

NORTHWEST NATURAL GAS COMPANY
 AFFILIATED INTEREST REPORT
 FOR THE CALENDAR YEAR ENDING DECEMBER 31, 2016

WAC 480-90-264 (1)

An organization chart of the utility and its affiliated interests and subsidiaries.

See the Organizational Chart (“Chart 1”) of Northwest Natural Gas Company (“NWN”) attached to this Affiliated Interest Report.

WAC 480-90-264 (2)

The name of the affiliated interest or subsidiary participating in the transaction and the total dollar amounts of the transactions.

(A) Service payments by the utility to the affiliate:

<u>Account/description:</u>	<u>Total Company</u>	<u>Total Washington</u>
<u>NNGFC and KBPC:</u>		
Pipeline demand charges (804)..... (KBPC)	\$224,258	\$211,899

The allocation is based on the state’s pro rata share of the pipeline demand charges paid by NWN to KB Pipeline Company (“KBPC”), based on miles of pipeline.

Description of basis of pricing:

Services rendered by NNG Financial Corporation (“NNGFC”) and KBPC to NWN were provided at cost or pursuant to a Federal Energy Regulatory Commission (“FERC”)-approved rate schedule, as applicable.

Demand charges paid by NWN to KBPC were based upon a transportation contract between the two parties which specifies the rates per KBPC’s Rate Schedule TF; such rates were approved by FERC as part of KBPC’s original certificate order.

(B) Service payments by the affiliate to the utility:

<u>Account/description:</u>	<u>Total Company</u>	<u>Total Washington</u>
<u>NNGFC and KBPC</u>		
Insurance (924) (KBPC)	\$20,372	\$19,250
Insurance (924) (NNGFC)	\$16,825	\$0
The insurance allocation is based on actual insurance premiums. The allocation amount is based on the underwriting principles for each type of policy.		
Legal Expense (921) (NNGFC)	\$0	\$0
Property tax (408)..... (KBPC)	\$20,220	\$11,280
Total NNGFC & KBPC	\$57,417	\$30,530
<u>NW Natural Energy, LLC ("NWN Energy")</u>		
Portion of NWN salaries and related overhead allocated to NWN Energy (922)	\$29,355	\$0
Insurance (924)	\$22,440	\$0
Total NWN Energy	\$51,795	\$0
<u>NW Natural Gas Storage, LLC ("NWN Gas Storage")</u>		
Portion of NWN salaries and related overhead allocated to NWN Gas Storage (922)	\$805,882	\$0
Insurance (924)	\$28,035	\$0
Other administrative expense (921)	\$3,472	\$0
Total NWN Gas Storage	\$837,389	\$0
<u>Gill Ranch Storage, LLC ("GRS")</u>		
Portion of NWN salaries and related overhead Allocated to GRS (922).....	\$478,278	\$0
Insurance (924)	\$69,320	\$0
Total GRS	\$547,598	\$0
<u>Trail West Pipelines, LLC ("TWP")</u>		
Portion of NWN salaries and related overhead Allocated to TWP (922)	\$6,485	\$0
Legal Expense (921)	\$0	\$0
Total TWP	\$6,485	\$0

WAC 480-90-264 (2)(a)

**A balance sheet and income statement for such affiliated interest.
[Transactions that equal or exceed \$100,000]**

See NWN's affiliated interest financial statements ("Confidential Exhibit A") attached to this Affiliated Interest Report.

WAC 480-90-264 (2)(b)

A description of the products or services provided to or from the utility and each such affiliated interest or subsidiary. [Transactions that equal or exceed \$100,000]

In addition to the information provided immediately above, see also the discussions under the section entitled WAC 480-90-264(2)(f) below, and the Cost Allocation Manual ("Appendix A") included as an appendix to this Affiliated Interest Report.

WAC 480-90-264 (2)(c)

A description of the pricing basis or costing method, and procedures for allocating costs for such products or services, and the amount and accounts charged during the year. [Transactions that equal or exceed \$100,000]

Services rendered by NWN to the affiliates are through documented allocations of time by NWN employees on affiliate business. Individual time records are the basis for this allocation. Charges include salary, and payroll overhead.

Actual time spent by employees is charged directly to the affiliate. See Appendix A to this Affiliated Interest Report.

WAC 480-90-264 (2)(d)

A description of the terms of any loans between the utility and each such affiliated interest or subsidiary and a listing of the year-end loan amounts and maximum loan amounts outstanding during the year. [Transactions that equal or exceed \$100,000]

Short-term loans:
None.

Long-term loans:
None.

WAC 480-90-264 (2)(e)

**A description of the terms and total amount of any obligation or liability assumed by the utility for each such affiliated interest or subsidiary.
[Transactions that equal or exceed \$100,000]**

(A) Other payments by the utility to the affiliate.

<u>Account/description:</u>	<u>Total Company</u>	<u>Total Washington</u>
Tax benefits used by NWN from NNGFC (146)	(\$25,225)	\$0
Tax benefits paid by NWN to NWN Energy (146)	\$145,917	\$0
Tax benefits paid by NWN to NWN Gas Storage (146)	\$355,000	\$0
Tax benefits paid by NWN to GRS (146)	\$4,270,241	\$0
Salaries and overhead paid by NWN to NWN Gas Storage	\$192,166	\$0

Description of basis of pricing:

NWN files and pays taxes on a consolidated basis with its subsidiaries. For any taxable year, these subsidiaries have income and expenses, which cause NWN's consolidated tax liability to increase or decrease. Monthly payments are made to or from NWN to the extent the operations have income or losses.

(B) Other payments by the affiliate to the utility.

None.

WAC 480-90-264 (2)(f)

A description of the activities of each such affiliated interest or subsidiary with which the utility has transactions. [Transactions that equal or exceed \$100,000]

In addition to the information provided below, see the Cost Allocation Manual (“Appendix A”) included as an appendix to this Affiliated Interest Report for further descriptions of the activities of each affiliated interest or subsidiary with which NWN has transactions.

NNG Financial Corporation

NNG Financial Corporation (“NNGFC”) owns 100% of the stock of KB Pipeline Company (“KBPC”). See KBPC activities described below.

The affiliated transactions between NWN and NNGFC were:

- Allocations of NWN's administrative expense for NNGFC’s use of NWN staff;
- D&O insurance is purchased by NWN, and is subsequently charged to NNGFC and reimbursed to NWN through intercompany billings;
- Distributions/contributions from NNGFC to NWN
- Payments between NWN and NNGFC for NNGFC's current tax expense or benefit; and
- Payments from NWN to NNGFC for KBPC demand and commodity transportation charges (as applicable).

KB Pipeline Company

KB Pipeline Company (“KBPC”) is a wholly-owned subsidiary of NNG Financial Corporation (“NNGFC”). KBPC owns a 10% interest in, and is the former operator of, an interstate natural gas pipeline known as the Kelso-Beaver Pipeline. The pipeline runs between Kelso, Washington and Clatskanie, Oregon, and is regulated by the Federal Energy Regulatory Commission (“FERC”). The other owners of the Kelso-Beaver Pipeline are Portland General Electric Company (“PGE”) (79.5%) and B-R Pipeline Company (10.5%). Each of the co-owners has a separate FERC certificate regarding the ownership and transportation of gas on its share of the pipeline. Pursuant to a memorandum from the Public Utility Commission of Oregon, dated October 15, 1992, KBPC is not required to file a separate affiliated interest report to the OPUC under OAR 860-27-040.

In 1991, FERC issued KBPC a certificate of public convenience and necessity under Part 157 of its regulations to construct, own, and transport gas for NWN using its 10% share of the capacity of the Kelso-Beaver Pipeline at FERC-approved rates. See, *Portland General Electric Co.*, 57 FERC ¶ 61,095 (1991), amended, 57 FERC ¶ 61,312 (1991). Currently, KBPC’s share of the pipeline is not open access so it may only provide transportation service to NWN. NWN and KBPC are parties to a gas transportation agreement with respect to such transportation service, whereby the Kelso-Beaver Pipeline is obligated to receive

and deliver a specified amount of natural gas from NWN in exchange for a demand charge.

KBPC has no separate employees of its own. It uses employees shared with NWN to accomplish its *de minimus* business functions. In terms of the FERC Standards of Conduct (“SOC”) regulations that apply to relationships between transmission providers and their marketing and energy affiliates, since 2008, in Order No. 717, FERC concluded that the revised SOC rules do not apply to non-open access interstate pipelines that are certificated only under Part 157 of FERC’s regulations, such as KBPC’s share of the Kelso-Beaver Pipeline. Given this, KBPC is not required to comply with the current FERC SOC regulations with respect to its affiliated relationship with NWN, and KBPC and NWN may continue to share employees as necessary to conduct the business of KBPC.

Effective December 1, 2004, KBPC resigned as operator of the Kelso-Beaver Pipeline. Since that date, certain operator responsibilities were handled under contract by Cascade Natural Gas Corporation (“Cascade”), which is not affiliated with any of the co-owners. Cascade resigned as the operator effective December 31, 2010, and since that time, co-owner Portland General Electric (“PGE”) has assumed the operator responsibilities for the pipeline.

Northwest Energy Corporation

NWN wholly owns Northwest Energy Corporation (“NW Energy Corp”), which was formed in 2001 to serve as the holding company for NWN and PGE in the event that the proposed acquisition of PGE was completed. However, the acquisition effort was terminated in May 2002, and the corporation remained dormant until 2013. Since 2013, NW Energy Corp has served as the holding company for NWN Gas Reserves LLC.

The affiliated transactions between NWN and NW Energy Corp were:

- Equity contributions in NW Energy Corp from NWN;
- Distributions from NW Energy Corp to NWN; and
- Payments between NWN and NW Energy Corp for NW Energy Corp’s current tax expense or benefit.

