Consolidated Expert Report of Charles D. Cowan, Ph.D.

Rebuttal to BNY Mellon Expert Reports and Reply in Support of Initial Report

April 11, 2013

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I.   Introduction

1.   I have been retained by AIG to review and respond to portions of the expert reports of Mr. Burnaman and Dr. Fischel and the reports submitted by Mr. Burnaman, Dr. Fischel, and Dr. Schwert in rebuttal to my earlier report in this matter. The portions to which I respond relate to assertions regarding the settlement amount and the Trustee's reliance on the report of Mr. Brian Lin concerning the settlement amount (including my critique of each of the former). A summary of my opinions with respect to each is found below.

2.   The information I rely on includes each of the reports to which this response is directed, as well as any information cited in the text of my opinions. I have also relied on the sources identified in my expert report, dated March 14 ("my Report" or "Cowan Report"). Any additional information I have relied on is listed in Appendix A. My background, qualifications, and other information provided pursuant to the Expert Stipulation are set forth in or are attachments to my Report and are not restated here.

II.   Summary of My Opinions

3.   After reviewing the opinions of Dr. Fischel and Mr. Burnaman, I remain convinced that the original analyses and conclusions by the Trustee are flawed and are not reliable. Dr. Fischel and Mr. Burnaman attempt to resurrect Mr. Lin's earlier analysis by reanalyzing some of the numbers he used, but fail to acknowledge the most basic flaws that should have been apparent to the Trustee.

4.   With respect to the rebuttal reports, all three (Burnaman, Fischel, Schwert) attempt to recast my critique of the flawed Lin report into a separate and new analysis. In doing so, they ultimately support my position that the original Lin Report is flawed and that the Trustee should have known that the Lin Report had serious deficiencies and misrepresentations.

5.   In particular, my conclusions are that:

- The Trustee's analysis of the settlement amount was and remains defective.

- The Burnaman breach and success rate calculations repeat Mr. Lin's errors and add new flaws.

- The consideration of causality and presentment discounts by Mr. Burnaman and Dr. Fischel in the Settlement calculation are flawed and rely on rejected legal positions.

- The opposition to loan file sampling is part of a larger attack by Bank of America on the use of sampling and reunderwriting in all litigation and misstates the cost and utility of the direct method of valuation.

- There is nothing in any of the reports or rebuttals by BNY Mellon's experts that address the fact that the deficiencies in the Lin Report still exist and were apparent from information that Mr. Lin and the Trustee had available.

- The statistical studies and critiques by the BNY Mellon experts are incorrect and unsupported.

III. The Trustee's Analysis of the Settlement Amount Was and Remains Defective

A. The Burnaman Loss Calculations are Flawed, but Even if Accurate Show a Severe Underestimate of Losses

6.   Mr. Burnaman estimated that the Covered Trusts have or will conservatively suffer losses of $84.7 billion.[1] The descriptor "conservative" is Mr. Burnaman's. If Mr. Burnaman's conservative calculations are correct, then Mr. Lin has understated the losses by $7.9 to $23 billion, and this would in turn raise the lower bound on Mr. Lin's calculation of the settlement amount from $8.8 billion to a minimum of $12.2 billion.

7.   Again I do not endorse this number because I believe Mr. Lin's approach was fundamentally flawed, as set forth in my Report. Further, this small change due to Mr. Burnaman's restatement of Mr. Lin's numbers highlights how errors in Mr. Lin's approach have a significant impact on investors. Mistakes in Mr. Lin's calculations related to loss translate into comparable errors in the calculation of the settlement amounts.

8.   As noted earlier, I also find that Mr. Burnaman makes errors in his calculation of losses and settlement amounts. Mr. Burnaman repeatedly states that his findings do not favor one choice of estimate over another, and in several places he gives ranges of values so wide as to be all encompassing. See, for example, Table 6b, ██████████████████████████████ ██ ████████ His analyses result in such wide ranges that his results become useless.

9.   Although Mr. Burnaman states that he finds the GBIC approach supportable, he goes on to ignore or dismiss some of the GBIC's key data and findings. For example, he rejects ██ ███████████████████████████████ as being too highand instead posits ████████

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[1] Burnaman Report at 5.

██ [2] The GBIC's data

appears to be accurate and from a reliable source. The source Mr. Burnaman cites deals with

multiple originators and a broad experience with modifications; it does not address the

Countrywide and Bank of America experience directly.

10.   Mr. Burnaman avoids mentioning Bank of America's record with modification of loans

and dealing with troubled borrowers. Mr. Burnaman ignores commonly known information

about Bank of America's exceptionally poor performance in loan modifications, for example:

> *The Treasury Department announced on Thursday* [June 9, 2011] *that it will withhold incentive payments to Bank of America (BAC, Fortune 500), J.P. Morgan Chase (JPM, Fortune 500) and Wells Fargo (WFC, Fortune 500) until they substantially improve their performance in the federal Home Affordable Modification Program, known as HAMP.*
>
> *Bank of America said it acknowledges it must make improvements, particularly in areas affecting homeowners.*[3]

11.   He also incorporates some assumptions and BofA's loss estimation while acknowledging

that BofA's estimates are "optimistic" ████████████████████████████." Mr.

Burnaman finds ████████████████████████████████████

████████████████████[4] Yet he supports Mr. Lin's ████████████████████

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12.   Mr. Burnaman premises his analysis on the incorrect assertion that "a mortgage loan in

which all contractual payments are made pursuant to the term of the loan cannot suffer losses

occasioned by a failure of the originator/seller."[5] The footnote to this assertion states:

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[2] Burnaman Report at 21.
[3] "Treasury punishes top servicers for failing troubled homeowners," Tami Luhby, CNNMoney, June 10, 2011, http://money.cnn.com/2011/06/09/real_estate/hamp_servicers_payments/index.htm.
[4] Burnaman Report at 21.
[5] *Id.* at 10.

some would argue that the mere existence of a breach would, de facto, give rise to a put-back right under the contract, as a defective mortgage loan would have a lower market value than it originally carried, its continued payment performance notwithstanding. In my experience as an investor, I have never experienced or heard of performing loans being removed from RMBS trusts for defects.[6]

13.   My experience is that this *has* happened, in particular because the existence of the breach ostensibly gives rise to two very serious problems. The first is that the loan has a greater likelihood of default, and the put-back remedy was designed to remove these loans and allow a substitution of another loan that did not have a breach. Just because the loan hasn't defaulted yet does not mean that it carries the same risk as a loan without a breach, and the investor bought the security with the understanding that all the loans conformed to guidelines. This is the essence of offering the put-back remedy. The other problem is that a breach may result in a loss in the recovery value for a loan because of the lack of documentation. The loan cannot be sold, foreclosed on, or some other activity necessary to get the value of the collateral. This means that a Catch-22 situation is created where the loan cannot be foreclosed on because of a breach in the origination of the loan (e.g. no title), so the loan is in a state of perpetual lateness, but not foreclosed. Since Mr. Burnaman is also opining on claims regarding the poor quality of BofA's servicing, he is likely aware of the problems resulting from compliance breaches.

14.   Finally, Mr. Burnaman's default rates are demonstrably too low for the "60, 90, Foreclosure & REO" category. While he uses a 71% default rate, he does not account for the fact that the majority of those loans are 180 days past due, for which the default rate is well above 80%.

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[6] *Id*.

15.   What is most telling from Mr. Burnaman's analysis and previously from Mr. Lin's is that

no attempt has been made to wrest some basic summary statistics from the Trustee. The Trustee,

each month, issues a report to the investors. To be able to do this, the Trustee has to have

monthly reports on the performance of loans and, in particular, the performance of loans that

have entered the "60, 90, Foreclosure & REO" category. A glance at these reports would tell

Mr. Lin and Mr. Burnaman what the default rates are for these categories, the number of loans

that are at 30, 60, 90, 120, 150, and 180 days delinquency, and the probability of transition from

30 to 60 to 90 to 120 to 150 to 180 to default for these loans. These are the roll-forward rates

referenced in the reports from the experts for BNY Mellon. They cannot claim to know that

there are roll-forward rates but to not know that BNY Mellon must tabulate these to be able to

issue reports to investors.

16.   Similarly, the Trustee must know when a loan modification is made and how a loan is

modified so that the Trustee can do the appropriate Trust accounting. It is impossible for the

Trustee not to be able to know what the redefault rate is for modified loans, since it would be a

simple tabulation for each of these loans as to whether it ultimately redefaulted after the

modification. Note also that Mr. Lin presents a number unchallenged by the Trustee, but Mr.

Burnaman goes to the academic literature to borrow a rate completely unrelated to a number that

is readily available for each of the individual trusts from the Trustee.

17.   In summary, Mr. Burnaman's recalculated losses confirm my prior assessment that Mr.

Lin significantly understated losses and that the Trustee should have know about the flaws in Mr.

Lin's computations. The Burnaman recalculation itself understates losses because it still uses

BofA's misleading loss estimates, it understates some of the key metrics, and attempts to

discredit GBIC numbers by substituting nonsensical values.

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B. The Burnaman Breach and Success Rate Calculations Repeat Mr. Lin's Errors and Add New Flaws

18.   Despite finding the GBIC approach supportable[7], Mr. Burnaman, like Mr. Lin, rejects much of the GBIC data in favor of BofA's GSE comparison. Mr. Burnaman incorrectly reads my Report as the source of the position that the GSE data relied upon by Mr. Lin, and now Mr. Burnaman, is irrelevant.[8] That statement was made by the ███████████████████

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█████████████████.[9] The irrelevance of the GSE data is not only based on the quote I supplied from a report authored by Dr. Sabry, one of the Trustee's other experts, but also on the testimony of ██████████, who most certainly was in a position to make the comparison since he

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█████████████████████.

19.   As set forth in my Report, the GBIC approach was the most reliable approach then available to Mr. Lin for estimating BofA's repurchase liability. In rejecting that approach both Mr. Lin and Mr. Burnaman rely on BofA's repurchase experience with the GSEs. I incorporate those aspects of my Report that discuss the inapplicability of the GSE experience by reference.

20.   My views on the inapplicability of the GSE experience are amplified by FASB Topic 820, cited by Mr. Burnaman. As Mr. Burnaman notes, Topic 820 states that "[w]hen a price for an identical asset or liability is not observable, a reporting entity measures fair value using another valuation technique that maximizes the use of *relevant* observable inputs and minimizes

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[7] Burnaman Report at 6.
[8] Burnaman Rebuttal at 5.
[9] *See* Cowan Report at 14.

the use of unobservable inputs."[10] The emphasis is mine, as the FASB requirement is for

relevant observable inputs, which the GSE experience was not. The GBIC forcefully asserted

and observed ███

███████" Mr. Lin himself observes that the GBIC's reunderwriting project was based on loans

similar to those in the Covered Trusts. The conclusion one can draw from Mr. Burnaman's

citation to FASB Topic 820 is that the Trustee should have given the GBIC analysis far more

weight than it did. Mr. Burnaman ignores his own admonition.

21.   In an effort to "adjust" the GSE repurchase experience to construct a proxy for loans in

the Covered Trusts (something Mr. Lin did not do), Mr. Burnaman compares representations and

warranties given in several of the at-issue PSAs and those made in the Fannie Mae

Seller/Servicer guide from 2007. As a threshold matter, I am unsure why Mr. Burnaman chose

the 2007 Fannie Mae guide and not guides from 2004, 2005, and 2006, as well, since those

vintages are also in the Covered Trusts. But, even assuming there is some applicability to this

exercise, his analysis is so opaque as to be not useful. All he says is that the Fannie Mae

representations and warranties "are more numerous and appear to be more detailed."[11]

22.   He does not address the substance of the representations and warranties, and omits

reference to two important representations and warranties made in the PSAs: prudent

underwriting and accuracy of the information in the data tapes. BofA's widespread underwriting

failures are well documented and proving that information in the data tape is inaccurate presents

a significantly lower burden to the Trustee or investors than proving a knowing

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[10] Burnaman Report at 15 & 16.
[11] Burnaman Report at 23.

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misrepresentation. This "lesser representation" discount is another of BofA's legal theories now advanced by the Trustee through Mr. Burnaman.[12]

23.   In making his adjustment of the GSE experience, Mr. Burnaman also rejects the GBIC reunderwriting data because it "is opaque and the results were more severe than I was aware of based on my industry knowledge and direct experience."[13] This is no basis for a financial expert to ignore actual reunderwriting of similar loans.

24.   As to opacity, there is no dispute ██████████████████████████████████ ████████████.[14] And while I believe it was not reasonable ███████████████████████ ████████████████████████████████, the results were not opaque to the GBIC. If there is a lack of evidence about the reunderwriting project, ████████████████████████ ████████████████████████████████. In any event, as I discussed in my Report, ██ ██ ████████████████████"[15] and, therefore, a reasonable settlement amount.

25.   Further, whether Mr. Burnaman himself had seen or heard of such "severe" results is a function only of his own experience. Nothing about that statement refutes the validity of the reunderwriting results ███████████████████ and employed in the GBIC analysis. My experience in the reunderwriting work done by firms is that such severe results are found in the underwriting of several of the largest banks, and also reflect the experiences of the banks in their due diligence combined with valuation efforts using AVM's by third parties that showed increasing problems over time in the quality of loans in pools.

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[12] Burnaman Rebuttal at 6.
[13] Burnaman Report at 23; Burnaman Rebuttal at 6 & 7.
[14] Lin Dep. at 197:16-199:23.
[15] Robertson Dep. at 250:11-252:4.

26.   There is also a suggestion in the Burnaman Report that the GBIC "repurchase rate" (breach rate x success rates) was mere settlement posturing. He calls it "plaintiff-side" and "aggressive as might be expected in the context of a negotiation."[16] He therefore discounts the GBIC analysis. In so doing, however, he ignores ███████████████████████████ ████████████████████████████████.[17]

27.   The apparent consequence of Mr. Burnaman's rejection of the GBIC repurchase rates is his decision to apply the GSE repurchase rates to BofA's and the GBIC's loss estimates.[18] This repeats Mr. Lin's error, and similarly ignores all of the reasons why applying the GSE repurchase experience is fundamentally wrong.   Even with this error built into his analysis, Mr. Burnaman would agree that a settlement amount as high as $15.6 billion is supportable.[19]

28.   ███ ██.[20] This is a mistake. ████████████ ██ ██ ██[21] Even with this mistake, Mr. Burnaman reaches a ██████ billion settlement figure.[22] Had he correctly interpreted the GBIC's data and applied his own artificially low loss estimates, he would have found a settlement amount ranging from ██████ billion to ██████ billion.[23]

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[16] Burnaman Report at 23.
[17] Robertson Dep. at 250:11-252:4.
[18] Burnaman Report at 27.
[19] *Id.*
[20] *Id.* at 28.
[21] Robertson Dep. at 219:5-220:18.
[22] Burnaman at 26, table 6.
[23] The lower bound is calculated using GBIC's lower bound ████ repurchase rate and ██████ higher bound repurchase rate. I believe that a financial analyst should back the "success rate" component out of the equation and apply only the GBC's ██████ breach rates, as discussed in my Report.

