra Fairlight is located approximately 41km from my farm, however

pressure to meet near-term sales commitments with grain users may offer *lower* prices of grain handling services to farms, resulting in greater farm profits.⁶⁵ Conversely, primary elevators that lack freight and storage capacity may demand *higher* prices for grain handling services since there is less urgency to take in new grain.⁶⁶

42. Local competition between primary elevators also affects the price for grain handling services. Primary elevators monitor competitors' prices and manage their own to stay competitive.⁶⁷

43. In Exhibit 6, I summarize the price for grain handling services for wheat and canola from the elevator transaction data. The median prices for grain handling services of wheat and canola at Moosomin are [REDACTED] and [REDACTED], respectively, and at Virden they are [REDACTED] and [REDACTED] respectively. More

between March and June there are weight restrictions on Road 60 making transportation more expensive. To keep under the weight restrictions, I would have to haul half of a load.”).

⁶⁵ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]; Witness Statement of [REDACTED], September 3, 2020, pp. 1-13 at p. 6 (“As I described above, an elevator may offer me a better grade on borderline grain. Occasionally, a grain buyer from an elevator may email or text with special pricing if they need to obtain grain fast.”); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 6 (“The grain company may adjust the export basis at each elevator it operates to ensure that they obtain the necessary volumes to profitably use the capacity at each elevator”).

⁶⁶ Witness Statement of [REDACTED], September 3, 2020, pp. 1-13 at p. 5 (“This price is known as the basis which is essentially the amount deducted from the futures price to account for the elevator’s costs of handling and shipping the grain to market. The elevator will also adjust its basis to reflect its need for grain. A wide basis (a greater discount and hence a lower price for my grain) means that the elevator does not need as much grain.”);

[REDACTED]
[REDACTED]
[REDACTED]

⁶⁷ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]. See also Witness Statement of [REDACTED], September 3, 2020, pp. 1-13 at p. 6 (“Of course, elevators are also aware of each other’s prices. It has been my experience that if an elevator knows that another elevator is currently competing for grain (for example, because they both have trains to fill) I will get a better price for my grain.”).

details regarding how these prices were computed can be found in Appendix Section 6.1.

EXHIBIT 6

Summary statistics on the price of grain handling services

	Moosomin	Virден
Wheat		
5th Percentile		
25th Percentile		
Median		
75th Percentile		
95th Percentile		
Mean		
Canola		
5th Percentile		
25th Percentile		
Median		
75th Percentile		
95th Percentile		
Mean		

Source: LDC Transaction Data; P&H Transaction Data; Grain Elevators in Canada Data; Canada/U.S. Exchange Rate (DEXCAUS) Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data

Note: Wheat transactions are from August 2018–July 2019; canola transactions are from March 2018–February 2019. All statistics are weighted by net quantity of grain sold and presented in CAD/MT. Analysis includes all farms that are within 600 km of Moosomin or Virден. The price of grain handling services is the difference between the price, on the day of delivery, of the benchmark futures contract and the transaction price. The transaction price for Moosomin and Virден is the net price, or the price that the farm actually received. The benchmark futures contract is the next one to expire, except that if the next futures contract expires in the same month as the transaction, the subsequent futures contract is chosen. All prices are converted to Canadian dollars.

2.4. Elevators effectively post their price for grain-handling services

44. Each day, the primary elevators typically post the prices at which they are willing to purchase each grain type, communicated through text blasts to farms or through phone app updates, for example.⁶⁸ The posted prices encompass the futures market prices for each grain type,⁶⁹ along with the price of handling the grain.⁷⁰ This level of posted-price transparency suggests that farms are capable of collecting the information from many elevators before sending their grain to a chosen elevator.⁷¹ In the posted-price market, the *buyer* of grain handling services (or farm) knows the approximate crop specificity, quality, and quantity that will be harvestable throughout the season.⁷² The *seller* (or elevator) acquires information about grain quality from nearby farms through regular grain sampling and testing,⁷³ discussions between farms and elevators'

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69

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; Witness Statement of ██████████, September 3, 2020, pp. 1-11 at p. 5 (“This price is [...] essentially the amount deducted from the futures price to account for the elevator’s costs of handling and shipping the grain to market.”).

⁷¹ Witness Statement of ██████████, August 25, 2020, pp. 1-7 at pp. 2-3 (“When selling wheat and grain, I regularly check the prices at the P&H elevator in Moosomin, SK, the Viterra elevator in Fairlight, SK, the elevator formerly owned by Louis Dreyfus in Viriden, the Richardson Pioneer elevator in Kemnay, MB and the G3 elevator in Bloom, MB.”); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-28 at p. 7 (“To start, producers may get price quotes and delivery offers for wheat from multiple elevators.”); Witness Statement of ██████████, September 3, 2020, pp. 1-13 at p. 3 (“While every year is different depending on many factors, on average, over the past three years, we have sold approximately 35% of our wheat to Viterra at its elevator in Fairlight, SK (65 km away). Another 35% of our wheat has been sold to the P&H elevator in Moosomin (40 km away). The remaining 30% has been split between the Louis Dreyfus elevator in Viriden (70 km away) and the Ceres elevator in Northgate (200 km away).”).

⁷² Producers even have access to pricing adjustments specific to grain quality. ██████████

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customer service representatives,⁷⁴ and grain pricing orders (“GPOs”).⁷⁵ Additionally, both the buyer *and* seller can monitor crop futures prices in real time, which are indicative of overall demand for the final commodity goods.

45. Elevators may not stick purely to the posted prices in that farms may sometimes individually negotiate their prices with elevators. Grain-price negotiations may depend on long-standing relationships and revenue-dependence,⁷⁶ as well as subjective assessments of whether a farm can credibly purchase grain handling services from another, competing elevator.⁷⁷

46. [REDACTED]
[REDACTED]⁷⁹

⁷⁴ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁷⁵ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁷⁶ Elevators that depend on drawing large amounts of a high-quality grain from a single farm may be more willing to offer that farm special prices. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] Customer service representatives, for example, are tasked with reaching out to farms regularly. [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

⁷⁷ See Pinkley, Robin L., and Margaret A. Neale et al., “The Impact of Alternatives to Settlement in Dyadic Negotiation.” *Organizational Behavior and Human Decision Processes*, 57(1), 1994, pp. 97-116 at p. 97 (“[D]ifferential power among negotiators (in the form of alternatives available to the individuals if the parties fail to reach a negotiated settlement) influences the parameters (e.g., the aspiration levels and reservation prices), the process, and the outcome of the negotiation [...] (a) the possession of an alternative increases one’s own outcome as well as joint outcome; (b) the more attractive or valuable the alternative, the greater the benefits regarding own and joint outcome; and (c) the better one’s own alternative relative to the other parties’ alternative, the larger one’s piece of the resource pie (i.e., one’s benefit increases)”).

⁷⁸ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁷⁹ Witness Statement of [REDACTED], August 19, 2020, pp. 1-9 at p. 5 (“I would get calls from Louis Dreyfus who would be in a rush to fill a train at Virden. In this situation I would call P&H Moosomin and use the two to

- [REDACTED] 80
- [REDACTED] 81
- [REDACTED] 82
- [REDACTED] 83

negotiate a higher price than the current market price for the commodity. These negotiations have allowed me to obtain and additional \$0.50 cents to \$1 per bushel.”). [REDACTED]

[REDACTED]

80 [REDACTED]

[REDACTED]; Witness Statement of [REDACTED], August 26, 2020, pp. 1-7 at p. 3 (“Occasionally my wheat or canola may need to be dried. Over the past two years I have had to dry or blend out approximately 1/3 of my annual wheat production. This is mainly done by our primary wheat buyer, P&H in Moosomin, at a negotiated rate.”); [REDACTED]

[REDACTED]

81 [REDACTED]

[REDACTED]; Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 6 (“Another way for a grain company to entice a producer to sell to its elevator is to adjust the grade of borderline quality wheat. The classification of wheat is not entirely objective. Some wheat may be considered on the low-end of Number 1 or the high-end of Number 2. The elevator company may have some ability to blend qualities together to achieve the higher grade on average and uses this at times to attract producer deliveries and at other times to increase profits.”) [REDACTED]

[REDACTED]

82 [REDACTED]

83 [REDACTED]

47. Despite the evidence of some price discrimination in this market, a posted-price model is the most appropriate economic framework in this case for four reasons.

- **First**, the available data does not include information about a transaction's deviation from the posted price. The data also does not identify the characteristics that may have been considered in whether or how much discount to offer a specific farm.⁸⁴
- **Second**, even when there is some price discrimination in the market, the posted-price model may approximate fairly well the *average* impact of the Transaction. In Section 5.4.1, I provide some evidence that the approximation is fairly accurate in the present setting.⁸⁵
- **Third**, [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]⁸⁶ [REDACTED], elevators largely expect to buy grain at the posted price, and the posted price model will most accurately capture the Moosomin and Virden elevators' pricing incentives post-Transaction.
- **Fourth**, data describing [REDACTED]
[REDACTED]
[REDACTED]⁸⁸ Further, many of

⁸⁴ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁸⁵ Indeed, I examine the price impact of the Transaction under a specific type of price discrimination market and find that my results do not materially change.

⁸⁶ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

⁸⁷ [REDACTED]
[REDACTED]

⁸⁸ [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

2.5. The international trade shock in March 2019 temporarily affected grain values and potentially disrupted competition for grain-handling services.

48. A natural starting point for analysis is to consider all transactions from a crop year together. A crop year starts in August of a given year and extends through July of the following year, and it is meant to reflect sales of grain associated with a particular harvest. For example, transactions from August 1, 2018 or July 31, 2019 are both assigned to crop year 2018–2019.⁹⁰

49. However, in March 2019, an international trade dispute affected the value of grain, so I consider whether this exogenous shock affects the reliability of data from the most recent crop year.

50. For wheat, the effect of the trade dispute seems to have been similar for all of the elevators. Specifically, the Minnesota futures prices were depressed by lower expected exports from the US, stemming from a trade dispute with China.⁹¹ Canadian exports were not affected to the same degree.⁹² The transitory mismatch between the futures market value and actual values at the elevators would represent an exogenous shock to competition as the nominal price of grain handling services for wheat would likely need to adjust downward to reflect the mismatch. My model of competition can accommodate shocks of this sort as long as all of the market participants respond similarly to the shock—which appears to be the case for wheat.

51. For canola, the effect of the trade dispute on Canadian exports was different. Canadian exports of canola were significantly depressed, as China revoked Richardson’s and Viterra’s ability to export canola to China.⁹³ Unlike their

⁹⁰ The Canadian Grain Commission defines the crop year this way, as seen in its weekly grain statistics that it publishes. For example, it defines the first two weeks of 2018 crop year as 8/1/18–8/12/18, and the last week as 7/22/19–7/31/19. Canadian Grain Commission, 2018–2019, Weeks 1 & 2 (gsw-shg-2-en.xlsx), Grain Statistics Weekly, available at <https://www.grainscanada.gc.ca/en/grain-research/statistics/grain-statistics-weekly/> (accessed on August 16, 2020); Canadian Grain Commission, 2018–2019, Week 52 (gsw-shg-52-en.xlsx), Grain Statistics Weekly, available at <https://www.grainscanada.gc.ca/en/grain-research/statistics/grain-statistics-weekly/> (accessed on August 16, 2020). I clarify throughout by using both years covered by the crop year (e.g., crop year 2018–2019).

⁹¹ *Barchart*, “Spring Wheat May '19 (MWK19),” available at <https://www.barchart.com/futures/quotes/MWK19> (accessed on September 2, 2020).

⁹² CBC News, “Even as Beijing shuns Canada’s canola, Canadian wheat sales to China soar,” available at <https://www.cbc.ca/news/politics/wheat-canola-china-canada-trade-1.5263313> (accessed on September 2, 2020).

⁹³ Canola Council of Canada, “Canola & China – What growers should know,” available at <https://www.canolacouncil.org/news-homepage/canola-china-%E2%80%93-what-growers-should-know/>, (accessed on September 2, 2020); Email chain from Dave McDonald to Cam Durfey, “RE: priority list top 13,” March 8, 2019 [P&H_0004919] (“Watch for news that Richardson has been banned from shipping Canola to China ...”).

response to the wheat shock, the two elevators appear to have responded differently from each other to the depressed value for canola.⁹⁴ My competition model is not able to distinguish differences across market participants in how they reacted to a temporary exogenous shock from differences that reflect long-running competitive significance. Ordinarily, economists would expect trade to stabilize as suppliers and users equilibrate on new trade flows. Data from before the Transaction, however, ends soon after the 2018-2019 crop year, and so would fail to show the new, long-run equilibrium. Thus, starting in March 2019, the data I have is unreliable for competitive analysis of canola handling services.

52. Consequently, in my quantitative analyses in Sections 3, 4, and 5 below, I use the most recent crop year prior to the Transaction for wheat, but construct a 12-month period ending in February 2019 for my analysis of canola. As a check on my assumption that the data is reliable for analyzing grain handling services for wheat, I replicated my analysis for the preceding crop year (2017–2018) and found similar results.⁹⁵ I discuss the details of the data used and the steps for processing it in Appendix Section 6.1.

⁹⁴ See Workpaper 5.

⁹⁵ See Workpapers 6–8. My analysis using the most recent crop year is conservative, since the 2017-2018 crop year would have involved larger predicted price increases and consequently greater deadweight loss.

3. MARKET DEFINITION

53. A common theme in antitrust analysis is that mergers or acquisitions should not be permitted if they “are likely to create, maintain or enhance the ability of the merged entity, unilaterally or in coordination with other firms, to exercise market power... Market power of sellers is the ability of a firm or group of firms to profitably maintain prices above the competitive level for a significant period of time.”⁹⁶ Market definition plays two essential roles in assessing how a merger changes the industry participants’ abilities to exercise market power:

- **First**, it specifies the line(s) of commerce and geographic area(s) in which competitive concerns arise. It “identif[ies] the set of products that customers consider to be substitutes for those produced by the merging firms.”⁹⁷ Then, the customers (in our context, farms) that might be harmed by the merger are those that might reasonably purchase any of the identified products.
- **Second**, it allows the identification of the industry participants and measurement of their market shares / concentration, and how such concentration changes after the merger.

54. Indeed, as described in the Competition Bureau’s *Merger Enforcement Guidelines* (“*Guidelines*”):

[I]nformation that demonstrates that market share or concentration is likely to be high is not, in and of itself, sufficient to justify a conclusion that a merger is likely to prevent or lessen competition substantially. However, information about market share and concentration can inform the analysis of competitive effects when it reflects the market position of the merged firm relative to that of its rivals.⁹⁸

55. Defining a market “generally involves” identifying both a product market and a geographic market under the principles dictated by the *Guidelines*.⁹⁹ Conceptually, the goal is to identify a group of products or supply points within

⁹⁶ “Market power of sellers is the ability of a firm or group of firms to profitably maintain prices above the competitive level for a significant period of time.” Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 2.1, 2.3.

⁹⁷ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 3.2.

⁹⁸ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 5.8.

⁹⁹ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 4.1

which a consolidation to monopoly would allow those products or supply points to exercise market power and harm customers by profitably imposing a small but significant and non-transitory increase in price (“SSNIP”). After one identifies those products or supply points, one can then assess the extent to which the transaction under review creates a similar type of industry consolidation by examining the combined share, within the identified group of products or supply points, of all products or supply points to be controlled by the acquirer after the transaction.

56. The *Guidelines* implement this goal by defining a relevant market as

[T]he smallest group of products, including at least one product of the merging parties, and the smallest geographic area, in which a sole profit-maximizing seller (a “hypothetical monopolist”) would impose and sustain a small but significant and non-transitory increase in price (“SSNIP”).¹⁰⁰

57. It is important to note that this definition recognizes the impracticality of including *all* sources of competition. The exercise of defining a relevant geographic market necessarily involves drawing a line beyond which additional competitive pressure can reasonably be excluded from the analysis. Otherwise, the chain of competitive interactions between each supply point and the one beyond it (and so on to the edges of the map) would introduce so much extraneous information as to make the investigation extremely burdensome while leaving unchanged the fundamental attributes of the competitive landscape. To prevent this, the *Guidelines* require only that “[a] relevant geographic market consist[] of all supply points that would have to be included for a SSNIP to be profitable [for a hypothetical monopolist].”¹⁰¹

58. In this section, I discuss why grain handling services for wheat and grain handling services for canola, provided by the Moosomin, Virden, and Fairlight elevators, constitute the relevant antitrust markets for the current matter.

- **First**, I discuss why grain handling services offered by the primary elevators constitute the relevant product market. Specifically, I discuss why it is inappropriate to include the other services or business line offered by the Moosomin and Virden elevators. (Section 3.1)

¹⁰⁰ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 4.3.

¹⁰¹ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 4.17.

- **Second**, I describe how simple examination of locations and profit margins suggests that the set of the Moosomin, Virden, and Fairlight elevators is a candidate for the relevant geographic market. (Section 3.2)
- **Third**, I conduct a hypothetical monopolist test consistent with the *Guidelines*, and I find that the geographic market is no larger than the Moosomin, Virden, and Fairlight elevators; all wheat mills and crushers are more distant and so outside the relevant geographic market. (Section 3.3)

3.1. The relevant product markets are the market for grain handling services for wheat and the market for grain handling services for canola

59. Grain handling services include grading, segregating, cleaning, drying, blending, and storing grain.¹⁰² As primary elevators, both the Moosomin and Virden elevators provide grain handling services for canola and wheat, among other grains.¹⁰³

60. As discussed in Section 2.1, farms cannot rely on selling grains directly to processors and feed users because the demand from these channels may not align with when the grains are harvested. Several farmers note the importance of their limited on-site storage capacity in deciding when to sell their grain.¹⁰⁴ For example, ██████████ notes in a statement that he “has to sell approximately 25–30% of [his] crop at harvest time.”¹⁰⁵ Additionally, as discussed in Section 2.1, Canadian production of wheat and canola far exceeds domestic demand, so farms require access to the export market.¹⁰⁶ In addition

¹⁰² ██████████
██████████
██████████

¹⁰³ Canadian Grain Act (R.S.C., 1985, c. G-10), Section 2, July 1, 2020 (“*primary elevator* means an elevator the principal use of which is the receiving of grain directly from producers for storage or forwarding or both”); Canadian Grain Commission, “Grain elevator data,” available at <https://www.grainscanada.gc.ca/application/GEICOWeb/GEICOSearch-en>, accessed on August 28, 2020 (accessed on August 28, 2020).

¹⁰⁴ Witness Statement of ██████████, August 19, 2020, pp. 1-9 at p. 3 (“In particular, during harvest I will send approximately 75% of my crop directly from the field to LDC Virden so that I can avoid buying additional grain storage bins for my farm.”).

¹⁰⁵ Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 2.

¹⁰⁶ See Section 2.1; Canola Council of Canada, “Industry Overview,” available at <https://www.canolacouncil.org/markets-stats/industry-overview/> (“Canada exports more than 90% of its canola as seed, oil or meal to 50 markets around the world, bringing billions of dollars into Canada.”) (accessed on September 1, 2020); World-Grain.com, “Canada’s wheat production expected to increase slightly,” May 8, 2020, available at <https://www.world-grain.com/articles/13669-canadas-wheat-production-expected-to-increase-slightly>, (“Wheat production is estimated at 33.8 million tonnes, up from an estimated production of 32.3 million

to storage and connection with the world market, farmers employ grain handling services to perform certain operations on the grain. For example, [REDACTED] discusses the need for drying services for canola and wheat.¹⁰⁷ For these reasons, farms typically rely on primary elevators for their grain handling services, including grain storage.

61. P&H and LDC, and many grain merchants in general, are partially vertically integrated entities that also engage in grain trading, among other activities.¹⁰⁸

While P&H maintains [REDACTED]

[REDACTED] represents a single relevant product market.¹⁰⁹ While the markets in a supply chain may be interconnected, the participants and competitive constraints at each stage are distinct. Both for an analysis of competition and for ordinary business decisions, obscuring those differences into one overarching market would be a bad practice.¹¹⁰

62. Furthermore, many other companies are engaged in only part of this pipeline. For example, after the Transaction, LDC still operates a crusher and a terminal elevator, but it has sold all of its primary elevators.¹¹¹ Additionally

tonnes in 2019-20. [...] Total domestic consumption of wheat in 2019-20 is forecast at 10.6 million tonnes, an increase of 18%, driven by increased use of wheat as feed.”) (accessed on August 18, 2020).

¹⁰⁷ Witness Statement of [REDACTED], August 26, 2020, pp. 1-7 at p. 3 (“Occasionally my wheat or canola may need to be dried. Over the past two years I have had to dry or blend out approximately 1/3 of my annual wheat production. This is mainly done by our primary wheat buyer, P&H in Moosomin, at a negotiated rate.”).

¹⁰⁸ Russell, Robert S., and Davit Akman, “Proposed purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC,” August 29, 2019, pp. 1-40 at p. 5 (“Most Canadian grain companies, and all of the main players (with the exception of LDC*), are fully integrated entities with processing divisions as well as export terminals and export marketing services.”).

¹⁰⁹ P&H describes [REDACTED]

See Response of Parrish & Heimbecker, Limited - Schedule A, CT-2019-005, February 3, 2020, pp. 1-6 at pp. 1-2

¹¹⁰ [REDACTED]

¹¹¹ Brian Cross, “Elevator deal expands P&H handling network,” *The Western Producer*, September 12, 2019, available at <https://www.producer.com/2019/09/elevator-deal-expands-ph-handling-network/> (“The Winnipeg-based company announced last week that it reached a deal to acquire 10 Louis Dreyfus Commodities elevators located in Manitoba, Saskatchewan, Alberta and British Columbia. [...] LDC will retain its grain terminal in Port Cartier, Que., and a canola crushing plant and refinery in Yorkton, Sask.”) (accessed on September 1, 2020).

hedge funds trade in the financial markets but are not involved in the actual production or shipping of grain.

63. Finally, [REDACTED]

[REDACTED]¹¹² Thus, for many reasons, it is inappropriate to characterize the entire “pipeline” as a single product market.

64. P&H’s Response to the Competition Bureau’s Notice of Application does not refute that wheat processors (e.g., mills) should not be included in an analysis of the relevant market.¹¹³ Terminal elevators may be part of the relevant product market, but they are typically substantially farther away from farmers than primary elevators. This makes them a poor substitute for farmers, who have much less expertise in logistics than do grain marketing companies.¹¹⁴ Additionally, the distance to terminal elevators suggests that even if they are part of the relevant product market, they are likely not part of the relevant geographic market.¹¹⁵

65. Whether canola crushers—particularly those mentioned in P&H’s Response—are part of the relevant market is harder to determine.¹¹⁶ Several farmers mentioned that they sell some of their crop to the Moosomin and

¹¹² [REDACTED]

¹¹³ Notice of Application, Parrish & Heimbecker, Limited, December 19, 2019, pp. 1-12 at p. 8 (“Some farmers can sell their wheat and canola directly to processors in Western Canada such as canola crushing facilities. However, these facilities do not have the capacity to constrain Elevators from profitably imposing and sustaining a small but significant non-transitory increase in the price of Grain Handling Services for wheat or canola.”); Response of Parrish & Heimbecker, Limited, CT-2019-005, February 3, 2020, pp. 1-11 at p. 6 (“In addition to rival Elevators, the Moosomin and Virden Elevators need to purchase canola at prices that are competitive with canola crushers located in Yorkton, SK, Harrowby, MB, Altona, MB and Velva, ND, as well as other direct purchasers.”).

¹¹⁴ See Section 2.1; see Workpaper 1.

¹¹⁵ Quorum Corporation, “Grain Supply Chain Study,” September 2014, pp. 1-107 at pp. 10, 53 (“Unlike many other competing countries where production is relatively close to export tidewater, in Canada the average rail haul from inland elevator to port is about 1,500 km. [...] The average railway loaded transit time for grain moving between primary and port terminal elevators in Western Canada was 6 days during the 2010-11 crop year.”).

¹¹⁶ P&H noted that the Moosomin and Virden canola prices need to be competitive with nearby canola crushers. See Response of Parrish & Heimbecker, Limited - Schedule A, CT-2019-005, February 3, 2020, pp. 1-6 at p. 3 (“In addition to rival Elevators, the Moosomin and Virden Elevators need to purchase canola at prices that are competitive with canola crushers located in Yorkton, SK, Harrowby, MB, Altona, MB and Velva, ND, as well as other direct purchasers.”).

Virден elevators, with other portions transported directly to crushers.¹¹⁷ However, other farmers reportedly avoid crushers because they require advance contracts or demand lower-quality canola, and instead, those farmers take advantage of grain handling services.¹¹⁸

66. The farmers' descriptions of their options are consistent with an economic tradeoff: selling to a crusher might be the best option in a given month, but it is only one option. To insure against the uncertainty that other options at other points in time may provide better value, farms want to work with a primary elevator and avail themselves of all the services and options a grain marketing company can provide. In the end, I will allow for the possibility that crushers may be in the same product market as grain handling services for canola, and all of my analyses respect the fact that farmers may choose to sell to crushers. However, I will show below that a narrower geographic market—one that does not reach the crushers—satisfies the usual test of market sufficiency for customers that are likely to choose between Moosomin and Virден.

3.2. Evidence from a simple examination of locations and profit margins suggests that the set of the Moosomin, Virден, and Fairlight elevators is a candidate for the relevant geographic market.

67. As discussed above, the process of establishing a relevant market begins with identifying a candidate market. In the present context, readily available evidence suggests such a candidate: the set of the Moosomin, Virден, and Fairlight elevators.

68. First, the available evidence shows that the Moosomin and Virден elevators are among each other's closest competitors. According to ArcGIS, the two

¹¹⁷ Witness Statement of ██████████, September 3, 2020, pp. 1-13 at p. 3 ("Over the last three years on average 30-40% of our canola sales have been split between Fairlight and Moosomin with the remaining canola being sold to the Louis Dreyfus crush plant in Yorkton, Saskatchewan (160 km away)."); Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 3 ("I grow a variety of canola which is contracted through a crushing plant and they arrange 'pick up' off farm as part of the contract."). See also Quorum Corporation, "Grain Supply Chain Study," September 2014, pp. 1-107 at p. 61 ("Most of the canola seed delivered to crushing facilities for processing is shipped by truck directly from producers with a small volume of seed arriving at crushing plants from primary elevators by rail.").

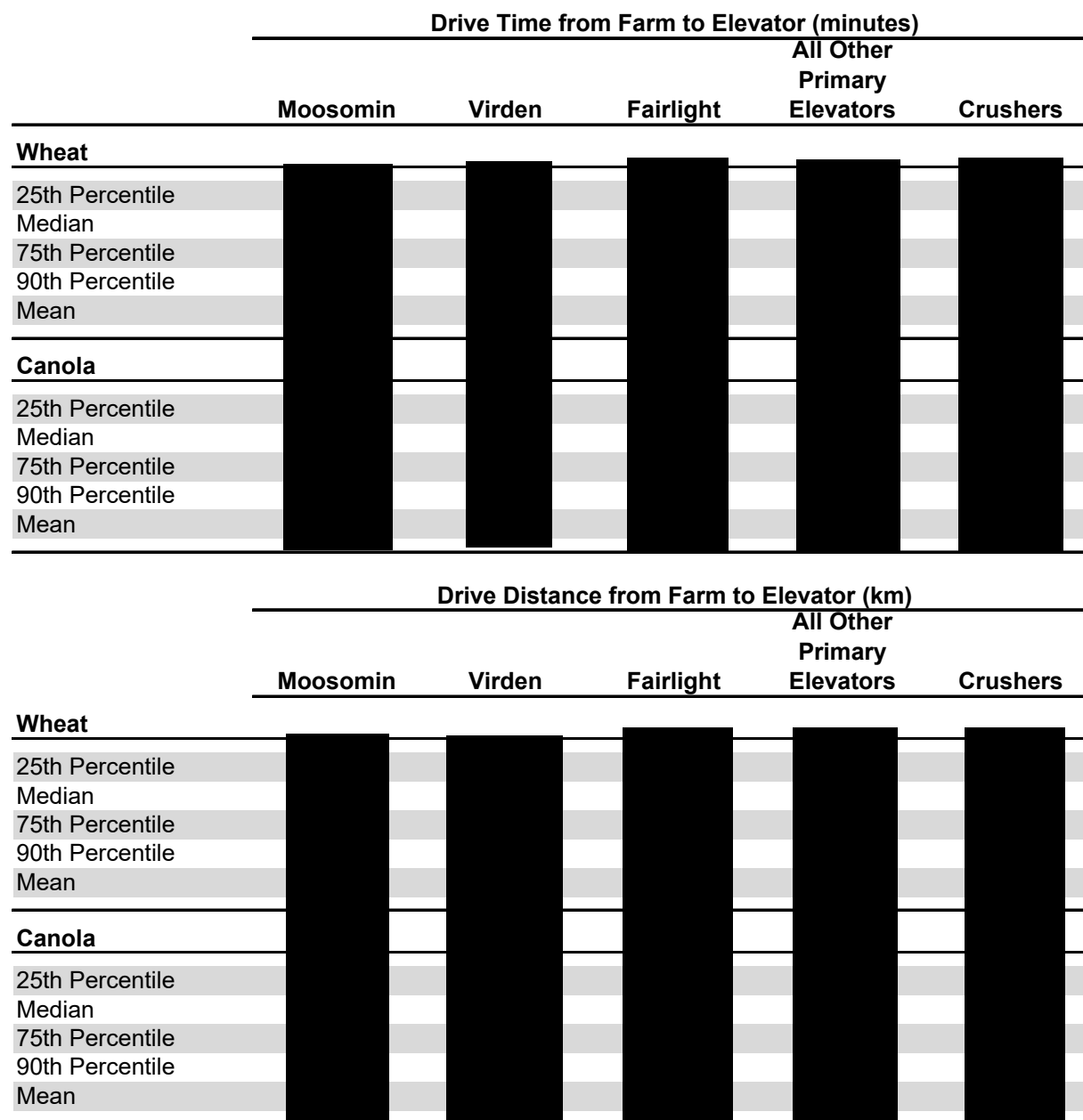
¹¹⁸ Witness Statement of ██████████, August 25, 2020, pp. 1-7 at p. 3 ("I do not usually sell to canola crush plants. Canola crush plants cover their demand around 5 months in advance. I have found that I risk missing out on better sale opportunities if I book sales this far out. I have not sold canola to a crush plant since 2016."); Witness Statement of ██████████, August 19, 2020, pp. 1-9 at p. 4 ("I do not sell to canola crush plants as it generally means that the quality of the canola isn't good.").

elevators are only 62 km driving distance apart, which represents about a 40-minute drive.¹¹⁹ Exhibit 7 displays summary statistics regarding the distances and times farmers (or truckers they hire) typically drive to deliver their grain. It demonstrates that the 62 km between Moosomin and Virden is a reasonable distance for a farmer to deliver their grain. Furthermore, [REDACTED]

[REDACTED]¹²⁰ Therefore, as a candidate market, I assume that their relevant geographic markets include each other. The question, then, is how large a geography around these two elevators needs to be included in analyzing competition—i.e., is part of the relevant market.

¹¹⁹ See Exhibit 8 and Workpaper 2.

¹²⁰ The *Guidelines* note that “[m]erger review is often an iterative process in which evidence respecting the relevant market and market shares is considered alongside other evidence of competitive effects, with the analysis of each informing and complementing the other” (Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 3.1).

EXHIBIT 7**Drive time and drive distance summary statistics**

Source: LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Wheat transactions are from August 2018–July 2019; canola transactions are from March 2018–February 2019. All statistics are weighted by net quantity of grain sold. Analysis is limited to transactions within 600 km of Moosomin or Virден. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. Drive times and drive distances were calculated as the time or distance between the farm and the the elevator location. Elevator longitude and latitude coordinates were taken from the Grain Elevators in Canada Data. The latitude and longitude coordinates for Melville and Velva, the two elevators that did not appear in the elevator location data, were determined using Google Maps. For the farms, the locations were determined as the centroid of the farm's postal code, or, if the farm's postal code was not available in the transaction data, the farm's town. Drive times and distances were calculated using ArcGIS software on August 18, 2020 at 14:51 CDT.

69. A standard practice of merger review is to ensure that relevant competition has not been excluded; thus, I consider other nearby elevators. Exhibit 8 contains the distances between the Moosomin elevator and other elevators, as well as the distances between the Virden elevator and other elevators.