Northwest Energy Sub Corporation

Northwest Energy Sub Corporation (“NW Energy Sub”) is a subsidiary of Northwest Energy Corporation, and was formed in 2001 to be a holding company in the event that the acquisition of PGE was completed. The corporation has remained dormant since its foundation.

There were no affiliated transactions between NWN and NW Energy Sub in 2016.

NWN Gas Reserves LLC

NWN Gas Reserves LLC (“NWN Gas Reserves”) is a wholly owned subsidiary of Northwest Energy Corporation and was formed in December 2012. In March of 2013, NWN’s working interest in the Jonah gas field was transferred to this entity. The agreements related to the working interest were amended in 2014 to facilitate Encana Oil & Gas (USA) Inc.’s sale of its interest in the Jonah Field to an affiliate of TPG Capital. The agreements related to the working interest were again amended in 2016 to further clarify the terms related to additional well development and capital expenditures.

The affiliated transactions between NWN, NW Energy Corp and NWN Gas Reserves were:

- Equity investments in NWN Gas Reserves from NW Energy Corp; and
- Distributions from NWN Gas Reserves to NW Energy Corp.

Northwest Biogas, LLC

NWN owns a 50% membership interest in NW Biogas. NWN also serves as the Managing Member. The other 50% membership interest is owned by BEF Renewable Incorporated. NW Biogas developed and operates a demonstration biodigester located at Three Mile Canyon Farms in Boardman, Oregon.

The affiliated transactions between NWN and NW Biogas in 2016 were:

- NW Biogas’ use of NWN’s administrative staff.

NW Natural Energy, LLC

NWN wholly owns NW Natural Energy, LLC (“NWN Energy”) which was formed in 2009 to own NW Natural Gas Storage, LLC (“NWN Gas Storage”) and other non-utility businesses.

The affiliated transactions between NWN and NWN Energy were:

- NWN Energy’s use of NWN’s administrative and operating staff;
- D&O insurance is purchased by NWN, and is subsequently charged to NWN Energy and reimbursed to NWN through intercompany billings;
- Payments by NWN to limited outside vendors on NWN Energy’s behalf and reimbursed by NWN Energy;
- Equity investments in NWN Energy from NWN;
- Distributions/contributions from NWN Energy to NWN; and
- Payments between NWN and NWN Energy for NWN Energy’s current tax expense or benefit.

NW Natural Gas Storage, LLC

NWN Energy wholly owns NWN Gas Storage, which was formed in 2009. The entity owns and manages non-utility gas storage interests.

The affiliated transactions between NWN, NWN Energy and NWN Gas Storage were:

- NWN Gas Storage’s use of NWN’s administrative and operating staff;

- Payments by NWN to limited outside vendors on NWN Gas Storage's behalf and reimbursed by NWN Gas Storage's subsidiary, Gill Ranch Storage, LLC ("GRS");
- Primarily D&O fiduciary and workers' compensation insurance is purchased by NWN, and is subsequently charged to NWN Gas Storage and reimbursed to NWN through intercompany billings;
- Equity investments in NWN Gas Storage from NWN Energy;
- Distributions from NWN Gas Storage to NWN Energy; and
- Payments between NWN and NWN Gas Storage for NWN Gas Storage's current tax expense or benefit.

Gill Ranch Storage, LLC

GRS was formed in 2007. In 2007, GRS entered into a Joint Project Agreement with Pacific Gas & Electric Company ("PG&E") to develop and own the Gill Ranch underground natural gas storage facility near Fresno, California. Currently, GRS owns 75% undivided ownership interest in this facility and is the sole operator of the facility. PG&E owns 25% undivided ownership interest. Ownership in the facility is structured as tenants in common. GRS owns rights of 75% of the available storage capacity at the facility. GRS's share is designed to provide 15 Bcf of working gas capacity. The facility began operations in the fourth quarter of 2010.

GRS is subject to California Public Utility Commission ("CPUC") regulation with respect to the gas storage services it provides, but it has market-based rate authority with respect to the rates for its services offered in the California market. In addition, GRS is subject to regulation by the CPUC for certain activities, including but not limited to the issuance of securities, operation of the facility, certain terms of customer services, systems of accounts, the nature of investments it may make, safety standards, and transactions with affiliated interests. Accounting records and practices of its regulated business conform to the requirements and uniform system of accounts prescribed by its regulatory authority in accordance with U.S. GAAP.

The affiliated transactions between NWN, NWN Gas Storage and GRS in 2016 were:

- GRS's use of NWN's administrative and operating staff;
- Payments by NWN to limited outside vendors on GRS's behalf and reimbursed by GRS;
- Primarily general liability and D&O insurance is purchased by NWN, and is subsequently charged to GRS and reimbursed to NWN through intercompany billings;
- Equity investments in GRS from NWN Gas Storage;
- Distributions from GRS to NWN Gas Storage; and
- Payments between NWN and GRS for GRS's current tax expense or benefit.

Trail West Holdings, LLC (TWH)

NW Natural Energy, LLC (“NWN Energy”) and TransCanada American Investment Ltd. (“TAIL”) each own a fifty percent (50%) membership interest in TWH. TWH wholly owns Trail West Pipeline, LLC (TWP), which is developing the cross-Cascades natural gas pipeline. See below for description of TWP.

The affiliated transactions between NWN/NWN Energy and TWH were:

- Because accounting is based on the equity method, TWH has no separate set of accounts except for dedicated nominal accounts in other income and expense on NWN Energy’s Income Statement, which includes non-billable expenses to TWH. The investment is tracked as “Other Investments” (124059);
- TWH’s use of NWN administrative and operating staff; and
- Payments by NWN to limited outside vendors on TWH’s behalf and reimbursed by TWH.

Trail West Pipeline, LLC (TWP)

TWP is a wholly-owned subsidiary of TWH, and has been pursuing the development of a proposed FERC-regulated cross-Cascades natural gas pipeline.

There were no affiliated transactions between NWN Energy and TWP in 2016.

BL Credit Holdings, LLC

BL Credit Holdings, LLC is a wholly-owned subsidiary of TWP.

There were no affiliated transactions between this subsidiary and NWN Energy in 2016.

WAC 480-90-264 (2)(g)

A list of all common officers and directors between the gas utility and each such affiliated interest or subsidiary, along with their titles in each organization. [Transactions that equal or exceed \$100,000]

NORTHWEST NATURAL GAS COMPANY¹

DIRECTORS

Tod R. Hamachek, Chair
Timothy P. Boyle
Martha L. (“Stormy”) Byorum
John D. Carter

C. Scott Gibson
David H. Anderson²
Jane L. Peverett
Kenneth Thrasher

¹ Directors and Officers as of December 31, 2016. Changes that occurred during 2016 or after December 31, 2016, have been noted.

² Mr. Gregg S. Kantor ceased serving as Chief Executive Officer and a member of the Board of Directors as of July 31, 2016. Mr. Anderson was appointed as a member of the Board of Directors and to the position of Chief Executive Officer as of August 1, 2016. Mr. Anderson continued to serve as President.

Mark S. Dodson

Malia H. Wasson

OFFICERS

<u>Names</u>	<u>2016</u>
David H. Anderson	President and Chief Executive Officer ²
Brody J. Wilson	Interim Chief Financial Officer, Interim Treasurer, Chief Accounting Officer and Controller ^{3,4}
Lea Anne Doolittle	Senior Vice President and Chief Administrative Officer
Thomas J.M. Imeson	Vice President, Public Affairs
MardiLyn Saathoff	Senior Vice President, General Counsel and Regulation ^{5,6}
Lori L. Russell	Vice President, Utility Services ^{7,8}
Grant M. Yoshihara	Senior Vice President, Utility Operations ⁹
Shawn M. Filippi	Vice President, Corporate Secretary and Chief Compliance Officer ¹⁰
Ngoni Murandu	Vice President and Chief Information Officer ¹¹
Justin Palfreyman	Vice President, Business Development ¹²

³ Mr. Gregory C. Hazelton was appointed Senior Vice President, Chief Financial Officer and Treasurer as of February 25, 2016. Mr. Hazelton had been previously serving as Senior Vice President and Chief Financial Officer. Mr. Hazelton resigned as Senior Vice President, Chief Financial Officer and Treasurer as of September 2, 2016.

⁴ Mr. Wilson was appointed Controller, Chief Accounting Officer and Assistant Treasurer as of February 25, 2016. Mr. Wilson had been previously serving as Controller and Chief Accounting Officer. Mr. Wilson was appointed Chief Financial Officer (interim), Treasurer (interim), Chief Accounting Officer and Controller as of September 2, 2016. He had been previously serving as Controller, Chief Accounting Officer and Assistant Treasurer. Mr. Wilson was appointed Vice President, Treasurer, Controller and Chief Accounting Officer as of May 17, 2017. Frank Burkhartsmeyer has been appointed Senior Vice President and Chief Financial Officer as of May 17, 2017.

⁵ Ms. Saathoff was appointed Senior Vice President, General Counsel and Regulation as of February 25, 2016. Ms. Saathoff had been previously serving as Senior Vice President and General Counsel.

⁶ Mr. C. Alex Miller retired as Vice President, Regulation and Treasurer as of February 25, 2016

⁷ Ms. Russell was appointed Vice President, Utility Services as of April 1, 2016.

⁸ Mr. David R. Williams retired as Vice President, Utility Services as of March 31, 2016.

⁹ Mr. Yoshihara was appointed Senior Vice President, Utility Operations as of July 28, 2016. Mr. Yoshihara had been previously serving as Vice President, Utility Operations.

¹⁰ Ms. Filippi was appointed Chief Compliance Officer as of February 25, 2016. Ms. Filippi had been previously serving as Vice President and Corporate Secretary.

¹¹ Mr. Murandu was appointed Vice President and Chief Information Officer as of February 25, 2016. Mr. Murandu resigned as Vice President and Chief Information Officer as of April 28, 2017.