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29.   To be clear, there are many reasons why I still do not agree with Mr. Burnaman's approach, including the fact that a success rate and other settlement discounts are embedded in his approach. Nevertheless, even with those flaws and discounts, his finding of a reasonable settlement amount that could exceed ███ billion dollars[24] bears on the reasonableness of Mr. Lin's calculations and on the Trustee's acceptance of these calculations.

30.   Mr. Burnaman's criticism of my rejection of a success rate in financial analyses misses my point completely. In the Burnaman Rebuttal, he incorrectly states that I "assume[] that the 'breach' of a representation and warranty is the only issue that Lin, and by implication BNYM, should have been concerned about because [I] contend it is the correct measure of claims for damages against a loan originator."[25] First, the criticism ignores the relevant contractual language. Under the PSAs, the loan seller must repurchase loans at the contractually defined "Purchase Price."[26] There is no success rate discount, and Mr. Burnaman's reading—like that of Mr. Lin—would rewrite the Governing Agreements to BofA's benefit. Second, and this was my point, the application of a settlement discount is not the role of a financial analyst. A qualified financial analyst should be able to quantify a counterparty's liability, i.e., breach rate, not the ultimate litigation decisions that go into settlements.

31.   Perhaps more importantly, in reaching these conclusions, Mr. Burnaman imputes to Mr. Lin a meaning and understanding of the term "success rate" that Mr. Lin himself never had. First, he says "Success Rate, as Lin used the concept, is a measure of those alleged breaches

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[24] Mr. Burnaman further artificially depresses his estimated settlement amount by applying certain risk discounts that are already accounted for in his use of repurchase rate, which duplicates the Trustee's error in doing the same when presented with Mr. Lin's settlement range.
[25] Burnaman Rebuttal at 8.
[26] PSA § 2.03(c).

which are verifiable and cannot be cured."[27] However, Mr. Lin never said this. Rather, he

testified that the success rate reflected ██

████████,"[28]

32.   Mr. Burnaman also says that, "Mr. Lin expressly did not consider the additional issue of

causality or material and adverse effect."[29] Mr. Lin, however, testified that ███████████

██████████████████████████████.[30] The fact is that Mr. Lin ████████████████

██.[31] And, as I discussed in my Report,

there is evidence that the GSE settlements were both incomplete and involved factors outside of

the calculation of BofA's repurchase liability. Therefore, the evidence does not support Mr.

Burnaman's statement that the breach and success rates "must be taken together to understand a

meaningful defect rate."[32]

33.   Mr. Burnaman searches for other ways to criticize my analysis and bolster that of Mr.

Lin. However, Mr. Burnaman repeats and exacerbates Mr. Lin's errors, is unaware of or ignores

testimony from Mr. Lin himself and other evidence that refutes his positions, and generally

recites from rote the positions of BofA.

34.   Mr. Burnaman goes so far as to criticize my use of the funnel demonstrative, calling it

"disingenuous." On that point, he is wrong for at least the following reasons:

- It's not my funnel; █████████.[33]

- Mr. Burnaman's alternate step-down model stands for exactly the same
  proposition as the Lin funnel but is an effort to graphically alter the fact that the

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[27] Burnaman Rebuttal at 8 (internal quotations omitted).
[28] Lin Dep. at 214:11-17.
[29] Burnaman Rebuttal at 8.
[30] Lin Dep. at 448:12-449:4 (objections omitted).
[31] Lin Dep. at 441:25-442:19.
[32] Burnaman Rebuttal at 8 & 9.
[33] Lin Dep. at 321:24-322:15.

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Lin Approach—whether represented as a funnel or Mr. Burnaman's series of step downs—is a way of sequentially reducing investor losses to a heavily discounted settlement amount.

- I did not categorically disagree with a funnel-like methodology, but with the way in which Mr. Lin applied it. Consistent with the opinions set forth in my Report, I now disagree with the way Mr. Burnaman applies his step-down model.

- Mr. Burnaman does not cite evidence for the proposition that the Lin loss estimates are "standard" and concedes that Lin's application of breach and success rates is not standard.[34] Yet Mr. Burnaman takes the same approach in his step-down model.

- Mr. Burnaman's step-down model is misleading in so far as it applies a success rate to what he calls the "Potential Repurchase Claim Amount."[35] As I stated above, the Governing Agreements do not apply a success rate. The actual repurchase claim amount is the Purchase Price of the loans in which a breach materially and adversely affects the value of the loan or the investment. Since the Trustee already applied a material and adverse discount (i.e., a legal haircut) to the Lin settlement range, which I discuss below, and since the success rate Mr. Lin used ████████, as quoted from Mr. Lin's deposition, above, the success rate is at least a double if not a triple discount.

- Mr. Burnaman cites to 2012 authority for certain re-default rates and criticizes me for not reviewing Mr. Lin's 2011 work with those figures in mind. In so doing, Mr. Burnaman ignores the scope of my work—to review the work Mr. Lin did and the Trustee's 2011 reliance on it.

35. In the end, Mr. Burnaman finds that the $8.5 billion settlement amount is reasonable.[36] It is unclear from his report how Mr. Burnaman might be in a position to offer such an opinion particularly in light of his confessions with respect to each risk factor that he "ha[s] not considered any quantification of this risk factor, its potential imputed cost, or the legal and commercial issues relevant to it."[37]

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[34] Burnaman Rebuttal at 9 & 12.
[35] Burnaman Rebuttal at 11, fig. 3.
[36] Burnaman Report at 28.
[37] Burnaman Report at 17.

36.   In an apparent effort to justify the final proposed settlement amount, Mr. Burnaman turns

to a "price discovery" theory, which suggests that there is a market price for the settlement set

through the negotiations.[38] Setting aside the foundational assumption that the GBIC were truly

adversarial to BofA, I believe it imprudent to allow any assumption regarding the "truly

adversarial" or "arm's length" nature of the negotiations to influence a quantitative analysis. In

any event, if one is going to look at "price discovery" as a basis for implying a settlement value,

then one must—as Topic 820 instructs—maximize the use of relevant observable inputs. As

discussed above and in my Report, neither Mr. Lin nor Mr. Burnaman has done that.

   C.   **The Trustee's Experts' Consideration of Causality and Presentment Discounts as Justifications for the Settlement Amount Parrot BofA's Legal Positions, Rejected by Courts**

       a. **Causality**

37.   Mr. Burnaman and Dr. Fischel further attempt to justify the settlement amount on

grounds that the Trustee would have to prove that the breaches of representations and warranties

caused loans to default.[39] I reject this position for the reasons set forth above and in my Report.

The Trustee's advisor on this subject did not agree that default was a required precondition for

repurchases, and both ████████ and recent court decisions reject it outright. Nevertheless, Mr.

Burnaman and Dr. Fischel embrace it, and in so doing stand side-by-side with BofA.

38.   It is unclear to me what Mr. Burnaman means when he says that my Report "disregards

the obvious fact that this matter was settled expediently and in a comprehensive fashion and this

did not 'overwhelm' the system,"[40] and it seems to miss my point. That part of my Report stands

for the proposition that loans need not be in default for breaches to cause harm, including at the

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[38] Burnaman Report at 11 & 28.
[39] Burnaman Report at 14; Fischel Report at ¶¶ 35 & 36.
[40] Burnaman Rebuttal at 15.

trust level (as opposed to the investor level, as Mr. Burnaman misapprehends). Trusts and investors suffer from loss of credit support, lack of confidence and uncertainty, and overwhelming of protective mechanisms that were designed to protect the investments.

39.   Mr. Burnaman's statement that this particular settlement did not overwhelm the system is a straw argument. For him to assume that Countrywide's well-documented sales of defective mortgage loans has not resulted in the systemic failure of the protective mechanisms embedded in Countrywide-issued RMBS is unrealistic at best and belied by the many lawsuits filed against Countrywide and BofA by virtually every kind of market participant.

40.   Additionally I note Mr. Burnaman's admission that the proposed settlement was "expedient."[41] I agree. It appears the settlement was reached in such a manner that Mr. Lin and the Trustee failed to fully consider or investigate the key metrics driving Mr. Lin's conclusions.

41.   Mr. Burnaman incorrectly asserts that the GBIC analysis ███████████████████

██████████   That is contrary to the evidence. Although the GBIC disagrees that a causation discount should be applied, ███████████████████████████████.[42]

42.   For his part, Dr. Fischel's treatment of the material and adverse issue is incomplete. He focuses his discussion on the idea that originators are allowed to make exceptions to underwriting guidelines where compensating factors are present.[43] However, compensating factors must be both truthful and disclosed, and underwriting must still be prudent. Moreover, Countrywide gave significantly more representations and warranties than mere technical compliance with underwriting guidelines, including, as discussed above, that the data tapes were accurate. Mr. Burnaman repeats Dr. Fischel's mistake when he focuses on "re-underwriting"

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[41] *See* Burnaman Rebuttal at 15.
[42] Robertson Dep. at 257:4-258:10.
[43] Fischel Report ¶ 35.

and compensating factors, and omits any discussion of the fact that whether a borrower failed to provide accurate information in the loan application is a binary inquiry.

43.   On the issue of causality, Dr. Fischel states that I "ignore[] the risk that the Court will rule against the Trusts on disputed legal issues, including whether currently performing loans are subject to repurchase and the meaning of the contractual requirement that a breach have a material and adverse effect on the interests of the Certificateholders."[44] This statement by Dr. Fishel is telling. First, he is aligning himself with BofA's defense theories. Second, recent court rulings have decreased the risk that Dr. Fischel faults me for allegedly not considering. It would appear that the Trustee did not consider that risk to BofA.

b. Presentment

44.   Messrs. Burnaman and Fischel also agree with BofA that a discount should be taken for the investors' purported inability to present claims under the Governing Agreements. However, they ignore that the Trustee has already taken upon itself the duty to pursue these claims. Indeed, even Mr. Lin rejected BofA's presentment discount.

D.   The Trustee's Experts' Justification for Not Reviewing Loan Files Overstates the Burden and Undervalues the Utility of Doing So

45.   Messrs. Fischel's and Burnaman's attempt to set a high bar for proving breaches of representations and warranties is unavailing. I don't know what Mr. Burnaman's and Dr. Fischel's expertise is regarding what is or is not industry practice with respect to the use of loan file review. I have been qualified as an expert witness to do just that. The Trustee's and its experts' efforts to make loan file review sound "hopelessly time-consuming, expensive and divisive"[45] fail to acknowledge that methodologies exist to make the process economically

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[44] Fischel Rebuttal ¶ 11.
[45] Burnaman Rebuttal at 3.

viable. Parties who are actually interested in negotiating a reasonable resolution of

representation and warranty liability can, for example, use statistical sampling and extrapolation,

as discussed in my Report and as has been used in a number of cases. Further, a trustee who,

like BNY Mellon had a contractual right to access to loan files and other loan-level information,

could, for example:

- Employ a loan review hierarchy in which it would sequence its review according to the likelihood in which breaches will be found. Indeed, Mr. Burnaman would acknowledge that loans experiencing payment defaults in the first year or two are more likely to suffer from breaches than loans that default later.[46]

- Conduct a similar review by prioritizing by loan product and documentation types to increase the likelihood of identifying loans suffering from breaches of representations and warranties.

- Gain access to Countrywide's underwriting databases and files to identify loans containing red flags such as multiple automated underwriting submissions and approvals outside of acceptable, documented variances.

46.   Importantly, loan file review is not as subjective as they suggest. My team has identified

numerous loans from within the small sample BofA provided in this case in which no reasonable

reunderwriter could disagree with the material underwriting deviations identified. Moreover, my

team has taken an extremely conservative reunderwriting approach by referring only to what the

original underwriters had in the files at the time. Had we accessed other data sources and

contacted borrowers, I am convinced that we would have found even more breaches of

representations and warranties in the sample.

47.   Further, Mr. Burnaman's reliance on a Royal Bank of Scotland report to argue that loan

file review is unduly burdensome not only ignores these cost-saving techniques but is misplaced

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[46] Burnaman Report at 14.

as it does not account for RBS's interest in reaching such a conclusion. RBS has been sued for representation and warranty liability; no wonder it would argue against loan file review.

48.   Mr. Burnaman also incorrectly recasts my opinion to be that "loan file review is both absolutely necessary and absolutely conclusive" or "the only valid approach to determining a reasonable settlement amount."[47] This is a misrepresentation, as I said neither. Rather, my Report opines that loan file review is the best method, not the only method, and that if one is not going to review loan files—as neither Mr. Lin nor Mr. Burnaman did—then they should use the most relevant data available. As discussed above and consistent Topic 820, Mr. Burnaman should agree with that proposition. My opinion is that Mr. Lin did not use the most relevant data and that the Trustee was aware of the inapplicability of the GSE repurchase experience.

   E.   **Nothing in the Trustee's Expert Report Alters the Fact that Many of the Deficiencies in the Lin Report were Apparent on its Face and from Information then Available to Mr. Lin and the Trustee**

49.   As set forth in my Report, the substantial flaws in the Lin Report were apparent on its face. As discussed above, Mr. Burnaman's report further highlights those flaws and reveals others.

II.   The Settlement Amount is Inadequate and Unreasonable

50.   As set forth in my Report, and based solely on the information then available to Mr. Lin and the Trustee, I believe the best available estimate of BofA's repurchase liability is $64-95 billion.[48] Even using Mr. Burnaman's loss calculations ($84.7 billion), and applying a scientifically valid methodology for estimating breach rates based on the information available to Mr. Lin and the Trustee at the time (50.5%), the repurchase liability would be $42.8 billion.

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[47] Burnaman Rebuttal at 2.
[48] Cowan Report at 2-3.

Again, I endorse neither of these approaches and if provided with access to a representative sample of loan files, I could derive a more accurate estimate of repurchase liability.