EXHIBIT 8

Distances between the Moosomin and Virden elevators and other elevators

Elevator	Drive Time (min)		
	From Elevator to Moosomin	From Elevator to Virden	Moosomin/Virden Average
Viriden	36.1	–	–
Moosomin	–	36.4	–
Fairlight	27.1	41.4	34.2
Whitewood	28.7	63.6	46.1
Oakner	71.6	38.9	55.3
Brandon Ht	76.4	43.7	60.1
Binscarth	58.1	64.2	61.1
Souris	83.6	51.0	67.3
Elva	86.0	53.3	69.6
Shoal Lake	78.0	61.5	69.7
Harrowby	66.2	82.6	74.4
Brandon	92.7	60.1	76.4
Carnduff	77.3	85.5	81.4
Minnedosa	111.9	80.8	96.3
Melville	91.6	126.5	109.0
Yorkton (LDC)	99.5	134.4	116.9
Yorkton (Richardson)	104.7	139.6	122.1
Bloom	143.1	110.4	126.7
Velva	291.6	166.6	229.1
Altona	252.8	220.2	236.5
Hanover Jct	339.7	374.7	357.2
Hamlin	363.7	398.7	381.2
Wilkie	370.9	405.8	388.4

Source: Elevators in Canada Data

Note: The latitude and longitude coordinates for Melville and Velva, the two elevators that did not appear in the elevator location data, were determined using Google Maps. Drive times were calculated using ArcGIS software on August 31, 2020 at 13:13 CDT.

70. The Fairlight elevator, operated by Viterra, is closer to the Moosomin elevator (27 minutes) than is the Virden elevator (36 minutes). Furthermore, Fairlight is closer on average than any other elevator to the Moosomin and Virden elevators, and likely represents the next closest substitute for customers who might otherwise be choosing between Moosomin and Virden.¹²¹ Because

¹²¹ It is also closer “as the crow flies” to the Virden elevator than is the Moosomin elevator. See Exhibit 16.

Fairlight is close to both Moosomin and Virden, I include this elevator in my candidate geographic market.

71. [REDACTED]

[REDACTED] that these elevators likely compete with each other and, therefore, collectively comprise a suitable candidate to test as a relevant geographic market. For example, [REDACTED]

[REDACTED]¹²² Similarly, [REDACTED]
[REDACTED]¹²³ [REDACTED]
[REDACTED]¹²⁴

72. While there are other nearby elevators, [REDACTED]

[REDACTED] Appendix Section 6.4.1 discusses the calculation of margins in this context, and I find that the Virden elevator earns a [REDACTED] margin on grain handling services for canola and a [REDACTED] margin on grain handling services for wheat, both of which are [REDACTED] consistent with localized competition rather than significant competition from many distant competitors.¹²⁵ [REDACTED]

¹²² [REDACTED]

¹²³ [REDACTED]

¹²⁴ [REDACTED]

¹²⁵ [REDACTED]

██ suggest that a geographic market with few participants is likely correct.

73. Before moving on to a more formal verification that this candidate market represents a relevant antitrust market, I clarify one conceptual point: Naturally, the farms which are most likely to purchase grain handling services from these three elevators are located near them, as shown in Exhibit 7, and there is potential confusion over what this may mean for the bounds of the geographic market. To be precise, some farms considered in my formal verification of a relevant market and competitive effects analysis are located relatively far from Moosomin, Virden, and Fairlight. They might reasonably choose to send grain to an elevator outside the market. All of my analyses will respect this possibility; classifying such elevators as outside the market does not remove them from the menu of choices available to a farm. It does mean that analysis of competition can be done effectively without considering the strategic responses of these more-distant elevators.

3.3. A hypothetical monopolist test using a merger simulation model shows that the Moosomin, Virden, and Fairlight elevators comprise a relevant geographic antitrust market.

74. In this section, I formally test whether the Moosomin, Virden, and Fairlight elevators comprise a relevant geographic antitrust market. Consistent with the *Guidelines*, this test entails examining whether a hypothetical monopolist controlling the Moosomin, Virden, and Fairlight elevators would find it profitable to impose a SSNIP.

75. Analytically, this process begins with identifying an initial candidate market including at least one product sold by one merging firm.¹²⁶ As discussed in the previous section, I test a candidate market that includes the Moosomin, Virden, and Fairlight elevators. I then verify whether any of these elevators would find it profitable to impose a SSNIP if they were to combine to form a hypothetical monopolist.¹²⁷ This verification is often called a hypothetical monopolist test (“HMT”).

76. If a hypothetical monopolist controlling the Moosomin, Virden and Fairlight elevators would find it unprofitable to impose a SSNIP, then some other elevators or crushers outside of the candidate market exert enough competitive pressure to be considered relevant to an analysis of competition. If, however, the hypothetical monopolist would find it profitable to increase price by at least a SSNIP, then the candidate market is sufficiently broad. Analysis of competitive effects within such a market can be performed effectively while holding constant the rest of the economy—including more distant primary elevators. When a candidate market fails the SSNIP test, the candidate market is usually expanded to include additional products and the HMT is performed again on the new candidate market. This process could continue until the hypothetical monopolist does find it profitable to impose at least a SSNIP.

77. To understand how the hypothetical monopolist test operates, consider our candidate market and the hypothetical monopolist’s incentive to raise the price of grain handling services at the Moosomin elevator. Acting on its own, this elevator faces two consequences when it considers raising its price: Raising its price for grain handling services allows it to capture more revenue from farms that continue to purchase those services from Moosomin. On the other hand, raising its price would lead to some of its customers (farms) choosing a new

¹²⁶ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 4.4.

¹²⁷ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 4.4.

elevator, and Moosomin would lose the profits from their business. Moosomin's profit-maximizing price balances these two effects. However, when farms choose to use a new elevator, many of them will look to Virden or Fairlight. A hypothetical monopolist of all three, then, would have a different balance point as the "lost" sales to these other elevators would not truly be lost, but would instead just move revenue from one of its pockets to another.

78. An increase in the price of grain handling services at Moosomin would be profitable if the lost sales associated with such a price increase can largely be recaptured by the hypothetical monopolist—i.e., if most of the farms that respond to the price increase by seeking a new supplier would look to Fairlight or Virden. If, on the other hand, many such farms would decide to ship their grains to elevators or crushers outside the candidate market, then the hypothetical monopolist may not profitably impose a SSNIP.

79. The most formal way to perform this test is to directly compute the profit-maximizing prices a hypothetical monopolist would charge if it were to monopolize the candidate market of the Moosomin, Virden, and Fairlight elevators. As I will detail below in Section 5.5, I have developed a method for simulating the effects of mergers among primary elevators in this area. I use that method here to simulate a merger among all three elevators. Exhibit 9 shows the result—the predicted price increases of a hypothetical monopolist. The simulation demonstrates that a hypothetical monopolist of these elevators would increase price by far more than a typical SSNIP.¹²⁸

¹²⁸ Competition Bureau Canada, "Merger Enforcement Guidelines," October 6, 2011, ¶ 4.3 ("Conceptually, a relevant market is defined as the smallest group of products, including at least one product of the merging parties, and the smallest geographic area, in which a sole profit-maximizing seller (a "hypothetical monopolist") would impose and sustain a small but significant and non-transitory increase in price ("SSNIP") above levels that would likely exist in the absence of the merger. In most cases, the Bureau considers a five percent price increase to be significant and a one-year period to be non-transitory.").

EXHIBIT 9**Hypothetical monopolist test**

	Pre-acquisition Price [A]	Hypothetical Monopolist Price [B]	Change in Price (\$) [B] - [A]	Change in Price (%) ([B] - [A])/[A]
Wheat				
Moosomin	\$34.78	\$43.82	\$9.03	26.0%
Virden	\$27.18	\$33.06	\$5.88	21.6%
Fairlight				
Canola Including Crushers				
Moosomin				
Virden				
Fairlight				
Canola Excluding Crushers				
Moosomin	\$12.44	\$17.08	\$4.64	37.3%
Virden	\$19.90	\$21.88	\$1.98	9.9%
Fairlight				

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; 2018 and 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data; Grain Elevators in Canada Data; Canada/U.S. Exchange Rate (DEXCAUS) Data; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2016 Census Program CCS Boundary Files

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90% service area. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service area represents the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Velva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. Specification, calibration, and simulation of the merger simulation model are described in Section 5.5 and are based on the farm choice model (Section 5.3.1). Fairlight's prices are not determined in levels due to lack of net price data, so only change in price is presented.

4. THE POST-TRANSACTION MARKET SHARES ARE SUFFICIENTLY HIGH AS TO PRESENT THE POSSIBILITY OF COMPETITIVE HARM

80. In the preceding section, I discussed why a market comprised of grain handling services at the Moosomin, Virden, and Fairlight elevators constitutes a relevant antitrust market. Having defined the market, in this section I assess the market shares and market concentration within the relevant market. While market shares and concentration are not on their own sufficient to determine the competitive effects of a merger, the *Guidelines* specify that

... information about market share and concentration can inform the analysis of competitive effects when it reflects the market position of the merged firm relative to that of its rivals. In the absence of high post-merger market share and concentration, effective competition in the relevant market is generally likely to constrain the creation, maintenance or enhancement of market power by reason of the merger.¹²⁹

81. I compute market shares for the relevant market—that is, shares for the three elevators that are part of the relevant geographic market—and, in doing so, I include purchases at those elevators from any grower, regardless of where the farm is located.

82. Exhibit 10 reports market shares in terms of metric tonnes.

EXHIBIT 10 **Market shares**

Grain	Moosomin Share	Virden Share	Combined Moosomin/Virden Share
Canola			
Wheat			

Source: LDC Transaction Data; P&H Transaction Data; Viterra Transaction Data; Elevators in Canada Data

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions within 600 km of Virden or Moosomin. Only CWRS wheat is included. Nexera and non-GMO canola are excluded. Market shares are weighted by metric tonnes and calculated among the Moosomin, Virden, and Fairlight elevators - the relevant geographic market.

¹²⁹ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 5.8.

5. AN ECONOMIC ANALYSIS OF COMPETITIVE EFFECTS SHOWS LESSENING OF COMPETITION

85. In the preceding section, I discuss how the Transaction leads to market shares that exceed the 35% threshold. As noted in the Guidelines, however, “market shares or concentration that exceed these thresholds are not necessarily anti-competitive.” In this section, I discuss how eliminating competition between Moosomin and Virden led to enhanced market power and overall welfare loss.¹³² In particular, I show below that the Transaction likely increased the price of grain handling services in this market, reduced the quantity of grain handling services in this market, increased deadweight loss. Specifically, I employ the following evidence and analyses to draw this conclusion:

- **First**, I explain in general and intuitive terms why a merger between two close competitors can harm customers and overall welfare. (Section 5.1)
- **Second**, I [REDACTED]
[REDACTED]
[REDACTED] (Section 5.2)
- **Third**, I quantify the extent to which farms view the Moosomin and Virden elevators as each other’s next best substitute using diversion ratios, and I find that many farms view the two elevators as close substitutes. (Section 5.3)
- **Fourth**, I use these diversion ratios to quantify the upward pricing pressure (“UPP”) created by the Transaction. The UPPs for wheat are both [REDACTED] while the UPPs for Moosomin for canola are [REDACTED] (Section 5.4)
- **Fifth**, I use a merger simulation model to more precisely quantify the price impact of the Transaction as well as the welfare loss, and I find that the Transaction likely led to [REDACTED]
[REDACTED] (Section 5.5)
- **Finally**, a merger between close competitors reduces P&H’s incentive to invest in cost-saving, welfare-enhancing measures at the Moosomin and Virden elevators. Indeed, economic theory suggests that [REDACTED]
[REDACTED], which would have benefited farms through lower prices for grain handling services, is consistent with such a reduced incentive. (Section 5.6)

¹³² In the models I employ in this section, there are no income effects, which means that overall welfare loss is equivalent to the increase in deadweight loss.

5.1. A merger between two close competitors can harm customers and overall welfare.

86. As discussed previously in Sections 3 and 4, a focus of merger antitrust analysis is the extent to which the merger allows the combined entity to exercise market power. Economic theory indicates that a merger between substitutes, such as the Moosomin (P&H) and Virden (P&H, formerly LDC) elevators, can lead to less favorable pricing terms for farms and ultimately harm them. In this section, I discuss in detail the intuition behind that conclusion. The *amount* of harm depends on the degree of substitutability, which I quantify in Sections 5.3, 5.4, and 5.5.

87. In a posted-price market—the model which I have been using to analyze this market—an elevator faces a trade-off when it decides to raise its prices for grain handling services. On the one hand, higher prices increase revenue earned from farms that continue to purchase from the elevator—that is, farms that do not respond by purchasing grain handling services from an alternative elevator, or foregoing grain handling services by selling to a crusher or similar. On the other hand, some farms indeed switch away as a result of the higher price, and the elevator loses all profit from those farms. In general, a profit-maximizing firm ultimately balances these two considerations when deciding its optimal pricing strategy.

88. A merger alters one side of this tradeoff. Specifically, after the merger, the merged firm takes into account that it recaptures some of the lost profit from farms that leave, because some will switch to the recently acquired elevator. In this context, prior to the merger, Moosomin would have lost some farm sales to Virden had it raised its price. While it may have lost farm sales to other elevators, as well, the value of those lost to Virden actually changes with the merger. After the merger, these farms are not *lost* since P&H recaptures the sales diverted to Virden. Consequently, the merger eliminates some of the competitive pressure exerted on Moosomin's price.

89. This change in incentives leads to higher prices for grain handling services at the Moosomin and Virden elevators, which in turn would likely have a number of effects.

90. First, and most apparently, elevators—especially the Moosomin and Virden elevators—are better off than before the Transaction. They are able to impose a portion of the price increase that a hypothetical monopolist over the whole

market would have imposed. As their prices get closer to the monopoly price, their profits increase as well.

91. Second, the elevators' increase in profit comes at the expense of farms—especially those most likely to purchase from the Moosomin and Virden elevators—which are worse off than they were before the Transaction. Some will simply absorb the higher price of grain handling services, leaving them with a smaller return on their investment in growing the crop. The downward slope of demand means that some customers will respond to a price change by buying less of the product. In this case, that means that some farms will purchase less grain handling service from the Moosomin, Virden, and Fairlight elevators.

92. These lost transactions reflect an inefficiency caused by market power: Some farms are willing to pay more than the service would cost the elevator to provide, but less than the elevator charges, and so do not purchase. The potential benefits of purchases that do not happen due to the exercise of market power are a loss to the economy, and are referred to as the deadweight loss of imperfect competition. A merger that raises the profit-maximizing price in a market increases the deadweight loss.

93. It should be noted that my analysis, as well as the deadweight loss concept just described, are measuring the effects of competition in a static, partial-equilibrium context. That is, the analysis focuses on the effects of competition in a specific market—the market for grain handling services (for canola or wheat) at the Moosomin, Virden, and Fairlight elevators—while the rest of the economy is held constant. This common practice allows me to identify and measure the effect of a change in competition. After this initial impetus, the efficiency implications begin to ripple through the choices of the affected market participants and become complicated to measure.

94. A third type of effect stems from these unmeasured ripples of inefficiency. For example, as farms decide that prices are too high in this market, they may decide to incur costs in order to work with a more distant elevator. These costs may be pecuniary (e.g., the cost of commercial trucking), but they may also include intangible costs related to the disadvantages of dealing with an unfamiliar elevator. Both types of costs are arguably included in deadweight loss, since they partially explain farms' willingness to pay for grain handling services from more proximate elevators. However, as these out-of-market elevators see increased demand for their services, they may raise prices and

create a new round of deadweight loss that I have not modeled or measured, making my estimates likely conservative. In the longer run, the increase in market power and concomitant higher prices of grain handling services within the market might induce some farmers to plant less canola or wheat, to invest less in the yield of their crop, or possibly even to use their land for something other than growing wheat or canola altogether—options that depend on many factors beyond the prices we can measure here.

95. Measurement complications aside, deadweight loss is a way to illuminate a simple principle: the Canadian economy is harmed because prices for grain handling services reflect less well the true cost of providing those services. Instead, they reflect the increased market power the Moosomin and Virden elevators acquired through the Transaction. The larger this gap, or wedge, between the true cost and price becomes, the less efficient the economy becomes, and the greater the deadweight loss from forgone transactions within the market becomes. The reason is that participants in the economy—in this case, farms—make decisions according to the prices they face, but the most efficient decisions would be based upon the true cost.

96. Having discussed these consequences in the abstract, I next document that the Moosomin and Virden elevators do in fact sell substitutable products, and then quantify the resulting price changes and welfare consequences of the Transaction.

5.2. Documents show that prices at the Moosomin and Virden elevators are affected by competition between them

97. [REDACTED]
[REDACTED]

98. [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED] 33

99. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] 134 [REDACTED]
[REDACTED]
[REDACTED] 35 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] 136

100. Third, farmers have registered their concern that the Transaction would remove competition between the two elevators,¹³⁷ and some farmers testified that they have already noticed differences in pricing behavior.¹³⁸ Moreover,

133 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

134 [REDACTED]
[REDACTED]
[REDACTED]

135 [REDACTED]
[REDACTED]
[REDACTED]

136 [REDACTED]
[REDACTED]
[REDACTED]

¹³⁷ Witness Statement of [REDACTED], August 11, 2020, pp. 1-7 at pp. 3-4 (“I will sometimes call P&H’s elevator at Moosomin but my experience has been that the Moosomin elevator has not offered competitive prices. Since P&H acquired the Virden elevator from Louis Dreyfus, I have been told to take samples of my grain to P&H’s elevator in Moosomin. Given my experience with P&H’s prices, I am concerned about the loss of competition caused by P&H owning both the Virden and Moosomin Elevator.”).

¹³⁸ Witness Statement of [REDACTED], August 7, 2020, pp. 1-7 at p. 4 (“After P&H acquired Virden, I have noticed that the price for lower protein wheat has been lower. When Louis Dreyfus owned Virden the discount for lower protein wheat was \$0.01 - \$0.02 cents. P&H at Virden now applies a \$0.05 cent discount. I grow approximately 70,000 bushels of wheat. The difference in the discount between Louis Dreyfus and P&H means I have foregone approximately \$14,000 to \$21,000 (plus extra trucking costs of having to go further) in revenue.”); Witness Statement of [REDACTED], August 25, 2020, pp. 1-7 at p. 4 (“Prior to the acquisition, I observed price differences of between \$0.40 to \$0.50 cent per bushel between what I can get for my crops from P&H at Moosomin and Louis Dreyfus at Virden.”).

testimony confirms that farms actively consider both elevators, weighing their prices against each other.¹³⁹

101. I interpret [REDACTED] and customer concerns as establishing that the Moosomin and Virden elevators compete in ways that can be important. I next turn to evaluating the extent of that competition; the following sections quantitatively estimate the economic consequences of allowing P&H to control both elevators.

5.3. [REDACTED] farmers view the Moosomin and Virden elevators as substitutes

102. As the *Guidelines* note, “The closeness of competition between the merging firms’ products may be measured by the diversion ratio between them.”¹⁴⁰ In this section, I calculate and discuss the diversion ratio between the Moosomin and Virden elevators. Before I do so, however, I define the diversion ratio and give an example to ease interpretation.

103. Consider the diversion ratio from one elevator (A) to another elevator (B). If A were to raise the price it charges for grain handling services, some of its customers would decide to purchase grain handling services from other elevators. Some of those farmers leaving A would choose elevator B, while some would choose other elevators. The diversion ratio is the *fraction* of farmers leaving A who would choose elevator B.

¹³⁹ Witness Statement of [REDACTED], August 7, 2020, pp. 1-7 at pp. 2-3 (“In the past two years I have sold most of my canola and wheat to P&H’s Moosomin elevator and Louis Dreyfus’ Virden elevator. The majority of the crop went to LDC and only small amount to P&H, as they were not as competitive on price. I have also sold to G3 at Portage and Richardson at Kemnay.”); Witness Statement of [REDACTED], August 25, 2020, pp. 1-7 at pp. 2-3 (“When selling wheat and grain, I regularly check the prices at the P&H elevator in Moosomin, SK, the Viterra elevator in Fairlight, SK, the elevator formerly owned by Louis Dreyfus in Virden, the Richardson Pioneer elevator in Kemnay, MB and the G3 elevator in Bloom, MB.”); Witness Statement of [REDACTED], August 19, 2020, pp. 1-9 at p. 3 (“Over the past three years, I have exclusively sold grain to the Louis Dreyfus elevator in Virden, MB, the P&H elevator in Moosomin, SK, and the Viterra elevator in Fairlight, SK. Generally, I sell more grain to Louis Dreyfus’ Virden elevator because it is located only 15km from my farm and the price for grain has historically been better for me. Prior to the acquisition, I sold approximately 90% of my grain to LDC Virden.”).

¹⁴⁰ Competition Bureau Canada, “Merger Enforcement Guidelines,” October 6, 2011, ¶ 6.15. Footnote 35 to the Guidelines defines the diversion ratio as follows: “The diversion ratio between firm A’s product and firm B’s product is equal to the fraction of sales lost by firm to firm B when firm A raises the price of its product. Similarly, the diversion ratio between firm B’s product and firm A’s product is equal to the fraction of sales lost by firm B to firm A when firm B raises the price of its product. The diversion ratios between firms A and B need not be symmetric.”

104. To make this definition more concrete, suppose that A sells grain handling services for 100 MT of canola, while B sells grain handling services for 50 MT of canola. Now suppose that A raises the price of grain handling services by \$0.10/MT, while B does not change its price. After the price change, A loses 20 MT of business—it only sells grain handling services for 80 MT of canola. B picks up some of those customers, now selling grain handling services for 60 MT of canola. The other 10 MT are distributed across a variety of other elevators. In this case, the diversion ratio from A to B is $DR_{A \rightarrow B} = \frac{60-50}{100-80} = 50\%$.

105. Intuitively, this measure can be useful in evaluating the degree to which elevators A and B compete because it captures how willing customers are to *substitute* between them, relative to other options. Economic theory indicates that, in general, products, services, or supply points that customers view as close substitutes will more strongly constrain each other's prices than will more distant substitutes. This is because, if one of the close substitutes tried to raise prices by even a small amount, many customers would immediately switch to the other, making such a price increase unprofitable. Therefore, a merger of close substitutes will generally lead to more harm to customers—in this case, farms. Indeed, the *Guidelines* state:

[A] merger may create, enhance or maintain the ability of the merged firm to exercise market power unilaterally when the product offerings of the merging parties are close substitutes for one another... [T]he incentives to raise prices after the merger are greater the more closely the products of the merging firms compete with each other.¹⁴¹

106. Returning, then, to diversion ratios, high diversion ratios between the Moosomin and Virden elevators indicate that many farms view the Moosomin and Virden elevators as substitutes, which suggests that the Transaction may be particularly harmful.

107. In this subsection, I discuss how farms' choices in the transaction data can be used to estimate diversion ratios and other aspects of farms' preferences (Section 5.3.1). Using the estimates from this model, I show that the diversion ratios between Moosomin and Virden indicate that many farms view these elevators as the next-closest substitute (Section 5.3.2). Specifically, I find that the diversion ratio from Moosomin to Virden is █████ for canola and █████ for wheat; similarly, the diversion ratio from Virden to Moosomin is █████ for

¹⁴¹ Competition Bureau Canada, "Merger Enforcement Guidelines," October 6, 2011, ¶¶ 6.13–6.14

canola and ██████ for wheat. All of these ratios are high enough to raise competitive concerns about the Transaction.

5.3.1. A farm choice model can be used to estimate diversion ratios.

108. I model farms' decisions to purchase grain handling services from one of several primary elevators—or, in the case of canola, to decline to purchase grain handling services and instead sell to a crusher—using a discrete choice framework.¹⁴² When farms decide to use a primary elevator, they choose between a discrete set of nearby elevators, factoring in the elevators' differing grain prices and transportation costs,¹⁴³ among other considerations.¹⁴⁴

¹⁴² This widely adopted method of analyzing consumer (i.e., farm) choice was pioneered by Professor Daniel McFadden, who in 2000 received the Nobel Prize in Economics for developing these methods. See The Nobel Prize Press Release “The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2000,” October 11, 2000, available at <https://www.nobelprize.org/prizes/economic-sciences/2000/press-release/>, accessed on September 4, 2019 (“Citation of the Academy: ‘to James Heckman for his development of theory and methods for analyzing selective samples and to Daniel McFadden for his development of theory and methods for analyzing discrete choice.’”); McFadden, Daniel, “Conditional Logit Analysis of Qualitative Choice Behavior,” *Frontiers in Econometrics*, ed. Paul Zarembka (New York: Academic Press, 1974), pp. 105–142 at p. 106 (“This paper outlines a general procedure for formulating econometric models of population choice behavior from distributions of individual decision rules. [...] The relevance of these methods to economic analysis can be indicated by a list of the consumer choice problems to which conditional logit analysis has been applied: choice of college attended, choice of occupation, labor force participation, choice of geographical location and migration, choice of number of children, housing choice, choice of number and brand of automobiles owned, choice of shopping travel mode and destination.”).

¹⁴³ As noted in Section 2.2, farms may either own trucks to haul their grain or hire commercial trucks to transport grain from the farm to the primary elevator, and both are costly to farms. These trucks typically charge farmers by the distance and tonne transported. See Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 3 (“The rates are to Portage \$22/MT, to Kemnay \$12.10/MT and Oakner \$11.50/MT.”); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 9 (“However, not all producers are able to transport all of their wheat and many now use commercial truckers. Commercial truckers likely will be more expensive in terms of cash costs and can be difficult to source during peak seasons, particularly during harvest.”); Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 3 (“I have a straight trailer that can only haul 26 tonnes at a time so it is not a good use of my time to haul my crop to more distant elevators. [...] Due to the time and cost of hauling crop, I need an additional \$0.25 - \$0.30 cents a bushel to haul my crop an extra hour.”). ██████████

Transportation costs also embody other factors such as the time required to transport the grain or the number of trips if a farms owns and operates its own truck. See Witness Statement of ██████████, August 19, 2020, pp. 1-9 at pp. 3, 5 (“Viterra Fairlight is located approximately 41km from my farm, however between March and June there are weight restrictions on Road 60 making transportation more expensive. To keep under the weight restrictions, I would have to haul half of a load. [...] In addition, the further I go increase the risk of being pulled over by the DOT and have my truck searched. These types of searches will cost me time and possibly money if there's anything to report.”); Witness Statement of Harvey Brooks, August 27, 2020, pp. 1-12 at p. 9 (“In their effort to maximize profits, the other important factor that a producer considers is transportation costs. All else equal, a producer would prefer to sell to the closest elevator to minimize transportation costs. A producer also prefers to sell to an elevator that is close enough to allow them to deliver multiple loads per day.”).

¹⁴⁴ The specific estimated choice model controls directly for the travel time between farms and all elevators located in the defined relevant service area, as well as farm fixed effects. The fixed effects control for factors affecting farms' elevator choices, but that are not observed and cannot be included directly in the model. See Angrist, Joshua D., and Jörn-Steffen Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*, (Princeton, NJ: Princeton University Press, 2009), p. 221 (“The key to causal inference [...] is control for observed confounding factors” including “strategies that use data with a time or cohort dimension to control for unobserved but fixed omitted variables,” which is in reference to fixed effects estimators.). See also Appendix Section 6.1.3 for a description of the defined services areas and Appendix Section 6.2 for the model farm demand model estimates.

109. My model takes into account two of the factors that farms consider most strongly: the price of grain handling services, and distance.¹⁴⁵ Numerous farmers' witness statements highlight the importance of these two factors, with several farmers explicitly describing the direct tradeoff between price and distance.¹⁴⁶ The model also accounts for other unexplained desirability or quality of the services provided by the elevators.

110. I use detailed grain transaction data supplied by the elevators to estimate a relationship between farms' primary elevator choices and factors that drive those decisions. I then use the estimated model to predict the likelihood that farms choose each of the elevators, conditional on farm and elevator characteristics.

111. To begin, I estimate a model capturing farms' elevator choices using a conditional logit demand system. The conditional logit framework assumes that each farm *considers* the available, primary elevators and *chooses* the elevator offering the farm the most value. In the data, I observe (a) actual farms' elevator choices, (b) characteristics leading to that choice such as grain transaction prices and drive time to elevators, and (c) the frequency with which farms choose a particular elevator. The model estimated using this data generalizes farm preferences for elevator characteristics. For example, the model captures that farms value elevator proximity by including drive time between each farm and elevator choice in the model.^{147,148} The farms' elevator

¹⁴⁵ Technically speaking, price is implicitly incorporated into the model via elevator fixed effects.

¹⁴⁶ Witness Statement of ██████████, September 3, 2020, pp. 1-13 at p. 4 ("The closer elevators cost less to haul to so an elevator further away needs a higher bid to cover the freight costs. We also consider the road conditions to get to the elevator."); Witness Statement of ██████████, August 7, 2020, pp. 1-7 at p. 3 ("Due to the time and cost of hauling crop, I need an additional \$0.25 - \$0.30 cents a bushel to haul my crop an extra hour."); Witness Statement of ██████████, August 11, 2020, pp. 1-7 at p. 4 ("Given the time and cost associated with hauling my grain, more distant elevators would have to offer a higher price for me to consider selling to them."); Witness Statement of ██████████, August 26, 2020, pp. 1-7 at p. 3 ("I choose where I will sell my crop based on a combination of the price an elevator offers for my crop and the distance to the elevator.").

¹⁴⁷ Refer to Appendix Section 6.2 for a full description of the demand specification and sensitivities. I use the data on elevators' and farms' locations, along with ArcGIS, to construct farms' driving times to each of the elevators in the model, including the one chosen. See Appendix Section 6.1 for more details about the constructed data.

¹⁴⁸ The conditional logit model also includes an error term that captures aspects of farms' preferences that are different across farms in ways that are unrelated to characteristics of farms or elevators that are visible in the data. Train, Kenneth, *Discrete Choice Methods with Simulation*, (Cambridge University Press, 2002), pp. 20, 43 ("They are derived under the assumption that the unobserved portion of utility is distributed iid extreme value and a type of generalized extreme value, respectively. [...] Under independence, the error for one alternative provides no information to the researcher about the error for another alternative. Stated equivalently, the researcher has specified [value of each alternative] sufficiently that the remaining, unobserved portion of utility is essentially 'white noise.'"); Train, Kenneth, *Discrete Choice Methods with Simulation*, (Cambridge University Press, 2002), p. 21 ("The probability that the person chooses bus instead of car is the probability that the unobserved factors for bus are sufficiently better than those for car to overcome the advantage that car has on observed factors.").

choice model is estimated separately for purchases of grain handling services for wheat and canola.¹⁴⁹

112. My model allows me to study how farms that purchase grain handling services from Moosomin and Virden would respond to a price increase at any of these elevators—i.e., whether they would respond by switching to the Moosomin or Virden elevators or switching to other elevators or crushers. Specifically, these farms could switch to:

- (Elevators) Antler, Binscarth, Brandon, Brandon_HT, Carnduff, Elva, Fairlight, Minnedosa, Moosomin, Oakner, and Souris, Virden, and Whitewood
- (Canola crushers) Altona, Harrowby, Yorkton (operated by Richardson), Yorkton (operated by LDC), and Velva. As mentioned earlier, it is not always viable for farms to ship to crushers, but the data do not reveal how often this constrains their choices. I have estimated the two extreme possibilities – that no farms have this option and that all farms have the option. As the predictions are not sensitive between these extremes, I conservatively assume that all canola farms can *at any time* ship to canola crushers.

113. Note that many of these elevators are located in the periphery of, or outside, the service areas discussed in Section 2.2. Furthermore, many are outside the relevant geographic market discussed in Section 3. Including these elevators as choices in the model captures a more realistic collection of choices available to farms, though I will hold these elevators' pricing decisions fixed in my simulations, as they lie outside the relevant market. Appendix Sections 6.1 and 6.2 outline the technical details of my estimation process, including sample restrictions and data processing procedures, and present the parameter estimates.¹⁵⁰

¹⁴⁹ Farms' preferences for grain handling services are likely different for different types of grain, as Exhibit 10 shows that Moosomin and Virden have different market shares for the two grains. Estimating the two models separately flexibly captures any potential difference between the two markets.

¹⁵⁰ See Appendix Section 6.1 for a detailed description of how the data was constructed and why some farm observations are excluded from the modeling exercise.