¹² Mr. Palfreyman was appointed Vice President, Business Development as of September 30, 2016. Mr. Palfreyman was appointed Vice President, Strategy and Business Development, as of February 23, 2017.

NNG FINANCIAL CORPORATION

Wholly-owned subsidiary of Northwest Natural Gas Company

Type of operations: Financial

Year Created: 1984

BOARD OF DIRECTORS

David H. Anderson, Chair*

MardiLyn Saathoff*

Brody J. Wilson*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Lea Anne Doolittle resigned and Gregory C. Hazelton and MardiLyn Saathoff were appointed as directors as of February 1, 2016.
- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeier replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE CORPORATION

David H. Anderson* President and Chief Executive Officer

Brody J. Wilson* Treasurer and Controller

Shawn M. Filippi* Corporate Secretary

Alison M. Pear Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- Gregory C. Hazelton resigned as Senior Vice President and Treasurer as of February 2, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 2, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 2, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 2, 2016.
- David W. Aimone resigned as Assistant Treasurer as of February 2, 2016.

KB PIPELINE COMPANY

Wholly-owned subsidiary of NNG Financial Corporation
Type of Operations: Gas Pipeline, Owner
Year Created: 1991

BOARD OF DIRECTORS

David H. Anderson, Chair*
Brody J. Wilson*
MardiLyn Saathoff*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Lea Anne Doolittle resigned and Gregory C. Hazelton and MardiLyn Saathoff were appointed as directors as of February 1, 2016.
- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeyer replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE COMPANY

J. Keith White	President
Randolph S. Friedman	Vice President
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- C. Alex Miller retired as Treasurer as of February 2, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 2, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 2, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 2, 2016.
- J. Keith White resigned as President as of February 1, 2017.
- Grant M. Yoshihara was appointed President as of February 1, 2017.

NORTHWEST ENERGY CORPORATION

Wholly-owned subsidiary of Northwest Natural Gas Company
Type of Operations: Non-Operating Holding Company
Year Created: 2001

BOARD OF DIRECTORS

David H. Anderson, Chair*
Brody J. Wilson*
MardiLyn Saathoff*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Gregory C. Hazelton was appointed as a director as of February 1, 2016.
- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhardtmeier replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE CORPORATION

David H. Anderson*	President and Chief Executive Officer
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- David H. Anderson resigned as Senior Vice President and Chief Financial Officer as of February 2, 2016.
- Gregory C. Hazelton resigned as Treasurer and Controller as of February 2, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 2, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 2, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 2, 2016.
- Gregg S. Kantor resigned as President and Chief Executive Officer as of July 31, 2016.
- David H. Anderson was appointed President and Chief Executive Officer as of August 1, 2016.

NORTHWEST ENERGY SUB CORPORATION

Wholly-owned subsidiary of Northwest Energy Corporation
Type of Operations: Non-Operating Merger Sub Corporation
Year Created: 2001

BOARD OF DIRECTORS

David H. Anderson, Chair*
Brody J. Wilson*
MardiLyn Saathoff*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Gregory C. Hazelton was appointed as a director as of February 1, 2016.
- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeier replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE CORPORATION

David H. Anderson*	President and Chief Executive Officer
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- David H. Anderson resigned as Senior Vice President and Chief Financial Officer as of February 2, 2016.
- Gregory C. Hazelton resigned as Treasurer and Controller as of February 2, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 2, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 2, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 2, 2016.
- Gregg S. Kantor resigned as President and Chief Executive Officer as of July 31, 2016.
- David H. Anderson was appointed President and Chief Executive Officer as of August 1, 2016.

NWN GAS RESERVES LLC

Wholly-owned subsidiary of Northwest Energy Corporation
Type of Operations: Natural Gas Reserves Development
Year Created: 2013

MANAGEMENT

Manager-managed
Manager: Board of Directors

BOARD OF DIRECTORS

David H. Anderson*
Brody J. Wilson*
MardiLyn Saathoff*
Grant M. Yoshihara*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Gregory C. Hazelton was appointed as a director as of February 1, 2016.
- Grant M. Yoshihara was appointed as a director as of May 1, 2016.
- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeier replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE LIMITED LIABILITY COMPANY

David H. Anderson*	President and Chief Executive Officer
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- David H. Anderson resigned as Senior Vice President and Chief Financial Officer as of February 2, 2016.
- Gregory C. Hazelton resigned as Treasurer and Controller as of February 2, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 2, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 2, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 2, 2016.

- Gregg S. Kantor resigned as President and Chief Executive Officer as of July 31, 2016.
- David H. Anderson was appointed President and Chief Executive Officer as of August 1, 2016.

TRAIL WEST HOLDINGS, LLC

50% membership interest owned by NW Natural Energy, LLC
50% membership interest owned by TransCanada American Investment Ltd.
Type of Operations: Gas Pipeline Owner
Year created: 2006

MANAGEMENT

Management is by Management Committee consisting of: Russell Mahan, TransCanada and J. Keith White, NWN. Effective February 1, 2017, J. Keith White was replaced by Justin Palfreyman.

TRAIL WEST PIPELINE, LLC

Wholly-owned subsidiary of Trail West Holdings, LLC
Type of Operations: Gas Pipeline Owner and Operator
Year Created: 2006

MANAGEMENT

Management is by Management Committee of Trail West Holdings, LLC.

BL CREDIT HOLDINGS, LLC

Wholly-owned subsidiary of Trail West Pipeline, LLC.
Type of Operations: Gas Transportation
Year Created: 2009

MANAGEMENT

BL Credit Holdings, LLC is member-managed.

OFFICERS OF THE LIMITED LIABILITY COMPANY

No officers of NWN are officers of the limited liability company.

NW NATURAL ENERGY, LLC

Wholly-owned subsidiary of Northwest Natural Gas Company
Type of Operations: Holding Company
Year Created: 2009

MANAGEMENT

NW Natural Energy, LLC is manager-managed
Manager: Board of Directors

BOARD OF DIRECTORS

David H. Anderson*
Lea Anne Doolittle*
Brody J. Wilson*
MardiLyn Saathoff*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeier replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE LIMITED LIABILITY COMPANY

David H. Anderson*	President and Chief Executive Officer
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- C. Alex Miller retired as Treasurer as of February 1, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 1, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 1, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 1, 2016.
- Justin Palfreyman was appointed Vice President as of February 1, 2017.

NW NATURAL GAS STORAGE, LLC

Wholly-owned subsidiary of NW Natural Energy, LLC
Type of Operations: Natural Gas Storage Development and Holding Company
Year Created: 2009

MANAGEMENT

NW Natural Gas Storage, LLC is manager-managed
Manager: Board of Directors

BOARD OF DIRECTORS

David H. Anderson*
Lea Anne Doolittle*
Brody J. Wilson*
MardiLyn Saathoff*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeier replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE LIMITED LIABILITY COMPANY

David A. Weber	President and Chief Executive Officer
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- C. Alex Miller retired as Vice President and Treasurer as of February 1, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 1, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 1, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 1, 2016.
- Justin Palfreyman was appointed Vice President as of February 1, 2017.

GILL RANCH STORAGE, LLC

Wholly-owned subsidiary of NW Natural Gas Storage, LLC
Type of Operations: Natural Gas Storage
Year Created: 2007

MANAGEMENT

Gill Ranch Storage, LLC is manager-managed
Manager: Board of Directors

BOARD OF DIRECTORS

David H. Anderson*
Lea Anne Doolittle*
Brody J. Wilson*
MardiLyn Saathoff*

(*Officer of NWN)

CHANGES IN MEMBERS OF THE BOARD

- Gregg S. Kantor resigned as Chairman and director as of July 31, 2016.
- David H. Anderson became the Chairman as of August 1, 2016.
- Gregory C. Hazelton resigned and Brody J. Wilson was appointed as a director as of September 2, 2016.
- Frank Burkhartsmeyer replaced Brody J. Wilson as a director as of May 17, 2017.

OFFICERS OF THE LIMITED LIABILITY COMPANY

David A. Weber	President and Chief Executive Officer
Brody J. Wilson*	Treasurer and Controller
Shawn M. Filippi*	Corporate Secretary
Alison M. Pear	Assistant Corporate Secretary

(*Officer of NWN)

CHANGES IN OFFICERS

- C. Alex Miller retired as Vice President, Treasurer and Director of Regulatory Affairs as of February 1, 2016.
- Brody J. Wilson was appointed Treasurer and Controller as of February 1, 2016.
- MardiLyn Saathoff resigned as Assistant Corporate Secretary as of February 1, 2016.
- Alison M. Pear was appointed Assistant Corporate Secretary as of February 1, 2016.
- Justin Palfreyman was appointed Vice President as of February 1, 2017.