51.   Messrs. Lin and Burnaman and Dr. Fischel applied a substantial discount to the repurchase liability, but for the reasons set forth in my Report, I do not believe it is appropriate for a financial expert to make litigation risk determinations—that is the job of lawyers and their clients. In any event, based on the information I have seen, the success rate and other discounts applied to the repurchase liability do not appear aligned with the risk factors they purport to account for. As discussed, I am aware that several courts have rejected the same "loss causation" defense that both Bank of America and the Trustee rely on as a basis for discounting the repurchase liability. I also am aware that there are substantial disputes around whether Bank of America is liable as a successor to Countrywide for both origination and servicing liability and that that issue remains unresolved and a potential source of risk to Bank of America. Finally, I am aware that loan sampling has been approved as a scientifically valid methodology for estimating breach rates in RMBS loan pools such that BofA may not be able to rely on a defense predicated on the requirement of loan-by-loan putbacks.

52.   As a consequence of the foregoing, and further in light of the fact that Mr. Lin had no insight into ██████████████████████████, I find it unreasonable to discount the repurchase liability without testing and carefully analyzing the assumptions embedded in the success rate and other so-called "legal" haircuts.

III.   Response to Dr. Schwert's Rebuttal

53.   Most of Dr. Schwert's rebuttal is an attempt to recast my report into a completely different report, ignoring my key points and misinterpreting my methods. Some of Dr.

Schwert's conclusions actually support my key points. Other conclusions he draws are simply

misguided.

54.   Dr. Schwert exactly reproduces what I said my purpose was in developing my report:

> Dr. Cowan states that he was retained 'to review and opine on Brian Lin's
> Opinion Concerning Contemplated Settlement Amount ('Lin Report'), and
> to consider issues raised by the Lin Report and other matters bearing on
> quantification of damages' to the Trusts. ... Mr. Lin was provided with
> certain data from the Institutional Investors and Bank of America ...[49]

55.   Dr. Schwert then faults me for reproducing Mr. Lin's approach using a similar but more

sophisticated technique to make a point about Mr. Lin's numbers, and correcting Mr. Lin for not

using all the data he was provided.

56.   Dr. Schwert offers three "primary considerations": 1) the difference between the

estimates Mr. Lin produces and my estimates are due entirely to my changes to Mr. Lin's

assumptions and what he alleges are calculation errors, 2) the average repurchase liability could

have been more easily estimated using Mr. Lin's approach, and 3) I do not draw any conclusions

from my range of likely outcomes or confidence intervals, so they are irrelevant to my opinions,

and they're unrealistically small.

57.   Dr. Schwert is missing the point of my analysis, or purposely disregarding it.

Nevertheless, his points reinforce my conclusions.

58.   First, the fact that the difference between the estimates Mr. Lin produces and my

estimates are due to changes in Mr. Lin's assumptions *is* the point. My point is that Mr. Lin had

other numbers that contradicted the assumptions he used and he chose not to use them. The

changes to Mr. Lin's assumptions use numbers provided to him by the Trustee and by BofA.

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[49] Schwert Report at 2 & 3.

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The Trustee should have known that Mr. Lin's assumptions were badly off since they had all of his inputs. This is the point - Dr. Schwert doesn't say he disagrees with the numbers I culled from Mr. Lin's materials. He can't - they are clearly in the materials that the Trustee had. Dr. Schwert doesn't say he disagrees with the use of these numbers. He can't - again, they are clearly the numbers that are in Mr. Lin's materials. He insinuates that there is a problem because all of the differences between Lin's report and mine are due to differences in the assumptions, as if this were somehow a change I was furtively sneaking in.

59.   Let me reiterate, so that there is no confusion. I agree with Dr. Schwert - the primary differences are due solely to changes in the assumptions applied to Mr. Lin's calculations. This is my point - Mr. Lin used numbers the Trustee knew or should have known were unverified and unreliable.

60.   As for the alleged calculation error, where Dr. Schwert speculates that I used the Liquidated Loans balance of $45.8 billion rather than the liquidated losses of $21.7 noted in Appendix E of my report[50], Dr. Schwert didn't consider a simpler alternative, mainly that I was attempting to simplify my computations.

61.   Consider Mr. Lin's original table:

Description	Balance	Default Rate	Severity Rate	Losses	Breach Rate	Success Rate	Settle- ment
Liquidated Loans				$25.0	36%	40%	$3.6
60+ Delinquent Loans	$72.5	90%	45%	$29.4	36%	40%	$4.2
Mod. Current Loans	$12.8	35%	45%	$2.0	36%	40%	$0.3
Non-Mod. Current Loans / D30	$98.6	11%	45%	$4.9	36%	40%	$0.7

This table is no different in value than the following table:

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[50] Schwert ¶, 11.

Description	Balance	Default Rate	Severity Rate	Losses	Breach Rate	Success Rate	Settle-ment
Liquidated Loans	$45.8	100%	25/45.8	$25.0	36%	40%	$3.6
60+ Delinquent Loans	$72.5	90%	45%	$29.4	36%	40%	$4.2
Mod. Current Loans	$12.8	35%	45%	$2.0	36%	40%	$0.3
Non-Mod. Current Loans / D30	$98.6	11%	45%	$4.9	36%	40%	$0.7

62. However, computationally this second table is much easier to deal with since I only have to write a computer program dealing with the same calculation four times, rather than two subroutines, one for rows 2, 3, and 4, and a second subroutine dealing with row 1 differently. If the default rate is always 100% and the severity rate is always the ratio of the losses to the original balance and this doesn't vary in the trusts, then I haven't changed the computation Mr. Lin did in any way. I merely simplified the computing task to get to the application of the breach rate.

63. Second, using the assumptions I made about the wide range of possible outcomes that could occur for the 530 individual trusts, I must come to nearly the same average outcomes as if I had simply taken Mr. Lin's two numbers, added them and divided by two. Dr. Schwert must know that I recognize this, but doesn't seem to understand the point I am trying to make here.

➢ Mr. Lin offers two extremes. Period. That is what he has in his brief report.

➢ Mr. Burnaman, the Trustee's own expert says he finds the GBIC approach supportable. His words, cited earlier.

➢ If both sets of numbers are "supportable" and both numbers are "extremes," then a more likely value falls in-between the two. I get this by adding, dividing by two - I agree.

64. So why have I gone through this exercise? To show that if I repeat this for each of the 530 trusts, the components of the overall estimate, that I obtain 530 values that sum up and average to the middle of the range, but present a relatively small range of likely outcomes. Dr. Schwert is correct: my actual outcomes do indeed average to the mid-point. But I am not trying

to establish the mid-point. The Monte Carlo method for each trust allows me to discover the range of likely outcomes and consequently the range of unlikely and unsupportable outcomes.

65. I do this to demonstrate that Mr. Lin's method is designed to offer only extremes, and that his calculation makes it seem that all values between the two extremes are equally likely. If I instead use all of Mr. Lin's (corrected) values at the trust level and truly do allow them to take on any value between the two extremes for each of the individual trusts, I do not end up with all possible values between the extreme extreme low and the extreme extreme high. I have a point that is in the middle of the range, but I cannot end up at one extreme or the other as does Mr. Lin.

66. The Trustee cannot have it both ways. They are attempting to salvage Mr. Lin's report by having Mr. Burnaman say that he finds both sets of numbers supportable. Then they complain when I use both sets of numbers to demonstrate that the extremes are the two most unlikely outcomes, using the numbers that Mr. Burnaman accepts. If we accept both sets of numbers, and we apply both sets of numbers to the individual trusts, then there is a small range of final outcomes that can realistically result.

67. Which leads me to Dr. Schwert's final cavil. He states that I do not draw any conclusions from the range of likely outcomes. The range of likely outcomes *is* my conclusion—based solely on the information available to Mr. Lin at the time. What further conclusion is there to draw? My point was that, under a very simple set of assumptions, uncontested by Dr. Schwert, is that Mr. Lin's calculations resulted in a completely unsupportable outcome.

68. Dr. Schwert must certainly understand that the average of a set of outcomes must have a much smaller range than the inputs. This is the essence of statistics. There are numerous elementary theorems that show that the likely range on an average is smaller than the range on

the inputs. In the case of the trusts, the reduction would be on the order of the square root of 530, the number of trusts. This is a reduction of about 96 percent (one over $\sqrt{530}$).

69.   If I compute averages and allow values to vary across the 530 trusts, then it should be no surprise that the inputs and outcomes have a very small range in each of the 1000 simulations in my Monte Carlo exercise.

70.   In other words, in each of the 1000 simulations, I use the full range of values for the severity rate (45% to 66%) for the 530 trusts. For a single simulation, then, the average across the 530 trusts would be the midpoint of that range, and because it averages across the 530 trusts it must be within a very restricted range. What Dr. Schwert has done has given a heuristic proof of the Central Limit Theorem, a result taught in every introductory statistics class. Thus, it probably was not a surprise to Dr. Schwert when he feigned exasperation that "the overall default rates, severity rates, and breach rates for the aggregate group of loans never deviate by more than one percent from the values midway between Dr. Cowan's two extremes in any of the 1,000 iterations."[51] I have attached Appendix B, which gives the minimum and maximum values from each of the 1,000 iterations for each of these rates.

71.   Dr. Schwert notes that, if the rates used (default, severity, and breach) are correlated with one another, or if the same rates are correlated with the same rates across the trusts, then the confidence intervals will be larger.[52] I agree - in fact, this would also be true for a third possibility that Dr. Schwert misses, when the default rate in a trust is correlated with a severity or breach rate in another trust (i.e. across rates across trusts). This would also cause the confidence interval to be wider. Of course, this same complaint applies to the simple calculations conducted by Mr. Lin or Mr. Burnaman, widening the potential range of outcomes if one considers that the

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[51] Schwert at ¶ 18.
[52] Schwert at ¶ 19.

breach, default, and severity rates are all likely to be correlated, so their product may be somewhat suspect as a methodology. The greater complication is knowing what those correlations might be - that could only be determined by reunderwriting loans from the various trusts and modeling the correlation values. Thus, Dr. Schwert is advocating reunderwriting of the loans since it would be the only way to rectify the limitations in my calculations, which of course, were the same limitations faced by Mr. Lin and Mr. Burnaman.

72.   Dr. Schwert also criticizes my methodology for using the lower and upper bounds that Mr. Lin uses as my upper and lower bounds (after correcting Mr. Lin's numbers for some obvious flaws and omissions). Dr. Schwert states that "Dr. Cowan falsely equates two estimates of the average severity rate with one estimate of the range of individual severity rates. By using a minimum of 45%, he ignores the implication that Bank of America estimated that many Trusts had lower severity rates."[53] He doesn't cite any source, reliable or otherwise, for his "implication."

73.   But if we accept Dr. Schwert's assertion, then we immediately come to understand his support of my methodology, because if these are averages, then we should account for the variability across all the trusts for these three rates, which is what I did in the Monte Carlo simulation. In other words, if these are averages and the individual rates vary, then the analysis should be done at the trust level as I did and allow the rates to vary.

74.   Finally, Dr. Schwert is clearly arguing that, since the endpoints are only averages (according to him), the range of outcomes is likely broader, but the upper end of the range is as likely as the lower end of the range (by my use of symmetric distributions that he doesn't

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[53] Schwert ¶ 20.

critique) and so both numbers should be captured in the calculation. This places him at odds with Mr. Burnaman and Mr. Lin, who only gave credence to the lower end of the range.

IV.   Conclusion

75.   Nothing about the opinions of Dr. Fischel, Mr. Burnaman, and Dr. Schwert, alter my opinions as set forth in my Report. While Dr. Fischel and Mr. Burnaman attempt to provide some cover for Mr. Lin's flawed approach, they ultimately repeat some of the same errors and amplify others. I remain convinced that the original analyses and conclusions that the Trustee purports to have relied on were facially flawed and not reliable.

76.   With respect to the rebuttal reports, all three (Burnaman, Fischel, Schwert) attempt to recast my critique of the flawed Lin Report into a separate and new analysis. My report is not a separate and new analysis, it is a critique of the Lin approach and the Trustee's purported reliance on it. In sum, the Trustee's analysis of the settlement amount remains defective, the Burnaman analysis repeats Mr. Lin's errors and adds new flaws, the consideration of causality and presentment discounts by Mr. Burnaman and Dr. Fischel in the Settlement calculation are flawed, the opposition to loan file sampling misstates the cost and utility of the direct method of valuation, there is nothing in any of the reports or rebuttals by BNY Mellon's experts that cure or even address the deficiencies in the Lin Report, and the statistical studies and critiques by the BNY Mellon experts are incorrect and unsupported.

Appendix A
Documents Relied On

Dep Ex. No.	Doc date	Description — Deposition Exhibits	Deponent/DepoDate
1	6/28/2011	Settlement Agreement	Lundberg 10/3/2012
4	6/28/2011	PFOJ (Ex. F to Petition) (Ex. B to Settlement Agreement)	Lundberg 10/3/2012
13	7/1/2005	Pooling and Servicing Agreement, CWALT 2005-35CB	Kravitt 9/20/2012
21 Reliance 2		All Consortium deals (BNYM_CW-00000206-207) (Ex. 13 to Doc. No. 301; *also* Dep. Ex. 21)	Lin 10/16/2012
22	5/5/2011	E-mail from Patrick to Mayer Brown re Requested by Your Experts (BNYM_CW-00000278-80) (Ex. 19 to Doc. No. 301; *also* Dep. Ex. 22)	Lin 10/16/2012
71	1/27/2010	Presentation to Gibbs & Bruns	Kravitt 9/20/2012
86	4/11/2011	Presentation to Gibbs & Bruns (BNYM_CW-00000165-170)	Lin 10/16/2012
150 Reliance 1	2/6/2012	Amherst Report - ASF Session (Goodman) (BNYM_CW-00000281-300) (Ex. 19 to Doc. No. 301; *also* Dep. Ex. 150)	Lin 10/16/2012
151	1/12/2011	BofA Mortgage Credit Round Up (December Remittance) (BNYM_CW-00000301-57) (Ex. 19 to Doc. No. 301; *also* Dep. Ex. 151)	Lin 10/16/2012
152	5/00/2012	Dimensioning the Housing Crisis (Goodman) (BNYM_CW-00000358-69) (Ex. 19 to Doc. No. 301; *also* Dep. Ex. 152)	Lin 10/16/2012
198	1/21/2011	BAC Form 8-K, select earnings excerpts (Dep. Ex. 198)	Lin 10/17/2012
199	2/10/2011	Presentation to G&B (has handwritten notes) (BNYM_CW-00000209-222)	Lin 10/16/2012
201	9/27/2011	Evaluation of the Federal Housing Finance Agency's Oversight of Freddie Mac's Repurchase Settlement with BOA (Dep. Ex. 201)	Lin 10/17/2012
393	6/21/2007	The subprime meltdown: A Primer, Part 1, by Faten Sabry (Dep. Ex. 393)	Sabry 12/3/2012
		Documents Produced	
		Loan materials produced by Bank of America, BoA_Art77_LM-00000001-00424331	
		BNYM Voluntary production (BNYM_CW-00000001-00249881 excluding those with the term westlaw)	
		All native spreadsheets produced by BNYM, plus family docs (approximately 1,199 documents)	
		Documents produced by RRMS Advisors (RRMS_CW-00000001-00000697)	
		Documents produced by RRMS Advisors (RRMS_CW-00000698-2593)	
	5/6/2011	Email from Espana to Sabry, cc: Ingber, Hakim, Subject: re: BofA SEC form 10-Q filed May 5, 2011 (BNYM_CW-00276993-7046)	
Reliance 3		GB Deal List v.4 xlsx (BNYM_CW-00254178)	
		Advisors' Opinions	
	6/7/2011	Brian Lin's 6/7/2011 Opinion	
		Expert Reports	
	3/14/2013	Burnaman Opinion with Exhibits - unredacted	
	3/28/2013	Burnaman Opinion with Exhibits - unredacted	
	3/28/2013	Schwert Opinion - uinredacted	
	3/28/2013	Fischel Opinion - unredacted	
	3/14/2013	Cowan Report - Unredacted	