5.3.2. Diversion ratios indicate that many farms view the Moosomin and Virden elevators as close substitutes

114. I use the model discussed in the last section to predict how farms would respond to a price increase at one elevator, which in turn implies the diversion ratios between the Moosomin and Virden elevators. I present the calculated diversion ratios in Exhibit 11. For wheat, the diversions from Moosomin to Virden and from Virden to Moosomin are [REDACTED] and [REDACTED], respectively. Diversion ratios for wheat between the Moosomin and Virden elevators indicate that they are relatively close competitors. For canola, diversion between Moosomin and Virden is smaller. However, Fairlight has large diversion ratios with both elevators, suggesting there is likely indirect competition between the two, through Fairlight, for both grains.

115. I also present the diversion ratios in Exhibit 11 for a choice model that does not allow canola farms to ship to crushers. As mentioned in Section 3.1, it is not always viable for farms to ship to crushers, and, as such, including crushers in the farms' choice set likely overstates the sales that are diverted to crushers, which in turn conservatively understates the diversion between the Moosomin and Virden elevators. On the other hand, removing this option likely *overstates* diversion between the Moosomin and Virden elevators; the true diversion ratio likely falls between these sensitivities.

EXHIBIT 11
Diversion ratios

Grain	Diversion from Moosomin to Virden	Diversion from Virden to Moosomin	Diversion from Moosomin to Fairlight	Diversion from Virden to Fairlight
Wheat	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Canola Including Crushers	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Canola Excluding Crushers	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90% service area. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service area represents the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. Diversion ratios are weighted by net quantity sold per farm per crop year to the chosen elevator. Diversion ratios are based on a choice model that controls for drive times to each elevator choice and is weighted by net quantity sold per grower per crop year to the chosen elevator. The canola crushers in the data are ADM's Verva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers.

5.4. Upward pricing pressure shows strong incentives to raise price.

116. Upward pricing pressure (“UPP”) is a tool discussed in the academic literature that is often used in merger review to approximate the incentive for the merging parties to unilaterally raise price.¹⁵¹ In this section, I compute several measures of upward pricing pressure which all show that prices would likely rise as a result of the Transaction.

5.4.1. Upward pricing pressure approximates the incentive for one of the merged parties to raise its price

117. UPP and its closely related statistic, the gross upward pricing pressure index (“GUPPI”), capture and quantify the intuition behind the most basic theory of harm associated with horizontal mergers—the incentive for the merging parties to raise their prices.

118. Section 5.1 above discusses the intuition for why mergers can result in competitive harm—the incentives that lead merging firms to raise their prices. One can consider these incentives in reverse. Consider a firm that is considering lowering its price to compete for customers. Before the merger, the cost of serving an additional customer is just the marginal cost of producing the good or service. After the merger, however, there is an additional *opportunity* cost of serving this customer: the chance that customer might have been served by the other merging party anyway. The upward pricing pressure (“UPP”)

¹⁵¹ Farrell, Joseph, and Carl Shapiro, “Antitrust Evaluation of Horizontal Mergers: An Economic Alternative to Market Definition,” *The BE Journal of Theoretical Economics* 10(1), 2010, pp. 1–39 at p. 2 (“This approach, based directly on the underlying economics of pricing, asks whether the merger will generate net upward pricing pressure (UPP). This involves comparing two opposing forces: the loss of direct competition between the merging parties, which creates upward pricing pressure, and marginal-cost savings from the merger, which create (offsetting) downward pricing pressure.”); Miller, Nathan H., and Marc Remer et al., “Upward pricing pressure as a predictor of merger price effects,” *International Journal of Industrial Organization*, 52, 2017, pp. 216–247. While Canada has used upward pricing pressure as a “screening” tool, UPP has an extensive role in U.S. antitrust, which includes citations by courts, e.g. *Cigna/Anthem*. See Government of Canada, “Competition Bureau statement regarding Evonik’s proposed merger with PeroxyChem,” January 28, 2020, available at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04519.html>, (“The Bureau’s analysis of likely competitive effects was also informed by upward pricing pressure and merger simulation analyses conducted by its economic expert.”) (accessed on September 2, 2020); Memorandum Opinion, *United States of America, et al. v. Anthem, Inc., et al.*, United States District Court for the District Of Columbia, Case No. 1:16-cv-01493-ABJ, February 21, 2017, pp. 1-140 at pp. 58-59 (“Using an Upward Pricing Pressure (UPP) analysis, Dr. Dranove predicted static harm totaling \$383.8 million. And when he performed the UPP analysis again, this time incorporating the fact that win/loss data suggests that Anthem and Cigna are close competitors, the exercise led to a total of \$930.3 million in static harm in the relevant market.”).

approximates this additional opportunity cost, and the gross upward pricing pressure index (“GUPPI”) frames that opportunity cost as a percentage of price.

119. Both UPP and GUPPI consider two import factors that influence a merging party’s pricing decisions:

- the diversion ratio from itself to its merging partner; and
- the markup of its merging partner.

120. As discussed above in Section 5.3, the diversion ratio measures the share of sales that are lost by one party due to a price increase that would be recaptured by the merging partner due to a price change. The incentive to raise prices is higher when more customers will be recaptured—when the diversion ratio is higher. Alternatively, the opportunity cost of attracting customers with lower prices is higher when many of them will be taken from the other merging party. Thus, the UPP at one party is proportional to the diversion ratio from that party to the other.

121. The markup of the other merging party measures the marginal profit, or value, of recapturing an additional customer. The incentive to raise prices is higher when this value is higher. Alternatively, the opportunity cost of attracting customers with lower prices is higher when the ones coming from the other merging party were generating very high profits. Thus, the UPP at one party is proportional to the markup at the other party.

122. Formally, the UPP at elevator i is defined as follows:

$$UPP_i = \text{Diversion ratio}_{i \rightarrow j} \times \text{Markup}_j$$

123. One key difference between UPP and GUPPI is that GUPPI reports the upward pricing pressure as a percentage of the starting price and is defined as follows:

$$GUPPI_i = \frac{UPP_i}{P_i}.$$

5.4.2. UPP and GUPPI measures show that prices would likely rise as a result of the Transaction

124. One of the inputs to UPP and GUPPI measures is the diversion ratio, which has been calculated and discussed in Section 5.3 above. The other input is markup. In Appendix Section 6.4.1, I discuss the details of how I calculated the markup at Virden; I then calibrated the markup at Moosomin based on the markup at Virden using my merger simulation model as discussed below in Section 5.5.3. In Exhibit 12, I present the UPP and GUPPI results. The UPPs for wheat are both [REDACTED], while the UPPs for Moosomin for canola are [REDACTED]. I find that GUPPI measures around [REDACTED] for wheat, and also around [REDACTED] for canola at Moosomin. Thus, both UPP and GUPPI show prices would be likely to increase after the Transaction.

EXHIBIT 12
UPP and GUPPI

Grain	Moosomin UPP	Moosomin GUPPI	Virden UPP	Virden GUPPI
Wheat	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Canola Including Crushers	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Canola Excluding Crushers	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; 2018 and 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data; Grain Elevators in Canada Data; Canada/U.S. Exchange Rate (DEXCAUS) Data; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2016 Census Program CCS Boundary Files

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90% service area. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service area represents the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Velva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. UPP and GUPPI values are based on diversion ratios (see Exhibit 11) and markups. Moosomin UPP is calculated using Virden's markup which is calculated from LDC P&L statements (See Appendix Section 6.4.1). Virden's UPP is calculated using Moosomin's markup which is implied by Virden markup and baseline merger simulation model calibration (See Section 5.5.3).

125. In summary, I find standard upward pricing pressure metrics show an incentive to raise prices as a result of the Transaction.

5.5. Merger simulation results show that prices would likely rise and welfare would likely fall as a result of the Transaction

126. While the upward pricing pressure analysis yields fairly accurate approximations of price effects, it cannot produce estimates of welfare changes. In this section, I develop and calibrate a merger simulation model, which I then simulate to estimate the effect of the Transaction. Because the model explicitly characterizes farms' preferences and elevators' profits, the simulation can be used to predict the welfare effects of the Transaction and, in turn, the change in deadweight loss.

127. Merger simulation models are a widely accepted method for assessing the competitive effects of a merger. They are commonly discussed and accepted in the economic and antitrust academic literatures,¹⁵² and the literature has continuously improved and refined these tools;¹⁵³ the analysis I present in this section reflects the principles established by this literature. Furthermore, while the *Guidelines* do not specifically mention merger simulation, the Competition Bureau does mention it as an important approach in reviewing mergers;¹⁵⁴ the technique has gained wide acceptance at the Competition Bureau and in other

¹⁵² Baker, Jonathan B., and David Reitman. "Research Topics in Unilateral Effects Analysis," *Research Handbook on the Economics of Antitrust Law*, Washington College of Law Research Paper 2009-37, November 9, 2009; Werden, Gregory J., and Luke M. Froeb, "Unilateral Competitive Effects of Horizontal Mergers," *Advances in the Economics of Competition Law*, October 3, 2005; Shapiro, Carl. "The 2010 horizontal merger guidelines: From hedgehog to fox in forty years." *Antitrust Law Journal*, 77(1), 2010; Davis, Peter, and Eliana Garcés. *Quantitative Techniques for Competition and Antitrust Analysis*, (New Jersey: Princeton University Press, 2009, pp. 382-383.

¹⁵³ Miller, Nathan H., and Matthew C. Weinberg, "Understanding the rice effects of the MillerCoors joint venture," *Econometrica*, 85(6), 2017, pp. 1763–1791; Ciliberto, Federico, and Jonathan W. Williams, "Does multimarket contact facilitate tacit collusion? Inference on conduct parameters in the airline industry," *The RAND Journal of Economics*, 45(4), 2012, pp. 764-791.

¹⁵⁴ Government of Canada, "Competition Bureau statement regarding Evonik's proposed merger with PeroxyChem," January 28, 2020, available at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04519.html> ("The Bureau's analysis of likely competitive effects was also informed by upward pricing pressure and merger simulation analyses conducted by its economic expert.") (accessed on September 2, 2020); Government of Canada, "Competition Bureau statement regarding La Coop fédérée's proposed acquisition of Cargill Limited's grain and retail crop inputs businesses in Ontario," November 18, 2018, available at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04403.html> ("Both pricing pressure and merger simulation analyses were employed to quantify the likely harms to growers resulting from the loss of price competition between the parties and the loss of choice resulting from anticipated site closures") (accessed on September 2, 2020).

jurisdictions;¹⁵⁵ and simulations (or their absence) have played an important role in past court decisions.¹⁵⁶

5.5.1. *The simulation model—overview*

128. A merger simulation uses an economic model specifying the way that firms interact with one another and the way that consumers make choices to simulate the effects of a merger on the firms' choices such as the price to set for their products. The model is fit, or calibrated, to the observed facts of the market before the merger, and then simulated for a set of facts where the ownership of particular products changes and the new owner is assumed to maximize joint profits across the merging products. The typical merger simulation, therefore, involves a series of steps:

- **Specification:** Laying out general assumptions about the nature of participants' preferences, how they make choices given conditions they might face, and how the market reaches an equilibrium.
- **Calibration:** Infer the parameters of participants' preferences from the choices that they made before the merger, which I observe in data.
- **Simulation:** This occurs in two stages

¹⁵⁵ Government of Canada, "Competition Bureau statement regarding Evonik's proposed merger with PeroxyChem," January 28, 2020, available at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04519.html>, accessed on August 31, 2020; Government of Canada, "Competition Bureau statement regarding La Coop fédérée's proposed acquisition of Cargill Limited's grain and retail crop inputs businesses in Ontario," available at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04403.html> (accessed on August 31, 2020); Government of Canada, "Competition Bureau statement regarding Superior Plus LP's proposed acquisition of Canwest Propane from Gibson Energy ULC," February 2, 2018, available at <https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04307.html> (accessed on August 31, 2020); U.S. Department of Justice and the Federal Trade Commission, "Horizontal Merger Guidelines," August 19, 2010, pp. 1-34 at p. 21; *The Commissioner of Competition v. Superior Propane Inc.*, Competition Tribunal, 15, August, 30, 2000.

¹⁵⁶ In fact, the Supreme Court of Canada ruled in *Tervita* that, "The Commissioner's burden is to quantify by estimation all quantifiable anti-competitive effects. Estimates are acceptable as the analysis is forward-looking and looks to anti-competitive effects that will or are likely to result from the merger. The Tribunal accepts estimates because calculations of anti-competitive effects for the purposes of s. 96 do not have the precision of history. However, to meet her burden, the Commissioner must ground the estimates in evidence that can be challenged and weighed [...] Due to the uncertainty inherent in economic prediction, the analysis must be as analytically rigorous as possible in order to enable the Tribunal to rely on a forward-looking approach to make a finding on a balance of probabilities." *Tervita Corporation, Complete Environmental Inc., and Babbirk Land Services Inc. v. Commissioner of Competition*, March 27, 2014, pp. 161-244 at p. 213. Since then, UPP and merger simulations have become quite common. See Michael Ward Affidavit, *The Commissioner of Competition v. Superior Propane Inc.*, September 13, 1999, pp. 1-37 at pp. 5-7; *The Commissioner of Competition v. Superior Propane Inc.*, Competition Tribunal, 15, August, 30, 2000.

- » Adjust the merging parties' pricing incentives to account for the fact that they are now a merged entity that fully internalizes each other's profits
- » Using these new pricing incentives, solve for the new prices and quantities chosen by all market participants after the merger. Report relevant outcomes, such as prices, quantities, and welfare.

5.5.2. The simulation model—specification

129. The simulation model takes a crop year as a whole, with all variables representing quantities over an entire crop year and prices constant for an entire year. As a sensitivity, in the Appendix, I consider a version of the model in which prices and costs can vary from month to month.¹⁵⁷

130. Farms and elevators interact in this market. Farms' preferences and choices, or demand for grain handling services, has already been discussed in Section 5.3 above, and I employ that model here. While that model did include options outside the market, it did not include every option. Specifically, it did not include the option to plant less canola or wheat as a dynamic response to increased prices for grain handling and, therefore, less profitability from planting canola or wheat as a crop. In that sense, the simulation will be conservative for estimating the increase in deadweight loss; the fact that farms chose to plant canola or wheat before the Transaction indicates that, but for the anticipated price increase due to the Transaction, canola or wheat is the most valuable use of their land.

131. For the three elevators inside the relevant market, the simulation straightforwardly assumes that each elevator has a constant marginal cost of grain handling services, at least over the relevant range of grain tonnage that the elevator might handle in any simulated outcome. Then, each elevator sets a price to maximize its own profits pre-Transaction. Post-Transaction, the combined firm will set prices for Moosomin and Virden to maximize the merged entity's combined profits.

¹⁵⁷ See Appendix Section 6.5.4 for a more detailed specification of this monthly sensitivity. I present results here without further discussion.

132. As is standard, I do not specify the pricing incentives of entities outside the relevant market—all elevators other than the Fairlight, Moosomin, and Virden elevators—and instead assume that they passively maintain constant prices. Furthermore, I lack data on many of the elevators with which these peripheral elevators likely compete—in particular, those even further away from Moosomin, Virden, and Fairlight. Therefore, any attempt to model their profits or pricing incentives would likely be biased and lead to less reliable model predictions.

133. Competition among the elevator owners is represented by an equilibrium of the Bertrand pricing model.¹⁵⁸ That is, equilibrium consists of a collection of prices such that each company maximizes profits, taking as given the prices chosen by all other companies. In equilibrium, no company can unilaterally improve its profit.

¹⁵⁸ Organisation for Economic Co-operation and Development, “Glossary of Statistical Terms,” updated on February 28, 2003, available at <https://stats.oecd.org/glossary/detail.asp?ID=3151>, (“In a Bertrand model of oligopoly, firms independently choose prices (not quantities) in order to maximize profits. This is accomplished by assuming that rivals' prices are taken as given. The resulting equilibrium is a Nash equilibrium in prices, referred to as a Bertrand (Nash) equilibrium.”) (accessed on September 2, 2020).

5.5.3. *The simulation model—calibration*

134. Before simulating the model, I used this same assumption about profit-maximizing elevator behavior to calibrate the model and, in particular, to infer a price coefficient for farmer demand—a measure of how sensitive farmers are to the price of grain handling services. Technically, I calibrated the simulation as follows:

- Marginal cost of the Virden elevator is determined directly from LDC's profit and loss data, discussed in Appendix Section 6.4.1.
- The price coefficient of demand—i.e., how sensitive farms are to the price of grain handling services when choosing from which elevator to purchase those services—is determined by assuming that Virden's price maximizes Virden's profits.
- Marginal costs of the Moosomin and Fairlight elevators are determined by assuming that Fairlight's and Moosomin's prices maximize profits at these two elevators, respectively, taking as given the demand parameters already established.¹⁵⁹

135. Exhibit 13 displays the results of this calibration procedure. I have included own-price elasticities of demand for each of the three elevators as well; the own-price elasticity of demand quantifies the percentage drop in quantity of grain handling services sold that would result if the elevator raised its price by ■■. The results are reasonable, with margins around ■■■ and own price elasticities of demand around ■.

136. Total welfare in the model is given by the sum of the value that each farm receives from the market for grain handling services, together with the profits of elevators within the relevant market. Change in deadweight loss is then the opposite of the change in total welfare.

¹⁵⁹ See Appendix Section 6.5.2 for a fuller technical discussion of this process.

EXHIBIT 13
Calibration results

		Wheat	Canola Including Crushers	Canola Excluding Crushers
Virden	Price	\$27.18		\$19.90
	Marginal Cost	\$12.17		\$12.08
	Markup	\$15.01		\$7.82
	Margin	55.2%		39.3%
	Elasticity			
Moosomin	Price	\$34.78		
	Marginal Cost	\$18.76		
	Markup	\$16.03		
	Margin	46.1%		
	Elasticity			
Fairlight	Markup			
Cost of Drive Time (CAD/min/MT)				

Source: LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files; Canada/U.S. Exchange Rate (DEXCAUS) Data; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2018 & 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90% service area and within 600 km of Moosomin or Virden. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service areas represent the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Velva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. Specification and calibration of the merger simulation model are described in Section 5.5 and are based on the farm choice model (Section 5.3.1). Fairlight's prices and marginal costs are not determined in levels due to lack of net price data, so only markups are presented.

5.5.4. The simulation model—simulation

137. Using the model to simulate the results of the Transaction is straightforward: As discussed above, I note the merged elevators' altered incentives—i.e., the fact that Virden takes into account profits at Moosomin when setting its price, and vice-versa—and then solve for the new Bertrand equilibrium. Exhibit 14 summarizes the outcome. For both grains, we see increases in price for the merging elevators, with a smaller increase in price for the Fairlight elevator. This leads to a drop in share for the merging elevators and a smaller rise in share for the Fairlight elevator.

EXHIBIT 14
Simulation results

	Elevator	Price Before Acquisition	Price After Acquisition	Change in Price
Wheat	Moosomin			
	Virden			
	Fairlight			
Canola Including Crushers	Moosomin			
	Virden			
	Fairlight			
Canola Excluding Crushers	Moosomin			
	Virden			
	Fairlight			
	Elevator	Share Before Acquisition	Share After Acquisition	Change in Share
Wheat	Moosomin			
	Virden			
	Fairlight			
Canola Including Crushers	Moosomin			
	Virden			
	Fairlight			
Canola Excluding Crushers	Moosomin			
	Virden			
	Fairlight			

Source: LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files; Canada/U.S. Exchange Rate (DEXCAUS) Data; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2018 & 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90% service area and within 600 km of Moosomin or Virden. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service areas represent the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Velve, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. Specification, calibration, and simulation of the merger simulation model are described in Section 5.5 and are based on the farm choice model (Section 5.3.1). Fairlight's prices are not determined in levels due to lack of net price data, so only changes in price are presented. Unlike in Exhibit 10, these shares include in the denominator all transactions with farms within the 90% service area. Furthermore, they are based on the model fitted probability that a farm chooses a given elevator, rather than observed elevator choices.

138. Exhibit 15 displays some statistics from the merger simulation about the welfare consequences of the Transaction. In the canola market, we see a drop in welfare for farmers of about [REDACTED] per year, with an increase in profit for elevators of about [REDACTED] per year, for a net increase in deadweight loss of [REDACTED]. In the wheat market, the stakes are much larger; we see a drop in welfare for farmers of around [REDACTED] per year, with an increase in profit for elevators of nearly [REDACTED] per year, for a net increase in deadweight loss of [REDACTED].

EXHIBIT 15
Welfare results

		Before Acquisition	After Acquisition	Change
		[A]	[B]	[B] - [A]
Wheat	Consumer Surplus	[REDACTED]	[REDACTED]	[REDACTED]
	Total Profit	[REDACTED]	[REDACTED]	[REDACTED]
	Total Surplus	[REDACTED]	[REDACTED]	[REDACTED]
Canola Including Crushers	Consumer Surplus	[REDACTED]	[REDACTED]	[REDACTED]
	Total Profit	[REDACTED]	[REDACTED]	[REDACTED]
	Total Surplus	[REDACTED]	[REDACTED]	[REDACTED]
Canola Excluding Crushers	Consumer Surplus	[REDACTED]	[REDACTED]	[REDACTED]
	Total Profit	[REDACTED]	[REDACTED]	[REDACTED]
	Total Surplus	[REDACTED]	[REDACTED]	[REDACTED]

Source: LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files; Canada/U.S. Exchange Rate (DEXCAUS) Data; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2018 & 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data

Note: : The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. All figures are in thousands of Canadian dollars. Analysis limited to transactions in the 90% service area and within 600 km of Moosomin or Virden. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service areas represent the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Velve, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. Specification, calibration, and simulation of the merger simulation model are described in Section 5.5 and are based on the farm choice model (Section 5.3.1). Consumer surplus and total surplus are not determined in levels, only in differences.

139. Most welfare loss results from customers choosing less preferred options outside the relevant market, which represents deadweight loss.

140. All of the foregoing analysis of welfare loss is based on a posted price market. As discussed in Section 2.4, while there is some evidence of price

discrimination, a posted-price model is the appropriate framework to study how prices are set in this industry. To the extent elevators negotiate an individual price for farms, a price-discrimination framework may be more descriptive of the market. In contrast to the posted-price model, economists use a price-discrimination model to capture situations where the prices charged to individual customers (or, in this case, individual farms) discriminate on the basis of characteristics that reflect differences in the individual's demand for the product—possibly even tailoring prices to specific farms.

141. Price-discrimination models suggest that the effect of lost competitive pressure is most likely borne by farms that had previously used their threat to switch to Moosomin (Virden) in their negotiations with Virden (Moosomin). Intuitively, farms in this category will have lost their “threat point,” and will thus face a large price increase at Moosomin and Virden. On the other hand, farms located close to some other elevator retain their “threat point,” and will face a smaller price increase.

142. The available data do not explicitly reflect whether an elevator negotiated with a specific farm, nor the many factors potentially considered in such negotiations.¹⁶⁰ Absent descriptions of farm characteristics that might affect specific negotiations, I can only approximate the overall, post-Transaction price changes instead of tailored price changes.¹⁶¹ When approximating overall post-Transaction price changes using UPPs, the price-discrimination and posted-price models produce remarkably similar predictions.¹⁶²

¹⁶⁰ [REDACTED]

¹⁶¹ Refer to Appendix Section 6.5.3 for a technical description of the merger simulation and the specific methods used to predict the post-Transaction price changes for elevators located in the relevant market.

¹⁶² See Workpaper 4.

5.6. Moosomin's planned rail track expansion in light of the Transaction

143. I understand that, since the Transaction, [REDACTED]
[REDACTED]
[REDACTED], which may be a manifestation of the
Transaction's effect on competition.

144. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

145. Since the announced Transaction, [REDACTED]
[REDACTED] In particular, I
understand that [REDACTED]

163 [REDACTED]
[REDACTED]
[REDACTED]

164 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

165 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

166 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

167 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] 169
Further, [REDACTED]

[REDACTED] 170

146. [REDACTED]
[REDACTED] Prior to the Transaction, this investment would enhance Moosomin’s ability to win business from numerous sources including the opportunity to steal business from Virden. Merged elevators have no incentive to steal grain handling business from one another as the merged entity profits from sales of grain handling services at both locations. Consequently, the potential return on the investment is lower post-Transaction due to this lost business-stealing opportunity. Thus, economic theory indicates that, absent the Transaction, P&H’s incentive to invest in expanding the rail track capacity at the Moosomin elevator is greater than it is with the Transaction.

147. Particularly, with the Transaction, P&H enjoys greater demand for its grain handling services and fewer elevator competitors located in the relevant market; however, it also profits from grain taken into two facilities instead of one. Without the Transaction, Moosomin theoretically has incentive to compete for grain volume with Virden [REDACTED]. With the Transaction, however, P&H is indifferent between taking in grain at Moosomin and Virden. This suggests that P&H has less incentive to [REDACTED]

168 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

169 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

170 [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED], specifically, and perhaps less incentive
[REDACTED]

6. APPENDIX

6.1. Technical Appendix – Data Structure and Cleaning

148. This Appendix explains the structure of the various data I employed for the analyses in this report, as well as all cleaning, filtering, and processing of those data to create the main datasets used for each analysis. The Appendix is organized by the data processing steps that I took:

- Building a dataset of transactions from all parties that provided reliable data
- Establishing grain handling services prices using futures price data and transaction data
- Performing sample restrictions based on service area
- Converting the transaction-level dataset into a dataset with the structure necessary for estimating the choice model.

6.1.1. Transaction Data

149. I constructed a dataset of transactions using these broad steps:

- Compiled transaction data from LDC, P&H, and third parties (ADM, Bunge, Cargill, Ceres, G3, Richardson, and Viterra)
- Standardized the relevant data fields in each file
- Calculated price paid to farm per metric tonne for the Moosomin and Virden elevators
- Constructed additional variables necessary for my analysis, including crop year, farm identifier, and flags for grains not related to the relevant product markets

- Assigned latitudinal and longitudinal coordinates to each farm based on the farm's postal code or town
- Identified each farm's census consolidated subdivision ("CCS")
- Limited the data to include only non-Nexera canola, canola that is not non-GMO, and Canadian Red Spring Wheat ("CWRS")
- Conservatively interpreted G3 data to conform with data files received from other parties.

I describe each of these steps next.

150. I received transaction-level grain purchase data from several primary grain elevators and canola crushers in the Manitoba and Saskatchewan provinces. These data include information on purchases of wheat and canola that the listed elevators made between 2013 and 2020, though some elevators report data for shorter periods. In particular, the data includes information on the farm from which the grain was purchased; the type, grade, and quantity of grain purchased; and financial information about the transaction, such as the total amount that changed hands, the price per metric tonne, or other information.¹⁷¹

151. Note that Ceres' Northgate and Duluth elevators have no farm location information included. Because farm location is essential for my analyses, I excluded these two elevators from all analyses, so I use transaction data for a total of 23 elevators.

152. I compiled LDC's Virden, Wilkie, and Yorkton transactions using four different files. For Virden and Wilkie through 2018, I used "Agris Purch Data 2016 Virden & Wilkie.xlsx" (tab labelled "Agris 2016 Purch") and LDCCA Ticket Detail 2016-2018 Virden & Wilkie.xlsx (tab labelled "Ticket Detail"). These datasets were chosen because they contain transaction-level data that contain the necessary delivery date, farm location, net quantity, and price information. These datasets have different structures because the company's front end system was updated in 2016, according to LDC's Response to the Request for Information on September 12, 2019.¹⁷² The other datasets provided in this

¹⁷¹ The list of elevators and the names of the transaction data files that I used for each can be found in my backup. See Workpaper 10.

¹⁷² "Re: Proposed Purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC," September 12, 2019 at fn. 5 (CAN_DMS_129462564_v4_LDC response to Competition Bureau RFI.pdf) ("The front end system used by LDC for the first seven months of 2016 produces a single spreadsheet (referred to herein as 'Agris Purch Data 2016') that includes both a 'sheet date' column (i.e., a 'settlement Date', as defined in footnote 6) and a 'shipment date' column (i.e., a delivery date), whereas the front end system used by LDC since that time presents the same delivery date and settlement date information

initial Response to a Request for Information included repetitive information at the more aggregate “settlement” level that did not contain all of the required fields.

153. The last delivery recorded in these two files is on December 28, 2018, so I incorporated Virden’s 2019 transactions using the files “Grain Purchase Data-Virden 1-1-19 thru 10-4-19 KH (1).xlsx” for canola transactions and “Virden All Commodity Ticket Detail 2019 CWRS.xlsx” for wheat transactions. Using the “Reconcile Key” to inform my understanding of the data’s fields, I used the “Ticket Detail” tab for the delivery date and net quantity of grain sold, the “Inb Scale Tickets” tab for the grower location information, and the “Assembly” tab for price information, discussed in more detail below.

154. For LDC’s Yorkton crusher, I used the file “Grain Purchase Data- Yorkton req 03-24-2020 ver 2.xlsx,” as it was the most granular data provided for this location and contained all the necessary fields over the relevant time period. Similar to the 2019 Virden data, I used the “Detail” tab for the delivery date and net quantity of grain sold, and I used the “Tickets” tab for the grower location information.

155. Each grain company reported these data in different formats, so I standardized important variables across datasets before I used them in my analyses.¹⁷³

156. One variable in particular deserves further attention: price paid to the farm per metric ton. The price of grain handling services is relevant in two ways: it provides the base, pre-transaction price for calculating percentage increase in price during the HMT and the GUPPI; and it is used to estimate a markup at Virden (which in turn is used in HMT, UPP, and merger simulation). Thus, I only need a price variable for the three elevators inside the relevant geographic market: the Moosomin, Virden, and Fairlight elevators. Conceptually, grain handling services includes a variety of services, some of which are explicitly priced. In order to ensure that the imputed price covers all of these services, I use the price actually paid to the farmer per metric ton—the *net* (“of all charges and financial incentives, the price the farm actually

but it is broken out between two spreadsheets (referred to herein as ‘LDCCA Ticket Detail 2016-2018’ and ‘LDCCA Settlements 2016-2018’).”).

¹⁷³ The main variables that I standardized across the 23 elevators that entered my final transaction data build are describe in my backup. See Workpaper 11.

receives”) price—typically the lowest reasonable price reported in the dataset.¹⁷⁴ Since Fairlight’s transactions data only offers a *gross* dollar amount, I do not construct a price for Fairlight; all variables and results for Fairlight are presented in differences only—markups (differences between prices and marginal costs) and changes from before the Transaction to after (differences over time). Next, I detail the specifics of how I implemented net price, for each of the relevant datasets.

157. The data provided by LDC and P&H included variables that listed the net quantity and total dollar value or price per metric tonne of each transaction. If not already provided, I derived price per metric tonne using the equation:

$$\text{Price per Metric Tonne} = \frac{\text{Total Dollars}}{\text{Net Quantity}}$$

158. For LDC’s 2016 purchase data (“Agris Purch Data 2016 Virden & Wilkie.xlsx”), I calculated price per metric tonne by dividing Sheet Total by Net Quantity. According the LDC’s Response to Request for Information, these are the appropriate net price and quantity fields in the data.¹⁷⁵

159. The LDC 2016–2018 transaction data (“LDCCA Ticket Detail 2016-2018 Virden & Wilkie.xlsx”), includes only a gross price variable, “CAD Price,” according to the corresponding Response to RFI. A net price field is only available in the 2016-2018 settlement data (“LDCCA Settlements 2016-2018 Virden & Wilkie.xlsx”) as “Orig Settle Amt,” which is aggregated at the settlement level.¹⁷⁶ In this case, the price variable is in total dollars for all metric tonnes sold in the settlement; therefore, I divided “Orig Settle Amt” by “Settled Quantity” to get an average net price per metric tonne for each settlement. I then merged this average net price per metric tonne using the settlement number.

¹⁷⁴ When I was provided a party Response to Request for Information, I used the net price specified if it is available. See “Louis Dreyfus Company Canada ULC - Responses to Request for Information,” May 7, 2020 (CAN_DMS_133345707_v1_LDC Response to RFI.pdf)

¹⁷⁵ “Re: Proposed Purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC,” September 12, 2019 at pp. 6–7 (CAN_DMS_129462564_v4_LDC response to Competition Bureau RFI.pdf).

¹⁷⁶ “Re: Proposed Purchase by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC,” September 12, 2019 at pp. 6–7 (CAN_DMS_129462564_v4_LDC response to Competition Bureau RFI.pdf).

160. The file containing LDC's 2019 Virden canola transactions ("Grain Purchase Data- Virden 1-1-19 thru 10-4-19 KH (1).xlsx") reported the net price (per metric tonne) at the assembly level (in the "Assembly" tab), according to the data legend and relevant Response to RFI.¹⁷⁷ I merged this price field onto the transaction level data (in the "Ticket Detail" tab). Because the price was already listed per metric tonne, no additional calculation was necessary. I replicated the same procedure for the file containing LDC's 2019 Virden wheat transactions ("Virden All Commodity Ticket Detail 2019 CWRS.xlsx").