NORTHWEST BIOGAS, LLC

50% membership interest owned by Northwest Natural Gas Company
50% membership interest owned by BEF Renewable Incorporated
Type of Operations: Biodigester Owner
Year Created: 2008

Northwest Biogas, LLC is member-managed
Managing Member: Northwest Natural Gas Company

MANAGEMENT

Northwest Biogas, LLC is member-managed
Managing Member: Northwest Natural Gas Company

OFFICERS OF THE LIMITED LIABILITY COMPANY

Angus Duncan	President
Barbara Summers	Vice President
Joanna Gilson	Secretary

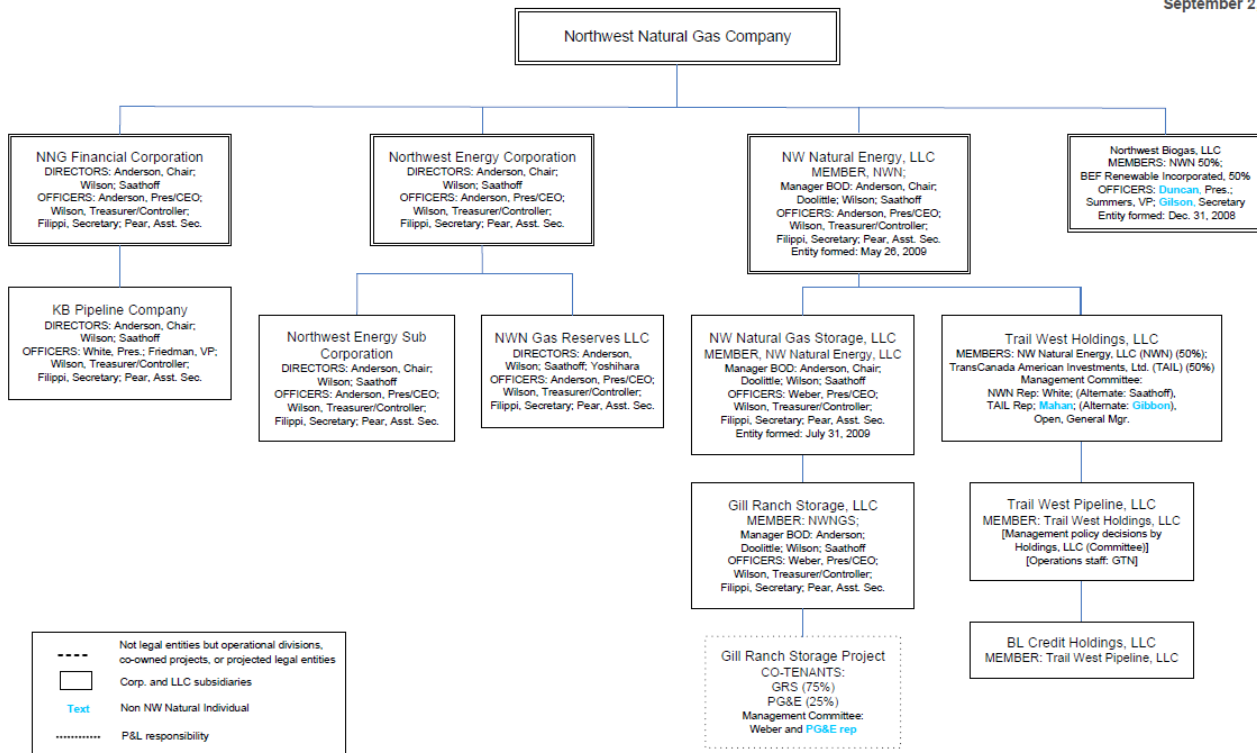
CHANGES IN OFFICERS

- No changes.

CHART 1

NW Natural Organization Chart

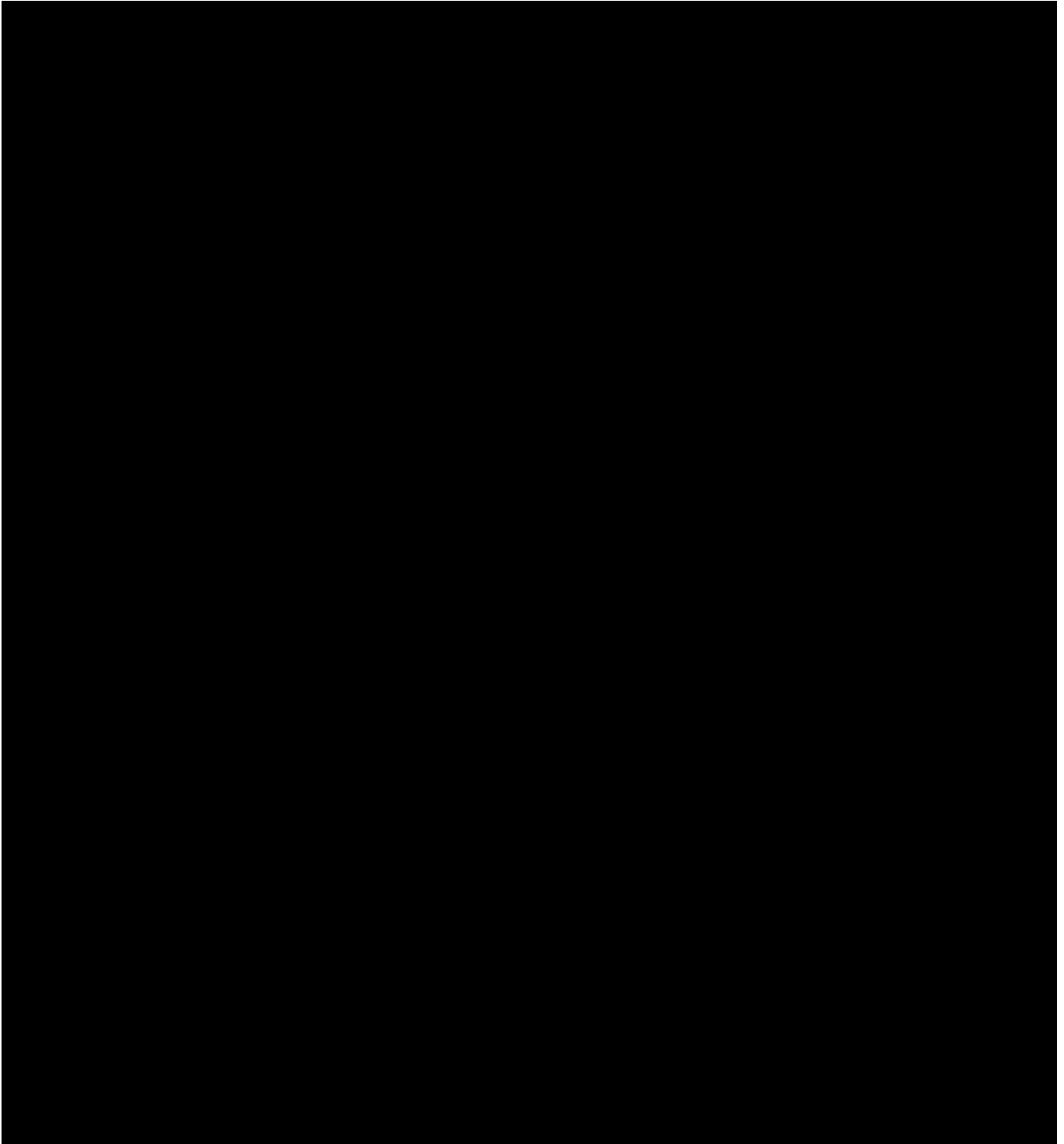
Updated
September 2, 2016



NWN Subsidiary Structure - September 2, 2016

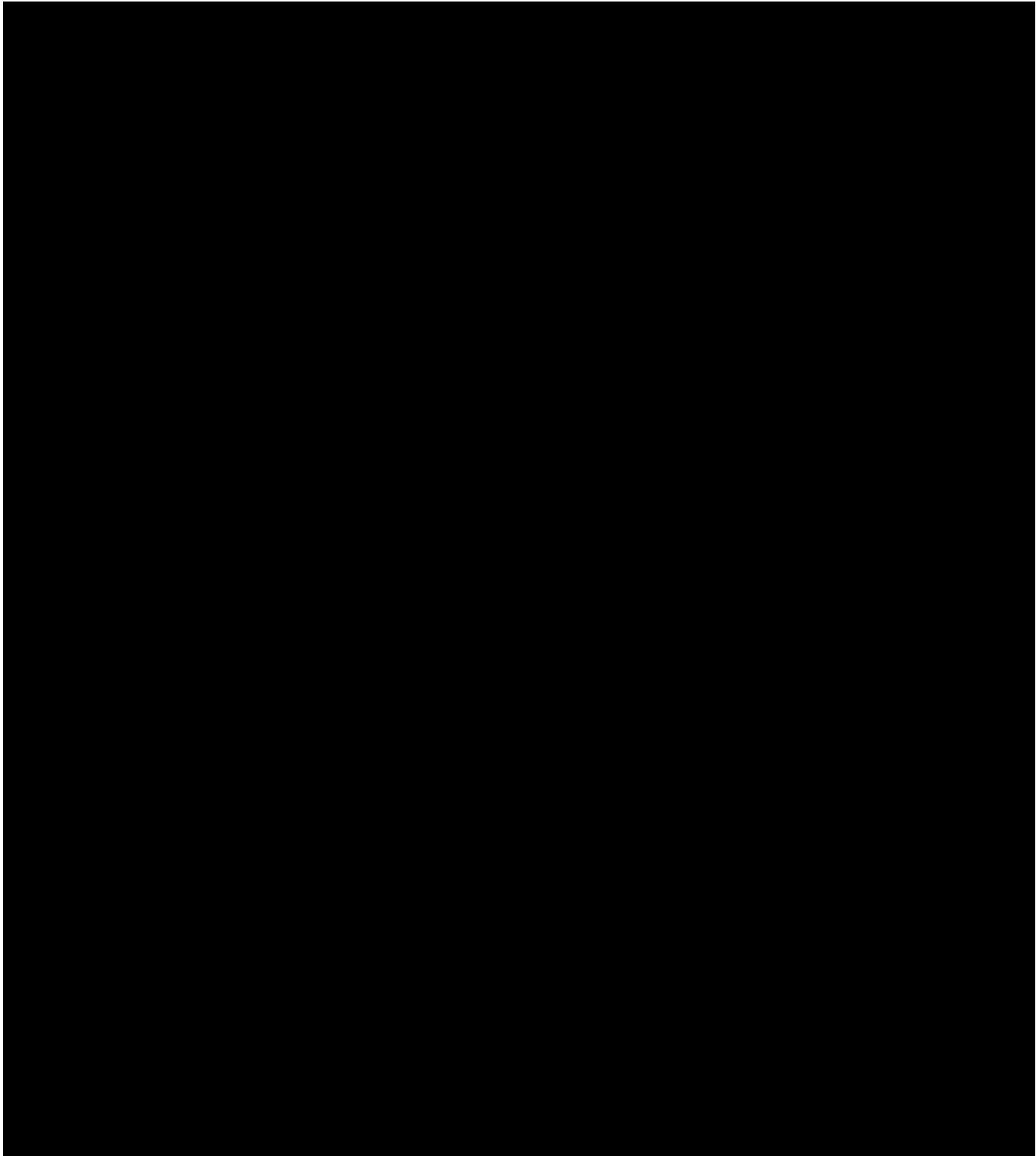
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EXHIBIT A