Appendix A
Documents Relied On

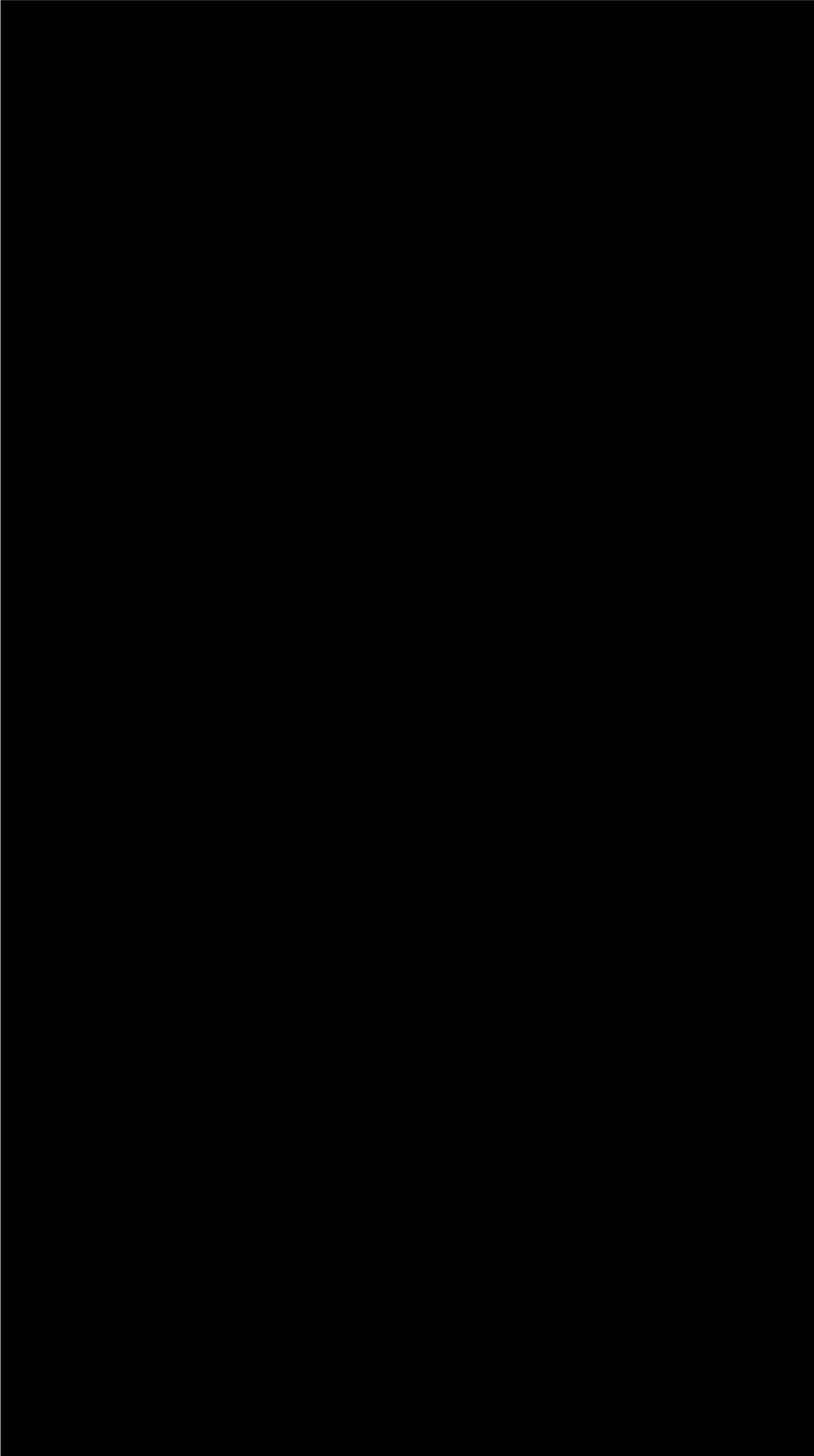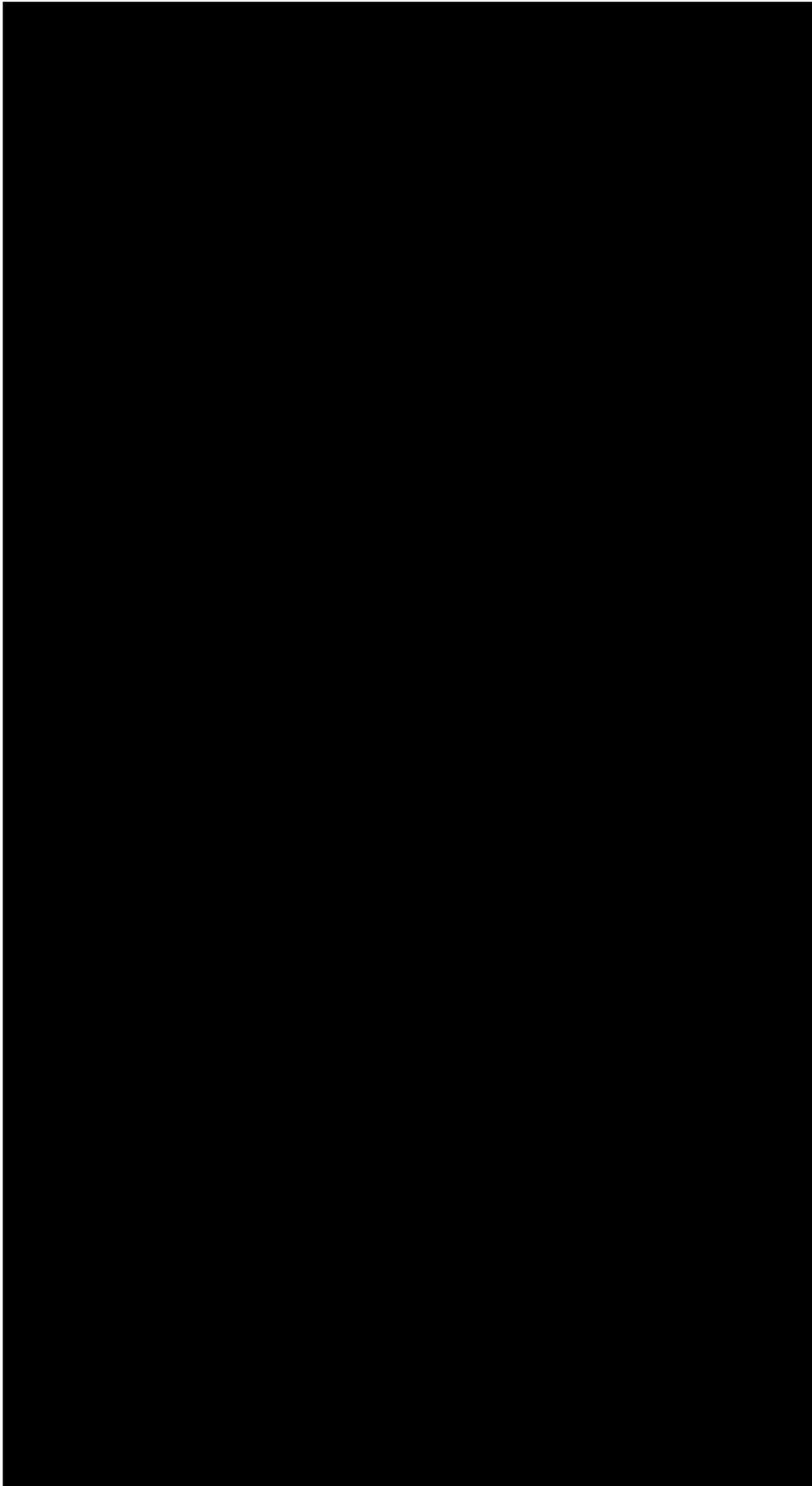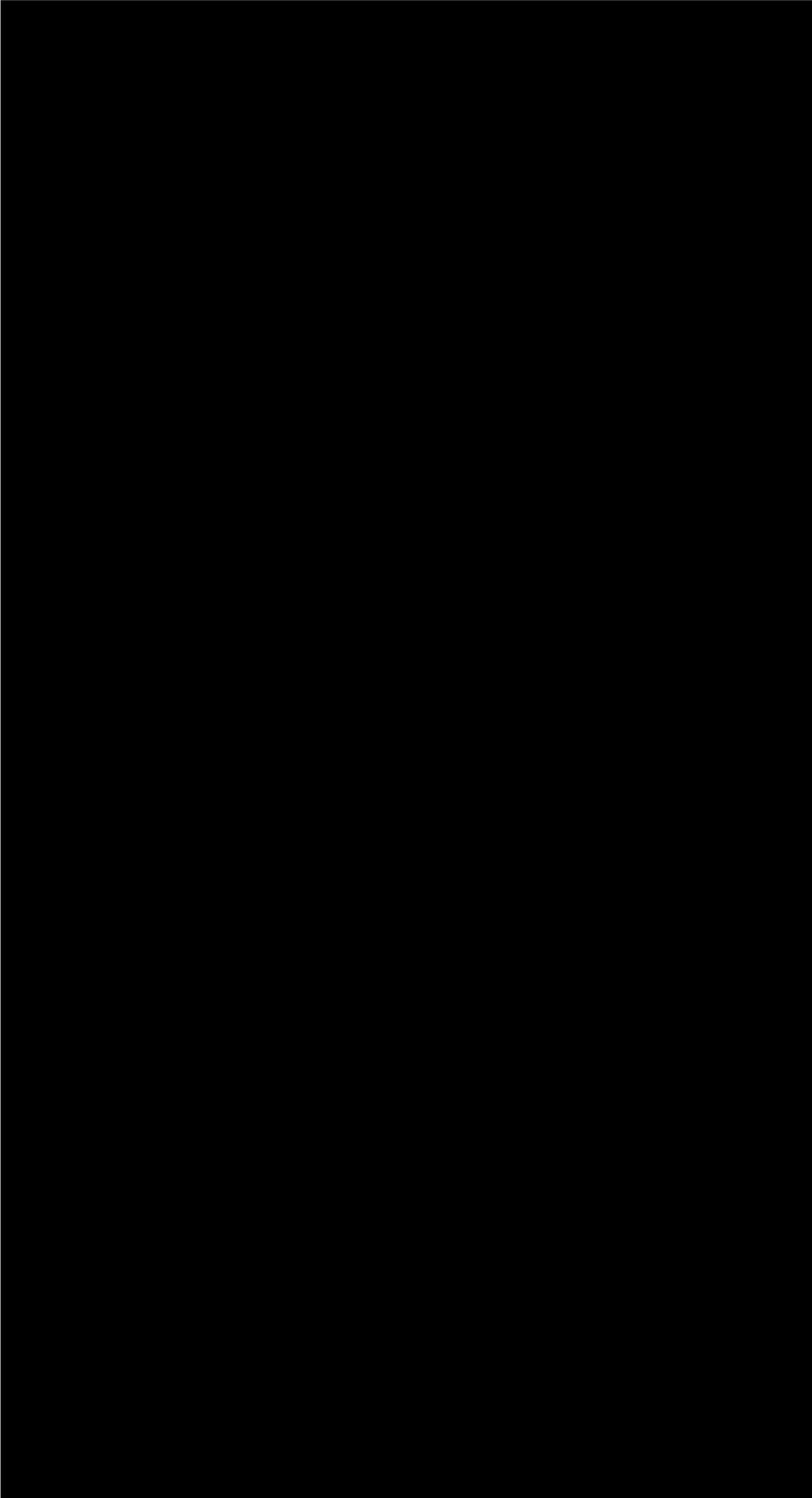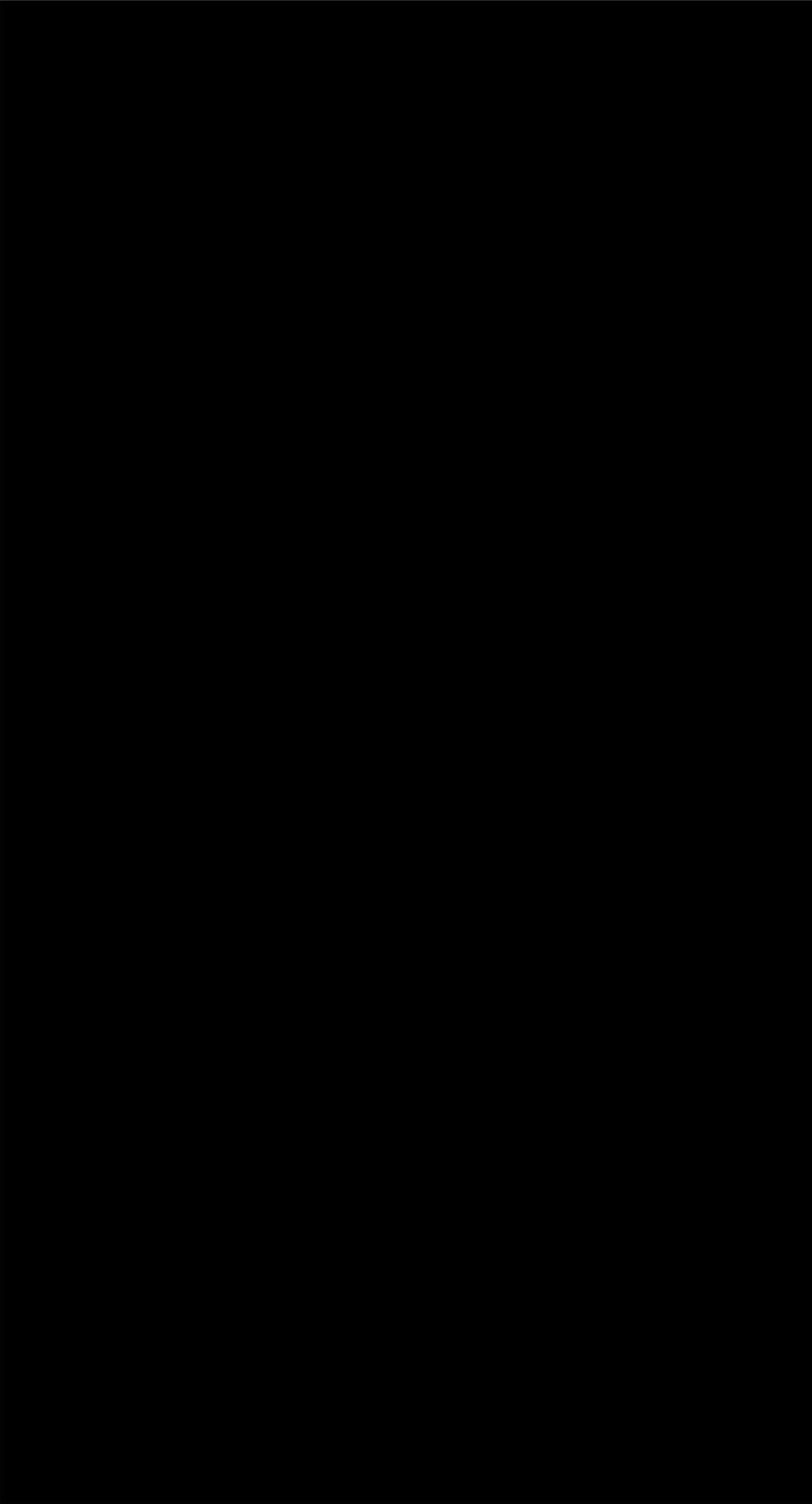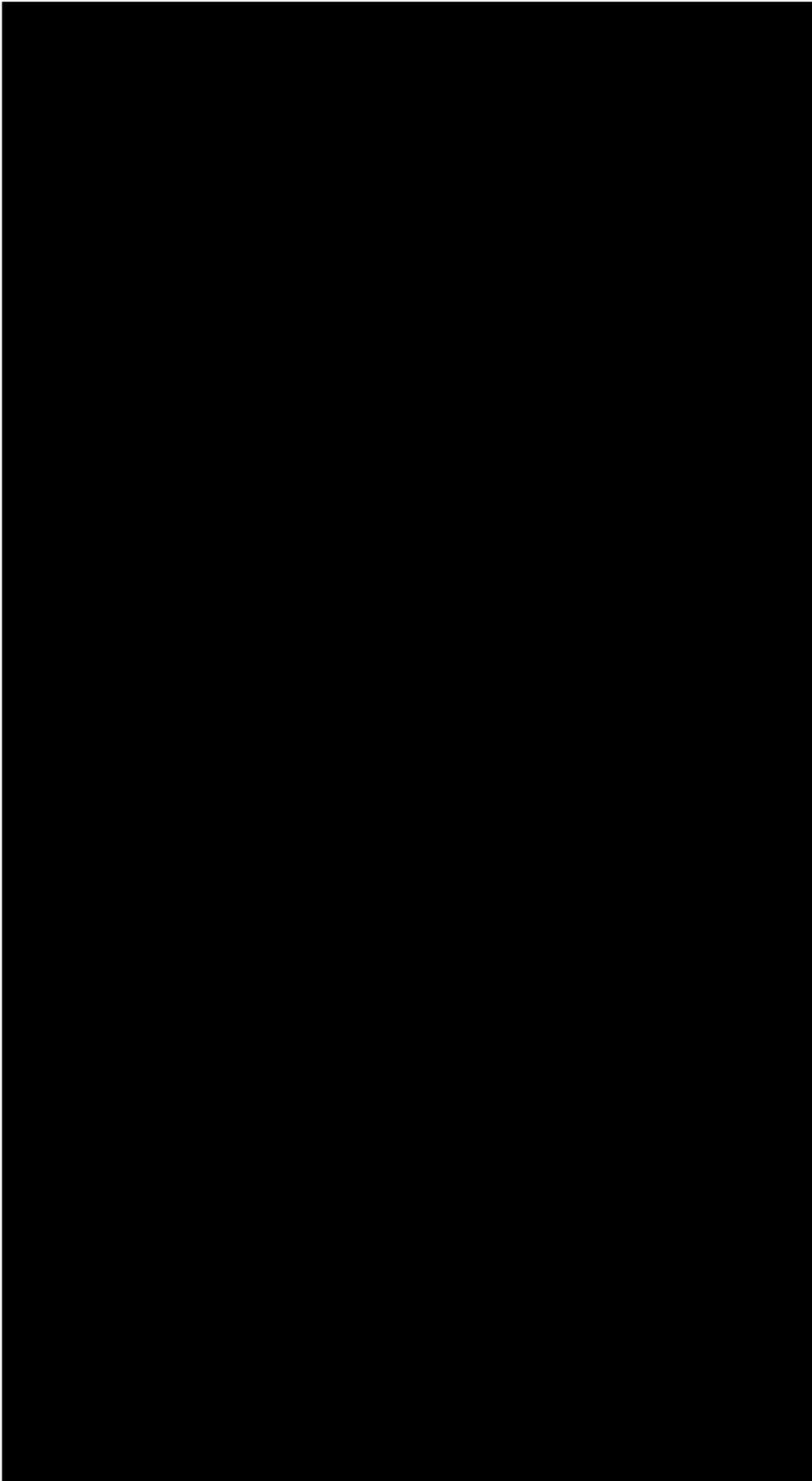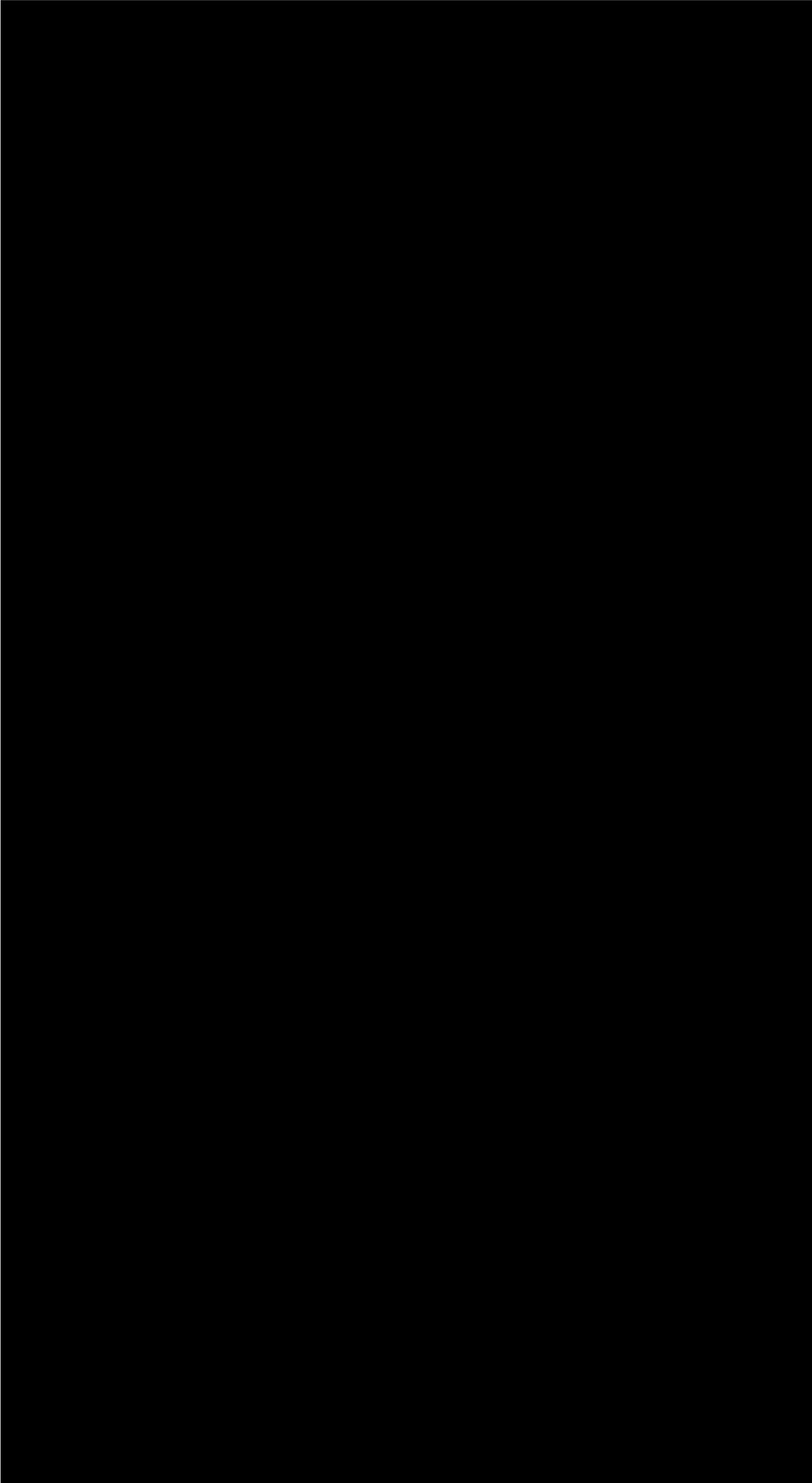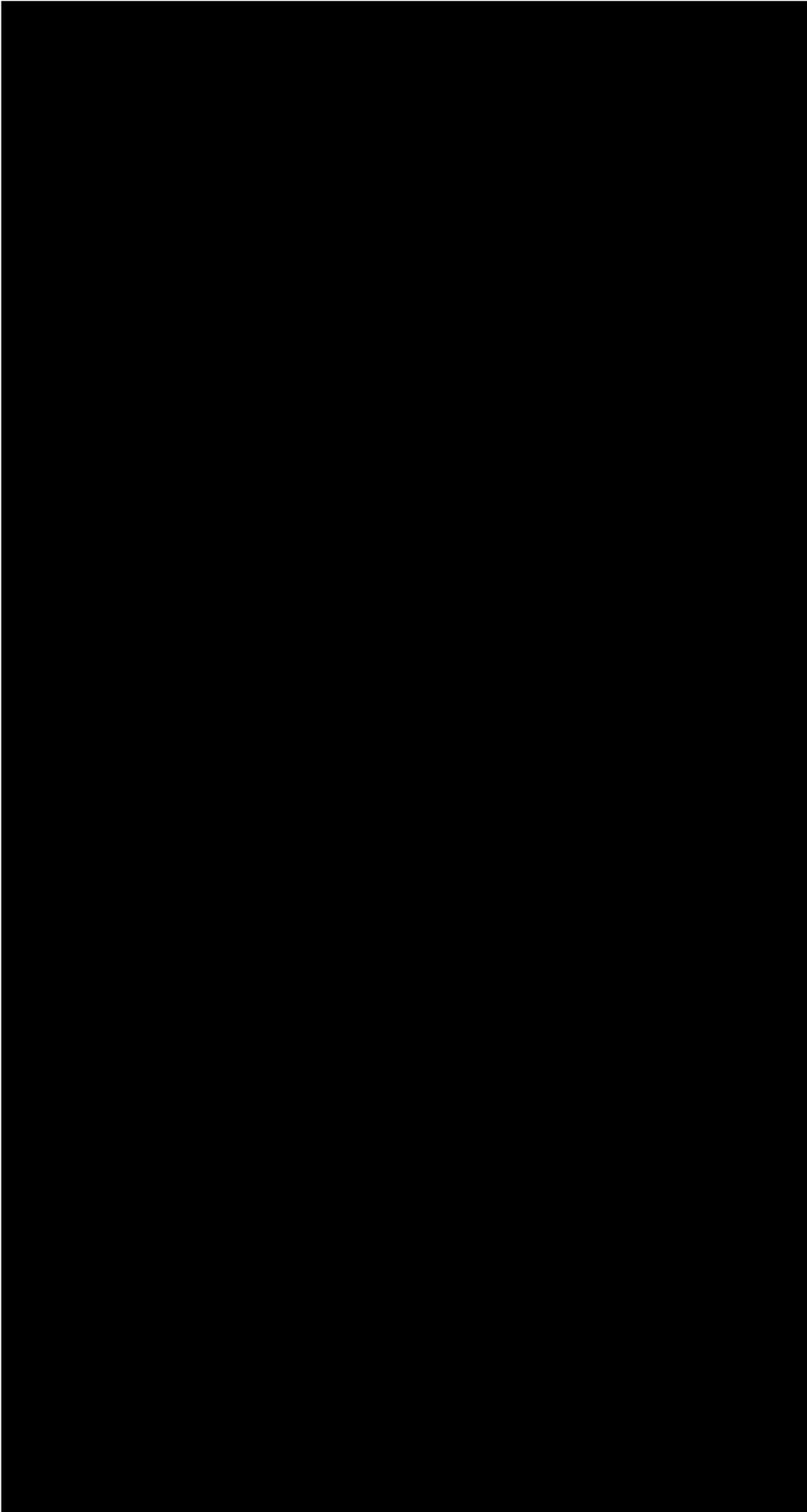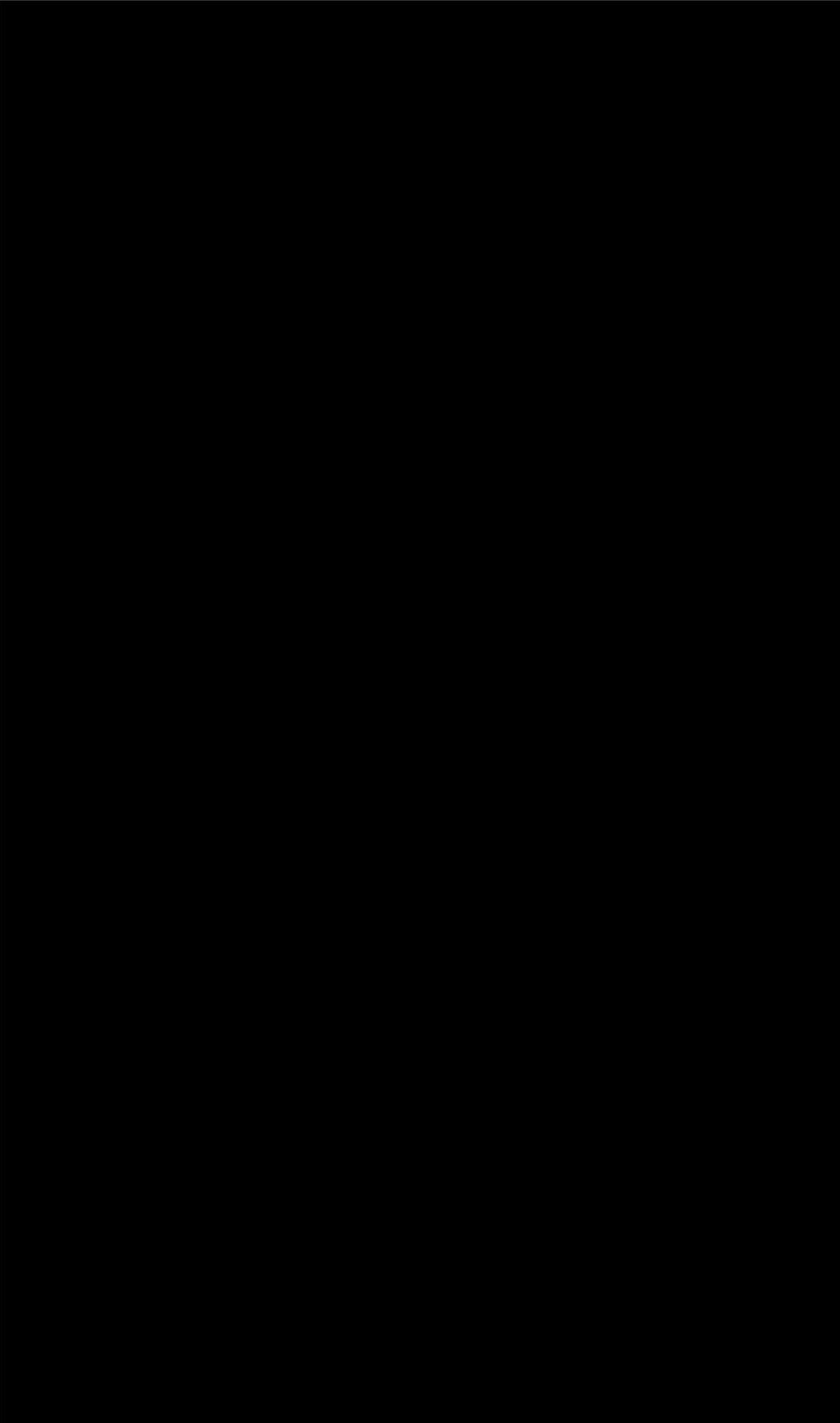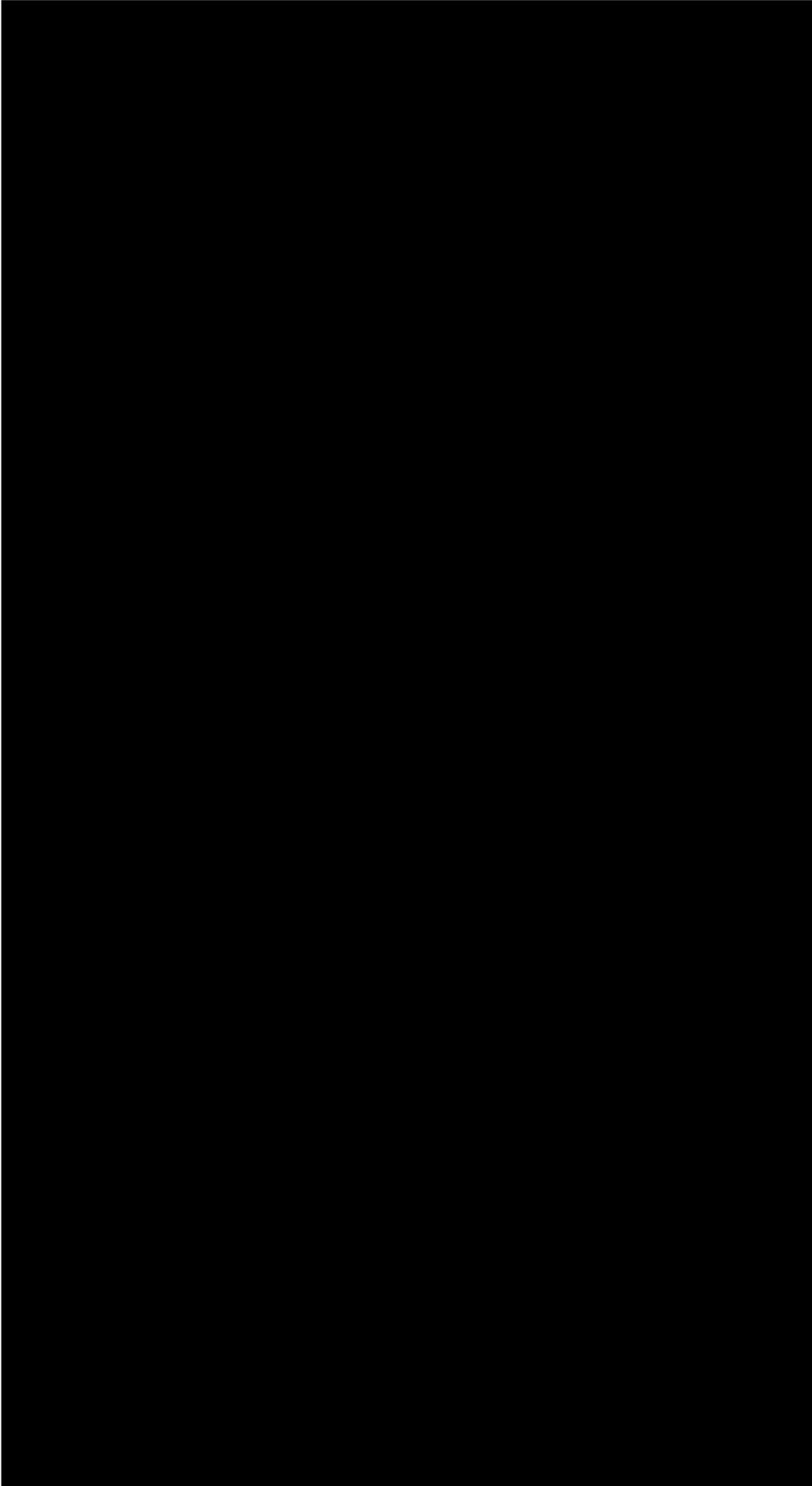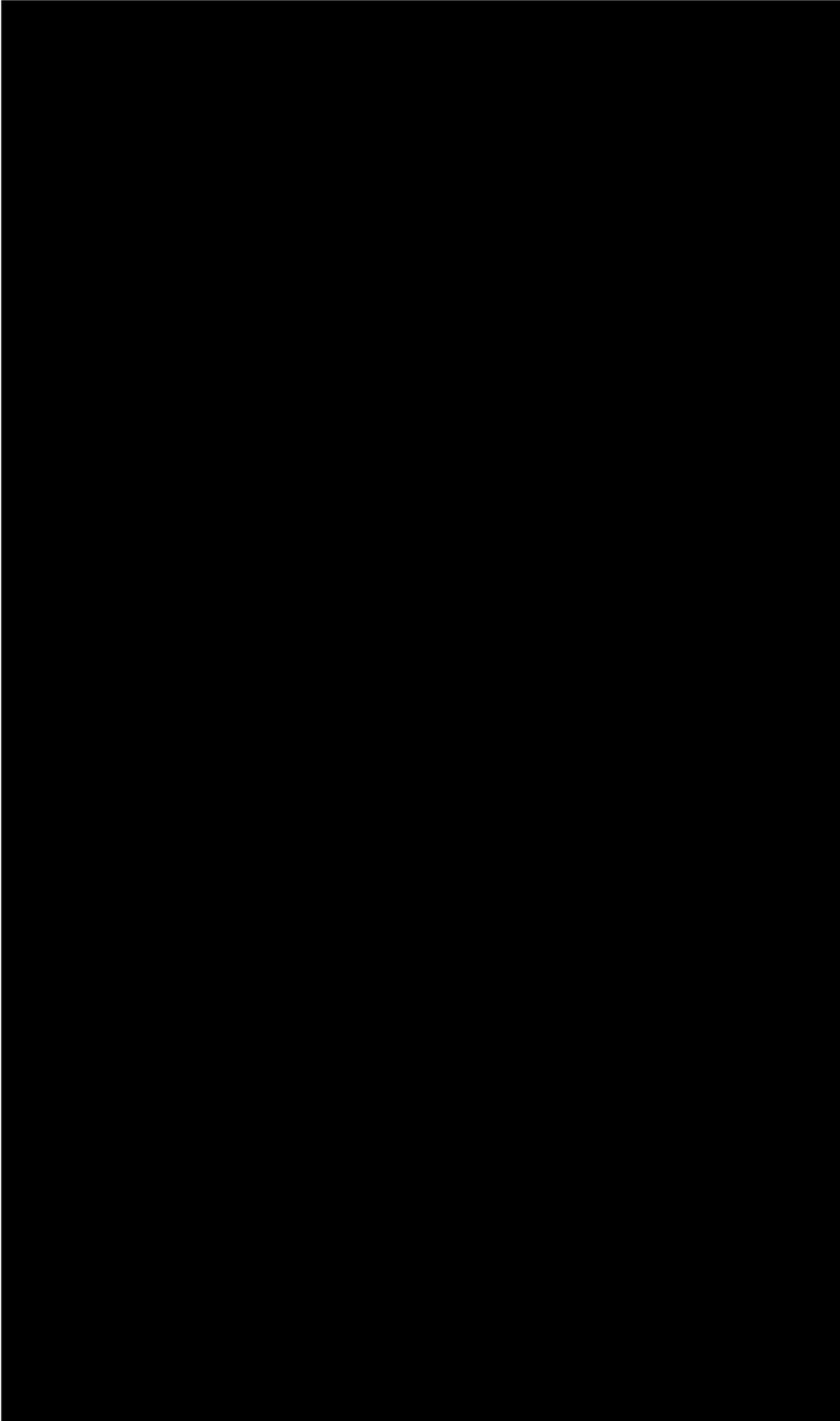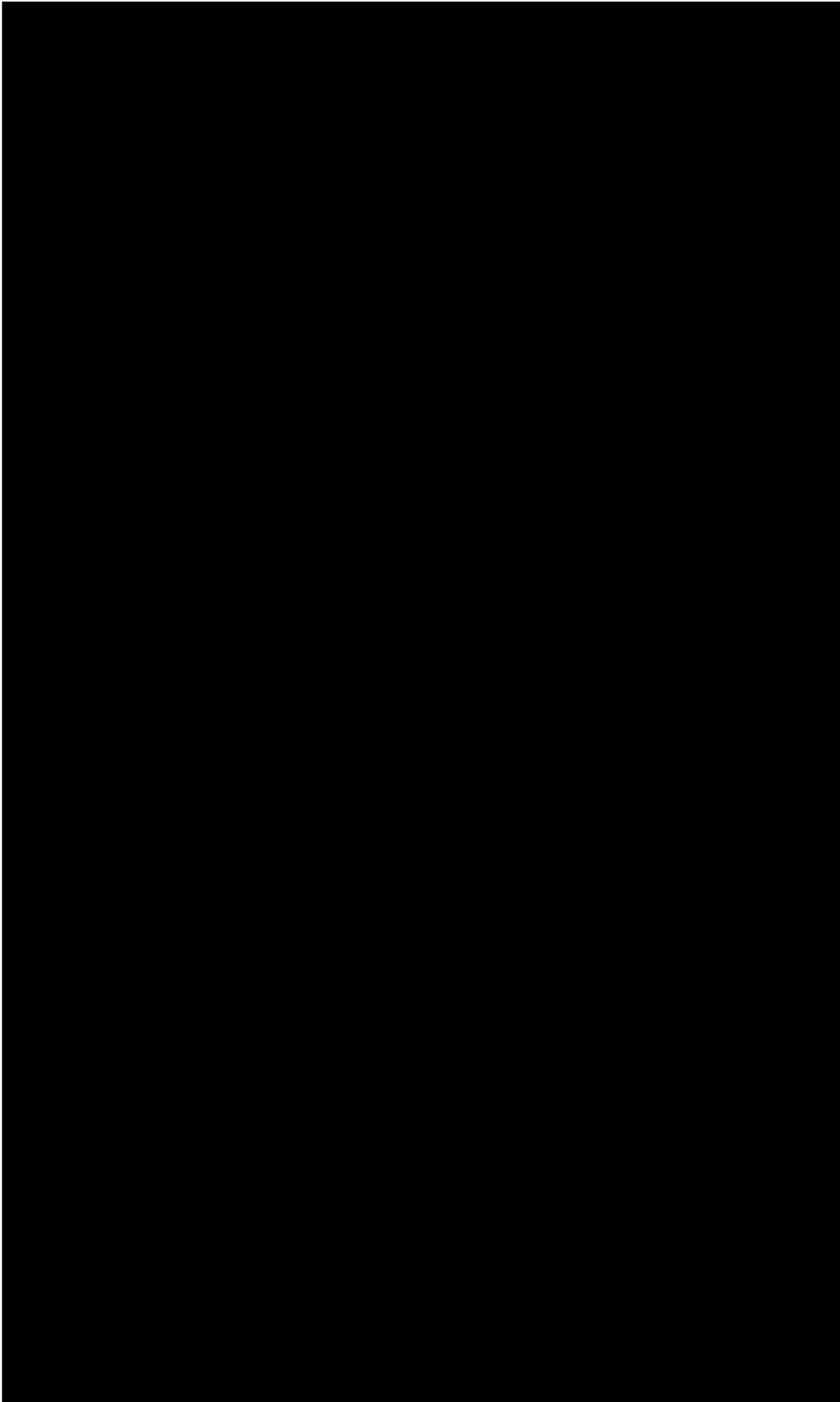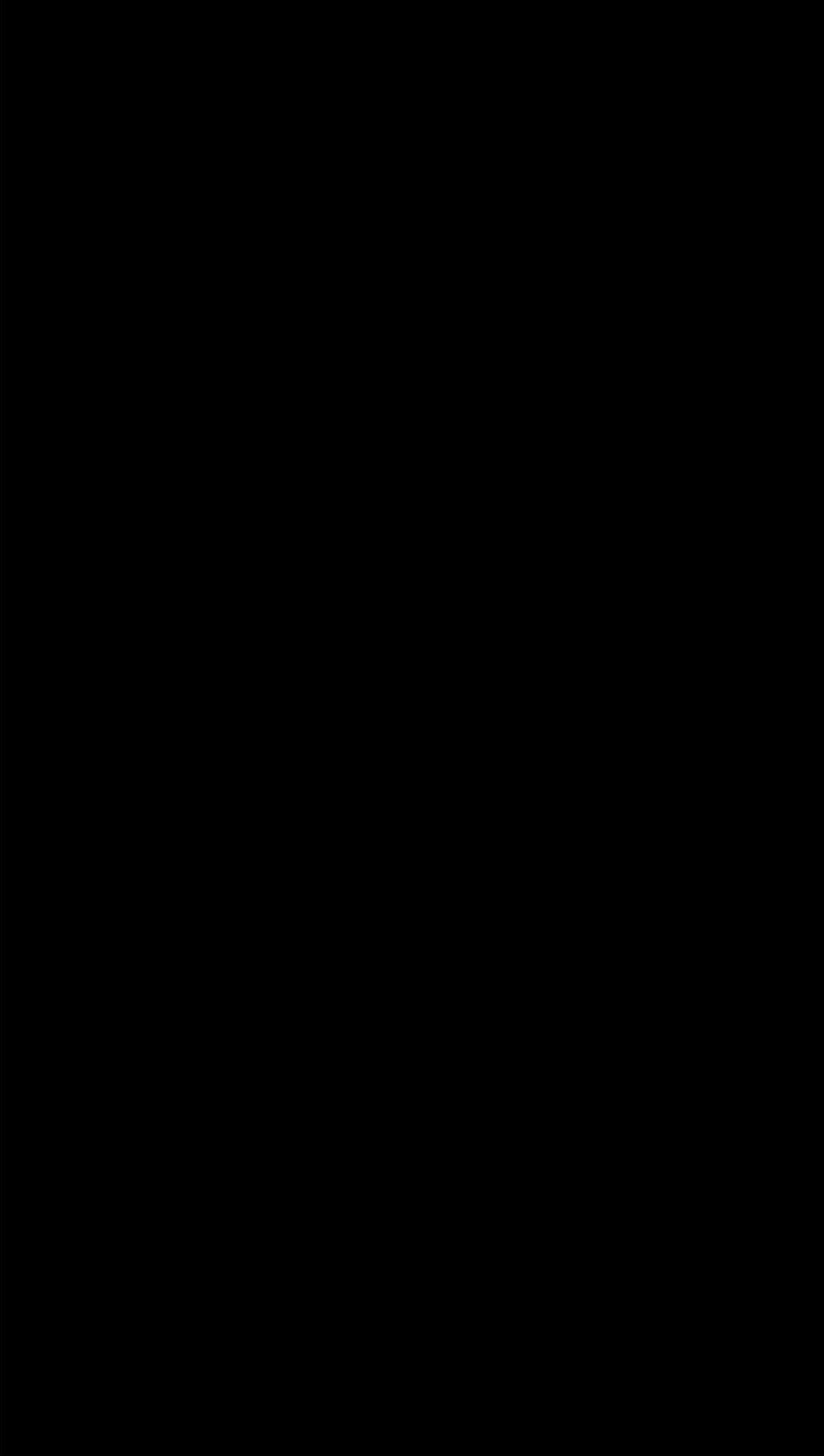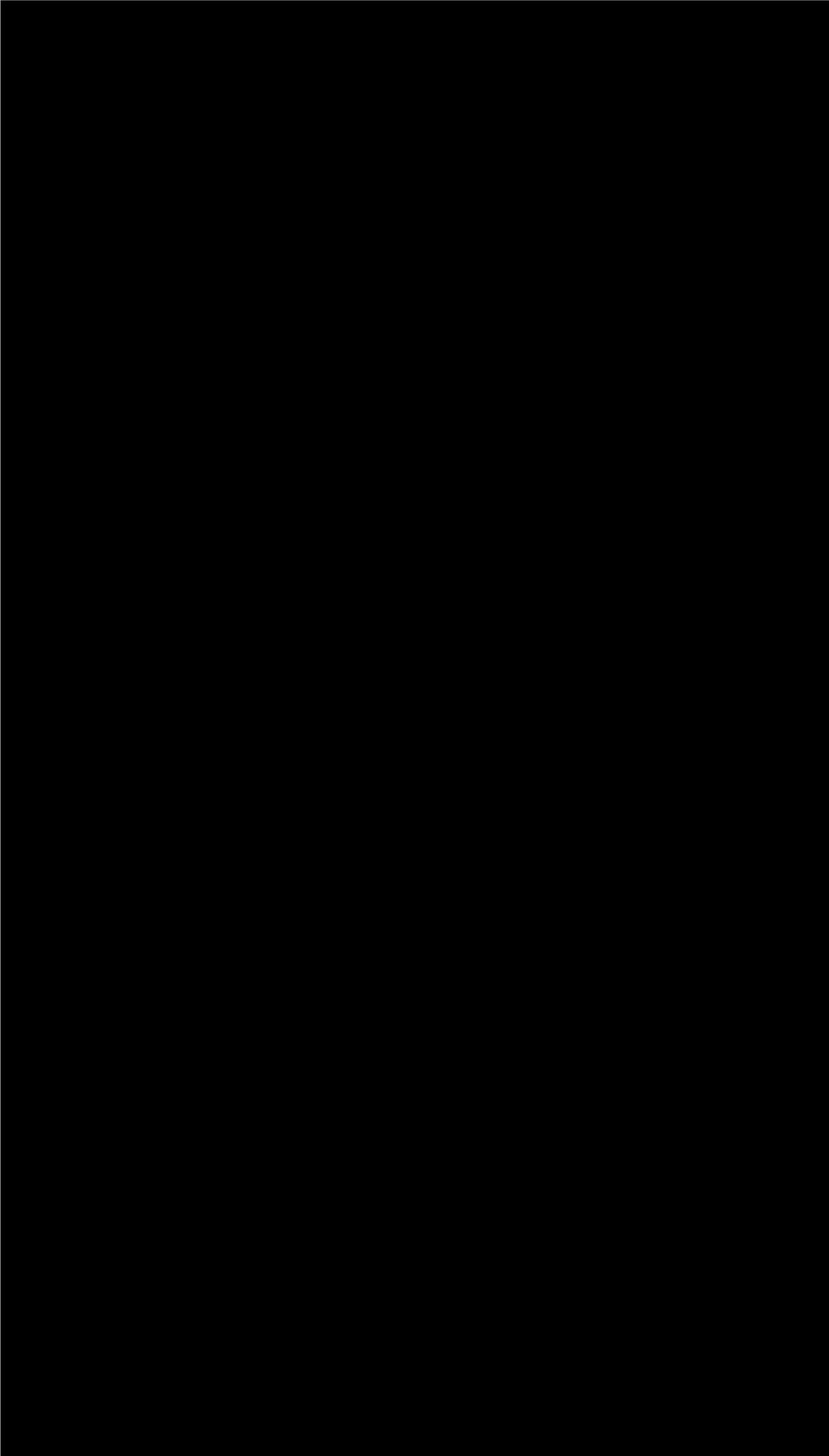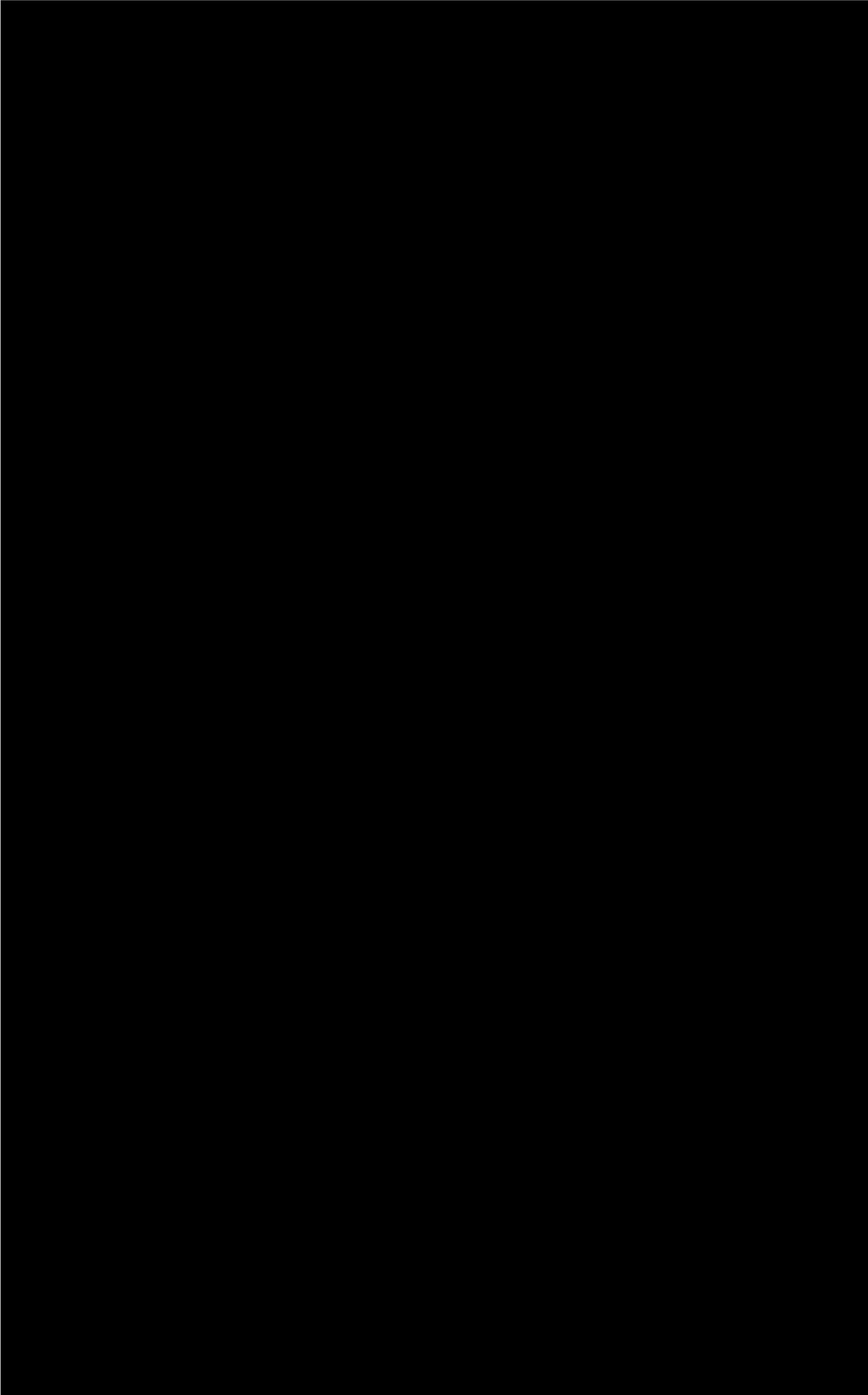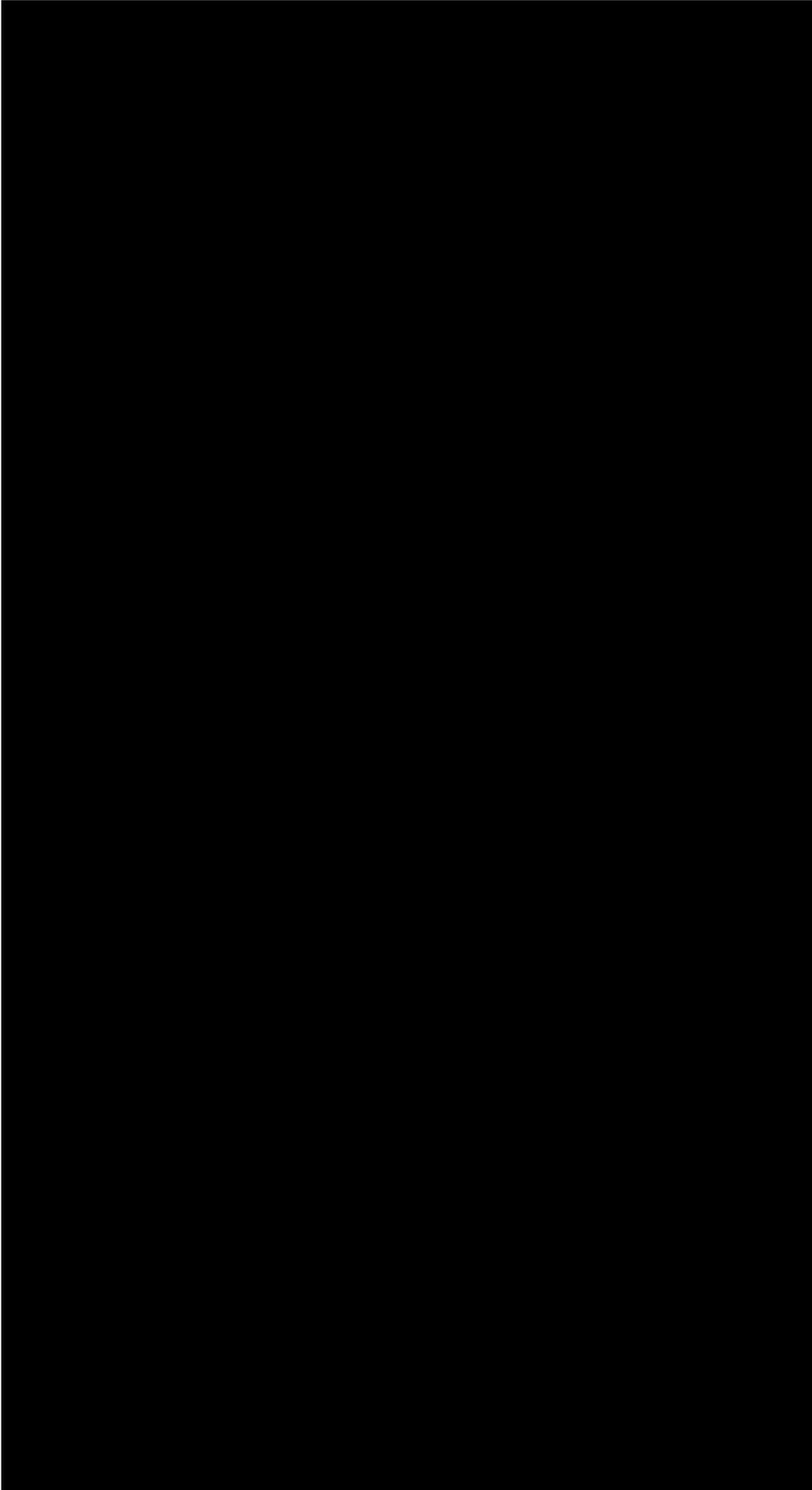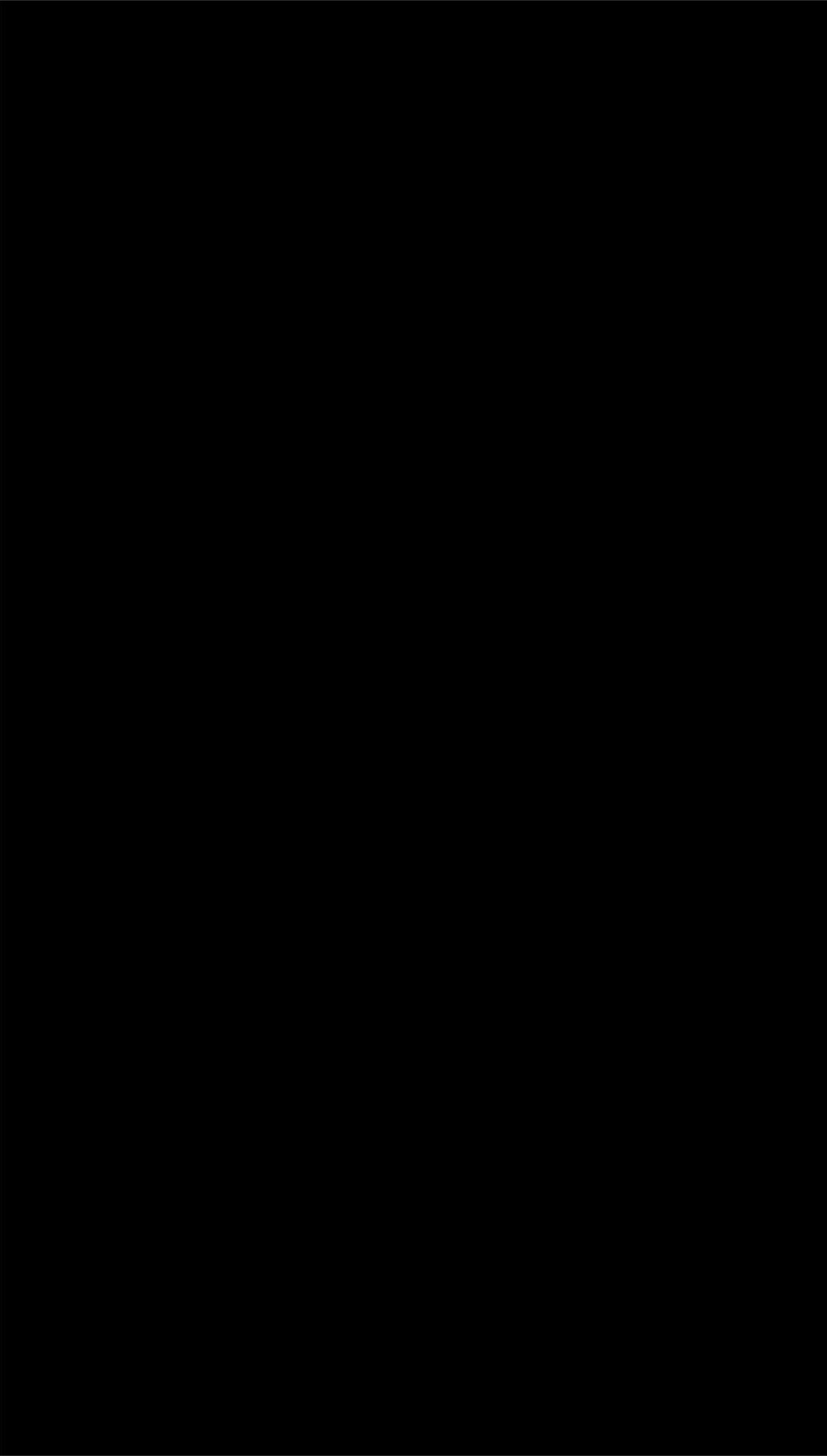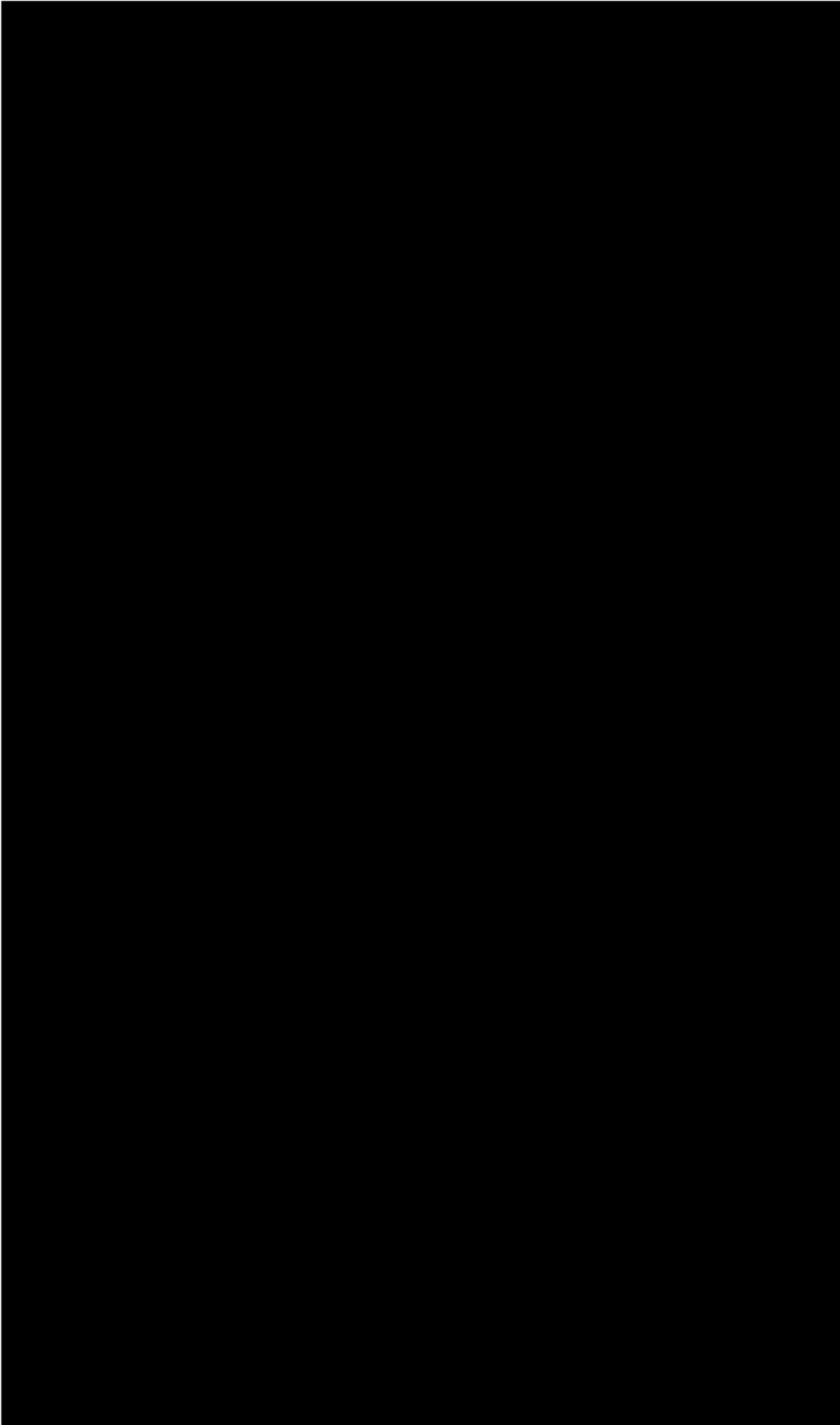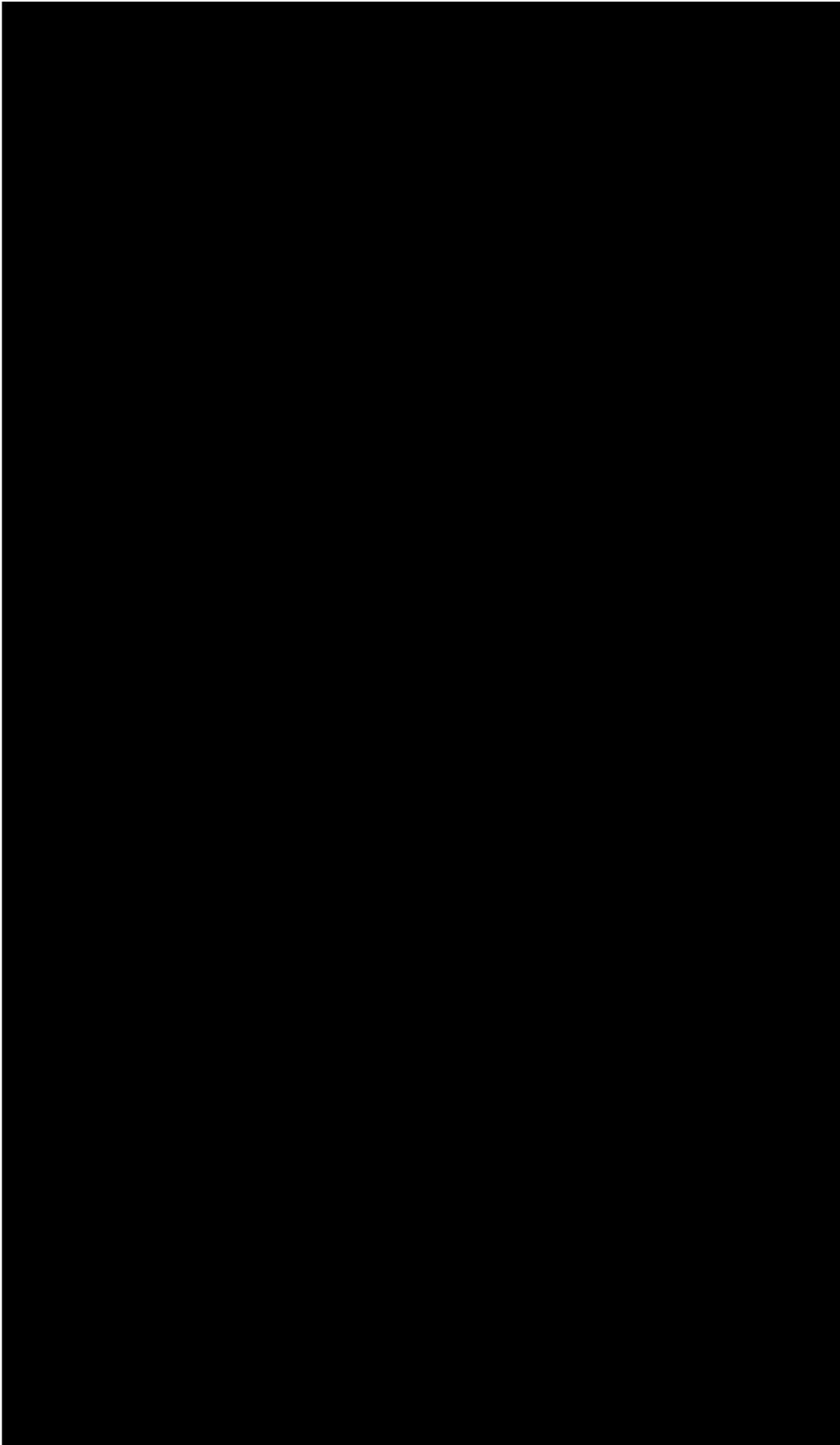|		Description	