161. [REDACTED]

162. After standardizing the existing field names, I constructed additional variables that are necessary for the choice model that I estimate.

163. First, I create a unique farm identifier by concatenating the source file, farm name, and farm identifier. I included the source file in this identifier because I did not attempt to standardize farms across companies. For example, the same entity might appear as "John Smith," "Smith, John A.," and "Smith Farm" in three different datasets, and I treat these entries as separate farms making separate decisions.

164. I add a flag that designates the analysis time period each transaction belongs to, as discussed in Section 2.5. In particular, for wheat, I mark those transactions belonging to the 2017–2018 and 2018–2019 crop years; for canola, I mark those transactions in the period March 2018–February 2019.

165. I create flags that identify transactions that are Nexera canola or non-GMO canola. These flags will be used to exclude these transactions from all analysis because it is my understanding that these products are distinct from traditional

¹⁷⁷ "Louis Dreyfus Company Canada ULC - Responses to Follow Up Request for Information," July 31, 2020 at p. 2 (CAN_DMS_134676399_v1_LDC Response.PDF).

¹⁷⁸ [REDACTED]

¹⁷⁹ [REDACTED]

canola.¹⁸⁰ I also create a flag that indicates if the transaction was with a crusher, as I run sensitivities both with and without crushers. As shown in Workpaper 10, the five crushers for which I have data are Yorkton (LDC), Yorkton (Richardson), Altona, Harrowby, and Velva.

166. Next, I assigned latitudinal and longitudinal coordinates to each farm. I did so by finding the centroid of each farmer's postal code and determining the corresponding latitude and longitude using ArcGIS.¹⁸¹ When the postal code was not populated or the postal code was invalid, I instead found the centroid of the farm's town or city and then determined the coordinates in the same manner.

167. I also include the census consolidated subdivision ("CCS") in which each farm is located. CCSs, which are used primarily for publishing Census of Agriculture data, combine both more densely populated census subdivisions with surrounding rural ones.¹⁸² Based on the criteria for creating them, CCSs are typically at least 25 square kilometers and contain at least 16 farms.¹⁸³ Their boundaries also change infrequently, making them useful for longitudinal analysis. I added the growers' CCSs to the transaction data by using the 2016

¹⁸⁰ John Heimbecker Examination for Discovery, July 15, 2020, pp. 1-313 at p. 155 ("Q. What is Nexera canola? A. It's a highly specialized canola seed that primarily gets used in Japan because it is, it burns at a low temperature, smoke less and odourless."); Witness Statement of [REDACTED], September 3, 2020, pp. 1-13 at p. 3 ("The exception to this was last year when we grew a specialty canola crop – non-genetically modified Clearfield nexera canola - for the European market. This high leonic acid non-GMO canola was produced through a contract with Viterra. Viterra paid to have this crop shipped to its St. Agathe facility (400 km away)."); [REDACTED]
[REDACTED]
[REDACTED]

¹⁸¹ This exercise required that I perform string cleaning on the postal codes by replacing all "O"s with "0"s because "O"s are never found in Canadian postal codes. I also fixed two postal codes ("RSOG 3N0", "3S0") that did not have the valid number of characters by searching for the associated town names.

¹⁸² Statistics Canada, "Census consolidated subdivision (CCS)," November 16, 2016, available at <https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/geo007-eng.cfm>, (accessed on September 2, 2020).

¹⁸³ "Census consolidated subdivisions are defined within census divisions (CDs) according to the following criteria: (1) A census subdivision (CSD) with a land area greater than 25 square kilometres can form a CCS of its own. Census subdivisions having a land area smaller than 25 square kilometres are usually grouped with a larger census subdivision. (2) A census subdivision with a land area greater than 25 square kilometres and surrounded on more than half its perimeter by another census subdivision is usually included as part of the CCS formed by the surrounding census subdivision. (3) A census subdivision with a population greater than 100,000 according to the last census usually forms a CCS on its own. (4) The census consolidated subdivision's name and code usually coincide with its largest census subdivision component in terms of land area. (5) A CCS with fewer than 16 farms in the last census is merged with adjacent CCS(s) to help reduce data suppression while maintaining the confidentiality of the data for these smaller CCSs." Statistics Canada, "Census consolidated subdivision (CCS)," November 16, 2016, available at <https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/geo007-eng.cfm>, (accessed on September 2, 2020).

Census CCS Boundary File.¹⁸⁴ I performed a geospatial join of each farm's geocoded coordinates with the CCS polygon provided in the Boundary File.

168. As a result of the way in which farm's coordinates were assigned, some farms may have their locations misspecified—either because they are not physically located in their mailing postal code, or because they are located far from the centroid of the postal code. Such error might lead to attenuation bias in my estimates of farms' preference for proximity—i.e., my results might understate how much farms care about the proximity of elevators. Such bias is likely conservative; it will introduce a broader collection of elevators competing for any farm's business, thereby mitigating any anticompetitive effects of the Transaction.

169. Finally, I limited my transaction data build to include only canola and CWRS (Canadian Red Spring Wheat). This is due to the fact that Canadian Red Spring Wheat is sown and harvested on a different schedule from other varieties of wheat that are grown in Canada. This means that transactions involving other types of wheat should not be expected to follow the same statistical models as Canadian Red Spring Wheat. Red Spring Wheat accounted for over 93% of the wheat transactions in my dataset.

170. Note that the G3 data's structure varies significantly from the other companies' transaction data; it reports net quantity of grain purchased from a given postal code at the quarterly level. Further, the data did not specify grain type, so to be conservative and overestimate the competitive importance of G3, I include all of these purchases twice—once as though they were canola, and once as though they were wheat.

171. Because I run a sensitivity of the choice model with month fixed effects, it is important that all transaction data is at least at the monthly level of granularity. In order to assign quarterly G3 transaction quantities to each month, I allocated the quarterly quantity to its constituent months in proportion to the amount of grain sold to all other elevators in that month in comparison to that quarter.¹⁸⁵

¹⁸⁴ "lccs000a16a_e.shp," available at https://www12.statcan.gc.ca/census-recensement/alternative_alternatif.cfm?l=eng&dispxt=zip&teng=lccs000a16a_e.zip&k=%20%20%20%2015876&loc=http://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/files-fichiers/2016/lccs000a16a_e.zip (accessed on January 17, 2020).

¹⁸⁵ I did so after limiting the dataset to growers within 600 km of Moosomin or Virden so that only relevant postal codes would be included in the allocations.

172. For example, I calculated the total amount of wheat sold to the other 22 elevators in the data in Q4 2017, as well as in October 2018 individually. I then found that the October transactions made up 24.9% of the wheat quarterly transactions, so I applied 24.9% of G3's wheat Q4 2018 quantity to October 2018.

6.1.2. Futures Price and Exchange Rate Data

173. To impute a price of grain handling services for each Moosomin and Virden transaction in the dataset, I used the following relation:

$$GHS\ Price = Futures\ Contract\ Price - Price\ per\ Metric\ Tonne$$

174. I downloaded futures prices for wheat from iVolatility (MW on the Minneapolis Grain Exchange) and for canola from CapitalIQ (RS on the Intercontinental Exchange).¹⁸⁶ I used wheat futures contracts that expired between March, 2016 through December, 2021 and canola futures contracts that expired between January 2016 through November 2019. I converted wheat futures prices from USD per bushel to CAD per metric tonne using FRED's daily historical exchange rates database and the conversion rate of 36.744 bushels of wheat per metric tonne.¹⁸⁷ I used FRED exchange rates beginning on January, 2, 2015 and lasting through December 31, 2019. Canola futures contracts expire in January, March, May, July, and November; wheat futures contracts expire in March, May, July, September, and December.

175. Next, I assigned each of these three elevators' transactions a "benchmark futures contract"—the futures contract most likely to be the "peg" for a farmer-elevator contract that fixes the basis in advance, and the one most likely to be the reference futures contract for a farmer-elevator contract that fixes the transaction price in advance. By reviewing the limited contract data available in the file titled "Wilkie & Virden Contract Details.xlsx," I determined that most transactions are benchmarked against futures contracts that expire less than 45

¹⁸⁶ [REDACTED]

¹⁸⁷ iVolatility (Minneapolis Spring Wheat Futures Data) (Accessed February 7, 2020); Capital IQ (ICE Canola Futures Data) (Accessed February 2, 2020); Canada/U.S. Exchange Rate (DEXCAUS) Data, available at <https://fred.stlouisfed.org/series/DEXCAUS> (accessed February 2, 2020)

days after the end of the specified delivery period. Furthermore, I noticed that trading volume tends to fall precipitously for futures contracts that expire in the very near future—within the same calendar month.

176. Thus, I assigned each relevant transaction to the futures contract that expired soonest after the delivery date, with the exception that it could not expire in the same calendar month as the delivery; in the latter case, the *next* futures contract was chosen. After choosing the relevant futures contract, I used the settle price for that contract on the day of the transaction's delivery. For example, if a canola transaction's grain was delivered on September 1, 2017, it was assigned the September 1st settle price of the contract expiring on November 15, 2017. For example, if a canola transaction's grain was delivered on November 1, 2017, the transaction was assigned the November 1st settle price of the contract expiring on January 15, 2018, since the November 15, 2017 contract expires in the same calendar month as the transaction's delivery.

177. For all transactions to elevators that are not Moosomin or Virden, I set the price of grain handling services to missing. As discussed above, prices outside the relevant geographic market (Moosomin, Virden, and Fairlight) are not relevant in any of my analyses, and Fairlight's transaction data only quotes *gross* prices, which are not comparable to the prices in the Moosomin and Virden transaction data. In my merger simulation, I use a placeholder price of zero for Fairlight transactions, since only the *change* in price and the *markup* are relevant, as discussed above.

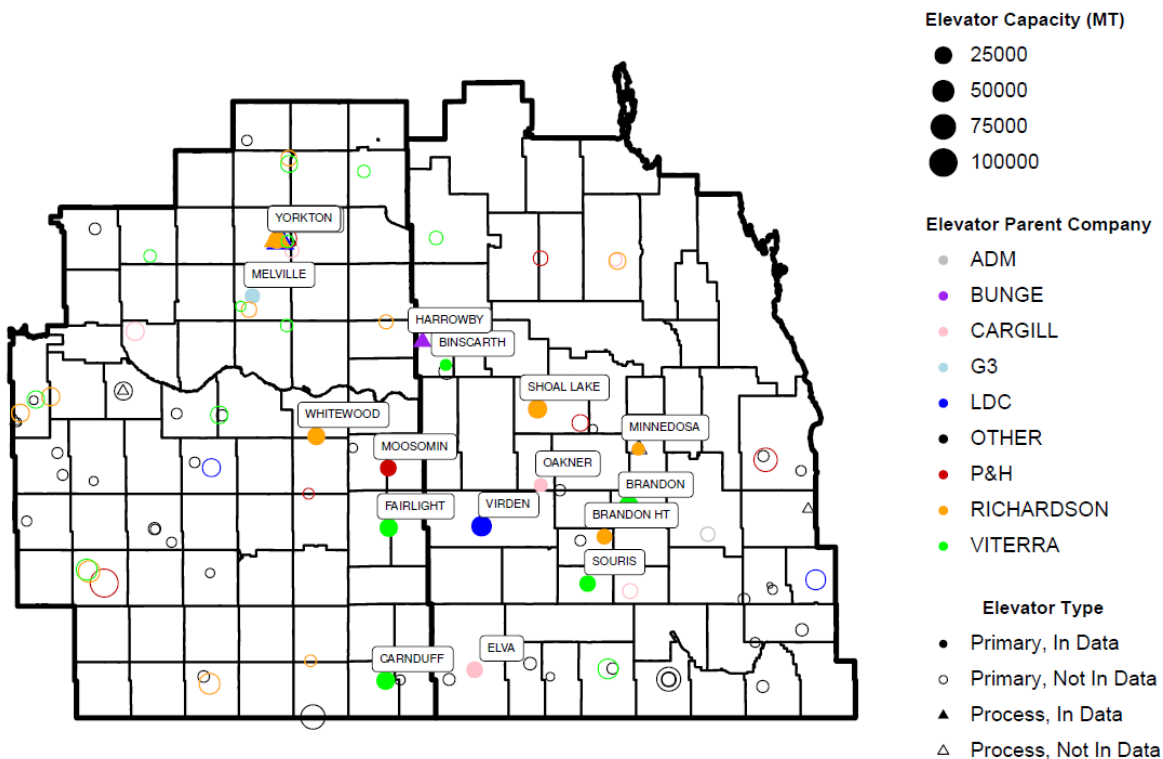
178. Exhibit 6 shows that these imputed prices involve many outliers. As a result, I focus on median prices of grain handling services for my analyses.

6.1.3. Service area sample restrictions

179. Next, I imposed a sample restriction based on service area. The main purpose of the choice model is to estimate the preferences of the farms most likely to purchase grain handling services from elevators inside the relevant geographic market—the Moosomin, Virden, and Fairlight elevators. Moosomin, Virden, and Fairlight are most likely to focus on these farms when making pricing decisions, and these farms are the most likely to be harmed by any price increase.

180. One practical limitation is that I do not have data on every elevator in Canada. Specifically, I have fairly complete data on elevators near the relevant geographic market, but lack data for many elevators further away from the geographic market. Exhibit 16 maps the locations of all elevators near the geographic market, and indicates which of these elevators have provided data.

EXHIBIT 16
Elevator locations



Source: Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files; LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data

Note: Elevators shown are primary elevators and process elevators, which include crushers. The size of each elevator is proportional to its capacity. Elevators within 200 km of Moosomin or Virden are shown. Crushers include LDC's Yorkton, Richardson's Yorkton, ADM's Verva, and Bunge's Harrowby and Altona process elevators. Data exists for several elevators that are not shown on the map because they are outside the shown area: Wilkie, Hamlin, Hanover Jct, Altona, Bloom, and Verva. Capacity was not reported for G3's Melville elevator, so it was assigned the average capacity of all elevators shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

181. The fact that many elevators further from the candidate geographic market have not provided data means that the preferences of farms further from the candidate geographic market will be poorly estimated. The model will not take into account all of the relevant choices they have, and will therefore will overestimate the desirability of the choices the model *does* include.

Furthermore, to understand the pricing incentives of elevators in the candidate market, it is not necessary to model farms far from the candidate market because those farms are unlikely to purchase from any of the elevators in the candidate market.

182. Thus, I estimate the model on only those farms located within a limited, but generous, area around the elevators inside the geographic market. To determine an appropriate area, I introduce in Section 2.2 and technically define

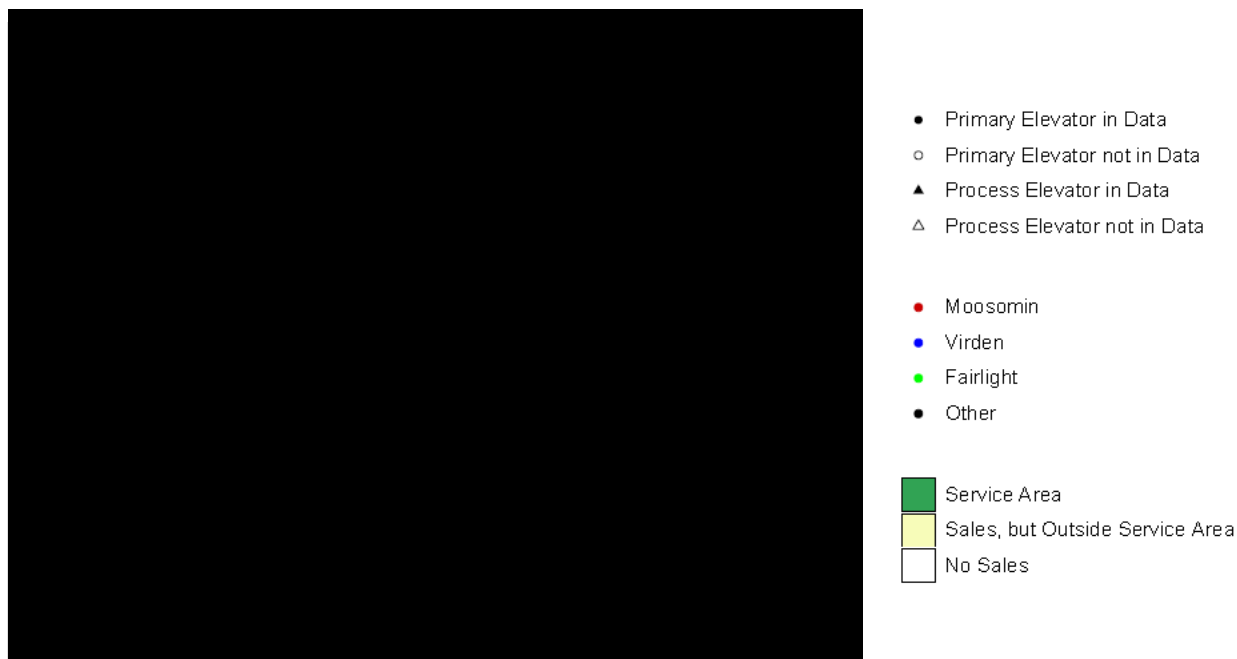
here the concept of an elevator's *service area*, which is identified by a percentage and is a similar, but more precisely defined, entity to a draw area.¹⁸⁸

183. For example, Moosomin's 90% service area for canola during the March 2018–February 2019 period consists of the closest CCSs to Moosomin, such that they collectively account for 90% of the canola sold to Moosomin in crop year 2018. To calculate Moosomin's 90% service area for canola in crop year 2018, I perform the following steps:

- I find the fraction of canola purchased by Moosomin in crop year 2018 that comes from each CCS.
- I rank the CCSs by distance from Moosomin in ascending order.¹⁸⁹
- I take the cumulative sum of the fractions in step 1 until it reaches 90%.
- I define the 90% service area as the collection of CCSs that contributed to the cumulative sum in step 3. The result for wheat is shown in Exhibit 2.

¹⁸⁸ [REDACTED]

¹⁸⁹ I used the "Grain Elevators in Canada" dataset provided by the Canadian Grain Commission to attribute coordinates to Moosomin, Virden, and Fairlight. Using the coordinates of the elevators, and the centroids of the farm CCSs, I then computed the Euclidean distance in kilometers from elevator to farm CCS. "cgcElevators2017.gml," available at <https://open.canada.ca/data/en/dataset/05870f11-a52a-4bf4-bc15-910fd0b8a1a3> (accessed on August 29, 2020).

EXHIBIT 17**Union of 90% service areas for wheat**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat. The union of 90% service area represents the union of the CCSs in the 90% service area of Moosomin, Virden, and Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. CCSs with a centroid within 200 km from Virden or Moosomin are shown.

184. I separately calculate the 90% service area for each of Moosomin, Virden, and Fairlight. Then, I take the union of all CCSs located in the service area of any of these elevators and limit the sample of farms—to only those within the union. The union of 90% service areas is shown in Exhibit 17. Because of the union, this area includes considerably more than 90% of the grain purchased by the elevators in the relevant geographic market, as shown in Exhibit 18. I also perform sensitivities using the union of the 85% and 95% service areas. Seen in the table below, the change in threshold has very little impact on the purchases included. All demand, diversion, UPP, and merger simulation analyses (including the hypothetical monopolist test) in the main text are performed on the 90% service area.

EXHIBIT 18**Share of total net quantity in the aggregate 90% service area**

Elevator	90% service area (baseline)		85% service area		95% service area	
	Canola	Wheat	Canola	Wheat	Canola	Wheat
Moosomin	92.5%	92.7%	92.5%	92.7%	95.5%	96.8%
Virден	96.7%	96.9%	94.5%	96.9%	99.2%	98.4%
Fairlight						
Moosomin, Virден, and Fairlight						

Source: LDC Transaction Data; P&H Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions within 600 km of Virден or Moosomin. Only CWRS wheat is included. Nexera and non-GMO canola is excluded. The 90%, 85% and 95% service areas represent the union of the CCSs in the 90%, 85%, or 95% service area of Moosomin, Virден, or Fairlight. The 90%, 85%, or 95% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90%, 85%, or 95% of the total net quantity bought by the individual elevator.

185. As a final step, I excluded from almost all analyses any farm located further than 600 km from both Moosomin and Virден, as these would be unlikely to purchase grain from any elevator within the relevant geographic market.¹⁹⁰ This does not eliminate any part of the 95% service area but is relevant for the few analyses conducted before performing the service area sample restriction: calculating median price of grain handling services, tabulating market shares, and measuring median distances farms ship their grains.

6.1.4. Choice Dataset

186. After deriving transaction-level price of grain handling services, I roll the data up to the farm/elevator/grain/time period¹⁹¹ level, so that each row represents the total quantity of a given grain that a grower sold to an elevator within the respective time period. Once the dataset is rolled up, I filter out all observations that have a rolled net quantity that is less than or equal to zero.

¹⁹⁰ I determined the distances from the growers to the elevators by taking the Euclidean distance from the grower coordinate points to the elevator coordinate points. The elevator coordinate points were determined using the location information in the Grain Elevators in Canada dataset, provided by the Canadian Grain Commission (CGC).

¹⁹¹ When monthly fixed effects are included in my demand estimation analysis, I rolled the transaction data up to the grower/elevator/grain/crop year/month level. For sensitivities without monthly fixed effects, I rolled the transaction data up to the grower/elevator/grain/crop year level, where “crop year” means March 2018–February 2019 for canola.

187. The choice dataset I use to estimate my demand model is based on this rolled up transaction data. I create the choice dataset as follows. For each row of the rolled up transaction data, I created one observation for each elevator from which the farm could have purchased grain handling services. For each such option, I imputed a counterfactual price of grain handling services by taking the (weighted by net quantity) median observed price of grain handling services at that elevator for that grain over the crop year or month in question, weighted by rolled net quantity. Note that I imputed the price of grain handling services before imposing any service area restrictions (discussed above), which is consistent with my posted price model.

188. I retrieved driving times and driving distances between farms and elevators options using ArcGIS and the latitudinal and longitudinal coordinates of the growers' postal codes and towns and the elevators. I used the "Grain Elevators in Canada" dataset provided by the Canadian Grain Commission to attribute coordinates to each of the 23 elevators in the choice dataset. I retrieved these times and distances using ArcGIS on August 18, 2020 at 14:51 CDT.¹⁹²

¹⁹² "cgcElevators2017.gml," available at <https://open.canada.ca/data/en/dataset/05870f11-a52a-4bf4-bc15-910fd0b8a1a3>. I manually assigned the coordinates of ADM's Velve elevator and G3's Melville elevator using Google Maps (accessed on August 3, 2020).

6.2. Farm choice model

189. I estimate a standard conditional logit model of elevator choice, in which each farm ranks each available elevator based on a utility score and selects the top-ranked option. The utility score assigned to each option consists of three components: (1) driving time, (2) preferences about each elevator, and (3) a stochastic term that allows for the fact that farms with identical driving time and preference for elevators may make different choices for reasons that I cannot measure.

190. Formally, each farm i assigns a utility level u_{ij} to elevator j . The utility function is specified as follows:

$$u_{ij} = \delta_j + \beta_j x_{ij} + \epsilon_{ij}$$

191. where x_{ij} is the driving time from farm i to elevator j , δ_j is the elevator fixed effect which captures the specific elevator preferences, and ϵ_{ij} is a stochastic term distributed type-I extreme value. The parameter of interest is β_j which governs how much farms value differences in the driving time.

192. Because farmers' shipments vary in a wide range, I use net quantity shipped as weights to make the analysis representative of the market reality. The net quantity shipped is constructed using the transaction data in year 2017. More details about data cleaning and transaction dataset are presented in Appendix Section 6.1.

193. Note that while price is not explicitly included in the model, the elevator fixed effects implicitly include preferences related to price. It would be convenient if I could explicitly model farms' price sensitivity here. However, as discussed above, prices for grain handling services at a transaction level are likely not measured precisely. Thus, instead, I calibrate farms' price sensitivity in the merger simulation process, discussed in Appendix Section 6.5 below, using calculated markups, discussed in Appendix Section 6.4.1 below.

194. I use the maximum likelihood estimation approach to estimate the farmer choice model.

6.2.1. Demand estimates

195. The estimated demand coefficients represent the additional utility a farm would receive from a marginal increase in the modeled characteristic. The coefficients establish a framework for quantifying how farms' decisions will respond to changes in elevator and market characteristics, which can be used to model how competition among elevators disciplines prices. When calibrating my merger simulation model below, I pair these coefficients with markup data to infer how sensitive farms are to the price of grain handling services, as well as how strongly farms must value proximity to rationalize the decisions they make in the data.

196. In Exhibit 19, I report the estimates from my demand model. I find that farmers place significant and negative value on the driving time to the elevators, wherein they are more likely to choose elevators requiring less driving time. I also include sensitivities where I use an 85% or 95% service area. The results are similar, which suggests that the overall conclusions do not hinge on the particular sample restriction.

EXHIBIT 19
Estimates of demand model

Wheat	90% Service Area (baseline)		85% Service Area		95% Service Area	
	Yearly	Monthly	Yearly	Monthly	Yearly	Monthly
Driving Time	-0.0933*** (0.0044)	-0.0961*** (0.0039)	-0.0933*** (0.0044)	-0.0961*** (0.0039)	-0.0895*** (0.0037)	-0.0924*** (0.0035)
Fixed Effects	Elevator	Elevator x Month	Elevator	Elevator x Month	Elevator	Elevator x Month
Observations	27,855	64,003	27,855	64,003	29,580	68,116
Log Likelihood	-1.137e+06	-1.043e+06	-1.137e+06	-1.043e+06	-1.232e+06	-1.134e+06
Canola Including Crushers						
Driving Time	-0.0765*** (0.0034)	-0.0782*** (0.0035)	-0.0777*** (0.0038)	-0.0796*** (0.0039)	-0.0698*** (0.0034)	-0.0718*** (0.003)
Fixed Effects	Elevator	Elevator x Month	Elevator	Elevator x Month	Elevator	Elevator x Month
Observations	35,720	71,708	33,320	66,149	41,860	86,538
Log Likelihood	-988122	-887715	-923476	-825192	-1.161e+06	-1.048e+06
Canola Excluding Crushers						
Driving Time	-0.1047*** (0.0049)	-0.1062*** (0.0047)	-0.1113*** (0.0053)	-0.1135*** (0.0051)	-0.0973*** (0.0053)	-0.0998*** (0.0051)
Fixed Effects	Elevator	Elevator x Month	Elevator	Elevator x Month	Elevator	Elevator x Month
Observations	21,135	40,104	19,395	36,060	24,585	48,873
Log Likelihood	-440860	-390343	-384879	-335987	-502690	-444477

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; Capital IQ ICE Canola Futures Data; 2016 Census Program CCS Boundary Files

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Each model controls for drive times to each elevator choice and clusters standard errors at the farm-chosen elevator level. Monthly models are weighted by net quantity sold per grower per crop year and month to the chosen elevator, yearly models are weighted by net quantity sold per grower per crop year to the chosen elevator. See Appendix Section 6.1 for details on data processing and sample restrictions. Nexera and non-GMO canola are excluded.

6.3. Diversion ratio

197. I calculate the diversion ratios based on my demand model estimates. Given that I assume a posted price model throughout this report, I calculate a uniform pricing diversion ratio. In particular, the diversion ratio from elevator j_1 to j_2 , $Diversion\ ratio_{j_1 \rightarrow j_2}$, is defined and computed as follows, using properties of logit demand:

$$Diversion\ ratio_{j_1 \rightarrow j_2} \equiv \frac{\frac{dQ_{j_2}}{dP_{j_1}}}{-\frac{dQ_{j_1}}{dP_{j_1}}}$$

$$Diversion\ ratio_{j_1 \rightarrow j_2} = \frac{\sum_i Q_i \frac{dProb_{i,j_2}}{dP_{j_1}}}{-\sum_i Q_i \frac{dProb_{i,j_1}}{dP_{j_1}}}$$

198. Assuming that $\delta_j = \tilde{\delta}_j - \alpha P_j$, as in Appendix Section 6.5.1 below:

$$Diversion\ ratio_{j_1 \rightarrow j_2} = \frac{\sum_i Q_i \alpha Prob_{i,j_2} Prob_{i,j_1}}{-\sum_i Q_i (-\alpha) Prob_{i,j_1} (1 - Prob_{i,j_1})}$$

$$Diversion\ ratio_{j_1 \rightarrow j_2} = \frac{\sum_i Q_i Prob_{i,j_1} Prob_{i,j_2}}{\sum_i Q_i Prob_{i,j_1} (1 - Prob_{i,j_1})}$$

where $Prob_{i,j}$ represents the probability (considering unobservable idiosyncratic preferences) that farm i will choose elevator j .

199. In Exhibit 20, I compare the diversion ratios depicted in the main text with those that would prevail under an 85% or 95% service area sample restriction. Again, the results are similar, which suggests that the overall conclusions do not hinge on the particular sample restriction.

EXHIBIT 20***Diversion ratios under alternative sample restrictions***

Grain	90% Service Area (Baseline)		85% Service Area		95% Service Area	
	Diversion from Moosomin to Virden	Diversion from Virden to Moosomin	Diversion from Moosomin to Virden	Diversion from Virden to Moosomin	Diversion from Moosomin to Virden	Diversion from Virden to Moosomin
Wheat						
Canola Including Crushers						
Canola Excluding Crushers						

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90%, 85%, or 95% service area and within 600 km of Moosomin or Virden. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90%, 85%, or 95% service areas represent the union of the CCSs in the 90%, 85%, or 95% (respectively) service areas of Moosomin, Virden, or Fairlight. The 90%, 85%, or 95% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90%, 85%, or 95% (respectively) of the total net quantity bought by the individual elevator. Diversion ratios are weighted by net quantity sold per farm per crop year to the chosen elevator. Diversion ratios are based on a choice model that controls for drive times to each elevator choice and is weighted by net quantity sold per grower per crop year to the chosen elevator. The canola crushers in the data are ADM's Velva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers.

6.4. UPP and GUPPI

200. To calculate the UPP and GUPPI measures, I need three components: diversion ratios, elevators' markups, and elevators' prices. Diversion ratios and prices have been extensively discussed in Appendix Sections 6.3 and 6.1, respectively. In this section, I describe how to calculate elevators' markups and the formula for UPP and GUPPI calculation.

6.4.1. Markup calculation

201. I calculate LDC Virden's markup using the median price of grain handling services from transaction data and the cost items from the profit and loss statement. In particular, I use the 2017, 2018, and 2019 Calendar Year Virden P&L statements to determine the marginal cost.¹⁹³ These files contain line items of expenses and revenues.

202. Economic theory says that *marginal cost*—the cost of producing one extra unit of goods or services—is what drives pricing. Marginal cost is an abstract concept not recorded in data. Concrete costs recorded in data can be broken into *fixed costs*, which do not change no matter how many units of goods or services are produced, and *variable costs*, which scale with the size of the operation. If marginal costs are constant—i.e., do not vary with the amount of goods or services being produced—then average variable cost—total variable cost divided by units produced—must equal marginal cost. Thus, in processing the accounting data, I include only those cost items, which represent the *variable cost* of grain handling services. In order to categorize the line items into the types of expenses/revenues detailed below, I join the data found in “LDCANADA P&L 2017 Virden & Wilkie.xlsx” and “LDCANADA P&L 2018 Virden & Wilkie.xlsx” by the account number.¹⁹⁴ I focus on expenses at Virden only, since LDC provided more detailed cost data.

¹⁹³ 2017 P&L by Location by Month.xlsx, “Accounts Summary” sheet; 2018 P&L by Location by Month.xlsx. “Combined” sheet; #4 Virden A.xlsx, “Virden 2019 PL” sheet.

¹⁹⁴ When I am not successful in assigning a type to a line item in a given month, I determine the type by finding a line item with the same account description, type of expense (six digit code), function (1 digit code), and product type (wheat, canola, general) whose type is populated. Note that this is not necessary for the 2019 cost data because the cost data already contains corresponding types.