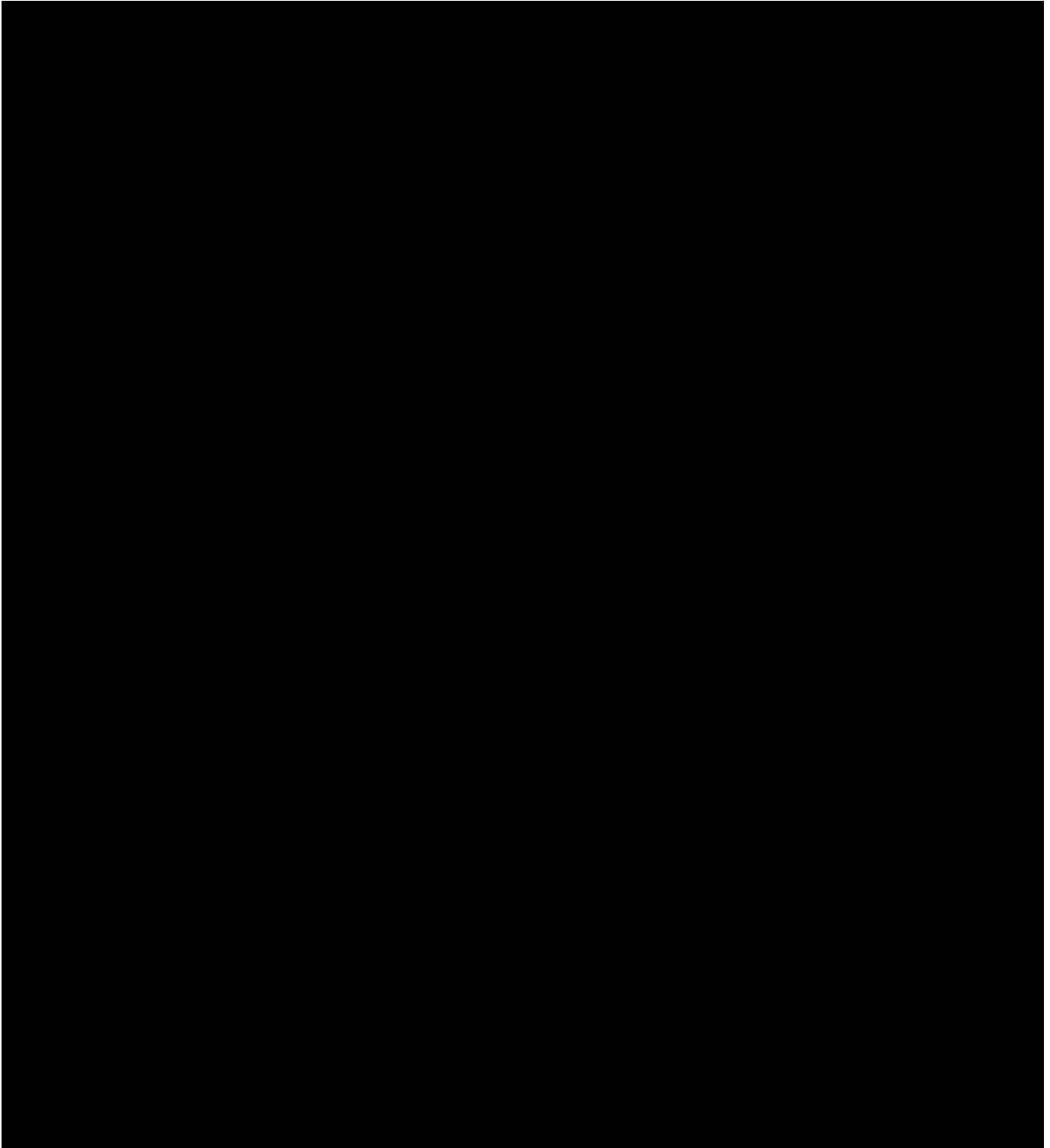
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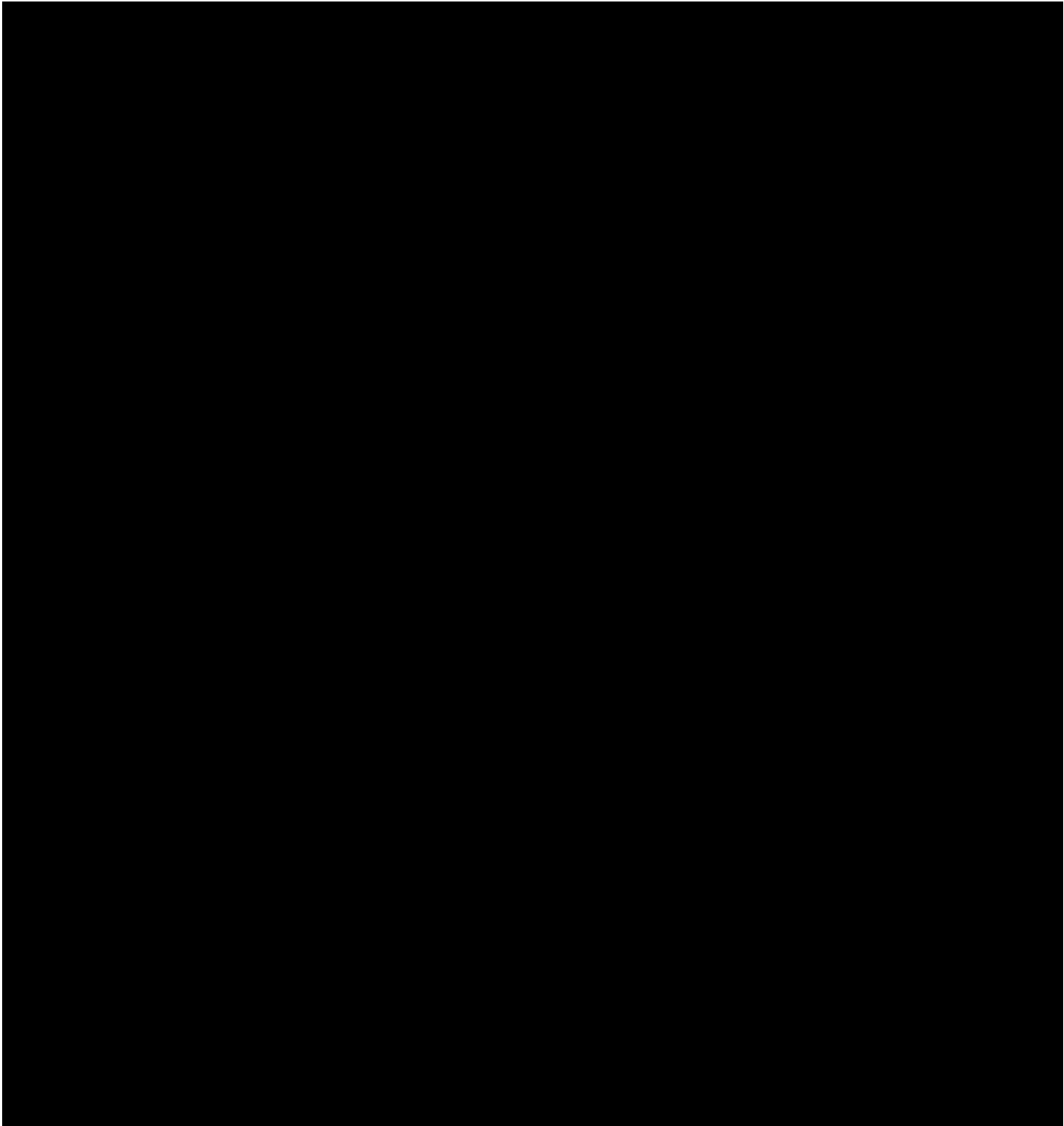
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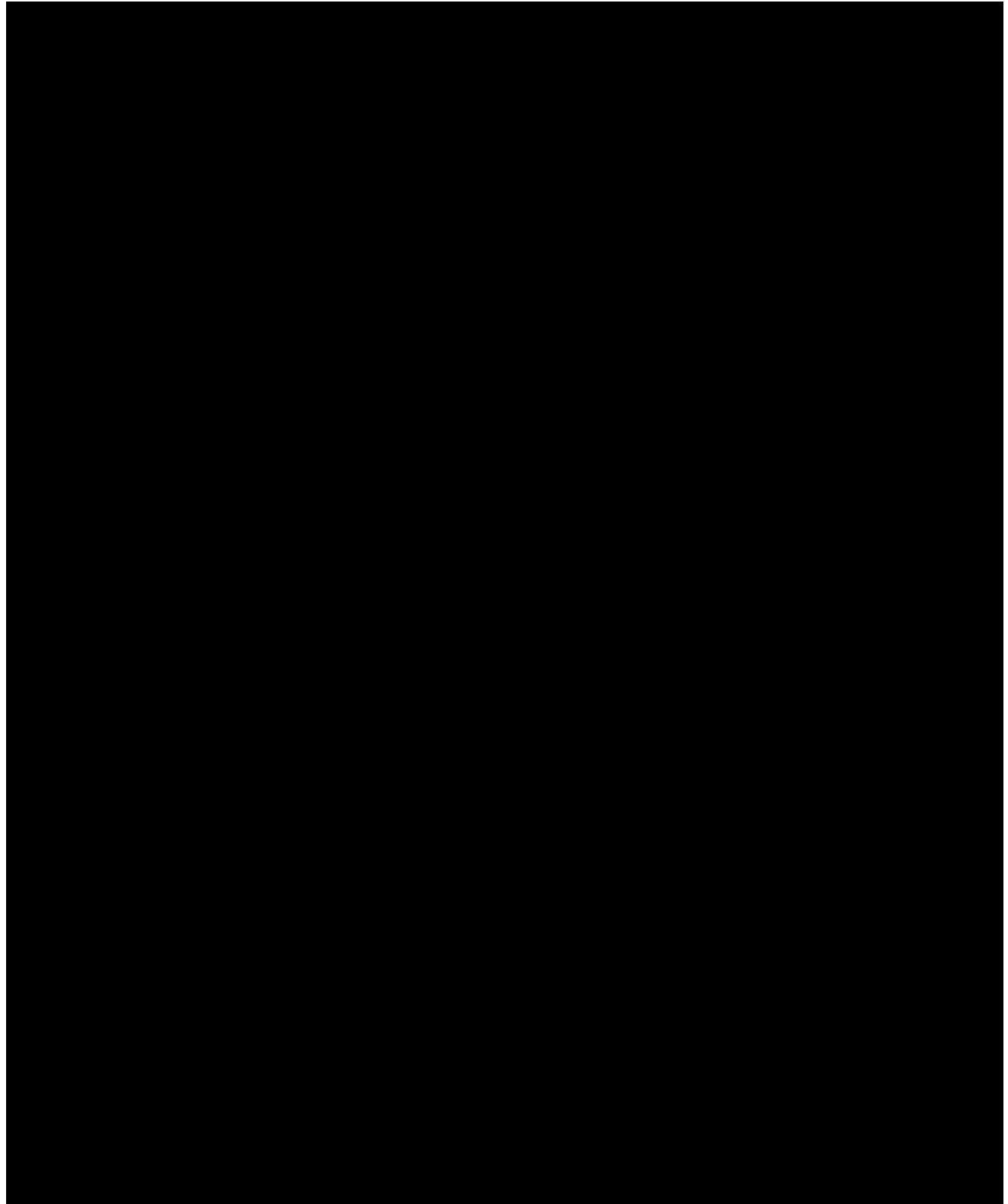
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DESIGNATED AS CONFIDENTIAL PER WAC 480-07-160