		Additional Documents	
		Legacy Asset Servicing Presentation, Terry Laughlin	
		Spreadsheet titled, AIG - Exhibit A JM 2012_09_27 final.xlsx	
		BOAs Bloomberg Settlement Estimates	
	3/28/2013	Mayer Brown 3-28-2013 letter to the court	
	12/31/2010	Bank of America Annual Report for the Year Ended December 31, 2010	
	3/31/2011	BAC form 10-Q	
	12/31/2011	Bank of America Annual Report for the Year Ended December 31, 2011	
	1/7/2013	Fannie Mae Form 8-K	
		Deposition Transcripts	
	10/3/2012	Lundberg Deposition Transcripts, October 2-3, 2012	
	10/16/2012	Lin Deposition Transcripts, October 16-17, 2012	
	11/14/2012	Scrivener Deposition Transcript, November 14, 2012	
	11/29/2012	Robertson Deposition Transcript, November 29, 2012	
	12/3/2012	Bailey Deposition Transcript, December 3, 2012	
	12/4/2012	Sabry (NERA) Deposition Transcript,	
	12/5/2012	Waterstredt Deposition Transcript, December 5, 2012	
	12/18/2012	Bostrom Deposition Transcript, December 18, 2012	
		Court Documents	
		Ex. A, to BNYM Verified Petition (DKT No. 2, NY Sup. Ct.)	
		Publications and Articles	
	3/00/1997	A.C. MacKinlay, "Event Studies in Economics and Finance" 35 *Journal of Economic Literature* (March 1997)	
		G.W. Schwert, "Using Financial Data to Measure Effects of Regulation" 24 *The Journal of Law and Economics* (1981)	
		D.R. Fischel, "Use of Modern Finance theory in Securities Fraud Cases Involving Actively Traded Securities" 38 *The Business Lawyer* (1982)	