203. First, I exclude any accounts with Function “1,” which indicates “Trading” activities according to the Legend produced in response to the SIR.¹⁹⁵ Second, we note that the remaining Main Account numbers begin with “5,” “6,” “7,” and “8.” I discuss these one at a time, as it is conventional to categorize different types of accounts using the leading digit:

- “5” contains what appear to be various revenue accounts, the vast majority of which have credit balances. Thus, I exclude all of these accounts. The one apparent exception is corporate basis, which should be excluded anyway on the grounds that it is a fixed cost.
- “6” contains what appear to be gains and losses, electricity, and insurance. I exclude “FX ON ELEV COSTS” since it is categorized as “Fixed,” “PRE-AUDIT (GAIN)LOSS” since it is generally a credit and therefore conservative to exclude, and include all other accounts since they are generally debits and therefore conservative to include.
- “7” appear to be expenses. We include “Employee Expenses” and “Variable,” but exclude “Fixed” and “Depreciation.”
- “8” corresponds to only one account, “NBV OF ASSETS SOLD,” and appears only once in December 2017. This does not represent a real monthly cost, so it is excluded.

204. Some accounts are associated with specific grains, while others are not. The latter are distributed across the grains in proportion to their put through volume. The sum of the costs for a given grain is divided by the put through volume to obtain a marginal cost per metric tonne, which is then converted from USD to CAD using the annual conversion rate provided by the Bank of Canada.¹⁹⁶ One cost that I exclude that is worth further discussion is freight cost. First, these accounting statements attribute freight to the trading business, which is part of a separate product market, as discussed above in Section 3. Second, freight does not conceptually belong in the *marginal cost* of providing grain handling services since the *price* I imputed for these services does not include freight service. The futures market price does not capture the increased value of the grain after it has been shipped to the coast. Therefore, it is most appropriate *not* to include freight as a cost of grain handling services.

¹⁹⁵ Legend.xlsx, “Legend” sheet.

¹⁹⁶ Bank of Canada Annual Average Canada/U.S. Exchange Rate Data (FX_RATES_ANNUAL-sd-2017-01-01.csv), available at <https://www.bankofcanada.ca/rates/exchange/annual-average-exchange-rates/> (accessed on August 27, 2020).

205. I also did not include any adjustment for differences in freight costs relative to the theoretical expected costs to ship from the futures market location. For Canola, there is no adjustment to consider as the futures market location is Saskatchewan. For wheat, as discussed above, most shipments flows east or west, to ports at Thunder Bay or Vancouver, while the futures prices that I used for wheat are based on delivery in Minneapolis. Minneapolis is not appreciably closer to coastal ports than the Moosomin or Virden elevators are.

206. Since monthly data was not provided for calendar year 2019, for wheat (crop year 2018–2019) and canola (March 2018–February 2019), I perform these steps at an annual level for 2018 and 2019 separately, and then take the simple average of the result. For wheat (crop year 2017–2018, relevant only for my workpapers and not presented in Exhibit 21 below), I perform these steps monthly, using only the data from August 2017–July 2018.

207. Markup is defined as price less marginal cost. I use the median price of grain handling services at Virden over the relevant time period (crop year 2018–2019 or 2017–2018 for wheat, March 2018–February 2019 for canola). I show the markup calculation in Exhibit 21.

EXHIBIT 21
LDC Virden markup

Grain	Median Price of Grain Handling Services [A]	Cost per MT [B]	Markup [A] – [B]	Margin ([A] – [B])/[A]
Wheat				
Canola				

Source: 2018 and 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data; LDC Transaction Data; Grain Elevators in Canada Data; Canada/U.S. Exchange Rate (DEXCAUS) Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data

Note: The median price is calculated using all farms that sell to Virden and that are located within 600 km of either Virden or Moosomin. The median price calculation for wheat includes only CWRS wheat and runs from August 2018 through July 2019. The median price calculation for canola excludes Nexera and non-GMO canola and runs from March 2018 through February 2019. See Section 2.5 for details. The Cost per MT reflects the average of the 2018 and 2019 Cost per MT. In order to find the 2018 and 2019 Cost per MT, 2018 and 2019 costs were taken from LDC's 2018 and 2019 P&L Statements, then converted to CAD using Bank of Canada Annual Average Canada/U.S. Exchange Rates, and finally divided by volumes taken from LDC's 2018 and 2019 Throughput Data. See Appendix Section 6.4.1 for a detailed description of the cost per MT calculation.

6.4.2. UPP and GUPPI formulas

208. As I discussed in Section 5.4, UPP and GUPPI are calculated to measure the merging parties' incentives to increase the prices due to a merger.

209. The UPP measures the incentives of the merging firms to raise price, and approximates the likely price increases. Formally, the UPP from elevator i to elevator j is defined as follows:

$$UPP_{i \rightarrow j} = \text{Diversion ratio}_{i \rightarrow j} \times \text{Markup}_j$$

210. The GUPPI measures this price increasing incentive relative to its own product price, thus the effect is in percentage. Formally, the GUPPI from elevator i to elevator j is defined as follows:

$$GUPPI_{i \rightarrow j} = \text{Diversion ratio}_{i \rightarrow j} \times \frac{\text{Markup}_j}{\text{Price}_i}$$

6.5. Technical description of merger simulation model

6.5.1. Exposition

211. The merger simulation model features two types of agents: farmers and firms. The model features no linkages across grains; they are two completely separate models.

212. The way we estimate farms' preferences and behavior has already been described in Appendix Section 6.2, except for their price sensitivity. In particular, I assume that farms' utility is given by

$$u_{ij} = \delta_j + \beta_j x_{ij} + \epsilon_{ij}$$

213. I assume that $\delta_j \equiv \tilde{\delta}_j - \alpha P_j$, where α captures the farms' sensitivity to price of grain handling services.

214. Then, given a collection of prices P_j , a farmer i derives expected utility

$$U_i = \ln \sum_j \exp v_{ij}$$

where $v_{ij} = u_{ij} - \epsilon_{ij}$.

215. A firm $f \in F$ owns elevators $J_f \subseteq J$. Each elevator j faces a constant marginal cost C_j . Thus, firm f earns expected profit

$$\pi_f = \sum_{j \in J_f} (P_j - C_j) \sum_i Q_i \text{Prob}_{ij}$$

where Q_i represents the amount of grain sold by farmer i and Prob_{ij} represents the probability that farmer i sells to elevator j and is given in the logit case by

$$\text{Prob}_{ij} = \frac{\exp(u_{ij})}{\sum_{j'} \exp(u_{ij'})}$$

Each firm sets its prices simultaneously, maximizing profit given all other firms' prices. This represents a Nash-Bertrand equilibrium.

216. Given that the geographic market consists of only the Moosomin, Virden, and Fairlight elevators, there are three firms before the Transaction and two firms after the Transaction. Implicitly, all elevators outside the market are assumed to hold their prices fixed, and I do not model their profit functions.

217. Overall welfare is given as follows:

$$W = \frac{1}{\alpha} \sum_i U_i + \sum_f \pi_f$$

218. Technically, the *level* of consumer surplus is not determined, as behavior would be the same if it were increased by a constant. Therefore, only *changes* in consumer or total surplus are determined.

6.5.2. Calibration

219. In order to proceed with the merger simulation, I must assign values to the parameters. In particular, I do so by enforcing the assumption that, pre-Transaction, firms were maximizing profits.

220. The first step is calculating the markup earned by the Virden elevator, just performed in Appendix Section 6.4.1.

221. The second step is to infer the price coefficient of demand α by assuming that the Virden elevator was maximizing profit before the Transaction. In particular, the first order condition for Virden is

$$\begin{aligned} \sum_i Q_i Prob_{i,Virden} &= -(P_{Virden} - C_{Virden}) \sum_i Q_i \frac{dProb_{i,Virden}}{dP_{Virden}} \\ \sum_i Q_i Prob_{i,Virden} &= (P_{Virden} - C_{Virden}) \alpha \sum_i Q_i Prob_{i,Virden} (1 - Prob_{i,Virden}) \\ \alpha &= \frac{\sum_i Q_i Prob_{i,Virden}}{(P_{Virden} - C_{Virden}) \sum_i Q_i Prob_{i,Virden} (1 - Prob_{i,Virden})} \end{aligned}$$

222. The third step in the calibration process is to infer the pre-Transaction markup earned by every other elevator in the relevant market, again by assuming profit maximization before the Transaction. The same condition can be rearranged as follows:

$$(P_j - C_j) = \frac{\sum_i Q_i Prob_{ij}}{\alpha \sum_i Q_i Prob_{ij} (1 - Prob_{ij})}$$

223. Finally, while the model operates entirely in markups and changes in markups, I find it easier to discuss and program the model in terms of prices and marginal costs. Thus, I infer a marginal cost from the inferred markup. For Moosomin, this involves subtracting the markup from the observed median price of grain handling services. For Fairlight, I do not observe the price of grain handling services. Thus, I use a “placeholder” price of zero, and infer a “placeholder” marginal cost that is the opposite of the markup.

224. As discussed in the main text, the result of this process is summarized in Exhibit 13. The calibrated parameters are reasonable.

6.5.3. Simulation

225. To simulate the results of the Transaction, I solve the three profit-maximizing first order conditions simultaneously. The Fairlight equation is the same:

$$\sum_i Q_i Prob_{i,Fair} = (P_{Fair} - C_{Fair}) \alpha \sum_i Q_i Prob_{i,Fair} (1 - Prob_{i,Fair})$$

Meanwhile, the Moosomin and Virden first order conditions have changed to reflect new incentives as a merged entity. With respect to the price of Virden:

$$\begin{aligned} \sum_i Q_i Prob_{i, Virden} + (P_{Moos} - C_{Moos}) \sum_i Q_i \frac{dProb_{i, Moos}}{dP_{Virden}} \\ = (P_{Virden} - C_{Virden}) \alpha \sum_i Q_i Prob_{i, Virden} (1 - Prob_{i, Virden}) \end{aligned}$$

Using the expression for the derivative:

$$\begin{aligned} \sum_i Q_i Prob_{i, Virden} + (P_{Moos} - C_{Moos}) \alpha \sum_i Q_i Prob_{i, Moos} Prob_{i, Virden} \\ = (P_{Virden} - C_{Virden}) \alpha \sum_i Q_i Prob_{i, Virden} (1 - Prob_{i, Virden}) \end{aligned}$$

And the analogous first order condition for Moosomin:

$$\begin{aligned} \sum_i Q_i Prob_{i, Moos} + (P_{Virden} - C_{Virden}) \alpha \sum_i Q_i Prob_{i, Moos} Prob_{i, Virden} \\ = (P_{Moos} - C_{Moos}) \alpha \sum_i Q_i Prob_{i, Moos} (1 - Prob_{i, Moos}) \end{aligned}$$

226. I derive similar first order conditions for conducting they hypothetical monopolist test.

6.5.4. Monthly sensitivity

227. To rule out the possibility that the elevators in the relevant geographic market demand grain at different points in time, and therefore do not actually compete closely, I also consider a monthly model. In this case, I assume price and marginal cost at each elevator varies over time. In particular, I assume that both price and marginal cost are month-specific, with no linkage across months. Thus, the model behaves as twelve separate, monthly models, each specified exactly as above. For clarity, I observe monthly median grain handling services prices in the data, which I use for this monthly model.

228. The only difficulty presents in calibration. In the yearly model, marginal cost for Virden was inferred directly from the markup data, while α was then inferred from Virden's first order condition, given marginal cost. In a monthly model, I do not observe each month's markup, but rather the annual average. Furthermore, because I use a *median* price, it would be inappropriate to match the *mean* markup across months (which involves a mean of median monthly prices) to the annual markup shown Exhibit 21 (which involves the annual

median price). To avoid this problem, I match the mean *marginal cost* across months to the annual *marginal cost* shown in Exhibit 21. In particular, I assume that the observed marginal cost represents the average calibrated monthly marginal cost across farmers that *actually chose Virden*, weighted by the quantity they sold.

229. Given this interpretation, I calibrate the 12 monthly marginal costs at Virden, plus α , using 13 conditions: The 12 monthly first order conditions at Virden, plus the condition that the weighted average marginal cost across farmers that actually chose Virden, and across all months, matches the observed marginal cost. In particular,

$$\sum_i Q_i^m Prob_{i, Virden}^m = (P_{Virden}^m - C_{Virden}^m) \alpha \sum_i Q_i^m Prob_{i, Virden}^m (1 - Prob_{i, Virden}^m) \quad \forall m$$

$$\frac{\sum_{i,m} Q_i^m 1[Chosen_{i, Virden}^m] C_{Virden}^m}{\sum_{i,m} Q_i^m 1[Chosen_{i, Virden}^m]} = C_{Virden}^{annual}$$

where C_{Virden} denotes the observed average variable cost (which I assume is similar to marginal cost) at Virden.

230. After establishing α , calibration of the other marginal costs and simulation of the post-Transaction equilibrium proceeds precisely as before, one month at a time.

231. Exhibit 22 presents the welfare results for this monthly sensitivity. The results are qualitatively extremely similar to the baseline model in the main text.

EXHIBIT 22**Welfare results, monthly sensitivity**

		Before Acquisition	After Acquisition	Change
		[A]	[B]	[B] - [A]
Wheat	Consumer Surplus			
	Total Profit			
	Total Surplus			
<hr/>				
Canola Including Crushers	Consumer Surplus			
	Total Profit			
	Total Surplus			
<hr/>				
Canola Excluding Crushers	Consumer Surplus			
	Total Profit			
	Total Surplus			

Source: LDC Transaction Data; P&H Transaction Data; ADM Transaction Data; Bunge Transaction Data; Cargill Transaction Data; G3 Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Grain Elevators in Canada Data; Canada/U.S. Exchange Rate (DEXCAUS) Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2018 and 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data; 2016 Census Program CCS Boundary Files; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. All figures are in thousands of Canadian dollars. Analysis limited to transactions in the 90% service area and within 600 km of Moosomin or Virden. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service areas represent the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Velva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. Specification, calibration, and simulation of the merger simulation model are described in Section 5.5. and are based on the farm choice model (Section 5.3). Consumer surplus and total surplus are not determined in levels, only in differences.

6.6. Comparison of merger simulation results to UPP

232. As a verification that the simulation results are consistent with other evidence presented in this report, I can compare the price changes predicted by the UPP analysis of Section 5.4.2 to the price changes predicted by the merger simulation analysis.

233. As discussed in Section 5.4.2, UPP calculates an increase in the (opportunity) cost of competing for market share by lowering price—lost profit at the merged partner. Thus, it does not directly represent a predicted increase in price. Instead, such an increase in price depends on the rate of *passthrough*—the percentage of an increase in marginal cost that is passed on to customers.

234. Importantly, elevators will rationally respond to competitors' price increases with price increases of their own. Thus, Moosomin (for example) will pass through increases not only in its own marginal costs, but also to a lesser extent those seen by competing elevators. In order to compare the price changes predicted by these two analyses, I approximate this passthrough by separately artificially increasing each elevator's marginal cost by a small amount and simulating the model. After obtaining passthrough in this fashion, I use it, together with the UPP results of Section 5.4.2, to calculate anticipated price changes. The results of this exercise, compared with the results of the merger simulation analysis, are presented in Exhibit 23. We observe that the price increases predicted by the UPP analysis are extremely similar to those predicted by the merger simulation, which further reinforces their validity.

EXHIBIT 23**Comparison of UPP results and merger simulation results**

Grain	Diversion from Moosomin to Virden	Diversion from Virden to Moosomin	Moosomin			Virden		
			UPP	UPP Predicted Price Change	Model Simulated Price Change	UPP	UPP Predicted Price Change	Model Simulated Price Change
Wheat								
Canola Including Crushers								
Canola Excluding Crushers								

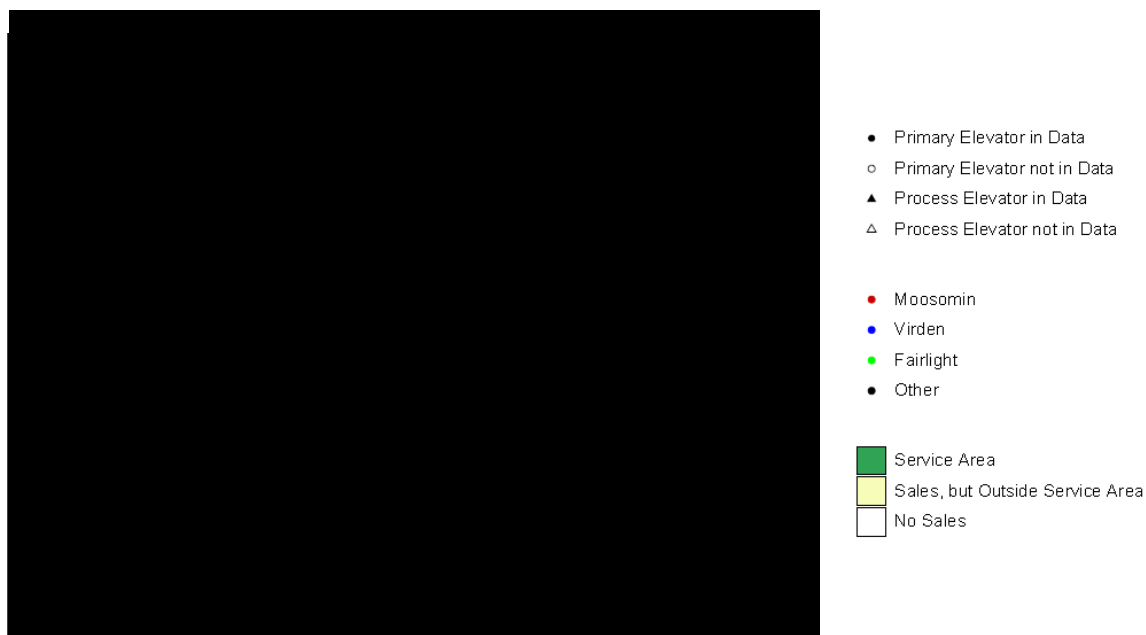
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; Canada/U.S. Exchange Rate (DEXCAUS) Data; iVolatility Minneapolis Spring Wheat Futures Data; Capital IQ ICE Canola Futures Data; 2018 and 2019 LDC P&L Statements; 2018 & 2019 LDC Throughput Data; 2016 Census Program CCS Boundary Files; Bank of Canada Annual Average Canada/U.S. Exchange Rate Data

Note: The analysis for wheat runs from August 2018 through July 2019, and the analysis for canola runs from March 2018 through February 2019. Analysis limited to transactions in the 90% service area and within 600 km of Moosomin or Virden. Nexera and non-GMO canola are excluded. Only CWRS wheat is included. The 90% service areas represent the union of the CCSs in the 90% service areas of Moosomin, Virden, or Fairlight. The 90% service area of each individual elevator represents the closest CCSs to the individual elevator that collectively form 90% of the total net quantity bought by the individual elevator. The canola crushers in the data are ADM's Verva, Bunge's Altona and Harrowby, LDC's Yorkton, and Richardson's Yorkton canola crushers. See Section 5.4 and Exhibit 12 for discussion of UPP. See Section 5.5 and Exhibit 14 for discussion of merger simulation results.

6.7. Wheat and canola service area maps for all modeled elevators

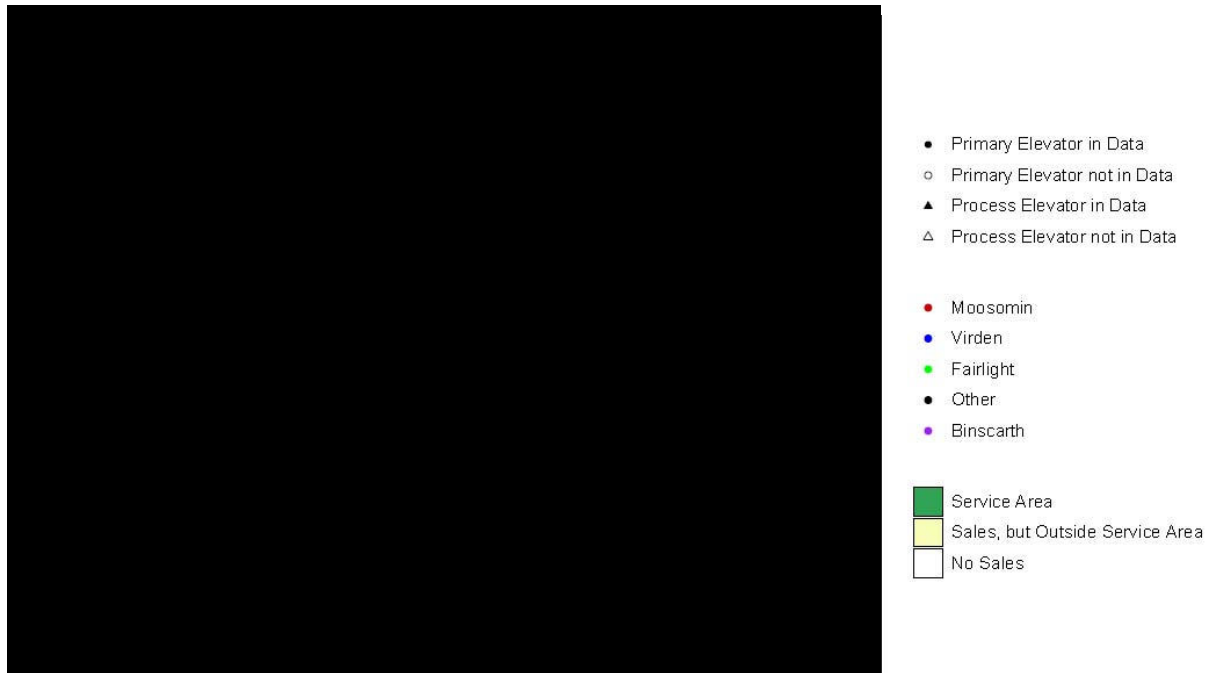
EXHIBIT 24

90% canola service area for the Altona elevator (crusher)



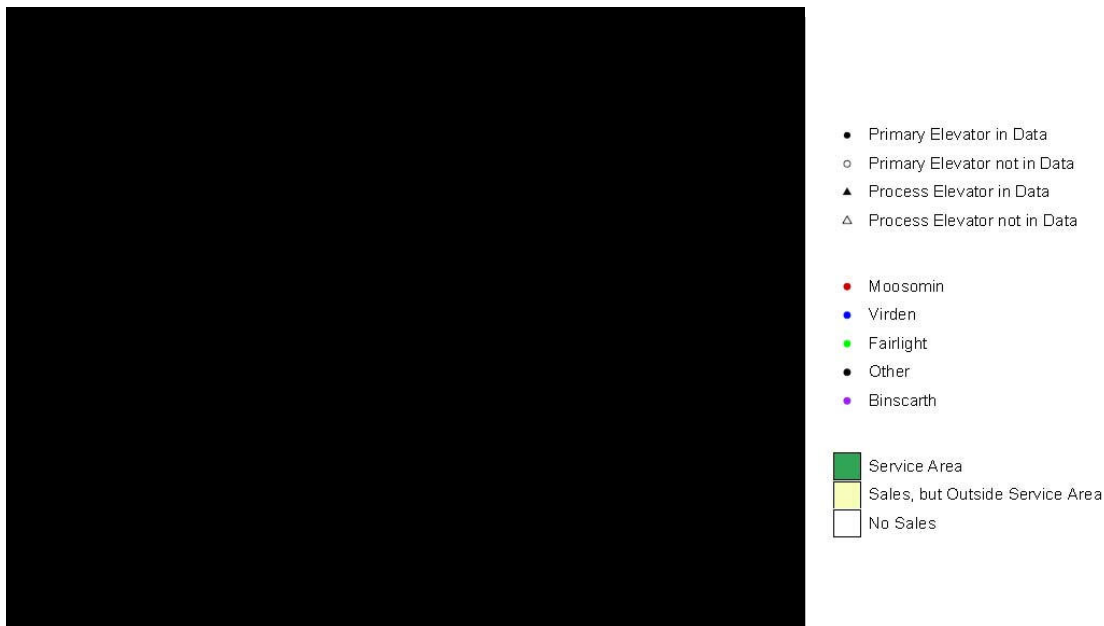
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Altona that collectively form 90% of the total net quantity bought by Altona. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data. The Altona elevator is more than 200 km from Moosomin and Virden and therefore is not shown on this map.

EXHIBIT 25**90% canola service area for the Binscarth elevator**

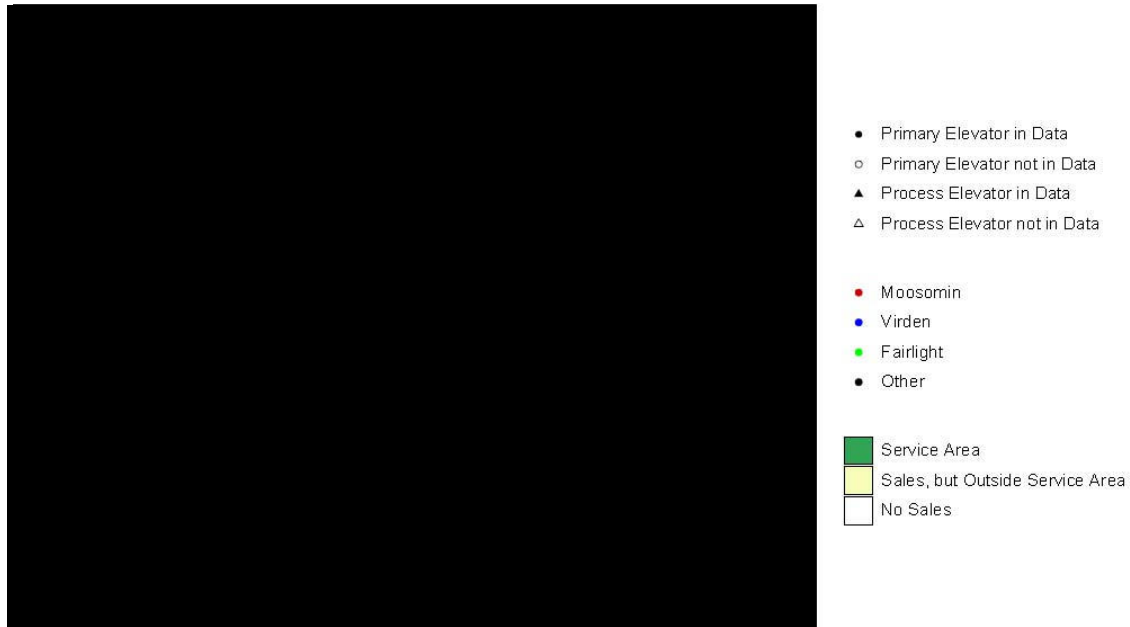
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Binscarth that collectively form 90% of the total net quantity bought by Binscarth. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 26**90% wheat service area for the Binscarth elevator**

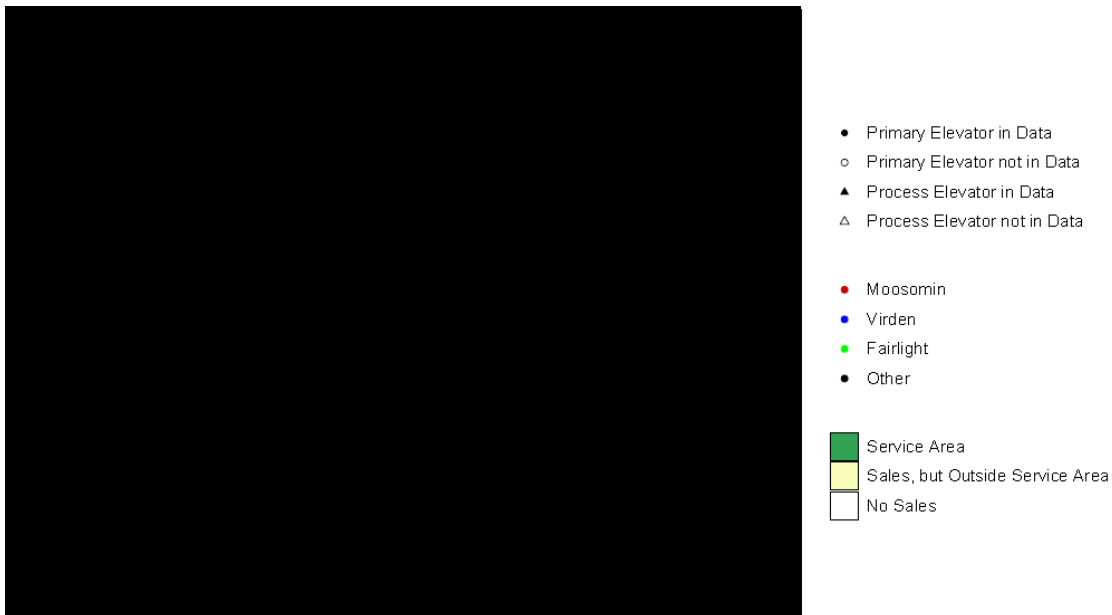
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Binscarth that collectively form 90% of the total net quantity bought by Binscarth. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 27**90% canola service area for the Bloom elevator**

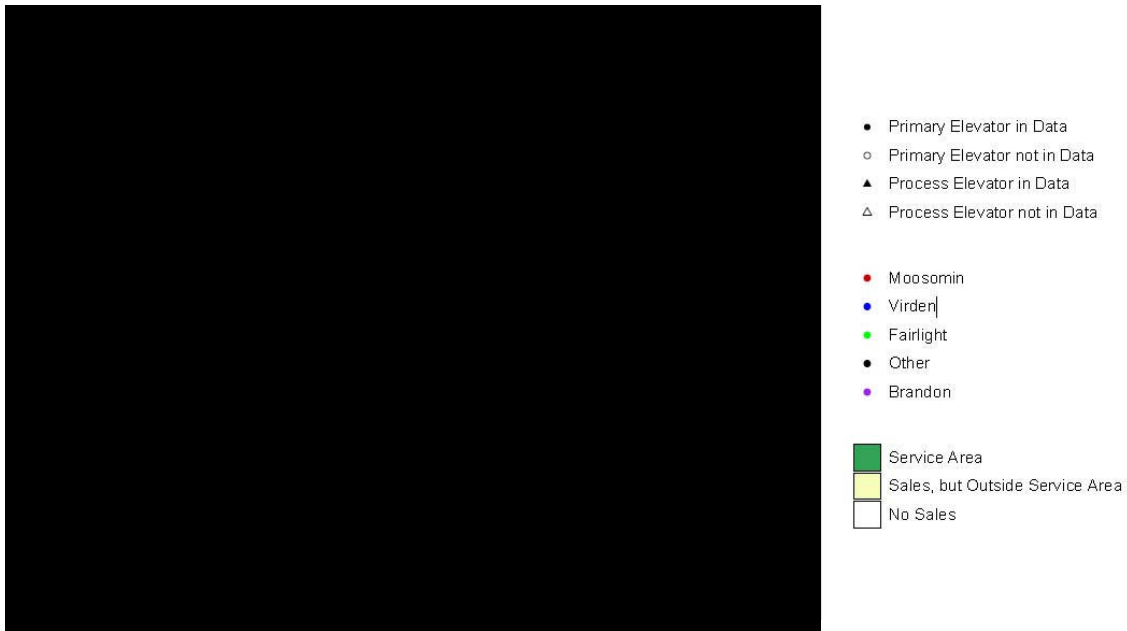
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Bloom that collectively form 90% of the total net quantity bought by Bloom. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data. The Bloom elevator is more than 200 km from Moosomin and Virden and therefore is not shown on this map.

EXHIBIT 28**90% wheat service area for the Bloom elevator**

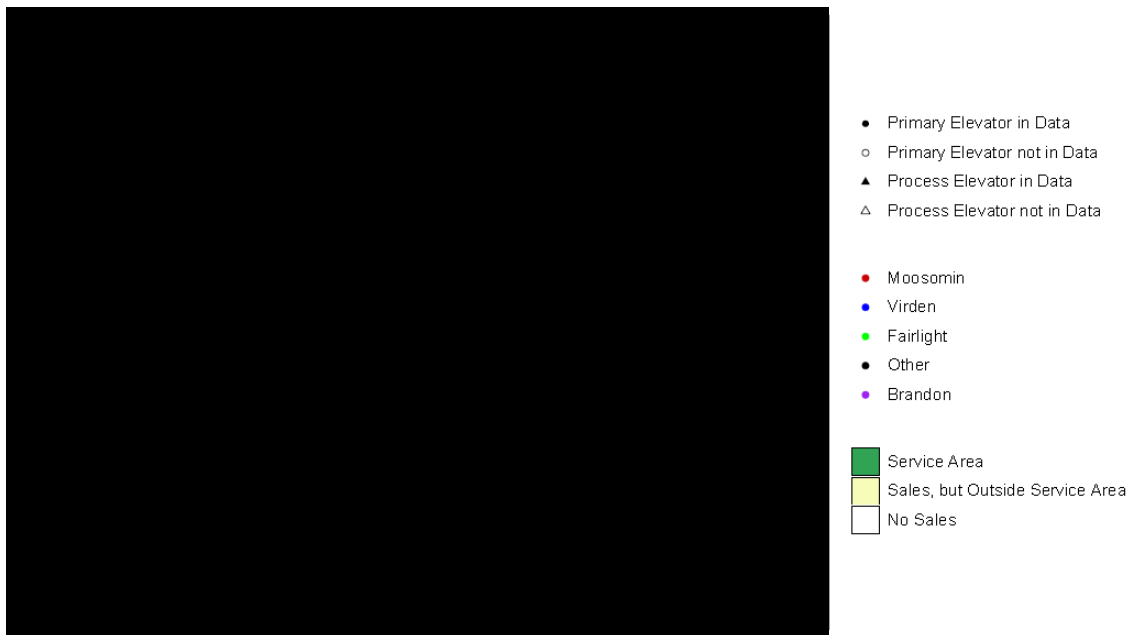
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Bloom that collectively form 90% of the total net quantity bought by Bloom. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data. The Bloom elevator is more than 200 km from Moosomin and Virden and therefore is not shown on this map.