EXHIBIT A



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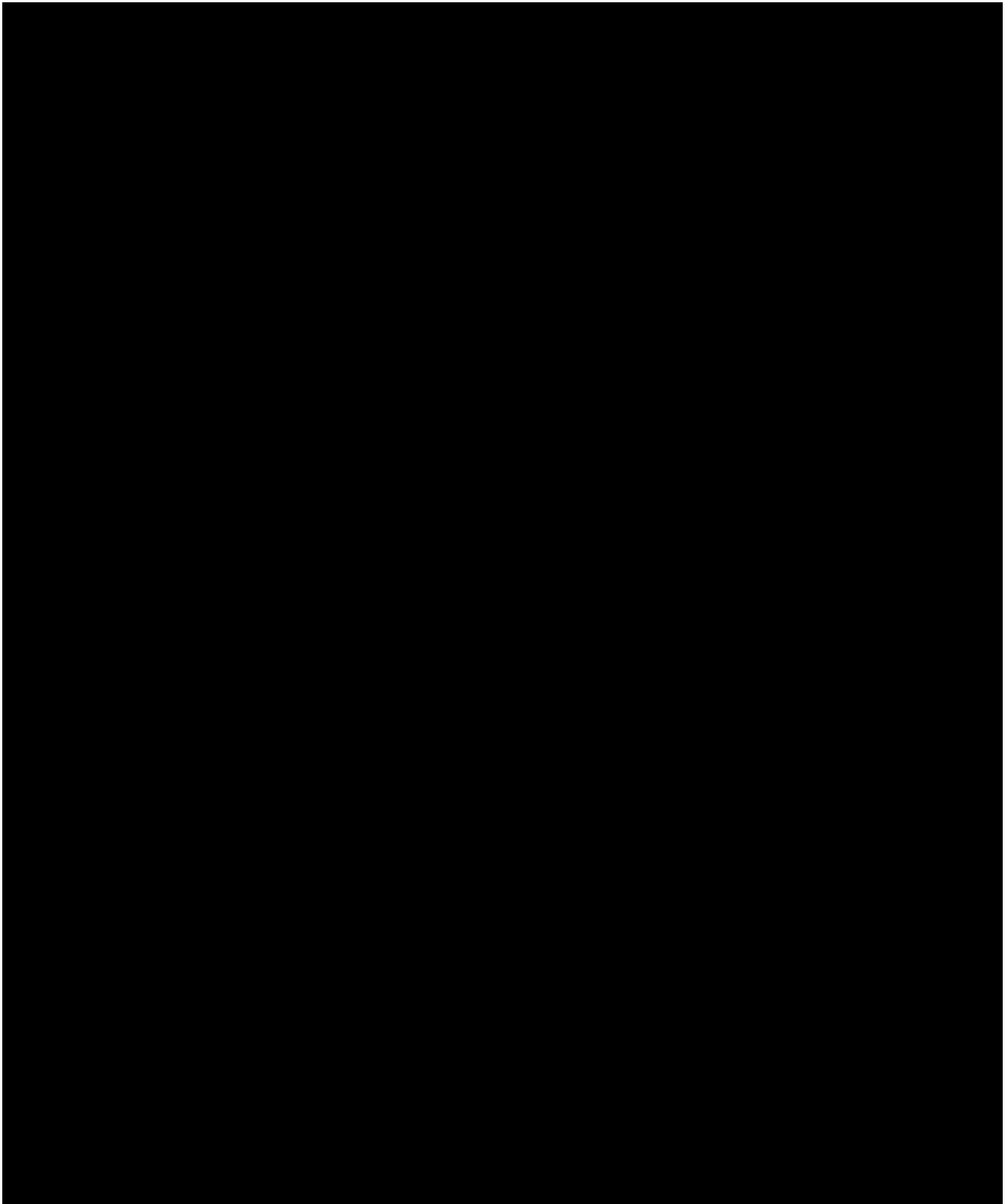


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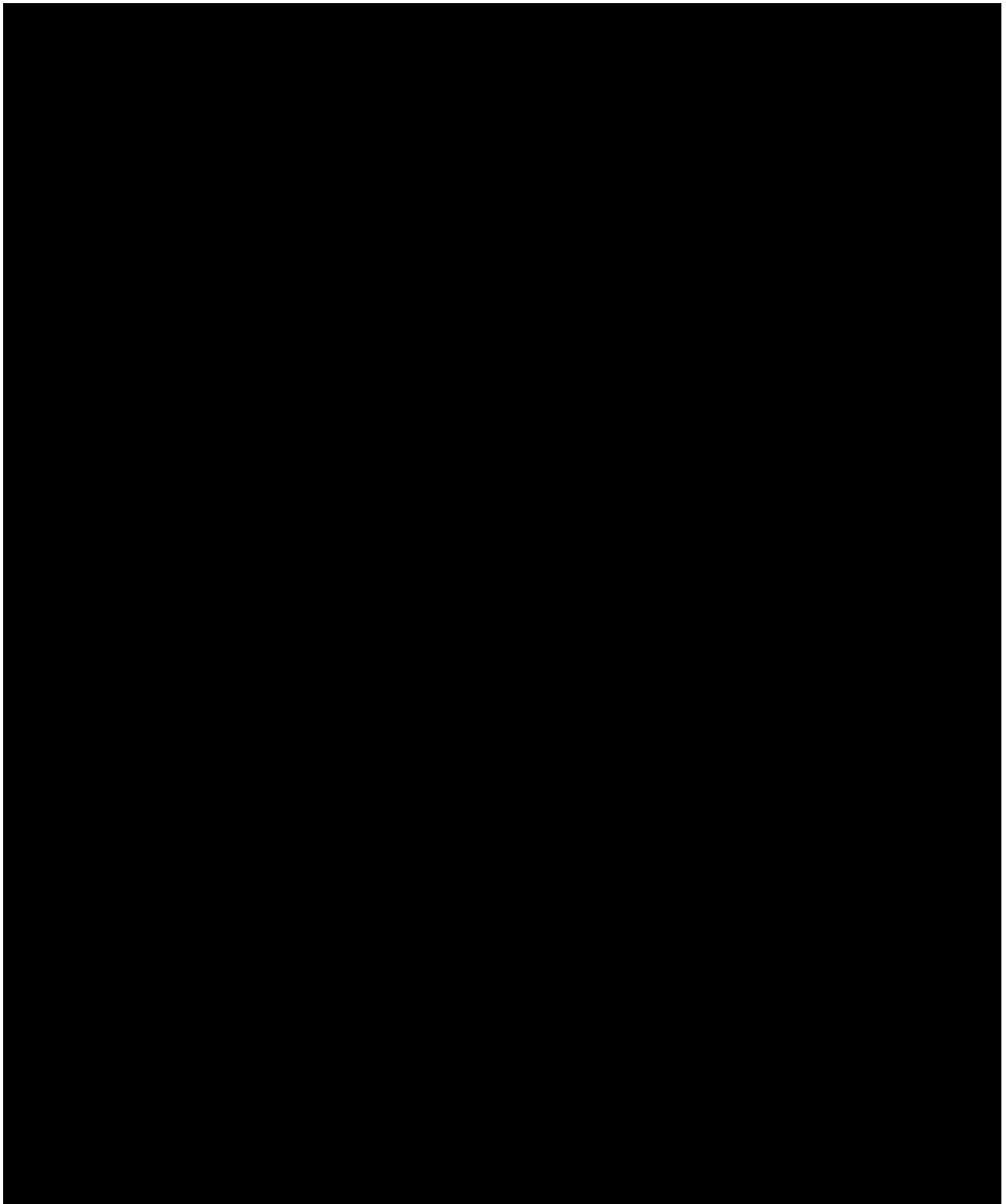