		"BofA Nears (Very Big) Settlement" Law Blog, WSJ.com, June 28, 2011	
		"BofA Nears $8.5 Billion Settlement on Mortgage-Securities Claims" WSJ.com, June 28, 2011	
		"BofA Nears Settlement with Mortgage Investors" (Word document containing link to WSJ.com video containing statement related to court approval)	
		"Bank of America Announces Agreement on Legacy Countrywide Mortgage Repurchase and Servicing Claims" *Business Wire*, June 29, 2011 at 7:00 AM	
		Bank of America Corp Conference Call to Discuss Agreement on Legacy Countrywide Mortgage Repurchase and Servicing Claims (Word Document containing link)	
		"Heard on the Street: Deal Shows of BofA's Pain Is Countrywide" *The Wall Street Journal*, June 29, 2011	
		B. Cornell & R.G. Morgan, "Using Finance Theory to Measure Damages in Fraud on the Market Cases" 37 *UCLA Law Review* 883 (1990)	
		J. Macey, G. Miller, M. Mitchell & J. Netter, "Lessons from Financial Economics: Materiality, Reliance, and Extending the Reach of *Basic v. Levinson*" 77 *Virginia Law Review* 1017 (1991)	
		J.C. Alexander, "The Value of Bad News in Securities Class Actions" 41 *UCLA Law Review* 1421 (1994)	
	6/10/2011	"Treasury punishes top servicers for failing troubled homeowners," Tami Luhby, CNNMoney, June 10, 2011, http://money.cnn.com/2011/06/09/real_estate/hamp_servicers_payments/index htm.	

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