EXHIBIT 29**90% canola service area for the Brandon elevator**

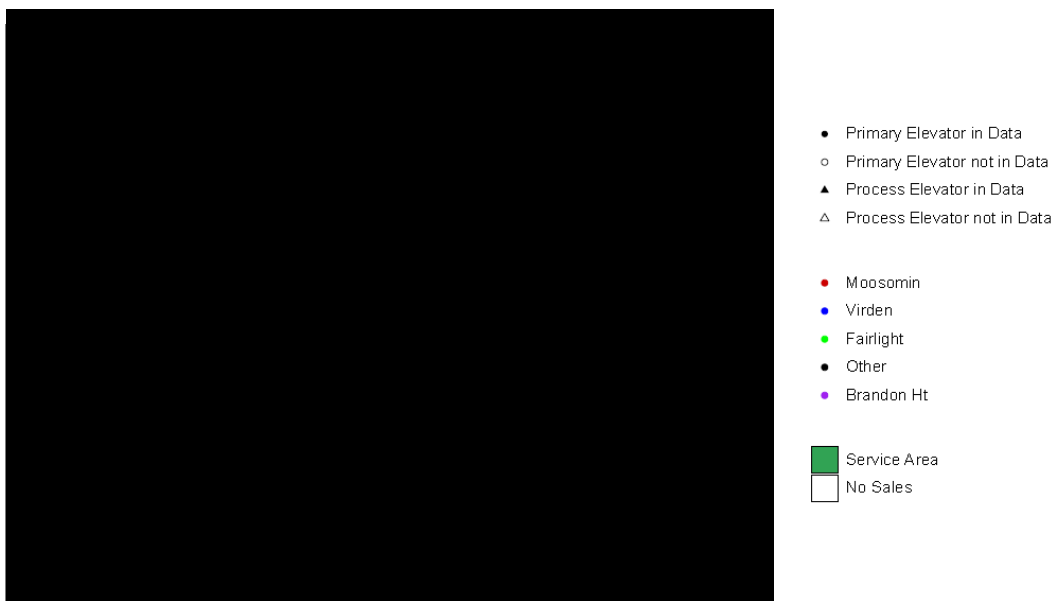
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Brandon that collectively form 90% of the total net quantity bought by Brandon. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 30**90% wheat service area for the Brandon elevator**

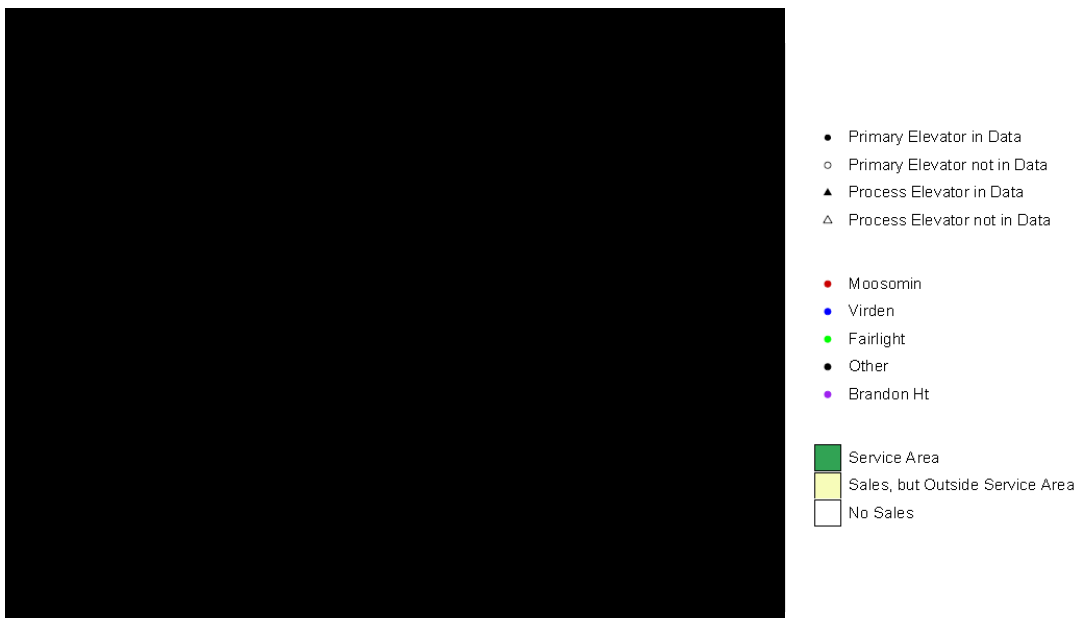
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Brandon that collectively form 90% of the total net quantity bought by Brandon. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 31**90% canola service area for the Brandon HT elevator**

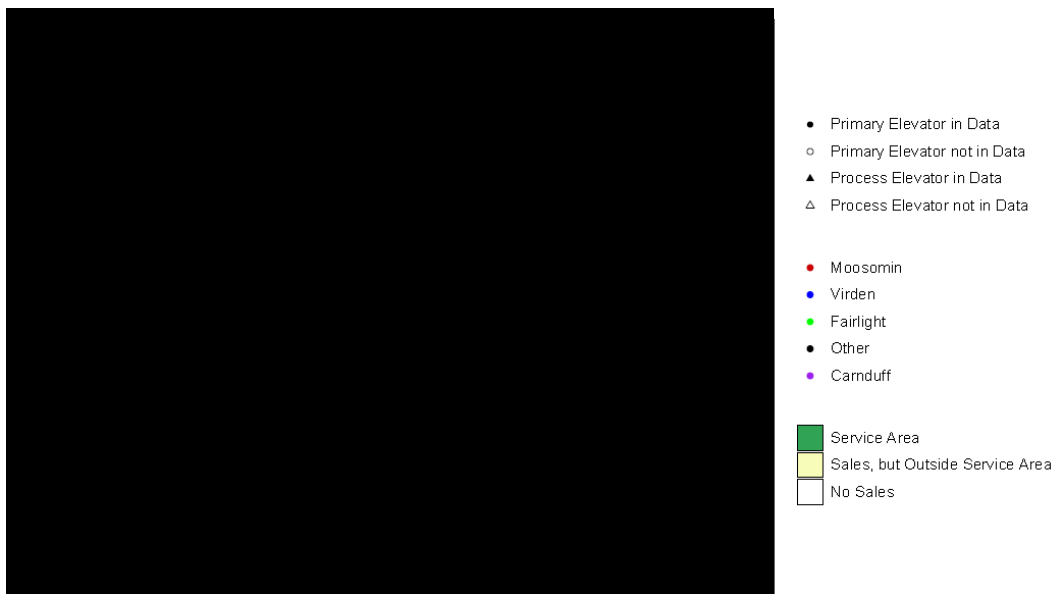
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Brandon HT that collectively form 90% of the total net quantity bought by Brandon HT. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 32**90% wheat service area for the Brandon HT elevator**

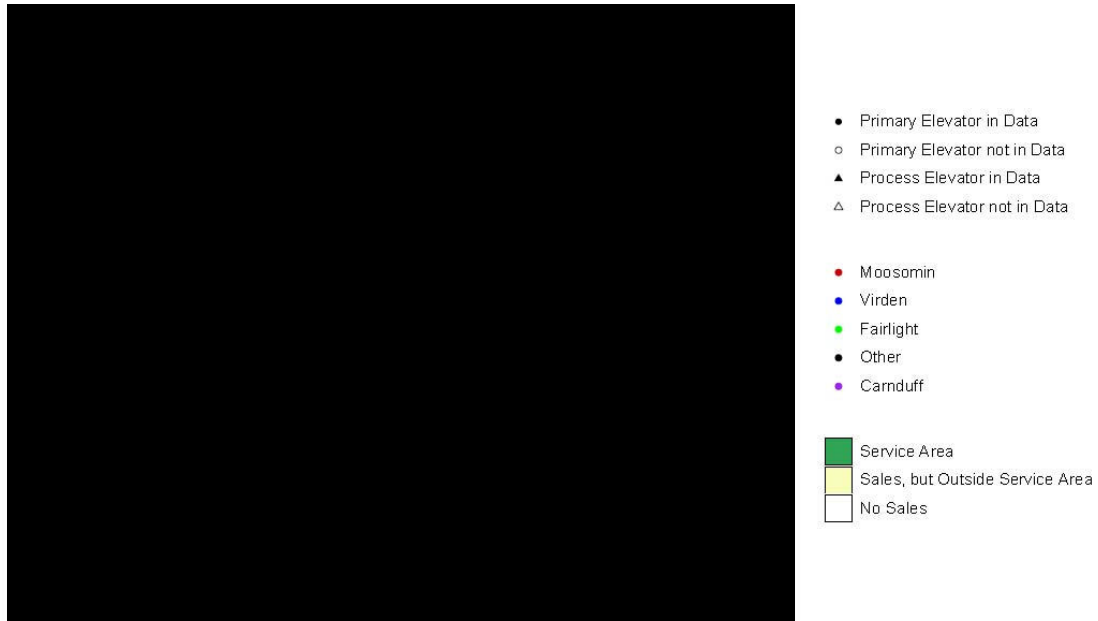
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Brandon HT that collectively form 90% of the total net quantity bought by Brandon HT. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 33**90% canola service area for the Carnduff elevator**

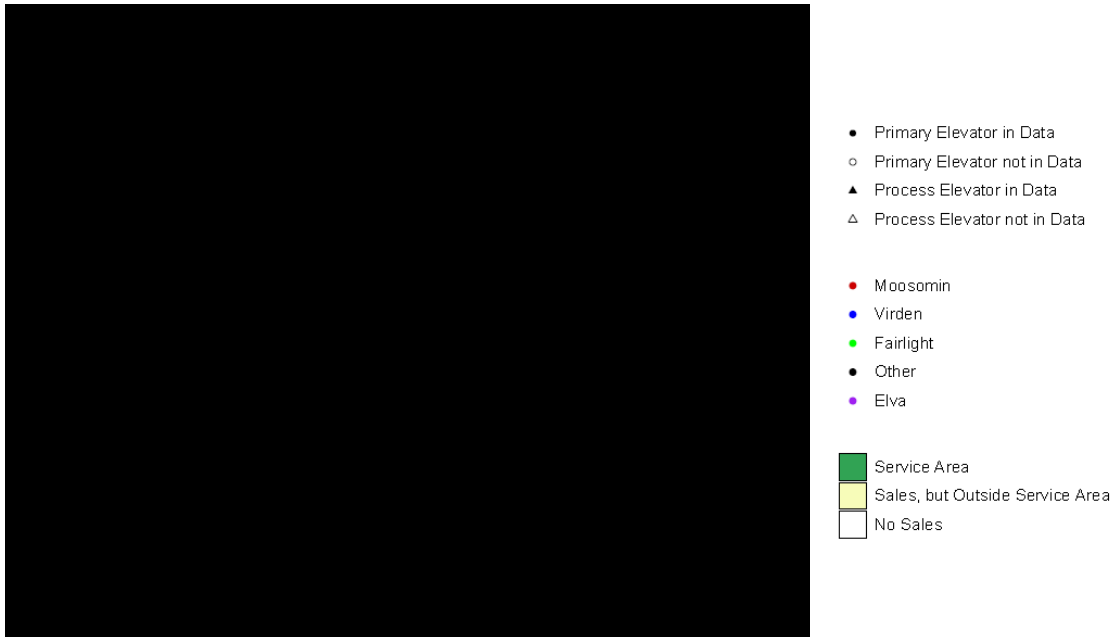
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Carnduff that collectively form 90% of the total net quantity bought by Carnduff. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 34**90% wheat service area for the Carnduff elevator**

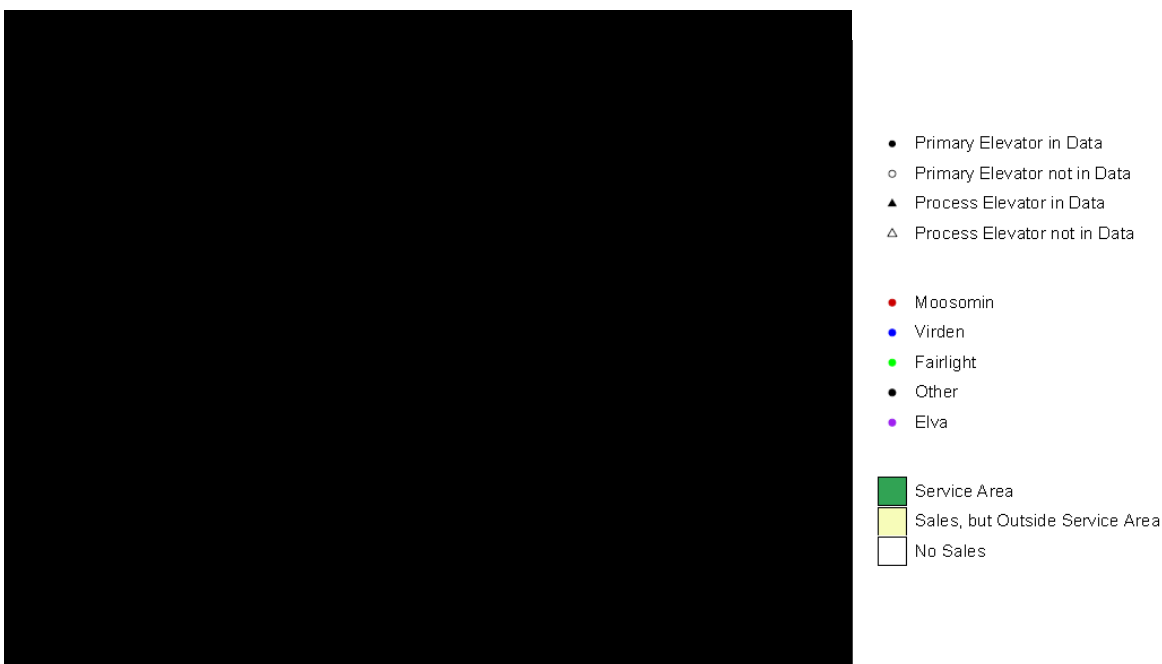
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Carnduff that collectively form 90% of the total net quantity bought by Carnduff. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 35**90% canola service area for the Elva elevator**

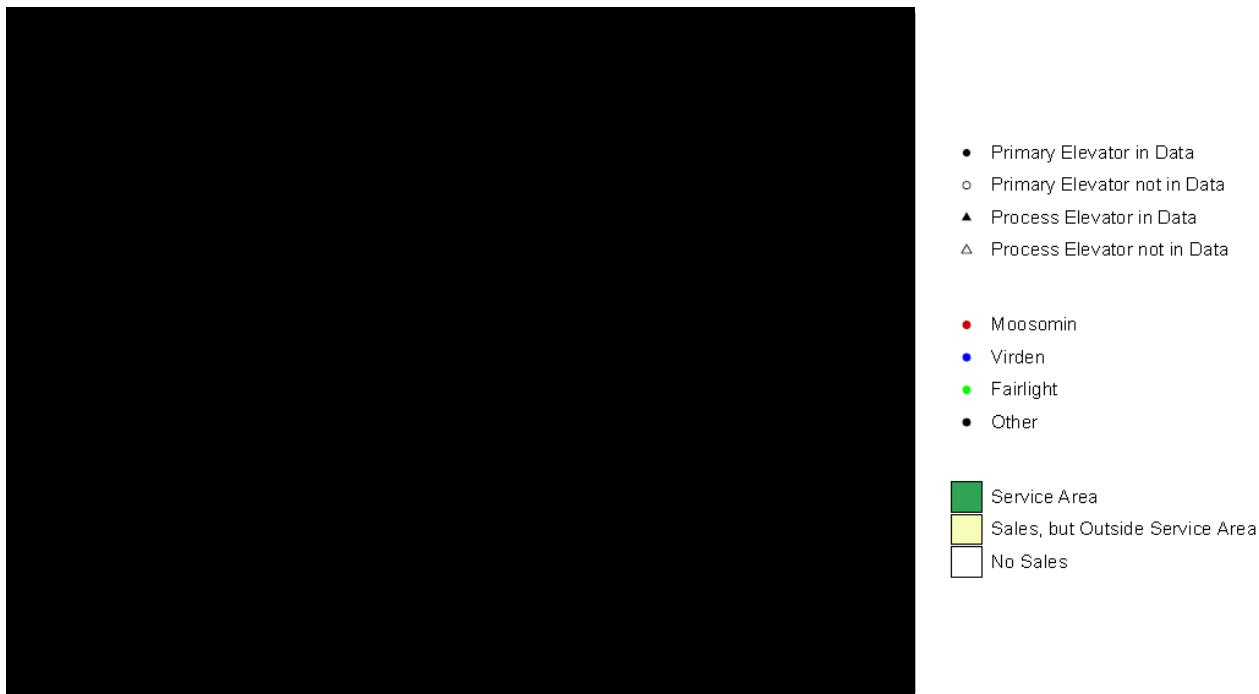
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Elva that collectively form 90% of the total net quantity bought by Elva. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 36**90% wheat service area for the Elva elevator**

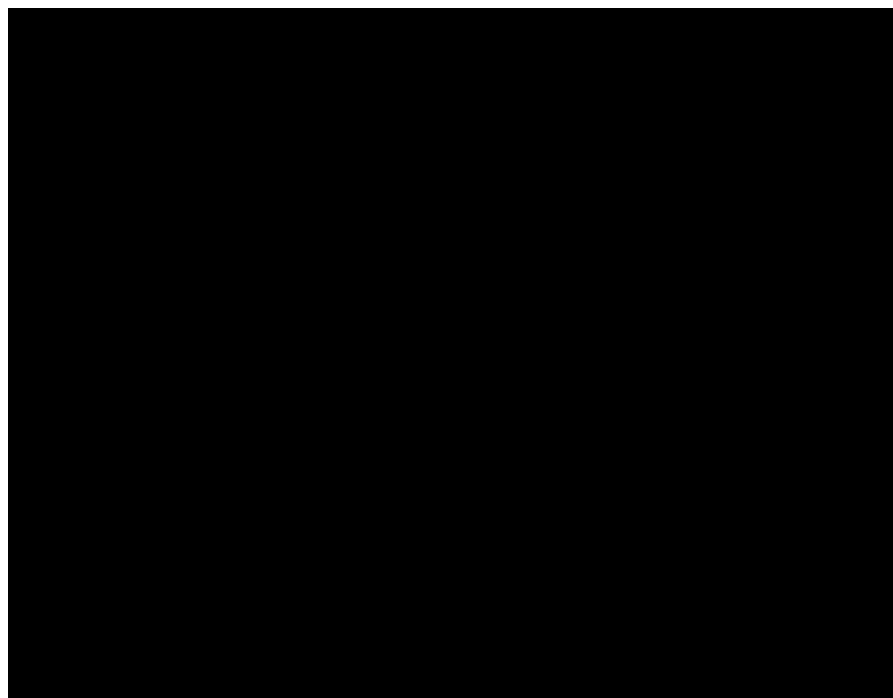
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Elva that collectively form 90% of the total net quantity bought by Elva. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 37**90% canola service area for the Fairlight elevator**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

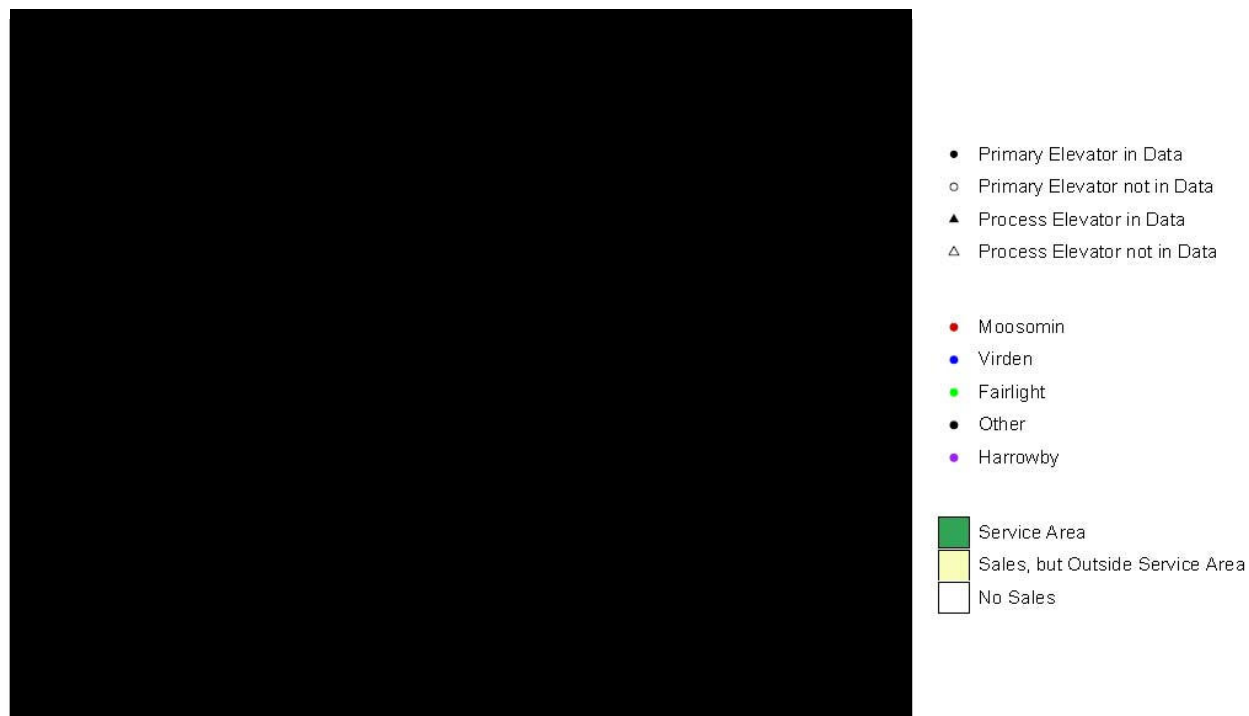
Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Fairlight that collectively form 90% of the total net quantity bought by Fairlight. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 38**90% wheat service area for the Fairlight elevator**

- Primary Elevator in Data
 - Primary Elevator not in Data
 - ▲ Process Elevator in Data
 - △ Process Elevator not in Data
-
- Moosomin
 - Virden
 - Fairlight
 - Other
-
- Service Area
 - Sales, but Outside Service Area
 - No Sales

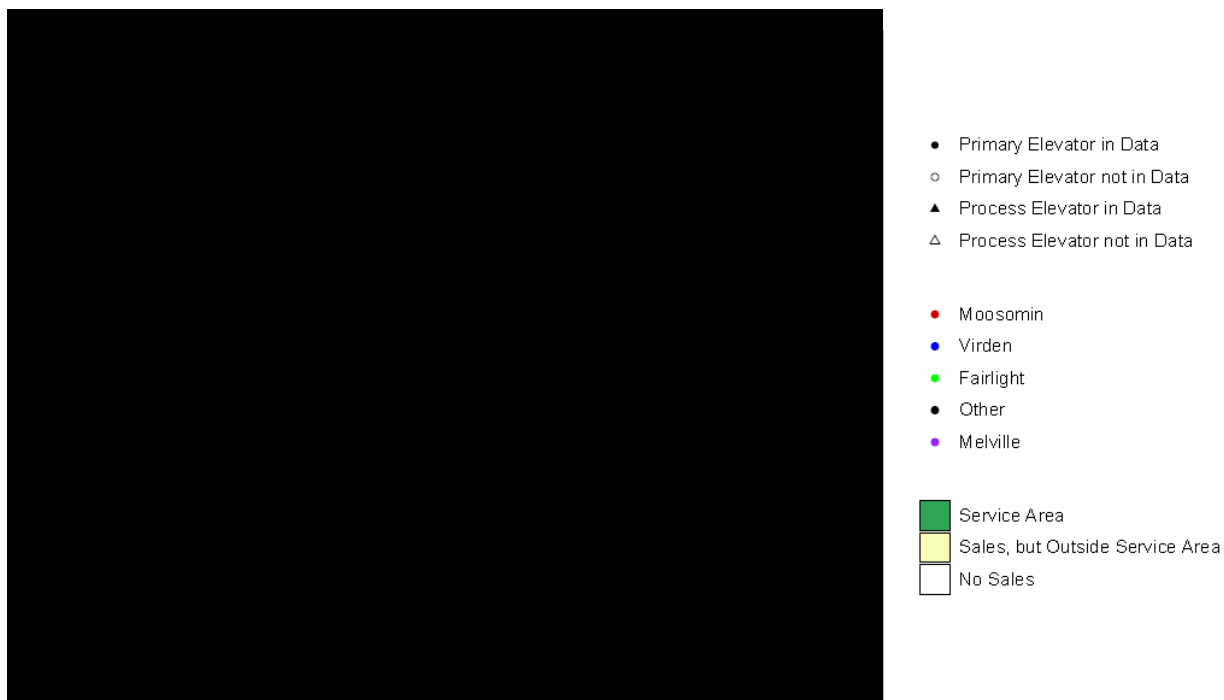
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Fairlight that collectively form 90% of the total net quantity bought by Fairlight. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 39**90% canola service area for the Harrowby elevator (crusher)**

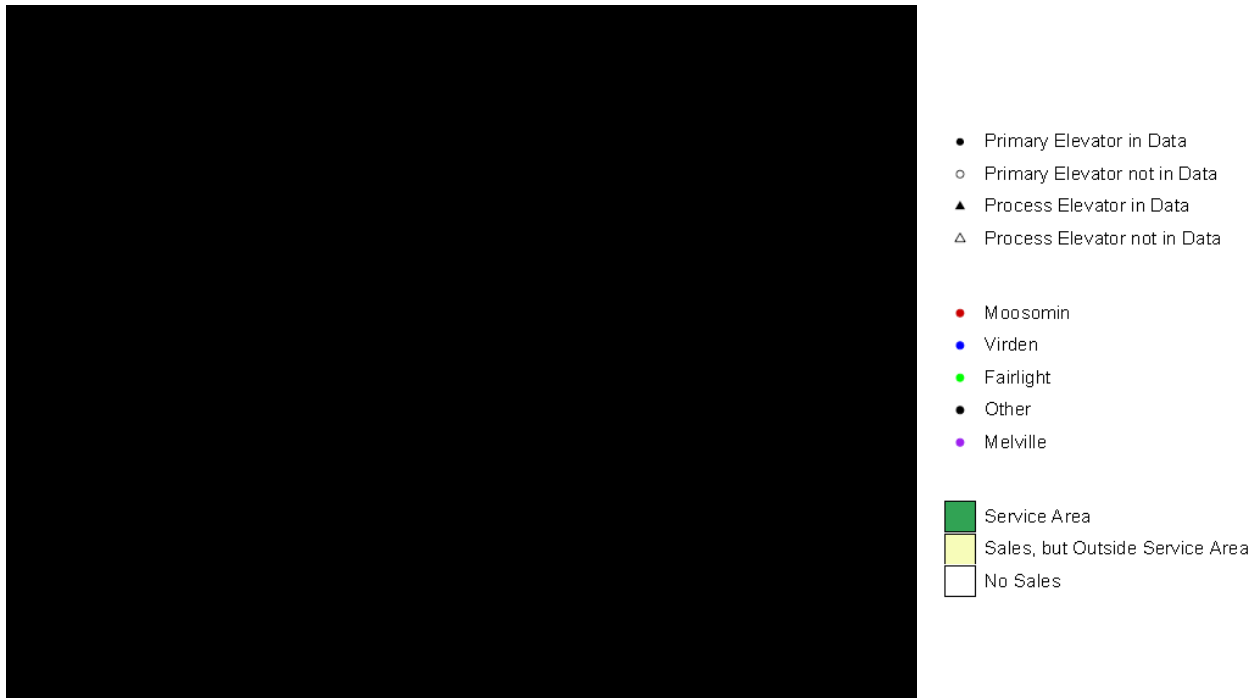
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Harrowby that collectively form 90% of the total net quantity bought by Harrowby. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 40**90% canola service area for the Melville elevator**

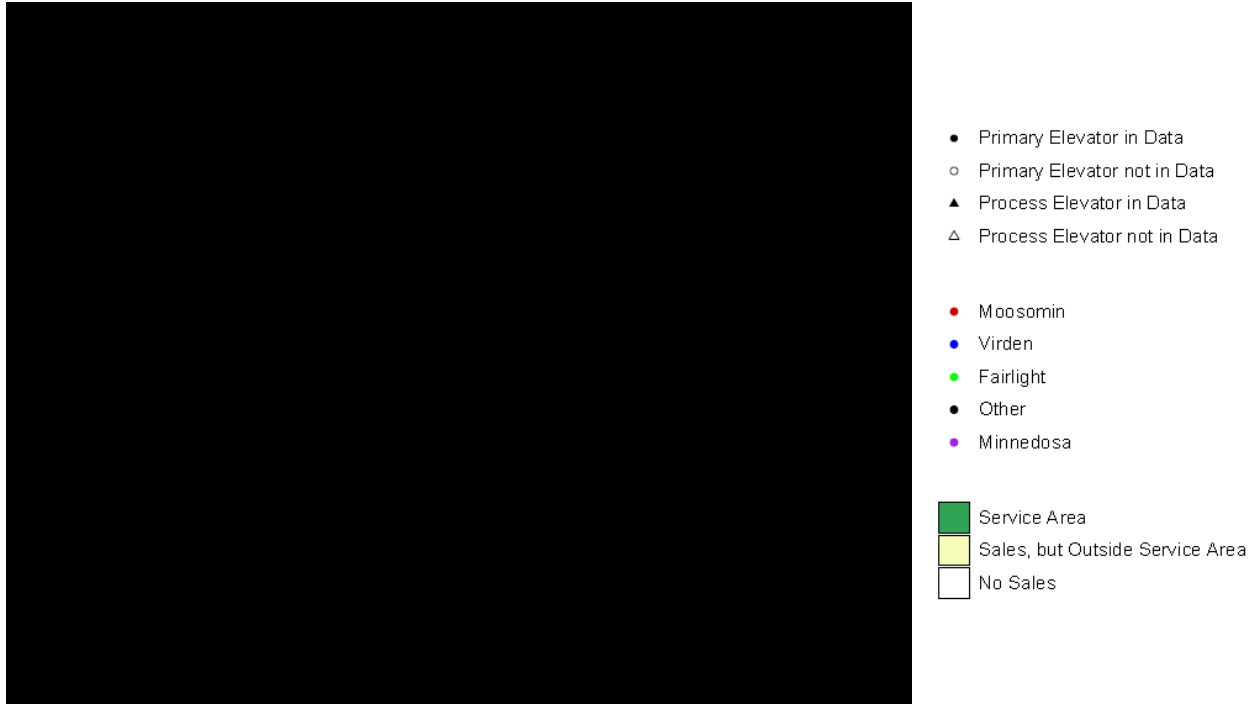
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Melville that collectively form 90% of the total net quantity bought by Melville. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 41**90% wheat service area for the Melville elevator**