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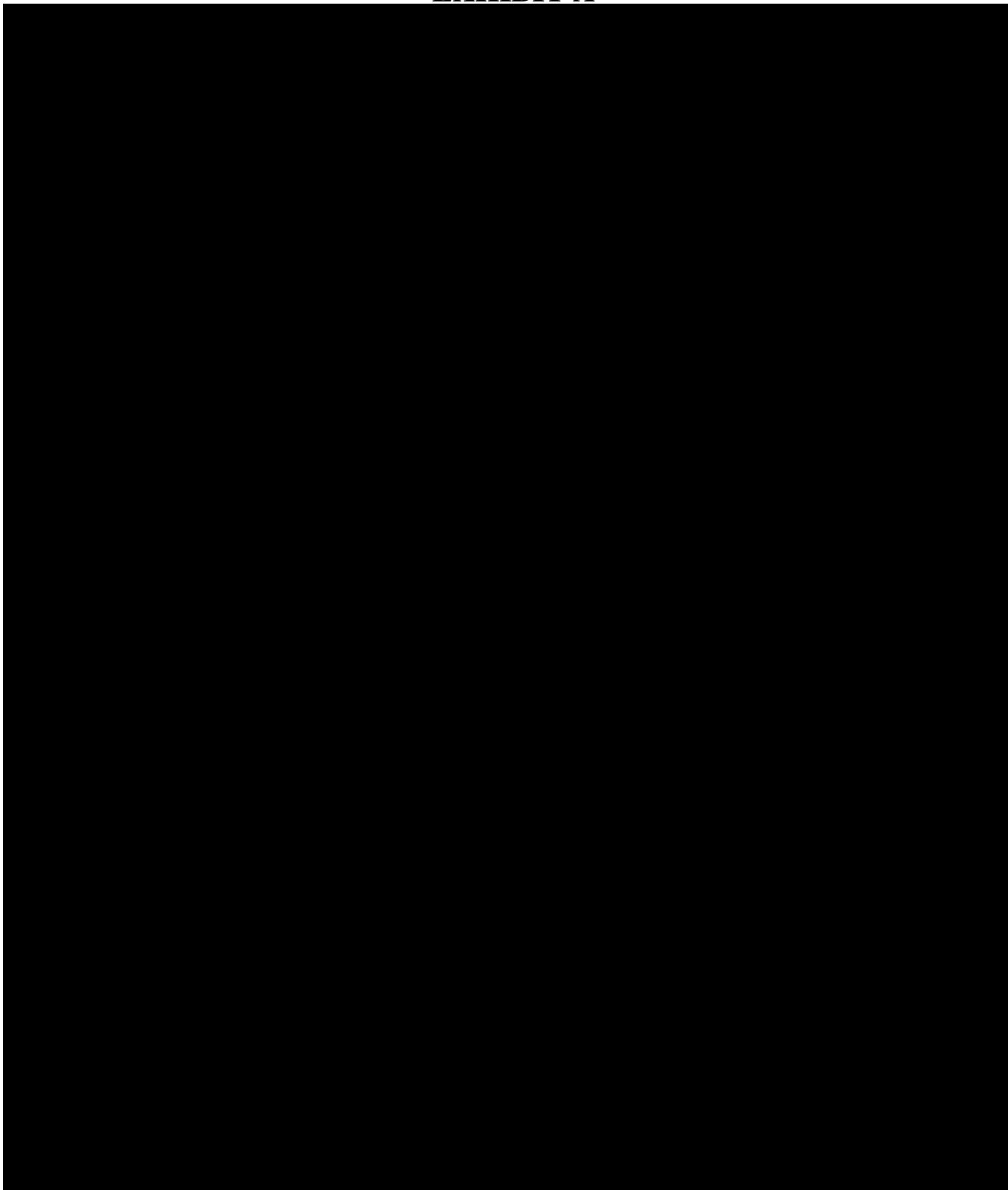