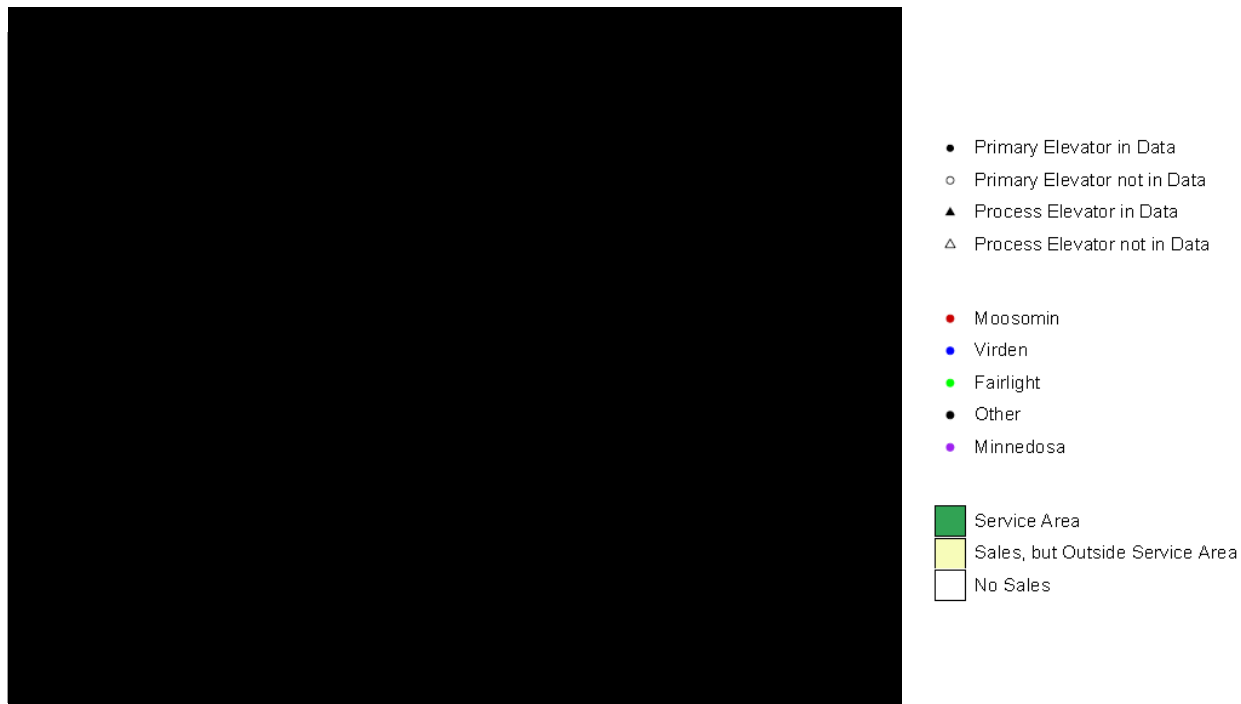
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Melville that collectively form 90% of the total net quantity bought by Melville. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 42**90% canola service area for the Minnedosa elevator**

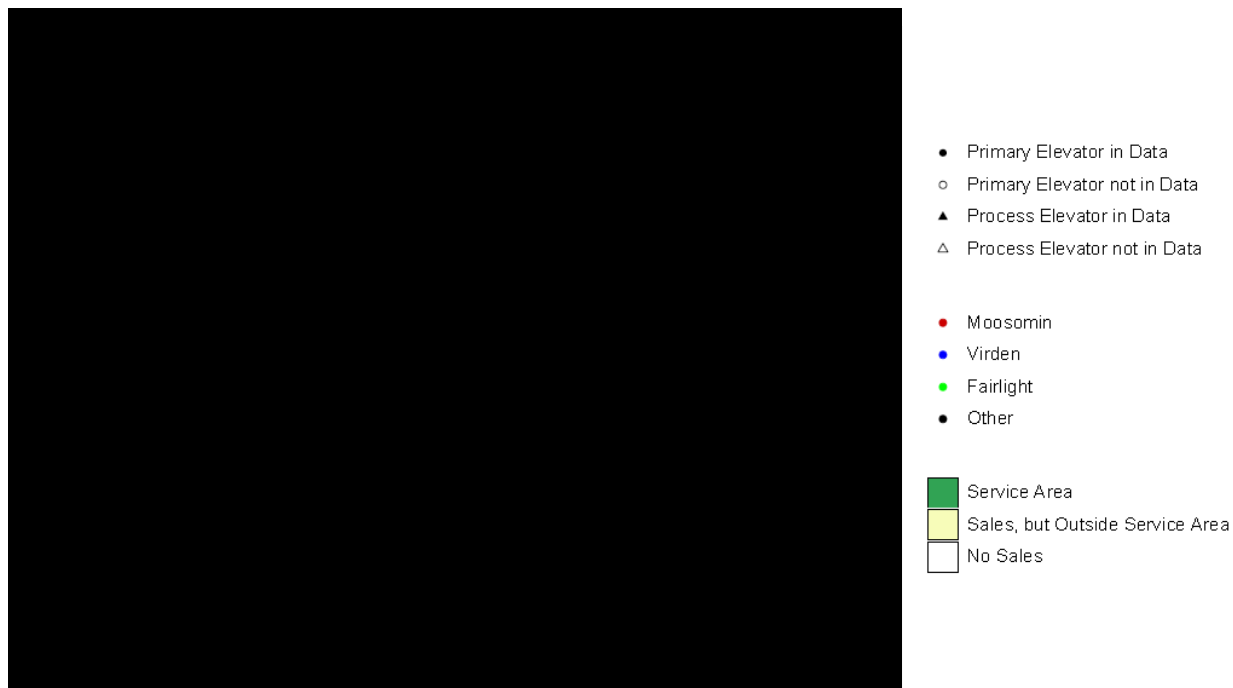
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Minnedosa that collectively form 90% of the total net quantity bought by Minnedosa. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 43**90% wheat service area for the Minnedosa elevator**

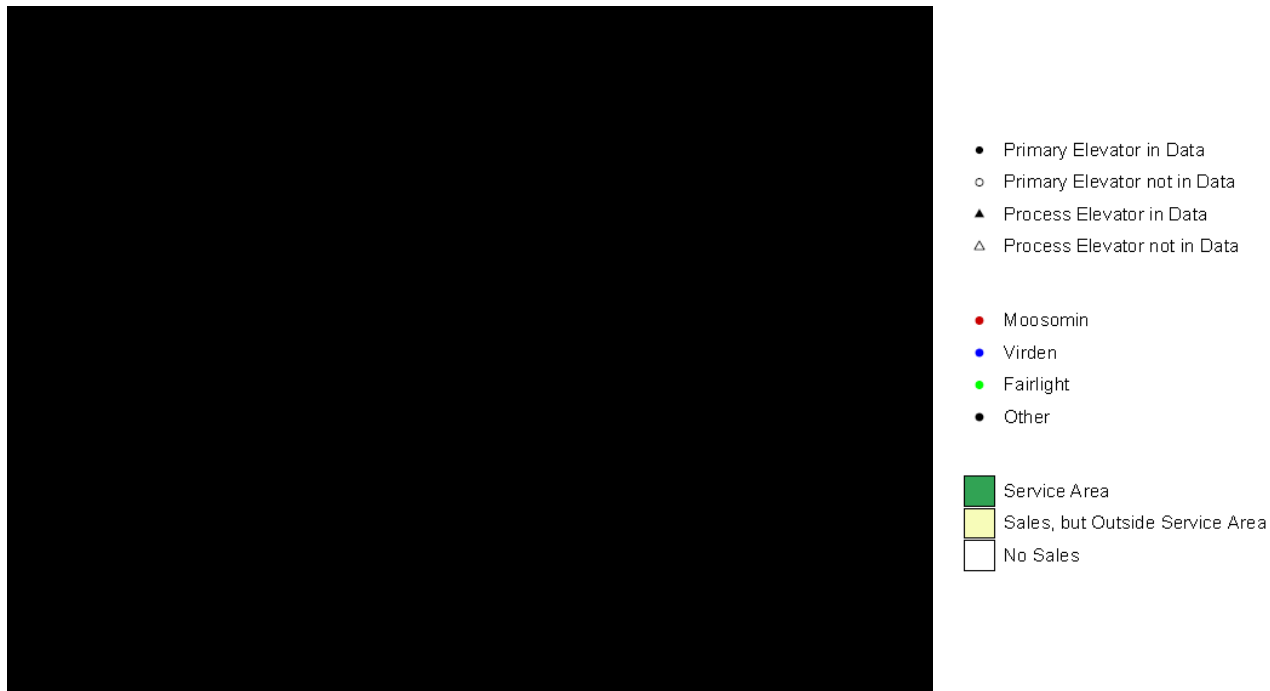
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Minnedosa that collectively form 90% of the total net quantity bought by Minnedosa. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 44**90% canola service area for the Moosomin elevator**

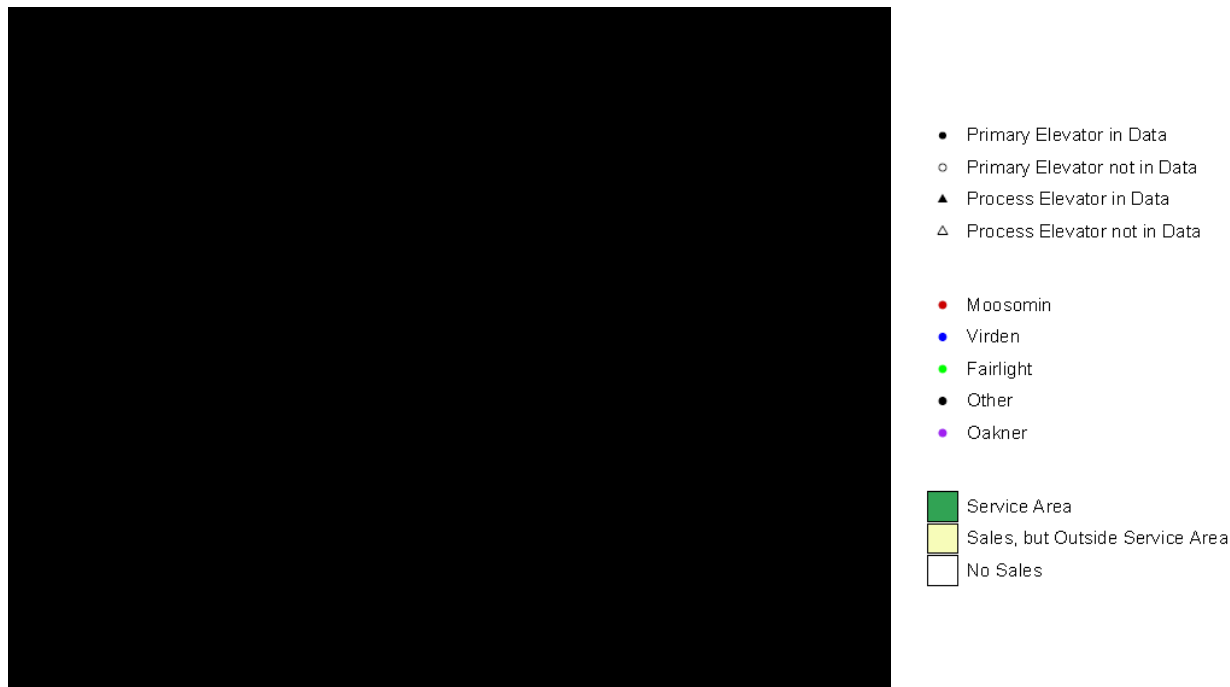
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Moosomin that collectively form 90% of the total net quantity bought by Moosomin. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 45**90% wheat service area for the Moosomin elevator**

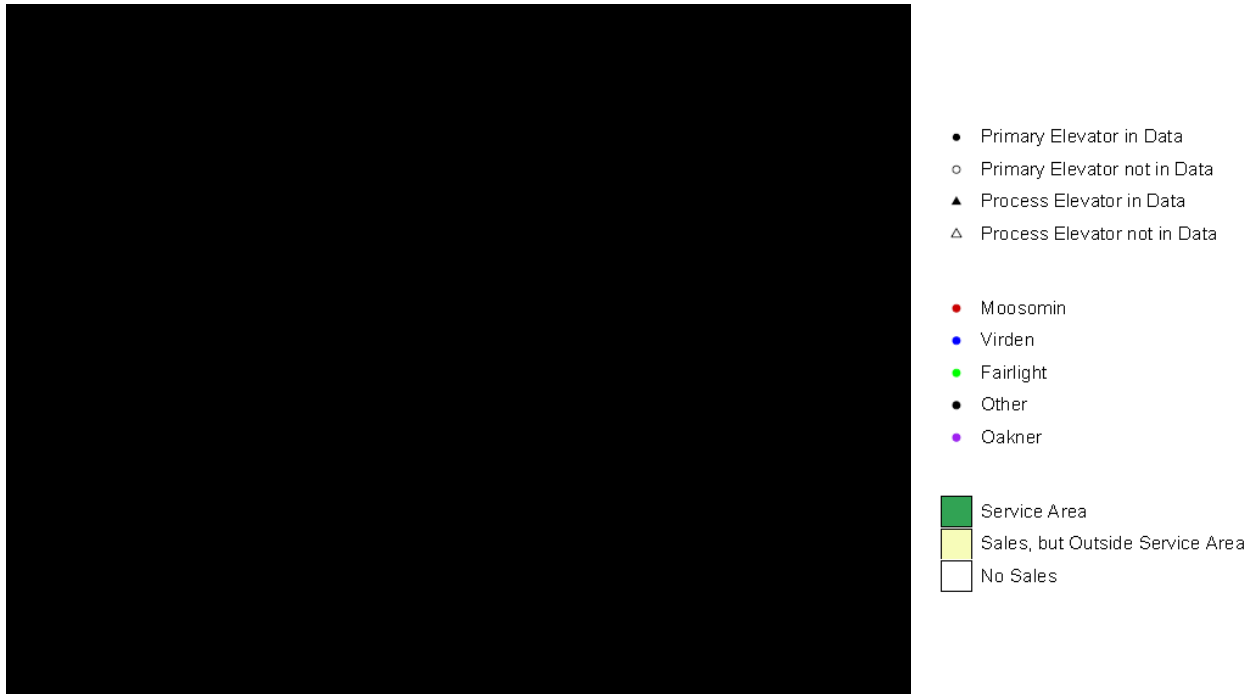
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Moosomin that collectively form 90% of the total net quantity bought by Moosomin. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 46**90% canola service area for the Oakner elevator**

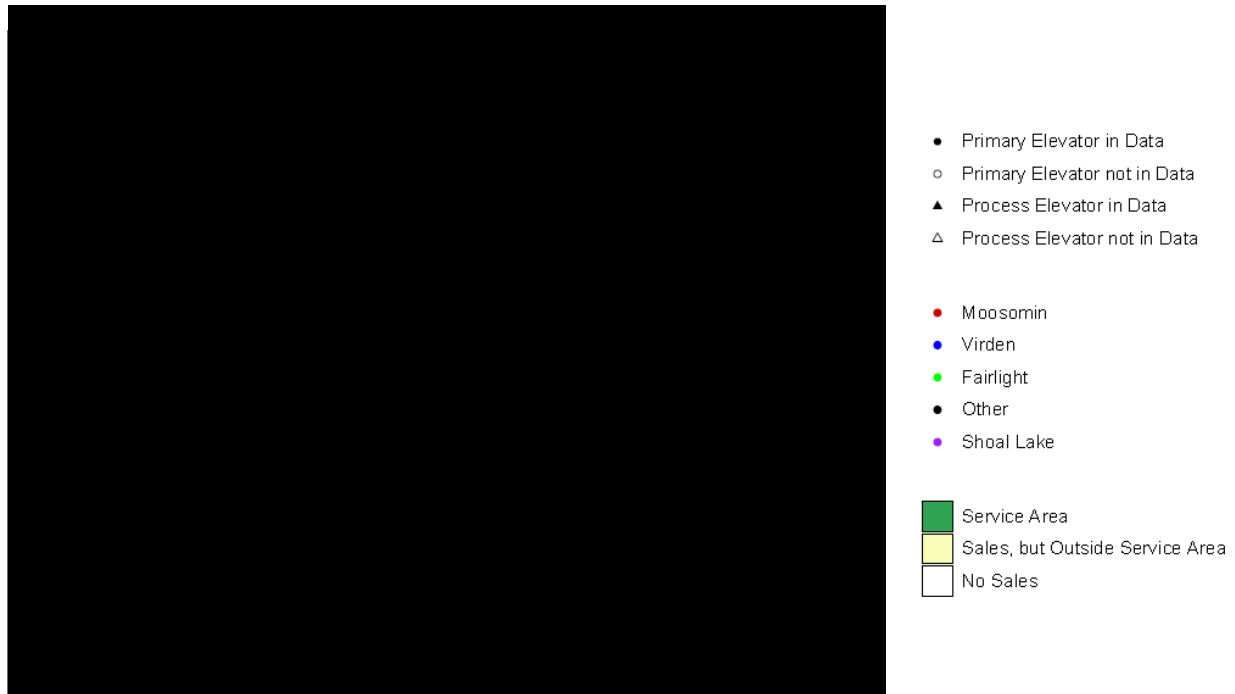
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Oakner that collectively form 90% of the total net quantity bought by Oakner. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 47**90% wheat service area for the Oakner elevator**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

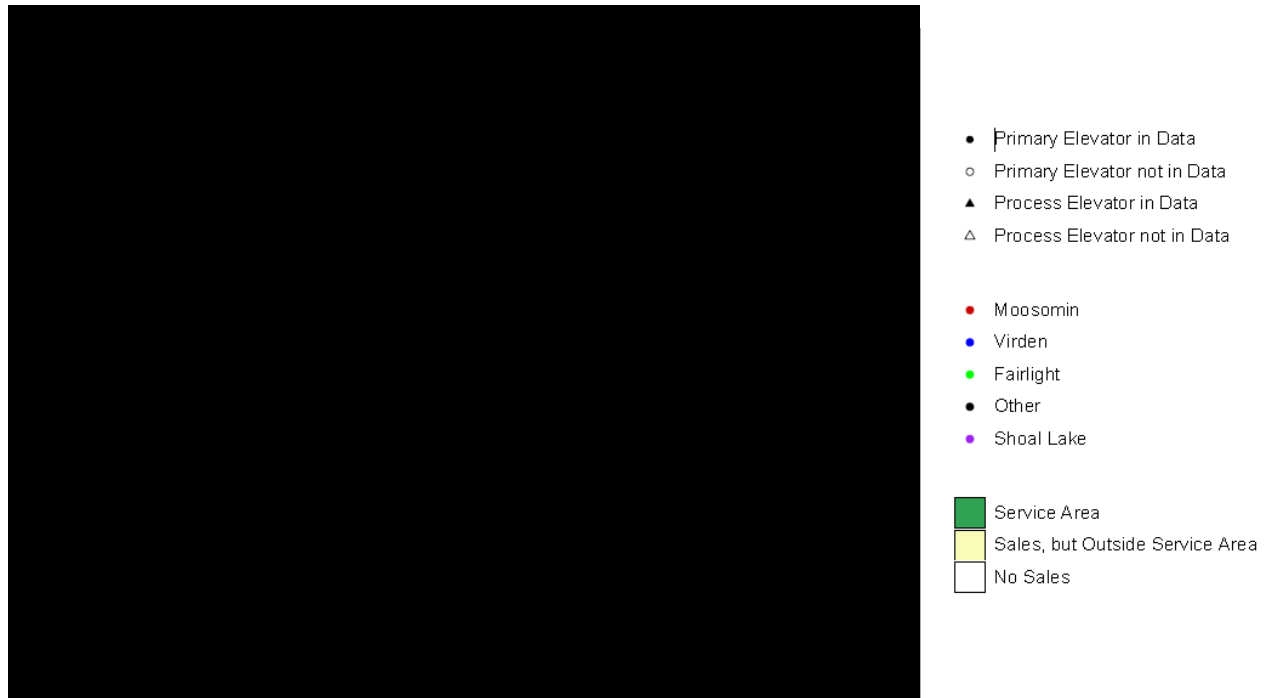
Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Oakner that collectively form 90% of the total net quantity bought by Oakner. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 48**90% canola service area for the Shoal Lake elevator**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

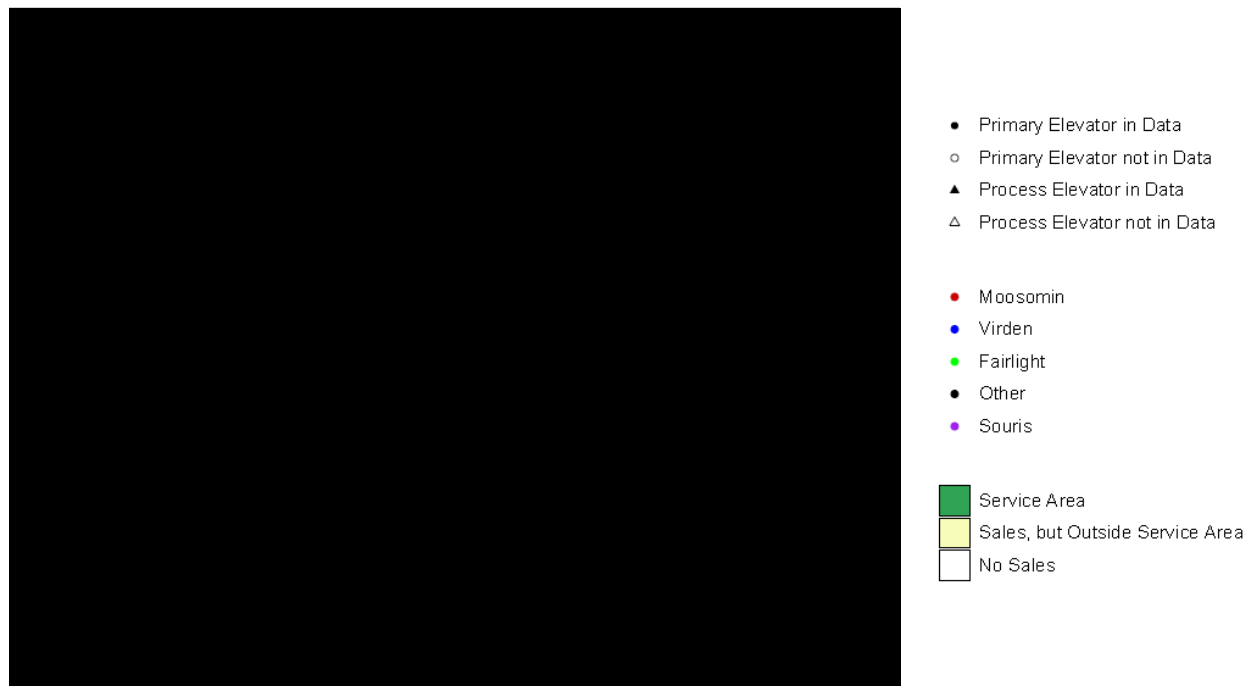
Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Shoal Lake that collectively form 90% of the total net quantity bought by Shoal Lake. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 49
90% wheat service area for the Shoal Lake elevator



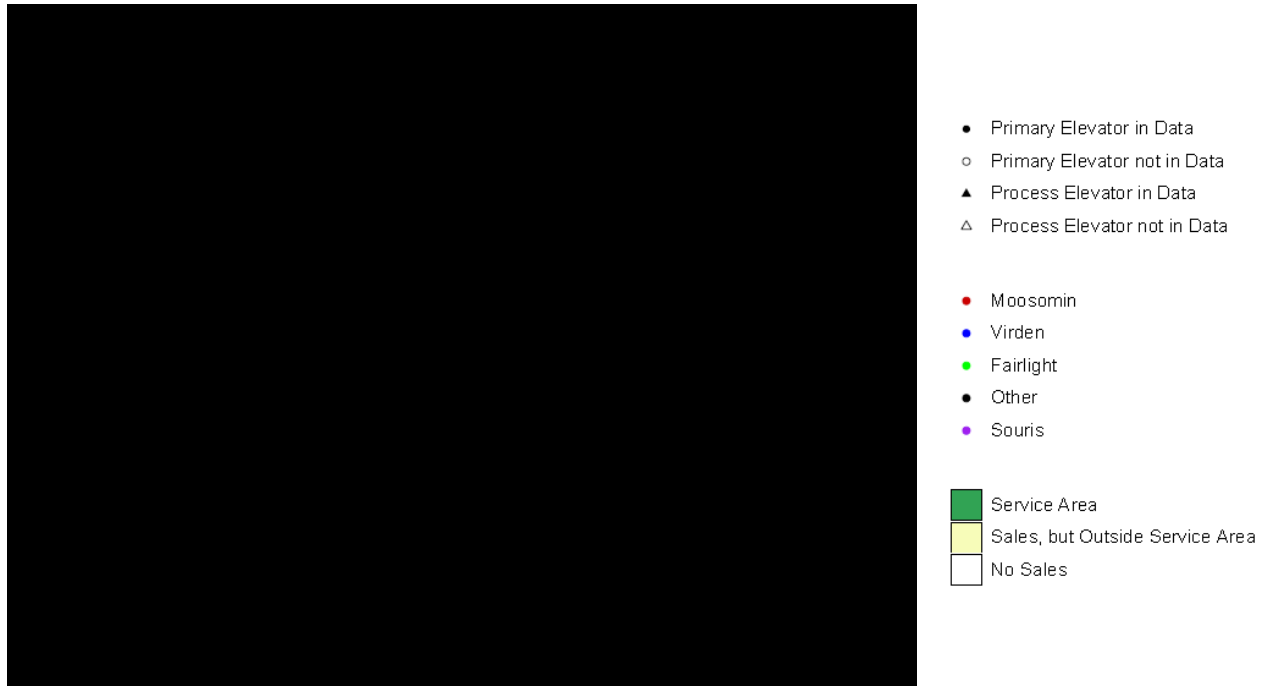
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Shoal Lake that collectively form 90% of the total net quantity bought by Shoal Lake. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 50**90% canola service area for the Souris elevator**

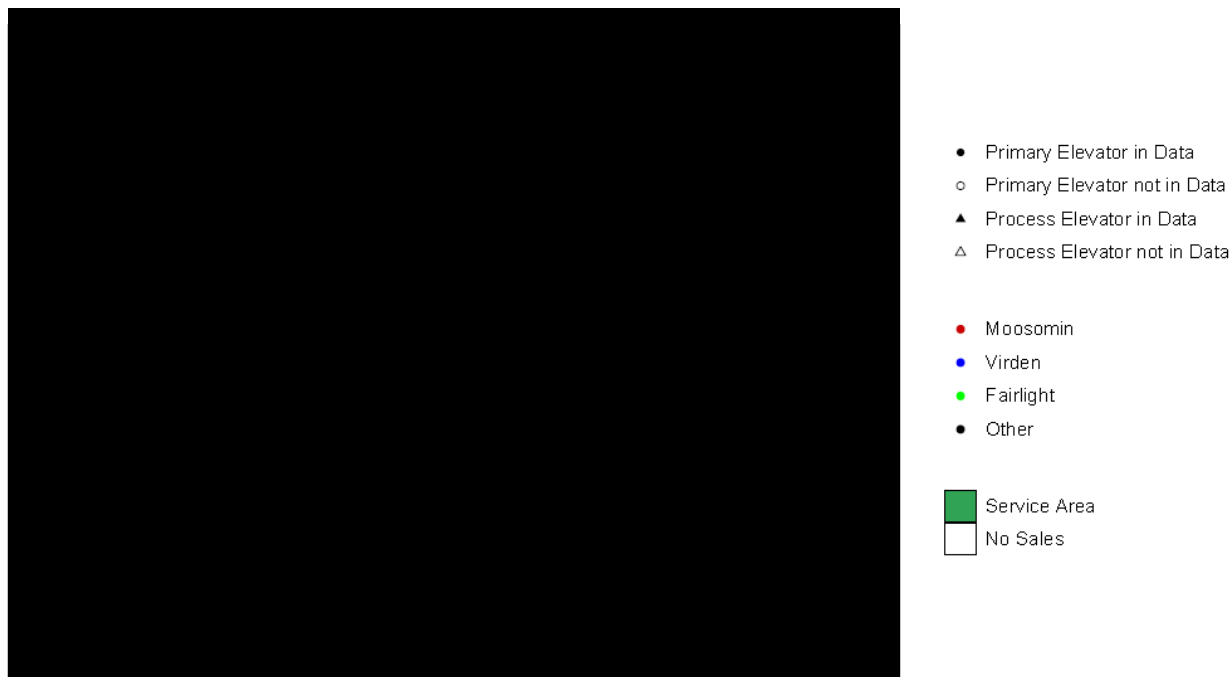
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Souris that collectively form 90% of the total net quantity bought by Souris. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 51**90% wheat service area for the Souris elevator**

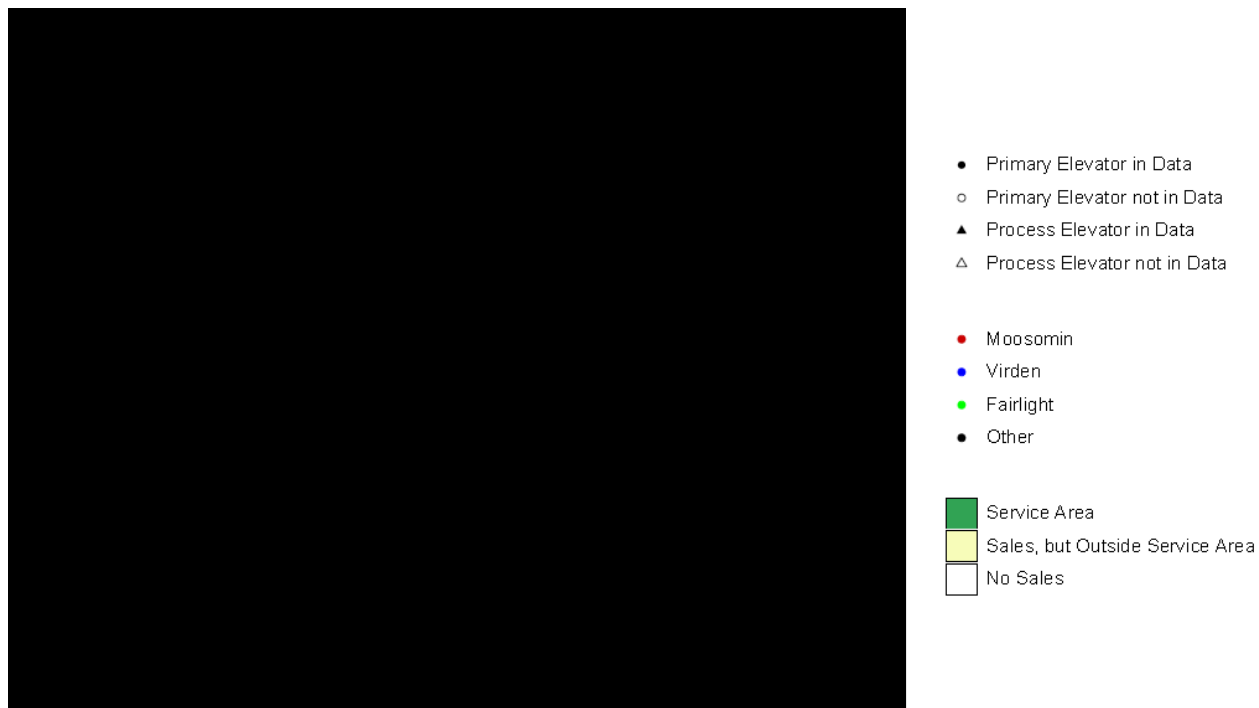
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Souris that collectively form 90% of the total net quantity bought by Souris. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 52**90% canola service area for the Velva elevator (crusher)**

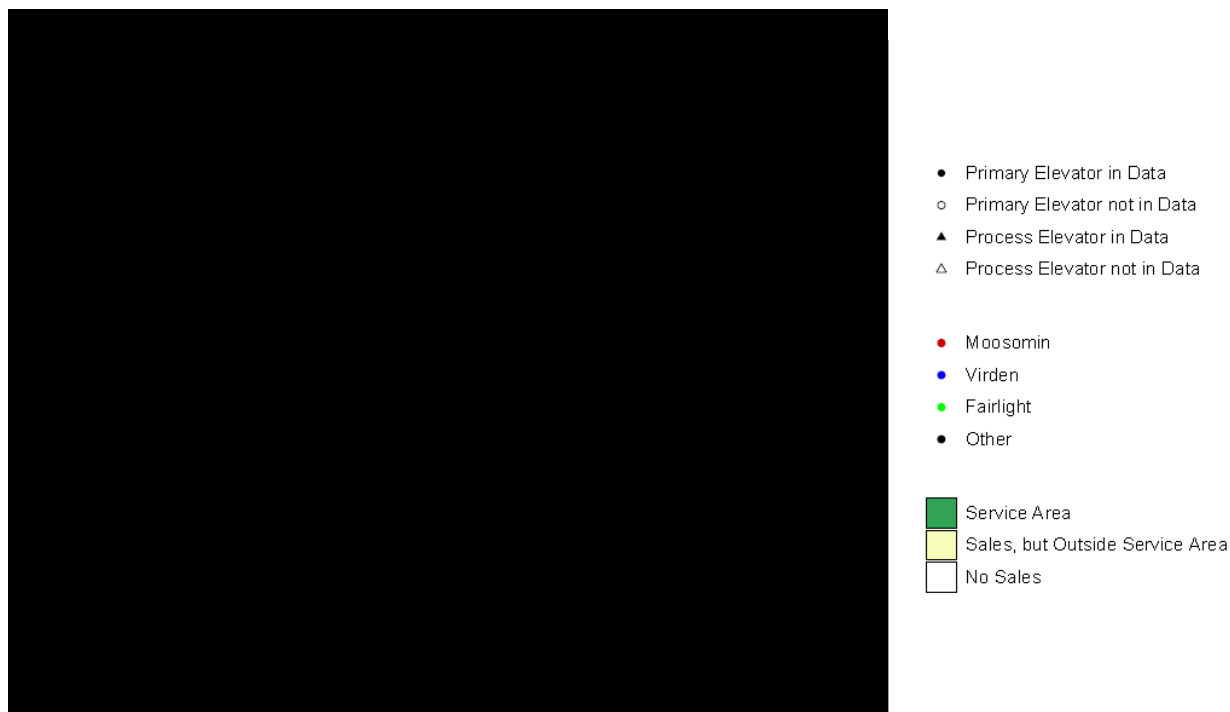
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterro Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Velva that collectively form 90% of the total net quantity bought by Velva. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data. The Velva elevator is more than 200 km from Moosomin and Virden and therefore is not shown on this map.

EXHIBIT 53**90% canola service area for the Virden elevator**

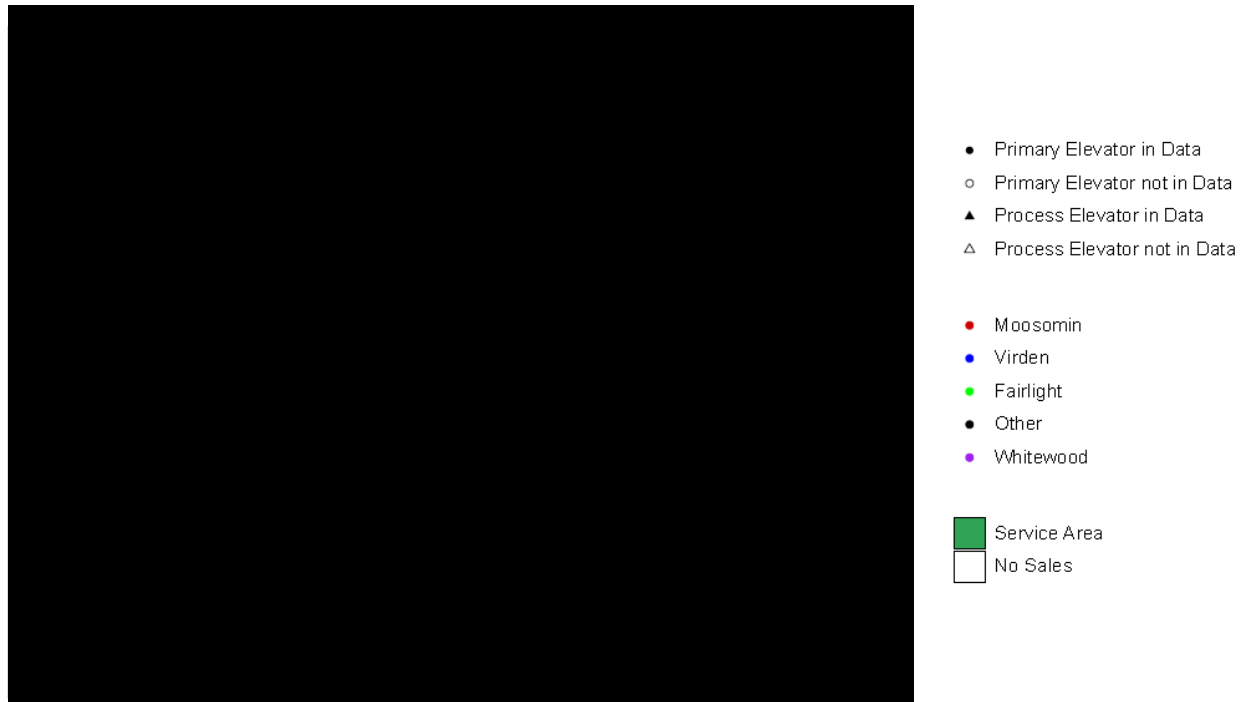
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Virden that collectively form 90% of the total net quantity bought by Virden. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 54**90% wheat service area for the Virden elevator**

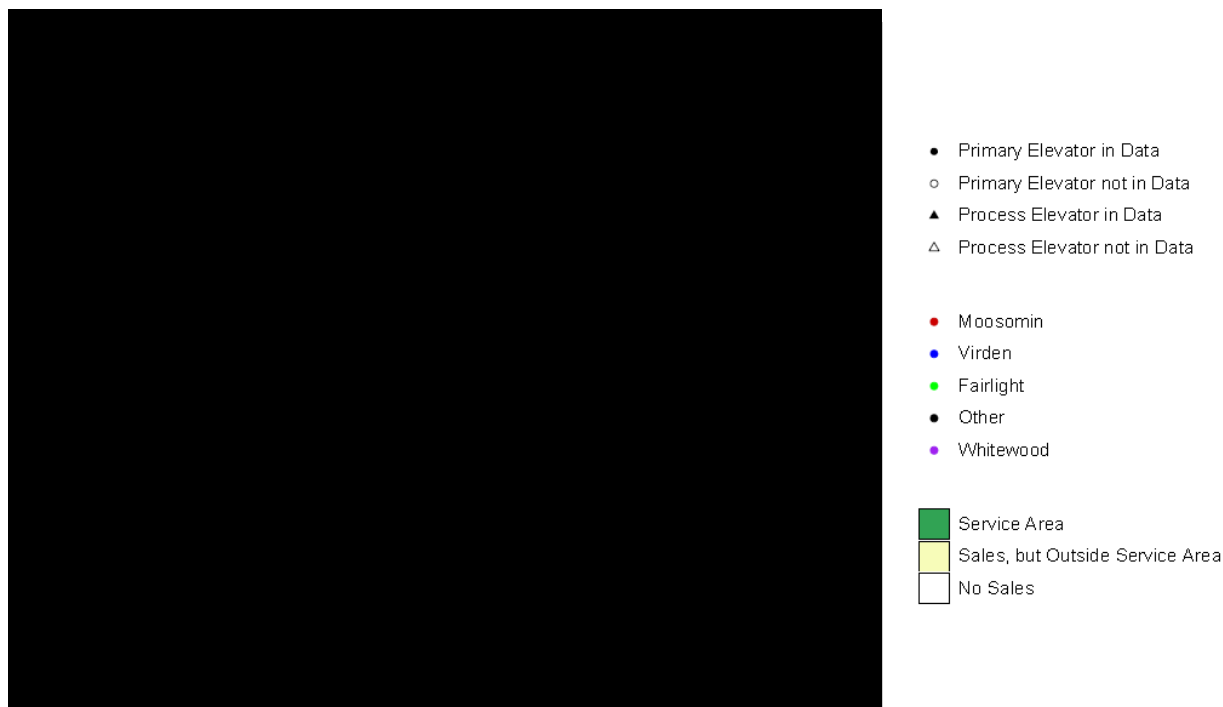
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Virden that collectively form 90% of the total net quantity bought by Virden. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 55**90% canola service area for the Whitewood elevator**

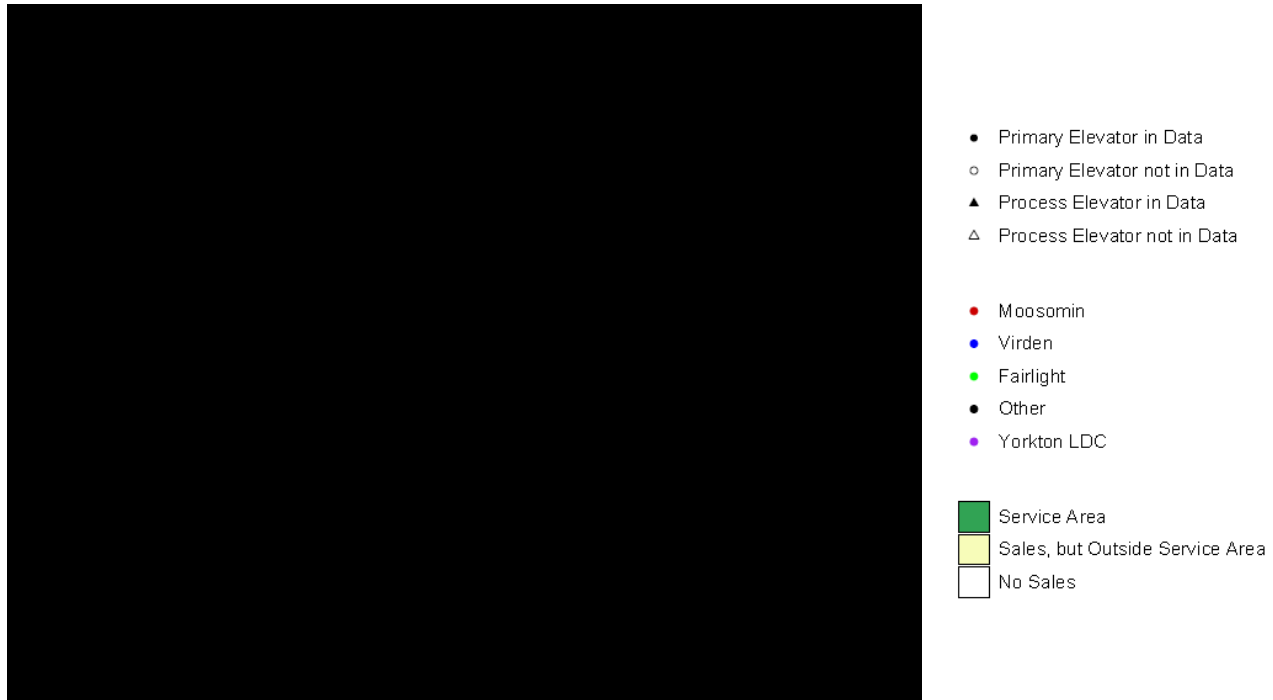
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Whitewood that collectively form 90% of the total net quantity bought by Whitewood. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 56**90% wheat service area for the Whitewood elevator**

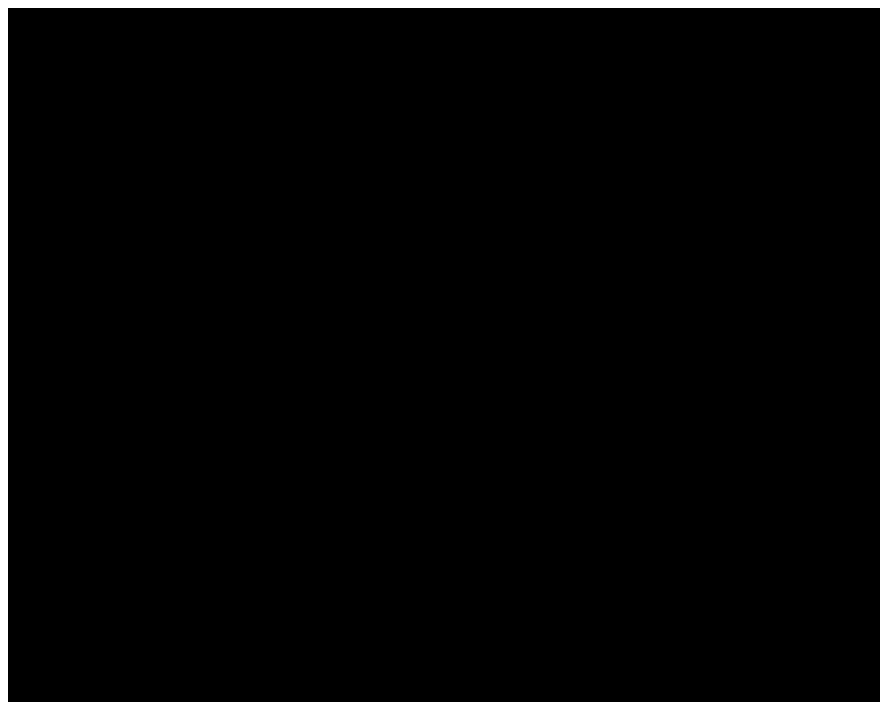
Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to CWRS wheat transactions during August 2018–July 2019. The service area represents the closest CCSs to Whitewood that collectively form 90% of the total net quantity bought by Whitewood. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 57**90% canola service area for the Yorkton LDC elevator (crusher)**

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Yorkton LDC that collectively form 90% of the total net quantity bought by Yorkton LDC. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

EXHIBIT 58**90% canola service area for the Yorkton Richardson elevator (crusher)**

- Primary Elevator in Data
- Primary Elevator not in Data
- ▲ Process Elevator in Data
- △ Process Elevator not in Data

- Moosomin
- Virden
- Fairlight
- Other
- Yorkton Richardson

- Service Area
- Sales, but Outside Service Area
- No Sales

Source: LDC Transaction Data; P&H Transaction Data; Cargill Transaction Data; Richardson Transaction Data; Viterra Transaction Data; Bunge Transaction Data; ADM Transaction Data; G3 Transaction Data; Grain Elevators in Canada Data; 2016 Census Program CCS Boundary Files

Note: Analysis limited to canola transactions during March 2018–February 2019. Nexera and non-GMO canola are excluded. The service area represents the closest CCSs to Richardson that collectively form 90% of the total net quantity bought by Richardson. Elevators shown are primary elevators and process elevators, also known as crushers. The size of each elevator is proportional to elevator capacity. Elevators and CCSs within 200 km from Virden or Moosomin are shown. The hollow circles represent primary elevators that are not included in the data, and the hollow triangles represent the process elevators not included in the data.

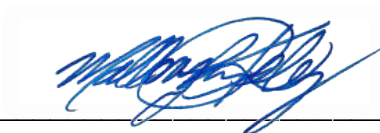


Exhibit B to the Affidavit of
Nathan H. Miller
Affirmed on the 11th day of September 2020



Nathan H. Miller

Georgetown University
 McDonough School of Business
 37th and O Streets, NW
 Washington, DC 20057

Work: (202) 687-0953
 nhm27@georgetown.edu
 www.nathanhmilller.org
 Updated August 2020

Positions

Georgetown University

Saleh Romeih Associate Professor, 2019-present, McDonough School of Business
 Affiliated Professor, 2019-present, Economics Department
 Senior Policy Scholar, Center for Business and Public Policy, 2017-present
 Associate Professor, 2017-2019, McDonough School of Business
 Assistant Professor, 2013-2017, McDonough School of Business

Toulouse School of Economics

Visiting Professor, 2019-2020

U.S. Department of Justice, Antitrust Division

Staff Economist, 2008-2013

Degrees

Ph.D., Economics, University of California at Berkeley, 2008.

B.A., Economics and History, University of Virginia, 2000.

Refereed Publications

“Finding Mr. Schumpeter: Technology Adoption in the Cement Industry” (with Jeffrey Macher and Matthew Osborne). *RAND Journal of Economics*, accepted.

“Forward Contracts, Market Structure, and the Welfare Effects of Mergers” (with Joseph Podwol). *Journal of Industrial Economics*, Vol. 68, No. 2, 364-407 (2020).

“Understanding the Price Effects of the MillerCoors Joint Venture” (with Matthew Weinberg). *Econometrica*, Vol. 85, No. 6, 1763-1791 (2017).

“Pass-Through in a Concentrated Industry: Empirical Evidence and Regulatory Implications” (with Matthew Osborne and Gloria Sheu). *RAND Journal of Economics*, Vol. 48, No. 1, 69-93 (2017).

“Upward Pricing Pressure as a Predictor of Merger Price Effects” (with Marc Remer, Conor Ryan and Gloria Sheu). *International Journal of Industrial Organization*, Vol. 52, 216-247 (2017).

“Pass-Through and the Prediction of Merger Price Effects” (with Marc Remer, Conor Ryan and Gloria Sheu). *Journal of Industrial Economics*, Vol. 64, December, 684-709 (2016).

“Spatial Differentiation and Price Discrimination in the Cement Industry: Evidence from a Structural Model” (with Matthew Osborne), *RAND Journal of Economics*, Vol. 45, No. 2, 221-247 (2014, lead article).

- “Modeling the Effects of Mergers in Procurement,” *International Journal of Industrial Organization*, Vol. 37, November, 201-208 (2014).
- “Automakers’ Short-Run Responses to Changing Gasoline Prices” (with Ashley Langer), *Review of Economics and Statistics*, Vol. 95, No. 4, 1198-1211 (2013).
- “Why Do Borrowers Pledge Collateral? New Empirical Evidence on the Role of Asymmetric Information” (with Allen Berger, Marco Espinosa-Vega, and Scott Frame), *Journal of Financial Intermediation*, Vol. 20, No. 1, 55-70 (2011).
- “Strategic Leniency and Cartel Enforcement,” *American Economic Review*, Vol. 99, No. 3, 750-768 (2009).
- “Debt Maturity, Risk, and Asymmetric Information” (with Allen Berger, Marco Espinosa-Vega, and Scott Frame), *Journal of Finance*, Vol. 60, No. 6, 2895-2923 (2005).
- “Does Functional Form Follow Organizational Form? Evidence from the Lending Practices of Large and Small Banks” (with Allen Berger, Mitchell Petersen, Raghuram Rajan, and Jeremy Stein), *Journal of Financial Economics*, Vol. 76, No. 2, 237-269 (2005, lead article).
- “Credit Scoring and the Availability, Price, and Risk of Small Business Credit” (with Allen Berger and Scott Frame), *Journal of Money, Banking, and Credit*, Vol 37, No. 2, 191-222 (2005, lead article).

Shorter Refereed Articles

- “Bias in Reduced-Form Estimates of Pass-Through” (with Alexander MacKay, Marc Remer and Gloria Sheu), *Economics Letters*, Vol. 123, No. 2, 200-202 (2014).
- “Consistency and Asymptotic Normality for Equilibrium Models with Partially Observed Outcome Variables” (with Matthew Osborne), *Economics Letters*, Vol. 123, No. 1, 70-74 (2014).
- “Using Cost Pass-Through to Calibrate Demand” (with Marc Remer and Gloria Sheu), *Economics Letters*, Vol. 118, No. 3, 451-454 (2013).
- “The Entry Incentives of Complimentary Producers: A Simple Model with Implications for Antitrust Policy” (with Juan Lleras), *Economics Letters*, Vol. 110, No. 2, 147-150 (2011).

Book Chapters and Non-Refereed Publications

- “How the MillerCoors Joint Venture Changed Competition in U.S. Brewing” (with Matthew Weinberg), *Microeconomic Insights*, 2017.
- “Ex Post Merger Evaluation: How Does It Help Ex Ante?” (with Daniel Hosken and Matthew Weinberg), *Journal of European Competition Law & Practice*, 2016.
- “Choosing Appropriate Control Groups in Merger Evaluations” (with Aditi Mehta), in More Pros and Cons of Merger Control, Konkurrensverket 2012.

Working Papers and Research Projects

- “Oligopolistic Price Leadership and Mergers: The United States Beer Industry” (with Gloria Sheu and Matthew Weinberg), 2019. Revisions requested from *American Economic Review*.
- “Estimating Models of Supply and Demand: Instruments and Covariance Restrictions” (with Alexander MacKay), 2019.
- “Mergers, Entry, and Consumer Welfare” (with Peter Caradonna and Gloria Sheu), 2020.
- “Quantitative Methods for Evaluating the Unilateral Effects of Mergers” (with Gloria Sheu), 2020.
- “Markups in the Cement Industry, 1973-2019: Scale Economies and Market Power” (with Matthew Osborne, Gloria Sheu and Gretchen Sileo), in progress.
- “Modeling the Effects of Mergers in Procurement: Addendum,” SSRN Working Paper, 2017.
- “Cumulative Innovation and Competition Policy” (with Alexander Raskovich), EAG Discussion Paper 10-5, 2010.
- “Competition when Consumers Value Firm Scope,” EAG Discussion Paper 8-7, 2008.

Grants and Awards

- National Science Foundation Grant, SES 1824318, \$88,635, 2018-2020.
- Best Paper Award, Association of Competition Economics, 2017.
- Robert F. Lanzillotti Prize for Best Paper in Antitrust Economics, 2015.
- Award of Distinction for work at DOJ on AT&T/T-Mobile merger, 2013.
- Jerry S. Cohen Award for Antitrust Scholarship, Honorary Mention, 2009.
- COMPASS Prize for Best Paper in Antitrust Economics by Graduate Students, 2007.
- UC Berkeley Dean’s Normative Time Fellowship, 2006-2007.
- Competition Policy Center Dissertation Award, 2006.
- Institute of Business and Economic Research Mini-Grant, 2006.

Invited Seminar Presentations

- 2008: DOJ; Duke (Fuqua); FTC; George Washington University; Johns Hopkins University; University of Iowa; University of North Carolina, Chapel Hill
- 2009: BEA; BLS; College of William and Mary; Georgetown University
- 2010: University of British Columbia (Sauder)
- 2011: University of Virginia
- 2012: DOJ; Michigan State University
- 2013: DOJ; Drexel University; Georgetown University (McDonough); Stony Brook University
- 2014: DOJ; University of California, Berkeley; UCLA; University of Virginia
- 2015: Clemson University; FTC; Indiana University (Kelley); University of Colorado, Boulder; Yale University

2016: Boston College; Columbia University; Federal Reserve Board; Harvard University; London School of Economics; University of British Columbia (Sauder); University of Texas, Austin; University of Toronto (Rotman)
 2017: FTC; University of Kentucky; University of Pennsylvania (Econ/Wharton); University of Wisconsin–Madison
 2018: FTC; MIT; Texas A&M; Penn State University
 2019: Harvard (HBS); Toulouse School of Economics; MINES ParisTech; KU Leuven; University of Mannheim; Berlin Applied Economics
 2020: Research Institute of Industrial Economics (RIFN); Sciences Po; University of Düsseldorf (DICE); Directorate-General for Competition of the European Commission (DG COMP); Hong Kong University of Science and Technology (HKUST, scheduled); Washington University (St. Louis, scheduled)

Conference Presentations

APIOS (2018); Association of Competition Economics (2018); Barcelona GSE Summer Forum (2018); DC IO Day (2020); ESEM (2019); FTC Microeconomics (2010, 2014); Hal White Antitrust (2013, 2014, 2017, 2019); IEF Applied Microeconomics (2016); IIOC (2008, 2009, 2013, 2015, 2016, 2018); NASMES (2019); SEA (2013, 2018); Searle Antitrust (2013, 2015); Triangle Microeconomics (2016)

Conference Discussions

AEA (2015); DC IO Day (2015); Toulouse Digital Economics Conference (2020); HEC Montreal–RIIB Conference on IO (2018); IIOC (2008, 2009, 2013, 2015, 2016, 2018); NY IO Day (2020, scheduled); SEA (2013, 2018); Searle Antitrust (2018)

Panels

“Upward Pricing Pressure and Simulation in Merger Review,” Economists Roundtable with the Canadian Competition Bureau, 2017.

“Institutional Shareholdings: Is There an Antitrust Issue?” Concurrences Global Antitrust Conference, 2018.

“Digital Mergers: Need for Reform?” Concurrences International Mergers Conference, 2020.

Teaching

Firm Analysis and Strategy, MBA Core Curriculum
 Industrial Organization, PhD Economics
 Strategic Pricing, MBA Elective
 Microeconomics, Executive Education

Ph.D Advising

Georgetown University (Economics)

Francisco Garrido, 2020, ITAM.

Current: Minji Kim, Ryan Mansley, Tianshi Mu, Gretchen Sileo.

Service

Georgetown University

Graduate School Curriculum and Standards Committee: 2013-2019

Strategy Area Recruiting Committee: 2015-2016, 2016-2017

Other Service

Editorial Board, *Review of Industrial Organization*, 2019-present

DC IO Day: Program Committee 2015-2019, Organizer 2017

IIOC: Program Committee, 2019, 2020

Referee reports for:

American Economic Journal; American Economic Review; Econometrica; European Economic Review; International Journal of Industrial Organization; Journal of Economics & Management Strategy; Journal of the European Economics Association; Journal of Finance; Journal of Industrial Economics; Journal of Law and Economics; Journal of Political Economy; Management Science; National Science Foundation; The RAND Journal of Economics; Review of Economic Studies; Review of Economics and Statistics; Review of Industrial Organization; Quarterly Journal of Economics, others.



Exhibit C to the Affidavit of
Nathan H. Miller
Affirmed on the 11th day of September 2020



CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

AND IN THE MATTER OF the acquisition by Parrish & Heimbecker, Limited of certain grain elevators and related assets from Louis Dreyfus Company Canada ULC;

AND IN THE MATTER OF an application by the Commissioner of Competition for one or more orders pursuant to section 92 of the *Competition Act*.

BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

**ACKNOWLEDGEMENT OF EXPERT WITNESS
NATHAN H. MILLER**

I, **Nathan H. Miller**, acknowledge that I will comply with the Competition Tribunal's code of conduct for expert witnesses which is described below:

1. An expert witness who provides a report for use as evidence has a duty to assist the Tribunal impartially on matters relevant to his or her area of expertise.

2. This duty overrides any duty to a party to the proceeding, including the person retaining the expert witness. An expert is to be independent and objective. An expert is not an advocate for a party.

September 4, 2020
(Date)

Nathan Miller
(Signature of expert witness)

CT-2019-005

THE COMPETITION TRIBUNAL

IN THE MATTER OF the *Competition Act*, R.S.C. 1985, c. C-34, as amended;

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- and -

PARRISH & HEIMBECKER, LIMITED

Respondent

**ACKNOWLEDGEMENT OF EXPERT WITNESS
NATHAN H. MILLER**




Exhibit D to the Affidavit of
Nathan H. Miller
Affirmed on the 11th day of September 2020



Declarations

Witness Statement of [REDACTED], September 3, 2020

Witness Statement of [REDACTED], August 11, 2020

Witness Statement of [REDACTED], August 26, 2020

Witness Statement of [REDACTED], August 25, 2020

Witness Statement of [REDACTED], August 27, 2020

Witness Statement of [REDACTED], August 7, 2020

Witness Statement of [REDACTED], August 19, 2020

Examination for Discovery

John Heimbecker Examination for Discovery, July 15, 2020

John Heimbecker Examination for Discovery, July 16, 2020

John Heimbecker Examination for Discovery, July 17, 2020

Undertaking to Examination for Discovery

Questions Taken Under Advisement on the Examination of John Heimbecker, July 15–17, 2020

Responses to follow-up questions from John Heimbecker's examination for discovery, July 15, 2020, Appendix CC

Responses to follow-up questions from John Heimbecker's examination for discovery, July 17, 2020

Undertaking to John Heimbecker's Examination for Discovery, July 15, 2020, Appendix A

Undertaking to John Heimbecker's Examination for Discovery, July 15, 2020, Appendix B

Undertaking to John Heimbecker's Examination for Discovery, July 16, 2020, Appendix F

Undertaking to John Heimbecker's Examination for Discovery, July 17, 2020, Appendix Y

Undertaking to John Heimbecker's Examination for Discovery, July 17, 2020, Appendix Z

Answers to undertaking from John Heimbecker's Examination for Discovery, July 15–17, 2020

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“Louis Dreyfus Company Canada ULC - Responses to Follow Up Request for Information,” July 31, 2020

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Michael Ward Affidavit, *The Commissioner of Competition v. Superior Propane Inc.*, September 13, 1999

“Re: Response by Parrish & Heimbecker, Limited of Certain Grain Elevators and Related Assets from Louis Dreyfus Company Canada ULC (the ‘Proposed Transaction’) — Response by P&H to Request for Information,” September 5, 2019

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Response of Parrish & Heimbecker, Limited - Schedule A, CT-2019-005, February 3, 2020

Response of Parrish & Heimbecker, Limited, CT-2019-005, February 3, 2020

“The Commissioner of Competition v. Parrish & Heimbecker, Limited (“P&H”), CT-2019-005,” August 27, 2020

Tervita Corporation, Complete Environmental Inc., and Babkirk Land Services Inc. v. Commissioner of Competition, March 27, 2014

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Email chain from Anthony Kulbacki to John Lampert, [REDACTED] September 4, 2019 [P&H_0001295]

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Email chain from Anthony Kulbacki to Trevor Letkeman, [REDACTED] January 8, 2020 [P&H_0000653_LEVEL A]

Email chain from Brad Meiklejohn to Shayne Murphy et al., [REDACTED] January 26, 2017 [P&H_0005615]

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Email chain from Dave McDonald to Cam Durfey, [REDACTED] March 8, 2019 [P&H_0004919]

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Email chain from John Devos to Shawn Skolney et al., [REDACTED] September 27, 2019 [P&H_0006471]

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[REDACTED] May 29, 2019 [P&H_0002875]

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LDC

Agris Purch Data 2016 Virden & Wilkie.xlsx
Grain Assembly Data- Yorkton req 03-24-2020 ver 2.xlsx
Grain Purchase Data- Virden 1-1-19 thru 10-4-19 KH.xlsx
Grain Purchase Data- Yorkton req 03-24-2020 ver 2.xlsx
LDCCA Settlements 2016-2018 Virden & Wilkie.xlsx
LDCCA Ticket Detail 2016-2018 Virden & Wilkie.xlsx
Virden All Commodity Ticket Detail 2019 CWRS.xlsx

P&H

Appendix D - 2016-2018 Grain Purchases - Hamlin.xlsx
Appendix E - 2016-2018 Grain Purchases - Hanover Jct.xlsx
Appendix F - 2016-2018 Grain Purchases - Moosomin.xlsx
P&H_0005201_LEVEL A.XLSX

Third parties

Richardson

PMDC00004_000000001-CONFIDENTIAL LEVEL A.xlsx
PMDC00006_000000002-CONFIDENTIAL LEVEL A.xlsx
PMDC00007_000000002 - CONFIDENTIAL LEVEL A.xlsx

Viterra

PMDD00001_000000002-CONFIDENTIAL LEVEL A.xlsx

Cargill

Highly Confidential - Cargill Data Request - Elva and Oakner- Aug 2020.xlsx

Ceres

PMDB00002_000000046-CONFIDENTIAL LEVEL A.xls

Bunge

PMJF00001_000000005-CONFIDENTIAL LEVEL A.xlsx

PMJF00001_000000001-CONFIDENTIAL LEVEL A.xlsx

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PMJF00001_000000003-CONFIDENTIAL LEVEL A.xlsx

PMJF00001_000000004-CONFIDENTIAL LEVEL A.xlsx

G3

PMGB00001_000000017-CONFIDENTIAL LEVEL A.xlsx

ADM

RABE00001_000000001- CONFIDENTIAL LEVEL A.xlsx

Markups

#4 Virden A.xlsx

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2018 P&L by Location by Month.xlsx

LDCANADA P&L 2017 Virden & Wilkie.xlsx

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DEXCAUS.csv

I considered parties responses to supplementary information requests, Commissioner's affidavit of documents produced, P&H's affidavit of documents produced, P&H's responses to undertakings, and all items in my Documents Relied Upon.

Note: In addition to the documents on this list, I relied upon all documents cited in my report, appendices, exhibits, and workpapers to form my opinions.

CT-2019-005

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BETWEEN:

THE COMMISSIONER OF COMPETITION

Applicant

– and –

PARRISH & HEIMBECKER, LIMITED

Respondent

**COMMISSIONER'S MOTION RECORD
CHALLENGING THE ADMISSIBILITY OF CERTAIN
PROPOSED EVIDENCE FROM JOHN HEIMBECKER**

Attorney General of Canada
Department of Justice Canada
Competition Bureau Legal Services
50 Victoria Street
Gatineau, QC K1A 0C9
Fax: (819) 953-9267

Jonathan Hood
Tel: (416) 954-5925
Jonathan.Hood@canada.ca

Ellé Nekiari
Tel: (819) 994-4050
Elle.nekiari@canada.ca

**Counsel to the Commissioner of
Competition**