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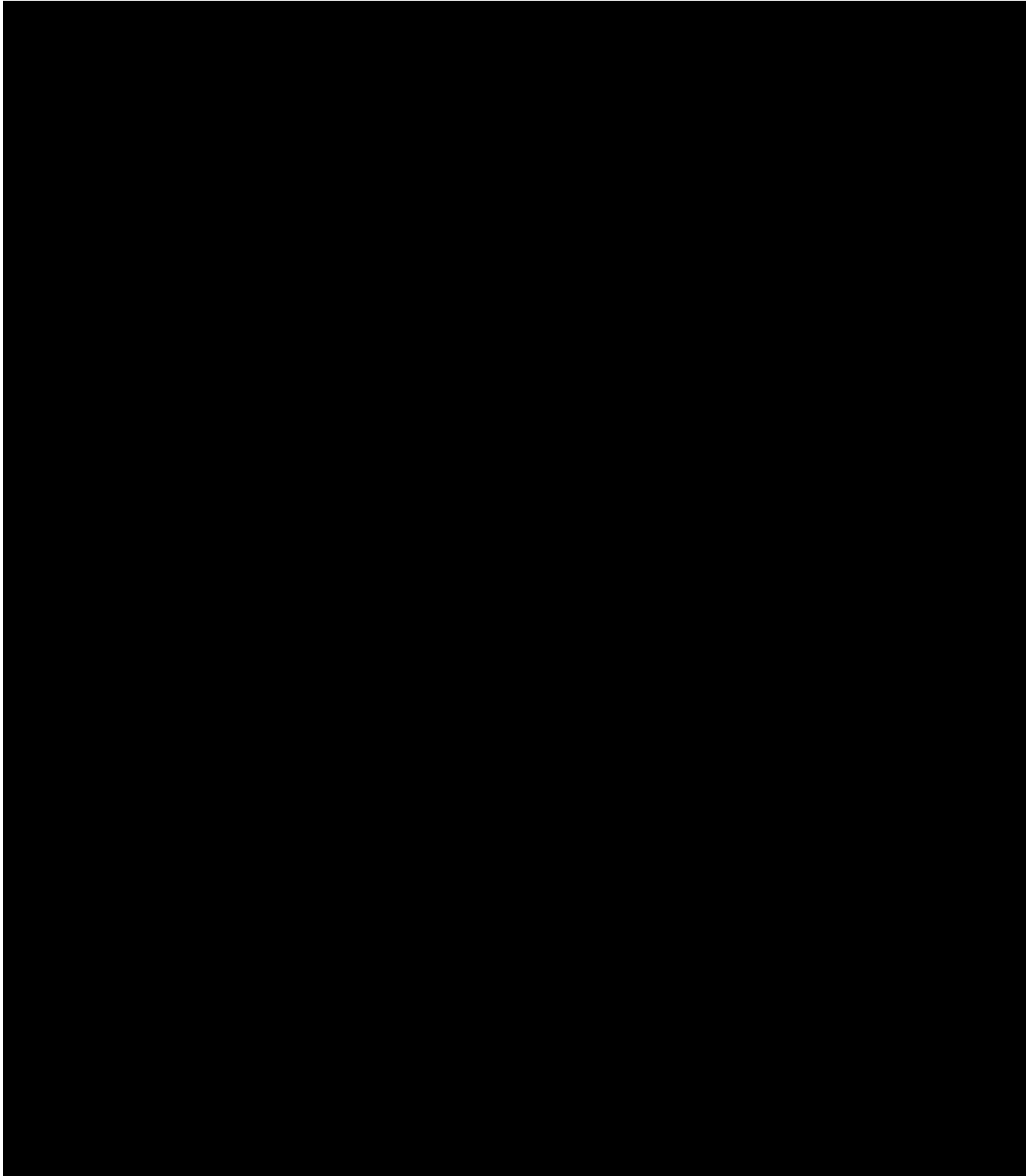
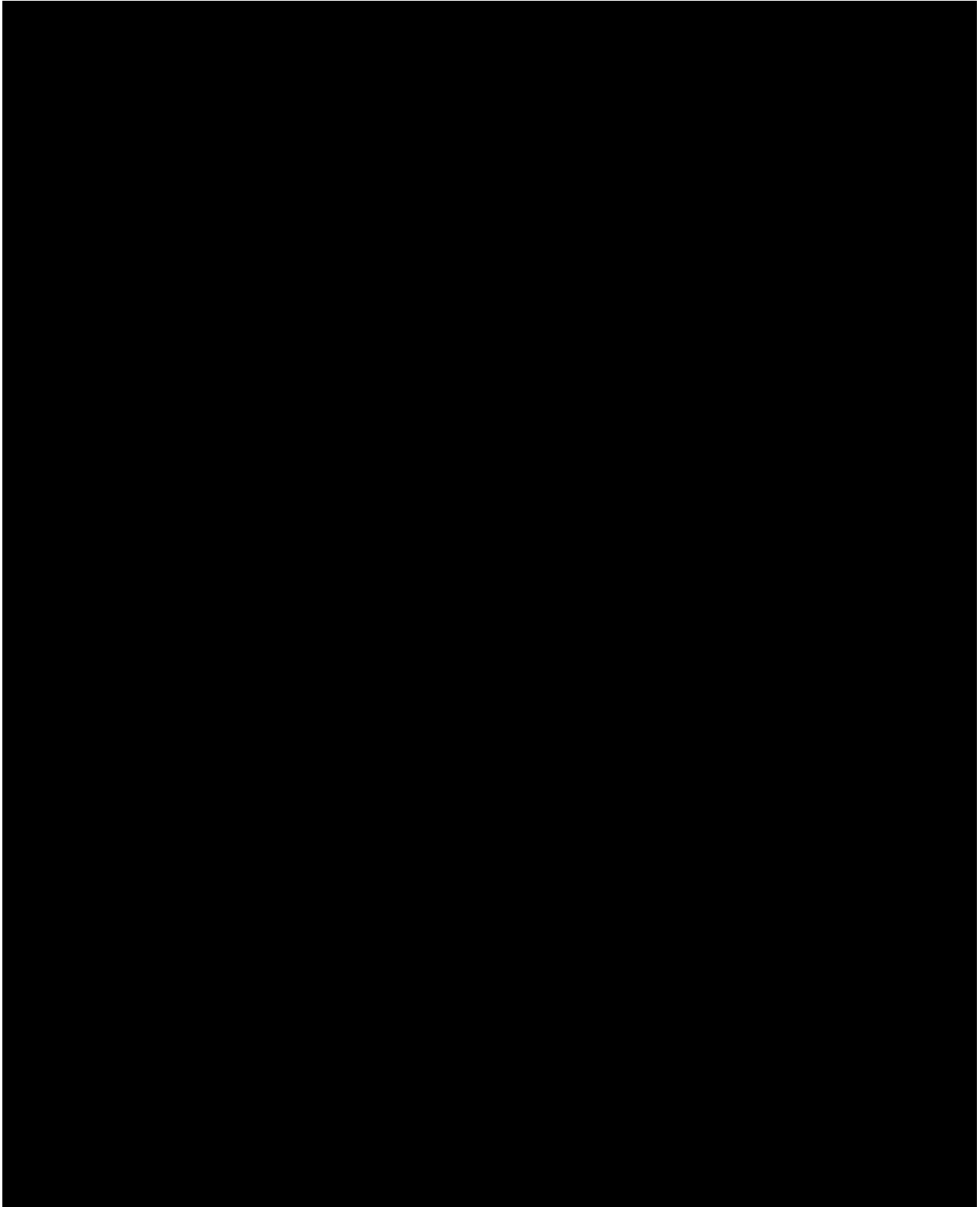
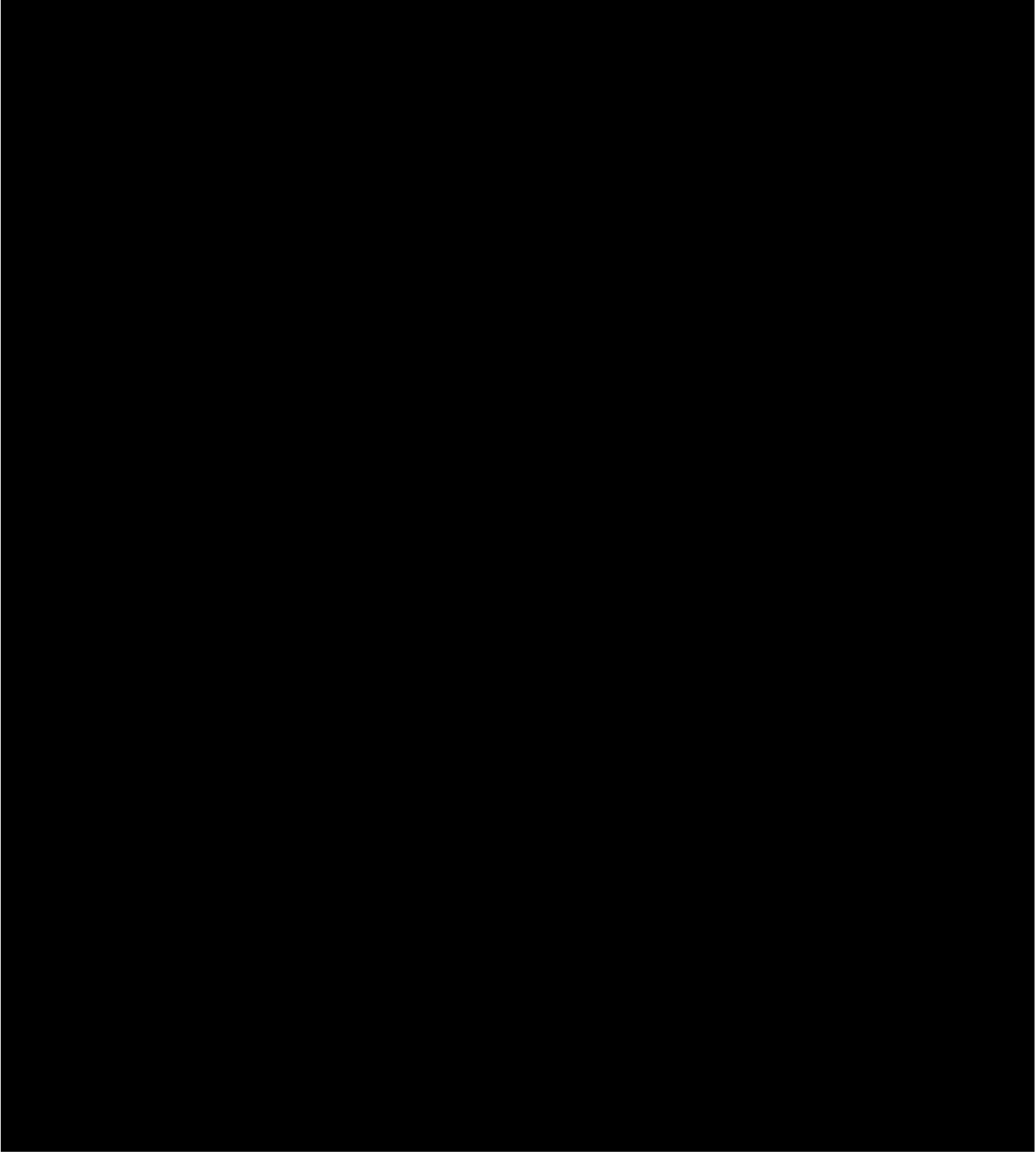


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EXHIBIT A



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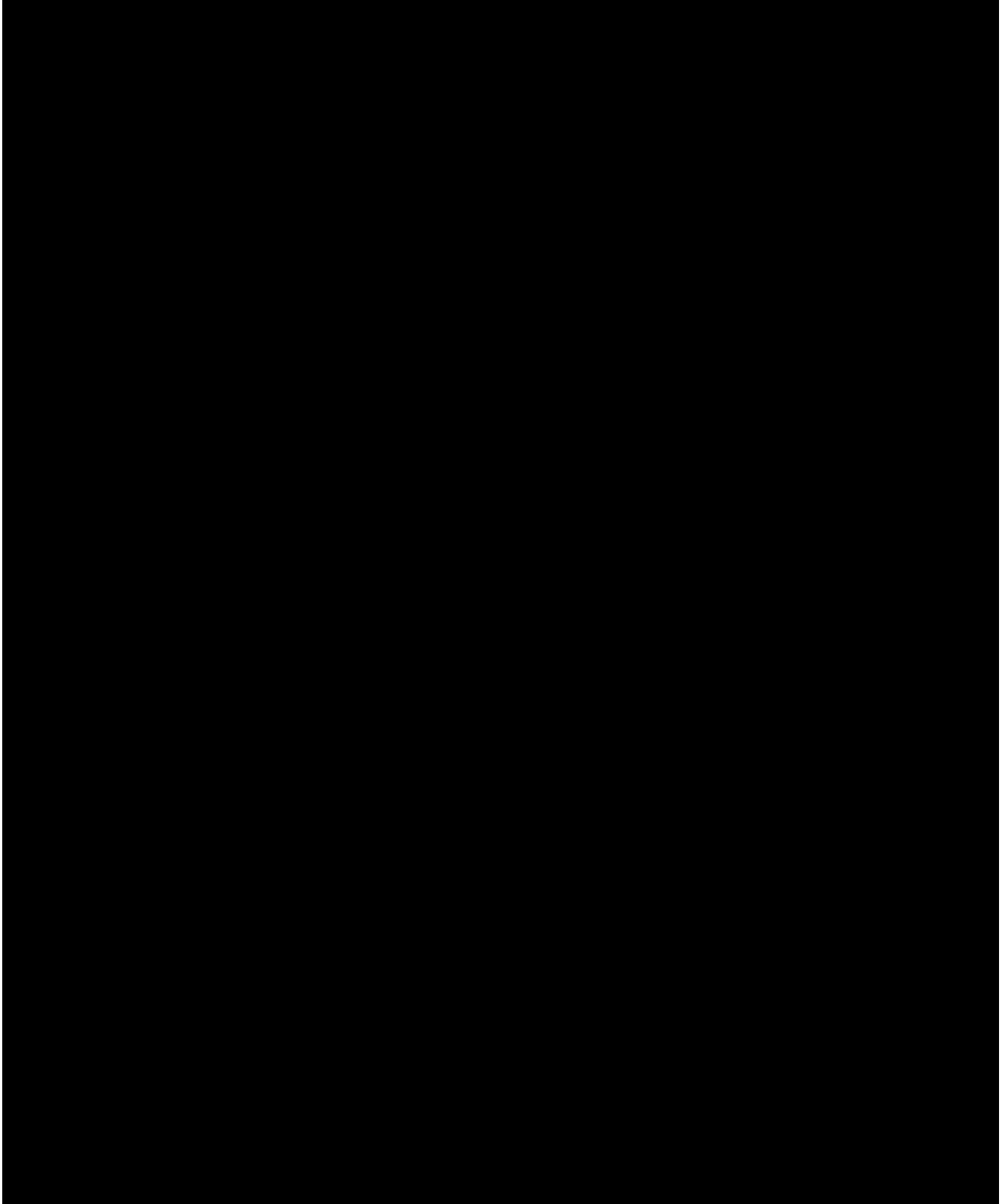


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